PLANNING COMMISSION MEETING

Clearlake City Hall Council Chambers
14050 Olympic Dr, Clearlake, CA

Tuesday, December 13, 2022

6:00 PM

The Planning Commission meetings are viewable in person in the Council Chambers, via livestreaming on the City's YouTube Channel (https://www.youtube.com/channel/UCTyifT_nKS-3woxEu1ilBXA) or "Lake County PEG TV Live Stream" at https://www.youtube.com/user/LakeCountyPegTV/featured and the public may participate through Zoom at the link listed below. The public can submit comments and questions in writing for Commission consideration by sending them to the Administrative Services Director/City Clerk at mswanson@clearlake.ca.us. To give the Planning Commission adequate time to review your questions and comments, please submit your written comments prior to 4:00 p.m. on the day of the meeting.

AGENDA

MEETING PROCEDURES: *All items on agenda will be open for public comments before final action is taken. Citizens wishing to introduce written material into the record at the public meeting on any item are requested to provide a copy of the written material to the Administrative Services Director/City Clerk prior to the meeting date so that the material may be distributed to the Planning Commission prior to the meeting. Speakers must restrict comments to the item as it appears on the agenda and stay within a three minutes time limit. The Mayor has the discretion of limiting the total discussion time for an item.*

AMERICANS WITH DISABILITY ACT (ADA) REQUESTS

If you need disability related modification, including auxiliary aids or services, to participate in this meeting, please contact Melissa Swanson, Administrative Services Director/City Clerk at the Clearlake City Hall, 14050 Olympic Drive, Clearlake, California 95422, phone (707) 994-8201, ext 106, or via email at mswanson@clearlake.ca.us at least 72 hours prior to the meeting, to allow time to provide for special accommodations.

AGENDA REPORTS

Staff reports for each agenda item are available for review at www.clearlake.ca.us. Any writings or documents pertaining to an open session item provided to a majority of the Planning Commission less than 72 hours prior to the meeting, shall be made available for public inspection on the City's website at www.clearlake.ca.us.

Zoom Link: *https://clearlakeca.zoom.us/j/81969380039*

A. ROLL CALL

B. PLEDGE OF ALLEGIANCE

C. ADOPTION OF THE AGENDA *(This is the time for agenda modifications.)*

D. PUBLIC COMMENT: *This is the time for any member of the public to address the Planning Commission on any matter not on the agenda that is within the subject matter jurisdiction of the City.* ***The Brown Act, with limited exceptions, does not allow the Commission or staff to discuss issues brought forth under Public Comment.*** *The Commission cannot take action on non-agenda items. Concerns may be referred to staff or placed on the next available agenda. Please note that comments from the public will also be taken on each agenda item. Comments shall be limited to three (3) minutes per person.*

E. CONSENT AGENDA: *All items listed under the Consent Agenda are considered to be routine in nature and will be approved by one motion. There will be no separate discussion of these items unless a member of the Commission requests otherwise, or if staff has requested a change under Adoption of the Agenda, in which case the item will be removed for separate consideration. Any item so removed will be taken up following the motion to approve the Consent Agenda.*

1. Minutes of the November 16th, 2022 Planning Commission Special Meeting.

   Recommended Action: Receive and File

F. PUBLIC HEARING

2. Consideration of Conditional Use Permit (CUP 2022-17) and associated environmental filing (Categorical Exemption, CE 2022-25) to allow alcoholic beverage sales, on-site consumption of beer, wine and distilled spirits at an existing restaurant (La Chilanguita Mexican Restaurant) located at 15165 Lakeshore Drive.
   Recommended Action: Adopt Resolution PC 2022-24

3. Consideration of Conditional Use Permit (CUP 2022-02), Design Review (DR 2022-02) and corresponding environmental assessment/Mitigated Negative Declaration for the development of a +/- 75 bedroom hotel with meeting hall/event center and the onsite sales and consumption of alcoholic beverages located at 6356 Armijo Avenue. Although not part of the above Planning Applications, the extension of 18th Avenue was evaluated under the related environmental assessment.
   Recommended action: Adopt PC Resolution 2022-26

4. Consideration of Conditional Use Permit Applications CUP 2022-03 (Processing – No Cultivation and/or Nursery Activities will occur onsite); CUP 2022-04 (Manufacturing), CUP 2022-05 (Distribution), CUP 2022-06 (Retail Dispensary; Delivery Only); Development Agreement (DA 2022-02) and corresponding environmental assessment/Mitigated Negative Declaration (CEQA IS 2022-02) to establish a Commercial Cannabis Operation located at 2160 Ogulin Canyon Road.
   Recommended Action: Adopt PC Resolution 2022-02

G. BUSINESS

H. CITY MANAGER AND COMMISSIONER REPORTS

I. FUTURE AGENDA ITEMS

J. ADJOURNMENT

POSTED: December 8th, 2022

BY:

Justin Sturgill, Building Inspector/Permit Technician

PLANNING COMMISSION SPECIAL MEETING

Clearlake City Hall Council Chambers
14050 Olympic Dr, Clearlake, CA
Wednesday, November 16, 2022
6:00 PM

MINUTES

Zoom Link: *https://clearlakeca.zoom.us/j/86096258086*

A. ROLL CALL

PRESENT
Chair Lisa Wilson
Commissioner Fawn Williams
Commissioner Erin McCarrick
Commissioner Terry Stewart

ABSENT
Vice Chair Robert Coker

B. PLEDGE OF ALLEGIANCE

C. ADOPTION OF THE AGENDA

D. PUBLIC COMMENT:

There were no public comments.

E. CONSENT AGENDA:

Public Hearing Item removed.

Motion made by Commissioner Williams, Seconded by Commissioner Terry Stewart.
Voting Yea: Commissioner McCarrick, Commissioner Williams, Commissioner Wilson, Commissioner Terry Stewart.

1. Minutes of the August 23rd, 2022 Planning Commission Meeting

   Recommended Action: Receive and File

2. Minutes of the September 27th, 2022 Planning Commission Meeting

   Recommended Action: Receive and File

F. PUBLIC HEARING

3. Consideration of the Environmental Analysis (CEQA-IS 2022-05) and Conditional Use Permit (CUP 2022-16) for the Burns Valley Development Project
   Recommended Action: Reschedule to a future Planning Commission meeting to allow for additional staff time to prepare the Project for review

   Senior Planner Mark Roberts removed this item during the adoption of the agenda and stated it will be rescheduled as soon as possible.

G. BUSINESS

4. Consideration of determination of General Plan Consistency (GPCD 2022-06) and corresponding environmental determination, Categorical Exemption (CE 2022-23) prior to the conveyance of real property by a government agency, pursuant to Government Code 65402. The assessor parcel number of the property is 038-292-150-000, and is commonly known as 3332 6th Street, Clearlake, CA 95422.

   Assistant Planner Michael Taylor gave the staff report.

   Motion made by Commissioner McCarrick, Seconded by Commissioner Williams.
   Voting Yea: Commissioner McCarrick, Commissioner Williams, Commissioner Wilson, Commissioner Terry Stewart.

5. Consideration of determination of General Plan Consistency (GPCD 2022-07) and corresponding environmental determination, Categorical Exemption (CE 2022-24) prior to the conveyance of real property by a government agency, pursuant to Government Code 65402. The assessor parcel number of the property is 042-362-100-000, and is commonly known as 16331 6th Avenue, Clearlake, CA 95422.

   Assistant Planner Michael Taylor gave the staff report.

   Motion made by Commissioner Williams, Seconded by Stewart.
   Voting Yea: Commissioner McCarrick, Commissioner Williams, Commissioner Wilson, Commissioner Terry Stewart.

H. CITY MANAGER AND COMMISSIONER REPORTS

I. FUTURE AGENDA ITEMS

J. ADJOURNMENT

The meeting was adjourned at 6:18pm.

BY:

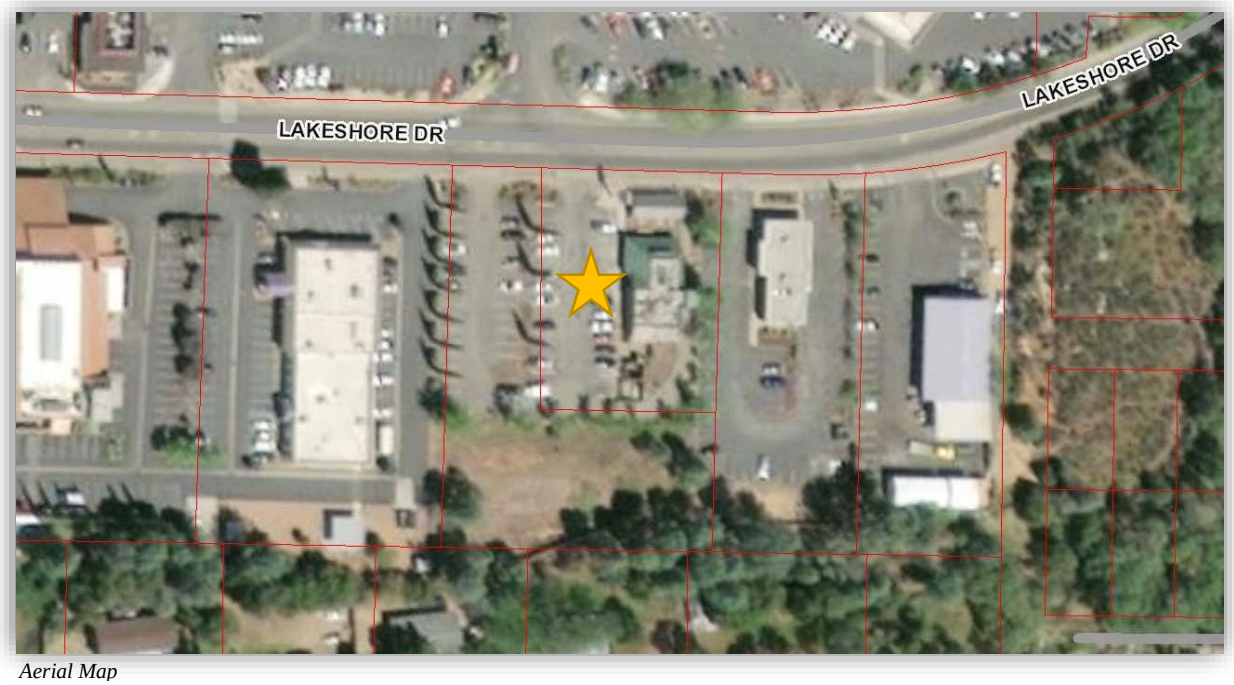
Justin Sturgill, Building Inspector/Permit Inspector

City of Clearlake
Planning Commission

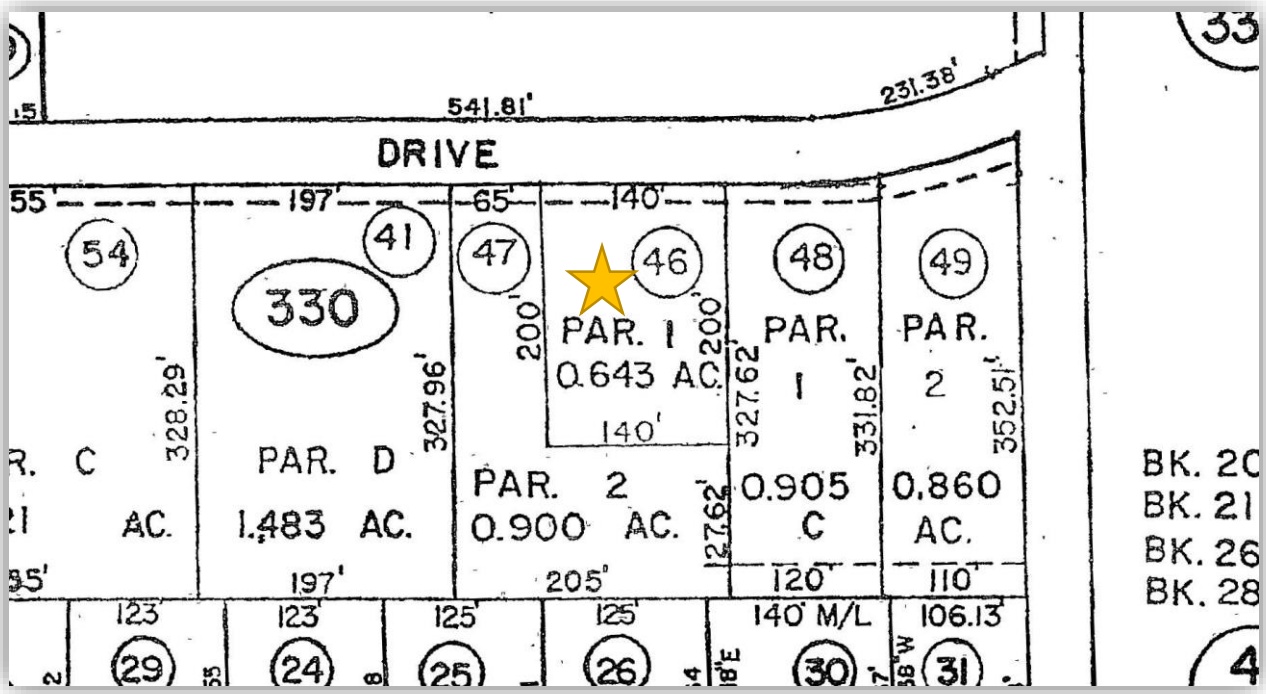
STAFF REPORT			
SUBJECT: Conditional Use Permit, CUP 2022-17 Categorical Exemption, CE 2022-25		**MEETING DATE:** 12/13/2022 Regular	
SUBMITTED BY: Mark Roberts, Senior Planner and Michael Taylor, Assistant Planner			
REPORT PURPOSE: ☒ Action Item	☐ Discussion	☐ Information Only	
LOCATION:	15165 Lakeshore Drive Clearlake, CA 95422	**APPLICANT:**	Denisse Herrera
APN:	040-330-460-000	**PROPERTY OWNER:**	Raj Chabra
ZONING:	General Commercial (GC)	**GENERAL PLAN:**	Commercial

WHAT IS BEING ASKED OF THE PLANNING COMMISSION:

Denisse Herrera (business owner) has applied for a Conditional Use Permit (CUP 2022-17) and associated environmental filing (Categorical Exemption, CE 2022-25) to allow alcoholic beverage sales (on-site consumption) of beer, wine, and distilled spirits at an existing restaurant, known as La Chilanguita Mexican Restaurant. The restaurant is located at 15165 Lakeshore Drive and is in the General Commercial (GC) Zone.



Aerial Map



Assessor Parcel Map, APN 040-330-460-000

PROJECT SUMMARY

Proposed Use

The business owner is currently licensed by the California Department of Alcoholic Beverage Control (ABC) to serve beer and wine only (Type 41 On-Sale Beer and Wine-Eating Place, License Number 614401). The business owner is now seeking a Type 47 On-Sale General-Eating Place license, through ABC, which would allow distilled spirits, in addition to beer and wine, expanding their beverage menu and food items available for purchase.

An ABC Type 47 On-Sale General-Eating Place (restaurant), authorizes the sale of beer, wine, and distilled spirits for consumption on the premises, however, only authorizes the sale of beer and wine for consumption off the license's premises. The licenses must operate and maintain the premises as a bona fide eating place, must maintain suitable kitchen facilities, and must make actual and substantial sales of meals for consumption on the premises. Minors are allowed on the premises.

Prior to ABC finalizing a business owners' application for a liquor license the applicant must secure a permit from the local jurisdiction.

Operation

- Operating Hours: 11:00 a.m. to 9:00 p.m., Tuesday through Sunday
- Number of Employees during normal or peak shifts: 6
- Pick-ups/Day: 30
- Customers/Day: 80
- Lunch, Dinner

Existing Building and Parcel

Located on the south side of Lakeshore Drive and approximately one-quarter mile west of Old Highway 53 the existing restaurant building is approximately 3,000 square feet in size and has an outdoor dining patio of approximately 1,200 square feet in area.

The parcel is rectangular in shape and approximately 28,000 square (0.64 acres) feet in area. Approximately 140 lineal feet of lot front Lakeshore Drive.

As depicted on the city's Public & Private Streets" map Lakeshore Drive is designated as a public road. Per the city municipal code projects are subject to the installation of curb, gutter, and sidewalk, or in-lieu fees for the portion of public road adjacent the parcel if not already improved. Curb, gutter, and sidewalk exist along Lakeshore Drive at the subject project parcel therefore is not subject to the required improvements.

Tenant Improvements

No significant or permanent interior or exterior improvements are proposed at the submittal of this use permit application. No beverage service bar is proposed.

Parking and Vehicular Access

Pursuant to Municipal Code Section 18-20.090 Parking Space Requirements for restaurants with drive-in or drive-through one (1) parking space is required for each sixty (60) square feet of restaurant floor area and one (1) space for loading. And according to the Department of Justice, 2010 ADA Standards for Accessible Design one (1) accessible parking space is required for up to 25 parking spaces and one (1) parking space for each additional 25 parking spaces up to 100 spaces is required.

Required Parking		
Use	Area in square feet	Spaces
Restaurant (Drive-Through)	3,000	50
Loading		1
Total Required		51
ADA Required Spaces		2

The subject parcel has a total of twenty-two (20) standard parking spaces and three (3) ADA spaces. To achieve the municipal code requirement of 51 spaces an improved parking area with thirty (30) parking spaces and additional ingress-egress from Lakeshore Drive is located on the adjacent parcel to the west and is being utilized by the property owner of the subject parcel. A grant deed (Doc# 2006004072) in favor of the subject parcel guarantees a perpetual, non-exclusive easement for the parking and ingress-egress. The adjacent parcel has the assessor number 040-330-47 and is commonly known as 15155 Lakeshore Drive.

Signage

The applicant has not proposed a reface of existing signs or new signage with the submittal of the use permit application. If signage updates are proposed by the applicant, the administrative use permit conditions of approval require the submittal and approval of a signage plan that complies with Section 18-21 (Sign Regulations) of the City's Municipal Codes.

Landscaping
The applicant has not provided a landscape and irrigation plan for review. Any new landscape and irrigation will be subject to compliance with Section 18-20.130, Water Efficient Landscaping of the City's Municipal Codes/Zoning Ordinance, including the City's Landscaping and Irrigation Design Standards. Use permit conditions of approval requires the applicant to submit a Landscape and Irrigation Plan for review and approval that complies with these standards.

Exterior Lighting
The applicant has not proposed any exterior lighting with submittal of the use permit. If new exterior lighting is proposed by the applicant, the lighting is subject to the use permit conditions of approval.

AGENCY AND PUBLIC REVIEW

A request for review (RFR) was distributed to various local agencies for review and comment. The RFR was circulated on November 8, 2022, which allowed agencies to provide and submit comments no later than November 28, 2022. No adverse comments were received.

PARCEL SETTING

The subject parcel is rectangular in shape and developed with an existing building, outdoor dining patio and parking. The surrounding land uses include general commercial to north, west and east, and low density residential to the south. The surrounding parcels are predominantly developed with buildings, accessory structures, and parking areas. The nearest public and quasi-public use, as the crow flies, is Redbud Park located approximately 1,100 feet to the west and a church located approximately 400 feet to the northeast respectively.

GENERAL PLAN AND ZONING CONFORMANCE

General Plan Conformance
The General Plan identifies the project site for Commercial.

Located within the Lakeshore Drive Corridor, one of nine (9) General Plan key focused growth areas, the project is subject to the general plan implementation through the zoning ordinance.

Zoning Ordinance Consistency/Regulations
Alcoholic beverage sales including distilled spirits require a use permit pursuant to section 18-9, 18-18, and 18-19 of the City Municipal Code. Upon review of the submitted application, including agency review, staff has determined the proposed use is in conformance with all applicable regulations with the incorporated conditions of approval.

- Section 18-9.020 Property Development Standards, f, Parking Requirements.
- Section 18-18.030 Commercial, Recreation and Amusement Uses Allowed by Zones, Table 5, Alcoholic Beverage Sales (on-site consumption) requires a use permit.
- Section 18-19.110 Alcoholic Beverage Regulations, Table 8, Alcoholic Beverage Use, Sells or serves alcoholic beverages (except beer and wine alone) requires a use permit from the Planning Commission.

To grant a discretionary permit Planning Commission must find that the proposed use will not be detrimental to the health, safety or welfare of persons working or living at the site or within the vicinity.

The Planning Commission may deny the proposal or attach conditions as deemed necessary to secure the purposes of these regulations. Actions on use permits shall be justified by written findings, based on substantial evidence in view of the whole record (Section 18-28.040, Findings).

ENVIRONMENTAL REVIEW (CEQA)

Upon review, staff has determined the project to be exempt from environmental review pursuant to the California Environmental Quality Act (CEQA) Statute and Guidelines, Article 19 Categorical Exemptions, 15301 Existing Facilities, Class 1, as the operation will be utilizing existing structure and improvements with no expansion of use.

LEGAL NOTICE & PUBLIC COMMENT

The public hearing was noticed at least ten (10) days in advance in an electronic publication of the Lake County Record Bee on December 3, 2022 and mailed (via USPS) to all surrounding property owners within 300 feet of the subject parcel as required pursuant to the Clearlake Municipal Code, Section 18-28, Use Permits.

- All mailing addresses are drawn from the electronic database supplied by the Lake County Assessor Office database.
- The City of Clearlake did not receive any written public comment or concerns regarding the project.

MOTION/OPTIONS

1. Move to Adopt Resolution PC 2022-24, A Resolution of the City of Clearlake Planning Commission approving Use Permit Application UP 2022-17 and Categorical Exemption, CE 2022-25 to allow alcoholic beverage sales (on-site consumption) in an existing restaurant located at 15165 Lakeshore Drive, Clearlake, CA 95422, further described as Assessor Parcel Number 040-330-460-000.
2. Move to deny Resolution PC 2022-24, and direct staff to prepare appropriate findings.
3. Move to continue the item and provide alternate direction to staff.

ATTACHMENTS

1) PC Resolution 2022-24
2) Conditions of Approval, UP 2022-17
3) Project Description

RESOLUTION NO. PC 2022-24

A Resolution of the Planning Commission of the City of Clearlake Approving Use Permit UP 2022-17 and Categorical Exemption CE 2022-25 Alcoholic Beverage Sales On-Site Consumption

WHEREAS Denisse Herrera, representative of La Chilanguita Mexican Restaurant, applied for approval of a use permit for alcoholic beverage sales (on-site consumption) within an existing established restaurant. The project is in the General Commercial (GC) Zone located at 15165 Lakeshore Drive, Clearlake, APN 040-330-460-000: and

WHEREAS, the Planning Commission, on December 13, 2022, concurred with the City Zoning Code Section 18-9 General Commercial (GC), Section 18-18 Use Regulations, and Section 18-19.110 Alcoholic Beverage Regulations alcoholic beverage sales are subject to a use permit; and

WHEREAS this use permit application has been made in accordance with Section 18-9 General Commercial (GC) Zone, Section 18-18 Use Regulations, and 18-19.110 Alcoholic Beverage Regulations of the Zoning Code, as further defined as uses generally allowed; and

WHEREAS the project is categorically exempt from environmental review pursuant to Article 19, Categorical Exemptions of the State California Environmental Quality Act (CEQA) Statute and Guidelines, Section 15301. Existing Facilities, Class 1, and,

WHEREAS the use permit application has been processed in accordance with the City's Environmental Review Guidelines; and

WHEREAS adequate public noticing was made for the project in accordance with the Municipal Code; and

WHEREAS the General Plan designates the project site as Commercial. As conditioned, the proposed use would be consistent with the General Plan; and

WHEREAS, in accordance with Section 18-28.040 Findings of the Zoning Code the use as proposed will not be detrimental to the health, safety, convenience, or general welfare of persons residing or working in the vicinity, or injurious to the property, improvements or potential development in the vicinity with respect to aspects including, but not limited to, the following:

a) The nature of the proposed site, including its size and shape, and the proposed size, shape, and arrangement of structures,

b) The accessibility and traffic patterns for persons and vehicles, the type and volume of such traffic and the adequacy of proposed off-street parking and loading,

c) The safeguards afforded to prevent noxious of offensive emissions such as noise, glare, dust and odor,

d) Treatment given, as appropriate, to such aspects as landscaping, open spaces, parking areas, loading areas, service areas, lighting, and signs.

WHEREAS, with the incorporated conditions of approval, the project complies with the Clearlake Zoning Code.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Clearlake that the project is hereby approved, subject to approved Conditions of Approval.

PASSED AND ADOPTED on this 13th day of December 2022 by the following vote:

Planning Commissioners	AYES	NOES	ABSTAIN	ABSENT
Chair Lisa Wilson				
Vice Chair Robert Coker				
Commissioner Fawn Williams				
Commissioner Erin McCarrick				
Commissioner Terry Stewart				

_____
Chair, Planning Commission

ATTEST: _____
City Clerk, Planning Commission

City of Clearlake
CONDITIONS OF APPROVAL
USE PERMIT UP 2022-17
Categorical Exemption CE 2022-25
Alcoholic Beverages Sales On-site Consumption
Denisse Herrera (La Chilanguita Mexican Restaurant)

Pursuant to the approval of the Planning Commission on **December 13, 2022**, there is hereby granted to Denisse Herrera a **use permit (UP 2022-17)** and corresponding environmental review, **categorical exemption (CE 2022-25)** with the following conditions of approval to authorize alcoholic beverage sales on-site consumption at La Chilanguita Mexican Restaurant located at **15165 Lakeshore Drive, Clearlake, CA 95422** further described as **APN: 040-330-460-000** is subject to the following terms and conditions of approval.

SECTION A-GENERAL CONDITIONS:

1. The use hereby permitted shall substantially conform to the project description, site plan, and any conditions of approval imposed by the above use permit, for this action, dated:
    a. Project description, Site Plans, UP Application received **November 1, 2022.**

2. All alcoholic beverage sales shall meet all applicable criteria and standards as required by the City of Clearlake Zoning Regulations, Section 18-19.110 Alcoholic Beverage Regulations:

    a. All servers within 90 days of employment receive "responsible beverage service training," and whose documentation of this training should be retained on the premises.
    b. All graffiti shall be removed on any part of the property within 48 hours of its appearance.
    c. A sign concerning the California law prohibiting minors to drink alcohol and a sign prohibiting loitering or public drinking must be posted on the site at all times.
    d. A copy of the conditions of approval must be kept on premises and available upon request.
    e. Trash receptacles shall be located at convenient locations outside the establishment and operators of the business shall remove all trash on a daily basis.
    f. If any conditions are found to be disregarded, the use permit for alcohol sales may be revoked and this aspect of the business operation may be immediately suspended.
    g. No sale of alcohol for off-site consumption.
    h. Establish and maintain a "complaint response/community relations" program with the Police Department.

3. **Prior to alcoholic beverages sales** the permit holder shall secure a license from the California Department of Alcoholic Beverage Control.

4. Within 30 (thirty days) form the approval date of the use permit, the existing temporary outdoor patio fabric cover shall be removed. All future accessory structures shall meet current building code and secure zoning clearance and building permit from the City of Clearlake prior to construction.

5. **Prior to operation,** the permit holder shall meet and operate in full compliance with fire safety rules and regulations of the Lake County Fire District.

6. Prior to Operation, the applicant shall apply and obtain a Business License from the City of Clearlake.

7. **Prior to operation and/or development**, the applicant shall secure and maintain all required permits from the City of Clearlake (Building Department, Planning, Police Department and Public Works), Lake County Fire Protection District, Lake County Air Quality Management District (LCAQMD), Lake County Water Resources Department, Lake County Environmental Health Department, Lake County Special Districts, local water district and/or all applicable Federal, State, and local agency permits. If said permit is from another agency other than the City of Clearlake, the applicant shall submit a copy of the permit(s) to verify they have fulfilled this requirement.

8. Any modifications and/or additions to a use requiring use permit approval shall itself be subject to use permit approval. The addition of an allowed use to a premise occupied by a conditionally allowed use shall require use permit approval of the type required for the existing use. The Community Development Director shall determine when such an addition and/or change is of such a minor or incidental nature that the intent of these regulations can be met without further use permit control.

9. The operator shall be responsible to pay all sales, use, business and other applicable taxes, and all license, registration, and other fees and permits required under federal, state, and local laws.

10. The applicant is responsible for ensuring that all project workers including third party vendors are informed of, understand, and agree to abide by the approved plans and project conditions.

11. All conditions are necessary to protect the general health, safety, and welfare of the public. If any condition of this entitlement is held to be invalid by a court, the whole entitlement shall be invalid. The Planning Commission specifically declares that it would not have approved this entitlement unless all the conditions herein are held as valid.

SECTION B-AESTHETICS:

1. **Prior to building permit issuance and/or commencing construction,** the following shall be submitted for review and approval by the City:

a. Subject to Community Development Department approval an Exterior Lighting Plan. Lighting poles, if used, should not exceed 15 feet in height. All lighting shall be shield and directed downwards and adhere to all Federal, State, and local agency requirements, including the dark-sky requirements found at https://www.darksky.org/. All lighting shall not project beyond the project parcel boundaries
b. Subject to Community Development Department approval a Final Signage Plan for all existing and proposed signs. The sign plan shall comply with the City's Municipal Code/Design Requirements. No bunting strips, banners, flags, whirligigs, or other attention-getting devices shall be displayed on site without Director approval.
c. Subject to Community Development Department approval a Landscaping and Irrigation Plans. Plans shall demonstrate compliance with the City's Municipal Code regarding landscaping.
d. Subject to Community Development Department approval of a detailed Trash Enclosure Plan. The plans shall show that the enclosure will be constructed of block with an attractive cap and the gates should incorporate solid metal materials painted to match the building colors. The gates should be mounted on separate posts mounted inside the enclosure. A hose bib should be located next to the enclosure for maintenance.
    - Trash receptacles shall be located at convenient locations outside the establishment and operators of the business shall remove all trash daily.
    - All refuse generated by the facility shall be stored in the approved disposal/storage containers, and appropriately covered. Removal of waste shall be on a weekly basis to avoid excess waste. All trash receptacles/containers shall always remain covered to prevent fugitive odors and rodent infestation.

SECTION C-AIR QUALITY:

1. Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other methods approved by the Lake County Air Quality Management District. Prior to initiating soil removing activities for construction purposes, the applicant shall pre-wet affected areas with at least 0.5 gallons of water per square yard of ground area to control dust.

2. Driveways, access roads and parking areas shall be surfaced in a manner to minimize dust. The applicant shall obtain all necessary encroachment permits for any work within the right-of-way. All improvement shall adhere to all applicable federal, State, and local agency requirements.

3. Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Lake County Air Quality Management District and the Lake County Fire Protection District.

4. During construction activities, the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site.

5. All refuse generated by the facility shall be stored in approved disposal/storage containers, and appropriately covered. Removal of waste shall be on a weekly basis to avoid excess waste. All trash receptacles/containers shall be always covered to prevent fugitive odors and rodent infestation. An odor control plan shall be submitted for review and approval by the City In accordance with the Zoning Code. Odor control shall be always maintained to an acceptable level.

6. Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls.

7. If construction or site activities are conducted within Serpentine soils, a Serpentine Control Plan may be required. Any parcel with Serpentine soils must obtain proper approvals from LCAQMD prior to beginning any construction activities. Contact LCAQMD for more details.

8. All engines must notify LCAQMD prior to beginning construction activities and prior to engine Use. Mobile diesel equipment used for construction and/or maintenance shall be in compliance with State registration requirements. All equipment units must meet Federal, State, and local requirements. All equipment units must meet RICE NESHAP/ NSPS requirements including proper maintenance to minimize airborne emissions and proper record-keeping of all activities, all units must meet the State Air Toxic Control Measures for CI engines and must meet local regulations.

9. Site development, vegetation disposal, and site operation shall not create nuisance odors or dust. During the site preparation phase, the district recommends that any removed vegetation be chipped and spread for ground cover and erosion control. Burning of debris/construction material is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal.

10. Significant dust may be generated from increase vehicle traffic if driveways and parking areas are not adequately surfaced. Surfacing standards should be included as a requirement in the use permit to minimize dust impacts to the public, visitors, and road traffic. At a minimum, the district recommends chip seal as a temporary measure for primary access roads and parking. Paving with asphaltic concrete is preferred and should be required for long term occupancy. All areas subject to semi-truck / trailer traffic should require asphaltic concrete paving or equivalent to prevent fugitive dust generation. Gravel surfacing may be adequate for low use driveways and overflow parking areas; however, gravel surfaces require more maintenance to achieve dust control, and permit conditions should require regular palliative treatment if gravel is utilized. White rock is not suitable for surfacing (and should be prohibited in the permit) because of its tendency to break down

and create excessive dust. Grading and re-graveling roads should utilizing water trucks, if necessary, reduce travel times through efficient time management and consolidating solid waste removal/supply deliveries, and speed limits.

11. Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls.

12. Any demolition or renovation is subject to the Federal National Emissions Standard for Hazardous Air Pollutants (NESHAP) for asbestos in buildings requires asbestos inspections by a Certified Asbestos Consultant for all major renovations and all demolition. An Asbestos Notification Form with the Asbestos inspection report must be submitted to the district at least 14 days prior to beginning any demolition work. The applicant must contact the district for more details and proper approvals. Regardless of asbestos content or reporting requirements all demolition and renovation activities should use adequate water/ amended water to prevent dust generation and nuisance conditions.

SECTION D-CULTURAL/TRIBAL RESOURCES:

1. If any subsurface archaeological remains are uncovered **during construction activities and/or ground disturbance**, all work shall be halted within 100 feet of the find and the applicant shall retain a qualified cultural resources consultant from the City's approved list of consultants to identify and investigate any subsurface historic remains and define their physical extent and the nature of any built features or artifact-bearing deposits. Significant historic cultural materials may include finds from the late 19th and early 20th centuries including structural remains, trash pits, isolated artifacts, etc.

2. The cultural resource consultant's investigation shall proceed into formal evaluation to determine their eligibility for the California Register of Historical Resources. This shall include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the features and artifacts do not have sufficient data potential to be eligible for the California Register, additional work shall not be required. However, if data potential exists – e.g., there is an intact feature with a large and varied artifact assemblage – it will be necessary to mitigate any Project impacts. Mitigation of impacts might include avoidance of further disturbance to the resources through Project redesign. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during Project excavation or testing, curation may be an appropriate mitigation. This language of this mitigation measure shall

be included on any future grading plans and utility plans approved by the City for the Project.

3. If human remains are encountered, no further disturbance shall occur within 100 feet of the vicinity of the find(s) until the Lake County Coroner has made the necessary findings as to origin (California Health and Safety Code Section 7050.5). Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Lake County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the "most likely descendant(s)", which parties agree will likely be the Koi Nation based upon the Tribe's ancestral ties to the area and previous designation as MLD on projects in the geographic vicinity. The landowner shall engage in consultations with the most likely descendant (MLD). The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98.

4. The developer/landowner shall relinquish ownership of all sacred items, burial goods and all archaeological artifacts that are found on the project area to the Koi Nation for proper treatment and disposition.

SECTION E-GEOLOGY & SOILS:

1. **Prior to any ground disturbance and/or operation,** the applicant shall submit Erosion Control and Sediment Plans to the Community Development Department for review and approval. The project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system.

2. **Prior to any ground disturbance,** the applicant shall submit and obtain a Grading Permit from the Community Development in accordance with the City of Clearlake Municipal code(s).

3. The applicant shall monitor the site during the rainy season including post-installation, application of BMPs, erosion control maintenance, and other improvements as needed. Said measures shall be maintained for life of the project and replace/repaired when necessary.

SECTION F-HAZARD & HAZARDOUS MATERIALS:

1. All hazardous waste shall not be disposed of on-site without review or permits from Environmental Health Department, the California Regional Water Control Board, and/or the Air Quality Board. Collected hazardous or toxic waste materials shall be recycled or disposed of through a registered waste hauler to an approved site legally authorized to accept such material.

2. The storage of potentially hazardous materials shall be located at least 100 feet from any existing water well. These materials shall not be allowed to leak into the ground or contaminate surface waters. Collected hazardous or toxic materials shall be recycled or disposed of through a registered waste hauler to an approved site legally authorized to accept such materials.

3. Any spills of oils, fluids, fuel, concrete, or other hazardous construction material shall be immediately cleaned up. All equipment and materials shall be stored in the staging areas away from all known waterways.

4. The storage of hazardous materials equals to or greater than fifty-five (55) gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas, then a Hazardous Materials Inventory Disclosure Statement/Business Plan shall be submitted and maintained in compliance with requirements of Lake County Environmental Health Division. Industrial waste shall not be disposed of on site without review or permit from Lake County Environmental Health Division or the California Regional Water Quality Control Board. The permit holder shall comply with petroleum fuel storage tank regulations if fuel is to be stored on site.

5. All equipment shall be maintained and operated in a manner that minimizes any spill or leak of hazardous materials. Hazardous materials and contaminated soil shall be stored, transported, and disposed of consistent with applicable local, state, and federal regulations.

6. Hazardous Waste must be handled according to all Hazardous Waste Control Laws. Any generation of a hazardous waste must be reported to Lake County Environmental Health within thirty days.

7. All employees and/or staff members shall be properly trained in and utilize Personnel Protective Equipment in accordance with all federal, state, and local regulations regarding handling any biological and/or chemical agents.

8. Hazardous waste must be handled according to all Hazardous Waste Control and Generator regulations. Waste shall not be disposed of onsite without review or permits from EHD, the California Regional Water Control Board, and/or the Air Quality Board. Collected hazardous or toxic waste materials shall be recycled or disposed of through a registered waste hauler to an approved site legally authorized to accept such material.

SECTION G-NOISE/VIBRATIONS:

1. All construction activities including engine warm-up shall be limited to weekdays and Saturday, between the hours of 7:00am and 7:00pm to minimize noise impacts on nearby residents.

2. Permanent potential noise sources such as, generators used for power shall be designed and located to minimize noise impacts to surrounding properties.

3. During construction noise levels shall not exceed 65 decibels within fifty (50) feet of any dwellings or transient accommodations between the hours of 7:00 AM and 6:00 PM. This threshold can be increased by the Building Inspector or City Engineer have approved an exception in accordance with Section 5-4.4(b)(1) of the City Code. An exception of up to 80 decibels may be approved within one hundred (100) feet from the source during daylight hours. Project is expected to result in less than significant impacts with regard to noise and vibration.

SECTION H-TRANSPORTATION & TRAFFIC:

1. If any improvements to the existing curb, gutter, sidewalk, and/or other onsite improvements occur, the following shall be submitted for review and approval by the City:
    a. Subject to City Engineer approval, Civil Site plans identifying existing and proposed storm drains, drainage ditches, curbs, sidewalks, gutters, and striping, as regulated by the City's Design/Construction Standards, Off-Street Parking Regulations, and Parking Design Standards. Said design shall be found compliance with all other applicable local/federal/state laws (including ADA and CASP requirements). Said curb, gutter, sidewalks, etc. shall be installed in accordance with the City Municipal Codes.

2. **Prior to operation,** all handicap parking areas, routes of travel, building access and bathrooms shall meet American with Disabilities Act (ADA) requirements and be subject to review and approval of a Certified Accessibility Access Specialist (CASP).

3. **Prior to any work and/or improvements within the right-of-way,** the applicant shall coordinate with the appropriate agency (City of Clearlake or CA Department of Transportation) to apply for and obtain the required encroachment permit(s).

SECTION I-TIMING AND MONITORING

1. If the approved use permit is not established within one (1) year of the date of approval or such longer time as may be stipulated as a condition of approval, the use permit shall expire.

2. If a structure(s) or associated site development authorized by use permit is not issued building permits (if building permits ae required) within three (3) years of the date of approval, the use permit shall expire.

3. **Upon written request received prior to expiration**, the Community Development Director may grant renewals of use permit approval for successive periods of not more than one (1) year each.
    a. Approvals of such renewals shall be in writing and for a specific period.
    b. Renewals may be approved with new or modified conditions upon a finding that the circumstances under which the use permit was originally approved have substantially changed.

c. Renewal of a use permit shall not require public notice or hearing unless the renewal is subject to new or modified conditions. To approve a renewal, the Community Development Director must make the findings required for initial approval.

4. The use permit may be transferred to new owners at the same location/use upon notifying the City Planning Department of said ownership transfer and upon the new owner's written agreement to maintain all conditions of approval.

5. Any conditions established pursuant to these regulations shall be met before the use is established, except that the Director, Planning Commission or on appeal, the City Council, may establish a schedule for certain conditions to be met after establishment of the use. Continuance of the use shall then be contingent on complying with the schedule for meeting deferred conditions.

6. This Conditional Use Permit does not abridge or supersede the regulatory powers and permit requirements of any federal, state, or local agency requirements, which may retain a regulatory or advisory function as specified by statute or ordinance. The applicant shall obtain and maintained permits as may be required from each agency.

7. The applicant shall agree to indemnify, defend, and hold harmless the City or its agents, officers and employees from and against any and all claims, actions, demands or proceeding (including damage, attorney fees, and court cost awards) against the City or its agents, officers, or employees to attach, set aside, void, or annul an approval of the City, advisory agency, appeal board, or legislative body concerning the permit or entitlement when such action is brought within the applicable statute of limitations. In providing any defense under this Paragraph, the applicant shall use counsel reasonably acceptable to the City. The City shall promptly notify the applicant of any claim, action, demands or proceeding and the City shall cooperate fully in the defense. If the City fails to promptly notify the applicant of any claim, action, or proceeding, or if the City fails to cooperate fully in the defense, the applicant shall not thereafter be responsible to defend, indemnify, or hold the City harmless as to that action. The City may require that the applicant post a bond, in an amount determined to be sufficient, to satisfy the above indemnification and defense obligation. Applicant understands and acknowledges that City is under no obligation to defend any claim, action, demand or proceeding challenging the City's actions with respect to the permit or entitlement.

8. The Planning Commission may revoke or modify the use permit in the future if the Commission finds that the use to which the permit allows is detrimental to health, safety, comfort, general welfare of the public; constitutes a public nuisance; if the permit was obtained or is being used by fraud; and/or if one or more the conditions upon which a permit was granted are in noncompliance or have been violated. Applicant shall be notified of potential violations of the use permit prior to action taken by the Planning Commission.

9. Said Use Permits shall be subject to revocation or modification by the Planning Commission if the Commission finds that there has been:

a) Noncompliance with any of the foregoing conditions of approval; or
b) The Planning Commission finds that the use for which this permit is hereby granted is so exercised as to be substantially detrimental to persons or property in the neighborhood of the use. Any such revocation shall be preceded by a public hearing noticed and heard pursuant to the City of Clearlake Municipal Code. 15.

ACCEPTANCE

I have read and understand the foregoing use permit and agree to each term and conditions of approval thereof.

Applicant/Authorized Agent (Print)	Signature of Applicant/Authorized Agent

Date: _____

To Be Completed by Authorized City Staff

Staff Name (Print)	Staff Signature

Date: _____

City of Clearlake

14050 Olympic Drive, Clearlake, California 95422
(707) 994-8201 Fax (707) 995-2653

Permit Fee	2,200.00
Categorical Exemption Fee	150.00
General Plan Maintenance Fee	25.00
Technology Fee (2%)	47.50
Subtotal	**2,422.50**
Credit Card Processing Fee (3%, $72.68)	
Total	

Received By:	MAT
Date:	11-1-2022
Receipt Number:	R0004504
File Number:	CUP 20 22 - 17

Planning Application

CONDITIONAL USE PERMIT
CEQA: Categorical Exemption

APPLICANT

NAME: Denisse Herrera
MAILING ADDRESS: 15165 Lakeshore Dr.
CITY: Clearlake
STATE: CA ZIP CODE: 95422
PRIMARY PHONE: (707) 367-8768
EMAIL: denisse93h@gmail.com
SIGNATURE: [signature]

I declare under penalty of perjury that I am the owner of said property or have written authority from the property owner to file this application. I certify that all the submitted information is true and correct to the best of my knowledge and belief. I understand that any misrepresentation of submitted data may invalidate any approval of this application.

PROPERTY OWNER (IF NOT APPLICANT)

NAME: Raj Chabra
MAILING ADDRESS: 2550 Dana St #4A
CITY: Berkeley, CA 94704
STATE: CA ZIP CODE: 94704
PRIMARY PHONE: (925) 297-7545
EMAIL: rajchabra2000@yahoo.com
SIGNATURE: Raj Chabra

I declare under penalty of perjury that I am the owner of said property or have written authority from the property owner to file this application. I certify that all the submitted information is true and correct to the best of my knowledge and belief. I understand that any misrepresentation of submitted data may invalidate any approval of this application.

PROJECT LOCATION

ADDRESS: 15165 Lakeshore Dr. Clearlake
ASSESSOR PARCEL NUMBERS: 040-330-460

PRESENT USE OF LAND: Restaurant
WATER SUPPLY: ☑ PUBLIC ☐ GROUNDWATER WELL
SANITATION: ☐ PUBLIC SEWER ☐ SEPTIC SYSTEM
FLOOD ZONE:

OFFICE USE ONLY

ZONING DISTRICT: GC
GENERAL PLAN DESIGNATION: C
RELATED FILE NUMBERS: BL-
CE 2022-25
NOTES:

APPROVED: DATE:

DESCRIPTION OF PROJECT

We want to buy a full liquor license. We currently operate under a beer and wine license only. We will not be doing any modifications to our building and we will continue with our normal hours of operation.

Supplemental Data for Use Permit

Please answer the following questions as thoroughly as possible. If questions do not apply to your project, please provide an explanation of why. Use separate sheets of paper if necessary. **IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT THE CITY OF CLEARLAKE - PLANNING DIVISION.**

Description of objective of project and its operational characteristics:

Type of Business: Mexican Restaurant

Product or service provided: Food Services

Hours of operation: 11 am – 9 pm

Days of operation: 6

Number of shifts (normal): 2

Number of shifts (peak):

Employees per shift (normal): 6

Employees per shift (peak):

Number of deliveries per day: Ave 2

Number of customer per day: 80

Number of pick-ups per day: 30

Lot size:

Number and type of company Vehicles:

Type of loading facilities:

Floor area of existing structures:

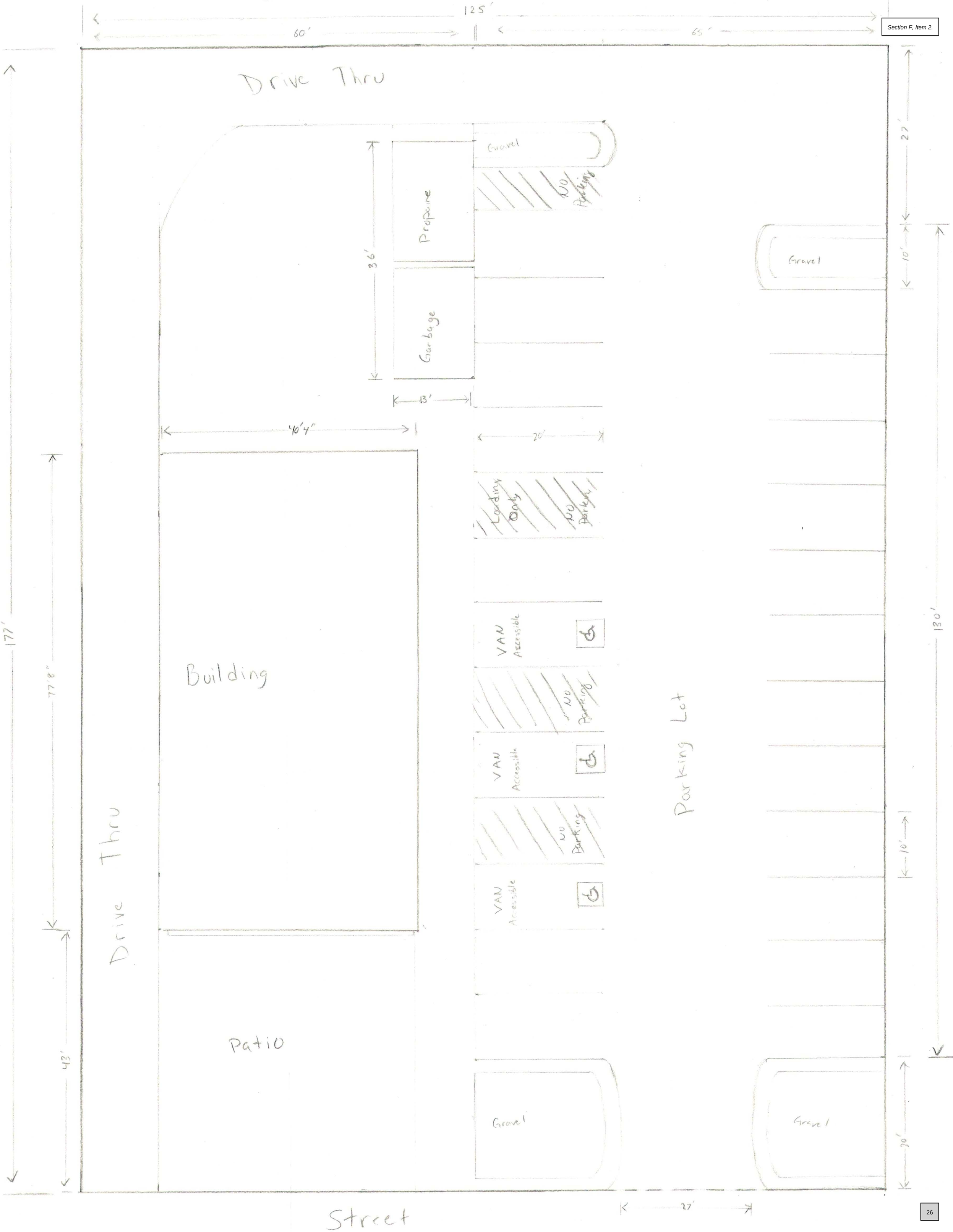
Proposed building floor area:

Number of existing parking spaces: 22

Number of proposed parking spaces:

Number of floors: 1

Additional relevant information: We will not be adding any other employees, or any other change. It will not be used as a bar will be kept as a family restaurant. No changes will be made to structure.


125'
60'
65'
Drive Thru
Gravel
No Parking
Propane
36'
Garbage
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10'
Gravel
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20'
Loading Only
No Parking
VAN Accessible
No Parking
VAN Accessible
No Parking
Parking Lot
Building
177'
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Drive Thru
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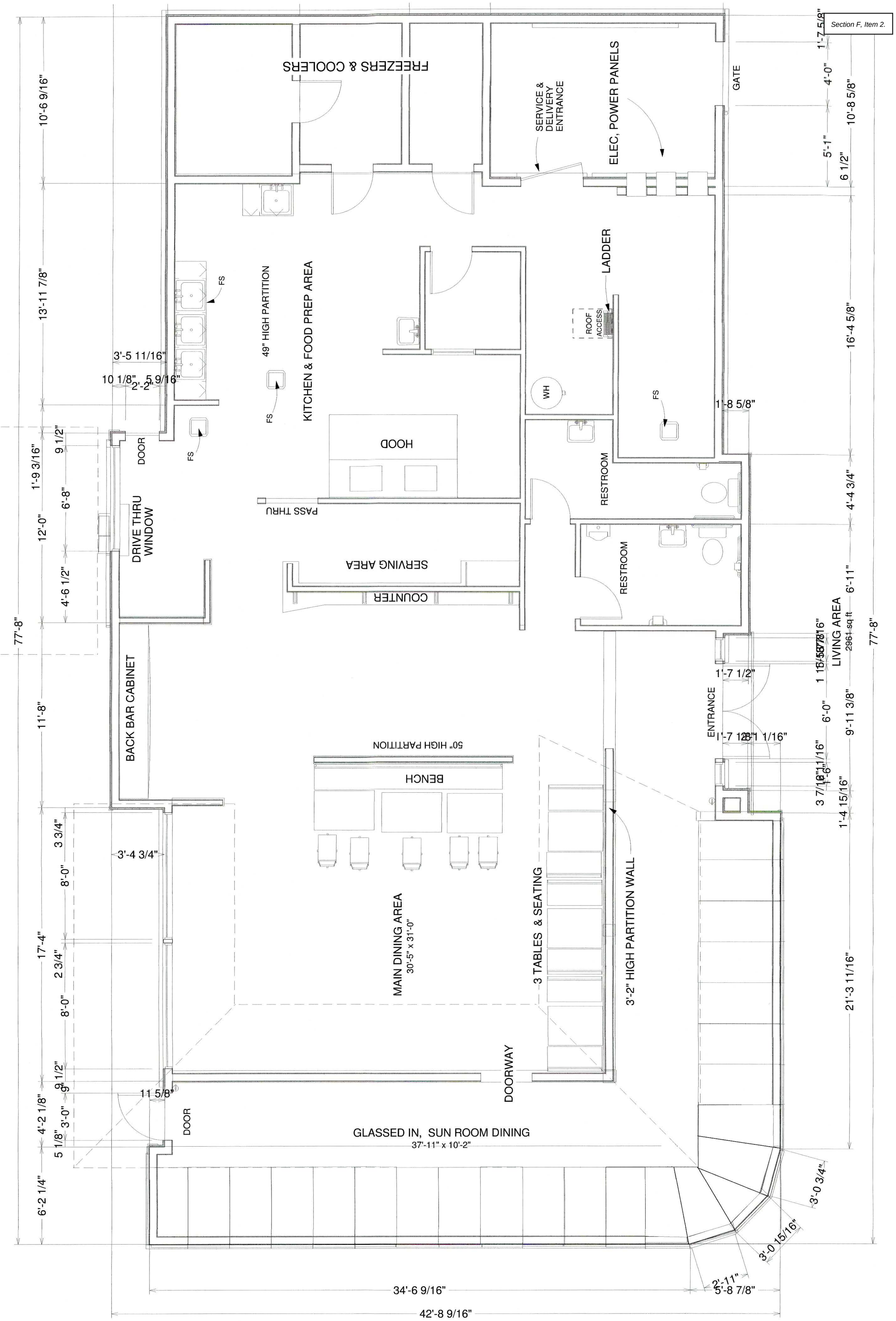
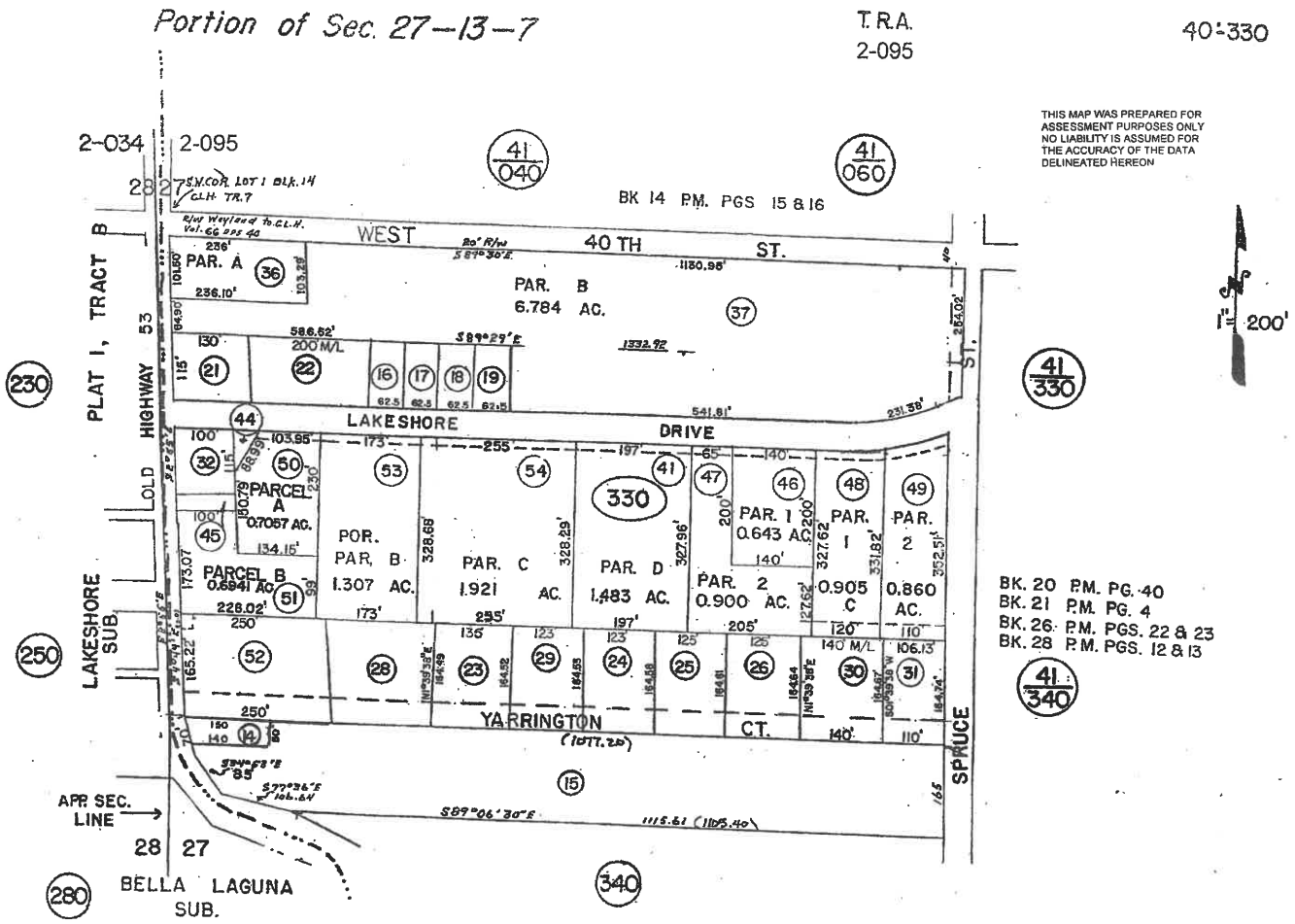
10'
43'
Patio
Gravel
Gravel
20'
27'
Street



EXISTING FLOOR PLAN 1/4" = 1 FT.


Portion of Sec. 27-13-7
T.R.A.
2-095
40-330
THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA DELINEATED HEREON
2-034
2-095
41/040
41/060
41/330
41/340
BK 14 P.M. PGS 15 & 16
WEST 40 TH ST.
PAR. A
PAR. B
6.784 AC.
PLAT 1, TRACT B
OLD HIGHWAY 53
LAKESHORE DRIVE
PARCEL A
0.7057 AC.
PARCEL B
0.6941 AC.
POR. PAR. B
1.307 AC.
PAR. C
1.921 AC.
PAR. D
1.483 AC.
330
PAR. 1
0.643 AC.
PAR. 2
0.900 AC.
PAR. 1
0.905 AC.
PAR. 2
0.860 AC.
LAKESHORE SUB.
YARRINGTON CT.
SPRUCE
APR SEC. LINE
28 27
BELLA LAGUNA SUB.
200'
BK. 20 P.M. PG. 40
BK. 21 P.M. PG. 4
BK. 26 P.M. PGS. 22 & 23
BK. 28 P.M. PGS. 12 & 13

CITY OF C

Planning Commission

STAFF REPORT	
SUBJECT: Airport Hotel and 18th Avenue Extension Project	**MEETING DATE:** 12/13/2022
SUBMITTED BY: Mark Roberts, Senior Planner	
PURPOSE OF REPORT: ☐ Information only ☐ Discussion ☒ **Action Item**	

WHAT IS BEING ASKED OF THE CITY COUNCIL/BOARD:

The Planning Commission is being asked to consider Conditional Use Permit Application CUP 2022-02 and Design Review, (DR 2022-02) for the development and operation of a +/- 75 Bedroom Hotel with meeting hall/event center, onsite sales and consumptions of alcoholic beverages on 2.8 acres at 6356 Armijo Avenue Clearlake, CA 95422 further described as further described as Assessor's Parcel Number 042-121-25.

Although not part of these planning applications, the overall project which was evaluated under the related environmental document includes construction of extending 18th Avenue from Old Highway 53 to New Highway 53 which provides critical access to the hotel.

Aerial Project Location Map

BACKGROUND/DISCUSSION:

Conditional Use Permit: Hotel, dining, event centers are allowed by right on the site's GC, General Commercial, Zoned site. However, the hotel facility is proposing to sell alcoholic beverages as part of its operation. Section 18-19-110, Alcoholic Beverage Regulations, requires a conditional use permit from the Planning Commission. This section provides required findings and performance standards that need to be met for this use. Additional discussion is offered for the Zoning Ordinance Regulations discussion section below.

Design Review: The hotel facility and related physical improvements to the 2.8 acres site is subject to approval of Design Review in accordance with Chapter 18-33 of the Municipal Code. The purpose of design review is to assure new development and related community appearance changes will enhance the design characteristic in all neighborhoods within the City of Clearlake. Additional discussion is offered under the Design Review section of this report below.

Environmental Review: The hotel project, subject to Planning Commission consideration through the conditional use permit or design review applications, was included in an overall environmental review that included construction of extending 18th Avenue from Old Highway 53 to New Highway 53 (since it provides critical access to the hotel) the roadway improvements are not subject to Planning Commission approval. However, since the environmental document is subject to approval by the Planning Commission, the Commission's purview of this road project is limited to evaluating the adequacy of the environmental document. Additional discussion is offered under the Environmental Review section of this report below.

Access to Site: Site access would be from a single driveway off the new 18th Avenue Extension. This access provides sufficient capacity to serve the hotel facility with related circulation improvements including a parking lot along the north, south and east sides of the site.

Water Availability Analysis/Usage: The project would be served potable water from the Konocti County Water District which has indicated that they have sufficient water to serve the project (see environmental document and their related comments). The hotel will be served by a services lateral connected to the main line to the north of the hotel site, in Victor Street. Utilities developed as part of the proposed roadway extension would include extension of a 10-inch water line, along the 18th Avenue Extension project. This water main will be connected to Highlands Mutual Water system, which will service future development to the south of 18th Avenue. 18th Avenue is the north/south dividing line between the two districts. A condition of the use permit requires that water service be made available prior to occupancy. Although the water district has indicated that it has capacity to serve this project, it has implanted a conservation plan to reduce water use by 35% to address the current drought situation.

Water usage for hotels can vary considerably from one hotel type to the next. However, based on review of other water usage date for similar hotels, for the 75-room hotel with facilities, it is expected that the hotel project would use about 15,000 gallons of water per day (at about 200 gallons per room) during peak demand (including the event center). Normal occupancy of the hotel would reduce this to less than 10,000 gallons per day. This usage is considered to have a minimal impact of water supplies in the City based on the environmental document. Section 14-b of this document notes that because this project was included in the regional water demand forecasts from the Lake County Water Protection District and is less than this forecast referenced in the General Plan EIR, the project would not result in a significant impact to water usage and availability. Also, the project would comply with Section 18-20.130 of the City's Municipal Code, which contains the City's Water Efficient Landscape Ordinance.

General Plan Consistency, and Zoning and Design Standards

Related General Plan Policies for the Hotel Project:

Economic Development Element:

- The City shall allow the use of the former airport area for additional regional retail and commercial expansion.
- The City should approve development proposals suitable for business districts with specific functional uses including office, commercial, retail, and applicable industry.
- The City shall support a healthy mix of businesses.
- Provide high-quality municipal services, facilities, and economic development assistance for business growth and expansion.
- The City should reduce obstacles and barriers for business establishment and development.
- Enhance services and amenities for tourist-serving purposes.

Land Use Element:

- Provide opportunity for regional shopping.
- The City shall consider land use compatibility between residential and non-residential uses to adequately mitigate health risk impacts.
- Locate commercial development to complement neighboring land uses.

Community Design Element: See Design Review section of this report which cites some design consistency policies in the General Plan.

Related General Plan Policies for the Road Extension Project: Since the hotel project requires access and the project does involve development of the 18th Avenue Extension that will improve access from Old Highway 53 to New Highway 54, the project will certainly improve economic development opportunities in the Airport Commercial Area and the southwest portions of the City. Therefore, other related General Plan policies related to the road extension project include:

Circulation Element:

- New development should incorporate connected street and pedestrian/bicycle networks, with many connections between new and older neighborhoods and between neighborhood and commercial areas.
- The planning, alignment, and improvement of the street network will reflect the proposed land use pattern of the General Plan.

Safety Element:

- Designate emergency evacuation routes to provide a means to evacuate the community.
- The City shall require adequate emergency transportation access to new developments.

Zoning Code Land Use Compatibility: In accordance with Section 18.14.445 (b) of the Zoning Code the Planning Commission needs to find that the hotel and event center will not be detrimental to the health, safety, convenience, or general welfare of persons residing or working in the vicinity, or injurious to the property, improvements, or potential development in the vicinity. In this case the Commission should evaluate the compatibility of the project with the neighborhood, which consists of primarily vacant land (future commercial uses to the south, some industrial uses to the southwest, and a couple of houses to the west. Approximately one-third of the site to the west of the hotel project consists of vacant land which previously contained a number of trees (some have been burned from a recent fire). As discussed in the environmental document, the proposed project would not result in any significant environmental effects that cannot be mitigated to a less-than-significant level by the mitigation measures. The project appears to be compatible with the neighborhood and should be found to meet the required Planning Commission findings under this provision of the Code.

On-Site Alcoholic Beverage Sales: Section 18-19.110 of the Zoning Code requires a use permit from the Planning Commission for businesses whose floor space is primarily devoted to the sale of beer, wine or other alcoholic beverages for on-premises consumption and which requires a license under state regulations. Specific criteria for approving the alcoholic beverage use permit for the hotel and event center include making sure this activity is compatible with the neighborhood and safe to the public. Specific operational standards are provided in the regulations when the Police Chief issues the alcoholic beverage license.

Timing of the Conditional Use Permit and Design Review Approvals: Section 18-28.030 of the Zoning Code provides for a one-year approval for projects unless otherwise provided by the Planning Commission. Given the project is large and there is a need to complete road improvements with other required permits from other agencies, such as Konocti County Water District, Lake County Special Districts, and CalTrans, the recommended conditions of approval provide for a two-year approval. Furthermore, staff has the authority to grant extensions to the use permit and design review.

Zoning Code Property Development Standards:

Building Coverage and Height: There is no maximum or minimum lot coverage requirements in the General Commercial Zone. In accordance with Section 18-09.020-c of the Zoning Code, the maximum building height in this district is 35 feet and up to 50 feet with a conditional use permit. Plans show a four-story hotel building that is approaching 50 feet in height. The Planning Commission should evaluate the building heigh and massing of the building in relation to the surrounding neighborhood and planned commercial center in the Airport Area. The building would, in staff's opinion, be an attractive architectural enhancement to the neighborhood and it heigh is needed to take advantage of the dramatic views of the lake. A condition has been included to make sure the building does not exceed a height of 50 feet.

Off-Street Parking: The project proposes 109 off-street parking spaces. Based on the City's Zoning Code the minimum number of required spaces is 113 (see Table 14 from the Project Traffic Study). As noted in this study, the project should have sufficient parking even though the project is short four spaces (see Appendix C, Traffic Impact Study from the environmental

document). Section 18-20.090 (C) of the Zoning Code allows the Planning Commission to grant an exception for mixed uses to allow up to a 10% reduction of the required parking which would be up to 11 spaces. Findings for this exception are included in the recommended project approval.

Table 14 – Parking Analysis Summary

Land Use	Units	City Requirements	
		Rate	Spaces Required
Hotel (Guest Rooms)	75 rms	1.2 spaces per room	90
Meeting Space	2,300 sf	1 space per 100 sf	23
Supply Required per Code			**113**
Proposed Supply			109

Notes: rms = rooms; sf = square feet

Tree Removal: Chapter 18-40 of the Zoning Code defines Protected Trees as native oak trees, such as Blue Oak, Valley Oak, Interior Live Oak, California Black Oak, Canyon Live Oak, and Oregon White Oak with a greater than six-inch diameter at breast height (DBH).

An Arborist Report was prepared to evaluate the health and structural condition of the trees within the project area, determine which trees could be preserved and removed, and provide guidelines for tree preservation during the design, construction, and maintenance phases of development (refer to Appendix B of the environmental document). However, in July 2022, after the tree survey was conducted, a fire occurred that potentially damaged, injured, and/or killed some of the existing protected trees. As such, a Post-Fire Tree Assessment was prepared by Live Oak Associates (LOA), which provided recommendations to determine the health status of each tree. As referenced in the conditions of approval a tree removal permit will be required which may include replacement trees for trees removed by the project or payment of in-lieu fees as provided in the regulations. Mitigation Measure BIO-5, in the environmental document requires adequate mitigation of tree removal. It is noted that the preliminary landscaping plans show the planting of over 35 trees that should be used to apply for replacement trees. Additional tree planting could occur along the 18th Avenue Extension project as determined appropriate by staff.

Design Standards: The Zoning Code references a number of design standards that new development is subject to, such as exterior lighting, signage, and landscaping. These are discussed further in the Design Review section of this report.

Design Review: The project is subject to Design Review approval in accordance with Chapter 18-33 of the Zoning Code because it is a new development. The purpose of Design Review is to make sure new development provides for an acceptable community appearance and enhances the design characteristic in the neighborhood.

The project proposes a four-story hotel building, a restaurant/event center, parking, landscaping, lighting, and other related improvements that should be reviewed by the Planning Commission to assure the project meets the purpose of Design Review. The building would incorporate cement type siding with in various brown, beige, and grey tones. Both buildings

would incorporate flat roofs with parapets to hide roof mounted mechanical equipment, such as HVAC units. Overall, the project would appear to meet the purposed of Design Review.

The City, through the Zoning Code, has adopted several design standards for many of these components, but has not yet prepared a Design Manual. Consequently, this review should look at the overall project and review for compliance with specific design standard categories discussed in more detail below.

Landscaping: Project plans provide a preliminary landscaping plan that appears to meet the City's *Landscaping and Irrigation Standards.* It is noted that the planting list presents a wide range of plant types, many which are referenced in the City's plant palette list in the City's standards. However, the final plans will need to be more specific. Also, there are no irrigation plans in the plan package. Recommended conditions of approval requires submittal and approval by staff of detailed landscaping and irrigation plans that complies with these standards

Exterior Lighting: The project plan package does not include any exterior lighting details of the project. As a condition of approval, a detailed lighting plan will need to be submitted to staff for approval that demonstrates compliance with the City's lighting standards.

Signage: The project plan package does not include any details of any new signage. As a condition of approval, a detailed sign program will need to be submitted for staff approval that demonstrates compliance with the City's Sign Regulations.

Trash/Recycling Containment: The project plan package shows location and construction of a trash enclosure at the northeast corner of the parking lot. It would have good access for servicing. As a condition of approval, a detailed trash/recycling enclosure plan will need to be submitted to staff for approval that demonstrates compliance with the City's Trash/Recycling Enclosure Requirements and Design Standards.

Other Considerations/Coordinated Road and Utility Improvements: The City is responsible for constructing the roadway improvements for the 18th Avenue Extension. This includes obtaining the necessary encroachment permit from Caltrans for improvements to the intersection at Highway 53. Also, other City coordination will involve Konocti County Water District for water line and system improvements, Lake County Special Districts for sewer line and system improvements, and other agencies for gas, electrical and other dry utilities. Staff will be coordinating this work as the hotel project is being constructed, however, the only requirements by the hotel project applicant will be to obtain an encroachment permit from the City for the driveway connection between the hotel and 18th Avenue.

Environmental Review (CEQA):

In accordance with CEQA requirements, an Environmental Assessment/Initial Study has been prepared for the proposed project with the conclusion that a Mitigated Negative Declaration (MND) is the appropriate document per CEQA regulations and the City's Environmental Guidelines. The Final Initial Study/Proposed MND concludes that any potentially significant adverse environmental impacts from the project would be reduced to a level of non-significance subject to 33 mitigation measures. Technical reports that were included in this environmental document include air quality impact, biological, and traffic impact studies (Appendix A, B, and C). Specifically, mitigation measures are proposed for Aesthetics, Air Quality, Biological Resources, Cultural Resources and Tribal Cultural Resources, Geology and Soils, and Noise. The project designer worked directly with the Traffic consultant on this project to

redesign roadway design to mitigate traffic impacts. The draft Initial Study was circulated review between October 26th, 2022, through November 30th, 2022.

The City received written public agency comments on the Draft environmental document from Caltrans, Central Valley Regional Water Quality Control Board, Konocti County Water District, and Lake County Health Services Department. A Final environmental document was prepared addressing these comments on December 5, 2022 (see attachment). The Final environmental document was not significantly changed to require recirculation and, therefore, becomes the final environmental determination for the project. In accordance with CEQA, the Planning Commission will need to concur with the adequacy of the Final Initial Study and proposed mitigated negative declaration before taking action to approve the project. Specific findings for this noticing have been included in the project findings for approval.

PUBLIC HEARING LEGAL NOTICE

The public hearing was noticed at least ten (10) days in advance in an electronic publication with the Lake County Record Bee on ***Saturday, December 3rd, 2022***; and mailed (via USPS) to all surrounding property owners within 600 feet of the subject parcel(s) as required pursuant to the Clearlake Municipal Code.

- *All mailing address are drawn from the electronic database supplied by the Lake County Assessor/Recorders Office Database.*

OPTIONS:

1. Move to Adopt Resolution PC 2022-26, A Resolution of the Planning Commission of the City of Clearlake Approving Conditional Use Permits CUP 2022-02, Design Review DR 2022-02 and recommending approval of a Mitigated Negative Declaration based on Initial Study 2022-06 for the development and operation of a +/- 75 Bedroom Hotel with meeting hall/event center, onsite sales and consumptions of alcoholic beverages on 2.8 acres at 6356 Armijo Avenue Clearlake, CA 95422.
2. Move to Deny Resolution PC 2022-26 and direct Staff to Prepare the Appropriate Findings.
3. Move to continue the items and provide alternate direction to staff.

☒ **Attachments:**

1. **Resolution with Conditions of Approval**
2. **Hotel Site and Architectural Plans**
3. **18th Avenue Diagram**
4. **Agency Comments**
5. **Final CEQA IS 2022-06**
6. **Copy of Public Notices**

RESOLUTION NO. PC 2022-26

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLEARLAKE, CALIFORNIA ADOPTING MITIGATED NEGATIVE DECLARATION (BASED ON ENVIRONMENTAL ANALYSIS - INITIAL STUDY, IS 2022-06) AND CONDITIONAL USE PERMIT, CUP 2022-02 AND DESIGN REVIEW 2022-02 FOR THE DEVELOPMENT AND OPERATION OF A HOTEL WITH MEETING HALL/EVENT CENTER AND THE EXTENSION OF 18TH AVENUE LOCATED AT 6356 ARMIJO AVENUE, CLEARLAKE, CALIFORNIA, APN: 042-121-25.

WHEREAS, Matt Patel, of MLI Associates, inc., *(Owner/Developer/Operator),* applied for approval of a Mitigated Negative Declaration (Based on Environmental Analysis, IS 2022-06) and Conditional Use Permit (CUP 2022-02) and Design Review, (DR 2022-02) for the development and operation +/- 75 Bedroom Hotel with meeting hall/event center, onsite sales and consumptions of alcoholic beverages on 2.8 acres located at 6356 Armijo Avenue Clearlake, CA 95422 further described as APN: 042-121-25, and

WHEREAS, Although not part of the conditional use and design review applications which apply only to the hotel project, the environmental document for the hotel project includes construction of extending 18th Avenue from Old Highway 53 to New Highway 53 that provides critical access to the hotel, is considered as part of the overall project; and

WHEREAS, the zoning designation is "GC" General Commercial. As conditioned, the proposed use would be consistent with the allowable uses in the GC Zoning Designation; and

WHEREAS, the General Plan Designates the project site as "GC" General Commercial. As conditioned, the proposed use would be consistent with the General Plan; and

WHEREAS, the project is found to comply with the Zoning Codes as conditioned *(Refer to Enclosed Exhibit A)* by this use permit; and

WHEREAS, the Conditional Use Permit, CUP 2022-02 would allow the onsite sales and consumption of Alcoholic Beverages associated with hotel and event operations; Event Facility, Banquet Hall/Dance Hall/Lodge; Special Events and/or Public Assemblies, and Outdoor Recreation, Pursuant to Section 18.18.030 of the City Municipal Code; and

WHEREAS, in accordance with Section 18.14.445 (b) of the Zoning Code the use as proposed will not be detrimental to the health, safety, convenience, or general welfare of persons residing or working in the vicinity, or injurious to the property, improvements or potential development in the vicinity with respect to aspects including, but not limited to, the following:

(a) The nature of the proposed site, including its size and shape, and the proposed size, shape, and arrangement of structures.

(b) The accessibility and traffic patterns for persons and vehicles, the type and volume of such traffic and the adequacy of proposed off-street parking and loading.

(c) The safeguards afforded to prevent noxious of offensive emissions such as noise, glare, dust and odor;

(d) Treatment given, as appropriate, to such aspects as landscaping, screening spaces, parking areas, loading areas, service areas, lighting, and signs; and

WHEREAS, in accordance with Section 18-19.110 (D) of the Zoning Code the Planning Commission finds that alcoholic beverage sales and consumption on the site complies with the criteria for approval of this use permit; and

WHEREAS, in accordance with Section 18-09.020-c of the Zoning Code, the Planning Commission has reviewed the height of the proposed, approximately 50 foot tall, hotel building as part Conditional Use Permit CUP 2022-02 and has approved this height; and maximum building height in this district is 35 feet and up to 50 feet with a conditional use permit; Plans show a four-story hotel building that is approaching 50 feet in height; and

WHEREAS, in accordance with Section 18-20.090 (C) of the Zoning Code the Planning Commission approves a reduction in the number of parking spaces from 113 to 109 spaces due to the project's mixed use and resulting shared parking demand; and

WHEREAS, the project is consisting with the provisions of Chapter 18-33, Design Review, of the City Municipal Code; and

WHEREAS, the project underwent environmental review (Initial Study, IS 2022-06) subject to the California State Environmental Quality Act (CEQA) Guidelines, and a Mitigated Negative Declaration has been prepared, and adopted; and as evidenced by the following:

1. The initial study and Mitigated Negative Declaration were properly noticed and circulated in compliance with the California Environmental Quality Act of 1970, and in compliance with Section 15070-15075 of the CEQA State Guidelines, by:
    - *Circulation of the Notice of Intent (NOI) for the environmental analysis/proposed Mitigated Negative Declaration (CEQA Initial Study, IS 2022-06) was published in the Lake County Record Bee and sent to the State Clearinghouse; Various Federal, State, and local agencies/organizations for the minimum of a 30-day commenting period from October 26th, 2022, through November 30th, 2022. The document was also uploaded onto the City's Website and made available upon request.*
    - *A Notice of Intent (NOI) was mailed (via USPS) to the surrounding parcels owners within 300 feet of the subject property informing them of the City's decision to adopt a Mitigated Negative Declaration for the proposed use and that there is a 30-day commenting period on the environmental document from July 19th, 2022, through August 19th, 2022.*
    - *Additional mitigation measures have been added in order to reconfirm the protocols for avoidance and capping of the sensitive sites. These mitigation measures do not create new significant environmental effects and are not necessary to mitigate an avoidable significant effect. Thus, pursuant to CEQA Guidelines section 15073.5, recirculation of the MND is not required*

WHEREAS, environmental review (Initial Study, IS 2022-06) was prepared in accordance with the California Environmental Quality Act (CEQA), which shows substantial evidence, in light of the whole record, that the project will not result in a significant environmental impact with the

incorporated Mitigation Measures/Conditions of Approval and, hereby adopts a Mit Negative Declaration (MND) and authorizes staff to file a Notice of Determination in compliance with CEQA.

WHEREAS, if any section, division, sentence, clause, phrase, or portion of this resolution is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining provisions.

WHEREAS, on **December 13th, 2022**, the Planning Commission of the City of Clearlake held a duly noticed public hearing at which interested persons had the opportunity to testify and at which the Planning Commission considered the proposed development; and

WHEREAS, adequate public noticing was made for the project in accordance with the Municipal Code.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Clearlake that the project is hereby approved, subject to the following conditions being satisfied:

PASSED AND ADOPTED on this 13th day of December 2022, by the following vote:

Planning Commissioner	AYES	NOES	ABSENT	ABSTAIN
Chair Lisa Wilson				
Vice Chair Robert Coker				
Fawn Williams				
Erin McCarrick				
Terry Stewart				

_____

Chairperson, Planning Commission

ATTEST:

_____

City Clerk, Planning Commission

EXHIBIT A

City of Clearlake
Conditions of Approval
Conditional Use Permit, CUP 2022-02
Design Review, DR 2022-02
Initial Study, IS 2022-06

Pursuant to the approval of the **Clearlake Planning Commission on December 13, 2022** there is hereby granted to Matt Patel of MLI Associates, Inc., a Conditional Use Permit (CUP 2022-02), Design Review (DR 2022-02) and corresponding environmental analysis (CEQA Initial Study, IS 2022-06) with the following **conditions of approval and related mitigation measures** to authorize the development and operation of a Hotel with meeting hall/event center and the extension of 18th Avenue located at 6356 Armijo Avenue Clearlake, CA 95422 further described as APN: 042-121-25 is subject to the following terms and conditions of approval **(excluding the extension of 18th Avenue between Old Highway 53 and New Highway 53).**

SECTION A: GENERAL CONDITIONS:

A-1. The use hereby permitted shall substantially conform to the Site Plan(s), and Project Description and any conditions of approval imposed by the above Conditional Use Permit as shown on the approved site plan for this action dated December 13th, 2022.

A-2. **Prior to operation**, the permit holder shall meet and operate in full compliance with fire safety rules and regulations of the Lake County Fire District.

A-3. **Prior to operation and/or development**, the applicant shall secure and maintain all required permits from the City of Clearlake *(**Community Development Department**, Building Department, Planning, Police Department and Public Works)*, Lake County Fire Protection District, Lake County Air Quality Management District, Lake County Water Resources Department, Lake County Environmental Health Department, Lake County Special Districts, local water district and/or all applicable Federal, State and local agency permits. *If said permit is from another agency other than the City of Clearlake, the applicant shall submit a copy of the permit(s) to verify they have fulfilled this requirement.*

A-4. **Prior to Operation of the hotel and/or related facilities**, the applicant shall apply and obtain a Business License from the City of Clearlake. Said application may be applied for and obtained through the City's Online Portal Application System.

A-5. The applicant shall always retain a copy of the approved conditions of approval on premises.

A-6. The operation shall not exceed the maximum occupancy as prescribed by the California Building Code.

A-7. Any modifications and/or additions to a use requiring use permit approval shall itself be subject to use permit approval. The addition of an allowed use to a premise occupied by a conditionally allowed use shall require use permit approval of the type required for the existing use. The Community Development Director shall determine when such an addition

and/or change is of such a minor or incidental nature that the intent of these regu can be met without further use permit control.

A-8. The operator shall be responsible to pay all sales, use, business and other applicable taxes, and all license, registration, and other fees and permits required under federal, state, and local laws.

A-9. The applicant is responsible for ensuring that all project workers including third party vendors are informed of, understand, and agree to abide by the approved plans and project conditions.

A-5. **Prior to issuance of a building permit and/or commencing construction** or as otherwise approved by the Community Development Director, the hotel project shall secure a water connection permit or other mechanism from Konocti county Water District that assures water availability and service will be provided to the hotel project prior to building occupancy.

A-6. **Prior to issuance of a building permit and/or commencing construction** or otherwise approved by the Community Development Director, the hotel project shall secure a sewer connection permit from Lake County Special Districts that assures sewer access and service will be provided to the hotel project prior to building occupancy.

A-7. All conditions are necessary to protect the general health, safety and welfare of the public. If any condition of this entitlement is held to be invalid by a court, the whole entitlement shall be invalid. The Director specifically declares that it would not have approved this entitlement unless all of the conditions herein are held as valid.

A-8. The California Department of Fish & Wildlife filing fee shall be submitted as required by California Environmental Quality Act (CEQA) statute, Section 21089(b) and Fish and Game Code Section 711.4. The fee should be paid within five (5) days of approval of the mitigated negative declaration at the Lake County Clerk's Office. Once fees have been paid, the applicant shall submit a copy of all documentation to the City of Clearlake, verifying the fees have been paid. Said permit shall not become valid, vested or operative until the fee has been paid, including the issuance of any permits.

SECTION B. AESTHETICS:

B-1. All graffiti shall be removed on any part of the property within 48 hours of its appearance.

B-2. **Prior to the issuance of development plans and/or building permits,** a Final Lighting Design Plan shall be submitted to the City's Community Development Department for

review and approval. All outdoor lighting shall be directed downwards and shielde the project site and not onto adjacent properties. All lighting shall comply and adhere to all federal, state and local agency requirements, including all requirements in darksky.org, in accordance with the City's Design Standards and Municipal Codes. *(Mitigation Measure AES-1)*

B-3. **Prior to issuance of a building permit and/or commencing construction** the following shall be submitted for review and approval by the City:

- A Landscaping and Irrigation Plan that complies with the City's Landscaping Regulations and Design Standards. Landscaping and irrigation shall be installed in accordance with the approved plan prior to occupancy of the hotel, unless otherwise provided in the Municipal Code.
- Trash and Recycling plan, including trash design that comply with the City's Design Standards. The trash and recycling plan shall be completed in accordance with the approved plan prior to hotel occupancy. Trash receptacles shall be located at convenient locations outside the establishment and operators of the business.

B-4. **Prior to issuance of an occupancy permit for the hotel portion of the project** a Signage Program/Plan for shall be submitted for review and approval by the Community Development Department. The plan shall comply with the City's Sign Regulations. All signage shall be installed in accordance with the approved Program/Plan.

B-5. Maximum building height for the hotel building shall be 50 feet in accordance with Section 18-09.020, Property Development Standards, of the Municipal Code.

SECTION C. AIR QUALITY:

C-1. All refuse generated by the facility shall be stored in the approved disposal/storage containers, and appropriately covered. Removal of waste shall be on a weekly basis to avoid excess waste. All trash receptacles/containers shall always remain covered to prevent fugitive odors and rodent infestation.

C-2. **Prior to approval of any grading plans**, the project applicant shall show on the plans via notation that the contractor shall ensure that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction project, including owned, leased, and subcontractor vehicles, shall achieve a project wide fleet average 5.1 percent NO_X reduction compared to the year 2023 CARB fleet average. The 5.1 percent NO_X reduction may be achieved by requiring a combination of engine Tier 3 or Tier 4 off-road construction equipment or the use of hybrid, electric, or alternatively fueled equipment. For instance, the emissions presented in Table 4 were achieved by requiring all tractors/loaders/backhoes used for grading to be engine Tier 4. In addition, all off-road equipment operating at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to 5 minutes or less in accordance with the Off-Road Diesel Fueled Fleet Regulation as required by CARB. Clear signage regarding idling restrictions should be placed at the entrances to the construction site. *(Mitigation Measure AQ-1)*

C-3. Portable equipment over 50 horsepower must have either a valid District Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB. *(Mitigation Measure AQ-2)*

C-4. Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other methods approved by the Lake County Air Quality Management District. Prior to initiating soil removing activities for construction purposes, the applicant shall pre-wet affected areas with at least 0.5 gallons of water per square yard of ground area to control dust. *(Mitigation Measure AQ-3)*

C-5. Driveways, access roads and parking areas shall be surfaced in a manner so as to minimize dust. The applicant shall obtain all necessary encroachment permits for any work within the right-of-way. All improvement shall adhere to all applicable federal, State and local agency requirements. *(Mitigation Measure AQ-4)*

C-6. Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Lake County Air Quality Management District and the Lake County Fire Protection District. *(Mitigation Measure AQ-5)*

C-7. **During construction activities,** the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site. *(Mitigation Measure AQ-6)*

C-8. Grading permits shall be secured for any applicable activity from the Community Development Department, Building Division. Applicable activities shall adhere to all grading permit conditions, including Best Management Practices. All areas disturbed by grading shall be either surfaced in manner to minimize dust, landscaped or hydro seeded. All BMPs shall be routinely inspected and maintained for lifer of the project *(Mitigation Measure AQ-7)*

C-9. All refuse generated by the facility shall be stored in approved disposal/storage containers, and appropriately covered. Removal of waste shall be on a weekly basis so as to avoid excess waste. All trash receptacles/containers shall remain covered at all times to prevent fugitive odors and rodent infestation. An odor control plan shall be submitted for review and approval by the City In accordance with the Zoning Code. Odor control shall be maintained to an acceptable level at all times. *(Mitigation Measure AQ-8)*

C-10. Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls. *(Mitigation Measure AQ-9)*

C-11. If construction or site activities are conducted within Serpentine soils, a Serp Control Plan may be required. Any parcel with Serpentine soils must obtain proper approvals from LCAQMD prior to beginning any construction activities. Contact LCAQMD for more details. *(Mitigation Measure AQ-10)*

C-12. All engines must notify LCAQMD prior to beginning construction activities and prior to engine Use. Mobile diesel equipment used for construction and/or maintenance must be in compliance with State registration requirements. All equipment units must meet Federal, State and local requirements. All equipment units must meet RICE NESHAP/ NSPS requirements including proper maintenance to minimize airborne emissions and proper record-keeping of all activities, all units must meet the State Air Toxic Control Measures for CI engines and must meet local regulations. *(Mitigation Measure AQ-11)*

C-13. Site development, vegetation disposal, and site operation shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation be chipped and spread for ground cover and erosion control. Burning of debris/construction material is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal. (Mitigation Measure AQ-12)

C-14. Significant dust may be generated from increase vehicle traffic if driveways and parking areas are not adequately surfaced. Surfacing standards should be included as a requirement in the use permit to minimize dust impacts to the public, visitors, and road traffic. At a minimum, the district recommends chip seal as a temporary measure for primary access roads and parking. Paving with asphaltic concrete is preferred and should be required for long term occupancy. All areas subject to semi-truck / trailer traffic should require asphaltic concrete paving or equivalent to prevent fugitive dust generation. Gravel surfacing may be adequate for low use driveways and overflow parking areas; however, gravel surfaces require more maintenance to achieve dust control, and permit conditions should require regular palliative treatment if gravel is utilized. White rock is not suitable for surfacing (and should be prohibited in the permit) because of its tendency to break down and create excessive dust. Grading and re-graveling roads should utilizing water trucks, if necessary, reduce travel times through efficient time management and consolidating solid waste removal/supply deliveries, and speed limits. Conformance with the foregoing requirements shall be included as notes and be confirmed through review and approval of grading plans by the City of Clearlake Community Development Department. (Mitigation Measure AQ-13)

C-15. **During construction activities,** the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site.

C-16. Any demolition or renovation is subject to the Federal National Emissions Standard for Hazardous Air Pollutants (NESHAP) for asbestos in buildings requires asbestos inspections by a Certified Asbestos Consultant for all major renovations and all demolition. An Asbestos Notification Form with the Asbestos inspection report must be submitted to the district at least 14 days prior to beginning any demolition work. The applicant must contact the district

for more details and proper approvals. Regardless of asbestos content or re requirements all demolition and renovation activities should use adequate water/ amended water to prevent dust generation and nuisance conditions.

SECTION D - BIOLOGICAL RESOURCES:

D-1. **Prior to initiation of ground-disturbing activities on the project site**, the project applicant shall retain a qualified biologist to conduct floristic surveys to identify any special-status plant species on-site. *(Mitigation Measure BIO-1)*

- *Floristic surveys shall be conducted in all on-site habitats that potentially support special status species during the appropriate season to identify the species, which is typically during the species' blooming period. Based upon the suite of special status plant species potentially occurring on the site, at a minimum, four surveys shall be conducted, (i.e., in March, April, June, and October) in all areas of the site within and adjacent to (within 100 feet) project development footprints that provide potential habitat for the target species. Surveys shall be conducted in conformance with the most recent version of CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities and CNPS' Botanical Survey Guidelines.*

D-2. If rare plant populations are determined to be present on the project site during the focused floristic surveys by a qualified/license biologist, the populations shall be mapped, and the number of individuals shall be estimated. A qualified plant ecologist or botanist shall determine whether project impacts to plant populations are significant*. (Mitigation Measure BIO-2)*

D-3. To the extent practicable, the project shall be designed to avoid or minimize impacts to special status plant populations with a buffer determined by the qualified botanist or plant ecologist. *(Mitigation Measure BIO-3)*

D-4. If the project cannot be redesigned to avoid or minimize impacts to the identified species to a less-than-significant level, then compensation measures shall include development of an onsite or off-site restoration plan for the species. At a minimum, any restoration plan shall contain the following elements: 1) location of restoration areas, 2) propagation and planting techniques to be employed for the restoration effort, 3) a timetable for implementation, 4) a monitoring plan and performance criteria, 5) an adaptive management plan should the restoration not meet interim success criteria, and 6) a site maintenance plan. The restoration plan shall be approved by the City of Clearlake Community Development Department prior to the start of project construction and shall, where feasible, occur in the immediate vicinity of the identified population(s). *(Mitigation Measure BIO-4)*

D-5. If tree removal is required, site preparation, grading, or construction is planned to occur within the avian breeding period (i.e., between February 1 and August 31), a qualified biologist shall conduct pre-construction surveys for active nests of migratory birds within seven days of the onset of construction activities. If construction activity is planned to

commence outside the breeding period, pre-construction surveys are not requir nesting birds and raptors. Survey results shall be submitted to the City of Clearlake Community Development Department. If active nests of migratory birds are not detected within the project site, further mitigation is not required. If nesting birds are detected, the applicant shall implement Mitigation Measure BIO-3. *(Mitigation Measure BIO-5)*

D-6. If any active nests are discovered in or near proposed construction zones, a qualified biologist shall establish a construction-free buffer around the nest. The buffer shall be adequate to ensure the nest is not disturbed by construction activities and shall be based on the location of the nest, species of bird, sensitivity of the bird (as determined by the biologist), and proximity to and type of construction occurring near the nest. The buffer shall be identified on the ground with flagging or fencing and shall be maintained until the biologist has determined that the young have fledged. Established buffers may be altered only if a qualified biologist provides compelling biological or ecological reason to do so. Proof of compliance with this Mitigation Measure shall be provided to the City of Clearlake Community Development Department prior to recommencing construction within the buffer area. *(Mitigation Measure BIO-6)*

D-7. All construction and operations workers on the project site shall be trained by a qualified biologist prior to ground disturbing activities. The tailgate training shall include a description of the Migratory Bird Treaty Act, instructions on what to do if an active nest is located, and the importance of capping pipes and pipe-like structures standing upright to avoid birds falling into the pipes and getting stuck. Proof of compliance with this Mitigation Measure shall be provided to the City of Clearlake Community Development Department. *(Mitigation Measure BIO-7)*

D-8. **Prior to the start of construction activities**, the applicant shall retain a certified arborist to reassess the protected trees on-site and determine if any additional trees would require removal due to damage from the on-site fire. The updated report shall be submitted to the City of Clearlake Community Development Department for review and approval. *(Mitigation Measure BIO-8)*

- *A native tree protection and removal permit, waiver, or similar approval shall be secured prior to impacting trees protected under the City ordinance. The project applicant shall mitigate for the removal of Protected Trees located within the project site, as identified in the Arborist Report prepared for the proposed project, by preparing a Tree Replacement Plan to ensure on-site replacement planting or the payment of in-lieu fees, or a combination of both.*
- *For the Protected Trees to be preserved as part of the project, the project applicant shall implement the Tree Protection Measures and Performance Standards included in the Arborist Report prepared for the proposed project, including requirements related to: tree removal, tree protection fencing, trenching, tree protection training, tree protection measure monitoring, and other general provisions.*
- *The above measures shall be included in the notes on construction drawings, subject to review and approval by the City of Clearlake Community Development Department, prior to initiation of construction activities.*

SECTION E - CULTURAL/TRIBAL RESOURCES:

E-1. During construction activities, if any subsurface archaeological remains are uncovered, all work shall be halted within 100 feet of the find and the owner shall utilize a qualified cultural resources consultant to identify and investigate any subsurface historic remains and define their physical extent and the nature of any built features or artifact-bearing deposits. *(Mitigation Measure CUL-1)*

E-2. The cultural resource consultant's investigation shall proceed into formal evaluation to determine their eligibility for the California Register of Historical Resources. This shall include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the features and artifacts do not have sufficient data potential to be eligible for the California Register, additional work shall not be required. However, if data potential exists – e.g., there is an intact feature with a large and varied artifact assemblage – it will be necessary to mitigate any Project impacts. Mitigation of impacts might include avoidance of further disturbance to the resources through Project redesign. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during Project excavation or testing, curation may be an appropriate mitigation. This language of this mitigation measure shall be included on any future grading plans and utility plans approved by the City for the Project. *(Mitigation Measure CUL-2)*

E-3. If human remains are encountered, no further disturbance shall occur within 100 feet of the vicinity of the find(s) until the Lake County Coroner has made the necessary findings as to origin (California Health and Safety Code Section 7050.5). Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Lake County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the "most likely descendant(s)", The landowner shall engage in consultations with the most likely descendant (MLD). The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. *(Mitigation Measure CUL-3)*

E-4. On or prior to the first day of construction the owner shall organize cultural sensitivity training for contractors involved in ground disturbing activities. *(Mitigation Measure CUL-4)*

E-5. The developer/landowner shall relinquish ownership of all sacred items, burial goo all archaeological artifacts that are found on the project area to the most likely decedent (MLD) for proper treatment and disposition.

SECTION F - GEOLOGY & SOILS:

F-1. **Prior to approval of any grading permits**, a Geotechnical Analysis shall be conducted by a California Geotechnical Engineer to characterize the subsurface conditions of the project site. The report shall address and make recommendations on the following: *(Mitigation Measure GEO-1)*

I. Road, pavement, and parking area design.
II. Structural foundations, including retaining wall design (if applicable).
III. Grading practices.
IV. Erosion/winterization.
V. Special problems discovered on-site, (i.e., groundwater, expansive/unstable soils, etc.); and
VI. Slope stability.

F-2. All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the Director of Public Works/City Engineer, Chief Building Official/Building Inspector, and a licensed/qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the Geotechnical Analysis are properly incorporated and utilized in the project design. *(Mitigation Measure GEO-2)*

F-3. **Prior to any ground disturbance and/or operation**, the applicant shall submit Erosion Control and Sediment Plans to the Community Development Department for review and approval. The project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system. *(Mitigation Measure GEO-3)*

F-4. **Prior to any ground disturbance**, the project applicant shall submit and obtain a Grading Permit from the Community Development in accordance with the City of Clearlake Municipal Code. *(Mitigation Measure GEO-4)*

F-5. The project applicant shall monitor the site during the rainy season including post-installation, application of BMPs, erosion control maintenance, and other improvements as needed. Measures shall be maintained for life of the project and replaced/repaired when necessary. *(Mitigation Measure GEO-5)*

SECTION G- HAZARD & HAZARDOUS MATERIALS:

G-1. All hazardous waste shall not be disposed of on-site without review or permits from Environmental Health Department, the California Regional Water Control Board, and/or the Air Quality Board. Collected hazardous or toxic waste materials shall be recycled or disposed of through a registered waste hauler to an approved site legally authorized to accept such material.

G-2. The storage of potentially hazardous materials shall be located at least 100 feet from any existing water well. These materials shall not be allowed to leak into the ground or contaminate surface waters. Collected hazardous or toxic materials shall be recycled or disposed of through a registered waste hauler to an approved site legally authorized to accept such materials.

G-3. Any spills of oils, fluids, fuel, concrete, or other hazardous construction material shall be immediately cleaned up. All equipment and materials shall be stored in the staging areas away from all known waterways.

G-4. The storage of hazardous materials equals to or greater than fifty-five (55) gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas, then a Hazardous Materials Inventory Disclosure Statement/Business Plan shall be submitted and maintained in compliance with requirements of Lake County Environmental Health Division. Industrial waste shall not be disposed of on site without review or permit from Lake County Environmental Health Division or the California Regional Water Quality Control Board. The permit holder shall comply with petroleum fuel storage tank regulations if fuel is to be stored on site.

G-5. All equipment shall be maintained and operated in a manner that minimizes any spill or leak of hazardous materials. Hazardous materials and contaminated soil shall be stored, transported, and disposed of consistent with applicable local, state, and federal regulations

G-6. Hazardous Waste must be handled according to all Hazardous Waste Control Laws. Any generation of a hazardous waste must be reported to Lake County Environmental Health within thirty days.

G-7. All employees and/or staff members shall be properly trained in and utilize Personnel Protective Equipment in accordance with all federal, state and local regulations regarding handling any biological and/or chemical agents.

G-8. Hazardous waste must be handled according to all Hazardous Waste Control and Generator regulations. Waste shall not be disposed of onsite without review or permits from EHD, the California Regional Water Control Board, and/or the Air Quality Board. Collected hazardous or toxic waste materials shall be recycled or disposed of through a registered waste hauler to an approved site legally authorized to accept such material.

SECTION H -NOISE/VIBRATIONS:

H-1. Permanent potential noise sources such as, generators used for power shall be designed and located to minimize noise impacts to surrounding properties. *(Mitigation Measure NOI-1)*

H-2. During construction noise levels shall not exceed 65 decibels within fifty (50) feet of any dwellings or transient accommodations between the hours of 7:00 AM and 6:00 PM. This threshold can be increased by the Building Inspector or City Engineer have approved an

exception in accordance with Section 5-4.4(b)(1) of the City Code. An exception o 80 decibels may be approved within one hundred (100) feet from the source during daylight hours. Project is expected to result in less than significant impacts with regards to noise and vibration. *(Mitigation Measure NOI-2)*

SECTION I – TRANSPORTATION & TRAFFIC:

H-1. **Prior to building permit issuance and/or commencing construction,** the following shall be submitted for review and approval by the City:

I. Subject to City Engineer approval, *Civil Site plans* identifying existing and proposed storm drains, drainage ditches, curbs, sidewalks, gutters, and striping, as regulated by the City's Design/Construction Standards, Off-Street Parking Regulations, and Parking Design Standards. Said design shall be found compliance with all other applicable local/federal/state laws (including ADA and CASP requirements). Said curb, gutter, sidewalks, etc. shall be installed in accordance with the City Municipal Codes.

H-2. Prior to operation, all handicap parking areas, routes of travel, building access and bathrooms shall meet American with Disabilities Act (ADA) requirements and be subject to review and approval of a Certified Accessibility Access Specialist (CASP).

H-3. Prior to issuance of a building permit and/or commencing construction of the hotel project, an encroachment permit for the new driveway onto 18th Avenue shall be secured from the City. Prior to occupancy of the hotel project access to the project via 18th Avenue shall be provided through a coordinated process with the City.

SECTION J -TIMING AND MONITORING

J-1. If the approved use permit is not established within two (2) years of the date of approval or such longer time as may be stipulated as a condition of approval, the use permit shall expire.

J-2. If a structure(s) or associated site development authorized by use permit is not issued building permits (if building permits ae required) within three (3) years of the date of approval, the use permit shall expire.

J-3. Upon written request received prior to expiration, the Community Development Director may grant renewals of use permit approval for successive periods of not more than one (1) year each.

I. Approvals of such renewals shall be in writing and for a specific period.

II. Renewals may be approved with new or modified conditions upon a finding that the circumstances under which the use permit was originally approved have substantially changed.

III. *Renewal of a use permit shall not require public notice or hearing unless the renewal is subject to new or modified conditions. To approve a renewal, the Community Development Director must make the findings required for initial approval*.

J-4. The use permit may be transferred to new owners at the same location/use by notifying the City Planning Department of said ownership transfer and upon the new owner's written agreement to maintain all conditions of approval.

J-5. Any conditions established pursuant to these regulations shall be met before the use is established, except that the Director, Planning Commission or on appeal, the City Council, may establish a schedule for certain conditions to be met after establishment of the use. Continuance of the use shall then be contingent on complying with the schedule for meeting deferred conditions.

J-6. This Conditional Use Permit does not abridge or supersede the regulatory powers and permit requirements of any federal, state, or local agency requirements, which may retain a regulatory or advisory function as specified by statute or ordinance. The applicant shall obtain and maintained permits as may be required from each agency.

J-7. The applicant shall agree to indemnify, defend, and hold harmless the City or its agents, officers and employees from and against any and all claims, actions, demands or proceeding *(including damage, attorney fees, and court cost awards)* against the City or its agents, officers, or employees to attach, set aside, void, or annul an approval of the City, advisory agency, appeal board, or legislative body concerning the permit or entitlement when such action is brought within the applicable statute of limitations. In providing any defense under this Paragraph, the applicant shall use counsel reasonably acceptable to the City. The City shall promptly notify the applicant of any claim, action, demands or proceeding and the City shall cooperate fully in the defense. If the City fails to promptly notify the applicant of any claim, action, or proceeding, or if the City fails to cooperate fully in the defense, the applicant shall not thereafter be responsible to defend, indemnify, or hold the City harmless as to that action. The City may require that the applicant post a bond, in an amount determined to be sufficient, to satisfy the above indemnification and defense obligation. Applicant understands and acknowledges that City is under no obligation to defend any claim, action, demand or proceeding challenging the City's actions with respect to the permit or entitlement.

J-8. The Planning Commission may revoke or modify the use permit in the future if the Commission finds that the use to which the permit allows is detrimental to health, safety, comfort, general welfare of the public; constitutes a public nuisance; if the permit was obtained or is being used by fraud; and/or if one or more the conditions upon which a permit was granted are in noncompliance or have been violated. Applicant shall be notified of potential violations of the use permit prior to action taken by the Planning Commission.

J-9. Said Use Permits shall be subject to revocation or modification by the Planning Commission if the Commission finds that there has been:

I. Noncompliance with any of the foregoing conditions of approval; or

II. *The Planning Commission finds that the use for which this permit is hereby granted is so exercised as to be substantially detrimental to persons or property in the neighborhood of the use. Any such revocation shall be preceded by a public hearing noticed and heard pursuant to the City of Clearlake Municipal Code.*

To Be Completed by Authorized City Staff

_____ _____

Staff Name (Print) **Staff Signature**

Date (signed): _____

ACCEPTANCE

I have read and understand the foregoing Conditional Use Permit and agree to each term and condition of approval and/or mitigation measure(s) thereof.

_____

Name of Applicant/Authorized Agent **Signature of Applicant/Authorized Agent**
(Print Name)

Date: _____

FAIRFIELD INN BY MARRIOTT CLEARLAKE

15500 18TH AVENUE, CLEARLAKE CA 95422

GUEST UNIT MATRIX

	FLOOR AREA (SF)	KING		QUEEN QUEEN		KING SUITE		TOTAL
		KING	ACC KING	QUEEN QUEEN	QUEEN QUEEN ACCESSIBLE	KING SUITE	KING SUITE ACCESSIBLE	
LEVEL 1	11,188 SF	10	0	0	0	0	0	10
LEVEL 2	10,990 SF	6	2	12	0	3	0	23
LEVEL 3	10,990 SF	6	1	13	1	2	0	23
LEVEL 4	10,990 SF	5	0	10	1	2	1	19
SUBTOTAL	**44,158 SF**	**27**	**3**	**35**	**2**	**7**	**1**	**75**
TOTAL		**30**		**37**		**8**		
PERCENTAGES		40%		49%		11%		100%

SHEET INDEX

PLANNING	
A0	COVER SHEET
A1	SITE PLAN
A2	HOTEL - GROUND AND SECOND FLOOR PLAN
A3	HOTEL - THIRD AND FOURTH FLOOR PLAN
A4	HOTEL - ROOF PLAN
A5	HOTEL - GUEST ROOM TYPES
A6	HOTEL - EXTERIOR ELEVATIONS
A7	HOTEL - EXTERIOR ELEVATIONS
A8	MEETING HALL - PLANS
A9	MEETING HALL - EXTERIOR ELEVATIONS & MATERIAL BOARD
C1	PRELIMINARY SITE PLAN
C2	PRELIMINARY GRADING, DRAINAGE, & PAVING PLAN
C3	WATER & SANITARY SEWER PLAN
L1	PRELIMINARY LANDSCAPE PLAN

PLANNING DEPARTMENT SUBMITTAL
08/12/2022

PROJECT TEAM

OWNER **MLI ASSOCIATES, LLC**
3767 HARLEQUIN TERRACE
FREMONT, CA 94555
(415) 623-4152

ARCHITECT **DVB architecture**
5221 DEER VALLEY ROAD, #150
RESCUE, CA 95672
(916) 316-6759

CIVIL **CWE-RFE**
2260 DOUGLAS BLVD., SUITE 160
ROSEVILLE, CA 95661
(916) 772-7800

LANDSCAPE **LINDA FISH LANDSCAPE ARCHITECT**
4073 PATCHWORK COURT
TURLOCK, CA 95382
(209) 656-7177

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josh@dvbarchitecture.com

OWNER

CONTRACTOR

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PLANNING DEPARTMENT SUBMITTAL

CLEARLAKE FAIRFIELD INN

15500 18TH AVENUE, CLEARLAKE CA 95422

NOT FOR CONSTRUCTION

08/12/2022 PLANNING DEPARTMENT SUBMITTAL

COVER SHEET

Project Number 21063

A0

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Checked By DVB

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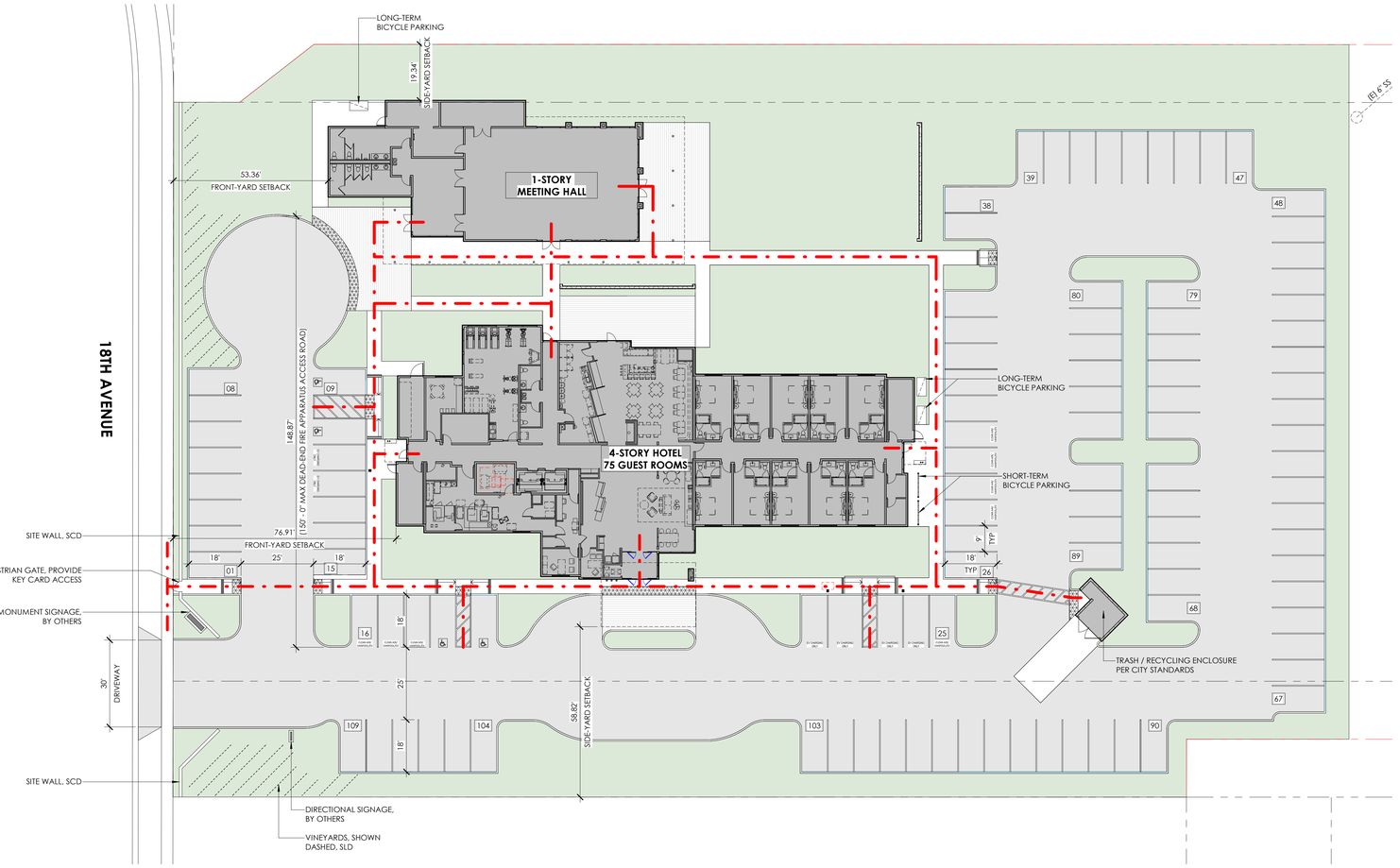
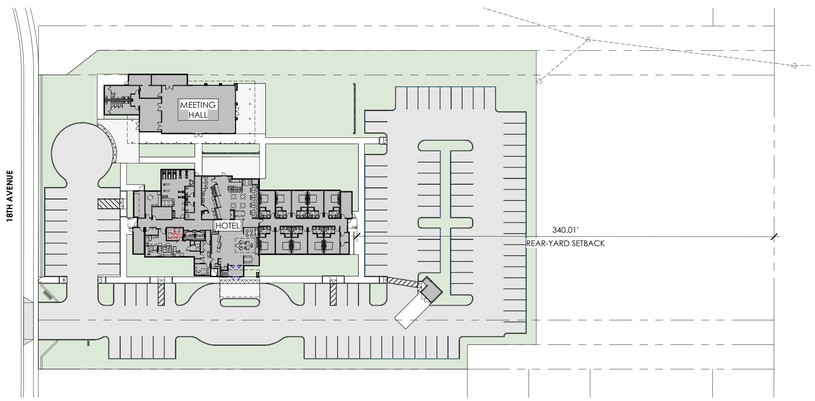


SITE PLAN 1" = 20'-0" 1



OVERALL SITE PLAN 1" = 50'-0" 2

ZONING CODE

ADDRESS	15500 18TH AVENUE
ASSESSOR PARCEL NUMBER	042-121-25
ZONING	CG - GENERAL COMMERCIAL
GENERAL PLAN	COMMERCIAL

PROJECT INFORMATION

PROPERTY AREA	2.799 ACRES	
CONSTRUCTION TYPE	V-A	
	ALLOWABLE	PROPOSED
STORIES	4	4
HEIGHT	70' - 0"	53' - 0"
SETBACKS:		
FRONT YARD	0 FT	53.36 FT
SIDE YARD	0 FT	19.34 FT
REAR YARD	0 FT	340.01 FT

PARKING COUNT

GUEST ROOMS	75
REQUIRED PARKING (18-20.090 - TABLE 23) 1 SPACE PER GUESTROOM + 2 SPACES PER 10 GUESTROOMS + 1 SPACE PER 100 SF OF MEETING SPACE + 1/2 OF REQUIRED PARKING FOR ACCESSORY RETAIL, RESTAURANT AND ALCOHOLIC BEVERAGE SALES USE	 75 15 23 N/A
REGULAR STALLS	113
SHARED PARKING REDUCTION (MAX 10%)	-11
MIXED-USE PARKING REDUCTION (MAX 20%)	-22
MOTORCYCLE SPACES (1:20)	N/A
LOADING SPACES (18-20.090 - TABLE 23) 1 SPACE + 1 SPACE PER 50,000 SF MEETING ROOMS, RESTAURANTS AND SHOPS	2
TOTAL PARKING (REQUIRED)	**82**
ACCESSIBLE PARKING (INCLUDED ABOVE)	4 (4 REQ'D)
BICYCLE SPACES (15%) SHORT-TERM LONG-TERM	13 7 6
CLEAN AIR VEHICLE PARKING	8 (8 REQ'D)
ELECTRIC VEHICLE CHARGING SPACES	6 (5 REQ'D)
TOTAL PARKING (PROVIDED)	109 = OK

GUEST ROOM MATRIX

BRAND PROTOTYPE	FAIRFIELD INN (REVISION 4 - 12/11/20)

SITE PLAN LEGEND

ACCESSIBLE PATH OF TRAVEL, NO SLOPES IN DIRECTION OF TRAVEL EXCEEDING 5% AND NO CROSS SLOPES EXCEEDING 2%

DETECTABLE WARNING SURFACE, TYP. SHOWN HATCHED

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OWNER

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CLEARLAKE FAIRFIELD INN

15500 18TH AVENUE, CLEARLAKE CA 95422

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08/12/2022 PLANNING DEPARTMENT SUBMITTAL

SITE PLAN

Project Number 21063

Drawn By DVB

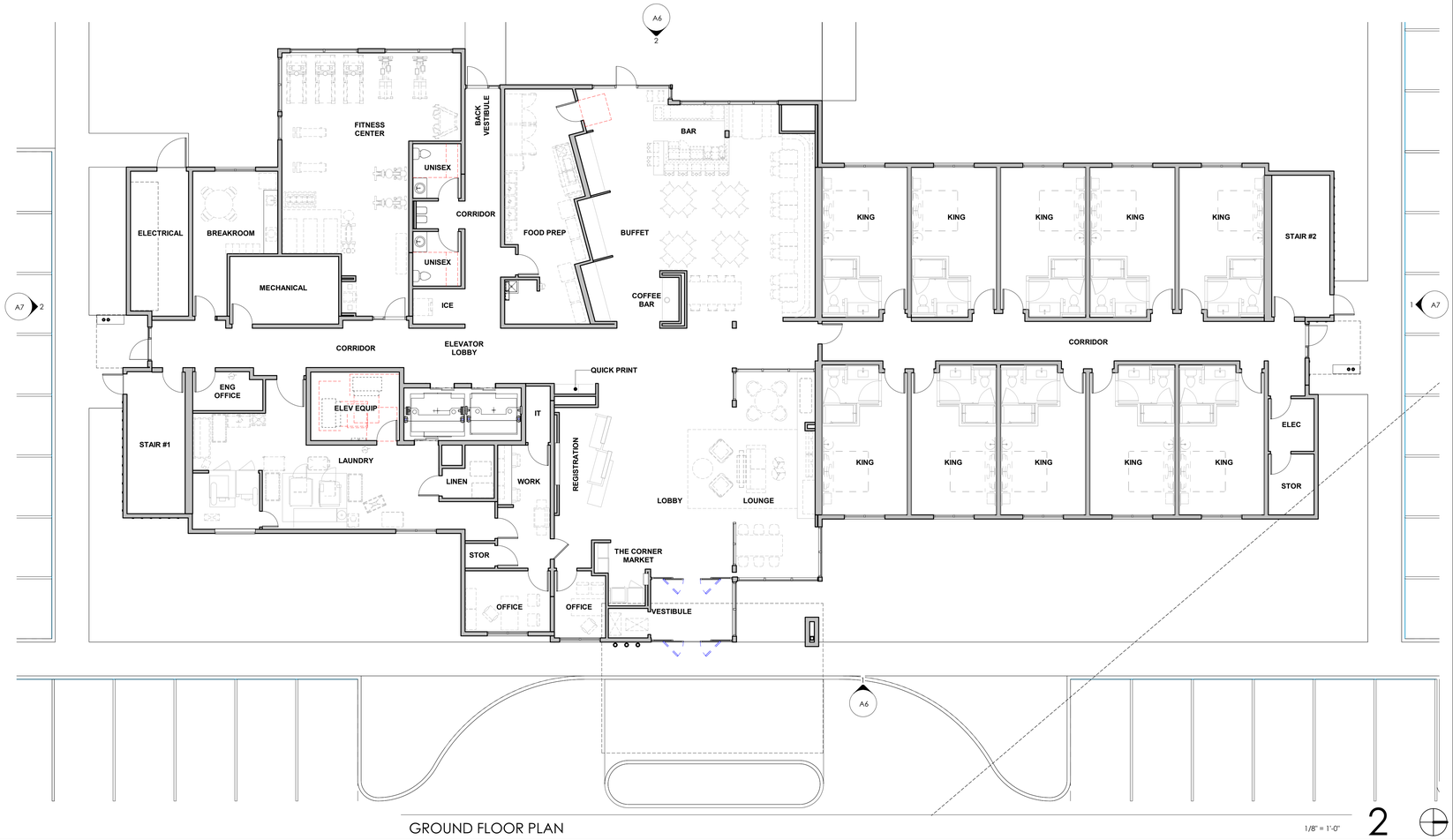
Checked By DVB

A1

SECOND FLOOR PLAN

1/8" = 1'-0"

1



GROUND FLOOR PLAN

1/8" = 1'-0"

2

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HOTEL - GROUND AND SECOND FLOOR PLAN

Project Number
21063

Drawn By
DVB

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DVB

A2

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FOURTH FLOOR PLAN

1/8" = 1'-0"

1

THIRD FLOOR PLAN

1/8" = 1'-0"

2

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HOTEL - THIRD AND FOURTH FLOOR PLAN

Project Number
21063

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A3

ROOF PLAN

1/8" = 1'-0"

1

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HOTEL - ROOF PLAN

Project Number
21063

Drawn By
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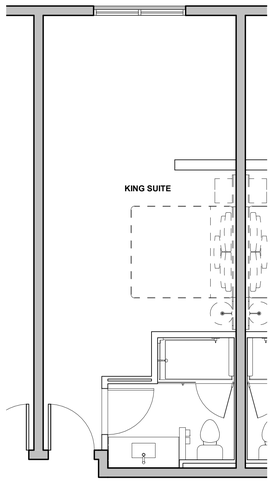
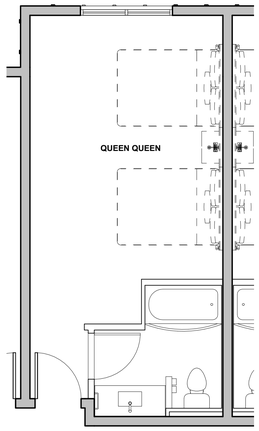
Checked By
DVB

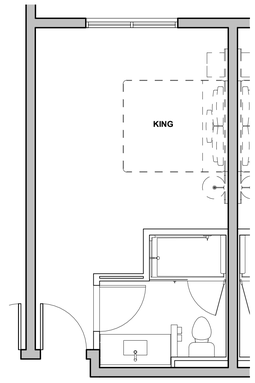
A4



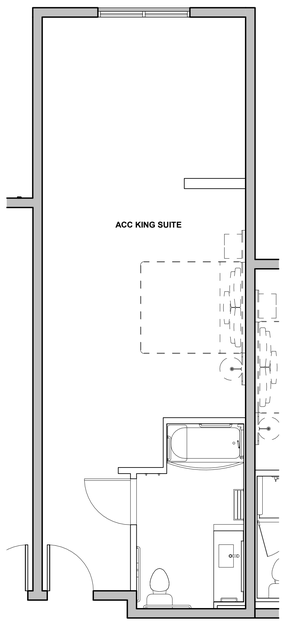
GUESTROOM - KING SUITE 1/4" = 1'-0" 5



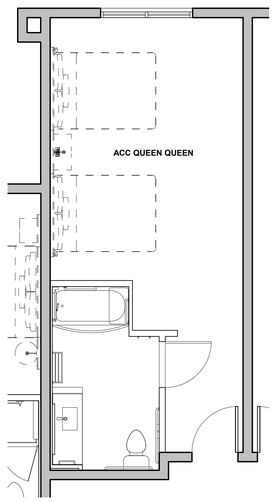
GUESTROOM - QUEEN 1/4" = 1'-0" 3



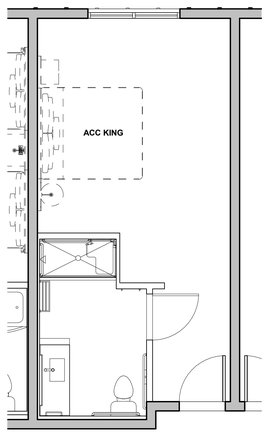
GUESTROOM - KING 1/4" = 1'-0" 1



GUESTROOM - ACC KING SUITE 1/4" = 1'-0" 6



GUESTROOM - ACC QUEEN 1/4" = 1'-0" 4



GUESTROOM - ACC KING 1/4" = 1'-0" 2

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CLEARLAKE FAIRFIELD INN

15500 18TH AVENUE, CLEARLAKE CA 95422

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HOTEL - GUEST ROOM TYPES

Project Number 21063

A5

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HOTEL - BUILDING ELEVATION - EAST

1/8" = 1'-0"

1

NOTE: REFER TO EXTERIOR ELEVATION 1/A6 FOR TYPICAL NOTES.

HOTEL - BUILDING ELEVATION - WEST

1/8" = 1'-0"

2

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HOTEL - EXTERIOR ELEVATIONS

Project Number 21063

A6

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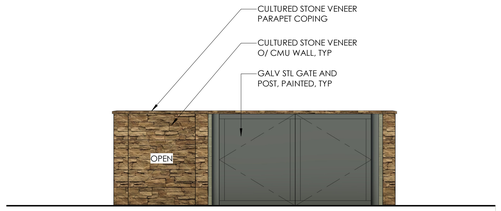


TRASH ENCLOSURE - SOUTH ELEVATION 1/4" = 1'-0" 3

NOTE: REFER TO EXTERIOR ELEVATION 3/A7 FOR TYPICAL NOTES.

TRASH ENCLOSURE - WEST ELEVATION 1/4" = 1'-0" 4

NOTE: REFER TO EXTERIOR ELEVATION 3/A7 FOR TYPICAL NOTES.

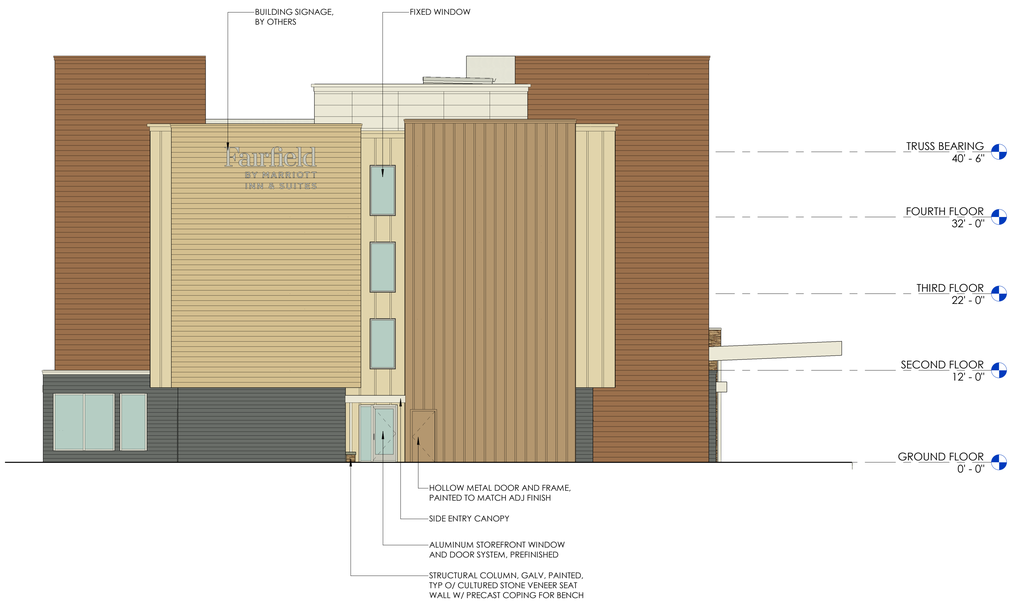
TRASH ENCLOSURE - NORTH ELEVATION 1/4" = 1'-0" 5

NOTE: REFER TO EXTERIOR ELEVATION 3/A7 FOR TYPICAL NOTES.

TRASH ENCLOSURE - EAST ELEVATION 1/4" = 1'-0" 6

NOTE: REFER TO EXTERIOR ELEVATION 1/A6 AND 2/A7 FOR TYPICAL NOTES.

HOTEL - BUILDING ELEVATION - NORTH 1/8" = 1'-0" 1



HOTEL - BUILDING ELEVATION - SOUTH 1/8" = 1'-0" 2

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PLANNING DEPARTMENT SUBMITTAL

CLEARLAKE FAIRFIELD INN

15500 18TH AVENUE, CLEARLAKE CA 95422

NOT FOR CONSTRUCTION

08/12/2022 PLANNING DEPARTMENT SUBMITTAL

HOTEL - EXTERIOR ELEVATIONS

Project Number 21063

A7

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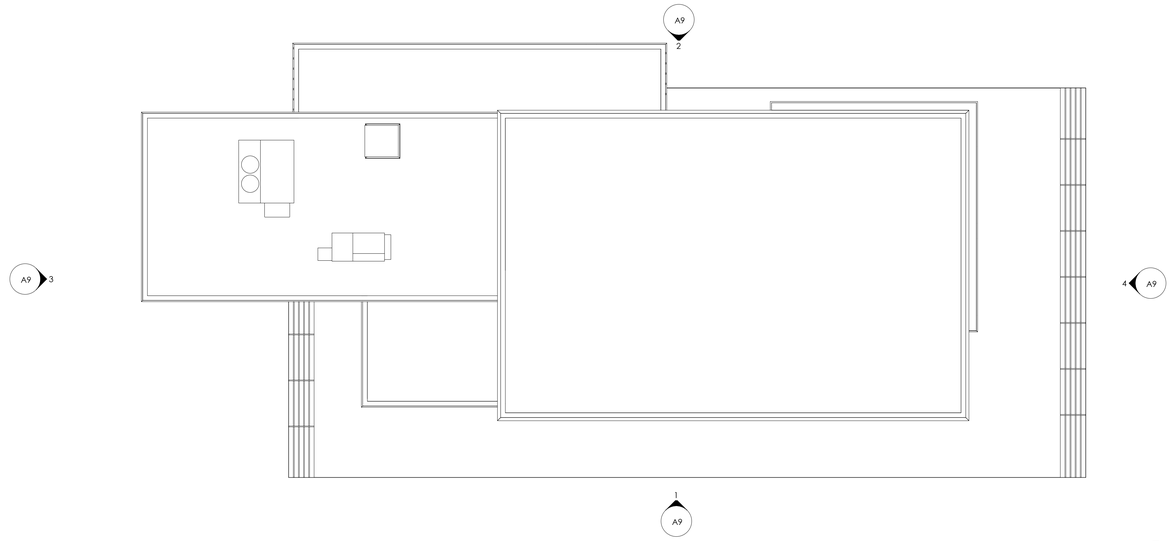
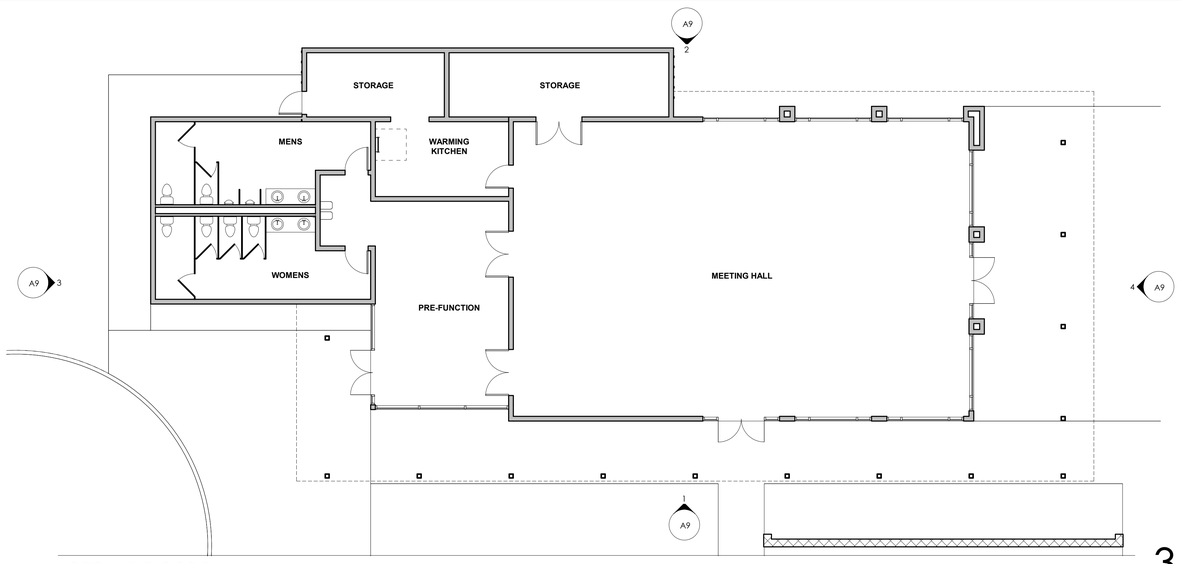


ROOF PLAN

1/8" = 1'-0"

1



GROUND FLOOR PLAN

1/8" = 1'-0"

3

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PLANNING DEPARTMENT SUBMITTAL

CLEARLAKE FAIRFIELD INN

15500 18TH AVENUE, CLEARLAKE CA 95422

NOT FOR CONSTRUCTION

08/12/2022 PLANNING DEPARTMENT SUBMITTAL

MEETING HALL - PLANS

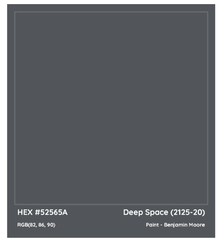
Project Number
21063

Drawn By
DVB

Checked By
DVB

A8

PT-1 (PAINT - BODY)
MANUFACTURER: BENJAMIN MOORE
FINISH: OC 151 WHITE



PT-2 (PAINT - BODY)
MANUFACTURER: BENJAMIN MOORE
FINISH: 2125-20 DEEP SPACE

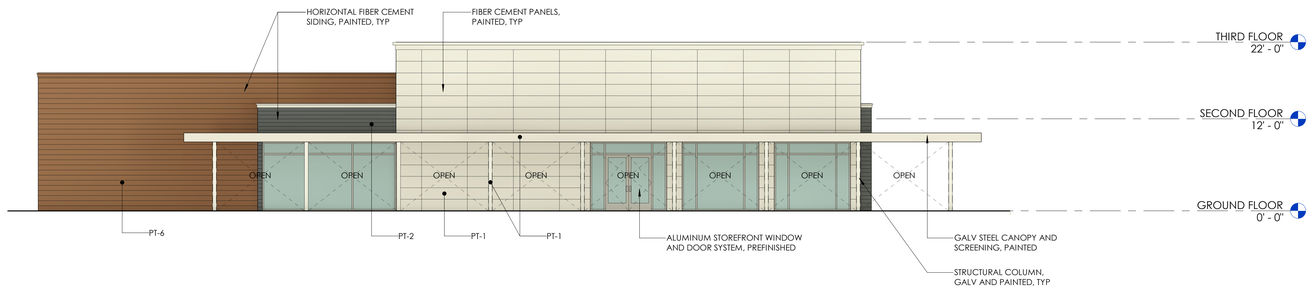
PT-3 (PAINT - BODY)
MANUFACTURER: BENJAMIN MOORE
FINISH: HC-35 POWELL BUFF

PT-4 (PAINT - BODY)
MANUFACTURER: BENJAMIN MOORE
FINISH: HC-34 WILMINGTON TAN

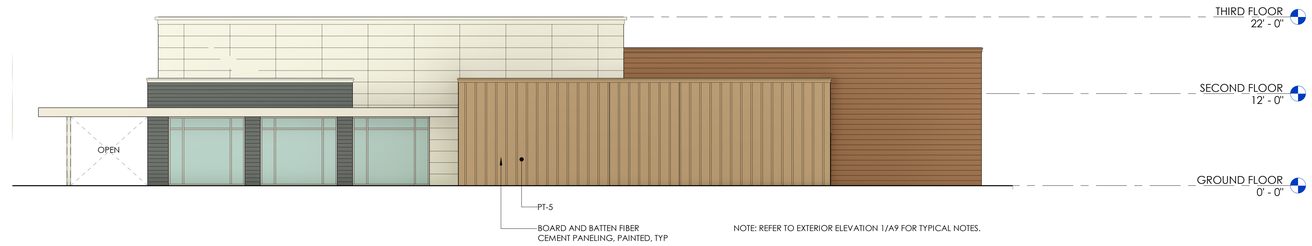
PT-5 (PAINT - BODY)
MANUFACTURER: BENJAMIN MOORE
FINISH: AC-6 NEW CHESTNUT

PT-6 (PAINT - BODY)
MANUFACTURER: BENJAMIN MOORE
FINISH: 2163-10 LOG CABIN

STN-1 (CULTURED STONE VENEER)
MANUFACTURER: ELDORADO STONE
MODEL: CLIFFSTONE - CAMBRIA



MEETING HALL - BUILDING ELEVATION - EAST 1/8" = 1'-0" 1

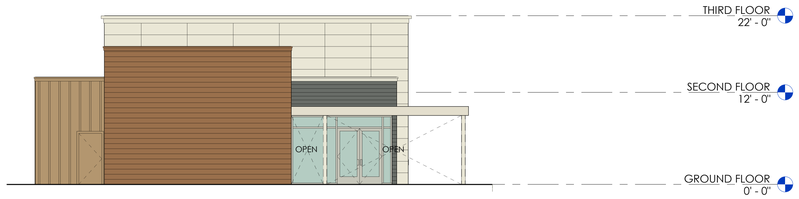


NOTE: REFER TO EXTERIOR ELEVATION 1/A9 FOR TYPICAL NOTES.

MEETING HALL - BUILDING ELEVATION - WEST 1/8" = 1'-0" 2

NOTE: REFER TO EXTERIOR ELEVATION 1/A9 FOR TYPICAL NOTES.

MEETING HALL - BUILDING ELEVATION - NORTH 1/8" = 1'-0" 4



NOTE: REFER TO EXTERIOR ELEVATION 1/A9 FOR TYPICAL NOTES.

MEETING HALL - BUILDING ELEVATION - SOUTH 1/8" = 1'-0" 3

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PLANNING DEPARTMENT SUBMITTAL

CLEARLAKE FAIRFIELD INN

15500 18TH AVENUE, CLEARLAKE CA 95422

NOT FOR CONSTRUCTION

08/12/2022 PLANNING DEPARTMENT SUBMITTAL

MEETING HALL - EXTERIOR ELEVATIONS & MATERIAL BOARD

Project Number
21063

Drawn By
DVB

Checked By
DVB

A9

CLEARLAKE FAIRFIELD INN

PRELIMINARY IMPROVEMENT PLANS

15500 18TH AVENUE CLEARLAKE, CA, 95422

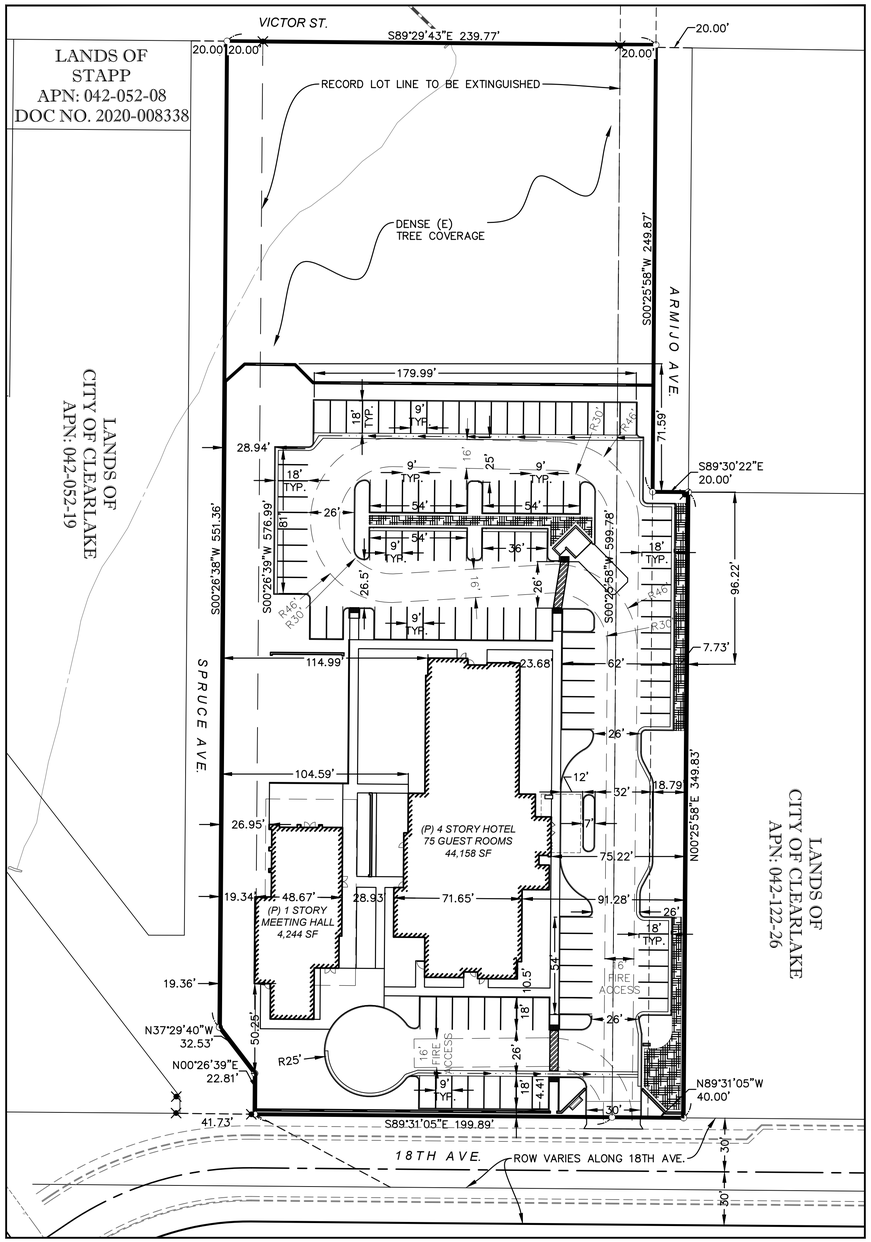
APN: 042-121-25

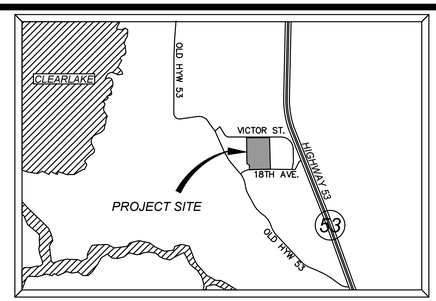
LEGEND

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
ROW		
EASEMENT		
LOT LINE		
CENTERLINE		
SW, CURB & GUTTER		
DITCH / FLOWLINE		
EP		
STORM DRAIN	XX"SD	XX"SD
SANITARY SEWER	XX"SS	XX"SS
WATER LINE	XX"W	XX"W
DOMESTIC WATER	XX"DW	XX"DW
FIRE SERVICE	XX"FS	XX"FS
GAS LINE	XX"G	XX"G
SDMH	Ⓓ	Ⓟ
DRAINAGE INLET	□ ▨	■ ●
CULVERT WITH FES		
DIRECTION OF SURFACE FLOW		
OVERLAND RELEASE PATH		
SSMH	Ⓢ	Ⓢ
SSCO	○	•
FIRE HYDRANT		
PIV		
FDC		
WATER VALVE	⋈	⋈
WATER METER	WM	WM
BACKFLOW PREVENTION ASSEMBLY		
REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY	RP	RP
BLOW OFF ASSEMBLY		
PIPE CAP	[	[
GAS VALVE	Ⓖ	Ⓖ
TELEPHONE MH	Ⓣ	Ⓣ
UTILITY POLE		
UTILITY POLE WITH LIGHT		
STREET LIGHT		
SITE LIGHT		
JUNCTION/PULL BOX	PB	PB
MONUMENT WELL		
BOLLARD	●	●
SIGN		
FENCE	X X	X X
RETAINING WALL		
MAJOR CONTOUR	25	25
MINOR CONTOUR		
GRADE BREAK LINE		GB
TREE & DRIP		REMOVAL
CONTROL POINT		100 100.00 PK
FINISH FLOOR ELEVATION	FF: 123.00	FF: 123.00
SPOT ELEVATION (ASPHALT CONCRETE)	× 157.01 AC	13.34 AC
MATCH (E) GRADE ELEVATION		13.61 AC MATCH (E)
TRUNCATED DOMES		
BUILDING		

ABBREVIATIONS:

AB	AGGREGATE BASE	FH	FIRE HYDRANT	PIV	POST INDICATOR VALVE
AC	ASPHALT CONCRETE	FL	FLOW LINE	℄	PROPERTY LINE
ARV	AIR RELEASE VALVE	FOC	FACE OF CURB	POC	POINT OF CONNECTION
BC	BEGIN CURVE	FP	FINISH PAVEMENT	PRC	POINT OF REVERSE CURVE
BCR	BEGIN CURVE RETURN	FS	FIRE SPRINKLER	PT	POINT OF TANGENCY
BLDG	BUILDING	GB	GRADE BREAK	PUE	PUBLIC UTILITY EASEMENT
BOC	BACK OF CURB	GR	GRATE ELEVATION	PVI	POINT OF VERTICAL INTERSECTION
BOW	BACK-OF-WALK	GV	GATE VALVE	RC	RELATIVE COMPACTION
BVC	BEGIN VERTICAL CURVE	GVW	GROSS VEHICLE WEIGHT	RCP	REINFORCED CONCRETE PIPE
BW	BOTTOM OF WALL	HC	HANDICAP	ROW	RIGHT-OF-WAY
CAB	CABINET	HCR	HANDICAP RAMP	RT	RIGHT TURN OR RIGHT
CONC	CONCRETE	HDPE	HIGH DENSITY POLYETHYLENE	RPPA	REDUCED PRESSURE PRINCIPLE ASSEMBLY
C&G	CURB & GUTTER	HP	HIGH POINT	RW	RETAINING WALL
CG&S	CURB, GUTTER & SIDEWALK	IRR	IRRIGATION	SASD	SACRAMENTO AREA SEWER DISTRICT
CH	CHORD	INV	INVERT	SDMH	STORM DRAIN MANHOLE
℄	CENTERLINE	I.E.	INVERT ELEVATION	SD	STORM DRAIN
CMP	CORRUGATED METAL PIPE	JP	JOINT POLE	SE	SOUTHEAST
CR	CURB RETURN	L	LENGTH	SS	SANITARY SEWER
CTV	CABLE TV	LF	LINEAL FEET	SSCO	SANITARY SEWER CLEAN OUT
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY	LIP	LIP OF GUTTER	SSMH	SANITARY SEWER MANHOLE
DI	DRAIN / DROP INLET	LP	LOW POINT	SWCT	SAWCUT
DIP	DUCTILE IRON PIPE	LT	LEFT TURN OR LEFT	SW	SIDEWALK OR SOUTHWEST
DS	DOWN SPOUT	MAX	MAXIMUM	STA	STATION
(E)	EXISTING	MH	MAINTENANCE HOLE	TC	TOP OF CURB
EC	END CURVE	MIN	MINIMUM	TP	TOP OF PAVEMENT
ECR	END CURB RETURN	NE	NORTHEAST	TS	TOP OF SIDEWALK
EP	EDGE OF PAVEMENT	NW	NORTHWEST	TW	TOP OF WALL
ETW	EDGE OF TRAVELED WAY	OC	ON CENTER	UNO	UNLESS NOTED OTHERWISE
EVC	END OF VERTICAL CURVE	OH	OVERHEAD	W	WATER
FDC	FIRE DEPARTMENT CONNECTION	OHT&E	OVERHEAD TELEPHONE & ELECTRIC	WV	WATER VALVE
FF	FINISH FLOOR	OMP	OPEN METAL PIPE	WM	WATER METER
FG	FINISHED GROUND	(P)	PROPOSED	WWF	WELDED WIRE FABRIC
FGBW	FINISHED GROUND @ BOT. WALL	PCC	PORTLAND CEMENT CONCRETE OR POINT OF COMPOUND CURVE	VCP	VITRIFIED CLAY PIPE
FGTW	FINISHED GROUND @ TOP OF WALL	PG	PROFILE GRADE	VIF	VERIFY-IN-FIELD





VICINITY MAP
NOT TO SCALE

SHEET INDEX:

C1 PRELIMINARY SITE PLAN
C2 PRELIMINARY GRADING, DRAINAGE, & PAVING PLAN
C3 PRELIMINARY WATER & SANITARY SEWER PLAN

TOPOGRAPHIC SURVEY:

CWE-RFE
FIELD SURVEY DATED: JUNE 2022

BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE SAME AS SHOWN ON THAT RECORD OF SURVEY FILED IN BOOK 63 OF SURVEYS AT PAGES 24 AND 25, LAKE COUNTY OFFICIAL RECORDS.

BENCHMARK:

BEING ELEVATION 1419.50' (NAVD 83) AS MEASURED ON A FOUND ALUMINUM SURVEY DISK STAMPED CA-HPGN-DENSIFICATION STA. 01-BK 1999, DESIGNATED NGS PID BM8950.

ELEVATION: 1419.50' (NAD 83)

PROPERTY OWNER:

MLI ASSOCIATES, LLC.
3767 HARLEQUIN TERRACE,
FREMONT, CA 94555
(415) 623-4152

ZONING FOR ALL PARCELS:

EXISTING ZONING: COMMERCIAL
PER CITY OF CLEARLAKE ZONING ORDINANCE

JURISDICTION:

CITY OF CLEARLAKE
COUNTY OF LAKE

FLOOD PLAIN:

SUBJECT PROPERTY IS LOCATED WITHIN ZONE "X", AREAS WITHIN ZONE "X" ARE DETERMINED TO BE OUTSIDE THE 0.2 ANNUAL CHANCE FLOOD PLAIN AS DETERMINED BY THE NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO.: 06033C0684D DATED: (09/30/2005) AND PANEL NO.: 06033C0692D DATED: 09/30/2005.

UTILITY CONTACT INFORMATION

UTILITY	UTILITY CO.	REPRESENTATIVE	PHONE
TELEPHONE	PACIFIC BELL / AT&T	ENGINEERING	(510) 645-2929
GAS	P.G.&E.	ENGINEERING	(877) 743-7782
ELECTRIC	P.G.&E.	ENGINEERING	(877) 743-7782
FIRE	LAKE COUNTY FIRE PROTECTION DISTRICT	LAKE COUNTY FIRE	(707) 994-2170
WATER	KONOCTI COUNTY WATER DISTRICT	ENGINEERING	(707) 994-2561
WATER	HIGHLANDS WATER COMPANY	ENGINEERING	(707) 994-2393
SEWER	LAKE COUNTY SPECIAL DISTRICTS	SCOTT HARTER	(707) 263-0119
DRAINAGE	CITY OF CLEARLAKE	STAFF	(707) 994-8201
U.S.A.	UNDERGROUND SERVICE ALERT		1-800-642-2444

UTILITY NOTE:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

NOTICE TO CONTRACTOR - ORDER OF WORK:

PRIOR TO THE START OF ANY CIVIL WORK, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES BY POTHOLING AT ALL POINTS OF POTENTIAL CONFLICT WITH PROPOSED UTILITIES OR PROPOSED POINTS OF CONNECTION WITH EXISTING UTILITIES. IF THE ACTUAL LOCATIONS OF THE EXISTING UTILITIES FOUND IN THE FIELD ARE DIFFERENT FROM WHAT IS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL CONTACT RFE ENGINEERING IMMEDIATELY AND PROVIDE THE ACTUAL LOCATION INFORMATION. RFE ENGINEERING WILL VERIFY IF THERE ARE ANY CONFLICTS WITH THE IMPROVEMENTS AND WILL PROVIDE MODIFICATIONS TO THE DESIGN TO MITIGATE THE CONFLICTS IF ANY CONFLICTS EXIST.

PARKING INFORMATION

ITEM	REQUIREMENTS	PROVIDED
BUILDING SIZE	N/A	48,402 TOTAL SF
PARKING REQUIRED	TBD	TBD
MINIMUM PARKING DIMENSIONS	TBD	TBD
MIN. DRIVEWAY WIDTH	25 FT.	25 FT.
ACCESSIBLE SPACES	TBD	TBD

*PARKING STANDARDS PER CITY OF CLEARLAKE CODE 18-20.090 - TABLE 23

DEVELOPMENT STANDARDS

EXISTING GENERAL PLAN: COMMERCIAL
ZONE: GC - GENERAL COMMERCIAL
USE: HOTEL

ITEM	REQUIREMENTS	PROVIDED
MINIMUM FRONT SETBACK	0 FT.	--
MINIMUM SIDE SETBACK	0 FT.	--
MINIMUM REAR SETBACK	0 FT.	--
MAXIMUM BUILDING HEIGHT	70 FT.	53 FT.

PROPERTY AREA: 2.799 AC GROSS
2.733 AC NET

REFERENCE IS MADE TO THE 2020 CITY OF CLEARLAKE ZONING ORDINANCE

Know what's **below.**
Call before you dig.
or (800) 642-2444

40 0 40 80
1 INCH = 40 FEET

TOTAL DISTURBED AREA: 2.94 AC

RAW EARTHWORK SUMMARY

CUT:	10,600 CY
FILL:	11,900 CY
NET:	1,300 CY

NOTE:
EARTHWORK QUANTITIES ARE ESTIMATED TO SUBGRADE AND DO NOT TAKE INTO ACCOUNT SHRINKAGE, EXCESS MATERIALS FROM TRENCHING AND MISC. UNKNOWN STRUCTURAL SECTIONS. CONTRACTOR SHOULD VERIFY EARTHWORK QUANTITIES.

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REGISTERED PROFESSIONAL ENGINEER ANTHONY S. MCCLARY No. C90888 PRELIMINARY NOT FOR CONSTRUCTION STATE OF CALIF.

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2260 Douglas Blvd, Suite 160, Roseville, CA 95661
Ph: 916-772-7800 www.cwecorp.com

OWNER

CONTRACTOR

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PLANNING DEPARTMENT SUBMITTAL

CLEARLAKE FAIRFIELD INN

15500 18TH AVENUE, CLEARLAKE CA 95422

08/12/2022 PLANNING DEPARTMENT SUBMITTAL

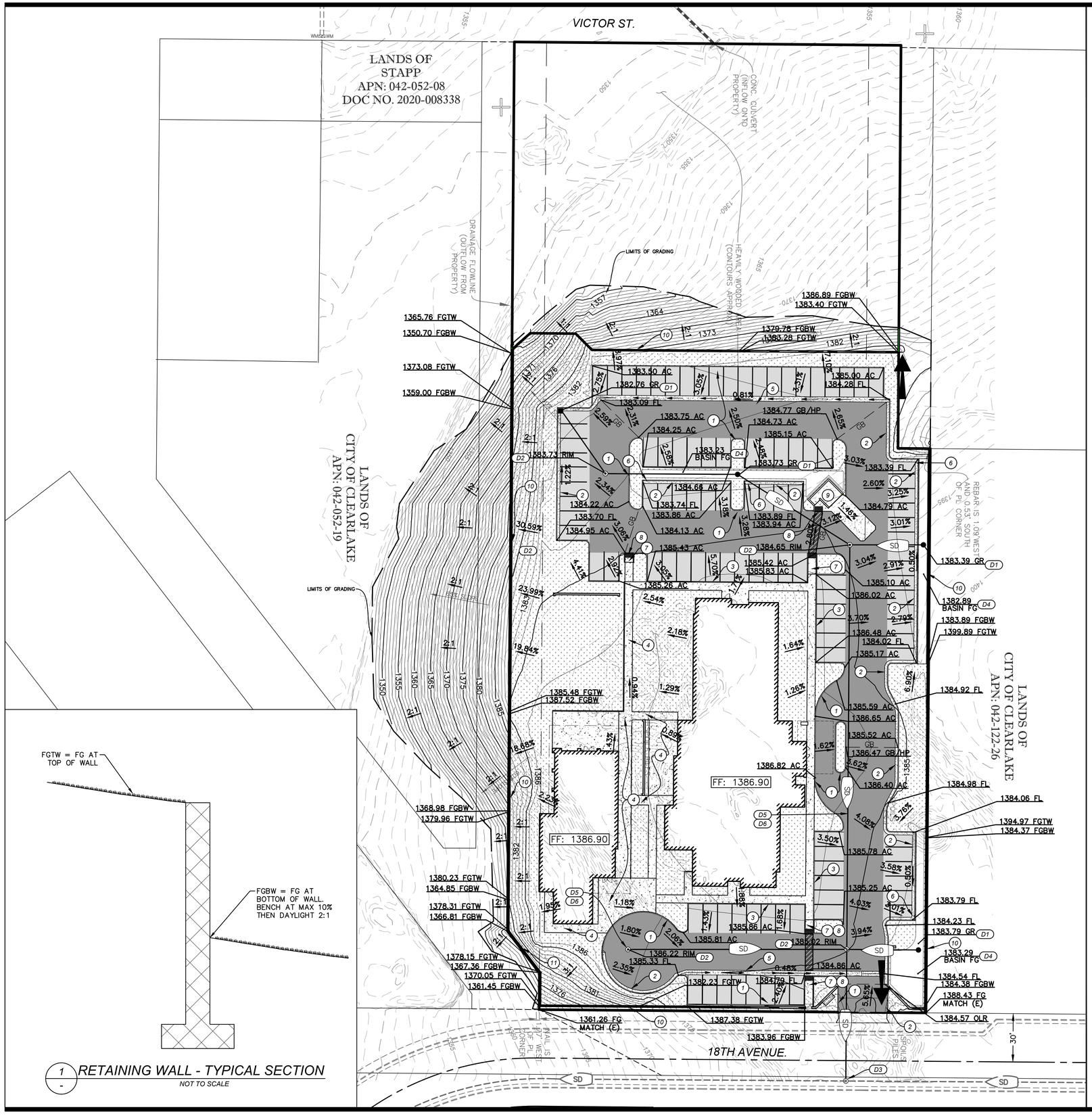
PRELIMINARY SITE PLAN

Project Number
22-048

Drawn By
KSD

Checked By
TSM

C1
1



1 - RETAINING WALL - TYPICAL SECTION

NOT TO SCALE

LEGEND:

AC DRIVE AISLE		SPOT ELEVATION (ABBREVIATION)	13.34 FG
AC PARKING		MATCH (E) GRADE ELEVATION	13.61 AC MATCH (E)
HEAVY DUTY PCC		INTERMEDIATE CONTOURS	25
LIGHT DUTY PCC		INDEX CONTOUR	
LANDSCAPING SEE PLANS BY OTHERS		STORM DRAIN PIPE	XX"SD
BIORETENTION PLANTERS		DRAINAGE INLET	
RETAINING WALL		STORM DRAIN MANHOLE	D
BLOCK WALL		SURFACE FLOW / DRAINAGE FLOW	
TRUNCATED DOMES		OVERLAND RELEASE	
GRADE BREAK LINE	GB		
FINISHED FLOOR ELEVATION	FF: 123.00		

CONSTRUCTION KEYNOTES:

1. CONSTRUCT ON-SITE CONCRETE BARRIER CURB.
2. CONSTRUCT ON-SITE CONCRETE CURB & GUTTER.
3. CONSTRUCT MONOLITHIC CONCRETE CURB AND SIDEWALK.
4. CONSTRUCT CONCRETE SIDEWALK.
5. CONSTRUCT 3" WIDE REINFORCED CONCRETE VALLEY GUTTER.
6. CONSTRUCT 2' CURB OPENING.
7. CONSTRUCT ACCESSIBLE RAMP (FLARED, PERPENDICULAR, FLUSH PAN).
8. PLACE CAST-IN-PLACE TRUNCATED DOMES
9. CONSTRUCT TRASH ENCLOSURE WITH CONCRETE APRON - SEE ARCHITECTURAL DRAWINGS FOR DETAILS. CONCRETE SLAB TO HAVE THICKENED EDGES.
10. CONSTRUCT RETAINING WALL. SEE DETAIL 1 ON THIS SHEET.

DRAINAGE KEYNOTES:

- D1 INSTALL 24" NYLOPLAST DRAIN BASIN (OR APPROVED EQUAL). STRUCTURE AND GRATE FRAME SHALL WITHSTAND MIN H-20 LOADING IN VEHICULAR AREAS. DOME GRATE TO BE USED IN LANDSCAPE AREAS.
- D2 INSTALL JENSEN PRECAST STORM DRAIN MANHOLE (OR APPROVED EQUIVALENT). INVERT ELEVATIONS (I.E.) SHOWN ON PLAN. PAVEMENT RESTORATION PER LAKE COUNTY STANDARDS.
- D3 CORE DRILL AND CONNECT INTO EXISTING STORM DRAIN INLET/MANHOLE WITH NEW STORM DRAIN LINE. VERIFY ALL INVERT ELEVATIONS PRIOR TO CONNECTION. MORTAR AND FINISH CONCRETE PER LAKE COUNTY SPECIFICATIONS.
- D4 CONSTRUCT BIORETENTION PLANTER. SOIL, LANDSCAPING, AND ROCK WITHIN PLANTER PER LAKE COUNTY CLEAN WATER PROGRAM SPECIFICIATIONS.
- D5 INSTALL SPLASH BLOCK / RIP RAP AT ROOF DOWNSPOUT. AEE ARCHITECTURE PLANS FOR DOWNSPOUT LOCATIONS.
- D6 ROOF DOWNSPOUT TO DRAIN TO ON-SITE STORM DRAIN. DOWNSPOUT LOCATIONS PER ARCHITECT.

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PLANNING DEPARTMENT SUBMITTAL

CLEARLAKE FAIRFIELD INN

15500 18TH AVENUE, CLEARLAKE CA 95422

08/12/2022 PLANNING DEPARTMENT SUBMITTAL

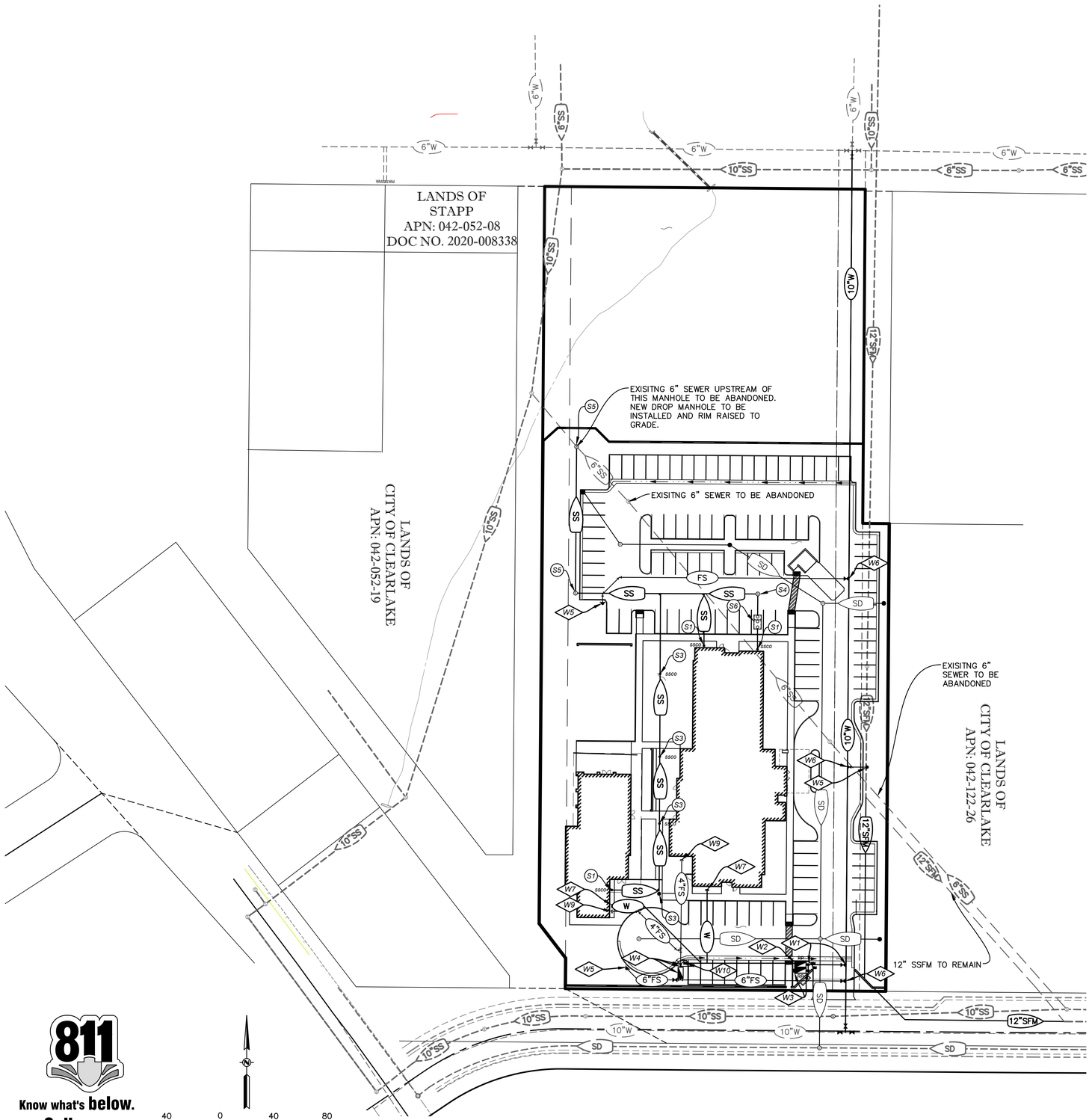
PRELIMINARY GRADING, DRAINAGE, & PAVING PLAN

Project Number
22-048

Drawn By
KSD

Checked By
TSM

C2
2



LEGEND

DESCRIPTION	EXISTING	PROPOSED
WATER	XX"W	XX"W
SANITARY SEWER	XX"SS	XX"SS
FIRE SERVICE	XX"FS	XX"FS
STORM DRAIN	XX"SD	XX"SD
SSMH		
SSCO		
PIV		
FIRE HYDRANT		
FDC		
WATER VALVE		
WATER METER	WM	WM
CONCENTRIC REDUCER		
REDUCED PRINCIPAL PRESSURE ASSEMBLY		
REDUCED PRESSURE BACKFLOW PREVENTER	RP	RP
STREET LIGHT		
FITTINGS		90° TEE 45° 22.5° 11.25°

SANITARY SEWER CONSTRUCTION KEYNOTES:

- (S1) SANITARY SEWER POINT OF CONNECTION. PLACE TWO-WAY CLEANOUT PER LAKE COUNTY SPECIAL DISTRICT STANDARD DETAIL 513. CONTRACTOR TO VERIFY WITH PLUMBING AND ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION.
- (S2) CONNECT (P) 6" SEWER LATERAL TO (E) SEWER MAIN PER PLAN. VERIFY SIZE, LOCATION, AND INVERT OF PROPOSED PIPE CONNECTION PRIOR TO CONSTRUCTION. IF DIFFERENT FROM WHAT IS SHOWN ON PLANS, CONTACT ENGINEER. MINIMUM SLOPE TO THE BUILDING TO BE 2.0% MIN.
- (S3) PLACE CLEANOUT-TO-GRADE (COTG) PER LAKE COUNTY STANDARDS. INVERT ELEVATIONS (I.E.) SHOWN ON PLAN.
- (S4) PLACE SANITARY SEWER MANHOLE (SSMH) PER LAKE COUNTY STANDARD DETAIL 500. VERIFY SIZE, LOCATION, AND INVERT ELEVATIONS OF PIPE CONNECTION(S) PRIOR TO CONSTRUCTION. IF DIFFERENT FROM WHAT IS SHOWN ON PLANS, CONTACT ENGINEER. TRENCH RESTORATION PER LAKE COUNTY SPECIAL DISTRICTS STANDARDS AND SPECIFICATIONS.
- (S5) PLACE INSIDE DROP SANITARY SEWER MANHOLE (SSMH) PER LAKE COUNTY STANDARD DETAIL 503. VERIFY SIZE, LOCATION, AND INVERT ELEVATIONS OF PIPE CONNECTION(S) PRIOR TO CONSTRUCTION. IF DIFFERENT FROM WHAT IS SHOWN ON PLANS, CONTACT ENGINEER. TRENCH RESTORATION PER LAKE COUNTY SPECIAL DISTRICTS STANDARDS AND SPECIFICATIONS.
- (S6) PLACE 1,500 GAL TWO-STAGE GREASE INTERCEPTOR PER LAKE COUNTY STANDARD DETAIL 520. VERIFY SIZE, LOCATION, AND INVERT ELEVATIONS OF PIPE CONNECTION(S) PRIOR TO CONSTRUCTION. IF DIFFERENT FROM WHAT IS SHOWN ON PLANS, CONTACT ENGINEER. TRENCH RESTORATION PER LAKE COUNTY SPECIAL DISTRICTS STANDARDS AND SPECIFICATIONS.

WATER CONSTRUCTION KEYNOTES:

- (W1) INSTALL 2" DOMESTIC WATER SERVICE WITH 2" WATER METER PER LAKE COUNTY STANDARD DETAIL 865 AND IN ACCORDANCE WITH LAKE COUNTY STANDARDS.
- (W2) INSTALL 2" REDUCED PRESSURE BACKFLOW PREVENTER PER CITY/COUNTY STANDARD DETAIL 876 AND IN ACCORDANCE WITH LAKE COUNTY STANDARDS.
- (W3) ON CUSTOMER SIDE OF METER, TEE OFF AND INSTALL 1" IRRIGATION SERVICE WITH SUBMETER AND REDUCED PRESSURE BACKFLOW PREVENTER PER LAKE COUNTY STANDARD DETAILS 863 AND IN ACCORDANCE WITH LAKE COUNTY STANDARDS.
- (W4) INSTALL 6" FIRE PROTECTION SERVICE WITH DOUBLE CHECK DETECTOR (DCDA) ASSEMBLY AND PIV, AND FDC PER LAKE COUNTY STANDARD DETAILS 879, 880, AND 888. 6" FIRE PROTECTION SERVICE LINE WILL TEE INTO TWO 4" POC LINES.
- (W5) INSTALL COMMERCIAL FIRE HYDRANT ASSEMBLY PER LAKE COUNTY DETAIL 857.
- (W6) CUT IN AND PLACE 10" x 10" x 6" TEE WITH 10" x 6" REDUCER. PLACE 6" GATE VALVE PER LAKE COUNTY STANDARDS.
- (W7) POC FOR DOMESTIC WATER SERVICE - SEE PLUMBING PLANS FOR CONTINUATION.
- (W8) POC FOR IRRIGATION SERVICE - SEE LANDSCAPING PLANS FOR CONTINUATION.
- (W9) POC FOR FIRE SERVICE CONNECTION - SEE FIRE SPRINKLER PLANS BY OTHERS FOR CONTINUATION.
- (W10) INSTALL FULL SIZE BLOW OFF VALVE ASSEMBLY PER LAKE COUNTY DETAIL 862.

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PLANNING DEPARTMENT SUBMITTAL

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15500 18TH AVENUE, CLEARLAKE CA 95422

08/12/2022 PLANNING DEPARTMENT SUBMITTAL

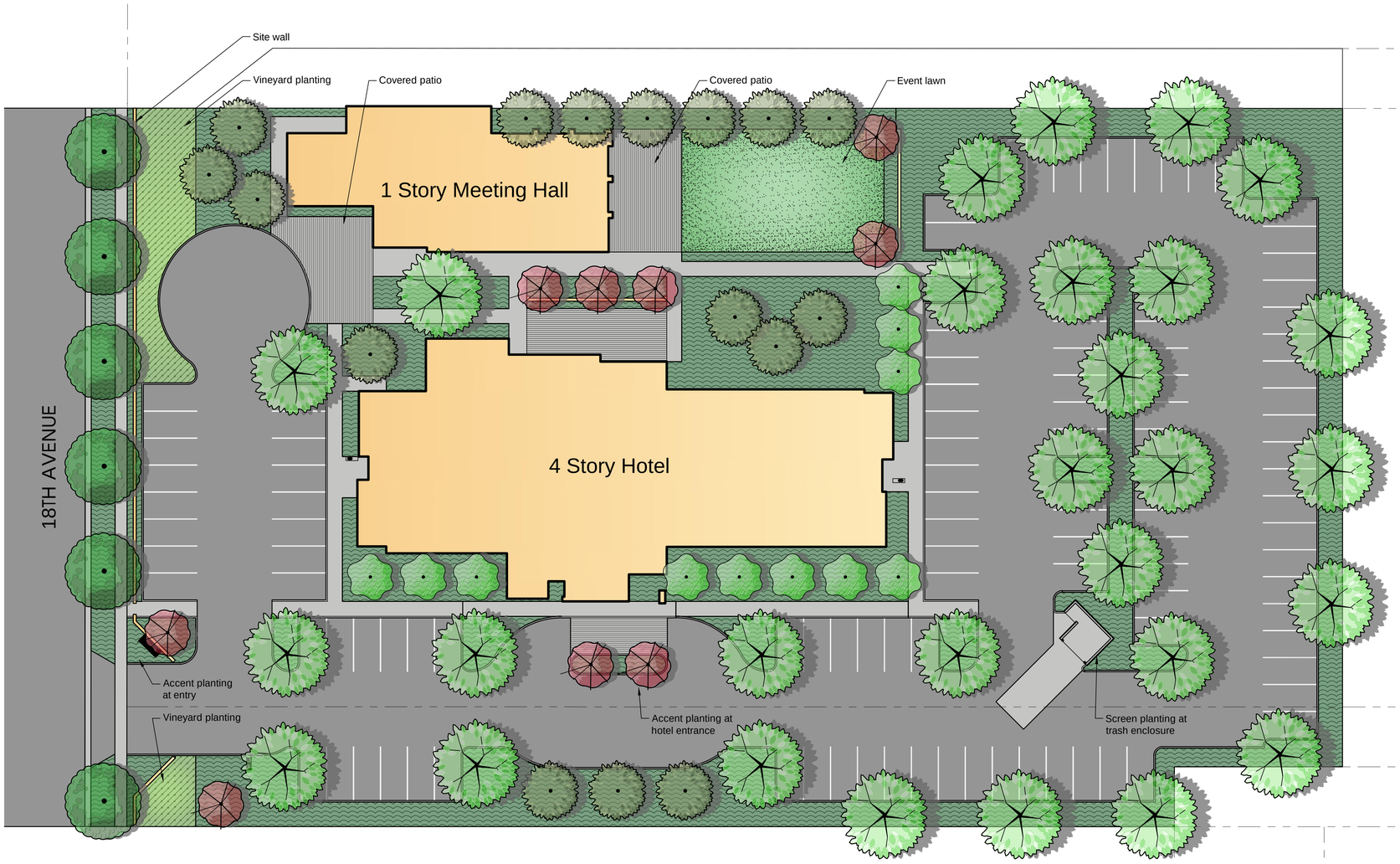
WATER & SANITARY SEWER PLAN

Project Number
22-048

Drawn By
KSD

Checked By
TSM

C3
3



Preliminary Plant Legend

SHADE TREE — 28
Acer rubrum 'October Glory' / October Glory Red Maple
Ginkgo biloba 'Autumn Gold' TM / Autumn Gold Maidenhair Tree
Pistacia chinensis 'Keith Davey' / Keith Davey Chinese Pistache
Platanus x acerifolia 'Columbia' / Columbia London Plane Tree
Quercus agrifolia / Coast Live Oak
Ulmus parvifolia 'Drake' / Drake Lacebark Elm

STREET TREE — 6
Acer rubrum 'October Glory' / October Glory Red Maple
Ginkgo biloba 'Autumn Gold' TM / Autumn Gold Maidenhair Tree
Nyssa sylvatica / Tupelo
Pistacia chinensis `Keith Davey` / Keith Davey Chinese Pistache
Quercus agrifolia / Coast Live Oak

MEDIUM TREE — 16
Aesculus californica / California Buckeye
Koelreuteria paniculata / Golden Rain Tree
Laurus x 'Saratoga' / Saratoga Hybrid Laurel
Magnolia grandiflora 'Little Gem' / Little Gem Dwarf Southern Magnolia
Rhus lancea / African Sumac

SMALL TREE — 11
Acer rubrum 'Bowhall' / Bowhall Red Maple
Betula nigra / River Birch
Malus x 'Prairifire' / Prairifire Crabapple
Prunus cerasifera 'Purple Pony' / Purple Pony Purple-leaf Plum

ACCENT TREE — 9
Acer palmatum / Multi-trunk Japanese Maple
Cercis canadensis texensis 'Oklahoma' / Oklahoma Texas Redbud
Cercis occidentalis / Western Redbud
Cornus nuttallii / Pacific Dogwood
Magnolia stellata 'Royal Star' / Royal Star Magnolia

NEW SHRUBS & GROUNDCOVER — 25,649 sf
Arbutus unedo 'Compacta' / Dwarf Strawberry Tree
Arctostaphylos densiflora 'Howard McMinn' / Howard McMinn Vine Hill Manzanita
Arctostaphylos uva-ursi / Kinnikinnick
Baccharis pilularis 'Pigeon Point' / Pigeon Point Coyote Brush
Camellia sasanqua / Sasanqua Camellia
Ceanothus x 'Julia Phelps' / Julia Phelps Wild Lilac
Cistus x purpureus / Orchid Rockrose
Cotoneaster dammeri 'Lowfast' / Lowfast Bearberry Cotoneaster
Frangula californica 'Eve Case' / Eve Case Coffeeberry
Heteromeles arbutifolia / Toyon
Heuchera sanguinea / Coral Bells
Hypericum calycinum / Creeping St. John's Wort
Juniperus procumbens 'Nana' / Dwarf Japanese Garden Juniper
Lavandula angustifolia 'Hidcote' / Hidcote English Lavender
Mahonia repens / Creeping Mahonia
Parthenocissus tricuspidata / Boston Ivy
Prunus caroliniana 'Compacta' / Compact Carolina Laurel Cherry
Rhaphiolepis umbellata 'Minor' / Yedda Hawthorn
Ribes speciosum / Fuchsia Flowering Gooseberry
Wisteria sinensis / Chinese Wisteria
Woodwardia fimbriata / Giant Chain Fern

VINEYARD — 1,804 sf

TURF — 2,701 sf

Landscape Concept Statement

The hotel and meeting hall landscapes will provide an attractive destination for visitors and guests. Plants have been chosen to complement the surrounding native landscape, with primarily low water use plants. One high water use lawn area will be included for events and gatherings.

Accent planting will be used at the driveway entrance on 18th Avenue as well as building entrances. The parking lot will be well shaded with canopy trees at frequent intervals.

Irrigation Design Statement

The irrigation for this project will be designed thoughtfully, using equipment that will target root zones and avoid wasted water. All shrubs and non-turf groundcover will use drip irrigation and trees will be irrigated with deep root bubblers. The event turf area, which will be the only high water use area within the project, will be irrigated with low flow rotary nozzles, which will ensure even watering without misting or overspray. The system will use a smart controller with a weather sensor to ensure that irrigation will not occur when it is not needed.

0 20 40 60

N

LICENSED LANDSCAPE ARCHITECT
LINDA M. FISH #4346
1-31-23
STATE OF CALIFORNIA

Revisions:

Linda Fish
Landscape Architect
linda@fishlandscape.com
(209)656-7177
PLA #4346

Preliminary Landscape Plan

Clearlake Fairfield Inn
15500 18th Ave.
Clearlake, CA 95422

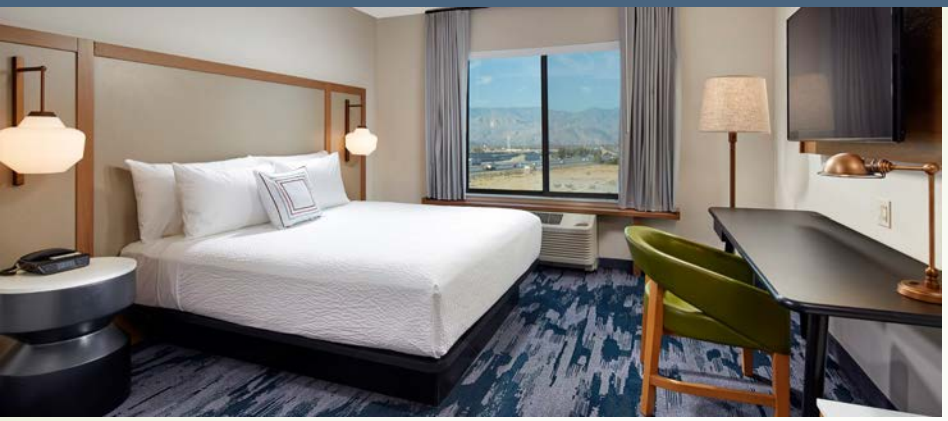
Scale: 1"=20-'0"
Date: 7-29-22
Drawn: LF
Sheet Number: L1

Fairfield®
BY MARRIOTT

79-ROOM PROTOTYPE BROCHURE

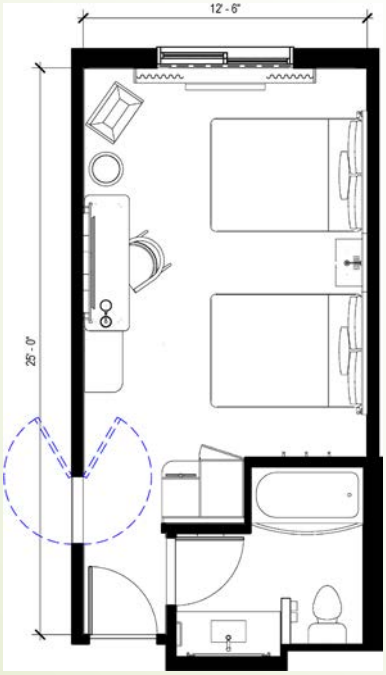
Ground Floor

Typical Floor

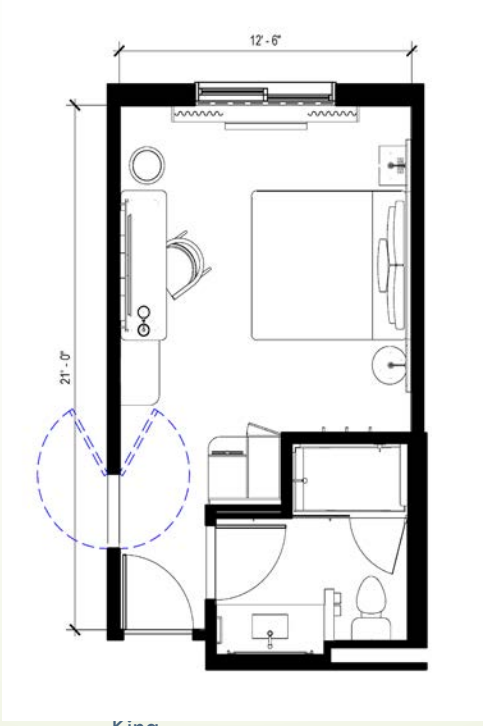


TYPICAL UNIT MIX	
Queen/Queen	51%
King	39%
King Suites	10%

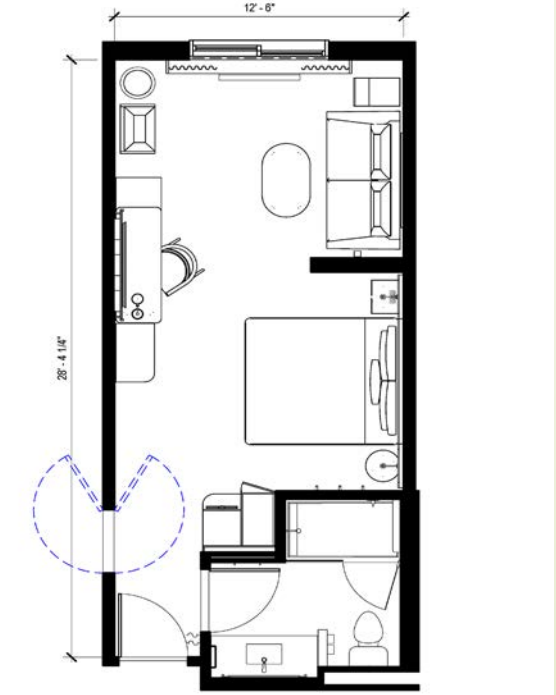
Unit mix is based on a 79-room tertiary market proto-model.



Queen / Queen



King



King Suite

Area Program

GUEST SPACES	QUANTITY	PERCENTAGE	UNIT AREA	TOTAL NET (SF)
Lobby Areas				
Entrance Vestibule				
Reception				
Living Room				
Breakfast Area & Farm Table				
Quick Print				
Public Circulation				
Public Restrooms				
Lobby Area Totals				2,760
Food & Beverage Front-of-House				
Breakfast Buffet & Coffee Bar				431
Recreation Facilities				
Fitness Center				800
Swimming Pool (Optional - Not Included)				
Recreation Facilities Total				800
Retail				
Corner Market				69
Meeting Spaces				
Meeting Room (Optional - Not Included)				
Guestrooms				
Standard King	28	39%	275	7,700
Accessible King*	3		325	975
Standard Queen/Queen	38	51%	325	12,350
Accessible Queen/Queen*	2		367	734
King Suite	7	10%	367	2,569
Accessible King Suite*	1		475	475
Guestrooms Total	79			24,803
Guestroom Corridors & Support				
Corridors / Elevator Lobby				
Stairs				
Guest Laundry				
Ice Machine				
Guestroom Corridors & Support Total				5,586
TOTAL GUEST SPACES				34,449

BACK-OF-HOUSE	TOTAL NET (SF)
Administration	
Work Room	
Office	
Employee Areas	
Break Room	
Engineering & Maintenance	
Engineer Maintenance Office	
Food & Beverage Back-of-House	
Food Preparation	
Laundry	
Laundry Room	
Housekeeping	
Linen and Linen Chute Rooms	
Storage	
Elevators	
Elevators	
Elevator Equipment Room	
Property Technology	
Computer/Telecom	
MATV Room	
Mechanical, Plumbing & Electrical	
Mechanical	
Electrical	
Water Room	
Back-of-House Circulation	
TOTAL BACK-OF-HOUSE	3,656

SUMMARY	QUANTITY	TOTAL (SF)
Total Number of Guestroom Room Floors	4	
Total Number of Floors	4	
Guest Spaces		34,449
Back-of-House		3,656
Total Net Building Area		38,105
Walls and Shafts (Estimated)		4,780
Total Gross Building Area		42,885
Total Square Feet per Room		543

The information released by Marriott® International in this communication with respect to the Fairfield Inn & Suites by Marriott project is provided to the owner and franchise community merely as a guide and all information and supporting documentation serves solely as guidelines and is not, and should not be considered final. All plans regarding this project are routinely updated and remain subject to revi and clarification. Comply with all governing regulations for size, percentage and quantity of accessible guestrooms. October 2020

FAIRFIELD BY MARRIOTT

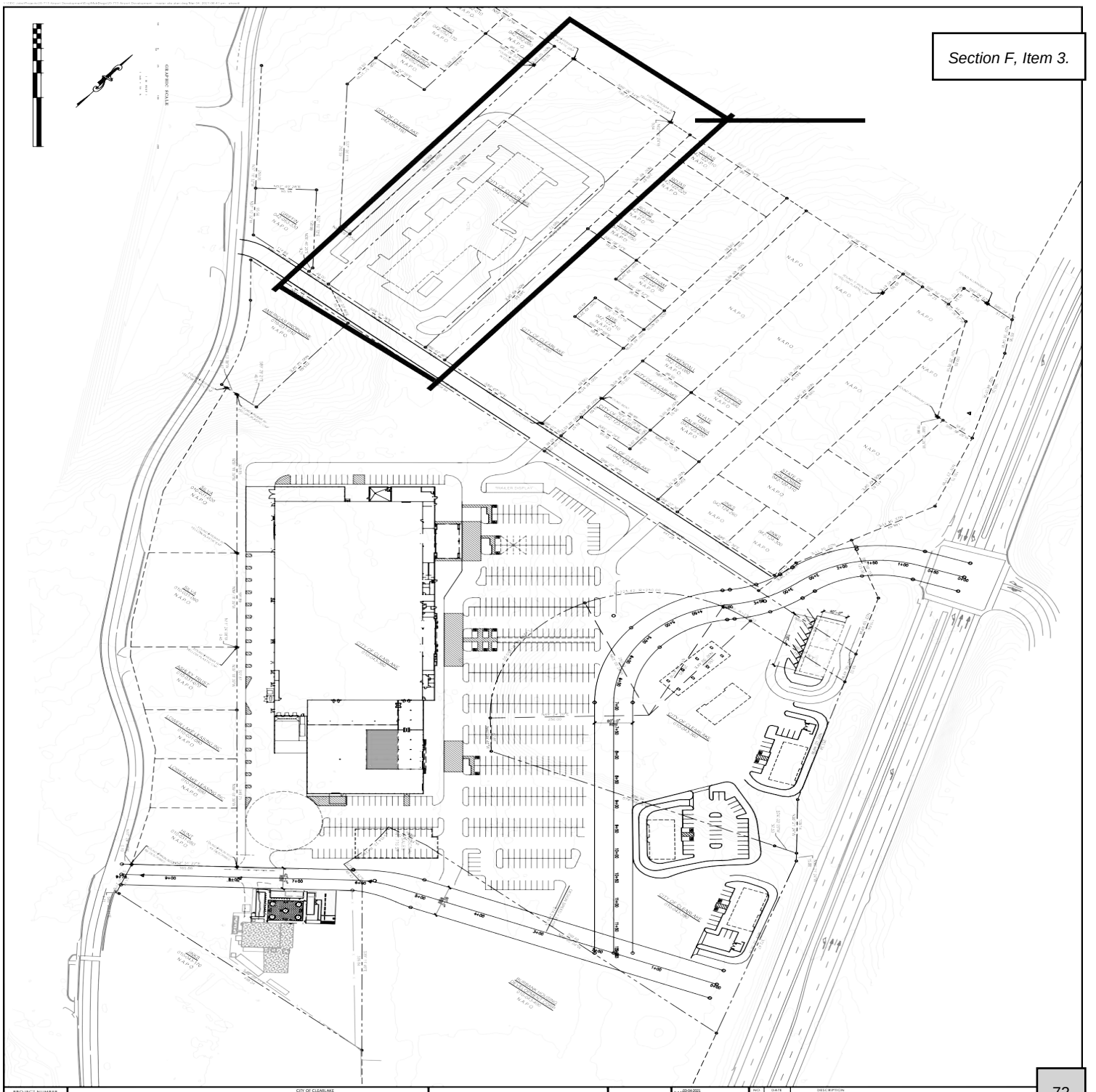
Fairfield warmly welcomes guests with friendly service and comfortable, uplifting spaces - offering them the flexibility to work, rest and maintain their balance while on the road. Hotels feature guest rooms that are designed for rest and productivity, offer complimentary hot breakfast and 24x7 food in the Market, and great fitness facilities. With a heritage from the Marriott family farm, Fairfield delivers the quality and reliability you expect - backed by the Fairfield Guarantee.

THE RITZ-CARLTON · BVLGARI · ST REGIS · EDITION · THE LUXURY COLLECTION · W HOTELS · JW MARRIOTT · MARRIOTT · SHERATON · MARRIOTT VACATION CLUB

DELTA HOTELS · LE MERIDIEN · WESTIN · AUTOGRAPH COLLECTION HOTELS · DESIGN HOTELS · RENAISSANCE HOTELS · TRIBUTE PORTFOLIO · GAYLORD HOTELS · COURTYARD · FOUR POINTS

SPRINGHILL SUITES · PROTEA HOTELS · Fairfield · AC HOTELS · aloft · moxy HOTELS · Marriott EXECUTIVE APARTMENTS · Residence INN · TOWNEPLACE SUITES · element

Site Plan



PROJECT NUMBER		CITY OF CLEARLAKE	CALIFORNIA ENGINEERING COMPANY INC	DATE	NO	DATE	DESCRIPTION
	20-713	MASTER SITE PLAN	CIVIL ENGINEERING LAND SURVEYING FUNDING PROCUREMENT CONSTRUCTION ADMINISTRATION www.cecusa.net	SCALE: 1"=50'	03-04-2021		CONSTRUCTION & SITE LAYOUT COORDINATION
SHEET OF	1 1	AIRPORT DEVELOPMENT	1110 Civic Center Blvd. Suite 404 | Yuba City, CA 95993 | (530) 751-0952 Office	DRAWN BY: SJH			
				DESIGNED BY:			
				CHECKED BY:			

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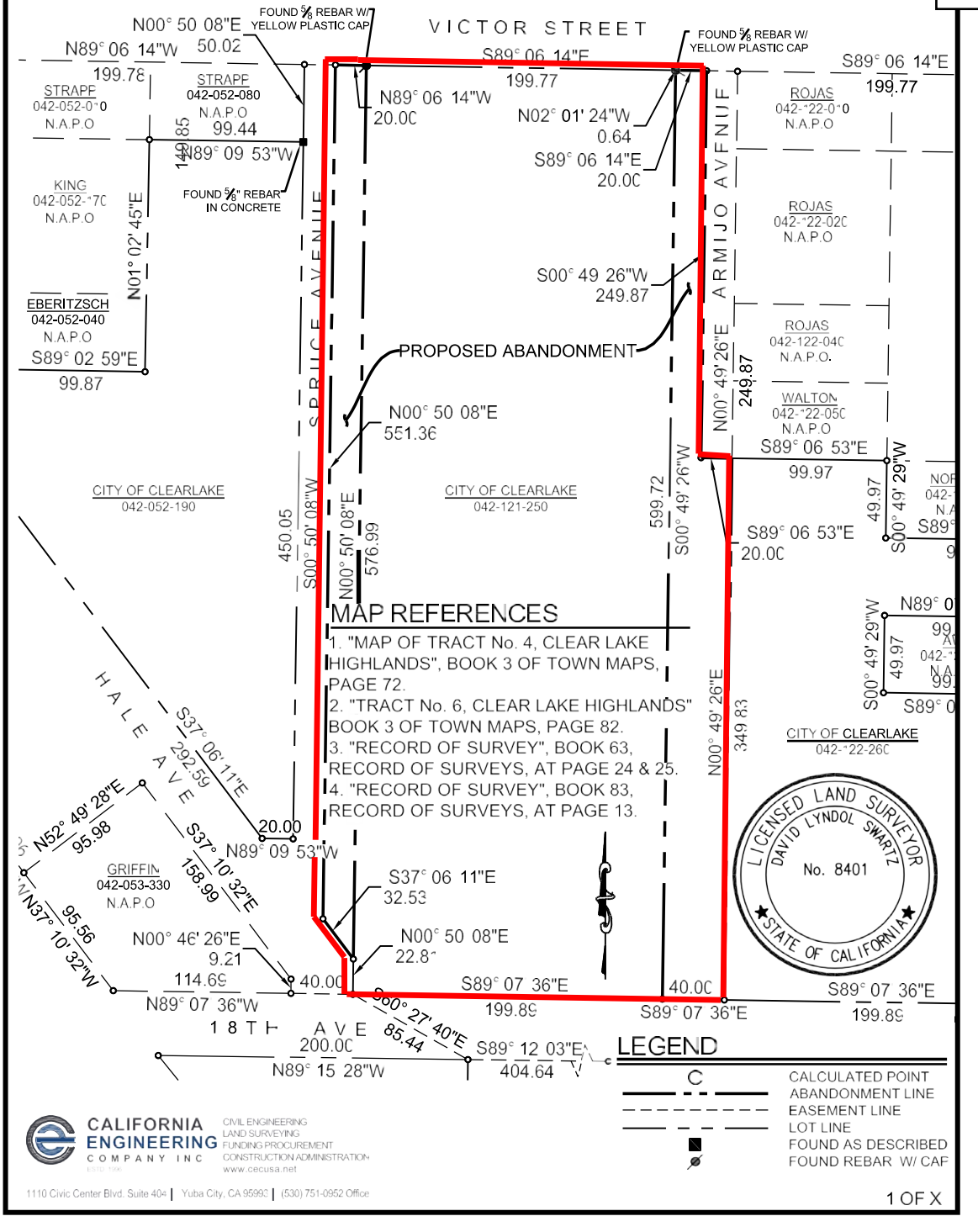
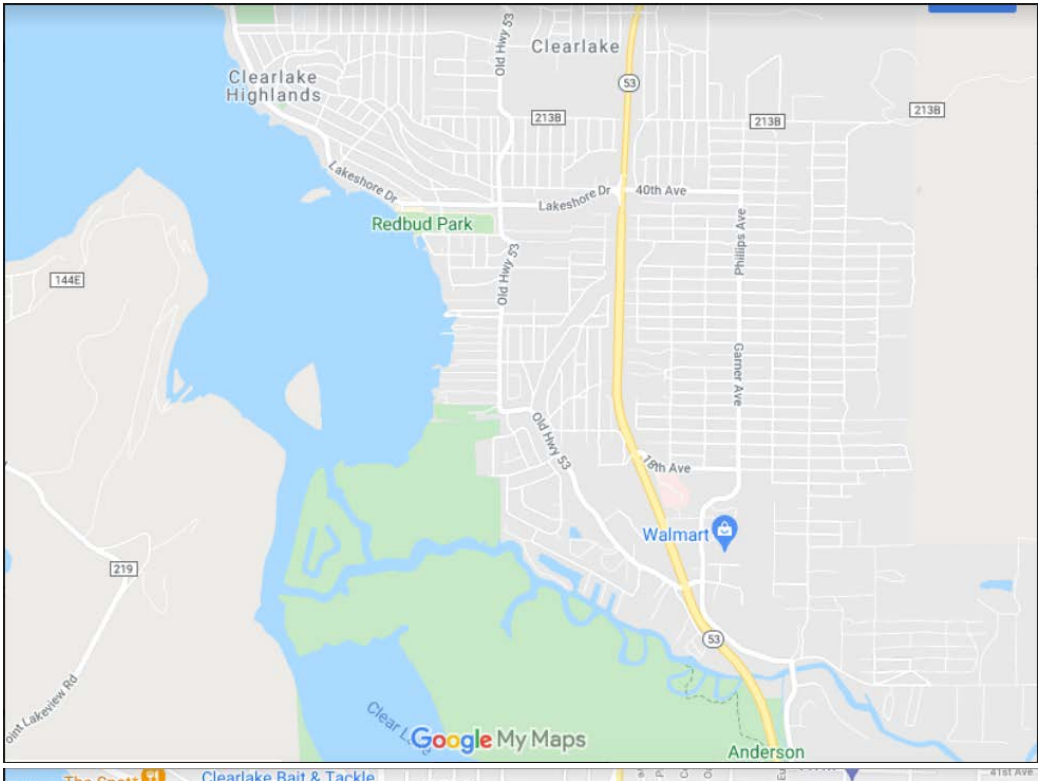
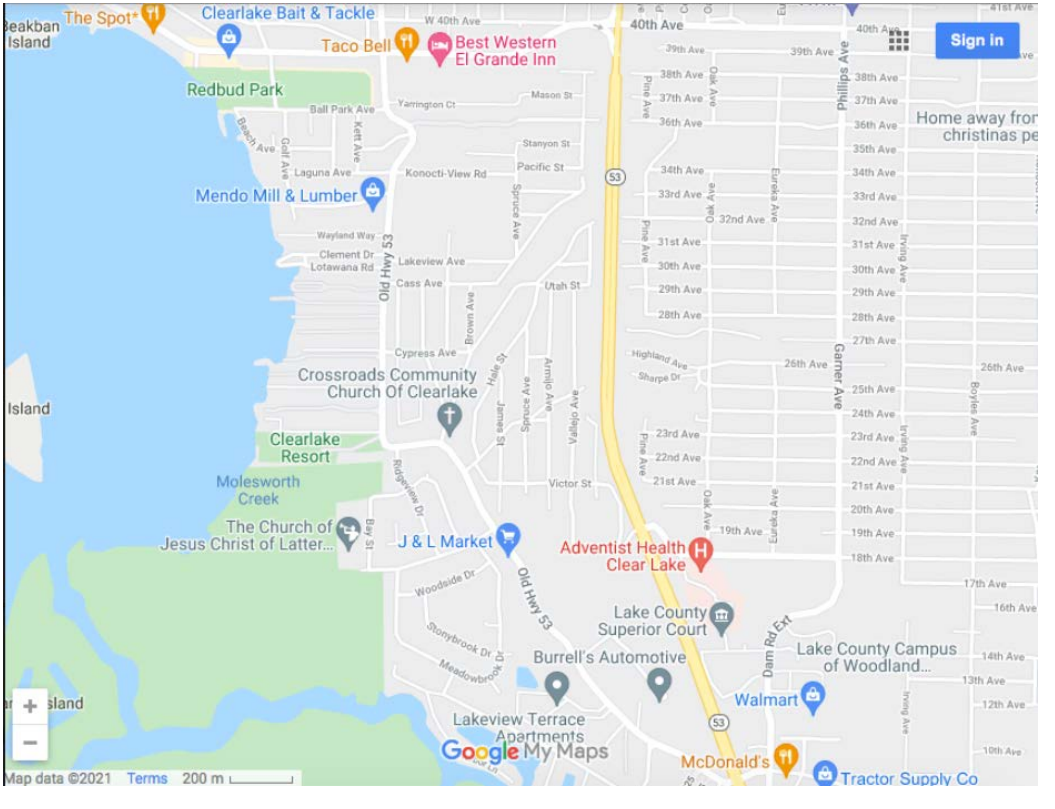
EXHIBIT

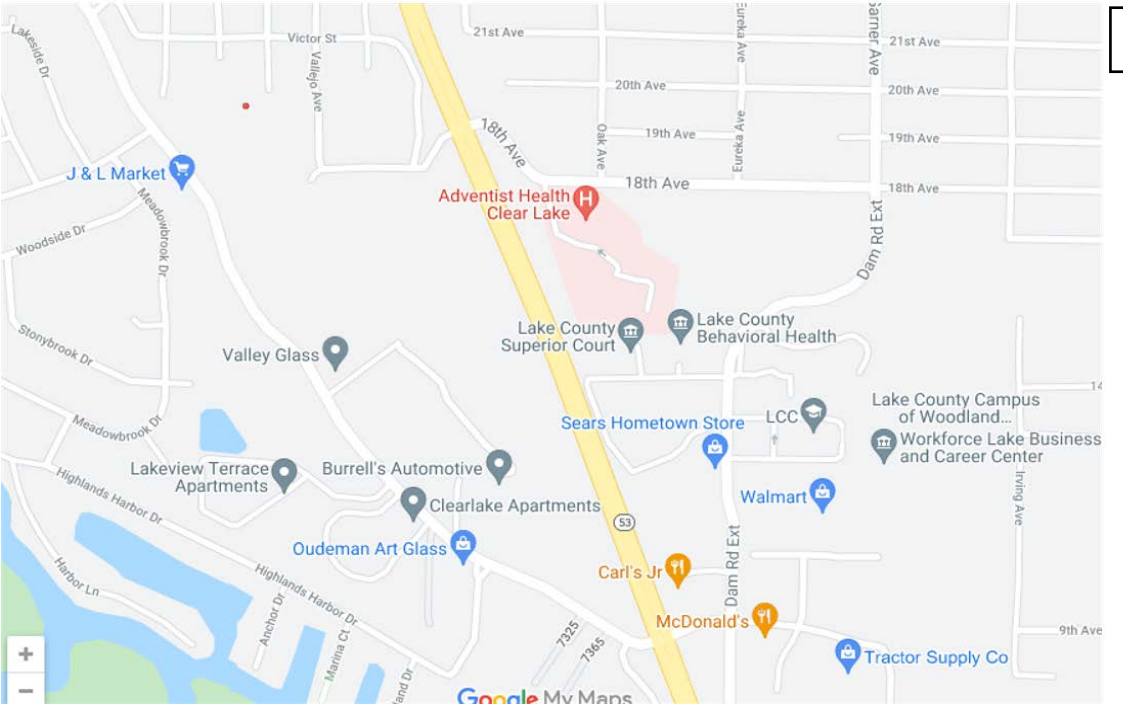


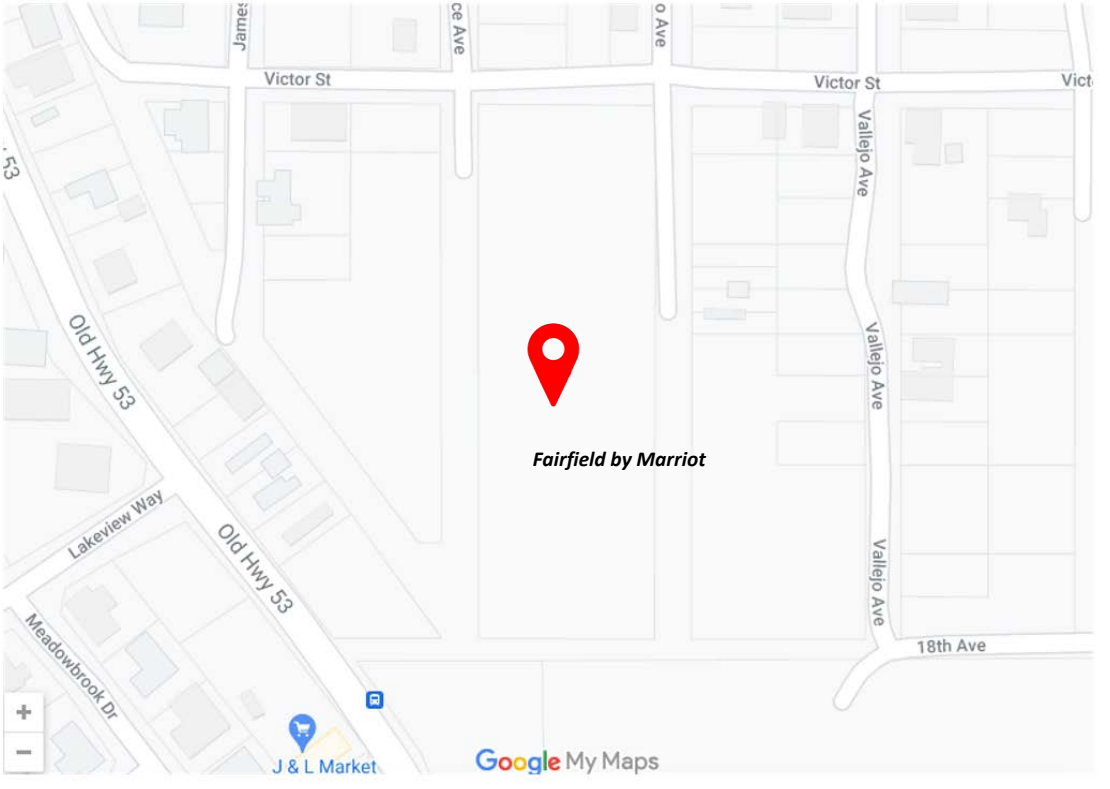
CALIFORNIA ENGINEERING COMPANY INC
CIVIL ENGINEERING
LAND SURVEYING
FUNDING PROCUREMENT
CONSTRUCTION ADMINISTRATION
www.cecusa.net
1110 Civic Center Blvd. Suite 404 | Yuba City, CA 95993 | (530) 751-0952 Office

Business Location

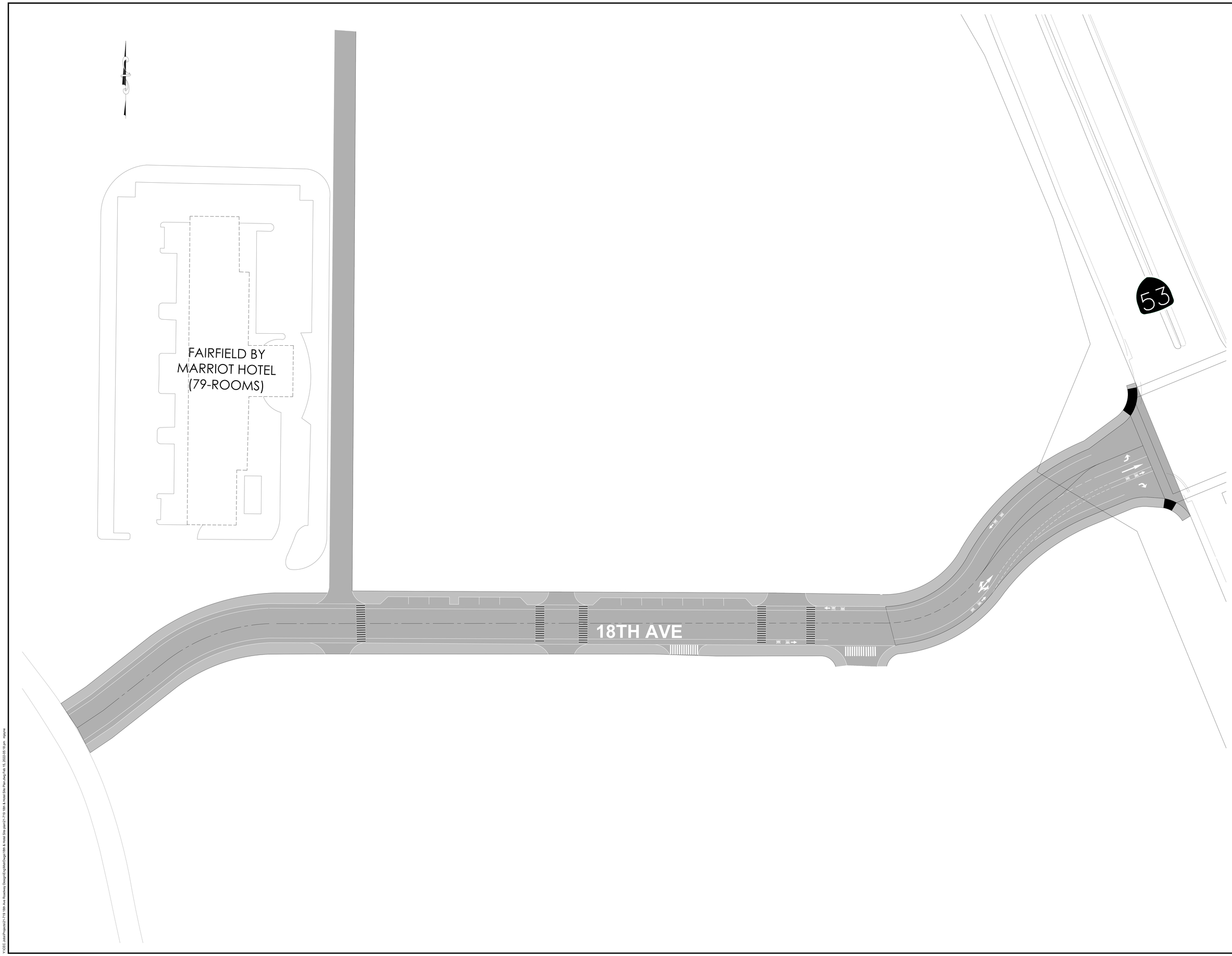

Clearlake
Clearlake Highlands
Old Hwy 53
53
213B
Lakeshore Dr
40th Ave
Redbud Park
Phillips Ave
144E
Garner Ave
18th Ave
Walmart
219
Anderson
Google My Maps


The Spot*
Clearlake Bait & Tackle
Taco Bell
Best Western El Grande Inn
40th Ave
Sign in
Redbud Park
Mendo Mill & Lumber
Home away fror christinas pe
Crossroads Community Church Of Clearlake
Island
Clearlake Resort
Molesworth Creek
The Church of Jesus Christ of Latter...
J & L Market
Adventist Health Clear Lake
Lake County Superior Court
Burrell's Automotive
Lake County Campus of Woodland...
Walmart
Lakeview Terrace Apartments
McDonald's
Tractor Supply Co
Google My Maps
Map data ©2021
Terms
200 m





Fairfield by Marriot



NO.	DATE	DESCRIPTION

DATE: 2/15/2022
SCALE: 1"=30'
DRAWN BY: AJH
DESIGNED BY: MRH
CHECKED BY: DLS

CALIFORNIA ENGINEERING COMPANY INC
ESTD 1996
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CONSTRUCTION ADMINISTRATION
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CITY OF CLEARLAKE

18TH AVENUE- OLD HWY 53 TO SR53

AIRPORT DEVELOPMENT

PROJECT NUMBER
21-719

SHEET 01 OF 01

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Y:\CEC Jobs\Projects\21-719 18th Ave Roadway Design\Eng\Mxd\Dwgs\18th & Hotel Site plan\21-719 18th & Hotel Site Plan.dwg Feb 15, 2022-05:18 pm mjayne

ABBREVIATIONS:

AC	-	ASPHALT CONCRETE
AB	-	AGGREGATE BASE
APPROX.	-	APPROXIMATELY
AVE.	-	AVENUE
BC	-	BEGIN CURVE
C&G	-	CURB AND GUTTER
CL	-	CENTER LINE
CONC	-	CONCRETE
CR	-	CURB RETURN
CULV.	-	CULVERT
DTL.	-	DETAIL
DWY	-	DRIVEWAY
DYLIN	-	DOUBLE YELLOW LINE
EC	-	END CURVE
EL	-	ELEVATION
EP	-	EDGE OF PAVEMENT
ESMT.	-	EASEMENT
EX.	-	EXISTING
EXP.	-	EXPIRES
F.E.S.	-	FLARED END SECTION
FH	-	FIRE HYDRANT
FG	-	FINISH GRADE
FL	-	FLOW LINE
FM	-	SEWER FORCE MAIN
FND.	-	FOUND
GB	-	GRADE BREAK
HORIZ.	-	HORIZONTAL
HP	-	HIGH POINT
INTX.	-	INTERSECTION
INV.	-	INVERT
I.P.	-	IRON PIPE
JP	-	JOINT POLE
LIP	-	LIP OF GUTTER
L.S.	-	LONG SWEEP
MH	-	MANHOLE
MON.	-	MONUMENT
NG	-	NATURAL GROUND
OG	-	ORIGINAL GROUND
P.	-	PROPOSED
PC	-	POINT OF CURVATURE
PL	-	PROPERTY LINE
PP	-	POWER POLE
PT	-	POINT OF TANGENCY
PUE	-	PUBLIC UTILITY ESMT.
R/W	-	RIGHT-OF-WAY
SCH	-	SCHEDULE
SD	-	STORM DRAIN
SHT	-	SHEET
SS	-	SANITARY SEWER
ST.	-	STREET
STA.	-	STATION
STD.	-	STANDARD
SW	-	SIDEWALK
TBC	-	TOP BACK OF CURB
TBW	-	TOP BACK OF WALK
TC	-	TOP OF CURB
TOE	-	TOE OF SLOPE
TOP	-	TOP OF SLOPE
TP	-	TELEPHONE POLE
VERT.	-	VERTICAL
w/	-	WITH
W	-	WATER
WM	-	WATER METER
WV	-	WATER VALVE

LEGEND

PROPOSED	EXISTING
C & G, SW, DWY	
IMPROVEMENTS	
VALLEY GUTTER FL	
DRAINAGE INLET	
SEWER MANHOLE	
STORM DRAIN MANHOLE	
FH	
WATER VALVE	
WATER SERVICE	
SEWER SERVICE	
POWER POLE	
LIGHT POLE	
SIGN	
MONUMENT	
CONCRETE	
AB	
AC	
NATIVE SOIL	
FLOW ARROW	
SURVEY CONTROL SYMBOLS	

UTILITY REPRESENTATIVES

UTILITY	COMPANY	CONTACT	PHONE
SEWER	LAKE COUNTY SPECIAL DISTRICTS	STAFF	(707) 263-0119
DRAINAGE	CITY OF CLEARLAKE	STAFF	(707) 994-8201
WATER	HIGHLANDS WATER COMPANY	STAFF	(707) 994-2393
IRRIG. WATER	CITY OF CLEARLAKE	STAFF	(707) 994-8201
FIRE	LAKE COUNTY FIRE PROTECTION DISTRICT	STAFF	(707) 994-0733
CABLE TV	MEDIACOM	AGENT	(845) 490-3326
ELECTRICAL	PACIFIC GAS & ELECTRIC (PG&E)	STAFF	(877) 743-7782
GAS	NO NATURAL GAS PRESENT IN LAKE COUNTY	STAFF	-
PHONE	AT&T	STAFF	(415) 499-4900
USA	UNDERGROUND SERVICE ALERT	STAFF	(800) 227-2600

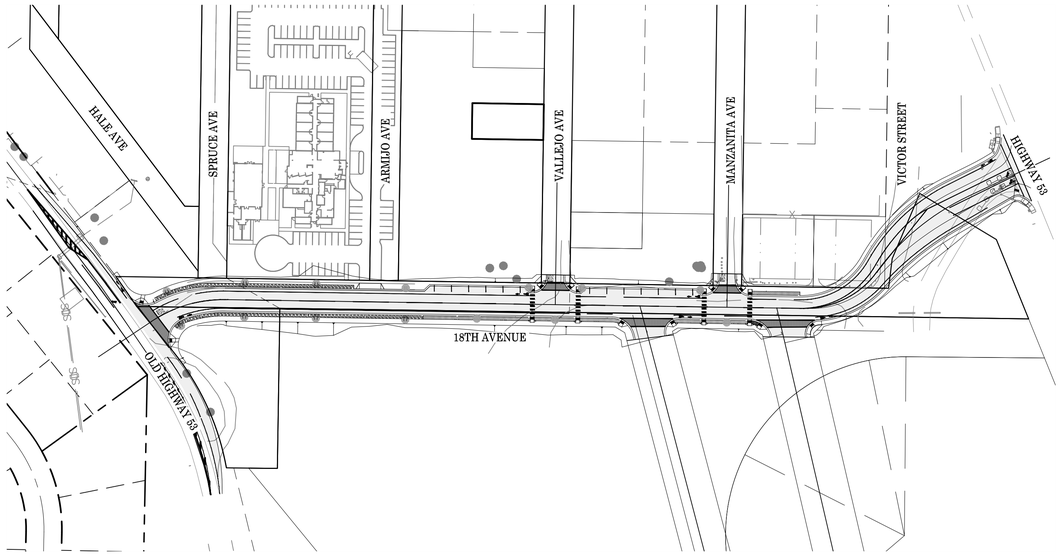
18TH AVENUE ROAD IMPROVEMENT PROJECT

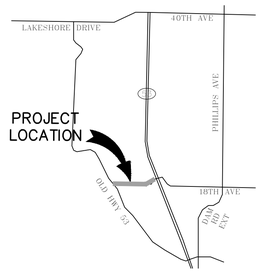
CITY OF CLEARLAKE

PROJECT #LF2022(6)

LAKE COUNTY, CALIFORNIA

XXXXX 2022





VICINITY MAP
NOT TO SCALE

18TH AVENUE ROAD IMPROVEMENT PROJECT SHEET INDEX:

1	COVER SHEET
2	GENERAL NOTES
3	PROJECT DETAILS
4	PROJECT DETAILS
5	18TH AVENUE- STA 0+00 TO 3+00
6	18TH AVENUE- STA 3+00 TO 5+75
7	18TH AVENUE- STA 5+75 TO 8+50
8	18TH AVENUE- STA 8+50 TO 11+00
9	18TH AVENUE- STA 11+00 TO 13+75
10	OLD HWY 53- STA 0+00 TO 2+90
11	OLD HWY 53- STA 2+90 TO 5+88
12	18TH AVENUE STRIPING PLAN
13	SANITARY SEWER FORCE MAIN RELOCATION ALIGNMENT
14	CITY OF CLEARLAKE STANDARD DETAILS
15	CALTRANS STANDARD DETAILS
16	CITY OF SANTA ROSA STANDARD WATER DETAILS
17	LAKE COUNTY SPECIAL DISTRICT'S STANDARD SEWER DETAILS
18	DRAINAGE CHANNEL STRUCTURAL DETAILS

CEC GENERAL NOTES

1.) ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THESE PLANS AND SPECIFICATIONS, CITY OF CLEARLAKE STANDARD PLANS AND SPECIFICATIONS, AND TO THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS, LATEST EDITION AND WITH THE PRODUCT MANUFACTURE INSTALLATION REQUIREMENTS AND RECOMMENDATIONS. THE CONTRACTOR SHALL OBTAIN A COPY OF THE CITY'S IMPROVEMENT AND CONSTRUCTION STANDARDS PRIOR TO CONSTRUCTION. IN THE ABSENCE OF A SPECIFICATION FOR AN ITEM IN THESE PLANS AND THE CITY OF CLEARLAKE STANDARD PLANS AND SPECIFICATIONS, ALL APPLICABLE FEDERAL AND STATE LAWS ARE TO BE ADHERED TO AND MEET CURRENT ENGINEERING AND CONSTRUCTION STANDARD PRACTICES TO THE SATISFACTION OF THE CITY ENGINEER.

2.) THE TYPES, LOCATIONS, SIZES, AND DEPTHS OF EXISTING UTILITIES WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATIONS WILL REVEAL SUCH INFORMATION. A REASONABLE EFFORT WAS MADE TO DELINEATE UTILITIES, HOWEVER, CALIFORNIA ENGINEERING COMPANY, INC. ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS AND ACCURACY OF THE LOCATION OF THE EXISTING UTILITIES ON THE PLANS, NOR FOR OTHER UTILITIES THAT MAY BE ENCOUNTERED. THE CONTRACTOR IS HEREBY NOTIFIED THAT HE IS RESPONSIBLE FOR VERIFICATION OF THE LOCATION OF ALL UTILITIES AT THE CONSTRUCTION SITE. IN THE EVENT THAT SUBSTANTIAL DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER FOR DIRECTION.

3.) IN THE EVENT THERE IS A DISCREPANCY OR TYPOGRAPHICAL ERROR WITHIN THESE PLANS, OR REQUEST FOR INFORMATION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR DIRECTION. THE CONTRACTOR IS HEREBY NOTIFIED THAT THE ENGINEER SHALL BE ALLOWED A MINIMUM OF TWO WORKING DAYS TO ADDRESS THE ISSUE.

4.) SHOULD ASPHALT, EXISTING PAVEMENT, OR STRIPING BE DAMAGED OR DESTROYED DURING CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT PRIOR TO COMPLETION OF PROJECT.

5.) ONLY SIGNED PLANS BY ALL PARTIES INVOLVED SHALL BE CONSIDERED APPROVED. THE CONTRACTOR SHALL NOT BEGIN WORK BEFORE THE PLANS HAVE BEEN APPROVED. THE CONTRACTOR SHALL HAVE ALL PERMITS AND APPROVED PLANS ON-SITE AT ALL TIMES DURING CONSTRUCTION.

6.) THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT BEFORE DIGGING (800-227-2600) AT LEAST 72 HOURS BEFORE BEGINNING WORK.

7.) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WORK WITH ALL SUBCONTRACTORS, UTILITY COMPANIES, AND THE CITY OF CLEARLAKE.

8.) THE CONTRACTOR SHALL CONTACT THE CITY OF CLEARLAKE PUBLIC WORKS DEPARTMENT AT LEAST 72 HOURS IN ADVANCE/PRIOR TO COMMENCEMENT OF WORK.

9.) ADJACENT STREET FRONTAGES SHALL BE SWEPT AT LEAST ONCE A DAY AND AT THE END OF EACH DAY TO REMOVE SILT AND OTHER DIRT WHICH IS EVIDENT FROM CONSTRUCTION ACTIVITIES.

10.) ALL TESTING IS DONE BY THE CONTRACTOR.

11.) ADDITIONAL NOTES AND DETAILS ARE LOCATED ON THE FOLLOWING SHEETS.

12.) OWNER, NOT THE DESIGN ENGINEER, SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL LOCAL, STATE, AND FEDERAL APPROVALS AND PERMITS ASSOCIATED WITH WORK SHOWN IN THESE PLANS, AND ASSUMES ALL LIABILITY ASSOCIATED THEREWITH.

13.) CONTRACTOR TO FIELD VERIFY ALL EXISTING ELEVATIONS AND INVERTS ON ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF ANY PIPE.

14.) ALL SURFACE UTILITY COVERS TO BE MARKED, RECORDED AND RAISED TO GRADE BY THE CONTRACTOR.

BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS SURVEY IS IDENTICAL TO THAT SOUTH BOUNDARY LINE SHOWN ON PARCEL MAP 231, ON FILE IN THE LAKE COUNTY RECORDER'S OFFICE IN BOOK 16 OF PARCEL MAPS, AT PAGE 40; SAID LINE BEING NORTH 89°19'45" WEST.

VERTICAL DATUM:

THE VERTICAL DATUM FOR THIS PROJECT IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LAKE COUNTY SPECIAL DISTRICTS
APPROVED BY:

SCOTT HARTER, P.E #C65026 — DATE
ADMINISTRATOR

HIGHLANDS WATER COMPANY
APPROVED BY:

JEFF DAVIS — DATE
GENERAL MANAGER

CITY OF CLEARLAKE
APPROVED BY:

DAVID L. SWARTZ, P.E. # C52840 - P.L.S. # 8401 — DATE
CITY ENGINEER

CALIFORNIA ENGINEERING COMPANY, INC.
SUBMITTED BY:

MARISA R. HEWITT, P.E. # C91572 — DATE
PROJECT ENGINEER

NO.	DATE	DESCRIPTION

DATE: X-X-XXXX
SCALE: NTS
DRAWN BY: MRH
DESIGNED BY: MRH
CHECKED BY: DLS

CALIFORNIA ENGINEERING COMPANY INC
ESTD 1996
CIVIL ENGINEERING
LAND SURVEYING
FUNDING PROCUREMENT
CONSTRUCTION ADMINISTRATION
www.cecusa.net
1110 Civic Center Blvd. Suite 404 | Yuba City, CA 95993 | (530) 751-0952 Office

CITY OF CLEARLAKE

COVER

18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER 21-719

SHEET 01 OF 18

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Y:\CEC Jobs\Projects\21-719 18th Ave Roadway Design\Eng\mpPlns\21-719 18th Ave Improvement Plans.dwg Dec 06, 2022-10:23 am mjoyne

CEC GENERAL NOTES

1.) THE CONSTRUCTION CONTRACTOR SHALL AGREE, THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THE CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD CONSULTING ENGINEER AND THE CITY OF CLEARLAKE HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT. EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CONSULTING DESIGN PROFESSIONAL OR THE CITY OF CLEARLAKE.

2.) ALL CONSTRUCTION MATERIALS, METHODS AND WORKMANSHIP SHALL CONFORM TO THE CITY OF CLEARLAKE PUBLIC WORKS IMPROVEMENT STANDARDS. ADOPTED LATEST EDITION OF CAL TRANS CONSTRUCTION SPECIFICATIONS (RANK SHALL BE IN ABOVE LISTED ORDER WHERE DISCREPANCIES EXIST). ALL WORK IS SUBJECT TO THE APPROVAL OF PUBLIC WORKS DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE. CERTIFICATION FOR CONFORMANCE WITH CITY SPECIFICATIONS WILL BE REQUIRED FOR ALL MATERIALS USED ON THE PROJECT UNLESS SPECIFICALLY WAIVED BY THE PUBLIC WORKS DIRECTOR.

3.) THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DIRECTOR 72–HOURS PRIOR TO COMMENCING WORK AND 24–HOURS PRIOR TO RESUMPTION AFTER INTERRUPTION.

4.) THE CONTRACTOR SHALL OBTAIN ALL NECESSARY ENCROACHMENT PERMITS FOR THE PROJECT, AND BE IN RECEIPT OF SUCH PERMITS AND APPROVED PLANS PRIOR TO THE BEGINNING OF CONSTRUCTION.

5.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL CURRENTLY APPLICABLE SAFETY LAWS OF ANY JURISDICTIONAL BODIES. FOR MORE INFORMATION, PLEASE CONTACT THE DEPARTMENT OF INDUSTRIAL RELATIONS (916–455–5818).

6.) THE CONTRACTOR SHALL BE HELD RESPONSIBLE TO SEE THAT ALL SUBCONTRACTORS AND SUPPLIERS HAVE CURRENT CITY BUSINESS LICENSES. THE WORK WILL NOT BE ACCEPTED FOR COMPLETION UNTIL SUBMITTAL OF A COMPLETE LIST WITH LICENSE NUMBERS TO THE FINANCE DIRECTOR OR PUBLIC WORKS DIRECTOR.

7.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF EXISTING PUBLIC AND PRIVATE IMPROVEMENTS WITHIN AND ADJACENT TO THE WORK AND SHALL ADEQUATELY BARRICADE PROJECT TO KEEP THE GENERAL PUBLIC FROM THE SITE. ANY DAMAGE TO CITY OR PRIVATE IMPROVEMENTS SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE TO CURRENT CITY OF CLEARLAKE STANDARDS.

8.) THE CONTRACTOR IS TO EXPOSE THE ENDS OF WATER MAINS, SEWER AND DRAIN LINES AND EXISTING GRAVITY LINES FOR THE SURVEYOR TO VERIFY LOCATION AND DEPTH OF FACILITIES PRIOR TO PLACEMENT OF PIPE.

9.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING ALL CONFLICTS, ERRORS, OMISSIONS, ETC. TO THE CONSULTING ENGINEER IMMEDIATELY UPON DISCOVERY. IF SO DIRECTED BY THE ENGINEER OR PUBLIC WORKS DIRECTOR, THE CONTRACTOR SHALL STOP WORK UNTIL MITIGATIONS CAN BE MADE. ANY COSTS INCURRED RESULTING FROM THE CONTRACTOR'S FAILURE TO STOP WORK AS DIRECTED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

10.) THE CONTRACTOR SHALL AT ALL TIMES COORDINATE HIS WORK WITH THAT OF OTHERS ON THE SITE. THE CONTRACTOR SHALL HAVE A RESPONSIBLE PARTY, WHO SHALL HAVE THE AUTHORITY TO REPRESENT AND ACT ON HIS BEHALF, ON THE JOB SITE DURING ALL WORKING HOURS.

11.) THE CITY OF CLEARLAKE IS A MEMBER OF THE UNDERGROUND SERVICE ALERT (U.S.A.) ONE CALL SYSTEM. THE CONTRACTORS SHALL NOTIFY THE U.S.A. CENTER 72–HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK BY CALLING 1–800–227–2600.

12.) THE CONTRACTOR SHALL MARK IN WHITE PAINT ALL AREAS TO BE EXCAVATED PRIOR TO CONTACTING U.S.A.

13.) CONTRACTOR SHALL SUBMIT TO THE PUBLIC WORKS DEPARTMENT INSPECTOR A COPY OF THE COMPANY ANNUAL CALOSHA TRENCHING PERMIT AND A COPY OF THE COMPANIES LETTER INFORMING CALOSHA OF THE TIME OF TRENCHING PRIOR TO EXCAVATION OF TRENCHES 5' OR DEEPER.

14.) ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY'S NOISE ORDINANCE.

15.) IF ANY AMOUNT OF BONES OR ARTIFACTS ARE UNCOVERED, WORK WITHIN 165 FEET OF THE AREA SHALL CEASE IMMEDIATELY AND A QUALIFIED ARCHEOLOGIST SHALL BE CONSULTED TO DEVELOP (IF NECESSARY) FURTHER MITIGATION MEASURES TO REDUCE ANY ARCHEOLOGICAL IMPACT TO A LESS THAN SIGNIFICANT EFFECT BEFORE CONSTRUCTION RESUMES IN THE AREA. DO NOT MOVE ANY BONES OR ARTIFACTS EXCEPT AT THE ARCHAEOLOGIST'S DIRECTION.

16.) CONTRACTOR SHALL PROVIDE THE PUBLIC WORKS DIRECTOR WITH SUBMITTALS FOR ALL MATERIALS TO BE USED. THE SUBMITTALS SHALL BE DELIVERED TO THE DEPARTMENT OF PUBLIC WORKS A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PRE–CONSTRUCTION CONFERENCE.

17.) CERTIFICATION FOR CONFORMANCE WITH THE CITY OF CLEARLAKE SPECIFICATIONS WILL BE REQUIRED OF ALL MATERIAL USED ON THE PROJECT UNLESS SPECIFICALLY WAIVED BY THE PUBLIC WORKS DIRECTOR.

18.) CONTRACTOR SHALL ADEQUATELY BARRICADE PROJECT TO KEEP THE GENERAL PUBLIC FROM THE SITE.

19.) ALL APPLICABLE FEES TO BE PAID AND PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR BEFORE COMMENCEMENT OF CONSTRUCTION.

20.) A SOILS ENGINEER MAY BE ENGAGED BY THE CONTRACTOR TO CERTIFY THAT THE VARIOUS ITEMS OF COMPACTION COMPLY WITH THE SPECIFICATIONS AND THAT SPECIAL WORK REQUIRED HAS BEEN DONE SATISFACTORILY.

21.) THE CONTRACTOR SHALL USE A WATER TRUCK WHEN REQUIRED TO MAINTAIN ADEQUATE DUST CONTROL.

22.) INTERMEDIATE TRENCH BACK FILL SHALL BE IN MAXIMUM LIFTS OF 8" AND SHALL HAVE A MINIMUM RELATIVE COMPACTION OF 90% OR AS DIRECTED BY THE SOILS ENGINEER. COMPACTION SHALL BE BY THE MECHANICAL MEANS.

23.) EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP), EROSION AND SEDIMENT CONTROL PLAN (ESCP), OR STORMWATER CONTROL PLAN (SCF).

24.) PRIOR TO THE BEGINNING OF EARTHWORK THE CONTRACTOR SHALL CLEAR ALL ROOTS, ORGANIC MATTER, DEBRIS, PAVING, CURB, AND VEGETATION DESIGNATED TO BE SAVED, FROM THE AREA WITHIN WHICH EXCAVATION AND GRADING ARE TO BE CONDUCTED OR STORAGE OF EXCAVATED MATERIALS OR FILL IS TO BE MADE.

25.) IN TRANSITION AREAS FROM ONE STREET WIDTH TO ANOTHER STREET WIDTH, THE HEAVIER STRUCTURAL SECTION SHALL BE USED.

26.) DIMENSIONS SHOWN ON PLANS ARE TO CENTERLINE OF PIPE, UNLESS OTHERWISE NOTED.

27.) SEWER AND WATER AND SERVICES TO HAVE A MINIMUM 10 FEET HORIZONTAL SEPARATION.

28.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES BY POTHOLING.

CEC GENERAL NOTES CONTINUED

29.) **CONTRACTOR SHALL POTHOLE** ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND DEPTH. THE TYPES, LOCATIONS, SIZES AND DEPTH OF EXISTING UTILITIES WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY, THE CONTRACTOR IS CAUTIONED THAT ONLY EXCAVATIONS WILL REVEAL ACTUAL INFORMATION. A REASONABLE EFFORT WAS MADE TO DELINEATE UTILITIES, HOWEVER, CALIFORNIA ENGINEERING COMPANY ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS, NOR ACCURACY, NOR FOR OTHER UTILITIES WHICH MAY BE ENCOUNTERED. THE CONTRACTOR IS HEREBY NOTIFIED THAT THEY ARE RESPONSIBLE FOR VERIFICATION OF THE LOCATION OF ALL UTILITIES AT THE CONSTRUCTION SITE. IN THE EVENT CONFLICTS EXIST OR SUBSTANTIAL DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY AND ALLOW 2 WORKING DAYS FOR CHANGE TO BE MADE, COORDINATED AND APPROVED.

CITY OF CLEARLAKE GENERAL NOTES

1.) ALL MATERIAL WORKMANSHIP AND CONSTRUCTION SHALL CONFORM TO THE CITY OF CLEARLAKE STANDARD SPECIFICATIONS AND STANDARD PLANS.

2.) CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE CITY OF CLEARLAKE, 14050 OLYMPIC DRIVE, CLEARLAKE, CA. 95422 BEFORE START OF WORK. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE PERMIT.

3.) CONTRACTOR SHALL OBTAIN REQUIRED PERMITS FROM ALL AGENCIES AND PAY ALL FEES PRIOR TO COMMENCEMENT OF ANY WORK.

4.) CONTRACTOR SHALL GIVE THE CITY OF CLEARLAKE PUBLIC WORKS DEPARTMENT 72 HOURS NOTICE BEFORE STARTING WORK. CALL (707) 994–8201 OR CONTACT AT 14050 OLYMPIC DRIVE, CLEARLAKE, CA. 95422 FOR INSPECTION SERVICES.

5.) A PRE–CONSTRUCTION MEETING IS REQUIRED PRIOR TO BEGINNING OF WORK. CONTACT THE PUBLIC WORKS DIRECTOR TO SCHEDULE SUCH MEETING.

6.) WORK HOURS ARE LIMITED TO FROM MONDAY THROUGH FRIDAY 8:00 A.M. TO 5:00 P.M. DEVIATIONS FROM THESE HOURS MAY BE APPROVED IN WRITING BY THE ENGINEER. INSPECTION WILL BE AVAILABLE MONDAY THROUGH FRIDAY FROM 8: 00 A.M. TO 4: 30 P.M. CONTRACTORS SHALL SCHEDULE INSPECTIONS 48–72 HRS. IN ADVANCE BY CALLING (707) 994–8201.

7.) ANY DISCREPANCY DISCOVERED BY CONTRACTOR IN THESE PLANS OR ANY FIELD CONDITIONS DISCOVERED BY CONTRACTOR THAT MAY DELAY OR OBSTRUCT THE PROPER COMPLETION OF THE WORK PER THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE PUBLIC WORKS DIRECTOR AND THE OWNER IMMEDIATELY UPON DISCOVERY. SAID NOTIFICATION SHALL BE IN WRITING.

8.) GRADE BREAKS ON CURBS AND SIDEWALKS SHALL BE ROUNDED OFF IN FORMS AND SURFACE FINISHING.

9.) SIDEWALK WARPS SHALL BE PROVIDED TO ALLOW A CLEAR 4–FOOT WALKWAY IN ALL LOCATIONS INCLUDING WHERE MAILBOXES, UTILITY POLES, FIRE HYDRANTS, AND GUY WIRES ARE TO BE INSTALLED.

10.) THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THE APPROVAL OF MAIL BOX LOCATIONS BY THE LOCAL BRANCH OF THE UNITED STATES POST OFFICE. SIDEWALK WARPS ARE REQUIRED PER STANDARD DETAIL OF THE CITY OF CLEARLAKE.

CITY OF CLEARLAKE NOTIFICATION FOR INSPECTIONS

APPROVAL OF ALL WORK SHALL BE NECESSARY AT THE COMPLETION OF EACH OF THE FOLLOWING STAGES OF WORK AND SUCH APPROVAL MUST BE OBTAINED BEFORE SUBSEQUENT STAGES OF WORK MAY BE COMMENCED. ADDITIONALLY, THE INSPECTOR SHALL BE NOTIFIED AT LEAST 48 HRS. IN ADVANCE OF ANY OF THE FOLLOWING STAGES OF WORK.

ANY CONSTRUCTION OR EXCAVATION REQUIRING INSPECTION THAT IS UNDERTAKEN WITHOUT INSPECTION IS SUBJECT TO RECONSTRUCTION AND RE–EXCAVATION AT THE CONTRACTOR'S EXPENSE. INSPECTION MUST BE SCHEDULED FOR THE FOLLOWING WORK:

1.) COMPACTION AND PREPARATION OF EMBANKMENTS, EXCAVATIONS, AND SUB–GRADE.

2.) CONSTRUCTION OF FORMS FOR ALL CONCRETE STRUCTURES, INCLUDING CURBS, GUTTERS, AND SIDEWALKS.

EXCAVATION FOR STORM DRAINS AND CULVERTS.

3.) PLACING OF CONCRETE IN STRUCTURES, INCLUDING CURBS, GUTTERS AND SIDEWALKS.

PLACING OF STORM DRAINS AND CULVERT PIPES.

4.) EXCAVATION AND BACKFILL FOR STRUCTURES AND PIPES AND PUBLIC UTILITIES. WATER AND SEWER FACILITIES MUST BE INSPECTED BY THE COMPANY/ AGENCY WITH JURISDICTION.

5.) CONSTRUCTION OF ROADSIDE DITCHES AND OTHER DRAINAGE WAYS.

6.) PLACING AND COMPACTING OF BASE MATERIAL. IF MORE THAN ONE COURSE OR TYPE OF BASE OR SUB–BASE IS TO BE USED, APPROVAL SHALL BE NECESSARY FOR EACH COURSE AND/OR TYPE.

7.) PLACING OF PAVEMENT OR SURFACING. WITHIN 48 HOURS OF PAVING, ALL UTILITY COVERS SHALL BE BROUGHT TO GRADE AND INSPECTED.

8.) STRIPING & SIGNING LAYOUT AND PLACEMENT.

9.) FINAL CLEAN–UP.

CITY OF CLEARLAKE GRADING NOTES

1.) A GRADING OR ENCROACHMENT PERMIT, SHALL BE ISSUED BY THE CITY OF CLEARLAKE PUBLIC WORKS DEPARTMENT PRIOR TO ANY GRADING SHOWN ON THESE PLANS.

2.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THE SOILS ENGINEER. ALL GRADING SHALL BE PERFORMED TO THE SATISFACTION OF THE SOILS ENGINEER AND SHALL BE IN CONFORMANCE WITH THE PRELIMINARY SOILS REPORT AND CHAPTER 70 – APPENDIX OF THE ADOPTED U.B.C..

3.) STREET SUB–GRADE AND PARKING LOT SUB–GRADE SHALL BE COMPACTED TO 95% RELATIVE COMPACTION TO DEPTH OF NO LESS THAN 6" IN THE ROADWAY SECTION. ASPHALT CONCRETE AND CLASS 2 AGGREGATE BASE SHALL BE COMPACTED TO 95% RELATIVE COMPACTION.

4.) THE USE OF THE SAND CONE METHODS (SUCH AS ASTM 1557 OR CAL 216) FOR DETERMINING FIELD DENSITIES WILL NOT BE ALLOWED AS A SUBSTITUTE FOR NUCLEAR GAUGE TESTING.

CITY OF CLEARLAKE GRADING NOTES CONTINUED

5.) ALL GRADED AREAS AND EXPOSED SOIL WITHIN THIS PROJECT SHALL BE SEEDED FOR EROSION CONTROL BY THE CONTRACTOR. SEED AND MULCH WILL BE APPLIED BY OCTOBER 1ST TO ALL CUT AND FILL SLOPES WITHIN OR ADJACENT TO PROJECT ROADS. SEED AND FERTILIZER WILL BE APPLIED HYDRAULICALLY OR BY HAND AT THE RATES SPECIFIED BELOW. ON SLOPES, STRAW WILL BE APPLIED BY BLOWER OR BY HAND AND ANCHORED IN PLACE BY PUNCHING. ALL CRITICAL EARTHWORK OPERATIONS SHALL BE PERFORMED DURING THE DRY WEATHER SEASON, FROM MAY 1ST TO OCTOBER 1ST OR AS OTHERWISE APPROVED BY THE CITY ENGINEER. THE CLEARING OF EXISTING VEGETATION SHALL BE CONFINED WITHIN THE LIMITS OF ACTUAL EARTHWORK. INCREMENTAL DEVELOPMENT SHALL BE REQUIRED TO ENSURE THAT THE AMOUNT OF LAND CLEARED AT ANY TIME IS LIMITED TO THE AREA THAT CAN BE DEVELOPED DURING THE CONSTRUCTION PERIOD. STORM WATER SHALL NOT BE ALLOWED TO FLOW DIRECTLY DOWN UNPROTECTED SLOPES. ENERGY DISSIPATING STRUCTURES AND EROSION CONTROL DEVICES SHALL BE PLACED AT ALL DRAINAGE OUTLETS WHICH DISCHARGE TO NATURAL CHANNELS AS SHOWN ON THESE PLANS. ALL SEDIMENT TRAPS SHALL BE MAINTAINED BY THE OWNER UNTIL SUCH TIME THAT THE CITY ACCEPTS MAINTENANCE RESPONSIBILITY.

ITEM	POUNDS PER ACRE
"BLANDO BROME"	30
ALTA FESCUE	20
CRIMSON CLOVER	20
NARROW LEAF BIRDS FOOT TREFOIL	20
FERTILIZER (16–20–0 & 15% SULPHUR)	500
STRAW MULCH	4000 OR 3500 LBS OF WOOD CELLULOSE

6.) ANY EXISTING SEPTIC SYSTEM AND EXISTING WELLS IF REQUIRED SHALL BE ABANDONED UNDER PERMIT FROM THE LAKE COUNTY ENVIRONMENTAL HEALTH DEPT.

7.) THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE DUST CONTROL MEASURES FOR THE ENTIRE CONSTRUCTION PERIOD OF THIS PROJECT TO THE SATISFACTION OF THE CITY.

CITY OF CLEARLAKE GENERAL UNDERGROUND NOTES

1.) NO GUARANTEE IS INTENDED THAT UNDERGROUND OBSTRUCTIONS, NOT SHOWN ON THESE PLANS, MAY BE ENCOUNTERED. THOSE SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE AND THE CONTRACTOR IS CAUTIONED THAT THE OWNER, THE ENGINEER, AND THE CITY OF CLEARLAKE ASSUME NO RESPONSIBILITY FOR ANY OBSTRUCTIONS EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY COMPANIES WORKING WITHIN THE LIMITS OF THIS PROJECT.

2.) CONTRACTOR SHALL NOT BEGIN EXCAVATION UNTIL ALL EXISTING UTILITIES HAVE BEEN MARKED IN THE FIELD BY THE APPLICABLE ENTITY RESPONSIBLE FOR THAT PARTICULAR UTILITY. THE CONTRACTOR SHALL NOTIFY EACH APPLICABLE ENTITY AT LEAST 48 HOURS BEFORE STARTING WORK.

3.) UNDERGROUND SERVICE ALERT: CALL TOLL FREE (800) 642–2444 AT LEAST 48 HOURS PRIOR TO EXCAVATION.

4.) CONTRACTOR SHALL UNCOVER EXISTING BURIED UTILITIES WITH UTILITY OWNER TO VERIFY LOCATIONS AND ELEVATIONS OF UTILITIES. BURIED UTILITIES INCLUDE BUT ARE NOT LIMITED TO WATER MAINS AND LATERALS, SEWER LINES, STORM DRAINS, GAS MAINS AND LATERALS, ELECTRICAL DISTRIBUTION LINES AND TELEPHONE LINES. ALL UTILITIES CONFLICTING WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED PRIOR TO THE START OF CONSTRUCTION.

5.) THE CONTRACTOR SHALL VERIFY EXISTING INVERTS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. THE PROJECT AND/OR DESIGN ENGINEER MAY ADJUST THE GRADE OF NEW SEWER CONSTRUCTION ACCORDINGLY WITH CONCURRENCE FROM THE APPROPRIATE AGENCIES.

6.) DISTANCES AND INVERTS ARE TO AND AT THE CENTER OF THE MANHOLES, CLEANOUTS, DROP INLETS, CATCH BASINS, AND YARD DRAINS OR AS MARKED ON THE DRAWINGS.

7.) ALL UNDERGROUND IMPROVEMENTS SHALL BE INSTALLED AND APPROVED PRIOR TO PAVING.

8.) THE CONTRACTOR SHALL STAMP THE LETTER "S" ON THE FACE OF CURB DIRECTLY ABOVE THE SEWER LATERAL, AND THE LETTER "W" ON THE FACE OF CURB DIRECTLY ABOVE WATER SERVICES, AND "B" ON FACE OF CURB DIRECTLY ABOVE A BLOW OFF OR AIR RELIEF VALVE. AT A DRIVEWAY THE STAMP SHALL BE PLACED AT THE BACK OF RAMP. THE LETTERS SHALL BE 4" HIGH AND COMPLETELY LEGIBLE.

9.) ALL MATERIAL, WORKMANSHIP AND CONSTRUCTION DETAILS SHALL CONFORM TO THE CITY OF CLEARLAKE DESIGN AND CONSTRUCTION STANDARD SPECIFICATIONS, INCLUDING ALL ADDENDA, STANDARD PLAN REVISIONS AND SPECIAL PROVISIONS.

10.) ITEMS SPECIFIED ON THE STANDARD PLANS ARE APPROVED FOR USE BY THE CITY OF CLEARLAKE. ALL SUBSTITUTES OR ALTERATIONS SHALL BE SUBMITTED TOTHE CITY OF CLEARLAKE FOR APPROVAL.

11.) SURFACE MOUNTED TRANSFORMERS SHALL NOT BE USED UNLESS LOCATION OF SUCH UTILITIES ARE SHOWN ON THE PLANS AND APPROVED BY THE CITY.

CITY OF CLEARLAKE STORM DRAIN NOTES

1.) STORM DRAIN PIPES SHALL BE C.M.P. PIPE OR H.D.P.E. TYPE S PIPE CONFORMING TO CITY STANDARD SPECIFICATION SECTION 2. MINIMUM COVER OVER PIPE TO BE 12" BACKFILLED WITH SLURRY, THE MAXIMUM ALLOWABLE COVER SHALL BE LIMITED TO 11 FEET FOR ALL SIZES.

2.) ALL STORM DRAIN MANHOLES SHALL BE A MINIMUM OF 48" IN DIAMETER. UNLESS OTHERWISE NOTED, MANHOLE FRAME AND COVER SHALL HAVE 24" CLEAR OPENING, AND BE HEAVY DUTY NON–ROCKING. RAISED LETTERS ON TOP OF THE COVER SHALL READ "STORM DRAIN", PIPES SHALL NOT PROTRUDE INSIDE THE MANHOLE. PIPE ENDS SHALL BE ROUNDED.

3.) STORM DRAIN MARKER "DRAINS TO LAKE" SHALL BE APPLIED PER CITY STANDARD NO. 313.

4.) CORRUGATED METAL AND HIGH DENSITY POLYETHYLENE STORM DRAIN PIPE SHALL BE PLACED AND BACKFILLED IN ACCORDANCE WITH CITY STANDARD 301. STORM DRAIN WITHIN CITY MAINTAINED ROADS SHALL BE MINIMUM 12 INCH DIAMETER.

5.) EACH NEW AND EXISTING DROP INLET, DRAINAGE INLET AND CULVERT PIPE SHALL HAVE A CLASS 2 METAL POST WITH TYPE E DELINEATOR PLACED WITH 3' OF THE STRUCTURE.

GEOTECHNICAL INVESTIGATIONS

1.)

CITY OF CLEARLAKE SIGNING, STRIPING AND PAVEMENT MARKINGS NOTES

1.) CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS DEPARTMENT AT (707)994–8201, OF HIS INTENT TO PLACE ANY PAVEMENT MARKER, TRAFFIC STRIPE, PAVEMENT MARKING, AND PAVEMENT LEGEND LAYOUT LINES 10 WORKING DAYS BEFORE THE MARKER AND STRIPING WORK IS TO BE PERFORMED. ALL LABOR EQUIPMENT AND MATERIALS SHALL BE PROVIDED BY THE CONTRACTOR.

2.) ALL LAYOUT WORK IS TO BE PERFORMED BY THE CONTRACTOR AND SHALL BE FIELD APPROVED BY A CITY INSPECTOR BEFORE THE ACTUAL WORK BEGINS.

3.) PAVEMENT MARKERS AND TRAFFIC STRIPE DETAIL REFERENCE NUMBERS ARE SHOWN ON CALTRANS STANDARD PLAN SHEETS A20–A, A20–B, A20–C, AND A24D; SHOWN HEREIN.

4.) ROADSIDE SIGNS: ROADSIDE SIGNS SHALL BE AS SHOWN ON THE PLANS, IN ACCORDANCE WITH THE PROVISIONS OF SECTION 56, "SIGNS", OF THE STATE STANDARD SPECIFICATIONS, AND AS DIRECTED BY THE CITY.

5.) SIGN PANELS SHALL CONFORM TO THE CURRENT CALTRANS SIGN PANEL SPECIFICATIONS.

6.) LOCATIONS OF ALL SIGNS SHALL BE AS SHOWN ON THE PLANS AND AS DIRECTED BY THE CITY.

7.) SIGN PANELS SHALL BE MOUNTED ON METAL POSTS AS DESIGNATED ON THE STANDARD PLANS. METAL POSTS SHALL BE 2–INCH SQUARE, 12 GAUGE GALVANIZED STEEL TUBING CONFORMING TO ASTM A120 WITH GALVANIZED TOP CAPS. POSTS SHALL HAVE 7 /16" DIA. HOLES @ 1" CENTERS IN ALL FOUR SIDES. END OF POST SHALL BE FINISHED TO RECEIVE THE MOUNTING CAP AND FITTINGS. EACH SIGN PANEL SHALL BE ATTACHED TO METAL POSTS WITH A MINIMUM OF (2) 5/16–INCH SELF–TAPPING SCREWS OR BOLTS. ALL FASTENERS AND ATTACHMENT HARDWARE SHALL BE GALVANIZED.

8.) MARKERS AND DELINEATORS: MARKERS AND DELINEATORS SHALL BE AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE PROVISIONS OF SECTION 82, "MARKERS AND DELINEATORS" OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE CITY ENGINEER.

9.) LOCATION OF ALL MARKERS AND DELINEATORS SHALL BE AS SHOWN ON THE CITY STANDARD PLANS AND AS DIRECTED BY THE CITY ENGINEER.

10.) TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL BE AS SHOWN ON THE PLANS, IN ACCORDANCE WITH THE PROVISIONS OF SECTION 84, "TRAFFIC STRIPES AND PAVEMENT MARKINGS" OF THE STANDARD SPECIFICATIONS AND THESE SPECIAL PROVISIONS, AND AS DIRECTED BY THE CITY.

11.) ALL TRAFFIC STRIPES AND PAVEMENT MARKINGS, INCLUDING STOP LINES, AND ALL CHANNELIZING LINES SHALL BE THERMOPLASTIC.

12.) THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS: THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL CONFORM TO THE PROVISIONS OF SECTION 84–2, "THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS" OF THE STANDARD SPECIFICATIONS.

13.) THERMOPLASTIC MATERIAL SHALL BE APPLIED AT A MINIMUM THICKNESS OF .125 INCH.

14.) PAVEMENT MARKERS: PAVEMENT MARKERS SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF SECTION 85, "PAVEMENT MARKERS" OF THE STANDARD SPECIFICATIONS. PAVEMENT MARKERS SHALL BE PLACED TO THE LINE ESTABLISHED BY THE CITY.

15.) PAINTED/THERMOPLASTIC STRIPES AND PAVEMENT MARKINGS: EXISTING PAINTED/THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS WHICH CONFLICT WITH THE NEW TRAFFIC STRIPING AND PAVEMENT MARKING PLANS SHALL BE REMOVED BY THE CONTRACTOR, IN ACCORDANCE WITH SECTION 15 OF STANDARD SPECIFICATIONS, EXCEPT THAT BLAST CLEANING SHALL NOT BE PERMITTED.

16.) RAISED PAVEMENT MARKER REMOVAL: EXISTING RAISED PAVEMENT MARKERS WHICH CONFLICT WITH THE NEW TRAFFIC STRIPING AND PAVEMENT MARKING PLAN SHALL BE REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 15 OF THE STANDARD SPECIFICATIONS.

17.) ALL LOCATIONS RECEIVING SURFACE TREATMENT SHALL HAVE BLUE TWO–WAY RETROREFLECTIVE PAVEMENT MARKERS INSTALLED AT EACH LOCATION OF EXISTING HYDRANT.

NOTIFICATION OF LOCAL INDIAN TRIBE

1.) CONTRACTOR SHALL NOTIFY BOTH LOCAL INDIAN TRIBES (KOI NATION AND ELEM INDIAN COLONY) AT LEAST 72 HOURS BEFORE ANY EXCAVATION TAKES PLACE.

TRAFFIC CONTROL SYSTEM

1.) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A TRAFFIC CONTROL PLAN FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION. WORK SHALL NOT BEGIN UNTIL THE PLAN IS APPROVED BY THE CITY ENGINEER.

2.) FORTY–RIGHT (48) HOURS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PLACE BARRICADES SIGNED "NO PARKING–TOW AWAY– SPECIFIC TIME AND DATE'(S)" AT 100' INTERVALS OR A MINIMUM OF 2 SIGNS PER BLOCK, WHICH EVER IS GREATER, IN THE WORK AREA. NO PARKING SIGNS SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER PRIOR TO THEIR USE. FAILURE TO PROVIDE REQUIRED NOTICE TIME WILL PREVENT THE CITY FROM TOWING VEHICLES PARKED IN THE PROPOSED WORK AREA.

NO.	DATE	DESCRIPTION

DATE: X-X-XXXX
SCALE: NTS
DRAWN BY: MRH
DESIGNED BY: MRH
CHECKED BY: DLS

CALIFORNIA ENGINEERING COMPANY INC
CIVIL ENGINEERING
LAND SURVEYING
FUNDING PROCUREMENT
CONSTRUCTION ADMINISTRATION
www.cecusa.net
ESTD 1986
1110 Civic Center Blvd. Suite 404 | Yuba City, CA 95993 | (530) 751-0952 Office

CITY OF CLEARLAKE

NOTES

18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER 21-719

SHEET 02 OF 18

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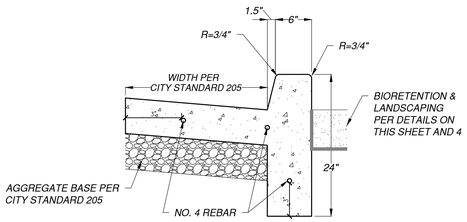
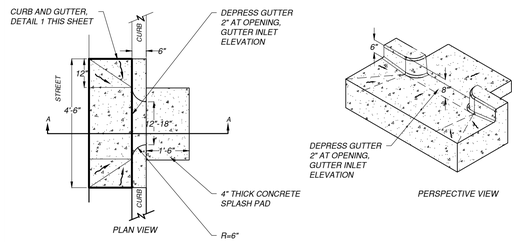


CONSTRUCTION NOTES

1. FINISH ALL EXPOSED CONCRETE SURFACES.
2. CONCRETE SHALL BE CLASS A AND CONTAIN NOT LESS THAN 6 SACKS OF CEMENT PER CUBIC YARD
3. EXPANSION JOINTS SHALL BE INSTALLED AT 60 FEET INTERVALS, WITH WEAKENED PLANE JOINTS EVERY 15 FEET
4. EXPANSION JOINTS SHALL BE PLACED IN CURB AND GUTTER AT ALL CURB RETURNS

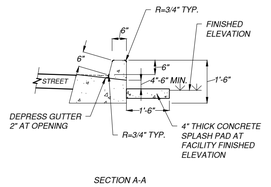
01 CURB AND GUTTER WITH DEEP CURB- CASQA STANDARD PLAN SW-12

NOT TO SCALE



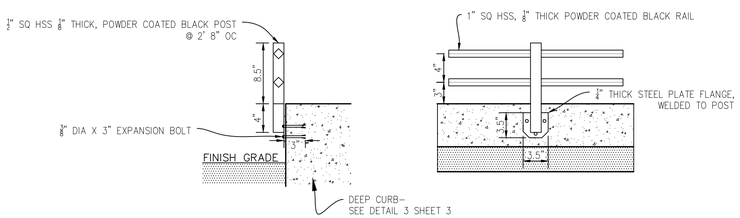
CONSTRUCTION NOTES

1. AFTER CONSTRUCTION PLACE SAND BAGS AT GUTTER OPENINGS TO KEEP STORM FLOWS FROM ENTERING FACILITY UNTIL VEGETATION IS ESTABLISHED.



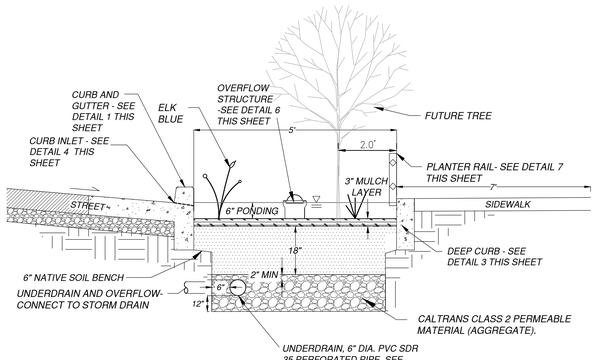
04 CURB CUT INLET- CASQA STANDARD PLAN SW-17

NOT TO SCALE



07 BIOFILTRATION/LANDSCAPING/ ROCK TRENCH RAILING

NOT TO SCALE



LEGEND

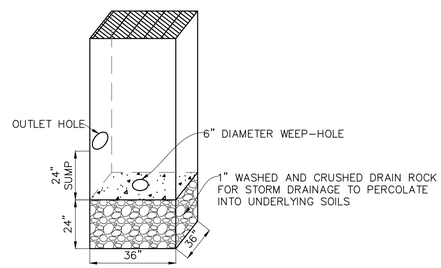
- MULCH/COMPOST LAYER (SEE NOTE 13)
- BIORETENTION SOIL MEDIA (BSM)
- AGGREGATE
- NATIVE SOIL
- ASPHALT PAVEMENT
- CONCRETE

CONSTRUCTION NOTES

1. MAINTAIN UNDISTURBED NATIVE SOIL BENCH TO SUPPORT ADJACENT SIDEWALK/ROAD. SEQUENCE WORK TO CONSTRUCT CURBS BEFORE EXCAVATING BIORETENTION AREA FOR AGGREGATE AND BSM.
2. SCARIFY SUBGRADE BEFORE INSTALLING BIORETENTION AREA AGGREGATE AND BSM.
3. FACILITY EXCAVATION TO ALLOW FOR SPECIFIED AGGREGATE, BSM, AND MULCH DEPTHS TO ACHIEVE FINISHED ELEVATIONS ON CIVIL PLANS.
4. INSTALL UNDERDRAIN WITH HOLES FACING DOWN. TOP OF UNDERDRAIN 2" BELOW TOP OF AGGREGATE LAYER. UNDERDRAIN SLOPE MAY BE FLAT.
5. COMPACT EACH 6" LIFT OF BSM WITH LANDSCAPE ROLLER OR BY LIGHTLY WETTING. IF WETTING, LET DRY OVERNIGHT BEFORE PLANTING.
6. DO NOT WORK WITHIN BIORETENTION AREA DURING RAIN OR UNDER WET CONDITIONS.
7. KEEP HEAVY MACHINERY OUTSIDE BIORETENTION AREA LIMITS.
8. STORMWATER SHOULD BE DIRECTED AWAY FROM BIORETENTION UNTIL CONSTRUCTION IS COMPLETE AND DRAINAGE AREA VEGETATION IS STABILIZED.
9. PROVIDE CAPPED, THREADED PVC CLEANOUT FOR UNDERDRAIN, 4" MIN. DIA. WITH SWEEP BEND.
10. PROVIDE A CLEAN-OUT/OBSERVATION PORT IN EACH FACILITY, PER BIORETENTION TECHNICAL SPECIFICATIONS.
11. PLANTING SOILS SHOULD BE SANDY LOAM, LOAMY SAND, OR LOAM TEXTURE WITH A CLAY CONTENT RANGING FROM 10 TO 25 PERCENT AND 1.5 TO 3 PERCENT ORGANIC CONTENT.
12. REGIONAL LANDSCAPING MANUALS SHOULD BE CONSULTED TO ENSURE THAT THE PLANTING OF THE BIORETENTION AREA MEETS THE LANDSCAPING REQUIREMENTS ESTABLISHED BY THE LOCAL AUTHORITIES.
13. MULCH SHOULD BE PLACED IMMEDIATELY AFTER TREES AND SHRUBS ARE PLANTED. 2-3 INCHED OF COMMERCIALLY AVAILABLE FINE SHREDDED HARDWOOD MULCH OR SHREDDED HARDWOOD CHIPS SHOULD BE APPLIED.

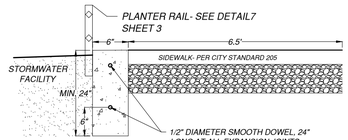
02 BIOFILTRATION PLANTER BOX- CASQA STANDARD PLAN SW-4

NOT TO SCALE



05 STORM DRAIN INFRASTRUCTURE WITH WEEP-HOLE DETAIL

NOT TO SCALE

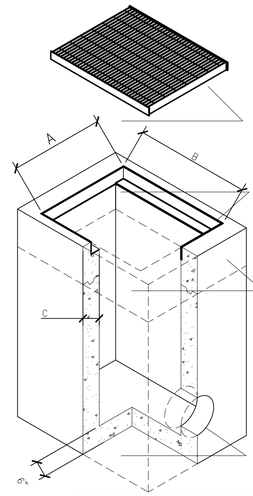


CONSTRUCTION NOTES

1. FINISH ALL EXPOSED CONCRETE SURFACES.
2. LAYBACK SLOPE AS FLAT AS POSSIBLE UNTIL TOP WIDTH PRODUCES 1:1 SLOPE & 24" BOTTOM WIDTH. AS PLANTER GETS WIDER MAINTAIN 1:1 SLOPE AND INCREASE BOTTOM WIDTH WIDER THAN 24". ALTERNATIVE TRENCH WALL CONFIGURATIONS MAY BE PROPOSED BY THE PROJECT GEOTECHNICAL ENGINEER (I.E. VERTICAL SHORING, REINFORCED TRENCH SIDEWALL) THAT DO NOT REQUIRE SIDEWALK SUPPORT FROM THE LIGHTLY COMPACTED BSM.

03 DEEP CURB- CASQA STANDARD PLAN SW-13

NOT TO SCALE



DROP INLETS

12"x12" TO 60"x60"
(NOMINAL INSIDE DIMENSIONS)

MODEL	A	B	C	WEIGHT CALC - LBS.
1212	12	12	4	208 (BASE) + 266 VF
1616	16	16	5	408 (BASE) + 480 VF
1818	18	18	5	602 (BASE) + 604 VF
2424	24	24	6	675 (BASE) + 750 VF
2436	24	36	6	900 (BASE) + 900 VF
2448	24	48	6	1500 (BASE) + 1050 VF
3030	30	30	6	920 (BASE) + 900 VF
3636	36	36	6	1200 (BASE) + 1050 VF
3648	36	48	6	1500 (BASE) + 1200 VF
4848	48	48	6	1875 (BASE) + 1350 VF
6060	60	60	6	2700 (BASE) + 1650 VF

FOR COMPLETE DESIGN AND PRODUCT INFORMATION CONTACT JENSEN PRECAST.

Jensen Precast reserves the right to make changes to product design and/or dimensions without notice. Please contact Jensen Precast whenever necessary for confirmation or advice on product design.

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06 DROP INLET DETAIL

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CITY OF CLEARLAKE

PROJECT DETAILS

18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER 21-719

SHEET 03 OF 18

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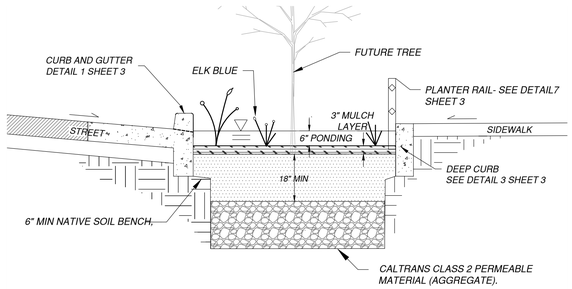

LEGEND

- MULCH/COMPOST LAYER
- BIORETENTION SOIL MEDIA (BSM)
- AGGREGATE
- NATIVE SOIL
- ASPHALT PAVEMENT
- CONCRETE

CONSTRUCTION NOTES

1. MAINTAIN UNDISTURBED NATIVE SOIL BENCH TO SUPPORT ADJACENT SIDEWALK/ROAD. SEQUENCE WORK TO CONSTRUCT CURBS BEFORE EXCAVATING BIORETENTION AREA FOR AGGREGATE AND BSM.
2. SCARIFY SUBGRADE BEFORE INSTALLING BIORETENTION AREA AGGREGATE AND BSM.
3. FACILITY EXCAVATION TO ALLOW FOR SPECIFIED AGGREGATE, BSM, AND MULCH DEPTHS TO ACHIEVE FINISHED ELEVATIONS ON CIVIL PLANS.
4. COMPACT EACH 6" LIFT OF BSM WITH LANDSCAPE ROLLER OR BY LIGHTLY WETTING. IF WETTING, LET DRY OVERNIGHT BEFORE PLANTING.
5. DO NOT WORK WITHIN BIORETENTION AREA DURING RAIN OR UNDER WET CONDITIONS.
6. KEEP HEAVY MACHINERY OUTSIDE BIORETENTION AREA LIMITS.
7. STORMWATER SHOULD BE DIRECTED AWAY FROM BIORETENTION UNTIL CONSTRUCTION IS COMPLETE AND DRAINAGE AREA VEGETATION IS STABILIZED.

01 LANDSCAPING AREA- CASQA STANDARD PLAN SW-4A

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SEE SHEET 11

OLD HIGHWAY 53

18TH AVENUE

MATCH LINE- SEE SHEET 06

SEE SHEET 11

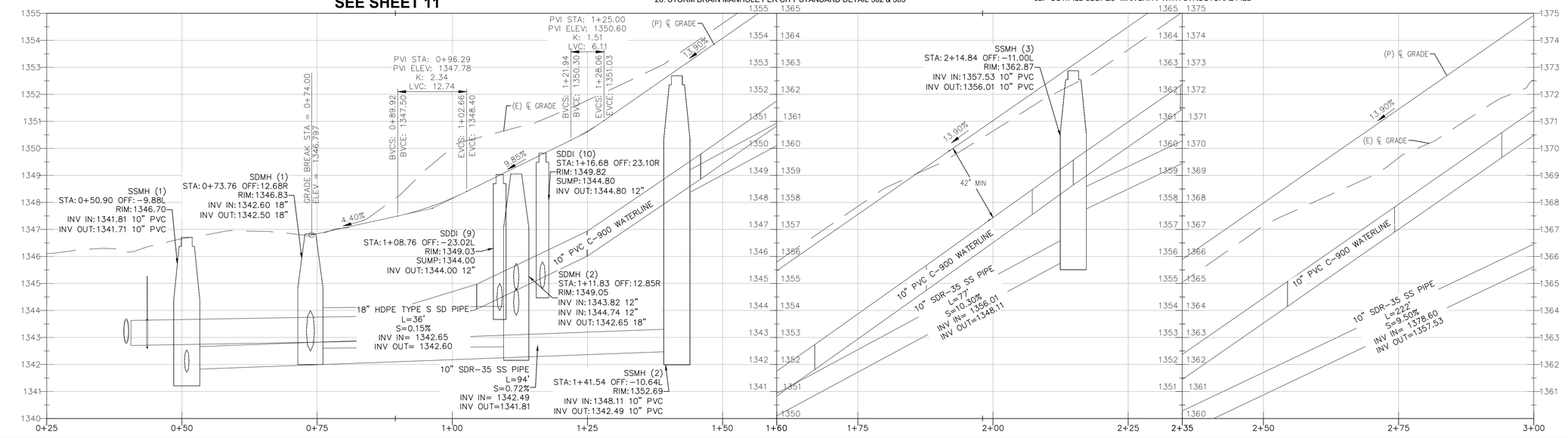
(IN FEET)
1 inch = 10 ft.

PAVING

1. INSTALL 5" FIBER REINFORCED ASPHALT CONCRETE OVER 14" CLASS 2 AGGREGATE BASE COMPACTED TO 95% RC, OVER 12" NATIVE COMPACTED TO 95% RC
2. SAWCUT AND CONFORM TO EXISTING PAVEMENT PER CITY STANDARD DETAIL 215 & SAWCUT A MINIMUM 1' INTO EDGE OF PAVEMENT WITH A NEAT STRAIGHT LINE
3. 4" FULL DEPTH ASPHALT CONCRETE RAMP TO CONFORM TO EXISTING GROUND- 5% MAX SLOPE
4. PAVING LIMTS
5. RED STAMPED ASPHALT CONCRETE- OFFSET BRICK PATTERN

CONSTRUCTION

6. STANDARD CURB AND GUTTER PER CITY STANDARD DETAIL 205 AND DOWELS SHALL BE INSTALLED WHERE NEWLY PLACED CONCRETE WILL MEET EXISTING CONCRETE
8. CURB CUT, SEE DETAIL 4 SHEET 3
9. CONCRETE SIDEWALK PER CITY STANDARD DETAIL 205 AND DOWELS SHALL BE INSTALLED WHERE NEWLY PLACED CONCRETE WILL MEET EXISTING CONCRETE
10. PEDESTRIAN RAMP PER CALTRANS DETAIL A88A CASE A
16. DROP INLET PER JENSEN PRECAST DETAIL WITH 6" WEEP HOLE, SEE DETAILS 5 & 6 SHEET 3
18. HDPE TYPE S STORM DRAINPIPE PER CITY STANDARD DETAIL 301 TYPE B
20. STORM DRAIN MANHOLE PER CITY STANDARD DETAIL 302 & 303
24. SANITARY SEWER MANHOLE PER LACOSAN'S STANDARD DETAIL 500 & 512
29. PVC SDR-35 SANITARY SEWER PIPE PER LACOSAN'S STANDARD DETAIL 313
35. PVC C-900 WATERLINE PIPE, 3.5' MINIMUM COVER; PER CITY OF SANTA ROSA'S STANDARD DETAIL 3, 4, 850, 853, 854
36. FIRE HYDRANT AND APPURTANCES PER CITY OF SANTA ROSA'S STANDARD DETAIL 857
39. 1.5" WATER IRRIGATION FOR LANDSCAPING/TREES FOR PLANTERS; 30" MIN COVER
40. CONNECT NEW WATERLINE TO EXISTING MAIN BY COORDINATING WITH HIGHLANDS WATER COMPANY
42. WATER GATE VALVE PER CITY OF SANTA ROSA'S STANDARD DETAIL 877
45. ROCK TRENCH, SEE DETAILS ON SHEET 18
46. POWER POLE TO BE RELOCATED BY OTHERS
48. STREETLIGHT FOUNDATIONS AND PULL BOXES PER CITY STANDARD DETAIL 402
50. BACKBONE UTILITIES- FOR REFERENCE, NOT IN CONTRACT
52. CUT/FILL SLOPES- MAX 2H:1V WITH STRUCTURAL FILL



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CITY OF CLEARLAKE

18TH AVENUE- STA 0+00 TO 3+00

18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER 21-719

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(P) PAVING

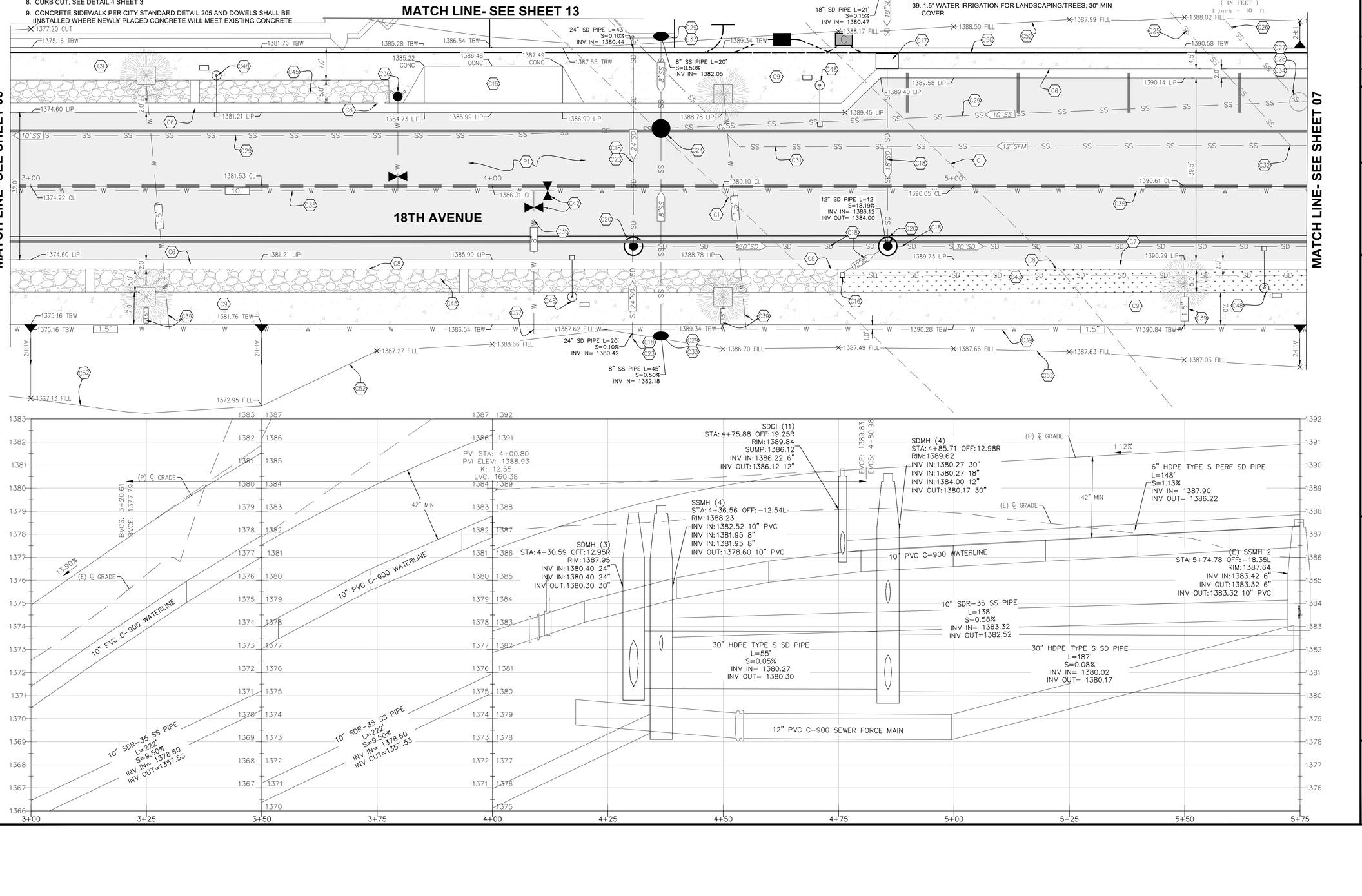
1. INSTALL 5" FIBER REINFORCED ASPHALT CONCRETE OVER 14" CLASS 2 AGGREGATE BASE COMPACTED TO 95% RC, OVER 12" NATIVE COMPACTED TO 95% RC

(C) CONSTRUCTION

1. REMOVE EXISTING ASPHALT CONCRETE
6. STANDARD CURB AND GUTTER PER CITY STANDARD DETAIL 205 AND DOWELS SHALL BE INSTALLED WHERE NEWLY PLACED CONCRETE WILL MEET EXISTING CONCRETE
7. CURB AND GUTTER PER DETAIL 1 SHEET 3
8. CURB CUT, SEE DETAIL 4 SHEET 3
9. CONCRETE SIDEWALK PER CITY STANDARD DETAIL 205 AND DOWELS SHALL BE INSTALLED WHERE NEWLY PLACED CONCRETE WILL MEET EXISTING CONCRETE
15. COMMERCIAL DRIVEWAY PER CITY STANDARD DETAIL 209
16. DROP INLET PER JENSEN PRECAST DETAIL WITH 6" WEEP HOLE, SEE DETAILS 5 & 6 SHEET 3
17. CATCH BASIN PER CITY STANDARD DETAIL 305 WITH 6" WEEP HOLE, SEE DETAIL 5 SHEET 3
18. HDPE TYPE S STORM DRAINPIPE PER CITY STANDARD DETAIL 301 TYPE B
20. STORM DRAIN MANHOLE PER CITY STANDARD DETAIL 302 & 303
23. CAP ON END OF STORM DRAIN PIPE FOR FUTURE CONNECTION
24. SANITARY SEWER MANHOLE PER LACOSAN'S STANDARD DETAIL 500 & 512
25. ABANDON IN PLACE EXISTING SANITARY SEWER FORCE MAIN
26. ABANDON IN PLACE EXISTING SANITARY SEWER GRAVITY MAIN LACOSAN'S STANDARDS
27. PLUG EXISTING MANHOLE PER DETAIL 1 SHEET 17
28. ADJUST EXISTING SANITARY SEWER MANHOLE TO PROPOSED GRADE PER LACOSAN'S STANDARDS
29. PVC SDR-35 SANITARY SEWER PIPE PER LACOSAN'S STANDARD DETAIL 313
31. PVC C-900 CLASS 150 SANITARY SEWER FORCE MAIN PER LACOSAN'S STANDARDS
32. CONNECT NEW SANITARY SEWER FORCE MAIN TO EXISTING FORCE MAIN
33. SANITARY SEWER SERVICE LINE AND CLEANOUT PER LACOSAN'S STANDARD 513
34. CONNECT NEW SEWERLINE TO EXISTING MANHOLE BY COORDINATING WITH LACOSAN
35. PVC C-900 WATERLINE PIPE, 3.5' MINIMUM COVER; PER CITY OF SANTA ROSA'S STANDARD DETAIL 3, 4, 850, 853, 854
36. FIRE HYDRANT AND APPURTANCES PER CITY OF SANTA ROSA'S STANDARD DETAIL 857
37. BLIND FLANGE, BLOW OFF VALVE AND THRUST BLOCK AT END OF WATERMAIN
39. 1.5" WATER IRRIGATION FOR LANDSCAPING/TREES; 30" MIN COVER
43. BIOFILTRATION AREA, SEE DETAIL 2 SHEET 3
45. ROCK TRENCH, SEE DETAILS ON SHEET 18
48. STREETLIGHT FOUNDATIONS AND PULL BOXES PER CITY STANDARD DETAIL 402
50. BACKBONE UTILITIES- FOR REFERENCE, NOT IN CONTRACT
52. CUT/FILL SLOPES- MAX 2H:1V WITH STRUCTURAL FILL

N E S W

10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.



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CITY OF CLEARLAKE

18TH AVENUE- STA 3+00 TO 5+75

18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER 21-719

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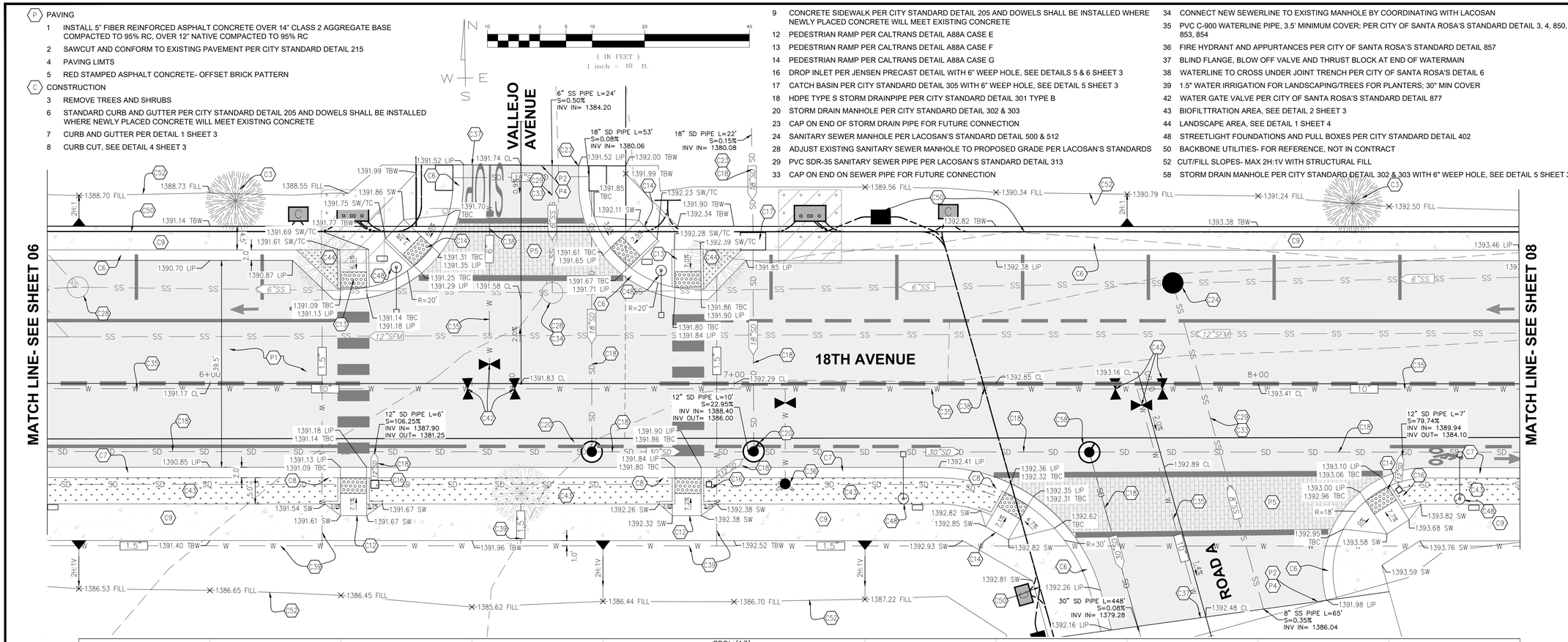
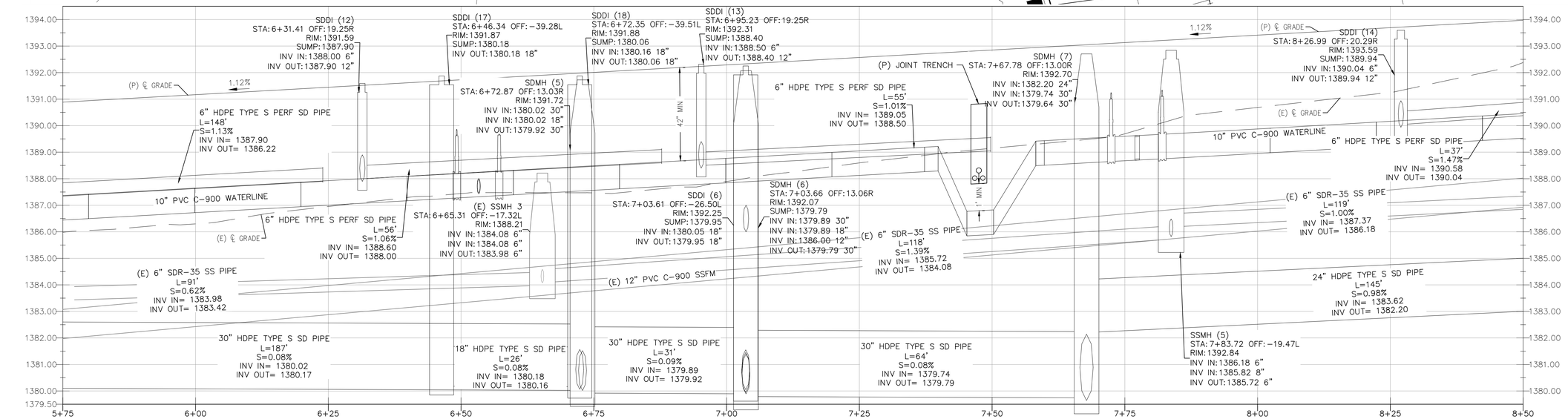
(P) PAVING
1 INSTALL 5" FIBER REINFORCED ASPHALT CONCRETE OVER 14" CLASS 2 AGGREGATE BASE COMPACTED TO 95% RC, OVER 12" NATIVE COMPACTED TO 95% RC
2 SAWCUT AND CONFORM TO EXISTING PAVEMENT PER CITY STANDARD DETAIL 215
4 PAVING LIMTS
5 RED STAMPED ASPHALT CONCRETE- OFFSET BRICK PATTERN

(C) CONSTRUCTION
3 REMOVE TREES AND SHRUBS
6 STANDARD CURB AND GUTTER PER CITY STANDARD DETAIL 205 AND DOWELS SHALL BE INSTALLED WHERE NEWLY PLACED CONCRETE WILL MEET EXISTING CONCRETE
7 CURB AND GUTTER PER DETAIL 1 SHEET 3
8 CURB CUT, SEE DETAIL 4 SHEET 3
9 CONCRETE SIDEWALK PER CITY STANDARD DETAIL 205 AND DOWELS SHALL BE INSTALLED WHERE NEWLY PLACED CONCRETE WILL MEET EXISTING CONCRETE
12 PEDESTRIAN RAMP PER CALTRANS DETAIL A88A CASE E
13 PEDESTRIAN RAMP PER CALTRANS DETAIL A88A CASE F
14 PEDESTRIAN RAMP PER CALTRANS DETAIL A88A CASE G
16 DROP INLET PER JENSEN PRECAST DETAIL WITH 6" WEEP HOLE, SEE DETAILS 5 & 6 SHEET 3
17 CATCH BASIN PER CITY STANDARD DETAIL 305 WITH 6" WEEP HOLE, SEE DETAIL 5 SHEET 3
18 HDPE TYPE S STORM DRAINPIPE PER CITY STANDARD DETAIL 301 TYPE B
20 STORM DRAIN MANHOLE PER CITY STANDARD DETAIL 302 & 303
23 CAP ON END OF STORM DRAIN PIPE FOR FUTURE CONNECTION
24 SANITARY SEWER MANHOLE PER LACOSAN'S STANDARD DETAIL 500 & 512
28 ADJUST EXISTING SANITARY SEWER MANHOLE TO PROPOSED GRADE PER LACOSAN'S STANDARDS
29 PVC SDR-35 SANITARY SEWER PIPE PER LACOSAN'S STANDARD DETAIL 313
33 CAP ON END ON SEWER PIPE FOR FUTURE CONNECTION
34 CONNECT NEW SEWERLINE TO EXISTING MANHOLE BY COORDINATING WITH LACOSAN
35 PVC C-900 WATERLINE PIPE, 3.5' MINIMUM COVER; PER CITY OF SANTA ROSA'S STANDARD DETAIL 3, 4, 850, 853, 854
36 FIRE HYDRANT AND APPURTANCES PER CITY OF SANTA ROSA'S STANDARD DETAIL 857
37 BLIND FLANGE, BLOW OFF VALVE AND THRUST BLOCK AT END OF WATERMAIN
38 WATERLINE TO CROSS UNDER JOINT TRENCH PER CITY OF SANTA ROSA'S DETAIL 6
39 1.5" WATER IRRIGATION FOR LANDSCAPING/TREES FOR PLANTERS; 30" MIN COVER
42 WATER GATE VALVE PER CITY OF SANTA ROSA'S STANDARD DETAIL 877
43 BIOFILTTRATION AREA, SEE DETAIL 2 SHEET 3
44 LANDSCAPE AREA, SEE DETAIL 1 SHEET 4
48 STREETLIGHT FOUNDATIONS AND PULL BOXES PER CITY STANDARD DETAIL 402
50 BACKBONE UTILITIES- FOR REFERENCE, NOT IN CONTRACT
52 CUT/FILL SLOPES- MAX 2H:1V WITH STRUCTURAL FILL
58 STORM DRAIN MANHOLE PER CITY STANDARD DETAIL 302 & 303 WITH 6" WEEP HOLE, SEE DETAIL 5 SHEET 3





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CITY OF CLEARLAKE

18TH AVENUE- STA 5+75 TO 8+50

18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER 21-719

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(P) PAVING
1 INSTALL 5" FIBER REINFORCED ASPHALT CONCRETE OVER 14" CLASS 2 AGGREGATE BASE COMPACTED TO 95% RC, OVER 12" NATIVE COMPACTED TO 95% RC
2 SAWCUT AND CONFORM TO EXISTING PAVEMENT PER CITY STANDARD DETAIL 215
4 PAVING LIMTS
5 RED STAMPED ASPHALT CONCRETE- OFFSET BRICK PATTERN

(C) CONSTRUCTION
4 REMOVE LANDSCAPE ROCKS
6 STANDARD CURB AND GUTTER PER CITY STANDARD DETAIL 205 AND DOWELS SHALL BE INSTALLED WHERE NEWLY PLACED CONCRETE WILL MEET EXISTING CONCRETE
7 CURB AND GUTTER PER DETAIL 1 SHEET 3
8 CURB CUT, SEE DETAIL 4 SHEET 3
9 CONCRETE SIDEWALK PER CITY STANDARD DETAIL 205 AND DOWELS SHALL BE INSTALLED WHERE NEWLY PLACED CONCRETE WILL MEET EXISTING CONCRETE
11 PEDESTRIAN RAMP PER CALTRANS DETAIL A88A CASE C
12 PEDESTRIAN RAMP PER CALTRANS DETAIL A88A CASE E
13 PEDESTRIAN RAMP PER CALTRANS DETAIL A88A CASE F
14 PEDESTRIAN RAMP PER CALTRANS DETAIL A88A CASE G
16 DROP INLET PER JENSEN PRECAST DETAIL WITH 6" WEEP HOLE, SEE DETAILS 5 & 6 SHEET 3
17 CATCH BASIN PER CITY STANDARD DETAIL 305 WITH 6" WEEP HOLE, SEE DETAIL 5 SHEET 3
18 HDPE TYPE S STORM DRAINPIPE PER CITY STANDARD DETAIL 301 TYPE B
20 STORM DRAIN MANHOLE PER CITY STANDARD DETAIL 302 & 303
24 SANITARY SEWER MANHOLE PER LACOSAN'S STANDARD DETAIL 500 & 512
28 ADJUST EXISTING SANITARY SEWER MANHOLE TO PROPOSED GRADE PER LACOSAN'S STANDARDS
29 PVC SDR-35 SANITARY SEWER PIPE PER LACOSAN'S STANDARD DETAIL 313
33 CAP ON END ON SEWER PIPE FOR FUTURE CONNECTION
34 CONNECT NEW SEWERLINE TO EXISTING MANHOLE BY COORDINATING WITH LACOSAN
35 PVC C-900 WATERLINE PIPE, 3.5' MINIMUM COVER; PER CITY OF SANTA ROSA'S STANDARD DETAIL 3, 4, 850, 853, 854
36 FIRE HYDRANT AND APPURTANCES PER CITY OF SANTA ROSA'S STANDARD DETAIL 857
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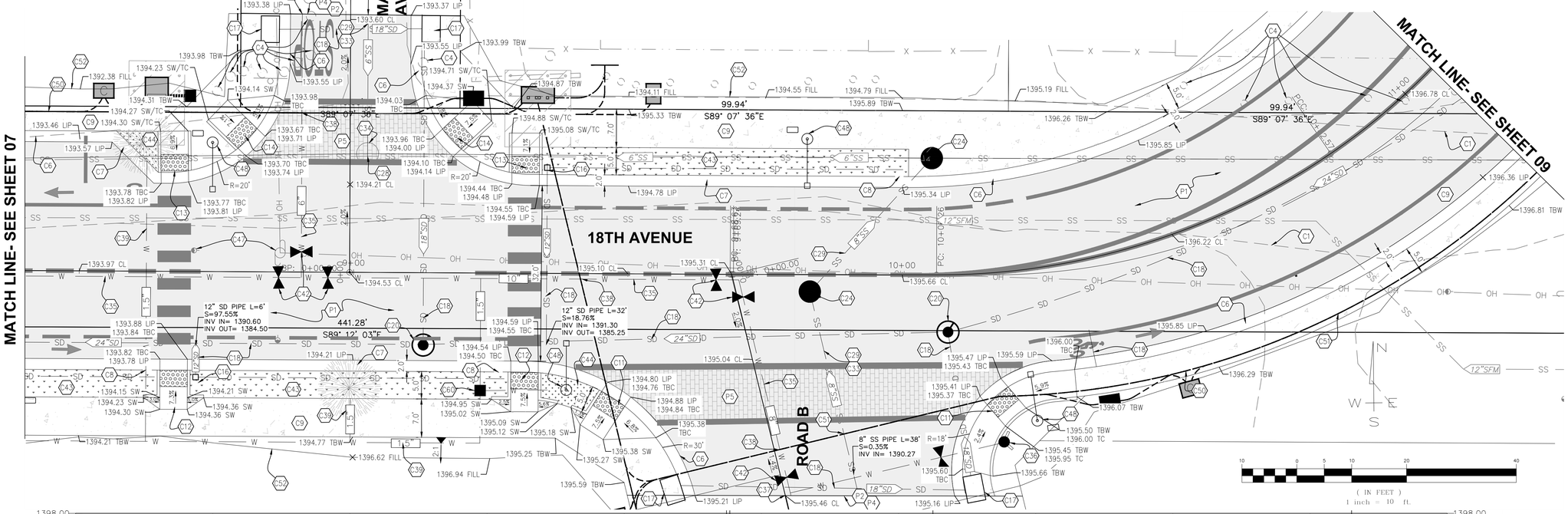
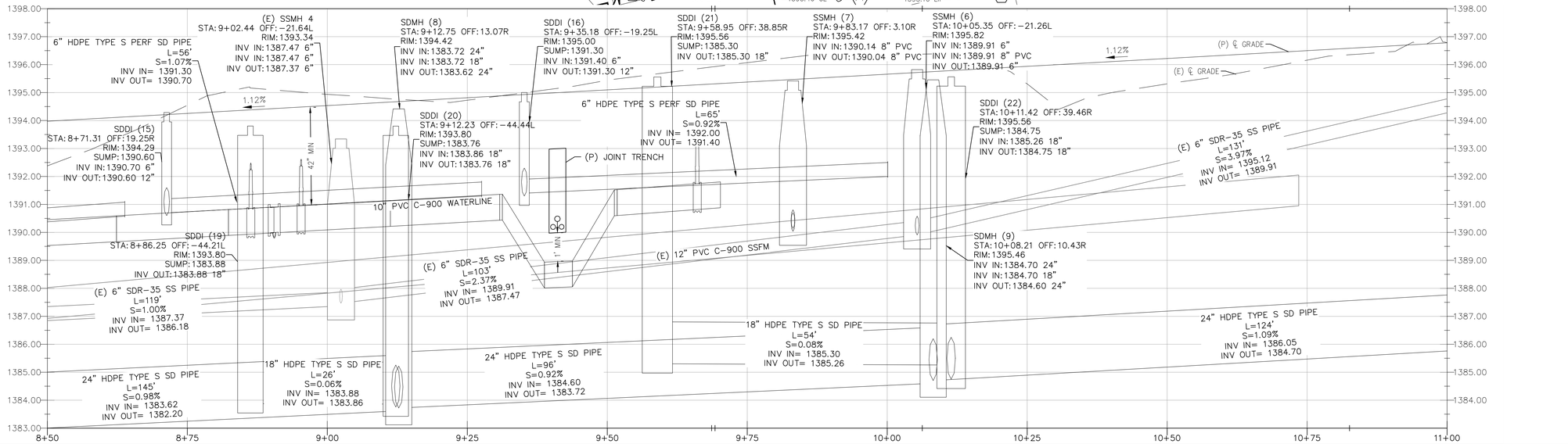
38 WATERLINE TO CROSS UNDER JOINT TRENCH PER CITY OF SANTA ROSA'S DETAIL 6
39 1.5" WATER IRRIGATION FOR LANDSCAPING/TREES FOR PLANTERS; 30" MIN COVER
42 WATER GATE VALVE PER CITY OF SANTA ROSA'S STANDARD DETAIL 877
43 BIOFILTRATION AREA, SEE DETAIL 2 SHEET 3
44 LANDSCAPE AREA, SEE DETAIL 1 SHEET 4
47 POWER POLE TO BE REMOVED BY OTHERS
48 STREETLIGHT FOUNDATIONS AND PULL BOXES PER CITY STANDARD DETAIL 402
50 BACKBONE UTILITIES- FOR REFERENCE, NOT IN CONTRACT
51 CONFLICT BETWEEN JOINT TRENCH AND SEWER- JOINT TRENCH TO GO OVER OR ABOVE
52 CUT/FILL SLOPES- MAX 2H:1V WITH STRUCTURAL FILL
59 PLANT TREE PER DETAIL 3 SHEET 4
60 1" WATER METER, COORDINATE WITH HIGHLANDS WATER COMPANY FOR INSTALLATION & IRRIGATION CONTROLLER





NO.	DATE	DESCRIPTION

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CITY OF CLEARLAKE

18TH AVENUE- STA 8+50 TO 11+00

18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER 21-719

SHEET 08 OF 18

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(P) PAVING
1 INSTALL 5" FIBER REINFORCED ASPHALT CONCRETE OVER 14" CLASS 2 AGGREGATE BASE COMPACTED TO 95% RC, OVER 12" NATIVE COMPACTED TO 95% RC
2 SAWCUT AND CONFORM TO EXISTING PAVEMENT PER CITY STANDARD DETAIL 215
4 PAVING LIMTS

(C) CONSTRUCTION
1 REMOVE EXISTING ASPHALT CONCRETE
2 REMOVE EXISTING CONCRETE UP TO TRUNCATED DOMES
4 REMOVE LANDSCAPE ROCKS
6 STANDARD CURB AND GUTTER PER CITY STANDARD DETAIL 205 AND DOWELS SHALL BE INSTALLED WHERE NEWLY PLACED CONCRETE WILL MEET EXISTING CONCRETE
9 CONCRETE SIDEWALK PER CITY STANDARD DETAIL 205 AND DOWELS SHALL BE INSTALLED WHERE NEWLY PLACED CONCRETE WILL MEET EXISTING CONCRETE
17 CATCH BASIN PER CITY STANDARD DETAIL 305 WITH 6" WEEP HOLE, SEE DETAIL 5 SHEET 3
18 HDPE TYPE S STORM DRAINPIPE PER CITY STANDARD DETAIL 301 TYPE B
20 STORM DRAIN MANHOLE PER CITY STANDARD DETAIL 302 & 303
28 ADJUST EXISTING SANITARY SEWER MANHOLE TO PROPOSED GRADE PER LACOSAN'S STANDARDS
48 STREETLIGHT FOUNDATIONS AND PULL BOXES PER CITY STANDARD DETAIL 402
50 BACKBONE UTILITIES- FOR REFERENCE, NOT IN CONTRACT
51 CONFLICT BETWEEN JOINT TRENCH AND SEWER- JOINT TRENCH TO GO OVER OR ABOVE
52 CUT/FILL SLOPES- MAX 2H:1V WITH STRUCTURAL FILL
53 EXISTING BUILDING TO BE DEMOLISHED UNDER A SEPARATE CONTRACT PRIOR TO CONSTRUCTION
54 REMOVE AND REPLACE TRAFFIC SIGNAL LOOP PER CALTRANS DETAIL __
55 EXISTING ELECTRICAL BOX TO BE RELOCATED PER CALTRANS DETAIL __
56 ELECTRICAL BOX TO BE ADJUSTED TO GRADE
57 EXISTING TRAFFIC SIGNAL POLE TO BE PROTECTED IN PLACE

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CITY OF CLEARLAKE

18TH AVENUE- STA 11+00 TO 13+75

18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER 21-719

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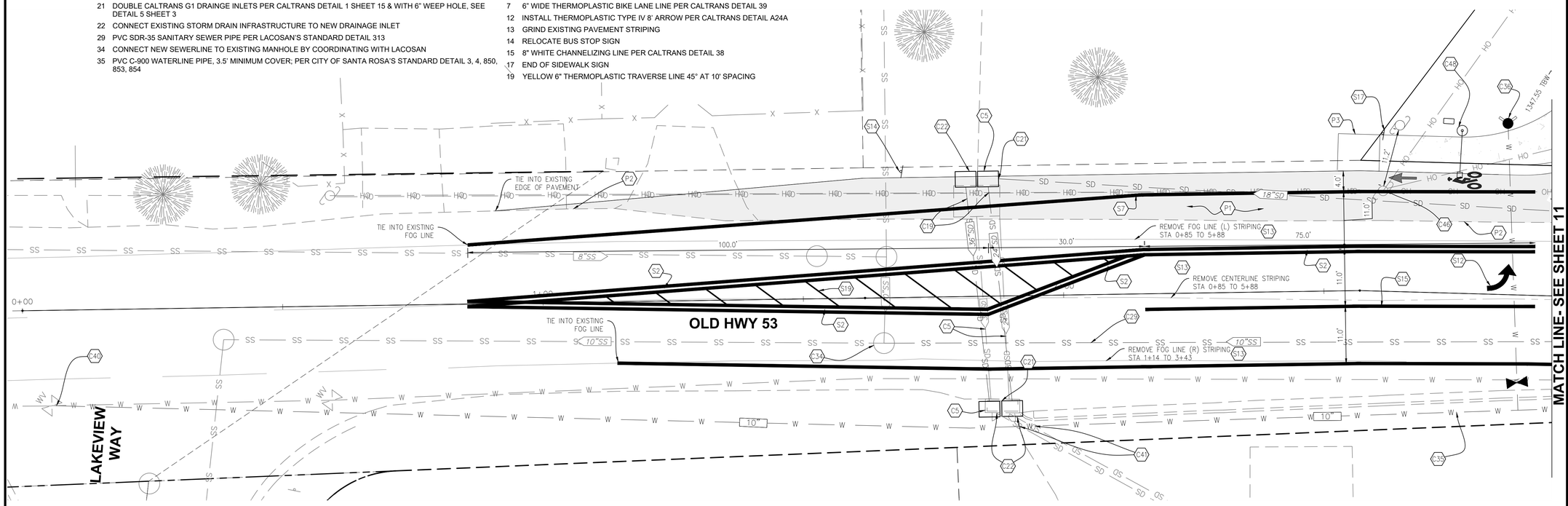
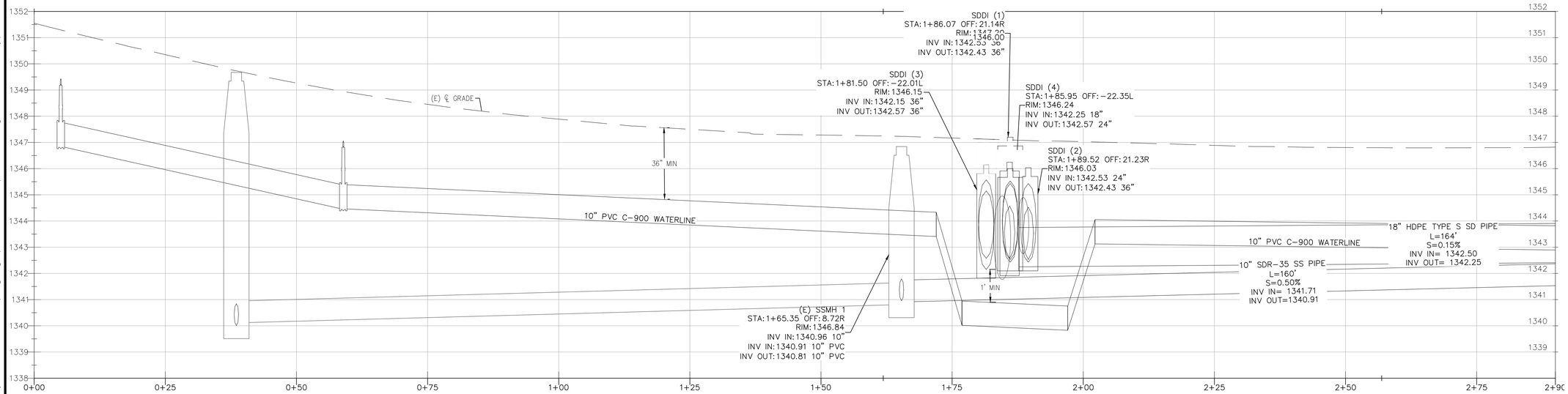
(P) PAVING
- 1 INSTALL 5" FIBER REINFORCED ASPHALT CONCRETE OVER 14" CLASS 2 AGGREGATE BASE COMPACTED TO 95% RC, OVER 12" NATIVE COMPACTED TO 95% RC
- 2 SAWCUT 1' MIN INTO EXISTING PAVEMENT WITH A NEAT STRAIGHT LINE AND CONFORM
- 3 4" FULL DEPTH ASPHALT CONCRETE RAMP TO CONFORM TO EXISTING GROUND- 5% MAX SLOPE

(C) CONSTRUCTION
- 5 REMOVE EXISTING DRAINAGE INFRASTRUCTURE
- 19 CORRUGATED METAL PIPE PER CITY STANDARD DETAIL 301 TYPE A
- 21 DOUBLE CALTRANS G1 DRAINGE INLETS PER CALTRANS DETAIL 1 SHEET 15 & WITH 6" WEEP HOLE, SEE DETAIL 5 SHEET 3
- 22 CONNECT EXISTING STORM DRAIN INFRASTRUCTURE TO NEW DRAINAGE INLET
- 29 PVC SDR-35 SANITARY SEWER PIPE PER LACOSAN'S STANDARD DETAIL 313
- 34 CONNECT NEW SEWERLINE TO EXISTING MANHOLE BY COORDINATING WITH LACOSAN
- 35 PVC C-900 WATERLINE PIPE, 3.5' MINIMUM COVER; PER CITY OF SANTA ROSA'S STANDARD DETAIL 3, 4, 850, 853, 854
- 36 FIRE HYDRANT AND APPURTANCES PER CITY OF SANTA ROSA'S STANDARD DETAIL 857
- 40 CONNECT NEW WATERLINE TO EXISTING MAIN BY COORDINATING WITH HIGHLANDS WATER COMPANY
- 41 WATERMAIN CROSSING UNDER STORM DRAIN PIPE PER CITY OF SANTA ROSA'S STANDARD DETAIL 4
- 46 POWER POLE TO BE RELOCATED BY OTHERS
- 48 STREETLIGHT FOUNDATIONS AND PULL BOXES PER CITY STANDARD DETAIL 402

(S) STRIPING & SIGNAGE
- 2 DOUBLE YELLOW THERMOPLASTIC LINES, CALTRANS DETAIL 22 WITH TYPE D BLUE TWO-WAY RETROFLECTIVE PAVEMENT MARKER AT HYDRANT LOCATONS
- 7 6" WIDE THERMOPLASTIC BIKE LANE LINE PER CALTRANS DETAIL 39
- 12 INSTALL THERMOPLASTIC TYPE IV 8' ARROW PER CALTRANS DETAIL A24A
- 13 GRIND EXISTING PAVEMENT STRIPING
- 14 RELOCATE BUS STOP SIGN
- 15 8" WHITE CHANNELIZING LINE PER CALTRANS DETAIL 38
- 17 END OF SIDEWALK SIGN
- 19 YELLOW 6" THERMOPLASTIC TRAVERSE LINE 45° AT 10' SPACING

(IN FEET)
1 inch = 20 ft.





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CITY OF CLEARLAKE

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18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER 21-719

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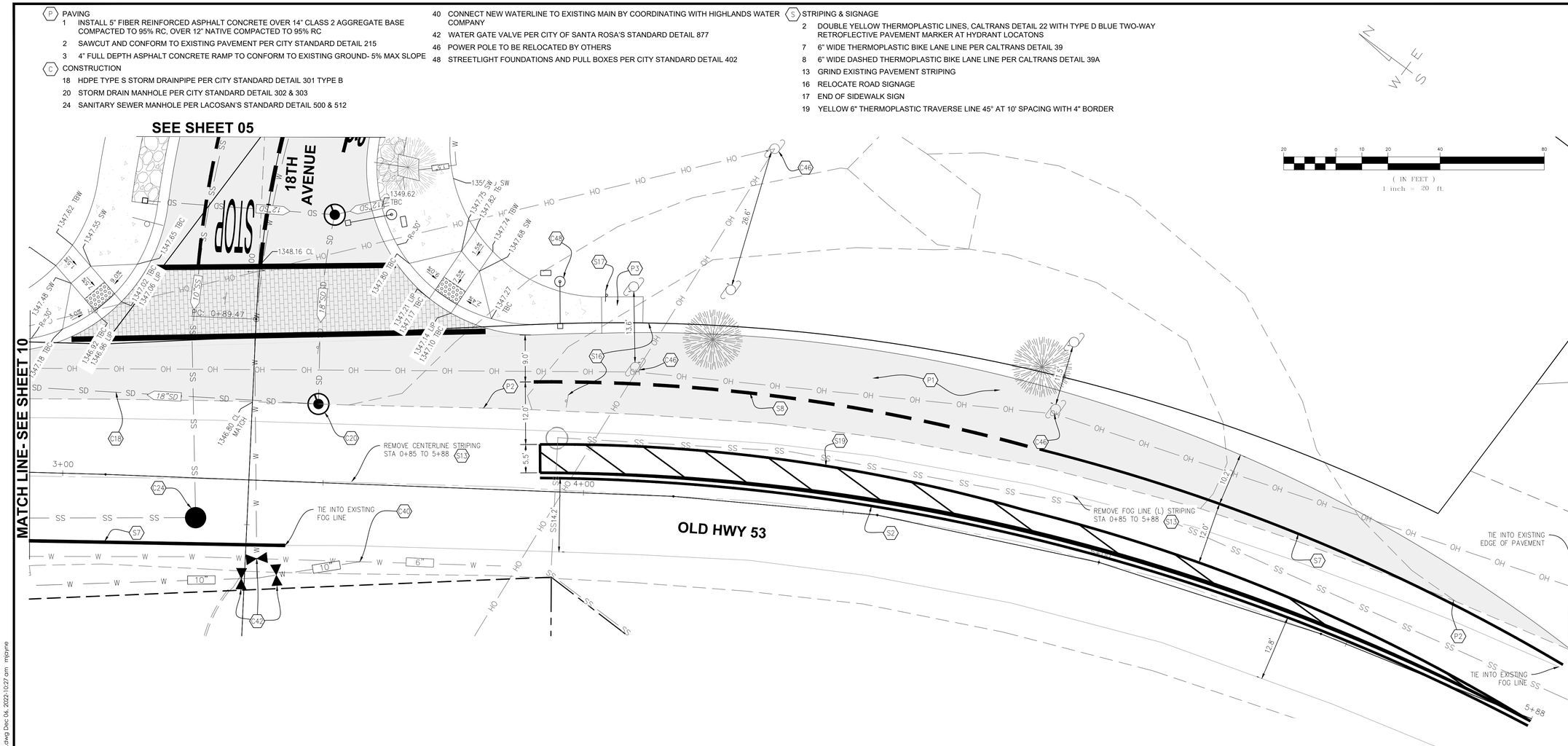
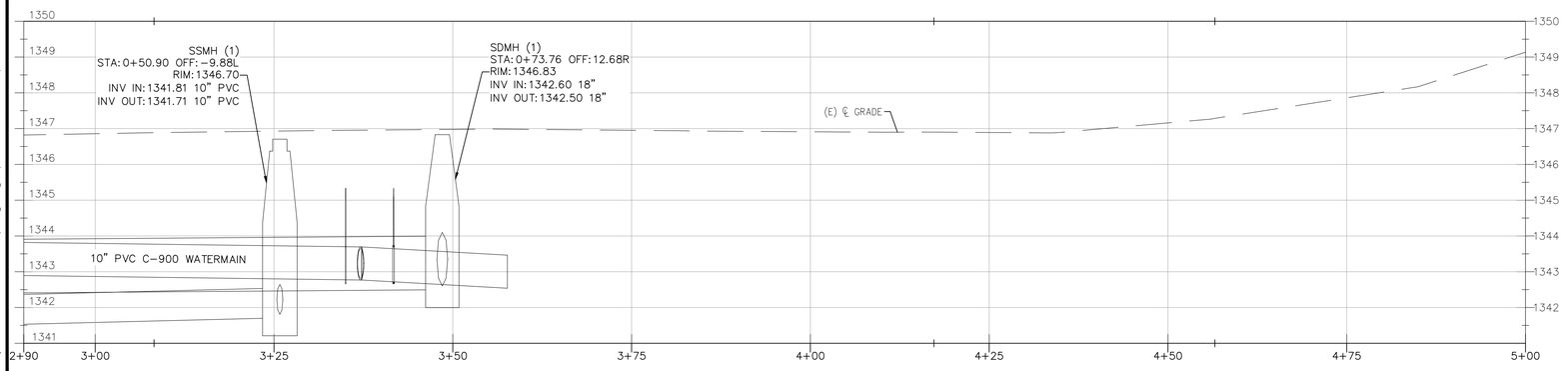
1 INSTALL 5" FIBER REINFORCED ASPHALT CONCRETE OVER 14" CLASS 2 AGGREGATE BASE COMPACTED TO 95% RC, OVER 12" NATIVE COMPACTED TO 95% RC
2 SAWCUT AND CONFORM TO EXISTING PAVEMENT PER CITY STANDARD DETAIL 215
3 4" FULL DEPTH ASPHALT CONCRETE RAMP TO CONFORM TO EXISTING GROUND- 5% MAX SLOPE

(C) CONSTRUCTION
18 HDPE TYPE S STORM DRAINPIPE PER CITY STANDARD DETAIL 301 TYPE B
20 STORM DRAIN MANHOLE PER CITY STANDARD DETAIL 302 & 303
24 SANITARY SEWER MANHOLE PER LACOSAN'S STANDARD DETAIL 500 & 512
40 CONNECT NEW WATERLINE TO EXISTING MAIN BY COORDINATING WITH HIGHLANDS WATER COMPANY
42 WATER GATE VALVE PER CITY OF SANTA ROSA'S STANDARD DETAIL 877
46 POWER POLE TO BE RELOCATED BY OTHERS
48 STREETLIGHT FOUNDATIONS AND PULL BOXES PER CITY STANDARD DETAIL 402

(S) STRIPING & SIGNAGE
2 DOUBLE YELLOW THERMOPLASTIC LINES, CALTRANS DETAIL 22 WITH TYPE D BLUE TWO-WAY RETROFLECTIVE PAVEMENT MARKER AT HYDRANT LOCATONS
7 6" WIDE THERMOPLASTIC BIKE LANE LINE PER CALTRANS DETAIL 39
8 6" WIDE DASHED THERMOPLASTIC BIKE LANE LINE PER CALTRANS DETAIL 39A
13 GRIND EXISTING PAVEMENT STRIPING
16 RELOCATE ROAD SIGNAGE
17 END OF SIDEWALK SIGN
19 YELLOW 6" THERMOPLASTIC TRAVERSE LINE 45° AT 10' SPACING WITH 4" BORDER





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CITY OF CLEARLAKE

OLD HWY 53- STA 2+90 TO 5+88

18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER 21-719

SHEET 11 OF 18

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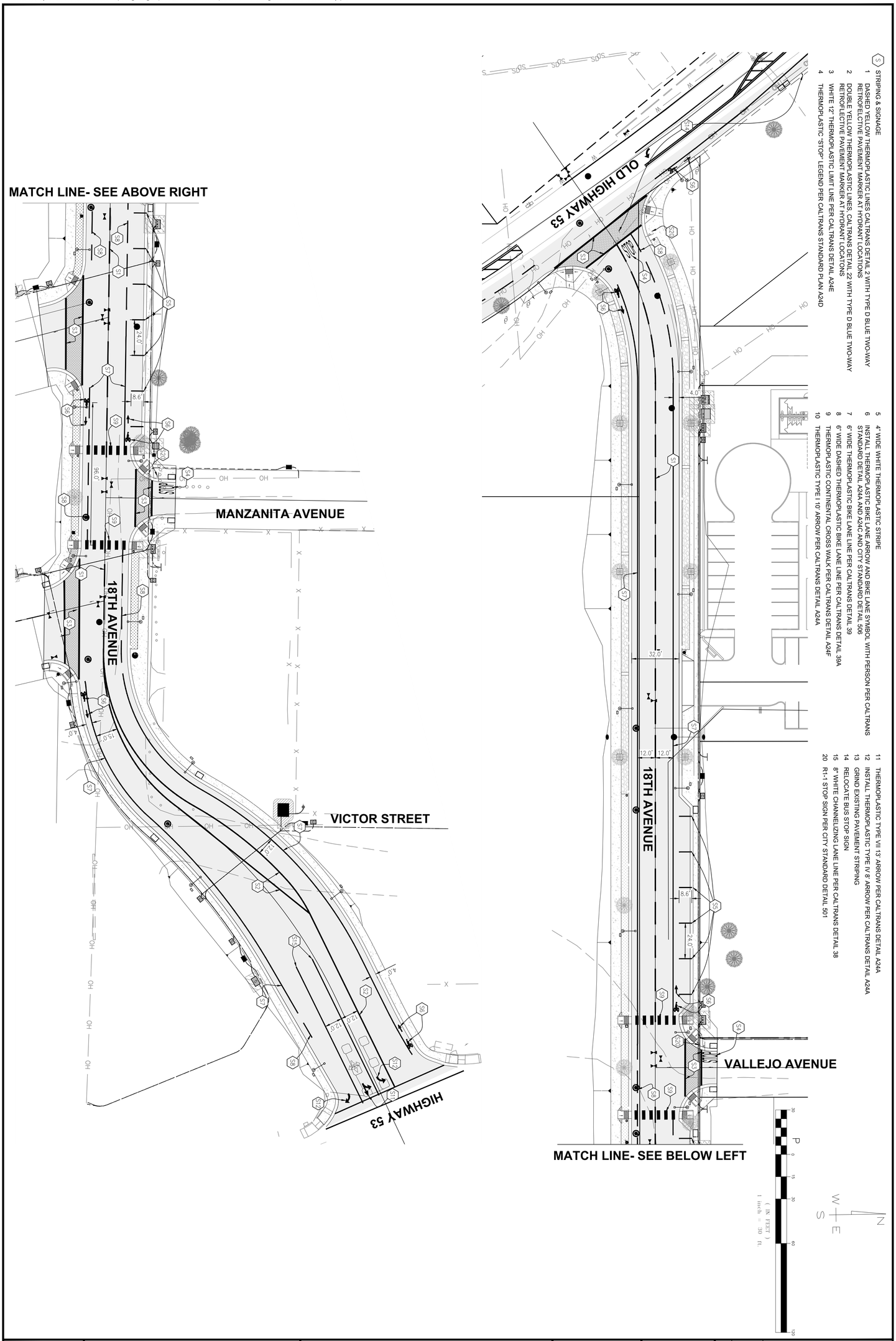

PROJECT NUMBER 21-719	CITY OF CLEARLAKE	CALIFORNIA ENGINEERING COMPANY INC ESTD 1996 — CIVIL ENGINEERING, LAND SURVEYING, FUNDING PROCUREMENT, CONSTRUCTION ADMINISTRATION — www.cecusa.net	DATE: X-X-XXXX	NO.	DATE	DESCRIPTION
SHEET 12 OF 18	18TH AVENUE- STRIPING	1110 Civic Center Blvd. Suite 404 | Yuba City, CA 95993 | (530) 751-0952 Office	SCALE: 1"=30'			
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C CONSTRUCTION
25 ABANDON IN PLACE EXISTING SANITARY SEWER FORCE MAIN
26 ABANDON IN PLACE EXISTING SANITARY SEWER GRAVITY MAIN LACOSAN'S STANDARDS
31 PVC C-900 CLASS 150 SANITARY SEWER FORCE MAIN PER LACOSAN'S STANDARDS
32 CONNECT NEW SANITARY SEWER FORCE MAIN TO EXISTING FORCE MAIN

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CITY OF CLEARLAKE

SANITARY SEWER FORCE MAIN RELOCATION ALIGNMENT

18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER 21-719

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NOTES:

1. CONCRETE SHALL BE CLASS A AND SHALL CONTAIN NOT LESS THAN 6 SACKS OF CEMENT PER CUBIC YARD.
2. EXPANSION JOINTS, 1/4 INCH WIDE, SHALL BE INSTALLED AT EACH SIDE OF STRUCTURES, AT ENDS OF CURB RETURNS AND AT THE TOP OF DRIVEWAY TAPERS.
3. EXPANSION JOINTS SHALL BE INSTALLED AT 60 FOOT INTERVALS, WITH WEAKENED PLANE JOINTS EVERY 15 FEET.
4. SIDEWALKS SHALL BE SCORED INTO 5 FOOT SQUARES UNLESS SPECIFIED BY ENGINEER.
5. EXPANSION JOINTS SHALL BE PLACED IN CURB, GUTTER AND SIDEWALK AT ALL CURB RETURNS.
6. WEIGHT OF CURB AND/OR SIDEWALK AND CLASS 2 AGGREGATE SHALL EXCEED THE EXPANSION PRESSURE OF THE BASEMENT SOIL 'R' VALUE.

CURB, GUTTER AND SIDEWALK	STD. NO. 205
SCALE: NONE | DRAWN: DRH | CHK: PWW | APPVD: JLW	DATE: JUN. 2012

NOTES:

1. WEAKENED PLANE JOINTS SHALL BE INSTALLED AT THE CENTER OF ALL DRIVEWAYS OVER 20' WIDE.
2. MAXIMUM SIDEWALK CROSS SLOPE (1/4" PER FOOT).
3. WIDEN OR MEANDER SIDEWALK AT OBSTRUCTIONS (INCLUDING DRIVEWAYS) TO MAINTAIN 4' MINIMUM CLEARANCE.
4. ALL CONCRETE SHALL BE CLASS "A" CONTAINING NOT LESS THAN 6 SACKS OF CEMENT PER CUBIC YARD.
5. WELDED WIRE FABRIC (4"x4",10/10) SHALL BE PLACED THROUGHOUT COMMERCIAL AND INDUSTRIAL DRIVEWAYS WITHIN THE STREET RIGHT OF WAY.

DRIVEWAY STREETS WITH CURB AND GUTTER	STD. NO. 209
SCALE: NONE | DRAWN: DRH | CHK: PWW | APPVD: JLW	DATE: JUN. 2012

NOTES:

1. EDGE GRINDING SHALL BE 1"±1/4".
2. DESIGN SHALL CONFORM TO THESE REQUIREMENTS EXCEPTS AS OTHERWISE APPROVED BY THE CITY ENGINEER.

SIDE STREET AND END OF OVERLAY CONFORM	STD. NO. 215
SCALE: NONE | DRAWN: DRH | CHK: PWW | APPVD: JLW	DATE: JUN. 2012

NOTES:

1. 1/4 PIPE O.D. OR 4" MIN. WHEN EXCAVATION IS IN ROCKY GROUND.
2. PIPE DIAMETER 18" OR LESS: 6" MIN., 9" MAX.
3. PIPE DIAMETER GREATER THAN 18": 9" MIN., 12" MAX.
4. RELATIVE COMPACTION DESIGNATED BY SOILS ENGINEER.
5. NEATLY CUT PAVEMENT SHALL BE A MIN. OF 3" A.C. ON 12" A.B. OR MATCH EXISTING PAVEMENT THICKNESS, WHICHEVER IS THICKER OR AS SPECIFIED ON PLANS.
6. NEATLY CUT PAVEMENT SIX INCHES FROM EDGE OF TRENCH AFTER TRENCH IS BACKFILLED.

SHEET 1 OF 2

STANDARD TRENCH DETAIL	STD. NO. 301
SCALE: NONE | DRAWN: DRH | CHK: PWW | APPVD: JLW	DATE: JUN. 2012

MATERIAL SPECIFICATIONS:

DRAIN ROCK MAY BE USED AS BEDDING UNDER PIPE FOR SLOPES LESS THAN 8% DRAIN ROCK SHALL BE 100% CRUSHED AND SHALL CONFORM TO THE FOLLOWING GRADING:

1-1/2"	1"	1/2"
100	95-100	0-30

#4

0-4

CUT OFF WALLS SHALL BE PROVIDED WHEN SHOWN ON THE PLANS OR REQUIRED BY THE ENGINEER.

PIPE BEDDING FOR SLOPES LESS THAN OR EQUAL TO 8% SHALL HAVE A MINIMUM SAND EQUIVALENT VALUE OF 30 AND SHALL CONFORM TO THE FOLLOWING GRADING:

1"	3/4"	3/8"	#4	#200
100	90-100	65-100	30-100	0-15

PIPE BEDDING FOR SLOPES GREATER THAN 8% SHALL HAVE A MINIMUM SAND EQUIVALENT OF 30 AND SHALL CONFORM TO THE FOLLOWING GRADING:

1"	3/4"	3/8"	#4	#30	#200
100	90-100	65-100	30-100	10-100	0-15

TRENCH BACKFILL FOR EXISTING STREETS AND STREETS UNDER CONSTRUCTION SHALL BE SLURRY CEMENT BACKFILL CONFORMING TO SECTION 19-3.020 OF THE CALTRANS STANDARD SPECIFICATIONS (2 SACK SAND SLURRY). TRENCH BACKFILL FOR OTHER SHALL BE EITHER SLURRY CEMENT BACKFILL OR SHALL CONFORM TO THE FOLLOWING GRADING AND HAVE A MINIMUM SAND EQUIVALENT VALUE OF 25.

3"	#4	#30
100	40 -100	10-100

WHEN SAND BEDDING IS PROPOSED FOR UTILITY CONDUIT INSTALLATION, THE MATERIAL SPECIFICATIONS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW 5 WORKING DAYS BEFORE CONSTRUCTION.

AGGREGATE BASE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 26 OF THE STATE STANDARD SPECIFICATIONS CLASS 2, ¾" MAXIMUM. HOT MIX ASPHALT SHALL CONFORM TO THE REQUIREMENTS OF SECTION 39 OF THE CALTRANS STANDARD SPECIFICATIONS, TYPE A, ½" MAXIMUM, MEDIUM.

COMPACTION REQUIREMENTS

DRAIN ROCK SHALL BE CONSOLIDATED WITH A SURFACE VIBRATOR.

PIPE BEDDING MATERIAL USED TO GRADE THE TRENCH SHALL BE CONSOLIDATED WITH A SURFACE VIBRATOR WHEN IT IS PLACED OVER DRAIN ROCK OR WHEN DEPTH IS GREATER THAN 6 INCHES.

MECHANICAL COMPACTION:
TRENCH BACKFILL SHALL BE PLACED IN UNIFORM, HORIZONTAL LAYERS NOT EXCEEDING EIGHT (8) INCHES IN THICKNESS BEFORE COMPACTION. EACH LAYER SHALL BE COMPACTED, USING MECHANICAL MEANS, TO THE SPECIFIED DENSITY SHOWN ON THE PLANS.

THE CONTRACTOR MAY, AT HIS SOLE OPTION AND AT HIS SOLE EXPENSE, CONSTRUCT A TEST TRENCH SECTION WHICH DEMONSTRATES METHODS, EQUIPMENT, OR MATERIALS WHICH WILL RELIABLY ACHIEVE THE REQUIRED COMPACTION IN LIFTS GREATER THAN 8 INCHES. AT ITS SOLE DISCRETION, THE CITY MAY INCREASE THE MAXIMUM ALLOWABLE LIFT THICKNESS PERMITTED IN PLACE OF 8 INCHES BASED ON THE RESULTS OF THE TEST TRENCH SECTION. IF SUBSEQUENT TESTING DEMONSTRATE THAT THE REQUIRED COMPACTION IS NOT BEING RELIABLY ACHIEVED, THE CITY MAY, AT ITS SOLE DISCRETION, REDUCE THE MAXIMUM LIFT THICKNESS TO ITS ORIGINAL VALUE OF 8 INCHES.

JETTING: JETTING IS NOT ALLOWED.

SHEET 2 OF 2

STANDARD TRENCH DETAIL	STD. NO. 301
SCALE: NONE | DRAWN: DRH | CHK: PWW | APPVD: JLW	DATE: JUN. 2012

NOTES:

1. WHEN MANHOLES ARE INSTALLED IN UNIMPROVED AREAS, THE TOP OF THE COVER SHALL BE A MINIMUM OF 1 FOOT ABOVE ADJACENT GRADE.
2. RAM-NEK OR APPROVED EQUAL SHALL BE USED FOR INITIAL PLASTERING OF JOINTS REQUIRED IF HIGH WATER CONDITIONS EXIST
3. CONE SECTION MAY BE EITHER CONCENTRIC OR ECCENTRIC UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER.
4. MANHOLES OVER 7' IN DEPTH, OR WITH A PIPE OVER 36" DIAMETER, SHALL BE 5' IN DIAMETER UNLESS OTHERWISE PERMITTED BY THE CITY ENGINEER.
5. SET ALL RINGS IN A 1:3 MORTAR BED. WET BOTH TONGUE AND GROOVE WITH 1:3 CEMENT MORTAR AND SETTING RING. WIPE MORTAR OF JOINTS SMOOTH AND PLASTER OUTSIDE OF JOINT WITH 1/2" LAYER OF MORTAR.
6. CONSTRUCT ALL FLOW CHANNELS OF PIPE WHEREVER POSSIBLE. AFTER BASE IS FORMED, CONSTRUCT CHANNELS TO SMOOTH, U-SHAPED FLOWLINES. MAKE CHANGES GRADUALLY, AND DIRECTIONAL CHANGES WITH SMOOTH CURVES. SET RING BASE IN MORTAR.
7. ALL SECTIONS OF MANHOLE MUST BE OF IDENTICAL MAKE AND MANUFACTURER.

STORM DRAIN MANHOLE	STD. NO. 302
SCALE: NONE | DRAWN: DRH | CHK: PWW | APPVD: JLW	DATE: APR. 2012

NOTES:

1. ALL CASTINGS SHALL BE DIPPED IN APPROVED ASPHALT PAINT.
2. ALL MATERIAL USED IN MANUFACTURING SHALL CONFORM TO A.S.T.M. DESIGNATION A-159-G2000, OR TO UNITED STATES GOVERNMENT SPECIFICATIONS GG-I-652B.
3. MINIMUM WEIGHT COMPONENTS: COVER – 130 POUNDS; FRAME – 135 POUNDS

STANDARD MANHOLE FRAME AND COVER	STD. NO. 303
SCALE: NONE | DRAWN: DRH | CHK: PWW | APPVD: JLW	DATE: APR. 2012

NOTES:

1. IF PIPE INTO OR OUT OF THE CATCH BASIN IS LARGER THAN 24", UNIT SHALL BE TAILOR MADE BY SUPPLIER OR FIELD FABRICATED PER CITY STD. 306.
2. CONCRETE SHALL BE CLASS 520-C-2500. MATERIALS: US CONCRETE PRECAST PRODUCTS BASE SECTION MODEL 44, PHOENIX PRECAST CONC. PRODUCTS BASE SECTION MODEL D14.2
3. ALL HOOD, BASE, AND PIPE CONNECTIONS SHALL BE GROUTED.
4. 3/4" GALVANIZED STEEL GUARD ROD MUST BE INSTALLED AT CENTER OF OPENINGS IN EXCESS OF 9" INCHES IN HEIGHT.
5. APPLY STORM DRAIN MARKER PER CITY STANDARD #313.

CURB OPENING CATCH BASINS	STD. NO. 305
SCALE: NONE | DRAWN: DRH | CHK: PWW | APPVD: JLW	DATE: JUN. 2012

STORM DRAIN MARKER	STD. NO. 313
SCALE: NONE | DRAWN: CLG | CHK: PWW | APPVD: JLW	DATE: JUN. 2012

NOTES:

1. IN UNDEVELOPED AREAS, CONSTRUCT A 2'x2' CONC. PAD (4" THICK). IF ROUND FOOTING IS POURED, STOP AT THE ELEVATION OF BOTTOM OF THE SIDEWALK.
2. ANCHOR BOLT DIMENSION "R" AND BOLT PATTERN TO SUIT POLE BASE FURNISHED.
3. CONCRETE SHALL BE CLASS "A" P.C.C. AGAINST UNDISTURBED SOIL.
4. ALTERNATE FOUNDATIONS:
   QUICKSET MODEL NO. L.F.-54
   BRUCKNS PRODUCTS INC. MODEL NO. BSC-109
5. A MINIMUM OF TWO FULL THREADS TO BE EXPOSED ABOVE ANCHOR BOLT NUTS.

STREET LIGHT DETAILS	STD. NO. 402
SCALE: NONE | DRAWN: DRH | CHK: PWW | APPVD: JLW	DATE: JUN. 2012

NOTE:

1. DESIGN SHALL CONFORM TO THESE REQUIREMENTS EXCEPT AS OTHERWISE APPROVED BY THE CITY ENGINEER.

TRAFFIC SIGNS URBAN INSTALLATIONS	STD. NO. 501
SCALE: NONE | DRAWN: DRH | CHK: PWW | APPVD: JLW	DATE: JUN. 2012

NOTES:

1. PAVEMENT MARKING SHALL BE THERMOPLASTIC
2. PAVEMENT MARKING SHALL CONFORM TO CALTRANS STANDARD PLANS A20D, A24C, A24D, AND A24E.
3. DESIGN SHALL CONFORM TO THESE REQUIREMENTS EXCEPT AS OTHERWISE APPROVED BY THE CITY ENGINEER.

BIKE LANES SIGNS AND MARKINGS	STD. NO. 506
SCALE: NONE | DRAWN: DRH | CHK: PWW | APPVD: JLW	DATE: JUN. 2012

NO.	DATE	DESCRIPTION

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CITY OF CLEARLAKE

CITY STANDARD DETAILS

18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER 21-719

SHEET 14 OF 18

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Y:\CEC Jobs\Projects\21-719 18th Ave Roadway Design\Eng\Mdl\Dwgs\21-719 18th Ave- Details.dwg Dec 06, 2022 10:27 am mjoyne

DROP INLETS

12"x12" TO 60"x60"
(NOMINAL INSIDE DIMENSIONS)

BOX DESIGN LOAD: H–20 TRAFFIC.

– MAXIMUM INSIDE HEIGHT IS 6'–0".
– MANHOLE STEPS ARE REQUIRED FOR BOXES OF 30" DEPTH OR GREATER.

FOR COMPLETE DESIGN AND PRODUCT INFORMATION
CONTACT JENSEN PRECAST.

SURVEY
DWG_01_C.dwg
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2020 - 1974 ADC DETAILSDWG
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Jensen Precast reserves the right to make changes to product design
and/or dimensions without notice. Please contact Jensen Precast whenever
necessary for confirmation or advice on product design.

JENSEN PRECAST

01 G1 DRAINAGE INLET

NOT TO SCALE

NO.	DATE	DESCRIPTION

DATE: X-X-XXXX
SCALE:
DRAWN BY: MRH
DESIGNED BY: MRH
CHECKED BY: DLS

CALIFORNIA ENGINEERING COMPANY INC
CIVIL ENGINEERING
LAND SURVEYING
FUNDING PROCUREMENT
CONSTRUCTION ADMINISTRATION
www.cecusa.net
ESTD 1966
1110 Civic Center Blvd. Suite 404 | Yuba City, CA 95993 | (530) 751-0952 Office

CITY OF CLEARLAKE

CALTRANS STANDARD DETAILS

18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER
21-719

SHEET 15 OF 18

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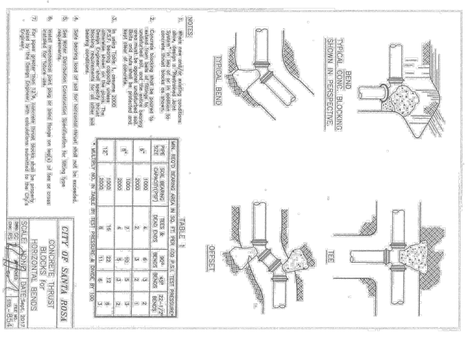

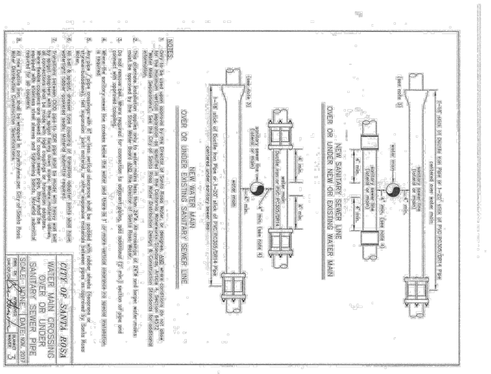

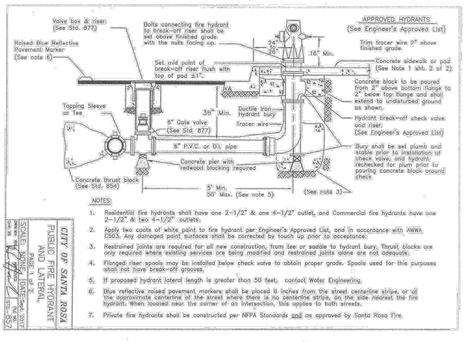

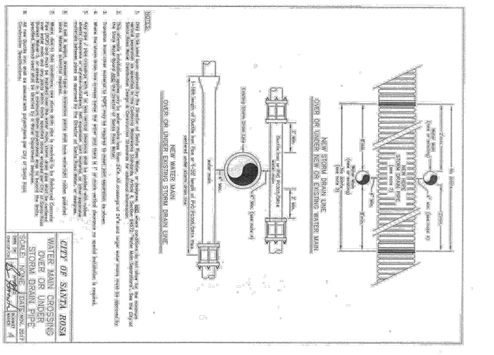

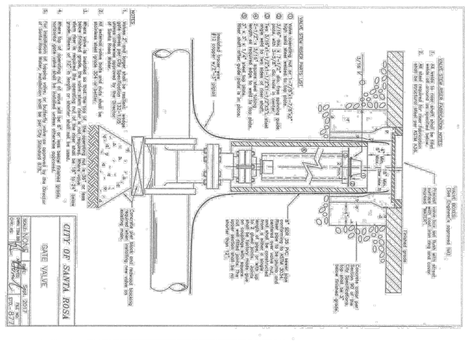

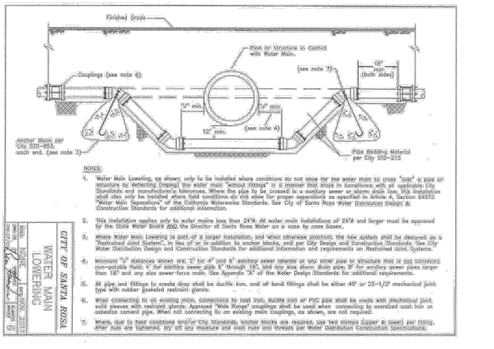

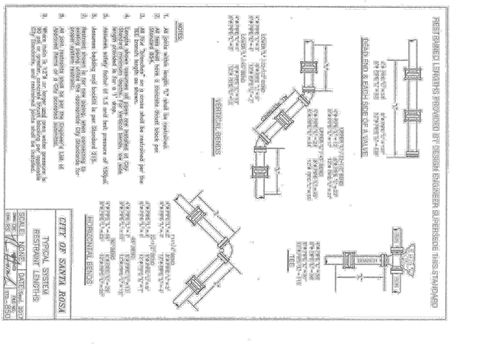

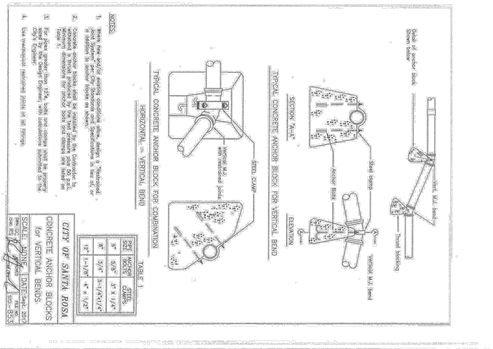

PROJECT NUMBER 21-719	CITY OF CLEARLAKE	CALIFORNIA ENGINEERING COMPANY INC ESTD 1996 — CIVIL ENGINEERING, LAND SURVEYING, FUNDING PROCUREMENT, CONSTRUCTION ADMINISTRATION — www.cecusa.net	DATE: X-X-XXXX
SHEET 16 OF 18	STANDARD WATER DETAILS	1110 Civic Center Blvd. Suite 404 | Yuba City, CA 95993 | (530) 751-0952 Office	SCALE:
	18TH AVENUE ROAD IMPROVEMENT PROJECT		DRAWN BY: MRH
			DESIGNED BY: MRH
			CHECKED BY: DLS

NO.	DATE	DESCRIPTION

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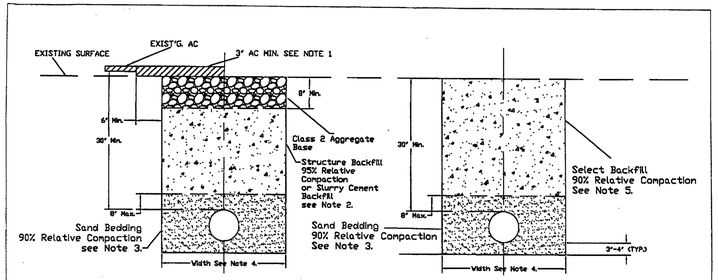
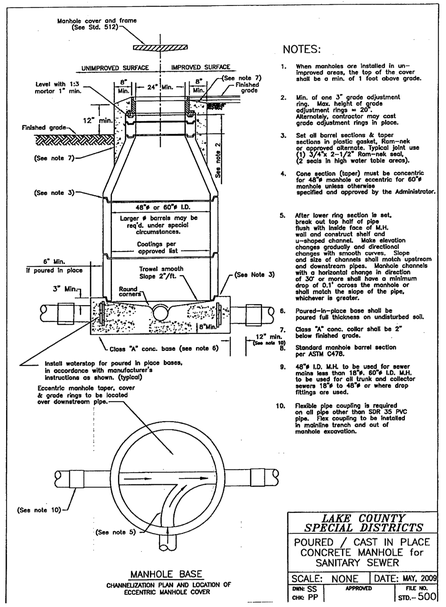


DETAIL "A" TRENCH IN ROADWAY, OR DRIVEWAY

DETAIL "B" TRENCH OUTSIDE ROADWAY, OR DRIVEWAY

NOTES:
1. AC thickness to match existing or 3" Min. whichever is greater. AC to be placed in lifts not exceeding 2" in thickness. AC to be Type A or B, 1/2" Max. Medium, per CALTRANS Standard Specifications, latest edition.
2. When slurry cement backfill is used in paving areas, Class 2 aggregate base may be eliminated.
3. Sand bedding must be leveled and compacted prior to backfilling.
4. If trench width is less than 12", slurry cement backfill shall be used.
5. Select backfill material as approved by Special Districts or Public Works if trenching within Public Right of Way.

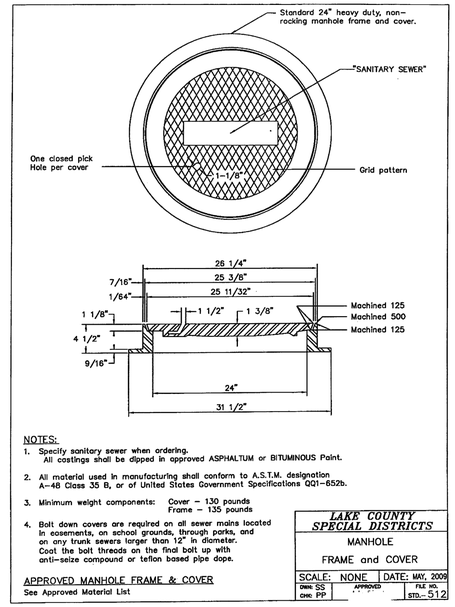
LAKE COUNTY SPECIAL DISTRICTS		
STANDARD TRENCH DETAILS		
SCALE: NONE	DATE: JUN. 2009	
DWN SS CHK PP	APPROVED	FILE NO. STD.-313



MANHOLE BASE
CHANNELIZATION PLAN AND LOCATION OF ECCENTRIC MANHOLE COVER

NOTES:
1. When manholes are installed in un-improved areas, the top of the cover shall be a min. of 1 foot above grade.
2. Min. of one 3" grade adjustment ring. Max. height of grade adjustment rings = 20". Alternately, contractor may cast grade adjustment rings in place.
3. Set all barrel sections & taper sections in plastic gasket, Ram-nek or approved alternate. Typical joint use (1) 3/4"x 2-1/2" Ram-nek seal. (2 seals in high water table areas).
4. Cone section (taper) must be concentric for 48"ø manhole or eccentric for 60"ø manhole unless otherwise specified and approved by the Administrator.
5. After lower ring section is set, break out top half of pipe opening with inside face of M.H. wall and construct shelf and u-shaped channel. Make elevation changes gradually and directional changes with smooth curves. Slope and size of channels shall match upstream and downstream pipes. Manhole channels with a horizontal change in direction of 30° or more shall have a minimum drop of 0.1' across the manhole or shall match the slope of the pipe, whichever is greater.
6. Poured-in-place base shall be poured full thickness on undisturbed soil.
7. Class "A" conc. collar shall be 2" below finished grade.
8. Standard manhole barrel section per ASTM C478.
9. 48"ø I.D. M.H. to be used for sewer mains less than 15"ø. 60"ø I.D. M.H. to be used for all trunk and collector sewers 18"ø to 48"ø or where drop fittings are used.
10. Flexible pipe coupling is required on all pipe other than SDR 35 PVC pipe. Flex coupling to be installed in manline trench and out of manhole excavation.

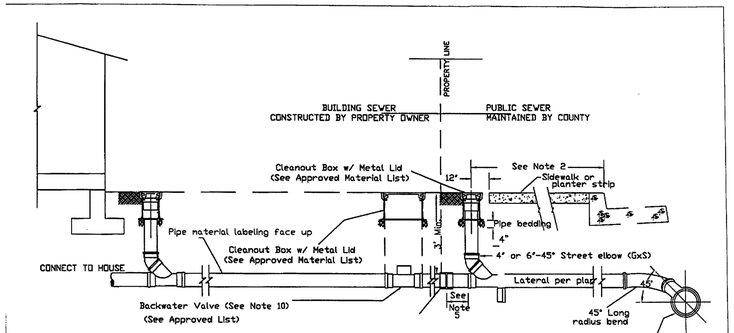
LAKE COUNTY SPECIAL DISTRICTS		
POURED / CAST IN PLACE CONCRETE MANHOLE for SANITARY SEWER		
SCALE: NONE	DATE: MAY, 2009	
DWN SS CHK PP	APPROVED	FILE NO. STD.- 500



NOTES:
1. Specify sanitary sewer when ordering. All castings shall be dipped in approved ASPHALTUM or BITUMINOUS Paint.
2. All material used in manufacturing shall conform to A.S.T.M. designation A-48 Class 35 B, or of United States Government Specifications QQ1-652b.
3. Minimum weight components: Cover – 130 pounds Frame – 135 pounds
4. Bolt down covers are required on all sewer mains located in easements, on school grounds, through parks, and on any trunk sewers larger than 12" in diameter. Coat the bolt threads on the final bolt up with anti-seize compound or teflon based pipe dope.

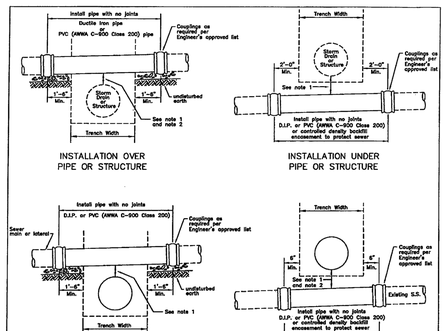
APPROVED MANHOLE FRAME & COVER
See Approved Material List

LAKE COUNTY SPECIAL DISTRICTS		
MANHOLE FRAME and COVER		
SCALE: NONE	DATE: MAY, 2009	
DWN SS CHK PP	APPROVED	FILE NO. STD.- 512



NOTES:
1. The sewer service lateral shall be of sufficient depth to adequately serve the building site, and in no case shall be less than 3 ft. deep at the cleanout unless otherwise authorized by Special Districts.
2. Cleanout must be installed within the Public Right of Way or P.U.E. Cleanout to be installed 18" from face of curb or 12" max. behind sidewalk. Where service is in driveway, install cleanout behind apron.
3. In cases where installation conflicts with existing facilities, contractor shall verify alternate location with Special Districts prior to installation.
4. Min. 2% slope for 4" laterals and a min. 1% slope for 6" laterals unless approved by Special Districts.
5. A min. of 12" when connecting to existing sewer lateral or extend to 12" behind P.U.E. or sidewalk for new construction.
6. For new construction, install cap or plug at end of service lateral.
7. Lateral material shall be PVC SDR 35, ABS Schedule 40, or Ductile Iron Pipe.
8. Cleanout components shall be the same size as the lateral.
9. Tap fittings on mains smaller than 12" may be used only under the approval of Special Districts.
10. Backwater Valve and Box shall be installed where the lowest plumbing fixture is less than 1 ft. above the nearest up-grade manhole cover, or flushing branch of the sewer. Installation shall be on owners' property, as near as possible to the property line.

LAKE COUNTY SPECIAL DISTRICTS		
4" & 6" SEWER SERVICE LATERAL AND CLEANOUT		
SCALE: NONE	DATE: JAN. 2009	
DWN SS rev. PP	APPROVED	FILE NO. STD-319

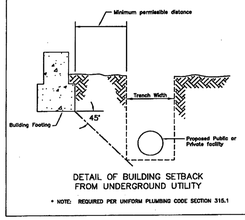


INSTALLATION OVER PIPE OR STRUCTURE

INSTALLATION UNDER PIPE OR STRUCTURE

INSTALLATION OF PIPE OR STRUCTURE UNDER SANITARY SEWER

INSTALLATION OF PIPE OR STRUCTURE OVER SANITARY SEWER



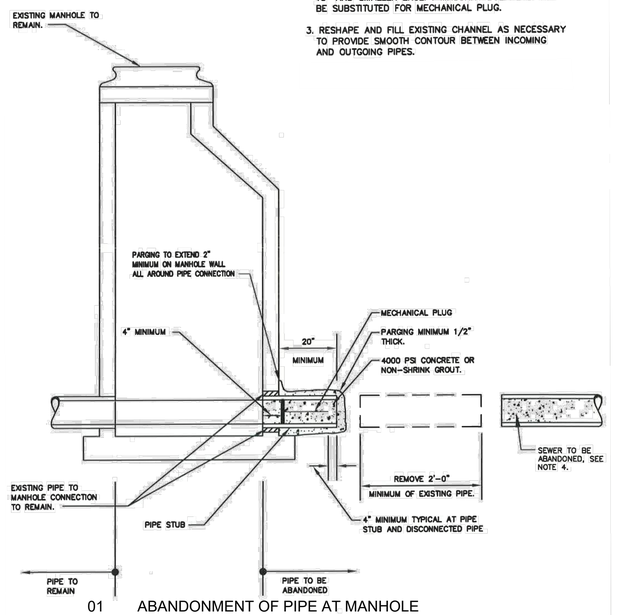
DETAIL OF BUILDING SETBACK FROM UNDERGROUND UTILITY

* NOTE: REQUIRED PER UNIFORM PLUMBING CODE SECTION 315.1

NOTES:
1. 1" minimum vertical clearance is required between pipes. Where clearance is less than 6", install felt expansion material or styrofoam between pipes.
2. This installation detail is required only if clearance is less than 1'.
3. Ductile iron pipe shall be encased in polyethylene film.

LAKE COUNTY SPECIAL DISTRICTS		
MISCELLANEOUS PIPE INSTALLATION DETAILS		
SCALE: NONE	DATE: MAY, 2009	
DWN SS CHK: PP	APPROVED	FILE NO. STD.- 518

NOTES:
1. FOR SEWERS SMALLER THAN 18" DIAMETER, DISCONNECT SEWER AS SHOWN, INSERT MECHANICAL PLUGS, PLACE CONCRETE, PARGING AND COAT WITH TWO COATS OF ASPHALT-BASED COATING.
2. FOR SEWER 18" AND LARGER DIAMETER SAME AS 15" AND SMALLER EXCEPT MASONRY BULKHEAD MAY BE SUBSTITUTED FOR MECHANICAL PLUG.
3. RESHAPE AND FILL EXISTING CHANNEL AS NECESSARY TO PROVIDE SMOOTH CONTOUR BETWEEN INCOMING AND OUTGOING PIPES.



01 ABANDONMENT OF PIPE AT MANHOLE

NOT TO SCALE

NO.	DATE	DESCRIPTION

DATE: X-X-XXXX
SCALE:
DRAWN BY: MRH
DESIGNED BY: MRH
CHECKED BY: DLS

CALIFORNIA ENGINEERING COMPANY INC
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CITY OF CLEARLAKE

STANDARD SEWER DETAILS

18TH AVENUE ROAD IMPROVEMENT PROJECT

PROJECT NUMBER 21-719

SHEET 17 OF 18

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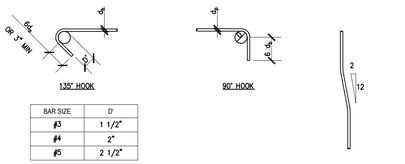
TENSION SPLICE	f'_c (psi)	REINFORCING BAR SPLICE LENGTH								
	BAR SIZE GR 60	3	4	5	6	7	8	9	10	11
	BAR DIAMETER,d_b (in)	0.375	0.500	0.625	0.750	0.875	1.000	1.128	1.270	1.410
CLASS "B"	3000									
	TOP BAR	2'–8"	3'–7"	4'–6"	5'–0"	7'–10"	8'–11"	10'–0"	11'–4"	12'–7"
	BOTTOM BAR	2'–0"	2'–9"	3'–5"	4'–2"	6'–0"	6'–10"	7'–9"	8'–9"	9'–8"
	3500									
	TOP BAR	2'–6"	3'–4"	4'–2"	5'–0"	7'–3"	8'–3"	9'–4"	10'–6"	11'–7"
	BOTTOM BAR	1'–11"	2'–7"	3'–3"	3'–10"	5'–7"	6'–4"	7'–2"	8'–1"	9'–0"
	4000									
	TOP BAR	2'–4"	3'–1"	3'–11"	4'–8"	6'–9"	7'–9"	8'–9"	9'–10"	10'–11"
	BOTTOM BAR	1'–10"	2'–5"	3'–0"	3'–7"	5'–3"	5'–11"	6'–9"	7'–7"	8'–4"
	4500									
	TOP BAR	2'–3"	2'–11"	3'–8"	4'–5"	6'–5"	7'–4"	8'–3"	9'–4"	10'–3"
	BOTTOM BAR	1'–9"	2'–3"	2'–10"	3'–5"	4'–11"	5'–7"	6'–4"	7'–1"	7'–11"
	5000									
	TOP BAR	2'–1"	2'–10"	3'–6"	4'–2"	6'–0"	6'–11"	7'–10"	8'–9"	9'–9"
	BOTTOM BAR	1'–8"	2'–2"	2'–8"	3'–3"	4'–7"	5'–4"	6'–0"	6'–9"	7'–6"
	5500									
	TOP BAR	2'–0"	2'–8"	3'–4"	4'–0"	5'–9"	6'–7"	7'–5"	8'–5"	9'–3"
	BOTTOM BAR	1'–7"	2'–1"	2'–9"	3'–1"	4'–5"	5'–1"	5'–9"	6'–5"	7'–2"

NOTES:

1. THE ABOVE VALUES ARE FOR NORMAL WEIGHT CONCRETE AND UNCOATED REINFORCEMENT.
2. TOP BARS ARE HORIZONTAL REINFORCEMENT WITH MORE THAN 12" OF NEW CONCRETE PLACED BELOW THE BAR.
3. BOTTOM BARS ARE ALL VERTICAL BARS, AND HORIZONTAL REINFORCEMNET WITH LESS THAN 12" OF NEW CONCRETE PLACED BELOW THE BAR.

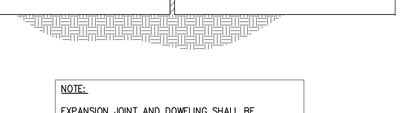
NORMAL-WEIGHT CONCRETE LAP SPLICE SCHEDULE | 4



BAR SIZE	D'
#3	1 1/2"
#4	2"
#5	2 1/2"

TIES & STIRRUPS, HOOKS ONLY

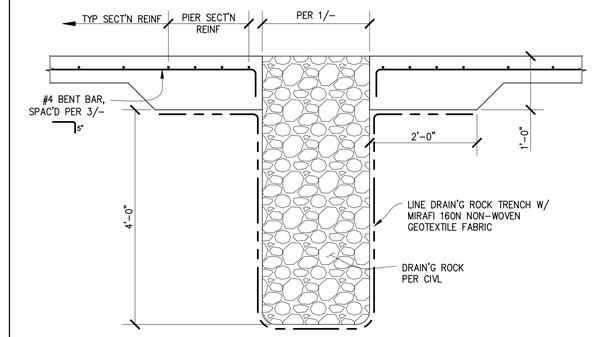
TYPICAL COLUMN BAR OFFSET



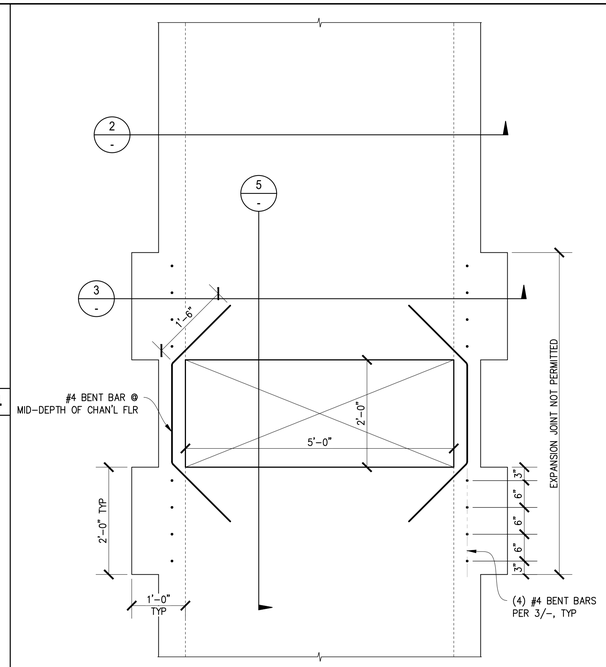
STANDARD HOOKS

BAR SIZE	D
#3 THRU #8	6d
#9 THRU #11	8d
#14 THRU #18	10d

REINFORCING BAR BENDING DETAIL | NTS | 6



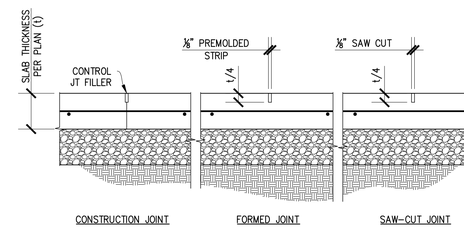
SECTION AT DRAINAGE ROCK TRENCH | SCALE: 3/4" = 1'-0" | 5



NOTES:

1. PROVIDE EXPANSION AND CONTROL JOINTS AT INTERVALS COINCIDING WITH ATTACHED ADJACENT SIDEWALK, CURB AND GUTTER. SEE CITY STANDARD DETAIL 205 FOR JOINT SPACING REQUIREMENTS.
2. SEE DETAIL 8/– FOR CONCRETE CHANNEL EXPANSION JOINT.

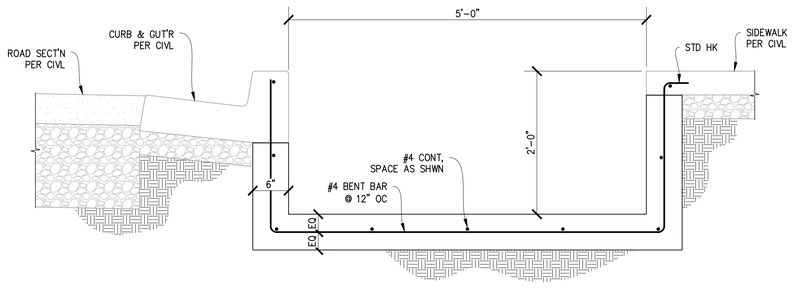
SECTION AT CHANNEL FLOOR | SCALE: 3/4" = 1'-0" | 1



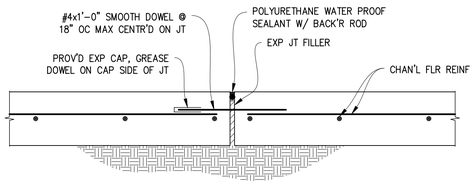
NOTES:

1. CONTROL JOINTS SHALL BE LOCATED AS SHOWN PER PLAN.
2. IF SAW–CUT CONTROL JOINTS ARE USED, SAW–CUT WITHIN 24–HR OF POUR.
3. ALL JOINTS SHALL BE FILLED W/ JOINT FILLER.

CONTROL JOINT DETAIL | NTS | 7



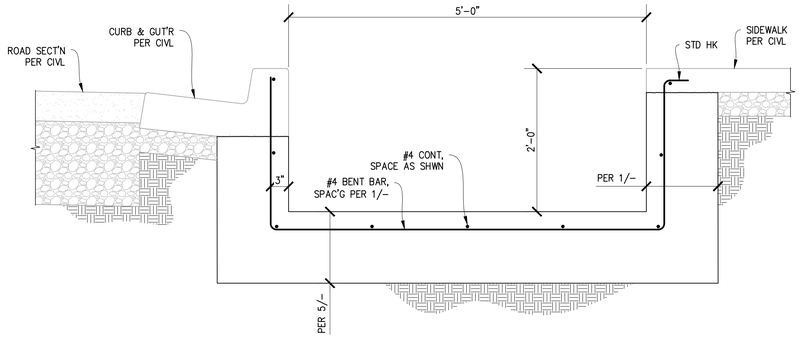
TYPICAL CHANNEL SECTION | SCALE: 1" = 1'-0" | 2



NOTE:

EXPANSION JOINT AND DOWELING SHALL BE CONTINUOUS THROUGH CHANNEL FLOOR, WALLS, AND ADJACENT CURB, GUTTER, AND SIDEWALK.

CHANNEL EXPANSION JOINT DETAIL | SCALE: 1 1/2" = 1'-0" | 8



CHANNEL SECTION AT PIERS | SCALE: 1" = 1'-0" | 3

STRUCTURAL NOTES

GENERAL

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
2. ALL DRAWINGS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
3. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
4. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES:

   2019 CALIFORNIA BUILDING CODE AND LATEST REVISIONS REFERRED TO HERE AS "THE CODE", AND ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES & STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.
5. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
6. ASTM SPECIFICATIONS ON THE DRAWINGS SHALL BE OF THE LATEST REVISION.

REINFORCING STEEL

1. REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 19 OF THE CODE ACI 318, ACI 301, ACI 315 AND ASTM A615, GRADE 60 UNO. NOTE THAT ASTM A706 BARS WILL BE REQUIRED IN CONCRETE LATERAL FORCE RESISTING ELEMENTS. WATCH FOR NOTES IN THE DRAWINGS.
2. BARS SHALL BE CLEAN OF MUD, OIL, GREASE, OR OTHER MATERIALS LIKELY TO IMPAIR BOND. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
3. REINFORCING BAR SPLICES SHALL BE MADE AS INDICATED ON THE DRAWINGS. LAP ALL HORIZONTAL BARS AT CORNERS AND INTERSECTIONS. STAGGER ALL SPLICES UNLESS NOTED OTHERWISE ON PLANS.
4. BARS IN SLABS SHALL BE SECURELY SUPPORTED ON WELL–CURED CONCRETE BLOCKS OR APPROVED METAL OR PLASTIC CHAIRS, PRIOR TO PLACING CONCRETE.
5. CONTINUOUS INSPECTION OF CONCRETE SHALL INCLUDE INSPECTION DURING INSTALLATION OF REINFORCING STEEL. INSPECTION SHALL BE SCHEDULED SO THAT PLACEMENT OF REINFORCING STEEL, CONDUIT, SLEEVES, AND EMBEDDED ITEMS MAY BE CORRECTED PRIOR TO PLACEMENT OF OVERLYING GRIDS OR REINFORCING STEEL.
6. CONCRETE PROTECTION FOR REINFORCEMENT: THE FOLLOWING MINIMUM CLEAR CONCRETE COVER SHALL BE PROVIDED:

   (i) CAST–IN–PLACE CONCRETE (NON–PRESTRESSED).

	MINIMUM COVER, IN.
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3
B. CONCRETE EXPOSED TO EARTH OR WEATHER:	
NO. 6 THROUGH NO. 18 BAR	2
NO. 5 BAR, W31 OR D31 WIRE & SMALLER	1 1/2
C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
SLABS, WALLS, JOISTS:	
NO. 14 AND NO. 18 BAR	1 1/2
NO. 11 BAR & SMALLER	3/4
BEAMS, COLUMNS: PRIMARY REINFORCEMENT TIES, STIRRUPS, SPIRALS	1 1/2

CONCRETE

1. ALL CONCRETE CONSTRUCTION SHALL CONFORM WITH CHAPTER 19 OF THE CBC AND WITH PROVISIONS OF ACI 318–14 AND ACI 301–16.
2. SCHEDULE OF STRUCTURAL CONCRETE 28–DAY STRENGTHS AND PERFORMANCE REQUIREMENTS ARE SHOWN IN THE TABLE BELOW. THE INTENT IS TO PRODUCE A FINISHED CONCRETE PRODUCT MEETING THE WORKABILITY, DURABILITY, SERVICEABILITY, STRENGTH AND FINISH REQUIREMENTS REQUIRED BY THE PROJECT DESIGN. ADMIXTURES, CURING METHODS, JOINT LAYOUT, SEQUENCING, PLACING TECHNIQUES AND OTHER FACTORS CAN HAVE A LARGE EFFECT ON THE FINAL PRODUCT. CONCRETE SUPPLIER SHALL SUBMIT MIX DESIGNS FOR REVIEW BY ENGINEER.

MEMBER	STRENGTH (PSI)	MAX DENSITY (PCF)	MAX W/CM RATIO	MAX SHRINKAGE % AT 28 DAYS	MAX AGGREGATE SIZE (in)	EXPOSURE CATEGORY MODIFICATION FROM TYPICAL
DRAINAGE CHANNEL	4,000	150	0.45	0.060	1	0.00

3. CONCRETE MIXES SHALL BE DESIGNED BY THE CONCRETE SUPPLIER FOR THE REQUIREMENTS IN THE CONSTRUCTION DOCUMENTS AND IN ACCORDANCE WITH ACI 301 AND ACI 214R. UNLESS APPROVED BY THE ENGINEER OTHERWISE, PROPORTION CONCRETE MIXES PER ARTICLE 4.2.3 OF ACI 301. STRENGTH TEST RECORDS SHALL NOT BE MORE THAN 24 MONTHS OLD. SUBMIT MIXES AND SUPPORTING INFORMATION TO ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
4. MIX DESIGNS SHALL MEET THE CRITERIA OF F0, S0, W0 AND C1 PER CHAPTER 19 OF ACI 318 UNLESS MORE STRINGENT CRITERIA ARE NOTED ABOVE.
5. PORTLAND CEMENT SHALL CONFORM TO ASTM C–150, TYPE I OR II UNLESS NOTED OTHERWISE OR REQUIRED OTHERWISE BY THE EXPOSURE CATEGORY.
6. CONCRETE, OTHER THAN HIGH–EARLY STRENGTH, SHALL BE MAINTAINED AT 50°F MINIMUM AND IN A MOIST CONDITION FOR AT LEAST THE FIRST 7 DAYS AFTER PLACEMENT, 3 DAYS MINIMUM FOR HIGH–EARLY STRENGTH CONCRETE.
7. AGGREGATE FOR HARDROCK CONCRETE SHALL CONFORM TO ASTM C–33
8. CONCRETE SHRINKAGE SHALL BE DETERMINED PER ASTM C157
9. MIXING AND DELIVERY SHALL CONFORM TO ASTM C94.
10. PLACEMENT SHALL CONFORM TO ACI 318 UNO.
11. MIXING WATER SHALL CONFORM TO ASTM C1602 BUT SHALL NOT CONTAIN DELETERIOUS AMOUNTS OF CHLORIDE ION WHEN USED FOR PRESTRESSED CONCRETE, CONCRETE WITH ALUMINUM OR GALVANIZED STEEL EMBEDS.
12. CLEAN AND ROUGHEN TO ¼" AMPLITUDE ALL CONCRETE SURFACES AGAINST WHICH NEW CONCRETE WILL BE PLACED.
13. HOT WEATHER AND COLD WEATHER REQUIREMENTS SHALL BE PER ACI 301.

HEWITT CONSULTING GROUP
2068 Pheasant Dr.
Yuba City, CA 95993
(530) 767-0981
www.hewittgroup.net

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Prepared For:

California Engineering Company, Inc.

1110 Civic Center Blvd., Suite 404
Yuba City, CA 95993

Project:

18th Avenue Road Improvement Project

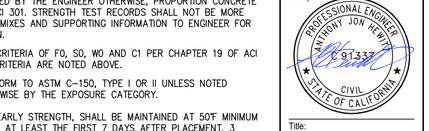
Clearlake, CA

Project No.: 22-023
Designed By: AJH
Issue Date: 11/3/2022

Revision:

No.	Description	Date

Stamp:



Title:

Drainage Channel Structural Details

18 OF 18

From: kcwd@mchsi.com
To: Mark Roberts
Subject: 18th Ave hotel
Date: Wednesday, November 2, 2022 11:43:44 AM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mark, how do I respond to the NOI for the airport hotel project. Where do I send the comments? Thank you, Frank Konocti County Water District.

From: kcwd@mchsi.com
To: Mark Roberts
Cc: Jeff Davis; Bill Flora; Adeline Leyba; jmartin@ocsca.net; bkrf7000@yahoo.com; Keith Allard; Paula Galliotti
Subject: Re: Notice of Intent (NOI) for Draft MND for Airport Hotel and 18th Avenue Extension Project - Email # 2
Date: Thursday, October 27, 2022 10:31:37 AM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mark, the airport hotel is in Konocti County Water District's district. We have not given Highlands Water permission to serve areas in Konocti Water District's boundaries. Konocti County Water has the capacity and ability to serve the area and we will not be giving up our rights to serve that area. We will be commenting on the NOI and we will make it clear the project is in our district. Thank you, Frank Costner, G.M Konocti County Water.

----- Original Message -----
From: "Jeff Davis" <jeff@highlandswater.com>
To: "kcwd" <kcwd@mchsi.com>
Sent: Thursday, October 27, 2022 9:17:35 AM
Subject: FW: Notice of Intent (NOI) for Draft MND for Airport Hotel and 18th Avenue Extension Project - Email # 2

From: Mark Roberts <mroberts@clearlake.ca.us>
Sent: Wednesday, October 26, 2022 12:59 PM
Subject: RE: Notice of Intent (NOI) for Draft MND for Airport Hotel and 18th Avenue Extension Project - Email # 2
Importance: High

Good Afternoon,

This email is in addition to the Notice of Intent (NOI) email that was sent this morning (October 26, 2022) at 11:17AM. The above attachment is the amended Full Biological Report that is associated with the above referenced project. It was to large of a file to send in one email.

Sincerely,

Mark Roberts
Senior Planner

From: Mark Roberts
Sent: Wednesday, October 26, 2022 11:17 AM
Subject: Notice of Intent (NOI) for Draft MND for Airport Hotel and 18th Avenue Extension Project
Importance: High

Good Morning,

You are receiving this email, as the City of Clearlake is hereby given your agency/organization notice that the City of Clearlake has tentatively determined that the project described below (including the attachments above) will not result in a significant adverse impact on the environment with the incorporated Mitigation Measures and that, in accordance with the California Environmental Quality Act, the City is prepared to issue a "mitigated negative declaration" in accordance with the California Environmental Quality Act (CEQA).

Please note, the public review period for this Notice of Intent (NOI) will remain open for a period of at least 30 days from publication date of this notice. The commenting period for this Notice of Intent (NOI) is October 26, 2022, to November 30, 2022. (Please Note: All comments must be received no later than Wednesday, November 30, 2022.

Additionally, this this tentative determination is based on an environmental analysis (CEQA IS 2022-06) that assesses the project's potential environmental impacts and those potential impacts have been reduced to less than significant levels with the incorporated mitigation measures. The environmental analysis has been attached above, along with the attachment associated with the environmental analysis. The environmental analysis packet may also be reviewed from the State Clearinghouse Website at: https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Feoqanet.opr.ca.gov%2F&data=05%7C01%7Cmroberts%40clearlake.ca.us%7C808060bba1fd48eb66c5708dab85fb2af%7C58c3aba3a1874cc59259e0769baf3760%7C1%7C0%7C638024880967630391%7CUnknown%7CTWFpbGZsb3dfeyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=uiDV8%2BbVYZbF7%2FbD3xNb26YOuDwC6Alem%2F04CRdgkXw%3D&reserved=0

Notice of Intent (NOI)

Project Name: Airport Hotel and 18th Avenue Extension Project

Project Numbers: Conditional Use Permit (CUP 2022-02); Design Review (DR 2022-02) &
Environmental Analysis (CEQA IS 2022-06).

Project Location: 6356 Arnijo Avenue, Clearlake, CA 95422, Assessor Parcel Number
(APN): 042-121-25.

Zoning Designation: "GC" General Commercial

Project Summary: The Airport Hotel and 18th Avenue Extension Project would include development of the project site with a four-story, 75-room hotel, to be located within the central portion of the site, as well as a one-story meeting hall in the southwest corner of the site. A parking lot and associated improvements would be developed throughout the remainder of the site. In addition, the proposed project would construct an extension of 18th Avenue to connect SR 53 to Old Highway 53. The first floor of the hotel would provide various amenities for guests, including a breakfast serving area and fitness center, as well as a linen cleaning/sorting space, and administrative/storage space. Ten rooms would also be provided on the first floor. The second through fourth floors of the building would house the remaining 65 guest rooms. In addition, a manager's quarters would be located on the fourth floor of the hotel. The proposed building would be limited to a height of 50 feet, consistent with the allowed building height of the GC zoning district.

A total of 109 parking spaces would be provided on-site. Of the 109 parking spaces, six would be reserved for electric vehicle (EV) parking, eight would be reserved for clean air vehicle parking, and four would be Americans with Disabilities Act (ADA)-compliant. In addition, 13 bicycle parking spaces would be provided on-site, including seven short-term spaces, and six long-term spaces in the form of storage lockers. Access to the project site would be provided by a new, 30-foot-wide, full-access driveway which would connect to the proposed 18th Avenue extension. As part of the project, a new sidewalk would be provided along the project frontage of the 18th Avenue extension. Pedestrian walkways throughout the project site would provide for connections to the 18th Avenue sidewalk. The hotel would operate 24 hours a day, 7 days a week, and would be staffed with an estimated 25 full-time employees. Approximately one to two supply and goods deliveries (i.e., linens and hotel supplies) would occur per day, between the hours of 7:00 AM and 6:30 PM. The hotel would not include a loading dock; rather, delivery vehicles would temporarily park at the front entrance of the hotel. In addition, the on-site meeting hall would operate between 8:00 AM at the earliest to midnight at the latest and would be used for events, including, but not limited to tradeshows, weddings, and conferences. It should be noted that the meeting hall would include an outdoor patio which could be used during events, and low amplified music would be allowed on the outdoor patio until 9:00 PM. A number of existing trees would be removed in order to develop the proposed hotel and roadway extension. However, the proposed project would provide landscaping improvements, including the planting of new trees and shrubs throughout the project site.

The proposed 18th Avenue extension would consist of two eight-foot lanes and would extend westward from SR 53 to Old Highway 53 by approximately 0.2-mile. The 18th Avenue/Old Highway 53 intersection would include a marked crosswalk on the 18th Avenue leg, ADA-compliant curb ramps, a relocated bus stop to the north leg, a 75-foot-long southbound left-turn lane on Old Highway 53, and overhead intersection lighting. In addition, the proposed roadway would provide connections to two existing roadways located to the north including Manzanita Avenue and Vallejo Avenue, as well as two connections to existing driveways located south of the proposed extension. Additional roadway improvements such as curb, gutter, and sidewalk improvements would be developed along the 18th Avenue extension, consistent with City standards. The proposed roadway would also include the extension of a 10-inch water line, a 6-inch sanitary sewer line, a 10-inch sanitary sewer line, a 12-inch sanitary sewer force main, and storm drain utilities. All utility mains would extend from SR 53 to Old Highway 53.

Sewer service for the proposed development would be provided by the Lake County Sanitation District (LACOSAN), and water services for the proposed project would be provided by the Highlands Mutual Water Company (HMWC). As part of the proposed project, new water and sanitary sewer connections would be provided from the new utility lines that would be developed as part of the 18th Avenue extension. In addition, a new storm drainage system would be developed within the hotel site, which would provide new storm drain lines throughout the paved areas on-site that would ultimately drain into the new storm drain line within the 18th avenue extension. The various landscaped areas on-site would also provide opportunities for the infiltration of stormwater

This tentative determination is based on an environmental analysis (CEQA IS 2022-06) that assesses the project's potential environmental impacts and those potential impacts have been reduced to less than significant levels with the incorporated mitigation measures. Anyone may review this study at Clearlake City Hall, 14050 Olympic Drive, Clearlake, CA 95501, during normal business hours or by downloading the CEQA Packet from the State Clearinghouse Website at: https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Feoqanet.opr.ca.gov%2F&data=05%7C01%7Cmroberts%40clearlake.ca.us%7C808060bba1fd48eb66c5708dab85fb2af%7C58c3aba3a1874cc59259e0769baf3760%7C1%7C0%7C638024880967630391%7CUnknown%7CTWFpbGZsb3dfeyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=uiDV8%2BbVYZbF7%2FbD3xNb26YOuDwC6Alem%2F04CRdgkXw%3D&reserved=0

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For more information, please call (707) 994-8201 during normal business hours of City Hall (Monday through Thursday - 8am to 5pm). During this period written comments on the project and the proposed mitigated negative declaration may be addressed. You may also submit comments via email at mroberts@clearlake.ca.us<mailto:mroberts@clearlake.ca.us>. Final environmental determinations are made by the decision-making body, which, in this case would be the City of Clearlake, Planning Commission.

Sincerely,

Mark Roberts
Senior Planner

[A picture containing food Description automatically generated]
Mark Roberts | Senior Planner
City of Clearlake
14050 Olympic Drive | Clearlake, CA 95422
707-994-8201

From: Richard Sisco
To: Mark Roberts
Subject: RE: Notice of Intent (NOI) for Draft MND for Airport Hotel and 18th Avenue Extension Project
Date: Thursday, October 27, 2022 7:49:26 AM
Attachments: image001.png
image002.png

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Morning Mark,

Thank you for the information packet. Very much appreciated.

Best Regards,

Richard Sisco, Administrative Support
Highlands Water Company
October 27, 2022 7:50 AM
rick@highlandswater.com

From: Mark Roberts <mroberts@clearlake.ca.us>
Sent: Wednesday, October 26, 2022 11:17 AM
Subject: Notice of Intent (NOI) for Draft MND for Airport Hotel and 18th Avenue Extension Project
Importance: High

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Notice of Intent (NOI)

Project Name: Airport Hotel and 18th Avenue Extension Project

Project Numbers: Conditional Use Permit (CUP 2022-02); Design Review (DR 2022-02) & Environmental Analysis (CEQA IS 2022-06).

Project Location: 6356 Armijo Avenue, Clearlake, CA 95422, Assessor Parcel Number (APN): 042-121-25.

Zoning Designation: "GC" General Commercial

Project Summary: The Airport Hotel and 18th Avenue Extension Project would include development of the project site with a four-story, 75-room hotel, to be located within the central portion of the site, as well as a one-story meeting hall in the southwest corner of the site. A parking lot and associated improvements would be developed throughout the remainder of the site. In addition, the proposed project would construct an extension of 18th Avenue to connect SR 53 to Old Highway 53. The first floor of the hotel would provide various amenities for guests, including a breakfast serving area and fitness center, as well as a linen cleaning/sorting space, and administrative/storage space. Ten rooms would also be provided on the first floor. The second through fourth floors of the building would house the remaining 65 guest rooms. In addition, a manager's quarters would be located on the fourth floor of the hotel. The proposed building would be limited to a height of 50 feet, consistent with the allowed building height of the GC zoning district.

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compliant curb ramps, a relocated bus stop to the north leg, a 75-foot-long southbound left-turn lane on Old Highway 53, and overhead intersection lighting. In addition, the proposed roadway would provide connections to two existing roadways located to the north including Manzanita Avenue and Vallejo Avenue, as well as two connections to existing driveways located south of the proposed extension. Additional roadway improvements such as curb, gutter, and sidewalk improvements would be developed along the 18th Avenue extension, consistent with City standards. The proposed roadway would also include the extension of a 10-inch water line, a 6-inch sanitary sewer line, a 10-inch sanitary sewer line, a 12-inch sanitary sewer force main, and storm drain utilities. All utility mains would extend from SR 53 to Old Highway 53.

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This tentative determination is based on an environmental analysis (CEQA IS 2022-06) that assesses the project's potential environmental impacts and those potential impacts have been reduced to less than significant levels with the incorporated mitigation measures. Anyone may review this study at Clearlake City Hall, 14050 Olympic Drive, Clearlake, CA 95901, during normal business hours or by downloading the CEQA Packet from the State Clearinghouse Website at: https://ceqanet.opr.ca.gov/

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Sincerely,

Mark Roberts
Senior Planner

Mark Roberts | *Senior Planner*
City of Clearlake
14050 Olympic Drive | Clearlake, CA 95422

707-994-8201

CALIFORNIA Water Boards

GAVIN NEWSOM GOVERNOR

JARED BLUMENFELD SECRETARY FOR ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

Governor's Office of Planning & Research

Aug 19 2022

STATE CLEARINGHOUSE

19 August 2022

Mark Roberts
City of Clearlake
14050 Olympic Drive
Clearlake, CA 95422
mroberts@clearlake.ca.us

COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, BV SPORTS COMPLEX PROJECT, SCH#2022070344, LAKE COUNTY

Pursuant to the State Clearinghouse's 19 July 2022 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the BV Sports Complex Project, located in Lake County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore, our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of

Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at:

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at:
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will

require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter Minkel

Peter Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

COUNTY OF LAKE
Health Services Department
Environmental Health Division
922 Bevins Court
Lakeport, California 95453-9739
Telephone 707/263-1164
FAX 707/263-1681

Jonathan Portney
Health Services Director

Jennifer Baker
Deputy Health Services Director

Craig Wetherbee
Environmental Health Director

MEMORANDUM

DATE: October 28, 2022

TO: Mark Roberts, Planning

FROM: Tina Dawn-Rubin, Environmental Health Aide

RE: CUP 2022-02, DR 2022-02, CEQA IS 2022-06 Notice of Intent

APN: 042-121-25 6356 Armijo Ave, Clearlake – Airport Hotel

Lake County Division of Environmental Health (EH) does not have any concerns regarding wastewater treatment or potable water as the parcel will be serviced by public water and sewer.

For any proposed food service, whether prepared or pre-packaged food, the applicant must comply with the California Retail Food Code Regulations and applicant must have a potable water supply.

The applicant must apply and pay for plan check application: submit three sets of complete plans and supporting documents for review of any proposed retail food facility and must obtain approval from the Division of Environmental Health for construction before obtaining any building permits. Food facilities must be permitted and inspected prior to opening to the public.

If the fitness center will have either a pool or spa, then the applicant must comply with the California Health and Safety Code for the construction and operation of a public swimming pool and/or spa. The applicant must submit complete sets of plans to this Division for approval, before obtaining any building permits. The pool/spa must be permitted and inspected by this Division.

If the applicant stores hazardous materials equal or greater than 55 gallons of a liquid, 500 pounds of a solid or 200 cubic feet of compressed gas, the applicant will be required to submit a Hazardous Materials Inventory Disclosure Statement/ Business Plan to the Environmental Health Division via the California Electronic Reporting System (CERS) and it shall be renewed and updated annually or if quantities increase.

If the amount of hazardous materials is less than the above quantities, the applicant will need to complete and submit a Hazardous Materials/Waste Declaration stating the name of the material and the quantity to be stored on site.

From: ROBERTSON, JESSE GRAHAM@DOT
To: Mark Roberts
Cc: OPR State Clearinghouse; Quintrell, Heidi L@DOT
Subject: Caltrans" comments for the CEQA MND for the Airport Hotel and 18th Ave Extension Project, SCH# 2022100562
Date: Wednesday, November 30, 2022 5:03:42 PM
Attachments: LAK - 53 - 1.99 - Clearlake Hotel MND.pdf
LAK 53 RoW Map Set for the Clearlake Hotel.pdf
LAK-53_ROS Monumentation_88-RS-12-24.pdf

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mark Roberts,

Caltrans' comments for the CEQA MND for the Airport Hotel and 18th Ave Extension Project, State Clearinghouse #2022100562, are attached. Please print any copies of the attached letter for your files, as needed. You are welcome to contact me with questions or for further assistance.

Jesse Robertson
Transportation Planning
Caltrans District 1
(707) 684-6879 (mobile)

California Department of Transportation

DISTRICT 1
P.O. BOX 3700 | EUREKA, CA 95502–3700
(707) 445-6600 | FAX (707) 441-6314 TTY 711
www.dot.ca.gov

November 30, 2022

1-LAK-53-1.99
Airport Hotel & 18th Ave Extension
SCH#2022100562

Mr. Mark Roberts
City of Clearlake
14050 Olympic Drive
Clearlake, CA 95422

Dear Mr. Roberts:

Thank you for giving Caltrans the opportunity to review and comment on the Mitigated Negative Declaration for the proposed Airport Hotel and 18th Avenue Extension Project, which would include development of a four-story, 75-room hotel, as well as a one-story meeting hall. In addition, the proposed project would construct an extension of 18th Avenue that would connect State Route (SR) 53 to Old Highway 53. The project is located west of SR 53, at the former Pearce Airport, and is bound by the unimproved public rights of way for Spruce Ave, Armijo Ave, Victor Street and Warner Street/18th Ave. We have the following comments:

Page 21 of 74 in the Mitigated Negative Declaration shows a widening of the eastbound approach to 18th Ave at its intersection with SR 53. As shown, the proposed improvements would make California Department of Transportation (Caltrans) a responsible agency under CEQA. An encroachment permit from Caltrans will be required to construct the proposed improvements.

In order to adequately evaluate the proposed intersection improvements at 18th Ave and SR 53, a delineation of the State right-of-way (R/W) will need to be added to pages 16 through 23 (of 74) of the Mitigated Negative Declaration and "Figure 3 - Proposed Roadway Improvements," found in Attachment C -Transportation Impact Study. For the applicant's benefit, the enclosed maps (labeled "LAK 53 RoW Map Set for the Clearlake Hotel.pdf" and "LAK-53_ROS Monumentation_88-RS-12-24.pdf") are offered for surveying and delineating State R/W. The maps may require the retention of a licensed land surveyor due to known errors on the maps and the need to consult the deeds. For further assistance with mapping State R/W, please contact Caltrans Chief Right of Way Engineer, Lorien Sanchez, at (707) 497-7693, or by email at: <lorien.sanchez@dot.ca.gov>.

The location of State R/W limits are important elements of the permit approval process. Intersection design elements within State R/W are required to meet State Design Standards. Any deviation from State standards will require an approved Design Standard Decision Document (DSDD). Any permit application requiring a DSDD cannot be processed as a standard encroachment permit but must follow the Caltrans Quality Management Assessment Process (QMAP). Additional information on the QMAP process can be found in Appendix I of the Caltrans Project Development Procedures Manual (PDPM), available online: < https://dot.ca.gov/-/media/dot-media/programs/design/documents/pdpm-appendixi-a11y.pdf>. We highly recommend avoiding the QMAP process in order to save both time and expense for the Caltrans permitting process.

A revised set of design plans with dimensions labeled will need to be reviewed and approved by Caltrans prior to submitting an application for an encroachment permit.

We will also need to check the truck turn radii for the westbound direction.

A protected left turn warrant should be performed to verify that protected left turns are not required.

We recommend that sidewalk and bike lanes continue on both sides of 18th Avenue to the intersection of Highway 53. The four-foot bike lanes on 18th Ave will need to be revised to meet State standards within State R/W.

We will need the width dimensions for the westbound right turn lane on 18th Ave. It appears the bike lane ends in the right turn lane. The dimensions will allow us to determine whether westbound bicyclists can be accommodated in a separate lane through the intersection.

The new left turn lanes may require changes to the signal hardware, to allow for a protected left turn phase unless the existing timing be used such as a permissive left on a green ball. Future increases in left-turning traffic with the build out of the commercial center/airport redevelopment may result in significant impacts to signal operations, potentially requiring modification to signal geometrics and/or timing. We request more information about the build out plans for the Airport to ensure that the signal continues to operate safely and effectively.

Archaeological studies will be required if there are constructive changes to the R/W in the vicinity of 18th Street. This area is sensitive for archaeological resources. Current records indicate that resources are present. In the event that construction activities could be limited to previously disturbed areas, risk will be significantly reduced. Native

American Consultation will be key to successful project implementation. The area is of elevated concern to local Tribes.

Any work within Caltrans right of way will require an encroachment permit from Caltrans. To streamline the process, we require the applicant arrange and participate in a pre-submittal meeting with the Caltrans encroachment permits staff in Ukiah, prior to submitting a permit application. For more information or to request an encroachment permit application, please contact the Ukiah permits office at 707-463-4743, and refer to the Caltrans website: <https://dot.ca.gov/programs/traffic-operations/ep>.

Please contact me with questions or for further assistance with the comments provided at (707) 684-6879 or by email at: <jesse.robertson@dot.ca.gov>.
Sincerely,

Jesse G. Robertson

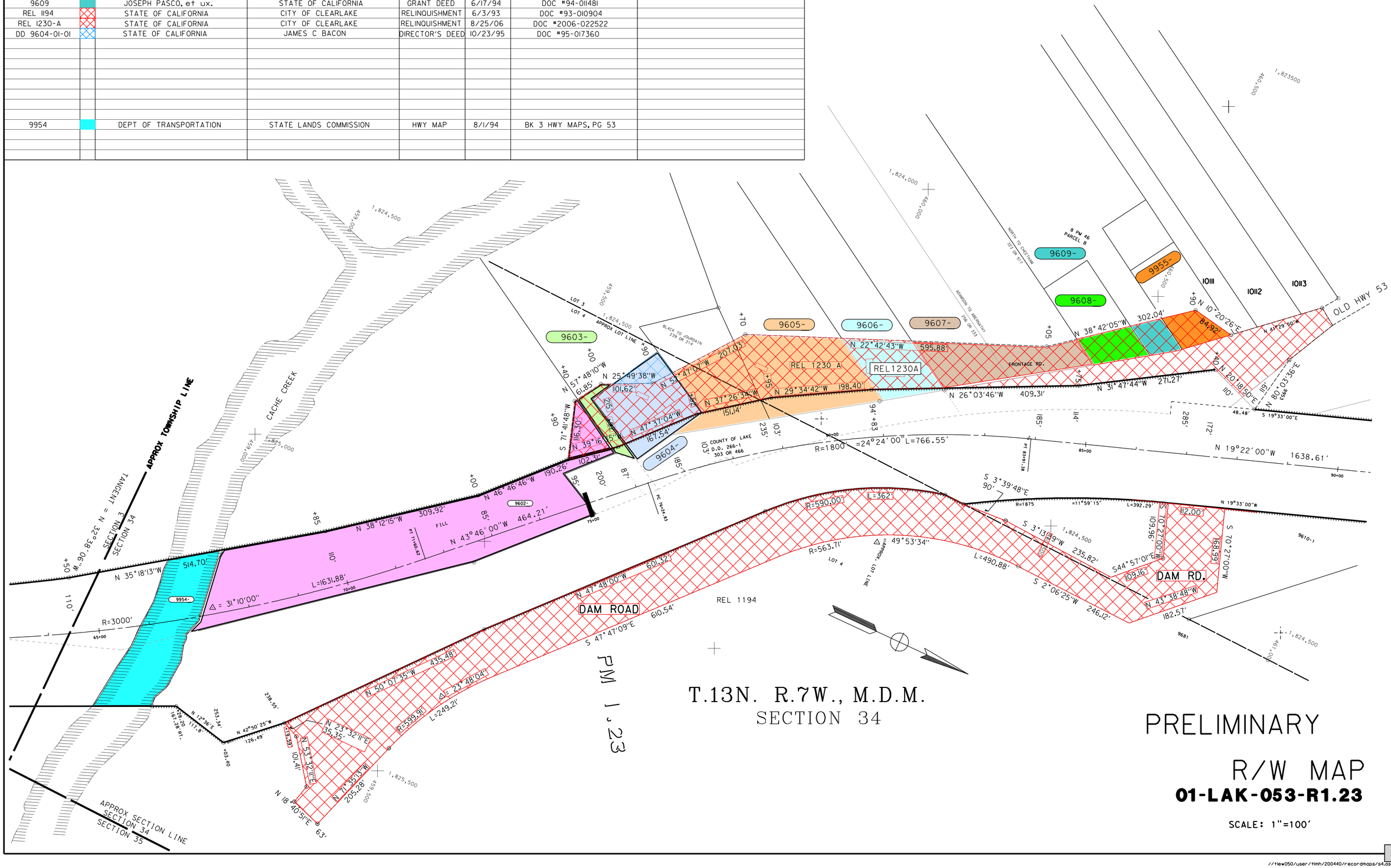
Jesse Robertson
Transportation Planning
Caltrans District 1

Enclosed: LAK 53 RoW Map Set for the Clearlake Hotel.pdf
LAK-53_ROS Monumentation_88-RS-12-24.pdf

c: State Clearinghouse
Heidi Quintrell, Chief, Caltrans District 1 Encroachment Permits

SCHEDULE

PARCEL	GRANTOR	GRANTEE	INSTRUMENT	DATE	RECORD	REMARKS
9602	COLIN K WILSON, ET UX	STATE OF CALIFORNIA	GRANT DEED	12/21/94	94-023545	
9603	JAMES C BACON, ET UX	STATE OF CALIFORNIA	GRANT DEED	2/24/95	95-002736	
9604						
9605	ADELBERT A VON REKOWSKI, ET UX	STATE OF CALIFORNIA	GRANT DEED	7/27/94	DOC #94-014570	
9606	TRUDY PRIES LEVEY, et al.	STATE OF CALIFORNIA	GRANT DEED	6/8/94	DOC #94-010845	
9607						
9608	MARY ICOATES	STATE OF CALIFORNIA	GRANT DEED	5/31/94	DOC #94-010229	
9609	JOSEPH PASCO, et ux.	STATE OF CALIFORNIA	GRANT DEED	6/17/94	DOC #94-011481	
REL 1194	STATE OF CALIFORNIA	CITY OF CLEARLAKE	RELINQUISHMENT	6/3/93	DOC #93-010904	
REL 1230-A	STATE OF CALIFORNIA	CITY OF CLEARLAKE	RELINQUISHMENT	8/25/06	DOC #2006-022522	
DD 9604-01-01	STATE OF CALIFORNIA	JAMES C BACON	DIRECTOR'S DEED	10/23/95	DOC #95-017360	
9954	DEPT OF TRANSPORTATION	STATE LANDS COMMISSION	HWY MAP	8/1/94	BK 3 HWY MAPS, PG 53	



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SCHEDULE

PARCEL		GRANTOR	GRANTEE	INSTRUMENT	DATE	RECORD	REMARKS
9614		CLEARLAKE MASONAIC BLDG ASSOC	STATE OF CALIFORNIA	QUIT CLAIM	12/22/94	DOC #94-023635	QUITCLAIM FOR PAR 10025
9610 (9616)		COUNTY OF LAKE	STATE OF CALIFORNIA	GRANT DEED	3/31/95	DOC #95-004591	PG&E & SEWER LINES INVOLVED
10025		SUBURBAN PROPANE CO.	STATE OF CALIFORNIA	GRANT DEED	8/28/95	DOC #95-014145	QUITCLAIM
9625		PESTONI LEASING, INC	STATE OF CALIFORNIA	GRANT DEED	10/7/92	DOC #92-021336	
DD 3204-01-01		STATE OF CALIFORNIA	COUNY OF LAKE	DIRECTOR DEED	7/10/95	DOC #95-010879	
9617		HERBERT D. MINTUN, et ux.	STATE OF CALIFORNIA	GRANT DEED	10/31/91	DOC #91-022596	
9953		ELIZABETH D. CLOUD	STATE OF CALIFORNIA	GRANT DEED	12/30/93	DOC #95-014145	

USIS BRASS CAP

NOTE

I INTERSECTED THE LINE BETWEEN THE FIELD TIED USIS BRASS CAP SET ERRONEOUSLY FOR THE C 1/4, S.34, AND THE FIELD TIED REBAR AT THE NW CORNER OF PARCEL A PER 6 PM 26. ALTHOUGHT THIS IS NOT THE PROPER E/4 LINE, I INTERSECTED THE PROPOSED R/W WITH THIS LINE AND WILL WRITE A LINE DESCRIPTION TO SAID LINE. IT APPEARS THE EXISTING R/W AND RELINQUISHMENT WERE WRITTEN WITH THIS LINE IN MIND. A LITTLE SLIVER OF NEAT R/W MAY OCCUR. THE DIFFERENCE IN BEARINGS SHOWN ALONG THE LINE IS THE DIFFERENCE BETWEEN FIELD TIED POSITION AND RECORD POSITION AS SHOWN ON OUR R/W MAPS.

PRELIMINARY R/W MAP

01-LAK-053-R1.62

SCALE: 1"=100'

/tMH/200440/RECORDMAPS/S5.DGN 10/25/96

PRA DIV. No.	STATE	FEDERAL PROJECT No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
	CALIF.				

Section F, Item 3.

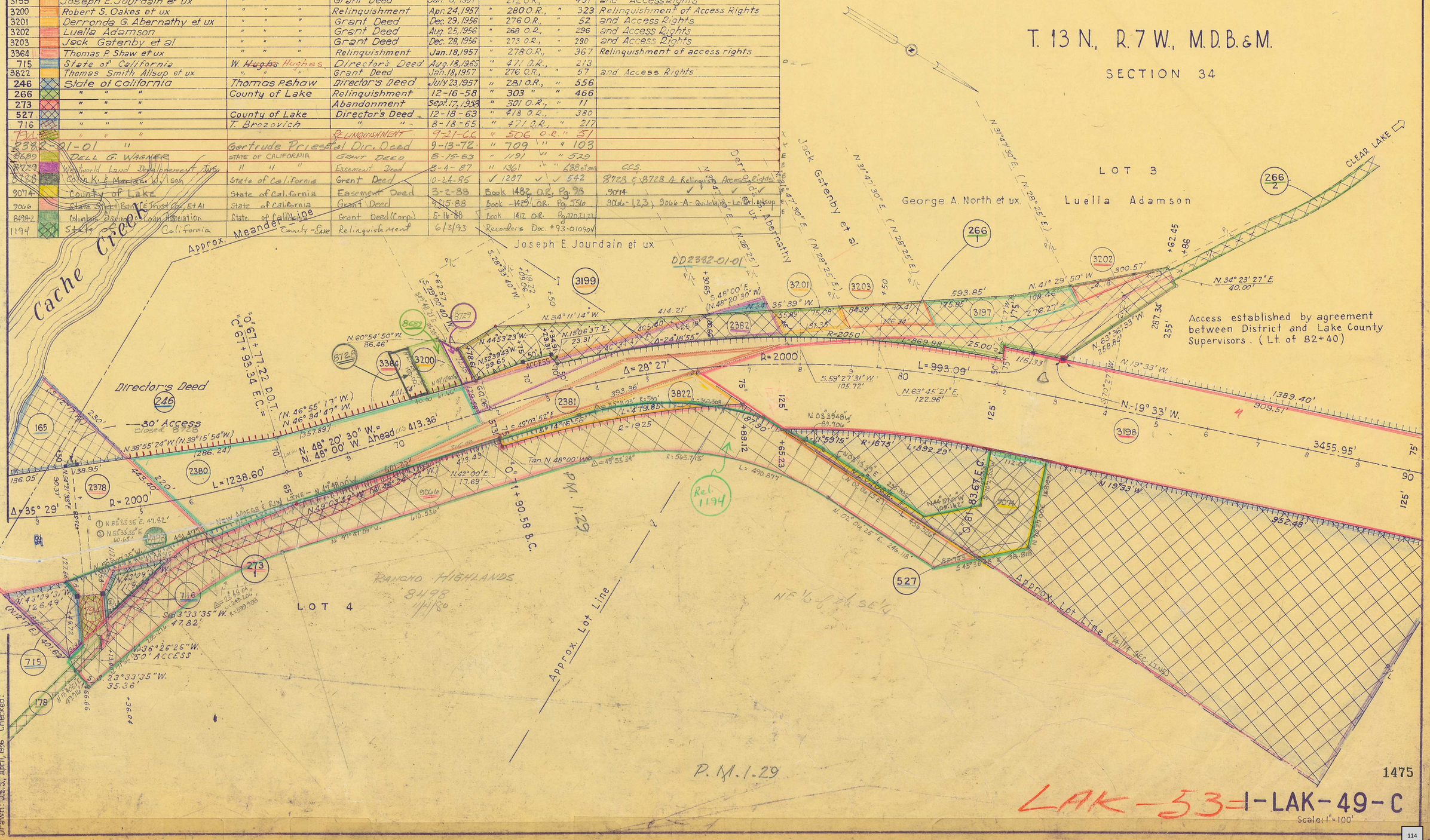
DIST.	COUNTY	ROUTE	SECTION	SHEET No.	TOTAL SHEETS

DISTRICT ENGINEER

APPROVED

SCHEDULE

CASE	GRANTOR	GRANTEE	INSTRUMENT	DATE	RECORD	REMARKS
2378	J.C. Creager et ux	State of California	Grant Deed	Feb. 22, 1951	Book 218 O.R., Page 4	
2380	Luella Adamson	" " "	Grant Deed	Feb. 28, 1951	" 218 O.R., " 260	
2380-A	R.A. Black et al	" " "	Quitclaim Deed	Feb. 28, 1951	" 218 O.R., " 261	
2381	J.C. Goodman et ux	" " "	Grant Deed	Nov. 11, 1951	" 222 O.R., " 258	
2382	R.A. Black et ux	" " "	Grant Deed	Aug. 24, 1951	" 222 O.R., " 389	
2382-A	Harry E. Little et ux	" " "	Quitclaim Deed	Oct. 13, 1951	" 222 O.R., " 387	
165	State of California	Luella Adamson	Director's Deed	Oct. 17, 1951	" 222 O.R., " 129	
178	State of California	County of Lake	Relinquishment	May 20, 1953	" 238 O.R., " 380	
3197	George A. North et ux	State of California	Grant Deed	Dec. 13, 1956	" 272 O.R., " 76	and Access Rights
3198	Regenia Goodman Forbes	" " "	Grant Deed	Jan. 5, 1957	" 273 O.R., " 222	and Access Rights
3199	Joseph E. Jourdain et ux	" " "	Grant Deed	Jan. 6, 1957	" 272 O.R., " 491	and Access Rights
3200	Robert S. Oakes et ux	" " "	Relinquishment	Apr. 24, 1957	" 280 O.R., " 323	Relinquishment of Access Rights
3201	Derronda G. Abernathy et ux	" " "	Grant Deed	Dec. 29, 1956	" 276 O.R., " 52	and Access Rights
3202	Luella Adamson	" " "	Grant Deed	Aug. 25, 1956	" 268 O.R., " 296	and Access Rights
3203	Jack Gatenby et al	" " "	Grant Deed	Dec. 28, 1956	" 273 O.R., " 290	and Access Rights
3364	Thomas P. Shaw et ux	" " "	Relinquishment	Jan. 18, 1957	" 278 O.R., " 367	Relinquishment of access rights
715	State of California	W. ~~Hughs~~ Hughes	Director's Deed	Aug. 18, 1965	" 471 O.R., " 213	
3822	Thomas Smith Allsup et ux	" " "	Grant Deed	Jan. 18, 1957	" 276 O.R., " 57	and Access Rights
246	State of California	Thomas P. Shaw	Director's Deed	July 23, 1957	" 281 O.R., " 556	
266	" " "	County of Lake	Relinquishment	12-16-58	" 303 " " 466	
273	" " "		Abandonment	Sept. 17, 1958	" 301 O.R., " 11	
527	" " "	County of Lake	Director's Deed	12-18-63	" 418 O.R., " 380	
716	" " "	T. Brozovich	" "	8-18-65	" 471 O.R., " 217	
794	" " "		RELINQUISHMENT	9-21-66	" 506 O.R. " 51	
2382-01-01	"	Gertrude Priest et al	Dir. Deed	9-13-72	" 709 " " 103	
8689	DELL G. WAGNER	STATE OF CALIFORNIA	GRANT DEED	8-15-83	" 1191 " " 529	
8729	Westworld Land Development, Inc.	" " "	Easement Deed	3-4-87	" 1361 " " 688 et seq.	C.C.S.
8728	Colin K. & Marian Wilson	State of California	Grant Deed	10-24-85	✓ 1287 ✓ ✓ 542	8728 & 8728 A Relinquish Access Rights
9074	County of Lake	State of California	Easement Deed	3-2-88	Book 1482 O.R. Pg. 98	9074 ✓ ✓ ✓ ✓
9066	State Street Bank & Trust Co., Et Al	State of California	Grant Deed	9-15-88	Book 1429 O.R. Pg. 556	9066-1,2,3, 9066-A-Quitclaim-Leitel Allsup
8498-2	Columbia Savings & Loan Association	State of California	Grant Deed (Corp.)	5-16-88	Book 1412 O.R. Pg. 220, 221, 222	
1194	State of California	County of Lake	Relinquishment	6/3/93	Recorder's Doc. #93-010904	



1475

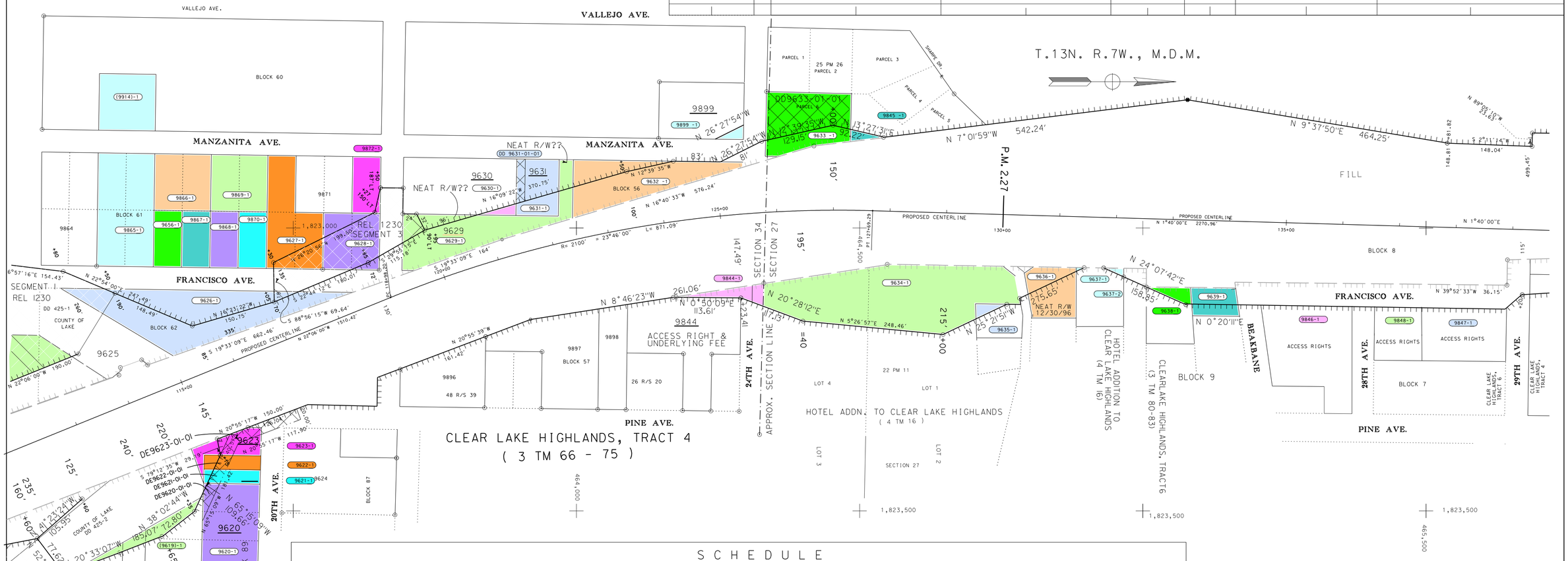
LAK-53-1-LAK-49-C

Scale: 1" = 100'

Drawn: J.S.S., April, 1956 Checked:

SCHEDULE

PARCEL	GRANTOR	GRANTEE	INSTRUMENT	DATE	RECORD	REMARKS
9618 (9619)	LAKESHORE INVESTMENT, CORP	STATE OF CALIFORNIA	FINAL ORDER	5/5/98	DOC #98-007199	CONDEMNATION
9620	LORRAINE ROBERTSON, et con.	STATE OF CALIFORNIA	GRANT DEED	6/30/93	DOC #93-012901	CORRIDOR PROTECTION
9621	HAROLD ASCHMANN, et ux.	STATE OF CALIFORNIA	GRANT DEED	10/31/91	DOC #91-022595	
9622	LAKE CO TAX COLLECTOR	STATE OF CALIFORNIA	TAX DEED	9/29/93	DOC #93-019868	
9623	KAREN A. DALE, et con.	STATE OF CALIFORNIA	GRANT DEED	8/10/93	DOC #93-016267	CORRIDOR PROTECTION
9625	PESTONI LEASING, INC.	STATE OF CALIFORNIA	GRANT DEED	10/7/92	DOC #92-021336	TOTAL ACQUISITION
9626	JOHN D. DILLINGHAM	STATE OF CALIFORNIA	GRANT DEED	12/31/92	DOC #92-027170	Q.CLAIM DOC#92-027169 TOT.ACQUISITION
9627	LEONARD COLE, et ux.	STATE OF CALIFORNIA	GRANT DEED	11/26/91	DOC #91-024346	
9628	LAWRENCE SACCATO, et al.	STATE OF CALIFORNIA	GRANT DEED	1/11/93	DOC #93-000448	QUITCLAIM DOC#93-000447 TOTAL ACQUI
9629	FLOYD S. CLARK	STATE OF CALIFORNIA	GRANT DEED	11/23/93	DOC #93-023691	TOTAL ACQUISITION
9630	GEORGE W ARTH	STATE OF CALIFORNIA	GRANT DEED	9/13/94	DOC #94-017716	
9631	HARRY H. ASAI, et ux.	STATE OF CALIFORNIA	GRANT DEED	1/5/94	DOC #94-000240	TOTAL ACQUISITION
9632	PATRICIA E. MORRIS, et al.	STATE OF CALIFORNIA	GRANT DEED	1/11/94	DOC #94-000583	TOTAL ACQUISITION
9633	JAMES G. BENEKE	STATE OF CALIFORNIA	GRANT DEED	9/19/91	DOC #91-019589	Q.CLAIM DOC#94-000584 TOT.ACQUISITION
9634	LEO M PARK	STATE OF CALIFORNIA	GRANT DEED	8/30/94	DOC# 94-017000	
9635	SHIU NARAIN	STATE OF CALIFORNIA	GRANT DEED	10/19/95	DOC #95-017159	
9636	JAMES A. HAYES, et ux.	STATE OF CALIFORNIA	GRANT DEED	8/25/92	DOC #92-017693	TOTAL ACQUISITION
9637	JOHN C. PEETERS, et ux.	STATE OF CALIFORNIA	GRANT DEED	9/8/92	DOC #92-019063	
9638	DONALD D. TIMMERMAN	STATE OF CALIFORNIA	GRANT DEED	9/13/93	DOC #93-018523	
9639	WILLIAM T. WOITA	STATE OF CALIFORNIA	GRANT DEED	9/29/92	DOC #92-020781	TOTAL ACQUISITION
9640	ROBERT O. VALENTINE	STATE OF CALIFORNIA	GRANT DEED	2/11/94	DOC #94-002794	



SCHEDULE

PARCEL	GRANTOR	GRANTEE	INSTRUMENT	DATE	RECORD	REMARKS
9656	WARNER'S LUMBER CO. INC.	STATE OF CALIFORNIA	GRANT DEED	5/28/93	93-010563	CORRIDOR PROTECTION
9845	MARVIN K. BECKER, et al.	STATE OF CALIFORNIA	GRANT DEED	5/18/94	DOC #94-009501	
9846	LASZLO T. SEBIAN	STATE OF CALIFORNIA	GRANT DEED	6/30/93	DOC #93-012896	ACCESS RIGHTS AND UNDERLYING FEE
9847			CONDEMNATION		CAN'T FIND YET	ACCESS RIGHTS AND UNDERLYING FEE
9848	CECIL L. BROWN, et ux.	STATE OF CALIFORNIA	GRANT DEED	9/15/92	DOC #92-019659	ACCESS RIGHTS AND UNDERLYING FEE
9862	VICTOR S. BAGLIO, et ux.	STATE OF CALIFORNIA	GRANT DEED	7/19/93	DOC #93-014263	CORRIDOR PROTECTION
9865 (9914)	WARNER'S LUMBER CO., INC.	STATE OF CALIFORNIA	GRANT DEED	5/28/93	DOC #93-010562	CORRIDOR PROTECTION
9866	JOHN D. DILLINGHAM	STATE OF CALIFORNIA	GRANT DEED	9/6/91	DOC #91-018735	CORRIDOR PROTECTION
9867	LOUIS SURBER, et ux.	STATE OF CALIFORNIA	GRANT DEED	6/30/93	DOC #93-012910	CORRIDOR PROTECTION
9868	SCOTT P. DILLINGHAM	STATE OF CALIFORNIA	GRANT DEED	2/2/93	DOC #93-001961	CORRIDOR PROTECTION
9869	JOHN W. MILLER, et ux.	STATE OF CALIFORNIA	GRANT DEED	5/28/93	DOC #93-010564	CORRIDOR PROTECTION
9870	CLIFFORD D. RUZICKA, et ux.	STATE OF CALIFORNIA	GRANT DEED	6/15/93	DOC #93-011658	CORRIDOR PROTECTION
9872	CARMEN J. VENUTO, et ux.	STATE OF CALIFORNIA	GRANT DEED	5/28/93	DOC #93-010565	CORRIDOR PROTECTION
9894	JAMES W. ROACH	STATE OF CALIFORNIA	GRANT DEED	6/13/94	DOC #94-011107	CORRIDOR PROTECTION
9895	GEORGE H MALNBURG, SR	STATE OF CALIFORNIA	GRANT DEED	6/30/93	FORGOT TO WRITE IT DOWN	CORRIDOR PROTECTION
REL 1230	STATE OF CA	CITY OF CLEARLAKE	RELINQUISHMENT	4/9/00	DOC #00-003398	SEGMENT AT DAM RD IN REL 1230A

R/W MAP

01-LAK-053-R2.27

SCALE: 1"=100'

1476a

//t1ew050/user/t1mh/20047/recordmaps/s6

SCHEDULE

PARCEL		GRANTOR	GRANTEE	INSTRUMENT	DATE	RECORD	REMARKS
DE9620-01-01	⊠	STATE OF CALIFORNIA	LAKE COUNTY SANITATION DISTRICT	DIRECTOR DEED	12/05/94	DOC NO. 94-022684	DE9621-01-01 DE9622-01-01 DE9623-01-01
DE9621-01-01	⊠	STATE OF CALIFORNIA	LAKE COUNTY SANITATION DISTRICT	DIRECTOR DEED			
DE9622-01-01	⊠	STATE OF CALIFORNIA	LAKE COUNTY SANITATION DISTRICT	DIRECTOR DEED			
DE9623-01-01	⊠	STATE OF CALIFORNIA	LAKE COUNTY SANITATION DISTRICT	DIRECTOR DEED			

R/W MAP

01-LAK-053-R2.27

SCALE: 1"=100'

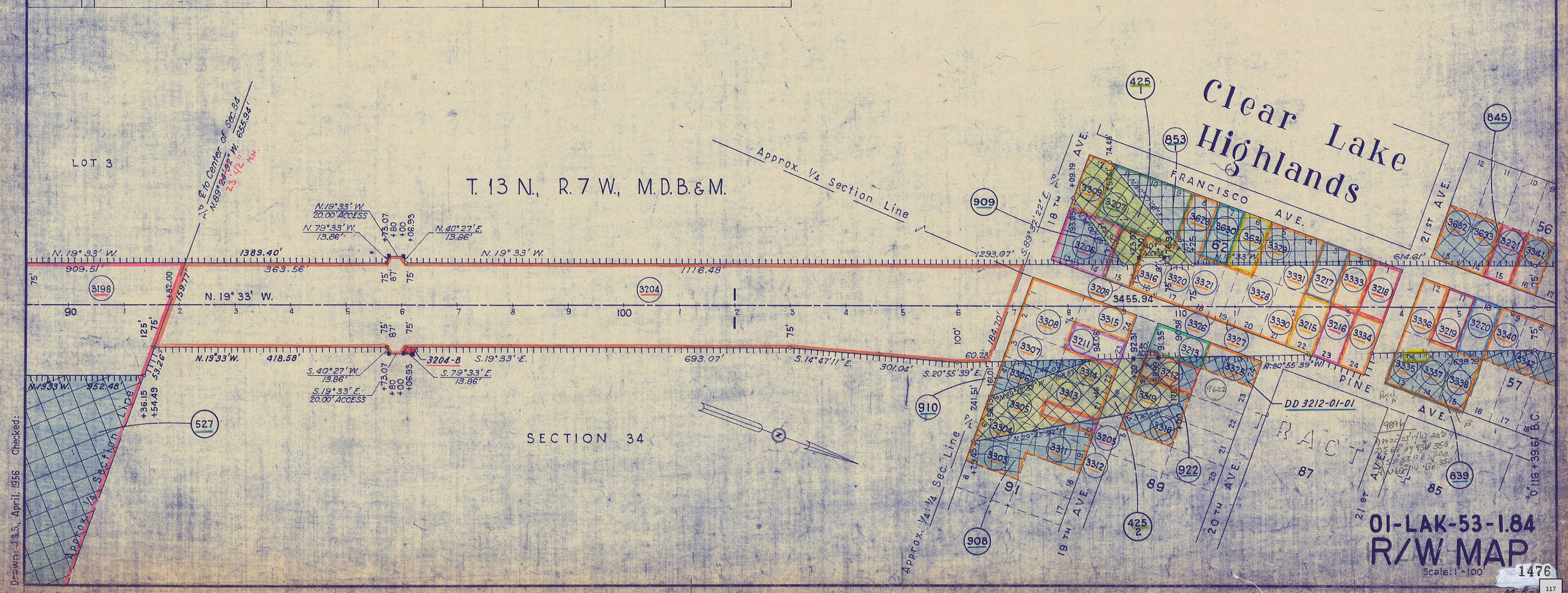
1476b

//tlew050/user/tlmh/20047/recordmaps/s6

DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS

SCHEDULE

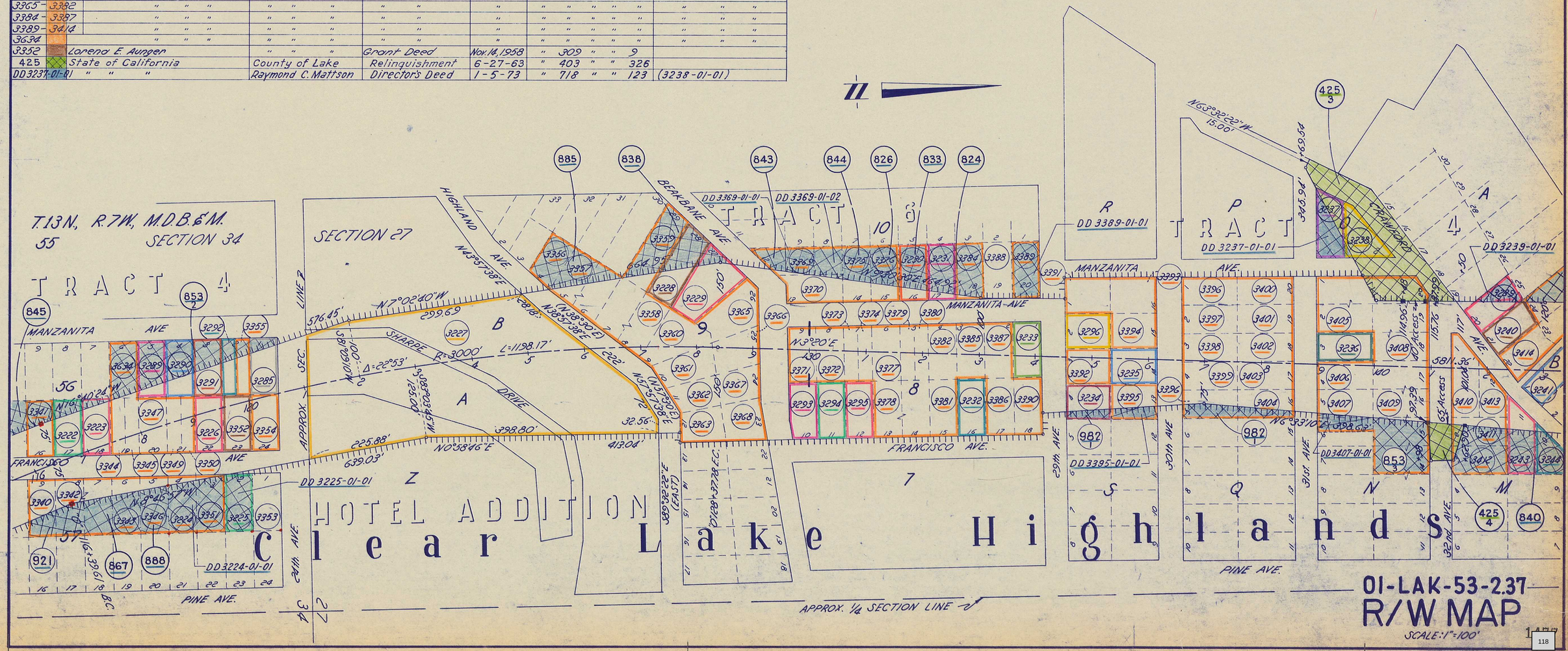
CASE	GRANTOR	GRANTEE	INSTRUMENT	DATE	RECORD	REMARKS
3198	Regenia Goodman Forbes	State of California	Grant Deed	Jan. 5, 1957	Book 273 O.R., Page 222	and Access Rights
3204	County of Lake	" " "	Grant Deed	Feb. 20, 1957	" 278, O.R., " 377	" " "
3205	Eva Jordan	State of California	Grant Deed	Jun. 20, 1962	" 383 O.R., " 263	
3206	Mary Thomson et al	" " "	Grant Deed	Jan. 25, 1956	" 263 O.R., " 9	
3207	Marjorie Moore McCreery	" " "	" "	Feb 15, 1958	" 291 " " 38	3207, 3209, 3210-Combined
3208	Sarah L. Harbertson	" " "	Grant Deed	Mar. 27, 1956	" 262 O.R., " 256	
3211	LOUIS H. Hofmann	" " "	" "	Apr. 3, 1956	" 306 " " 452	
3212	Laura Edna Fetner	" " "	Final Ord. of Condm.	5-24-60	" 330 " " 548	Parcel #8
3213	Lemuel C. Goodrich	" " "	Grant Deed	Jan. 29, 1956	" 260 O.R., " 431	
3215	Lee Burdick et ux	" " "	Grant Deed	Feb. 11, 1956	" 263 O.R., " 19	
3216	Howard Widney	" " "	Grant Deed	Jan. 22, 1956	" 260 O.R., " 432	
3217	Ellen Anderson	" " "	Grant Deed	Jan. 24, 1956	" 260 O.R., " 399	
3218	Mary E. Badger	" " "	Grant Deed	Dec. 14, 1955	" 260 O.R., " 282	
3219	County of Lake	" " "	Tax Deed	Mar. 1, 1957	" 275 O.R., " 172	
3220	R. B. Montgomery	" " "	Condemnation	Mar. 14, 1962	" 370 O.R., " 416	
3221	Frank Davidson	" " "	Grant Deed	9-18-61	Book 362, O.R., Page 171	
3630	Jennie Drager et al	" " "	Grant Deed	Mar. 29, 1956	" 262 O.R., " 298	
3631	Jeannie Murdock et vir	" " "	Grant Deed	April 2, 1956	" 262 O.R., " 301	
3303 - 3309	County of Lake	" " "	Tax Deed	May 28, 1956	" 265 O.R., " 226	Combined with 3303
3311 - 3316	" " "	" " "	" "	"	" " " " " "	" " "
3318 - 3321	" " "	" " "	" "	"	" " " " " "	" " "
3325 - 3331	" " "	" " "	" "	"	" " " " " "	" " "
3333 - 3338	" " "	" " "	" "	"	" " " " " "	" " "
3340 - 3342	" " "	" " "	" "	"	" " " " " "	" " "
3629	" " "	" " "	" "	"	" " " " " "	" " "
3632 - 3633	" " "	" " "	" "	"	" " " " " "	" " "
425	State of California	County of Lake	Relinquishment	6-27-63	" 403 " " 326	
527	" " "	" " "	Director's Deed	12-18-63	" 418 " " 380	
839	" " "	A. P. Maher	" "	9-21-66	" 507 " " 577	
845	" " "	F. S. Clark	" "	9-21-66	" 507 " " 64	
908	" " "	G. Kissmann	" "	5-18-67	" 525 " " 4	
909	" " "	T. V. Broadwater	" "	5-18-67	" 525 " " 6	
853	" " "	P. Lewis	" "	9-21-66	" 507 " " 54	
910	" " "	T. G. Anthony	" "	7-20-67	" 531 " " 127	
922	" " "	R. A. Goddard	" "	7-20-67	" 530 " " 425	
3204-B	Lake Co. Bd of Supervisors	State of California	Grant Deed	11-14-72	" 714 " " 319	Increased Access open to 40'
DD 3212-01-01	State of California	Charles B. Phillips	Director's Deed	1-5-73	" 718 " " 121	(3213-01-01) & (3325-01-01)
9896	GERT Aarrberg, ETAL	LAKE CO. SANITATION DIST	EASEMENT DEED	6-3-94	DOC 94-010577	STATE DOES NOT OWN



SCHEDULE

CASE	GRANTOR	GRANTEE	INSTRUMENT	DATE	RECORD	REMARKS
3222	Louis H. Wardlow et. ux.	State of California	Grant Deed	Feb. 3, 1956	Book 263 O.R. Page 38	
3223	F. W. Kringel	" " "	Quitclaim	Feb. 10, 1956	" 262 " " 379	
3225	Amy J. Wyman Fair	" " "	Grant Deed	Jan. 24, 1956	" 262 " " 183	
3226	Lena Close	" " "	" "	Feb. 16, 1959	" 308 " " 243	
3227	Harold H. Holsten et. ux.	" " "	Condemnation	May 25, 1959	" 317 " " 387	
3228	Roy H. Barnes	" " "	Grant Deed	Mar. 27, 1956	" 263 " " 255	
3229	Lillian E. Shaw Lucke et. Vir.	" " "	" "	Mar. 23, 1956	" 262 " " 257	
3230	Ora Merl Miller et. ux.	" " "	" "	Feb. 1, 1956	" 263 " " 18	
3231	John K. Bodle	" " "	" "	Jan. 16, 1957	" 274 " " 254	And Quitclaim 3231-A
3232	Ernest A. Parsons	" " "	" "	Feb. 6, 1959	" 307 " " 542	
3233	Russell H. Emmons	" " "	" "	Apr. 27, 1956	" 268 " " 141	
3234	Barbara A. Hinters	" " "	" "	Jan. 23, 1956	" 260 " " 398	
3235	Virgil S. Wilson	" " "	" "	Feb. 8, 1956	" 269 " " 277	
3236	Renaldo Ray Qualia et. ux.	" " "	" "	Feb. 23, 1958	" 291 " " 35	
3237	Sam Kleven	" " "	" "	Mar. 30, 1959	" 310 " " 453	
3238	Jake W. Thomas	" " "	" "	Jan. 4, 1957	" 272 " " 495	
3239	Estate of Rose T. H. Granville	" " "	Final Order Condemnation	Dec. 18, 1959	" 322 " " 383	
3240	Laura B. Rector	" " "	Grant Deed	Jan. 7, 1960	" 325 " " 128	
3241	Helen A. Shekell	" " "	" "	Jan. 23, 1956	" 260 " " 430	
3243	Ethel Kier	" " "	" "	Feb. 7, 1956	" 262 " " 338	
3244	Alonzo White	" " "	Final Order Condemnation	May 24, 1960	" 330 " " 548	Parcel #25
3285	Henry Danielson et. ux.	" " "	Grant Deed	Feb. 9, 1959	" 309 " " 293	
3289	Edward W. Turner et. ux.	" " "	" "	Feb. 5, 1956	" 263 " " 36	
3290	Rex H. Turner	" " "	" "	Dec. 15, 1955	" 260 " " 191	
3291	Leo L. Monson	" " "	" "	Jan. 29, 1956	" 260 " " 434	
3292	Doris Pruett	" " "	" "	Mar. 8, 1956	" 262 " " 294	
3293	Alonzo White	" " "	Final Order Condemnation	May 24, 1960	" 330 " " 548	Parcel #16
3294	Margaret Cox	" " "	Grant Deed	Jul. 30, 1956	" 268 " " 236	
3295	Delbert A. Thune et. al.	" " "	" "	Jan. 27, 1956	" 277 " " 108	
3296	William C. Goldsmith	" " "	" "	Feb. 4, 1956	" 262 " " 399	
3224	County of Lake	" " "	Tax Deed	May 28, 1956	" 265 " " 226	Combined With 3303
3340 - 3347	" " "	" " "	" "	"	" " " " "	" " "
3349 - 3351	" " "	" " "	" "	"	" " " " "	" " "
3354 - 3363	" " "	" " "	" "	"	" " " " "	" " "
3365 - 3382	" " "	" " "	" "	"	" " " " "	" " "
3384 - 3387	" " "	" " "	" "	"	" " " " "	" " "
3389 - 3412	" " "	" " "	" "	"	" " " " "	" " "
3634	" " "	" " "	" "	"	" " " " "	" " "
3352	Lorena E. Aungen	" " "	Grant Deed	Nov. 14, 1958	" 309 " " 9	
425	State of California	County of Lake	Relinquishment	6-27-63	" 403 " " 326	
DD3237-01-01	" " "	Raymond C. Mattson	Director's Deed	1-5-73	" 718 " " 123	(3238-01-01)

CASE	GRANTOR	GRANTEE	INSTRUMENT	DATE	RECORD	REMARKS
824	State of California	L. M. Thomas	Director's Deed	9-21-66	Book 507 O.R., Pg. 58	
826	" " "	C. M. Bisbee	" "	8-17-66	" 503 " " 354	
833	" " "	P. C. Malfatti	" "	9-21-66	" 508 " " 112	
836	" " "	F. S. Clark	" "	9-21-66	" 507 " " 67	
840	" " "	R. Percival	" "	9-21-66	" 507 " " 61	
843	" " "	S. J. Bautista	" "	9-21-66	" 507 " " 161	
844	" " "	L. E. Land	" "	9-21-66	" 507 " " 504	
845	" " "	F. S. Clark	" "	9-21-66	" 507 " " 64	
853	" " "	P. Lewis	" "	9-21-66	" 507 " " 54	
867	" " "	M. K. Barfell	" "	2-16-67	" 518 " " 166	
885	" " "	C. J. Salvaressa	" "	3-16-67	" 519 " " 254	
888	" " "	E. K. Fountain	" "	3-15-67	" 519 " " 451	
921	" " "	M. K. Barfell	" "	7-24-67	" 533 " " 421	
982	" " "	R. O. Valentine	" "	7-23-68	" 580 " " 119	
DD3389-01-01	" " "	Herman O. Richards	" "	1-29-73	" 720 " " 1	See file 3303
DD3395-01-01	" " "	Donald O'Neill	" "	6-1-73	" 730 " " 268	
DD3225-01-01	" " "	Joseph R. Wright	" "	7-10-73	" 733 " " 471	
DD3239-01-01	" " "	Silas B. Carter	" "	7-10-73	" 733 " " 473	
DD3369-01-02	" " "	Leisure Lands Inc.	" "	7-30-73	" 736 " " 161	(3370-01-01)
DD3224-01-01	" " "	Joseph R. Wright et al	" "	12-31-73	" 748 " " 695	(3351-01-01)
DD3369-01-01	" " "	Leisure Lands, Inc.	" "	6-26-75	" 799 " " 137	(3370-01-01)
DD3407-01-01	" " "	Steve B. Alexander	" "	4-4-76	" 828 " " 434	

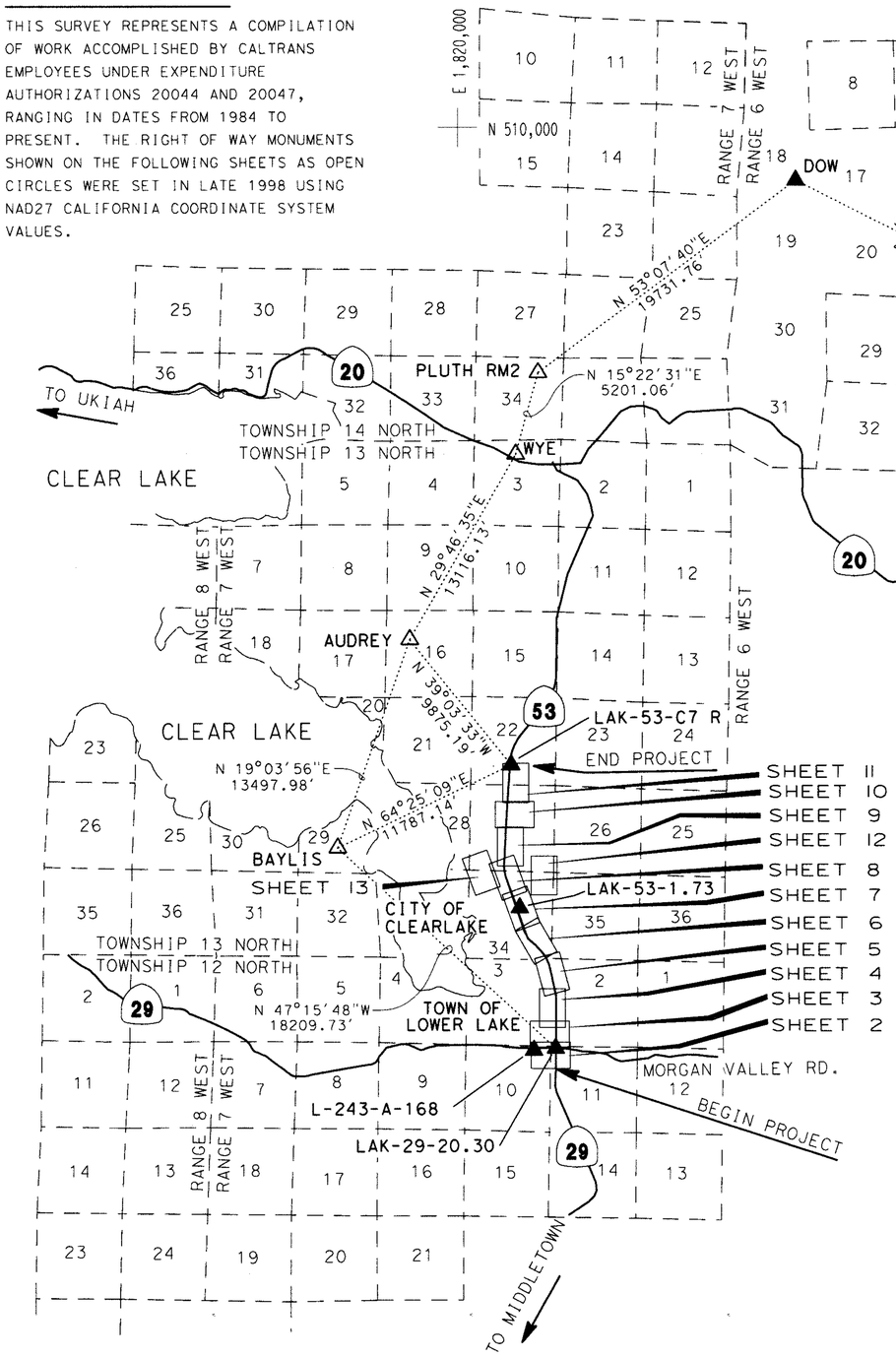


BASIS OF BEARINGS

BEARINGS AND DISTANCES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1927, ZONE 2, HOLDING THE COORDINATES PUBLISHED BY THE NATIONAL GEODETIC SURVEY AS SHOWN IN THE "PRIMARY CONTROL" TABLE HEREON. MULTIPLY GRID DISTANCES SHOWN BY 1.0001535 TO OBTAIN GROUND DISTANCES IN U.S. SURVEY FEET. THE COMBINED GRID FACTOR FOR THE PROJECT IS 0.9998465

SURVEY NOTES:

THIS SURVEY REPRESENTS A COMPILATION OF WORK ACCOMPLISHED BY CALTRANS EMPLOYEES UNDER EXPENDITURE AUTHORIZATIONS 20044 AND 20047, RANGING IN DATES FROM 1984 TO PRESENT. THE RIGHT OF WAY MONUMENTS SHOWN ON THE FOLLOWING SHEETS AS OPEN CIRCLES WERE SET IN LATE 1998 USING NAD27 CALIFORNIA COORDINATE SYSTEM VALUES.



COUNTY SURVEYOR'S STATEMENT

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH SECTION 8766 OF THE PROFESSIONAL LAND SURVEYORS' ACT THIS 30TH DAY OF JULY, 2009.

BY: Gordon M Haggitt
GORDON M. HAGGITT, COUNTY SURVEYOR
L.S. 6352
EXP. DATE 12-31-2010

BY: _____
DEPUTY COUNTY SURVEYOR

PROFESSIONAL LAND SURVEYOR GORDON M. HAGGITT Exp. 12/31/10 6352 STATE OF CALIFORNIA

SURVEYOR'S STATEMENT

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYOR'S ACT AT THE REQUEST OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION - CALTRANS IN JANUARY 2009.

SIGNED Leonard Shaw
LEONARD SHAW, PLS 8279
LICENSE EXP. DATE: 12-31-2009

PROFESSIONAL LAND SURVEYOR LEONARD SHAW Exp. 12-31-2009 No. 8279 STATE OF CALIFORNIA

RECORDER'S STATEMENT

FILED THIS 31ST DAY OF JULY, 2009, AT 10:29 A.M. IN BOOK 88, OF RECORD OF SURVEYS, PAGES 12-24. AT THE REQUEST OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION.

DOUGLAS W. WACKER
LAKE COUNTY ASSESSOR-RECORDER

BY: Ginny Choley
DEPUTY COUNTY RECORDER

FILE # 2009012711
NO FEE: STATE BUSINESS

NGS PRIMARY CONTROL	CCS27 FEET		
NAME	COORDINATES		DESCRIPTION
AUDREY	N 478,528.77	E 1,817,081.35	3-1/2" STD DISK IN IRON PIPE
BAYLIS	N 465,771.23	E 1,812,672.22	3-1/2" STD DISK IN IRON PIPE
CACHE	N 478,534.81	E 1,909,932.76	3-1/2" STD DISK IN BOULDER
COLAK	N 487,157.41	E 1,883,421.74	CDH BRASS CAP IN CONC
PLUTH RM2	N 494,928.12	E 1,824,974.02	3-1/2" STD DISK IN CONCRETE
WYE	N 489,913.19	E 1,823,595.01	3-1/2" STD DISK IN CONCRETE

CALTRANS CONTROL	CCS27 FEET		
NAME	COORDINATES		DESCRIPTION
L-243-A-168	N 453,282.70	E 1,824,710.83	2-1/4" BRASS DISK IN CONCRETE
LAK-53-C7 R	N 470,860.75	E 1,823,303.94	2-1/4" CDOT BRASS DISK IN 1/2" IRON PIPE
LAK-29-20.30	N 453,413.59	E 1,826,046.94	CDOT BRASS DISK IN CONCRETE
DOW	N 506,767.85	E 1,840,758.92	3/4 " IRON PIPE IN MND OF ROCKS
GRIGGS 1971	N 499,646.96	E 1,859,701.57	BRASS CAP ON 1/2" IRON PIPE
SATT 1971	N 498,507.98	E 1,867,464.79	BRASS CAP ON 1/2" IRON PIPE
ABBOT 1971	N 492,684.90	E 1,874,428.18	BRASS CAP ON 1/2" IRON PIPE
GRIZZLY	N 497,655.59	E 1,858,866.31	BRASS CAP SET IN BOULDER
LAK-53-1.73	N 462,076.68	E 1,823,846.84	2-1/4" CDOT BRASS DISK STAMPED "CDOT LAK-53-1.73"

NOTE: NOT ALL CALTRANS CONTROL MONUMENTS ARE SHOWN ON THIS INDEX SHEET. SEE THE FOLLOWING SHEETS FOR ADDITIONAL CONTROL MONUMENTATION THRU THE PROJECT.

LEGEND

△	FOUND N.G.S. HORIZONTAL CONTROL MONUMENT
▲	FOUND CALTRANS HORIZONTAL CONTROL MONUMENT
CDOT	CALIFORNIA DEPARTMENT OF TRANSPORTATION
CDH	CALIFORNIA DIVISION OF HIGHWAYS
MND	MOUND

NOTE: HIGHWAY 53 CONSTRUCTION CENTERLINE IS NOT COMMON TO "O" CENTERLINE SHOWN ON EARLIER VARIATION OF HIGHWAY RECORD MAPS.

RECORD OF SURVEY

OF MONUMENTATION

ALONG STATE HIGHWAY 53 IN LAKE COUNTY, CALIFORNIA
FOR
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
1656 UNION STREET, EUREKA

IN
SECTIONS 2, 3, 10, 11, T12N, R7W, MDM
SECTIONS 22, 27, 34, 35, T13N, R7W, MDM

CO	ROUTE	POST MILE	DATE	SHEET
LAK	53	0.0/3.5	JUNE 2009	1 OF 13

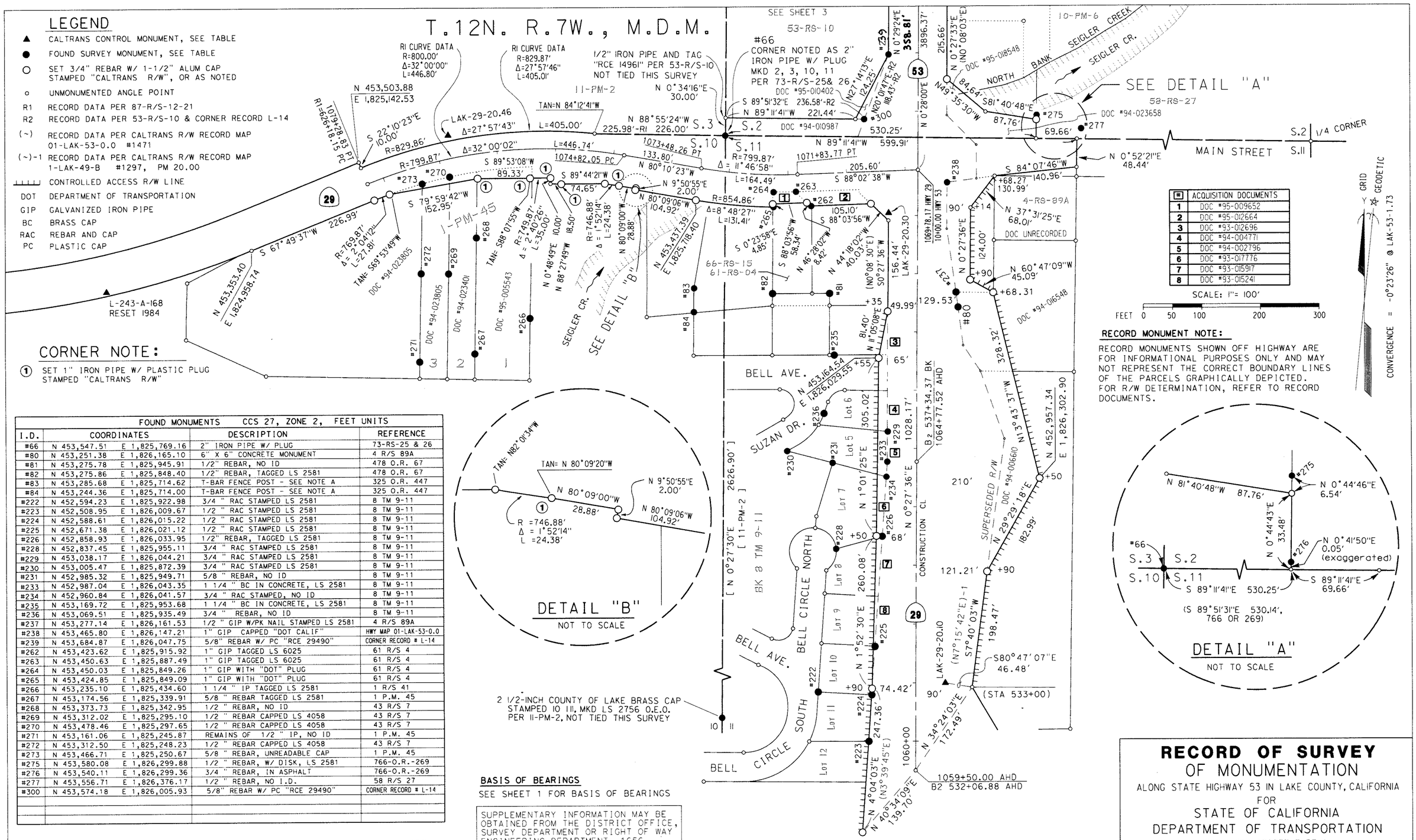
T.12N. R.7W., M.D.M.

LEGEND

- ▲ CALTRANS CONTROL MONUMENT, SEE TABLE
- ● FOUND SURVEY MONUMENT, SEE TABLE
- ○ SET 3/4" REBAR W/ 1-1/2" ALUM CAP STAMPED "CALTRANS R/W", OR AS NOTED
- o UNMONUMENTED ANGLE POINT
- R1 RECORD DATA PER 87-R/S-12-21
- R2 RECORD DATA PER 53-R/S-10 & CORNER RECORD L-14
- (~) RECORD DATA PER CALTRANS R/W RECORD MAP 01-LAK-53-0.0 #1471
- (~)-1 RECORD DATA PER CALTRANS R/W RECORD MAP 1-LAK-49-B #1297, PM 20.00
- CONTROLLED ACCESS R/W LINE
- DOT DEPARTMENT OF TRANSPORTATION
- GIP GALVANIZED IRON PIPE
- BC BRASS CAP
- RAC REBAR AND CAP
- PC PLASTIC CAP

CORNER NOTE:

(1) SET 1" IRON PIPE W/ PLASTIC PLUG STAMPED "CALTRANS R/W"



*	ACQUISITION DOCUMENTS
1	DOC #95-009652
2	DOC #95-012664
3	DOC #93-012696
4	DOC #94-004771
5	DOC #94-002796
6	DOC #93-017776
7	DOC #93-015917
8	DOC #93-015241

RECORD MONUMENT NOTE:

RECORD MONUMENTS SHOWN OFF HIGHWAY ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT THE CORRECT BOUNDARY LINES OF THE PARCELS GRAPHICALLY DEPICTED. FOR R/W DETERMINATION, REFER TO RECORD DOCUMENTS.

FOUND MONUMENTS CCS 27, ZONE 2, FEET UNITS			
I.D.	COORDINATES	DESCRIPTION	REFERENCE
#66	N 453,547.51 E 1,825,769.16	2" IRON PIPE W/ PLUG	73-RS-25 & 26
#80	N 453,251.38 E 1,826,165.10	6" X 6" CONCRETE MONUMENT	4 R/S 89A
#81	N 453,275.78 E 1,825,945.91	1/2" REBAR, NO ID	478 O.R. 67
#82	N 453,275.86 E 1,825,848.40	1/2" REBAR, TAGGED LS 2581	478 O.R. 67
#83	N 453,285.68 E 1,825,714.62	T-BAR FENCE POST - SEE NOTE A	325 O.R. 447
#84	N 453,244.36 E 1,825,714.00	T-BAR FENCE POST - SEE NOTE A	325 O.R. 447
#222	N 452,594.23 E 1,825,922.98	3/4 " RAC STAMPED LS 2581	8 TM 9-11
#223	N 452,508.95 E 1,826,009.67	1/2 " RAC STAMPED LS 2581	8 TM 9-11
#224	N 452,588.61 E 1,826,015.22	1/2 " RAC STAMPED LS 2581	8 TM 9-11
#225	N 452,671.38 E 1,826,021.12	1/2 " RAC STAMPED LS 2581	8 TM 9-11
#226	N 452,858.93 E 1,826,033.95	1/2" REBAR, TAGGED LS 2581	8 TM 9-11
#228	N 452,837.45 E 1,825,955.11	3/4 " RAC STAMPED LS 2581	8 TM 9-11
#229	N 453,038.17 E 1,826,044.21	3/4 " RAC STAMPED LS 2581	8 TM 9-11
#230	N 453,005.47 E 1,825,872.39	3/4 " RAC STAMPED LS 2581	8 TM 9-11
#231	N 452,985.32 E 1,825,949.71	5/8 " REBAR, NO ID	8 TM 9-11
#233	N 452,987.04 E 1,826,043.35	1 1/4 " BC IN CONCRETE, LS 2581	8 TM 9-11
#234	N 452,960.84 E 1,826,041.57	3/4 " RAC STAMPED, NO ID	8 TM 9-11
#235	N 453,169.72 E 1,825,953.68	1 1/4 " BC IN CONCRETE, LS 2581	8 TM 9-11
#236	N 453,069.51 E 1,825,935.49	3/4 " REBAR, NO ID	8 TM 9-11
#237	N 453,277.14 E 1,826,161.53	1/2 " GIP W/PK NAIL STAMPED LS 2581	4 R/S 89A
#238	N 453,465.80 E 1,826,147.21	1" GIP CAPPED "DOT CALIF"	HWY MAP 01-LAK-53-0.0
#239	N 453,684.87 E 1,826,047.75	5/8" REBAR W/ PC "RCE 29490"	CORNER RECORD # L-14
#262	N 453,423.62 E 1,825,915.92	1" GIP TAGGED LS 6025	61 R/S 4
#263	N 453,450.63 E 1,825,887.49	1" GIP TAGGED LS 6025	61 R/S 4
#264	N 453,450.03 E 1,825,849.26	1" GIP WITH "DOT" PLUG	61 R/S 4
#265	N 453,424.85 E 1,825,849.09	1" GIP WITH "DOT" PLUG	61 R/S 4
#266	N 453,235.10 E 1,825,434.60	1 1/4 " IP TAGGED LS 2581	1 R/S 41
#267	N 453,174.56 E 1,825,339.91	5/8 " REBAR TAGGED LS 2581	1 P.M. 45
#268	N 453,373.73 E 1,825,342.95	1/2 " REBAR, NO ID	43 R/S 7
#269	N 453,312.02 E 1,825,295.10	1/2 " REBAR CAPPED LS 4058	43 R/S 7
#270	N 453,478.46 E 1,825,297.65	1/2 " REBAR CAPPED LS 4058	43 R/S 7
#271	N 453,161.06 E 1,825,245.87	REMAINS OF 1/2 " IP, NO ID	1 P.M. 45
#272	N 453,312.50 E 1,825,248.23	1/2 " REBAR CAPPED LS 4058	43 R/S 7
#273	N 453,466.71 E 1,825,250.67	5/8 " REBAR, UNREADABLE CAP	1 P.M. 45
#275	N 453,580.08 E 1,826,299.88	1/2 " REBAR, W/ DISK, LS 2581	766-O.R.-269
#276	N 453,540.11 E 1,826,299.36	3/4 " REBAR, IN ASPHALT	766-O.R.-269
#277	N 453,556.71 E 1,826,376.17	1/2 " REBAR, NO I.D.	58 R/S 27
#300	N 453,574.18 E 1,826,005.93	5/8" REBAR W/ PC "RCE 29490"	CORNER RECORD # L-14

CALTRANS CONTROL MONUMENTS CCS 27, ZONE 2, FEET UNITS		
I.D.	COORDINATES	DESCRIPTION
L-243-A-168 RESET 1984	N 453,282.70 E 1,824,710.83	BRASS DISC IN IRON PIPE STAMPED "CALTRANS L-243-168"
LAK-29-20.10	N 452,608.80 E 1,826,140.46	BRASS DISC IN CONC "CDOT LAK29 20.10"
LAK-29-20.30	N 453,413.59 E 1,826,046.94	BRASS DISC IN CONC "CDOT LAK29 20.30"
LAK-29-20.46	N 453,549.43 E 1,825,295.14	BRASS DISC IN CONC "CDOT LAK29 20.46"

BASIS OF BEARINGS

SEE SHEET 1 FOR BASIS OF BEARINGS

SUPPLEMENTARY INFORMATION MAY BE OBTAINED FROM THE DISTRICT OFFICE, SURVEY DEPARTMENT OR RIGHT OF WAY ENGINEERING DEPARTMENT, 1656 UNION STREET, EUREKA, CA.

EXCEPTING THOSE SHOWN OTHERWISE, ALL DISTANCES AND BEARINGS ARE GRID, BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1927, ZONE 2. TO OBTAIN GROUND LEVEL DISTANCES, MULTIPLY GRID DISTANCES BY 1.0001535. GRID WAS ESTABLISHED FROM CALTRANS CONTROL LINE MONUMENTS. CGF = 0.9998465

CORNER NOTE "A":

FOUND MONUMENTS #83 AND #84 ARE "T" FENCE POSTS SHOWN TO SURVEYORS BY GARTH C. ALLEN. HE SAID THESE TWO POSTS WERE SET BY T.L. O'CONNER PER THE DEED 325-O.R.-447. THIS STATEMENT IS SHOWN ON THE CALTRANS MONUMENT RECOVERY REPORT DATED 2-16-1990, PREPARED BY M. HOLMES.

RECORD OF SURVEY
OF MONUMENTATION

ALONG STATE HIGHWAY 53 IN LAKE COUNTY, CALIFORNIA
FOR
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
1656 UNION STREET, EUREKA

IN
SECTIONS 2, 3, 10, 11, T12N, R7W, MDM
SECTIONS 22, 27, 34, 35, T13N, R7W, MDM

CO	ROUTE	POST MILE	DATE	SHEET
LAK	53	0.0/3.5	JUNE 2009	2 OF 13

T.12N. R.7W., M.D.M.

LEGEND

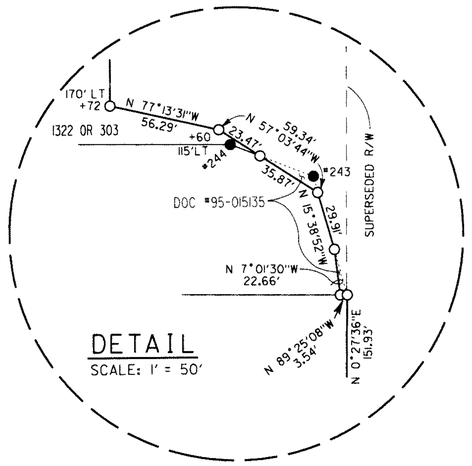
- ▲ CALTRANS CONTROL MONUMENT, SEE TABLE
- ● FOUND SURVEY MONUMENT, SEE TABLE
- ○ SET 3/4" REBAR W/ 1-1/2" ALUM CAP STAMPED "CALTRANS R/W", OR AS NOTED
- o UNMONUMENTED ANGLE POINT
- CONTROLLED ACCESS R/W LINE
- (~) RECORD DATA PER CALTRANS R/W RECORD MAP 01-LAK-53-0.0 #1471
- CDOT CALIFORNIA DEPARTMENT OF TRANSPORTATION
- DOT DEPARTMENT OF TRANSPORTATION
- GIP GALVANIZED IRON PIPE
- CT CALTRANS
- PC PLASTIC CAP

SCALE: 1" = 100'

FEET 0 50 100 200 300

NOTE:

POINT #88 NOTED AS FOUND 1 1/4-INCH ALUM CAP MKD "CALTRANS" PER 36-PM-48, RECORDED 2-12-2004



DETAIL
SCALE: 1' = 50'

FOUND MONUMENTS	CCS 27, ZONE 2, FEET UNITS		
I.D.	COORDINATES	DESCRIPTION	REFERENCE
#66	N 453,547.16 E 1,825,769.16	2" IRON PIPE W/ PLUG	73 R/S 25 & 26
#85	N 454,059.01 E 1,826,451.88	5/8" REBAR TAGGED LS 2581	10 PM 6
#86	N 453,896.94 E 1,826,468.63	5/8" REBAR, NO ID	15 PM 8
#87	N 453,857.74 E 1,826,559.27	1/2" I.P. W/WOOD PLUG & TACK	10 PM 6
#88	N 454,062.32 E 1,826,151.89	5/8" REBAR w/ ALUM CT CAP	36 PM 48
#89	N 454,258.91 E 1,826,453.26	80 D NAIL	8 R/S 49
#90	N 454,260.66 E 1,826,303.33	20 D NAIL	8 R/S 49
#91	N 454,487.25 E 1,825,776.76	1/2" IRON PIPE, NO ID	NO RECORD FOUND
#93	N 454,642.29 E 1,825,780.39	1/2" REBAR TAGGED LS 2581	1 R/S 87A
#94	N 454,742.26 E 1,826,157.34	1/2" REBAR W/ LS 4089 CAP	50 R/S 21
#95	N 454,741.32 E 1,826,234.46	1/2" REBAR W/ LS 4089 CAP	50 R/S 21
#96	N 454,571.96 E 1,826,188.51	5/8" REBAR TAGGED LS 2581	8 R/S 2
#97	N 454,571.20 E 1,826,257.04	5/8" REBAR TAGGED LS 2581	8 R/S 2
#98	N 454,622.44 E 1,826,156.97	1/2" REBAR W/ LS 4089 CAP	50 R/S 21
#239	N 453,684.87 E 1,826,047.75	5/8" REBAR W/ PC "RCE 29490"	CORNER RECORD # L-14
#241	N 454,046.67 E 1,825,774.37	1/2" IRON PIPE, RCE 14961	53 R/S 10
#242	N 454,764.47 E 1,826,057.14	1.5" GIP X 6' TALL END FENCE POST	55 R/S 9
#243	N 454,824.58 E 1,826,040.57	1/2" REBAR WITH LS 4058 CAP	55 R/S 9
#244	N 454,840.76 E 1,825,998.86	1/2" REBAR NO I.D.	55 R/S 9
#300	N 453,574.18 E 1,826,005.93	5/8" REBAR W/ PC "RCE 29490"	CORNER RECORD # L-14

CONTROL MONUMENTS	CCS 27, ZONE 2, FEET UNITS	
I.D.	COORDINATES	DESCRIPTION
LAK-53-0.16	N 454,316.17 E 1,826,150.98	2-1/4" CDOT BRASS DISK IN CONC
		STAMPED "CDOT LAK-53-0.16"
LAK-53-0.20	N 454,537.02 E 1,826,152.28	3/4" REBAR W/ 1-1/2" CDOT ALUM CAP
		STAMPED "CDOT LAK-53-0.20"

BASIS OF BEARINGS

SEE SHEET 1 FOR BASIS OF BEARINGS

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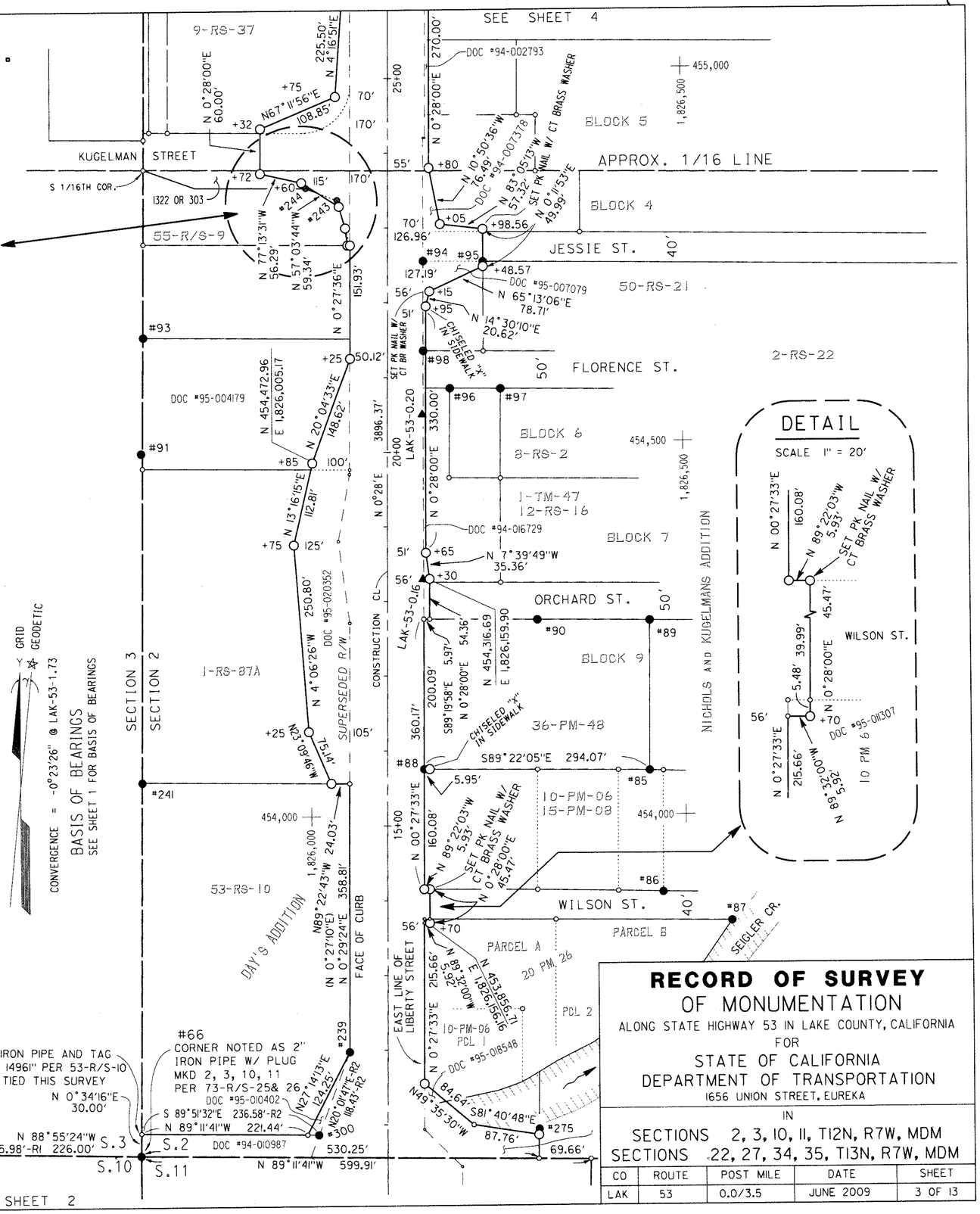
RECORD MONUMENT NOTE:

RECORD MONUMENTS SHOWN OFF HIGHWAY ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT THE CORRECT BOUNDARY LINES OF THE PARCELS GRAPHICALLY DEPICTED. FOR R/W DETERMINATION, REFER TO RECORD DOCUMENTS.

NOTE: POINT #88 FALLS ON R/W



SEE SHEET 2

RECORD OF SURVEY
OF MONUMENTATION

ALONG STATE HIGHWAY 53 IN LAKE COUNTY, CALIFORNIA

FOR

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
1656 UNION STREET, EUREKA

IN

SECTIONS 2, 3, 10, 11, T12N, R7W, MDM
SECTIONS 22, 27, 34, 35, T13N, R7W, MDM

CO	ROUTE	POST MILE	DATE	SHEET
LAK	53	0.0/3.5	JUNE 2009	3 OF 13

T.12N. R.7W., M.D.M.

FOUND MONUMENTS	CCS 27, ZONE 2, FEET UNITS		
I.D.	COORDINATES	DESCRIPTION	REFERENCE
#94	N 454,742.26 E 1,826,157.34	1/2" REBAR W/ LS 4089 CAP	50 R/S 21
#95	N 454,741.32 E 1,826,234.46	1/2" REBAR W/ LS 4089 CAP	50 R/S 21
#99	N 455,969.43 E 1,826,066.19	2" DIA. GATE POST, BENT OVER	7 R/S 50
#100	N 456,292.84 E 1,826,069.66	6" X 6" CONCRETE MONUMENT	HWY MAPS #1472 1-LAK-49-C
#243	N 454,824.58 E 1,826,040.57	1/2" REBAR WITH LS 4058 CAP	55 R/S 9
#244	N 454,840.76 E 1,825,998.86	1/2" REBAR NO I.D.	55 R/S 9
#246	N 456,731.94 E 1,825,989.73	2" BRASS CAP, C/L MONUMENT	33 PM 12-13
#401	N 455,155.94 E 1,826,060.22	1/2 " IRON ROD, LS 3546	35 R/S 5
#402	N 455,440.93 E 1,826,062.09	1/2" REBAR, NO I.D.	35 R/S 5
#403	N 455,694.76 E 1,826,064.54	1/2" REBAR BENT, NO TAG	NO RECORD FOUND
#404	N 456,180.92 E 1,826,068.46	5/8" REBAR W/ TAG LS 2581	7 R/S 50
#405	N 456,185.87 E 1,825,795.47	COUNTY OF LAKE BRASS CAP	7 R/S 50

CONTROL MONUMENTS		CCS 27, ZONE 2, FEET UNITS
I.D.	COORDINATES	DESCRIPTION
LAK-53-0.32	N 455,159.45 E 1,826,060.73	2-1/4" CDOT BRASS DISK IN CONC
		STAMPED "CDOT LAK-53-0.32"
LAK-53-0.48	N 455,981.10 E 1,826,167.35	2-1/4" CDOT BRASS DISK IN CONC
		STAMPED "CDOT LAK-53-0.48"
LAK-53-0.63	N 456,831.74 E 1,826,037.13	2-1/4" CDOT BRASS DISK IN CONC
		STAMPED "CDOT LAK-53-0.63"

LEGEND

- ▲ CALTRANS CONTROL MONUMENT, SEE TABLE
- ● FOUND SURVEY MONUMENT, SEE TABLE
- ○ SET 3/4" REBAR W/ 1-1/2" ALUM CAP STAMPED "CALTRANS R/W", OR AS NOTED
- ∘ UNMONUMENTED ANGLE POINT
- (~) RECORD DATA PER CALTRANS R/W RECORD MAPS
- CONTROLLED ACCESS R/W LINE
- CDOT CALIFORNIA DEPARTMENT OF TRANSPORTATION
- GIP GALVANIZED IRON PIPE
- CT CALTRANS
- BC BRASS CAP

NOTE:
SEE MAP SHEET 3 FOR DETAIL

SEE SHEET 3

15-RS-29

23-PM-46
35-RS-5

S 1/16TH COR.

KUGELMAN STREET

55-RS-9

322 OR 303

PCL 1

PCL 2

9-RS-37

N 0°28'00"E 60.00'

N 77°13'31"W 56.29'

N 57°03'44"W 59.34'

#244

#243

+72 +60 +32 115' 170' 70' 170' 151.93'

N 67°11'56"E 108.85'

+75

N 454,962.70
E 1,826,039.16

DOC #94-015135

N 4°16'51"E 225.50'

#401

55'

SET PK NAIL W/ CT BR WASHER

DOC #94-015293

LAK-53-0.32

S 4°06'26"E 250.80'

+50

75'

#402

455,500

1,826,000

DOC #94-015135

SECTION 3

SECTION 2

N 1°04'19"E 946.42'

DOC #94-011559

#403

DOC #94-009056

#99

DOC #94-019019

#404

7-RS-50
21-RS-48

29-PM-14

456,000

APPROX. 1/4 LINE

COUNTY OF LAKE
BRASS CAP
1/4 COR S3/S2
#405

THIS CORNER SHOWN ON:
55-RS-9 AND 73-RS-25

PCL 2

33-PM-12-13

(33+06.33 BC)
HIGHWAY MAPS
LAK-49-C #1472

#100

456,500

N 3°20'49"W 288.90'

DOC #94-003266

70'

65'

CONSTRUCTION CL

40+00

PC 38+96.37

R=3000'

Δ= 13°04'00"

L=684.17'

45+00

70'

PT 45+80.54

N 54°07'37"W 56.00'

+92

#246
NOT ON RW

+90

85'

LAK-53-0.63

N 6°32'13"W 63.28'

N 11°35'36"W

424.37'

N 456,804.25
E 1,826,008.76

TANGENT= N 89°46'34"E

S 70°26'12"W 33.97'

N 31°51'12"E 42.59'

L=193.52'
Δ=40°37'38"
R=272.92'

TRANSFER OF CONTROL
DOC #96-004264

ANDERSON RANCH PARKWAY

33-PM-12-13

DOC #92-14699
DOC #92-14700

50'

191.46'

N 83°45'50"W

457,000

1,825,500

N 83°45'50"W
12.25'

R=335.32'
Δ= 34°10'00"
L=199.96'

TANGENT= N 49°35'50"W

SEE SHEET 5

CONVERGENCE = -0°23'26" @ LAK-53-1.73

GRID
GEODETIC

5/8-INCH IRON ROD, MKD LS 2581
PER 15-RS-29 and 21-RS-48
NOT TIED THIS SURVEY

SUPERSEDED R/W

DOC #95-016679

LAK-53-0.48

N 0°28'00"E 1096.37'

N 0°28'E 2896.37'

25+00 30+00 35+00

55' 75'

N 8°03'41"E 151.33'

+50

FD 1/2" REBAR W/ PLASTIC CAP
MKD "DUKE LS 7588" PER 73-RS-25

N 0°28'00"E 270.00'

N 454,866.68
E 1,826,163.38

+80 +05 +15

56' 70' 55'

126.96' 127.19'

#94 #95

+48.57

DOC #95-007079

N 10°50'36"W 76.49'

DOC #94-007378

N 83°05'13"W 57.32'

SET PK NAIL W/ CT BRASS WASHER

+98.56

N 0°11'53"E 49.99'

DOC #94-002793

50-RS-21

JESSIE ST. 40'

BLOCK 4

BLOCK 5

APPROX. 1/16 LINE

1,826,500

455,000

R=3075'
Δ= 3°53'21" L=208.72'

Δ= 9°37'07" L=516.22'

Δ= 5°43'46" L=307.50'

R=3070'
Δ= 3°26'53"
L=184.75'
TAN=N 9°09'07"W
N 80°50'53"E (RAD) 5.00'

N 456,896.97
E 1,826,156.69

TRANSFER OF CONTROL
DOC #96-004264

N 456,591.45
E 1,826,190.35

TANGENT= N 3°25'21"W

LAKE ST.

Δ=28°49'00"
R=1029.84'
L=517.95'

S89°03'E
S23°20'54"E
N23°40'W-R2

7-TM-92-93

12-PM-39

SEE R/W RECORD MAP #1469

393.45'

S 62°58'24"E

1,826,500

456,500

456,000

1,826,500

455,000

RECORD MONUMENT NOTE:

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BASIS OF BEARINGS

SEE SHEET 1 FOR BASIS OF BEARINGS

SCALE: 1" = 100'

FEET 0 50 100 200 300

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SUPPLEMENTARY INFORMATION MAY BE OBTAINED FROM THE DISTRICT OFFICE, SURVEY DEPARTMENT OR RIGHT OF WAY ENGINEERING DEPARTMENT, 1656 UNION STREET, EUREKA, CA.

RECORD OF SURVEY
OF MONUMENTATION

ALONG STATE HIGHWAY 53 IN LAKE COUNTY, CALIFORNIA
FOR
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
1656 UNION STREET, EUREKA

IN
SECTIONS 2, 3, 10, 11, T12N, R7W, MDM
SECTIONS 22, 27, 34, 35, T13N, R7W, MDM

CO	ROUTE	POST MILE	DATE	SHEET
LAK	53	0.0/3.5	JUNE 2009	4 OF 13

FOUND MONUMENTS	CCS 27, ZONE 2, FEET UNITS			
I.D.	COORDINATES		DESCRIPTION	REFERENCE
#101	N 458,411.14	E 1,826,115.28	1/2" IRON PIPE, NO I.D.	856 O.R. 22
#102	N 458,410.89	E 1,826,148.00	1/2" IRON PIPE, NO I.D.	856 O.R. 22
#247	N 457,194.24	E 1,826,049.11	1/2" REBAR TAGGED LS 3546	33 PM 12-13
#248	N 457,219.79	E 1,825,941.00	1/2" REBAR TAGGED LS 3546	33 PM 12-13
#503	N 458,756.99	E 1,825,706.08	6" X 6" C MONUMENT	HIGHWAY MAPS #1473 1-LAK-49-C
#504	N 458,832.76	E 1,825,803.10	TOP T-BAR POST, BURIED 0.3'	1 R/S 4

CONTROL MONUMENTS	CCS 27, ZONE 2, FEET UNITS		
I.D.	COORDINATES		DESCRIPTION
LAK-53-0.63	N 456,831.74	E 1,826,037.13	2-1/4" CDOT BRASS DISK IN CONC STAMPED "CDOT LAK-53-0.63"
LAK-53-0.86	N 457,986.49	E 1,825,836.99	2-1/4" CDOT BRASS DISK IN CONC STAMPED "CDOT LAK-53-0.86"
LAK-53-1.01	N 458,779.58	E 1,825,611.97	2-1/4" CDOT BRASS DISK IN CONC STAMPED "CDOT LAK-53-1.01"

LEGEND

- ▲ CALTRANS CONTROL MONUMENT, SEE TABLE
- ● FOUND SURVEY MONUMENT, SEE TABLE
- ○ SET 3/4" REBAR W/ 1-1/2" ALUM CAP STAMPED "CALTRANS R/W", OR AS NOTED
- ∘ UNMONUMENTED ANGLE POINT
- (~) RECORD DATA PER CALTRANS R/W RECORD MAP 1-LAK-49-C #1473
- CONTROLLED ACCESS R/W LINE
- CDOT CALIFORNIA DEPARTMENT OF TRANSPORTATION
- R2A RECORD DATA PER 11 PM 4

ANDERSON STATE MARSH

RANCH PARKWAY
N 83°45'50"W 191.46'
1,825,500
457,000
ANDERSON
R=335.32'
Δ= 34°10'00" L=199.96'
N 83°45'50"W
12.25'
33-PM-12-13
TANGENT= N 49°35'50"W
L=193.52'
Δ=40°37'38"
R=272.92'
TRANSFER OF CONTROL
DOC #96-004264
1,825,500
457,500
1,825,500
458,000
N 485,786.75
E 1,825,411.88
TANGENT = N 32°38'06"W
514.70'
N 35°18'13"W
459,000
CACHE CREEK
T 13 N, T 12 N, SECTION 34 3
N 31°51'12"E 42.59'
N 456,804.25
E 1,826,008.76
424.37'
N 11°35'36"W
862.75'
438.38'
+00
N 12°48'14"W
422.42'
+25
TANGENT=N 16°16'21"W
1,825,500
458,500
L=799.63'
R=2800'
Δ= 16°21'45"
110'
L=1631.88'
+30
85'
LAK-53-0.63
#248
PT 45+80.54
45+00
53
CONSTRUCTION CENTERLINE
50+00
N 12°36'00"W
948.20'
LAK-53-0.86
NOT ON CL
55+00
PC 55+28.74
DOC #94-00491
R=3000'
Δ= 31°10'00"
65+00
60+00
LAK-53-1.01
DOC #94-003266
R=3070'
Δ= 3°26'53"
N 12°36'00"W
119.10'
L=184.75'
TAN=N 9°09'07"W
N 80°50'53"E
(RAD) 5.00'
#247
269.46'
150.36'
70'
75'
SUPERSEDED R/W
80'
100'
DOC #94-00491
N 11°52'29"W
395.03'
N 457,728.22
E 1,825,981.71
+50
+45
S 1°17'24"E
101.98'
S 12°36'00"E
85.00'
+30
N 17°03'31"W
708.88'
N 77°24'00"E 5.00'
N 35°11'47"W
31.71'
105'
98.94'
106.77'
116.39'
118.64'
N 11°30'46"W
143.13'
69.02'
#503
+50.10
+82.22
+20
N 458,590.83
E 1,825,752.92
39.99' (40') ACCESS OPENING
PER DOC# 98-010007
#504
N 25°04'49"W
(S 25°24'02"E)
363.15'
N 12°36'07"E
117.82'
SEE SHEET 6
LAKE ST.
30'
30.23'
89.03'
S23°20'54"E
N23°40'W-R2A
R=214.97'
Δ=31°31'47"
L=118.30'
Δ=28°49'00"
R=1029.84'
L=517.95'
7-TM-92-93
11-PM-4
9-RS-8
12-PM-39
BRYANT ROAD
TANGENT = N 8°10'53"E
S 89°25'42"E
81.82'
CENTERLINE LAKE STREET
SEE SHEET 4
458,500
PER 1-RS-4 DATED SEPTEMBER 1938, THE MONUMENT FOUND AGREES WITH THAT DESCRIBED ON THE 1938 MAP AS: 3"x 3/4"x 2' IRON, "T" SHAPE DISTURBED AN RESET IT IN CONCRETE AND MOUND OF STONES
11-PM-39
1,826,500
457,000
#101
#102
SET 5/8"
CONVERGENCE = -0°23'26" @ LAK-53-1.73
GRID
GEODETIC
SCALE: 1"= 100'
FEET 0 50 100 200 300

RECORD MONUMENT NOTE:

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BASIS OF BEARINGS

SEE SHEET 1 FOR BASIS OF BEARINGS

EXCEPTING THOSE SHOWN OTHERWISE, ALL DISTANCES AND BEARINGS ARE GRID, BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1927, ZONE 2. TO OBTAIN GROUND LEVEL DISTANCES, MULTIPLY GRID DISTANCES BY 1.0001535. GRID WAS ESTABLISHED FROM CALTRANS CONTROL LINE MONUMENTS CGF = 0.9998465

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RECORD OF SURVEY
OF MONUMENTATION

ALONG STATE HIGHWAY 53 IN LAKE COUNTY, CALIFORNIA
FOR
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
1656 UNION STREET, EUREKA

IN
SECTIONS 2, 3, 10, 11, T12N, R7W, MDM
SECTIONS 22, 27, 34, 35, T13N, R7W, MDM

CO	ROUTE	POST MILE	DATE	SHEET
LAK	53	0.0/3.5	JUNE 2009	5 OF 13

T.13N. R.7W., M.D.M.
SECTION 34

T 12 N.
T 13 N.
SECTION 34
SECTION 3

CACHE CREEK

1,824,000
460,000
1,824,500
459,500
1,825,000
459,000

47-RS-10

8-PM-46
PARCEL A

PARCEL B

DOC 94-010229

DOC 94-011481

NOTE: A PORTION OF RELINQUISHMENT #266 SHOWN PER 303-O.R.-466 AT OLD HWY 53

FROM THIS CORNER, A 1-3/4" IRON PIPE W/ CAP STAMPED "U.S.I.S. C 1/4 S34 1952" BEARS N 41°53'38"W 1236.45' PER DOC 2006022522

RECORD MONUMENT NOTE:

RECORD MONUMENTS SHOWN OFF HIGHWAY ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT THE CORRECT BOUNDARY LINES OF THE PARCELS GRAPHICALLY DEPICTED. FOR R/W DETERMINATION, REFER TO RECORD DOCUMENTS.

N 459,206.80
E 1,825,114.43

N 35°18'13"W 514.70'

N 38°13'15"W 309.91'

N 46°46'46"W 190.26'

N 39°16'35"W-R3
N 39°16'55"W

N 57°48'10"W 61.85'

N 25°49'38"W 101.62'

N 52°47'07"W 207.03'

N 47°37'04"W 167.54'

N 37°26'34"W 151.14'

N 29°34'42"W 198.40'

N 22°42'43"W 595.88'

N 26°03'46"W 409.31'

N 38°42'05"W 302.04'

N 31°42'44"W 271.27'

N 0°02'26"E 84.92'

N 41°29'50"W-R12 187.97'

N34°23'27"E 40.00'-R12
N34°23'27"E 40.10'

OLD HWY 53
303-O.R.-466

N 41°41'32"W 125.21'

S63°36'33"E-R12 109.62'

S 80°03'36"E 118.78'

41-PM-6.27

N 20°10'45"E 110.40'

N 460,767.33
E 1,824,121.33

N 19°33'09"W 1970.46'

RELINQUISHMENT 1230A
DOC 2006-022522

UNRECORDED

UNRECORDED

DOC 94-014570

DOC 94-010845

LAK-53-1.30

UNRECORDED
DOC 95-002736

R=1800.00'

Δ=24°24'00"

L=766.55'

PT 83+91.38

N 19°22'00"W 1638.61'

CONSTRUCTION CL

PC 76+24.83

N 43°46'00"W 464.21'

LAK-53-1.16

PT 71+60.62

("0" STA 71+78.61x 60.06' Lt)

DOC #94-023545

R=3000.00'

Δ=31°10'00"

L=1631.88'

SUPERSEDED R/W

53

N 25°06'48"E 181.61'

82-A-BI

N 86°37'03" W 41.17'

I" IRON PIPE W/ PLASTIC PLUG STAMPED "DOT"

I" IRON PIPE W/ PLASTIC PLUG STAMPED "DOT"

Δ=35°11'03"

R=590.00'

L=362.31'

PK W/ CALTRANS BATHEY CAP IN ROCK

TAN=N12°36'57"W

N 2°08'31"E 40.46'
N 2°06'25"E 40.47' - R11

N 3°40'19"W 89.73'
N 3°39'48"W 89.71' -R11

LAK-53-1.45R

N 19°33'00"W-R11
N 19°33'09"W 124.92'

Δ=11°59'39"

R = 1874.07

L= 392.31'

I" IRON PIPE W/ PLASTIC PLUG STAMPED "DOT"

112.00'

N 19°32'31"W 827.05'

DAM ROAD

R=563.71'

Δ= 49°53'34"

L=490.88'

TAN=N31°35'23"W

APPROX EAST LINE LOT 3

S 3°13'39"W 235.82'

62-RS-24

S44°57'01"E 109.16'

S 10°27'00"E-R11 109.36'

N70°27'00"E-R11 168.99'

S70°36'50"E 169.29'

182.57'
N 43°38'48"W 98.82'

P/L FROM 458-O.R.-152

461,000
1,824,500

29-PM-35-36

S 2°06'25"W 246.12'

83.75'

N 460,720.86
E 1,824,608.74

CONVERGENCE = -0°23'26" @ LAK-53-1.73

GRID
GEODETIC

DAM ROAD EXT.

SEE SHEET 7

N 25°04'49"W 363.15'

N 12°36'07"E 117.82'

126.57'

N 42°50'59"W

S23°32'48"W 35.36'
S23°32'11"W 35.35'-R11

N 50°07'35"W 435.48'

N 53°32'11"E 101.41'

I" IRON PIPE W/ PLASTIC PLUG STAMPED "DOT"

N 75°39'57"W 38.31'
WESTERLY 40'± - R11

S 18°40'56"W 13.26'
S 18°40'51"W 13'± - R11

S 18°40'52"W 49.92'
S 18°40'51"W-R11

SECTION 34
SECTION 35

SEE SHEET 5

33-PM-5-7

1,825,000

Δ= 23°48'04"

R=599.91'

L=249.21'

I" IRON PIPE W/ PLASTIC PLUG STAMPED "DOT"

33-PM-49-50

N 459,501.57
E 1,825,450.04

N 71°35'13"W 205.28'

1,825,500

RECORD MONUMENT NOTE:

RECORD MONUMENTS SHOWN OFF HIGHWAY ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT THE CORRECT BOUNDARY LINES OF THE PARCELS GRAPHICALLY DEPICTED. FOR R/W DETERMINATION, REFER TO RECORD DOCUMENTS.

FOUND MONUMENTS CCS 27, ZONE 2, FEET UNITS				
I.D.	COORDINATES		DESCRIPTION	REFERENCE
#6	N 460,440.66	E 1,824,174.93	1/2" REBAR TAGGED LS 3546	47 RS 10
#55	N 459,767.27	E 1,824,762.54	6" X 6" CONCRETE MONUMENT	HIGHWAY MAPS #1475 1-LAK-49-C PM 1.29
#56	N 459,746.99	E 1,824,784.52	1/2" IRON PIPE, FLUSH, NO TAG	NO RECORD FOUND
#105	N 459,574.07	E 1,824,655.22	5/8" REBAR TAGGED LS 2581	1353 O.R. 471
#106	N 460,578.10	E 1,824,081.92	6" X 6" CONCRETE MONUMENT	8 PM 46
#450	N 460,667.84	E 1,824,003.46	T-BAR TAGGED LS 2581	8 PM 46

CONTROL MONUMENTS CCS 27, ZONE 2, FEET UNITS			
I.D.	COORDINATES		DESCRIPTION
82-A-B1	N 459,575.29	E 1,825,116.46	2-1/4" CDOT BRASS DISK IN CONC STAMPED "CDOT 82-A-B1"
LAK-53-1.16	N 459,312.43	E 1,825,094.88	2-1/4" CDOT BRASS DISK IN CONC STAMPED "CDOT LAK-53-1.16"
LAK-53-1.30	N 459,893.26	E 1,824,565.00	2-1/4" CDOT BRASS DISK IN CONC STAMPED "CDOT LAK-53-1.30"
LAK-53-1.45	N 460,683.69	E 1,824,331.34	2-1/4" CDOT BRASS DISK IN CONC STAMPED "CDOT LAK-53-1.45"

SUPPLEMENTARY INFORMATION MAY BE OBTAINED FROM THE DISTRICT OFFICE, SURVEY DEPARTMENT OR RIGHT OF WAY ENGINEERING DEPARTMENT, 1656 UNION STREET, EUREKA, CA.

EXCEPTING THOSE SHOWN OTHERWISE, ALL DISTANCES AND BEARINGS ARE GRID, BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1927, ZONE 2. TO OBTAIN GROUND LEVEL DISTANCES, MULTIPLY GRID DISTANCES BY 1.0001535. GRID WAS ESTABLISHED FROM CALTRANS CONTROL LINE MONUMENTS CGF = 0.9998465

LEGEND

- ▲ CALTRANS CONTROL MONUMENT, SEE TABLE
- ● FOUND SURVEY MONUMENT, SEE TABLE
- ○ SET 3/4" REBAR W/ 1-1/2" ALUM CAP STAMPED "CALTRANS R/W", OR AS NOTED
- ∘ UNMONUMENTED ANGLE POINT
- (~) RECORD DATA PER CALTRANS R/W RECORD MAP SEE 1-LAK-49-C #1475 PM 1.29
- CONTROLLED ACCESS R/W LINE
- CDOT CALIFORNIA DEPARTMENT OF TRANSPORTATION
- R3 DOC 2006022522, RELINQUISHMENT 1230A
- R11 DOC 93-010904, RELINQUISHMENT 1194
- R12 303-O.R.-466, RELINQUISHMENT 266

SCALE: 1" = 100'

FEET 0 50 100 200 300

BASIS OF BEARINGS

SEE SHEET 1 FOR BASIS OF BEARINGS

RECORD OF SURVEY
OF MONUMENTATION

ALONG STATE HIGHWAY 53 IN LAKE COUNTY, CALIFORNIA
FOR
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
1656 UNION STREET, EUREKA

IN
SECTIONS 2, 3, 10, 11, T12N, R7W, MDM
SECTIONS 22, 27, 34, 35, T13N, R7W, MDM

CO	ROUTE	POST MILE	DATE	SHEET
LAK	53	0.0/3.5	JUNE 2009	6 OF 13

LEGEND

- ▲ CALTRANS CONTROL MONUMENT, SEE TABLE
- ● FOUND SURVEY MONUMENT, SEE TABLE
- ○ SET 3/4" REBAR W/ 1-1/2" ALUM CAP STAMPED "CALTRANS R/W", OR AS NOTED
- ◦ UNMONUMENTED ANGLE POINT
- (~) RECORD DATA PER CALTRANS R/W RECORD MAP 1-LAK-53-1.84 #1476
- CONTROLLED ACCESS R/W LINE
- CDOT CALIFORNIA DEPARTMENT OF TRANSPORTATION
- R4 RECORD DATA PER HIGHWAY RECORD MAP 01-LAK-053-R1.62

FOUND MONUMENTS	CCS 27, ZONE 2, FEET UNITS		
I.D.	COORDINATES	DESCRIPTION	REFERENCE
#8	N 461,151.78 E 1,824,197.21	5/8" IRON ROD MKD LS 2581	6-PM-26
#9	N 461,245.26 E 1,824,163.93	1/2" IRON ROD MKD LS 3546	29-PM-35-36
#10	N 461,338.95 E 1,824,130.56	5/8" IRON ROD MKD LS 2581	29-PM-35-36
#12	N 461,570.13 E 1,824,579.97	5/8" IRON ROD MKD LS 3546	22-RS-48
#13	N 461,575.72 E 1,824,046.56	5/8" IRON ROD MKD LS 2581	6-PM-26
#14	N 461,686.49 E 1,824,003.81	5/8" REBAR W/ TAG RCE 14961	44-RS-01
#15	N 461,682.68 E 1,824,353.64	5/8" REBAR W/ TAG RCE 14961	44-RS-01
#16	N 461,965.40 E 1,824,253.40	5/8" REBAR W/ TAG RCE 14961	44-RS-01
#19	N 462,946.85 E 1,823,533.25	6"x 6" CONCRETE MONUMENT	HIGHWAY MAP #1476
#20	N 462,949.80 E 1,823,532.14	5/8" IRON ROD, W/ BRASS TAG LS 2581	2-RS-78
#109	N 463,193.91 E 1,823,748.88	3/4" IRON PIPE, NO I.D.	NO RECORD FOUND
#411	N 461,236.29 E 1,824,567.44	1/2" IRON ROD MKD LS 3546	29-PM-35-36
#417	N 462,210.06 E 1,824,327.28	5/8" REBAR W/ TAG LS 2581	44-RS-01
#418	N 462,214.96 E 1,823,872.64	5/8" IRON ROD MKD LS 2581	44-RS-01
#466	N 462,216.09 E 1,823,766.16	3/4" IRON PIPE, NO I.D.	NO RECORD FOUND

T.13N. R.7W., M.D.M.
SECTION 34

N 461,584.10 E 1,823,257.61 — #507 — C 1/4 S 34 1-1/4" USIS BRONZE CAP IRON PIPE, SEE 1-RS-152

CONVERGENCE = -0°23'26" @ LAK-53-1.73 — GRID / GEODETIC

PCL "A" 7-PM-3

PCL "B" 7-PM-3

OLD HWY 53

S63°36'33"E-R2 109.62'

S 80°03'36"E 118.78'

41-PM-627

1/4 LINE 789.00' N 89°23'30"W

63-RS-24 - 25

ACCESS CLOSED PER DOC 95-010879

N 19°33'09"W 1970.46' (N 19°33'W)

LAK-53-1.61L

LAK-53-1.87L

WARNER ST

N 38°21'35"W 25.00'

310.36'

N 22°06'00"W 430.00'

DOC 95-004591

SEE SHEET 6

SEE SHEET 8

53

90+00 95+00 100+00 105+00 110+00

N 19°22'00"W 1638.61'

PC 100+29.99 R=7500' Δ=2°44'00" L=357.79'

PT 103+87.78

CONSTRUCTION CL N 22°06'00"W 1510.42'

DOC 95-014145

27.13'-R4 27.29'

70.18' 60' 85' 70' 70' 50'

N 22°38'14"W 178.40'

N 20°30'45"W 100.02'

N 15°22'26"W 170.79'

N 9°27'52"W 82.21'

N 461,740.66 E 1,823,950.61

#8 #9 #10 #13 #14 #15 #16 #411 #466 #418 #417 #12

N 19°32'31"W 827.05' (N 19°33'W)

N 18°57'27"W 853.94'

DOC 91-022596

#19 #20

N 10°47'24"W 163.17'

N 41°23'24"W 105.95'

N 52°58'07"E 77.62'

128' 235' 160' 115'

+00 +20 +60 +80

P/L FROM 458-O.R.-152

6-PM-26

22-RS-48

29-PM-35;36

44-RS-1

SOUTH CENTER

2-R.S.-78

REDBUD HOSPITAL

APPROX. 1/16 LINE 18TH AVE

TRACT NO. 4 3 TM 66-75 BLK 91 CLEAR LAKE HIGHLANDS

19TH AVE

N 89°23'59"W 533.44' [S 89°50'0"E 533.62'] [22-RS-48]

APPROX 1/16 LINE

461,000 N 1,824,500

461,500 N 1,823,500

461,000 N 1,824,000

462,500 N 1,823,000

462,500 N 1,824,000

1,824,500

CE 1/16 COR

50' 50'

[S 89°50'0"E 1322.76']

SEC 34 SEC 35

SEE 1-RS-152 E 1/4 COR

U.S.I.S. 1-1/2" BRONZE CAPPED IRON PIPE PER 22-RS-48, NOT TIED THIS SURVEY

CONTROL MONUMENTS	CCS 27, ZONE 2, FEET UNITS		
I.D.	COORDINATES		DESCRIPTION
LAK-53-1.61L	N 461,418.86	E 1,823,939.47	2-1/4" CDOT BRASS DISK IN CONC STAMPED "CDOT LAK-53-1.61L"
LAK-53-1.73	N 462,076.68	E 1,823,846.84	2-1/4" CDOT BRASS DISK IN CONC STAMPED "CDOT LAK-53-1.73"
LAK-53-1.87L	N 462,679.82	E 1,823,465.52	2-1/4" CDOT BRASS DISK IN CONC STAMPED "CDOT LAK-53-1.87L"

SUPPLEMENTARY INFORMATION MAY BE OBTAINED FROM THE DISTRICT OFFICE, SURVEY DEPARTMENT OR RIGHT OF WAY ENGINEERING DEPARTMENT, 1656 UNION STREET, EUREKA, CA.

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BASIS OF BEARINGS

SEE SHEET 1 FOR BASIS OF BEARINGS

RECORD MONUMENT NOTE:

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SCALE: 1" = 100'

FEET 0 50 100 200 300

RECORD OF SURVEY
OF MONUMENTATION

ALONG STATE HIGHWAY 53 IN LAKE COUNTY, CALIFORNIA
FOR
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
1656 UNION STREET, EUREKA

IN
SECTIONS 2, 3, 10, 11, T12N, R7W, MDM
SECTIONS 22, 27, 34, 35, T13N, R7W, MDM

CO	ROUTE	POST MILE	DATE	SHEET
LAK	53	0.0/3.5	JUNE 2009	7 OF 13

SECTION 34

RECORD MONUMENT NOTE:

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SUPPLEMENTARY INFORMATION MAY BE OBTAINED FROM THE DISTRICT OFFICE, SURVEY DEPARTMENT OR RIGHT OF WAY ENGINEERING DEPARTMENT, 1656 UNION STREET, EUREKA, CA.

BASIS OF BEARINGS

SEE SHEET 1 FOR BASIS OF BEARINGS

CONTROL MONUMENTS			CCS 27, ZONE 2, FEET UNITS
I.D.	COORDINATES		DESCRIPTION
LAK-53-2.00R	N 463,340.49	E 1,823,319.33	2-1/4" CDOT BRASS DISK IN CONC STAMPED "CDOT LAK-53-2.00L"
LAK-53-2.14L	N 464,008.92	E 1,822,954.17	2-1/4" CDOT BRASS DISK IN CONC STAMPED "CDOT LAK-53-2.14L"
LAK-53-2.26L	N 464,721.70	E 1,822,904.76	2-1/4" CDOT BRASS DISK IN CONC STAMPED "CDOT LAK-53-2.26L"
LAK-53-2.30R	N 464,910.11	E 1,823,044.71	3/4" REBAR W/ CT ALUM CAP STAMPED "CDOT LAK-53-2.30R"

SEE SHEET 12

#426 COUNTY OF LAKE BRASS CAP
SEE SHEETS 12 AND 13
N 464365.644
E 1820722.533

T.13N. R.7W., M.D.M.
SECTION 27

CONVERGENCE = -0°23'26" @ LAK-53-1.73
GRID
GEODETIC

#	ACQUISITION DOCUMENTS
8A	DOC #93-012901
9	DOC #91-022595
10	DOC #93-019868
11	DOC #98-007199
12	DOC #93-000448
13	DOC #94-017716
14	DOC #94-000240
15	DOC #95-017159
16	DOC #92-017693
17	DOC #92-019063
18	DOC #93-018523
19	DOC #92-020781

NOTE:
MONUMENT DATA FOR POINTS SHOWN ON THIS SHEET APPEARS IN TABLES ON SHEETS 9 & 12

EXCEPTING THOSE SHOWN OTHERWISE, ALL DISTANCES AND BEARINGS ARE GRID, BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1927, ZONE 2. TO OBTAIN GROUND LEVEL DISTANCES, MULTIPLY GRID DISTANCES BY 1.0001285. GRID WAS ESTABLISHED FROM CALTRANS CONTROL LINE MONUMENTS

LEGEND

- ▲ CALTRANS CONTROL MONUMENT, SEE TABLE
- ● FOUND SURVEY MONUMENT, SEE FOUND MONUMENT TABLE ON FOLLOWING SHEETS 9 & 12
- ○ SET 3/4" REBAR W/ 1-1/2" ALUM CAP STAMPED "CALTRANS R/W", OR AS NOTED
- ◦ UNMONUMENTED ANGLE POINT
- (~) RECORD DATA PER CALTRANS R/W RECORD MAP 01-LAK-53-1.84
- (~)-1 RECORD DATA PER CALTRANS R/W RECORD MAP 01-LAK-53-2.37
- CONTROLLED ACCESS R/W LINE
- CDOT CALIFORNIA DEPARTMENT OF TRANSPORTATION
- C MON CONCRETE MONUMENT
- CT CALTRANS

SCALE: 1" = 100'
FEET 0 50 100 200 150

SEE SHEET 13

RECORD OF SURVEY
OF MONUMENTATION

ALONG STATE HIGHWAY 53 IN LAKE COUNTY, CALIFORNIA
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1656 UNION STREET, EUREKA

IN
SECTIONS 2, 3, 10, 11, T12N, R7W, MDM
SECTIONS 22, 27, 34, 35, T13N, R7W, MDM

CO	ROUTE	POST MILE	DATE	SHEET
LAK	53	0.0/3.5	JUNE 2009	8 OF 13

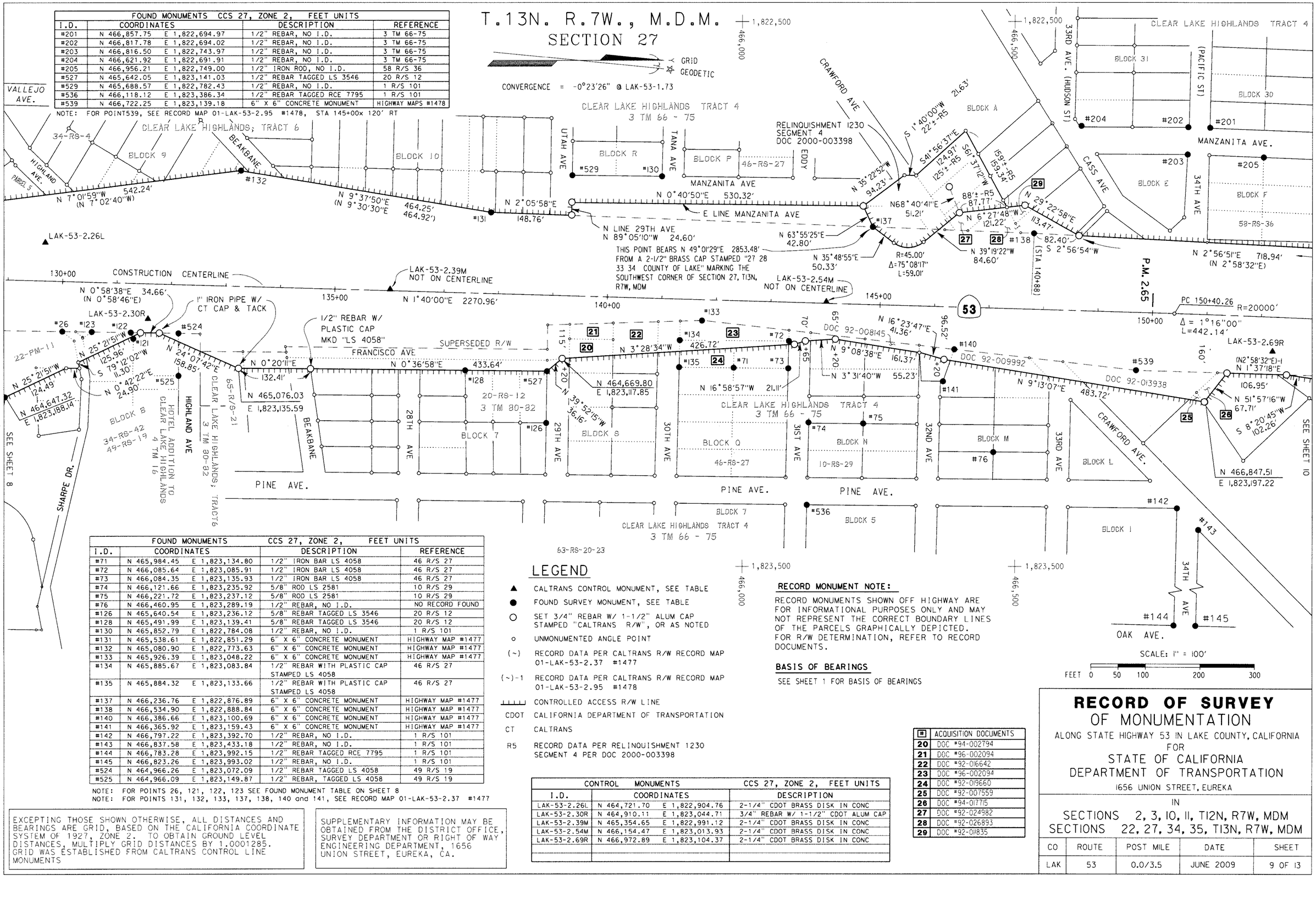
FOUND MONUMENTS CCS 27, ZONE 2, FEET UNITS				
I.D.	COORDINATES		DESCRIPTION	REFERENCE
#201	N 466,857.75	E 1,822,694.97	1/2" REBAR, NO I.D.	3 TM 66-75
#202	N 466,817.78	E 1,822,694.02	1/2" REBAR, NO I.D.	3 TM 66-75
#203	N 466,816.50	E 1,822,743.97	1/2" REBAR, NO I.D.	3 TM 66-75
#204	N 466,621.92	E 1,822,691.91	1/2" REBAR, NO I.D.	3 TM 66-75
#205	N 466,956.21	E 1,822,749.00	1/2" IRON ROD, NO I.D.	58 R/S 36
#527	N 465,642.05	E 1,823,141.03	1/2" REBAR TAGGED LS 3546	20 R/S 12
#529	N 465,688.57	E 1,822,782.43	1/2" REBAR, NO I.D.	1 R/S 101
#536	N 466,118.12	E 1,823,386.34	1/2" REBAR TAGGED RCE 7795	1 R/S 101
#539	N 466,722.25	E 1,823,139.18	6" X 6" CONCRETE MONUMENT	HIGHWAY MAPS #1478

NOTE: FOR POINT539, SEE RECORD MAP 01-LAK-53-2.95 #1478, STA 145+00x 120' RT

T.13N. R.7W., M.D.M.
SECTION 27

1,822,500 / 466,000 — Y GRID, ☆ GEODETIC

CONVERGENCE = -0°23'26" @ LAK-53-1.73



FOUND MONUMENTS CCS 27, ZONE 2, FEET UNITS				
I.D.	COORDINATES		DESCRIPTION	REFERENCE
#71	N 465,984.45	E 1,823,134.80	1/2" IRON BAR LS 4058	46 R/S 27
#72	N 466,085.64	E 1,823,085.91	1/2" IRON BAR LS 4058	46 R/S 27
#73	N 466,084.35	E 1,823,135.93	1/2" IRON BAR LS 4058	46 R/S 27
#74	N 466,121.66	E 1,823,235.92	5/8" ROD LS 2581	10 R/S 29
#75	N 466,221.72	E 1,823,237.12	5/8" ROD LS 2581	10 R/S 29
#76	N 466,460.95	E 1,823,289.19	1/2" REBAR, NO I.D.	NO RECORD FOUND
#126	N 465,640.54	E 1,823,236.12	5/8" REBAR TAGGED LS 3546	20 R/S 12
#128	N 465,491.99	E 1,823,139.41	5/8" REBAR TAGGED LS 3546	20 R/S 12
#130	N 465,852.79	E 1,822,784.08	1/2" REBAR, NO I.D.	1 R/S 101
#131	N 465,538.61	E 1,822,851.29	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1477
#132	N 465,080.90	E 1,822,773.63	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1477
#133	N 465,926.39	E 1,823,048.22	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1477
#134	N 465,885.67	E 1,823,083.84	1/2" REBAR WITH PLASTIC CAP STAMPED LS 4058	46 R/S 27
#135	N 465,884.32	E 1,823,133.66	1/2" REBAR WITH PLASTIC CAP STAMPED LS 4058	46 R/S 27
#137	N 466,236.76	E 1,822,876.89	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1477
#138	N 466,534.90	E 1,822,888.84	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1477
#140	N 466,386.66	E 1,823,100.69	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1477
#141	N 466,365.92	E 1,823,159.43	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1477
#142	N 466,797.22	E 1,823,392.70	1/2" REBAR, NO I.D.	1 R/S 101
#143	N 466,837.58	E 1,823,433.18	1/2" REBAR, NO I.D.	1 R/S 101
#144	N 466,783.28	E 1,823,992.15	1/2" REBAR TAGGED RCE 7795	1 R/S 101
#145	N 466,823.26	E 1,823,993.02	1/2" REBAR, NO I.D.	1 R/S 101
#524	N 464,966.26	E 1,823,072.09	1/2" REBAR TAGGED LS 4058	49 R/S 19
#525	N 464,966.09	E 1,823,149.87	1/2" REBAR, TAGGED LS 4058	49 R/S 19

NOTE: FOR POINTS 26, 121, 122, 123 SEE FOUND MONUMENT TABLE ON SHEET 8
NOTE: FOR POINTS 131, 132, 133, 137, 138, 140 and 141, SEE RECORD MAP 01-LAK-53-2.37 #1477

LEGEND

- ▲ CALTRANS CONTROL MONUMENT, SEE TABLE
- ● FOUND SURVEY MONUMENT, SEE TABLE
- ○ SET 3/4" REBAR W/ 1-1/2" ALUM CAP STAMPED "CALTRANS R/W", OR AS NOTED
- ∘ UNMONUMENTED ANGLE POINT
- (~) RECORD DATA PER CALTRANS R/W RECORD MAP 01-LAK-53-2.37 #1477
- (~)-1 RECORD DATA PER CALTRANS R/W RECORD MAP 01-LAK-53-2.95 #1478
- CONTROLLED ACCESS R/W LINE
- CDOT CALIFORNIA DEPARTMENT OF TRANSPORTATION
- CT CALTRANS
- R5 RECORD DATA PER RELINQUISHMENT 1230 SEGMENT 4 PER DOC 2000-003398

RECORD MONUMENT NOTE:

RECORD MONUMENTS SHOWN OFF HIGHWAY ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT THE CORRECT BOUNDARY LINES OF THE PARCELS GRAPHICALLY DEPICTED. FOR R/W DETERMINATION, REFER TO RECORD DOCUMENTS.

BASIS OF BEARINGS

SEE SHEET 1 FOR BASIS OF BEARINGS

SCALE: 1" = 100'

FEET 0 50 100 200 300

CONTROL MONUMENTS CCS 27, ZONE 2, FEET UNITS			
I.D.	COORDINATES		DESCRIPTION
LAK-53-2.26L	N 464,721.70	E 1,822,904.76	2-1/4" CDOT BRASS DISK IN CONC
LAK-53-2.30R	N 464,910.11	E 1,823,044.71	3/4" REBAR W/ 1-1/2" CDOT ALUM CAP
LAK-53-2.39M	N 465,354.65	E 1,822,991.12	2-1/4" CDOT BRASS DISK IN CONC
LAK-53-2.54M	N 466,154.47	E 1,823,013.93	2-1/4" CDOT BRASS DISK IN CONC
LAK-53-2.69R	N 466,972.89	E 1,823,104.37	2-1/4" CDOT BRASS DISK IN CONC

#	ACQUISITION DOCUMENTS
20	DOC #94-002794
21	DOC #96-002094
22	DOC #92-016642
23	DOC #96-002094
24	DOC #92-019660
25	DOC #92-007559
26	DOC #94-017715
27	DOC #92-024982
28	DOC #92-026893
29	DOC #92-011835

EXCEPTING THOSE SHOWN OTHERWISE, ALL DISTANCES AND BEARINGS ARE GRID, BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1927, ZONE 2. TO OBTAIN GROUND LEVEL DISTANCES, MULTIPLY GRID DISTANCES BY 1.0001285. GRID WAS ESTABLISHED FROM CALTRANS CONTROL LINE MONUMENTS

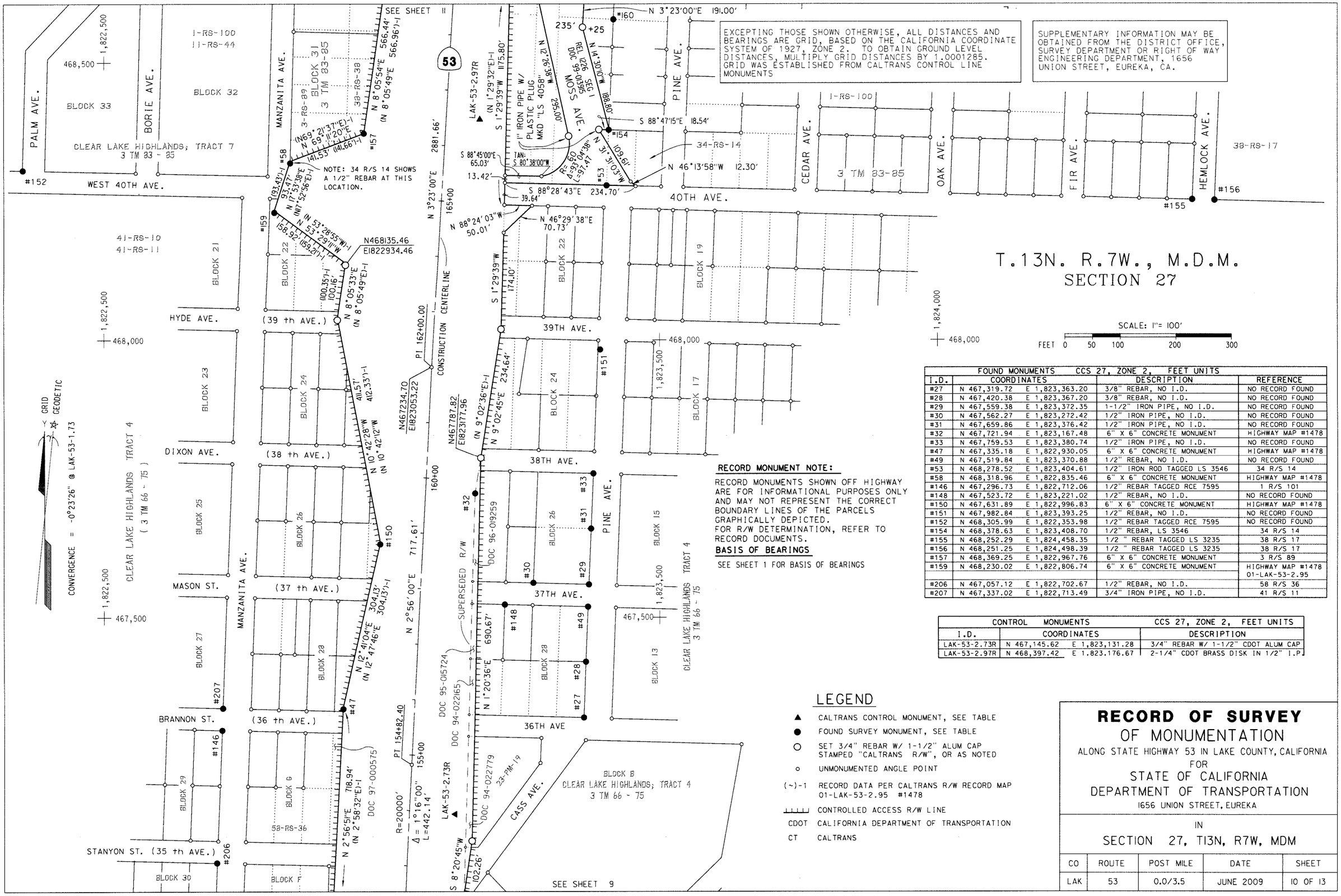
SUPPLEMENTARY INFORMATION MAY BE OBTAINED FROM THE DISTRICT OFFICE, SURVEY DEPARTMENT OR RIGHT OF WAY ENGINEERING DEPARTMENT, 1656 UNION STREET, EUREKA, CA.

RECORD OF SURVEY
OF MONUMENTATION

ALONG STATE HIGHWAY 53 IN LAKE COUNTY, CALIFORNIA
FOR
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
1656 UNION STREET, EUREKA

IN
SECTIONS 2, 3, 10, 11, T12N, R7W, MDM
SECTIONS 22, 27, 34, 35, T13N, R7W, MDM

CO	ROUTE	POST MILE	DATE	SHEET
LAK	53	0.0/3.5	JUNE 2009	9 OF 13



EXCEPTING THOSE SHOWN OTHERWISE, ALL DISTANCES AND BEARINGS ARE GRID, BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1927, ZONE 2. TO OBTAIN GROUND LEVEL DISTANCES, MULTIPLY GRID DISTANCES BY 1.0001285. GRID WAS ESTABLISHED FROM CALTRANS CONTROL LINE MONUMENTS

SUPPLEMENTARY INFORMATION MAY BE OBTAINED FROM THE DISTRICT OFFICE, SURVEY DEPARTMENT OR RIGHT OF WAY ENGINEERING DEPARTMENT, 1656 UNION STREET, EUREKA, CA.

NOTE: 34 R/S 14 SHOWS A 1/2" REBAR AT THIS LOCATION.

LAK-53-2.97R ▲ (N 1°29'32"E)-1 S 1°29'39"W 1175.80' 1" IRON PIPE W/ PLASTIC PLUG MKD "LS 4058"

T.13N. R.7W., M.D.M.
SECTION 27

SCALE: 1"= 100'
FEET 0 50 100 200 300

FOUND MONUMENTS	CCS 27, ZONE 2, FEET UNITS		
I.D.	COORDINATES	DESCRIPTION	REFERENCE
#27	N 467,319.72 E 1,823,363.20	3/8" REBAR, NO I.D.	NO RECORD FOUND
#28	N 467,420.38 E 1,823,367.20	3/8" REBAR, NO I.D.	NO RECORD FOUND
#29	N 467,559.38 E 1,823,372.35	1-1/2" IRON PIPE, NO I.D.	NO RECORD FOUND
#30	N 467,562.27 E 1,823,272.42	1/2" IRON PIPE, NO I.D.	NO RECORD FOUND
#31	N 467,659.86 E 1,823,376.42	1/2" IRON PIPE, NO I.D.	NO RECORD FOUND
#32	N 467,721.94 E 1,823,167.48	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1478
#33	N 467,759.53 E 1,823,380.74	1/2" IRON PIPE, NO I.D.	NO RECORD FOUND
#47	N 467,335.18 E 1,822,930.05	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1478
#49	N 467,519.84 E 1,823,370.88	1/2" REBAR, NO I.D.	NO RECORD FOUND
#53	N 468,278.52 E 1,823,404.61	1/2" IRON ROD TAGGED LS 3546	34 R/S 14
#58	N 468,318.96 E 1,822,835.46	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1478
#146	N 467,296.73 E 1,822,712.06	1/2" REBAR TAGGED RCE 7595	1 R/S 101
#148	N 467,523.72 E 1,823,221.02	1/2" REBAR, NO I.D.	NO RECORD FOUND
#150	N 467,631.89 E 1,822,996.83	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1478
#151	N 467,982.84 E 1,823,393.25	1/2" REBAR, NO I.D.	NO RECORD FOUND
#152	N 468,305.99 E 1,822,353.98	1/2" REBAR TAGGED RCE 7595	NO RECORD FOUND
#154	N 468,378.63 E 1,823,408.70	1/2" REBAR, LS 3546	34 R/S 14
#155	N 468,252.29 E 1,824,458.35	1/2 " REBAR TAGGED LS 3235	38 R/S 17
#156	N 468,251.25 E 1,824,498.39	1/2 " REBAR TAGGED LS 3235	38 R/S 17
#157	N 468,369.25 E 1,822,967.76	6" X 6" CONCRETE MONUMENT	3 R/S 89
#159	N 468,230.02 E 1,822,806.74	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1478 01-LAK-53-2.95
#206	N 467,057.12 E 1,822,702.67	1/2" REBAR, NO I.D.	58 R/S 36
#207	N 467,337.02 E 1,822,713.49	3/4" IRON PIPE, NO I.D.	41 R/S 11

CONTROL MONUMENTS			CCS 27, ZONE 2, FEET UNITS
I.D.	COORDINATES		DESCRIPTION
LAK-53-2.73R	N 467,145.62	E 1,823,131.28	3/4" REBAR W/ 1-1/2" CDOT ALUM CAP
LAK-53-2.97R	N 468,397.42	E 1.823.176.67	2-1/4" CDOT BRASS DISK IN 1/2" I.P

RECORD MONUMENT NOTE:

RECORD MONUMENTS SHOWN OFF HIGHWAY ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT THE CORRECT BOUNDARY LINES OF THE PARCELS GRAPHICALLY DEPICTED. FOR R/W DETERMINATION, REFER TO RECORD DOCUMENTS.

BASIS OF BEARINGS

SEE SHEET 1 FOR BASIS OF BEARINGS

LEGEND

- ▲ CALTRANS CONTROL MONUMENT, SEE TABLE
- ● FOUND SURVEY MONUMENT, SEE TABLE
- ○ SET 3/4" REBAR W/ 1-1/2" ALUM CAP STAMPED "CALTRANS R/W", OR AS NOTED
- ◦ UNMONUMENTED ANGLE POINT
- (~)-1 RECORD DATA PER CALTRANS R/W RECORD MAP 01-LAK-53-2.95 #1478
- CONTROLLED ACCESS R/W LINE
- CDOT CALIFORNIA DEPARTMENT OF TRANSPORTATION
- CT CALTRANS

RECORD OF SURVEY
OF MONUMENTATION

ALONG STATE HIGHWAY 53 IN LAKE COUNTY, CALIFORNIA
FOR
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
1656 UNION STREET, EUREKA

IN
SECTION 27, T13N, R7W, MDM

CO	ROUTE	POST MILE	DATE	SHEET
LAK	53	0.0/3.5	JUNE 2009	10 OF 13

EXCEPTING THOSE SHOWN OTHERWISE, ALL DISTANCES AND BEARINGS ARE GRID, BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1927, ZONE 2. TO OBTAIN GROUND LEVEL DISTANCES, MULTIPLY GRID DISTANCES BY 1.0001535. GRID WAS ESTABLISHED FROM CALTRANS CONTROL LINE MONUMENTS CGF = 0.9998465

SUPPLEMENTARY INFORMATION MAY BE OBTAINED FROM THE DISTRICT OFFICE, SURVEY DEPARTMENT OR RIGHT OF WAY ENGINEERING DEPARTMENT, 1656 UNION STREET, EUREKA, CA.

T.13N. R.7W., M.D.M.

SECTION 22

BASIS OF BEARINGS

SEE SHEET 1 FOR BASIS OF BEARINGS

RECORD MONUMENT NOTE:

RECORD MONUMENTS SHOWN OFF HIGHWAY ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT THE CORRECT BOUNDARY LINES OF THE PARCELS GRAPHICALLY DEPICTED. FOR R/W DETERMINATION, REFER TO RECORD DOCUMENTS.

GRID
GEODETIC

CONVERGENCE = -0°23'26" @ LAK-53-1.73

SECTION 27

CLEAR LAKE HIGHLANDS TRACT 7
3 TM 83-85

BLOCK 23

REL 1226
SEGMENT 3
DOC 99-013915

MANZANITA AVE.

39-RS-43

BLOCK 31

PALM AVE.

BLOCK 28

BIRCH AVE.

DAVIS AVE.

#166

#165

BLOCK 24

RELINQUISHMENT 1226 SEG 4
PER DOC 99-013915, AND
DIRECTORS DEED PER
423-O.R.-326

(N 56°40'W 19.63')-R9
N 56°21'11"W 19.58'

N 3°14'43"E 69.67' [3]

N 62°33'51"E 19.69'
(N 63°20'E 19.63')-R10

(N20°01'57"E)-1
N 20°02'07"E
104.30'
(104.40')-1

N 8°05'54"E 566.44'
(N 8°05'49"E 566.96')-1

(N3°20'00"E 532.18')-2
N3°19'34"E 532.17'

#164

#254

#259

EXISTING R/W

#77

#258

170+00

LAK-53-3.11L

175+00

N 3°16'11" E 89.63'
(N3°20'00"E 89.6')-R6

N 3°23'00"E 2,881.66'

53

P.M. 3.23

180+00

N 3°20'18" E

(N 3°20' E 1227.33')-2

1227.33'

EXISTING R/W

END OF PROJECT

N 470874.04
E 1823190.74

#41

LAK-53-3.31L

531-O.R.-512

CONSTRUCTION CL

185+00

N 56°23'23"W
83.17'

190+00

190+81.66

L-53-C7 R

N 88°30'21"W
32.53'

1" IRON PIPE W/
PLASTIC PLUG
MKD "LS 4058"

(N 1°29'32"E)-1
N 1°29'39"E

1175.80'

N 3°07'33"E 104.66'
(N 3°08'E 104.60')-R6

N 3°17'44"E 89.90'
(N 3°20'E 90.00')-R7

#36

#37

385.47'

#256

#47

#260

N 56°22'45"W 14.90' [2]

N 3°07'55" E
(N 3°08'09" E 1216.76')-2
1216.70'

N 12°26'38"W
295.00'

N 3°10'00"W
103.00'

#78

N 3°08'44"E 127.75'
(N 3°08'09"E 127.81')-R8

#255

S 34°04'44"W
267.26'

MOSS AVE.

3-RS-40

REL 1226
SEGMENT 1
DOC 99-013915

#162

#35

#39

N 63°20'22"E 14.49'
(N 63°20'E 14.38')-R8

S 83°29'45"W 182.08' [1]

S 33°08'43"E
15.00'

S 28°47'28"W 221.42'

BIRCH AVE.

BLOCK 25

DAVIS AVE.

N 88°12'40"W 31.37'

REL 1226 SEGMENT 2, PER DOC 99-013915
AND DIRECTORS DEED, 403-O.R.-326

S 83°51'49"E 221.14'
(S 83°49'33"E 221.38')-R7

N 3°23'00"E
191.00'

235'

+25

+16

N 14°21'38"E
236.32'

280'

BLOCK 28

+30

220'

250'

+48

+68

+86

N 3°23'00"E
120.00'

N 10°52'52"W
121.75'

N 469634.25
E 1823400.21

#42

#43

PLAT 1 PARKER'S ADDITION
BLOCK 1
TO CLEAR LAKE HIGHLANDS
4-TM-34

#40

#45

#44

ARGONNE

#160

BLOCK 29

#163

1" IRON PIPE W/
PLASTIC PLUG
MKD "LS 4058"

1" IRON PIPE W/
PLASTIC PLUG
MKD "LS 4058"

N 27°00'46"E 349.28'

#173

#176

95.67'

390'

+06

N 88°18'24"W

PINE AVE.

#208

BLOCK 26

#174

#175

N 50°40'26"E
58.60'

APPROX SECTION LINE

BLOCK 2

CHATEAU AVE.

BLOCK 11

22-PM-50

62-R/S-14-15

CLEARLAKE HIGHLANDS TRACT 7

43rd AVE.

BLOCK 23

#166

MANZANITA AVE.

#255

S 83°29'45"W 182.08' [1]

N 88°12'40"W 608.90'

S 28°47'28"W 221.42'

S 33°08'43"E 15.00'

40.8'

238.27'

31.37'

+30

315'

#176

N 88°18'24"W 144.20'

95.67'

390'

+06

N 50°40'26"E 58.60'

#174

BLOCK 25

BLOCK 26

S 16°38'31"E 40.84'
S 16°36'15"E 40.88' - R7

SEE DETAIL

SEE SHEET 10

SECTION 22

SECTION 27

SECTION 27

SECTION 22

DAVIS AVE.

62-R/S-14-15

DETAIL
NO SCALE

COUNTY OF LAKE BRASS CAP
MONUMENT PER 14-PM-1 AND
21-PM-6
NOT TIED THIS SURVEY

22 27 23 26

LEGEND

- ▲ CALTRANS CONTROL MONUMENT, SEE TABLE
- ● FOUND SURVEY MONUMENT, SEE TABLE
- ○ SET 3/4" REBAR W/ 1-1/2" ALUM CAP STAMPED "CALTRANS R/W", OR AS NOTED
- ∘ UNMONUMENTED ANGLE POINT
- (~)-1 RECORD DATA PER CALTRANS R/W RECORD MAP 01-LAK-53-2.95 #1478
- (~)-2 RECORD DATA PER CALTRANS R/W RECORD MAP 01-LAK-53-3.38 #1480
- CONTROLLED ACCESS R/W LINE
- CDOT CALIFORNIA DEPARTMENT OF TRANSPORTATION
- REL RELINQUISHMENT
- R6 RECORD DATA PER HIGHWAY RECORDS REL 1226, DOC 99-013915
- R7 RECORD DATA PER HIGHWAY RECORDS REL 425, 403-O.R.-326
- R8 RECORD DATA PER HIGHWAY RECORDS DIRECTOR'S DEED 746, 486-O.R.-302
- R9 RECORD DATA PER HIGHWAY RECORDS DIRECTOR'S DEED 918 531-O.R.-512
- R10 RECORD DATA PER HIGHWAY RECORDS PARCEL 3273, 270-O.R.-4

FOUND MONUMENTS CCS 27, ZONE 2, FEET UNITS

I.D.	COORDINATES		DESCRIPTION	REFERENCE
#35	N 468,832.51	E 1,823,317.22	5/8" REBAR, TAGGED LS 2581	3 R/S 40
#36 *	N 468,915.99	E 1,823,237.91	5/8" REBAR, TAGGED LS 2581	3 R/S 40
#37	N 468,923.83	E 1,823,266.95	5/8" REBAR, TAGGED LS 2581	3 R/S 40
#39	N 468,941.58	E 1,823,331.85	5/8" REBAR IN 3/4" I.P.	3 R/S 40
#40	N 470,415.83	E 1,823,411.55	1/2" REBAR, NO I.D. BENT SW	NO RECORD FOUND
#41	N 470,874.04	E 1,823,190.74	6" X 6" CONCRETE "C" MONUMENT	HIGHWAY MAP #1480
#42	N 469,827.58	E 1,823,403.30	1/2" REBAR, NO I.D. BENT WEST	NO RECORD FOUND
#43	N 469,927.29	E 1,823,404.85	1" G.I.P., NO I.D.	NO RECORD FOUND
#44	N 470,766.33	E 1,823,416.90	CONCRETE FENCE POST	NO RECORD FOUND
#45	N 470,566.16	E 1,823,413.70	5/8" REBAR TAGGED LS 2581	NO RECORD FOUND
#46	N 470,866.00	E 1,823,330.55	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1480
#47	N 469,651.12	E 1,823,264.08	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1480
#77	N 469,559.31	E 1,823,114.16	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1480
#78	N 469,419.06	E 1,823,251.36	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1480
#160	N 468,579.00	E 1,823,416.71	1/2" REBAR, NO I.D.	NO RECORD FOUND
#162	N 468,793.27	E 1,823,328.49	1/2" REBAR, NO I.D.	1 R/S 100
#163	N 468,891.01	E 1,823,508.24	1/2" REBAR, NO I.D.	1 R/S 100
#164	N 469,028.03	E 1,823,083.29	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1478
#165	N 469,037.15	E 1,822,941.76	1/2" REBAR, TAGGED RE 7595	1 R/S 100
#166	N 469,590.52	E 1,822,915.14	1/2" REBAR, TAGGED LS 3546	1 R/S 100, 23 R/S 5
#173	N 469,484.61	E 1,823,539.30	1/2" REBAR, NO I.D.	1 R/S 100
#174	N 469,567.25	E 1,823,667.88	1/2" REBAR, TAGGED LS 3546	34 R/S 10
#175	N 469,406.31	E 1,823,756.45	1/2" REBAR, TAGGED LS 3546	1 R/S 100, 34 R/S 10
#176	N 469,571.51	E 1,823,523.74	3/4" IRON PIPE, NO I.D.	34 R/S 10
#208	N 468,895.36	E 1,823,547.35	5/8" REBAR, TAGGED LS 2581	6 R/S 43 & 34 R/S 14
#254	N 469,570.16	E 1,823,097.86	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1480
#255	N 469,553.12	E 1,823,271.32	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1480
#256	N 469,546.62	E 1,823,258.37	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1480
#258	N 469,648.79	E 1,823,119.27	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1480
#259	N 469,639.72	E 1,823,101.80	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1480
#260	N 469,642.87	E 1,823,276.49	6" X 6" CONCRETE MONUMENT	HIGHWAY MAP #1480

* NOTE: POINT #36 NOT ON R/W

CONTROL MONUMENTS CCS 27, ZONE 2, FEET UNITS

I.D.	COORDINATES		DESCRIPTION
LAK-53-3.11L	N 469,148.07	E 1,823,125.81	1/2" IRON PIPE W/ 2-1/4" CDOT BRASS DISK
LAK-53-3.31L	N 470,121.14	E 1,823,183.14	3/4" REBAR W/ 1-1/2" CDOT ALUM CAP
L-53-C7 R	N 470,860.75	E 1,823,303.94	1/2" IRON PIPE W/ 2-1/4" CDOT BRASS DISK

NOTE: HIGHWAY 53 CONSTRUCTION CENTERLINE IS NOT COMMON TO "O" CENTERLINE SHOWN ON EARLIER VARIATION OF HIGHWAY RECORD MAPS.

[#] TABLE OF RECORD COURSES

COURSE #	RECORD COURSE DATA	REFERENCE
1	S 83°23'16"W 238.52'	RELINQUISHMENT 425
		403-O.R.-326 PCL 7
2	N 56°40'W 14.81'	270-O.R.-4 PCL 3273
3	S 3°20'W 70.00'	RELINQUISHMENT 425
		403-O.R.-326 PCL 6

NOTE:
SEE RECORD HIGHWAY R/W MAPS AT THE DEPARTMENT OF TRANSPORTATION DISTRICT 1 OFFICE IN EUREKA, FOR ADDITIONAL INFORMATION FOR DIRECTOR'S DEEDS AND RELINQUISHMENTS.

SCALE: 1" = 100'

FEET 0 50 100 200 300

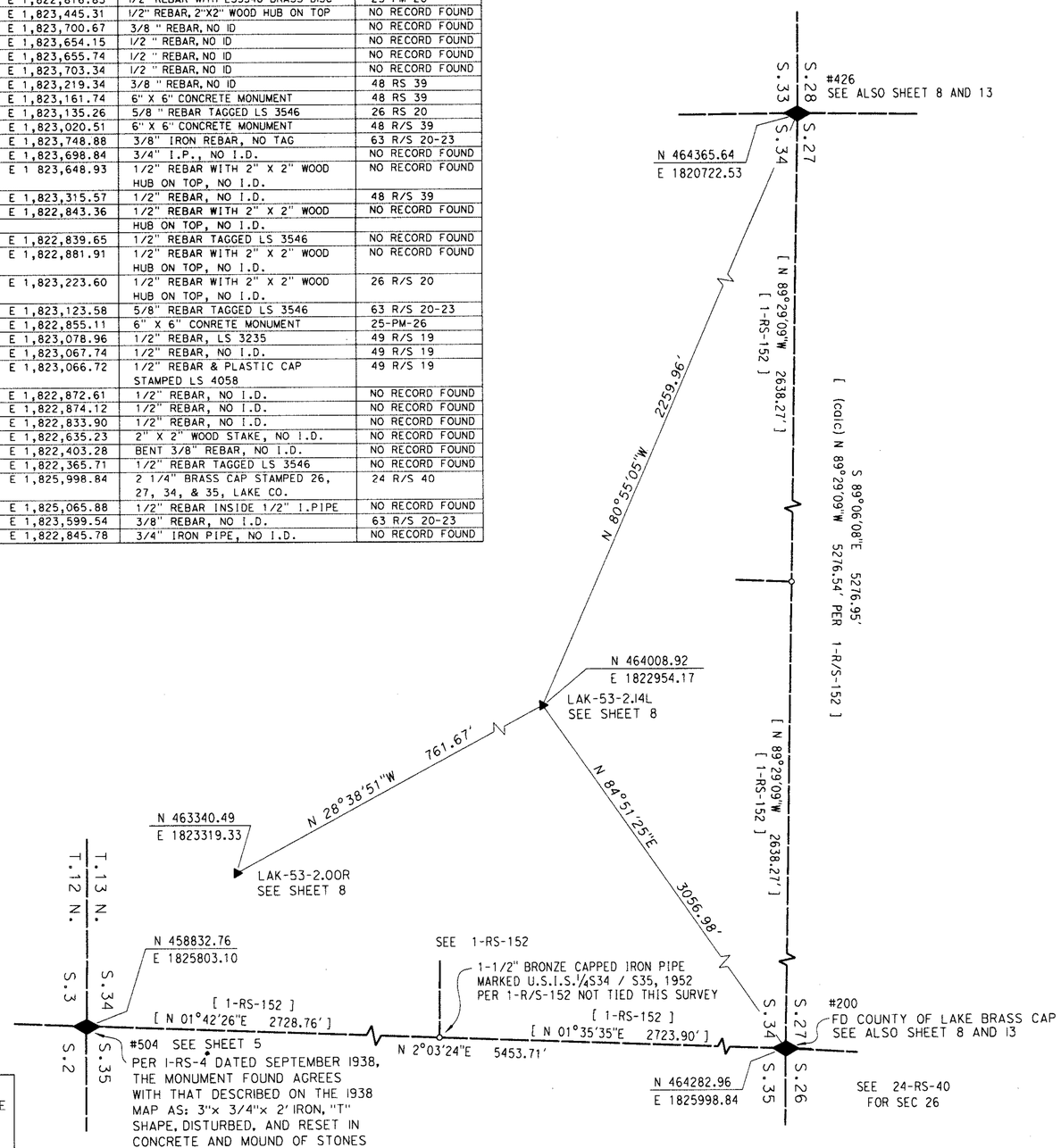
RECORD OF SURVEY
OF MONUMENTATION

ALONG STATE HIGHWAY 53 IN LAKE COUNTY, CALIFORNIA
FOR
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
1656 UNION STREET, EUREKA

IN
SECTIONS 2, 3, 10, 11, T12N, R7W, MDM
SECTIONS 22, 27, 34, 35, T13N, R7W, MDM

CO	ROUTE	POST MILE	DATE	SHEET
LAK	53	0.0/3.5	JUNE 2009	11 OF 13

SHT. NO.	FOUND MONUMENTS I.D.	CCS 27, ZONE 2		DESCRIPTION	REFERENCE
8	#21	N 464,330.83	E 1,823,097.48	1/2" IRON PIPE, LS 3665 PLASTIC CAP	22 PM 11-12
8	#22	N 464,323.26	E 1,823,365.10	1/2" IRON PIPE, LS 3665 PLASTIC CAP	22 PM 11-12
8	#23	N 464,353.58	E 1,823,365.59	1/2" GALV. IRON PIPE, NO I.D.	22 PM 11-12
8	#24	N 464,516.78	E 1,823,069.54	1/2" IRON PIPE, LS 3665	22 PM 11-12
8	#26	N 464,751.34	E 1,823,066.25	1/2" I. PIPE, LS 3665 PLASTIC CAP	49 RS 19
8	#48	N 464,333.37	E 1,822,873.37	1/2" REBAR WITH LS3546 BRASS DISC	25 PM 26
8	#49	N 464,357.61	E 1,822,873.90	1/2" REBAR WITH LS3546 BRASS DISC	25 PM 26
8	#50	N 464,413.29	E 1,822,647.07	1/2" REBAR, UNREADABLE BRASS DISC	25 PM 26
8	#51	N 464,486.32	E 1,822,752.34	1/2" REBAR BENT SOUTHEAST	25 PM 26
8	#52	N 464,486.98	E 1,822,705.67	2" X 2" HUB, LS 3546 BRASS DISC	NO RECORD FOUND
8	#53	N 464,575.16	E 1,822,816.83	1/2" REBAR WITH LS3546 BRASS DISC	25 PM 26
8	#58	N 463,176.56	E 1,823,445.31	1/2" REBAR, 2"X2" WOOD HUB ON TOP	NO RECORD FOUND
8	#59	N 463,334.78	E 1,823,700.67	3/8 " REBAR, NO ID	NO RECORD FOUND
8	#60	N 463,477.78	E 1,823,654.15	1/2 " REBAR, NO ID	NO RECORD FOUND
8	#61	N 463,575.49	E 1,823,655.74	1/2 " REBAR, NO ID	NO RECORD FOUND
8	#62	N 463,567.71	E 1,823,703.34	1/2 " REBAR, NO ID	NO RECORD FOUND
8	#65	N 463,939.53	E 1,823,219.34	3/8 " REBAR, NO ID	48 RS 39
8	#67	N 463,918.65	E 1,823,161.74	6" X 6" CONCRETE MONUMENT	48 RS 39
8	#68	N 464,090.38	E 1,823,135.26	5/8 " REBAR TAGGED LS 3546	26 RS 20
8	#69	N 463,868.46	E 1,823,020.51	6" X 6" CONCRETE MONUMENT	48 R/S 39
8	#109	N 463,193.91	E 1,823,748.88	3/8" IRON REBAR, NO TAG	63 R/S 20-23
8	#110	N 463,195.25	E 1,823,698.84	3/4" I.P., NO I.D.	NO RECORD FOUND
8	#111	N 463,196.72	E 1 823,648.93	1/2" REBAR WITH 2" X 2" WOOD HUB ON TOP, NO I.D.	NO RECORD FOUND
8	#113	N 463,688.11	E 1,823,315.57	1/2" REBAR, NO I.D.	48 R/S 39
8	#115	N 464,146.88	E 1,822,843.36	1/2" REBAR WITH 2" X 2" WOOD HUB ON TOP, NO I.D.	NO RECORD FOUND
8	#116	N 464,045.03	E 1,822,839.65	1/2" REBAR TAGGED LS 3546	NO RECORD FOUND
8	#117	N 463,998.94	E 1,822,881.91	1/2" REBAR WITH 2" X 2" WOOD HUB ON TOP, NO I.D.	NO RECORD FOUND
8	#118	N 464,289.00	E 1,823,223.60	1/2" REBAR WITH 2" X 2" WOOD HUB ON TOP, NO I.D.	26 R/S 20
8	#119	N 464,290.25	E 1,823,123.58	5/8" REBAR TAGGED LS 3546	63 R/S 20-23
8	#120	N 464,420.42	E 1,822,855.11	6" X 6" CONRETE MONUMENT	25-PM-26
8	#121	N 464,882.41	E 1,823,078.96	1/2" REBAR, LS 3235	49 R/S 19
8	#122	N 464,877.71	E 1,823,067.74	1/2" REBAR, NO I.D.	49 R/S 19
8	#123	N 464,805.93	E 1,823,066.72	1/2" REBAR & PLASTIC CAP STAMPED LS 4058	49 R/S 19
8	#180	N 463,505.14	E 1,822,872.61	1/2" REBAR, NO I.D.	NO RECORD FOUND
8	#181	N 463,605.17	E 1,822,874.12	1/2" REBAR, NO I.D.	NO RECORD FOUND
8	#182	N 463,605.70	E 1,822,833.90	1/2" REBAR, NO I.D.	NO RECORD FOUND
8	#183	N 463,663.01	E 1,822,635.23	2" X 2" WOOD STAKE, NO I.D.	NO RECORD FOUND
8	#198	N 464,252.16	E 1,822,403.28	BENT 3/8" REBAR, NO I.D.	NO RECORD FOUND
8	#199	N 464,301.98	E 1,822,365.71	1/2" REBAR TAGGED LS 3546	NO RECORD FOUND
8	#200	N 464,282.96	E 1,825,998.84	2 1/4" BRASS CAP STAMPED 26, 27, 34, & 35, LAKE CO.	24 R/S 40
8	#508	N 463,053.11	E 1,825,065.88	1/2" REBAR INSIDE 1/2" I.PIPE	NO RECORD FOUND
8	#512	N 463,237.89	E 1,823,599.54	3/8" REBAR, NO I.D.	63 R/S 20-23
8	#514	N 464,248.84	E 1,822,845.78	3/4" IRON PIPE, NO I.D.	NO RECORD FOUND



SCALE: 1" = 100'

FEET 0 50 100 200 300

CONVERGENCE = -0°23'26" @ LAK-53-1.73

LEGEND

- FOUND SURVEY MONUMENT, AS NOTED OR SEE TABLE
- ▲ CALTRANS CONTROL MONUMENT, SEE TABLE SHEET 8
- o UNMONUMENTED ANGLE POINT

RECORD MONUMENT NOTE:

RECORD MONUMENTS SHOWN OFF HIGHWAY ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT THE CORRECT BOUNDARY LINES OF THE PARCELS GRAPHICALLY DEPICTED. FOR R/W DETERMINATION, REFER TO RECORD DOCUMENTS.

BASIS OF BEARINGS

SEE SHEET 1 FOR BASIS OF BEARINGS

SUPPLEMENTARY INFORMATION MAY BE OBTAINED FROM THE DISTRICT OFFICE, SURVEY DEPARTMENT OR RIGHT OF WAY ENGINEERING DEPARTMENT, 1656 UNION STREET, EUREKA, CA.

EXCEPTING THOSE SHOWN OTHERWISE, ALL DISTANCES AND BEARINGS ARE GRID, BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1927, ZONE 2. TO OBTAIN GROUND LEVEL DISTANCES, MULTIPLY GRID DISTANCES BY 1.0001535. GRID WAS ESTABLISHED FROM CALTRANS CONTROL LINE MONUMENTS CGF = 0.9998465

RECORD OF SURVEY
OF MONUMENTATION

ALONG STATE HIGHWAY 53 IN LAKE COUNTY, CALIFORNIA
FOR
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
1656 UNION STREET, EUREKA

IN
SECTIONS 2, 3, 10, 11, T12N, R7W, MDM
SECTIONS 22, 27, 34, 35, T13N, R7W, MDM

CO	ROUTE	POST MILE	DATE	SHEET
LAK	53	0.0/3.5	JUNE 2009	12 OF 13

T.13N. R.7W., M.D.M.

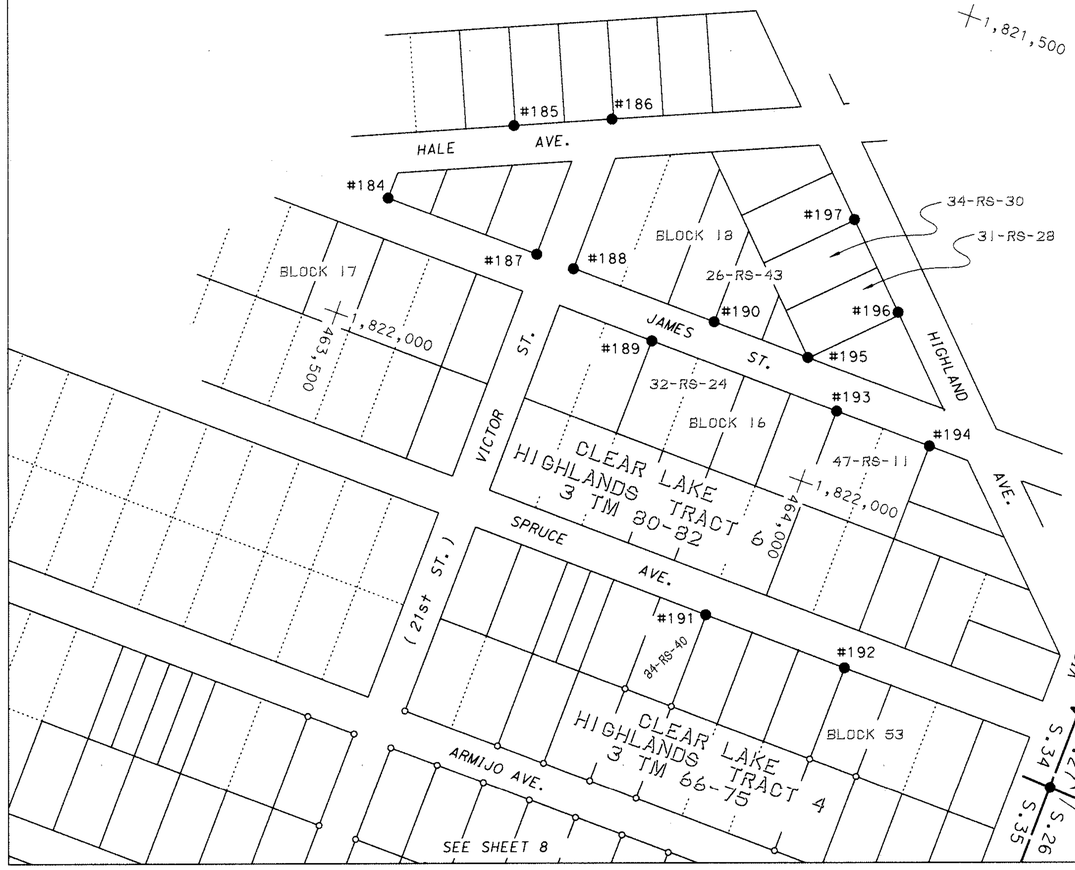
SECTION 34

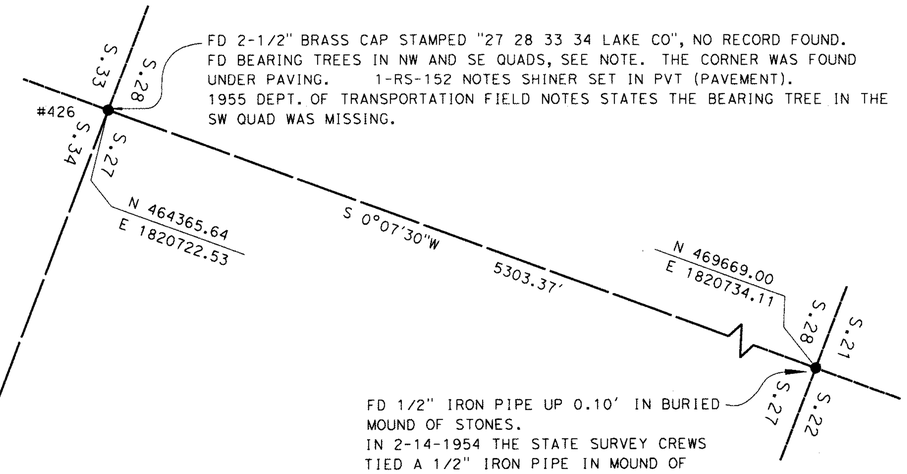
FOUND MONUMENTS CCS 27, ZONE 2, FEET UNITS				
I.D.	COORDINATES		DESCRIPTION	REFERENCE
#184	N 463,509.91	E 1,821,873.40	1/2" REBAR, NO I.D.	26 R/S 43
#185	N 463,604.33	E 1,821,761.24	1/2" REBAR, NO I.D.	26 R/S 43
#186	N 463,695.58	E 1,821,721.27	1/2" REBAR, NO I.D.	26 R/S 43
#187	N 463,670.38	E 1,821,875.71	1/2" REBAR, NO I.D.	26 R/S 43
#188	N 463,710.45	E 1,821,876.25	1/2" REBAR, NO I.D.	NO RECORD FOUND
#189	N 463,809.90	E 1,821,918.22	1/2" REBAR, NO I.D.	32 R/S 24
#190	N 463,862.50	E 1,821,878.74	5/8" REBAR, LS 3546	26 R/S 43
#191	N 463,955.54	E 1,822,160.84	1/2" I.R. LS 4058	84 R/S 40
#192	N 464,105.64	E 1,822,163.65	3/8" REBAR, NO I.D.	39 R/S 40
#193	N 464,009.77	E 1,821,921.23	1/2" REBAR TAGGED LS 3546, IN A CONCRETE FILLED 1 1/4" I.P.	47 R/S 11
#194	N 464,109.73	E 1,821,922.59	1/2" REBAR TAGGED LS 3546	47 R/S 11
#195	N 463,964.08	E 1,821,880.30	5/8" REBAR, LS 3546	26 R/S 43
#196	N 464,034.04	E 1,821,806.44	5/8" ROD, LS 3546	31 R/S 28
#197	N 463,960.71	E 1,821,733.45	REBAR CONCRETED IN DRIVE WITH UNREADABLE BRASS DISC VISABLE	34 R/S 30
#426	N 464,365.64	E 1,820,722.53	2 1/2" BRASS CAP STAMPED "27, 28, 33, 34 LAKE CO." IN PLACE OF SHINER	NO RECORD FOUND SEE 1-RS-152

NOTE: POINT #426 WAS RECOVERED BY CALTRANS SURVEY CREWS AND REPORTED AS NOTED ABOVE ON A MONUMENT RECOVERY REPORT DATED 2-12-1991, UNDER EXPENDITURE AUTHORIZATION NO 200442. A 28" WHITE OAK BEARING TREE WITH NO VISIBLE BLAZE BEARS N23°W 63.5' (SET P-K NAIL IN FACE OF TREE). GOV'T NOTES: A 14" OAK, N22-1/2°W 96 LINKS (63.4'). A 26" WHITE OAK BEARING TREE WITH HEALED BLAZE BEARS S14"E 57.9' (SET P-K NAIL IN FACE OF BLAZE). GOV'T NOTES: A 10" AOK, S14°E 85 LINKS (56.1'). THE MAP FILED IN 1-R/S-152 ON 3-29-1961 NOTES SHINER SET IN PAVEMENT BY COUNTY SURVEYOR'S OFFICE.

EXCEPTING THOSE SHOWN OTHERWISE, ALL DISTANCES AND BEARINGS ARE GRID, BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1927, ZONE 2. TO OBTAIN GROUND LEVEL DISTANCES, MULTIPLY GRID DISTANCES BY 1.0001535. GRID WAS ESTABLISHED FROM CALTRANS CONTROL LINE MONUMENTS CGF = 0.9998465

SUPPLEMENTARY INFORMATION MAY BE OBTAINED FROM THE DISTRICT OFFICE, SURVEY DEPARTMENT OR RIGHT OF WAY ENGINEERING DEPARTMENT, 1656 UNION STREET, EUREKA, CA.

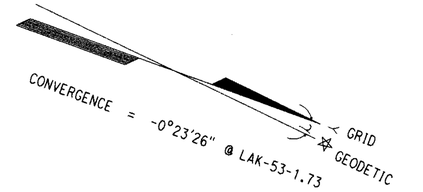




FD 2-1/2" BRASS CAP STAMPED "27 28 33 34 LAKE CO", NO RECORD FOUND. FD BEARING TREES IN NW AND SE QUADS, SEE NOTE. THE CORNER WAS FOUND UNDER PAVING. 1-RS-152 NOTES SHINER SET IN PVT (PAVEMENT). 1955 DEPT. OF TRANSPORTATION FIELD NOTES STATES THE BEARING TREE IN THE SW QUAD WAS MISSING.

FD 1/2" IRON PIPE UP 0.10' IN BURIED MOUND OF STONES. IN 2-14-1954 THE STATE SURVEY CREWS TIED A 1/2" IRON PIPE IN MOUND OF STONES FOR CORNER. TWO BEARING TREES FD PER GOVT NOTES. 1-R/S-105 FILED 12-5-1957 NOTES: FOUND 1/2" PIPE SET BY H. WITHAM ACCEPTED FOR THIS LOCATION. CALTRANS MONUMENT RECOVERY POINT #211

SECTION 27



+1,821,500
465,000

RECORD MONUMENT NOTE:

RECORD MONUMENTS SHOWN OFF HIGHWAY ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT THE CORRECT BOUNDARY LINES OF THE PARCELS GRAPHICALLY DEPICTED. FOR R/W DETERMINATION, REFER TO RECORD DOCUMENTS.

BASIS OF BEARINGS

SEE SHEET 1 FOR BASIS OF BEARINGS

LEGEND

- ● FOUND SURVEY MONUMENT, SEE TABLE
- ○ UNMONUMENTED ANGLE POINT
- BRG BEARING

SCALE: 1" = 100'

FEET 0 50 100 200 300

RECORD OF SURVEY
OF MONUMENTATION

ALONG STATE HIGHWAY 53 IN LAKE COUNTY, CALIFORNIA
FOR
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
1656 UNION STREET, EUREKA

IN
SECTIONS 2, 3, 10, 11, T12N, R7W, MDM
SECTIONS 22, 27, 34, 35, T13N, R7W, MDM

CO	ROUTE	POST MILE	DATE	SHEET
LAK	53	0.0/3.5	JUNE 2009	13 OF 13

City of Clearlake
Notice of Intent to Adopt a Mitigated Negative Declaration (MND)

Notice is hereby given that the City of Clearlake has tentatively determined that the project described below will not result in a significant adverse impact on the environment and that, in accordance with the California Environmental Quality Act, the City is prepared to issue a "mitigated negative declaration" in accordance with the California Environmental Quality Act (CEQA).

Project Name: Airport Hotel and 18th Avenue Extension Project

Project Numbers: Conditional Use Permit (CUP 2022-02); Design Review (DR 2022-02) & Environmental Analysis (CEQA IS 2022-06).

Project Location: 6356 Armijo Avenue, Clearlake, CA 95422, Assessor Parcel Number (APN): 042-121-25.

Zoning Designation: "GC" General Commercial

Project Summary: The Airport Hotel and 18th Avenue Extension Project would include development of the project site with a four-story, 75-room hotel, to be located within the central portion of the site, as well as a one-story meeting hall in the southwest corner of the site. A parking lot and associated improvements would be developed throughout the remainder of the site. In addition, the proposed project would construct an extension of 18th Avenue to connect SR 53 to Old Highway 53. The first floor of the hotel would provide various amenities for guests, including a breakfast serving area and fitness center, as well as a linen cleaning/sorting space, and administrative/storage space. Ten rooms would also be provided on the first floor. The second through fourth floors of the building would house the remaining 65 guest rooms. In addition, a manager's quarters would be located on the fourth floor of the hotel. The proposed building would be limited to a height of 50 feet, consistent with the allowed building height of the GC zoning district.

A total of 109 parking spaces would be provided on-site. Of the 109 parking spaces, six would be reserved for electric vehicle (EV) parking, eight would be reserved for clean air vehicle parking, and four would be Americans with Disabilities Act (ADA)-compliant. In addition, 13 bicycle parking spaces would be provided on-site, including seven short-term spaces, and six long-term spaces in the form of storage lockers. Access to the project site would be provided by a new, 30-foot-wide, full-access driveway which would connect to the proposed 18th Avenue extension. As part of the project, a new sidewalk would be provided along the project frontage of the 18th Avenue extension. Pedestrian walkways throughout the project site would provide for connections to the 18th Avenue sidewalk. The hotel would operate 24 hours a day, 7 days a week, and would be staffed with an estimated 25 full-time employees. Approximately one to two supply and goods deliveries (i.e., linens and hotel supplies) would occur per day, between the hours of 7:00 AM and 6:30 PM. The hotel would not include a loading dock; rather, delivery vehicles would temporarily park at the front entrance of the hotel. In addition, the on-site meeting hall would operate between 8:00 AM at the earliest to midnight at the latest and would be used for events, including, but not limited to tradeshows, weddings, and conferences. It should be noted that the meeting hall would include an outdoor patio which could be used during events, and low amplified music would be allowed on the outdoor patio until 9:00 PM. A number of existing trees would be removed in order to develop the proposed hotel and roadway extension. However, the proposed project would provide landscaping improvements, including the planting of new trees and shrubs throughout the project site.

The proposed 18th Avenue extension would consist of two eight-foot lanes and would extend westward from SR 53 to Old Highway 53 by approximately 0.2-mile. The 18th Avenue/Old Highway 53 intersection would include a marked crosswalk on the 18th Avenue leg, ADA-compliant curb ramps, a relocated bus stop to the north leg, a 75-foot-long southbound left-turn lane on Old Highway 53, and overhead intersection lighting. In addition, the proposed roadway would provide connections to two existing roadways located to the north including Manzanita Avenue and Vallejo Avenue, as well as two connections to existing driveways located south of the proposed extension. Additional roadway improvements such as curb, gutter, and sidewalk improvements would be developed along the 18th Avenue extension, consistent with City standards. The proposed roadway would also include the extension of a 10-inch water line, a 6-inch sanitary sewer line, a 10-inch sanitary sewer line, a 12-inch sanitary sewer force main, and storm drain utilities. All utility mains would extend from SR 53 to Old Highway 53.

Sewer service for the proposed development would be provided by the Lake County Sanitation District (LACOSAN), and water services for the proposed project would be provided by the Highlands Mutual Water Company (HMWC). As part of the proposed project, new water and sanitary sewer connections would be provided from the new utility lines that would be developed as part of the 18th Avenue extension. In addition, a new storm drainage system would be developed within the hotel site, which would provide new storm drain lines throughout the paved areas on-site that would ultimately drain into the new storm drain line within the 18th avenue extension. The various landscaped areas on-site would also provide opportunities for the infiltration of stormwater

This tentative determination is based on an environmental analysis (CEQA IS 2022-06) that assesses the project's potential environmental impacts and those potential impacts have been reduced to less than significant levels with the incorporated mitigation measures. Anyone may review this study at Clearlake City Hall, 14050 Olympic Drive, Clearlake, CA 95901, during normal business hours or by downloading the CEQA Packet from the State Clearinghouse Website at: https://ceqanet.opr.ca.gov/

The public review period for this Notice of Intent (NOI) will remain open for a period of at least 30 days from publication date of this notice. **The commenting period for this Notice of Intent (NOI) is October 26, 2022, to November 30, 2022.** **(Please Note: All comments must be received no later than Wednesday, November 30, 2022.**

For more information, please call (707) 994-8201 during normal business hours of City Hall (Monday through Thursday – 8am to 5pm). During this period written comments on the project and the proposed mitigated negative declaration may be addressed. You may also submit comments via email at mroberts@clearlake.ca.us. Final environmental determinations are made by the decision-making body, which, in this case would be the City of Clearlake, Planning Commission.

City of Clearlake - Community Development Department
Attn: Mark Roberts – Senior Planner
14050 Olympic Drive
Clearlake, CA 95422

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Airport Hotel and 18th Avenue Extension Project

Lead Agency: City of Clearlake, CA | Contact Person: Mark Roberts - City Senior Planner
Mailing Address: 14050 Olympic Drive | Phone: (707) 994-8201
City: Clearlake | Zip: 95422 | County: Lake County

Project Location: County: Lake County | City/Nearest Community: Clearlake
Cross Streets: State Highway 53 and 18th Avenue (6356 Armijo Avenue, Clearlake, CA) | Zip Code: 95422
Longitude/Latitude (degrees, minutes and seconds): 38 ° 56 ′ 13 ″ N / 122 ° 37 ′ 32.94 ″ W | Total Acres: 2.8
Assessor's Parcel No.: 042-121-25-000 | Section: | Twp.: | Range: | Base:
Within 2 Miles: State Hwy #: 53/20 | Waterways: N/A
Airports: N/A | Railways: N/A | Schools: Konocti Unified School Dist

Document Type:

CEQA: ☐ NOP ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Early Cons ☐ Neg Dec ☒ Mit Neg Dec Other:
NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI
Other: ☐ Joint Document ☐ Final Document ☐ Other:

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☒ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☒ Other: Design Review & CEQA

Development Type:

☐ Residential: Units Acres
☐ Office: Sq.ft. Acres Employees
☒ Commercial: Sq.ft. 48382 Acres 2.8 Employees 25
☐ Industrial: Sq.ft. Acres Employees
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type MW
☐ Waste Treatment: Type MGD
☐ Hazardous Waste: Type
☒ Other: 75 Room Hotel with Meeting/Convention (44,214 SQFT Hotel; 4,250 SQFT Meeting/Convention Center)

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Fiscal ☐ Recreation/Parks ☐ Vegetation
☐ Agricultural Land ☐ Flood Plain/Flooding ☐ Schools/Universities ☐ Water Quality
☒ Air Quality ☐ Forest Land/Fire Hazard ☐ Septic Systems ☐ Water Supply/Groundwater
☒ Archeological/Historical ☒ Geologic/Seismic ☐ Sewer Capacity ☐ Wetland/Riparian
☒ Biological Resources ☐ Minerals ☒ Soil Erosion/Compaction/Grading ☐ Growth Inducement
☐ Coastal Zone ☒ Noise ☐ Solid Waste ☐ Land Use
☐ Drainage/Absorption ☐ Population/Housing Balance ☐ Toxic/Hazardous ☐ Cumulative Effects
☐ Economic/Jobs ☐ Public Services/Facilities ☐ Traffic/Circulation ☒ Other: Tribal Cultural Resources

Present Land Use/Zoning/General Plan Designation:

Vacant/undeveloped. Zoning is "GC" General Commercial

Project Description: *(please use a separate page if necessary)*

Continue to next page for project description (Exhibit A)

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Exhibit A

Project Description

The Airport Hotel and 18th Avenue Extension Project (proposed project) would include development of the project site with a four-story, 75-room hotel, to be located within the central portion of the site, as well as a one-story meeting hall in the southwest corner of the site. A parking lot and associated improvements would be developed throughout the remainder of the site . In addition, the proposed project would construct an extension of 18th Avenue to connect SR 53 to Old Highway 53. Continue to next page for more details

The proposed project would be located at 6356 Armijo Avenue, east of State Route (SR) 53, and north of the former Pearce Airport site. The project site is primarily undeveloped and, is zoned "GC", General Commercial. The Airport Hotel and 18th Avenue Extension Project (proposed project) would include development of the project site with a four-story, 75-room hotel, to be located within the central portion of the site, as well as a one-story meeting hall in the southwest corner of the site. A parking lot and associated improvements would be developed throughout the remainder of the site. In addition, the proposed project would construct an extension of 18th Avenue to connect SR 53 to Old Highway 53.

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Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

____	Air Resources Board	__X__	Office of Historic Preservation
____	Boating & Waterways, Department of	__X__	Office of Public School Construction
____	California Emergency Management Agency	____	Parks & Recreation, Department of
__X__	California Highway Patrol	____	Pesticide Regulation, Department of
__X__	Caltrans District # 1	____	Public Utilities Commission
____	Caltrans Division of Aeronautics	__X__	Regional WQCB # 1
__X__	Caltrans Planning	____	Resources Agency
____	Central Valley Flood Protection Board	____	Resources Recycling and Recovery, Department of
____	Coachella Valley Mtns. Conservancy	____	S.F. Bay Conservation & Development Comm.
____	Coastal Commission	____	San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
____	Colorado River Board	____	San Joaquin River Conservancy
____	Conservation, Department of	____	Santa Monica Mtns. Conservancy
____	Corrections, Department of	____	State Lands Commission
____	Delta Protection Commission	__X__	SWRCB: Clean Water Grants
____	Education, Department of	____	SWRCB: Water Quality
__X__	Energy Commission	____	SWRCB: Water Rights
__X__	Fish & Game Region # 2	____	Tahoe Regional Planning Agency
__X__	Food & Agriculture, Department of	__X__	Toxic Substances Control, Department of
__X__	Forestry and Fire Protection, Department of	____	Water Resources, Department of
____	General Services, Department of		
__X__	Health Services, Department of	__X__	Other: CA Dept. of Alcoholic Beverage Control; (ABC)
__X__	Housing & Community Development	____	Other:
__X__	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date October 26, 2022 Ending Date November 30, 2022

Lead Agency (Complete if applicable):

Consulting Firm: _____ Applicant: _____
Address: _____ Address: _____
City/State/Zip: _____ City/State/Zip: _____
Contact: _____ Phone: _____
Phone: _____

Signature of Lead Agency Representative: _____ **Date:** 10/26/2022

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

CITY OF CLEARLAKE

DRAFT MITIGATED NEGATIVE DECLARATION

ENVIRONMENTAL ANALYSIS (CEQA)

INITIAL STUDY, IS 2022-06

AIRPORT PROPERTY COMMERCIAL CENTER PROJECT

LOCATED AT:
APN: 042-121-25

October 20th, 2022

CALIFORNIA ENVIRONMENTAL QUALITY ACT ENVIRONMENTAL CHECKLIST FORM INITIAL STUDY, IS 2022-06

1. Project Title:	Airport Hotel and 18th Avenue Extension Project
2. Permit Numbers:	Conditional Use Permit 2022-02 Design Review 2022-02 CEQA, IS 2022-06
3. Lead Agency Name/Address:	City of Clearlake 14050 Olympic Drive Clearlake, CA 95422
4. Contact Person:	Mark Roberts, Senior City Planner Phone: (707) 994-8201 Email: mroberts@clearlake.ca.us
5. Project Location(s):	6356 Armijo Avenue Clearlake, California 95422
6. Parcel Number(s):	APN: 042-121-25
7. Project Sponsor's Name/Address:	City of Clearlake 14050 Olympic Drive Clearlake, CA 95422
8. Project Developers Name:	Hotel Developer Matt Patel, MLI Associates, Inc. Rep: Josh Divilbiss, Designer 2511 llwood Dr Cameron Park, CA 95682
9. Property Owner(s) Name/Address:	City of Clearlake 14050 Olympic Drive Clearlake, CA 95422
10. Zoning Designation:	General Commercial (GC)
11. General Plan Designation:	Commercial
12. Supervisor District:	District Two (2)
13. Average Cross Slope:	Average cross slope – less than 10%
14. Earthquake Fault Zone:	Not within a fault zone

15. Dam Failure Inundation Area: Not within a Dam Failure Inundation Zone

16. Flood Zone: Not located within a known flood zone

17. Waste Management: Clearlake Waste Solutions

18. Water Access: Highlands Mutual Water Company

19. Fire Department: Lake County Fire Protection District

20. **Description of Project:** ***(Describe the whole action involved, including but not limited to later phases of the project and any secondary, support, or off-site features necessary for its implementation. Attach additional pages if necessary.)***

The proposed project would be located at 6356 Armijo Avenue, east of State Route (SR) 53, and north of the former Pearce Airport site (see Figure 1 through Figure 3). The project site is primarily undeveloped and, is zoned General Commercial (GC) (see Figure 4 and Figure 5).

The Airport Hotel and 18th Avenue Extension Project (proposed project) would include development of the project site with a four-story, 75-room hotel, to be located within the central portion of the site, as well as a one-story meeting hall in the southwest corner of the site. A parking lot and associated improvements would be developed throughout the remainder of the site (see Figure 6 and Figure 7). In addition, the proposed project would construct an extension of 18th Avenue to connect SR 53 to Old Highway 53 (see Figure 8 through Figure 15).

The first floor of the hotel would provide various amenities for guests, including a breakfast serving area and fitness center, as well as a linen cleaning/sorting space, and administrative/storage space. Ten rooms would also be provided on the first floor. The second through fourth floors of the building would house the remaining 65 guest rooms. In addition, a manager's quarters would be located on the fourth floor of the hotel. The proposed building would be limited to a height of 50 feet, consistent with the allowed building height of the GC General Commercial Zoning District.

A total of 109 parking spaces would be provided on-site. Of the 109 parking spaces, six would be reserved for electric vehicle (EV) parking, eight would be reserved for clean air vehicle parking, and four would be Americans with Disabilities Act (ADA)-compliant. In addition, 13 bicycle parking spaces would be provided on-site, including seven short-term spaces, and six long-term spaces in the form of storage lockers. Access to the project site would be provided by a new, 30-foot-wide, full-access driveway which would connect to the proposed 18th Avenue extension. As part of the project, a new sidewalk would be provided along the project frontage of the 18th Avenue extension. Pedestrian walkways throughout the project site would provide for connections to the 18th Avenue sidewalk.

The hotel would operate 24 hours a day, 7 days a week, and would be staffed with an estimated 25 full-time employees. Approximately one to two supply and goods deliveries (i.e., linens and hotel supplies) would occur per day, between the hours of 7:00 AM and 6:30 PM. The hotel would not include a loading dock; rather, delivery vehicles would temporarily park at the front entrance of the hotel. In addition, the on-site meeting hall would operate between 8:00 AM at the earliest to midnight at the latest and would be used for events, including, but not limited to tradeshows, weddings, and conferences. It should be noted that the meeting hall would include

an outdoor patio which could be used during events, and low amplified music would be allowed on the outdoor patio until 9:00 PM.

A number of existing trees would be removed in order to develop the proposed hotel and roadway extension (see Figure 16). However, the proposed project would provide landscaping improvements, including the planting of new trees and shrubs throughout the project site (see Figure 17).

The proposed 18th Avenue extension would consist of two eight-foot lanes, and would extend westward from SR 53 to Old Highway 53 by approximately 0.2-mile. The 18th Avenue/Old Highway 53 intersection would include a marked crosswalk on the 18th Avenue leg, ADA-compliant curb ramps, a relocated bus stop to the north leg, a 75-foot-long southbound left-turn lane on Old Highway 53, and overhead intersection lighting. In addition, the proposed roadway would provide connections to two existing roadways located to the north including Manzanita Avenue and Vallejo Avenue, as well as two connections to existing driveways located south of the proposed extension. Additional roadway improvements such as curb, gutter, and sidewalk improvements would be developed along the 18th Avenue extension, consistent with City standards. The proposed roadway would also include the extension of a 10-inch water line, a 6-inch sanitary sewer line, a 10-inch sanitary sewer line, a 12-inch sanitary sewer force main, and storm drain utilities. All utility mains would extend from SR 53 to Old Highway 53.

Sewer service for the proposed development would be provided by the Lake County Sanitation District (LACOSAN), and water services for the proposed project would be provided by the Highlands Mutual Water Company (HMWC). As part of the proposed project, new water and sanitary sewer connections would be provided from the new utility lines that would be developed as part of the 18th Avenue extension. In addition, a new storm drainage system would be developed within the hotel site, which would provide new storm drain lines throughout the paved areas on-site that would ultimately drain into the new storm drain line within the 18th avenue extension. The various landscaped areas on-site would also provide opportunities for the infiltration of stormwater.

20. Environmental Setting:

The project site consists of the rectangular-shaped, 2.8-acre parcel identified by APN 042-121-25, as well as the land located south of the parcel, which would be used to extend 18th Avenue from SR 53 to Old Highway 53. The southern portion of APN 042-121-25 has been previously disturbed, as the site is currently being used as a construction staging area for the storage of equipment and vehicles, stockpiles, and other construction-related materials (see Figure 5). The northern portion of the site is relatively undisturbed and consists primarily of wooded areas.

A portion of the 18th Avenue extension is currently developed as a paved roadway, which extends from the SR 53 intersection to just past Vallejo Avenue. The remaining portions of the proposed 18th Avenue extension currently consist of previously disturbed construction staging areas, as well as undisturbed land which consists primarily of ruderal grassland with trees and shrubs scattered throughout.

21. **Surrounding Land Uses and Setting: Briefly describe the project's surroundings:**
    - The parcels to the **North** – Single-family residences
    - The parcels to the **South –** Former Pearce Airport site
    - The parcels to the **West –** Single-family residences; convenience store
    - The parcels to the **East –** Single-family residences; storage facility

22. **Other Public Agencies Whose Approval is Required**: **Local Agencies**: City of Clearlake - Community Development (Planning, Building, Public Works); Clearlake Police Department, Lake County Fire Protection District, Lake County Department of Environmental Health, Lake County Air Quality Management District, Lake County Special Districts, Highlands Mutual Water District and Local Tribal Organizations.

23. **Federal and State Agencies:** Central Valley Regional Water Quality Control Board, California Department of Transportation (Caltrans); California Department of Fish and Wildlife, California Alcoholic of Bureau Control (ABC); California Department of Public Health. The applicant will adhere to and obtain all necessary Federal and State Agency permits.

24. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3 (c) contains provisions specific to confidentiality.

    Notification of the project was sent to local tribes for "AB 52" Notification, which allows interested Tribes to request tribal consultation within 30 days of receipt of notice. Additional consultation was conducted by Sub-Terra Heritage Resource Investigations as part of the Cultural Resource Investigation prepared for the proposed project.

25. **Impact Categories defined by CEQA:** The following documents are referenced information sources and are incorporated by reference into this document and are available for review upon request of the Community Development Department if they have not already been incorporated by reference into this report:

    - Bollard Acoustical Consultants, Inc. *Environmental Noise Analysis, Proposed Winery and Farm Brewery Zoning Text Amendment Project*. April 2019.
    - CalEPA. *Cortese List Data Resources*. Available at: https://calepa.ca.gov/sitecleanup/corteselist/. Accessed August 2022.
    - California Department of Conservation. *California Important Farmland Finder.* Available at: http://maps.conservation.ca.gov/ciff/ciff.html. Accessed August 2022.
    - California Department of Forestry and Fire Protection. *FHSZ Viewer.* Available at: https://egis.fire.ca.gov/FHSZ/. Accessed August 2022.

- California Geological Survey. *Earthquake Zones of Required Investigation.* Available at: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed August 2022.
- CalRecycle. *SWIS Facility/Site Activity Details – Eastlake Sanitary Landfill (17-AA-0001).* Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3787?siteID=930. Accessed August 2022.
- City of Clearlake. *2040 General Plan Update Final Environmental Impact Report (EIR).* February 2017.
- City of Clearlake. *2040 General Plan Update*. February 28, 2017.
- Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese).* Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed August 2022.
- Doug Gearhart, Air Pollution Control Officer at Lake County Air Quality Management District. Personal communication [phone] with Briette Shea, Senior Associate/Air Quality Technician at Raney Planning and Management, Inc. April 27, 2022.
- FEMA. *FEMA Flood Map Service Center.* Available at: https://msc.fema.gov/portal/home. Accessed August 2022.
- Highlands Mutual Water Company. *Drought Contingency Plan.* June 30, 2021.
- Live Oak Associates, Inc. *Airport Property Commercial Center Hotel Project Biological Evaluation Clearlake, Lake County, California.* July 18, 2022.
- Live Oak Associates, Inc. *Arborist Tree Inventory and Assessment for Proposed Airport Property Commercial Center Hotel Project, Clearlake, Lake County, California (PN 2671-02).* July 18, 2022.
- Live Oak Associates, Inc. *Post-Fire Tree Assessment for Proposed Airport Property Commercial Center Hotel Project, Clearlake, Lake County, California (PN 2671-02).* August 8, 2022.
- Sub-Terra Heritage Resource Investigations. *Cultural Resource Investigation of the 2.8-Acre Clearlake Airport Parcel APN 04212125 and the 3.47-Acre Proposed 18th Avenue Extension, City of Clearlake, Lake County, California.* August 4, 2022.
- USDA NRCS. Web Soil Survey. Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed August 2022.
- W-Trans. *Transportation Impact Study for the Airport Hotel Project.* July 1, 2022.

Figures

- Figure 1: Regional Map
- Figure 2: Vicinity Map
- Figure 3: USGS Map
- Figure 4: Zoning Map
- Figure 5: Site Photos
- Figure 6: Hotel Site Plan
- Figure 7: Hotel Building Elevations
- Figure 8: Roadway Site Plan - Overall
- Figure 9: Roadway Site Plan – Segment 1 (Sheet 4)
- Figure 10: Roadway Site Plan – Segment 2 (Sheet 5)
- Figure 11: Roadway Site Plan – Segment 3 (Sheet 6)
- Figure 12: Roadway Site Plan – Segment 4 (Sheet 7)
- Figure 13: Roadway Site Plan – Segment 5 (Sheet 8)
- Figure 14: Roadway Site Plan – Segment 6 (Sheet 9)

- Figure 15: Striping Plan
- Figure 16: Overall Site Plan with Existing Vegetation
- Figure 17: Landscaping Plan
- Figure 19: On-Site Habitat

Attachments

- Attachment A – Air Quality and Greenhouse Gas Modeling Results
- Attachment B – Biological Evaluation and Arborist Report
- Attachment C – Transportation Impact Study

Figure 1: Regional Map

Figure 2: Vicinity Map

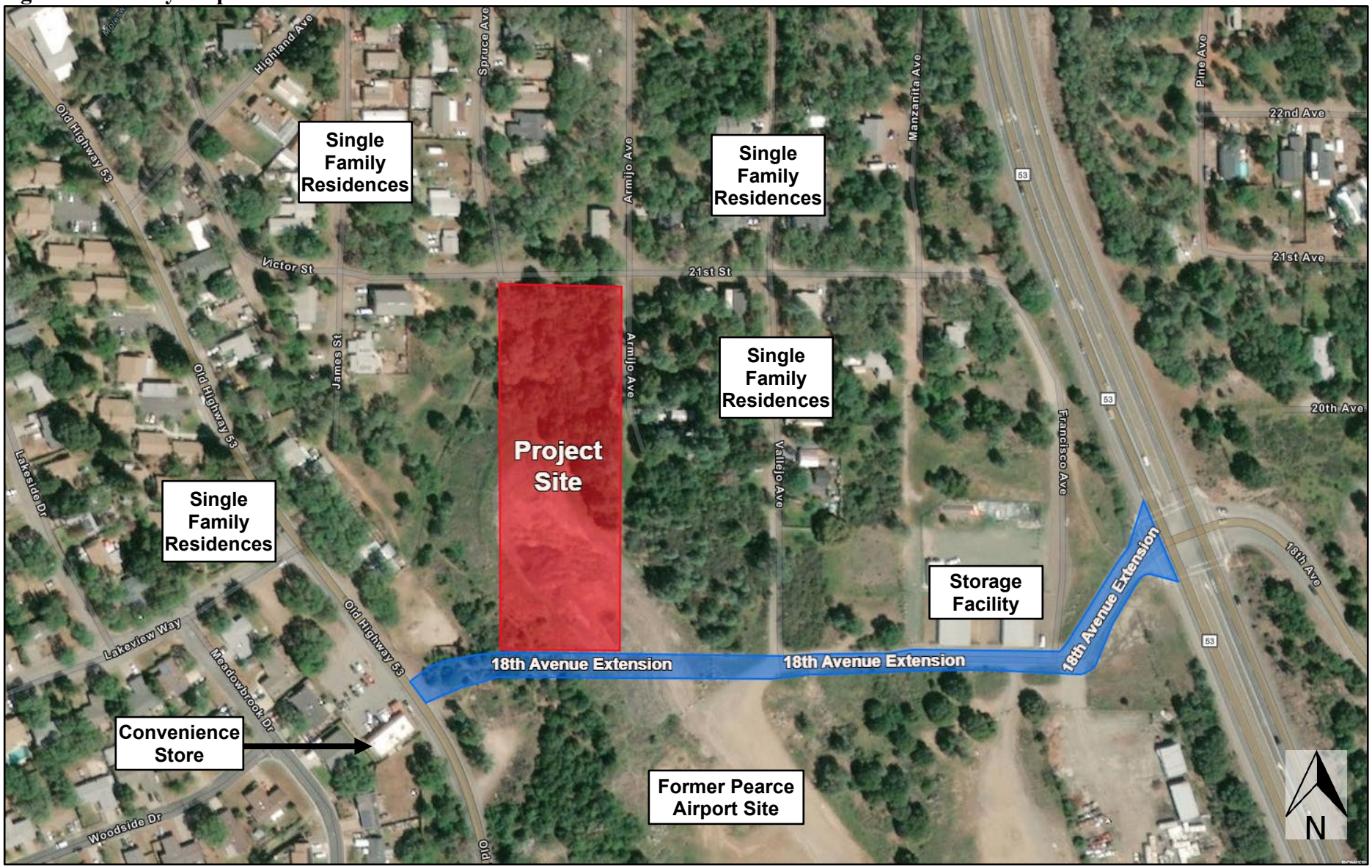


Figure 3: USGS Map

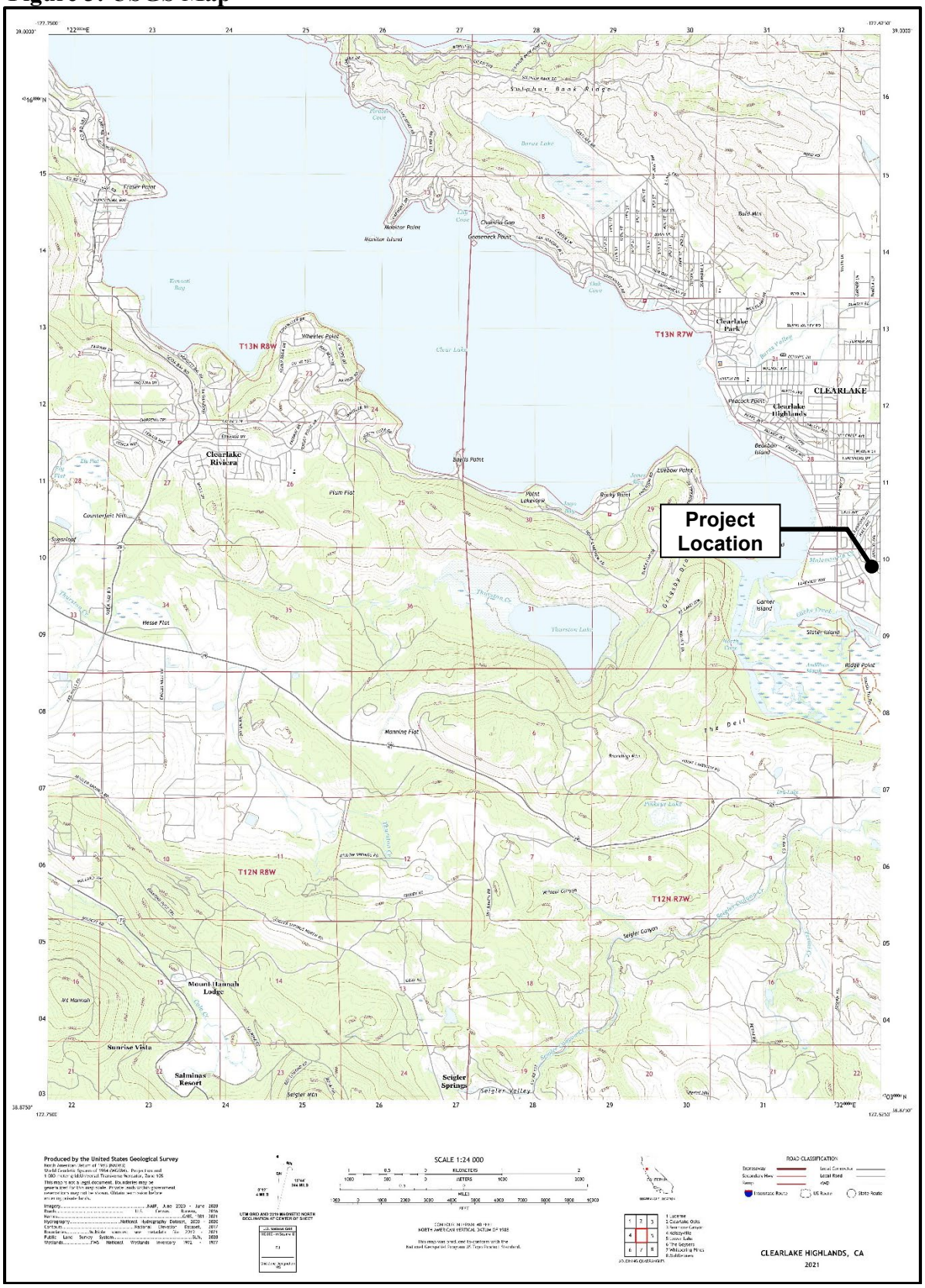


Figure 4: Zoning Map

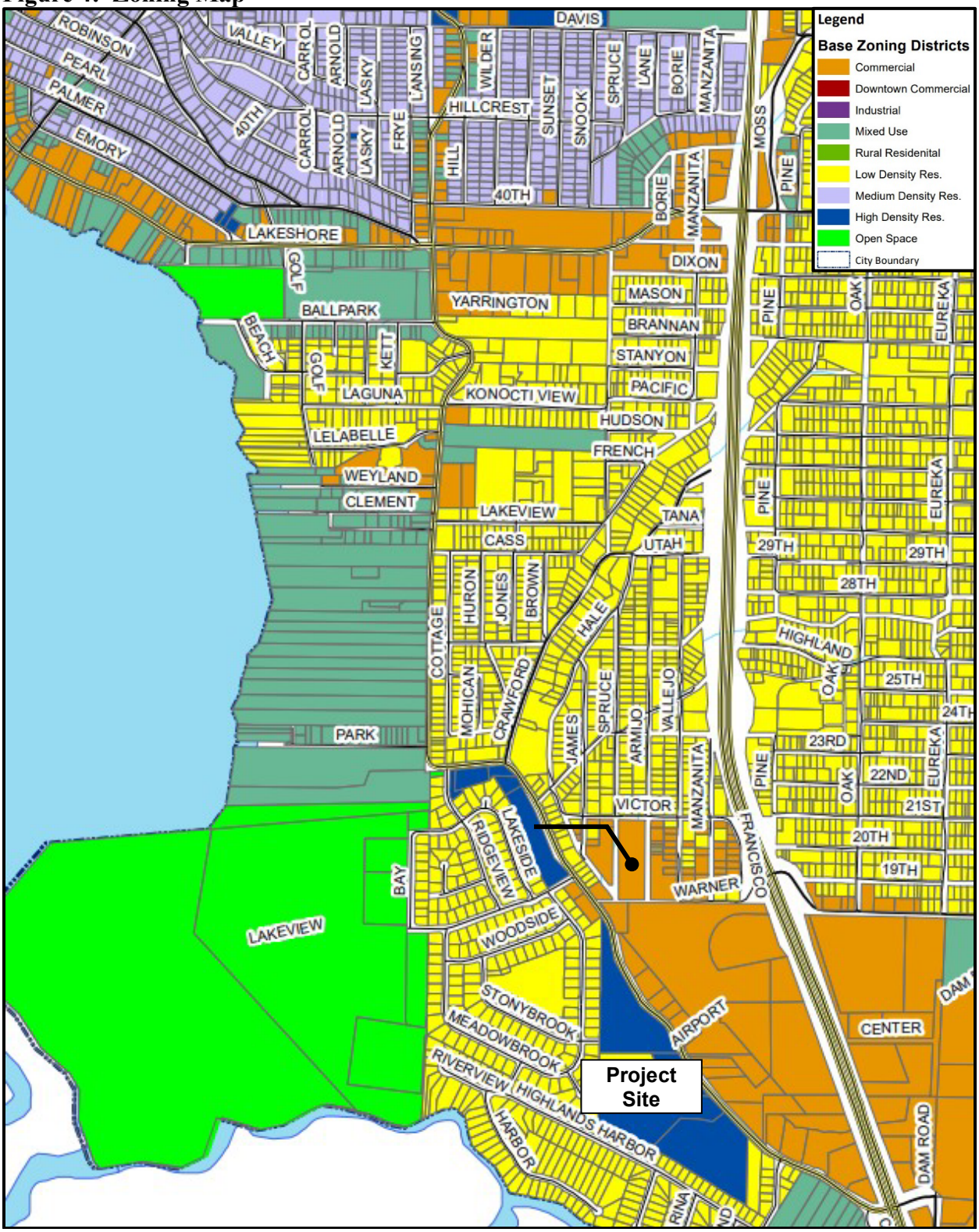


Figure 5: Site Photos

Existing SR 53/18th Avenue Intersection

Northerly View from Southeast Portion of the Site

Westerly View from Site Towards Future Old Highway 53 Connection

Southerly View from Southern Portion of Project Site

Figure 6: Hotel Site Plan

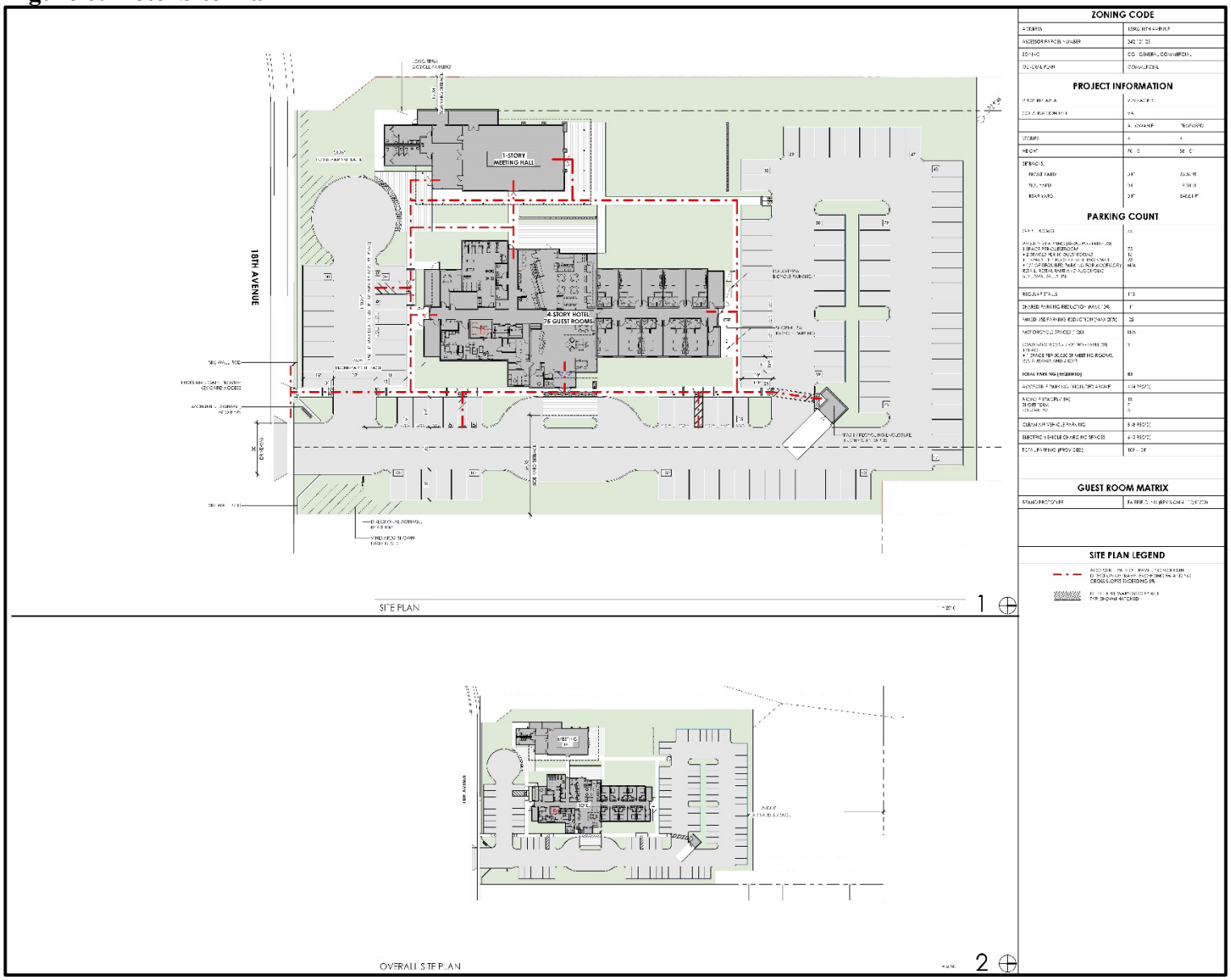


Figure 7: Hotel Building Elevations

Figure 8: Roadway Site Plan - Overall

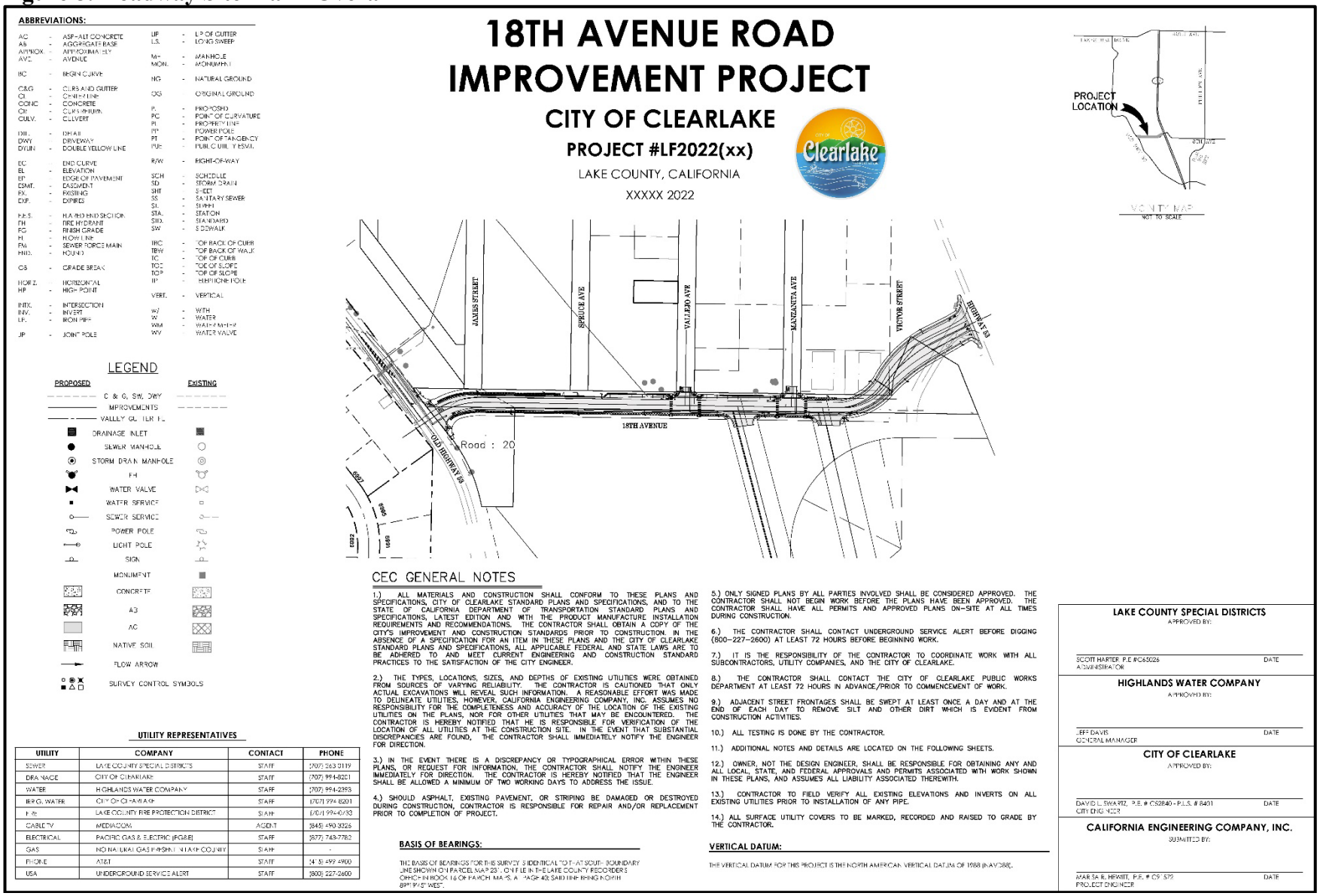


Figure 9: Roadway Site Plan – Segment 1 (Sheet 4)

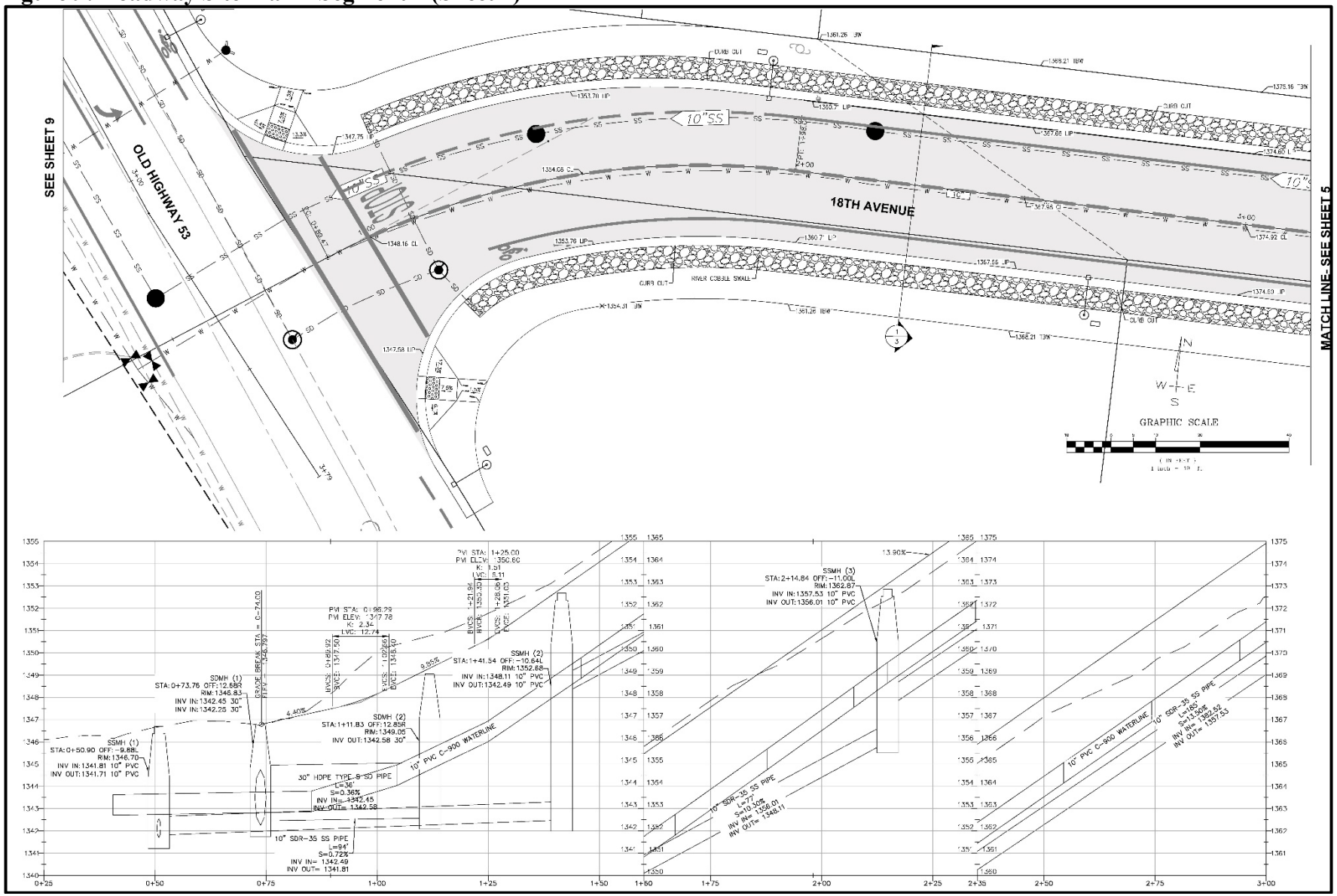


Figure 10: Roadway Site Plan – Segment 2 (Sheet 5)

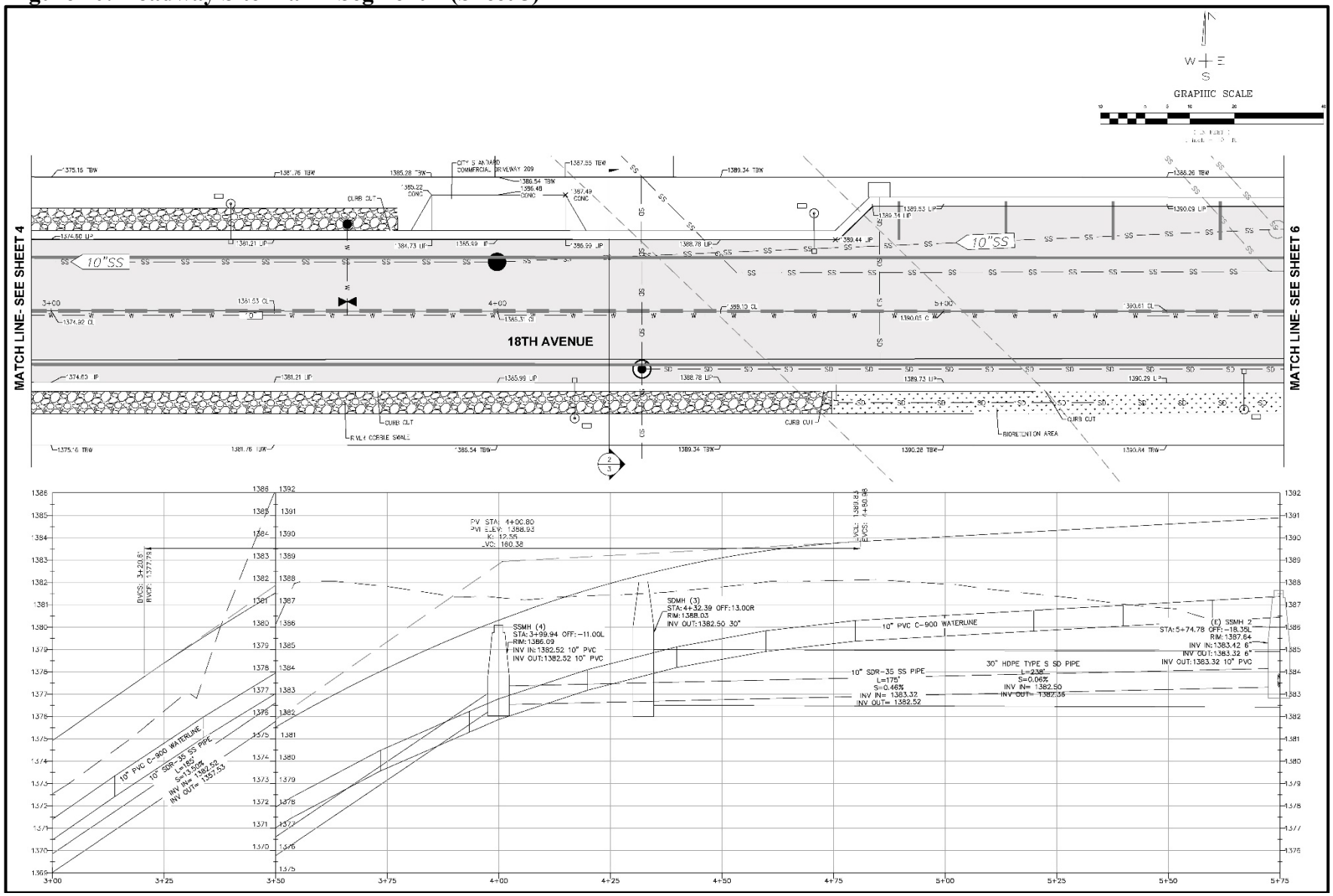


Figure 11: Roadway Site Plan – Segment 3 (Sheet 6)

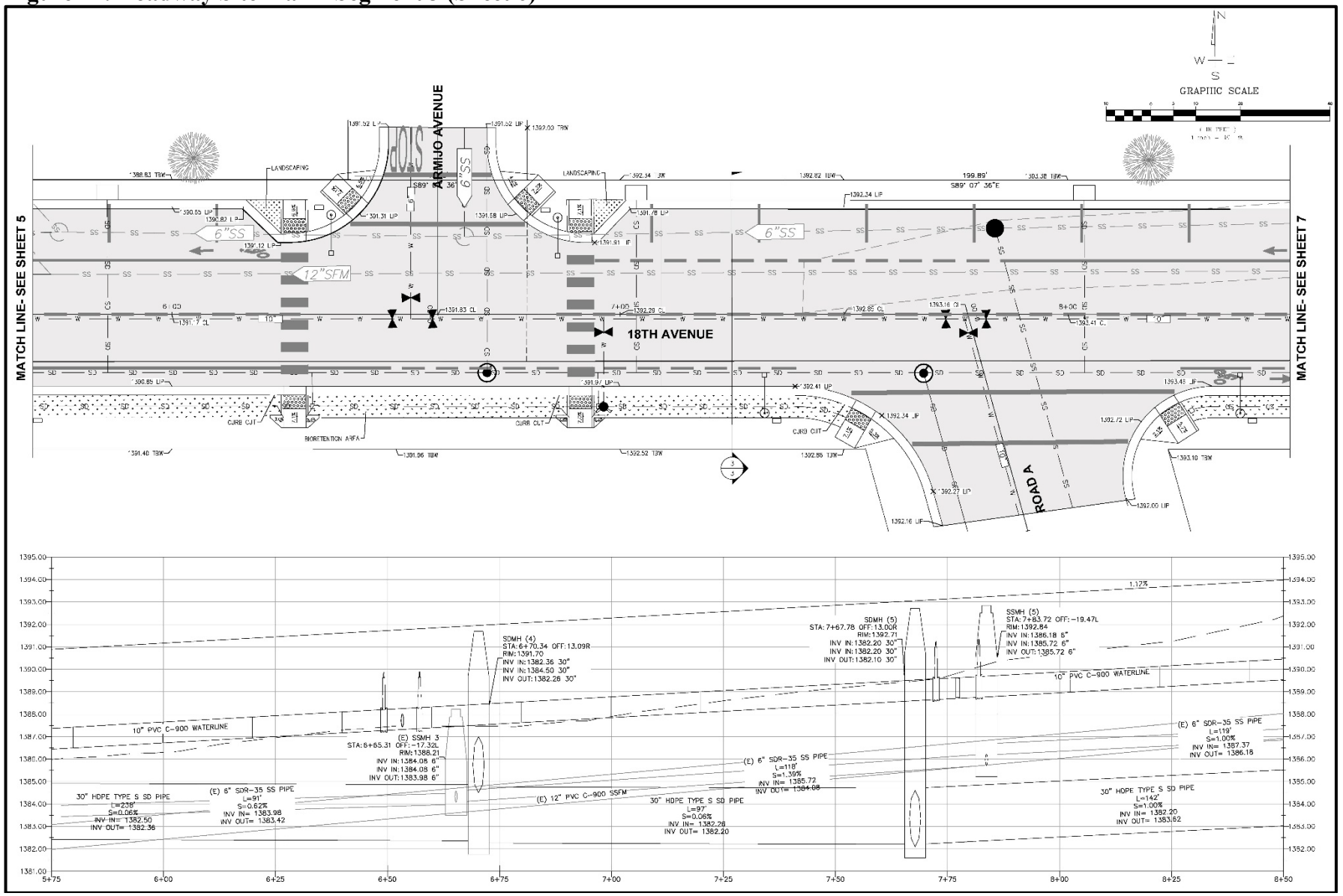


Figure 12: Roadway Site Plan – Segment 4 (Sheet 7)

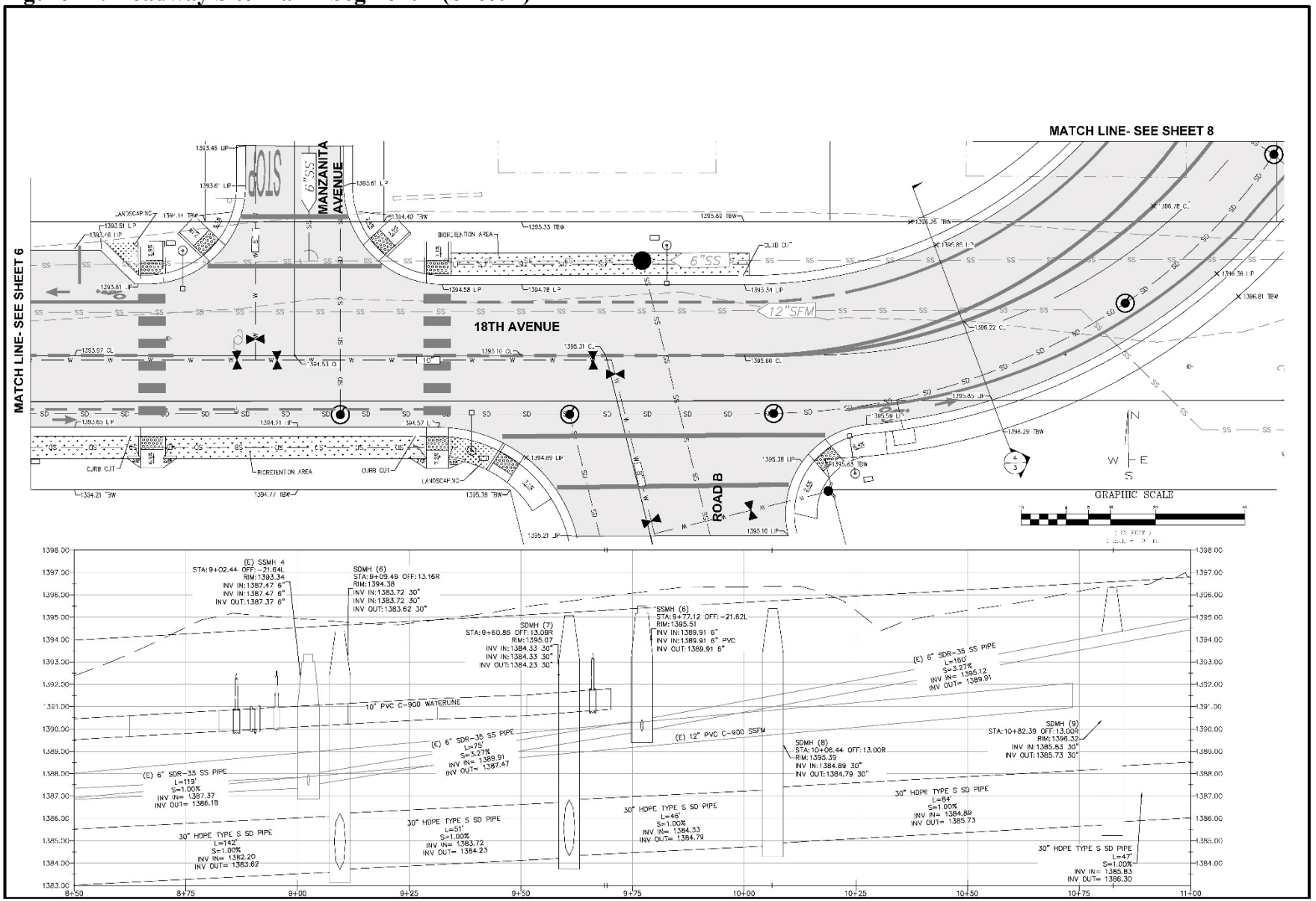


Figure 13: Roadway Site Plan – Segment 5 (Sheet 8)

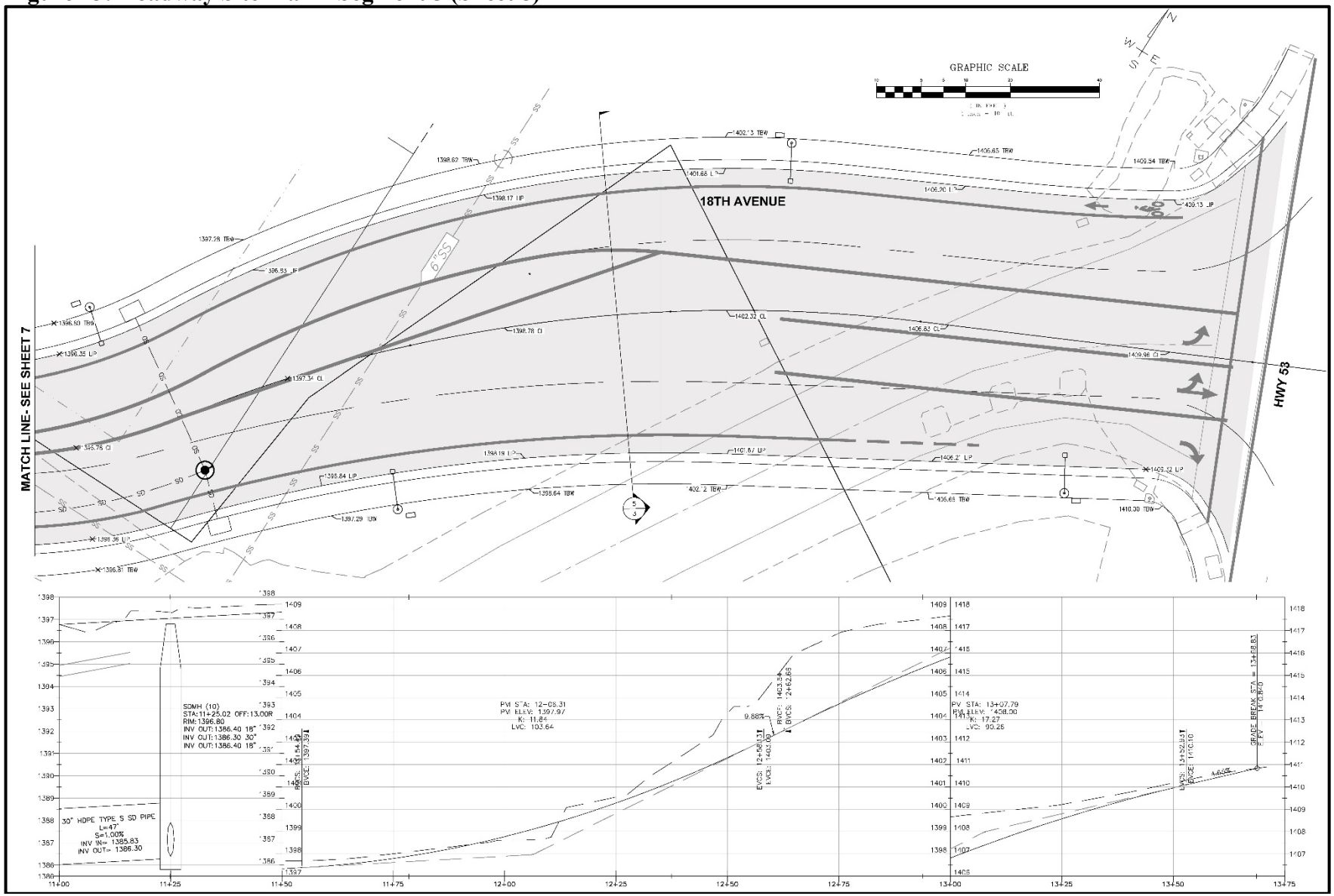


Figure 14: Roadway Site Plan – Segment 6 (Sheet 9)

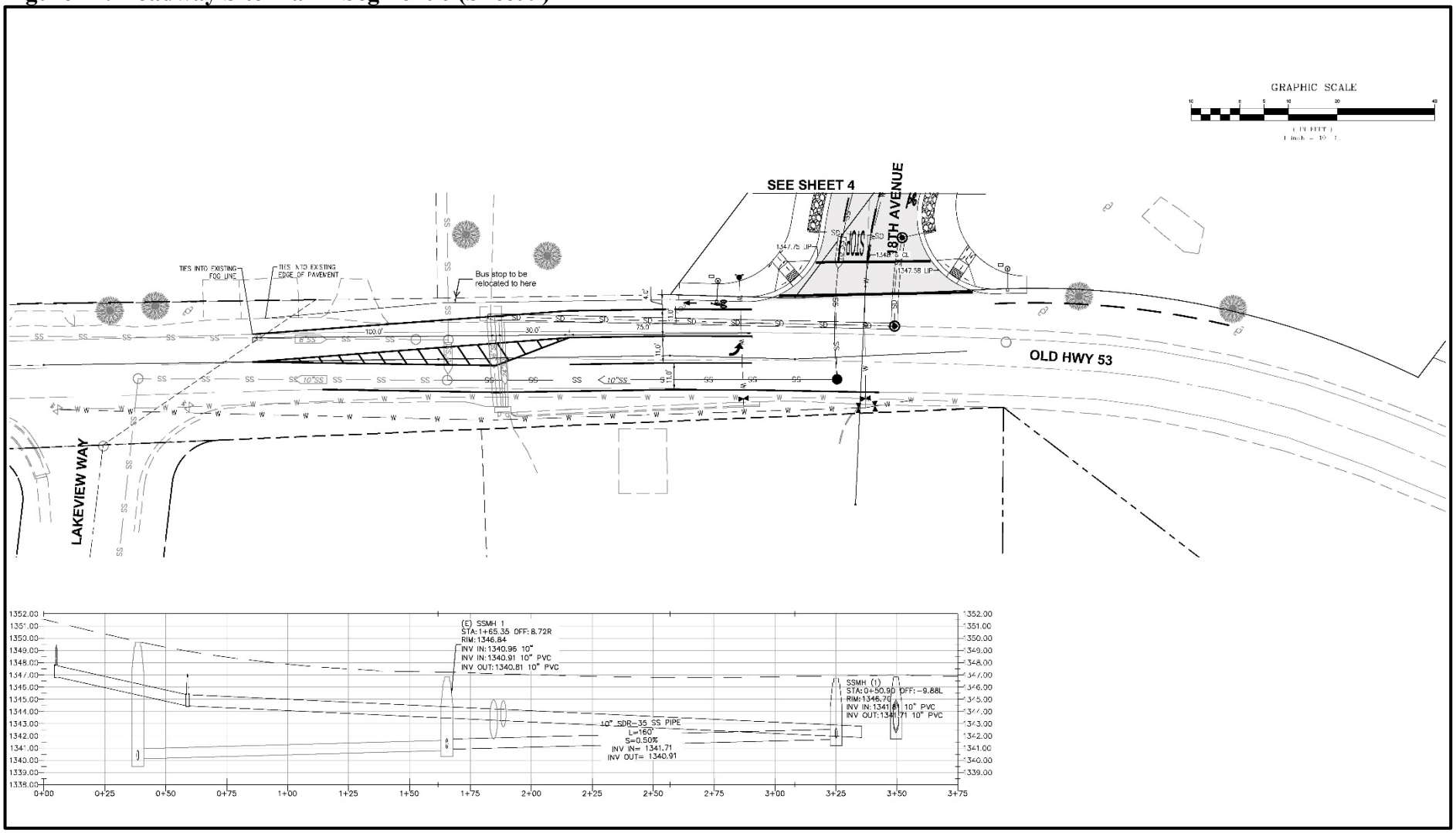


Figure 15: Striping Plan

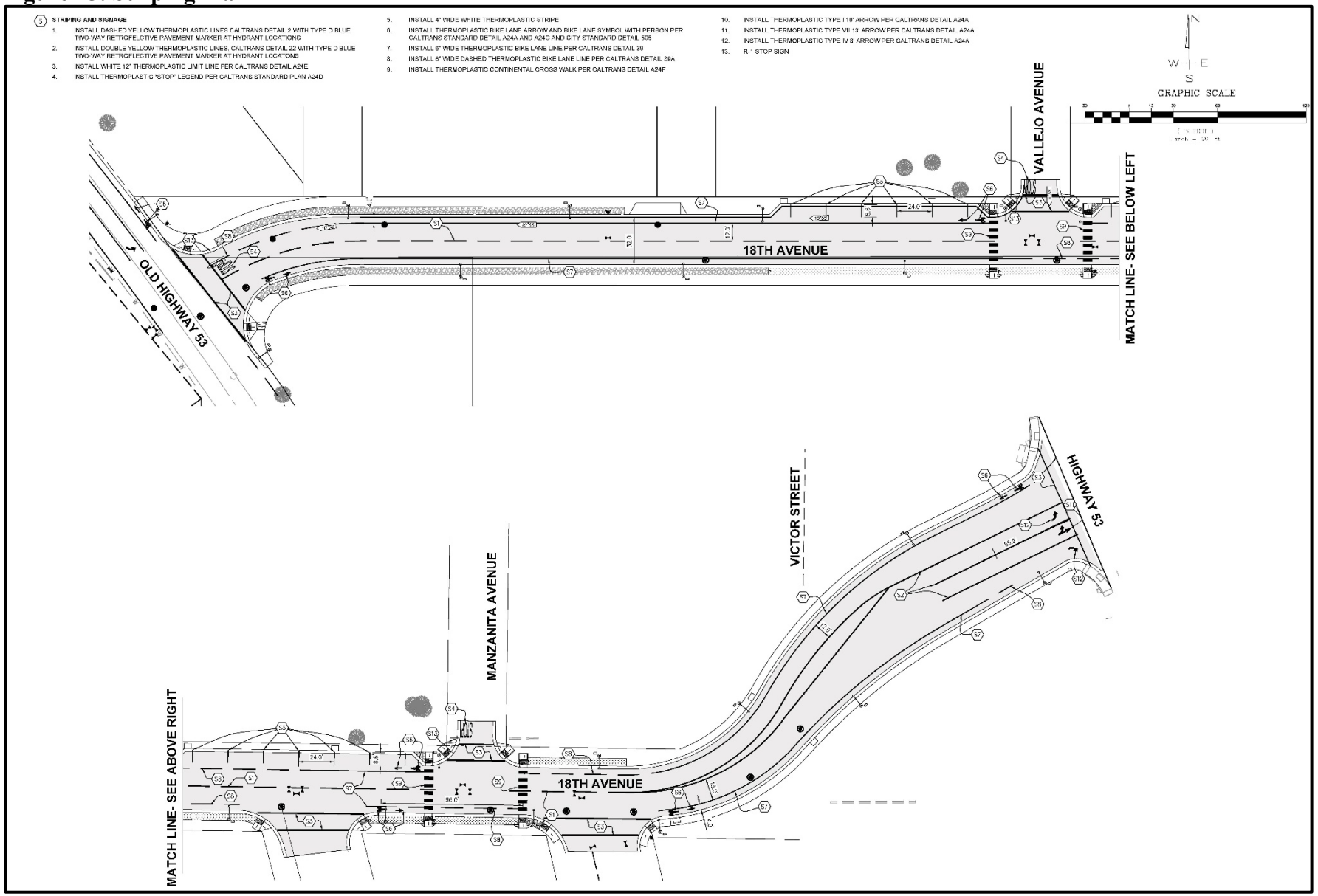
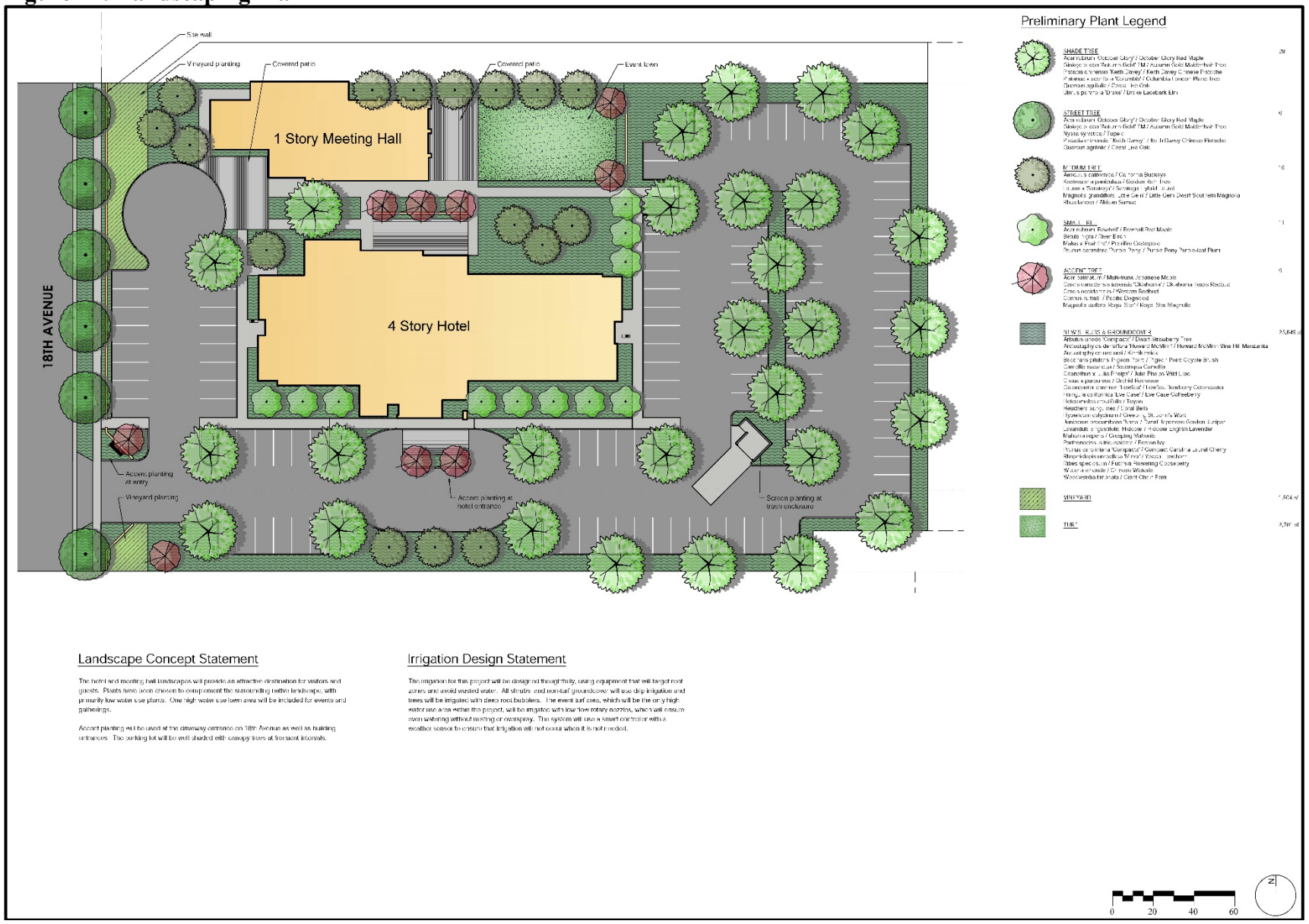


Figure 16: Overall Site Plan with Existing Vegetation

Figure 17: Landscaping Plan



Landscape Concept Statement

The hotel and meeting hall landscapes will provide an attractive destination for visitors and guests. Plants have been chosen to complement the surrounding native landscape, with primarily low water use plants. One high water use lawn area will be included for events and gatherings.

Accent planting will be used at the driveway entrance on 18th Avenue as well as building entrances. The parking lot will be well shaded with canopy trees at frequent intervals.

Irrigation Design Statement

The irrigation for this project will be designed thoughtfully, using equipment that will target root zones and avoid wasted water. All shrubs and non-turf groundcover will use drip irrigation and trees will be irrigated with deep root bubblers. The event turf area, which will be the only high water use area within the project, will be irrigated with low flow rotary nozzles, which will ensure even watering without misting or overspray. The system will use a smart controller with a weather sensor to ensure that irrigation will not occur when it is not needed.

Figure 18: Road Abandonment Exhibits

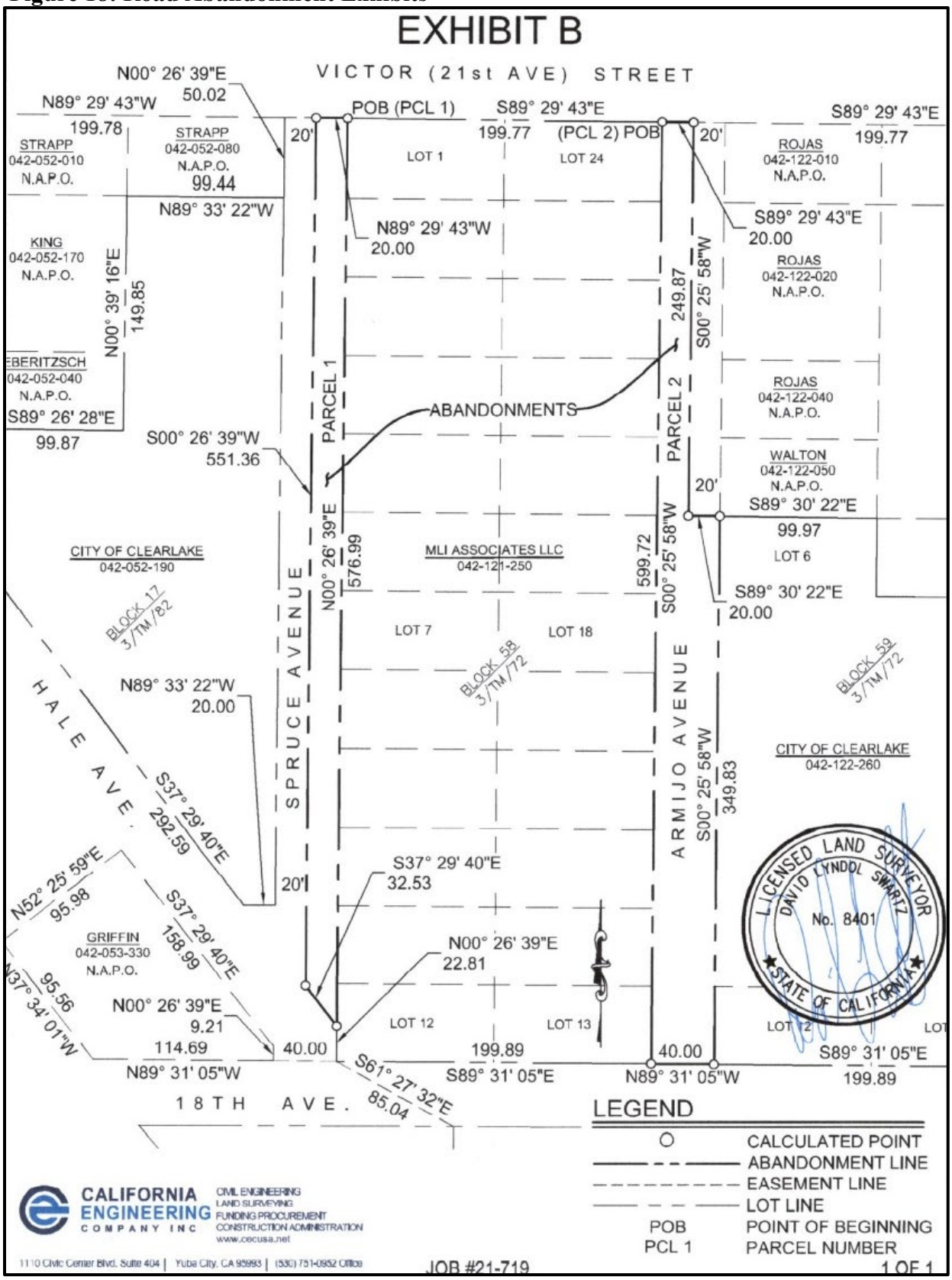


Exhibit A

Description of a

Road Abandonment

All that certain real property situate in the City of Clearlake, County of Lake, State of California, and described as follows:

Parcel 1 – *Portion of Spruce Avenue*

Beginning at the northwest corner of Lot 1, Block 58, as shown on that certain map entitled "Tract No. 4, Clear Lake Highlands", on file with the Lake County Recorder's Office in Book 3 of Town Maps, at Page 72; Thence from said Point of Beginning North 89° 29' 43" West, along the south right of way line of 21st Avenue , also known as Victor Street, a distance of 20 feet; thence South 0° 26' 39" West a distance of 551.36 feet, to a point on the north right of way projection of Hale Avenue as shown on that certain map entitled "Tract No. 6, Clear Lake Highlands", on file with the Lake County Recorder's Office in Book 3 of Town Maps, at Page 82, said point being 39.92 feet from and perpendicular to the south right of way line of said Hale Avenue; Thence South 37° 29' 40" East a distance of 32.53 feet to a point on the east right of way line of said Spruce Avenue that bears North 0° 26' 39" East from the southwest corner of Lot 12, Block 58, as shown on said "Tract No. 4, Clear Lake Highlands", a distance of 22.81 feet; Thence North 0° 26' 39" East, along the east right of way of Spruce avenue to the point of beginning, a distance of 576.99 feet.

The above-described abandonment contains 0.259 acres, more or less.

Parcel 2 – *Portion of Armijo Avenue*

Beginning at the northeast corner of Lot 24, Block 58, as shown on that certain map entitled "Tract No. 4, Clear Lake Highlands", on file with the Lake County Recorder's Office in Book 3 of Town Maps, at Page 72; Thence from said Point of Beginning South 89° 29' 43" East, along the south right of way line of 21st Avenue, also known as Victor Street, a distance of 20 feet; thence South 0° 25' 58" West a distance of 249.87 feet; Thence south 89° 30' 22" East a distance of 20 feet, to a point on the easterly right of way line of Armijo Avenue and being the northwest corner of lot 6, block of said "Tract No. 4, Clear Lake Highlands"; Thence, along the east right of way of Armijo Avenue, South 0° 25' 58" West a distance of 349.83 feet, said point being the southwest corner of Lot 12, of said Block 59; Thence North 89° 31' 05" West, along the northerly right of way line of 18th Avenue, a distance of 40 feet, said point being the south east corner of lot 13, aforementioned Block 58; thence North 0° 25' 58" East, along the westerly right of way of said Armijo Avenue to the point of beginning, a distance of 599.72 feet.

The above-described abandonment contains 0.436 acres, more or less.

The basis of bearings for the above-described road abandonments are shown on that certain map entitled "Record of Survey", on file with the Lake County Recorder's Office in Book 63 of Record of Surveys, at Pages 24 and 25.

Figure 19: On-Site Habitat

31. **Environmental Factors Effected:** The environmental sections checked below would be potentially affected by this project in an adverse manner, including at least one environmental issue/significance criteria that is a "less than significant impact with mitigation" as indicated by the analysis in the following evaluation of environmental impacts.

☒	**Aesthetics**	☐	Greenhouse Gas Emissions	☐	Public Services
☐	Agriculture & Forestry Resources	☐	Hazards & Hazardous Materials	☐	Recreation
☒	**Air Quality**	☐	Hydrology / Water Quality	☐	Transportation
☒	**Biological Resources**	☐	Land Use / Planning	☒	**Tribal Cultural Resources**
☒	**Cultural Resources**	☐	Mineral Resources	☐	Utilities / Service Systems
☐	Energy	☒	**Noise & Vibration**	☐	Wildfire
☒	**Geology / Soils**	☐	Population / Housing	☒	**Mandatory Findings of Significance**

DETERMINATION: (To be completed by the lead Agency) - On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ **I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.**

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Prepared By: Mark Roberts **Title: City Senior Planner**

Signature: **Date: October 26th, 2022**

SECTION 1 - EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, and then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance

IMACT CATEGORIES KEY:

- **1 = Potentially Significant Impact**
- **2 = Less Than Significant with Mitigation Incorporation**
- **3 = Analyzed in Prior EIR**
- **4 = Substantially Mitigated by Uniformly Applicable Development Policies/Standards**
- **5 = Less Than Significant Impact**
- **6 = No Impact**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
SECTION I. AESTHETICS *Except as provided in Public Resources Code Section 21099, would the project:*							
a) Have a substantial adverse effect on a scenic vista that is visible from a City scenic corridor?	☐	☐	☐	☐	☐	☒	**No impact.** According to the City's General Plan, officially designated scenic vistas or view corridors do not exist within Clearlake. However, three vistas and three potential view corridors have been identified along the Lakeshore Drive Corridor. In addition, three existing public parks, including Redbud Park, Highlands Park, and Austin Park, provide panoramic views of the lake and act as vistas. Figure 4.1-1 of the General Plan shows the locations of the identified vistas and view corridors. The project site is not located in the vicinity of, or visible from, any vistas or potential view corridors as identified by the General Plan.
b) Substantially damage scenic resources that is visible from a City Corridor, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☐	☐	☒	**No Impact.** The proposed project is not located in the vicinity of an officially designated State scenic highway. It should be noted that SR 53, which is located east of the project site, is eligible for listing as a State scenic highway; however, the roadway is not officially designated as such. In addition, while the City identifies view corridors along a portion of Olympic Drive (from Austin Park to SR 53) and along Lakeshore Drive, the project site is not visible from either City corridor. As a result, the proposed project would not substantially damage scenic resources that may be visible from a City Corridor, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
c) Conflict with applicable General Plan policies or zoning regulations governing scenic quality.	☐	☐	☐	☐	☐	☒	**No impact**. The City of Clearlake General Plan designates the project site as Commercial and the site is zoned "GC", General Commercial. Therefore, the proposed project is consistent with the site's land use and zoning designations, and the site has been anticipated for commercial development by the City. In addition, the proposed project would be required to comply with Section 18-9.020, of the City's Municipal Code, which sets forth requirements and standards for development that apply to the

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							C zone such as building setbacks and height limitations. Furthermore, all development within the City is required to adhere to the general development standards included in Article 18-5, Development Standards, of the City's Municipal Code. Compliance with such would ensure that the proposed project does not conflict with applicable zoning and other regulations governing scenic quality.
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐	☐	☐	**Less Than Significant Impact with Mitigation.** The proposed project would increase lighting levels in the area, which may impact nighttime views and may result in substantial light or glare, particularly from the hotel and associated parking lot lighting. All lighting would be directed downwards and shielded, in compliance with the City's lighting design standards. However, details of the lighting design for the proposed project are not currently shown in the plans. As such, preparation of a detailed lighting plan would be required to demonstrate that the project compliance City Municipal code and darksky.org. Therefore, with the following incorporated Mitigation Measure, the potential impact has been reduced to a less than significant level. **Mitigation Measure: AES 1: Prior to the issuance of development plans and/or building permits, a Final Lighting Design Plan shall be submitted to the City's Community Development Department for review and approval. All outdoor lighting shall be directed downwards and shielded onto the project site and not onto adjacent properties. All lighting shall comply and adhere to all federal, state and local agency requirements, including all requirements in darksky.org, in accordance with the City's Design Standards and Municipal Codes.**

SECTION II. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest protocols adopted by the California Air Resources Board.

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐	☐	☒	**No impact**. According to the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), the entirety of the project site is characterized as "Urban and Built-Up Land." The project site does not contain, and is not located adjacent to, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Given the designation of the site as Urban and Built-Up Land, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or otherwise result in the loss of Farmland to non-forest use. **Therefore, no impact would occur as a result of the proposed project.**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐	☐	☒	**No Impact**. The project site is currently zoned GC, General Commercial and designated Commercial by the City's General Plan. In addition, the project site is not under a Williamson Act contract. **Therefore, the proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract, and no impact would occur.**
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public	☐	☐	☐	☐	☐	☒	**No Impact**. While the northern portion of the project site is relatively undisturbed and consists primarily of wooded areas, the project site is not considered forest land (as defined in Public Resources Code [PRC] Section 12220[g]), timberland (as defined by PRC Section 4526) and is not zoned Timberland Production (as defined by Government Code Section 51104[g]). **As such, the project would not conflict with existing zoning for, or cause the rezoning of, forest land, timberland, or timberland zoned Timberland Production.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?							
d) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☐	☐	☒	**No Impact**. See Questions II-a and II-c, above.

SECTION III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐	☐	☐	**Less Than Significant Impact with Mitigation.** The City of Clearlake is located in the Lake County Air Basin (LCAB), which is under the jurisdiction of the local air quality agency, the Lake County Air Quality Management District (LCAQMD). The LCAB is the only air basin in the State that is classified as an attainment area for all California Ambient Air Quality Standards (CAAQS). Because the CAAQS are more stringent than the National Ambient Air Quality Standards (NAAQS), the LCAB is designated attainment for all NAAQS as well. Due to the attainment status of the LCAB, an air quality plan for the area is not required to be and has not been prepared. Because the LCAQMD is under attainment for all CAAQS and NAAQS, numerical thresholds of significance for air pollutants have not been established by the LCAQMD for CEQA analysis purposes, as such thresholds of significance are typically developed based on attainment goals set forth within an air quality plan. Based on the recommendation of the LCAQMD, this analysis applies the thresholds of significance used for CEQA analyses within the nearby San Francisco Bay Area Air Basin (SFBAAB), formulated by the Bay Area Air Quality Management District (BAAQMD). The BAAQMD thresholds of significance are based on the SFBAAB's current nonattainment status of ozone and particulate matter (PM) emissions and the subsequent air quality attainment plans. Using the BAAQMD thresholds of significance for the proposed project presents a conservative analysis. The BAAQMD's thresholds of significance are listed in Table 1.

Table 1
BAAQMD Thresholds of Significance

Pollutant	Construction: Average Daily Emissions (lbs/day)	Operational: Average Daily Emissions (lbs/day)	Operational: Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO_X	54	54	10
PM_{10} (exhaust)*	82	82	15
$PM_{2.5}$ (exhaust)*	54	54	10

* Emissions from exhaust only. BAAQMD has not yet adopted thresholds for fugitive PM emissions.

Source: BAAQMD, CEQA Guidelines, May 2017.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.

If a project were to exceed the BAAQMD's criteria pollutant emission thresholds during construction or operations, the project could be considered to result in an adverse air quality impact.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2022.1 – a Statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information is applied in the model.

The proposed project's estimated emissions associated with construction and operations and the project's contribution to cumulative air quality conditions are provided below. All CalEEMod results are included as Attachment A to this IS/MND.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the proposed project's construction emissions for ROG, PM_{10} and $PM_{2.5}$ would be well below the applicable thresholds of significance. However, the proposed project's construction emissions of NO_X would be above the applicable threshold. Consequently, the proposed project could be considered to result in a potentially significant impact related to construction emissions.

Table 2
Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	10.0	54	NO
NO_X	56.9	54	YES
PM_{10} (exhaust)	2.54	82	NO
$PM_{2.5}$ (exhaust)	2.34	54	NO

Source: CalEEMod, August 2022 (see Attachment A).

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 3.

Table 3
Maximum Unmitigated Operational Emissions

Pollutant	Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	6.19	1.03	54	10	NO
NO_X	2.97	0.58	54	10	NO
PM_{10} (exhaust)	0.07	0.01	82	15	NO
$PM_{2.5}$ (exhaust)	0.07	0.01	54	10	NO

Source: CalEEMod, August 2022 (see Attachment A).

As shown in the table, the proposed project's operational emissions would be well below the applicable thresholds of significance. As such, the proposed project would result in a less-than-significant impact related to operational emissions.

Cumulative Emissions

Past, present and future development projects contribute to a region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions would contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.

The BAAQMD's thresholds of significance, presented in Table 1, are used to represent the levels at which the LCAQMD would consider a project's individual emissions of criteria air pollutants to result in a cumulatively considerable contribution to existing air quality conditions. As demonstrated in Table 3 (see above) the proposed project would result in operational emissions below the applicable thresholds of significance, the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions during operations. However, as shown in Table 2, construction emissions of NO_X would exceed the applicable threshold. Nonetheless, implementation of Mitigation Measures AQ-1 through AQ-13, as discussed below, would reduce NO_X emissions to a less-than-significant level. Therefore, the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions during construction.

Conclusion

Based on the above, the proposed project would not result in operational emissions above the applicable thresholds. In addition, implementation of the proposed project would result in construction-related emissions of ROG, PM_{10}, and $PM_{2.5}$ below the applicable thresholds of significance. However, emissions of NO_X would exceed the applicable threshold during construction. Therefore, the proposed project could be considered to result in a potentially significant impact.

The primary source of construction-related NO_X emissions is from off-road construction equipment. Therefore, implementation of Mitigation Measures AQ-1 through AQ-13, which requires the use of some higher-tier off-road equipment, would substantially reduce the emissions of NO_X. The estimated emissions reductions are presented in Table 4. As shown in the table, with implementation of Mitigation Measure AQ-1, emissions of NO_X would be reduced below BAAQMD's thresholds.

Table 4
Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	10.0	54	NO
NO_X	53.5	54	NO
PM_{10} (exhaust)	2.37	82	NO
$PM_{2.5}$ (exhaust)	2.19	54	NO

Source: CalEEMod, August 2022 (see Attachment A).

Less than significant impact with the implementation of the following mitigation measures.

AQ-1: Prior to approval of any grading plans, the project applicant shall show on the plans via notation that the contractor shall ensure that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction project, including owned, leased, and subcontractor vehicles, shall achieve a project wide fleet average 5.1 percent NO_X reduction compared to the year 2023 CARB fleet average. The 5.1 percent NO_X reduction may be achieved by requiring a combination of engine Tier 3 or Tier 4 off-road construction equipment or the use of hybrid, electric, or alternatively fueled equipment. For instance, the emissions presented in Table 4 were achieved by requiring all tractors/loaders/backhoes used for grading to be engine Tier 4.

In addition, all off-road equipment operating at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to 5 minutes or less in accordance with the Off-Road Diesel Fueled Fleet Regulation as required by CARB. Clear signage regarding idling restrictions should be placed at the entrances to the construction site.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							AQ-2: Portable equipment over 50 horsepower must have either a valid District Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB. **AQ-3: Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other methods approved by the Lake County Air Quality Management District. Prior to initiating soil removing activities for construction purposes, the applicant shall pre-wet affected areas with at least 0.5 gallons of water per square yard of ground area to control dust.** **AQ-4: Driveways, access roads and parking areas shall be surfaced in a manner so as to minimize dust. The applicant shall obtain all necessary encroachment permits for any work within the right-of-way. All improvement shall adhere to all applicable federal, State and local agency requirements.** **AQ-5: Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Lake County Air Quality Management District and the Lake County Fire Protection District..** **AQ-6 During construction activities, the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site.** **AQ-7: Grading permits shall be secured for any applicable activity from the Community Development Department, Building Division. Applicable activities shall adhere to all grading permit conditions, including Best Management Practices. All areas disturbed by grading shall be either surfaced in manner to minimize dust, landscaped or hydro seeded. All BMPs shall be routinely inspected and maintained for lifer of the project** **AQ-8: All refuse generated by the facility shall be stored in approved disposal/storage containers, and appropriately covered. Removal of waste shall be on a weekly basis so as to avoid excess waste. All trash receptacles/containers shall remain covered at all times to prevent fugitive odors and rodent infestation. An odor control plan shall be submitted for review and approval by the City In accordance with the Zoning Code. Odor control shall be maintained to an acceptable level at all times.** **AQ-9: Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls.** **AQ-10: If construction or site activities are conducted within Serpentine soils, a Serpentine Control Plan may be required. Any parcel with Serpentine soils must obtain proper approvals from LCAQMD prior to beginning any construction activities. Contact LCAQMD for more details.** **AQ-11: All engines must notify LCAQMD prior to beginning construction activities and prior to engine Use. Mobile diesel equipment used for construction and/or maintenance must be in compliance with State registration requirements. All equipment units must meet Federal, State and local requirements. All equipment units must meet RICE NESHAP/ NSPS requirements including proper maintenance to minimize airborne emissions and proper record-keeping of all activities, all units must meet the State Air Toxic Control Measures for CI engines and must meet local regulations.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							AQ-12: Site development, vegetation disposal, and site operation shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation be chipped and spread for ground cover and erosion control. Burning of debris/construction material is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal. **AQ-13: Significant dust may be generated from increase vehicle traffic if driveways and parking areas are not adequately surfaced. Surfacing standards should be included as a requirement in the use permit to minimize dust impacts to the public, visitors, and road traffic. At a minimum, the district recommends chip seal as a temporary measure for primary access roads and parking. Paving with asphaltic concrete is preferred and should be required for long term occupancy. All areas subject to semi-truck / trailer traffic should require asphaltic concrete paving or equivalent to prevent fugitive dust generation. Gravel surfacing may be adequate for low use driveways and overflow parking areas; however, gravel surfaces require more maintenance to achieve dust control, and permit conditions should require regular palliative treatment if gravel is utilized. White rock is not suitable for surfacing (and should be prohibited in the permit) because of its tendency to break down and create excessive dust. Grading and re-graveling roads should utilizing water trucks, if necessary, reduce travel times through efficient time management and consolidating solid waste removal/supply deliveries, and speed limits** **Conformance with the foregoing requirements shall be included as notes and be confirmed through review and approval of grading plans by the City of Clearlake Community Development Department.**
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐	☐	☐	**Less Than Significant Impact with Mitigation.** See Question III-a, above.
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest sensitive receptors include existing single-family residences, located approximately 65 feet east, and 150 feet west, of the project site. The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions, toxic air contaminants (TAC) emissions, and criteria pollutant emissions, which are addressed in further detail below. <u>Localized CO Emissions</u> Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood. Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							The LCAQMD has not established screening criteria for localized CO emissions. Therefore, in order to provide a conservative indication of whether the proposed project would result in localized CO emissions that would exceed the applicable threshold of significance, the screening criteria for localized CO emissions established by BAAQMD was used in this analysis. According to BAAQMD, a project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project: • The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans; • The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and • The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.). An established congestion management program does not exist for the project area. As such, the proposed project would not be inconsistent with any such a plan. In addition, according to the General Plan EIR, daily traffic volumes along SR 53 range from 19,000 vehicles per day near the southern end of the roadway to 10,000 vehicles per day near SR 20. Because SR 53 is a State Highway, the assumption can be made that the traffic travelling along the roadway would be greater than the traffic travelling on the local roadways in the project vicinity. Therefore, given the relatively small size of the proposed project, the addition of project-generated vehicle trips would not be expected to increase traffic volumes at any intersections within the project vicinity to more than 44,000 vehicles per hour. Furthermore, intersections where vertical and/or horizontal mixing is limited are not located in the project vicinity. Based on the BAAQMD's screening criteria for localized CO emissions, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards or cause health hazards. <u>TAC Emissions</u> Another category of environmental concern is TACs. The CARB's Air Quality and Land Use Handbook: A Community Health Perspective (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. The proposed project does not include any operations that would be considered a substantial source of TACs. Accordingly, operations of the proposed project would not expose sensitive receptors to excess concentrations of TACs. Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Specifically, as noted above, construction would occur over an approximately one-year period. The exposure period typically analyzed in health risk assessments is 30 years or greater, which is substantially longer than the estimated one-year

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							construction period associated with the proposed project. In addition, all construction equipment and operation thereof would be regulated by the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. During construction, only portions of the project site would be disturbed at a time. Operation of construction equipment would occur on such portions of the site intermittently throughout the course of a day over the overall construction period. Because construction equipment on-site would not operate for any long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, sensitive receptors in the area would not be exposed to pollutants for a permanent or substantially extended period of time. Considering the short-term nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, and the highly dispersive nature of DPM, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations. <u>Criteria Pollutants</u> As discussed above, the LCAB is the only air basin in the State that is classified as an attainment area for all CAAQS and NAAQS. Due to the attainment status of the LCAB, an air quality plan for the area is not required to be and has not been prepared. As such, numerical thresholds of significance for air pollutants have not been established by the LCAQMD for CEQA analysis purposes, as such thresholds of significance are typically developed based on attainment goals set forth within an air quality plan. According to the BAAQMD, a project's compliance with BAAQMD's thresholds of significance provides an indication that criteria pollutants released as a result of project implementation would not inhibit attainment of the health-based regional NAAQS and CAAQS. Because the LCAB is in attainment for all CAAQS and NAAQS, and project-related emissions would not exceed the BAAQMD's thresholds with implementation of Mitigation Measure AQ-1, the criteria pollutants emitted during project implementation would not be anticipated to result in measurable health impacts to sensitive receptors. Accordingly, the proposed project would not expose sensitive receptors to excess concentrations of criteria pollutants. **<u>Conclusion</u>** **Based on the above discussion, the proposed project would not expose any sensitive receptors to substantial concentrations of localized CO, or criteria pollutants from construction or operation. Therefore, a less-than-significant impact would occur**.
d) Result in other emissions that create objectionable odors adversely affecting a substantial number of people?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** While offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable annoyance and distress among the public and can generate citizen complaints to local governments and air districts. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, it is difficult to quantitatively determine the presence of a significant odor impact. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses. Construction activities often include diesel-fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, construction is temporary and construction equipment would operate intermittently throughout the course of a day, and would likely only occur over portions of the site at a time. In addition, all construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation. Project construction would also be required to comply with all applicable LCAQMD

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions, as well as any associated odors related to operation of construction equipment. Considering the short-term nature of construction activities, as well as the regulated and intermittent nature of the operation of construction equipment, the proposed project would not be expected to create objectionable odors affecting a substantial number of people.
SECTION IV. BIOLOGICAL RESOURCES *Would the project:*							
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** A Biological Evaluation conducted by Live Oak Associates, Inc., was prepared for the proposed project. A search of the California Natural Diversity Database (CNDDB) was included in the Biological Evaluation, and based on the results, a total of 12 special-status plant species and 18 special-status wildlife species are known to occur within the project region. In addition, a site survey was conducted on July 11, 2022 as part of the Biological Evaluation to assess the potential for the identified special-status species to occur on-site. According to the Biological Evaluation, of the 12 special-status plant species known to occur in the area, three are either absent from or unlikely to occur on the site due to a lack of suitable habitat, because the species has not been observed in the site's vicinity, and/or because the species is a perennial and would have been identifiable during the time of year that the site survey was conducted, and the species was not observed. However, the Biological Evaluation identified nine special-status plant species as having the potential to occur on-site including eight species listed under California Native Plant Society (CNPS) Rare Plant Rank 1B (bent-flowered fiddleneck, Raiche's manzanita, three-fingered morning glory, deep-scarred cryptantha, Tracy's eriastrum, congested-headed hayfield tarplant, Napa bluecurls, and San Joaquin spearscale) and one species listed under CNPS Rare Plant Rank 2B (oval-leaved viburnum). Focused floristic surveys during the appropriate blooming season in all potentially suitable habitats on-site for the aforementioned species would be necessary to determine whether the proposed project would impact any populations of the species. Should focused surveys determine populations of any of the species are present on the site, and if the project as proposed would impact the populations, a potentially significant impact could occur. Many of the 18 special-status wildlife species identified as a result of the CNDDB search have habitat requirements that are not present on the project site. Although the project site does not contain suitable habitat for a majority of special-status wildlife species, four species may regularly or occasionally use the project site for foraging, including the Clear Lake roach, Townsend's big-eared bat, pallid bat, and western red bat. While the three bat species listed above, including the Townsend's big-eared bat, pallid bat, and western red bat may forage over the site, roosting habitat is absent from the site for the species, as trees with suitable cavities and leaf density are not present within the site. In addition, the project site does not provide regionally important foraging habitat for the aforementioned species. Furthermore, while a drainage is located in the northwestern corner of the site, the drainage is not within the development area, and, therefore, Clear Lake roach habitat would not be impacted. Avian species protected by the Migratory Bird Treaty Act (MBTA) could use the project site as potential foraging and/or nesting habitat. Therefore, while development of the project would result in a less-than-significant impact on Clear Lake roach, Townsend's big-eared bat, pallid bat, and western red bat, if construction activity occurs during nesting season, the proposed project could result in a potentially significant impact to avian species protected under the MBTA. **Mitigation Measures BIO-1 through BIO-8 shall be implemented to ensure potential impacts to special-status species will be reduced to a less-than-significant levels**.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							Mitigation Measures: **BIO-1: Prior to initiation of ground-disturbing activities on the project site, the project applicant shall retain a qualified biologist to conduct floristic surveys to identify any special-status plant species on-site.** • **Floristic surveys shall be conducted in all on-site habitats that potentially support special status species during the appropriate season to identify the species, which is typically during the species' blooming period. Based upon the suite of special status plant species potentially occurring on the site, at a minimum, four surveys shall be conducted, (i.e., in March, April, June, and October) in all areas of the site within and adjacent to (within 100 feet) project development footprints that provide potential habitat for the target species. Surveys shall be conducted in conformance with the most recent version of CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities and CNPS' Botanical Survey Guidelines.** **BIO-2: If rare plant populations are determined to be present on the project site during the focused floristic surveys by a qualified/license biologist, the populations shall be mapped, and the number of individuals shall be estimated. A qualified plant ecologist or botanist shall determine whether project impacts to plant populations are significant.** **BIO-3: To the extent practicable, the project shall be designed to avoid or minimize impacts to special status plant populations with a buffer determined by the qualified botanist or plant ecologist.** **BIO-4: If the project cannot be redesigned to avoid or minimize impacts to the identified species to a less-than-significant level, then compensation measures shall include development of an onsite or off-site restoration plan for the species. At a minimum, any restoration plan shall contain the following elements: 1) location of restoration areas, 2) propagation and planting techniques to be employed for the restoration effort, 3) a timetable for implementation, 4) a monitoring plan and performance criteria, 5) an adaptive management plan should the restoration not meet interim success criteria, and 6) a site maintenance plan. The restoration plan shall be approved by the City of Clearlake Community Development Department prior to the start of project construction and shall, where feasible, occur in the immediate vicinity of the identified population(s).** **BIO-5: If tree removal is required, site preparation, grading, or construction is planned to occur within the avian breeding period (i.e., between February 1 and August 31), a qualified biologist shall conduct pre-construction surveys for active nests of migratory birds within seven days of the onset of construction activities. If construction activity is planned to commence outside the breeding period, pre-construction surveys are not required for nesting birds and raptors. Survey results shall be submitted to the City of Clearlake Community Development Department. If active nests of migratory birds are not detected within the project site, further mitigation is not required. If nesting birds are detected, the applicant shall implement Mitigation Measure BIO-3.** **BIO-6: If any active nests are discovered in or near proposed construction zones, a qualified biologist shall establish a construction-free buffer around the nest. The buffer shall be adequate to ensure the nest is not disturbed by construction activities and shall be based on the location of the nest, species of bird, sensitivity of the bird (as determined by the biologist), and proximity to and type of construction occurring near the nest. The buffer shall be identified on the ground with flagging or fencing and shall be maintained until the biologist has determined that the young have fledged. Established buffers may be altered only if a qualified biologist provides compelling biological or ecological reason to do so. Proof of compliance with this Mitigation Measure**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							shall be provided to the City of Clearlake Community Development Department prior to recommencing construction within the buffer area. **BIO-7: All construction and operations workers on the project site shall be trained by a qualified biologist prior to ground disturbing activities. The tailgate training shall include a description of the Migratory Bird Treaty Act, instructions on what to do if an active nest is located, and the importance of capping pipes and pipe-like structures standing upright to avoid birds falling into the pipes and getting stuck. Proof of compliance with this Mitigation Measure shall be provided to the City of Clearlake Community Development Department.**
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** A drainage occurs in the northwestern corner of the site with culverts running under the road to the north of the site (see Figure 19). The drainage was dry at the time of the July 2022 site visit conducted as part of the Biological Evaluation. The drainage has a flat bottom with fairly steep sides, suggesting a large volume of seasonal flow. The width of the drainage varied from approximately 12 feet wide at the northern boundary of the site to approximately five feet wide where the drainage exits the site on the western side of the project site. The unnamed drainage appears to be a tributary of Cache Creek which is connected to Clear Lake. As such, the drainage is likely considered to be a water of the U.S. and/or water of the State. However, while the drainage is located on-site, development of the project is not proposed within the near vicinity of the drainage, and the disturbance area of the project would avoid the drainage feature completely. Therefore, impacts to jurisdictional waters, wetlands, or riparian habitats are not expected to occur.
c) Have a substantial adverse effect on state or federally protected wetlands (including, not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** See Question IV-b, above.
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Wildlife movement corridors are areas where regional wildlife populations regularly and predictably move during dispersal or migration. Movement corridors in California are typically associated with valleys, rivers and creeks supporting riparian vegetation, and ridgelines. Wildlife will often move across ill-defined undeveloped habitat patches, or regional movement is facilitated along existing linear features such as ditches, canals, farm roads, and creeks. Regionally, the nearest area believed to provide for regional wildlife movement is Cache creek and the riparian habitat approximately 0.5-mile to the south of the site. In addition, according to the Biological Evaluation prepared for the proposed project, the Lake County Land Trust Conservation Priority Plan identifies the project site location as being along the northern edge of a structural connectivity corridor which appears to center around Cache Creek and upland habitat to the east of Clearlake. The project site consists mainly of open, previously developed area with some natural lands along the northern edge. Development within the City of Clearlake occurs to the west, north, and east of the site, with dispersed rural residential uses located immediately north of the site. Therefore, the Biological Evaluation concluded that the site does not play a major role as a wildlife corridor; however, wildlife which currently use the site for daily or dispersal movements would likely continue to do so after the site is built out because the majority of the undisturbed lands in the northern portion of the site would remain undeveloped under post-project conditions. Nonetheless, the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and a less-than-significant impact would occur.
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** Chapter 18-40 of the City's Municipal Code comprises the City's Native Tree Protection Ordinance. The City's Native Tree Protection Ordinance defines Protected Trees as native oak trees, including Blue Oak, Valley Oak, Interior Live Oak, California Black Oak, Canyon Live Oak, and Oregon White Oak with a greater than six-inch diameter at breast height (DBH). An Arborist Report (Attachment B) was prepared to evaluate the health and structural condition of the trees within the project area, determine which trees could be preserved and removed, and provide guidelines for tree preservation during the design, construction, and maintenance phases of development. Based on a survey of the project site conducted on July 11 and 12, 2022, a total of 78 protected trees were determined to exist on site, including nine Blue Oaks, one Valley Oak, and 68 Interior Live Oaks. Of the 78 protected trees, the Arborist Report concluded that 51 trees would require removal during development of the proposed project. In addition, 27 trees are expected to experience encroachment from the proposed project. It should be noted that a portion of the site was inaccessible during the field survey. An estimated additional 25 trees from that area, including 20 Interior Live Oaks and five Blue Oaks, may require removal, and an additional 10 Interior Live Oaks from that area are expected to experience encroachment from the proposed project. Overall, a total of 76 protected trees are expected to be removed as part of the proposed project, including 70 Interior Live Oaks, one Valley Oak, and five Blue Oaks; and a total of 37 protected trees are expected to experience encroachment from the proposed project, including 28 Interior Live Oaks, and nine Blue Oaks. However, in July 2022, after the tree inventory and assessment of the project site were conducted, a fire occurred that potentially damaged, injured, and/or killed some of the existing protected trees. As such, a Post-Fire Tree Assessment was prepared by Live Oak Associates (LOA), which provided recommendations to determine the health status of each tree. According to LOA, within eight to 10 weeks of being impacted by fire, a tree's cambium can be checked to determine if a tree is dying or is living. The method of checking a tree's cambium for health is recommended only for trees expected to be removed by the project, as the method damages the tree's bark and should not be conducted on trees that would remain in place. A permit is required by the City of Clearlake to remove or encroach into the dripline of a protected tree. In addition, the City would impose tree replacement standards or in-lieu fees pursuant to Section 18-40.050 of the Municipal Code for all protected trees proposed for removal. Furthermore, the tree protection measures included in the Arborist Report would be required for all protected trees expected to experience encroachment from the proposed project. Without adequate protection measures for the trees to be retained on the site, the proposed project could result in injury to protected trees. Because of the fire that occurred on-site, the site would require additional surveys prior to commencement of construction to determine the number of protected trees that would be removed and retained on-site during project development. Mitigation Measure BIO-5 would ensure impacts to protected trees would be less-than-significant. **<u>Mitigation Measures:</u>** **BIO-8: Prior to the start of construction activities, the applicant shall retain a certified arborist to reassess the protected trees on-site and determine if any additional trees would require removal due to damage from the on-site fire. The updated report shall be submitted to the City of Clearlake Community Development Department for review and approval.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							• **A native tree protection and removal permit, waiver, or similar approval shall be secured prior to impacting trees protected under the City ordinance. The project applicant shall mitigate for the removal of Protected Trees located within the project site, as identified in the Arborist Report prepared for the proposed project, by preparing a Tree Replacement Plan to ensure on-site replacement planting or the payment of in-lieu fees, or a combination of both.** • **For the Protected Trees to be preserved as part of the project, the project applicant shall implement the Tree Protection Measures and Performance Standards included in the Arborist Report prepared for the proposed project, including requirements related to: tree removal, tree protection fencing, trenching, tree protection training, tree protection measure monitoring, and other general provisions.** • **The above measures shall be included in the notes on construction drawings, subject to review and approval by the City of Clearlake Community Development Department, prior to initiation of construction activities.**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☐	☐	☒	**No Impact.** The project site is not located within an area that is subject to an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the proposed project would have no impact related to a conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.
SECTION V. CULTURAL RESOURCES *Would the project:*							
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Currently, the site is vacant and undeveloped. Thus, the site does not contain any existing structures, buildings, or other features which would be considered historical. A Cultural Resource Investigation was prepared for the proposed project by Sub-Terra Heritage Resource Investigations (Sub-Terra), which included an archival review of historic General Land Office plats and USGS topographic maps, as well as an archeological field survey of the entire project site. The field survey included a complete, intensive inspection of the project site, with transects of three meters or less. Ground visibility was generally good, and where necessary, the surveyor dug small holes to examine the sediments of the land. As discussed within the Cultural Resource Investigation, evidence of historic period cultural resources was not present within the project area, and historic properties were not recorded within the project site. In addition, portions of the project site have been used as a designated construction staging area. As such, the storage of equipment and vehicles, stockpiles, waste bins, and other construction-related materials has occurred on the project site. Therefore, portions of the project site have been subject to disturbance. Based on the above, the proposed project would have a less-than-significant impact related to the substantial adverse change of a historical resource.
b) Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** Based on the California Historical Resources Information System (CHRIS) records search conducted by the Northwest Information Center (NWIC), and archival review of historic General Land Office plats and USGS topographic maps conducted as part of the Cultural Resource Investigation prepared for the proposed project, previously recorded cultural resources are not located within the project site. As discussed above, an archeological field survey was also conducted as part of the Cultural Resource Investigation, which included the minor modification of ground cover, to allow for the detection of all evidence of prior human activity including

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							archeological remains. The archeological field survey did not find any cultural resources within the project area. Additionally, according to the Cultural Resource Investigation, the project area has been previously bulldozed, severely graded, and most of the original landscape was previously removed and re-distributed as fill. From the 1990s to present day, the project area has served as the City's materials storage yard, resulting in further modification by introduction of fill materials of various kinds and from various sources. Although the project area has been subject to a records search and an archeological field survey, and has been subject to previous disturbance, the Koi Nation tribe has ancestral ties to the area. Therefore, a remote possibility exists that unknown archaeological resources, including human remains, could be uncovered during ground-disturbing activities at the project site. If previously unknown resources are encountered during construction activities, the proposed project could cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturb human remains, including those interred outside of dedicated cemeteries, during construction. Therefore, Mitigation Measures CUL-1 and CUL-2 would be required to ensure impacts would be less than significant. **Mitigation Measures:** **CUL-1: During construction activities, if any subsurface archaeological remains are uncovered, all work shall be halted within 100 feet of the find and the owner shall utilize a qualified cultural resources consultant to identify and investigate any subsurface historic remains and define their physical extent and the nature of any built features or artifact-bearing deposits**. **CUL-2: The cultural resource consultant's investigation shall proceed into formal evaluation to determine their eligibility for the California Register of Historical Resources. This shall include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the features and artifacts do not have sufficient data potential to be eligible for the California Register, additional work shall not be required. However, if data potential exists – e.g., there is an intact feature with a large and varied artifact assemblage – it will be necessary to mitigate any Project impacts. Mitigation of impacts might include avoidance of further disturbance to the resources through Project redesign. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during Project excavation or testing, curation may be an appropriate mitigation. This language of this mitigation measure shall be included on any future grading plans and utility plans approved by the City for the Project** **CUL-3: If human remains are encountered, no further disturbance shall occur within 100 feet of the vicinity of the find(s) until the Lake County Coroner has made the necessary findings as to origin (California Health and Safety Code Section 7050.5). Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Lake County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the "most likely descendant(s)", The landowner shall engage in consultations with the most likely descendant (MLD). The MLD will make recommendations concerning**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. **CUL-4: On or prior to the first day of construction the owner shall organize cultural sensitivity training for contractors involved in ground disturbing activities.**
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	☐	☐	**Less Than Significant Impact with Mitigation. See Question V-b, above.**
SECTION VI. ENERGY *Would the project:*							
a) Consume energy resources in a wasteful, inefficient, or unnecessary amount during project construction and/or operation?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** The main forms of available energy supply are electricity, natural gas, and oil. The following provides a discussion regarding the proposed project's potential effects related to energy demand during construction and operations. <u>Construction Energy Use</u> Construction of the proposed project would involve increased energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met through a hookup to the existing electricity grid. Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. As a result, construction equipment would be used intermittently over the duration of the construction period, and the increased energy demand associated with construction would also occur intermittently, and for a limited amount of time. In addition, all construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation, which is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. The In-Use Off-Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency and reduce GHG emissions by requiring construction vehicles to become cleaner through the use of renewable energy resources. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction. The CARB has prepared the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan), which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The In-Use Off-Road Diesel Vehicle Regulation described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand. Operational Energy Use Following implementation of the proposed project, PG&E would provide electricity to the project site. Energy use associated with operation of the proposed project would be typical of hotel uses, requiring electricity for interior and exterior building lighting, operation of stoves, kitchen and cleaning appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by employee commutes, hotel patrons, and the movement of goods. Energy use associated with operation of the roadway extension would consist solely of electricity required for roadway lighting. The proposed project would be subject to all relevant provisions of the most recent update of the California Buildings Standards Code (CBSC), including the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently. Required compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary. In addition, electricity supplied to the project by PG&E would comply with the State's Renewable Portfolio Standard (RPS), which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 60 percent by 2030. Thus, a portion of the energy consumed during project operations would originate from renewable sources. Furthermore, the project would be required to incorporate design features to reduce outdoor water use by 20 percent. With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, as discussed in Section XVII, Transportation, of this Initial Study, the project site would provide new pedestrian infrastructure along the project frontage, and electric vehicle (EV) charging stations would be included in the project. Bicycle parking would be included on-site, which would encourage patrons to use alternative transportation. With regard to the proposed roadway extension, the proposed project would result in transportation energy use associated with vehicles travelling along the roadway. However, the roadway extension would not induce additional vehicle travel in the project area. Rather, the proposed project would redistribute existing traffic within the City and allow for residents of the City to use an alternative, potentially shorter, route. As such, energy consumption associated with vehicles travelling along the proposed roadway would not be considered wasteful, inefficient, or unnecessary. Based on the above, compliance with the State's latest Energy Efficiency Standards would ensure that the proposed project would implement all necessary energy efficiency regulations. **Conclusion** **Based on the above, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources**.
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** See Question VI-a, above.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
SECTION VII. GEOLOGY AND SOILS *Would the project:*							
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist- Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** The Coast Ranges are composed primarily of Mesozoic and Cenozoic sedimentary strata. The northern Coast Ranges are dominated by irregular, knobby, landslide-topography of the Franciscan Complex. The eastern border is characterized by ridges and valleys comprised primarily of Upper Mesozoic strata. In several areas, Franciscan rocks are overlain by volcanic cones and flows of the Quien Sabe, Sonoma and Clear Lake volcanic fields. Mount Konocti, the largest volcanic feature of the Clear Lake volcanic fields, is located approximately eight miles northeast of the Project site. i) Earthquake Faults Known active faults are not located at or adjacent to the project site. Furthermore, designated Alquist-Priolo Fault Zones do not intersect the project site. Therefore, potential for fault rupture on the site is estimated to be low. ii) Seismic Ground Shaking According to the City's General Plan, a 50 percent to 60 percent chance exists that a 6.0 magnitude earthquake could occur within 50 kilometers of Clearlake in the next 50 years, and strong ground shaking could occur in the area. However, the proposed buildings would be properly engineered in accordance with the CBSC, which includes engineering standards appropriate for the seismic area in which the project site is located. Projects designed in accordance with the CBSC should be able to: 1) resist minor earthquakes without damage, 2) resist moderate earthquakes without structural damage but with some nonstructural damage, and 3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance with the design standards is verified by the City prior to the issuance of building permits. Proper engineering of the proposed buildings would ensure that the project would not be subject to substantial risks related to seismic ground shaking. iii) Seismic–Related Ground Failure, including liquefaction The California Geologic Survey (CGS) has designated certain areas within California as potential liquefaction hazard zones, which are areas considered at risk of liquefaction-related ground failure during a seismic event based upon mapped surficial deposits and the depth to the areal groundwater table. The project site is not currently mapped for potential liquefaction hazard by the CGS. However, as noted in the City's General Plan, Clearlake contains soils that are susceptible to liquefaction during a seismic event. Therefore, the project site could be located on a geologic unit or soil that is susceptible to liquefaction, and a potential substantial adverse effect could occur. iv) Landslides According to the City's General Plan, the threat of seismically induced landslides in and around the City of Clearlake is low due to the gentle topography of much of the incorporated area. The City of Clearlake is classified by the CGS as being in landslide risk areas 1 and 2, which are the least hazardous landslide areas. In addition, due to the relatively level topography of the project site and general surrounding area, the potential for slope instability is considered low. Thus, landslides are not likely to occur on- or off-site as a result of the proposed project. Conclusion Based on the above, the proposed project would not result in impacts associated with earthquake faults, seismic ground shaking, or landslides. However, the project site could contain potentially liquefiable soils. As such, Mitigation Measure GEO-1 would be required to ensure impacts are reduced to a less-than-significant level. **Mitigation Measures:** **GEO-1: Prior to approval of any grading permits, a Geotechnical Analysis shall be conducted by a California Geotechnical Engineer to characterize the subsurface conditions of the project site. The report shall address and make recommendations on the following:** • **Road, pavement, and parking area design.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							• **Structural foundations, including retaining wall design (if applicable).** • **Grading practices.** • **Erosion/winterization.** • **Special problems discovered on-site, (i.e., groundwater, expansive/unstable soils, etc.); and** • **Slope stability.** **GEO-2: All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the Director of Public Works/City Engineer, Chief Building Official/Building Inspector, and a licensed/qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the Geotechnical Analysis are properly incorporated and utilized in the project design.**
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** The project site would be graded for project development, and approximately 1,300 cubic yards of soil would be imported to the project site during grading activities. As such, during construction, the project applicant shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system. All grading measure shall adhere to all Federal, State and local agency requirements. Therefore, to ensure impacts related to the Geology and Soils are minimized, the following mitigation measures shall be implemented. **Mitigation Measures:** **GEO-3: Prior to any ground disturbance and/or operation, the applicant shall submit Erosion Control and Sediment Plans to the Community Development Department for review and approval. The project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system.** **GEO-4: Prior to any ground disturbance, the project applicant shall submit and obtain a Grading Permit from the Community Development in accordance with the City of Clearlake Municipal Code.** **GEO-5: The project applicant shall monitor the site during the rainy season including post-installation, application of BMPs, erosion control maintenance, and other improvements as needed. Measures shall be maintained for life of the project and replaced/repaired when necessary.**
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact**. Potential impacts related to landslides and liquefaction are discussed in Question VII-a, above. As such, the proposed project's potential effects related to lateral spreading, and subsidence are discussed below. Lateral Spreading Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. The project site does not contain any open faces that would be considered susceptible to lateral spreading. Therefore, the potential for lateral spreading to pose a risk to the proposed development is relatively low. Subsidence/Settlement Subsidence is the settlement of soils of very low density generally from either oxidation of organic material, or desiccation and shrinkage, or both, following drainage. Subsidence takes place gradually, usually over a period of several years.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							According to the City's General Plan, unconsolidated or water saturated soils along drainages and the lake shore are most likely to be affected by settlement. However, the project site is not located along a drainage or within close proximity to the lake shore. Therefore, the potential for subsidence/settlement to pose a risk to the proposed development is relatively low. In addition, the project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system.
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐	☐	☐	**Less Than Significant Impact with Mitigation.** According to the City's General Plan, some soil types within the City are expansive and will shrink and swell in response to moisture. In addition, according to the USDA soil survey, development within the project site is somewhat to very limited due to the shrink-swell potential of soils within the project site. The project would adhere to all Federal, State and local agency requirements, including all requirements in the City of Clearlake's Municipal Code(s). However, given that the project site contains potentially expansive soils, Mitigation Measure GEO-4 would be required to ensure impacts are reduced to a less-than-significant level. **Mitigation Measures:** **All potential impacts have been reduced to less than significant levels with the incorporated mitigation Measures GEO-1 through GEO-5.**
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☐	☐	☒	**No Impact.** The proposed project would include connection to the existing public sewer infrastructure. As such, the construction or operation of septic tanks or other alternative wastewater disposal systems is not included as part of the project. Therefore, no impact regarding the capability of soil to adequately support the use of septic tanks or alternative wastewater disposal systems would occur.
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** Disturbance of paleontological resources or unique geologic features is not anticipated. However, if a previously unknown unique paleontological resource or unique geological feature is encountered during construction activities, the proposed project could result in a disturbance of such resources. Nonetheless, the potential impact would be reduced to less than significant with the incorporated mitigation measures CUL-1 and CUL-2. **Mitigation Measures:** **All potential impacts have been reduced to less than significant levels with the incorporated mitigation Measures GEO-1 through GEO-5 and CUL-1 through CUL-4.**
SECTION VIII. GREENHOUSE GAS EMISSIONS *Would the project:*							
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts. Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr). A number of regulations currently exist related to GHG emissions, predominantly AB 32, Executive Order S-3-05, and Senate Bill (SB) 32. In 2005, Governor Schwarzenegger signed Executive Order S-3-05, which sets forth a target of 1990 levels by 2020, and a long-term target of 80 percent below 1990 levels by 2050. AB 32 (California Global Warming Solutions Act of 2006) codifies the statewide GHG emissions reduction target of 1990 levels by 2020 included in Executive Order S-3-05. Thereafter, in 2016, SB 32 built upon AB 32 by establishing a transitional reduction target of 40 percent below 1990 levels by 2030. As discussed under Section III, Air Quality, for the analysis within this IS/MND, based on the recommendation of the LCAQMD, the City has elected to use the BAAQMD's thresholds of significance for GHG emissions, which were specifically crafted to indicate consistency with AB 32. By using the BAAQMD thresholds of significance for GHG, the City would comply with Section 15064.4(b)(3) of the CEQA Guidelines, which suggests that lead agencies consider the extent that the project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction of GHG emissions. On April 20, 2022, BAAQMD adopted updated thresholds of significance for climate impacts, which included a qualitative approach to assessing GHG impacts. However, the LCAQMD has indicated a preference to continue assessing GHG impacts quantitatively. In addition, according to BAAQMD Resolution No. 2022-06 adopting the CEQA thresholds, the newly adopted thresholds of significance are not applicable to projects that initiated the CEQA process prior to April 20, 2022, such as the proposed project, including the proposed project. As such, for the purposes of the analysis included herein, and consistent with guidance from the LCAQMD and the BAAQMD 2017 CEQA Guidelines, the GHG emissions threshold of significance used in this analysis is whether the proposed project would result in operational GHG emissions in excess of the following: • 1,100 $MTCO_2e$/yr; or • 4.6 $MTCO_2e$/capita/yr. As noted above, the foregoing thresholds are specific to AB 32. SB 32 requires that statewide emissions be reduced by an additional 40 percent beyond the AB 32 reduction goal by the year 2030; therefore, it is reasonable to assume that in order to meet the reduction targets of SB 32, a proposed project would be required to reduce emissions by an additional 40 percent beyond the emissions reductions currently required by BAAQMD for compliance with AB 32. Assuming a 40 percent reduction from the BAAQMD targets which demonstrate compliance with AB 32, a proposed project would be in compliance with SB 32 if the project's emissions do not exceed 660 $MTCO_2e$/yr. The proposed project's GHG emissions were quantified with CalEEMod using the same assumptions as presented in the Air Quality section of this IS/MND, and compared to the thresholds of significance noted above. All CalEEMod results are included in Attachment A to this IS/MND. Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has an adopted threshold of significance for construction-related GHG emissions and does not require quantification. Nonetheless, the proposed project's construction GHG emissions have been estimated. The CalEEMod emissions estimates prepared for the proposed project determined that unmitigated project construction would result in total emissions of 273 $MTCO_2e$ over the course of the project construction period.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							The estimated maximum annual GHG emissions related to operations of the proposed project are presented in Table 5 below. As shown in Table 5, the project's maximum annual unmitigated operational GHG emissions were estimated to be approximately 551 $MTCO_2e$/yr. Thus, implementation of the proposed project would result in operational emissions below the 1,100 $MTCO_2e$/yr threshold of significance for GHG emissions, as well as the adjusted SB 32 threshold of 660 $MTCO_2e$/yr.

Table 5
Unmitigated Operational GHG Emissions

Source	GHG Emissions ($MTCO_2e$/yr)
Area	0.71
Energy	107
Mobile	414
Waste	12.8
Water	3.19
Refrigerants	12.5
Total GHG Emissions	**551**
BAAQMD Threshold	**1,100**
Adjusted SB 32 Threshold	**660**
Exceeds Thresholds?	**NO**

Source: CalEEMod, August 2022 (see Attachment A).

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and impacts would be considered less-than-significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** See Question VIII-a, above.

SECTION IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact**. Hotel developments are not typically associated with the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. On-site maintenance may involve the use of common cleaning products, fertilizers, and herbicides, any of which could contain potentially hazardous chemicals, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the amount anticipated to be used on the site, routine use of such products would not represent a substantial risk to public health or the environment. While transportation of hazardous materials could occur along the proposed roadway extension, the number of vehicles transporting hazardous materials within the City of Clearlake would not increase as a result of the proposed project. In addition, the majority of vehicles expected to travel along the proposed roadway extension are anticipated to be passenger vehicles, which typically do not transport hazardous materials. **Therefore, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a less-than-significant impact would occur.**
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact**. The project site is vacant and consists primarily of ruderal vegetation and wooded areas in the northern portion, and previously disturbed areas in the southern portion. Known hazards (e.g., underground storage tanks, abandoned wells, structures containing lead-based paint or asbestos) are not located on-site. According to the California Department of Toxic Substances Control Envirostor Database, hazardous material sites do not exist at the project site or in the project vicinity.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							Construction activities associated with the proposed project would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. Small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the project site and transported to and from the site during construction. However, the project contractor would be required to comply with all California Health and Safety Codes and local Town ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Thus, construction of the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. As discussed above, during project operation, hazardous materials use would be limited to landscaping products such as fertilizer and pesticides/herbicides. Such chemicals would be utilized in limited quantities according to label instructions. Because the proposed project would involve limited use of hazardous materials, primarily limited to the construction phase of the project, during which the contractor would be required to adhere to all relevant guidelines and ordinances regulating the handling, storage, and transportation of hazardous materials, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and a less-than-significant impact would occur.
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☐	☐	☒	**No Impact.** Schools are not located within one-quarter mile of the project site. The nearest school is Clearlake Creativity School, located approximately 0.7-mile south of site. Therefore, the proposed project would result in no impact related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☐	☐	☒	**No Impact.** The California Environmental Protection Agency provides a list of data resources that provide information regarding the facilities or sites identified as meeting the "Cortese List" requirements, pursuant to Government Code 65962.5. The project site is not located on the Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List, which is a component of the Cortese List. The other components of the Cortese List include the list of leaking underground storage tank sites from the SWRCB's GeoTracker database, the list of solid waste disposal sites identified by the SWRCB, and the list of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from the SWRCB. The project site is not located on any of the aforementioned components of the Cortese List. Thus, the project site is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and no impact would occur.
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☐	☐	☒	**No Impact.** The nearest airport to the site is Lampson Field Airport, which is located approximately 22 miles west of the site. As such, the project site is not located within two miles of any public airports, and does not fall within an airport land use plan area. Therefore, no impact would occur related to the project being located within an airport land use plan or within two miles of a public airport or public use airport, thereby resulting in a safety hazard or excessive noise for people residing or working in the project area.
f) Impair implementation of or physically interfere with an adopted emergency response	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact**. The project would not impair or interfere with an adopted emergency response or evacuation plan. The project has been reviewed by the Lake County Department of Environmental Health, Lake County Special Districts, City of Clearlake Police Department, City of Clearlake's Community Development Department (Building, Public Works, Planning), and the Local Fire Protection

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
plan or emergency evacuation plan?							District/CalFire for consistency with access and safety standards. The City of Clearlake did not receive any adverse comments. During operation, the proposed project would provide adequate access for emergency vehicles and would not interfere with potential evacuation or response routes used by emergency response teams. During construction of the proposed project, all construction equipment would be staged on-site so as to prevent obstruction of local and regional travel routes in the City that could be used as evacuation routes during emergency events. The project would not substantially alter existing circulation systems in the surrounding area. Rather, the proposed roadway extension would have the potential to provide an additional evacuation route in the event of an emergency. As a result, the project would have a less-than-significant impact with respect to impairing the implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan.
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact**. Issues related to wildfire hazards are further discussed in Section XX, Wildfire, of this IS/MND. As noted therein, the project site is not located within a Very High Fire Hazard Severity Zone. Additionally, the proposed project would be required to comply with all applicable requirements of the California Fire Code through the installation of fire sprinkler systems, fire hydrants, and other applicable requirements. The primarily developed nature of the area surrounding the project site generally precludes the spread of wildfire to the site. Thus, the potential for wildland fires to reach the project site would be low. Based on the above, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, and a less-than-significant impact would occur.
SECTION X. HYDROLOGY AND WATER QUALITY *Would the project:*							
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** During the early stages of construction activities, topsoil would be exposed due to grading and excavation of the site. After grading and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality. The State Water Resources Control Board (SWRCB) regulates stormwater discharge associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. Given that the proposed project would disturb more than one acre of land, the proposed construction activities would be subject to applicable SWRCB regulations. For example, the project shall comply the Statewide Construction General Permit No. 2009-009-DWQ (or most current permit). Prior to grading permit issuance, the applicant shall provide the Waste Discharger Identification (WDID) number issued by the SWRCB, and prepare a Storm Water Pollution Prevention Plan (SWPPP). A SWPPP describes Best Management Practices (BMPs) to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project, including post-construction impacts. Compliance with State regulations, including implementation of a SWPPP, would ensure that construction activities associated with the proposed project would not adversely affect water quality. Additionally, the City's Stormwater Management Ordinance (Chapter 14 of the Clearlake Municipal Code) includes regulations and requirements to prevent, control, and reduce stormwater pollutants within the City. The City of Clearlake requires all development projects to use BMPs to treat runoff and ensure that the water quality of the drainage systems within the City is not adversely impacted. Temporary construction phase BMPs may include, but are not limited to, silt fencing, straw wattles, staging areas, tree protection fencing, dust control, and other miscellaneous provisions as required by the regulatory agencies. BMPs would ensure that water quality is not degraded during the construction of the proposed project.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							The proposed project would not involve operations typically associated with the generation or discharge of polluted water. Following project buildout, disturbed areas of the site would be largely covered with impervious surfaces and topsoil would no longer be exposed. Given that the project site is currently undeveloped, development of the proposed project would result in an increase of impervious surfaces on-site. However, stormwater runoff from the new impervious surfaces within the project site would flow into the proposed stormwater drainage system, as well as landscaped areas on-site. During operation, the project would comply with all relevant water quality standards and waste discharge requirements, and would not degrade water quality. Permanent BMPs may include soil stabilization, revegetation, and landscaping of all non-hardscaped disturbed areas of the project site. Based on the above, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Thus, a less-than-significant impact would occur.
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Potable water service for the proposed project would be provided by HMWC. According to a 2021 Drought Contingency Plan prepared by the HMWC, the sole source of water supply for distribution is treated surface water from Clear Lake. As a result, any increase in water demand associated with the proposed project would be primarily met through surface water supply, rather than groundwater. According to the City's General Plan, the City of Clearlake is located within the Burns Valley and Clear Lake Cache Formation groundwater basins. However, the project site represents a relatively small area compared to the overall surface area of the groundwater basins. In addition, a portion of the runoff from the proposed impervious surfaces would percolate through the on-site landscaped areas and recharge the basins. Therefore, any new impervious surfaces associated with the proposed project would not interfere substantially with groundwater recharge within the area. Based on the above, the proposed project would result in a less-than-significant impact with respect to substantially decreasing groundwater supplies, interfering substantially with groundwater recharge, or conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan.
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: i) result in substantial erosion or siltation on-site or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide	☐	☐	☐	☐	☒	☐	**ci-ciii) Less than Significant Impact.** The proposed project would include development of the project site with a hotel, meeting hall, parking lot and associated improvements, as well as the extension of 18th Avenue to connect SR 53 to Old Highway 53. As discussed above, the project site is currently undeveloped and does not contain any impervious surfaces. Therefore, development of the proposed project would result in an increase in impervious surfaces on the project site, which would alter the existing drainage pattern of the site and would result in increased stormwater runoff. However, as discussed above, projects that disturb over one acre of land, including the proposed project, are subject to the NPDES General Permit. The SWPPP required under the NPDES General Permit would prevent substantial on-site erosion and siltation. In addition, a new storm drainage system would be developed within the hotel site, which would provide new storm drain lines throughout the paved areas on-site that would ultimately drain into the new storm drain line within the 18th avenue extension. The various landscaped areas on-site would also provide opportunities for the infiltration of stormwater. The City of Clearlake has been designated as a regulated small MS4 because the City's storm runoff discharges to a sensitive water body (Clear Lake). As such, the proposed project would be subject to the standards established in the MS4 permit, which would require that post-development peak stormwater runoff discharge rates not exceed the estimated pre-development rate. Therefore, the proposed project would not exceed the capacity of existing storm drain infrastructure, cause flooding on- or off-site, or result in off-site erosion or siltation after development of the site, and a less-than-significant impact would occur. **civ) Less than Significant Impact.** Based on the Federal Emergency Management Act (FEMA) Flood Insurance Rate Map (FIRM) Panel 06033C0684D, the project site is shown as being located in Zone X, an area of minimal flood hazard. As such, the proposed project would not include development within a Special Flood Hazard

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
substantial additional sources of polluted run-off; or iv) impede or redirect flood flows?							Area and would not be subject to project-specific design features related to flood hazards. Therefore, development of the proposed project would not impede or redirect flood flows.
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** As discussed above, development of the project would not impede or redirect flood flows. Tsunamis are defined as sea waves created by undersea fault movement. The project site is not located in proximity to a coastline and would not be potentially affected by flooding risks associated with tsunamis. A seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. The project site is not located near the shore of Clear Lake, and, therefore, would not be susceptible to impacts from seiches due to seismic activity.
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** The project would not conflict with or obstruct any water quality or groundwater management plans. Additionally, to control runoff, the proposed project would be required to incorporate appropriate BMPs consistent with the City's Municipal Code and State Storm Water Drainage Regulations to prevent or reduce discharge of all construction and post-construction pollutants into the local storm drainage system. See Questions X-a and X-b, above for further discussion.
SECTION XI. LAND USE AND PLANNING *Would the project:*							
a) Physically divide an established community?	☐	☐	☐	☐	☐	☒	**No impact.** A project risks dividing an established community if the project would introduce infrastructure or alter land uses so as to change the land use conditions in the surrounding community, or isolate an existing land use. Currently, the project site is vacant. Surrounding existing uses include single-family residences to the north, east, and west; a convenience store to the southwest, across Old Highway 53; the former Pearce Airport site to the south; and a storage facility further east. The project would not isolate an existing land use. In addition, the proposed roadway extension would provide a new connection for the residents of Clearlake to travel from SR 53 to Old Highway 53. Therefore, the proposed project would not physically divide an established community.
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** The project site is currently designated Commercial per the City's General Plan and is zoned GC, General Commercial. According to the General Plan, anticipated uses for the Commercial designation include retail trade, commercial services, entertainment, restaurants, fast food, and other commercial uses permitted under the Zoning Code. Hotels are a permitted use within the GC zoning district. Additionally, the applicant has applied for a conditional use permit to allow the onsite sales and consumption of alcoholic beverages associated with the hotel development pursuant to Section 18-19.110 of the City Municipal code/Zoning Ordinance. As such, the project would be consistent with the site's current land use and zoning designations. As discussed throughout this Initial Study, the proposed project would not result in any significant environmental effects that cannot be mitigated to a less-than-significant level by the mitigation measures provided herein. In addition, the proposed project would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect, including, but not limited to, the City's noise standards, applicable SWRCB regulations related to stormwater, and standards set within the City of Clearlake General Plan and General Plan EIR. Therefore, the proposed project would not cause a significant environmental impact in excess of what has already been analyzed and anticipated in the General Plan EIR, and would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
SECTION XII. MINERAL RESOURCES *Would the project:*							
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☐	☐	☒	**No Impact.** According to the City's General Plan, the only active mining taking place within city limits is aggregate mining. However, aggregate mineral resources or other mineral resources of State or local significance are not mapped within the City of Clearlake. **Therefore, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.**
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☐	☐	☒	**No Impact.** See Question XII-a, above.
SECTION XIII. NOISE & VIBRATIONS *Would the project:*							
a) Generate construction noise levels that exceed the Noise Ordinance exterior or interior noise standards at residential properties during the hours that are specified in the City's General Plan Noise Element?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation Measures.** Some land uses are considered more sensitive to noise than others, and, thus, are referred to as sensitive noise receptors. Land uses often associated with sensitive noise receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise. The nearest sensitive receptors include existing single-family residences, located approximately 65 feet east, and 150 feet west, of the project site. Table 7.2 of the City's General Plan establishes maximum non-transportation interior and exterior noise level standards for residential land uses within the City. As shown in the table, the City has established a maximum interior noise level standard of 55 decibels (dB) equivalent continuous sound level (L_{eq}) for residential uses, and maximum exterior noise level standards of 55 dB L_{eq} during daytime (7:00 AM to 10:00 PM) hours, and 45 dB L_{eq} during nighttime (10:00 PM to 7:00 AM) hours. As established in Policy NO 1.5.1 of the City's General Plan, for projects that are required by CEQA to analyze noise impacts, a significant impact may occur regarding stationary and non-transportation noise sources if the project results in an exceedance of the noise level standards contained above, or the project would result in an increase in ambient noise levels by more than 3 dB, whichever is greater. In addition, where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in roadway noise levels would be considered significant; where existing traffic noise levels range between 60 and 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in roadway noise levels would be considered significant; and where existing traffic noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB L_{dn} increase in roadway noise levels would be considered significant. It should be noted that the standards included in the City's General Plan do not apply to construction activities which are conducted according to City regulations. City regulations for construction activities are contained in Section 5-4 of the Clearlake Municipal Code. As noted therein, noise in excess of 65 dB at a distance within 50 feet of any dwelling or transient accommodation shall not be produced between the hours of 7:00 AM and 10:00 PM, except, pursuant to permission granted by the Building Official in any case where a building permit has been obtained, or by the City Engineer in any case where public work not requiring a building permit is being performed, construction equipment may be operated during daylight hours which produces noise up to a level of 80 dB when measured at a distance of 100 feet from the source. According to the General Plan, compliance

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.

with the City's construction requirements would be sufficient to reduce construction-related noise impacts to a less than significant level.

The following sections provide an analysis of potential noise impacts associated with construction and operation of the proposed project.

Construction Noise

Heavy-duty equipment would be used during construction of the proposed project, which would result in temporary noise level increases. Project haul truck traffic on local roadways would also result in a temporary noise level increase during construction activities. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on the proximity of construction activities to that point. Standard construction equipment, such as graders, backhoes, loaders, and haul trucks would be used on-site. Table 6 shows maximum noise levels associated with typical construction equipment.

Table 6
Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.

Based on the table, activities involved in typical construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet. As noted previously, the construction noise standards established in the Clearlake Municipal Code allow noise levels up to 65 dB within 50 feet of any single-family residential uses.

As one increases the distance between equipment, or increases separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of combining separate noise sources. The noise levels from a source decrease at a rate of approximately 6 dB per every doubling of distance from the noise source. The nearest single-family residence to the east would be approximately 65 feet from the eastern boundary of the project site. As such, construction noise levels associated with the proposed project would be slightly less than the noise levels presented Table 6; however, noise levels would still be above the noise standards established in the City's Municipal Code.

It should be noted that if permission is granted by the Building Official in any case where a building permit has been obtained, or by the City Engineer in any case where public work not requiring a building permit is being performed, construction equipment operated during daylight hours is would be allowed to produce noise up to a level of 80 dB when measured at a distance of 100 feet from the source. The construction equipment at the project site would generate noise levels within 80 dB when measured at a distance of 100 feet from the source, and, thus, would be allowed if permission is granted by the Building Official or City Engineer. However, as permission has not yet been granted, the relevant standard would be the City's 65 dB standard for noise levels within 50 feet of any single-family residential uses

Based on the above, noise levels at the nearest sensitive receptors would be reduced from the noise levels presented in Table 6, but would exceed the noise level thresholds that have been established by the City's Municipal Code. Therefore, the

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							use of noise-dampened equipment would be required during project construction to ensure that a substantial temporary or periodic increase in ambient noise levels in the project vicinity associated with construction of the proposed project would not occur. *Operational Noise* The following includes a discussion of impacts associated with noise generated by the proposed hotel and roadway extension. *Hotel Operations* Operations associated with the proposed hotel would generate noise primarily associated with the on-site meeting hall and rooftop heating, ventilation, and air conditioning (HVAC) units, as well as traffic noise generated by the proposed project. As discussed above, the on-site meeting hall would operate between the hours of 8:00 AM at the earliest to midnight at the latest and would be used for events, including, but not limited to tradeshows, weddings, and conferences. However, events would occur primarily indoors, with the exception of an outdoor patio which would allow for the use of low amplified music until 9:00 PM. The nearest sensitive receptors would be located approximately 170 feet west and 412 feet east of the meeting hall. According to a Noise Study prepared for Placer County which assessed typical sound levels for outdoor events, the typical noise levels generated from a smaller event with amplified speech and music at a distance of 50 feet were 72 dB $L_{eq.}$ As discussed above, the City's maximum interior and daytime exterior noise level standard for residential uses is 55 dB, and the maximum exterior noise level standards during nighttime hours is 45 dB. However, according to Table 7.2 of the City's General Plan, the exterior noise levels shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises (e.g., humming sounds, outdoor speaker systems). As such, the exterior noise level standards would be adjusted to 50 dB and 40 dB during daytime and nighttime hours, respectively. According to the aforementioned Noise Study, in order for amplified speech/music to be within the 50 dB L_{eq} noise contour, a 550-foot distance between the event and the sensitive receptor would be required. Given that the nearest sensitive receptors are located within 550 feet of the outdoor patio of the meeting hall, outdoor noise associated with events would exceed the City's daytime noise level standard of 50 dB L_{eq} for residential uses. It should be noted that because music would not occur past 9:00 PM, nighttime noise impacts associated with the proposed meeting hall are not anticipated to occur. Nonetheless, because the City's daytime noise level standard of 50 dB L_{eq} for residential uses would be exceeded at the nearest sensitive receptors, Mitigation Measure NOI-2 would be required to ensure impacts associated with the on-site meeting hall are less-than-significant. The proposed project would include roof-top mechanical equipment, such as HVAC systems. Information regarding the type and size of the mechanical equipment units to be used in the project is not currently available. However, typical air conditioning units and heat pumps range from approximately 50 to 60 dBA L_{eq} at a distance of 50 feet. While the nearest residence to the project site is located approximately 70 feet from the eastern project boundary, the proposed hotel building is centrally located within the site, Therefore, the nearest residence would be located approximately 230 feet from the rooftop HVAC equipment. As discussed above, noise levels from a source decrease at a rate of approximately 6 dB per every doubling of distance from the noise source. Therefore, the HVAC equipment noise is not expected to exceed the City's maximum interior noise level standard of 55 dB for residential uses, or maximum exterior noise level standards of 55 dB during daytime (7:00 AM to 10:00 PM) hours, and 45 dB during nighttime (10:00 PM to 7:00 AM) hours. According to the Transportation Impact Study (TIS) prepared for the proposed project, traffic generated by the proposed project would result in approximately 599 daily trips. As shown in Figure 4.12-1(d) of the General Plan EIR, Year 2040 ambient noise level conditions within the project area would be approximately 60

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							to 65 dB L_{dn}, upon full buildout of the General Plan; therefore, the threshold of significance for traffic noise level increases attributable to the proposed project would be 3 dB. Generally, a doubling in traffic volumes is required to increase traffic noise levels by 3.0 dB. According to the General Plan EIR, daily traffic volumes along SR 53 range from 19,000 vehicles per day near the southern end of the roadway to 10,000 vehicles per day near SR 20. Given the relatively small number of trips generated by the proposed project, a reasonable assumption can be made that the proposed project would not be expected to double traffic volumes on local roadways. Thus, the proposed project would not substantially increase traffic noise in the project vicinity. In addition, because the proposed project is consistent with the site's current land use and zoning designation, traffic noise level increases associated with commercial development on the project site have been previously anticipated by the City. *Roadway Extension Operations:* Operations associated with the proposed roadway extension would generate noise associated with vehicle traffic. However, as discussed above, traffic generated by the proposed project would result in approximately 599 daily trips, which would not substantially increase traffic noise in the project vicinity. In addition, according to the Clearlake General Plan, most streets within the City of Clearlake are considered local streets, which are defined as streets that have two lanes and provide access for smaller residential subdivisions which are characteristic of low speed, low-capacity roads that provide direct access to adjacent land uses and are typically meant only for local, as opposed to through traffic. The 18th Avenue extension would be considered a local street, and thus, would not be expected to experience a substantial amount of traffic beyond what is anticipated for the proposed hotel. Furthermore, the nearest sensitive receptor to the proposed roadway would be the single-family residences located approximately 250 feet north of the site. As discussed above, the noise levels from a source decrease at a rate of approximately 6 dB per every doubling of distance from the noise source. **Therefore, traffic noise levels generated by the proposed roadway extension would be substantially reduced at the nearest sensitive receptors.** **As such, the proposed roadway extension would not generate a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and a less-than-significant impact would occur**. **Mitigation Measures:** **NOI-1: Permanent potential noise sources such as, generators used for power shall be designed and located to minimize noise impacts to surrounding properties.** **NOI-2: During construction noise levels shall not exceed 65 decibels within fifty (50) feet of any dwellings or transient accommodations between the hours of 7:00 AM and 6:00 PM. This threshold can be increased by the Building Inspector or City Engineer have approved an exception in accordance with Section 5-4.4(b)(1) of the City Code. An exception of up to 80 decibels may be approved within one hundred (100) feet from the source during daylight hours. Project is expected to result in less than significant impacts with regards to noise and vibration.**
b) Generate a substantial temporary (non- construction) or permanent increase in vibration at existing sensitive receptors in	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
the vicinity of the project site?							Vibration is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 7, which was developed by Caltrans, shows that the vibration levels that would normally be required to result in damage to structures range from 0.2 to 0.6 in/sec PPV.

Table 7
Effects of Vibration on People and Buildings

PPV		Human Reaction	Effect on Buildings
mm/sec	in/sec		
0.15 to 0.30	0.006 to 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling – houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10 to 15	0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.

The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration.

The primary vibration-generating activities associated with the proposed project would occur during grading, placement of underground utilities, and construction of foundations. Although noise and vibration associated with the construction of the project would add to the noise and vibration environment in the immediate project vicinity, construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Table 8 shows the typical vibration levels produced by construction equipment at various distances. The most substantial source of groundborne vibrations associated with project construction would be the use of vibratory compactors. Use of vibratory compactors/rollers could be required during construction of the proposed on-site drive aisles and parking areas. However, at a distance of 26 feet or greater, vibration levels from such equipment would be below the 0.20 in/sec threshold recommended by Caltrans.

The proposed construction activities would occur at a distance of approximately 70 feet from the nearest existing single-family residence to the east. According to the vibration levels shown in Table 8, groundborne vibration at the nearest receptor would be below the 0.20 in/sec PPV threshold established by Caltrans for architectural damage to buildings. Therefore, the proposed project would not expose people to or

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							generate excessive groundborne vibration or groundborne noise levels and a less-than-significant impact would occur.

Table 8
Vibration Levels for Various Construction Equipment

Type of Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)	PPV at 100 feet (in/sec)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210	0.074	0.026

Source: ***Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.***

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels and generate excessive ground borne vibration?	☐	☐	☐	☐	☐	☒	**No Impact.** The nearest airport to the site is Lampson Field Airport, which is located approximately 22 miles west of the site. As such, the project site is not located within the vicinity of a private airstrip, an airport land use plan, or within two miles of a public airport or public use airport. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels or excessive ground borne vibration.

SECTION XIV. POPULATION AND HOUSING

Would the project:

a) Induce substantial unplanned population growth in an area, either directly or indirectly?	☐	☐	☐	☐	☐	☒	**No Impact**. The proposed project would include the development of a hotel and roadway extension on a site that is currently designated for commercial uses. Given that the project would not include any residential development, the project would not directly induce population growth. While the proposed project would include the creation of new jobs, which could potentially result in an increase in the housing demand in the area, such an increase would be minimal due to the relatively small scale of the proposed project. In addition, given that the project is consistent with the site's current land use and zoning designations, potential growth associated with development of the site has been anticipated by the City and analyzed in the City of Clearlake General Plan EIR.
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐	☐	☒	**No Impact.** The proposed project would not result in the destruction of any permanent or temporary residences. As such, the proposed project would not displace a substantial number of existing housing or people and would not necessitate the construction of replacement housing elsewhere.

SECTION XV. PUBLIC SERVICES

Would the project:

Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for	☐	☐	☐	☐	☒	☐	a-b) **Less Than Significant Impact.** Fire protection services are currently provided to the site by the Lake County Fire Department (LCFPD). The nearest fire station to the project site is Station #71, located approximately 0.7 miles from the project site by way of Old Highway 53. The City of Clearlake Police Department provides police protection services at the project site. The City's Police Department headquarters is located at 14050 Olympic Drive, approximately 2.7 miles from the project site.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: a) Fire Protection? b) Police Protection? c) Schools? d) Parks? e) Other public facility?							The General Plan EIR determined that implementation of General Plan goals, policies, and actions would ensure that build-out of the General Plan would result in a less than significant impact with respect to fire and police protection services. Furthermore, new or expanded fire protection facilities would not be required as a result of the proposed project. Because the proposed project is consistent with the project site's current General Plan and zoning designations, potential increases in demand for fire and police protection services associated with buildout of the site have been anticipated by the City and analyzed in the General Plan EIR. Furthermore, the project would comply with all applicable State and local requirements related to fire safety and security, including installation of fire sprinklers. Compliance with such standards would minimize fire and police protection demands associated with the project. Therefore, the proposed project would have a less-than-significant impact related to the need for new or physically altered fire or police protection facilities, the construction of which could cause significant environmental impacts. c-e) **Less Than Significant Impact**. The proposed project would not include any residential development and, thus, would not result in population growth such that demand for schools, parks, or other public facilities would increase substantially. In addition, the project would be subject to payment of School Impact Mitigation Development Fees to fund local school services. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act…involving …the planning, use, or development of real property" (Government Code 65996(b)). Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation." Furthermore, the project would be subject to payment of the City's park and recreation facility fee in accordance with Chapter 3-8 of the Clearlake Municipal Code. The fee would help to fund expanded park facilities and services within the City. Therefore, the proposed project would have a less-than-significant impact related to the need for new or physically altered schools, parks, or other public facilities, the construction of which could cause significant environmental impacts.
SECTION XVI. RECREATION *Would the project:*							
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☐	☐	☒	**No Impact.** The proposed project would include the development of a hotel on a site designated for commercial uses. The proposed project would not result in population growth that could result in increased demand on existing recreational facilities or cause the construction or expansion of recreational facilities.
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☐	☐	☒	**No Impact.** See Question XVI-a, above.
SECTION XVII. TRANSPORTATION *Would the project:*							
a) Conflict with a program plan, ordinance or policy addressing the circulation system,	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** The law has changed with respect to how transportation-related impacts may be addressed under CEQA. Traditionally, lead agencies used level of service (LOS) to assess the significance of such impacts, with greater levels of congestion considered to be more significant than lesser levels. Enacted as part of Senate Bill 743 (2013), PRC Section 21099, subdivision (b)(1),

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
including transit, roadway, bicycle, and pedestrian facilities?							directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption proposed CEQA Guidelines addressing "criteria for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." Pursuant to SB 743, the Natural Resources Agency promulgated CEQA Guidelines Section 15064.3 in late 2018. It became effective in early 2019. Subdivision (a) of that section provides that generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact." Please refer to Question XVII-b, below, for a discussion of VMT. A TIS was prepared for the proposed project by W-Trans (Attachment D). The TIS included an assessment of potential project-related impacts on transit, bicycle, and pedestrian facilities within the City, as discussed below. <u>Transit Facilities</u> Lake Transit provides fixed route bus service in the City of Clearlake and throughout Lake County. Lake Transit Route 10 provides loop service throughout the western portion of the City and stops on Old Highway 53 at the location of the proposed intersection with the 18th Avenue Extension. Route 10 operates Monday through Friday with approximately one-hour headways between 5:10 AM and 7:10 PM. Route 11 provides loop service in the central portion of the City and stops on 18th Avenue near the intersection with SR 53. Route 11 operates Monday through Friday between 7:20 AM and 5:20 PM. Dial-a-ride, also known as paratransit, or door-to-door service, is available for residents who are unable to independently use the transit system due to a physical or mental disability. Lake Transit Dial-A-Ride and Flex Stops are designed to serve the needs of individuals with disabilities within Clearlake. Existing stops are within an acceptable walking distance of the site and would be reachable upon completion of the proposed sidewalk improvements, and transit ridership generated by the proposed project could be accommodated by existing transit facilities within the City. Therefore, the proposed project would not conflict with a program, plan, ordinance, or policy related to the City's transit facilities. <u>Bicycle Facilities</u> In the project area, Class II bike lanes exist on Old Highway 53 and segments of 18th Avenue, Phillips Avenue, Dam Road, and Garner Avenue. Additional Class II bike lanes are planned on Boyles Avenue. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project study area. As part of the project, Class II bike lanes would be provided on the 18th Avenue Extension. The improvements along 18th Avenue, together with existing bicycle lanes on Old Highway 53 and the planned facilities outlined in the County's Active Transportation Plan would provide adequate access for bicyclists within the project vicinity. Thus, the proposed project would not conflict with a program, plan, ordinance, or policy related to the City's bicycle facilities. <u>Pedestrian Facilities</u> Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting and benches. In general, the sidewalk network surrounding the project site is very limited. Sidewalk gaps along connecting roadways impact convenient and continuous access for pedestrians and may present safety concerns in the locations where appropriate pedestrian infrastructure would address potential conflict points. In general, intermittent sidewalks are provided on the west side of Old Highway 53 north of the project site; however, lighting is not provided. In addition, sidewalks are not currently provided on 18th Avenue or along SR 53, though crosswalks with pedestrian phasing

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							and curb ramps exist on all four legs of the signalized intersection of SR 53 and 18th Avenue. Most hotel guests are expected to use a vehicle to reach the project site, though given the proximity of residential uses surrounding the site, a reasonable assumption can be made that some project employees may want to walk, bicycle, and/or use transit to travel between the project site and surrounding areas. Additionally, once the Airport property is redeveloped, a potential exists for substantial pedestrian travel between the hotel and other commercial and restaurant uses within the Airport redevelopment site. Upon construction of sidewalks along both sides of the extension of 18th Avenue, as proposed, the project site would be connected to the existing and planned pedestrian network. A network of sidewalks would also be provided throughout the project site resulting in connected on-site pedestrian circulation. Therefore, the proposed project would not conflict with a program, plan, ordinance, or policy related to the City's pedestrian facilities. **Conclusion** **Based on the above, a less than significant impact would occur related to conflicting with a program, plan, ordinance, or policy addressing the circulation system, including transit, bicycle, and pedestrian facilities.**
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel. The City of Clearlake has not yet adopted a policy or thresholds of significance regarding VMT. Nonetheless, the Governor's Office of Planning and Research (OPR) released a Technical Advisory to evaluate transportation impacts pursuant to CEQA, which includes screening thresholds to identify when a lead agency may screen out VMT impacts. In addition, Vehicle Miles Traveled Regional Baseline Study (RBS) was prepared for the Lake Area Planning Council (LAPC). As such, guidance from the OPR Technical Advisory and RBS were used within the TIS prepared for the proposed project by W-Trans (Attachment D) to assess project-related VMT impacts. Many of the recommendations in the RBS are consistent with the OPR Technical Advisory. As recommended by CEQA, each component of the proposed project was assessed individually, considering the employee and guest uses separately, and are discussed in further detail below. Employee VMT VMT impacts associated with employees of the proposed project were assessed based on guidance contained in the both the Technical Advisory and the County's RBS, which indicate that an employee-based project generating vehicle travel that is 15 or more percent below the existing average countywide VMT per worker may indicate a less-than-significant VMT impact. OPR encourages the use of screening maps to establish geographic areas that achieve the 15 percent below regional average thresholds, allowing jurisdictions to screen projects in specific areas from quantitative VMT analysis because impacts can be presumed to be less than significant. The RBS includes a link to a web-based VMT screening tool that can be used to screen employment-based projects that are located in low VMT-generating areas. The tool uses data from the Wine Country Travel Demand Model (WCTDM) to compare the home-based VMT per worker for the Traffic Analysis Zone (TAZ) in which a study parcel is located to the same measure for the County as a whole. The tool projects the Countywide average baseline VMT per worker to be 12.3 miles per day in 2022. A project generating a VMT that is 15 percent or more below this value, or 10.5 miles per employee or less per day, would have a less-than- significant VMT impact.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							The project site is located within TAZ 1915, which is bounded by Spruce Avenue to the west, Victor Street to the north, the proposed 18th Avenue Extension to the south, and Armijo Avenue to the east, and has a baseline VMT per employee of 6.8 miles per day. Because the per capita VMT ratio is below the significance threshold of 10.5 miles per day, the VMT generated by employees of the proposed project would be considered to have a less-than-significant VMT impact. Guest VMT The OPR Technical Advisory does not specifically address hotel or visitor-based uses, indicating that lead agencies may develop their own thresholds for such land use types and allowing assessment on a case-by-case basis. The proposed hotel requires consideration of the project's intended visitor base and where customers would otherwise have stayed if the project were not constructed. Unless a hotel project also includes construction of a major new attraction or convention component, a hotel alone is unlikely to draw new visitors to the County. Rather, the hotel would just redistribute where visitors stay. The shift in travel patterns and VMT is similar to how OPR considers retail uses, in which many types of retail projects may generally be presumed to have a less-than-significant VMT impact because the total amount of shopping that occurs in a given geographic area tends to remain unchanged, and adding new retail uses to the urban fabric often reduces the distances (i.e., the "miles" in VMT) that people need to drive on shopping trips. The City of San Jose was an early adopter of VMT thresholds and has chosen to apply the methodology of treating lodging uses similarly to retail, where small- to mid-sized hotels and other lodging uses can be expected to shift travel patterns rather than generate new VMT and can generally be presumed to have a less-than-significant transportation-related VMT impact. The OPR Technical Advisory notes that retail development including stores less than 50,000 sf can generally be considered local-serving. The proposed hotel would consist of 44,158 sf, with an additional 4,244 sf meeting hall. As a result, the project would be below 50,000 sf and, therefore, would be considered local-serving. The proposed hotel would be operated by Marriott under the "Fairfield Inn" line, which are self-described business hotels. The Fairfield Inn website states the goal of the hotel is to provide "simple, straightforward, and stress-free experiences that the brand is known for." Business hotels are typically chosen out of convenience and proximity to the travelers' destination, and are not considered a destination themselves, as opposed to a resort-style hotel which could be considered a destination. While larger resort hotels have the potential to generate interregional trips specifically for the purpose of visiting the hotel, business hotels typically do not. Further, several other existing hotels are located near Lakeshore Drive to the north of the project site, which indicates that future guests of the proposed hotel would likely shift from staying at one of the other nearby hotels. Finally, the project would be anticipated to generate predominantly business travelers whose travel patterns could reasonably be expected to be similar to employees, which have been identified as having a less-than- significant VMT impact. Given the aforementioned characteristics, W-Trans determined that few, if any, net new hotel guest trips added to the Lake County region would be exclusively attributable to the project. Accordingly, guests of the proposed hotel project would be expected to result in a less-than-significant VMT impact. **Conclusion** **Based on the above, the proposed project is presumed to have a less-than-significant impact on VMT, and the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).**
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** The Transportation Impact Analysis prepared for the proposed project included an evaluation of traffic safety issues in terms of the adequacy of sight distance and need for turn lanes at the project access as well as the adequacy of stacking space in dedicated turn lanes at the study intersections to accommodate additional queuing due to adding project-generated trips.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							The project site would be accessed through a driveway on the north side of the new 18th Avenue Extension. The driveway would be located approximately 300 feet east of the proposed Old Highway 53/18th Avenue Extension intersection. <u>Sight Distance</u> Sight distances along Old Highway 53 at the proposed intersection with 18th Avenue near J & L Market and along 18th Avenue at the project driveway were evaluated based on sight distance criteria contained in the Caltrans Highway Design Manual. For the posted speed limit of 35 miles per hour (mph) on Old Highway 53, the minimum corner sight distance needed at the proposed intersection is 385 feet. Sight lines were field measured to extend approximately 400 feet in each direction, which is adequate for the posted speed limit. Additionally, adequate stopping sight distances are available for following drivers to notice and react to a preceding motorist slowing to turn right or stopped waiting to turn left onto 18th Avenue. While 18th Avenue does not have a posted speed limit, travel speeds are anticipated to be 25 to 35 mph so a design speed of 35 mph was used to evaluate the adequacy of stopping sight distance at the proposed hotel driveway location. For speeds of 35 mph, the minimum stopping sight distance needed is 250 feet. According to W-Trans, sight lines would extend at least 300 feet in each direction given the straight orientation of 18th Avenue, which would be more than adequate for anticipated travel speeds. <u>Left-Turn Lane Warrants</u> The need for a left-turn lane on the 18th Avenue Extension at the project driveway and on Old Highway 53 at the intersection with the 18th Avenue Extension were evaluated based on criteria contained in the National Cooperative Highway Research Program (NCHRP) Intersection Channelization Design Guide, as well as an update of the methodology developed by the Washington State Department of Transportation and published in the *Method for Prioritizing Intersection Improvements.* Using Future plus Project volumes, which represent worst-case conditions, the TIS determined that a left-turn lane would not be warranted on the 18th Avenue Extension at the project driveway. However, a left-turn lane would be warranted on Old Highway 53 at the intersection with 18th Avenue. Therefore, the TIS recommended that the intersection be designed to include a southbound left-turn lane on Old Highway 53. As shown on Figure 14 of this Initial Study, the proposed project would include the construction of a left-turn lane, as recommended by the TIS. *Left-Turn Lane Design Requirements* In order to determine the necessary storage length for the left-turn lane on Old Highway 53, the projected maximum left-turn queue was determined using a methodology contained in Institute of Transportation Engineers (ITE) Estimating Maximum Queue Length at Unsignalized Intersections Report. Under Future plus Project volumes, the maximum southbound left-turn queue on Old Highway 53 would be less than three vehicles. Therefore, the TIS recommended that the storage be based on three passenger vehicles, or 75 feet. <u>*Queuing*</u> The City of Clearlake does not prescribe thresholds of significance regarding queue lengths. However, an increase in queue length due to project traffic was considered a potentially significant impact if the increase would cause the queue to extend out of a dedicated turn lane into a through traffic lane where moving traffic would be impeded, or the back of queue into a visually restricted area, such as a blind corner. As presented in the TIS, the existing turn lanes at the SR 53/18th Avenue intersection are expected to have adequate storage capacity to accommodate queuing under all scenarios. Therefore, the proposed project would not be expected to cause any queues to exceed available storage or extend into an adjacent intersection, so the impact is considered less than significant.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							Conclusion **Based on the above, the proposed project would not result in impacts related to sight distance or queueing. However, a left-turn lane would be warranted on Old Highway 53 at the intersection with 18th Avenue. Nonetheless, the project would include the construction of a left-turn lane, as recommended by the TIS. Therefore, impacts would be less-than-significant.**
d) Result in inadequate emergency access?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** Emergency response vehicles would access the project site from the 18th Avenue Extension through the project driveway, which would have a width of 30 feet. A 30-foot driveway would be adequate to satisfy the required minimum driveway width of 24 feet set forth in the City of Clearlake's Design and Construction Standards. On-site circulation would include a 25-foot drive aisle, which also exceeds the minimum width of 24 feet. In addition, all aspects of the site including driveway widths and parking lot circulation would be designed in accordance with applicable standards; therefore, access would be expected to function acceptably for emergency response vehicles. While the proposed project would be expected to result in a minor increase in delay for traffic on SR 53 at the 18th Avenue intersection, emergency response vehicles can claim the right-of-way by using lights and sirens; therefore, the project would be expected to have a nominal effect on emergency response times. It should also be noted that the proposed extension of 18th Avenue to Old Highway 53 would be expected to shift some trips away from the SR 53 intersections with Lakeshore Drive and Dam Road; therefore, reducing delay at the intersections and potentially improving emergency response times. Further, the new section of 18th Avenue would be a more direct route to many homes on the west side of SR 53 south of Lakeshore Drive and north of Dam Road so the emergency response times to dwellings in the area would likely be improved. **Conclusion: Based on the above, emergency access and on-site circulation are anticipated to function acceptably with incorporation of applicable design standards into the site layout, and traffic from the proposed project is expected to have a less-than- significant impact on emergency response times.**
SECTION XVIII. TRIBAL CULTURAL RESOURCES *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*							
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** As discussed in Section V, Cultural Resources, of this IS/MND the Cultural Resource Investigation prepared for the proposed project included a records search and literature review. In addition, in compliance with the City's Native American Tribal Consultation Program, Sub-Terra initiated tribal coordination with the Koi Nation of California to request any information that tribal representatives might provide regarding the cultural significance of the project area, and any interests or concerns the tribe may express regarding the project activity. Representatives of the Koi Nation expressed concern regarding a home that was historically occupied by a tribal member within the project vicinity. However, the home was located approximately 0.2-mile south of the project area. Nonetheless, the tribe asked that the City proceed with all due caution, and to continue coordination with the Koi Nation Tribal Council on all work scheduled for the proposed project. In compliance with AB 52 (Public Resources Code Section 21080.3.1), notification of the project was sent to local tribes by the City of Clearlake. The Habemetotel tribe requested consultation which occurred in March 2022. Although the project area has been subject to a records search and an archeological field survey, and tribal cultural resources were not discovered on the project site, unknown tribal cultural resources have the potential to be uncovered during ground-disturbing activities at the proposed project site. Therefore, the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource. Compliance with Mitigation Measures CUL-1 and CUL-2, as described in Section V, above, would be required to ensure impacts would be less than significant.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							Mitigation Measures: **All potential impacts have been reduced to less than significant levels with the incorporated mitigation Measures GEO-1 through GEO-5 and CUL-1 through CUL-4.**
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** See Question XVIII-a, above. **Mitigation Measures:** **All potential impacts have been reduced to less than significant levels with the incorporated mitigation Measures GEO-1 through GEO-5 and CUL-1 through CUL-4.**
SECTION XIX. UTILITIES AND SERVICE SYSTEMS *Would the project:*							
a) Require the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, or natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Utilities developed as part of the proposed roadway extension would include water, sewer, and storm drainage by way of an extension of a 10-inch water line, a 6-inch sanitary sewer line, a 10-inch sanitary sewer line, a 12-inch sanitary sewer force main, and storm drain utilities. All utility mains would extend from SR 53 to Old Highway 53. The physical impacts associated with such utility infrastructure have been addressed throughout this IS/MND. All utilities for the proposed hotel would be provided by way of connections to the new utility infrastructure located within the 18th Avenue extensions, as well as existing infrastructure located within the project vicinity. In addition, the proposed project is consistent with the project site's General Plan land use designation, so utility demand for the proposed project has generally been anticipated by the City. Therefore, the proposed project would result in a less-than-significant impact related to the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** The proposed project would be served potable water by Highlands Mutual Water Company (HMWC), which services residential and non-residential customers within the central portion of the City of Clearlake. HMWC supplies customers with treated surface water from nearby Clear Lake through the use of four water storage tanks and over 42 miles of pipelines throughout the service area. According to the HMWC 2021 Drought Contingency Plan, the HMWC has implemented a four-stage process to combat drought conditions. The four stages are as follows: • Stage 1 – Voluntary conservation and compliance with State conservation regulations and requirements. Emphasis on community awareness and outreach. • Stage 2 – Initiate mandatory conservation measures (implement of a surcharge for violations must be through a "Water Waste" Urgency Ordinance). • Stage 3 – Through additional Urgency Ordinances, implement additional mandatory conservation measures including but not limited to revised water rates (base and usage) to financially discourage non-essential water use and surcharges for usage over designated threshold.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							• Stage 4 – Implement Urgency Ordinance with stringent consumption tiers, limits, and penalties. The stages are typically seasonal; however, if the HWMC service area experiences additional dry periods, or ongoing capacity issues, the stages could remain in effect for a longer period of time. In 2006, a Water Demand Forecast was prepared for Lake County by the Lake County Watershed Protection District. The Water Demand Forecast was based on information provided in the County's Water Inventory and Analysis report, which analyzed water resources within the County. Based on the Water Demand Forecast, urban water demand was anticipated to increase 81 percent, from 10,900 acre-feet per year in 2000 to 19,738 acre-feet per year by the year 2040. However, the Water Demand Forecast used a high population projection estimate that the City of Clearlake would grow to 20,196 residents by 2040, as compared to the projected population of 18,702 residents anticipated by the City's 2040 General Plan. Therefore, the General Plan EIR concluded that because the County anticipated a much larger population growth than what was anticipated for buildout of the City's General Plan, water purveyors would be prepared to provide services for the City, and with implementation of General Plan policies, which would help to further reduce water consumption within the City, a less-than-significant impact would occur. The proposed project would include development of the project site with a hotel, consistent with the site's current General Plan land use and zoning designations. Given that the project is consistent with the City's General Plan, water demand associated with buildout of the project site with commercial uses has been anticipated by the City and accounted for in regional planning efforts, including the Water Demand Forecast. In addition, the project would comply with Section 18-20.130 of the City's Municipal Code, which contains the City's Water Efficient Landscape Ordinance. Therefore, HMWC would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and a less-than-significant impact would occur.
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** The Lake County Sanitation District (LACOSAN) provides wastewater services in the City of Clearlake. The City of Clearlake is within the Southeast Regional Wastewater Collection and Treatment System of the LACOSAN. According to the City's General Plan EIR, full buildout of the General Plan could potentially result in an increased sewer treatment demand at Southeast Regional Wastewater Treatment Plant (SRWTP). The SRWTP has a permitted monthly average wet weather flow of 6.1 million gallons per day (mgd), and a permitted daily maximum wet weather flow of 8.5 mgd; however, wet weather flows typically average between two and three mgd during wet weather months, with a peak flow of 6.2 mgd. Given the available monthly average wet weather capacity of 3.1 mgd, and the maximum wet weather capacity of 2.3 mgd, the General Plan EIR determined that an increase of one mgd that would result from the General Plan buildout could be accommodated without expanded capacity and facilities. The proposed project is consistent with the site's current General Plan land use designation. Thus, the demand for wastewater collection and treatment facilities associated with buildout of the site have been anticipated by the City and analyzed in the General Plan EIR. **Conclusion: Based on the above, the City would have adequate capacity to serve the wastewater demand projected for the proposed project in addition to the City's existing commitments, and a less-than-significant impact would occur.**
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Solid waste, recyclable materials, and compostable material collection within the project area is provided by Clearlake Waste Solutions. The nearest active landfill to the project site is Eastlake Landfill in Clearlake, California, located approximately 28 miles from the site. The Eastlake Landfill has a daily permitted disposal of approximately 200 tons per day, and a maximum permitted capacity of 6.05 million cubic yards. The Eastlake Landfill is expected to remain active until the year 2023, and has a remaining capacity of approximately

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
attainment of solid waste reduction goals?							2.86 million cubic yards. However, the Lake County Public Services Department is proposing an expansion of the Landfill to extend the landfill's life to approximately the year 2046; increasing the landfill footprint from 35 acres to 56.6 acres. The expansion is proposed to begin in 2023 and will take place in phases, with modules constructed every four to nine years. Pursuant to the CALGreen Code, at least 65 percent diversion of construction waste is required for projects permitted after January 1, 2017. Because the project would only create a temporary increase in the amount of waste during construction activities, the proposed project would not result in a significant impact related to solid waste generation during construction. With respect to operational solid waste generation, the proposed project would not be expected to generate substantial amounts of solid waste due to the relatively small scale of the project. In addition, because the proposed project is consistent with the project site's current General Plan land use and zoning designations, the proposed project would not result in increased solid waste generation beyond what has been previously anticipated for the site by the City and analyzed in the General Plan EIR. **Therefore, the proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals and would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. Therefore, a less-than-significant impact would occur.**
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** See Question XIX, d, above.
SECTION XX. WILDFIRE *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:*							
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact**. The project site is not located within a Very High Fire Hazard Severity Zone nor within a State Responsibility Area (SRA). Additionally, the proposed project would be required to comply with all applicable requirements of the California Fire Code through the installation of fire sprinkler systems, fire hydrants, and other applicable requirements. The developed nature of the area surrounding the project site generally precludes the spread of wildfire to the site. Thus, the potential for wildland fires to reach the project site would be low. According to the TIS, all study intersections are expected to operate at acceptable Levels of Service under Existing, near-term Baseline, and Future conditions with and without the addition of trips from the proposed project assuming implementation of side-street stop controls at the proposed Old Highway 53/18th Avenue Extension intersection. In addition, the proposed roadway extension would have the potential to provide an additional evacuation route in the event of an emergency. Therefore, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the	☐	☐	☐	☐	☒	☐	**Less than Significant Impact**. See Question XX-a, above. The proposed project would not exacerbate wildfire risks and/or expose persons to pollutant concentrations in the event of a wildfire in the area. Additionally, the project would be required to adhere to all Federal, State, and local fire requirements/regulations related to the use of hazardous and/or flammable materials, including all mitigation measures and/or conditions of approval imposed on such use.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
uncontrolled spread of a wildfire?							
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact**. See Question XX-a, above. All infrastructure would be routinely maintained to ensure all Federal, State, and local agency requirements are being satisfied, including all necessary City Codes and/or regulations. Additionally, the proposed project would not include the installation of any infrastructure (i.e., overhead power lines) that would exacerbate fire risk. Furthermore, the construction of fire breaks or fire access roads which could result in temporary or ongoing impacts to the environment would not be required as part of the proposed project.
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact**. See Question XX-a, above. The project site is not located within the direct vicinity of known waterways, nor is the site located within a designated flood zone. Therefore, the risk of flooding/runoff, landslides, slope instability, or drainage changes would not be increased due to the proposed project.
SECTION XXI. MANDATORY FINDINGS OF SIGNIFICANCE							
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** As discussed in Section IV, Biological Resources, of this IS/MND, while the potential exists for special-status plant species, as well as nesting birds and raptors protected by the MBTA, to occur on-site, Mitigation Measures BIO-1 through BIO-4 would ensure that impacts to special-status species would be less than significant. The project site is disturbed and does not contain any known historical resources. However, given that unknown cultural resources have the potential to exist on-site, Mitigation Measures CUL-1 and CUL-2 would ensure that impacts to cultural resources would be less-than-significant. Considering the above, the proposed project would not result in impacts associated with the following: 1) degrade the quality of the environment; 2) substantially reduce or impact the habitat of fish or wildlife species; 3) cause fish or wildlife populations to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history or prehistory. Therefore, with mitigation incorporated, a less-than-significant impact would occur.
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** The proposed project in conjunction with other development within the City of Clearlake could incrementally contribute to cumulative impacts in the project area. However, as demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level through compliance with the mitigation measures included in this IS/MND, as well as applicable General Plan policies, Municipal Code standards, and other applicable local and State regulations.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)							Therefore, when viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would not result in a cumulatively considerable contribution to cumulative impacts in the City of Clearlake, and the project's incremental contribution to cumulative impacts would be less than significant with mitigation incorporated.
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** As described in this IS/MND, the proposed project would comply with all applicable General Plan policies, Municipal Code standards, other applicable local and State regulations, in addition to the mitigation measures included herein. Additionally, as discussed in Section III, Air Quality, Section IX, Hazards and Hazardous Materials, and Section XIII, Noise, of this IS/MND, the proposed project would not cause substantial effects to human beings, including effects related to exposure to air pollutants and hazardous materials, with mitigation incorporated.

INITIAL STUDY SUMMARY: Based on the review of the proposed project site and surrounding area, appropriate mitigation measures were identified to mitigate potentially significant impacts to a level below adversity for Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology & Soils, Noise & Vibration, and Tribal Cultural Resources. Assuming implementation of the identified measures and standard conditions of project approval of the City of Clearlake and other pertinent agencies, no adverse impacts are anticipated.

Attachment A

Air Quality and Greenhouse Gas Modeling Results

Clearlake Airport Property Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

3.3. Grading (2023) - Unmitigated

3.5. Building Construction (2023) - Unmitigated

3.7. Building Construction (2024) - Unmitigated

3.9. Paving (2023) - Unmitigated

3.11. Architectural Coating (2023) - Unmitigated

3.13. Architectural Coating (2024) - Unmitigated

3.15. Linear, Grubbing & Land Clearing (2023) - Unmitigated

3.17. Linear, Grading & Excavation (2023) - Unmitigated

3.19. Linear, Drainage, Utilities, & Sub-Grade (2023) - Unmitigated

3.21. Linear, Paving (2023) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.2. Unmitigated

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Clearlake Airport Property
Lead Agency	City of Clearlake
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	9.20
Location	6356 Armijo Ave, Clearlake, CA 95422, USA
County	Lake
City	Clearlake
Air District	Lake County AQMD
Air Basin	Lake County
TAZ	240
EDFZ	2
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Road Construction	0.20	Mile	1.65	0.00	—	—	—	—
Hotel	75.0	Room	1.82	48,402	27,453	—	—	—
Parking Lot	109	Space	0.98	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.17	10.0	56.9	54.6	0.11	2.54	351	354	2.34	37.9	40.3	—	11,591	11,591	0.41	0.37	4.95	11,716
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.54	10.0	41.6	43.2	0.08	1.75	208	209	1.61	20.8	22.4	—	8,831	8,831	0.36	0.11	0.06	8,873
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.07	2.63	7.91	8.59	0.01	0.35	47.8	48.1	0.33	4.91	5.24	—	1,636	1,636	0.07	0.03	0.25	1,647
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	0.48	1.44	1.57	< 0.005	0.06	8.72	8.78	0.06	0.90	0.96	—	271	271	0.01	< 0.005	0.04	273

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2023	7.17	10.0	56.9	54.6	0.11	2.54	351	354	2.34	37.9	40.3	—	11,591	11,591	0.41	0.37	4.95	11,716
2024	1.82	6.90	12.6	16.2	0.03	0.53	112	113	0.49	11.2	11.7	—	2,930	2,930	0.12	0.06	1.39	2,951
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	5.54	10.0	41.6	43.2	0.08	1.75	208	209	1.61	20.8	22.4	—	8,831	8,831	0.36	0.11	0.06	8,873
2024	1.82	6.91	12.6	16.1	0.03	0.53	112	113	0.49	11.2	11.7	—	2,924	2,924	0.12	0.06	0.04	2,944
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.07	2.08	7.91	8.59	0.01	0.35	47.8	48.1	0.33	4.91	5.24	—	1,636	1,636	0.07	0.03	0.25	1,647
2024	0.65	2.63	4.58	5.81	0.01	0.19	40.8	40.9	0.18	4.08	4.26	—	1,055	1,055	0.04	0.02	0.22	1,062
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.20	0.38	1.44	1.57	< 0.005	0.06	8.72	8.78	0.06	0.90	0.96	—	271	271	0.01	< 0.005	0.04	273
2024	0.12	0.48	0.84	1.06	< 0.005	0.04	7.44	7.47	0.03	0.75	0.78	—	175	175	0.01	< 0.005	0.04	176

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.09	6.19	2.96	21.8	0.03	0.07	95.0	95.0	0.07	14.4	14.5	25.8	3,198	3,224	2.88	0.17	86.6	3,434
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.86	5.98	2.97	18.8	0.03	0.06	95.0	95.0	0.06	14.4	14.5	25.8	3,144	3,169	2.88	0.17	75.9	3,369
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.53	5.62	3.21	20.5	0.03	0.07	95.0	95.0	0.06	14.4	14.5	25.8	3,092	3,118	2.90	0.18	80.4	

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.83	1.03	0.58	3.74	< 0.005	0.01	17.3	17.3	0.01	2.63	2.64	4.27	512	516	0.48	0.03	13.3	551

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.68	4.46	2.57	19.4	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,542	2,542	0.22	0.16	10.9	2,607
Area	0.37	1.71	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	5.09	6.19	2.96	21.8	0.03	0.07	95.0	95.0	0.07	14.4	14.5	25.8	3,198	3,224	2.88	0.17	86.6	3,434
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.82	4.60	2.59	18.5	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,496	2,496	0.22	0.16	0.28	2,550
Area	—	1.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	4.86	5.98	2.97	18.8	0.03	0.06	95.0	95.0	0.06	14.4	14.5	25.8	3,144	3,169	2.88	0.17	75.9	3,369
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	4.30	4.07	2.82	19.1	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,440	2,440	0.24	0.17	4.71	2,502
Area	0.18	1.53	0.01	1.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.27	4.27	< 0.005	< 0.005	—	4.28
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	4.53	5.62	3.21	20.5	0.03	0.07	95.0	95.0	0.06	14.4	14.5	25.8	3,092	3,118	2.90	0.18	80.4	3,325
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.78	0.74	0.51	3.49	< 0.005	0.01	17.3	17.3	0.01	2.63	2.63	—	404	404	0.04	0.03	0.78	414
Area	0.03	0.28	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	107	107	0.01	< 0.005	—	107
Water	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19
Waste	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5
Total	0.83	1.03	0.58	3.74	< 0.005	0.01	17.3	17.3	0.01	2.63	2.64	4.27	512	516	0.48	0.03	13.3	551

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.33	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	43.5	43.5	< 0.005	< 0.005	—	43.7
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.21	7.21	< 0.005	< 0.005	—	7.23
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.10	1.45	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	150	150	0.01	0.01	0.68	152
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.16	1.16	< 0.005	< 0.005	< 0.005	1.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.43	2.04	20.0	19.7	0.03	0.94	—	0.94	0.87	—	0.87	—	2,958	2,958	0.12	0.02	—	2,968
Dust From Material Movement	—	—	—	—	—	—	7.09	7.09	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.38	< 0.005	0.02	—	0.02	0.02	—	0.02	—	56.7	56.7	< 0.005	< 0.005	—	56.9
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.39	9.39	< 0.005	< 0.005	—	9.42
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.09	1.24	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	128	128	0.01	< 0.005	0.58	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	0.04	2.91	0.32	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	1,729	1,729	< 0.005	0.27	3.14	1,813
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.32	2.32	< 0.005	< 0.005	< 0.005	2.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	

Hauling	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	33.2	33.2	< 0.005	0.01	0.03	34.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.38	0.38	< 0.005	< 0.005	< 0.005	0.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.49	5.49	< 0.005	< 0.005	< 0.005	5.75

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	2.87	3.20	0.01	0.13	—	0.13	0.12	—	0.12	—	582	582	0.02	< 0.005	—	584
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.07	0.06	0.52	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	96.3	96.3	< 0.005	< 0.005	—	96.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.12	1.68	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	174	174	0.01	0.01	0.79	177
Vendor	0.01	0.01	0.37	0.13	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	195	195	< 0.005	0.03	0.50	204
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.17	0.12	1.55	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	169	169	0.01	0.01	0.02	172
Vendor	0.01	0.01	0.38	0.13	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	195	195	< 0.005	0.03	0.01	204
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.36	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	39.7	39.7	< 0.005	< 0.005	0.08	40.7
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	47.4	47.4	< 0.005	0.01	0.05	49.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.57	6.57	< 0.005	< 0.005	0.01	6.74
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.84	7.84	< 0.005	< 0.005	0.01	8.19
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.43	4.04	4.72	0.01	0.18	—	0.18	0.16	—	0.16	—	863	863	0.04	0.01	—	866
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.74	0.86	< 0.005	0.03	—	0.03	0.03	—	0.03	—	143	143	0.01	< 0.005	—	143
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.11	1.55	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	171	171	0.01	0.01	0.74	174
Vendor	0.01	0.01	0.35	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	193	193	< 0.005	0.03	0.50	202
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	228

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.11	1.43	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	166	166	0.01	0.01	0.02	169
Vendor	0.01	0.01	0.36	0.12	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	193	193	< 0.005	0.03	0.01	202
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.49	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	57.9	57.9	< 0.005	< 0.005	0.12	58.8
Vendor	< 0.005	< 0.005	0.13	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	69.6	69.6	< 0.005	0.01	0.08	72.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	9.58	9.58	< 0.005	< 0.005	0.02	9.74
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.01	12.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.79	7.13	8.89	0.01	0.35	—	0.35	0.32	—	0.32	—	1,351	1,351	0.05	0.01	—	1,356
Paving	—	0.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	40.7	40.7	< 0.005	< 0.005	—	40.9
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.74	6.74	< 0.005	< 0.005	—	6.76
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.12	1.66	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	171	171	0.01	0.01	0.77	174
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.85	4.85	< 0.005	< 0.005	0.01	4.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	230

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.80	0.80	< 0.005	< 0.005	< 0.005	0.82
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.20	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.7	28.7	< 0.005	< 0.005	—	28.8

Architect Coatings	—	1.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.76	4.76	< 0.005	< 0.005	—	4.77
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.34	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	34.8	34.8	< 0.005	< 0.005	0.16	35.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	33.9	33.9	< 0.005	< 0.005	< 0.005	34.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	7.05	7.05	< 0.005	< 0.005	0.01	7.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.17	1.17	< 0.005	< 0.005	< 0.005	1.19

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.35	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	51.7	51.7	< 0.005	< 0.005	—	51.9

Architectural Coatings	—	2.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.57	8.57	< 0.005	< 0.005	—	8.59
Architectural Coatings	—	0.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	34.2	34.2	< 0.005	< 0.005	0.15	34.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	33.3	33.3	< 0.005	< 0.005	< 0.005	33.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	12.5	12.5	< 0.005	< 0.005	0.02	12.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	234

Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.06	2.06	< 0.005	< 0.005	< 0.005	2.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Linear, Grubbing & Land Clearing (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	3.95	3.56	< 0.005	0.28	—	0.28	0.25	—	0.25	—	491	491	0.02	< 0.005	—	492
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.72	6.72	< 0.005	< 0.005	—	6.74
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.11	1.11	< 0.005	< 0.005	—	1.12
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.41	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	42.8	42.8	< 0.005	< 0.005	0.19	43.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Linear, Grading & Excavation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.30	3.62	33.7	30.9	0.06	1.56	—	1.56	1.44	—	1.44	—	6,495	6,495	0.26	0.05	—	6,518
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.24	2.22	2.03	< 0.005	0.10	—	0.10	0.09	—	0.09	—	427	427	0.02	< 0.005	—	429
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.40	0.37	< 0.005	0.02	—	0.02	0.02	—	0.02	—	70.7	70.7	< 0.005	< 0.005	—	71.0
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.24	0.18	2.48	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	257	257	0.02	0.01	1.16	261
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	24.6	24.6	< 0.005	< 0.005	0.06	25.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.14	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	15.9	15.9	< 0.005	< 0.005	0.03	16.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.69
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.63	2.63	< 0.005	< 0.005	0.01	2.69
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Linear, Drainage, Utilities, & Sub-Grade (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.40	2.85	28.2	25.0	0.05	1.16	—	1.16	1.06	—	1.06	—	5,693	5,693	0.23	0.05	—	5,712

Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.40	2.85	28.2	25.0	0.05	1.16	—	1.16	1.06	—	1.06	—	5,693	5,693	0.23	0.05	—	5,712
Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.24	1.10	< 0.005	0.05	—	0.05	0.05	—	0.05	—	250	250	0.01	< 0.005	—	250
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.23	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.3	41.3	< 0.005	< 0.005	—	41.5
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	239

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.20	0.15	2.07	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	214	214	0.01	0.01	0.97	218
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.21	0.15	1.91	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	208	208	0.01	0.01	0.03	211
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	8.82	8.82	< 0.005	< 0.005	0.02	9.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.46	1.46	< 0.005	< 0.005	< 0.005	1.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Linear, Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	240

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	1.00	8.46	10.9	0.01	0.43	—	0.43	0.39	—	0.39	—	1,620	1,620	0.07	0.01	—	1,625
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.19	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.5	35.5	< 0.005	< 0.005	—	35.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.88	5.88	< 0.005	< 0.005	—	5.90
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.10	1.34	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	146	146	0.01	0.01	0.02	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.09	3.09	< 0.005	< 0.005	0.01	3.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	4.68	4.46	2.57	19.4	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,542	2,542	0.22	0.16	10.9	2,607
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.68	4.46	2.57	19.4	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,542	2,542	0.22	0.16	10.9	2,607
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	4.82	4.60	2.59	18.5	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,496	2,496	0.22	0.16	0.28	2,550
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.82	4.60	2.59	18.5	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,496	2,496	0.22	0.16	0.28	2,550
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.78	0.74	0.51	3.49	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	404	404	0.04	0.03	0.78	414

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.78	0.74	0.51	3.49	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	404	404	0.04	0.03	0.78	414

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.03	< 0.005	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	20.9	20.9	< 0.005	< 0.005	—	21.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.03	< 0.005	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	20.9	20.9	< 0.005	< 0.005	—	21.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	28.7	28.7	< 0.005	< 0.005	—	29.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.46	3.46	< 0.005	< 0.005	—	3.50
Total	—	—	—	—	—	—	—	—	—	—	—	—	32.2	32.2	0.01	< 0.005	—	32.5

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.4	74.4	0.01	< 0.005	—	74.6
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.4	74.4	0.01	< 0.005	—	74.6

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

244

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.37	0.35	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Total	0.37	12.4	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	12.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.03	0.03	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Total	0.03	0.87	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	247

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	8/1/2023	8/3/2023	5.00	3.00	—
Grading	Grading	8/4/2023	8/14/2023	5.00	7.00	—
Building Construction	Building Construction	8/30/2023	7/2/2024	5.00	220	—
Paving	Paving	8/15/2023	8/29/2023	5.00	11.0	—
Architectural Coating	Architectural Coating	9/13/2023	7/16/2024	5.00	220	—
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	8/1/2023	8/8/2023	5.00	5.00	—
Linear, Grading & Excavation	Linear, Grading & Excavation	8/9/2023	9/11/2023	5.00	24.0	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	9/12/2023	10/4/2023	5.00	16.0	—
Linear, Paving	Linear, Paving	10/5/2023	10/16/2023	5.00	8.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38

Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Grading & Excavation	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82

Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backh	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.1	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.35	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	10.1	LDA,LDT1,LDT2
Grading	Vendor	—	7.35	HHDT,MHDT
Grading	Hauling	23.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	20.3	10.1	LDA,LDT1,LDT2
Building Construction	Vendor	7.93	7.35	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

Paving	—	—	—	—
Paving	Worker	20.0	10.1	LDA,LDT1,LDT2
Paving	Vendor	—	7.35	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.07	10.1	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.35	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	5.00	10.1	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	—	7.35	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	30.0	10.1	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	7.35	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	25.0	10.1	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	—	7.35	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	17.5	10.1	LDA,LDT1,LDT2

Linear, Paving	Vendor	—	7.35	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	74,526	24,842	2,564

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	4.50	0.00	—
Grading	1,300	—	7.00	0.00	—
Paving	0.00	0.00	0.00	0.00	2.63
Linear, Grubbing & Land Clearing	—	—	1.65	0.00	—
Linear, Grading & Excavation	—	—	1.65	0.00	—
Linear, Drainage, Utilities, & Sub-Grade	—	—	1.65	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Road Construction	1.65	100%
Hotel	0.00	0%
Parking Lot	0.98	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	204	0.03	< 0.005
2024	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Hotel	599	599	599	218,726	2,622	2,622	2,622	956,948
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	74,526	24,842	2,564

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Hotel	310,445	204	0.0330	0.0040	1,401,916
Parking Lot	37,434	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Hotel	1,902,508	262,390
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Hotel	41.1	0.00
Parking Lot	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit

Temperature and Extreme Heat	15.7	annual days of extreme heat
Extreme Precipitation	15.9	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	22.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction m[illegible]s.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	16.8
AQ-PM	0.19
AQ-DPM	37.4
Drinking Water	64.2
Lead Risk Housing	63.1

Pesticides	43.4
Toxic Releases	0.74
Traffic	20.4
Effect Indicators	—
CleanUp Sites	71.6
Groundwater	59.6
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	51.2
Solid Waste	80.5
Sensitive Population	—
Asthma	97.4
Cardio-vascular	81.7
Low Birth Weights	90.6
Socioeconomic Factor Indicators	—
Education	63.4
Housing	81.8
Linguistic	4.59
Poverty	98.0
Unemployment	99.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	3.002694726
Employed	1.591171564
Education	—

Bachelor's or higher	11.36917747
High school enrollment	100
Preschool enrollment	49.7754395
Transportation	—
Auto Access	7.878865649
Active commuting	29.50083408
Social	—
2-parent households	1.745155909
Voting	16.57898114
Neighborhood	—
Alcohol availability	64.31412806
Park access	81.35506224
Retail density	25.43308097
Supermarket access	42.69215963
Tree canopy	89.76004106
Housing	—
Homeownership	41.48594893
Housing habitability	19.17105094
Low-inc homeowner severe housing cost burden	3.592968048
Low-inc renter severe housing cost burden	46.90106506
Uncrowded housing	44.45014757
Health Outcomes	—
Insured adults	33.59425125
Arthritis	0.0
Asthma ER Admissions	4.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0

Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	0.8
Cognitively Disabled	2.2
Physically Disabled	1.7
Heart Attack ER Admissions	47.9
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.2
SLR Inundation Area	0.0
Children	19.9
Elderly	38.5
English Speaking	52.3
Foreign-born	30.0
Outdoor Workers	1.8
Climate Change Adaptive Capacity	—

Impervious Surface Cover	88.8
Traffic Density	6.6
Traffic Access	0.0
Other Indices	—
Hardship	89.1
Other Decision Support	—
2016 Voting	13.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	73.0
Healthy Places Index Score for Project Location (b)	4.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Land Use	Lot acreage and building square footage adjusted to be consistent with project site plan.

Construction: Construction Phases	Demolition not required. Architectural coating assumed to start two weeks after building construction and last for the same duration.
Operations: Vehicle Data	Adjusted to be consistent with TIS prepared for the proposed project by W-Trans.

Clearlake Airport Property Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.3. Construction Emissions by Year, Mitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

2.6. Operations Emissions by Sector, Mitigated

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

3.2. Site Preparation (2023) - Mitigated

3.3. Grading (2023) - Unmitigated

3.4. Grading (2023) - Mitigated

3.5. Building Construction (2023) - Unmitigated

3.6. Building Construction (2023) - Mitigated

3.7. Building Construction (2024) - Unmitigated

3.8. Building Construction (2024) - Mitigated

3.9. Paving (2023) - Unmitigated

3.10. Paving (2023) - Mitigated

3.11. Architectural Coating (2023) - Unmitigated

3.12. Architectural Coating (2023) - Mitigated

3.13. Architectural Coating (2024) - Unmitigated

3.14. Architectural Coating (2024) - Mitigated

3.15. Linear, Grubbing & Land Clearing (2023) - Unmitigated

3.16. Linear, Grubbing & Land Clearing (2023) - Mitigated

3.17. Linear, Grading & Excavation (2023) - Unmitigated

3.18. Linear, Grading & Excavation (2023) - Mitigated

3.19. Linear, Drainage, Utilities, & Sub-Grade (2023) - Unmitigated

3.20. Linear, Drainage, Utilities, & Sub-Grade (2023) - Mitigated

3.21. Linear, Paving (2023) - Unmitigated

3.22. Linear, Paving (2023) - Mitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.1.2. Mitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.2. Electricity Emissions By Land Use - Mitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.2.4. Natural Gas Emissions By Land Use - Mitigated

4.3. Area Emissions by Source

4.3.2. Unmitigated

4.3.1. Mitigated

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

4.4.1. Mitigated

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

4.5.1. Mitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.6.2. Mitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.7.2. Mitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.8.2. Mitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.9.2. Mitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Clearlake Airport Property
Lead Agency	City of Clearlake
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	9.20
Location	6356 Armijo Ave, Clearlake, CA 95422, USA
County	Lake
City	Clearlake
Air District	Lake County AQMD
Air Basin	Lake County
TAZ	240
EDFZ	2
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Road Construction	0.20	Mile	1.65	0.00	—	—	—	—
Hotel	75.0	Room	1.82	48,402	27,453	—	—	—
Parking Lot	109	Space	0.98	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.17	10.0	56.9	54.6	0.11	2.54	351	354	2.34	37.9	40.3	—	11,591	11,591	0.41	0.37	4.95	11,716
Mit.	6.81	10.0	53.5	55.0	0.11	2.37	351	353	2.19	37.9	40.1	—	11,591	11,591	0.41	0.37	4.95	11,716
% Reduced	5%	—	6%	-1%	—	7%	—	< 0.5%	6%	—	< 0.5%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.54	10.0	41.6	43.2	0.08	1.75	208	209	1.61	20.8	22.4	—	8,831	8,831	0.36	0.11	0.06	8,873
Mit.	5.54	10.0	41.6	43.2	0.08	1.75	208	209	1.61	20.8	22.4	—	8,831	8,831	0.36	0.11	0.06	8,873
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.07	2.63	7.91	8.59	0.01	0.35	47.8	48.1	0.33	4.91	5.24	—	1,636	1,636	0.07	0.03	0.25	1,647
Mit.	1.07	2.63	7.84	8.60	0.01	0.35	47.8	48.1	0.32	4.91	5.23	—	1,636	1,636	0.07	0.03	0.25	1,647
% Reduced	1%	—	1%	> -0.5%	—	1%	—	< 0.5%	1%	—	< 0.5%	—	—	—	—	—	—	279

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	0.48	1.44	1.57	< 0.005	0.06	8.72	8.78	0.06	0.90	0.96	—	271	271	0.01	< 0.005	0.04	273
Mit.	0.19	0.48	1.43	1.57	< 0.005	0.06	8.72	8.78	0.06	0.90	0.95	—	271	271	0.01	< 0.005	0.04	273
% Reduced	1%	—	1%	> -0.5%	—	1%	—	< 0.5%	1%	—	< 0.5%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	7.17	10.0	56.9	54.6	0.11	2.54	351	354	2.34	37.9	40.3	—	11,591	11,591	0.41	0.37	4.95	11,716
2024	1.82	6.90	12.6	16.2	0.03	0.53	112	113	0.49	11.2	11.7	—	2,930	2,930	0.12	0.06	1.39	2,951
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	5.54	10.0	41.6	43.2	0.08	1.75	208	209	1.61	20.8	22.4	—	8,831	8,831	0.36	0.11	0.06	8,873
2024	1.82	6.91	12.6	16.1	0.03	0.53	112	113	0.49	11.2	11.7	—	2,924	2,924	0.12	0.06	0.04	2,944
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.07	2.08	7.91	8.59	0.01	0.35	47.8	48.1	0.33	4.91	5.24	—	1,636	1,636	0.07	0.03	0.25	1,647
2024	0.65	2.63	4.58	5.81	0.01	0.19	40.8	40.9	0.18	4.08	4.26	—	1,055	1,055	0.04	0.02	0.22	1,062
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.20	0.38	1.44	1.57	< 0.005	0.06	8.72	8.78	0.06	0.90	0.96	—	271	271	0.01	< 0.005	0.04	273
2024	0.12	0.48	0.84	1.06	< 0.005	0.04	7.44	7.47	0.03	0.75	0.78	—	175	175	0.01	< 0.005	0.04	176

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	6.81	10.0	53.5	55.0	0.11	2.37	351	353	2.19	37.9	40.1	—	11,591	11,591	0.41	0.37	4.95	11,716
2024	1.82	6.90	12.6	16.2	0.03	0.53	112	113	0.49	11.2	11.7	—	2,930	2,930	0.12	0.06	1.39	2,951
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	5.54	10.0	41.6	43.2	0.08	1.75	208	209	1.61	20.8	22.4	—	8,831	8,831	0.36	0.11	0.06	8,873
2024	1.82	6.91	12.6	16.1	0.03	0.53	112	113	0.49	11.2	11.7	—	2,924	2,924	0.12	0.06	0.04	2,944
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.07	2.08	7.84	8.60	0.01	0.35	47.8	48.1	0.32	4.91	5.23	—	1,636	1,636	0.07	0.03	0.25	1,647
2024	0.65	2.63	4.58	5.81	0.01	0.19	40.8	40.9	0.18	4.08	4.26	—	1,055	1,055	0.04	0.02	0.22	1,062
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.19	0.38	1.43	1.57	< 0.005	0.06	8.72	8.78	0.06	0.90	0.95	—	271	271	0.01	< 0.005	0.04	273
2024	0.12	0.48	0.84	1.06	< 0.005	0.04	7.44	7.47	0.03	0.75	0.78	—	175	175	0.01	< 0.005	0.04	176

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.09	6.19	2.96	21.8	0.03	0.07	95.0	95.0	0.07	14.4	14.5	25.8	3,198	3,224	2.88	0.17	86.6	3,434
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.86	5.98	2.97	18.8	0.03	0.06	95.0	95.0	0.06	14.4	14.5	25.8	3,144	3,169	2.88	0.17	75.9	281

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.53	5.62	3.21	20.5	0.03	0.07	95.0	95.0	0.06	14.4	14.5	25.8	3,092	3,118	2.90	0.18	80.4	3,325
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.83	1.03	0.58	3.74	< 0.005	0.01	17.3	17.3	0.01	2.63	2.64	4.27	512	516	0.48	0.03	13.3	551

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.68	4.46	2.57	19.4	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,542	2,542	0.22	0.16	10.9	2,607
Area	0.37	1.71	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	5.09	6.19	2.96	21.8	0.03	0.07	95.0	95.0	0.07	14.4	14.5	25.8	3,198	3,224	2.88	0.17	86.6	3,434
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.82	4.60	2.59	18.5	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,496	2,496	0.22	0.16	0.28	2,550
Area	—	1.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	282

Total	4.86	5.98	2.97	18.8	0.03	0.06	95.0	95.0	0.06	14.4	14.5	25.8	3,144	3,169	2.88	0.17	75.9	3,369
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.30	4.07	2.82	19.1	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,440	2,440	0.24	0.17	4.71	2,502
Area	0.18	1.53	0.01	1.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.27	4.27	< 0.005	< 0.005	—	4.28
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	4.53	5.62	3.21	20.5	0.03	0.07	95.0	95.0	0.06	14.4	14.5	25.8	3,092	3,118	2.90	0.18	80.4	3,325
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.78	0.74	0.51	3.49	< 0.005	0.01	17.3	17.3	0.01	2.63	2.63	—	404	404	0.04	0.03	0.78	414
Area	0.03	0.28	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	107	107	0.01	< 0.005	—	107
Water	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19
Waste	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5
Total	0.83	1.03	0.58	3.74	< 0.005	0.01	17.3	17.3	0.01	2.63	2.64	4.27	512	516	0.48	0.03	13.3	551

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.68	4.46	2.57	19.4	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,542	2,542	0.22	0.16	10.9	2,607
Area	0.37	1.71	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	283

Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	5.09	6.19	2.96	21.8	0.03	0.07	95.0	95.0	0.07	14.4	14.5	25.8	3,198	3,224	2.88	0.17	86.6	3,434
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.82	4.60	2.59	18.5	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,496	2,496	0.22	0.16	0.28	2,550
Area	—	1.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	4.86	5.98	2.97	18.8	0.03	0.06	95.0	95.0	0.06	14.4	14.5	25.8	3,144	3,169	2.88	0.17	75.9	3,369
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.30	4.07	2.82	19.1	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,440	2,440	0.24	0.17	4.71	2,502
Area	0.18	1.53	0.01	1.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.27	4.27	< 0.005	< 0.005	—	4.28
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	4.53	5.62	3.21	20.5	0.03	0.07	95.0	95.0	0.06	14.4	14.5	25.8	3,092	3,118	2.90	0.18	80.4	3,325
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.78	0.74	0.51	3.49	< 0.005	0.01	17.3	17.3	0.01	2.63	2.63	—	404	404	0.04	0.03	0.78	414
Area	0.03	0.28	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	107	107	0.01	< 0.005	—	107
Water	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	
Waste	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5
Total	0.83	1.03	0.58	3.74	< 0.005	0.01	17.3	17.3	0.01	2.63	2.64	4.27	512	516	0.48	0.03	13.3	551

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.33	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	43.5	43.5	< 0.005	< 0.005	—	43.7
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	285

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.21	7.21	< 0.005	< 0.005	—	7.23
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.10	1.45	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	150	150	0.01	0.01	0.68	152
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.16	1.16	< 0.005	< 0.005	< 0.005	1.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.33	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	43.5	43.5	< 0.005	< 0.005	—	43.7
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.21	7.21	< 0.005	< 0.005	—	7.23
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.10	1.45	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	150	150	0.01	0.01	0.68	152
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.16	1.16	< 0.005	< 0.005	< 0.005	1.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.43	2.04	20.0	19.7	0.03	0.94	—	0.94	0.87	—	0.87	—	2,958	2,958	0.12	0.02	—	2,968

Dust From Material Movement	—	—	—	—	—	—	7.09	7.09	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.38	< 0.005	0.02	—	0.02	0.02	—	0.02	—	56.7	56.7	< 0.005	< 0.005	—	56.9
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.39	9.39	< 0.005	< 0.005	—	9.42
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.09	1.24	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	128	128	0.01	< 0.005	0.58	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	0.04	2.91	0.32	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	1,729	1,729	< 0.005	0.27	3.14	135

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.32	2.32	< 0.005	< 0.005	< 0.005	2.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	33.2	33.2	< 0.005	0.01	0.03	34.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.38	0.38	< 0.005	< 0.005	< 0.005	0.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.49	5.49	< 0.005	< 0.005	< 0.005	5.75

3.4. Grading (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.07	1.75	16.6	20.0	0.03	0.78	—	0.78	0.72	—	0.72	—	2,958	2,958	0.12	0.02	—	2,968
Dust From Material Movement	—	—	—	—	—	—	7.09	7.09	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.32	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	56.7	56.7	< 0.005	< 0.005	—	56.9
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.39	9.39	< 0.005	< 0.005	—	9.42
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.09	1.24	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	128	128	0.01	< 0.005	0.58	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	0.04	2.91	0.32	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	1,729	1,729	< 0.005	0.27	3.14	1,813
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.32	2.32	< 0.005	< 0.005	< 0.005	2.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	

Hauling	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	33.2	33.2	< 0.005	0.01	0.03	34.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.38	0.38	< 0.005	< 0.005	< 0.005	0.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.49	5.49	< 0.005	< 0.005	< 0.005	5.75

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	2.87	3.20	0.01	0.13	—	0.13	0.12	—	0.12	—	582	582	0.02	< 0.005	—	584
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	292

Off-Road Equipment	0.07	0.06	0.52	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	96.3	96.3	< 0.005	< 0.005	—	96.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.12	1.68	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	174	174	0.01	0.01	0.79	177
Vendor	0.01	0.01	0.37	0.13	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	195	195	< 0.005	0.03	0.50	204
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.17	0.12	1.55	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	169	169	0.01	0.01	0.02	172
Vendor	0.01	0.01	0.38	0.13	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	195	195	< 0.005	0.03	0.01	204
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.36	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	39.7	39.7	< 0.005	< 0.005	0.08	40.7
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	47.4	47.4	< 0.005	0.01	0.05	49.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.57	6.57	< 0.005	< 0.005	0.01	6.74
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.84	7.84	< 0.005	< 0.005	0.01	8.19
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	2.87	3.20	0.01	0.13	—	0.13	0.12	—	0.12	—	582	582	0.02	< 0.005	—	584
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.52	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	96.3	96.3	< 0.005	< 0.005	—	96.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.12	1.68	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	174	174	0.01	0.01	0.79	177
Vendor	0.01	0.01	0.37	0.13	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	195	195	< 0.005	0.03	0.50	204
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	294

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.17	0.12	1.55	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	169	169	0.01	0.01	0.02	172
Vendor	0.01	0.01	0.38	0.13	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	195	195	< 0.005	0.03	0.01	204
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.36	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	39.7	39.7	< 0.005	< 0.005	0.08	40.7
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	47.4	47.4	< 0.005	0.01	0.05	49.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.57	6.57	< 0.005	< 0.005	0.01	6.74
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.84	7.84	< 0.005	< 0.005	0.01	8.19
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.43	4.04	4.72	0.01	0.18	—	0.18	0.16	—	0.16	—	863	863	0.04	0.01	—	866
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.74	0.86	< 0.005	0.03	—	0.03	0.03	—	0.03	—	143	143	0.01	< 0.005	—	143
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.11	1.55	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	171	171	0.01	0.01	0.74	174
Vendor	0.01	0.01	0.35	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	193	193	< 0.005	0.03	0.50	202
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.11	1.43	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	166	166	0.01	0.01	0.02	169
Vendor	0.01	0.01	0.36	0.12	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	193	193	< 0.005	0.03	0.01	202
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.49	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	57.9	57.9	< 0.005	< 0.005	0.12	58.8
Vendor	< 0.005	< 0.005	0.13	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	69.6	69.6	< 0.005	0.01	0.08	296

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	9.58	9.58	< 0.005	< 0.005	0.02	9.74
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.01	12.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.43	4.04	4.72	0.01	0.18	—	0.18	0.16	—	0.16	—	863	863	0.04	0.01	—	866
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.09	0.08	0.74	0.86	< 0.005	0.03	—	0.03	0.03	—	0.03	—	143	143	0.01	< 0.005	—	143
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.11	1.55	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	171	171	0.01	0.01	0.74	174
Vendor	0.01	0.01	0.35	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	193	193	< 0.005	0.03	0.50	202
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.11	1.43	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	166	166	0.01	0.01	0.02	169
Vendor	0.01	0.01	0.36	0.12	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	193	193	< 0.005	0.03	0.01	202
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.49	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	57.9	57.9	< 0.005	< 0.005	0.12	58.8
Vendor	< 0.005	< 0.005	0.13	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	69.6	69.6	< 0.005	0.01	0.08	72.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	9.58	9.58	< 0.005	< 0.005	0.02	9.74
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.01	12.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.79	7.13	8.89	0.01	0.35	—	0.35	0.32	—	0.32	—	1,351	1,351	0.05	0.01	—	1,356
Paving	—	0.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	40.7	40.7	< 0.005	< 0.005	—	40.9
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.74	6.74	< 0.005	< 0.005	—	6.76
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.12	1.66	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	171	171	0.01	0.01	0.77	174
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.85	4.85	< 0.005	< 0.005	0.01	4.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.80	0.80	< 0.005	< 0.005	< 0.005	0.82
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Paving (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.79	7.13	8.89	0.01	0.35	—	0.35	0.32	—	0.32	—	1,351	1,351	0.05	0.01	—	1,356
Paving	—	0.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.02	0.21	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	40.7	40.7	< 0.005	< 0.005	—	40.9
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.74	6.74	< 0.005	< 0.005	—	6.76
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.12	1.66	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	171	171	0.01	0.01	0.77	174
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.85	4.85	< 0.005	< 0.005	0.01	4.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.80	0.80	< 0.005	< 0.005	< 0.005	0.82
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.20	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.7	28.7	< 0.005	< 0.005	—	28.8
Architectural Coatings	—	1.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.76	4.76	< 0.005	< 0.005	—	4.77
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.34	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	34.8	34.8	< 0.005	< 0.005	0.16	35.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	33.9	33.9	< 0.005	< 0.005	< 0.005	34.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	7.05	7.05	< 0.005	< 0.005	0.01	7.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.17	1.17	< 0.005	< 0.005	< 0.005	1.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Architectural Coating (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.20	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.7	28.7	< 0.005	< 0.005	—	28.8
Architectural Coatings	—	1.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.76	4.76	< 0.005	< 0.005	—	4.77
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.34	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	34.8	34.8	< 0.005	< 0.005	0.16	35.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	33.9	33.9	< 0.005	< 0.005	< 0.005	34.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	7.05	7.05	< 0.005	< 0.005	0.01	7.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.17	1.17	< 0.005	< 0.005	< 0.005	1.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.35	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	51.7	51.7	< 0.005	< 0.005	—	51.9
Architectural Coatings	—	2.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.57	8.57	< 0.005	< 0.005	—	8.59
Architectural Coatings	—	0.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	34.2	34.2	< 0.005	< 0.005	0.15	34.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	33.3	33.3	< 0.005	< 0.005	< 0.005	33.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	12.5	12.5	< 0.005	< 0.005	0.02	12.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.06	2.06	< 0.005	< 0.005	< 0.005	2.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Architectural Coating (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.35	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	51.7	51.7	< 0.005	< 0.005	—	51.9
Architectural Coatings	—	2.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.57	8.57	< 0.005	< 0.005	—	8.59
Architectural Coatings	—	0.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	34.2	34.2	< 0.005	< 0.005	0.15	34.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	33.3	33.3	< 0.005	< 0.005	< 0.005	33.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	12.5	12.5	< 0.005	< 0.005	0.02	12.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.06	2.06	< 0.005	< 0.005	< 0.005	2.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Linear, Grubbing & Land Clearing (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	3.95	3.56	< 0.005	0.28	—	0.28	0.25	—	0.25	—	491	491	0.02	< 0.005	—	492
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.72	6.72	< 0.005	< 0.005	—	6.74
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.11	1.11	< 0.005	< 0.005	—	1.12

Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.41	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	42.8	42.8	< 0.005	< 0.005	0.19	43.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Linear, Grubbing & Land Clearing (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

311

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	3.95	3.56	< 0.005	0.28	—	0.28	0.25	—	0.25	—	491	491	0.02	< 0.005	—	492
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.72	6.72	< 0.005	< 0.005	—	6.74
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.11	1.11	< 0.005	< 0.005	—	1.12
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.41	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	42.8	42.8	< 0.005	< 0.005	0.19	43.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Linear, Grading & Excavation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.30	3.62	33.7	30.9	0.06	1.56	—	1.56	1.44	—	1.44	—	6,495	6,495	0.26	0.05	—	6,518

Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.24	2.22	2.03	< 0.005	0.10	—	0.10	0.09	—	0.09	—	427	427	0.02	< 0.005	—	429
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.40	0.37	< 0.005	0.02	—	0.02	0.02	—	0.02	—	70.7	70.7	< 0.005	< 0.005	—	71.0
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.24	0.18	2.48	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	257	257	0.02	0.01	1.16	261
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	24.6	24.6	< 0.005	< 0.005	0.06	[illegible]
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.14	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	15.9	15.9	< 0.005	< 0.005	0.03	16.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.69
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.63	2.63	< 0.005	< 0.005	0.01	2.69
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Linear, Grading & Excavation (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.30	3.62	33.7	30.9	0.06	1.56	—	1.56	1.44	—	1.44	—	6,495	6,495	0.26	0.05	—	6,518
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.24	2.22	2.03	< 0.005	0.10	—	0.10	0.09	—	0.09	—	427	427	0.02	< 0.005	—	429
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.40	0.37	< 0.005	0.02	—	0.02	0.02	—	0.02	—	70.7	70.7	< 0.005	< 0.005	—	71.0
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.24	0.18	2.48	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	257	257	0.02	0.01	1.16	261
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	24.6	24.6	< 0.005	< 0.005	0.06	25.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.14	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	15.9	15.9	< 0.005	< 0.005	0.03	16.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.63	2.63	< 0.005	< 0.005	0.01	2.69
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Linear, Drainage, Utilities, & Sub-Grade (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.40	2.85	28.2	25.0	0.05	1.16	—	1.16	1.06	—	1.06	—	5,693	5,693	0.23	0.05	—	5,712
Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.40	2.85	28.2	25.0	0.05	1.16	—	1.16	1.06	—	1.06	—	5,693	5,693	0.23	0.05	—	5,712
Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.24	1.10	< 0.005	0.05	—	0.05	0.05	—	0.05	—	250	250	0.01	< 0.005	—	250
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.23	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.3	41.3	< 0.005	< 0.005	—	41.5
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.20	0.15	2.07	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	214	214	0.01	0.01	0.97	218
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.21	0.15	1.91	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	208	208	0.01	0.01	0.03	211
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	8.82	8.82	< 0.005	< 0.005	0.02	9.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.46	1.46	< 0.005	< 0.005	< 0.005	1.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Linear, Drainage, Utilities, & Sub-Grade (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.40	2.85	28.2	25.0	0.05	1.16	—	1.16	1.06	—	1.06	—	5,693	5,693	0.23	0.05	—	5,712
Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.40	2.85	28.2	25.0	0.05	1.16	—	1.16	1.06	—	1.06	—	5,693	5,693	0.23	0.05	—	5,712

Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.24	1.10	< 0.005	0.05	—	0.05	0.05	—	0.05	—	250	250	0.01	< 0.005	—	250
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.23	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.3	41.3	< 0.005	< 0.005	—	41.5
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.20	0.15	2.07	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	214	214	0.01	0.01	0.97	218
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

320

Worker	0.22	0.21	0.15	1.91	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	208	208	0.01	0.01	0.03	211
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	8.82	8.82	< 0.005	< 0.005	0.02	9.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.46	1.46	< 0.005	< 0.005	< 0.005	1.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Linear, Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	1.00	8.46	10.9	0.01	0.43	—	0.43	0.39	—	0.39	—	1,620	1,620	0.07	0.01	—	1,625
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.02	0.19	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.5	35.5	< 0.005	< 0.005	—	35.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.88	5.88	< 0.005	< 0.005	—	5.90
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.10	1.34	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	146	146	0.01	0.01	0.02	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.09	3.09	< 0.005	< 0.005	0.01	3.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.22. Linear, Paving (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	1.00	8.46	10.9	0.01	0.43	—	0.43	0.39	—	0.39	—	1,620	1,620	0.07	0.01	—	1,625
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.19	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.5	35.5	< 0.005	< 0.005	—	35.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.88	5.88	< 0.005	< 0.005	—	5.90
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.10	1.34	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	146	146	0.01	0.01	0.02	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	323

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.09	3.09	< 0.005	< 0.005	0.01	3.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	4.68	4.46	2.57	19.4	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,542	2,542	0.22	0.16	10.9	2,607
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.68	4.46	2.57	19.4	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,542	2,542	0.22	0.16	10.9	2,607
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	4.82	4.60	2.59	18.5	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,496	2,496	0.22	0.16	0.28	324

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.82	4.60	2.59	18.5	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,496	2,496	0.22	0.16	0.28	2,550
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.78	0.74	0.51	3.49	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	404	404	0.04	0.03	0.78	414
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.78	0.74	0.51	3.49	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	404	404	0.04	0.03	0.78	414

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	4.68	4.46	2.57	19.4	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,542	2,542	0.22	0.16	10.9	2,607
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.68	4.46	2.57	19.4	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,542	2,542	0.22	0.16	10.9	2,607
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	4.82	4.60	2.59	18.5	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,496	2,496	0.22	0.16	0.28	2,550
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.82	4.60	2.59	18.5	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,496	2,496	0.22	0.16	0.28	2,550
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.78	0.74	0.51	3.49	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	404	404	0.04	0.03	0.78	414
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	

Total	0.78	0.74	0.51	3.49	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	404	404	0.04	0.03	0.78	414

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.03	< 0.005	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	20.9	20.9	< 0.005	< 0.005	—	21.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.03	< 0.005	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	20.9	20.9	< 0.005	< 0.005	—	21.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	28.7	28.7	< 0.005	< 0.005	—	29.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.46	3.46	< 0.005	< 0.005	—	3.50
Total	—	—	—	—	—	—	—	—	—	—	—	—	32.2	32.2	0.01	< 0.005	—	32.5

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.03	< 0.005	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	20.9	20.9	< 0.005	< 0.005	—	21.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.03	< 0.005	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	20.9	20.9	< 0.005	< 0.005	—	21.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	28.7	28.7	< 0.005	< 0.005	—	29.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.46	3.46	< 0.005	< 0.005	—	3.50
Total	—	—	—	—	—	—	—	—	—	—	—	—	32.2	32.2	0.01	< 0.005	—	32.5

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	327

Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.4	74.4	0.01	< 0.005	—	74.6
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.4	74.4	0.01	< 0.005	—	74.6

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.4	74.4	0.01	< 0.005	—	74.6
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.4	74.4	0.01	< 0.005	—	74.6

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.37	0.35	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Total	0.37	12.4	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	12.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.03	0.03	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Total	0.03	0.87	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71

4.3.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.37	0.35	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Total	0.37	12.4	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	12.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.03	0.03	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Total	0.03	0.87	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	331

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19

4.4.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	333

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8

4.5.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	8/1/2023	8/3/2023	5.00	3.00	—
Grading	Grading	8/4/2023	8/14/2023	5.00	7.00	—
Building Construction	Building Construction	8/30/2023	7/2/2024	5.00	220	—
Paving	Paving	8/15/2023	8/29/2023	5.00	11.0	—
Architectural Coating	Architectural Coating	9/13/2023	7/16/2024	5.00	220	—
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	8/1/2023	8/8/2023	5.00	5.00	—
Linear, Grading & Excavation	Linear, Grading & Excavation	8/9/2023	9/11/2023	5.00	24.0	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	9/12/2023	10/4/2023	5.00	16.0	—
Linear, Paving	Linear, Paving	10/5/2023	10/16/2023	5.00	8.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37

Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41

Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Grading & Excavation	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82

Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43

Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Grading & Excavation	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.1	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.35	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	10.1	LDA,LDT1,LDT2
Grading	Vendor	—	7.35	HHDT,MHDT
Grading	Hauling	23.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	20.3	10.1	LDA,LDT1,LDT2
Building Construction	Vendor	7.93	7.35	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	10.1	LDA,LDT1,LDT2
Paving	Vendor	—	7.35	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.07	10.1	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.35	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	5.00	10.1	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	—	7.35	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	30.0	10.1	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	7.35	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	25.0	10.1	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	—	7.35	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT

Linear, Paving	—	—	—	—
Linear, Paving	Worker	17.5	10.1	LDA,LDT1,LDT2
Linear, Paving	Vendor	—	7.35	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.1	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.35	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	10.1	LDA,LDT1,LDT2
Grading	Vendor	—	7.35	HHDT,MHDT
Grading	Hauling	23.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	20.3	10.1	LDA,LDT1,LDT2
Building Construction	Vendor	7.93	7.35	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	10.1	LDA,LDT1,LDT2
Paving	Vendor	—	7.35	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT

Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.07	10.1	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.35	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	5.00	10.1	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	—	7.35	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	30.0	10.1	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	7.35	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	25.0	10.1	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	—	7.35	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	17.5	10.1	LDA,LDT1,LDT2
Linear, Paving	Vendor	—	7.35	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	74,526	24,842	2,564

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	4.50	0.00	—
Grading	1,300	—	7.00	0.00	—
Paving	0.00	0.00	0.00	0.00	2.63
Linear, Grubbing & Land Clearing	—	—	1.65	0.00	—
Linear, Grading & Excavation	—	—	1.65	0.00	—
Linear, Drainage, Utilities, & Sub-Grade	—	—	1.65	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Road Construction	1.65	100%

Hotel	0.00	0%
Parking Lot	0.98	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	204	0.03	< 0.005
2024	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Hotel	599	599	599	218,726	2,622	2,622	2,622	956,948
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Hotel	599	599	599	218,726	2,622	2,622	2,622	956,948
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	74,526	24,842	2,564

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Hotel	310,445	204	0.0330	0.0040	1,401,916
Parking Lot	37,434	204	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Hotel	310,445	204	0.0330	0.0040	1,401,916
Parking Lot	37,434	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Hotel	1,902,508	262,390
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Hotel	1,902,508	262,390
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Hotel	41.1	0.00
Parking Lot	0.00	0.00

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Hotel	41.1	0.00

Parking Lot	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	15.7	annual days of extreme heat
Extreme Precipitation	15.9	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	22.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temp possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A

Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	16.8
AQ-PM	0.19
AQ-DPM	37.4
Drinking Water	64.2
Lead Risk Housing	63.1
Pesticides	43.4
Toxic Releases	0.74
Traffic	20.4
Effect Indicators	—
CleanUp Sites	71.6
Groundwater	59.6
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	51.2
Solid Waste	80.5

Sensitive Population	—
Asthma	97.4
Cardio-vascular	81.7
Low Birth Weights	90.6
Socioeconomic Factor Indicators	—
Education	63.4
Housing	81.8
Linguistic	4.59
Poverty	98.0
Unemployment	99.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	3.002694726
Employed	1.591171564
Education	—
Bachelor's or higher	11.36917747
High school enrollment	100
Preschool enrollment	49.7754395
Transportation	—
Auto Access	7.878865649
Active commuting	29.50083408
Social	—
2-parent households	1.745155909
Voting	16.57898114

Neighborhood	—
Alcohol availability	64.31412806
Park access	81.35506224
Retail density	25.43308097
Supermarket access	42.69215963
Tree canopy	89.76004106
Housing	—
Homeownership	41.48594893
Housing habitability	19.17105094
Low-inc homeowner severe housing cost burden	3.592968048
Low-inc renter severe housing cost burden	46.90106506
Uncrowded housing	44.45014757
Health Outcomes	—
Insured adults	33.59425125
Arthritis	0.0
Asthma ER Admissions	4.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	0.8
Cognitively Disabled	2.2
Physically Disabled	1.7
Heart Attack ER Admissions	47.9
Mental Health Not Good	0.0

Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.2
SLR Inundation Area	0.0
Children	19.9
Elderly	38.5
English Speaking	52.3
Foreign-born	30.0
Outdoor Workers	1.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	88.8
Traffic Density	6.6
Traffic Access	0.0
Other Indices	—
Hardship	89.1
Other Decision Support	—
2016 Voting	13.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	73.0
Healthy Places Index Score for Project Location (b)	4.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Land Use	Lot acreage and building square footage adjusted to be consistent with project site plan.
Construction: Construction Phases	Demolition not required. Architectural coating assumed to start two weeks after building construction and last for the same duration.
Operations: Vehicle Data	Adjusted to be consistent with TIS prepared for the proposed project by W-Trans.

Attachment B

Biological Evalution and Arborist Report

LIVE OAK ASSOCIATES, INC.

AIRPORT PROPERTY COMMERCIAL CENTER HOTEL PROJECT
BIOLOGICAL EVALUATION
CLEARLAKE, LAKE COUNTY, CALIFORNIA

Prepared by

LIVE OAK ASSOCIATES, INC.

Rick Hopkins, Principal and Senior Conservation Biologist/Ecologist
Katrina Krakow, M.S., Sr. Project Manager and Staff Ecologist

Prepared for

Alan Flora
City Manager
City of Clear Lake
14050 Olympic Drive
Clear Lake, CA 95422

July 21, 2022 PN 2671-01

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EXECUTIVE SUMMARY

Live Oak Associates, Inc., (LOA) conducted an investigation of the biological resources of the Airport Property Commercial Center Hotel and extension of 18th Avenue project ("Project Site", "Site") in Lake County, California.

LOA evaluated likely impacts to biological resources resulting from development of an approximately 0.3-acre Airport Property Commercial Center Hotel and the associated extension of 18th Avenue. The Project Site is in Clearlake, Lake County, between Old Highway 53 and Highway 53. On July 11, 2022, Live Oak Associates (LOA) conducted a site visit to assess for biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law.

The Project Site consists of developed, California annual grassland/ruderal, chaparral, interior live oak woodland, and drainage habitat types. The drainage is outside of the development area and will not be impacted. The Project Site provides suitable habitat for nine locally occurring special-status plant and four special-status animal species. These nine plant species include the bent-flowered fiddleneck, Raiche's manzanita, three-fingered morning-glory, deep-scarred cryptantha, Tracy's eriastrum, San Joaquin spearscale, congested-headed hayfield tarplant, Napa bluecurls, oval-leaved viburnum. Rare plant surveys are recommended during the appropriate blooming periods of these plants (March, April, June, and October).

Potentially suitable habitat was found for four special status animal species that potentially occur as regular foragers or residents of the Project Site. These include the Clear Lake roach, Townsend's big-eared bat, pallid bat, and western red bat. Additionally, we have provided mitigation measures for nesting migratory birds and raptors protected by the federal Migratory Bird Treaty Act.

TABLE OF CONTENTS

1 INTRODUCTION 1
1.1 PROJECT DESCRIPTION 1
1.2 REPORT OBJECTIVES 3
1.3 STUDY METHODOLOGY 3

2 EXISTING CONDITIONS 5
2.1 PROJECT SITE 5
2.2 BIOTIC HABITATS/LAND USES 5
2.2.1 Developed 8
2.2.2 California annual grassland/Ruderal 8
2.2.3 Chaparral 8
2.2.4 Interior Live Oak Woodland 9
2.2.5 Drainage 9
2.3 WILDLIFE MOVEMENT CORRIDORS 9
2.4 SPECIAL STATUS PLANTS AND ANIMALS 10
2.5 JURISDICTIONAL WATERS 18

3 IMPACTS AND MITIGATIONS 19
3.1 SIGNIFICANCE CRITERIA 19
3.2 RELEVANT GOALS, POLICIES, AND LAWS 20
3.2.1 Threatened and Endangered Species 20
3.2.2 Migratory Birds 20
3.2.3 Birds of Prey 21
3.2.4 Jurisdictional Waters and Wetlands 21
3.2.5 Local Policies: City of Clearlake Native Tree Protection Ordinance 25
3.3 PROJECT IMPACTS AND MITIGATION MEASURES 26
3.3.1 Loss of Habitat for Special Status Plants 26
3.3.2 Loss of Habitat for Special Status Animals 28
3.3.3 Disturbance to Active Raptor and Migratory Bird Nests 29
3.3.4 Impacts to Wildlife Movement Corridors 30
3.3.5 Impacts to Jurisdictional Waters, Wetlands, or Riparian Habitats 30
3.3.6 City of Clearlake Native Tree Protection Ordinance 31

4 LITERATURE CITED 32

5 APPENDIX A: ARBORIST TREE INVENTORY AND ASSESSMENT FOR PROPOSED AIRPORT COMMERCIAL CENTER HOTEL PROJECT, CLEARLAKE, LAKE COUNTY, CALIFORNIA 33

1 INTRODUCTION

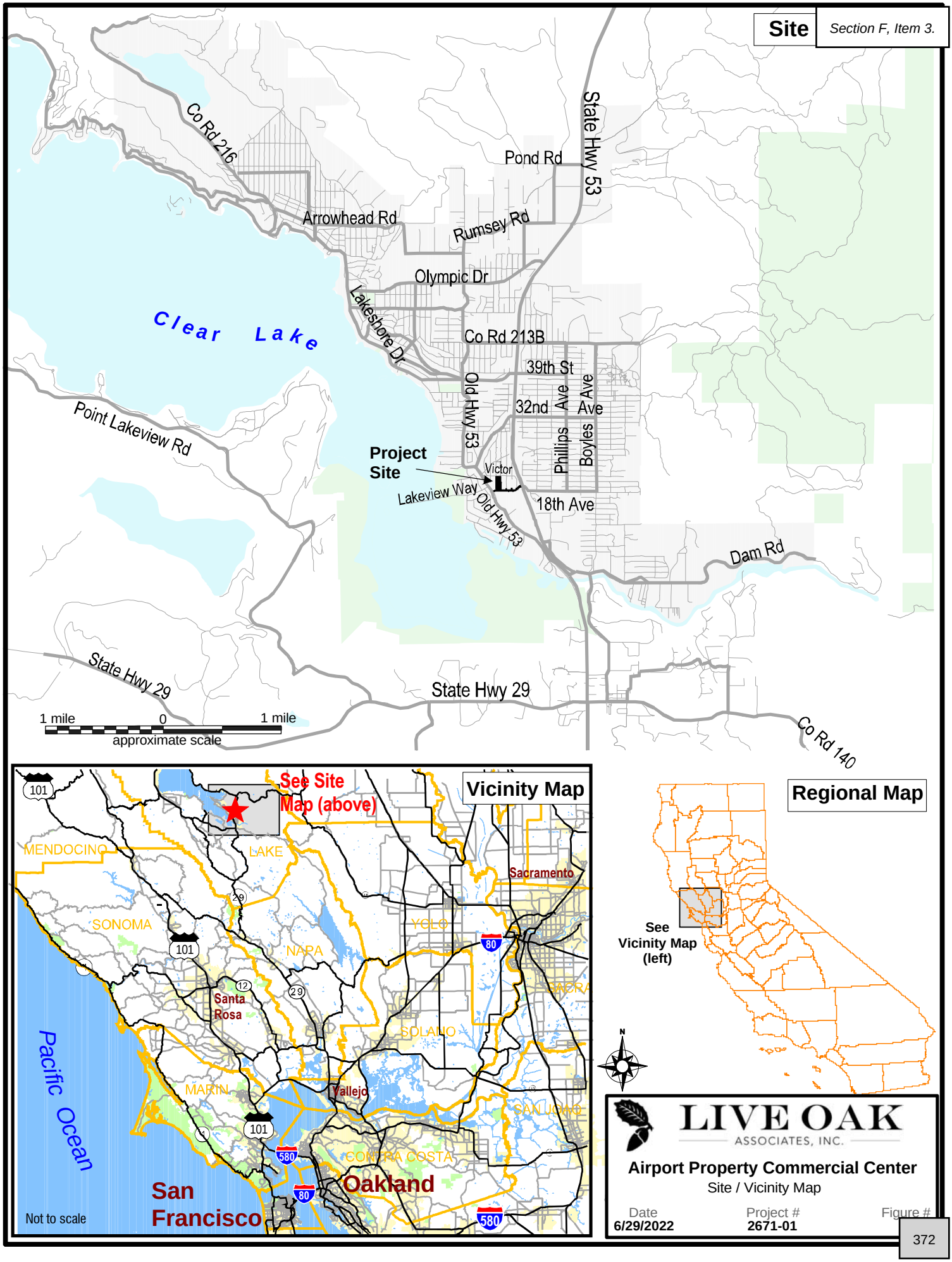
Live Oak Associates, Inc. (LOA) has prepared the following report. This report describes the biotic resources of the proposed approximately 0.3-acre Airport Property Commercial Center Hotel and the associated extension of 18th Avenue ("Project Site, site") and evaluates likely impacts to biological resources resulting from the construction of a hotel and associated roadway on the project site.

The Project Site is in Clearlake, Lake County, between Old Highway 53 and Highway 53 (Figure 1). The Project Site is located within the Clearlake Highlands and Lower Lake U.S. Geological Survey (USGS) 7.5-minute quadrangle.

The project site is relatively flat with site elevations ranging from a high of 425 feet (130 meters) above mean sea level (amsl) at the southeast corner of the site to a low of 411 feet amsl (125 meters) at the northwest corner. The site is currently vacant and supports a gravel area which used to be part of the airfield or airport as well as ruderal and natural habitats. There are no buildings, sheds, or other structures on the project site.

1.1 PROJECT DESCRIPTION

The proposed project is the extension of 18th Avenue westward from Highway 53 to the hotel site and the development of a 79-room hotel and associated parking lot. The northernmost area of the property is not proposed to be developed at this time; however, we have included the entire parcel in this report should additional development become necessary. This project is associated with the future Airport Property Commercial Center project.



LIVE OAK ASSOCIATES, INC.

Airport Property Commercial Center

Site / Vicinity Map

Date	Project #	Figure #
6/29/2022	2671-01	

1.2 REPORT OBJECTIVES

The development of land can damage or modify biotic habitats used by sensitive plant and wildlife species. In such cases, site development may be regulated by state or federal agencies, subject to provisions of the California Environmental Quality Act (CEQA), and/or covered by policies and ordinances of the City of Clearlake. This report addresses issues related to: 1) sensitive biotic resources occurring within the Project Site; 2) the federal, state, and local laws regulating such resources, and 3) mitigation measures which may be required to reduce the magnitude of anticipated impacts and/or comply with permit requirements of state and federal resource agencies, and the requirements of the California Environmental Quality Act (CEQA). As such, the objectives of this report are to:

- Summarize all site-specific information related to existing biological resources, based on a review of the literature, a search of species databases, and field surveys conducted by LOA over the entire Project Site;
- In addition to species observed to be present within the Project Site, make reasonable inferences about the other biological resources that could occur onsite based on habitat suitability and the proximity of the Project Site to a species' known range;
- Summarize all state and federal natural resource protection laws that may be relevant to development of Solar project within the Project Site;
- Identify and discuss project impacts to biological resources likely to occur within the Project Site within the context of CEQA or any state or federal laws; and
- Identify avoidance and mitigation measures that would reduce impacts to a less-than-significant impact (as identified by CEQA) and are generally consistent with recommendations of the resource agencies for affected biological resources.

1.3 STUDY METHODOLOGY

The analysis of impacts, as discussed in Section 3.0 of this report, is based on the known and potential biotic resources of the Project Site discussed in Section 2.0. Sources of information used in the preparation of this analysis included: (1) the *California Natural Diversity Data Base*

(CDFW 2022), (2) the *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2022), and (3) manuals, reports, and references related to plants and animals of the Lake County region. Field survey of the Project Site was conducted on July 11, 2022, by LOA ecologists Colleen Del Vecchio and Katrina Krakow. During this site visit, the principal land uses of the site were identified, and the constituent plants and animals were noted.

Detailed surveys for sensitive biological resources were not conducted during the site visit, except a tree inventory which has been included in the attached arborist report.

2 EXISTING CONDITIONS

2.1 PROJECT SITE

The approximately 0.3-acre Project Site and its associated roadway extension is located between Old Highway 53 and Highway 53 in the City of Clearlake. The Project site is relatively flat with site elevations ranging from a high of 425 feet (130 meters) above mean sea level (amsl) at the southeast corner of the site to a low of 411 feet amsl (125 meters) at the northwest corner. The project site is in the Clearlake Highlands and Lower Lake U.S. Geological Survey (USGS) quadrangle. The site is currently vacant and supports a gravel area which used to be part of the airfield or airport as well as ruderal and natural habitats.

The Project is a hotel with parking lot as well as the extension of 18th Avenue from Highway 53 to the hotel.

Two soil types occur on the Project Site: 1) Asbill clay loam, 8 to 15 percent slopes and 2) Benridge-Sodabay loams, 8 to 15 percent slopes (NRCS Web Soil Survey 2022; Figure 2). Both soils are well drained with medium to rapid runoff and moderately slow to permeability. These soils are not considered hydric or edaphic.

2.2 BIOTIC HABITATS/LAND USES

Five biotic habitats and land uses were identified on the project site, these include developed, California annual grassland/ruderal, chaparral, interior live oak woodland, and drainage (Figure 3). These habitats are discussed in more detail below.

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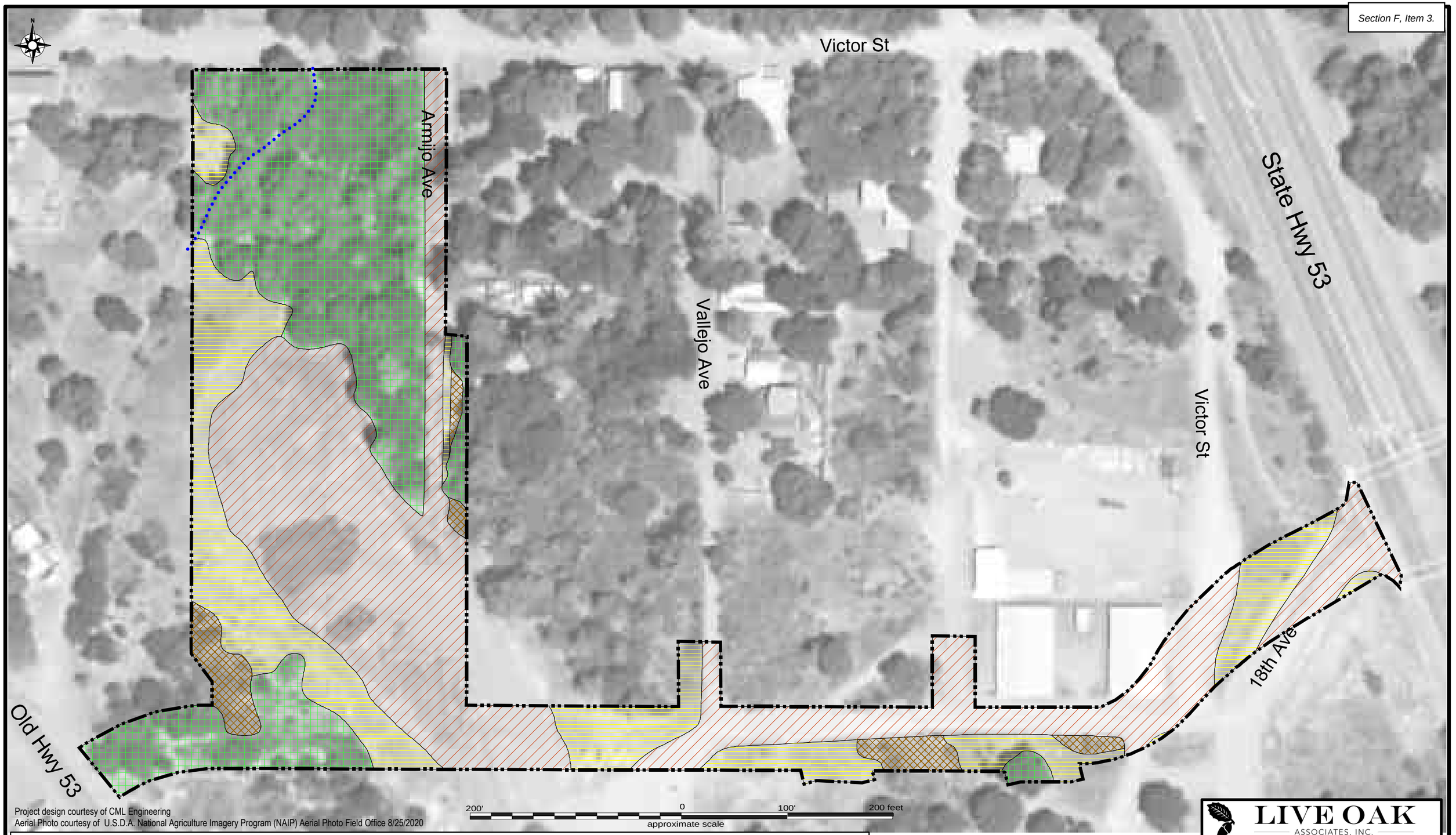
Airport Property Commercial Center
Soils

Date
6/29/2022

Project #
2671-01



Project design courtesy of CML Engineering
Aerial Photo courtesy of U.S.D.A. National Agriculture Imagery Program (NAIP) Aerial Photo Field Office 8/25/2020

LEGEND

- Approximate Project Boundary
- Approximate Drainage Location
- California Annual Grassland / Ruderal
- Chaparral
- Developed
- Interior Live Oak Woodland

LIVE OAK ASSOCIATES, INC.

Airport Property Commercial Center
Habitats

Date	Project #	F
7/14/2022	**2671-01**	

2.2.1 Developed

This land use on the site consists of 18th Avenue, some outbuildings, and a gravelly area with piles of ground gravel/asphalt around the exterior. Vegetation within this habitat is limited to non-native invasive herbaceous annual plants which are consistent with the California annual grassland/ruderal habitat type (Section 2.2.2).

Animal species observed in this habitat was limited to a western gray squirrel (*Sciurus griseus*). This habitat is most likely used by animals occurring in adjacent habitats to move through the larger, more suitable habitat areas.

2.2.2 California annual grassland/Ruderal

Portions of the site support California annual grassland; some areas are more ruderal than others, as this habitat type consists mainly of non-native invasive species and included jointed goat grass (Aegilops cylindrica), wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis*), yellow star-thistle (*Centaurea solstitialis*), blue wild-rye (*Elymus glaucus*), yerba santa (*Eriodictyon californicum*), Narrow tarplant (*Holocarpha virgata*)Indian tobacco (*Nicotiana quadrivalvis*), European black nightshade (*Solanum nigrum*), red sandspurry (*Spergularia rubra*), clover (*Trifolium* sp.), Ithuriel's spear (*Triteleia laxa*), vetch (*Vicia* sp.), and other non-native invasive species were present in this habitat.

As this habitat is patchy on the landscape, it can be expected to be used by animal species occurring in adjacent habitats.

2.2.3 Chaparral

Chaparral habitat is scattered and consists mainly of chamise (*Adenostoma fasciculatum*) with some ceanothus (*Ceanothus* sp.) and poison-oak (*Toxicodendron diversilobum*) as well as an understory consisting mainly of non-native invasive grasses, and Yerba santa.

Animal species observed were limited to the western fence lizard (*Sceloporus occidentalis*) and California scrub jay (*Aphelocoma californica*). Species using adjacent habitats would also use this habitat.

2.2.4 Interior Live Oak Woodland

A large portion of the site supports interior live oak woodland dominated by interior live oak (*Quercus wislizeni*) with a large percentage of foothill pines (*Pinus sabiniana*). Other vegetation in this habitat includes blue oak (*Quercus douglasii*), white oak (*Quercus alba*), elderberry (*Sambucus nigra*), plum (*Prunus* sp.), poison-oak, western redbud (*Cercis occidentalis*), toyon (*Heteromeles arbutifolia*), manzanita (*Arctostaphylos* sp.), ceanothus (*Ceanothus* sp.), hollyleaf redberry (*Rhamnus ilicifolia*). The understory included largely non-native invasive annual plant species with the addition of honeysuckle (*Lonicera* sp.).

Animal species observed in this habitat type include the mourning dove (*Zenaida macroura*), Eurasian collared dove (*Streptopelia decaocto*), acorn woodpecker (*Melanerpes formicivorus*), California scrub jay, northern mockingbird (*Mimus polyglottos*), oak titmouse (*Baeolophus inornatus*), California towhee (*Melozone crissalis*), spotted towhee (*Pipilo maculatus*), American goldfinch (*Spinus tristis*), western fence lizard, and western gray squirrel.

2.2.5 Drainage

A drainage occurs in the northwestern corner of the site with culverts running under the road to the north of the site. This drainage was dry at the time of the July 2022 site visit. The drainage has a flat bottom with fairly steep sides, suggesting a large volume of seasonal flow. The width of the drainage varied from approximately 12 feet wide at the northern boundary of the site to approximately five feet wide where it exits the site on the western side of the parcel. The banks supported upland vegetation consistent with the woodland and grassland adjacent to it. Based on aerial imagery and the National Wetlands Inventory (USFWS accessed 2022), this unnamed drainage appears to be a tributary of Cache Creek which is connected to Clear Lake.

This drainage may have the potential to support aquatic species seasonally, depending on seasonal water flow levels.

2.3 WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors are areas where regional wildlife populations regularly and predictably move during dispersal or migration. Movement corridors in California are typically

associated with valleys, rivers and creeks supporting riparian vegetation, and ridgelines. Wildlife will often move across ill-defined undeveloped habitat patches, or regional movement is facilitated along existing linear features such as ditches, canals, farm roads, and creeks.

Regionally, the nearest area believed to provide for regional wildlife movement is Cache creek and its riparian habitat approximately a half-mile to the south of the site. Figure 16 of the Lake County Land Trust Conservation Priority Plan (Lake County Land Trust 2017/2018) identifies the project site location as being the along the northern edge of a structural connectivity corridor which appears to center around Cache Creek and upland habitat to the east of Clearlake.

The site itself consists mainly of open previously developed area with some natural lands along the northern edge. Development of the City of Clearlake occurs to the west, north, and east of the site, with dispersed rural residential around the immediate northern are of the site. Therefore, the site itself likely does not play a major role as a wildlife corridor, however, wildlife which currently use the site for daily or dispersal movements would likely continue to do so after the site is built out.

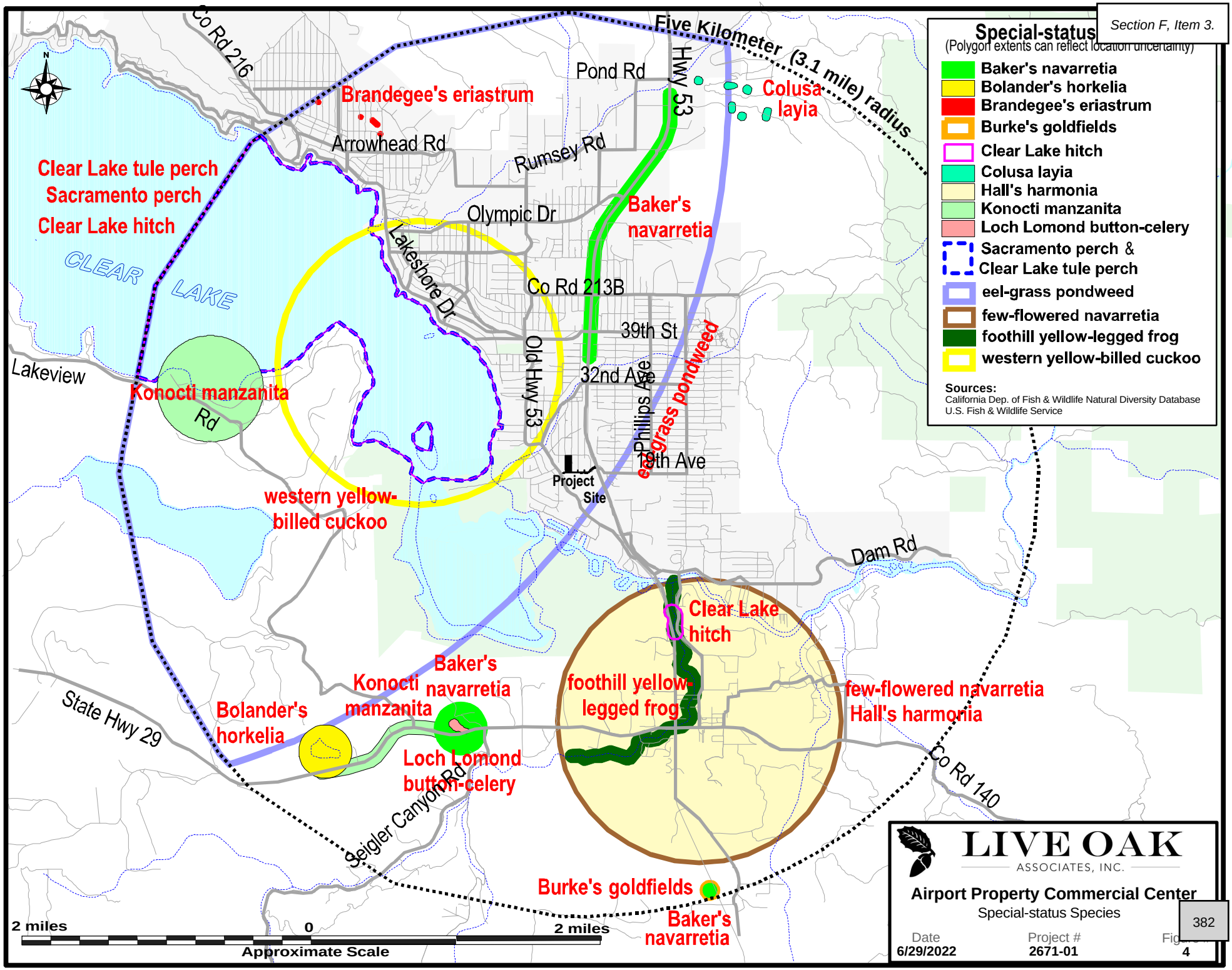
2.4 SPECIAL STATUS PLANTS AND ANIMALS

Several species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered “rare” and are vulnerable to extirpation as the state’s human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as “threatened” or “endangered” under state and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as “species of special concern” by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened,

or endangered (CNPS 2022). Collectively, these plants and animals are referred to as “special status species”.

Several special status plants and animals occur in the vicinity of the Project Site (Figure 4). These species, and their potential to occur in the Project Site, are listed in Table 2 in the following pages. Sources of information for this table included *California Amphibian and Reptile Species of Special Concern* (Thomson et.al. 2016), *California Bird Species of Special Concern* (Shuford and Gardall 2008), *California Natural Diversity Data Base* (CDFW 2022), *Endangered and Threatened Wildlife and Plants* (USFWS 2022), *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants* (CDFW 2022), and *The California Native Plant Society’s Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2022). This information was used to evaluate the potential for special status plant and animal species to occur within the Project Site. It is important to note that the California Natural Diversity Data Base (CNDDB) is a volunteer database.

A search of published accounts for all relevant special status plant and animal species was conducted for the Clearlake Highlands and Lower Lake USGS 7.5-minute quadrangles within which the Project Site is located, and for the 10 surrounding quadrangles (Lucerne, Clearlake Oaks, Benmore Canyon, Wilbur Springs, Kelseyville, Wilson Valley, The Geysers, Whispering Pines, and Middletown) using the California Natural Diversity Data Base Rarefind 5 (2022).



LIVE OAK ASSOCIATES, INC.

Airport Property Commercial Center

Special-status Species

Date	Project #	Figure
6/29/2022	2671-01	4

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (adapted from CDFW 2022 and CNPS 2022)

Species status under the California Rare Plant Rank

Common and scientific names	Status	General habitat description	*Occurrence in the study area
Bent-flowered fiddleneck *Amsinckia lunaris*	CRPR 1B	Habitat: Coastal bluff scrub, cismontane woodland, and valley and foothill grasslands. Elevation: 3-500 meters. Blooms: Annual herb; March–June.	**Possible.** Potentially suitable habitat is present, and the survey occurred outside of the blooming season for this species. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site.
Raiche's manzanita *Arctostaphylos stanfordiana Parry ssp. raichei*	CRPR 1B	Habitat: Occurs in chaparral and lower montane coniferous forest openings. Elevation: 450-1,035 meters. Blooms: Perennial shrub; February-April.	**Possible.** At least one manzanita species is present on the site but could not be identified to species as the survey occurred outside the blooming season. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site.
Big-scale Balsamroot *Balsamorhiza macrolepis var. macrolepis*	CRPR 1B	Habitat: Occurs in chaparral, cismontane woodland, valley and foothill grassland, sometimes on serpentine Elevation: 45-1,555 meters. Blooms: Perennial herb; March-June.	**Absent.** This perennial species would have been observed on the site during the survey, if present, and it was not observed.
Three-fingered morning-glory *Calystegia collina ssp. tridactylosa*	CRPR 1B2	Habitat: Occurs in chaparral and cismontane woodland. Elevation: 0-600 meters. Blooms: Perennial herb; April-June.	**Possible.** Potentially suitable habitat is present, and the survey occurred outside of the blooming season for this species. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site.
Pappose tarplant *Centromadia parryi ssp. Parryi*	CRPR 1B	Habitats: Often alkaline soils within chaparral, coastal prairie, meadows, seeps, marshes, swamps, and mesic valley and foothill grasslands. Elevation: 0-420 meters. Blooms: May-November.	**Unlikely.** Habitats of the site are marginal for this species and there are no known occurrences within three miles of the site.
Deep-scarred cryptantha *Cryptantha excavate*	CRPR 1B.1	Habitat: Occurs in gravelly and sandy cismontane woodland. Elevation: 100-500 meters. Blooms: April-May.	**Possible.** One senesced cryptantha species was tentatively identified on the site during the reconnaissance survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site.
Tracy's eriastrum *Eriastrum tracyi*	CRPR 1B	Habitat: Occurs in chaparral and cismontane woodland. Elevation: 315-1,125 meters. Blooms: Annual herb; May-July.	**Possible.** Potentially suitable habitat is present, and the survey occurred outside of the blooming season for this species. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site.

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (adapted from CDFW 2022 and CNPS 2022)
Species status under the California Rare Plant Rank

Common and scientific names	Status	General habitat description	*Occurrence in the study area
San Joaquin spearscale *Extriplex joaquinana*	CRPR 1B	Habitat: Occurs in chenopod scrub, meadows and seeps, playas, and valley and foothill grasslands on alkaline soils. Elevation: 1-835 meters. Blooms: Annual herb; April-October.	**Possible.** Potentially suitable habitat is present, and the survey occurred at a time when this annual herb may not have yet emerged. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site.
Adobe-lily *Fritillaria pluriflora*	CRPR1B.2	Habitat: Occurs on adobe soils of chaparral, cismontane woodland, and valley and foothill grassland. Elevation: 60-705 meters. Blooms: Bulbiferous; February-April.	**Absent.** Suitable habitat is absent from the site for this species.
Congested-headed hayfield tarplant *Hemizonia congesta ssp. congesta*	CRPR 1B2	Habitat: Occurs in valley and foothill grasslands, often on roadsides. Elevation: 20-560 meters. Blooms: April-November.	**Possible.** Suitable habitat occurs on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site.
Napa bluecurls *Trichostema ruygtii*	CRPR 1B.2	Habitats: Occurs in chaparral, cismontane woodland, lower montane forest, valley and foothill grassland, and vernal pools. Elevation: 30-680 meters. Blooms: Annual herb; June-October.	**Possible.** Suitable habitat occurs on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site.
Oval-leaved viburnum *Viburnum ellipticum*	CRPR 2B	Habitat: Chaparral, cismontane woodland, and lower montane coniferous forest. Elevation: 215-1400 meters. Blooms: Perennial shrub; May-June.	**Possible.** Suitable habitat occurs on the site and the survey occurred outside of the blooming season for this species. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site.

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

Animals (adapted from CDFW 2022 and USFWS 2022)
Species Listed under theThreatened and Endangered State and/or Federal Endangered Species Act

Common and scientific names	Status	General habitat description	*Occurrence in the study area
Clear Lake hitch *Lavinia exilicauda chi*	FT	Occurs in slow warm water and is known to occur in Clear Lake and its larger tributaries.	**Unlikely.** This species is unlikely to occur on the site, as the drainage onsite lacks deep pools.
Steelhead - Central California Coast DPS *Oncorhynchus mykiss irideus*	FT	Spawn in freshwater rivers or streams in the spring and spend the remainder of their life in the ocean.	**Absent.** This species is unlikely to occur on the site, as the drainage appears to be seasonal and lacks spawning habitat for this species.

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

Animals (adapted from CDFW 2022 and USFWS 2022)

Species Listed under theThreatened and Endangered State and/or Federal Endangered Species Act

Common and scientific names	Status	General habitat description	*Occurrence in the study area
Foothill yellow-legged frog *Rana boylii*	CE	Occurs in swiftly flowing streams and rivers with rocky substrate with open, sunny banks in forest, chaparral, and woodland habitats, and can sometimes be found in isolated pools and ponds.	**Absent.** Habitats required by this species are absent. The only water feature onsite is a seasonal drainage with poor habitat for this species. This species is known from a larger tributary approximately a mile south of the site (CDFW 2022).
California red-legged frog *Rana draytonii*	FT, CSC	Dense, shrubby riparian vegetation such as arroyo willow, cattails, and bulrushes with still or slow-moving water. Perennial streams or ponds are preferred, and a salinity of no more than 4.5º/ₒ.	**Absent.** Habitats required by this species are absent. The only water feature onsite is a seasonal drainage with poor habitat for this species. The closest recorded observation of this species is more than three miles from the site (CDFW 2022).
Bald eagle *Haliaeetus leucocephalus*	CE, CP	Breeding habitat is usually within 4 km of a water source in a tall tree or cliffs; roosting in large numbers in winter is common.	**Absent.** Although Clear Lake is within a mile from the site, large stick nests indicative of this species were not observed during the site visit. The closest recorded observation of this species is more than three miles from the site (CDFW 2022).
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT, CE	Breed in large blocks of riparian habitats, particularly cottonwoods and willows.	**Unlikely.** Dense riparian habitat required by this species is absent from the Project Site. The closest recorded observation of this species is a proximity polygon centered approximately a mile to the west of the site along Clear Lake (CDFW 2022). Therefore, while this species is unlikely to breed on the site, it may occur from time to time on the site due to the proximity of the site to suitable habitat.

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

Animals (adapted from CDFW 2022 and USFWS 2022)

State Species of Special Concern

Common and scientific names	Status	General habitat description	*Occurrence in the study area

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

Animals (adapted from CDFW 2022 and USFWS 2022)

State Species of Special Concern

Common and scientific names	Status	General habitat description	*Occurrence in the study area
Sacramento perch *Archoplites interruptus*	CSC	Occurs in sloughs, slow-moving rivers, and large lakes. They are not known from their historic range, and most known locations are locations where this species has been planted. Less than 25 populations are known (CDFW species accounts).	**Absent.** This species is known to occur in Clear Lake, however, is not known to occur in tributaries of the lake.
Clear Lake tule perch *Hysterocarpus traskii pomo*	CSC	Occurs in Clear Lake.	**Absent.** This species is restricted to Clear Lake and is therefore not expected to occur within the tributary onsite.
Clear Lake roach *Lavinia symmetricus ssp.*	CSC	Occurs in tributaries of Clear Lake in a slow-flow conditions ranging from fast-flowing water to slow water and can occur in intermittent streams and can deal well with low dissolved oxygen levels.	**Possible.** This species may occur within the drainage of the site when seasonal flows allow for it to occur.
California giant salamander *Dicamptodon ensatus*	CSC	Occurs in or adjacent to cold clear permanent to semi-permanent streams and seeps.	**Absent.** Suitable habitat for this species is absent from the site, additionally, the site is outside of this species' known range.
Red-bellied Newt *Taricha rivularis*	CSC	This species lays eggs in running water and can be found in coastal woodlands and redwood forest along the coast of northern California north of San Francisco except a small population occurring in the Steven's Creek watershed near the San Francisco Bay.	**Absent.** Suitable habitat for this species is absent from the site, additionally, the site is outside of this species' known range.
Western pond turtle *Actinemys marmorata*	CSC	Intermittent and permanent waterways including streams, marshes, rivers, ponds and lakes. Open slow-moving water of rivers and creeks of central California with rocks and logs for basking.	**Unlikely.** Marginal habitat for the western pond turtle may occur onsite seasonably when the onsite drainage supports enough water, however, other tributaries with year-round water support higher quality habitat for this species. Additionally, this species has not been recorded within three miles of the project site.
Golden eagle *Aquila chrysaetos*	CP	Typically frequents rolling foothills, mountain areas, sage-juniper flats and desert.	**Unlikely.** Suitable foraging habitat is poor onsite; additionally, breeding habitat is absent from the site and golden eagles have not been recorded within three miles of the site (CDFW 2022).

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

Animals (adapted from CDFW 2022 and USFWS 2022)
State Species of Special Concern

Common and scientific names	Status	General habitat description	*Occurrence in the study area
Purple martin *Progne subis*	CSC	Inhabits woodlands, low elevation coniferous forest of Douglas fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities, also in human-made structures and nests widely in human-made birdhouses. Nests often located in tall, isolated trees or snags.	**Unlikely.** The trees of the site do not provide potential nesting habitat. These birds are known to nest near open water, the closest of which is Clear Lake approximately a mile away, however this species has not been recorded within a mile of the site (CDFW 2022). The purple martin may be expected to fly over or forage on the site from time to time.
Townsend's Big-eared bat *Corynorhinus townsendii*	CSC	Primarily a cave-dwelling bat that may also roost in buildings. Occurs in a variety of habitats.	**Possible.** Suitable foraging habitat for this species is present on the Project Site; however, roosting habitat is absent.
Pallid bat *Antrozous pallidus*	CSC	Roosts in rocky outcrops, cliffs, and crevices with access to open habitats for foraging. May also roost in caves, mines, hollow trees and buildings.	**Possible.** Suitable foraging habitat for this species is present on the Project Site; however, roosting habitat is absent.
Western red bat *Lasiurus blossevillii*	CSC	Roosts in tree or shrub foliage, although will occasionally use caves.	**Possible.** Suitable foraging habitat for this species is present on the Project Site; however, roosting habitat is absent.
Ringtail *Bassariscus astutus*	CP	Occurs in riparian and heavily wooded habitats near water.	**Unlikely.** Riparian habitat along the drainage is marginally suitable for this species.

*Explanation of Occurrence Designations and Status Codes
Present: Species observed within the Project Site at time of field surveys or during recent past.
Likely: Species not observed within the Project Site, but it may reasonably be expected to occur there on a regular basis.
Possible: Species not observed within the Project Site, but it could occur there from time to time.
Unlikely: Species not observed within the Project Site, and would not be expected to occur there except, perhaps, as a transient.
Absent: Species not observed within the Project Site and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPE	Federally Endangered (Proposed)	CR	California Rare
FC	Federal Candidate	CP	California Fully Protected
CSC	California Species of Special Concern		
CC	California Candidate		
CNPS	California Native Plant Society Listing		
1A	Plants Presumed Extinct in California	3	Plants about which we need more information – a review list
1B	Plants Rare, Threatened, or Endangered in California and elsewhere	4	Plants of limited distribution – a watch list
2	Plants Rare, Threatened, or Endangered in California, but more common elsewhere		

2.5 JURISDICTIONAL WATERS

Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW), and the California Regional Water Quality Control Board (RWQCB). See Section 3.2.4 of this report for additional discussion of these agencies' roles and responsibilities.

The site supports a drainage which is a tributary of Cache Creek, which may be a Jurisdictional Water.

3 IMPACTS AND MITIGATIONS

3.1 SIGNIFICANCE CRITERIA

General plans, area plans, and specific projects are subject to the provisions of the California Environmental Quality Act. The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are constructed. For example, site development may require the removal of some or all of its existing vegetation. Animals associated with this vegetation could be destroyed or displaced. Animals adapted to humans, roads, buildings, pets, etc., may replace those species formerly occurring on a site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed. These impacts may be considered significant. According to 2021 CEQA Status and Guidelines (2022), "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest. Specific project impacts to biological resources may be considered "significant" if they will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 Threatened and Endangered Species

State and federal "endangered species" legislation has provided the CDFW and USFWS with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal Endangered Species Acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as "species of special status." Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the take of a listed species. To "take" a listed species, as defined by the state of California, is "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" said species (California Fish and Game Code, Section 86). "Take" is more broadly defined by the federal Endangered Species Act to include "harm" of a listed species (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFW and the USFWS are responding agencies under CEQA. Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

3.2.2 Migratory Birds

State and federal laws also protect most bird species. The State of California signed Assembly Bill 454 into law in 2019, which clarifies native bird protection and increases protections where

California law previously deferred to Federal law. The Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., scc. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

3.2.3 Birds of Prey

Birds of prey are protected in California under provisions of the State Fish and Game Code, Section 3503.5, which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

Additionally, the Bald and Golden Eagle Protection Act (16 U.S.C., scc. 668-668c) prohibits anyone from taking bald or golden eagles, including their parts, nests, or eggs, unless authorized under a federal permit. The act prohibits any disturbance that directly affects an eagle or an active eagle nest as well as any disturbance caused by humans around a previously used nest site during a time when eagles are not present such that it agitates or bothers an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

3.2.4 Jurisdictional Waters and Wetlands

Jurisdictional waters include waters of the United States subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE) and waters of the State of California subject to the regulatory authority of the California Department of Fish and Wildlife (CDFW) and the California Regional Water Quality Control Board (RWQCB).

3.2.4.1 Clean Water Act, Section 404

The USACE regulates the filling or grading of Waters of the U.S. under the authority of Section 404 of the Clean Water Act. Drainage channels and adjacent wetlands may be considered "waters of the United States" or "jurisdictional waters" subject to the jurisdiction of the USACE. The extent of jurisdiction has been defined in the Code of Federal Regulations and clarified in federal courts.

The definition of waters of the U.S. have changed several times in recent years. In January 2020, the Environmental Protection Agency (EPA) and USACE jointly issued the Navigable Waters Protection Rule. The new rule was published in the Federal Register on April 21, 2020 and took effect on June 22, 2020.

On August 30, 2021, the U.S. District Court for the District of Arizona issued an order vacating and remanding the Navigable Waters Protection Rule. In light of this order, the EPA and USACE have halted implementation of the Navigable Waters Protection Rule and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice.

The pre-2015 regulatory regime defines waters of the U.S. as:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
    a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
c. Which are used or could be used for industrial purposes by industries in interstate commerce;

4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

All activities that involve the discharge of dredge or fill material into waters of the U.S. are subject to the permit requirements of the USACE under Section 404 of the Clean Water Act. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued without a CWA Section 401 Water Quality Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards (Section 3.6.2).

3.2.4.2 Porter-Cologne Water Quality Act/Clean Water Act, Section 401

There are nine Regional Water Quality Control Boards (RWQCB) statewide; collectively, they oversee regional and local water quality in California. The RWQCB administers Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. The RWQCB for a given region regulates discharges of fill or pollutants into waters of the State through the issuance of various permits and orders.

Pursuant to Section 401 of the Clean Water Act, the RWQCB regulates waters of the State that are also waters of the U.S. Discharges into such waters require a Section 401 Water Quality Certification from the RWQCB as a condition to obtaining certain federal permits, such as a

Clean Water Act Section 404 permit (Section 3.6.1). Discharges into all Waters of the State, even those that are not also Waters of the U.S., require Waste Discharge Requirements (WDRs), or a waiver of WDRs, from the RWQCB.

The Porter-Cologne Water Quality Control Act, Water Code Section 13260, requires that "any person discharging waste, or proposing to discharge waste, within any region that could affect the 'waters of the State' to file a report of discharge" with the RWQCB. Waters of the State as defined in the Porter-Cologne Act (Water Code Section 13050[e]) are "any surface water or groundwater, including saline waters, within the boundaries of the state." This gives the RWQCB authority to regulate a broader set of waters than the Clean Water Act alone; specifically, in addition to regulating waters of the U.S. through the Section 401 Water Quality Certification process, the RWQCB also claims jurisdiction and exercises discretionary authority over "isolated waters," or waters that are not themselves waters of the U.S. and are not hydrologically connected to waters of the U.S.

The RWQCB also administers the Construction Stormwater Program and the federal National Pollution Discharge Elimination System (NPDES) program. Projects that disturb one or more acres of soil must obtain a Construction General Permit under the Construction Stormwater Program. A prerequisite for this permit is the development of a Stormwater Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Projects that discharge wastewater, stormwater, or other pollutants into a Water of the U.S. may require a NPDES permit.

3.2.4.3 California Fish and Game Code, Section 1602

The CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a Notification of Lake or Streambed Alteration. If the CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be

prepared. Such an agreement typically stipulates that certain measures will be implemented to protect the habitat values of the lake or drainage in question.

3.2.5 Local Policies: City of Clearlake Native Tree Protection Ordinance

The City of Clearlake wishes to "ensure the preservation and protection of resources that cannot be replaced while also balancing the needs of commerce, industry and the human population within the City." As such, the Native Tree Protection Ordinance, Chapter 18, Section 40 of the City of Clearlake Municipal Code protects certain trees and requires an approved permit be obtained before disturbances "which might cause harm to a protected tree, are strictly prohibited within the Root Protection Zone (RPZ) of that tree". These disturbances include, but are not limited to:

1. Removing, moving or failing to install and maintain proper temporary protection fencing in the vicinity of construction prior to completion of on-site work;
2. Trenching;
3. Any permanent or temporary structures; however, temporary structures not fixed to the ground shall be allowed as long as they will not compact the soil;
4. Grading, cutting, filling or changing the natural grade in any way;
5. Installation of an irrigation system;
6. Covering with any substance impermeable to air and rain water, such as asphalt, concrete, plastic, etc.; however, pervious surfacing such as pavers, gravel, pervious asphalt or other such materials may be used to within one-half (1/2) the distance from the dripline of the tree to the trunk;
7. Burning, open fires or open flames;
8. Compaction of the soil;
9. Girdling; and/or
10. Topping. (Ord. #248-2020, S2 (Exh. A))

Chapter 18, Section 40.020 defines which trees are subject to permits for removal as follows:

a. A native tree removal permit shall be required for the following, unless exempted under Section 18- 40.030:

11. Native oak trees with the following diameter at breast height (DBH):

    a. Blue Oak (*Quercus douglasii*) greater than six (6") inch DBH;
    b. Valley Oak (*Quercus lobata*) greater than six (6") inch DBH;

c. Interior Live Oak (*Quercus wislizeni*) greater than six (6") inch DBH;
d. California Black Oak (*Quercus kelloggii*) greater than six (6") inch DBH;
e. Canyon Live Oak (*Quercus chrysolepsis*) greater than six (6") inch DBH;
f. Oregon White Oak (*Quercus garryana*) greater than six (6") inch DBH.

12. Any other tree designated by the City Council as a "heritage tree" as described in Section 18-40.060. (Ord. #248-2020, S2 (Exh. A)).

3.3 PROJECT IMPACTS AND MITIGATION MEASURES

The Airport Property Commercial Center Hotel and the extension of 18th will develop a small amount of regionally available habitat to developed use. The northern portion of the parcel for the Hotel development, although covered by this report, is not currently planned for development, as such impacts to this area are not expected.

Project impacts to biological resources and mitigations are discussed below.

3.3.1 Loss of Habitat for Special Status Plants

Potential Impact. Three special status plant species that occur, or once occurred, in the project vicinity are considered either absent from or unlikely to occur on the site due to a lack of suitable habitat, and/or because the species has not been observed in the site's vicinity, and/or because the species is a perennial and would have been identifiable during the time of year that the reconnaissance survey was conducted and it was not observed (see Table 1; Figure 4). These three species include the big-scale balsamroot, adobe-lily, and pappose tarplant.

However, nine special status plants cannot be ruled out as occurring on the site because habitats of the site are potentially suitable for these species and the survey occurred outside of the blooming period for these species. The latter special status plant species, along with their blooming period, include the bent-flowered fiddleneck (March – June), Raiche's manzanita (February – April), three-fingered morning glory (April – June), deep-scarred cryptantha (April – May), Tracy's eriastrum (May – July), congested-headed hayfield tarplant (April – November), Napa bluecurls (June – October), San Joaquin spearscale (April - October), and oval-leaved viburnum (May – June). Focused floristic surveys during the appropriate blooming season in all potentially suitable habitats for these species would be necessary to determine whether the

proposed project would impact any populations of these species. Should focused surveys determine populations of any of these species are present on the site, and if the project as proposed would impact these populations, this could be considered a potentially significant impact of the project.

Mitigation. As indicated above, there is the potential for special status plants to occur on the site. Floristic surveys should be conducted on the site in all habitats that potentially support special status species during the appropriate season to identify the species if it is present, which is typically during the species' blooming period. Based upon the suite of special status plant species potentially occurring on the site, at a minimum, four surveys should be conducted, i.e., in March, April, June, and October in all areas of the site within and adjacent to (within 100 feet) of project development footprints that provide potential habitat for the target species. These surveys should be conducted in conformance with the most recent version of CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* and CNPS' *Botanical Survey Guidelines.*

Should rare plant populations be determined present on the project site during the focused floristic surveys, the populations will be mapped and the number of individuals will be estimated. A qualified plant ecologist or botanist will determine whether project impacts to these populations are significant. If project impacts are determined to be significant, the following mitigation measures will be implemented to reduce impacts to a less-than-significant level.

Avoidance and Minimization Measures. To the extent practicable, the project should be designed to avoid or minimize impacts to special status plant populations with a buffer determined by the qualified botanist or plant ecologist.

Compensation Measures. If the project cannot be redesigned to avoid or minimize impacts to the identified species to a less-than-significant level, then compensation measures would include development of an onsite or off-site restoration plan for these species. At a minimum,

any restoration plan should contain the following elements: 1) location of restoration areas, 2) propagation and planting techniques to be employed for the restoration effort, 3) a timetable for implementation, 4) a monitoring plan and performance criteria, 5) an adaptive management plan should the restoration not meet interim success criteria, and 6) a site maintenance plan. The restoration plan would need to be approved by the County prior to the start of project construction and should, where feasible, occur in the immediate vicinity of the identified population(s). The objective of this mitigation measure would be to replace the special status plants and habitat lost during project build-out. This and any other compensation (on- or off-site mitigation) for anticipated impacts should be consistent with local policies and ordinances, and any other regulations protecting these plant communities.

Implementation of the above measures is expected to reduce project impacts to a less-than-significant level to any special status plant species that may occur on the site.

3.3.2 Loss of Habitat for Special Status Animals

Potential Impacts. Of the 34 special-status animal species potentially occurring in the region, 22 species would be absent or unlikely to occur within the Project Site due to unsuitable habitat conditions or being outside the species' range. These include the Clear Lake hitch, Steelhead, Sacramento perch, Clear Lake tule perch, foothill yellow-legged frog, California giant salamander, red-bellied newt, California red-legged frog, western pond turtle, bald eagle, golden eagle, western yellow-billed cuckoo, purple martin, and ringtail. Construction of the project would have no effect on loss of habitat for these species because there is little or no likelihood that they are present.

An additional four species may regularly or occasionally utilize the Project Site for foraging, including the Clear Lake roach, Townsend's big-eared bat, pallid bat, and western red bat. The Project Site does not provide regionally important foraging habitat for these species. Additionally, the drainage is not within the development area, therefore, fish habitat will not be impacted. Therefore, development of the project would result in a less-than-significant impact on these species.

The three bat species listed above, including the Townsend's big-eared bat, pallid bat, and California mastiff bat may forage over the site, however, roosting habitat is absent from the site for these species, as trees with suitable cavities and leaf density are absent from the site.

Mitigation. No mitigation is warranted for specific species; however, mitigation measures are provided below for raptors and migratory birds (Mitigation 3.3.3).

3.3.3 Disturbance to Active Raptor and Migratory Bird Nests

Potential Impacts. The Project Site provides potentially suitable nesting habitat for several migratory bird species, including raptors. Nearly all native bird species are protected by the federal Migratory Bird Treaty Act. The trees, bushes, and ground of the site provide potential nesting habitat for these birds. If birds were to nest in these areas in the future prior to construction, such project-related activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of raptors or result in mortality of individual birds constitute a violation of state and federal laws (see Section 3.2.2 and 3.2.3) and would be considered a significant impact under CEQA.

Mitigation. To minimize construction disturbance to active raptor and migratory bird nests, the following measure(s) will be followed:

***Mitigation 3.3.3a* (*Pre-construction surveys*).** If tree removal, site preparation, grading, or construction is planned to occur within the breeding period (i.e., between February 1 and August 31), a qualified biologist will conduct pre-construction surveys for active nests of migratory birds within 7 days of the onset of these activities. If construction activity is planned to commence outside the breeding period, no pre-construction surveys are required for nesting birds and raptors.

***Mitigation 3.3.3b* (*Establish Buffers*).** Should any active nests be discovered in or near proposed construction zones, the biologist will establish a construction-free buffer around the nest. The buffer would be adequate to ensure the nest is not disturbed by construction activities and would be based on the location of the nest, species of bird, sensitivity of the bird

(as determined by the biologist), and proximity to and type of construction occurring near the nest. This buffer shall be identified on the ground with flagging or fencing and shall be maintained until the biologist has determined that the young have fledged. Established buffers may be altered only if a qualified biologist provides compelling biological or ecological reason to do so.

***Mitigation 3.3.3c* (*Tailgate Training*).** All construction and operations workers on the project site shall be trained by a qualified biologist. The tailgate training shall include a description of the Migratory Bird Treaty Act, instructions on what to do if an active nest is located, and the importance of capping pipes and pipe-like structures standing upright to avoid birds falling into the pipes and getting stuck.

Implementation of the above measures would ensure that construction of the project would have no impact on nesting raptors and migratory birds and that the project would follow state and federal laws protecting nesting birds.

3.3.4 Impacts to Wildlife Movement Corridors

Potential Impacts. The site itself consists mainly of open previously developed area with some natural lands along the northern edge. Development of the City of Clearlake occurs to the west, north, and east of the site, with dispersed rural residential around the immediate northern are of the site. Therefore, the site itself likely does not play a major role as a wildlife corridor, however, wildlife which currently use the site for daily or dispersal movements would likely continue to do so after the site is built out.

Impacts to movement corridors for local wildlife are less-than-significant.

Mitigations. Mitigation for impacts to wildlife movements is not warranted.

3.3.5 Impacts to Jurisdictional Waters, Wetlands, or Riparian Habitats

Potential Impacts. The only hydrologic feature occurring within the study area is the drainage that cuts through the northwestern corner of the site; this drainage is a tributary of Cache

Creek and is likely considered to be a water of the U.S. and/or water of the State. However, the development area will avoid this feature completely, therefore, impacts to jurisdictional waters, wetlands, or riparian habitats are not expected to occur.

Mitigation. Mitigation measures are not warranted.

3.3.6 City of Clearlake Native Tree Protection Ordinance

Potential Impacts. City of Clearlake has a tree protection ordinance to protect native oak trees. LOA ISA-certified arborist Colleen Del Vecchio (WE#11788A) conducted an arborist inventory and provided an arborist report, which is attached to this report as Appendix A. Development, as currently planned is expected to impact 52 trees protected under the ordinance. Replacement in Clearlake is conducted by planting trees onsite, off-site, or paying in-lieu fees to the City. The report outlines protection measures for remaining trees and more information regarding the 52 trees to be removed or otherwise impacted.

Mitigation. Trees removed will need to be either replaced onsite, off-site, or an in-lieu fee paid to the City.

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5 APPENDIX A: ARBORIST TREE INVENTORY AND ASSESSMENT FOR PROPOSED AIRPORT COMMERCIAL CENTER HOTEL PROJECT, CLEARLAKE, LAKE COUNTY, CALIFORNIA

LIVE OAK
ASSOCIATES, INC.

August 8, 2022

Alan Flora
City Manager, City of Clear Lake
14050 Olympic Drive
Clearlake, CA 95422

Subject: Post-Fire Tree Assessment for Proposed Airport Property Commercial Center Hotel Project, Clearlake, Lake County, California (PN 2671-02)

Dear Mr. Flora,

This letter summarizes Live Oak Associates, Inc. (LOA) recommended post-fire tree assessment procedures. In July 2022, after LOA's arborist conducted a tree inventory and assessment at the proposed airport property commercial center hotel project, a fire occurred that potentially damaged, injured, and/or killed some of the existing protected trees. The steps below are recommended to determine the health status of each tree.

Post-Fire Survey Procedures

The following procedures are recommended to determine which of the protected trees will survive the July 2022 fire. The protected trees that survive and are then impacted by project activities, will need to be mitigated for. These methods will help determine which trees are alive. Protected trees within the vicinity of the project, but not needing to be removed, would require more long-term monitoring methods which are also described below.

Protected Trees Expected To Be Removed

Within 8 to 10 weeks of being impacted by fire, a tree's cambium can be checked to determine if a tree is dying or is living. In the short-term, this can be helpful for determining whether or not a tree is still alive and subject to mitigation. The method of checking a tree's cambium for health is recommended only for trees expected to be removed by the project. This method damages the tree's bark and should not be conducted on trees that will remain in place. If this method is to be used as a follow-up survey, the grading limit must be physically staked in the project site so not to confuse a protected tree that is being removed vs. a protected tree that requires protection measures and will remain in place.

Protected Trees Expected To Remain

Protected trees expected to remain in place may require a hazard assessment if safety becomes a concern at the time of construction. This survey is optional. Since these trees will not be removed or potentially require mitigation, it is recommended that these trees are not assessed at the time of the tree expected to be removed. Instead, it is recommended that the tree protection measures remain the same (as stated in LOA's July 18, 2022 "Arborist Tree Inventory and Assessment for Proposed Airport Property Commercial Center Hotel Project" report). Then, prior to construction starting when the tree protection measures are required to be checked by an arborist, if the client would like an assessment made for hazardous trees near the construction site, this would be the ideal time. To determine health for these trees, it is recommended at least one winter season has passed (2022-2023), and this timing does not correspond with the survey that can be conducted for trees expected to be removed.

Conclusion

Protected trees expected to be removed from project activities can be re-surveyed as early as October 1, 2022 to determine their health status. Trees not expected to be removed from project activities, but require tree protection measures, can be re-surveyed in spring 2023 at the earliest.

If you have any questions regarding this letter, please contact me at your earliest convenience. I may be reached by phone (559-642-4880) or e-mail (cdelvecchio@loainc.com).

Sincerely,

Colleen Del Vecchio
Ecologist & Arborist/Project Manager
Live Oak Associates, Inc.

LIVE OAK ASSOCIATES, INC.
an Ecological Consulting Firm

March 24, 2022

Alan Flora
City Manager
City of Clearlake
14050 Olympic Drive
Clearlake, CA 95422

SUBJECT: Reconnaissance Survey for the Adjacent Airport Property in Clearlake, Lake County, California.

Dear Mr. Flora:

At your request, Live Oak Associates, Inc. (LOA) has prepared this scope and budget to conduct the necessary field surveys and to gather reconnaissance-level information for the adjacent airport property during the same site visit as the Hotel project site. The Airport site is just south of the Hotel site, which is located at the end of 18th Avenue in the City of Clearlake in Lake County, California. This property is identified as "Parcel S" in the 2021 Clearlake Conceptual Plan. The approximately 0.3-acre property is located at the end of 18th Avenue.

Following are the proposed tasks:

Task 1. RECONNAISSANCE SUREVEY FOR THE ADJACENT AIRPORT PROPERTY.

Task 1a. Project Management
A small amount of time has been allocated for project management.

Task 1b. Site Survey.
This survey is intended to occur in the same trip as for the Hotel Property and is meant to be a general site visit to assess for obvious potential issues only, such as whether an arborist survey, wetland delineation, rare plant surveys, or other special surveys may be necessary. This is meant to be a reconnaissance-level survey that could be used to write a biological evaluation report at a later date if it is requested by the City within a reasonable amount of time.

We are not proposing to conduct a formal wetland delineation or protocol-level, species-specific surveys. If such surveys are warranted, they will be covered under a separate scope of work.

Task 1c. Preparation of Memo.
After the site visit, the biologist will prepare a memo summarizing the field notes; this is not intended to be an assessment or evaluation, just strictly a summarization of what was observed on the site and any other notes the biologist takes in the field.

We propose to complete Task 1 for a not-to-exceed amount of $2,358.

We thank you for using our firm to provide you these services and look forward to working with you. If you have any additional questions or concerns regarding this proposal, please contact me at (408) 281-5889, at your convenience.

Sincerely,

Katrina Krakow
Senior Project Manager
Staff Ecologist

Proposal Acceptance

Accepted By: _____ Date: _____

Printed Name: _____ Title: _____

STANDARD TERMS AND CONDITIONS

The following are LOA's standard contract terms and conditions, to be incorporated into the agreement by and between
LIVE OAK ASSOCIATES, INC. (hereinafter referred to as "LOA") and **City of Clearlake** (hereinafter referred to as "Client").

APPLICABLE LAWS. Contractor is obligated by professional codes of ethics and applicable laws to report observed violations of federal, state, and local codes for protection of natural resources and the environment.

ADDITIONAL SERVICES. Should Client, or any public body or inspector direct any modification or addition to the Services covered by this Contract, the payment for Services as set forth in Section 4 shall be adjusted accordingly. Client agrees to reimburse LOA for any additional hours for requested additional work not described in the Contract at an applicable hourly fee schedule rate.

INDEPENDENT CONTRACTOR STATUS. It is understood by the parties that in performing the above-described Services, LOA shall act as an independent contractor with respect to Client.

PAYMENT FOR SERVICES. In consideration for the Services to be performed by LOA under this Contract, Client agrees to pay to LOA for work performed upon receipt of monthly invoices. Monthly invoices will reflect work performed at the respective hourly rates of individuals providing Services on behalf of LOA. Payments are due upon receipt of monthly invoice.

Accounts more than 30 days past due shall accrue interest at the rate of ten percent (10%) per annum. Additionally, accounts more than 30 days past due shall be subject to a service charge of eight percent (8%) per annum. In the event that collection is required on past due accounts or litigation is required to resolve a dispute arising under this Contract, it is further agreed that the prevailing party in any such action shall be entitled to receive reasonable attorney's fees in addition to costs.

TERM. This Contract shall become effective on the date of its execution and shall continue in force and effect until the Services provided for herein have been fully and completely performed, unless otherwise terminated as set forth in Section 6 below.

RIGHT TO STOP WORK. LOA shall have the right to stop performance of the Services until all payments due are received if any payment shall not be made, when due, to LOA under this Contract. Failure to make payment, within thirty (30) days of the date due, is a material breach of this Contract and shall entitle LOA to cease any further Services under the Contract.

TERMINATION. If a party defaults by failing to substantially perform any provision, term or condition of this Contract, the other party may terminate this Contract by providing written notice to the defaulting party. This notice shall describe with sufficient detail the nature of the default. The party receiving such notice shall have 30 days from the effective date of such

notice to cure the default(s). Unless waived by a party providing notice, the failure to cure the default(s) within such time period shall result in the automatic termination of this Contract.

USE OF INFORMATION. Upon completion of the Project, LOA shall have the right to use relevant information gathered during the Project investigation on future projects. LOA shall have the right to use illustrations, charts, graphs, maps and other visual materials developed by LOA in connection with the Project, but will omit references to Client's name. LOA shall have the right to reference the Project and client's name when preparing literature, proposals and conducting interviews for obtaining future consulting jobs. LOA's reports shall be used by Client only in connection with the Project.

OBLIGATIONS OF CLIENT. Client agrees to comply with all reasonable requests of LOA necessary for the performance of LOA's obligations under this Contract. Client agrees to furnish space on Client's property for use by LOA while performing the Services.

WARRANTY. LOA shall provide its Services and meet its obligations under this Contract in a timely and workmanlike manner, and shall provide a standard of care equal to, or superior to, care used by service providers similar to LOA on similar projects.

INDEMNIFICATION. Client shall indemnify and hold LOA harmless from any liability, claims, demands, loss, damages or expense, including any reasonable attorney fees and costs, asserted against or suffered by LOA resulting from: (i) any breach by Client of this Agreement; (ii) any liability of the Client with respect to the Client's Property and/or Client's Project or otherwise; or (iii) the accuracy or breach of any of the representations, warranties or covenants made by Client.

LOA shall indemnify and hold Client or its directors, officers, and employees harmless from any liability, claims, demands, loss, damages or expense, including any reasonable attorney fees and costs, asserted against or suffered by Client resulting from the acts, errors or omissions of LOA or its directors, officers, employees, and sub-consultants in performance of this Agreement, except for injuries and damages caused by the sole negligence of the Client.

SUBCONTRACTORS. LOA may subcontract to other qualified personnel such portions of the work required by Client as LOA deems necessary.

ASSIGNMENT. Neither party may assign or transfer its rights or obligations under this Contract without the prior written consent of the non-assigning party.

MEDIATION. LOA and Client agree to mediate any dispute or claim arising between them out of this Contract, or any resulting transaction, before resorting to court action. Mediation fees, if any, shall be divided equally among the parties involved. If, for any dispute or claim to which this paragraph applies, any party commences an action without first attempting to resolve the matter through mediation, or refuses to mediate after a request has been made, then that party shall not be entitled to recover attorney fees, even if they would otherwise be available to that party in any such action.

ATTORNEY'S FEES. If either party institutes a court action arising from this Contract or the performance of it, the prevailing party in such action or litigation shall, in addition to such other relief as the court may grant, be entitled to an award of reasonable costs and expenses of litigation, including expert witness fees and attorney fees.

ENTIRE AGREEMENT. This Contract contains the entire agreement of the parties, and there are no other promises or conditions in any other agreement whether oral or written concerning the subject matter of this Contract. This Contract supersedes any prior written or oral agreements between the parties.

SEVERABILITY. If any provision of this Contract will be held to be invalid or unenforceable for any reason, the remaining provisions will continue to be valid and enforceable. If a court finds that any provision of this Contract is invalid or unenforceable, but that by limiting such provision it would become valid and enforceable, then such provision will be deemed to be written, construed, and enforced as so limited.

AMENDMENT. This Contract may be modified or amended in writing, if the writing is signed by the party obligated under the amendment.

GOVERNING LAW. This Contract shall be construed in accordance with the laws of the State of California.

BINDING EFFECT. The terms and provisions of this Contract shall be binding and inure to the benefit of the successors and assigns of the parties hereto.

DESCRIPTIVE HEADINGS. The descriptive headings used and inserted into this Contract are for convenience only and shall not be deemed to affect the meaning or construction of any provision herein.

COUNTERPARTS. This Contract may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Contract shall become effective upon the execution of a counterpart hereof by each of the parties hereto.

NOTICES. All notices and communications hereunder shall be in writing and shall be deemed given and delivered personally when mailed by registered or certified mail, postage prepaid, addressed as follows if to LOA:

Live Oak Associates, Inc.
P.O. Box 2697
Oakhurst, CA 93644

and addressed as follows if to Client:
Alan Flora
City Manager
City of Clearlake
14050 Olympic Drive
Clearlake, CA 95422
707-994-8201

LIVE OAK ASSOCIATES, INC.
AIRPORT PROPERTY COMMERCIAL CENTER

RECONNAISSANCE SURVEY FOR THE ADJACENT AIRPORT PROPERTY
CLEARLAKE, LAKE COUNTY, CALIFORNIA

24-Mar-22

I. STAFF COSTS FOR RECONNAISSANCE SURVEY FOR THE ADJACENT AIRPORT PROPERTY

TASKS	STAFF				
	Principal	Sr. Proj. Manager Staff Ecologist	Botanist	Cartographer	Support
Task 1. Additional Work for Adjacent Property	-	-	-	-	-
Task 1a. Project Management	1	1	0	0	0
Task 1b. Site survey	0	6	0	0	0
Task 1c. Field Notes Memo	0.5	3	2	0	0.25
TOTAL	**1.5**	**10**	**2**	**0**	**0.25**
$/HR	**235**	**145**	**145**	**145**	**70**
$ TOTAL	**353**	**1,450**	**290**	**-**	**18**
STAFF SUBTOTAL					**$ 2,110**

VI. DIRECT COSTS FOR TASK 1

Per Diem ($96/day lodging; $59/day meals) 2022 GSA Rate	214			214
Mileage ($0.585/mi)	20 miles			11
Service Cost (10% direct expenses)				23
DIRECT EXPENSE SUBTOTAL				**$ 248**

TOTAL PROJECT COSTS FOR TASK 1	**$ 2,358**

Attachment C

Transportation Impact Study

Transportation Impact Study for the Airport Hotel Project

Prepared for the City of Clearlake

Submitted by
W-Trans

August 31, 2022

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Table of Contents

Executive Summary 1

Introduction 2

Transportation Setting 4

Project Data 6

Circulation System 9

Vehicle Miles Traveled (VMT) 12

Safety Issues 14

Emergency Access 17

Capacity Analysis 18

Parking 28

Conclusions and Recommendations 29

Study Participants and References 31

Figures

1. Study Area, Existing and Proposed Lane Configurations 3
2. Site Plan 7
3. Proposed Roadway Improvements 8
4. Existing, Baseline, and Future Traffic Volumes 21
5. Project Traffic Volumes and Trip Distribution 24
6. Existing plus Project, Baseline plus Project, and Future plus Project Traffic Volumes 25

Tables

1. Trip Generation Summary 6
2. Trip Distribution Assumptions 6
3. Bicycle Facility Summary 10
4. Employee Vehicle Miles Traveled Analysis Summary 12
5. 95th Percentile Queues 16
6. Intersection Level of Service Criteria 19
7. Existing Peak Hour Intersection Levels of Service 20
8. Trip Generation Summary for Baseline Projects 22
9. Baseline Peak Hour Intersection Levels of Service 22
10. Future Peak Hour Intersection Levels of Service 23
11. Existing and Existing plus Project Peak Hour Intersection Levels of Service 26
12. Baseline and Baseline plus Project Peak Hour Intersection Levels of Service 26
13. Future and Future plus Project Peak Hour Intersection Levels of Service 27

14. Parking Analysis Summary 28

Plates

1. Vision Triangle Graphic 15

Appendices

A. Collision Rate Calculations
B. VMT Screening Tool Output
C. Turn Lane Warrants and Queuing Spreadsheet
D. Intersection Level of Service and Queuing Calculations

Executive Summary

The proposed 75-room Fairfield Inn hotel would occupy approximately 2.8 acres of vacant land at the northern end of the former airport site in the City of Clearlake. The project would be expected to generate an average of 599 daily trips, with 35 new trips during the weekday a.m. peak hour and 44 trips during the weekday p.m. peak hour.

The project site would be accessed via a new 18th Avenue Extension, which would intersect Old Highway 53 to the west and connect to the existing terminus of 18th Avenue to the east. Sight lines on Old Highway 53 and 18th Avenue are adequate to accommodate all turns into and out of the proposed intersection and project driveway. To maintain clear sight lines, vision triangles at the access points should be kept free of obstructions.

As shown on the improvement plans, the design of the proposed new intersection at Old Highway 53/18th Avenue includes a marked crosswalk on the 18th Avenue leg, ADA-compliant curb ramps, a relocated bus stop to the north leg, a southbound left-turn lane on Old Highway 53 with 75 feet of stacking space, and overhead intersection lighting.

The projected 95th percentile queues in turn pockets at the SR 53/18th Avenue intersection would remain within existing storage capacity under all scenarios. Access for emergency vehicles and on-site circulation are expected to function acceptably with incorporation of applicable design standards into the site layout.

Bicycle parking on the project site should be supplied at a rate of 15 percent of the vehicle parking spaces, translating to 17 spaces for the proposed vehicle supply of 109 spaces. With the construction of sidewalks and Class II bike lanes on 18th Avenue Extension, the project site would be connected to the surrounding pedestrian and bicycle network, and access for pedestrians, bicyclists, and transit riders would be adequate.

Under guidance provided by the California Governor's Office of Planning and Research (OPR) as well as data contained in the *Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study* for Lake County, hotel employees and guests would be expected to have a less-than-significant transportation impact on vehicle miles traveled (VMT).

To assess the project's compliance with General Plan policies, operations were evaluated at the existing SR 53/18th Avenue intersection as well as at the proposed Old Highway 53/18th Avenue Extension intersection. Analysis indicates the SR 53/18th Avenue study intersection is operating acceptably under Existing Conditions and would continue to do so under Baseline and Future Conditions, with and without project traffic added. The new intersection is also expected to operate acceptably under Existing, Baseline, and Future Conditions with project traffic added.

The proposed vehicle parking supply of 109 spaces would be four spaces short of meeting City requirements for the 75 proposed guest rooms and 2,300 square feet of meeting space; however, would be adequate with a shared parking reduction allowed by City Code. Given that national standard parking demand rates for business hotels translate to substantially fewer spaces than required by City Code, the City may wish to consider approving the project with a shared parking reduction.

Introduction

This report presents an analysis of the potential transportation impacts and operational effects that would be associated with the proposed hotel to be located at the northern end of the former airport site in the City of Clearlake. The transportation study was completed in accordance with the criteria established by the City of Clearlake, reflects a scope of work approved by City staff, and is consistent with standard traffic engineering techniques.

Prelude

The purpose of a transportation impact study (TIS) is to provide City staff and policy makers with data that they can use to make an informed decision regarding the potential transportation impacts of a proposed project, and any associated improvements that would be required to mitigate these impacts to an acceptable level under CEQA, the City's General Plan, or other policies. This report provides an analysis of those items that are identified as areas of environmental concern under the California Environmental Quality Act (CEQA) and that, if significant, require an EIR. Impacts associated with access for pedestrians, bicyclists, and to transit; the vehicle miles traveled (VMT) generated by the project; potential safety concerns such as increased queuing in dedicated turn lanes, adequacy of sight distance, need for turn lanes, and need for additional right-of-way controls; and emergency access are addressed in the context of the CEQA criteria.

While no longer a part of the CEQA review process, vehicular traffic service levels at key intersections were evaluated for consistency with General Plan policies by determining the number of new trips that the proposed uses would be expected to generate, distributing these trips to the surrounding street system based on anticipated travel patterns specific to the proposed project, then analyzing the effect the new traffic would be expected to have on the study intersections and need for improvements to maintain acceptable operation. Adequacy of parking is also addressed as a policy issue.

Applied Standards and Criteria

The report is organized to provide background data that supports the various aspects of the analysis, followed by the assessment of CEQA issues and then evaluation of policy-related issues. The CEQA criteria evaluated are as follows.

Would the project:

a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?
b. Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
d. Result in inadequate emergency access?

Project Profile

The project includes a 75-room Fairfield Inn hotel that would be operated by Marriott. As part of the project, 18th Avenue would be extended from its existing terminus on the west side of SR 53 along the project frontage to Old Highway 53, creating a new public street intersection between Old Highway 53 and 18th Avenue. As proposed, the new intersection would be stop-controlled on the terminating 18th Avenue approach and would include a southbound left-turn lane on Old Highway 53. The project site is located on approximately 2.8 acres of vacant land at the northern end of the former airport site in the City of Clearlake, as shown in Figure 1.

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Transportation Impact Study for the Airport Hotel Project

Figure 1 – Study Area, Existing, and Proposed Lane Configurations

Transportation Setting

Study Area and Periods

The study area varies depending on the topic. For pedestrian trips it consists of all streets within a half-mile of the project site that would lie along primary routes of pedestrian travel, or those leading to nearby generators or attractors. For bicycle trips it consists of all streets within one mile of the project site that would lie along primary routes of bicycle travel. For the safety and operational analyses, the study area was selected with input from City and Caltrans staff and consists of the following intersections, one of which is existing and another that would be a new intersection constructed as part of the project:

1. SR 53/18th Avenue (All Scenarios)
2. Old Highway 53/18th Avenue Extension (Project Conditions only)

Operating conditions during the weekday a.m. and p.m. peak periods were evaluated to capture the highest trip generation potential for the proposed use as well as the highest volumes on the local transportation network. The weekday morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while the weekday p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute. New turning movement counts were obtained for the existing study intersection in May 2022.

Study Intersections

SR 53/18th Avenue is an existing four-legged signalized intersection with protected left-turn phasing on the northbound and southbound approaches and split phasing on the eastbound and westbound approaches. Crosswalks with pedestrian phasing are provided on all four legs.

Old Highway 53/18th Avenue Extension is a proposed tee intersection that would be constructed with the project approximately 320 feet south of Lakeview Way. The intersection would be stop-controlled on the westbound 18th Avenue approach and a southbound left-turn lane would be provided on Old Highway 53.

The locations of the study intersections along with the existing and proposed lane configurations and controls are shown in Figure 1.

Study Roadway

Old Highway 53 runs on a skewed alignment, though it is mostly oriented north to south and has one travel lane in each direction plus Class II bicycle lanes. The roadway has a posted speed limit of 35 miles per hour (mph) in the project vicinity. Based on count data collected in May 2022, the roadway has an average daily traffic (ADT) volume of approximately 7,200 vehicles south of Lakeview Way.

Vehicle Collision History

The collision history for the existing study intersection of SR 53/18th Avenue was reviewed to determine any trends or patterns that may indicate a safety issue for motorists in the project vicinity. The collision rate, measured in collisions per million vehicles entering intersection (c/mve), was calculated based on records available from the California Highway Patrol (CHP) as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current five-year period available is January 1, 2017, through December 31, 2021.

The calculated collision rate for SR 53/18th Avenue was compared to the average collision rate for similar facilities statewide, as indicated in *2018 Collision Data on California State Highways*, California Department of Transportation (Caltrans). These average rates statewide are for intersections in the same environment (urban, suburban, or rural), with the same number of approaches (three or four), and the same controls (all-way stop, two-way stop, or traffic signal).

During the five-year study period, a total of five collisions were reported at the intersection translating to a calculated collision rate of 0.13 c/mve, which is lower than the statewide average rate of 0.24 c/mve for similar facilities indicating that the intersection is performing within normal safety parameters. The collision rate calculation is provided in Appendix A.

Project Data

The proposed project includes a hotel with 75 rooms and approximately 2,300 square feet of meeting space to be located on an extension of 18th Avenue between SR 53 and Old Highway 53. A total of 109 parking spaces are indicated on the site plan. The project site plan is shown in Figure 2 and the proposed roadway improvements are shown in Figure 3.

Trip Generation

The anticipated trip generation for the project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 11th Edition, 2021 for "Hotel" (Land Use #310). As shown in Table 1, the project would be expected to result in an average of 599 trips per day, with 35 trips during the weekday a.m. peak hour and 44 trips during the weekday p.m. peak hour. As is the case with all standard trip generation rates, although the number of rooms is the independent variable, trips associated with all aspects of the use such as employees, deliveries, etc. are included in the rates and resulting trip estimates.

Table 1 – Trip Generation Summary

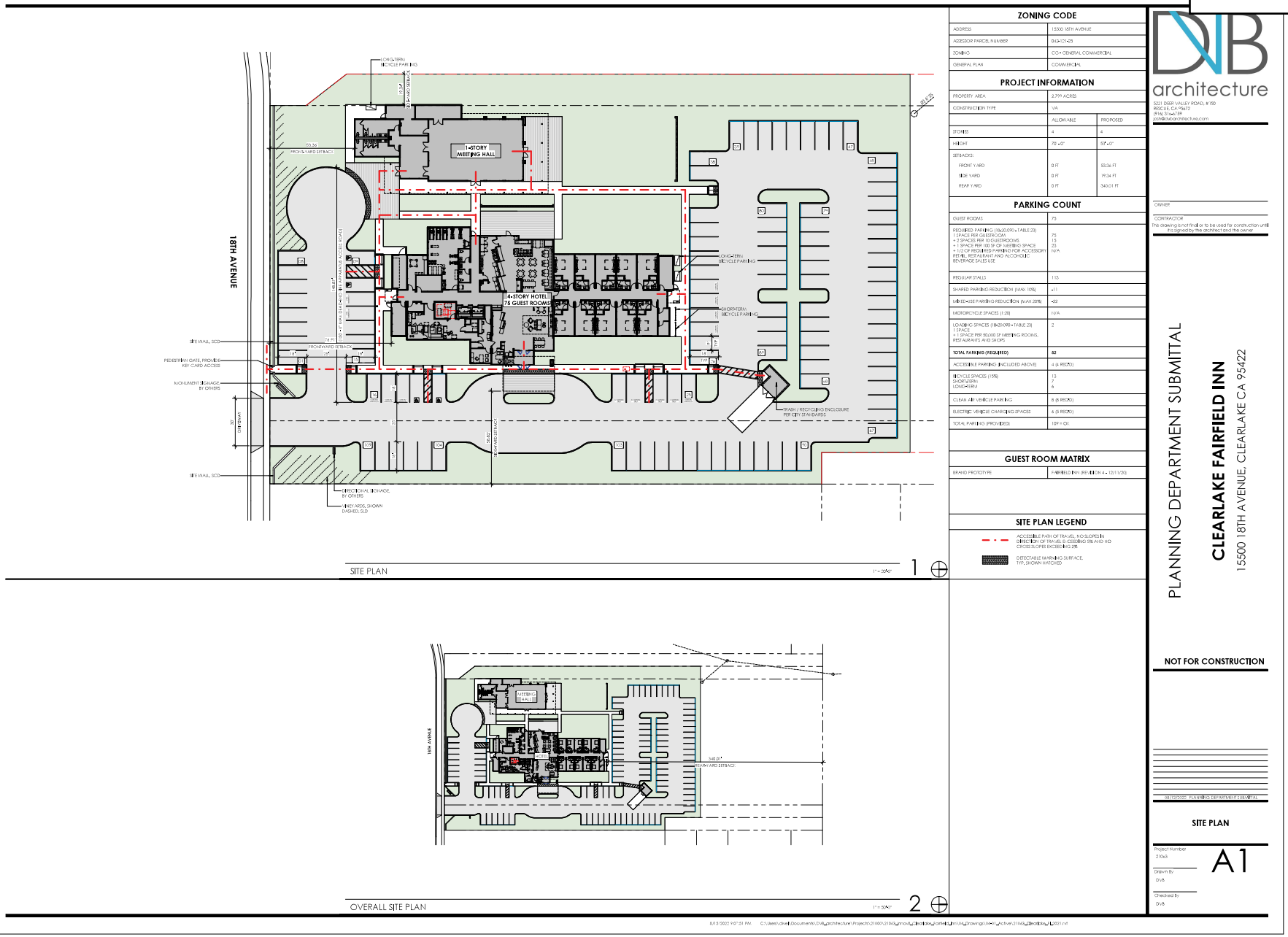
Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Hotel	75 rooms	7.99	599	0.46	35	19	16	0.59	44	22	22

Trip Distribution

The pattern used to allocate new project trips to the surrounding street network was determined by reviewing historical turning movements in the study area, knowledge of the area and surrounding region, and anticipated travel patterns for patrons of the project. The applied trip distribution assumptions approved by City and Caltrans staff and resulting daily trips are shown in Table 2.

Table 2 – Trip Distribution Assumptions

Route	Percent	Daily Trips
To/from North via Old Highway 53	20	120
To/from North via SR 53	40	239
To/from South via Old Highway 53	10	60
To/from South via SR 53	30	180
Total	**100%**	**599**



Source: DVB Architects 8/29

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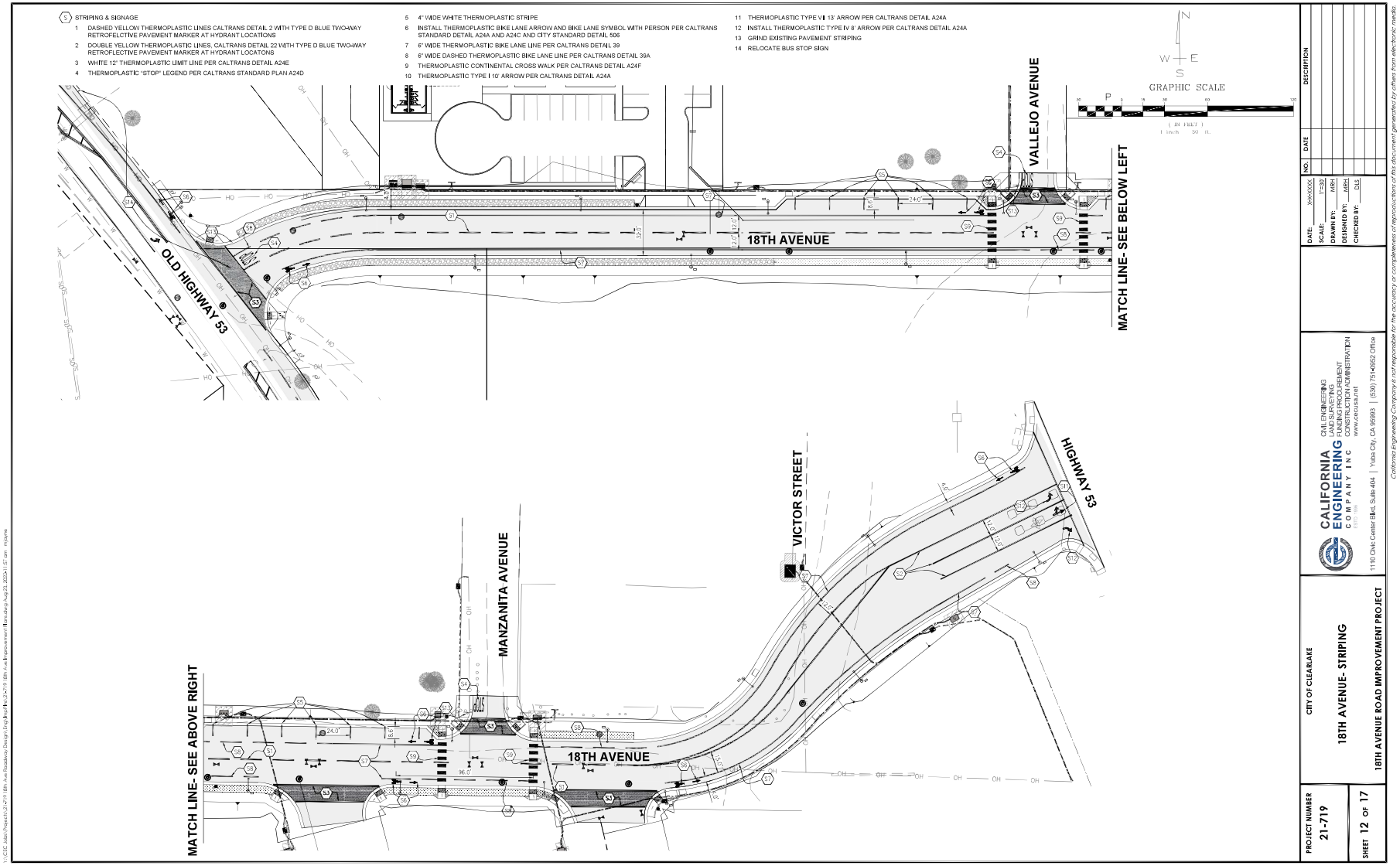
Transportation Impact Study for the Airport Hotel Project

Figure 2 – Site Plan



Source: DVB Architects 8/29

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Transportation Impact Study for the Airport Hotel Project

Figure 3 – Proposed Roadway Improvements

Circulation System

This section addresses the first bullet point on the CEQA checklist, which relates to the potential for a project to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Pedestrian Facilities

Existing and Planned Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, the sidewalk network surrounding the project site is very limited. Sidewalk gaps along connecting roadways impact convenient and continuous access for pedestrians and may present safety concerns in those locations where appropriate pedestrian infrastructure would address potential conflict points.

- **Old Highway 53** – Intermittent coverage is provided on the west side of Old Highway 53 north of the project site. Lighting is not provided.
- **18th Avenue** – Sidewalks are not currently provided on 18th Avenue. As contained in the *Active Transportation Plan for Lake County*, Lake County/City Area Planning Council, 2016, sidewalks are proposed along 18th Avenue east of SR 53.
- **SR 53** – Sidewalks are not provided or planned along SR 53, though crosswalks with pedestrian phasing and curb ramps exist on all four legs of the signalized intersection with 18th Avenue.

Pedestrian Safety

The collision history for the existing study intersection was reviewed to determine any trends or patterns that may indicate a safety issue for pedestrians in the vicinity of the project site. For the same five-year study period used for the vehicle collision analysis of January 1, 2017, through December 31, 2021, there was a single collision reported near SR 53/18th Avenue in November 2020 resulting in a pedestrian fatality. The collision involved a southbound motorist and an elderly westbound pedestrian crossing the south leg of the intersection. Because the pedestrian was deemed at fault and this was an isolated incident with no other pedestrian collisions occurring during the study period and even as far back as 10 years, it can reasonably be determined that the existing pedestrian facilities at the intersection consisting of crosswalks, pedestrian phasing, curb ramps, and overhead intersection lighting provide sufficient crossing measures for pedestrians.

Project Impacts on Pedestrian Facilities

Most hotel guests are expected to use a vehicle to reach the project site, though given the proximity of residential uses surrounding the site, it is reasonable to assume that some project employees may want to walk, bicycle, and/or use transit to travel between the project site and surrounding areas. Additionally, once the Airport property is redeveloped, there is potential for substantial pedestrian travel between the hotel and other commercial and restaurant uses within the Airport redevelopment site. Upon construction of sidewalks along both sides of the extension of 18th Avenue, as proposed, the project site would be connected to the existing and planned pedestrian network. A network of sidewalks would also be provided throughout the project site resulting in connected on-site pedestrian circulation. As shown on the site plan, the design of the Old Highway 53/18th Avenue intersection includes ADA-compliant curb ramps with a marked crosswalk on the stop-controlled 18th Avenue leg as well as overhead intersection lighting.

Finding – Upon constructing sidewalks along both sides of 18th Avenue Extension, the hotel would be connected to the surrounding pedestrian network.

Bicycle Facilities

Existing and Planned Bicycle Facilities

The *Highway Design Manual*, Caltrans, 2017, classifies bikeways into four categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

In the study area, Class II bike lanes exist on Old Highway 53 and segments of 18th Avenue, Phillips Avenue, Dam Road, and Garner Avenue. Additional Class II bike lanes are planned on Boyles Avenue. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project study area. Table 3 summarizes the existing and planned bicycle facilities in the project vicinity, as contained in the *Active Transportation Plan for Lake County*, 2016.

Table 3 – Bicycle Facility Summary

Status Facility	Class	Length (miles)	Begin Point	End Point
Existing				
Old Highway 53	II	2.7	Olympic Drive	Dam Road
18th Avenue	II	0.64	SR 53	Boyles Avenue
Dam Road	II	0.50	Dam Road Extension	Southern City Limits
Phillips Avenue	II	0.36	40th Avenue	32nd Avenue
Garner Avenue	II	0.64	32nd Avenue	18th Avenue
Dam Road Extension	II	0.25	South Center Drive	Dam Road
Planned				
Boyles Avenue	II	0.82	36th Avenue	18th Avenue

Source: *Active Transportation Plan for Lake County*, Lake County/City Area Planning Council, 2016

Bicyclist Safety

Collision records for the study area were reviewed to determine if any bicyclist-involved crashes were reported. During the five-year study period between January 1, 2017, and December 31, 2021, there were no reported collisions involving bicyclists at SR 53/18th Avenue indicating that there are no readily apparent safety issues for cyclists.

Project Impacts on Bicycle Facilities

As part of the project, Class II bike lanes would be provided on the 18th Avenue Extension. These improvements together with existing bicycle lanes on Old Highway 53 and the planned facilities outlined in the County's *Active Transportation Plan* would provide adequate access for bicyclists.

Finding – Bicycle facilities serving the project site would be adequate with the planned provision of Class II bike lanes on 18th Avenue Extension.

Transit Facilities

Existing Transit Facilities

Lake Transit provides fixed route bus service in the City of Clearlake and throughout Lake County. Lake Transit Route 10 provides loop service throughout the western portion of the City and stops on Old Highway 53 at the location of the proposed intersection with the 18th Avenue Extension. Route 10 operates Monday through Friday with approximately one-hour headways between 5:10 a.m. and 7:10 p.m. Route 11 provides loop service in the central portion of the City and stops on 18th Avenue near the intersection with SR 53. Route 11 operates Monday through Friday between 7:20 a.m. and 5:20 p.m.

Two bicycles can be carried on most Lake Transit buses. Bike rack space is on a first come, first served basis. Additional bicycles are allowed on Lake Transit buses at the discretion of the driver.

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. Lake Transit Dial-A-Ride and Flex Stops are designed to serve the needs of individuals with disabilities within Clearlake.

Impact on Transit Facilities

Existing stops are within an acceptable walking distance of the site and would be reachable upon completion of the proposed sidewalk improvements. The proposed Old Highway 53/18th Avenue intersection would conflict with the location of an existing northbound Route 10 bus stop so the location of the bus stop would be relocated to the north leg of the new intersection. This improvement is indicated in the design plans for the new intersection.

Finding – Existing transit facilities serving the project site are adequate and the stop for Route 10 would operate acceptably upon relocation to the north leg of the new intersection of Old Highway 53/18th Avenue Extension, as proposed.

Vehicle Miles Traveled (VMT)

The potential for the project to conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b) was evaluated based the project's anticipated Vehicle Miles Traveled (VMT).

Background and Guidance

Senate Bill (SB) 743 established VMT as the metric to be applied in determining transportation impacts associated with development projects. As of the date of this analysis, the City of Clearlake has not yet adopted a policy or thresholds of significance regarding VMT so the project-related VMT impacts were assessed based on guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018 as well as information contained within the *Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study* (RBS), Fehr & Peers, 2020, prepared for the Lake Area Planning Council (LAPC). Many of the recommendations in the RBS are consistent with the OPR Technical Advisory. As recommended by CEQA, each component of the proposed project was assessed individually considering the employee and guest uses separately.

Employee VMT

VMT impacts associated with employees of the proposed project were assessed based on guidance contained in the both the *Technical Advisory* and the County's RBS, which indicate that an employee-based project generating vehicle travel that is 15 or more percent below the existing average countywide VMT per worker may indicate a less-than-significant VMT impact. OPR encourages the use of screening maps to establish geographic areas that achieve the 15 percent below regional average thresholds, allowing jurisdictions to "screen" projects in those areas from quantitative VMT analysis since impacts can be presumed to be less than significant.

The RBS includes a link to a web-based VMT screening tool in the appendix of the document that can be used to screen employment-based projects that are located in low VMT-generating areas. The tool uses data from the Wine Country Travel Demand Model (WCTDM) to compare the home-based VMT per worker for the Traffic Analysis Zone (TAZ) in which a study parcel is located to the same measure for the County as a whole. The tool projects the Countywide average baseline VMT per worker to be 12.3 miles per day in 2022. A project generating a VMT that is 15 percent or more below this value, or 10.5 miles per employee or less per day, would have a less-than-significant VMT impact.

The project site is located within TAZ 1915, which is bounded by Spruce Avenue to the west, Victor Street to the north, the proposed 18th Avenue Extension to the south, and Armijo Avenue to the east, and has a baseline VMT per employee of 6.8 miles per day. Because this per capita VMT ratio is below the significance threshold of 10.5 miles per day, the VMT generated by employees of the proposed project would be considered to have a less-than-significant VMT impact. A copy of the VMT screening tool output is provided in Appendix B and the VMT calculations are summarized in Table 4.

Table 4 – Employee Vehicle Miles Traveled Analysis Summary

VMT Metric	Baseline VMT Rate	Significance Threshold	Project VMT Rate	Resulting Significance
Employee VMT per Capita (Countywide Baseline)	12.3	10.5	6.8	Less than significant

Note: VMT is measured in daily miles driven per employee.

Finding – Employees of the proposed project would be expected to have a less-than-significant transportation impact on vehicle miles traveled.

Hotel Guest VMT

The OPR *Technical Advisory* does not specifically address hotel or visitor-based uses, indicating that lead agencies may develop their own thresholds for such land use types and allowing assessment on a case-by-case basis. The proposed hotel requires consideration of the project's intended visitor base and where those customers would otherwise have stayed if the project were not constructed. Unless a hotel project also includes construction of a major new attraction or convention component, on its own it is unlikely to draw *new* visitors to the County; it will just redistribute where visitors stay. This shift in travel patterns and VMT is similar to how OPR considers retail uses, in which many types of retail projects may generally be presumed to have a less-than-significant VMT impact since the total amount of shopping that occurs in a given geographic area tends to remain unchanged, and adding new retail uses to the urban fabric often reduces the distances (i.e., the "miles" in VMT) that people need to drive on shopping trips. The City of San Jose was an early adopter of VMT thresholds and has chosen to apply this methodology of treating lodging uses similarly to retail, where small- to mid-sized hotels and other lodging uses can be expected to shift travel patterns rather than generate new VMT and can generally be presumed to have a less-than-significant transportation-related VMT impact.

The proposed hotel would be operated by Marriott under their "Fairfield Inn" line, which are self-described business hotels. The Fairfield Inn website states their goal is to provide "simple, straightforward, and stress-free experiences that the brand is known for." These types of hotels are typically chosen out of convenience and proximity to the travelers' destination, and are not considered a destination themselves, as opposed to a resort-style hotel which could be considered a destination. While larger resort hotels have the potential to generate interregional trips specifically for the purpose of visiting the hotel, this is not typically the case for business hotels. Further, there are several other existing hotels near Lakeshore Drive to the north of the project site, which indicates that future guests of the proposed hotel would likely have shifted their stay from one of the other nearby hotels. Finally, the project would be anticipated to generate predominantly business travelers whose travel patterns could reasonably be expected to be similar to employees, which have been identified as having a less-than-significant VMT impact. Given these characteristics, it is anticipated that there would be few to no net new hotel guest trips added to the Lake County region that would be exclusively attributable the project. Accordingly, guests of the proposed hotel project would be expected to result in a less-than-significant VMT impact.

Finding – Guests of the proposed hotel would be expected to have a less-than-significant transportation impact on vehicle miles traveled.

Safety Issues

The potential for the project to impact safety was evaluated in terms of the adequacy of sight distance and need for turn lanes at the project access as well as the adequacy of stacking space in dedicated turn lanes at the study intersections to accommodate additional queuing due to adding project-generated trips. This section addresses the third bullet on the CEQA checklist which is whether or not the project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Site Access

According to the site plan, the project site would be accessed via a driveway on the north side of the new 18th Avenue Extension. The driveway would be located approximately 300 feet east of the proposed Old Highway 53/18th Avenue Extension intersection.

Sight Distance

Sight distances along Old Highway 53 at the proposed intersection with 18th Avenue near J & L Market and along 18th Avenue at the project driveway were evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distance at intersections of public streets is based on corner sight distances, while recommended sight distances for minor street approaches that are either a private road or a driveway are based on stopping sight distance. Both use the approach travel speeds as the basis for determining the recommended sight distance. Additionally, the stopping sight distance needed for a following driver to stop if there is a vehicle waiting to turn into a side street or driveway is evaluated based on stopping sight distance criterion and the approach speed on the major street.

Field measurements were obtained at the location of the proposed intersection while sight lines at the project driveway were evaluated using the site plan.

Old Highway 53/18th Avenue Extension Intersection

For the posted speed limit of 35 mph on Old Highway 53, the minimum corner sight distance needed at the proposed intersection is 385 feet. Sight lines were field measured to extend approximately 400 feet in each direction, which is adequate for the posted speed limit. Additionally, adequate stopping sight distances are available for following drivers to notice and react to a preceding motorist slowing to turn right or stopped waiting to turn left onto 18th Avenue.

While sight lines are currently clear, care should be taken to maintain unobstructed sight lines during the design and construction of the proposed intersection and placement of signage, monuments, or other structures should be avoided within the sight triangles, which are denoted graphically in Plate 1. The Intersection Sight Distance (ISD) lengths should be based on corner sight distances of 385 feet.

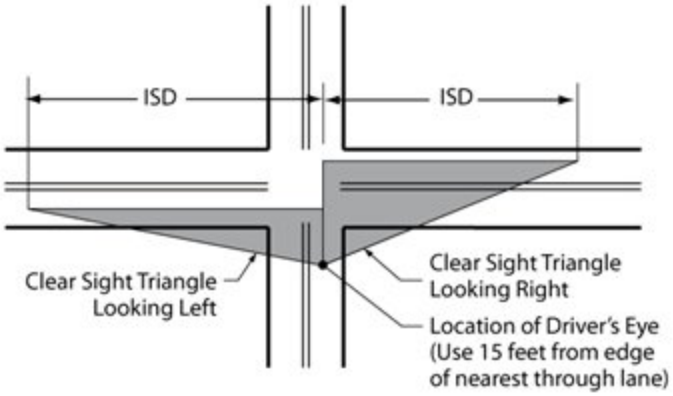


Plate 1 Vision Triangle Graphic

18th Avenue Extension Project Driveway

While 18th Avenue does not have a posted speed limit, travel speeds are anticipated to be 25 to 35 mph so a design speed of 35 mph was used to evaluate the adequacy of stopping sight distance at the proposed hotel driveway location. For speeds of 35 mph, the minimum stopping sight distance needed is 250 feet. Based on a review of the project site plan, it is anticipated that sight lines would extend at least 300 feet in each direction given the straight orientation of 18th Avenue, which would be more than adequate for anticipated travel speeds. Again, any roadside structures to be placed near the project driveway should not obstruct sight lines for motorists entering and exiting the hotel property.

Finding – Sight lines on Old Highway 53 and 18th Avenue are adequate to accommodate all turns into and out of the proposed intersection and driveway.

Recommendation – To maintain adequate sight lines, any new signage, monuments, or other structures should be kept out of the vision triangles at the access points.

Access Analysis

Left-Turn Lane Warrants

The need for a left-turn lane on 18th Avenue Extension at the project driveway and on Old Highway 53 at the intersection with the 18th Avenue Extension were evaluated based on criteria contained in the *Intersection Channelization Design Guide*, National Cooperative Highway Research Program (NCHRP) Report No. 279, Transportation Research Board, 1985, as well as an update of the methodology developed by the Washington State Department of Transportation and published in the *Method for Prioritizing Intersection Improvements*, January 1997. The NCHRP report references a methodology developed by M. D. Harmelink that includes equations that can be applied to expected or actual traffic volumes to determine the need for a left-turn pocket based on safety issues.

Using Future plus Project volumes, which represent worst-case conditions, it was determined that a left-turn lane would not be warranted on 18th Avenue Extension at the project driveway. However, a left-turn lane would be warranted on Old Highway 53 at the intersection with 18th Avenue as shown on the improvement plans. Copies of the turn lane warrant spreadsheets are provided in Appendix C.

Left-Turn Lane Design Requirements

In order to determine the necessary storage length for the left-turn lane on Old Highway 53, the projected maximum left-turn queue was determined using a methodology contained in "Estimating Maximum Queue Length at Unsignalized Intersections," John T. Gard, *ITE Journal*, November 2001. Under Future plus Project

volumes, the maximum southbound left-turn queue on Old Highway 53 would be no more than three vehicles. Therefore, it is recommended that the storage be based on three passenger vehicles, or 75 feet. Copies of the queue length calculations are contained in Appendix C.

Finding – Volumes would not be sufficient to warrant installation of a left-turn lane on 18th Avenue Extension at the project driveway; however, volumes would be sufficient to meet the warrant at the Old Highway 53/18th Avenue Extension intersection.

Recommendation – The left-turn lane proposed for the southbound approach to Old Highway 53/18th Avenue Extension should provide a minimum of 75 feet of storage length.

Queuing

The City of Clearlake does not prescribe thresholds of significance regarding queue lengths. However, an increase in queue length due to project traffic was considered a potentially significant impact if the increase would cause the queue to extend out of a dedicated turn lane into a through traffic lane where moving traffic would be impeded, or the back of queue into a visually restricted area, such as a blind corner.

Signalized Intersection

Under each scenario, the projected 95th percentile queues in dedicated turn lanes at the signalized intersection of SR 53/18th Avenue were determined using the Vistro software. As summarized in Table 5, the existing turn lanes are expected to have adequate storage capacity to accommodate queuing under all scenarios. Copies of the queuing projections are contained in the Vistro output in Appendix D.

Table 5 – 95th Percentile Queues

Study Intersection Turn Lane	Available Storage	95th Percentile Queues											
		Weekday AM Peak Hour						Weekday PM Peak Hour					
		E	E+P	B	B+P	F	F+P	E	E+P	B	B+P	F	F+P
1. SR 53/18th Avenue													
NB Left Turn	675	2	16	2	17	64	118	1	21	1	22	71	142
SB Left Turn	720	21	27	22	29	37	50	21	29	23	31	43	62
WB Right Turn	160	24	31	25	32	24	63	25	32	26	34	48	68

Notes: 95th Percentile Queue based on Vistro output; all distances are measured in feet; E = Existing Conditions; E+P = Existing plus Project Conditions; B = Baseline Conditions; B+P = Baseline plus Project Conditions; F = Future Conditions; F+P = Future plus Project Conditions

Finding – The project would not be expected to cause any queues to exceed available storage or extend into an adjacent intersection, so the impact is considered less than significant.

Emergency Access

The final bullet on the CEQA checklist requires an evaluation as to whether the project would result in inadequate emergency access or not.

Adequacy of Site Access

Emergency response vehicles would access the project site from 18th Avenue Extension via the project driveway, which would have a width of 30 feet according to the preliminary site plan; this would be adequate to satisfy the required minimum driveway width of 24 feet set forth in the City of Clearlake's *Design and Construction Standards*. On-site circulation would include a 25-foot drive aisle, which also exceeds the minimum width of 24 feet. As the project moves through final design, it is anticipated that all aspects of the site including driveway widths and parking lot circulation would be designed in accordance with applicable standards; therefore, access would be expected to function acceptably for emergency response vehicles.

Off-Site Impacts

While the project would be expected to result in a minor increase in delay for traffic on SR 53 at the 18th Avenue intersection, emergency response vehicles can claim the right-of-way by using their lights and sirens; therefore, the project would be expected to have a nominal effect on emergency response times. It should also be noted that the proposed extension of 18th Avenue to Old Highway 53 would be expected to shift some trips away from the SR 53 intersections with Lakeshore Drive and Dam Road; therefore, reducing delay at these intersections and potentially improving emergency response times. Further, the new section of 18th Avenue would be a more direct route to many homes on the west side of SR 53 south of Lakeshore Drive and north of Dam Road so the emergency response times to these dwellings would likely be improved.

Finding – Emergency access and on-site circulation are anticipated to function acceptably with incorporation of applicable design standards into the site layout, and traffic from the proposed project is expected to have a less-than-significant impact on emergency response times. The proposed extension of 18th Avenue has the potential to improve emergency response times to many dwellings on the west side of SR 53.

Capacity Analysis

Though not relevant to the CEQA review process, in keeping with General Plan policies, the potential for the project to effect traffic operation was evaluated.

Intersection Level of Service Methodologies

Level of Service (LOS) is used to rate traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections were analyzed using methodologies published in the *Highway Capacity Manual* (HCM), Transportation Research Board, 2018. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

The Old Highway 53/18th Avenue Extension intersection is proposed to have stop control on the 18th Avenue approach so was evaluated using the "Two-Way Stop-Controlled" intersection capacity methodology from the HCM. This methodology determines a Level of Service for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements together with the weighted overall average delay for the intersection.

The study intersection of SR 53/18th Avenue is controlled by a traffic signal so was evaluated using the signalized methodology from the HCM. This methodology is based on factors including traffic volumes, green time for each movement, phasing, whether the signals are coordinated or not, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology. Delays were calculated using signal timing parameters obtained from Caltrans.

The ranges of delay associated with the various Levels of Service are indicated in Table 6.

Table 6 – Intersection Level of Service Criteria		
LOS	**Two-Way Stop-Controlled**	**Signalized**
A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.	Delay of 0 to 10 seconds. Most vehicles arrive during the green phase, so do not stop at all.
B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.	Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.
C	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.	Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping.
D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.	Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.
E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.	Delay of 55 to 80 seconds. Most, if not all, vehicles must stop and drivers consider the delay excessive.
F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.	Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection.

Reference: *Highway Capacity Manual,* Transportation Research Board, 2018

Traffic Operation Standards

City of Clearlake

The City of Clearlake established a standard of LOS D for all intersections and roadways in Policy Cl 1.3.4 of *City of Clearlake 2040 General Plan Update,* City of Clearlake, 2017. Exceptions to this may be considered by the City Council when an unacceptable LOS (E or F) would result in clear public benefit. Such circumstances may include when improvements to achieve the LOS standard would result in impacts to unique historic resources or highly sensitive environmental areas; if right-of-way acquisition is infeasible; and/or if there are overriding economic or social circumstances.

Caltrans

While the SR 53/18th Avenue intersection is on a State highway, Caltrans does not have a standard of significance relative to operation as this is no longer a CEQA issue. The *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (TISG), published in May 2020, replaced the *Guide for the Preparation of Traffic Impact Studies*, 2002. As indicated in the TISG, the Department is transitioning away from requesting LOS or other vehicle operations analyses of land use projects and will instead focus on Vehicle Miles Traveled (VMT). Therefore, the City's standard of LOS D was applied to this intersection.

Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the weekday a.m. and weekday p.m. peak periods. This condition does not include project-generated traffic volumes. Volume data was collected in May 2022 during typical traffic conditions and while local schools were in session. Peak hour factors (PHFs) were calculated based on the counts obtained and used in the analysis.

The existing SR 53/18th Avenue intersection is currently operating acceptably at LOS B during both peak hours. The existing traffic volumes are shown in Figure 4. A summary of the intersection Level of Service calculations is contained in Table 7, and copies of the calculations for all evaluated scenarios are provided in Appendix D.

Table 7 – Existing Peak Hour Intersection Levels of Service

Study Intersection	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
1. SR 53/18th Ave	11.0	B	10.7	B

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service.

Baseline Conditions

Baseline (Existing plus Approved) operating conditions were determined with traffic from approved or pending projects in the study area that could be operational within the next five-year horizon added to the existing volumes. As directed by City staff, the following pending projects were included in the Baseline Conditions scenario:

- JS Market would be located on the west side of Old Highway 53 south of Lakeview Way and would consist of a 3,095 square-foot convenience store, 980 square feet of retail, 2,245 square feet of fast casual dining, and two dwelling units. ITE standard rates for "Convenience Store" (LU #851), "Strip Retail Plaza" (LU #822), "Fast Casual Restaurant" (LU #930), and "Multifamily Housing" (LU #220) were applied.

- A new gas station with six vehicle fueling positions, a self-service car wash, and a 2,800 square-foot convenience store would be constructed on Dam Road Extension. ITE standard rates for "Convenience Store/Gas Station" (LU #945) were applied, and pass-by trips were deducted.

- A drive-through window would be added to an existing 1,600 square-foot Subway restaurant located at 15060 Lakeshore Drive. ITE standard rates for "Fast-Food Restaurant" (LU #933) were applied.

- An unused Shell gasoline service station located at 15105 Lakeshore Drive would be remodeled and expanded for use with eight vehicle fueling positions. ITE standard rates for "Gasoline/Service Station" (LU #944) were applied, and pass-by trips were deducted.

The trip generation potential for the approved and pending Baseline projects are summarized in Table 8. Collectively, these projects are expected to result in 329 new trips on local streets during the a.m. peak hour and 371 new trips during the p.m. peak hour.

cle030.ai 05/22

Transportation Impact Study for the Airport Hotel Project

Figure 4 – Existing, Baseline, and Future Traffic Volumes

Table 8 – Trip Generation Summary for Baseline Projects									
Land Use	**Units**	**AM Peak Hour**				**PM Peak Hour**			
Deduction		**Rate**	**Trips**	**In**	**Out**	**Rate**	**Trips**	**In**	**Out**
JS Market									
Convenience Store	3.095 ksf	62.54	194	97	97	49.11	152	78	74
Strip Retail Plaza	0.98 ksf	2.36	2	1	1	6.59	6	3	3
Fast Casual Restaurant	2.245 ksf	1.43	3	2	1	12.55	28	15	13
Multifamily Housing	2 du	0.40	1	0	1	0.51	1	1	0
JS Market Total			**200**	**100**	**100**		**187**	**97**	**90**
Convenience/Gas Station	5.95 ksf	40.59	242	121	121	48.48	288	144	144
Pass-By Trips		*-60%*	*-146*	*-73*	*-73*	*-56%*	*-162*	*-81*	*-81*
Convenience/Gas Station Total			**96**	**48**	**48**		**126**	**63**	**63**
Subway with Drive-Thru	1.6 ksf	45.42	73	37	36	32.65	52	27	25
Existing without Drive-Thru	*-1.6 ksf*	*43.87*	*-70*	*-42*	*-28*	*26.15*	*-42*	*-21*	*-21*
Subway with Drive-Thru Total			**3**	**-5**	**8**		**10**	**6**	**4**
Shell Gas Station	8 vfp	10.28	82	41	41	13.91	111	56	55
Pass-By Trips		*-64%*	*-52*	*-26*	*-26*	*-57%*	*-63*	*-32*	*-31*
Shell Gas Station Total			**30**	**15**	**15**		**48**	**24**	**24**
Total Baseline Trips			**329**	**158**	**171**		**371**	**190**	**181**

Notes: ksf = 1,000 square feet; du = dwelling units; vfp = vehicle fueling positions

Upon adding trips from approved or pending projects in the study area to existing volumes, the existing study intersection would continue to operate acceptably at LOS B. These results are summarized in Table 9 and Baseline traffic volumes are shown in Figure 4.

Table 9 – Baseline Peak Hour Intersection Levels of Service				
Study Intersection	**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**
1. SR 53/18th Ave	11.2	B	10.8	B

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

Future Conditions

Future volumes for the horizon year 2040, as developed for the *City of Clearlake 2040 General Plan Update* and the *Walmart Expansion Transportation Impact Analysis Report*, Omni-Means, 2016 were used to project future operating conditions at the existing study intersection. It should be noted that the General Plan analysis evaluated two scenarios for buildout, with and without the Dam Road Extension project. Since the Dam Road Extension project has already been constructed, volumes for this scenario were applied. Under these anticipated future volumes, the study intersection is expected to operate acceptably at LOS B during both peak hours. Future volumes are shown in Figure 4, and operating conditions are summarized in Table 10.

Table 10 – Future Peak Hour Intersection Levels of Service				
Study Intersection	**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**
1. SR 53/18th Ave	18.0	B	19.3	B

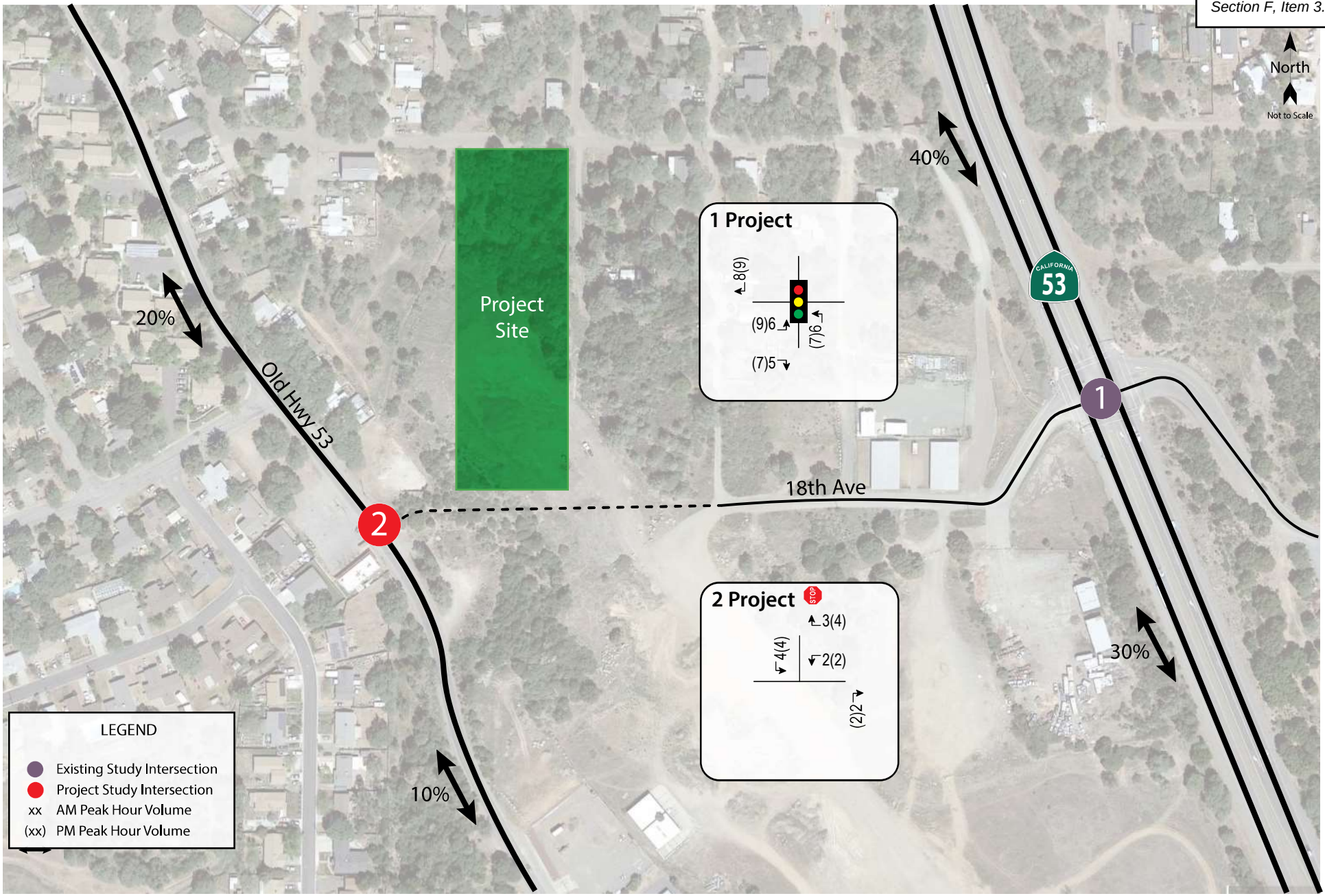
Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

Project Conditions

The proposed 18th Avenue Extension would allow for passage between Old Highway 53 and SR 53 and would therefore be expected to redistribute some of the existing traffic in the area. Motorists traveling between SR 53 and the western part of the City could potentially use 18th Avenue as part of a faster route than through the SR 53/Lakeshore Drive intersection to the north or the SR 53/Old Highway 53-Dam Road intersection to the south. Therefore, under Project Conditions, in addition to assigning new project trips it was also assumed that 10 percent of the existing traffic entering or exiting the west legs of SR 53/Lakeshore Drive and SR 53/Old Highway 53 would be redistributed away from those intersections to the SR 53/18th Avenue and Old Highway 53/18th Avenue intersections. The volumes at these adjacent intersections used for rerouting trips through the proposed 18th Avenue Extension were obtained from the General Plan and Walmart traffic analysis since new turning movement counts were not collected at these intersections.

Existing plus Project Conditions

Upon the addition of trips associated with the proposed project to Existing volumes together with the diversion of existing traffic, the study intersections would be expected to continue operating acceptably during both peak hours. These results are summarized in Table 11. Project-only traffic volumes are shown in Figure 5, and Existing plus Project volumes are shown in Figure 6.



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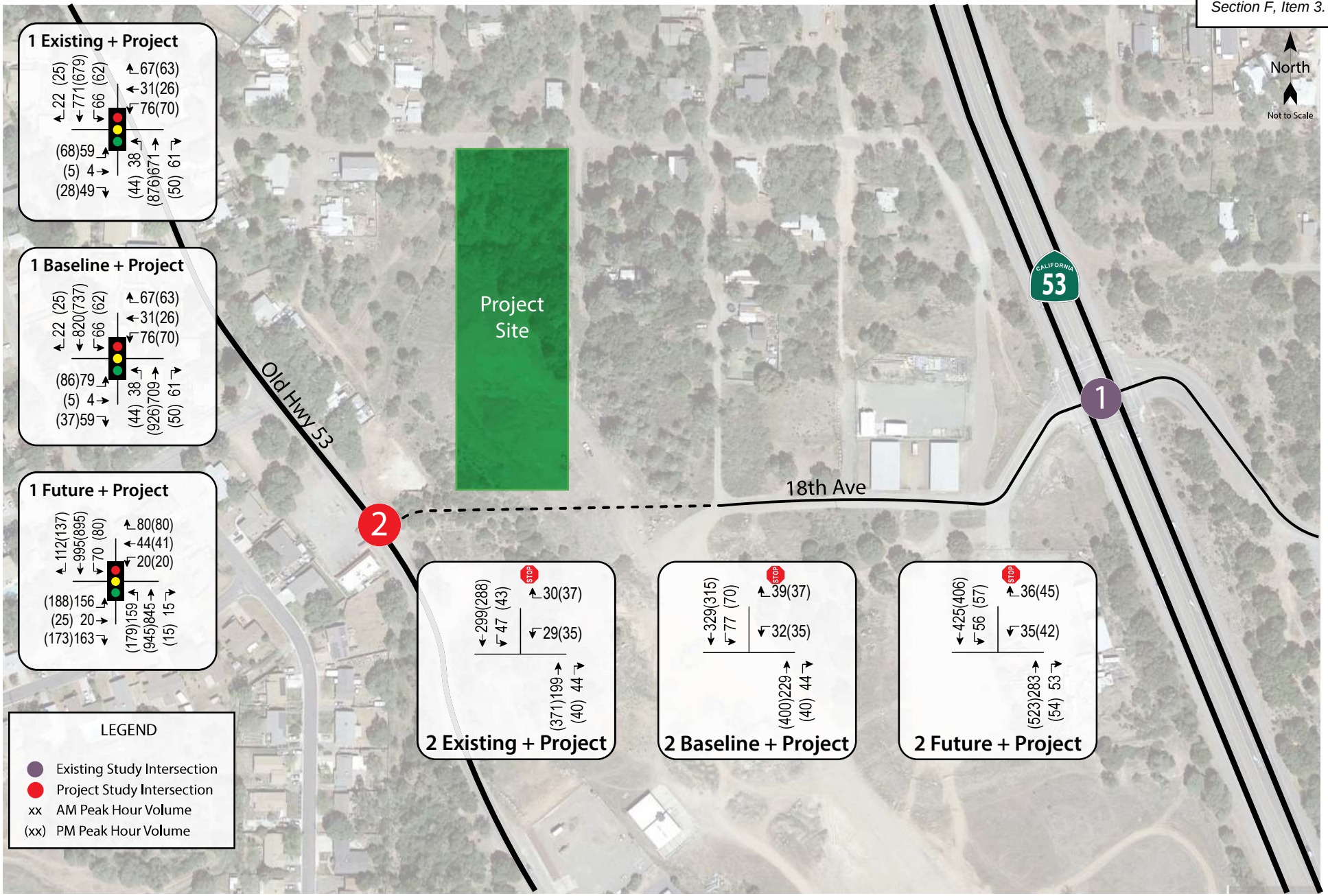
Transportation Impact Study for the Airport Hotel Project

Figure 5 – Project Traffic Volumes and Trip Distributions



cle030.ai 05/22

Transportation Impact Study for the Airport Hotel Project

Figure 6 – Existing plus Project, Baseline plus Project, and Future plus Project Traffic Volumes

Table 11 – Existing and Existing plus Project Peak Hour Intersection Levels of Service

Study Intersection *Approach*	Existing Conditions				Existing plus Project			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. SR 53/18th Ave	11.0	B	10.7	B	15.1	B	15.0	B
2. Old Hwy 53/18th Ave Extension	-	-	-	-	1.8	A	1.8	A
Westbound (18th Ave) Approach	-	-	-	-	*13.2*	*B*	*15.1*	*C*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Finding – The study intersections would continue to operate acceptably upon the addition of traffic associated with the proposed project to existing volumes; therefore, the project would have an acceptable effect on operation of the surrounding roadway network.

Baseline plus Project Conditions

With project-related traffic added to the near-term Baseline volumes, the study intersections are expected to continue operating acceptably at LOS A or B overall and LOS B or C on the side-street approach. These results are summarized in Table 12 and Baseline plus Project volumes are shown in Figure 6.

Table 12 – Baseline and Baseline plus Project Peak Hour Intersection Levels of Service

Study Intersection *Approach*	Baseline Conditions				Baseline plus Project			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. SR 53/18th Ave	11.2	B	10.8	B	15.7	B	15.5	B
2. Old Hwy 53/18th Ave Extension	-	-	-	-	2.1	A	2.1	A
Westbound (18th Ave) Approach	-	-	-	-	*15.1*	*B*	*17.1*	*C*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Finding – The study intersections are expected to operate acceptably upon the addition of traffic associated with the proposed project to Baseline volumes; therefore, the project would have an acceptable effect on operation of the surrounding roadway network.

Future plus Project Conditions

Upon the addition of project-generated traffic to the anticipated future volumes, the study intersections are expected to continue operating acceptably. The Future plus Project operating conditions are summarized in Table 13 and volumes are shown in Figure 6.

Table 13 – Future and Future plus Project Peak Hour Intersection Levels of Service

Study Intersection *Approach*	Future Conditions				Future plus Project			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. SR 53/18th Ave	18.0	B	19.3	B	24.2	C	27.3	C
2. Old Hwy 53/18th Ave Extension	-	-	-	-	1.7	A	2.0	A
Westbound (18th Ave) Approach	-	-	-	-	*14.7*	*B*	*20.2*	*C*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*.

Finding – The study intersections are expected to operate acceptably under Future plus Project conditions; therefore, the project's cumulative effect on operation of the surrounding roadway network would be considered acceptable.

Parking

As proposed, the project would have 109 parking spaces on-site. Jurisdiction parking supply requirements are based on the City of Clearlake Municipal Code, Chapter 18-20.090; Parking Space Requirements. Vehicle parking for hotels is required at a rate of 1.2 spaces per guest room in addition to one space per 100 square feet of meeting floor area. This translates to a required parking supply of 113 spaces, making the proposed supply of 109 spaces short by four spaces.

The City's requirements and proposed parking supply are summarized in Table 14.

Table 14 – Parking Analysis Summary

Land Use	Units	City Requirements	
		Rate	Spaces Required
Hotel (Guest Rooms)	75 rms	1.2 spaces per room	90
Meeting Space	2,300 sf	1 space per 100 sf	23
Supply Required per Code			**113**
Proposed Supply			109

Notes: rms = rooms; sf = square feet

Because the proposed supply would be four spaces short of satisfying City code requirements, consideration was given to the anticipated parking demand that would be expected based on standard parking rates developed by ITE in *Parking Generation Manual*, 5th Edition, 2019. Using rates for the "Business Hotel" land use, which would be most applicable to the proposed project, the average and peak parking demands are expected to be 54 and 63 spaces, respectively, on weekdays and less on weekend days. Given that the ITE peak parking demand for the hotel component is anticipated to be 27 spaces fewer than required by City Code, and the project is only four spaces short, it would be reasonable for the City to consider approving the project with fewer spaces than required by standard City rates. City Code allows for a shared parking reduction of 10 percent, which if applied, would reduce the required supply to 102 spaces, which the proposed parking supply exceeds.

Based on requirements stipulated by the Federal Accessibility Guidelines, five accessible stalls, including one van-accessible stall, must be supplied for a vehicle parking supply between 100 and 150 spaces.

Finding – The proposed vehicle parking supply of 109 spaces would be four spaces short of meeting standard City code requirements, though would exceed the minimum requirement with application of a shared parking reduction of 10 percent, as allowed by City Code.

Recommendation – Given that national standard ITE parking demand rates for a business hotels translate to substantially fewer spaces than required by City Code, the City may wish to consider approving the project with a shared parking reduction.

Bicycle Storage

According to the Clearlake Municipal Code, bicycle parking shall be provided at a rate of 15 percent of the required vehicle parking spaces. For the proposed vehicle parking supply of 109 spaces, a minimum of 17 bicycle parking spaces would need to be provided.

Recommendation – Bicycle parking should be supplied at a rate of 15 percent of the vehicle parking spaces, resulting in a need for 17 bike spaces based on a vehicle supply of 109 spaces.

Conclusions and Recommendations

Conclusions

CEQA Issues

- The proposed project has the potential to result in an average of 599 trips per day, with 35 trips during the weekday a.m. peak hour and 44 new trips during the weekday p.m. peak hour.
- The calculated collision rate for the intersection of SR 53/18th Avenue was determined to be lower than the statewide average rate, indicating that there are no readily apparent safety issues for motorists in the vicinity of the project site.
- Upon constructing sidewalks along 18th Avenue Extension and within the project site itself, the project would be connected to the existing and planned pedestrian network.
- Bicycle facilities serving the project site would be adequate with the planned provision of Class II bike lanes on 18th Avenue Extension.
- Existing transit facilities serving the project site are adequate and would continue to be adequate with the proposed relocation of an existing bus stop on the east side of Old Highway 53 to the north leg of the proposed intersection with 18th Avenue Extension.
- The proposed hotel is anticipated to result in a less-than-significant transportation impact on VMT for both guests and employees.
- Sight lines on Old Highway 53 and 18th Avenue are adequate to accommodate all turns into and out of the proposed intersection and driveway.
- A left-turn lane would be warranted on Old Highway 53 at the intersection with 18th Avenue Extension.
- The project would have a less-than-significant impact on queuing in dedicated turn lanes at the signalized intersection of SR 53/18th Avenue.
- Emergency access and on-site circulation are anticipated to function acceptably with incorporation of applicable design standards into the site layout, and traffic from the proposed project is expected to have a less-than-significant impact on emergency response times. The proposed extension of 18th Avenue has the potential to improve emergency response times to many dwellings on the west side of SR 53.

Policy Issues

- All existing and proposed study intersections are expected to operate at acceptable Levels of Service under Existing, near-term Baseline, and Future conditions without and with the addition of trips from the proposed project assuming implementation of side-street stop controls at the proposed Old Highway 53/18th Avenue Extension intersection.
- The proposed parking supply of 109 spaces would be four spaces short of meeting standard City code requirements, though would be more than adequate to meet the anticipated demand based on application of standard parking rates, and could be approved with application of a shared parking reduction of 10 percent, as allowed by City Code.

Recommendations

CEQA Issues

- Bicycle parking should be supplied at a rate of 15 percent of the required vehicle parking spaces. Based on the proposal of 109 vehicle spaces, this would result in need for 17 bicycle spaces.

- To maintain adequate sight lines on Old Highway 53 and 18th Avenue, any new signage, monuments, or other structures should be kept out of the vision triangles at the access points.

Policy Issues

- Given that national standard ITE parking demand rates for a business hotels translate to substantially fewer spaces than required by City Code, the City may wish to consider approving the project with a shared parking reduction.

Study Participants and References

Study Participants

Principal in Charge	Dalene J. Whitlock, PE, PTOE
Transportation Planner	Zack Matley, AICP
Associate Engineer	Cameron Nye, EIT
Assistant Engineer	Siddharth Gangrade
Graphics	Cameron Wong
Editing/Formatting	Hannah Yung-Boxdell
Quality Control	Dalene J. Whitlock, PE, PTOE

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CLE030

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Appendix A

Collision Rate Calculations

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Intersection Collision Rate Worksheet

Airport Hotel

Intersection # 1: SR 53 & 18th Ave
Date of Count: Saturday, January 00, 1900

Number of Collisions: 5
Number of Injuries: 1
Number of Fatalities: 1
Average Daily Traffic (ADT): 21900
Start Date: January 1, 2017
End Date: December 31, 2021
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Signals
Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{5 \times 1{,}000{,}000}{21{,}900 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.13 c/mve**	**20.0%**	**20.0%**
Statewide Average*	**0.24 c/mve**	**0.5%**	**46.9%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2018 Collision Data on California State Highways, Caltrans

Intersection # 2: &
Date of Count: Saturday, January 00, 1900

Number of Collisions: 0
Number of Injuries: 0
Number of Fatalities: 0
Average Daily Traffic (ADT): 0
Start Date: January 0, 1900
End Date: January 0, 1900
Number of Years: 0

Intersection Type: 0
Control Type: 0
Area: 0

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{0 \times 1{,}000{,}000}{0 \times 365 \times 0}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.00 c/mve**	**0.0%**	**0.0%**
Statewide Average*	**0.26 c/mve**	**1.5%**	**41.4%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2018 Collision Data on California State Highways, Caltrans

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Appendix B

VMT Screening Tool Output

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Screening Results

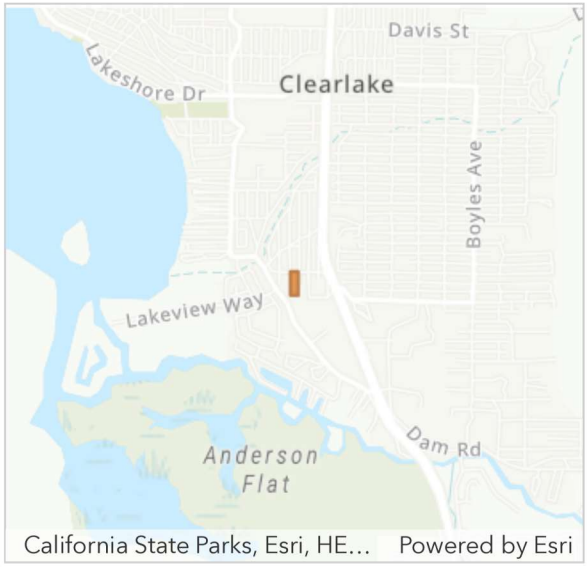
Screening Inputs

Criteria	Input
VMT Metric	Home-based Work VMT per Worker
Baseline Year	2022
Threshold (% reduction from Baseline Year)	Countywide Benchmark (-15%)

Legend

Category	Color
Selected Project Area	
Traffic Analysis Zone ID	
Low VMT Generating TAZs	

Project Location



Project Proximity to Output Low VMT Generating TAZs

Passed

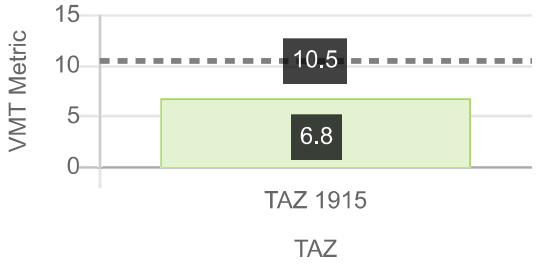
Screening Questions	Results
Within a low VMT generating TAZ?	Yes (Pass)

Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.

Traffic Analysis Zone (TAZ) Details

TAZ Questions	TAZ ID: 1915
Jurisdiction	Clearlake
TAZ VMT	6.8
Countywide Average VMT	12.3
% Difference	-44.7%
VMT Metric	Home-based Work VMT per Worker
Threshold	10.5

Threshold Evaluation



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Appendix C

Turn Lane Warrants and Queuing Spreadsheet

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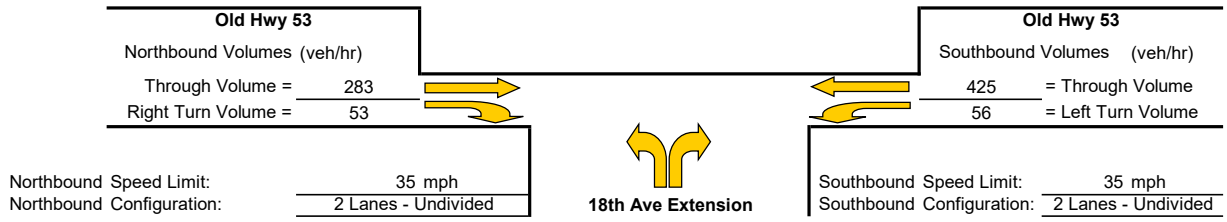
Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Old Hwy 53 / 18th Ave Extension
Study Scenario: Future plus Project AM

Direction of Analysis Street: North/South
Cross Street Intersects: From the East



Northbound Speed Limit: 35 mph
Northbound Configuration: 2 Lanes - Undivided

Southbound Speed Limit: 35 mph
Southbound Configuration: 2 Lanes - Undivided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	652.5
Advancing Volume	Va =	336
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

Thresholds not met, continue to next step

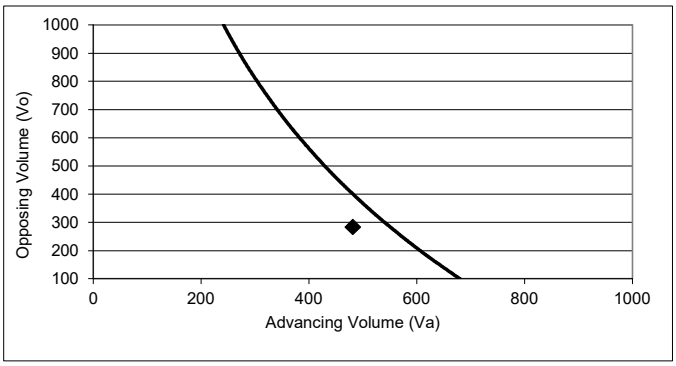
2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	370
Advancing Volume	Va =	336
If AV<Va then warrant is met		No

Right Turn Taper Warranted: **NO**

Southbound Left Turn Lane Warrants

Percentage Left Turns %lt 11.6 %
Advancing Volume Threshold AV 551 veh/hr
If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 35 mph
Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements* , January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Old Hwy 53 / 18th Ave Extension
Study Scenario: Baseline plus Project PM

Direction of Analysis Street: North/South
Cross Street Intersects: From the East

Old Hwy 53
Northbound Volumes (veh/hr)
Through Volume = 400
Right Turn Volume = 40

Old Hwy 53
Southbound Volumes (veh/hr)
315 = Through Volume
70 = Left Turn Volume

18th Ave Extension

Northbound Speed Limit: 35 mph
Northbound Configuration: 2 Lanes - Undivided

Southbound Speed Limit: 35 mph
Southbound Configuration: 2 Lanes - Undivided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	750
Advancing Volume	Va =	440
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

Thresholds not met, continue to next step

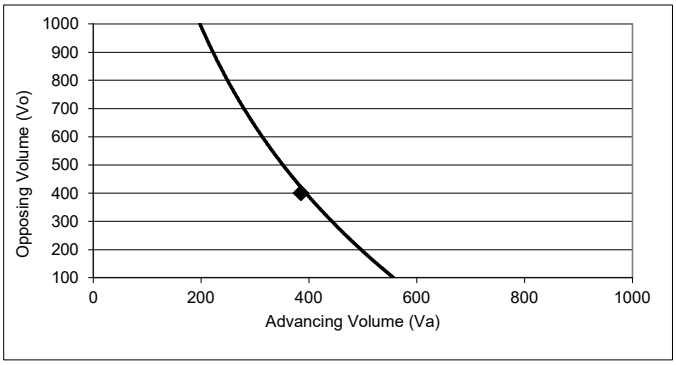
2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	500
Advancing Volume	Va =	440
If AV<Va then warrant is met		No

Right Turn Taper Warranted: **NO**

Southbound Left Turn Lane Warrants

Percentage Left Turns %lt 18.2 %
Advancing Volume Threshold AV 394 veh/hr
If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 35 mph
Turn lane warranted if point falls to right of warrant threshold line

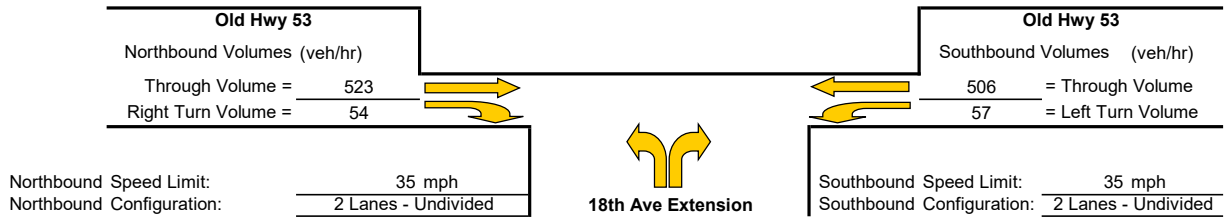
Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements* , January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Old Hwy 53 / 18th Ave Extension
Study Scenario: Future plus Project PM

Direction of Analysis Street: North/South
Cross Street Intersects: From the East



Northbound Speed Limit: 35 mph
Northbound Configuration: 2 Lanes - Undivided

Southbound Speed Limit: 35 mph
Southbound Configuration: 2 Lanes - Undivided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	645
Advancing Volume	Va =	577
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	360
Advancing Volume	Va =	577
If AV<Va then warrant is met		Yes

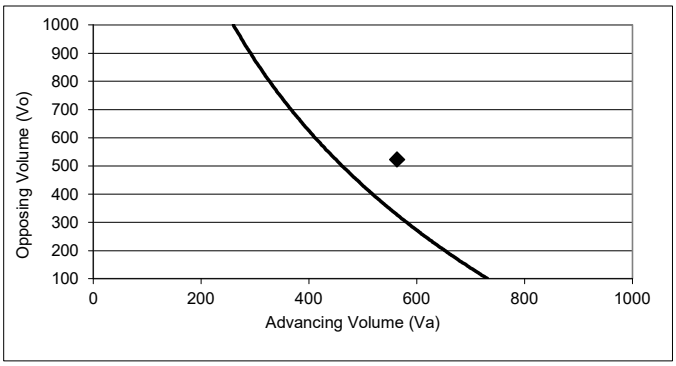
Right Turn Taper Warranted: **YES**

Southbound Left Turn Lane Warrants

Percentage Left Turns %lt 10.1 %

Advancing Volume Threshold AV 450 veh/hr

If AV<Va then warrant is met



◆ Study Intersection

Two lane roadway warrant threshold for: 35 mph

Turn lane warranted if point falls to right of warrant threshold line

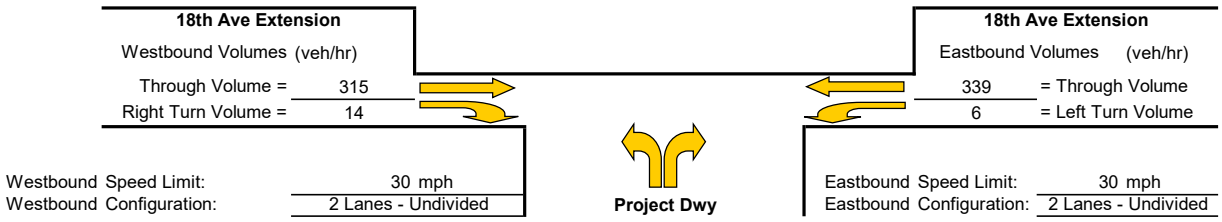
Left Turn Lane Warranted: **YES**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements* , January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: 18th Ave Extension / Project Dwy
Study Scenario: Future plus Project AM

Direction of Analysis Street: East/West
Cross Street Intersects: From the North



Westbound Speed Limit: 30 mph
Westbound Configuration: 2 Lanes - Undivided

Eastbound Speed Limit: 30 mph
Eastbound Configuration: 2 Lanes - Undivided

Westbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	945.1
Advancing Volume	Va =	329
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Westbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

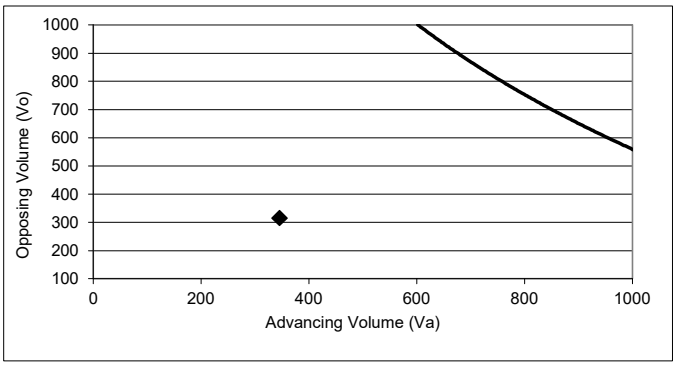
2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	329
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Eastbound Left Turn Lane Warrants

Percentage Left Turns %lt 1.7 %
Advancing Volume Threshold AV 1325 veh/hr
If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 30 mph
Turn lane warranted if point falls to right of warrant threshold line

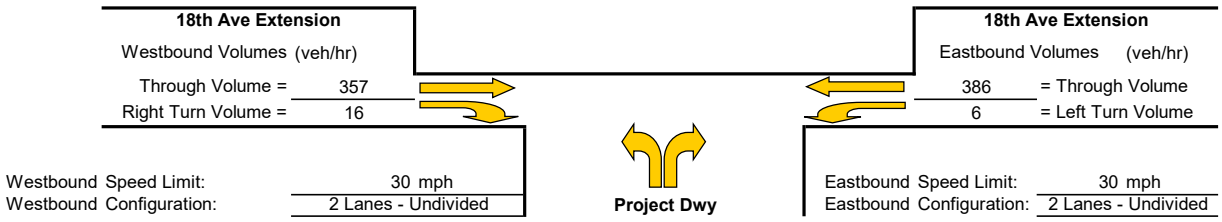
Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements* , January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: 18th Ave Extension / Project Dwy
Study Scenario: Future plus Project PM

Direction of Analysis Street: East/West
Cross Street Intersects: From the North



Westbound Speed Limit: 30 mph
Westbound Configuration: 2 Lanes - Undivided

Eastbound Speed Limit: 30 mph
Eastbound Configuration: 2 Lanes - Undivided

Westbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	930.1
Advancing Volume	Va =	373
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Westbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

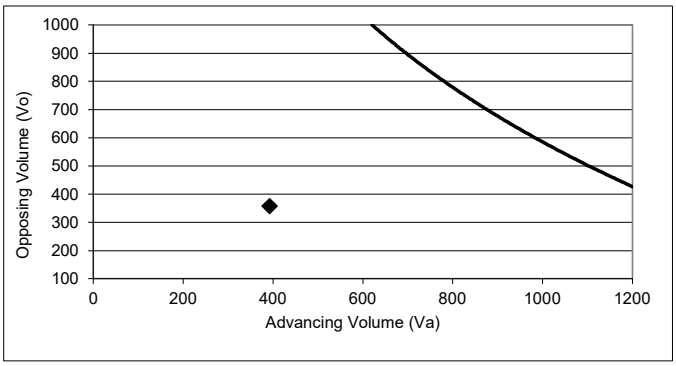
2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	373
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Eastbound Left Turn Lane Warrants

Percentage Left Turns %lt 1.5 %
Advancing Volume Threshold AV 1300 veh/hr
If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 30 mph
Turn lane warranted if point falls to right of warrant threshold line

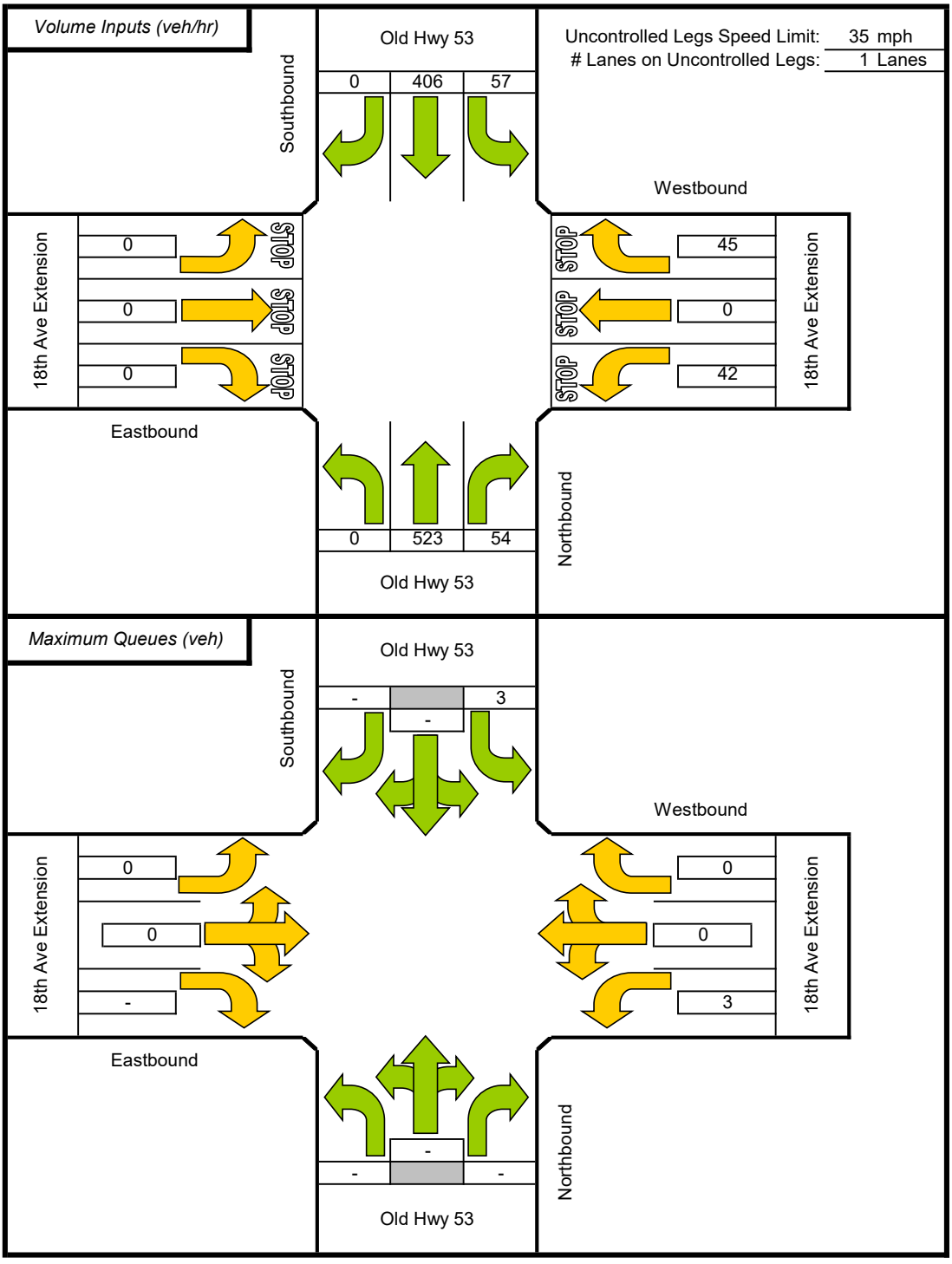
Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements* , January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Maximum Queue Length
Two-Way Stop-Controlled Intersections

Through Street: Old Hwy 53
Side Street: 18th Ave Extension

Scenario: Future plus Project PM
Stop Controlled Legs: East/West



Source: John T. Gard, ITE Journal, November 2001, "Estimating Maximum Queue Length at Unsignalized Intersections"

Appendix D

Intersection Level of Service and Queuing Calculations

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Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	11.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.365

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	5	671	61	66	771	5	3	4	9	76	13	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	671	61	66	771	5	3	4	9	76	13	67
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	187	17	18	215	1	1	1	3	21	4	19
Total Analysis Volume [veh/h]	6	748	68	74	860	6	3	4	10	85	14	75
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Generated with PTV VISTRO Airport Hotel Project 6/29/2022
Version 2021 (SP 0-6)

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	45	45	45	45	45	45	45	45	45
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	6	17	17	9	21	21	7	11	11
g / C, Green / Cycle	0.13	0.39	0.39	0.21	0.47	0.47	0.15	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.00	0.25	0.25	0.05	0.26	0.26	0.01	0.06	0.05
s, saturation flow rate [veh/h]	1603	1683	1634	1603	1683	1679	1513	1614	1431
c, Capacity [veh/h]	204	655	636	338	795	793	221	411	364
d1, Uniform Delay [s]	17.18	11.13	11.13	14.68	8.43	8.43	16.57	13.31	13.18
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	1.02	1.05	0.12	0.59	0.59	0.15	0.30	0.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.63	0.63	0.22	0.55	0.55	0.08	0.24	0.21
d, Delay for Lane Group [s/veh]	17.20	12.14	12.18	14.80	9.01	9.01	16.72	13.61	13.46
Lane Group LOS	B	B	B	B	A	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.04	2.16	2.10	0.46	1.62	1.62	0.14	0.71	0.53
50th-Percentile Queue Length [ft/ln]	1.06	53.92	52.54	11.54	40.56	40.47	3.56	17.72	13.36
95th-Percentile Queue Length [veh/ln]	0.08	3.88	3.78	0.83	2.92	2.91	0.26	1.28	0.96
95th-Percentile Queue Length [ft/ln]	1.91	97.05	94.57	20.78	73.00	72.84	6.40	31.90	24.04

Movement, Approach, & Intersection Results

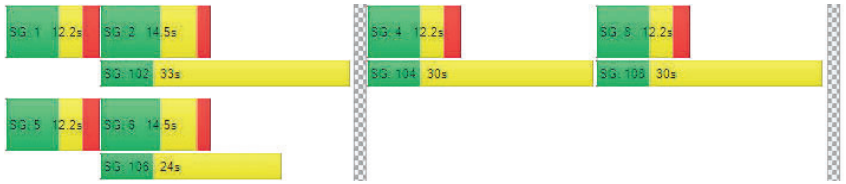
d_M, Delay for Movement [s/veh]	17.20	12.16	12.18	14.80	9.01	9.01	16.72	16.72	16.72	13.61	13.61	13.46
Movement LOS	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	12.20			9.47			16.72			13.54		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	11.04											
Intersection LOS	B											
Intersection V/C	0.365											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	12.76	12.76	12.76	12.76
I_p,int, Pedestrian LOS Score for Intersection	2.895	2.891	1.695	2.004
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	357	357	312	312
d_b, Bicycle Delay [s]	15.13	15.13	15.96	15.96
I_b,int, Bicycle LOS Score for Intersection	2.238	2.335	1.588	1.847
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	10.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.407

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	2	876	50	62	679	3	0	5	3	70	8	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	876	50	62	679	3	0	5	3	70	8	63
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	241	14	17	187	1	0	1	1	19	2	17
Total Analysis Volume [veh/h]	2	964	55	68	747	3	0	6	3	77	9	69
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	48	48	48	48	48	48	48	48	48
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	5	21	21	9	25	25	6	11	11
g / C, Green / Cycle	0.11	0.44	0.44	0.20	0.52	0.52	0.13	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.00	0.31	0.31	0.04	0.22	0.22	0.01	0.05	0.05
s, saturation flow rate [veh/h]	1603	1683	1651	1603	1683	1681	1589	1611	1431
c, Capacity [veh/h]	181	738	724	316	880	879	200	383	340
d1, Uniform Delay [s]	18.75	10.80	10.80	16.02	6.98	6.98	18.30	14.61	14.53
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.01	1.20	1.22	0.12	0.33	0.33	0.09	0.29	0.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.70	0.70	0.22	0.43	0.43	0.04	0.22	0.20
d, Delay for Lane Group [s/veh]	18.76	12.00	12.03	16.15	7.30	7.31	18.39	14.91	14.82
Lane Group LOS	B	B	B	B	A	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.02	2.76	2.71	0.48	1.18	1.18	0.08	0.68	0.55
50th-Percentile Queue Length [ft/ln]	0.40	68.96	67.78	11.94	29.58	29.54	2.08	17.07	13.68
95th-Percentile Queue Length [veh/ln]	0.03	4.97	4.88	0.86	2.13	2.13	0.15	1.23	0.99
95th-Percentile Queue Length [ft/ln]	0.71	124.13	122.00	21.49	53.24	53.18	3.75	30.72	24.63

Movement, Approach, & Intersection Results

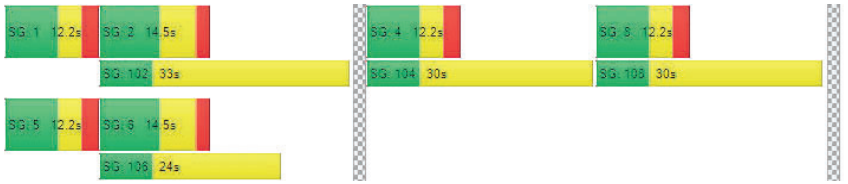
d_M, Delay for Movement [s/veh]	18.76	12.01	12.03	16.15	7.31	7.31	18.39	18.39	18.39	14.91	14.91	14.82
Movement LOS	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	12.03			8.04			18.39			14.87		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	10.65											
Intersection LOS	B											
Intersection V/C	0.407											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.03	14.03	14.03	14.03
I_p,int, Pedestrian LOS Score for Intersection	2.924	2.925	1.689	1.996
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	337	337	295	295
d_b, Bicycle Delay [s]	16.43	16.43	17.27	17.27
I_b,int, Bicycle LOS Score for Intersection	2.402	2.234	1.574	1.815
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	11.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.384

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	5	671	61	66	771	5	3	4	9	76	13	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	58	0	0	59	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	729	61	66	830	5	3	4	9	76	13	67
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	203	17	18	231	1	1	1	3	21	4	19
Total Analysis Volume [veh/h]	6	813	68	74	925	6	3	4	10	85	14	75
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	46	46	46	46	46	46	46	46	46
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	6	19	19	10	22	22	7	11	11
g / C, Green / Cycle	0.12	0.40	0.40	0.21	0.49	0.49	0.14	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.00	0.27	0.27	0.05	0.28	0.28	0.01	0.06	0.05
s, saturation flow rate [veh/h]	1603	1683	1638	1603	1683	1679	1513	1614	1431
c, Capacity [veh/h]	198	679	661	330	817	816	216	400	355
d1, Uniform Delay [s]	17.84	11.21	11.22	15.30	8.47	8.47	17.22	13.95	13.82
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	1.09	1.12	0.13	0.63	0.63	0.15	0.32	0.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.66	0.66	0.22	0.57	0.57	0.08	0.25	0.21
d, Delay for Lane Group [s/veh]	17.86	12.31	12.34	15.43	9.10	9.10	17.37	14.27	14.11
Lane Group LOS	B	B	B	B	A	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.04	2.42	2.36	0.49	1.81	1.81	0.15	0.75	0.56
50th-Percentile Queue Length [ft/ln]	1.12	60.43	58.96	12.25	45.22	45.13	3.72	18.71	14.10
95th-Percentile Queue Length [veh/ln]	0.08	4.35	4.25	0.88	3.26	3.25	0.27	1.35	1.02
95th-Percentile Queue Length [ft/ln]	2.01	108.77	106.13	22.04	81.40	81.23	6.70	33.69	25.38

Movement, Approach, & Intersection Results

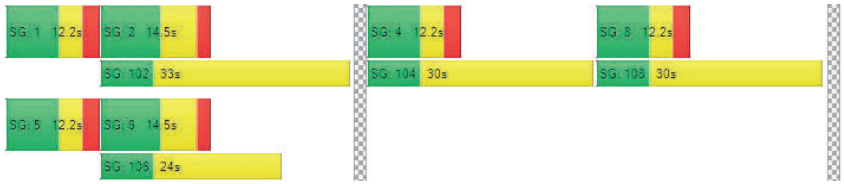
d_M, Delay for Movement [s/veh]	17.86	12.32	12.34	15.43	9.10	9.10	17.37	17.37	17.37	14.27	14.27	14.11
Movement LOS	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	12.36			9.56			17.37			14.20		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	11.21											
Intersection LOS	B											
Intersection V/C	0.384											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	13.41	13.41	13.41	13.41
l_p,int, Pedestrian LOS Score for Intersection	2.943	2.939	1.697	2.006
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	346	346	303	303
d_b, Bicycle Delay [s]	15.79	15.79	16.63	16.63
l_b,int, Bicycle LOS Score for Intersection	2.291	2.389	1.588	1.847
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	10.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.429

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	2	876	50	62	679	3	0	5	3	70	8	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	68	0	0	67	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	944	50	62	746	3	0	5	3	70	8	63
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	260	14	17	205	1	0	1	1	19	2	17
Total Analysis Volume [veh/h]	2	1039	55	68	821	3	0	6	3	77	9	69
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	49	49	49	49	49	49	49	49	49
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	5	22	22	9	27	27	6	11	11
g / C, Green / Cycle	0.11	0.46	0.46	0.19	0.54	0.54	0.12	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.00	0.33	0.33	0.04	0.24	0.24	0.01	0.05	0.05
s, saturation flow rate [veh/h]	1603	1683	1653	1603	1683	1681	1589	1611	1431
c, Capacity [veh/h]	175	767	753	308	906	905	194	371	330
d1, Uniform Delay [s]	19.65	10.91	10.91	16.86	6.98	6.98	19.17	15.47	15.38
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.01	1.29	1.31	0.13	0.36	0.36	0.10	0.32	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.72	0.72	0.22	0.46	0.46	0.05	0.23	0.21
d, Delay for Lane Group [s/veh]	19.66	12.19	12.22	16.99	7.34	7.34	19.27	15.78	15.69
Lane Group LOS	B	B	B	B	A	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.02	3.10	3.05	0.51	1.35	1.35	0.09	0.73	0.58
50th-Percentile Queue Length [ft/ln]	0.42	77.57	76.36	12.80	33.82	33.78	2.20	18.20	14.59
95th-Percentile Queue Length [veh/ln]	0.03	5.59	5.50	0.92	2.43	2.43	0.16	1.31	1.05
95th-Percentile Queue Length [ft/ln]	0.76	139.63	137.45	23.03	60.87	60.80	3.96	32.76	26.26

Movement, Approach, & Intersection Results

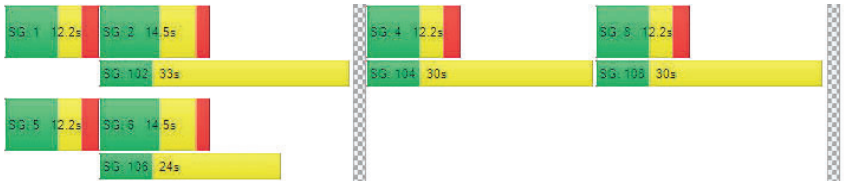
d_M, Delay for Movement [s/veh]	19.66	12.21	12.22	16.99	7.34	7.34	19.27	19.27	19.27	15.78	15.78	15.69
Movement LOS	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	12.22			8.07			19.27			15.74		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	10.78											
Intersection LOS	B											
Intersection V/C	0.429											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.89	14.89	14.89	14.89
I_p,int, Pedestrian LOS Score for Intersection	2.979	2.980	1.692	1.998
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	324	324	284	284
d_b, Bicycle Delay [s]	17.31	17.31	18.16	18.16
I_b,int, Bicycle LOS Score for Intersection	2.464	2.296	1.574	1.815
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	18.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.606

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	120	845	15	70	995	90	90	20	115	20	25	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	120	845	15	70	995	90	90	20	115	20	25	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	211	4	18	249	23	23	5	29	5	6	20
Total Analysis Volume [veh/h]	120	845	15	70	995	90	90	20	115	20	25	80
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	11	29	29	10	27	27	14	11	11
g / C, Green / Cycle	0.18	0.44	0.44	0.16	0.42	0.42	0.22	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.07	0.26	0.26	0.04	0.33	0.33	0.15	0.03	0.06
s, saturation flow rate [veh/h]	1603	1683	1673	1603	1683	1634	1516	1646	1431
c, Capacity [veh/h]	283	745	741	254	715	694	336	292	254
d1, Uniform Delay [s]	23.72	13.50	13.50	23.97	15.90	15.91	23.03	22.50	23.19
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.38	0.71	0.72	0.22	1.79	1.85	2.32	0.24	0.70
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.58	0.58	0.28	0.77	0.77	0.67	0.15	0.32
d, Delay for Lane Group [s/veh]	24.10	14.22	14.22	24.18	17.69	17.76	25.35	22.75	23.89
Lane Group LOS	C	B	B	C	B	B	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	1.42	3.61	3.59	0.83	5.50	5.36	3.14	0.57	1.05
50th-Percentile Queue Length [ft/ln]	35.57	90.27	89.74	20.63	137.55	134.06	78.59	14.21	26.36
95th-Percentile Queue Length [veh/ln]	2.56	6.50	6.46	1.49	9.35	9.16	5.66	1.02	1.90
95th-Percentile Queue Length [ft/ln]	64.02	162.49	161.54	37.14	233.73	229.01	141.46	25.57	47.45

Movement, Approach, & Intersection Results

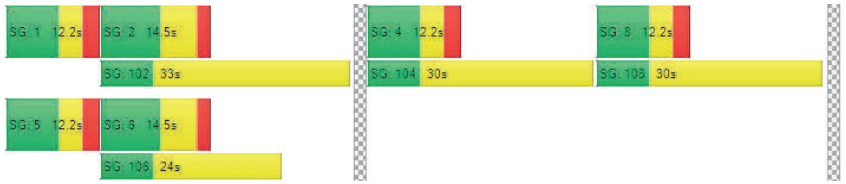
d_M, Delay for Movement [s/veh]	24.10	14.22	14.22	24.18	17.72	17.76	25.35	25.35	25.35	22.75	22.75	23.89
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	15.43			18.11			25.35			23.48		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	17.98											
Intersection LOS	B											
Intersection V/C	0.606											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.21	22.21	22.21	22.21
l_p,int, Pedestrian LOS Score for Intersection	3.036	3.057	1.921	1.997
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	248	248	217	217
d_b, Bicycle Delay [s]	24.77	24.77	25.65	25.65
l_b,int, Bicycle LOS Score for Intersection	2.368	2.512	1.931	1.766
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	19.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.616

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	130	945	15	80	895	110	110	25	130	20	20	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	945	15	80	895	110	110	25	130	20	20	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	236	4	20	224	28	28	6	33	5	5	20
Total Analysis Volume [veh/h]	130	945	15	80	895	110	110	25	130	20	20	80
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	12	27	27	11	26	26	16	11	11
g / C, Green / Cycle	0.18	0.42	0.42	0.16	0.40	0.40	0.25	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.08	0.29	0.29	0.05	0.30	0.30	0.17	0.02	0.06
s, saturation flow rate [veh/h]	1603	1683	1674	1603	1683	1619	1520	1642	1431
c, Capacity [veh/h]	284	701	697	260	676	650	374	287	250
d1, Uniform Delay [s]	24.06	15.56	15.56	24.12	16.79	16.80	22.46	22.77	23.53
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.12	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.43	1.20	1.21	0.25	1.77	1.84	2.78	0.22	0.73
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.69	0.69	0.31	0.76	0.76	0.71	0.14	0.32
d, Delay for Lane Group [s/veh]	24.49	16.77	16.78	24.36	18.56	18.64	25.24	22.99	24.26
Lane Group LOS	C	B	B	C	B	B	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	1.57	4.64	4.62	0.96	5.34	5.16	3.74	0.51	1.07
50th-Percentile Queue Length [ft/ln]	39.27	116.05	115.46	23.88	133.58	128.93	93.54	12.77	26.76
95th-Percentile Queue Length [veh/ln]	2.83	8.18	8.14	1.72	9.13	8.88	6.73	0.92	1.93
95th-Percentile Queue Length [ft/ln]	70.68	204.38	203.57	42.99	228.36	222.04	168.37	22.99	48.18

Movement, Approach, & Intersection Results

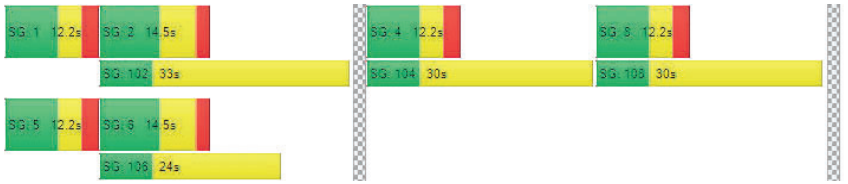
d_M, Delay for Movement [s/veh]	24.49	16.77	16.78	24.36	18.59	18.64	25.24	25.24	25.24	22.99	22.99	24.26
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	17.69			19.02			25.24			23.84		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.33											
Intersection LOS	B											
Intersection V/C	0.616											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.49	22.49	22.49	22.49
I_p,int, Pedestrian LOS Score for Intersection	3.045	3.076	1.953	2.000
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	246	246	215	215
d_b, Bicycle Delay [s]	25.06	25.06	25.94	25.94
I_b,int, Bicycle LOS Score for Intersection	2.459	2.455	1.997	1.758
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	15.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.448

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	5	671	61	66	771	5	3	4	9	76	13	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	27	0	0	0	0	9	50	0	35	0	18	0
Site-Generated Trips [veh/h]	6	0	0	0	0	8	6	0	5	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	671	61	66	771	22	59	4	49	76	31	67
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	187	17	18	215	6	16	1	14	21	9	19
Total Analysis Volume [veh/h]	42	748	68	74	860	25	66	4	55	85	35	75
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	52	52	52	52	52	52	52	52	52
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	8	19	19	10	21	21	11	12	12
g / C, Green / Cycle	0.16	0.37	0.37	0.19	0.40	0.40	0.21	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.03	0.25	0.25	0.05	0.26	0.26	0.08	0.07	0.05
s, saturation flow rate [veh/h]	1603	1683	1634	1603	1683	1666	1524	1625	1431
c, Capacity [veh/h]	260	623	605	304	669	662	325	369	325
d1, Uniform Delay [s]	18.74	13.68	13.68	17.91	12.84	12.84	17.53	16.77	16.39
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	1.23	1.26	0.15	1.15	1.16	0.74	0.51	0.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.66	0.66	0.24	0.67	0.67	0.38	0.33	0.23
d, Delay for Lane Group [s/veh]	18.85	14.91	14.95	18.06	13.98	13.99	18.27	17.28	16.75
Lane Group LOS	B	B	B	B	B	B	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.35	2.99	2.91	0.61	3.03	3.01	1.22	1.12	0.68
50th-Percentile Queue Length [ft/ln]	8.87	74.75	72.78	15.17	75.85	75.15	30.43	28.00	17.12
95th-Percentile Queue Length [veh/ln]	0.64	5.38	5.24	1.09	5.46	5.41	2.19	2.02	1.23
95th-Percentile Queue Length [ft/ln]	15.97	134.54	131.00	27.30	136.53	135.27	54.77	50.40	30.82

Movement, Approach, & Intersection Results

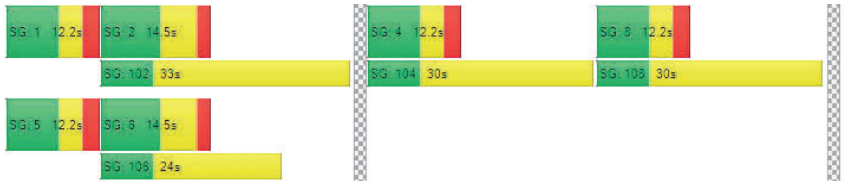
d_M, Delay for Movement [s/veh]	18.85	14.92	14.95	18.06	13.99	13.99	18.27	18.27	18.27	17.28	17.28	16.75
Movement LOS	B	B	B	B	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	15.12			14.30			18.27			17.08		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	15.12											
Intersection LOS	B											
Intersection V/C	0.448											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	16.09	16.09	16.09	16.09
l_p,int, Pedestrian LOS Score for Intersection	2.933	2.929	1.794	2.020
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	309	309	270	270
d_b, Bicycle Delay [s]	18.54	18.54	19.40	19.40
l_b,int, Bicycle LOS Score for Intersection	2.267	2.351	1.766	1.881
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Old Hwy 53/18th Ave Extension

Control Type:	Two-way stop	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.091

Intersection Setup

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Base Volume Input [veh/h]	199	0	0	299	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	42	43	0	27	27
Site-Generated Trips [veh/h]	0	2	4	0	2	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	199	44	47	299	29	30
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	59	13	14	88	9	9
Total Analysis Volume [veh/h]	234	52	55	352	34	35
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.04	0.00	0.09	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	7.95	0.00	15.78	10.74
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.14	0.14	0.47	0.47
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.38	3.38	11.73	11.73
d_A, Approach Delay [s/veh]	0.00		1.07		13.22	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.77					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	15.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.485

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	2	876	50	62	679	3	0	5	3	70	8	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	35	0	0	0	0	13	59	0	18	0	18	0
Site-Generated Trips [veh/h]	7	0	0	0	0	9	9	0	7	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	876	50	62	679	25	68	5	28	70	26	63
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	241	14	17	187	7	19	1	8	19	7	17
Total Analysis Volume [veh/h]	48	964	55	68	747	28	75	6	31	77	29	69
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	56	56	56	56	56	56	56	56	56
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	9	23	23	10	24	24	11	12	12
g / C, Green / Cycle	0.16	0.42	0.42	0.18	0.43	0.43	0.20	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.03	0.31	0.31	0.04	0.23	0.23	0.07	0.07	0.05
s, saturation flow rate [veh/h]	1603	1683	1651	1603	1683	1662	1555	1624	1431
c, Capacity [veh/h]	255	704	691	281	731	722	305	341	300
d1, Uniform Delay [s]	20.41	13.63	13.63	19.90	11.66	11.66	19.49	18.70	18.37
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.13	1.48	1.50	0.16	0.61	0.61	0.74	0.51	0.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.19	0.73	0.73	0.24	0.53	0.53	0.37	0.31	0.23
d, Delay for Lane Group [s/veh]	20.54	15.11	15.14	20.07	12.27	12.27	20.22	19.22	18.75
Lane Group LOS	C	B	B	C	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.46	4.00	3.93	0.64	2.54	2.51	1.22	1.11	0.71
50th-Percentile Queue Length [ft/ln]	11.41	100.06	98.33	15.92	63.57	62.82	30.50	27.81	17.81
95th-Percentile Queue Length [veh/ln]	0.82	7.20	7.08	1.15	4.58	4.52	2.20	2.00	1.28
95th-Percentile Queue Length [ft/ln]	20.54	180.11	177.00	28.66	114.42	113.08	54.91	50.06	32.05

Movement, Approach, & Intersection Results

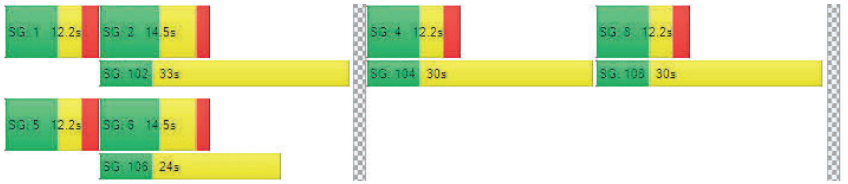
d_M, Delay for Movement [s/veh]	20.54	15.12	15.14	20.07	12.27	12.27	20.22	20.22	20.22	19.22	19.22	18.75
Movement LOS	C	B	B	C	B	B	C	C	C	B	B	B
d_A, Approach Delay [s/veh]	15.37			12.90			20.22			19.03		
Approach LOS	B			B			C			B		
d_I, Intersection Delay [s/veh]	14.96											
Intersection LOS	B											
Intersection V/C	0.485											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	18.04	18.04	18.04	18.04
I_p,int, Pedestrian LOS Score for Intersection	2.960	2.971	1.794	2.012
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	286	286	250	250
d_b, Bicycle Delay [s]	20.53	20.53	21.39	21.39
I_b,int, Bicycle LOS Score for Intersection	2.440	2.255	1.744	1.848
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Old Hwy 53/18th Ave Extension

Control Type:	Two-way stop	Delay (sec / veh):	17.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.116

Intersection Setup

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Base Volume Input [veh/h]	371	0	0	288	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	38	39	0	33	33
Site-Generated Trips [veh/h]	0	2	4	0	2	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	371	40	43	288	35	37
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	100	11	12	77	9	10
Total Analysis Volume [veh/h]	398	43	46	309	38	40
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane					No	
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					No	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.04	0.00	0.12	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	8.36	0.00	17.80	12.48
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.13	0.13	0.65	0.65
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.21	3.21	16.14	16.14
d_A, Approach Delay [s/veh]	0.00		1.08		15.07	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.78					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.484

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	5	671	61	66	771	5	3	4	9	76	13	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	27	0	0	0	0	9	50	0	35	0	18	0
Site-Generated Trips [veh/h]	6	38	0	0	49	8	26	0	15	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	709	61	66	820	22	79	4	59	76	31	67
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	198	17	18	229	6	22	1	16	21	9	19
Total Analysis Volume [veh/h]	42	790	68	74	914	25	88	4	66	85	35	75
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	54	54	54	54	54	54	54	54	54
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	8	20	20	10	22	22	12	12	12
g / C, Green / Cycle	0.16	0.38	0.38	0.19	0.40	0.40	0.22	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.03	0.26	0.26	0.05	0.28	0.28	0.10	0.07	0.05
s, saturation flow rate [veh/h]	1603	1683	1637	1603	1683	1667	1528	1625	1431
c, Capacity [veh/h]	254	637	620	297	682	675	330	359	316
d1, Uniform Delay [s]	19.51	13.98	13.98	18.68	13.20	13.20	18.41	17.60	17.20
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	1.30	1.34	0.16	1.27	1.28	1.08	0.54	0.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.68	0.68	0.25	0.69	0.69	0.48	0.33	0.24
d, Delay for Lane Group [s/veh]	19.62	15.28	15.32	18.85	14.47	14.48	19.49	18.14	17.58
Lane Group LOS	B	B	B	B	B	B	B	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.37	3.30	3.21	0.64	3.41	3.38	1.64	1.18	0.72
50th-Percentile Queue Length [ft/ln]	9.35	82.41	80.32	16.03	85.20	84.46	41.12	29.52	18.05
95th-Percentile Queue Length [veh/ln]	0.67	5.93	5.78	1.15	6.13	6.08	2.96	2.13	1.30
95th-Percentile Queue Length [ft/ln]	16.83	148.35	144.57	28.86	153.35	152.02	74.02	53.14	32.49

Movement, Approach, & Intersection Results

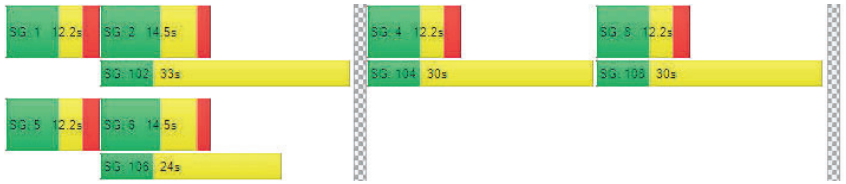
d_M, Delay for Movement [s/veh]	19.62	15.30	15.32	18.85	14.47	14.48	19.49	19.49	19.49	18.14	18.14	17.58
Movement LOS	B	B	B	B	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	15.50			14.79			19.49			17.93		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	15.67											
Intersection LOS	B											
Intersection V/C	0.484											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	16.89	16.89	16.89	16.89
l_p,int, Pedestrian LOS Score for Intersection	2.973	2.973	1.812	2.022
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	299	299	262	262
d_b, Bicycle Delay [s]	19.36	19.36	20.22	20.22
l_b,int, Bicycle LOS Score for Intersection	2.302	2.395	1.820	1.881
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



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Version 2021 (SP 0-6)

Intersection Level Of Service Report
Intersection 2: Old Hwy 53/18th Ave Extension

Control Type:	Two-way stop	Delay (sec / veh):	18.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.116

Intersection Setup

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Base Volume Input [veh/h]	199	0	0	299	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	42	43	0	27	27
Site-Generated Trips [veh/h]	30	2	34	30	2	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	229	44	77	329	29	30
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	13	23	97	9	9
Total Analysis Volume [veh/h]	269	52	91	387	34	35
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.07	0.00	0.12	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	8.14	0.00	18.87	11.48
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.24	0.24	0.57	0.57
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.94	5.94	14.37	14.37
d_A, Approach Delay [s/veh]	0.00		1.55		15.12	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.06					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	15.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.521

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	2	876	50	62	679	3	0	5	3	70	8	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	35	0	0	0	0	13	59	0	18	0	18	0
Site-Generated Trips [veh/h]	7	50	0	0	58	9	27	0	16	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	926	50	62	737	25	86	5	37	70	26	63
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	255	14	17	203	7	24	1	10	19	7	17
Total Analysis Volume [veh/h]	48	1019	55	68	811	28	95	6	41	77	29	69
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	58	58	58	58	58	58	58	58	58
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	9	25	25	10	26	26	12	12	12
g / C, Green / Cycle	0.15	0.43	0.43	0.17	0.44	0.44	0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.03	0.32	0.32	0.04	0.25	0.25	0.09	0.07	0.05
s, saturation flow rate [veh/h]	1603	1683	1653	1603	1683	1663	1552	1624	1431
c, Capacity [veh/h]	248	724	711	272	749	741	307	329	290
d1, Uniform Delay [s]	21.48	13.97	13.97	20.98	11.97	11.97	20.66	19.84	19.48
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.14	1.58	1.61	0.18	0.67	0.67	1.09	0.56	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.19	0.75	0.75	0.25	0.56	0.56	0.46	0.32	0.24
d, Delay for Lane Group [s/veh]	21.62	15.54	15.58	21.15	12.64	12.65	21.75	20.40	19.90
Lane Group LOS	C	B	B	C	B	B	C	C	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.49	4.47	4.40	0.68	2.93	2.90	1.67	1.19	0.76
50th-Percentile Queue Length [ft/ln]	12.17	111.79	110.01	17.02	73.20	72.39	41.73	29.65	18.98
95th-Percentile Queue Length [veh/ln]	0.88	7.94	7.84	1.23	5.27	5.21	3.00	2.13	1.37
95th-Percentile Queue Length [ft/ln]	21.91	198.49	196.01	30.63	131.76	130.30	75.11	53.37	34.16

Movement, Approach, & Intersection Results

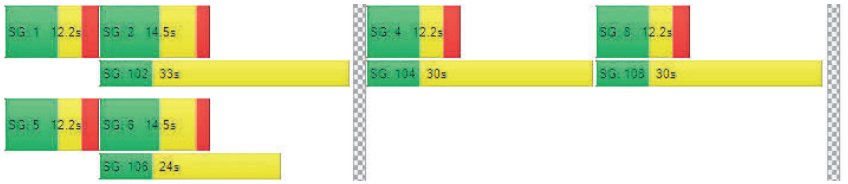
d_M, Delay for Movement [s/veh]	21.62	15.56	15.58	21.15	12.64	12.65	21.75	21.75	21.75	20.40	20.40	19.90
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	B
d_A, Approach Delay [s/veh]	15.82			13.28			21.75			20.20		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.52											
Intersection LOS	B											
Intersection V/C	0.521											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	19.14	19.14	19.14	19.14
I_p,int, Pedestrian LOS Score for Intersection	3.009	3.023	1.811	2.015
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	275	275	241	241
d_b, Bicycle Delay [s]	21.65	21.65	22.52	22.52
I_b,int, Bicycle LOS Score for Intersection	2.485	2.308	1.794	1.848
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Old Hwy 53/18th Ave Extension

Control Type:	Two-way stop	Delay (sec / veh):	20.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.142

Intersection Setup

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Base Volume Input [veh/h]	371	0	0	288	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	38	39	0	33	33
Site-Generated Trips [veh/h]	29	2	31	27	2	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	400	40	70	315	35	37
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	107	11	19	85	9	10
Total Analysis Volume [veh/h]	430	43	75	338	38	40
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane					No	
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					No	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.07	0.00	0.14	0.07
d_M, Delay for Movement [s/veh]	0.00	0.00	8.55	0.00	20.93	13.41
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.22	0.22	0.77	0.77
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.54	5.54	19.25	19.25
d_A, Approach Delay [s/veh]	0.00		1.55		17.07	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.05					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	24.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.713

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	120	845	15	70	995	90	90	20	115	20	25	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	33	0	0	0	0	14	60	0	43	0	19	0
Site-Generated Trips [veh/h]	6	0	0	0	0	8	6	0	5	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	159	845	15	70	995	112	156	20	163	20	44	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	211	4	18	249	28	39	5	41	5	11	20
Total Analysis Volume [veh/h]	159	845	15	70	995	112	156	20	163	20	44	80
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Generated with PTV VISTRO Airport Hotel Project 6/29/2022
Version 2021 (SP 0-6)

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	79	79	79	79	79	79	79	79	79
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	12	34	34	11	33	33	22	12	12
g / C, Green / Cycle	0.16	0.44	0.44	0.14	0.41	0.41	0.28	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.10	0.26	0.26	0.04	0.33	0.34	0.22	0.04	0.06
s, saturation flow rate [veh/h]	1603	1683	1673	1603	1683	1624	1519	1657	1431
c, Capacity [veh/h]	251	733	728	217	697	673	423	250	216
d1, Uniform Delay [s]	31.21	16.94	16.94	30.89	20.37	20.39	26.49	29.65	30.20
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.12	0.34	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.99	0.76	0.76	0.31	2.41	2.53	10.58	0.54	1.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.63	0.59	0.59	0.32	0.81	0.81	0.80	0.26	0.37
d, Delay for Lane Group [s/veh]	32.20	17.70	17.71	31.20	22.79	22.92	37.06	30.19	31.26
Lane Group LOS	C	B	B	C	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	2.62	5.00	4.97	1.11	7.93	7.69	6.88	1.08	1.40
50th-Percentile Queue Length [ft/ln]	65.54	125.06	124.32	27.78	198.14	192.16	172.12	27.09	34.89
95th-Percentile Queue Length [veh/ln]	4.72	8.67	8.63	2.00	12.54	12.23	11.19	1.95	2.51
95th-Percentile Queue Length [ft/ln]	117.98	216.76	215.75	50.00	313.56	305.83	279.70	48.77	62.81

Movement, Approach, & Intersection Results

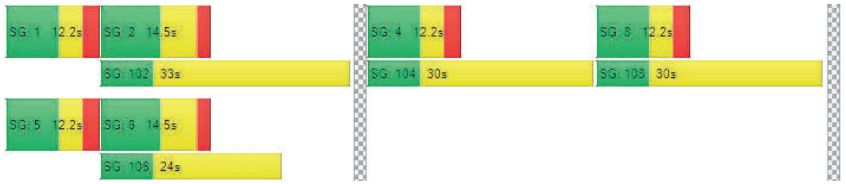
d_M, Delay for Movement [s/veh]	32.20	17.70	17.71	31.20	22.84	22.92	37.06	37.06	37.06	30.19	30.19	31.26
Movement LOS	C	B	B	C	C	C	D	D	D	C	C	C
d_A, Approach Delay [s/veh]	19.97			23.35			37.06			30.78		
Approach LOS	B			C			D			C		
d_I, Intersection Delay [s/veh]	24.20											
Intersection LOS	C											
Intersection V/C	0.713											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.21	29.21	29.21	29.21
l_p,int, Pedestrian LOS Score for Intersection	3.078	3.100	2.026	2.014
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	203	203	177	177
d_b, Bicycle Delay [s]	31.85	31.85	32.75	32.75
l_b,int, Bicycle LOS Score for Intersection	2.400	2.531	2.119	1.797
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Old Hwy 53/18th Ave Extension

Control Type:	Two-way stop	Delay (sec / veh):	18.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.112

Intersection Setup

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Base Volume Input [veh/h]	199	0	0	299	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.4200	1.4200	1.4200	1.4200	1.4200	1.4200
In-Process Volume [veh/h]	0	51	52	0	33	33
Site-Generated Trips [veh/h]	0	2	4	0	2	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	283	53	56	425	35	36
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	71	13	14	106	9	9
Total Analysis Volume [veh/h]	283	53	56	425	35	36
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.05	0.00	0.11	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	8.08	0.00	18.09	11.49
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.14	0.14	0.57	0.57
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.59	3.59	14.25	14.25
d_A, Approach Delay [s/veh]	0.00		0.94		14.74	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.69					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	27.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.735

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	130	945	15	80	895	110	110	25	130	20	20	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	42	0	0	0	0	18	69	0	36	0	21	0
Site-Generated Trips [veh/h]	7	0	0	0	0	9	9	0	7	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	179	945	15	80	895	137	188	25	173	20	41	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	236	4	20	224	34	47	6	43	5	10	20
Total Analysis Volume [veh/h]	179	945	15	80	895	137	188	25	173	20	41	80
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	83	83	83	83	83	83	83	83	83
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	14	35	35	11	32	32	25	12	12
g / C, Green / Cycle	0.17	0.42	0.42	0.13	0.39	0.39	0.30	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.11	0.29	0.29	0.05	0.31	0.31	0.25	0.04	0.06
s, saturation flow rate [veh/h]	1603	1683	1674	1603	1683	1606	1525	1656	1431
c, Capacity [veh/h]	267	711	707	214	656	626	459	237	205
d1, Uniform Delay [s]	32.62	19.47	19.47	32.95	22.63	22.64	27.29	31.77	32.41
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.47	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.10	1.14	1.14	0.40	2.43	2.57	15.92	0.57	1.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.67	0.68	0.68	0.37	0.81	0.81	0.84	0.26	0.39
d, Delay for Lane Group [s/veh]	33.71	20.61	20.62	33.35	25.07	25.21	43.20	32.34	33.62
Lane Group LOS	C	C	C	C	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	3.15	6.52	6.48	1.37	8.20	7.86	8.89	1.11	1.50
50th-Percentile Queue Length [ft/ln]	78.87	162.94	162.12	34.30	205.11	196.56	222.27	27.72	37.56
95th-Percentile Queue Length [veh/ln]	5.68	10.70	10.66	2.47	12.90	12.46	13.78	2.00	2.70
95th-Percentile Queue Length [ft/ln]	141.96	267.62	266.52	61.73	322.55	311.52	344.52	49.89	67.60

Generated with PTV VISTRO Airport Hotel Project 6/29/2022
Version 2021 (SP 0-6)

Movement, Approach, & Intersection Results

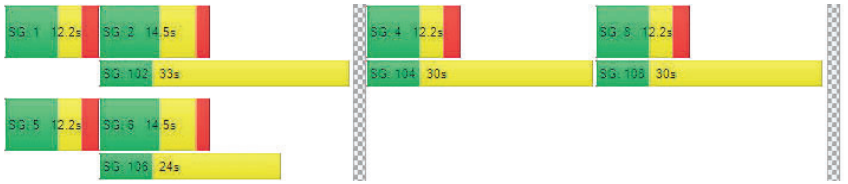
d_M, Delay for Movement [s/veh]	33.71	20.61	20.62	33.35	25.12	25.21	43.20	43.20	43.20	32.34	32.34	33.62
Movement LOS	C	C	C	C	C	C	D	D	D	C	C	C
d_A, Approach Delay [s/veh]	22.67			25.73			43.20			33.07		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	27.28											
Intersection LOS	C											
Intersection V/C	0.735											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	31.34	31.34	31.34	31.34
I_p,int, Pedestrian LOS Score for Intersection	3.091	3.126	2.073	2.020
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	192	192	168	168
d_b, Bicycle Delay [s]	33.99	33.99	34.90	34.90
I_b,int, Bicycle LOS Score for Intersection	2.499	2.477	2.197	1.792
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Old Hwy 53/18th Ave Extension

Control Type:	Two-way stop	Delay (sec / veh):	24.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.185

Intersection Setup

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Base Volume Input [veh/h]	371	0	0	288	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.4100	1.4100	1.4100	1.4100	1.4100	1.4100
In-Process Volume [veh/h]	0	52	53	0	40	41
Site-Generated Trips [veh/h]	0	2	4	0	2	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	523	54	57	406	42	45
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	131	14	14	102	11	11
Total Analysis Volume [veh/h]	523	54	57	406	42	45
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane					No	
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					No	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.06	0.00	0.19	0.08
d_M, Delay for Movement [s/veh]	0.00	0.00	8.83	0.00	24.94	15.79
Movement LOS	A	A	A	A	C	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.18	0.18	1.07	1.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	4.54	4.54	26.69	26.69
d_A, Approach Delay [s/veh]	0.00		1.09		20.21	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.01					
Intersection LOS	C					

CITY OF CLEARLAKE
PUBLIC HEARING NOTICE
PLANNING COMMISSION

NOTICE IS HEREBY GIVEN that the City of Clearlake Planning Commission will hold a public hearing at a regularly scheduled meeting on **Tuesday, December 13th, 2022, at 6:00 p.m.** or soon thereafter in the City Council Chambers at City Hall, 14050 Olympic Drive, Clearlake, CA., to consider:

- *Conditional Use Permit Application (CUP 2022-02); Design Review (DR 2022-02) and corresponding Environmental Analysis (CEQA IS 2022-06) to allow the development of a +/- 75 Bedroom Hotel with meeting hall/event center, onsite sales and consumptions of alcoholic beverages and the extension of 18th Avenue to connect to Old Highway 53 located at 6356 Armijo Avenue; Clearlake, CA 95422 further described as Assessor Parcel Number 042-121-25.*

If you would like to comment remotely, please send all comments to Senior Planner Mark Roberts at mroberts@clearlake.ca.us prior to the commencement of the meeting and be sure to identify the subject you wish to comment on in the subject line.

The Council Chambers are open to the public and members of the public may also participate via Zoom *(link to be circulated with agenda materials).* Please contact the Community Development Department for any additional information or questions, available by phone at (707) 994-8201.

The City of Clearlake does not discriminate in housing or employment on the basis of race, religion, sex, age, national origin, or disability. The location of the public hearing is fully accessible to mobility-impaired individuals. In compliance with the Americans with Disabilities Act, the City of Clearlake encourages those with disabilities to participate fully in the public hearing process. If you require special accommodations in order for you to participate in this public meeting process, please contact the City Clerk at (707) 994-8201 or by e-mail at mswanson@clearlake.ca.us in advance of the public hearing so that we may make every reasonable effort to accommodate you.

POSTED: Saturday, December 3rd, 2022

City of Clearlake
Notice of Intent to Adopt a Mitigated Negative Declaration (MND)

Notice is hereby given that the City of Clearlake has tentatively determined that the project described below will not result in a significant adverse impact on the environment and that, in accordance with the California Environmental Quality Act, the City is prepared to issue a "mitigated negative declaration" in accordance with the California Environmental Quality Act (CEQA).

Project Name: Airport Hotel and 18th Avenue Extension Project

Project Numbers: Conditional Use Permit (CUP 2022-02); Design Review (DR 2022-02) & Environmental Analysis (CEQA IS 2022-06).

Project Location: 6356 Armijo Avenue, Clearlake, CA 95422, Assessor Parcel Number (APN): 042-121-25.

Zoning Designation: "GC" General Commercial

Project Summary: The Airport Hotel and 18th Avenue Extension Project would include development of the project site with a four-story, 75-room hotel, to be located within the central portion of the site, as well as a one-story meeting hall in the southwest corner of the site. A parking lot and associated improvements would be developed throughout the remainder of the site. In addition, the proposed project would construct an extension of 18th Avenue to connect SR 53 to Old Highway 53. The first floor of the hotel would provide various amenities for guests, including a breakfast serving area and fitness center, as well as a linen cleaning/sorting space, and administrative/storage space. Ten rooms would also be provided on the first floor. The second through fourth floors of the building would house the remaining 65 guest rooms. In addition, a manager's quarters would be located on the fourth floor of the hotel. The proposed building would be limited to a height of 50 feet, consistent with the allowed building height of the GC zoning district.

A total of 109 parking spaces would be provided on-site. Of the 109 parking spaces, six would be reserved for electric vehicle (EV) parking, eight would be reserved for clean air vehicle parking, and four would be Americans with Disabilities Act (ADA)-compliant. In addition, 13 bicycle parking spaces would be provided on-site, including seven short-term spaces, and six long-term spaces in the form of storage lockers. Access to the project site would be provided by a new, 30-foot-wide, full-access driveway which would connect to the proposed 18th Avenue extension. As part of the project, a new sidewalk would be provided along the project frontage of the 18th Avenue extension. Pedestrian walkways throughout the project site would provide for connections to the 18th Avenue sidewalk. The hotel would operate 24 hours a day, 7 days a week, and would be staffed with an estimated 25 full-time employees. Approximately one to two supply and goods deliveries (i.e., linens and hotel supplies) would occur per day, between the hours of 7:00 AM and 6:30 PM. The hotel would not include a loading dock; rather, delivery vehicles would temporarily park at the front entrance of the hotel. In addition, the on-site meeting hall would operate between 8:00 AM at the earliest to midnight at the latest and would be used for events, including, but not limited to tradeshows, weddings, and conferences. It should be noted that the meeting hall would include an outdoor patio which could be used during events, and low amplified music would be allowed on the outdoor patio until 9:00 PM. A number of existing trees would be removed in order to develop the proposed hotel and roadway extension. However, the proposed project would provide landscaping improvements, including the planting of new trees and shrubs throughout the project site.

The proposed 18th Avenue extension would consist of two eight-foot lanes and would extend westward from SR 53 to Old Highway 53 by approximately 0.2-mile. The 18th Avenue/Old Highway 53 intersection would include a marked crosswalk on the 18th Avenue leg, ADA-compliant curb ramps, a relocated bus stop to the north leg, a 75-foot-long southbound left-turn lane on Old Highway 53, and overhead intersection lighting. In addition, the proposed roadway would provide connections to two existing roadways located to the north including Manzanita Avenue and Vallejo Avenue, as well as two connections to existing driveways located south of the proposed extension. Additional roadway improvements such as curb, gutter, and sidewalk improvements would be developed along the 18th Avenue extension, consistent with City standards. The proposed roadway would also include the extension of a 10-inch water line, a 6-inch sanitary sewer line, a 10-inch sanitary sewer line, a 12-inch sanitary sewer force main, and storm drain utilities. All utility mains would extend from SR 53 to Old Highway 53.

Sewer service for the proposed development would be provided by the Lake County Sanitation District (LACOSAN), and water services for the proposed project would be provided by the Highlands Mutual Water Company (HMWC). As part of the proposed project, new water and sanitary sewer connections would be provided from the new utility lines that would be developed as part of the 18th Avenue extension. In addition, a new storm drainage system would be developed within the hotel site, which would provide new storm drain lines throughout the paved areas on-site that would ultimately drain into the new storm drain line within the 18th avenue extension. The various landscaped areas on-site would also provide opportunities for the infiltration of stormwater

This tentative determination is based on an environmental analysis (CEQA IS 2022-06) that assesses the project's potential environmental impacts and those potential impacts have been reduced to less than significant levels with the incorporated mitigation measures. Anyone may review this study at Clearlake City Hall, 14050 Olympic Drive, Clearlake, CA 95901, during normal business hours or by downloading the CEQA Packet from the State Clearinghouse Website at: https://ceqanet.opr.ca.gov/

The public review period for this Notice of Intent (NOI) will remain open for a period of at least 30 days from publication date of this notice. **The commenting period for this Notice of Intent (NOI) is October 26, 2022, to November 30, 2022.** **(Please Note: All comments must be received no later than Wednesday, November 30, 2022.**

For more information, please call (707) 994-8201 during normal business hours of City Hall (Monday through Thursday – 8am to 5pm). During this period written comments on the project and the proposed mitigated negative declaration may be addressed. You may also submit comments via email at mroberts@clearlake.ca.us. Final environmental determinations are made by the decision-making body, which, in this case would be the City of Clearlake, Planning Commission.

City of Clearlake - Community Development Department
Attn: Mark Roberts – Senior Planner
14050 Olympic Drive
Clearlake, CA 95422

CITY OF C

Planning Commission

STAFF REPORT			
SUBJECT:	2160 Ogulin Canyon Road - Commercial Cannabis Operation	**MEETING DATE:**	12/13/2022
SUBMITTED BY: Mark Roberts, Senior Planner			
PURPOSE OF REPORT: ☐ Information only ☐ Discussion ☒ **Action Item**			

WHAT IS BEING ASKED OF THE CITY COUNCIL/BOARD:

The Planning Commission is being asked to consider Conditional Use Permit Applications CUP 2022-03 (Processing – No Cultivation and/or Nursery Activities will occur onsite); CUP 2022-04 (Manufacturing), CUP 2022-05 (Distribution), CUP 2022-06 (Retail Dispensary; Delivery Only); Development Agreement (DA 2022-02) and corresponding environmental assessment/Mitigated Negative Declaration (CEQA IS 2022-02) to establish and operate a Commercial Cannabis Operation located at 2160 Ogulin Canyon Road, Clearlake, CA 95422 further described as Assessor Parcel Number 010-044-21.

Aerial Project Location Map

BACKGROUND/DISCUSSION:

Specifically, the following conditional use permits are being requested in accordance with Section 18-43 of the Clearlake Zoning Ordinance:

- **CUP 2022-03 Processing Only *(no cultivation or nursery activities will occur):*** Processing includes but is not limited to the drying, curing, trimming, and packaging of cannabis products.
- **CUP 2022-04 - Manufacturing:** Compounding, blending, extracting, infusing, or otherwise making or preparing and packaging the cannabis product.
- **CUP 2022-05 Distribution:** Procuring cannabis from permitted cannabis cultivation sites or cannabis manufacturers for sale to permitted cannabis dispensaries and the inspection, quality assurance, batch testing by a Type 8 licensee, storage, labeling, packaging, and other processes to permitted medical cannabis dispensaries.
- **CUP 2022-06 Retail Dispensary; Delivery Only:** The commercial transfer of cannabis or cannabis products from a licensed or permitted dispensary to a customer. "Delivery" also includes the use by a licensed or permitted dispensary of any technology platform accessed via software license that enables the consumer to arrange for or facilitate the commercial transfer of cannabis by a licensed dispensary or retailer of cannabis or cannabisproducts.
- **Development Agreement, DA 2022-02:** The project also includes the Planning Commission review and recommendation on a Development Agreement to the City Council as required by the Zoning Code.

In 2019, Ogulin Estates Holdings, LLC applied to the City of Clearlake for Use Permit(s) involving a 33,600 ft.² building, a 5,000 ft.² office building, (5) five - 75' x 25' greenhouses and a 22,660 square foot parking lot for cannabis facilities. The Use Permit application(s) were put on hold in June of 2022 with the understanding that a revised/updated project plans were being considered/prepared.

In August 2022, the applicant submitted a revised/updated project description. Based on the information submitted, the project has been reduced/scaled down in size. **The proposed revised/updated project <u>does not include</u> cannabis cultivation or nursery activities**. The project includes but is not limited to:

- Phase One (1): The remodel of an existing 960 square foot metal building.
- Phase Two (2): The development of a new 5,000 square foot metal building to be used for cannabis facilities, including but not limited to. Specific uses proposed for the project include:
    - Cannabis Distribution/ Cannabis Retail Delivery Only
    - Cannabis Processing
    - Cannabis Manufacturing (Phase 2 – non-volatile extraction)

<u>Anticipated Hours of Operation:</u>

- Harvest season - Monday through Saturday - 6 am to 8 pm.
- Non-harvest seasons - Monday through Saturday - 7am to 6 pm.

<u>Access to Site:</u>

- The project site is accessed by an existing driveway *(to be improved to current standards and/or requirements)* that will lead into the eight (8) car parking lot with ADA accessible parking.
- Security fencing and digital security cameras will be placed around the perimeter of the operation, and at strategic locations in the parking lot.

Water Availability Analysis/Usage:

As described above, in 2019, *Ogulin Estates Holdings, LLC* applied to the City of Clearlake for Conditional Use Permit(s) involving a 33,600 ft.² building, a 5,000 ft.² office building, (5) five - 75' x 25' greenhouses and a 22,660 square foot parking lot for cannabis facilities. In June 2022, the applications were put on hold with the understanding that a revised/updated project was underway.

In August 2022, the applicant submitted a revised/scaled down project proposal, including removing the cultivation of cannabis. Due to the water concerns, the applicant submitted a revised Technical Memorandum prepared by Northpoint Consulting Group, Inc (Anjanette Dodd, Ph.D) dated September 7, 2022. The following statement is from the September 7, 2022, Technical Memorandum.

- *"It is my understanding that the project description associated with Ogulin Estates Holdings at 2160 Ogulin Canyon Road has been reduced in size from approximately 35 employees to 8 employees and no longer includes cultivation or nursery activities. This reduces the projected water demand from 561,000 gallons per year (1.7-acre feet per year) to 102,200 gallons per year (0.31-acre feet per year); based on 8 employees at 35 gallons per day for 365 days". "This is about an 80% reduction in proposed water demand compared to the originally proposed project. The conclusions in the attached hydrology report were based on a higher projected demand and do not change" (email dated September 7, 2022)*

General Plan Consistency, and Zoning and Design Standards

General Plan Consistency:

- The General Plan identifies the project site for industrial land uses. The project involves commercial agriculture, processing and distribution would be consistent with the industrial land use.
- There are several General Plan Policies which promote economic and job creation which this project proposes. For example, the Economic Development Element supports the development of diverse businesses in the community.
    - Policy ED 1.1.2 states "Support a healthy mix of local businesses and mid-sized companies.
    - "Policy ED 3.1.1 states "Prioritize economic activities that utilize Clearlake's natural geographic location in the region".
    - Program ED2.1.1.2 states: "Incorporate light industry and compatible uses along State Route 53".

Zoning Ordinance Regulations:

- The proposed operations would involve, manufacturing, distribution, processing and Retail Dispensary, Delivery only to dispensaries of cannabis. The project is in the Commercial Cannabis Business District and the proposed operations and development is subject to a commercial cannabis business conditional use permits (issued by the Planning Commission) in accordance with Section 18-43.060 of the Zoning Code. Section 18-43.020 (C) of the Code also requires concurrent processing and approval of a Cannabis Regulatory Permit (issued by the City Manager) and a Development Agreement (approved by the City Council).

- In addition to the conditional use permits required for the operation, the project also requires a *Commercial Cannabis Regulatory Permit* per section 5-25 of the Police Code issued by the City Manager.

Off Street parking (Onsite) and Determination: As indicated in the Project Description Packet with Plans *(Attachment # 1),* the operation is proposing a minimum of eight (8) parking spaces. For distribution/manufacturing the applicant is required to have one (1) space per 800 square feet of processing area and one (1) space per 300 square feet of area for office space. The applicant will be utilizing all uses within the 5,960 square feet. Based on the proposed square footage, the applicant complies with the number of required spaces per the City's Off-Street Parking Code requirements.

Trash/Recycling Containment: In accordance with **Section 18-20.070**, a condition of approval requires that such installation shall be completed, consistent with the City's Trash/Recycling Enclosure Design Standards prior to occupancy.

Exterior Lighting: The applicant has provided a Preliminary Lighting Plan for review. As a condition of approval, the applicant will need to submit a Final Lighting Plan for staff to review for compliance with the Municipal Codes/Zoning Codes, including dark sky preservation.

Signage: The applicant has not indicated any new signage for the facility. As a condition of approval, the applicant will need to submit a sign plan (if proposed in the future) for staff to review for compliance with the Zoning Code prior to installation of any signs.

Landscaping: Application materials did not include any upgrades to landscaping, which would have to be compliant with the City's *Landscaping and Irrigation Standards.* Use permit conditions of approval requires submittal and approval by staff of a detailed landscaping and irrigation plan that complies with these standards (if applicable)

Environmental Review (CEQA):

Mitigated Negative Declaration based on Initial Study, IS 2022-02.

Pursuant to California Environmental Quality Act (CEQA) Guidelines, staff prepared an Initial Study to assess the potential adverse environmental effects of the initial project. The study concludes that any potentially significant adverse environmental impacts from the project would be reduced to a level of non-significance with the incorporated Mitigation Measures and Conditions of Approval.

In August 2022, the applicant submitted an updated/revised project description. Based on the submitted material, the project has been reduced/scaled down from the original proposal, including removing the cultivation of cannabis. Based on the revised material, the original environmental analysis (Initial Study) adequately addresses and reduces all potential environmental impacts to less than significant. Therefore, Staff believe it is not necessary to update and/or re-circulate the environmental analysis.

Notice of Intent (NOI) Noticing:

The Mitigated Negative Declaration (MND) based on Initial Study, IS 2022-02, were properly noticed and circulated in accordance with CEQA of 1970, and in compliance with Section 15070-15075 of the CEQA State Guidelines, by:

- *Circulation of the Notice of Intent (NOI) for the environmental analysis/proposed Mitigated Negative Declaration (CEQA Initial Study, IS 2022-02) was published in the Lake County Record Bee, uploaded onto the Governor's Office of Planning and Research (State Clearing House), sent/emailed to various Federal, State, and local agencies/organizations for the minimum of a 30-day commenting period from April 4, 2022, through May 13, 2022. Additionally, all documentation is available upon request.*

  The following agencies commented on the project during the appropriate review period.
  - *Lake County Environmental Health Department*
  - *California Department of Cannabis Control*
  - *Lake County Special Districts*
  - *California State Water Board*

  NOTE: The City responded to the comments received as indicated on pages three (3) through six (6) of the CEQA Analysis, IS 2022-02 (Attachment # 5). Comments and/or concerns received, have been incorporated into Mitigations Measures and/or Conditions of Approval.

- *A Notice of Intent (NOI) was mailed (via USPS) to the surrounding parcels owners within 600 feet of the subject property informing them of the City's decision to adopt a Mitigated Negative Declaration for the proposed use and that there is a 30-day commenting period on the environmental document from April 4, 2022, through May 13, 2022.*
  - ***The city did not receive comments from the public.***

In accordance with CEQA, the Planning Commission will need to concur with the adequacy of the Final Initial Study and proposed mitigated negative declaration before taking action to approve the project and moving portions of the project forward to the City Council for final determination. Because the City Council will be taking the final action on the project, regarding the Development Agreement, in accordance with the City's Environmental Guidelines, the Council will need to make the final action of issuing the mitigated negative declaration. The Council's determination on the adequacy of the mitigated negative declaration will be based on staffs and the Planning Commission's recommendation(s).

PUBLIC HEARING LEGAL NOTICE

The public hearing was noticed at least ten (10) days in advance in an electronic publication with the Lake County Record Bee on ***Saturday, December 3rd, 2022***; and mailed (via USPS) to all surrounding property owners within 600 feet of the subject parcel(s) as required pursuant to the Clearlake Municipal Code.

- *All mailing address are drawn from the electronic database supplied by the Lake County Assessor/Recorders Office Database.*

Development Agreement (DA 2021-02):

A Development Agreement *(Attachment # 6)* allows a project sponsor to secure vested rights, and it allows the City to secure certain benefits. Development Agreements are enabled by California Government CodeSections 6584-65869.5. Per state law, the City Council must approve a Development Agreement by Ordinance upon the Planning Commission making a recommendation of support for the requested Agreement. Once approved, development agreements are recorded with the County Clerk. As required per section 18-43.020(c) for cannabis operations and in compliance with section18-30 of the zoning ordinance.

Section 18-30.070 of the Zoning Ordinance outlines the following procedures for Development Agreements:

a) *The Planning Commission shall consider the proposed Development Agreement and shall make its recommendation to the council. The recommendation shall include whether the proposed Development Agreement meets the following findings:*
b) *The proposed Development Agreement is consistent with the Clearlake General Plan and any applicable Specific Plan.*
c) *The proposed Development Agreement complies with zoning, subdivision and other applicable ordinances and regulations.*
d) *The proposed Development Agreement promotes the general welfare, allows more comprehensive land use planning, and provides substantial public benefits or necessary public improvements, making it in the City's interest to enter into the Development Agreement with the applicant; and*
    i. *The proposed project and Development Agreement:*
    ii. *Will not adversely affect the health, safety or welfare of persons living or workingin the surrounding area.*
    iii. *Will be appropriate at the proposed location and will be compatible with adjacentland uses; or*
    iv. *Will not have a significant adverse impact on the environment.*

- The term of this Agreement will be for three years from the date the owner begins operation withthe ability for an extension of seven additional years upon approval by resolution of the City Council with the owner being in full compliance with the conditions of the Agreement. A separate resolution from the Planning Commission recommending approval of the development agreement is included in this report.

- The applicant has reviewed the Draft. If the Commission recommends approval of the Development Agreement, it will be reviewed by the City Attorney and then formally transmitted to the City Council for adoption.

OPTIONS:

1. Move to Adopt Resolution PC 2022-22, A Resolution of the Planning Commission of the City of Clearlake Approving Conditional Use Permits CUP 2021-03 through CUP 2021-06 and recommending approval of a Mitigated Negative Declaration based on Initial Study, IS 2021-02 and Development Agreement, DA 2021-02 to the City Council for the Commercial Cannabis Operation located at 2160 Ogulin Canyon Road, Clearlake, CA 95422, further described as Assessor Parcel Number 010-044-21.

2. Move to Deny Resolution PC 2022-22 and direct Staff to Prepare the Appropriate Find
3. Move to continue the items and provide alternate direction to staff.

☒ **Attachments:**

1. **Project Description Packet with Plans**
2. **CUP Resolution PC 2022-22 with Conditions of Approval**
3. **Final CEQA, IS 2022-02 Analysis Document**
4. **Groundwater Technical Memorandum with updated Email Statement**
5. **Agency Comments**
6. **Draft DA Agreement Resolution**
7. **Copy of Public Notices**

August 23, 2022

Mark Roberts – Senior Planner
City of Clearlake Community Development Department
Clearlake City Hall
14050 Olympic Drive
Clearlake, CA 95422

Re: Revised/Updated Plans for 2160 Ogulin Canyon Road

Dear Mr. Roberts:

In 2019, Ogulin Estates Holdings, LLC applied to the City of Clearlake for Use Permit(s) involving a 33,600 ft.² building, a 5,000 ft.² office building, (5) five - 75' x 25' greenhouses and a 22,660 square foot parking lot for cannabis facilities. The Use Permit application(s) were put on hold in June of 2022 by our consultant with the understanding that a revised/updated project plans were being considered and prepared.

The revised/updated project plans have now been developed (attached) and includes: Phase 1 - the remodel of an existing 960 square foot metal building; and Phase 2 – the development of a new 5,000 square foot metal building to be used for cannabis facilities. Specific uses proposed for the project include:

- Cannabis Distribution/ Cannabis Retail Delivery Only
- Cannabis Processing
- Cannabis Manufacturing (Phase 2 – non-volatile extraction)

The proposed revised/updated project does not include cannabis cultivation or nursery activities.

Included with the submission of the revised /updated project are:

- Project description and suggested findings
- Site plan
- Existing 960 Square foot building photos and proposed floor plan
- Proposed 5,000 square foot building elevations and floor plans

The technical reports and studies that were prepared in conjunction with the 2019 Use Permit application are still on file with the City of Clearlake and it is our understanding that they remain valid and applicable to this scaled back, revised/updated proposal.

The proposed revised plan will provide a development that is compatible with the neighborhood, as there are conventional industrial uses and existing cannabis operations and/or businesses in the near vicinity, including at the La Rosa Plaza site just to the west, and several existing and proposed cannabis cultivation projects to the east and north. The proposed

project is in a well-planned and secure location, which in and of itself creates a compatible land use setting.

The 2160 Ogulin Canyon Road development concept is fairly straight forward and provides a well-planned and designed project that will encourage good site circulation, efficient operations, and economic performance.

This project complies with City standards, has the potential to enhance job opportunities, and generate economic development benefits.

Approval of this project will provide for numerous public benefits, enhance the Ogulin Canyon Road area, provide for the cleanup and redevelopment of the subject property, and comply with the City Zoning standards.

It is respectively requested that the City of Clearlake Planning Commission and City Council approve the revised/updated Use Permit application and the associated Development Agreement.

Thank you.

Garrett Burdick

Garrett Burdick – Partner

Ogulin Estates Holdings, LLC
637 Lindaro Street - Suite 201
San Rafael, CA 94901

Revised/Updated August 2022

Project Description and Information
Ogulin Estates Holdings, LLC
Cannabis Processing, Distribution/Retail Delivery, and Manufacturing Facilities
2160 Ogulin Canyon Road – APN 010-044-21
Clearlake, California

Project Location and Description

In 2019, the property owner submitted Use Permit application(s) to the City of Clearlake for proposed cannabis facilities including a 33,600 ft.² building, a 5,000 ft.² office building, (5) five - 75' x 25' greenhouses for indoor cannabis cultivation, and related site improvements. These Use Permit application(s) were put on hold by the owner in June of 2022 with an understanding that revised/updated plans were being considered and prepared.

A scaled back, revised/updated project proposal has been prepared for consideration by the City. The project now only involves Phase 1 - the remodel/use of an existing 960 (24' x 40') square foot metal building to be used for storage, offices, and cannabis distribution/retail delivery. Phase 2 involves future development of a new 5,000 (50' x 100') square foot metal building to be used for cannabis processing/storage, manufacturing (nonvolatile extraction), and support facilities.

The revised/updated project will no longer include cannabis cultivation or nursery activities.

The subject property is a 9.56-acre parcel located at 2160 Ogulin Canyon Road within the City of Clearlake and is further described as APN 010-044-21. This land is also known as Parcel B as shown on a parcel map filed in the Office of the County Recorder in Lake County on July 17, 1987, in Book 29 of Parcel Maps at pages 30 and 31.

The project operational days/hours will be - Monday through Saturday from 6 am to 8 pm.

Phase 1, the existing 960 square foot metal building was permitted by the City and built in 2020. It is a single-story structure on a concrete slab. A roll up garage door is located on the north side and there is a pedestrian access door and a couple of windows on the south and west sides. This existing building will be remodeled to include a small office, bathroom, vehicle parking, and secure storage areas for the processing and distribution uses. An existing gravel driveway from Ogulin Canyon Road will be improved with a dustless surface and will lead into a new 8-car parking lot to the north and east of the existing building. The parking area will be developed to Clearlake City standards with spaces developed at 90-degree angles. ADA accessible parking and a loading zone will be developed near the facilities. Security cameras and lighting will be placed around the perimeter of the building and in the parking lot.

Phase 2, the 5,000 square foot building will be an engineered metal structure, to be built just to the west of the existing building. Preliminary floor plans indicate that the processing building will include intake, processing, packaging, restrooms and offices, break room, shipping and receiving, storage areas, distribution areas, nonvolatile extraction areas, and related activities. A rollup door will provide entry into secure parking areas for loading and unloading. The project area will be situated about 150' south of Ogulin Canyon Road, in the center of the parcel. Minimal grading will be necessary to facilitate construction.

Background Information and Existing Site Conditions

Technical Documents, Reports, and Studies prepared and submitted to and/or by the City of Clearlake for the 2160 Ogulin Canyon Road Use Permit Project include:

- December 21, 2020 – City of Clearlake Use Permit application
- December 23, 2020 – original Project Description
- Original site plans and preliminary grading plans
- May 23, 2022 – Site Management Plan prepared by Natural Investigations Company, Inc.
- 2160 Ogulin Canyon Rd. Business Plan
- 2160 Ogulin Canyon Rd. Biological Constraints Technical Memorandum prepared by Natural Investigations Company, Inc.
- June 25, 2021 – Biological Resource Assessment with Botanical Survey prepared by Lawrence Ray, Scotts Valley, California
- December 23, 2021 – Ground Water Hydrology Report prepared by Northpoint Consulting Group, Inc.
- October 15, 2021 – Water Availability Report prepared by Richard Knoll Consulting
- March 7, 2022 – Ground Water Hydrology Addendum Report by Northpoint Consulting Group, Inc.
- September 29, 2021 – Well Completion Report by Will Peterson Well Drilling
- 2160 Ogulin Canyon Rd. – Odor Control Plan
- March 2022 – 2160 Ogulin Canyon Rd. - Energy Information
- April 12, 2021 - Cultural Resources Investigation by Gregory G. White, PhD
- September 23, 2021 - Traffic Impact Study by W Trans Traffic Engineering and Transportation Planning
- June 2021 - Security and Worker Safety Plan
- City of Clearlake CEQA Initial Study prepared by the City of Clearlake

The subject property is currently developed with several small structures including former animal shelter kennels, the 960 square foot metal building, a SFD, equipment, pole barns, and several related structures and facilities.

Access to the site is from Ogulin Canyon Road with two driveways located on the northern property line, south of Ogulin Canyon Road about a ½ mile east of Hwy 53. The existing driveways extend into the property and loop around to provide access to the existing site improvements. The existing driveways are in moderate condition.

Burns Valley Creek, a seasonal surface water drainage course extends through the northeasterly quadrant of the parcel in an open channel from the east to the northwest where it runs through existing culverts under Ogulin Canyon Road. There is a flood zone designation associated with the Creek, as noted on the site plan. Proposed site improvements for the most part are located outside of the flood zone.

Nearby land in the vicinity is used mainly for watershed, wildlife habitat, livestock grazing, cannabis cultivation, storage businesses, and home site development.

The project site is located in Ogulin Canyon, east of Burns Valley, and is bordered by Ogulin Canyon Road to the north, Burns Valley to the south, Blackeye Canyon to the east, and storage/light industrial uses to the west.

The Soil Survey Geographic Database (SSURGO) maintained by the United States Department of Agriculture (USDA) and National Resource Conservation Service (NRCS) indicates that the project site is underlain primarily by soils of the Manzanita Series which consist of very deep, well drained loam formed in alluvium from mixed rock sources. They occur on terraces with slopes of 2 to 25 percent. Manzanita Series soils are used for a wide variety of purposes, mostly agricultural, including walnut orchards, wine grape vineyards, hay, and livestock grazing, and also for home site developments (USDA-NRCS 2003).

Compliance with City of Clearlake Zoning Ordinance

The subject parcel is in the Clearlake City Limits (NW corner) and is zoned I – Industrial District. The City of Clearlake Zoning Ordinance provides detailed zoning requirements and standards regarding minimum parking requirements, street improvements, parking design standards, driveway approach standards, landscaping development standards, environmental review procedures, storm drainage provisions, and a number of other sections dealing with trash receptacles slopes and soils, outdoor lighting, addressing, tree protection regulations, and other requirements.

The subject property also has a CB – Commercial Cannabis Zoning District designation which provides standards and criteria addressing commercial cannabis permits and requires among other things issuance of permits for processing and distribution activities with an approved use permit.

The City requires use permit approval for the proposed development and operation of commercial cannabis businesses and also requires operators to enter into a Development Agreement.

The Clearlake Zoning Ordinance establishes procedures for accommodating uses that may have the potential to cause adverse effects on surrounding properties. The City procedures apply to all proposals for which a conditional use permit is required. A use permit can be approved or approved with conditions by the Planning Commission, if, based upon information provided by the applicant, all of the following findings are made:

1. That the proposed use at the size and intensity contemplated, and at the proposed location, will provide a development that is necessary or desirable for, and compatible with, the neighborhood or the community.

Applicants Response and Suggested Findings:

- The project at the 2160 Ogulin Canyon Road site is proposed/designed at a size and intensity that is reasonable for a 9.56-acre parcel. The site plan details a proposed layout that fits the site and illustrates that the required improvements are consistent with the City Zoning Ordinance.
- The City of Clearlake has updated the Zoning Ordinance with respect to the permit requirements and locations for cannabis businesses and through that action has confirmed and verified public policy in support of cannabis processing and distribution at this location.

- In keeping with this adopted public policy, the proposed project will provide a development that is necessary, desirable, and compatible with the community wide sentiments.
- The proposed project will provide a development that is compatible with the neighborhood, as there are existing cannabis operations and/or businesses in the near vicinity, including at the La Rosa Plaza site just to the west, and several existing and proposed cannabis cultivation project to the east and north. The proposed project is in a well-planned and secure location, which in and of itself creates a compatible land use situation.

2. That such use as proposed will not be detrimental to the health, safety, convenience, or general welfare of persons residing or working in the vicinity, or injurious to the property, improvements, or potential development in the vicinity with respect to aspects including, but not limited to, the following:
(a) The nature of the proposed site, including its size and shape, and the proposed size, shape, and arrangement of structures,
(b) The accessibility and traffic patterns for persons and vehicles, the type and volume of such traffic, and the adequacy of proposed off-street parking and loading,
(c) The safeguards afforded to prevent noxious of offensive emissions such as noise, glare, dust, and odor,
(d) Treatment given, as appropriate, to such aspects as landscaping, screening, open spaces, parking areas, loading areas, service areas, lighting, and signs.

Applicants Response and Suggested Findings:

- The proposed uses at the 2160 Ogulin Canyon Road Site will not be detrimental to the health, safety, convenience, or general welfare of persons residing or working in the vicinity, or injurious to the property, improvements, or potential development in the vicinity. The proposed site improvements have been well planned to minimize detrimental impacts and conflicts with people residing and working in the area, property and improvements in the neighborhood or the general welfare of the City.
- The site improvements will be built to California Building Code standards and will provide for a high level of security and safety consistent with the City regulations.
- The site improvements will be situated in the west center of the parcel and will comply with property line setbacks from adjoining properties and structures in order to minimize perceived detrimental health, safety, morals, comfort, and general welfare impacts to people in the neighborhood and the region.
- The cannabis cultivation laws of the State of California and the City of Clearlake have been approved by the voters/elected officials and thus reflects the current attitudes of residents. The intent with regard to development of the cannabis project is to be sensitive to the comfort and general welfare of the Ogulin Canyon Road area by installing and operating state-of-the-art cannabis facilities and equipment in order to minimize detrimental impacts.
- The subject property is an existing developed site that has seen better days. The proposed project involves the Phase 1 remodel of an existing metal building and the Phase 2 construction of a new 5,000 square foot building which is proportionate in size and scale with land use activities on other properties in the vicinity.
- The nature of the proposed site, including the 9.56-acre size and its wide shape are conducive with the proposed size, shape, and arrangement of both the new and existing structures. The

proposed site improvements are designed in areas that are level and situated in the center of the site. The accessibility of the property is good, an improved entry and driveway approach will be developed on Ogulin Canyon Road. Traffic patterns for persons and vehicles that will be using the site are good. The type and volume of traffic on Ogulin Canyon Road is relatively low when compared to other streets and roads in Clearlake. The pattern of land development to the east, north and south is rural in nature and as such the areas generate a small amount of traffic that passes by the 2160 Ogulin Canyon Road site.

- The proposed off-street parking and loading areas have been incorporated into the project design with 8 standard spaces east of the buildings.
- Although, not specifically called out on the site plan, there are many options for implementing safeguards to prevent noxious of offensive emissions such as noise, glare, dust and odor. The placement of the processing building in the center of the site, with adequate setback distances from property lines and nearby structures is a key safeguard for reducing noise, odor, dust, and lighting concerns. There are many other conditions or mitigation measures that can be implemented including: the use of shielded and downlit lighting; A.C. Paving of the parking lot and driveways; installation of building mounted air filtration exhaust systems; and installation of landscaping or fencing to minimize noise. The project Odor Control Plan provides details regarding air filtration and odor complaint protocol.
- The project will provide landscaping as mandated by the City of Clearlake. Screening of site improvements or facilities such as the trash enclosures will be done to City standard.
- There will be open space preservation particularly around the east and northeast sides of the site and the management of trees to help increase security and visibility of the improvements,
- Proposed parking, loading, and service areas are depicted on the site plan and are adequate to serve the intended uses. Proposed lighting and signage will be commensurate with other industrial projects in the City of Clearlake.

3. That such use or feature as proposed will comply with the applicable provisions of this Chapter and will be consistent with the policies and standards of the Clearlake General Plan. (Ord. #2010-146, S2).

Applicants Response and Suggested Findings:

- The proposed uses at the 2160 Ogulin Canyon Road are consistent with the applicable provisions of the City of Clearlake Zoning Ordinance and with the policies and standards of the Clearlake General Plan.
- East of Hwy 53, the initial portion of Ogulin Canyon Road (1/2 mile) is within the City of Clearlake. The City of Clearlake General Plan Circulation Element Figure 4.1 - Circulation Map identifies Ogulin Canyon Road as a basic street. The Clearlake General Plan Circulation Element contains a number of Goals and Policies regarding the City street system, however, there does not appear to be any policy applying specifically to Ogulin Canyon Road.
- The Ogulin Canyon Road surface is in moderate condition, it is paved for about 2/3 miles east of Hwy 53 and transitions to gravel beyond the City limits.

Conclusion:

This Project Description and application plans/documentation provides support for the approval of this Use Permit application to allow cannabis processing, nonvolatile, and distribution/retail delivery

activities at 2160 Ogulin Canyon Road. The project intent has been significantly reduced in scope and size from the original 2019 application/plan.

The 2160 Ogulin Canyon Road development concept is fairly straight forward and provides a well-planned and designed project that will encourage good site circulation, efficient operations, and economic performance.

The City of Clearlake is supportive of cannabis related land-use projects which conform to City regulations. This application describes a project that complies with City standards, has the potential to enhance job opportunities, and generate economic development benefits.

Approval of this project will provide for numerous public benefits, enhance the Ogulin Canyon Road area, provide for the cleanup and redevelopment of the subject property, and comply with the City Zoning standards.

It is respectively requested that the City of Clearlake Planning Commission and City Council approve the Use Permit application and the associated Development Agreement.

Thank you.

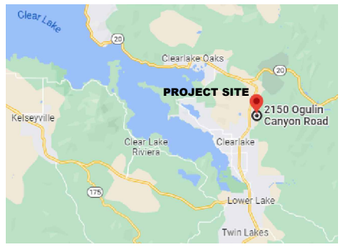
Garrett Burdick – Partner

Ogulin Estates Holdings, LLC
637 Lindaro Street - Suite 201
San Rafael, CA 94901

OGULIN ESTATES HOLDINGS, LLC.

SITE PLAN

APN: 010-044-21



VICINITY MAP
NOT TO SCALE

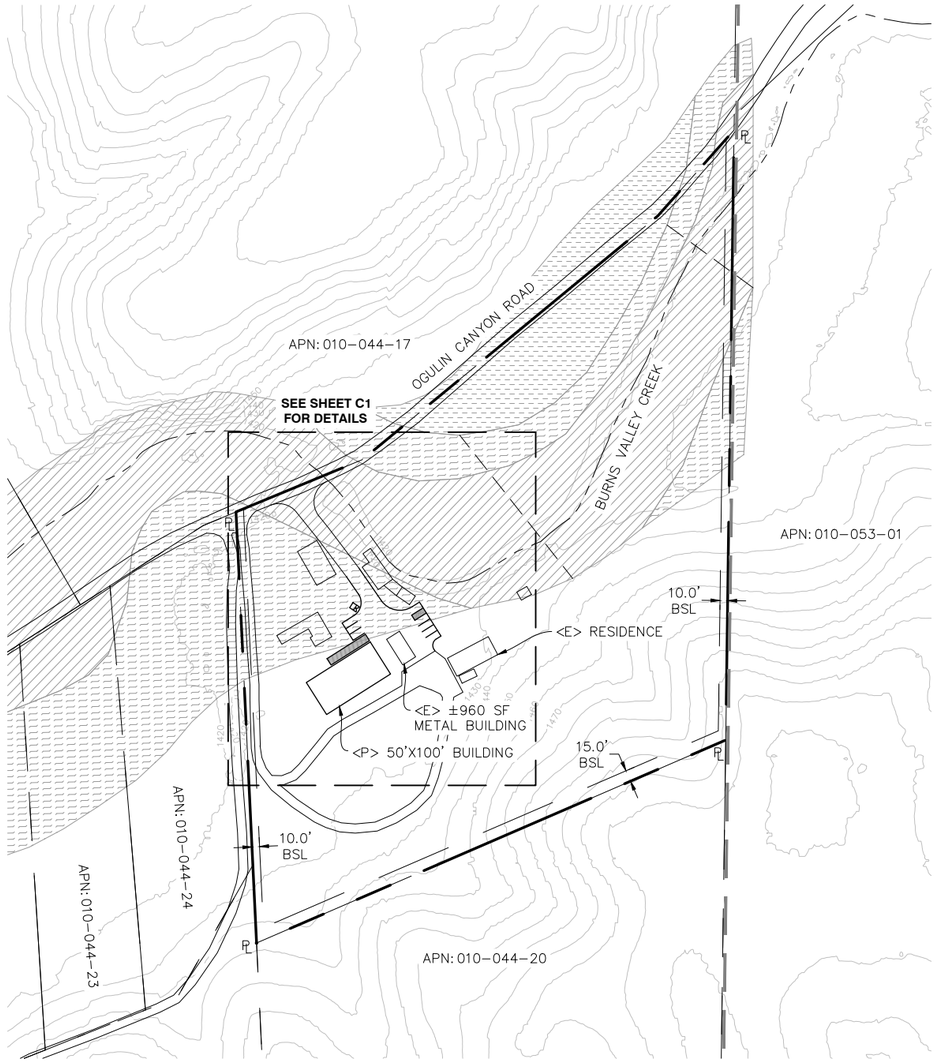
DIRECTIONS TO SITE:
FROM LAKEPORT, CA
–SOUTHBOUND ON CA–29
(APPROX. 19.7 MILES)
–TURN LEFT ONTO CA53N
(APPROX. 5.1 MILES)
–TURN RIGHT ONTO OGULIN CANYON RD.
(APPROX. 0.4 MILES)
–SITE DRIVEWAY ON RIGHT

GENERAL NOTES:

1. DRAWING SCALE AS NOTED. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
2. THIS IS NOT A BOUNDARY SURVEY. BOUNDARY INFORMATION DEPICTED HAS BEEN OBTAINED FROM LAKE COUNTY GIS DATA. NORTHPOINT CONSULTING GROUP, INC. HAS NOT VERIFIED THIS PROPERTY BOUNDARY.
3. THERE ARE NO NEARBY SCHOOLS, SCHOOL BUS STOPS, PLACES OF WORSHIP, PUBLIC PARKS OR TRIBAL RESOURCES WITHIN 600 FEET OF THE PROPOSED CULTIVATION AREA.
4. THERE ARE NO RESIDENCES ON ADJOINING PARCELS WITHIN 300 FEET OF THE PROPOSED CULTIVATION AREAS.
5. ANY EXISTING DEVELOPMENT CONSTRUCTED WITHOUT THE BENEFIT OF COUNTY REVIEW WILL BE SUBJECT TO THE LAKE COUNTY BUILDING DEPARTMENT UPON APPROVAL OF THE USE PERMIT.

LEGEND:

- PROPERTY LINE
- BUILDING SETBACK LINE
- CONTOUR LINES
- STREAM LINE
- CITY LIMITS LINE
- EXISTING ROADWAY
- PROPOSED ROADWAY
- ZONE AE FLOODWAY
- ZONE AE
- ZONE AO



PLOT PLAN
22x34 SHEET: 1"=100'
11x17 SHEET: 1"=200'
0 50 100 200

PROJECT INFORMATION:

APPLICANT / OWNER:
OGULIN ESTATES HOLDINGS, LLC.
BRIAN D. PENSACK
637 LINDARD ST., SUITE 201
SAN RAFAEL, CA 94901

APPLICANTS AGENT:
NORTHPOINT CONSULTING GROUP, INC
1117 SAMOA BLVD.
ARCATA, CA 95521
(707) 798–6438

SITE ADDRESS:
APN: 010–044–21
2160 OGULIN CANYON RD.
CLEARLAKE, CA 95422

WATER	= PRIVATE
SEWER	= PRIVATE
PROPERTY SIZE	= ±9.56 ACRES
ZONING	= I–INDUSTRIAL

SHEET INDEX:

C0 – PLOT PLAN, VICINITY MAP, & PROJECT NOTES
C1 – EXISTING AND PROPOSED SITE PLAN

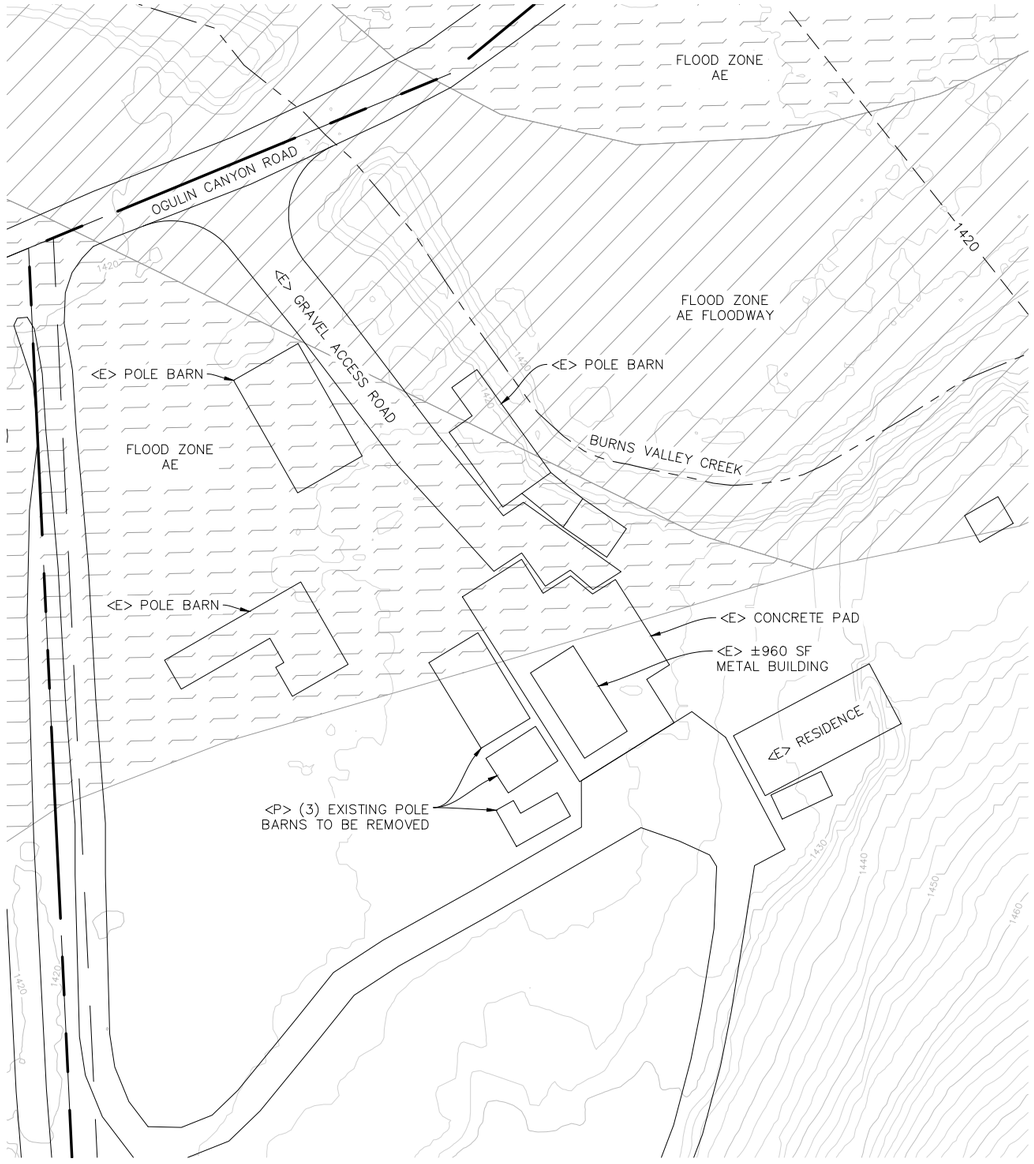
NORTHPOINT CONSULTING GROUP, INC.
1117 Samoa Blvd., Arcata, CA 95521

OGULIN ESTATES HOLDINGS, LLC. / APN: 010-044-21
2160 OGULIN CANYON RD, CLEARLAKE, CA 95422
PLOT PLAN, VICINITY MAP, AND PROJECT NOTES

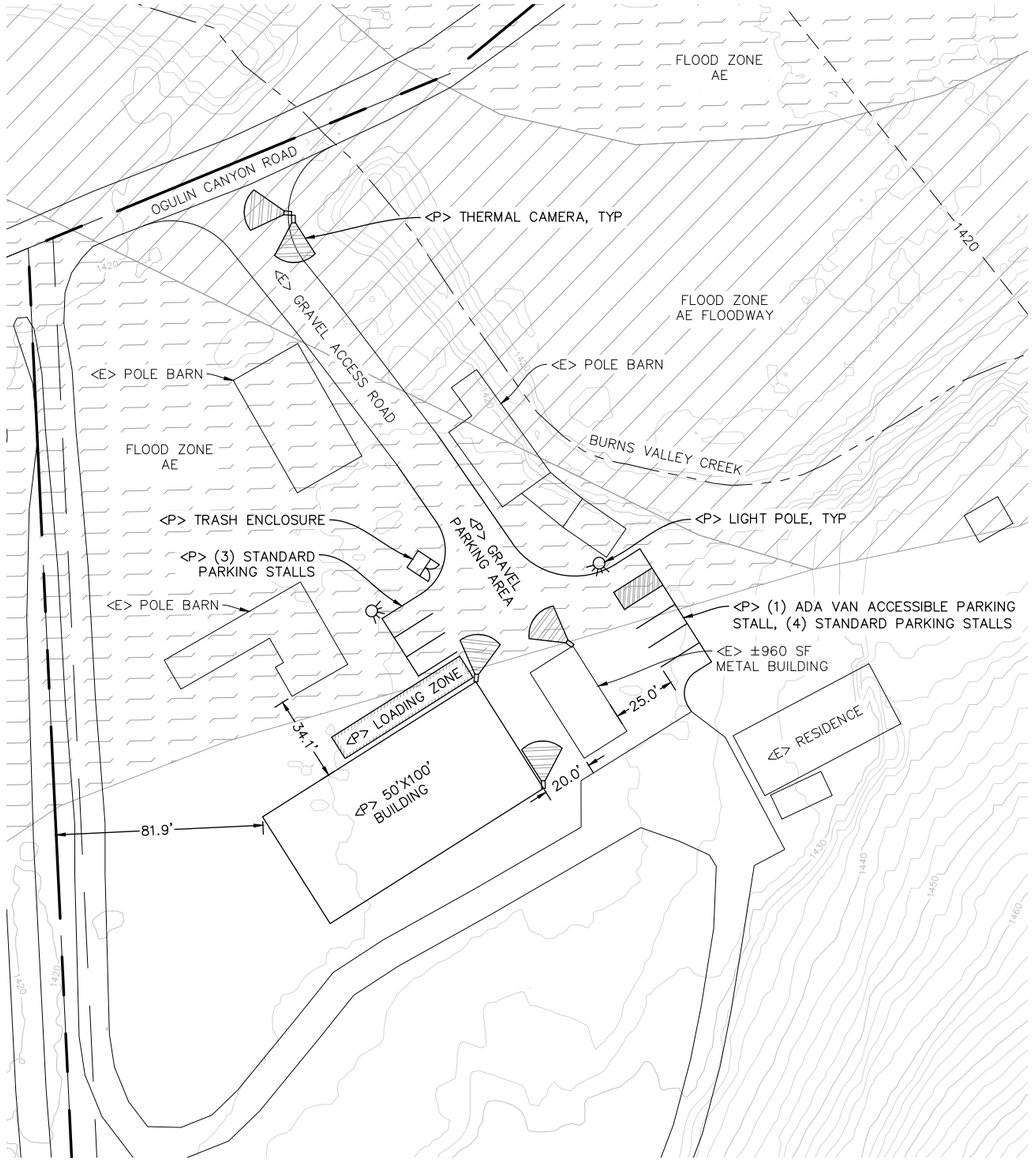
PROJ. MGR.: AD
DRAWN BY: TJS
DATE: 8/18/22
SCALE: AS SHOWN

SHEET C0
21–132

August 18, 2022 – 11:31 Dwg Name: P:\Ogulin Estates Holdings – 2160 Ogulin Canyon Rd. – 21–132\CAD\OGULIN – USE PERMIT.dwg Updated By: TonySalti



EXISTING SITE PLAN



PROPOSED SITE PLAN

22x34 SHEET: 1"=30'
11x17 SHEET: 1"=60'
0 15 30 60

N

DRAWN BY	REVISIONS	DATE

NORTHPOINT
CONSULTING GROUP, INC.
1117 Samoa Blvd., Arcata, CA 95521

OGULIN ESTATES HOLDINGS, LLC. / APN: 010-044-21

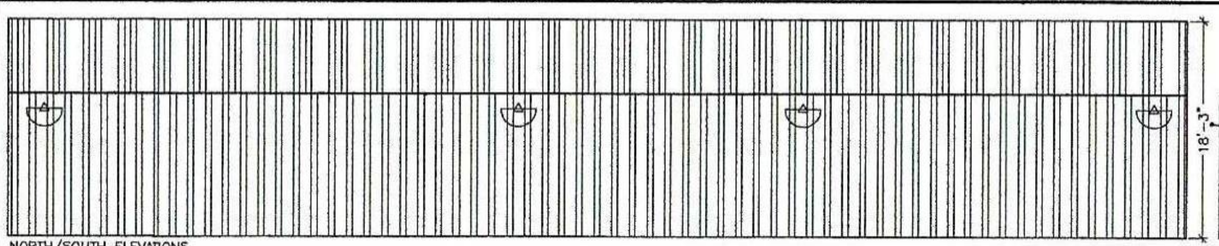
2160 OGULIN CANYON RD, CLEARLAKE, CA 95422

EXISTING AND PROPOSED SITE PLAN

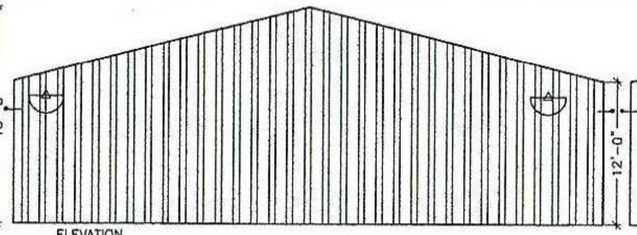
PROJ. MGR.: AD
DRAWN BY: TJS
DATE: 8/18/22
SCALE: AS SHOWN

SHEET
C1
21-132

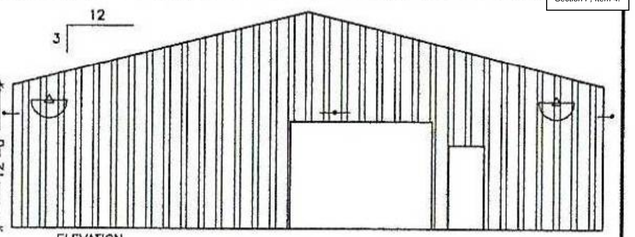
August 18, 2022 – 11:31 Dwg Name: P:\Ogulin Estates Holdings – 2160 Ogulin Canyon Rd. – 21-132\CAD\OGULIN – USE PERMIT.dwg Updated By: TorySmith



NORTH/SOUTH ELEVATIONS
SCALE: 1/8"=1'



ELEVATION

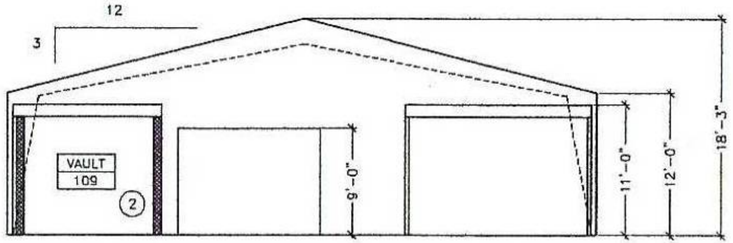


ELEVATION

2 ELEVATIONS

Phase 2

2160 Ogulin Canyon Road - Elevations and Section



SCALE: 1/8"=1'

3 SECTION A–A

SYMBOLS

- WALL MOUNTED FAN
- (1) GENERAL NOTES
- E EMERGENCY EXIT SIGN/LIGHT
- 4 TUBE LED CEILING MOUNTED
- EXHAUST FAN
- D DISCONNECT
- $ SINGLE PULL
- GFI 110V OUTLET
- 110V OUTLET
- 220V OUTLET
- (1) SURFACE MOUNTED CEILING FIXTURE
- DEFIANT MOTION SECURITY LIGHT (DOWN CASTING) MODEL DFI-5985-WH LED 28 WATTS 2350 LUMENS
- FE FIRE EXTINGUISHER
- (1) DOORS – SEE SCHEDULE
- (1) WINDOWS
- 0000 CCTV CAMERAS CAMERA ID
- J2 / XXX ROOM ID / ROOM USAGE
- DS DOOR SENSOR
- NVR LOCATION
- HVAC HEATING/COOLING
- SD SMOKE–FIRE DETECTOR CONNECTED TO CENTRAL PANEL AND MONITORED
- CHARCOAL AIR FILTER EXHAUST TO OUTSIDE

Proposed Floor Plan

Over Head Door

Existing Metal Building

2160 Ogulin Canyon Road Clearlake, California

APN 010-044-21

Cannabis Processing and Retail/Delivery

Processing and Scales Area

Packaging Area

8' x 18'

Parking Space for Company Van 10' x 20'

Secure Storage Cage #4 5' x 7.5'

Secure Storage Cage #3 5' x 7.5'

40'

Secure Storage Cage #2 5' x 10'

Safe

Office 10' x 16'

3' Hallway

Secure Storage Cage #1 5' x 10'

Bathroom 10' x 16'

Door

24'

* Light

> Security Camera

^ North

1“ = 4'

RESOLUTION No. PC 2022-22

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLEARLAKE APPROVING CONDITIONAL USE PERMITS, CUP 2022-03 (PROCESSING – NO CULTIVATION AND/OR NURSERY ACTIVITIES WILL OCCUR ONSITE); *CUP 2022-04 (MANUFACTURING), CUP 2022-05 (DISTRIBUTION), CUP 2022-06 (RETAIL DISPENSARY; DELIVERY ONLY)* TO ALLOW A COMMERCIAL CANNABIS OPERATIONS ON PROPERTY LOCATED IN THE "I" INDUSTRIAL, "CB" COMMERCIAL RETAIL (MICROBUSINESS), "CB" DELIVERY ONLY AND "CB" COMMERCIAL CANNABIS DISTRICT ZONING DISTRICTS AT 2160 OGULIN CANYON ROAD, CLEARLAKE, CALIFORNIA, APN: 010-044-21-000

WHEREAS, Ogulin Estates Holdings, LLC (Representative Garrett Burdick – Partner) applied for approval of Cannabis Use Permits, CUP 2022-03 *(*Processing – No Cultivation and/or Nursery Activities will occur onsite);*) CUP* 2022-04 *(Manufacturing),* CUP 2022-05 *(Distribution),* CUP 2022-06 *(Retail Dispensary – Delivery Only)* located at 2160 Ogulin Canyon Road, Clearlake, CA 95422 further described as Assessor Parcel Number (APN) 010-044-21-000 in the I, Industrial, and CB, Commercial Cannabis Business Zoning Districts, and

WHEREAS, Conditional Use Permit Application CUP 2022-03 *(*Processing – No Cultivation and/or Nursery Activities will occur onsite); *CUP* 2022-04 *(Manufacturing),* CUP 2022-05 *(Distribution),* CUP 2022-06 *(Retail Dispensary – Delivery Only)*have been made in accordance with Section 18-43, Commercial Cannabis of the Municipal Code, whichrefers to Commercial Cannabis Uses; and;

WHEREAS, a companion application, Development Agreement DA 2022-02 has been filed for commercial cannabis operations by **Ogulin Estates Holdings, LLC (Representative Garrett Burdick – Partner)**, et al at the same location; and

WHEREAS, the Initial Study, IS 2022-02 identified potentially significant adverse effects in the areas of Aesthetics, Air Quality, Biological Resources, Cultural/Tribal Resources, Hazards & Hazardous Materials; Hydrology and Water/Water Quality and Noise/Vibration; and

WHEREAS, all potential impacts to the listed areas mentioned above have been reduced to less than significant and/or to a point where clearly no significant effects would occur have been identified through the Initial Study, IS 2022-02 (applicant has agreed to all mitigation measures in accordance with CEQA); and

WHEREAS, a Mitigation Monitoring and Reporting Program has been prepared in accordance with City of Clearlake Environmental Review Guidelines and related regulations and is designed to ensure compliance during Project implementation; and

WHEREAS, the City determined that the mitigation proposed in the Mitigation Monitoring and Reporting Program would reduce the impacts to a less than significant level and a Mitigated Negative Declaration (MND) should be prepared; and

WHEREAS, the City distributed a Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration (MND) for the Project on April 4, 2022, which started a 30-day public review period, ending May 13, 2022. The NOI was posted at the Lake County Clerk / Recorder's office, distributed through the

StateClearinghouse, posted at City offices, and mailed to project stakeholders, property owners, and residentswithin a 600-foot radius of the Project; and,

WHEREAS, the City responded to all comments by preparing a final initial study and mitigated negative declaration, and the Planning Commission staff report, that adequately address these commentsand found these documents adequate to complying with the CEQA, the City's Environmental Review Guidelines and related regulations; and,

WHEREAS adequate public noticing was made for the project in accordance with the Municipal Code; and

WHEREAS, the proposed project is consistent with the General Plan which designates the project site as Industrial; and

WHEREAS, in accordance with Section 18-28.040 of the Zoning Code the use as proposed will not be detrimental to the health, safety or welfare of persons working or living at the site or within the vicinity; and

WHEREAS, with the incorporated conditions of approval and mitigations measure (Exhibit A), the project complies with the Clearlake Zoning Code.

WHEREAS, the Planning Commission has considered this project on this date at a duly noticed public hearing, the staff report, public testimony, and found that the project is compatible with the surrounding area, it will not be detrimental to adjacent property owners or the public at large, and approval is in the public interest.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Clearlake as follows:

A. Recommend Adoption of the Mitigated Negative Declaration

1. The Planning Commission finds that the Mitigated Negative Declaration was presented to the Planning Commission, that the Planning Commission has reviewed the Mitigated Negative Declaration prepared for the 2160 Ogulin Canyon Road Commercial Cannabis Business Use Permit (the "Project"), all staff reports pertaining to the Project and all comments received thereon, and that the Mitigated Negative Declaration has been prepared and completed in compliancewith the California Environmental Quality Act (CEQA).
2. The Planning Commission finds that on the basis of the Mitigated Negative Declaration, comments received, and the whole record that there is no substantial evidence that the Project will have a significant adverse impact individually or cumulatively on the environment.
3. The Planning Commission finds that the Mitigated Negative Declaration reflects the City's independent judgment and analysis.

B. Recommend Adoption of the Mitigation Monitoring and Reporting Program

1. The Planning Commission hereby recommends to the City Council adoption of the Mitigation Monitoring and Reporting Program, as attached to the Project staff report.

2. The Planning Commission hereby recommends to the City Council that the proposed mitigation measures described in the Mitigated Negative Declaration (CEQA – Initial Study, IS 2022-02) are feasible and therefore become binding upon the City and its construction contractors.

C. Approval of the Project

Having independently reviewed, analyzed, and recommended approval of the Mitigated Negative Declaration, and mitigation measures as set forth in the Mitigation Monitoring and Reporting Program, the Planning Commission hereby approves the 2160 Ogulin Canyon Road Commercial Cannabis Business Use Permit Project.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Clearlake thatthe project is hereby approved, subject to approved Conditions of Approval in Exhibit A.

PASSED AND ADOPTED on this 13th day of December 2022 by the following vote:

Voting	Chair Lisa Wilson	Vice Chair Robert Coker	Fawn Williams	Erin McCarrick	Terry Stewart
AYES					
NOES					
ABSTAIN					
ABSENT					

Chairman, Planning Commission

ATTEST: _____

City Clerk, Planning Commission

Exhibit A

CITY OF CLEARLAKE
CONDITIONS OF APPROVAL

CUP 2022-03 (Processing)
CUP 2022-04 (Manufacturing)
CUP 2022-05 (Distribution)
CUP 2022-06 (Retail Delivery)
Cannabis Regulatory/Business Permit
Initial Study, IS 2022-02

Ogulin Estates Holdings, LLC
Representative Garrett Burdick – Partner

Pursuant to the approval of the **City of Clearlake's – Planning Commission on December 13th, 2022,** it is hereby granted **Ogulin Estate Holdings, LLC (Representative Garrett Burdick – Partner),** with the following conditions of approval **to allow the development and operation of a commercial cannabis operation located at 2160 Ogulin Canyon Road; Clearlake, CA 95422; further described as Assessor Parcel Number (APN) 010-044-21-000** is subject to the following terms and conditions of approval.

A. <u>GENERAL CONDITIONS:</u>

1. The use hereby permitted shall substantially conform to the **Project Description, Site and Architectural Plans** and any conditions of approval imposed by the above **Conditional Use Permits** and Review Authority as shown on the approved site plan for this action **dated December 13th, 2022.**

2. Any modifications and/or additions to a use requiring use permit approval shall itself be subject to use permit approval. The addition of an allowed use to a premise occupied by a conditionally allowed use shall require use permit approval of the type required for the existing use. The Community Development Director shall determine when such an addition and/or change is of such a minor or incidental nature that the intent of these regulations can be met without further use permit control.

3. Any conditions established pursuant to these regulations shall be met before the use is established, except that the Community Development Director, Planning Commission or on appeal, the City Council, may establish a schedule for certain conditions to be met after establishment of the use. Continuance of the use shall then be contingent on complying with the schedule for meeting deferred conditions.

4. This use permit does not abridge or supersede the regulatory powers and permit requirements of any federal, state, or local agency requirements, which may retain a regulatory or advisory function as specified by statute or ordinance. The applicant shall obtain and maintained permits as may be required from each agency.

5. The California Department of Fish & Wildlife filing fee shall be submitted as required by California Environmental Quality Act (CEQA) statute, Section 21089(b) and Fish and Game Code Section 711.4. **The fee should be paid within five (5) days of approval of the mitigated negative declaration at the Lake County Clerk's Office**. Once fees have been paid, the applicant shall submit a copy of all documentation to the City of Clearlake, verifying the fees have been paid. **Said permit shall not become valid, vested or operative until the fee has been paid, including the issuance of any permits.**

6. **Prior to operation**, the applicant(s) shall obtain and maintain all applicable permits from all Federal, State and local agencies having jurisdiction over this project, including but not limited to:
    - *CDFA - CAL Cannabis California Department of Food and Agriculture: (Cultivation licenses)*
    - *BCC - Bureau of Cannabis Control (Issues Distributor, Retailer, Testing Lab, Microbusiness, and Temporary Event licenses)*
    - *CDPH - MCSB California Department of Public Health's Manufactured Cannabis Safety Branch (Issues Manufacturing licenses)*
    - *California Department of Pesticide Regulation*
    - *California Department of Fish and Wildlife*
    - *California State Water Resources Control Board*
    - *California Central Valley or North Coast Regional Water Quality Control Board*

7. If the subject parcel is on a **septic system and/or well**, the applicant shall bring a minimum of three (3) site plans drawn to scale to the Lake County Environmental Health Department for review and approval **prior to submitting a Building Permit Application** with the City of Clearlake.

8. The use permit may be transferred to new owners subject to obtaining a new commercial cannabis regulatory permit, upon the new owner's written agreement to maintain all conditions of approval.

9. If there is a change in the project manager (permit holder representative), the permit holder shall submit notarized written documentation to the City of Clearlake for review and approval. Said documentation shall include the following:
    - *Name of Individual and Title*
    - *Contact Information (Phone, email and address)*
    - *What that individual is authorized to do.*

10. The developer/operator shall agree to indemnify, defend, and hold harmless the City or its agents, officers and employees from and against any and all claims, actions, demands or proceeding (including damage, attorney fees, and court cost awards) against the City or its agents, officers, or employees to attach, set aside, void, or annul an approval of the City, advisory agency, appeal board, or legislative body concerning the permit or entitlement when such action is brought within the applicable statute of limitations. In providing any defense under this Paragraph, the applicant, business operator, property owner, developer shall use counsel reasonably acceptable to the City. The City shall promptly notify the applicant, business operator, property owner, developer of any claim, action, demands or proceeding and the City shall cooperate fully in the defense. If the City fails to promptly notify the developer/operator of any claim, action, or proceeding, or if the City fails to cooperate fully in the defense, the developer/operator shall not thereafter be responsible to defend, indemnify, or hold the City harmless as to that action. The City may require that the

developer/operator to post a bond, in an amount determined to be sufficient, to satisfy the above indemnification and defense obligation. Developer/operator understands and acknowledges that City is under no obligation to defend any claim, action, demand or proceeding challenging the City's actions with respect to the permit or entitlement.

11. The developer/operator shall be responsible to pay all sales, use, business and other applicable taxes, and all license, registration, and other fees and permits required under federal, state and local law and pursuant to the approved Development Agreement for the project.

12. This developer/operator shall cooperate with the City with respect to any reasonable request to audit the business' books and records for the purpose of verifying compliance with the Municipal Code and the Use Permits and related Development Agreement including but not limited to a verification of the amount of taxes required to be paid during any period for the project.

13. The applicant is responsible for ensuring that all project workers are informed of, understand, and agree to abide by the approved plans and project conditions.

14. **Prior to operation**, the applicant shall be enrolled in and comply with the ***State of California Track and Trace*** program and all requirements, including having all cannabis plants properly tagged.

15. **Prior to Operation,** all personnel listed as owners, managers or supervisors shall under undergo and pass a background check by the City of Clearlake Police Department.
    - Pursuant to California Business and Professions Code, Section 26057, if an individual who has failed a background check becomes involved in any aspect of the cultivation process, or if any employee is involved with the cultivation who has not undergone a background check, the use permit will be brought before the Planning Commission for consideration of revocation.

16. All parking areas, routes of travel, building access and bathrooms shall meet the American with Disabilities Act (ADA) requirements and must be reviewed and approved of a Certified Accessibility Access Specialist (CASP).

17. The applicant(s) shall adhere to the Lake County Division of Environmental Health requirements regarding on-site wastewater treatment and/or potable water requirements. The applicant shall contact the Lake County Division of Environmental Health for details.

18. The use permit approval shall not become effective, operative, vested or final until a Notice of Determination has been filed with the State Clearing House and the Lake County Clerk's Office.

19. The use permit shall not become operational until a Development Agreement has been adopted by the City Council in accordance and a commercial cannabis regulatory permit has been approved and issued by the City Manager, at the recommendation of the Planning Commission, in accordance with the Municipal Code.

20. The permit holder shall operate in full compliance with fire safety rules and regulations of the Lake County Fire District.

21. **Prior to operation and/or development**, the applicant shall secure any required permits from the City of Clearlake (Building Department, Planning and Public Works), Fire District, Lake County Air Quality Management District, Lake County Water Resources Department, Lake County Environmental Health Department and/or all applicable Federal, State and local agency permits.

22. In accordance with the Municipal Code and requirements made by the Lake County Fire Protection Lake County Air Quality Management District and Lake County Health Department, the following detailed plans shall be submitted for review and approval by the Planning, Building, and/or Police Departments and other related agencies as applicable prior to operation/occupancy:
    - *Odor Control Plan (compliant with Section 18-43.060)*
    - *Security Plan (compliant with Section 18-43.060).*
    - *Exterior Lighting Plan (compliant with Sections 18-20.120 and 18-43.060 and with the City's Lighting Standards, including design review approval)*
    - *Waste/Recycling and Enclosure Plan (compliant with Section 18-20.070 and with the City's Trash and Recycling Enclosure Requirements and Design Standards, including design review approval).*
    - *Fencing Plan for security of all cannabis businesses activities (compliant with Section and the City's Fence Design Standard including design review approval).*
    - *Hazardous Materials Mitigation Plan if required by the Lake County Fire Protection District and/or the Lake County Environmental Health Department)*
    - *Air Quality Permit if required by Lake County Air Quality Management District.*
    - *If applicable, Civil Site plans identifying existing and proposed storm drains, drainage ditches, curbs, sidewalks, gutters, and striping, as regulated by the City's Design and Construction Standards, Off-Street Parking Regulations, and Parking Design Standards to be found in compliance with all other applicable local/federal/state laws, including ADA and CASP requirements.*
    - *Sign plan that demonstrates compliance with the City's sign regulations. All non-compliant signs shall be immediately removed. Installation of signs without prior City approval may be grounds for revocation of this use permit.*

23. The applicant shall adhere to all applicable requirements in the City of Clearlake Municipal Code.

B. <u>AESTHETICS</u>

1. All outdoor lighting shall be directed downwards and shielded onto the project site and not onto adjacent properties. All lighting shall comply and adhere to all federal, state and local agency requirements, including all requirements in darksky.org. (Refer to the City's Design Standards). *(Initial Study Mitigation Measure AES -1)*

C. <u>AIR QUALITY</u>

1. Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other methods approved by the Lake County Air Quality Management District. Prior to initiating soil removing activities for construction purposes, the applicant shall pre-wet affected areas with at least 0.5 gallons of water per square yard of ground area to control dust. *(Initial Study Mitigation Measure AIR-1)*

2. Driveways, access roads and parking areas shall be surfaced in a manner so as to minimize dust. The applicant shall obtain all necessary encroachment permits for any work within the right-of-way. All improvement shall adhere to all applicable federal, State and local agency requirements *(Initial Study Mitigation Measure AIR-2).*

3. Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Lake County Air Quality Management District and the Lake County Fire Protection District. *(Initial Study Mitigation Measure AIR-3)*

4. During construction activities, the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site. *(Initial Study Mitigation Measure AIR-4)*

5. Grading permits shall be secured for any applicable activity from the Community Development Department, Building Division. Applicable activities shall adhere to all grading permit conditions, including Best Management Practices. All areas disturbed by grading shall be either surfaced in manner to minimize dust, landscaped or hydro seeded. All BMPs shall be routinely inspected and maintained for lifer of the project. *(Initial Study Mitigation Measure AIR-5)*

6. All refuse generated by the facility shall be stored in approved disposal/storage containers, and appropriately covered. Removal of waste shall be on a weekly basis so as to avoid excess waste. All trash receptacles/containers shall remain covered at all times to prevent fugitive odors and rodent infestation. An odor control plan shall be submitted for review and approval by the City In accordance with the Zoning Code. Odor control shall be maintained to an acceptable level at all times. *(Initial Study Mitigation Measure AIR-6)*

7. An odor control plan shall be submitted for review and approval by the City that complies with the City's Zoning Code. Odor control shall be maintained at all times so that odor from cannabis operations on the site will not be detected outside structures. This plan shall include enhanced carbon filtering to ensure compliance with the Code. *(Initial Study Mitigation Measure AIR-7).*

8. Any demolition or renovation is subject to the Federal National Emissions Standard for Hazardous Air Pollutants (NESHAP) for asbestos in buildings requires asbestos inspections by a Certified Asbestos Consultant for all major renovations and all demolition. An Asbestos Notification Form with the Asbestos inspection report must be submitted to the district at least 14 days prior to beginning any demolition work. The applicant must contact the district for more details and proper approvals. Regardless of asbestos content or reporting requirements all demolition and renovation activities should use adequate water/ amended water to prevent dust generation and nuisance conditions. *(Initial Study Mitigation Measure AIR-8).*

9. Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls. *(Initial Study Mitigation Measure AIR-9).*

10. If construction or site activities are conducted within Serpentine soils, a Serpentine Control Plan may be required. Any parcel with Serpentine soils must obtain proper approvals from LCAQMD prior to beginning any construction activities. Contact LCAQMD for more details. *(Initial Study Mitigation Measure AIR-10).*

11. All engines must notify LCAQMD prior to beginning construction activities and prior to engine Use. Mobile diesel equipment used for construction and/or maintenance must be in compliance with State registration requirements. All equipment units must meet Federal, State and local requirements. All equipment units must meet RICE NESHAP/ NSPS requirements including proper maintenance to minimize airborne emissions and proper record-keeping of all activities, all units must meet the State Air Toxic Control Measures for CI engines and must meet local regulations. *(Initial Study Mitigation Measure AIR-11).*

12. Site development, vegetation disposal, and site operation shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation be chipped and spread for ground cover and erosion control. Burning of debris/construction material is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal. *(Initial Study Mitigation Measure AIR-12).*

13. Significant dust may be generated from increase vehicle traffic if driveways and parking areas are not adequately surfaced. Surfacing standards should be included as a requirement in the use permit to minimize dust impacts to the public, visitors, and road traffic. At a minimum, the district recommends chip seal as a temporary measure for primary access roads and parking. Paving with asphaltic concrete is preferred and should be required for long term occupancy. All areas subject to semi-truck / trailer traffic should require asphaltic concrete paving or equivalent to prevent fugitive dust generation. Gravel surfacing may be adequate for low use driveways and overflow parking areas; however, gravel surfaces require more maintenance to achieve dust control, and permit conditions should require regular palliative treatment if gravel is utilized. White rock is not suitable for surfacing (and should be prohibited in the permit) because of its tendency to break down and create excessive dust. Grading and re-graveling roads should utilizing water trucks if necessary, reduce travel times through efficient time management and consolidating solid waste removal/supply deliveries, and speed limits *(Initial Study Mitigation Measure AIR-13).*

14. All mobile diesel equipment used for construction and/or maintenance shall be compliant with State registration requirements. Portable and stationary diesel-powered equipment must meet the requirements of the State Air Toxic Control Measures for CI engines as well as the Lake County Noise Emission Standards.

15. The applicant shall maintain records of all hazardous or toxic materials used, including a Material Safety Data Sheet (MSDS) for all volatile organic compounds utilized, including cleaning materials. Said information shall be made available upon request and/or the ability to provide the Lake County Air Quality Management District such information in order to complete an updated Air Toxic Emission Inventory.

D. BIOLOGICAL RESOURCES:

1. Prior to development, including any site disturbance, a protocol-level botanical survey shall be completed within the location defined as being feasible for project activities to occur within this Report. The survey shall follow procedures recommended by CDFW and in accordance with the guidelines established by CNPS, from the document "*Protocols for Surveying and Evaluating Impacts to Specie Status Native Plant Populations and Sensitive Natural Communities". (Initial Study Mitigation Measure BIO-1)*

2. If project construction occurs between September 1 and January 31, nesting bird survey shall be conducted by a qualified biologist. Additional mitigation measures recommended in the survey report shall be implemented prior to or curing project development to avoid disturbance to migratory nesting birds. *(Initial Study Mitigation Measure BIO-2)*

3. Prior to any ground disturbance, the applicant shall conduct a site inspection for Burrowing Owls Presence within the project area. If Burrow Owls are observed, a pre-construction surveys shall be completed by a qualified biologist fourteen (14) days prior to site development. The survey shall be conducted to determine if the project area has active dens and determine if avoidance of these active dens can occur. If active dens are determined to be present, owl relocation shall occur to other onsite suitable habitat prior to development. *(Initial Study Mitigation Measure BIO-3)*

4. If additional activities are proposed that may result in take of a listed species, agency personnel from CDFW and SFWS shall further analyze the potential impacts and provide technical assistance for any listed species. If required, guidelines for these reconnaissance surveys should be followed in accordance to the CDFW Survey and Monitoring Protocols and Guidelines, which can be located here: https://www.wildlife.ca.gov/conservation/survey-protocols. *(Initial Study Mitigation Measure BIO-4)*

5. Prior to securing development permits from the City and prior to conducting any site disturbance, clearances shall be obtained as required for work in or near Burns Valley Creek, from the California Department of Fish and Wildlife; such as a Streambed Alteration Permit. Verification of this clearance shall be submitted to the City. *(Initial Study Mitigation Measure BIO-5)*

6. The use of deer fencing shall be restricted to the perimeters of the proposed gardens. No deer fencing or other obstacles to wildlife passage shall be installed that will restrict wildlife movement. *(Initial Study Mitigation Measure BIO-6)*

E. CULTURAL/TRIBAL RESOURCES

1. **During construction activities,** if any subsurface archaeological remains are uncovered, all work shall be halted within 100 feet of the find and the applicant shall retain a qualified cultural resources consultant from the City's approved list of consultants to identify and investigate any subsurface historic remains and define their physical extent and the nature of any built features or artifact-bearing deposits. Significant historic cultural materials may include finds from the late 19th and early 20th centuries including structural remains, trash pits, isolated artifacts, etc. *(Initial Study Mitigation Measure CUL-1)*

2. The cultural resource consultant's investigation shall proceed into formal evaluation to determine their eligibility for the California Register of Historical Resources. This shall include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the features and artifacts do not have sufficient data potential to be eligible for the California Register, additional work shall not be required. However, if data potential exists – e.g., there is an intact feature with a large and varied artifact assemblage – it will be necessary to mitigate any Project impacts. Mitigation of impacts might include avoidance of further disturbance to the resources through Project redesign. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during Project excavation or testing, curation may be an appropriate mitigation. This language of this mitigation measure shall be included on any future grading plans and utility plans approved by the City for the Project. *(Initial Study Mitigation Measure CUL-2)*

3. If human remains are encountered, no further disturbance shall occur within 100 feet of the vicinity of the find(s) until the Lake County Coroner has made the necessary findings as to origin (California Health and Safety Code Section 7050.5). Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Lake County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the "most likely descendant(s)", which parties agree will likely be the Koi Nation based upon the Tribe's ancestral ties to the area and previous designation as MLD on projects in the geographic vicinity. The landowner shall engage in consultations with the most likely descendant (MLD). The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. *(Initial Study Mitigation Measure CUL-3)*

F. GEOLOGY & SOILS

1. **Prior to any ground disturbance and/or operation,** the applicant shall submit Erosion Control and Sediment Plans to the Community Development Department for review and approval. The project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system. *Typical BMPs include the placement of straw, mulch, seeding, straw wattles, silt fencing and the planting of native vegetation on all disturbed areas. No silt, sediment or other materials exceeding natural background levels shall be allowed to flow from the project area. The natural background level is the level of erosion that currently occurs from the area in a natural, undisturbed state. Vegetative cover and water bars shall be used as permanent erosion control after project installation. (Initial Study Mitigation Measure GEO-1*)

2. Prior to any ground disturbance, (if applicable), the applicant shall submit and obtain a Grading Permit from the Community Development in accordance with the City of Clearlake Municipal code(s). *(Initial Study Mitigation Measure GEO-2*)

3. The applicant shall monitor the site during the rainy season including post-installation, application of BMPs, erosion control maintenance, and other improvements as needed. Said measures shall be maintained for life of the project and replace/repaired when necessary. *(Initial Study Mitigation Measure GEO-3*)

G. HAZARDS & HAZARDOUS MATERIALS

1. All hazardous waste shall not be disposed of on-site without review or permits from Environmental Health Department, the California Regional Water Control Board, and/or the Air Quality Board. Collected hazardous or toxic waste materials shall be recycled or disposed of through a registered waste hauler to an approved site legally authorized to accept such material. *(Initial Study Mitigation Measure HAZ-1)*

2. The storage of potentially hazardous materials shall be located at least 100 feet from any existing water well. These materials shall not be allowed to leak into the ground or contaminate surface waters. Collected hazardous or toxic materials shall be recycled or disposed of through a registered waste hauler to an approved site legally authorized to accept such materials. (*Initial Study Mitigation Measure HAZ-2)*

3. Any spills of oils, fluids, fuel, concrete, or other hazardous construction material shall be immediately cleaned up. All equipment and materials shall be stored in the staging areas away from all known waterways. (*Initial Study Mitigation Measure HAZ-3)*

4. The storage of hazardous materials equals to or greater than fifty-five (55) gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas, then a Hazardous Materials Inventory Disclosure Statement/Business Plan shall be submitted and maintained in compliance with requirements of Lake County Environmental Health Division. Industrial waste shall not be disposed of on site without review or permit from Lake County Environmental Health Division or the California Regional Water Quality Control Board. The permit holder shall comply with petroleum fuel storage tank regulations if fuel is to be stored on site. (*Initial Study Mitigation Measure HAZ-4)*

5. All equipment shall be maintained and operated in a manner that minimizes any spill or leak of hazardous materials. Hazardous materials and contaminated soil shall be stored, transported, and disposed of consistent with applicable local, state, and federal regulations. (*Initial Study Mitigation Measure HAZ-5)*

6. Hazardous Waste must be handled according to all Hazardous Waste Control Laws. Any generation of a hazardous waste must be reported to Lake County Environmental Health within thirty days.

7. All employees and/or staff members shall be properly trained in and utilize Personnel Protective Equipment in accordance with all federal, state and local regulations regarding handling any biological and/or chemical agents.

8. Hazardous waste must be handled according to all Hazardous Waste Control and Generator regulations. Waste shall not be disposed of on-site without review or permits from EHD, the California Regional Water Control Board, and/or the Air Quality Board. Collected hazardous or toxic waste materials shall be recycled or disposed of through a registered waste hauler to an approved site legally authorized to accept such material.

J. HYDROLOGY AND WATER QUALITY:

1. The project design shall incorporate appropriate BMPs consistent with County and State storm water drainage regulations to prevent or reduce discharge of all construction or post-construction pollutants and hazardous materials offsite or all surface water.

2. The production well shall have a meter to measure the amount of water pumped. The production wells shall have continuous water level monitors. The methodology of the monitoring program shall be described. A monitoring well of equal depth within the cone of influence of the production well may be substituted for the water level monitoring of the production well. The monitoring wells shall be constructed, and monitoring begun at least three months prior to the use of the supply well. An applicant shall maintain a record of all data collected and shall provide a report of the data collected to the County annually.

K. NOISE

1. All construction activities including engine warm-up shall be limited to weekdays and Saturday, between the hours of 7:00am and 7:00pm to minimize noise impacts on nearby residents. *(Initial Study Mitigation Measure NOI-1*)

2. Permanent potential noise sources such as, generators used for power shall be designed and located to minimize noise impacts to surrounding properties. *(Initial Study Mitigation Measure NOI-2)*

3. During construction noise levels shall not exceed 65 decibels within fifty (50) feet of any dwellings or transient accommodations between the hours of 7:00 AM and 6:00 PM. This threshold can be increased by the Building Inspector or City Engineer have approved an exception in accordance with Section 5-4.4(b)(1) of the City Code. An exception of up to 80 decibels may be approved within one hundred (100) feet from the source during daylight hours. Project is expected to result in less than significant impacts with regards to noise and vibration. *(Initial Study Mitigation Measure NOI-3)*

L. TRANSPORTATION & TRAFFIC

1. Improvements shall be made to the project access off of Ogulin Canyon Road as required by the City of Clearlake – Public Works Department. Applicant shall submit plans prepared by a certified Engineer to the City of Clearlake for review and approval. All necessary permits shall be secured from the City of Clearlake prior to development.

2. The applicant shall comply with the State of California Weights and Measures requirements found in the California Food and Agriculture Code, California Code of Regulations, and the California Business and Professions Code.

3. All access roads, yards and parking areas shall be properly maintained for life of the project to prevent a source of contamination where cannabis products are handled or transported.

M. <u>TIMING & MITIGATION MONITORING</u>

1. **Prior to this use permit becoming, valid, effective or operative**, until the Development Agreement has been reviewed and approved by the City Council.

2. If the approved use permit is not established within one (1) year of the date of approval or such longer time as may be stipulated as a condition of approval, the use permit shall expire.

3. If a structure(s) or associated site development authorized by use permit is not issued building permits (if building permits ae required) within three (3) years of the date of approval, the use permit shall expire.

4. **Upon written request received prior to expiration**, the Community Development Director may grant renewals of use permit approval for successive periods of not more than one (1) year each.
    - *Approvals of such renewals shall be in writing and for a specific period.*
    - *Renewals may be approved with new or modified conditions upon a finding that the circumstances under which the use permit was originally approved have substantially changed.*
    - *Renewal of a use permit shall not require public notice or hearing unless the renewal is subject to new or modified conditions. In order to approve a renewal, the Community Development Director must make the findings required for initial approval*.

5. The Planning Commission may revoke or modify the use permit in the future if the Commission finds that the use to which the permit allows is detrimental to health, safety, comfort, general welfare of the public; constitutes a public nuisance; if the permit was obtained or is being used by fraud; and/or if one or more the conditions upon which a permit was granted are in noncompliance or have been violated. Applicant shall be notified of potential violations of the use permit prior to action taken by the Planning Commission.

6. Said Use Permits shall be subject to revocation or modification by the Planning Commission if the Commission finds that there has been:
    a. *Noncompliance with any of the foregoing conditions of approval; or*
    b. *The Planning Commission finds that the use for which this permit is hereby granted is so exercised as to be substantially detrimental to persons or property in the neighborhood of the use. Any such revocation shall be preceded by a public hearing noticed and heard pursuant to the City of Clearlake Municipal Code. 15.*

7. All conditions are necessary to protect the general health, safety and welfare of the public. If any condition of this entitlement is held to be invalid by a court, the whole entitlement shall be invalid. The Planning Commission specifically declares that it would not have approved this entitlement unless all of the conditions herein are held as valid.

To be Complete by Authorized Representative/Applicant

Name: _____ **Signature: _____**
Date: _____

To Be Completed by Staff Only

Name: _____ **Signature: _____**

Title: _____ **Date: _____**

CITY OF CLEARLAKE

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

ENVIRONMENTAL ANALYSIS

FINAL MITIGATED NEGATIVE DECLARATION

INITIAL STUDY *(IS 2022-02)*

COMMERCIAL CANNABIS OPERATION

LOCATED AT:

2160 Ogulin Canyon Road, Clearlake, CA
Assessor's Parcel No. 010-044-21

Draft: April 4, 2022
Final: September 15, 2022

FINAL ENVIRONMENTAL INITIAL STUDY REVISED PROJECT DESCRIPTION AND PUBLIC REVIEW

The original project that was evaluated under the draft Initial Study consisted of construction and operation of a 33,600 sq.ft. building for cannabis activities, 5,000 sq.ft. office building, five - 75' x 25' greenhouses, and site improvements including 46 parking spaces. Proposed uses under this original project description consisted of manufacturing, retail delivery, distribution, processing, cultivation, and a nursery. The draft Initial Study for this project original project description was circulated for public review between April 7 and May 13, 2022. This circulation included distribution to the California State Clearinghouse and local agencies. Below are written comments received from agencies followed by Table 1, City Responses to Agency Comments.

On August 23, 2022, the project applicant submitted a scaled down, revised project description consisting of a remodel of an existing 960 square foot metal building and future development of a new 5,000 square foot building and 8 parking spaces. Proposed uses under this revised project description consists of non-volatile manufacturing, retail delivery, distribution, and processing on the same site. No greenhouses or cultivation activities are proposed as part of the revised project. This project description has been revised as a substantial down-sizing of the original project, and as such, the reduced project development and land use intensity has resulted in reduced environmental impacts as compared to the original project description. Even though the project is revised, the same overall analysis and environmental mitigation measures that apply to the original project should adequately apply to the project revision.

In accordance with Section 15073.5 of the California Environmental Quality Act (CEQA) Guidelines the City has determined that there is no need to recirculate the initial study/mitigated negative declaration since the proposed revisions don't result in more significant environmental impacts or result in any substantial changes to the mitigation measures from the original project and draft Initial Study and Proposed Mitigated Negative Declaration. As referenced in this section of the CEQA Guidelines, the City recirculation of the Initial Study/Mitigated Negative Declaration is not required since this Final Initial Study meets the following circumstances:

- Mitigation measures are the same as previously and have been determined to be equal to or more effective measures.
- No new impacts have been identified that were previously not addressed in the Initial Study as a result of written or verbal comments received on the project.
- Measures or conditions of project approval have not been added after and are not necessary to mitigate an avoidable significant effect.
- New information has been added to the Initial Study and Mitigated Negative Declaration which merely clarifies, amplifies, or makes insignificant modifications to the Mitigated Negative Declaration.

Some parts of the Draft Initial Study were revised for minor clarification to respond to agency comments. Therefore, the City, as lead agency for this project, has determined that the Initial Study does not need to be recirculated and has been determined to adequately address concerns referenced by all agencies. Therefore, this document is formalized as the Final Initial Study and the City may issue a mitigated negative declaration based on their concurrence of adequacy.

The following are comments and City responses to comment to the following agencies:

SUMMARY LIST OF RESPONSES: Summary of Public Comments and City Responses

(Refer to all written correspondence following this Table)

Commenting Agency or Entity	Date	Summary of Comments	City Response
Letter from Pheakday Preciado, Environmental Health Specialist, Lake County Environmental Health Department (see attached)	September 9, 2021	Identified a number of on-site clean up needs (see attached letter).	No formal response needed. Site has been cleaned up and clearances will be obtained from Environmental Health prior to occupancy.
Email from Lori Bacca Customer Service Supervisor, Lake County Special Districts	April 7, 2022	The parcel 010-044-210 is outside of any Special Districts service area, no impact.	No response required. This project will be served by a septic system in-lieu of a community sewer system.
Letter from Lori Schmitz Environmental Scientist Division of Financial Assistance Special Project Review Unit, California Water Board	May 12, 2022	See attached letter. 1-Noted concerns with details of well; provide more details. 2-Noted concerns with project impacts on Burns Valley Creek with improvements shown within floodplain. 3-Provides list of permitting requirements	No formal response needed. All concerns addressed with Mitigation Measures GEO-1 through GEO-3. City staff will follow up to make sure all clearances are obtained and information is submitted as requested.
Letter from Lindsay Rains, Licensing Manager, California Department of Cannabis Control (DCC)	May 2, 2022	See attached letter. GC 1: Cannabis Manufacturing The IS/MND indicates that a manufacturing license is being sought from DCC. However, the IS/MND does not specify whether the Proposed Project includes manufacturing using volatile solvents. The IS/MND should provide a description of any volatile substances that will be used in product manufacture, and should include analyses of the potential environmental impacts that may result from the use of these substances. In addition, the analyses should describe and consider any measures the Proposed Project will implement that may	Comment noted. Section III, Air Quality, Section VIII, Greenhouse Gas Emissions, and Section IX, Hazards and Hazardous Materials, provides an adequate description and analysis for project impacts on these categories. Additional details will be provided to DCC upon license application submittal.

		lessen or reduce potential impacts. In particular, the document should include detailed analyses of impacts related to air quality, hazards and hazardous substances, and greenhouse gas emissions.	
DCC		GC 2: Site-Specific Reports and Studies The IS/MND references several project-specific plans and studies, such as an Air Quality Plan, Odor Control Plan, Serpentine Control Plan, Energy Usage Plan, and Erosion Control and Sediment Plan. To ensure that DCC has supporting documentation for the IS/MND, DCC requests that the City advise applicants to provide copies of all project-specific plans and supporting documentation with their state application package for annual cultivation license to DCC.	Comment noted. Plans and reports will be included with any application to DCC made by the applicant.
DCC		GC 3: Impact Analysis Several comments provided in the comment table below relate to the absence of information or support for impact statements in the document. CEQA requires that Lead Agencies evaluate the environmental impacts of proposed projects and support factual conclusions with "substantial evidence." Substantial evidence includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts. In general, the IS/ND would be improved if additional evidence (e.g., regulatory setting, environmental setting, impact analysis and methodology, impact assessment) was provided to support the impact statements in the checklist, including the sources of information relied upon to make conclusions.	Comment noted. No new environmental issues are raised in this comment and no revisions are necessary.
DCC		GC 4: Identification of Federal, State, and Local Regulations In multiple instances throughout the document, the IS/MND states that project components "shall adhere to all Federal, State, and local agency requirements." Without more information about the requirements and regulations being referred to, it is difficult to determine whether potential impacts would be avoided. The IS/MND would be strengthened if applicable requirements and regulations were described in the context of each environmental resource.	Comment noted. No new environmental issues are raised in this comment and no revisions are necessary.

DCC		GC 5: Acknowledgement of DCC Regulations Aside from one sentence in Section XI, Land Use, the IS/MND does not acknowledge that the Proposed Project requires licenses from DCC for cultivation, distribution, manufacturing, and other cannabis-related activities. The IS/MND could be improved if it acknowledged that DCC is responsible for licensing, regulation, and enforcement of commercial cannabis activities, as defined in the Medicinal and Adult Use Cannabis Regulation and Safety Act (MAUCRSA) and DCC regulations. Additionally, the IS/MND's analysis could benefit from discussion of the protections for environmental resources provided by DCC's cultivation and manufacturing regulations. Several examples are indicated in the Specific Comments table below.	Comment noted. No new environmental issues are raised in this comment and no revisions are necessary. DCC is not responsible for local land use regulations.
DCC		GC 6: Evaluation of Cumulative Impacts It is important for CEQA analysis to consider the cumulative impacts of cannabis cultivation in the City of Clearlake. Of particular importance are topics for which the impacts of individual projects may be less than significant, but where individual projects may make a considerable contribution to a significant cumulative impact. These topics include, but are not limited to: • cumulative impacts from groundwater diversions on the health of the underlying aquifer, including impacts on other users and impacts on stream-related resources connected to the aquifer; • cumulative impacts related to noise; • cumulative impacts related to transportation; and • cumulative impacts related to air quality and objectionable odors. The traffic study for the Proposed Project discusses three other cannabis projects in the immediate project area, and discusses the	Noted. MND does take into account cumulative impacts with studies and tiering off the General Plan.

		cumulative impacts of the increased vehicle traffic on transportation, air quality, and greenhouse gas emission. The IS/MND would be improved by acknowledging and analyzing the potential for all potential cumulative impacts resulting from the Proposed Project coupled with these three projects, and any other existing or reasonably foreseeable projects in Clearlake that could contribute to cumulative impacts similar to those of the Proposed Project.	
DCC		A list of 23 specific comments were made on the document.	Most of these comments address measures to strengthen the document as recommendations. These have been taken into consideration but most of these are details of the project that are addressed when the building permit from the City and licensing in obtained from DCC. None of these comments raise new environmental issues that have, in the opinion of the City, not been adequately addressed.
Letter from Peter Minkel, Engineering Geologist, Central Valley Regional Water Quality Control Board	May 13, 2022	See attached letter. Overview of potential permitting requirements for the project regarding potential impacts to surface and groundwater quality.	The draft initial study includes recommendation and identifies various permits necessary. Mitigation measures are included in the draft initial study addressing the comments. No new environmental issues are raised in this comment and no revisions are necessary.

COUNTY OF LAKE
Health Services Department
Environmental Health Division
922 Bevins Court
Lakeport, California 95453-9739
Telephone 707/263-1164
FAX 707/263-1681

Denise Pomeroy
Health Services Director

Gary Pace, MD
Interim Public Health Officer

Craig Wetherbee
Environmental Health Director

Promoting an Optimal State of Wellness in Lake County

September 9, 2021

Will Peterson Well Drilling
P.O. Box 695
Kelseyville, CA 95451

RE: APN 010-044-21
2160 Ogulin Canyon Road, Clearlake, CA

To Whom It May Concern:

On September 9, 2021, our office performed a Field Clearance to validate the existing system for water well (permit #WE-5718 AG) issuance.

However, at the time of the Field Inspection, our office observed several structures, which include a barn, sheds, an unknown structure with a sprayed painted sign on the ground identifying it as a grey water system, and a single family dwelling with septic system (permit #3402-S) with spray paint identifying the septic tank. There were structures/kennels on property (for what appeared to be a previous Clear Lake Kennel business).

The single family dwelling with septic system (permit #3402-S) septic tank appeared to be modified. The septic tank had new plastic risers without permit from our office for the minor repairs. One side of the risers has a 4 inch radius drilled hole and a ½ inch PVC pipe sticking out of the riser lid; this makes the septic tank not water and vapor tight.

Furthermore, the single family dwelling with the unknown grey water system and/or septic system leads directly to the flood plain/channel in the back. Measurement were made from the septic tank to the flood plain/channel bank, and it was about 56 feet. There is also a large amount of refuse/trash in the flood plain/channel.

Our office will sign off on the well permit and honored the Multiple Use Permits (UP 2021-23 through 28) after the following items below are met:

1. Based on the today's observation, a minor repair permit will be required from our office to ensure the existing septic tank is water and vapor proof.
2. The existing septic system must be exposed (top of the existing septic tank must be accessible; and the ends of the leachlines exposed).

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3. The unknown structure with the grey water system must demonstrate and provide a grey water permit from the City of Clearlake Community Development or meet our new septic system requirement.
4. The unknown structure with the grey water system might need to obtain a septic tank/system abandonment permit from our office if grey water permit is not available.
5. Provide a scale overview map with everything on the property including the proposed well to be drilled (permit #WE-5718 AG).
6. Please remove all the refuse/trash inside the flood plain/channel.

Please contact this office at (707) 263-1164 if you have any questions regarding this report.

Sincerely,

Pheakdey (Pack-a-day) Preciado, R.E.H.S.
Environmental Health Specialist

cc: City of Clearlake, Community Development: Code Enforcement and Planning Division
Ogulin Hills Holdings LLC, 637 Lindaro Street, Suite 201, San Rafael CA 94901

COUNTY OF LAKE
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CALIFORNIA Water Boards

GAVIN NEWSOM GOVERNOR

JARED BLUMENFELD SECRETARY FOR ENVIRONMENTAL PROTECTION

May 12, 2022

Governor's Office of Planning & Research

May 13 2022

STATE CLEARINGHOUSE

Clearlake, City of
Attn: Mark Roberts
14050 Olympic Drive
Clearlake, CA 95422

CITY OF CLEARLAKE (CITY), MITIGATED NEGATIVE DECLARATION (MND) FOR THE OGULIN HILLS HOLDINGS, LLC- COMMERCIAL CANNABIS OPERATION PROJECT (PROJECT); SCH # 2022040072

Dear Mr. Mark Roberts:

Thank you for the opportunity to review the Mitigated Negative Declaration for the proposed Project. The State Water Resources Control Board, Division of Drinking Water (State Water Board, DDW) is responsible for issuing water supply permits pursuant to the Safe Drinking Water Act. A project requires a permit if it includes water system consolidation or changes to a water supply source, storage, or treatment or a waiver or alternative from Waterworks Standards (California Code of Regulations (CCR) title 22, chapter 16 et. seq). The above referenced Project will require a new water supply permit.

The State Water Board, DDW, as a responsible agency under CEQA, has the following comments on the City's draft MND:

- The State Water Board regulates public water systems in Lake County. The Project will create a new public water system. On PDF page 5 under "23. Federal and State Agencies:" please list "State Water Resources Control Board, Division of Drinking Water".
- The Project will use an existing well that was drilled in late September/early October 2021 for domestic and irrigation water (PDF page 28). The water will be pumped from a 400+ gallon per minute well into a new 50,000-gallon elevated water tank for distribution (PDF page 28 & Appendix E). Will the water require treatment? Further describe any new water system infrastructure that will be installed as part of the Project.
- The document states on PDF page 38, that, "The project area to be developed is not located within the vicinity of known waterways nor is it located within a designated flood zone. Therefore, the risk of flooding/runoff, landslides, slope instability, or drainage changes would not be increased due to this project" (PDF page 38). However, there are several contradictory statements in the document:
    - "The report notes that a small riparian area is present on the subject parcel. Since Burns Valley Creek travels through the site and the creek will be impacted by the project, such as erosion, sedimentation, changes in drainage patterns." (PDF page 20)
    - "However, since improvements are being constructed within the creek wetlands located down-stream will be impacted." (PDF page 21)
    - "There will be modifications to the drainage pattern of Burns Valley Creek due to grading and introduction of parking improvements withing the Burns Valley

Creek. These proposed improvements within the Burns Valley Creek area could impact and alter the existing drainage pattern of the site or the area, including the alteration of the course of a stream." (PDF page 30)

- Project designs also show Burns Valley Creek runs through the Project site and the proposed driveway and parking area occur within Zone AE, a flood zone. (PDF page 4)

Please resolve the discrepancies in the document relating to potential impacts to waters of the state and discuss possible flooding impacts related to domestic water quality. Include best management practices and/or mitigation measures to reduce impacts to waters of the state as needed.

- The Project appears to have other water quality concerns that should be addressed. Please coordinate with the following contacts to address waste discharge water quality issues and the Project permitting requirements, before going to construction:

Division / Unit	Project Issues/ Concerns	Permit	Contact	Phone Number	Email
State Water Board, Division of Water Quality (DWQ), NPDES Industrial and Construction Stormwater Unit	Stormwater Construction Impacts for construction that disturbs greater than one acre of soil	General Stormwater NPDES permit	Brandon Roosenboom	(916) 341-5566	Brandon.Roosenboom@waterboards.ca.gov & stormwater@waterboards.ca.gov
Central Valley Regional Water Quality Control Board (Central Valley Water Board, Redding), Cannabis Regulation and State Water Board, DWQ	Discharge impacts for cannabis operations	Cannabis Cultivation Waste Discharge Permit	Janae Fried	(530) 224-3291	Janae.Fried@waterboards.ca.gov & CannabisWR@waterboards.ca.gov
Central Valley Water Board, Sacramento, Non-15 Permitting	Small domestic wastewater treatment systems over 10,000 gallons per day	General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems, WQO 2014-0153-DWQ	Lani Andam	(916) 464-4723	Lani.Andam@waterboards.ca.gov

Once the MND is adopted, please forward the following items in support of the new water system's permit application to the State Water Board, DDW Mendocino District Office at DWPDIST03@waterboards.ca.gov:

- Copy of the draft and final MND and Mitigation Monitoring and Reporting Plan (MMRP);
- Copy of any comment letters received and the lead agency responses as appropriate;
- Copy of the Resolution or Board Minutes adopting the MND and MMRP; and
- Copy of the stamped Notice of Determination filed at the Lake County Clerk's Office and the Governor's Office of Planning and Research, State Clearinghouse.

Please contact Lori Schmitz of the State Water Board at (916) 449-5285 or Lori.Schmitz@waterboards.ca.gov, if you have any questions regarding State Water Board CEQA comments.

Sincerely,

Lori Schmitz

Lori Schmitz
Environmental Scientist
Division of Financial Assistance
Special Project Review Unit
1001 I Street, 16th floor
Sacramento, CA 95814

Cc:

Office of Planning and Research, State Clearinghouse

Zachary Rounds
State Water Board, DDW
Mendocino District
District Engineer

Brandon Roosenboom
State Water Board, DWQ
NPDES Industrial and Construction Stormwater Unit
Water Resources Control Engineer

Landi Andam
Central Valley Regional Board, Sacramento
Non 15 Permitting
Water Resources Control Engineer

Janae Fried
Central Valley Regional Board, Redding
Cannabis Regulation
Engineering Geologist

Department of Cannabis Control
CALIFORNIA

Gavin Newsom
Governor

Nicole Elliott
Director

May 12, 2022

Mark Roberts, Senior Planner
City of Clearlake
14050 Olympic Drive
Clearlake, CA 95422
(707) 994-8201
mroberts@clearlake.ca.us

Re: Review of Initial Study/Mitigated Negative Declaration (SCH No. 2022040072) – Ogulin Hills Holdings, LLC Conditional Use Permits and Initial Study 2022-2

Dear Mr. Roberts:

Thank you for providing the California Department of Cannabis Control (DCC) the opportunity to review responses to comments on the Final Initial Study/Mitigated Negative Declaration (IS/MND; SCH No. 2022040072) prepared by the City of Clearlake for the proposed Ogulin Hills Holdings, LLC Conditional Use Permits (CUPs) 2022-03, 2022-04, 2022-05, 2022-06, and 2022-07 (Proposed Project).

DCC has jurisdiction over the issuance of licenses to commercial cannabis businesses. DCC may issue a cannabis business license to a business that meets all licensing requirements, and where the local jurisdiction authorizes these activities. (Bus. & Prof. Code, § 26012(a).) All commercial cannabis businesses within the California require a license from DCC. For more information pertaining to commercial cannabis business license requirements, including DCC regulations, please visit: https://cannabis.ca.gov/resources/rulemaking/.

DCC expects to be a Responsible Agency for this project under the California Environmental Quality Act (CEQA) because the project will need to obtain one or more annual cannabis business licenses from DCC. In order to ensure that the IS/MND is sufficient for DCC's needs at that time, DCC requests that a copy of the IS/MND, revised to respond to the comments provided in this letter, and a signed Notice of Determination be provided to the applicant, so the applicant can include them with the application package it submits to DCC. This should apply not only to this Proposed Project, but to all future CEQA documents related to cannabis cultivation applications in the City of Clearlake.

DCC offers the following comments concerning the IS/MND.

General Comments (GCs)

GC 1: Cannabis Manufacturing

The IS/MND indicates that a manufacturing license is being sought from DCC. However, the IS/MND does not specify whether the Proposed Project includes manufacturing using volatile solvents. The IS/MND should provide a description of any volatile substances that will be used in product manufacture, and should include analyses of the potential environmental impacts that may result from the use of these substances. In addition, the analyses should describe and consider any measures the Proposed Project will implement that may lessen or reduce potential impacts. In particular, the document should include detailed analyses of impacts related to air quality, hazards and hazardous substances, and greenhouse gas emissions.

GC 2: Site-Specific Reports and Studies

The IS/MND references several project-specific plans and studies, such as an Air Quality Plan, Odor Control Plan, Serpentine Control Plan, Energy Usage Plan, and Erosion Control and Sediment Plan. To ensure that DCC has supporting documentation for the IS/MND, DCC requests that the City advise applicants to provide copies of all project-specific plans and supporting documentation with their state application package for annual cultivation license to DCC.

GC 3: Impact Analysis

Several comments provided in the comment table below relate to the absence of information or support for impact statements in the document. CEQA requires that Lead Agencies evaluate the environmental impacts of proposed projects and support factual conclusions with "substantial evidence." Substantial evidence includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts. In general, the IS/ND would be improved if additional evidence (e.g., regulatory setting, environmental setting, impact analysis and methodology, impact assessment) was provided to support the impact statements in the checklist, including the sources of information relied upon to make conclusions.

GC 4: Identification of Federal, State, and Local Regulations

In multiple instances throughout the document, the IS/MND states that project components "shall adhere to all Federal, State, and local agency requirements." Without more information about the requirements and regulations being referred to, it is difficult to determine whether potential impacts would be avoided. The IS/MND would be strengthened if applicable requirements and regulations were described in the context of each environmental resource.

GC 5: Acknowledgement of DCC Regulations

Aside from one sentence in Section XI, Land Use, the IS/MND does not acknowledge that the Proposed Project requires licenses from DCC for cultivation, distribution, manufacturing, and other cannabis-related activities. The IS/MND could be improved if it acknowledged that DCC is responsible for licensing, regulation, and enforcement of commercial cannabis activities, as

defined in the Medicinal and Adult Use Cannabis Regulation and Safety Act (MAUCRSA) and DCC regulations. Additionally, the IS/MND's analysis could benefit from discussion of the protections for environmental resources provided by DCC's cultivation and manufacturing regulations. Several examples are indicated in the Specific Comments table below.

GC 6: Evaluation of Cumulative Impacts

It is important for CEQA analysis to consider the cumulative impacts of cannabis cultivation in the City of Clearlake. Of particular importance are topics for which the impacts of individual projects may be less than significant, but where individual projects may make a considerable contribution to a significant cumulative impact. These topics include, but are not limited to:

- cumulative impacts from groundwater diversions on the health of the underlying aquifer, including impacts on other users and impacts on stream-related resources connected to the aquifer;
- cumulative impacts related to noise;
- cumulative impacts related to transportation; and
- cumulative impacts related to air quality and objectionable odors.

The traffic study for the Proposed Project discusses three other cannabis projects in the immediate project area, and discusses the cumulative impacts of the increased vehicle traffic on transportation, air quality, and greenhouse gas emission. The IS/MND would be improved by acknowledging and analyzing the potential for all potential cumulative impacts resulting from the Proposed Project coupled with these three projects, and any other existing or reasonably foreseeable projects in Clearlake that could contribute to cumulative impacts similar to those of the Proposed Project.

Specific Comments and Recommendations

In addition to the general comments provided above, DCC provides the following specific comments regarding the analysis in the IS/MND.

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Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	IS/MND Text	DCC Comments and Recommendations
1	Ques. 19-20	3-4	Description of Project, Environmental Setting	N/A (General Comment) and Figure 1 Project Site Plan (Refer to Attachment B for full plans)	The IS/MND would be improved if it included a larger-scale site plan that clearly showed site features such as the access road, creek setback, and other features referred to in the subsequent analysis. Also, Attachment B contains only a single plan sheet, not the full site plans.
2	Ques. 22-23	4-5	Other public agencies whose approval may be required	N/A (General Comment)	The IS/MND could be more informative if it identified the permit(s) or approval(s) required from each of the agencies listed.
3	Ques. 24	5	Native American Consultation	N/A (General Comment)	The document would be strengthened if it included a list of all tribes contacted as part of the AB 52 consultation process.
4	Ques. 25	5	Impact Categories defined by CEQA	N/A (General Comment)	The list of sources would be improved if it provided additional information regarding some of the references. For referenced documents, the author, title, and date of each document could be provided. For personal communications, the agency or organization, person contacted, date of contact, and method of contact should be provided. For websites, the URL and date visited should be provided. In addition, sources that are project-related studies could be made available via weblink or as attachments.
5	Ques. 25	11	Site Photos	N/A (General Comment)	The IS/MND would be more informative if it included a brief description of the location and significance of each site photo.
6	I(d)	15-16	Aesthetics	The commercial cannabis operation will occur within	The IS/MND would be improved if the analysis clarified why mitigation is needed

Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	IS/MND Text	DCC Comments and Recommendations
				enclosed structures with minimal lighting used during evening/nighttime hours. All lighting will be directed downwards and shielded and adhere to the City's Lighting Design Standards. including all dark-sky requirements. Therefore, to ensure that impacts related to the Aesthetics are minimized, following mitigation measures have been implemented.	for Impact I(d). The analysis seems to imply that impacts would not be significant, although the check box indicates "Potentially Significant."
7	I(d)	15-16	Aesthetics	N/A (General Comment)	The IS/MND does not specify whether the Proposed Project would use mixed-light cultivation techniques. If the Proposed Project includes mixed-light cultivation techniques, the document would be improved if it referenced DCC's requirement that lights used in mixed-light cultivation activities must be fully shielded from sunset to sunrise to avoid nighttime glare (Cal. Code Regs., tit. 4 § 16304(a)(7)), and described how the Proposed Project will comply with these policies and regulations.
8	III(a)	17	Air Quality	The proposed Air Quality Plan indicates how the applicant Intends to minimize these Impacts.	The IS/MND would be improved if it summarized the information provided in the Air Quality Plan that would ensure air quality impacts would be less than significant.
9	III(a)	17	Air Quality	No significant odor impacts are anticipated from the proposed cultivation	The IS/MND would be improved if it contained information about proposed odor control equipment and practices.

Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	IS/MND Text	DCC Comments and Recommendations
				operation, due to the proposed odor control equipment and practices, and the generous setbacks provided from public roads, property lines, and neighboring residences/ outdoor activity areas.	
10	III(a)	17	Air Quality	All property owners and residents within a 1,000-foot radius of the cannabis facility shall be provided with the contact information of the individual(s) responsible for responding to the odor complaints.	The IS/MND would be improved if the analysis described the types and locations of sensitive receptors near the project site.
11	III(a)	17	Air Quality	The proposed odor control plan seems to acknowledge that odors could be detected outside the structure without significant enhancements, such as carbon filtering.	This statement indicates that the Proposed Project could result in significant impacts related to odor. The document would be strengthened if it included a summary of the odor control plan, as well as providing the plan itself as an attachment, and providing an analysis, supported by substantial evidence, that the proposed mitigation measures would reduce impacts to less-than-significant levels. In addition, the IS/MND would be improved if it included an analysis of the Proposed Project's contribution to potential cumulative odor impacts from nearby projects. (See GC 6.)

Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	IS/MND Text	DCC Comments and Recommendations
12	III(a)	19	Air Quality	AIR-10 If construction or site activities are conducted within Serpentine soils, a Serpentine Control Plan may be required. Any parcel with Serpentine soils must obtain proper approvals from LCAQMD prior to beginning any construction activities. Contact LCAQMD for more details.	The IS/MND would be improved if it included information about whether the project site is located in an area of serpentine soils.
13	IV(a)	20	Biological Resources	BIO-2. If project construction occurs between September 1 and January 31, nesting bird survey shall be conducted by a qualified biologist. Additional mitigation measures recommended in the survey report shall be implemented prior to or curing project development to avoid disturbance to migratory nesting birds.	The IS/MND would be improved if the analysis explained the timing of nesting bird surveys. Typically, these surveys take place between March 1 and August 31. Also, this measure does not appear in the Biological Report.
14	IV(c), (d)	21	Biological Resources	The project will include mitigation to wetland through implementation of Mitigation Measure BIO-5.	The checklist indicates that this impact would be less than significant. The IS/MND would be strengthened if the checklist conclusion and the analysis conclusion matched.
15	IV(e)	21	Biological Resources	The project will have minimal to no conflict with any local policies or ordinances protecting	The IS/MND would be improved if it provided supporting evidence that impacts on oak trees would be less than significant.

Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	IS/MND Text	DCC Comments and Recommendations
				biological resources, such as a tree preservation policy or ordinance. However, the project may require the removal of a small cluster of grasses and/or vegetation/trees. Prior to tree removal, the applicant shall obtain a Tree Removal Permit from the City of Clearlake and if Oak Trees are to be removed, they shall be replaced in accordance with Section 18-40.050 of the City of Clearlake Municipal Code. Less than Significant Impact.	
16	V(a)	23	Cultural Resources	Additionally, Mitigation Measures BIO-5 and GEO-1 through GEO-3 ensure impacts related to the Cultural Resources are minimized, to Less than Significant Levels.	The IS/MND would be strengthened if it explained how these mitigation measures would mitigate for potentially significant impacts on cultural resources.
17	VI(a)	23	Energy	N/A (General Comment)	The IS/MND would be improved if it described how the project would meet DCC regulatory requirements regarding the use of renewable energy. (*See* GC 5 and Cal. Code Regs., tit. 4 § 16305.)
18	VII(f)	25	Geology and Soils	Disturbance of paleontological resources or unique geologic features is	The IS/MND would be strengthened if it explained how these mitigation measures would mitigate for potentially significant

Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	IS/MND Text	DCC Comments and Recommendations
				not anticipated, but mitigation measures are in place to assure that in the event any artifacts are found. All potential impacts have been reduced to less than significant with the incorporated mitigation measures CUL-1 and CUL-5.	impacts on paleontological resources. In addition, the text cites mitigation measure CUL-5, but Section V, Cultural Resources, contains only three mitigation measures.
19	VIII(a)	25	Greenhouse Gas Emissions	The anticipated vehicle trip generation and project operations are not expected to generate significant levels of greenhouse gas emissions and would not degrade the air quality. Less Than Significant Impact	The IS/MND would be improved if it provided supporting evidence (e.g., quantified emission estimates, rationale for conclusion) for the statement. (*See* GC 3.)
20	IX(a)	26	Hazards and Hazardous Materials	N/A (General Comment)	The IS/MND would be strengthened if the discussion of hazardous materials included a description of manufacturing operations and any hazardous materials (e.g., volatile solvents) that might be used. The document should also explain how any hazard risk associated with volatile solvents would be mitigated.
21	X(c)	30-31	Hydrology and Water Quality	N/A (General Comment)	The IS/MND would be improved if it explained how Mitigation Measures GEO-1 through GEO-3 would reduce the impact of altering the course of the stream to a less-than-significant level.

Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	IS/MND Text	DCC Comments and Recommendations
22	X(d)	31	Hydrology and Water Quality	The project site is not located in an area of potential inundation by seiche or tsunami. A portion of the parcel is located within flood zone AE of Burns Valley Creek. As indicated on the site plan, (Figure 1) access and parking improvements are proposed within the floodway. Clearlake Municipal Code section 17-5.1 outlines standards for construction within flood hazard zones. Compliance with this chapter will reduce impacts to less than significant.	The IS/MND would benefit from a discussion of the City's standards for construction within a flood zone and how they will ensure a less-than-significant impact for the proposed project. In addition, the IS/MND should provide an analysis of whether these construction standards would prevent the release of pollutants, including pesticides, fuels, and/or fertilizers.
23	XIII(a)	32	Noise	N/A (General Comment)	The document would be improved if it described the sources of noise (e.g., cultivation or manufacturing equipment, operation and maintenance activities) expected to occur during project operations and the levels of noise those sources are likely to generate. Additionally, the document should include a description of sensitive receptors, their distances from the Proposed Project site, and an analysis of whether the Project would result in noise-related impacts on sensitive receptors. The discussion should describe how Mitigation Measures NOI-1 through NOI-3 would reduce impacts to a less-than-significant

Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	IS/MND Text	DCC Comments and Recommendations
					level. The analysis should also address cumulative impacts related to the three nearby projects.
24	XV	34	Public Services	Conditions of Approval have been incorporated to ensure the project adhere to all applicable requirements of the above agencies.	The IS/MND would be strengthened if it described the applicable agency requirements and Conditions of Approval that have been incorporated into the project. (*See* GC 4.)
25	XXI(a), (c)	39	Mandatory Findings of Significance	With incorporation of Mitigation Measures, the project is not anticipated to significantly impact…	The IS/MND would be improved if it listed the specific mitigation measures being relied on.
26	XXI(b)	40	Mandatory Findings of Significance	It is also noted that the City's 2040 General Plan Environmental Impact Report identifies the project site as within a major growth area; the Ogulin Canyon Industrial Center. As such, cumulative environmental impacts from development within this growth center have been previously addressed in the EIR. The implementation of and compliance with all mitigation measures identified in each section as project conditions of approval would avoid or reduce all potential impacts to less than significant levels and would not result	The IS/MND would be improved if it described the potential cumulative impacts of the project with other three projects on Ogulin Canyon Road and provide supporting evidence for the conclusion that these impacts were "previously addressed in the [General Plan] EIR." This analysis should include a discussion of cumulative impacts specific to cannabis cultivation, such as water use and odor.

Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	IS/MND Text	DCC Comments and Recommendations
				in cumulatively considerable environmental impacts.	

Conclusion

DCC appreciates the opportunity to provide comments on the IS/MND for the Proposed Project. If you have any questions about our comments or wish to discuss them, please contact Kevin Ponce, Senior Environmental Scientist Supervisor, at (916) 247-1659 or via e-mail at Kevin.Ponce@cannabis.ca.gov.

Sincerely,

Rains, Lindsay@Cannabis Digitally signed by Rains, Lindsay@Cannabis
Date: 2022.05.12 12:12:33 -07'00'

Lindsay Rains,
Licensing Program Manager

California Water Boards

Gavin Newsom
Governor

Jared Blumenfeld
Secretary for
Environmental Protection

Central Valley Regional Water Quality Control Board

13 May 2022

Mark Roberts
City of Clearlake
14050 Olympic Drive
Clearlake, CA 95422
mroberts@clearlake.ca.us

COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, OGULIN HILLS HOLDINGS, LLC - COMMERCIAL CANNABIS OPERATION PROJECT, SCH#2022040072, LAKE COUNTY

Pursuant to the State Clearinghouse's 4 April 2022 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the Ogulin Hills Holdings, LLC - Commercial Cannabis Operation Project, located in Lake County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore, our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of

Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Cannabis General Order

Cannabis cultivation operations are required to obtain coverage under the State Water Resources Control Board's *General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities Order No. WQ 2017-0023-DWQ* (the Cannabis General Order). Cultivators that divert and store surface water (stream, lake, subterranean stream, etc.) to irrigate cannabis also need a valid water right.

The Water Boards Cannabis Cultivation Programs offer an easy-to-use online Portal for cultivators to apply for both Cannabis General Order coverage and a Cannabis Small Irrigation Use Registration (SIUR) water right, if needed. Visit the Water Boards Cannabis Cultivation Programs Portal at:
https://public2.waterboards.ca.gov/CGO

Additional information about the Cannabis General Order, Cannabis SIUR Program, and Portal can be found at: www.waterboards.ca.gov/cannabis

For questions about the Cannabis General Order, please contact the Central Valley Water Board's Cannabis Permitting and Compliance Unit at: centralvalleysacramento@waterboards.ca.gov or (916) 464-3291. For questions about Water Rights (Cannabis SIUR), please contact the State Water Board's Division of Water Rights at: CannabisReg@waterboards.ca.gov or (916) 319-9427.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ. For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at:
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project

will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter Minkel

Peter Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

CALIFORNIA ENVIRONMENTAL QUALITY ACT
ENVIRONMENTAL CHECKLIST FORM
INITIAL STUDY *(IS 2022-02)*

1. **Project Title:** Ogulin Hills Holdings, LLC **-** Commercial Cannabis Operation
2. **Permit Numbers:**
   - ***CUP 2022-04 (Manufacturing)***
   - ***CUP 2022-05 (Distribution)***
   - ***CUP 2022-06 (Retail Delivery)***

3. **Lead Agency Name/Address:** City of Clearlake 14050 Olympic Drive
   Clearlake, CA 95422

4. **Contact Person:** Mark Roberts – Senior Planner
   Phone: (707) 994-8201
   Email: mroberts@clearlake.ca.us

5. **Project Location(s):** 2160 Ogulin Canyon Road, Clearlake, CA 95422

6. **Assessor Parcel Number (APN):** 010-044-21

7. **Project Sponsor's Name/Address:** Brian Pensack, Garrett Burdick, Kim Gardner
   37 Lindaro Street, Suite 201, San Rafael, CA 94901

8. **Property Owner(s) Name/Address:** Same as Sponsor (see response to no. 7 above)

9. **Zoning Designations:** "I" Industrial, and "CB" Commercial Cannabis

10. **General Plan Designation:** Industrial

11. **Supervisor District:** District 2

12. **Average Cross Slope:** Less than 15% (excluding Burns Valley Creek)

13. **Earthquake Fault Zone**: Not within a fault zone

14. **Dam Failure Inundation Area**: Not within a Dam Failure Inundation Zone

15. **Flood Zone**: A portion of the parcel is located within flood zone AE of Burns Valley Creek.

16. **Waste Management**: Onsite waste management system

17. Water Access: Onsite well system

18. Fire Department: Lake County Fire Protection District

19. Description of Project: The proposed project includes development of industrial style structures to be used for cannabis related facilities including remodeling of an existing 960 square foot metal building and development of a new 5,000 square foot building and 8 parking spaces. Specific project uses are to include:

- *Cannabis Manufacturing (Non Volatile)*
- *Cannabis Retail Delivery and Distribution*
- *Cannabis Processing*

The project's processing, manufacturing, and distribution components will include various activities related to nonvolatile extraction of cannabis essential oils, processing and storage of cannabis extracts and plant materials including packaging of cannabis for sale, packaging and labeling of cannabis products, storage, and distribution of cannabis products, and related activities. No cultivation operations will occur.

The project operational days/hours during the harvest season will be - Monday through Saturday from 6 am to 8 pm and during non-harvest seasons - Monday through Saturday from 7 am to 6 pm.

The processing/storage and distribution building and retail delivery and office area will be situated about 150' south of the road, in the center of the parcel.

The project buildings are to be engineered metal structures. Preliminary floor plans indicate that the manufacturing and processing building will include; an intake area; processing and manufacturing areas; packaging areas; restrooms and offices; employee break room; shipping and receiving area; numerous storage areas; intake and distribution areas; and related activities. Rollup doors will provide entry into secure parking areas for loading and unloading.

The project site is accessed by a new driveway that will lead into the 8-car parking lot. ADA accessible parking will be developed near the office. Security fencing and numerous digital security cameras will be placed around the perimeter and at strategic locations in the parking lot.

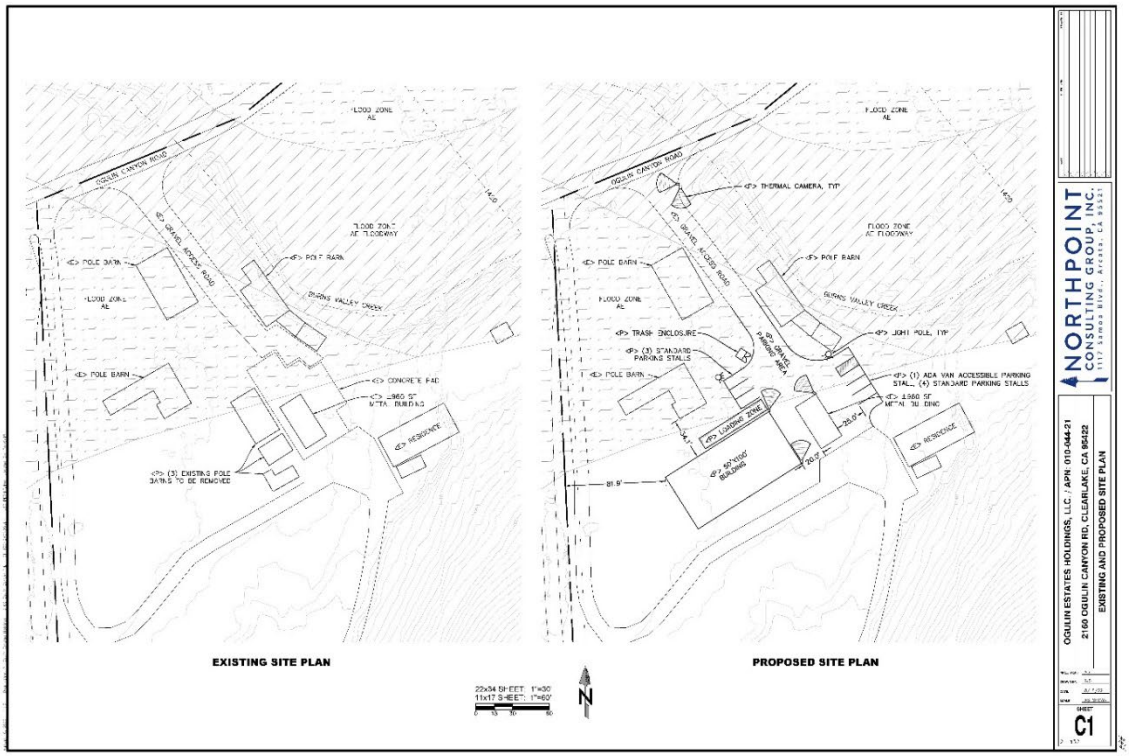


Figure 1 Project Site Plan (Refer to Attachment B for full plans)

20. Environmental Setting: The project site is approximately +/- 9.56 acres on the south side of Ogulin Canyon Road, approximately 0.46 mi east of State Route 53. The site is currently developed with a manufactured house and several former animal shelter kennels, pieces of equipment and related improvements that will be removed prior to development of this proposed project. The parcel occupies a relatively flat topography from 1,418 (mean sea level) at the entrance on Ogulin Canyon Road to 1,513 feet msl at the southeast corner. Drainage from the surrounding slopes is to Burns Valley Creek which is drains southwest to Clear Lake. Burns Valley Creek is an intermittent drainage, that flows east to west along Ogulin Canyon Road. The waterway occurs on the south side of Ogulin Canyon Road from the location of the proposed buildings and then crosses to the north side of the road just west of the driveway.

21.Surrounding Land Uses and Setting *(briefly describe the project's surroundings*):

- The parcels to the **North** across Ogulin Canyon Road have a land use designation of "Industrial" and are currently undeveloped.
- The parcels to the **South and West** have a land use designation of "Industrial" and/or "Rural Residential" and are developed with commercial/industrial or residential uses.
- The parcels to the **East** of the project site are located within the County of Lake jurisdiction and are undeveloped.

22. Other Public Agencies Whose Approval is Required: **Local Agencies**: Preliminary project plans for this project were transmitted for public agency comment a least 30 days prior to the release of this

initial study. Formal comments received from agencies have been incorporated into this initial study. Specific project approvals/permits will be City of Clearlake - Community Development (Planning, Building, Public Works); Clearlake Police Department, Lake County Fire Protection, Lake County Department of Environmental Health, Lake County Air Quality Management District, Lake County Special Districts, Local Tribal Organizations and the California Department of Cannabis Control.

23. **Federal and State Agencies:** Central Valley Regional Water Quality Control Board, CA Department of Fish and Wildlife, Cal-cannabis, Department of Public Health, California Department of Transportation (Caltrans); California Department of Food and Agriculture (CDFA); California Department of Pesticides Regulations, California Bureau of Cannabis Control and California Department of Consumer Affairs.

24. **NATIVE AMERICAN CONSULTATION:**

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) section 21080.3.1? ☒ **Yes** ☐ No

If yes, ensure that consultation and heritage resource confidentiality follow PRC sections 21080.3.1 and 21080.3.2 and California Government Code 65352.4

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

- **Response:** Notification of the project was sent to local tribes for compliance with "AB 52" Notification, which allows interested Tribes to request tribal consultation within 30 days of receipt of notice. The Community Development Department did not receive an AB 52 Tribal Consultation for this project, nor did we receive controversial comments.

25. **Impact Categories defined by CEQA:** The following documents are referenced information sources and are incorporated by reference into this document and are available for review upon request of the Community Development Department if they have not already been incorporated by reference into this report:

- City of Clearlake General Plan
- City of Clearlake Zoning Code/Municipal Code(s)
- City of Clearlake Police Department
- Use Permit Application Packet and Supplemental Materials
- Existing & Proposed Site Plans/Architectural Plans
- California Department of Transportation: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm
- U.S.D.A. Lake County Soil Survey
- Important Farmland Map https://maps.conservation.ca.gov/agriculture/

- Lake County Serpentine Soil Mapping
- California Natural Diversity Database (https://www.wildlife.ca.gov/Data/CNDDB)
- U.S. Fish and Wildlife Service National Wetlands Inventory
- U.S.G.S. Geologic Map and Structure Sections of the Clear Lake Volcanic, Northern California, Miscellaneous Investigation Series, 1995
- Official Alquist-Priolo Earthquake Fault Zone maps for Lake County
- Landslide Hazards in the Eastern Clear Lake Area, Lake County, California, Landslide Hazard Identification Map No. 16, California Department of Conservation, Division of Mines and Geology, DMG Open –File Report 89-27, 1990
- Lake County Watershed Protection District Lake County Groundwater Management Plan - March 31, 2006
- Lake County Health Services Department
- Lake County Assessor/Recorders Office
- Lake County Special District Department
- Lake County Water Resource Department
- Clearlake Waste Solutions
- Local Water District (i.e Golden State Water; Highland Water; Konocti Water)
- Lake County Air Quality Management District (LAQMD)
- Hazardous Waste and Substances Sites List: www.envirostor.dtsc.ca.gov/public
- California Department of Forestry and Fire Protection - Fire Hazard Mapping
- Lake County Fire Protection District
- National Pollution Discharge Elimination System (NPDES)
- Central Valley Regional Water Quality Control Board
- State Water Resources Control Board
- FEMA Flood Hazard Maps
- 2010 Lake County Regional Transportation Plan, Dow & Associates, October 2010
- Cal Recycle Solid Waste Information System http://www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx
- Cal Cannabis (via Dept. of Food and Agriculture)
- California Water Resources Control Board California Department of Fish & Wildlife (CDFW
- California Department of Pesticides Regulations
- California Department of Public Health
- California Bureau of Cannabis Control
- California Department of Consumer Affairs
- Written comments received from public agencies
- PG&E
- Site visit

Figure 2 – City Vicinity Map

Figure 3 - USGS Map

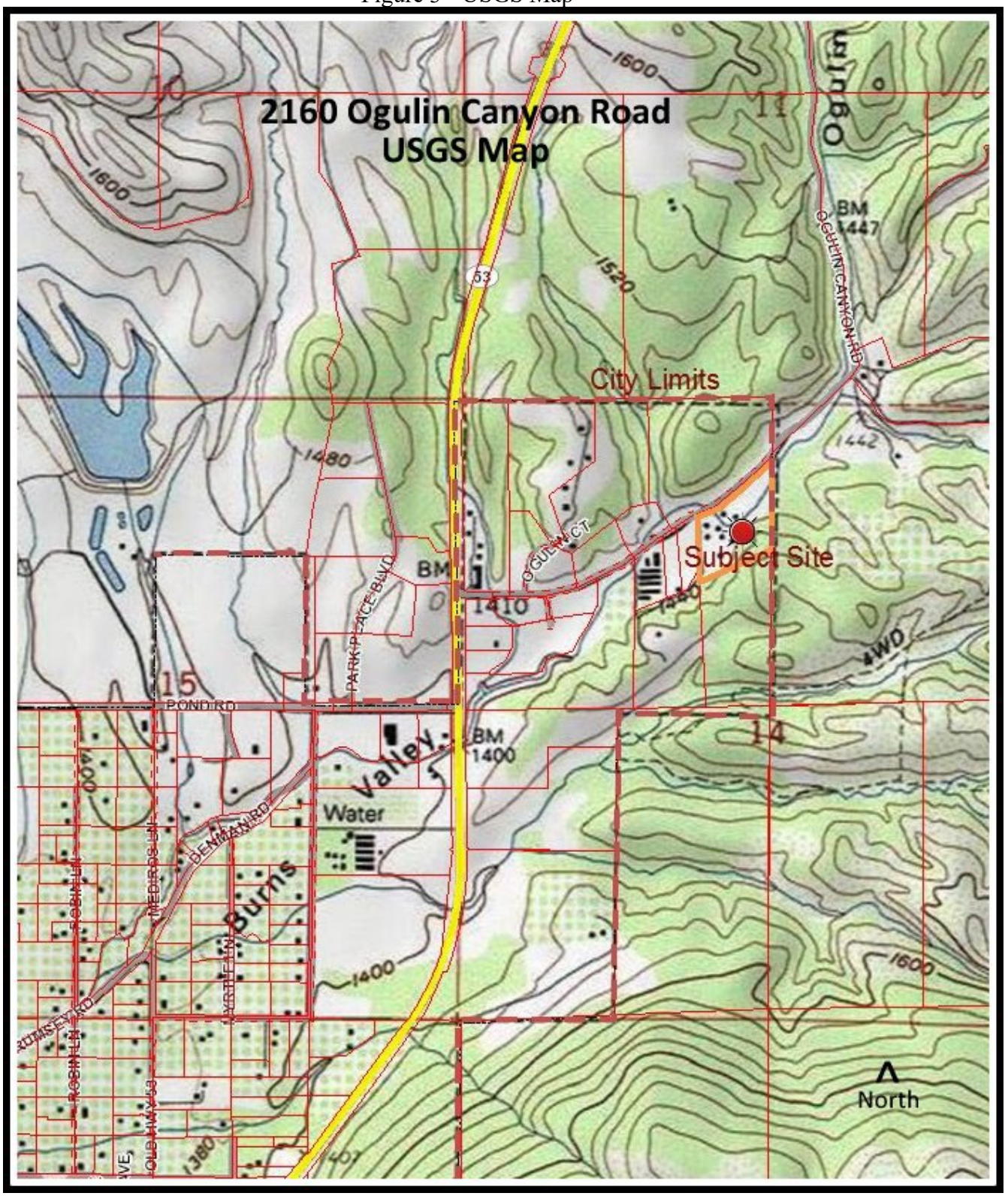


Figure 4 – Aerial/Location Map

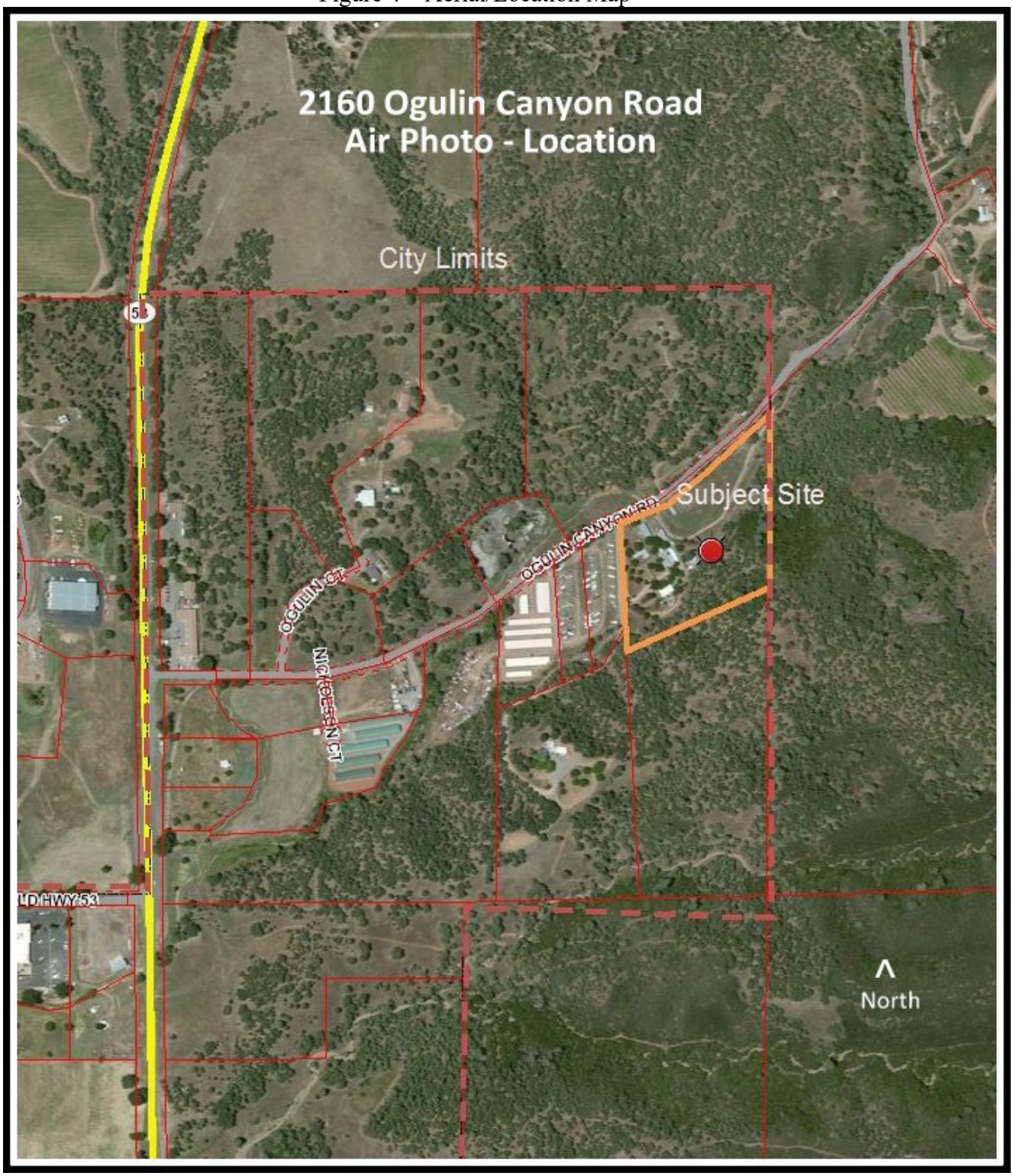
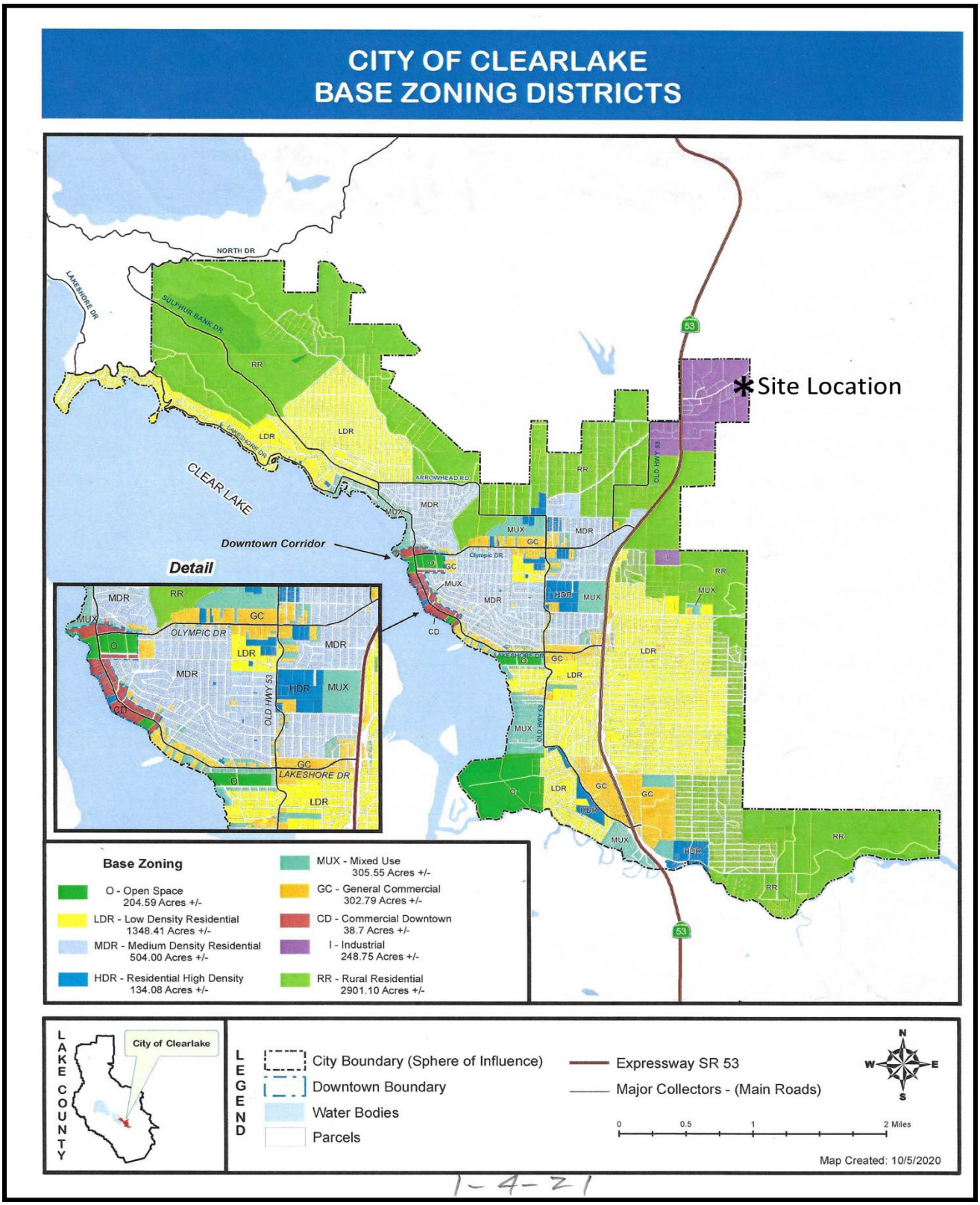


Figure 5 – Base Zoning ***Districts***



SITE PHOTOS

26. Initial Study Attachment

- Attachment A – Application Packet/Operational Plan
- Attachment B – Proposed Grading and Site Plans
- Attachment C – Biological Assessment/Report
- Attachment D – Agency Comments
- Attachment E -Water Availability Report
- Attachment F - Traffic Impact Report
- Attachment G – Technical Memorandum – Ground Water Hydrology + Addendum No. 1
- Attachment H Mitigation Monitoring Program

Environmental Factors Effected: The environmental sections checked below would be potentially affected by this project in an adverse manner, including at least one environmental issue/significance criteria that is "potentially significant impacts" as indicated by the analysis in the following evaluation of environmental impacts.

☒	**Aesthetics**	☐	Greenhouse Gas Emissions	☐	Public Services
☐	Agriculture & Forestry Resources	☒	**Hazards & Hazardous Materials**	☐	Recreation
☒	**Air Quality**	☒	**Hydrology / Water Quality**	☐	Transportation
☒	**Biological Resources**	☐	Land Use / Planning	☒	**Tribal Cultural Resources**
☒	**Cultural Resources**	☐	Mineral Resources	☐	Utilities / Service Systems
☐	Energy	☒	**Noise & Vibration**	☐	Wildfire
☒	**Geology / Soils**	☐	Population / Housing	☒	**Mandatory Findings of Significance**

DETERMINATION: (To be completed by the lead Agency)
On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ **I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.**

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Prepared By: Mark Roberts **Title: Senior Planner**

Signature: **Date:**

Alan Flora – City Manager
City of Clearlake, California

SECTION 1 - EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, and then the checklist answers must indicate whether the impact is potentially significant, less than significant

with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

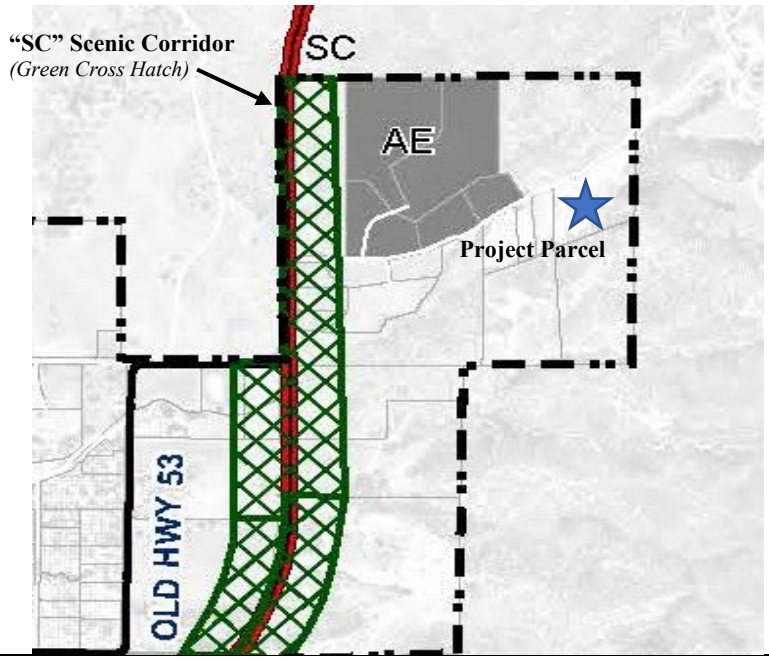
8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance

IMACT CATEGORIES KEY:

- **1 = Potentially Significant Impact**
- **2 = Less Than Significant with Mitigation Incorporation**
- **3 = Analyzed in Prior EIR**
- **4 = Substantially Mitigated by Uniformly Applicable Development Policies/Standards**
- **5 = Less Than Significant Impact**
- **6 = No Impact**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
SECTION I. AESTHETICS *Except as provided in Public Resources Code Section 21099, would the project:*							
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☐	☒	☐	The project site is in the outskirts of the City of Clearlake (City), in Lake County (County), CA and is not located within a known scenic vista/corridor. The nearest scenic vista/corridor is along Highway 53, which is greater than 1,500 feet away from the project site. All development would occur greater than 50 feet from the front property line (along Ogulin Canyon Road). **Therefore, then project will not have a substantial adverse effect on a scenic vista that is visible from a city scenic corridor. Less than significant Impact.** 
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☐	☒	☐	The project is not located within a known scenic vista/corridor and will not substantially damage scenic resources that is visible from a City Corridor, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. All development will occur greater than 50 feet from the property line (along Olguin Canyon Road) will not require the removal of trees and/or rock outcroppings or historic structures. **Less than significant Impact.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable General Plan policies or zoning regulations governing scenic quality.	☐	☐	☐	☐	☒	☐	The project will not substantially degrade the existing visual character or quality of public views of the site and its surroundings. All lighting will be directed downwards and adhere to all Federal, State and local agency requirements. Additionally, the project will not conflict with applicable any General Plan policies or zoning regulations governing scenic quality. The project is not located within a scenic vista/corridor. A cannabis operation is an allowable use upon securing a use permit pursuant to the City of Clearlake Municipal Code. **Less than significant impact**
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐	☐	☐	The commercial cannabis operation will occur within enclosed structures with minimal lighting used during evening/nighttime hours. All lighting will be directed downwards and shielded and adhere to the City's Lighting Design Standards. including all dark-sky requirements. **Therefore, to ensure that impacts related to the Aesthetics are minimized, following mitigation measures have been implemented.** **Mitigation Measure:** **AES-1 All outdoor lighting shall be directed downwards and shielded onto the project site and not onto adjacent properties. All lighting shall comply the City of Clearlake Lighting Design Standards.**
SECTION II. AGRICULTURE AND FORESTRY RESOURCES *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest protocols adopted by the California Air Resources Board.* *Would the project:*							
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐	☐	☒	The project parcel is categorized as *"Grazing Land"*. Grazing lands is a collective term used by the USDA-Natural Resources Conservation Service (NRCS) for rangeland, pastureland, grazed forestland, native and naturalized pasture, hay land, and grazed cropland. Although grazing is generally a predominant use on grazing lands, the term is also applied independently of any actual use for grazing. Grazing land is also described as land used primarily for production of forage plants maintained or manipulated primarily through grazing management. However, the commercial cannabis operation is an allowable use upon securing a Use Permit pursuant to the City of Clearlake Municipal Code. **Therefore, the commercial cannabis operation will not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring. No Impact.**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐	☐	☒	The project site is zoned "I" Industrial, and "CB" Cannabis Commercial. A commercial cannabis operation will not conflict with the existing zoning destinations for agricultural use(s) and/or a Williamson Act Contract. Additionally, a commercial cannabis operation is an allowable use within the above Zoning Designations upon securing a Use Permit Pursuant to the City of Clearlake's Municipal Code(s). **No Impact.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☐	☐	☒	The project will not conflict with existing zoning for, or cause the rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). Additionally, a commercial cannabis operation is an allowable use with the I" Industrial, and "CB" Commercial Zoning upon securing a Use Permit Pursuant to the City of Clearlake's Municipal Code(s). **No Impact**
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☐	☐	☒	The project will not result in the loss forest land or conversion of forest land to non-forest use. **No Impact**
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.	☐	☐	☐	☐	☐	☒	The project will not involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural uses or the conversion of forest land to non-forest uses. a commercial cannabis operation is an allowable use with the I" Industrial, and "CB" Commercial Zoning upon securing a Use Permit Pursuant to the City of Clearlake's Municipal Code(s). **No Impact**
SECTION III. AIR QUALITY *Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.* *Would the project:*							
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐	☐	☐	The project has some potential to result in short- and long-term air quality impacts and other particulate matter, as well as exhaust emissions generated by earthmoving activities from site preparation, construction and during routine operations. Construction emissions are caused by onsite or offsite activities. Onsite emissions principally consist of exhaust emissions from construction equipment, motor vehicle operations, and fugitive dust from disturbed soil. The proposed Air Quality Plan indicates how the applicant Intends to minimize these Impacts. All fugitive dust (including vehicular) will be controlled by wetting soils with a mobile water tank and hoses, or by delaying ground disturbing activities until site conditions are not windy, and by eliminating soil stockpiles. Construction of the site will be minimal and some minor site improvements will be necessary but the amount of earth that needs to be moved is not significant enough to trigger a grading permit. According to the Air Quality Section of the "Project Plan"- prior to operation, a member of the staff will be assigned to handle all odor complaints. These individual(s) are responsible for responding to odor complaints 24 hours per day/seven (7) days a week, including holidays. All property owners and residents within a 1,000-foot radius of the cannabis facility shall be provided with the contact information of the individual(s) responsible for responding to the odor complaints. The operation will also develop internal policies and procedures describing the actions to be taken when an odor complaint is received. When an odor complaint is received, it will be forwarded to the manager responsible for odor control. The complaint will be logged, including the time and type of complaint, the location of the odor reception, and the contact information of the person

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							submitting the complaint. The incident will be investigated, and the concern identified. The manager will visit the site or facility in question and determine any deficiencies in the odor control system (where applicable) and identify remedies. The manager will prepare a written response and send it by certified mail to the person who made the complaint. The correspondence should acknowledge the complaint, describe the incident, and identify what remedial actions were taken. Section 18-43.060 of the Zoning Code indicates that all commercial cannabis operations to provide and maintain an odor control plan that requires that odors of cannabis cannot be readily detected from outside of the structure in which the permitted premises are located. The proposed odor control plan seems to acknowledge that odors could be detected outside the structure without significant enhancements, such as carbon filtering. A traffic study conducted by W-Trans, dated September 21, 2021 (Attachment F) indicates that this project would result in an increase in in traffic. The Study bases traffic impact assumptions on the number of employees during operation. In this case the project would operate at maximum capacity of eight employees with an increase of approximately 25 daily vehicle trips with a peak hour increase of about 4 trips. . This study also references three other cannabis projects in this area cumulatively increasing daily trips to 259, with a peak hour of 44. The City's 2040 General Plan (adopted in 2017) references this area as the Ogulin Canyon Industrial Center as one of several community growth areas. As such, traffic impacts from anticipated growth, including the Ogulin Canyon Industrial Center, has been reviewed for cumulative impacts. The proposed project has similar characteristics as those anticipated in the General Plan. Cumulatively with project operations, the project traffic generation rates, is not expected to result in a significant adverse air quality impact. **To ensure impacts related to the Air Quality are minimized, the following mitigation measures have been implemented.** **<u>Mitigation measures:</u>** **AIR 1: Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other methods approved by the Lake County Air Quality Management District. Prior to initiating soil removing activities for construction purposes, the applicant shall pre-wet affected areas with at least 0.5 gallons of water per square yard of ground area to control dust.** **AIR 2: Driveways, access roads and parking areas shall be surfaced in a manner so as to minimize dust. The applicant shall obtain all necessary encroachment permits for any work within the right-of-way. All improvement shall adhere to all applicable federal, State and local agency requirements.** **AIR 3: Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Lake County Air Quality Management District and the Lake County Fire Protection District.** **AIR-4. During construction activities, the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site.** **AIR-5. Grading permits shall be secured for any applicable activity from the Community Development Department, Building Division. Applicable activities shall adhere to all grading permit conditions, including Best Management Practices. All areas disturbed by grading shall be either surfaced in manner to minimize dust, landscaped or hydro seeded. All BMPs shall be routinely inspected and maintained for lifer of the project.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							AIR-6 All refuse generated by the facility shall be stored in approved disposal/storage containers, and appropriately covered. Removal of waste shall be on a weekly basis so as to avoid excess waste. All trash receptacles/containers shall remain covered at all times to prevent fugitive odors and rodent infestation. An odor control plan shall be submitted for review and approval by the City In accordance with the Zoning Code. Odor control shall be maintained to an acceptable level at all times. **AIR-7 An odor control plan shall be submitted for review and approval by the City that complies with the City's Zoning Code. Odor control shall be maintained at all times so that odor from cannabis operations on the site will not be detected outside structures. This plan shall include enhanced carbon filtering to ensure compliance with the Code.** **AIR-8 Any demolition or renovation is subject to the Federal National Emissions Standard for Hazardous Air Pollutants (NESHAP) for asbestos in buildings requires asbestos inspections by a Certified Asbestos Consultant for all major renovations and all demolition. An Asbestos Notification Form with the Asbestos inspection report must be submitted to the district at least 14 days prior to beginning any demolition work. The applicant must contact the district for more details and proper approvals. Regardless of asbestos content or reporting requirements all demolition and renovation activities should use adequate water/ amended water to prevent dust generation and nuisance conditions.** **AIR-9 Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls.** **AIR-10 If construction or site activities are conducted within Serpentine soils, a Serpentine Control Plan may be required. Any parcel with Serpentine soils must obtain proper approvals from LCAQMD prior to beginning any construction activities. Contact LCAQMD for more details.** **AIR-11. All engines must notify LCAQMD prior to beginning construction activities and prior to engine Use. Mobile diesel equipment used for construction and/or maintenance must be in compliance with State registration requirements. All equipment units must meet Federal, State and local requirements. All equipment units must meet RICE NESHAP/ NSPS requirements including proper maintenance to minimize airborne emissions and proper record-keeping of all activities, all units must meet the State Air Toxic Control Measures for CI engines and must meet local regulations.** **AIR-12. Site development, vegetation disposal, and site operation shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation be chipped and spread for ground cover and erosion control. Burning of debris/construction material is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal.** **AIR-13. Significant dust may be generated from increase vehicle traffic if driveways and parking areas are not adequately surfaced. Surfacing standards should be included as a requirement in the use permit to minimize dust impacts to the public, visitors, and road traffic. At a minimum, the district recommends chip**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							seal as a temporary measure for primary access roads and parking. Paving with asphaltic concrete is preferred and should be required for long term occupancy. All areas subject to semi-truck / trailer traffic should require asphaltic concrete paving or equivalent to prevent fugitive dust generation. Gravel surfacing may be adequate for low use driveways and overflow parking areas; however, gravel surfaces require more maintenance to achieve dust control, and permit conditions should require regular palliative treatment if gravel is utilized. White rock is not suitable for surfacing (and should be prohibited in the permit) because of its tendency to break down and create excessive dust. Grading and re-graveling roads should utilizing water trucks, if necessary, reduce travel times through efficient time management and consolidating solid waste removal/supply deliveries, and speed limits.
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐	☐	☐	**See Response to Section III(a). Therefore, all potential impacts have been reduced to less than Significant Impacts with the incorporated Mitigation Measures AIR-1 through AIR-13.**
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐	☐	☐	**See Response to Section III(a). Therefore, all potential impacts have been reduced to less than Significant Impacts with the incorporated Mitigation Measures AIR-1 through AIR-13.**
d) Result in other emissions that create objectionable odors adversely affecting a substantial number of people?	☐	☒	☐	☐	☐	☐	**See Response to Section III(a). Therefore, all potential impacts have been reduced to less than Significant Impacts with the incorporated Mitigation Measures AIR-1 through AIR-13.**
SECTION IV. BIOLOGICAL RESOURCES *Would the project:*							
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	☐	☒	☐	☐	☐	☐	A Biological Resource Assessment with Botanical Survey was prepared by Lawrence Ray, Ecological Consultant, dated June 25, 2021. The report includes analyses and surveys for sensitive plants and wildlife potentially occurring in the vicinity: (See Attachment C) Sensitive species A total of 61 native and introduced plant taxa were identified within the survey areas during the in-season botanical survey. The term sensitive includes species having state or federal regulatory status, included on Lists 1B through 4 by the California Native Plant Society, or otherwise listed in the California Natural Diversity Database. A total of 15 sensitive wildlife species were assessed for potential occurrence at the site because of inclusion in the CNDDB database for the quadrangle and the CWHR database. Based on the habitat assessment, the following special status species have a potential to be present in their sensitive state: Obscure bumble bee, Foothill yellow legged frog; Western Pond turtle; White- tailed kite; Northern harrier; Tricolored blackbird; Grasshopper sparrow; Townsend's big-eared bat; Pallid bat; American badger; Pacific fisher; North American porcupine. Wetland Determination The report notes that a small riparian area is present on the subject parcel. Since Burns Valley Creek travels through the site and the creek will be impacted by the project, such as erosion, sedimentation, changes in drainage patterns. Clearances will need to be

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							obtained from the California Department of Fish & Wildlife that may include a Streambed Alteration Permit. This permit is expected to include a number of requirements to mitigate biological impacts to the creek to a non-significant level. **To ensure impacts related to the Biological Resources are reduced to a level of non-significance, the following mitigation measures have been implemented.** **<u>Mitigation Measures (from Biological Report):</u>** **BIO -1. Prior to development, including any site disturbance, a protocol-level botanical survey shall be completed within the location defined as being feasible for project activities to occur within this Report. The survey shall follow procedures recommended by CDFW and in accordance with the guidelines established by CNPS, from the document "*Protocols for Surveying and Evaluating Impacts to Specie Status Native Plant Populations and Sensitive Natural Communities".*** **BIO-2. If project construction occurs between September 1 and January 31, nesting bird survey shall be conducted by a qualified biologist. Additional mitigation measures recommended in the survey report shall be implemented prior to or curing project development to avoid disturbance to migratory nesting birds.** **BIO-3. Prior to any ground disturbance, the applicant shall conduct a site inspection for Burrowing Owls Presence within the project area. If Burrow Owls are observed, a pre-construction surveys shall be completed by a qualified biologist fourteen (14) days prior to site development. The survey shall be conducted to determine if the project area has active dens and determine if avoidance of these active dens can occur. If active dens are determined to be present, owl relocation shall occur to other onsite suitable habitat prior to development.** **BIO-4. If additional activities are proposed that may result in take of a listed species, agency personnel from CDFW and SFWS shall further analyze the potential impacts and provide technical assistance for any listed species. If required, guidelines for these reconnaissance surveys should be followed in accordance to the CDFW Survey and Monitoring Protocols and Guidelines, which can be located here:** https://www.wildlife.ca.gov/conservation/survey-protocols. **BIO-5. Prior to securing development permits from the City and prior to conducting any site disturbance, clearances shall be obtained as required for work in or near Burns Valley Creek, from the California Department of Fish and Wildlife; such as a Streambed Alteration Permit. Verification of this clearance shall be submitted to the City.** **BIO-6. The use of deer fencing shall be restricted to the perimeters of the proposed gardens. No deer fencing or other obstacles to wildlife passage shall be installed that will restrict wildlife movement.**
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐	☐	☐	The Biological Assessment prepared for the project notes that a small riparian area. Since Burns Valley Creek travels through the site and the creek may be impacted by the project, clearances shall be obtained from the California Department of Fish & Wildlife that may include a Streambed Alteration Permit. **Less than significant with Mitigation proposed.** **Mitigation Measure BIO-5 requires the securing proper permits prior to any disturbance within the creek channel.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
c) Have a substantial adverse effect on state or federally protected wetlands (including, not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☐	☒	☐	According to the Biological Resource Assessment with Botanical Survey prepared by Lawrence Ray, Ecological Consultant (June 2021), there are no known wetlands of significance on the site**.** However, since improvements are being constructed within the creek wetlands located down-stream will be impacted. **The project will include mitigation to wetland through implementation of Mitigation Measure BIO-5.**
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☐	☒	☐	According to the Biological Resource Assessment with Botanical Survey prepared by Lawrence Ray, Ecological Consultant, the project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. However, since improvements are being constructed within the creek wetlands located down-stream will be impacted. **The project will include mitigation to wetland through implementation of Mitigation Measure BIO-5.**
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☐	☒	☐	The project will have minimal to no conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. However, the project may require the removal of a small cluster of grasses and/or vegetation/trees. Prior to tree removal, the applicant shall obtain a Tree Removal Permit from the City of Clearlake and if Oak Trees are to be removed, they shall be replaced in accordance with Section 18-40.050 of the City of Clearlake Municipal Code. **Less than Significant Impact.**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☐	☒	☐	The project will not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. However, the project may require the removal of Oak Trees. **Less Than Significant Impact**
SECTION V. CULTURAL RESOURCES *Would the project:*							
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐	☐	☐	An evaluation of the potential for historical, cultural, tribal, or paleontological resources on the project site and in the vicinity of the project a cultural resource investigation was conducted by Gregory G White of Sub-Terra Resource Investigations dated April 12, 2021 (see Attachment D). This investigation included records searches, consultation with Native American tribes, and a site reconnaissance. According to the investigation, the Archaeological survey of the 9.56-acre parcel APN 10-044-021 was completed on April 9, 2021. One new archaeological site was observed near the center of the parcel in a cutbank on the north wall of deeply entrenched Burns Valley Creek. Eleven artifacts were identified, two obsidian flakes and one large basalt core, along with a dispersed scatter of eight fire-cracked cooking rocks. The archaeological deposit appears to be intact and significant and a standard DPR 523 site record was completed and will be filed with the Northwest Information Center of the California Historical Resources Information System (NWIC) with the report. Avoidance measures are recommended. As currently designed, all proposed construction activity is limited to the existing graded benches above the site to the south, and because the site is buried at a depth of 2.5–3.3 meters (8.2–10.8 feet) below surface

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							it is likely to exceed the depth of all proposed construction impacts including building and structure footings and underground utility installation. The site plan indicates some disturbance within the Burns Valley Creek channel for parking and access improvements. Prior to any work within the creek channel including rip-rap, hardscaping, or other channel modifications in the vicinity of the site, a professional archeologist should the retained to review the plans, evaluate potential impacts to the site, and should any be identified, make recommendations for protection or mitigation measures. **Therefore, to ensure impacts related to the Cultural Resources are avoided the following mitigation measures have been implemented.** **Mitigation Measures:** **CUL-1** During construction activities, if any subsurface archaeological remains are uncovered, all work shall be halted within 100 feet of the find and the owner shall utilize a qualified cultural resources consultant to identify and investigate any subsurface historic remains and define their physical extent and the nature of any built features or artifact-bearing deposits. **CUL-2** The cultural resource consultant's investigation shall proceed into formal evaluation to determine their eligibility for the California Register of Historical Resources. This shall include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the features and artifacts do not have sufficient data potential to be eligible for the California Register, additional work shall not be required. However, if data potential exists – e.g., there is an intact feature with a large and varied artifact assemblage – it will be necessary to mitigate any Project impacts. Mitigation of impacts might include avoidance of further disturbance to the resources through Project redesign. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during Project excavation or testing, curation may be an appropriate mitigation. This language of this mitigation measure shall be included on any future grading plans and utility plans approved by the City for the Project. **CUL-3** If human remains are encountered, no further disturbance shall occur within 100 feet of the vicinity of the find(s) until the Lake County Coroner has made the necessary findings as to origin (California Health and Safety Code Section 7050.5). Further, pursuant to California Public

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Lake County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the "most likely descendant(s)". The landowner shall engage in consultations with the most likely descendant (MLD). The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. **Additionally, Mitigation Measures BIO-5 and GEO-1 through GEO-3 ensure impacts related to the Cultural Resources are minimized, to Less than Significant Levels.**
b) Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?	☐	☒	☐	☐	☐	☐	**See Response to Section V(a): Less than Significant Impact with the incorporated mitigation measure CUL-1 through CUL-3.**
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	☐	☐	**See Response to Section V(a): Less than Significant Impact with the incorporated mitigation measure CUL-1 through CUL-3.**
SECTION VI. ENERGY *Would the project:*							
a) Consume energy resources in a wasteful, inefficient, or unnecessary amount during project construction and/or operation?	☐	☐	☐	☐	☒	☐	Pacific Gas & Electric Company (PG&E) is the electricity utility provider for Clearlake and Lake County. Approximately 39% of electricity provided by PG&E is sourced from renewable resources and 47% is sourced from non-renewable GHG-free resources (PG&E 2019). PG&E may offer programs through which consumers may purchase electricity from renewable sources. There is no natural gas available for communities within Lake County, The California Building Code (CBC) contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The CBC includes mandatory green building standards for residential and nonresidential structures, the most recent version of which are referred to as the 2019 Building Energy Efficiency Standards. These standards focus on four key areas: smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to the exterior and vice versa), residential and nonresidential ventilation requirements, and non-residential lighting requirements. The project's proposed 960 sq. foot building remodel and the new 5,000-square-foot structure would be subject to the CBC 2019 Building Energy Efficiency Standards. As such the project will not consume energy resources in a wasteful, inefficient, or unnecessary amount during project construction and/or operation. **Less than Significant Impact**
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☐	☐	☒	The proposed operations would not conflict with or obstruct an energy plan. The proposed use would adhere to all Federal, State and local agency requirements. **No Impact**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
SECTION VII. GEOLOGY AND SOILS *Would the project:*							
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?	☐	☐	☐	☐	☒	☐	i) Earthquake Faults There are no mapped earthquake faults on or adjacent to the subject site. ii-iii) Seismic Ground Shaking and Seismic–Related Ground Failure, including liquefaction. The mapping of the site's soil indicates that the soil is stable and not prone to liquefaction. iv) Landslides According to the Landslide Hazard Identification Map prepared by the California Department of Conservation, Division of Mines and Geology, the project parcel soil is considered "generally stable" and not located within and/or adjacent to an existing known "landslide area". Project design shall incorporate Best Management Practices (BMPs) to the maximum extent practicable to prevent or reduce discharge of all construction or post construction pollutants into the County storm drainage system. BMPs include scheduling of activities, erosion and sediment control, operation and maintenance procedures and other measures in accordance City of Clearlake Municipal Code(s). **Less Than Significant Impact**
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐	☐	☐	The project is not anticipated to result in substantial soil erosion or the loss of topsoil, The project was substantially revised to avoid significant grading on the site. The project engineer has estimated that the project will disturb less than 50 yards of soil. The plan shall include disclosure of the location of where the export material will be relocated to and how that will be stored or used. The project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system. All grading measure shall adhere to all Federal, State and local agency requirements. The project shall adhere to all Federal, State, and local agencies requirements. **To ensure impacts related to the Geology and Soils are mitigated to a level of non-significance measures are proposed as follows:** **Mitigation Measures:** **GEO-1: Prior to any ground disturbance and/or operation, the applicant shall submit Erosion Control and Sediment Plans to the City for review and approval. The project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system.** **GEO-2: Prior to any ground disturbance, (if applicable), the applicant shall submit and obtain a Grading Permit from the City in accordance with the City of Clearlake Municipal code(s). Plans for grading shall include disclosure of location and method of treatment/storage of exported materials.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							GEO-3: The applicant shall monitor the site during the rainy season including post-installation, application of BMPs, erosion control maintenance, and other improvements as needed. Said measures shall be maintained for life of the project and replace/repaired when necessary.
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☐	☒	☐	According to the soil survey of Lake County, prepared by the U.S.D.A., the soil at the site is considered "generally stable" and there is little to no potential for landslide, subsidence, debris flows, liquefaction, or collapse. The project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system. **Less Than Significant Impact**
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☐	☒	☐	According to the soil survey of Lake County, California prepared by the U.S.D.A, the soils discussed above in Section has a shrink-swell potential of low to high. Therefore, the commercial cannabis operation will have minimal to no substantial direct or indirect risks to life or property. The applicant will adhere to all Federal, State and local agency requirements, including all requirements in the City of Clearlake's Municipal Code(s). **Less Than Significant Impact**
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☐	☒	☐	The project parcel is currently occupied by two residences and outbuildings. The project will remove these improvements and a new septic system will be developed to accommodate the new site operations. Comments from the Lake County Department of Environmental Health indicate that the existing septic system was originally designed for a single-family residence, but was then modified, presumably to accommodate the additional trailer dwelling on the site. The Department also cited that the system has a grey water element which leaks into the creek. The letter also indicates that the creek is being used as a disposal area for trash. Proposed development will result in removing these unsafe conditions. **Less Than Significant Impact**
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐	☐	☐	Disturbance of paleontological resources or unique geologic features is not anticipated, but mitigation measures are in place to assure that in the event any artifacts are found. **All potential impacts have been reduced to less than significant with the incorporated mitigation measures CUL-1 and CUL-5.**
SECTION VIII. GREENHOUSE GAS EMISSIONS *Would the project:*							
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☐	☒	☐	In general, greenhouse gas emissions can come from construction activities (operation of equipment) and from post-construction activities (routine construction/maintenance, vehicle trips, etc.). The operation would not generate a significant number of vehicle trips. The project parcels are located greater than five (5) miles away from Route 53 and are in a rural area where it is not uncommon for individual to drive greater than +/- 20 mile per trip. A traffic study conducted by W-Trans, dated September 21, 2021 (Attachment 3) indicates that this project would result in an increase in increased traffic. The Study bases traffic impact assumptions on the number of employees during operation. In this case the project would operate at maximum capacity of eight employees with an increase of approximately 25 daily vehicle trips with a peak hour increase of about 4 trips. This study also references three other cannabis projects in this area cumulatively increasing daily trips to 259, with a peak hour of 44. The City's 2040 General Plan (adopted in 2017) references this area as the Ogulin Canyon Industrial Center as one of several community growth areas. As such, traffic impacts from anticipated growth, including the Ogulin Canyon Industrial Center, has been reviewed for cumulative impacts. The proposed project has similar characteristics as those anticipated in the General Plan. The anticipated vehicle trip generation and project operations are not

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							expected to generate significant levels of greenhouse gas emissions and would not degrade the air quality **Less Than Significant Impact**
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☐	☒	☐	This project will not conflict with any adopted plans or policies for the reduction of greenhouse gas emissions. The City of Clearlake is within an 'air attainment' basin. In accordance with the requirements of the Lake County Air Quality Management District, an air permit will be required as a condition of the use permit, prior to issuance of a building permit for the project. **Refer to response in Section VIII(a). Less Than Significant Impact**
SECTION IX. HAZARDS AND HAZARDOUS MATERIALS *Would the project:*							
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐	☐	☐	Materials associated with the operation, such as gasoline, diesel, carbon monoxide, pesticides, fertilizers and the equipment emissions may be considered hazardous if released into the environment. All hazards and hazardous materials will be stored in accordance to all Federal, State and local agency requirements. All routine construction materials and all materials associated with the proposed cultivation of commercial cannabis shall be transported and disposed of properly in accordance with all applicable Federal, State and local regulations. Chemicals Storage and Effluent: All chemicals stored and used at/by authorized personnel include but are not limited to fertilizers/nutrients, pesticides, and petroleum products (Agricultural Chemicals) and chemical sanitation products necessary to maintain a sterile and healthy work environment. All fertilizers/nutrients and pesticides, when not in use, will be stored in their manufacturer's original containers/packaging, undercover, and at least 100 feet from surface water bodies and will be stored in their designated storage area. Petroleum products will be stored under cover, in the State of California-approved containers with secondary containment and separate from pesticides and fertilizers within the existing on-site wooden garage. Sanitation products will be stored in their manufacturer's original containers/packaging within a secure cabinet inside the proposed Processing Facility. Spill containment and cleanup equipment will be maintained within the proposed Pesticides and Agricultural Chemicals Storage Area and the Processing Facility. No effluent is expected to be produced by the proposed cultivation operation. All required warning signs will be posted, and material safety data sheets (MSDS) will be kept in the area where pesticides are stored. Emergency contact information in the event of pesticide poisoning shall also be posted at the work site including the name, address, and telephone number of emergency medical care facilities. Change areas and decontamination rooms will be available off-site. Before making a pesticide application, operators will evaluate equipment, weather conditions, and the property to be treated and surrounding areas to determine the likelihood of substantial drift or harm to non-target crops, contamination, or the creation of a health hazard. In an event of a spill or leak, the contaminated soil will be stored, transported, and disposed of consistent with applicable local, state, and federal regulations. **To ensure impacts related to the Hazards and Hazardous Materials are reduced to a level of non-significance, the following mitigation measures that have been implemented.** **Mitigation Measures:** **HAZ-1: All hazardous waste shall not be disposed of on-site without review or permits from Environmental Health Department, the California Regional Water Control Board, and/or the Air Quality Board. Collected hazardous or toxic waste materials shall be recycled or disposed of through a registered waste hauler to an approved site legally authorized to accept such material.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							HAZ-2: The storage of potentially hazardous materials shall be located at least 100 feet from any existing water well. These materials shall not be allowed to leak into the ground or contaminate surface waters. Collected hazardous or toxic materials shall be recycled or disposed of through a registered waste hauler to an approved site legally authorized to accept such materials. **HAZ-3: Any spills of oils, fluids, fuel, concrete, or other hazardous construction material shall be immediately cleaned up. All equipment and materials shall be stored in the staging areas away from all known waterways.** **HAZ- 4: The storage of hazardous materials equals to or greater than fifty-five (55) gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas, then a Hazardous Materials Inventory Disclosure Statement/Business Plan shall be submitted and maintained in compliance with requirements of Lake County Environmental Health Division. Industrial waste shall not be disposed of on site without review or permit from Lake County Environmental Health Division or the California Regional Water Quality Control Board. The permit holder shall comply with petroleum fuel storage tank regulations if fuel is to be stored on site.** **HAZ - 5: All equipment shall be maintained and operated in a manner that minimizes any spill or leak of hazardous materials. Hazardous materials and contaminated soil shall be stored, transported, and disposed of consistent with applicable local, state, and federal regulations.** **HAZ - 6: All trash/refuge being stored within the Burns Valley Creek area shall be removed and disposed of properly. The creek shall not be used for trash storage/materials.** .
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐	☐	☐	The project will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. All chemicals, pesticides, fertilizer, and other materials associated with the operation shall adhere to all Federal, State, and local agency requirements. **See Response to Section IX(a): Less than Significant Impact with the incorporated mitigation measure HAZ -1 through HAZ-5.**
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☐	☐	☒	The proposed project is not located within one-quarter mile of an existing or proposed school. **No Impact**
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☐	☐	☒	The project site is not listed as a site containing hazardous materials in the databases maintained by the Environmental Protection Agency (EPA), California Department of Toxic Substance, and Control State Resources Water Control Board. **No Impact**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☐	☐	☒	The project is not located within two (2) miles of an airport and/or within an Airport Land Use Plan. **No Impact**
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐	☒	☐	The project would not impair or interfere with an adopted emergency response or evacuation plan. The project has been reviewed by the Lake County Department of Environmental Health, Lake County Special Districts, City of Clearlake Police Department, City of Clearlake's Community Development Department (Building, Public Works, Planning), and the Local Fire Protection District/CalFire for consistency with access and safety standards. The City of Clearlake did not receive any adverse comments. **Less Than Significant Impact**
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☐	☒	☐	The project will not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires as it is located in a *"Low to Moderate"* Fire Hazard Severity Zone and within the Lake County Fire Protection District. The project was circulated for review to various agencies, include but not limited to City Engineer, City of Clearlake Police Department, City of Clearlake Building Official/Inspection, Lake County Fire Protection District and the California Department of Transportation (Caltrans). During the project review, no adverse comments were received. The application shall adhere to all current Federal, State and local agency requirements, including all mitigation measures and conditions of approval imposed on such use. **Less Than Significant Impact**
SECTION X. HYDROLOGY AND WATER QUALITY *Would the project:*							
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☐	☒	☐	According to the Project Application material submitted by the applicant, the operation will be provided water through the existing onsite well located in the northern portion of the project parcel. The water then will be pumped from a well and stored in one (1) 25,000-gallon water storage tank. The project will include installation of several water storage tanks. All access roads and parking areas are/will be graveled to prevent the generation of fugitive dust, and vegetative ground cover will be preserved and/or re-established as soon as possible throughout the entire site to filter and infiltrate stormwater runoff from the access roads, parking areas, and the proposed cultivation operation. To control runoff, the operation will incorporate appropriate Best Management Practices (BMPs) consistent with City code and State Storm Water Drainage Regulations to the maximum extent practicable to prevent or reduce discharge of all construction or post-construction pollutants into the local storm drainage system. All grading measure shall adhere to all Federal, State, and local agency requirements. The proposed operation would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Additionally, the applicant shall adhere, obtain, and maintain all necessary federal, state and local agency permits**.** **The operation will not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Less Than Significant Impact**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☐	☒	☐	According to the Water Availability Report dated October 2021, the water for both proposed domestic and irrigation uses will be delivered from a new water well drilled in late September/early October, 2021. This system will use ground water pumped from the well. The well is approximately 300 feet deep and has a capacity of 100+ gallons per minute (see Water Availability report). The following information is from: Lake County Watershed Protection District (administered by Lake County Water Resources Department), Lake County Groundwater Management Plan - March 31, 2006 - page 2-24 to 2-27. The project site is in the Burns Valley Groundwater Basin. Burns Valley Basin is in the Shoreline Inventory Unit. The Franciscan Formation borders the Burns Valley Basin on the north, Clear Lake borders the basin on the west, and the Cache Formation borders the basin on the south and east. The district monitors one well in the Burns Valley Basin. The monitoring well indicates that groundwater levels fluctuate from 2 feet below ground surface in the spring to 10 feet below ground surface in the fall. The data indicates that water levels rose in the Burns Valley Basin in 1981-1983. No information on groundwater movement is available. DWR estimates the useable storage capacity to be 1,400-acre feet (DWR 1960). Average-year agricultural groundwater demand in the Burns Valley basin is approximately 14 acre-feet per year. There are 86 domestic wells and 13 irrigation wells in the Burns Valley Basin. Approximately 50 percent of domestic wells are shallower than 75 feet deep, and approximately 50 percent of irrigation wells are shallower than 250 feet deep. Under the original project,, a Groundwater Hydrology Technical Memorandum (TM) by Northpoint Consulting Group was prepared for the site dated March 7, 2022, addressing groundwater hydrology for the project. Since the project was considerably downsized, with the cultivation activity omitted, water use and the associated impact on water use, has been significantly reduced. Addendum to this report was prepared to reflect modified project description as of September 2022. (refer to Attachment 4). Conclusions of this report indicate that hydrologic impacts from the project would be negligible as follows: 1. The project no longer proposes cultivation or nursery activities; therefore, the proposed irrigation demand is reduced from an annual irrigation demand of approximately 194,000 gallons per year (gpy) to zero (0) gpy. 2. Due to the scaling back of the proposed project, the number of proposed employees is reduced from 35 to 7-8 employees; a count of 8 proposed employees is used herein. Water demand based on the number of employees is assumed to be equivalent to sanitary sewer generation for factories with shower facilities, which, according to the Lake County Rules and Regulations for On-Site Sewage Disposal, would be 35 gallons per day, per person. At 35 gallons per employee per day, the proposed project employee demand would be reduced from 1,225 gallons per day (gpd) to 280 gpd. Assuming the project would operate year-round, the annual demand would be reduced from 367,500 gpy to 102,200 gpy. 3. The total estimated water demand for the proposed project using the numbers provided herein would be reduced from 561,500 gpy (1.7 acre-feet per year) to 102,200 gpy (0.3 acre-feet per year). The daily demand would be reduced from 1,875 gpd (1.3 gpm) to 280 gpd (0.2 gpm). 4. The estimated annual recharge over the project's recharge area of 23.1 acres is 6.7 AF during an average year and 4.9 AF during a dry year.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							5. The annual water demand of the proposed project is approximately 0.3 AF per year. The demand represents only approximately 4% and 6% of the annual recharge during an average and dry year, respectively. Recharge in the Burns Valley Groundwater Basin is derived from rain that falls within the 12.5 square mile Burns Valley Watershed. The area used to estimate the recharge for the proposed project is only 0.3% of the Burns Valley Watershed that drains to and recharges the Burns Valley Groundwater Basin. The area used to estimate the recharge did not include the project parcel, which would provide additional recharge. Thus, the recharge estimate is a conservative (low) estimate of the available recharge over the entire recharge area. 6. The estimated storage capacity of the Burns Valley Groundwater Basin is 4,000 AF, with a usable storage capacity of 1,400 AF. According to DWR, groundwater in the Burns Valley Groundwater Basin is derived from rain that falls within the 12.5 square mile Burns Valley Watershed drainage area. The project's demand is only 0.02% of the usable storage capacity of the Burns Valley Groundwater Basin. 7. Prior use of the project parcel was as a Dog and Cat Boarding facility, including grooming and training. Water demand for this type of facilities can vary by animal, up to 10 gallons per animal per day, and total for the facility of up to 1,000 gallons per day. The proposed demand is likely less than the prior use. 8. Since project's well has sufficient yield to meet the project's demand (well capacity is 100 gpm; proposed demand is only 0.2 gpm); the project's demand is only 0.02% of the usable storage capacity of the Burns Valley Groundwater Basin; the proposed demand based on the scaled down project is less than what was used recently by the boarding and grooming business; and based on the findings of the prior Technical Memorandums on groundwater hydrology, the proposed project water use would have little to no cumulative impact on the surrounding area. **The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. Less Than Significant Impact**
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: i) result in substantial erosion or siltation on-site or off-site. ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. iii) create or contribute runoff water which	☐	☒	☐	☐	☐	☐	There will be modifications to the drainage pattern of Burns Valley Creek due to grading and introduction of parking improvements withing the Burns Valley Creek. These proposed improvements within the Burns Valley Creek area could impact and alter the existing drainage pattern of the site or the area, including the alteration of the course of a stream. The applicant will implement Best Management Practices (BMPs) in accordance with all applicable federal, State and local agency requirements, including the City of Clearlake's Municipal Code which may include the placement of straw, mulch, seeding, straw wattles, and silt fencing and planting of native vegetation on all disturbed areas to prevent erosion. These measures shall be maintained for life of the project. **Less Than Significant Impact with Mitigation Measures GEO-1 through GEO-3.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted run-off. or iv) impede or redirect flood flows?							
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☐	☒	☐	The project site is not located in an area of potential inundation by seiche or tsunami. A portion of the parcel is located within flood zone AE of Burns Valley Creek. As indicated on the site plan, (Figure 1) access and parking improvements are proposed within the floodway. Clearlake Municipal Code section 17-5.1 outlines standards for construction within flood hazard zones. Compliance with this chapter will reduce impacts to **less than significant.**
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☐	☒	☐	The project would not conflict with or obstruct any water quality or management plans. Additionally, to control runoff, the operation will incorporate appropriate Best Management Practices (BMPs) consistent with City code and State Storm Water Drainage Regulations to the maximum extent practicable to prevent or reduce discharge of all construction or post-construction pollutants into the local storm drainage system. All grading measure shall adhere to all Federal, State and local agency requirements. **Less than Significant.**
SECTION XI. LAND USE AND PLANNING *Would the project:*							
a) Physically divide an established community?	☐	☐	☐	☐	☐	☒	The project is in the outskirts of the city limits, and in close proximity to the County of Lake's Jurisdiction. The surrounding development includes but is not limited to commercial/industrial development and rural residential development. Therefore, the project will not physically divide an established community. Therefore, the project will not physically divide an established community. **No Impact**
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☐	☒	☐	The proposed project is consistent with the site's General Plan designation (Industrial) and zoning ("I" Industrial District); therefore, it would not require any amendments to the City's General Plan. Consistent with this land use designation, the project site is zoned Industrial, with a Cannabis Combining Zone. Therefore, this area is targeted for commercial cannabis use and development. The project is, however, be subject to a Use Permit, approved by the Planning Commission in accordance with the City of Clearlake Municipal Code. Upon issuance of the Use Permit and with the incorporated mitigation measures and conditions of approval *(including obtaining and maintaining all necessary Federal, State and local agency permits),* the project will not conflict with any land use plan or policy intended for avoiding or mitigating an environmental effect(s). Additionally, the California Department of Food & Agriculture (CDFA) is responsible for licensing and regulating cannabis cultivation and enforcements as defined in the Medicinal and Adult Use Cannabis Regulation and Safety Act (MAUCRSA), including regulations related to the cultivation of cannabis. The applicant is required to obtain a license(s) from the CDFA prior to legal cultivation occurring, including all additional Federal, State and local agency permits/license. The project is required to be licensed with the State Department of Cannabis Control (DCC) for cultivation, distribution, manufacturing and other cannabis-related activities. **Less Than Significant Impact.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
SECTION XII. MINERAL RESOURCES *Would the project:*							
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☐	☐	☒	The operation would not result is the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. **No Impact**
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☐	☐	☒	The operations would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. **No Impact**
SECTION XIII. NOISE & VIBRATIONS *Would the project:*							
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐	☐	☐	Short-term increases in ambient noise levels to uncomfortable levels may be expected during project development, and routine maintenance of the project parcels. There will be vehicles entering and exiting the project premises, however these noise levels are minimal as along Ogulin Canyon Road. The applicant shall adhere to all Federal, State and local agency requirements regarding noise standards. **Therefore, to ensure impacts related to the Noise are minimized, the following mitigation measures have been implemented.** **<u>Mitigation Measures:</u>** **NOI-1: All construction activities including engine warm-up shall be limited to weekdays and Saturday, between the hours of 7:00am and 7:00pm to minimize noise impacts on nearby residents.** **NOI-2: Permanent potential noise sources such as, generators used for power shall be designed and located to minimize noise impacts to surrounding properties.** **NOI-3: During construction noise levels shall not exceed 65 decibels within fifty (50) feet of any dwellings or transient accommodations between the hours of 7:00 AM and 6:00 PM. This threshold can be increased by the Building Inspector or City Engineer have approved an exception in accordance with Section 5-4.4(b)(1) of the City Code. An exception of up to 80 decibels may be approved within one hundred (100) feet from the source during daylight hours. Project is expected to result in less than significant impacts with regard to noise and vibration.**
b) Generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☐	☐	☐	☒	The project is not expected to create unusual ground borne vibration due to site development or operation. The low-level truck traffic would create a minimal amount of ground borne vibration. **No Impact**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐	☐	☒	The project is not located within an airport land use plan or within two (2) miles of a public airport. **No Impact**
SECTION XIV. POPULATION AND HOUSING *Would the project:*							
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☐	☐	☒	The project would increase employment in the area that might Induce some increased population growth, however, this growth would be negligible and not induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure. **No Impact**
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐	☒	☐	The project will result in removal of two manufactured homes and a trailer. Existing residents on the project site will need to relocate. However, this relocation is considered to have a negligible impact on housing displacement in the City. **No Impact**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
SECTION XV. PUBLIC SERVICES *Would the project:*							
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services? • *Fire* • *Police Protection* • *Schools* • *Parks* • *Other*	☐	☐	☐	☐	☒	☐	The project will not result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, and/or need for new or physically altered government facilities. The projected has been circulated for agency review, including but not limited to Lake County Fire Protection, City of Clearlake Police Department, Local School Districted and the City of Clearlake – Public Works Division. Conditions of Approval have been incorporated to ensure the project adhere to all applicable requirements of the above agencies. • *Fire Protection: The project parcel has adequate fire protection through the Lake County Fire Protection District and CA Department of Forestry and Fire Protection.* • *Police Protection: The project site is served police protection through the City of Clearlake Police Department, including the Lake County Sheriff's Office.* • *Schools: The project will not result in substantial adverse impact(s) on the local school district.* • *Parks: The project will not result in substantial adverse impact(s) on the local parks.* • *Other Public Facilities: The project is will not result in substantial adverse impacts on other public facilities* **Less Than Significant Impact**
SECTION XVI. RECREATION *Would the project:*							
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☐	☐	☒	The project will not increase the use of existing neighborhood and regional parks and/or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The project has been reviewed the City of Clearlake Public Works Department, Lake County Fire Protection District and the City of Clearlake Police Department and no adverse comments were received. **No Impact.**
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☐	☐	☒	This project does not include recreational facilities and/or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. The project has been reviewed the City of Clearlake Public Works Department, Lake County Fire Protection District and the City of Clearlake Police Department and no adverse comments were received. **No Impact.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
SECTION XVII. TRANSPORTATION *Would the project:*							
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☐	☐	☒	☐	The subject property is located on the south side of Ogulin Canyon Road approximately 2,000 feet east of its intersection with State Route 53. Access to the project site would be by a private driveway off of Ogulin Canyon Road. Ogulin Canyon Road is considered a local street and State Route 53 is considered an expressway in the City's General Plan. The project will not conflict with any program or policy addressing the City's circulation system. A traffic study conducted by W-Trans, dated September 21, 2021 (Attachment F) indicates that the daily volume for Ogulin Canyon Road is 220 vehicle trips to the west of the mini storage facility and 60 vehicle trips to the east. Roadways with volumes of 400 vehicles per day or less are considered "Very Low Volume Roadways" under criteria published by the American Association of State Highway and Transportation Officials (AASHTO). The traffic study also indicates that although there are no pedestrian, transit, or bicycle facilities in the vicinity of the project sites, the existing condition is acceptable given that the project sites are located in an automobile-oriented rural area without any expected demand for walking or transit and limited demand for bicycling. Pursuant to Ordinance Number 247-2020, the City of Clearlake added Article 3-8 to chapter III of the Municipal Code allowing the collection of traffic impacts fees. The development impact fee revenue will be collected and used to cover the cost of capital facilities and infrastructure required to serve new development and growth in the city. However, impact fee revenue cannot be used to cover the operation and maintenance costs of these or any other facilities and infrastructure. A Condition of Approval will be incorporated detailing the amount due per 1,000 square feet. **Less Than Significant Impact**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☐	☒	☐	The traffic study indicates that this project would result in an increase in traffic. The Study bases traffic impact assumptions on the number of employees during operation. In this case the project would operate at maximum capacity of seven employees with an increase of approximately 25 daily vehicle trips with a peak hour increase of about 4 trips. This study also references three other cannabis projects in this industrial area cumulatively increasing daily trips to 259, with a peak hour of 44. The study evaluated traffic impacts at the intersection of SR 53/Ogulin Canyon Road and indicates that cumulatively, these projects would not result in a significant adverse impact on this intersection and this intersection would continue operating acceptably with trips from each individual project added to existing volumes and all four projects would have an acceptable effect on operation of the surrounding roadway network. The study further indicates that the daily volume for Ogulin Canyon Road is 220 vehicle trips to the west of the mini storage facility and 60 vehicle trips to the east. Roadways with volumes of 400 vehicles per day or less are considered "Very Low Volume Roadways" under criteria published by the American Association of State Highway and Transportation Officials (AASHTO). Collectively, the four projects are anticipated to result in 122 daily trips during typical operation and 259 trips during harvest conditions. Assuming that harvest conditions will account for three months out of the year, the projects would result in an annual ADT volume of 156 daily trips so even with the addition of new project trips the entire section of Ogulin Canyon Road would still have a daily volume below 400 vehicle trips per day and the designation as a "very low volume" roadway would be retained. The City's 2040 General Plan (adopted in 2017) references this area as the Ogulin Canyon Industrial Center as one of several community growth areas. As such, traffic impacts from anticipated growth, including the Ogulin Canyon Industrial Center, has been reviewed for cumulative impacts. The proposed project has similar characteristics as those anticipated in the General Plan. Regarding CEQA Section 15064.3, Vehicles Miles Traveled (VMT), the traffic study indicates that the project, combined with the other three cannabis projects, would have a less than significant impacts on VMT under small project screening threshold based on OPR guidance. **Less Than Significant Impact**
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☐	☒	☐	The traffic study indicates that no collisions recorded at the intersection of SR 53/Ogulin Canyon Road or on Ogulin Canyon Road during the most recent five-year study period. The study concludes that there are no readily apparent safety issues in the Ogulin Canyon Industrial Center. The project is expected to increase vehicle travel on Ogulin Canyon Road and increase the use of the access driveway from the project site to the Street. However, the driveway intersection has clear sight visibility. So, this increase travel is not expected to result in any significant increased hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment. **Refer Response in Section XVII(a). Less Than Significant Impact.**
d) Result in inadequate emergency access?	☐	☐	☐	☐	☒	☐	As proposed, the project is not expected to result in any impact to providing adequate emergency access. However, during times that Burns Valley Creek is heavily inundated, access and emergency access to the site operations will be constrained. The project plans were circulated for review to City of Clearlake Police Department, Lake County Fire Protection District, California Department of Transportation, Lake County Fire Protection Districts, CA Department of Transportation (Caltrans) and the City of Clearlake Community Development Department (Public Works, Building and Planning. No adverse comments were received. The applicant will obtain all the necessary Federal, State, and local agency permits for any works that occurs with the right-of-way and will be subject to the City's traffic impact fee program. Participation in this program will mitigate any cumulative impacts on the City's transportation system. **Less than Signiant impact**.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
SECTION XVIII. TRIBAL CULTURAL RESOURCES *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*							
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐	☐	☐	**See Response to Section V(a): Less than Significant Impact with the incorporated mitigation measure CUL-1 through CUL-3.**
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐	☐	☐	**See Response to Section V(a): Less than Significant Impact with the incorporated mitigation measure CUL-1 through CUL-3.**
SECTION XIX. UTILITIES AND SERVICE SYSTEMS *Would the project:*							
a) Require the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, or natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☐	☒	☐	The project will not impact existing and/or proposed utility/service infrastructure systems, including but not limited to water/wastewater treatment systems, storm water drainage systems, electric power, natural gas, or telecommunications facilities. The project parcels will be served on an onsite waste management system (septic) and onsite well(s) and have power through PG&E. The applicant will adhere to all necessary federal, state and local agency requirements including requirements of the Environmental Health Division of the County Health Services Department as outlined in the September 9, 2021 letter from Environmental Health (Attachment A-G). **Less Than Significant Impact**
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☐	☒	☐	See response to section X-b). According to the Water Availability Report dated October 2021, the water for both proposed domestic and irrigation uses will be delivered from a new water well drilled in late September/early October, 2021. This system will use ground water pumped from the well directly into a new 50,000-gallon elevated water tanks for distribution to the building(s) plumbing system and to the greenhouses for irrigation. The well is approximately 300 feet deep and has a capacity of 100+ gallons per minute (see Water Availability report). **Less Than Significant Impact**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☐	☐	☒	The project site is situated in a rural rea of the County within the City Limits of Clearlake and requires an on-site Waste Management System (Septic). The applicant shall adhere to all Federal, State, and local regulations regarding wastewater treatment and water usage requirements. **No Impact**
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☐	☒	☐	The Local Lake County landfill(s) has sufficient capacity to accommodate the project's solid waste disposal needs. The operation has been developed to help minimize the generation of waste and for the proper disposal of waste produced during the cultivation and processing of cannabis at the project site. The goal is to prevent the release of hazardous waste into the environment, minimize the generation of cannabis vegetative waste and dispose of cannabis vegetative waste properly, and manage growing medium and dispose of growing medium properly. All employees are required to follow the procedures outlined in this plan. Any deviations from this plan must be immediately brought to the attention of the operations manager(s). **Less Than Significant Impact**
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☐	☒	☐	The project parcels will be served by an onsite waste management system and onsite well(s). All septic systems and/or wells shall be installed and adhere to all applicable Federal, State, and local agency requirements. All vegetative waste will be composted onsite, including all soil from any ground disturbance (if necessary). All other waste will be handled in accordance with all Federal, State, and local agency requirements and brought to a proper facility that is able to process such waste. **Less Than Significant Impact**
SECTION XX. WILDFIRE *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:*							
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐	☒	☐	The property is located within the State Responsibility Area (SRA) and is in a 'Moderate to High' Fire Hazard Severity Zone. The site has an average cross slope is less than 20% and has a moderate fuel load but the cultivation area will be clear of vegetation, including being routinely maintained. The SRA regulations (if applicable) will ensure adequate fire access to and on the property. SRA regulations will also ensure that measures are in place to help prevent fire and the spread of fire should one occur. The property shall maintain fire breaks around all structures, shall adhere to all necessary Federal, State, and local agency requirements. **Less Than Significant Impact**
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☐	☒	☐	The project will not exacerbate wildfire risks and/or expose persons to pollutant concentrations in the event of a wildfire in the area. Additionally, the applicant will adhere to all Federal, State, and local fire requirements/regulations, including all mitigation measure and/or conditions of approval imposed on such use. **Less than Significant Impact**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☐	☒	☐	All infrastructure will be routinely maintained to ensure all Federal, State, and local agency requirements are being satisfied, including all necessary City Codes and/or regulations. Additionally, prior to operation the applicant(s) will make all necessary improvements to the project site, such as access/roadways, fuels breaks, and emergency water source/water tanks. **Less than Significant Impact**
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☐	☒	☐	The project area to be developed is not located within the vicinity of known waterways nor is it located within a designated flood zone. Therefore, the risk of flooding/runoff, landslides, slope instability, or drainage changes would not be increased due to this project. **Less Than Significant Impact**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
SECTION XXI. MANDATORY FINDINGS OF SIGNIFICANCE							
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	☐	☐	This project is not anticipated to significantly impact habitat of fish and/or wildlife species or cultural/tribal resources with the incorporated mitigation measures described above. Therefore, there is minimal risk of degradation, and mitigation measures are proposed that would alleviate most or all of the project-related impacts. **With incorporation of Mitigation Measures, the project is not anticipated to significantly impact habitat of fish and/or wildlife species or cultural resources, nor will the project contribute to factors that would harm the environment or add to any wildfire risk.**
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐	☐	☐	All potentially significant impacts have been identified related to, Aesthetics, Air Quality, Biological Resources; Cultural/Tribal Resources; Geology & Soil; Noise & Vibration; and Hazards & Hazardous Materials. These impacts in combination with the impacts of other past, present, and reasonably foreseeable future projects in the vicinity could cumulatively contribute to significant effects on the environment if proper mitigation measures are not put in place. It is also noted that the City's 2040 General Plan Environmental Impact Report identifies the project site as within a major growth area; the Ogulin Canyon Industrial Center. Additionally, when assessing whether a cumulative effect requires an EIR, the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable. An EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." The cumulative environmental impacts from development within this growth center have been previously addressed in the City's 2040 General Plan Environmental Impact Report. In addition, the implementation of and compliance with all mitigation measures identified in each section as project conditions of approval would avoid and/or reduce all potential impacts to less than significant levels and would not result in cumulatively considerable environmental impacts.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐	☐	☐	The proposed project has potential to result in adverse indirect or direct effects on human beings. In particular, risks associated with, Aesthetics, Air Quality, Biological Resources; Cultural/Tribal Resources; Geology & Soil; Noise & Vibration; Hazards & Hazardous Materials and have the potential to impact human beings. Additionally, when assessing whether a cumulative effect requires an EIR, the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable. An EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. The cumulative environmental impacts from development within this growth center have been previously addressed in the EIR. In addition, the implementation of and compliance with all mitigation measures identified in each section as project conditions of approval would avoid and/or reduce all potential impacts to less than significant levels and would not result in cumulatively considerable environmental impacts.

INITIAL STUDY SUMMARY: Based on the review of the proposed project site and surrounding area, appropriate mitigation measures were identified to mitigate potentially significant impacts to a level below adversity for Aesthetics, Air Quality, Cultural Resources/Tribal Resources, Hazards & Hazardous Materials, Hydrology/ Water Quality, and Traffic Circulation. Assuming implementation of the identified measures and standard conditions of project approval of the City of Clearlake and other pertinent agencies, no adverse impacts are anticipated.

Add Attachments Here:

- Attachment A – Application Packet/Operational Plan
- Attachment B – Proposed Grading and Site Plans
- Attachment C – Biological Assessment/Report
- Attachment D – Water Availability Report
- Attachment E - Traffic Impact Report
- Attachment F – Technical Memorandum – Ground Water Hydrology
- Attachment G Mitigation Monitoring Program
- Attachment H Mitigation Monitoring Program

Attachment H
Mitigation Monitoring Program

City of Clearlake – Mitigation Monitoring Checklist

Project Name: 2160 Ogulin Canyon Road File Numbers: Use Permit UP 2022-07 thru 2022-07
Approval Date: May 31, 2022 EIR or Neg. etc.: Mitigated Negative Declaration

The mitigation measures outlined below were incorporated into the approval for this project in order to reduce potentially significant environmental impacts to a level of insignificance. A completed and signed checklist for each mitigation measure indicates that this mitigation measure has been complied with and implemented and fulfills the City's monitoring pursuant to Section 15097 of the CEQA Guidelines.

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
1.	Air Quality	Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other methods approved by the Lake County Air Quality Management District.		
2.	Air Quality	Driveways, access roads and parking areas shall be surfaced in a manner so as to minimize dust. Driveway approaches shall be constructed of concrete and built to minimum City of Clearlake standards.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
3.	Air Quality	The burning of construction debris is prohibited. Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Lake County Air Quality Management District and the Lake County Fire Protection District.		
4.	Air Quality	During construction activities, the applicant shall remove daily accumulation of mud and dirt from Dam Road Extension.		
5.	Air Quality	The applicant shall secure a grading permit from the Community Development Department, Building Division and shall adhere to all grading permit conditions, including Best Management Practices. All areas disturbed by grading shall be either surfaced in manner to minimize dust, landscaped or hydro seeded.		
6.	Air Quality	All refuse generated by the facility shall be stored in approved disposal/storage containers, and appropriately covered. Removal of waste shall be on a weekly basis so as to avoid excess waste. All trash receptacles/containers shall remain covered at all times to prevent fugitive odors and rodent infestation.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
7.	Cultural and Tribal	During construction activities, if any subsurface archaeological remains are uncovered, all work shall be halted within 100 feet of the find and the applicant shall retain a qualified cultural resources consultant from the City's approved list of consultants to identify and investigate any subsurface historic remains, and define their physical extent and the nature of any built features or artifact-bearing deposits. Significant historic cultural materials may include finds from the late 19th and early 20th centuries including structural remains, trash pits, isolated artifacts, etc.		

8.	Cultural and Tribal	The cultural resource consultant's investigation shall proceed into formal evaluation to determine their eligibility for the California Register of Historical Resources. This shall include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the features and artifacts do not have sufficient data potential to be eligible for the California Register, additional work shall not be required. However, if data potential exists – e.g., there is an intact feature with a large and varied artifact assemblage – it will be necessary to mitigate any Project impacts. Mitigation of impacts might include avoidance of further disturbance to the resources through Project redesign. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
		Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during Project excavation or testing, curation may be an appropriate mitigation. This language of this mitigation measure shall be included on any future grading plans and utility plans approved by the City for the Project.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
9.	Cultural and Tribal	If human remains are encountered, no further disturbance shall occur within 100 feet of the vicinity of the find(s) until the Lake County Coroner has made the necessary findings as to origin (California Health and Safety Code Section 7050.5). Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Lake County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the "most likely descendant(s)", which parties agree will likely be the Koi Nation based upon the Tribe's ancestral ties to the area and previous designation as MLD on projects in the geographic vicinity. The landowner shall engage in consultations with the most likely descendant (MLD). The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
10.	Geological	Prior to any ground disturbance and/or operation, the applicant shall submit Erosion Control and Sediment Plans to the City for review and approval. The project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system.		
11.	Geological	Prior to any ground disturbance, (if applicable), the applicant shall submit and obtain a Grading Permit from the City in accordance with the City of Clearlake Municipal code(s). Plans for grading shall include disclosure of location and method of treatment/storage of exported materials.		
12.	Geological	The applicant shall monitor the site during the rainy season including post-installation, application of BMPs, erosion control maintenance, and other improvements as needed. Said measures shall be maintained for life of the project and replace/repaired when necessary.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
13.	Hazards	If the project involves storage of hazardous materials equal or greater than 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas the applicant will be required to submit a Hazardous Materials Inventory Disclosure Statement/ Business Plan to the Environmental Health Division via the California Electronic Reporting System. This plan shall be renewed and updated annually or if quantities increase.		
14.	Hazards	If the amount of hazardous materials is less than 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas, the applicant will need to complete and submit a Hazardous Materials/ Waste Declaration stating the name of the material and the quantity to be stored on site.		
15.	Hazards	Collected hazardous or toxic materials shall be recycled or disposed of through a registered waste hauler to an approved site.		
16.	Hazards	Industrial Waste shall not be disposed of on-site without review or permit from the Environmental Health Division or the Regional Water Quality Control Board.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
17.	Hazards	Hazardous Waste must be handled according to all Hazardous Waste Control Laws. Any generation of a hazardous waste must be reported to Lake County Environmental Health within thirty days.		
15.	Hydrology	The proposed project shall be constructed in accordance with the Lake County Clean Water Program Storm Water Management Plan.		
16.	Hydrology	The project is subject to compliance with Lake County's Low Impact Development requirements (Lake County Clean Water Program).		
17.	Noise	All construction activities including engine warm-up shall be limited to weekdays and Saturday, between the hours of 7:00am and 7:00pm to minimize noise impacts on nearby residents.		
18.	Noise	Permanent potential noise sources such as, generators used for power shall be designed and located to minimize noise impacts to surrounding properties.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
19.	Noise	During construction noise levels shall not exceed 65 decibels within fifty (50) feet of any dwellings or transient accommodations between the hours of 7:00 AM and 6:00 PM. This threshold can be increased by the Building Inspector or City Engineer have approved an exception in accordance with Section 5-4.4(b)(1) of the City Code. An exception of up to 80 decibels may be approved within one hundred (100) feet from the source during daylight hours. Project is expected to result in less than significant impacts with regard to noise and vibration.		

Explanation of Headings

Type = Project (mitigation for this specific project), ongoing, and/or cumulative.
Monitoring Department = Department or agency responsible for monitoring a particular mitigation measure.
Shown on Plans = When a mitigation measure is shown on the construction plans, this column must be initialed and dated.
Verified Implementation = When mitigation measure has been implemented, this column must be initialed and dated.
Remarks = Area for describing status of ongoing mitigation measure, or other information.

City of Clearlake

4050 Olympic Dr. Clearlake, CA 95422 707-994-8201 www.clearlake.ca.us

CANNABIS BUSINESS APPLICATION
For Use Permit and Regulatory Permit
(Please print clearly and fill in/provide all that apply)
Type of Commercial Cannabis Use:

- X Commercial Cannabis Cultivation
- X Cannabis Manufacture
- X Cannabis Distributor
- ___ Cannabis Testing Laboratory
- ___ Cannabis Nursery
- X Cannabis Processor
- X Retail Deliver

REQUIRED FOR A COMPLETE APPLICATION

- ; ; Completed and signed Application Forms
- ; ; Additional Documentation
- ; ; Initial Application Fee Paid: ($TBD)

Applicants Full Name:	Ogulin Hills Holdings, LLC c/o Brian Pensack
Applicants Mailing Address:	637 Lindaro Street Suite 201 San Rafael, CA 94901
Applicants Phone Number:	415-317-2345
Applicants Email:	Brian@VanguardMarin.com
Applicants Physical Home Address:	405 Clearview Place - Petaluma, California 94952
Applicants Tax ID Number:	
Management/Community Relations Contacts:	Brian Pensack, Garrett Burdick, Kim Gardner, Richard Knoll Consulting
Applicants Height:	5'11",
Applicants Weight:	165 pounds,
Applicants Hair Color:	black,
Applicants Eye color:	Blue.
Address of Proposed Business:	2160 Ogulin Canyon Road, Clearlake, CA
Square Footage of the Proposed Buildings:	New industrial style buildings totaling 38,600 ft.^{2} o one (1) processing/storage and distribution building o one (1) retail, delivery and office building o 5 (five) 75' x 25' greenhouses
Describe the Site Plan and Floor Plan:	The proposed project includes development of industrial style structures for cannabis related facilities including a 33,600 ft.^{2} of cannabis processing, manufacturing, and distribution building and one (1) 5,000 ft.^{2} office building that will also serve as the administrative center and the cannabis delivery and storage space. The property is on the south side of Ogulin Canyon Road and will be accessed by a new

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CITY OF CLEARLAKE

	driveway cut into the 46-car parking lot. The new processing/storage and distribution facilities and retail delivery and office area will be situated about 150 south. Preliminary floor plans indicate that the manufacturing and processing building will include: intake area; processing and manufacturing areas; packaging areas; restrooms and offices; employee break room; shipping and receiving area, numerous storage areas, intake and distribution areas , and related activities. Rollup doors will provide entry into secure parking areas for loading and unloading.
Number of Managers/Supervisors:	4 +/-
Number of Employees:	Up to 35
Names and Addresses of Anyone Who Will act as an Owner, Manager, or Supervisor of the Facility:	Brian Pensack, Garrett Burdick (see address information above).
Describe Proposed Business and Operations:	See business plan and Project Description. The proposed business will include a cannabis drying and cold storage operation for both on-site and off-site cannabis cultivation product. Also included in the business and operations plan will be a processing, manufacturing, and distribution component which will include various activities related to extraction of cannabis essential oils, processing and storage of cannabis extracts and plant materials including packaging of cannabis for sale, extraction and storage of cannabis oils, packaging and labeling of cannabis products, storage and distribution of cannabis products, and related activities
Anticipated Gross Annual Revenues:	To be determined

Documents to Submit

Please provide additional information as required in section 18 – 12.050, 18 – 12.060, and section 5 – 25 including but not limited to the following:

1. Two passport quality, current photographs of the applicant. X

2. Passport, or valid California driver's license (not to include an AB 60 federally restricted license). X

3. Sign off by the Lake County Fire Protection District permitting the use._____

4. The applicant must complete a criminal history check for the state of California and FBI which is approved by the chief of police or his designee. X

5. A sketch or diagram depicting the interior configuration of the premises, including the total floor area drawn to scale. X
6. A site plan drawing depicting the facility and all properties within 600 feet. X
7. A lighting plan showing existing and proposed exterior and interior lighting placement and levels. X
8. A detailed security plan. X
9. An odor control plan. X
10. A detailed business plan. X
11. Previous addresses for the past five years. X
12. Property ownership and lease details. X

Agreement

Applicant signature (attach notarized documents)

I hereby certify that I will abide by the city of Clearlake's commercial cannabis ordinance number 200 – 2017 and this agreement and that the information provided in this application is, to my knowledge, true and correct. I hereby authorize city staff, including the police department, authority to conduct a criminal background check pursuant to California Penal Code section 11105 subsection be subsection 11 and 13300 subsection be subsection 11 which authorizes city authorities to access state and local summary criminal information for employment, licensing, or certification purposes; and authorizes access to federal level criminal history information by transmitting fingerprint images and related information to the Department of Justice to be transmitted to the FBI every person listed as an owner manager or supervisor of the marijuana business must submit fingerprints and other information deemed necessary by the city manager or his designee for a background check by the Clearlake Police Department. I understand that any material misrepresentation may result in either denial or revocation of the dispensary permit.

Applicant Signature: _____

Date: April 7, 2021

For Office Use Only

Approved by_____Date _____

Credit Card

Debit Card

Money order

Cash

Check Number X

Ogulin Hills Holdings, LLC
637 Lindaro Street - Suite 201
San Rafael, CA 94901
415-317-2345

April 7, 2021

Mr. Mark Roberts - Senior Planner
City of Clearlake
14050 Olympic Drive
Clearlake, CA 95422

Re: 2160 Ogulin Canyon Road - Cannabis Business Use Permit Application and Development Agreement

Dear Mr. Roberts:

Enclosed are the Cannabis Business Use Permit application forms, documents, plans, project description, safety and security plans, and related documentation for the proposed cannabis processing, manufacturing, distribution, and indoor cultivation project planned for the 9.56-acre property located at 2160 Ogulin Canyon Road in Clearlake (APN 010-044-21).

Ogulin Hills Holdings, LLC is proposing the project involving construction of cannabis related facilities including one (1) 33,600 ft.² building for a proposed manufacturing, processing, distribution center; one (1) 5,000 ft.² building for an office, and several cultivation greenhouses. The processing, manufacturing, and retail delivery/office buildings are proposed metal structures and the proposed greenhouses will comply with City architectural design standards.

Included with this application package is:

- **City of Clearlake Use Permit Application Form and $2,000 fee deposit.**
- **Project Description and Findings**
- **Project Site Plan, Lighting Plan, Security Plan, Preliminary Grading Plan**
- **Project Floor Plans**
- **Project Building Elevations**
- **Employee Health and Safety Plans**
- **Business Plan**

The Biological Report and the Cultural Resources Report are currently being developed by consultants and will be provided to the City when they have been completed.

We believe that this package of application documents and materials is sufficient for the City to initiate the project review phase. Please advise us if there is a need for additional documentation or clarification.

We look forward to working with the City Staff, the Planning Commission, and the City Council in moving this project forward.

Thank you.

Brian Pensack

Brian Pensack – Principle
Ogulin Hills Holdings, LLC

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CITY OF CLEARLAKE

Project Description and Information
Cannabis Processing and Cultivation Facilities
2160 Ogulin Canyon Road – APN 010-044-21
Clearlake, California
Updated – March 2022

Project Information

The subject property is a 9.56-acre parcel located at 2160 Ogulin Canyon Road in Clearlake and further described as APN 010-044-21. The property is also described as - Parcel B as shown on a map filed in the Office of the County Recorder of Lake County on July 17, 1987, in Book 29 of Parcel Maps at pages 30 and 31.

The proposed project includes development of industrial style structures to be used for cannabis related facilities including a 33,600 ft.² single story building and a 5,000 ft.² office building that will also serve as the administrative center/cannabis delivery and storage space. Five - 75' x 25' greenhouses for indoor cannabis cultivation will be developed.

Specific project uses are to include:
1. Cannabis cultivation
2. Cannabis manufacturing
3. Cannabis distribution
4. Cannabis nursery
5. Cannabis processing
6. Cannabis Retail - Delivery Only

The proposed cannabis business at 2160 Ogulin Canyon Road will include a cannabis drying and cold storage operation for both on-site and off-site cannabis cultivation product. Also included in the business and operations plan will be a processing, manufacturing, and distribution component which will include various activities related to extraction of cannabis essential oils, processing and storage of cannabis extracts and plant materials including packaging of cannabis for sale, extraction, and storage of cannabis oils, packaging and labeling of cannabis products, storage and distribution of cannabis products, and related activities.

Attached are documents which provide additional operational and technical details regarding:
A. Manufacturing Activities
B. Odor Control
C. Energy
D. Groundwater Hydrology

The project operational days/hours during the harvest season will be - Monday through Saturday from 6 am to 8 pm and during non-harvest seasons - Monday through Saturday from 7 am to 6 pm.

The amount of paved surface area will include 22,660 square feet of parking lot.

Vegetation removal will be minimal and existing dilapidated, and fire damaged facilities will be demolished.

The estimated number of vehicle trips during peak harvest is 107 ADT.

Design information regarding the greenhouse, processing, and office structures is included in the building floor plans and elevation plans submitted to the City - 3-3-21.

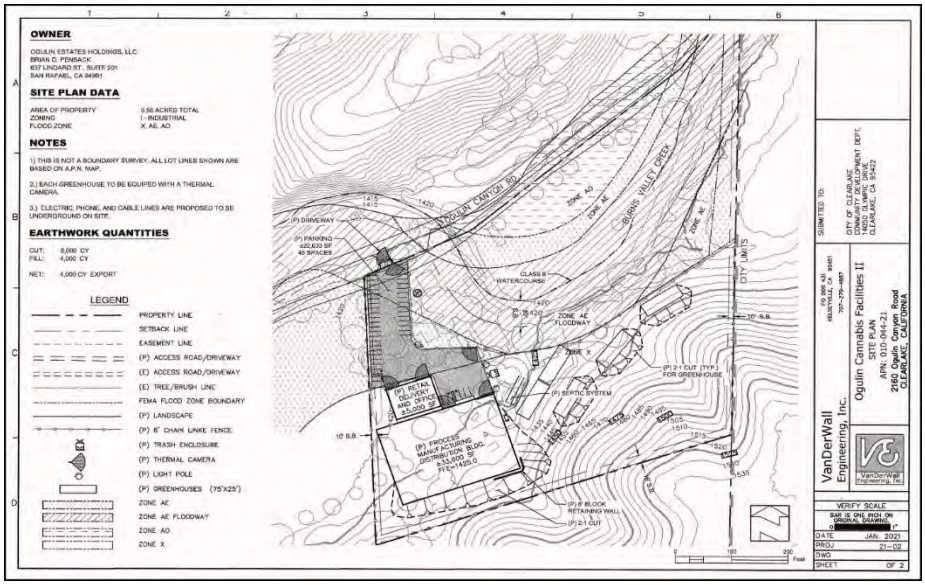
The property is located on the south side of Ogulin Canyon Road and will be accessed by a new driveway that will lead into the 46-car parking lot. The 22,600 square foot parking lot design will feature a center aisle and parking spaces developed at 90-degree angles. ADA accessible parking will be developed near the office. Security fencing and numerous digital security cameras will be placed around the perimeter and at strategic locations in the parking lot.

The new processing/storage and distribution building and retail delivery and office area will be situated about 150’ south of the road, in the southeastern quarter of the parcel. Some grading, including both cut and fill, will be necessary to facilitate construction, with preliminary earthwork locations and quantities noted on the site plan.

The proposed greenhouses will be located east of the new structure and south of the creek. Access to the cultivation areas will be by a single lane driveway within the fenced area.

Preliminary floor plans indicate that the manufacturing and processing building will include: intake area; processing and manufacturing areas; packaging areas; restrooms and offices; employee break room; shipping and receiving area; numerous storage areas; intake and distribution areas; and related activities. Rollup doors will provide entry into secure parking areas for loading and unloading.

The project buildings are to be engineered metal structures and the proposed greenhouses will comply with City architectural design standards.



The subject property is currently developed with a couple of manufactured homes and several former animal shelter kennels, a garage and storage building, pieces of equipment, and related improvements/facilities. Some of the existing site improvements will be removed as they are in poor condition or fire damaged.

Access to the site is from an existing driveway located along the western property line on the south side of Ogulin Canyon Road about a ½ mile east of Hwy 53. The driveway extends into the property and loops around to provide access to the houses, and the remainder of the existing site improvements. This existing driveway is in moderate condition.

Burns Valley Creek, a seasonal creek extends through the north easterly quadrant of the parcel and flows through an open channel from east to north west where it runs through existing culverts under Ogulin Canyon Road. There is a flood zone designation associated with the Creek, as noted on the site plan.

The surrounding land is used mainly for light industrial activities, watershed and wildlife habitat, cannabis farming, and homesite development. The Project Area is located in Ogulin Canyon on the far east side of Burns Valley and is surrounded by the Ogulin Canyon Road to the north, Burns Valley to the south, Blackeye Canyon to the east, and storage facilities to the west.

The biology and vegetation of the site is described in a biological report prepared in 2021.

The Soil Survey Geographic Database (SSURGO) maintained by the United States Department of Agriculture (USDA) and National Resource Conservation Service (NRCS) indicates that the project site is underlain primarily by soils of the Manzanita Series. Manzanita Series soils consist of very deep, well drained loam formed in alluvium from mixed rock sources. They occur on terraces with slopes of 2 to 25 percent. Manzanita Series soils are used for a wide variety of purposes, mostly agricultural, including walnut orchards, wine grape vineyards, hay, and livestock grazing, but also homesite developments (USDA-NRCS 2003).

The Clearlake area climate is characterized by warm, dry summers and cool, moist winters. Mean annual precipitation is up to 50 inches. The wet season extends from October through May. Winter precipitation in this region falls as rain under 3,300 feet with snowfall at 4 inches. Average winter temperature is 40 degrees Fahrenheit, and summer temperature highs average 86 degrees Fahrenheit (NCEI 2019).

The subject parcel is within the Clearlake City Limits on the south side of Ogulin Canyon Road. The property is zoned I – Industrial District. Section 18-2.17 of the City of Clearlake Zoning Ordinance provides detailed zoning requirements and standards.

The City of Clearlake Zoning Ordinance has specific standards regarding minimum parking requirements, street improvements, parking design standards, driveway approach standards, landscaping development standards, environmental review procedures, storm drainage provisions, and a number of other sections

dealing with trash receptacles slopes and soils, outdoor lighting, addressing, protected trees, tree protection regulations, and other requirements, all of which will be adhered to.

The subject property is also zoned CB – Commercial Cannabis Combining Zoning District. Section 18-12 of the Clearlake Municipal Code provides standards and criteria addressing commercial cannabis permits and requires among other things issuance of permits for cultivation, processing, extraction, manufacturing, testing, and distribution activities with an approved use permit and regulatory permit within areas of the City that are zoned Cannabis Business District.

Information regarding project security and operational characteristics are set forth in attached documents.

The City requires use permit approval for the proposed development and operation of commercial cannabis businesses and also requires operators to enter into a Development Agreement.

Until 2020 the City of Clearlake limited the number of commercial cannabis licenses that could be approved/obtained. The City Council recently made a decision to eliminate the cap on commercial cannabis permits and revised its zoning regulations to allow the issuance of cannabis permits pursuant to zoning and development agreement approvals.

Clearlake Zoning Ordinance Section 18-1.4.445 - Use Permits.

a. Purpose. These provisions establish the procedures for accommodating uses with special site or design requirements, operating characteristics, or which may have the potential to cause adverse effects on surrounding properties. The procedures in this section shall apply to all proposals for which a conditional use permit is required.

b. Criteria for Granting. A use permit shall be approved or approved with conditions by the Planning Commission, if, based upon information provided by the applicant, all of the following findings are made:

1. That the proposed use at the size and intensity contemplated, and at the proposed location, will provide a development that is necessary or desirable for, and compatible with, the neighborhood or the community.

Applicants Response and Findings:

- **The development at the 2160 Ogulin Canyon Road site is proposed at a size and intensity that is considered reasonable for a 9.56-acre parcel. The site plan details a proposed layout size that fits the site and provides the required improvements consistent with the City Zoning Ordinance.**
- **The City of Clearlake has recently updated its Zoning Ordinance with respect to the permit requirements and locations for cannabis businesses and as such has confirmed and verified public policy in support of cannabis processing, manufacturing, distribution, and indoor cultivation at this location.**

- **In keeping with this adopted public policy, the proposed project will provide a development that is necessary, desirable, and compatible with the community wide sentiments.**
- **The proposed project will provide a development that is compatible with the neighborhood, as there are existing cannabis operations and/or businesses in the near vicinity, including at the La Rosa Plaza site just to the west, and several existing and proposed cannabis cultivation projects to the east and north. The proposed project is actually in response to the need for cannabis processing and storage facilities in a well-planned and secure location, which in and of itself, creates a compatible land use situation.**

2. That such use as proposed will not be detrimental to the health, safety, convenience, or general welfare of persons residing or working in the vicinity, or injurious to the property, improvements, or potential development in the vicinity with respect to aspects including, but not limited to, the following:
(a) The nature of the proposed site, including its size and shape, and the proposed size, shape, and arrangement of structures,
(b) The accessibility and traffic patterns for persons and vehicles, the type and volume of such traffic, and the adequacy of proposed off-street parking and loading,
(c) The safeguards afforded to prevent noxious of offensive emissions such as noise, glare, dust, and odor,
(d) Treatment given, as appropriate, to such aspects as landscaping, screening, open spaces, parking areas, loading areas, service areas, lighting, and signs.

Applicants Response and Findings:

- **The proposed uses at the 2160 Ogulin Canyon Road Site will not be detrimental to the health, safety, convenience, or general welfare of persons residing or working in the vicinity, or injurious to the property, improvements, or potential development in the vicinity. The proposed site improvements have been well planned to minimize detrimental impacts and conflicts with people residing and working in the area, property and improvements in the neighborhood or the general welfare of the City.**
- **The project will be built to California Building Code standards and will provide for a high level of security and safety consistent with the City regulations.**
- **The site improvements will be situated in the west center of the parcel and will comply with property line setbacks from adjoining properties and structures in order to minimize perceived detrimental health, safety, morals, comfort, and general welfare impacts to people in the neighborhood and the region.**
- **The cannabis cultivation laws of the State of California and the City of Clearlake have been approved by the voters/elected officials and thus reflects the current attitudes of residents. The intent with regard to development of the cannabis project is to be sensitive to the comfort and general welfare of the Ogulin Canyon Road area by installing and operating state-of-the-art cannabis facilities and equipment in order to minimize detrimental impacts.**
- **The subject property is an existing developed area that has seen better days. The proposed project involves a moderately sized building footprint which is proportionate in size and scale with other land use activities on other properties in the vicinity.**

- **The nature of the proposed site, including the 9.56-acre size and its wide shape are conducive with the proposed size, shape, and arrangement of structures. The proposed site improvements are designed in areas that are level to moderately sloped and situated in the generalized west center of the site.**
- **The accessibility of the property is good, a new entry and driveway approach will be developed on Ogulin Canyon Road.**
- **Traffic patterns for persons and vehicles that will be using the site are good. The type and volume of traffic on Ogulin Canyon Road is relatively low when compared to other streets and roads in Clearlake. The pattern of land development to the east, north and south is rural in nature and as such the areas generate a small amount of traffic that passes by the 2160 Ogulin Canyon Road site.**
- **The proposed off-street parking and loading areas have been incorporated into the project design with 46 standard spaces shown in front of the proposed building. According to the site plan there will be a 22,600 square foot parking and loading area in the west center of the site.**
- **Although, not specifically called out on the site plan, there are many options for implementing safeguards to prevent noxious of offensive emissions such as noise, glare, dust and odor. The placement of the processing building in the west center of the site, with adequate setback distances from property lines and nearby structures is a key safeguard for reducing noise, odor, dust, and lighting concerns. There are many other conditions or mitigation measures that can be implemented including: the use of shielded and downlit lighting; A.C. Paving of the parking lot and driveways; installation of building mounted air filtration exhaust systems; and installation of landscaping or fencing to minimize noise. The project Odor Control Plan provides details regarding air filtration and odor complaint protocol.**
- **The project will provide landscaping as mandated by the City of Clearlake. Screening of site improvements or facilities such as the trash enclosures will be done to City standard.**
- **There will be open space preservation particularly around the east and northeast sides of the site and the preservation of as many trees as possible will help minimize visibility of the improvements,**
- **Proposed parking, loading, and service areas are depicted on the site plan and are adequate to serve the intended uses. Proposed lighting and signage will be commensurate with other industrial projects in the City of Clearlake.**

3. That such use or feature as proposed will comply with the applicable provisions of this Chapter and will be consistent with the policies and standards of the Clearlake General Plan. (Ord. #2010-146, S2).

Applicants Response and Findings:

- **The proposed uses at the 2160 Ogulin Canyon Road seem to be consistent with the applicable provisions of the City of Clearlake Zoning Ordinance and will be consistent with the policies and standards of the Clearlake General Plan.**
- **East of Hwy 53, the initial portion of Ogulin Canyon Road (1/2 mile) is within the City of Clearlake. The City of Clearlake General Plan Circulation Element Figure 4.1. Circulation Map**

identifies Ogulin Canyon Road as a basic street. The Clearlake General Plan Circulation Element contains a number of Goals and Policies regarding the City street system, however, there does not appear to be any policy applying specifically to Ogulin Canyon Road.

- **The Ogulin Canyon Road surface is in moderate condition, it is paved for about 2/3 miles east of Hwy 53 and transitions to gravel beyond the City limits.**

Conclusion:

This Project Description provides support for approval of the Use Permit application to allow various cannabis processing, distribution, retail delivery, cultivation, and manufacturing activities at 2160 Ogulin Canyon Road.

The 2160 Ogulin Canyon Road development concept is fairly straight forward and provides a well-planned and designed site that will encourage good site circulation, efficient operations, and economic performance.

The City of Clearlake is supportive of cannabis related land-use projects that conform to City regulations.

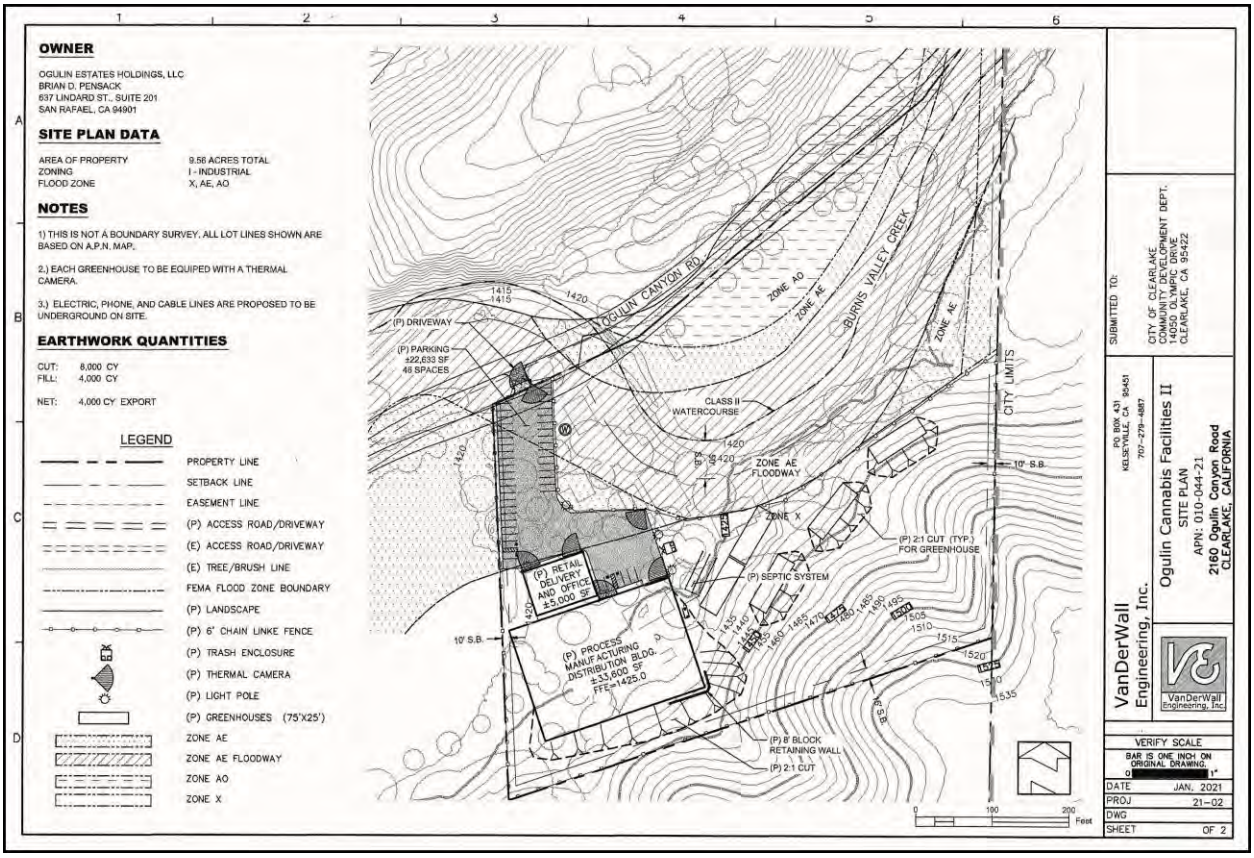
This application sets forth a project that complies with City standards, has the potential to enhance job opportunities, and generate economic development benefits.

Approval of this project will provide for numerous public benefits, enhance the Ogulin Canyon Road area, provide for the cleanup and redevelopment of the subject property, and comply with the City Zoning standards.

It is respectively requested that the City of Clearlake Planning Commission and City Council approve the Use Permit application and the associated Development Agreement.

2160 Ogulin Canyon Road – Description of Cannabis Manufacturing Activities

Cannabis manufacturing facilities will be constructed within the Processing-Manufacturing-Distribution Building and will incorporate security measures including personnel screening and the installation of secure entries and video cameras that will be strategically placed in various locations. The facilities will also be surrounded by security fencing.



The cannabis manufacturing operation will involve cannabis extraction and/or infusion processes.

California Law provides for the licensing of both volatile and nonvolatile cannabis manufacturing facilities.

Nonvolatile manufacturing involves a solvent used in the extraction process that is not a volatile solvent, including carbon dioxide. Volatile manufacturing involves any solvent that is or produces a gas or vapor that, when present in the air in sufficient quantities, could create explosive or ignitable mixtures. The State's examples of volatile solvents include butane, hexane, propane, and ethanol.

Cannabis manufacturing may also include mechanical extraction using screens or presses; chemical extraction using a nonvolatile solvent such as a nonhydrocarbon-based or other solvent such as water, vegetable glycerin, vegetable oils, animal fats, or food-grade glycerin; chemical extraction using a professional closed loop CO2 gas extraction system; chemical extraction using a volatile solvent; and any other method authorized by the State.

Because the proposed manufacturing processes may include both volatile and nonvolatile solvents, a State of California Type 7 cannabis manufacturing license will be required, as this license allows the use of use both nonvolatile and volatile solvents to produce extractions and infusions.

Chemical extractions must take place within a professional, closed-loop system, and must comply with local building and fire codes and State law. California law establish sound manufacturing practices, assures cannabis product safety, and sets chemical extraction requirements. Cannabis manufacturers must meet local fire code, follow all local requirements for a certified closed loop system and utilize solvents that are 99% pure.

Nature of the Activity – Cannabis Manufacturing

The cannabis manufacturing operations will be established in a portion of Building 2 which is in the center of the site

The Processing-Manufacturing-Distribution Building will be a 33,000square foot single story steel I-beam truss construction on a concrete slab type with a metal clad exterior and a metal roof.

Metal rollup doors and standard access doors will be utilized to access the cannabis manufacturing areas.

The facility operator will construct all manufacturing facilities to City of Clearlake and industry certification standards, in addition to ensuring that the site is in full compliance with all applicable local, state, and federal building code laws.

As required by the California Building Code, the operator will construct Class 1 Division 1 (C1D1) and Class 1 Division 2 (C1D2) rated facilities to contain the volatile extraction programs.

The definition of hazardous locations includes buildings or parts thereof where fire or explosion hazards may exist due to the presence of flammable gases or vapors, flammable liquids, combustible dusts or easily ignitable fibers. Class 1 locations are those in which flammable "gases or vapors" are, or may be, present in the air in quantities sufficient to produce explosive or ignitable mixtures.

The Manufacturing facilities will be designed and constructed to the highest standards to comply with California and Federal C1D1 (spark-less) construction standards. Construction activities will be overseen by qualified and trained professionals with extensive understanding in standard operating procedures, safety protocols, and maintenance schedules.

Architectural floorplans and construction details will be finalized for the manufacturing facilities and architectural/engineered construction plans and equipment details will be submitted to, plan checked by, and certified for safe operation by the City of Clearlake Community Development Department and the Lake County Fire Protection District #1 (Fire Marshal).

C1D1 facilities use outside fresh air to provide the required air flow rate over equipment. The system provides a slightly negative pressure within the lab area to prevent hazardous gasses from leaking into surrounding areas.

Gas detection alarms are used and will initiate when hazardous gas is detected. The system will activate an audible alarm and shut down power to the equipment inside the room well before dangerous gas levels are reached.

The proposed cannabis manufacturing process will involve a closed loop system.

In general, the proposed operations will involve processed cannabis material delivered to the intake area where it will be store in freezer units or on shelves. Track and Trace of cannabis materials is required. From the intake area the cannabis material moves into the extraction facilities areas. The

specific routing of the process cannabis materials depends upon operational requirements and market demand orders.

There may be a nonvolatile CO2 extraction room near or adjacent to the intake area. This area may also include CO2 extraction machines, decarboxylation ovens, and storage facilities.

Volatile extraction facilities may also be developed. Butane (BHO) and Ethanol (ETOH) are examples of the volatile materials that may be used. The butane and ethanol will be stored within a hydrocarbon solution tank and chilled to a low temperature. From the solvent tank, chilled butane and ethanol is passed through a pressurized/packed cannabis material vessel/column where the butane and ethanol dissolve the cannabis trichromes. This process results in a chemical reaction where the cannabis terpenes and trichomes are stripped off and picked up. The butane/ethanol and cannabis trichomes move to the dewaxing or cryogenic vessel where the purification process continues, and fats and lipids are purged and removed. The solvent at this stage will be purified and will contain only the active ingredient. The solution will then pass into a tank where water is added, the butane and ethanol solvents distilled and evaporated back into the closed loop system, leaving behind the concentrated cannabis oil.

Key points associated with the cannabis extraction process include:

- The cannabis extraction manufacturing process is conducted in a clean room environment under the strictest operational and safety guidelines.
- Intake materials are examined for visible contaminants, freshness, overall quality, separated into batch sizes, and tagged.
- Extraction times vary by material and the design of the extractor equipment.
- A closed loop system is utilized, and solvents are drained to storage containers and placed in the queue for recovery.
- Pesticide tests are taken regularly.
- Cannabis extraction and manufacturing is performed within C1D1 or C1D2 rooms, subject to strict Building and Fire Code standards.
- Distillation takes place within a vacuum and the finished product is a clean distillate, tested, and ready for use.
- Volatile and nonvolatile gases are to be delivered by a local vendor when needed and are held within a properly designed and operated storage tank area.

A dry goods storage area for glassware, tools, and supply storage will be constructed, and an area for final packaging and labeling of all products will be set up. Final packaging, labeling of all products, secured storage of finished goods and the outtake room will be located on the north side of the building and serves as the location of transfer of products to Building #1.

A QC - quality control area is planned for post refinement review and approval by quality control staff utilizing various protocols for all products prior to transfer into the packaging area.

All employees involved in the manufacturing process and gas handling procedures will be required to receive operational and OSHA gas handling training. A licensed supplier will deliver the small tanks of gases as needed, to a secure drop off location in accordance with safe handling protocols. The determination as to the allowable gas storage area location will be part of the city plan check process (compliance determination pursuant to the California Building Code) which will include consultation with the Lake County Fire Protection District #1.

Energy Information 2160 Ogulin Canyon Road Cannabis Project
March 2022

The subject property is a 9.56-acre parcel located at 2160 Ogulin Canyon Road in Clearlake and further described as APN 010-044-21.

The proposed project includes development of industrial structures to be used for cannabis related facilities including a 33,600 ft.² single story building and a 5,000 ft.² office building that will also serve as the administrative center/retail cannabis delivery and storage space. Five 25' x 75' greenhouses for mixed light cannabis cultivation are also proposed.

Specific uses proposed for the project include:
1. Cannabis cultivation and nursery
2. Cannabis manufacturing
3. Cannabis distribution
4. Cannabis processing
5. Cannabis Retail - Delivery Only

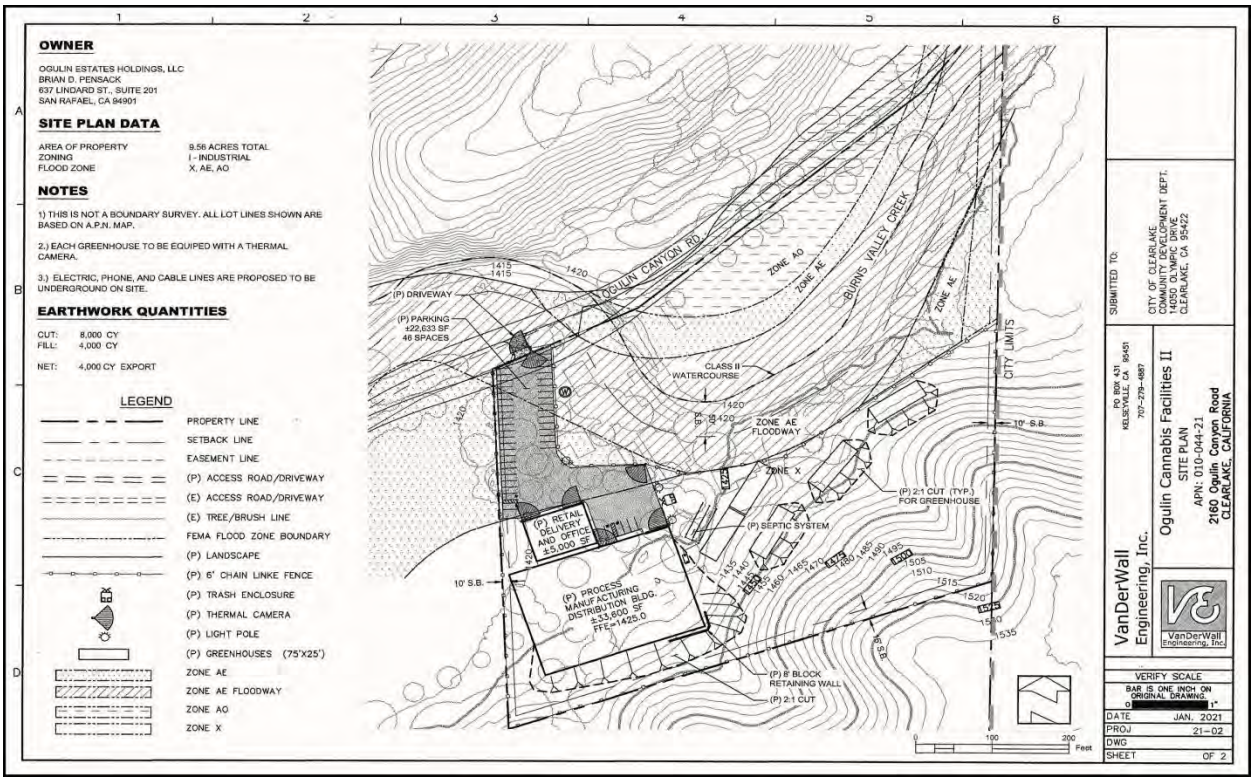
The property is located on the south side of Ogulin Canyon Road. A new 24' wide driveway will provide access to the 46-car parking lot. The 22,600 square foot parking lot design will feature a center aisle and parking spaces developed at 90-degree angles. ADA accessible parking will be developed near the office. Security fencing and numerous digital security cameras will be placed around the perimeter and at strategic locations in the parking lot.

The new processing and distribution building and the retail delivery and office area will be situated about 150' south of the Road, in the southeastern quarter of the parcel. Some grading, including both cut and fill, will be necessary to facilitate construction, with preliminary earthwork locations and quantities noted on the site plan.

The proposed greenhouses will be located east of the new structure and south of the creek. Access to the cultivation areas will be by a single lane driveway within the fenced areas.

Preliminary floor plans indicate that the manufacturing and processing building will include: intake area; processing and manufacturing areas; packaging areas; restrooms and offices; employee break room; shipping and receiving area; numerous storage areas; intake and distribution areas; and related activities. Rollup doors will provide entry into secure parking areas for loading and unloading.

The project buildings are to be engineered metal structures and the proposed greenhouses will comply with the City architectural design standards.



Local Utilities and Renewable Energy Resources

Pacific Gas & Electric Company (PG&E) is the electricity utility provider for Clearlake and Lake County. Approximately 39% of electricity provided by PG&E is sourced from renewable resources and 47% is sourced from non-renewable GHG-free resources (PG&E 2019). PG&E may offer programs through which consumers may purchase electricity from renewable sources. There is no natural gas available for communities within Lake County,

State Building Code Requirements

The California Building Code (CBC) contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The CBC includes mandatory green building standards for residential and nonresidential structures, the most recent version of which are referred to as the 2019 Building Energy Efficiency Standards. These standards focus on four key areas: smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to the exterior and vice versa), residential and nonresidential ventilation requirements, and non-residential lighting requirements. While the CBC has strict energy and green-building standards, U-occupancy structures (such as greenhouses used for cultivation activities) are typically not regulated by these standards.

Vehicle Fuel Economy Standards

In 2012, the U.S. Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHSTA), on behalf of the Department of Transportation, issued final rules to reduce GHG emissions and improve corporate average fuel economy (CAFE) standards for light duty vehicles for model years 2017 and beyond. NHTSA's CAFE standards were enacted under the Energy Policy and Conservation Act since 1978. This national program requires automobile manufacturers to build a light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. This program would increase fuel economy for the fleet of cars and light-duty trucks by the model year 2025.

The California Air Resources Board (CARB) has established standards for clean gasoline and diesel fuels and fuel economies of new vehicles. CARB has also put in place innovative programs to drive the development of low-carbon, renewable, and alternative fuels such as their Low Carbon Fuel Standard (LCFS) Program pursuant to California Assembly Bill (AB) 32 and the Governor's Executive Order S-01-07.

In January 2012, CARB approved the Advanced Clean Cars Program which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The new rules strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's zero-emission vehicle regulation requires a battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the state. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions than the statewide fleet in 2016 (CARB 2016).

All self-propelled off-road diesel vehicles 25 horsepower (hp) or greater used in California and most two-engine vehicles (except on-road two-engine sweepers) are subject to the CARB's Regulation for In-Use Off-Road Diesel Fueled Fleets (Off-Road regulation). This includes vehicles that are rented or leased (rental or leased fleets). The overall purpose of the Off-Road regulation is to reduce emissions of oxides of nitrogen (NOx) and particulate matter (PM) from off-road diesel vehicles operating within California through the implementation of standards including, but not limited to, limits on idling, reporting and labeling of off-road vehicles, limitations on use of old engines, and performance requirements.

Energy Use in Cannabis Operations.

The California Department of Food and Agriculture (CDFA) Code of Regulations includes renewable energy standards for indoor mixed-light cannabis cultivation operations. Beginning in 2023 all indoor mixed-light licensees must provide evidence of carbon offsets if the licensee's average weighted GHG emission intensity is greater than the local utility provider's GHG emission intensity. If a cultivator's

mixed-light energy use is supplied by resources with a lesser GHG-emission intensity than PG&E's GHG-emission intensity (currently approximately 85%), they would be required to acquire carbon offsets to account for the difference (California Code of Regulations [CCR] Section 8305).

Projected Energy Demand

The total energy demand of a cannabis operation depends on the type of cultivation, manufacturing, location of the project, and the types of equipment required. Outdoor cultivation involves minimal equipment and has relatively low energy demands, while indoor cultivation involves more equipment that tends to have much higher energy demands (e.g., high-intensity light fixtures, climate control systems). Specific energy uses in indoor grow operations include high-intensity lighting, dehumidification to remove water vapor and avoid mold formation, space heating or cooling during non-illuminated periods and drying processes, preheating of irrigation water, generation of carbon dioxide (CO2) from fossil fuel combustion, and ventilation and air conditioning to remove waste heat. Reliance on equipment can vary widely as a result of factors such as plant spacing, layout, and the surrounding climate of a given facility (CDFA 2017).

Comparatively, non-cultivation cannabis operations, such as storage, processing, distribution, or retail sales, tend to involve typical commercial equipment and processes that may require minor to moderate amounts of power. These non-cultivation activities are subject to the CBC and 2019 Building Energy Efficiency Standards, and do not typically result in wasteful or inefficient energy use. Activities and processes related to commercial cannabis do not typically require the demand for propane gas supplies, and it is assumed that such activities would represent a nominal portion of the county's total annual propane gas demand.

Depending on the site and type of activities, cannabis operations can include measures that promote the conservation of energy resources. Some cannabis operators are known to engage in practices that promote energy conservation and reduce overall energy demands using high-efficiency lighting or through generation and use of solar energy. However, other operations in the State engage in activities that are highly inefficient and may result in the wasteful use of energy resources. Such operations may include the use of old equipment, highly inefficient light systems (e.g., incandescent bulbs), reliance on multiple diesel generators, and other similar inefficiencies (County of Santa Barbara 2017).

During the construction and implementation of proposed projects, fossil fuels, electricity, and natural gas would be used by construction vehicles and equipment. The energy consumed during construction would be temporary and would be typical of other similar construction activities in the City. Based on the size and scope of proposed earthwork and building construction, the project would have the potential to result in minimal environmental impacts through its use of diesel fuel for construction equipment.

Mitigation measures can be applied to reduce potentially significant air quality impacts associated with use of diesel fuel equipment and would require the project contractor to avoid wasteful, inefficient, or unnecessary consumption of energy resources, such as idling

In Lake County, cannabis cultivation projects do not use natural gas. Propane gas use is typically associated with cooking appliances and space heating. Cooking appliances are not proposed as a part of the project, and all proposed space heating units would run on electricity.

The project's operational electricity needs would be met by a connection to PG&E infrastructure. The CBC 2019 Building Energy Efficiency Standards include mandatory energy efficiency standards.

The project's proposed 33,600-square-foot processing and manufacturing building, and the proposed 5,000-square-foot structure for use as a non-storefront retail dispensary and office would be subject to the CBC 2019 Building Energy Efficiency Standards; therefore, the energy demand of these uses would not be wasteful, inefficient, or unnecessary.

Unclassified occupancy structures, such as greenhouses used for cultivation activities, are exempt from CBC standards and therefore would not be subject to state-mandated energy efficiency design requirements or practices.

In order to estimate energy demand, the applicant utilized sample energy consumption rates from the County of Santa Barbara Cannabis Energy Conservation Plan Electricity Use Calculation Form (County of Santa Barbara 2018). This calculation form contains formulas for estimating electricity use of cannabis operations. The form assumes that mixed-light (greenhouse) cultivation uses 110 kWh/sf annually.

The proposed project includes 5 – 25' x 75' greenhouses containing a total of 9,375 square feet of indoor mixed-light cannabis cultivation area. Based on the energy consumption rates from the Santa Barbara County Form, the project's expected energy consumption for the mixed-light cultivation activities would be approximately 1,031,250 kWh per year. This estimate is likely on the high side, due to the climate differential in the two regions. It is much sunnier in Lake County than in Santa Barbara County which translates into a lower power demand for lighting here.

Based on the California Energy Commission Report, a generic non-cannabis commercial building uses approximately 21.25 kWh/year/sf, which would be equivalent to 199,218 kWh/year for a 9,375 square foot building.

Preparation of an Energy Conservation Plan and implementation of a combination of measures that reduces project energy use is suggested.

Upon implementation of an energy conservation plan, the project's impacts associated with energy use would be less than significant and would not be cumulatively considerable.

Fuel Use

Ongoing operation of the project would result in fuel use associated with employee motor vehicle trips and deliveries. The project would employ up to 35 full-time and seasonal employees. Vehicles used by

employees and deliveries during operation would be subject to applicable state and federal fuel economy standards and State-mandated smog inspections. Based on adherence to applicable state and federal vehicle fuel regulations and the size and scope of proposed activities, project fuel use would not result in a potentially significant environmental impact and would not be wasteful, inefficient, or unnecessary.

Therefore, potential environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources and potential conflict with state or local plans regarding renewable energy or energy efficiency would be less than significant.

Conclusion

The 2160 Ogulin Canyon Road project would not result in a potentially significant energy demand and inefficient energy use during long-term operations.

2160 Ogulin Canyon Road

Odor Control Plan

If and when an odor complaint is received, it will be forwarded to the facilities manager responsible for odor control. The odor complaint incident will be logged, including the time and type of complaint, the location of the odor receptor, and contact information of the person making the complaint. The incident will be investigated by the manager, and the problem identified. The manager will visit the facility in question and determine if there are any deficiencies in the odor control system or other issues or problems, and then identify possible remedies. These remedies if possible should be implemented immediately. The manager will prepare a written response and communicate via email and by phone with the complainant, if possible.

The communications should acknowledge the complaint, describe the incident, and identify what remedial actions have been or will be taken.

Managers responsible for responding to odor complaints at 2160 Ogulin Canyon Road in Clearlake are:
- Brian Pensack
- Garrett Burdick

Ogulin Hills Holdings, LLC Odor Complaint Protocol

1. Each odor complaint will be logged in a master odor complaint logbook indicating:
A. Time and date of complaint.
B. Name of employee who has received complaint.
C. Weather conditions at time of complaint, including wind direction.
D. Specific nature of the complaint i.e. what does the complaint involve, strong odor, weak odor, intermittent odor, continuous odor, and other details.
E. Name, address, phone number, of complainant location and distance from the 2160 Ogulin Canyon Road facilities.
F. Action taken at the time of complaint including indicating who the complaint has been referred to and any the results of any initial investigation that may have been conducted.
G. Investigation of complaint – manager will investigate the complaint and determine the validity of it, including a determination as to equipment or mechanical failures or issues, operational issues, and or any other causes for the odor complaint.
H. Report on odor complaint – The managers will issue a report on the complaint, file it in the complaint logbook, and call the complainant within five working days to report findings and resolution actions.

Odor Mitigation

Cannabis odors are considered by some people to be objectional. The 2160 Ogulin Canyon Road site cultivation greenhouse and processing operations will use state-of-the-art air filtration systems, the most effective odor neutralizer for indoor and mixed light cultivation operations. Charcoal filters may be installed in the end or sidewall areas of the processing/manufacturing/greenhouse structures. And will also be installed within the mechanical air movers on the roof of the processing building.
Air from the cultivation areas will be mechanically vented through the structures using filters thus preventing nuisance odors from escaping the structures.

No significant odor impacts are anticipated from the cultivation and processing operations, due to the use of the filtration system, limited residential population in the area, the size of the cultivation operation, and the extensive setbacks from roads, property lines, and nearby parcels.
The project may be provided with a back-up odor mitigation system – an ozone generator – which may be installed on the outside of the exhaust fans, if needed and recommended.
Should additional odor mitigation be necessary, a high-pressure atomizing system could be installed outside of the exhaust fans. This type of system generates an aerosol water vapor that binds with the cannabis terpene compounds to reduce odors.

OWNER

OGULIN ESTATES HOLDINGS, LLC
BRIAN D. PENSACK
637 LINDARD ST., SUITE 201
SAN RAFAEL, CA 94901

SITE PLAN DATA

AREA OF PROPERTY	9.56 ACRES TOTAL
ZONING	I - INDUSTRIAL
FLOOD ZONE	X, AE, AO

NOTES

1) THIS IS NOT A BOUNDARY SURVEY. ALL LOT LINES SHOWN ARE BASED ON A.P.N. MAP.

2.) EACH GREENHOUSE TO BE EQUIPED WITH A THERMAL CAMERA.

3.) ELECTRIC, PHONE, AND CABLE LINES ARE PROPOSED TO BE UNDERGROUND ON SITE.

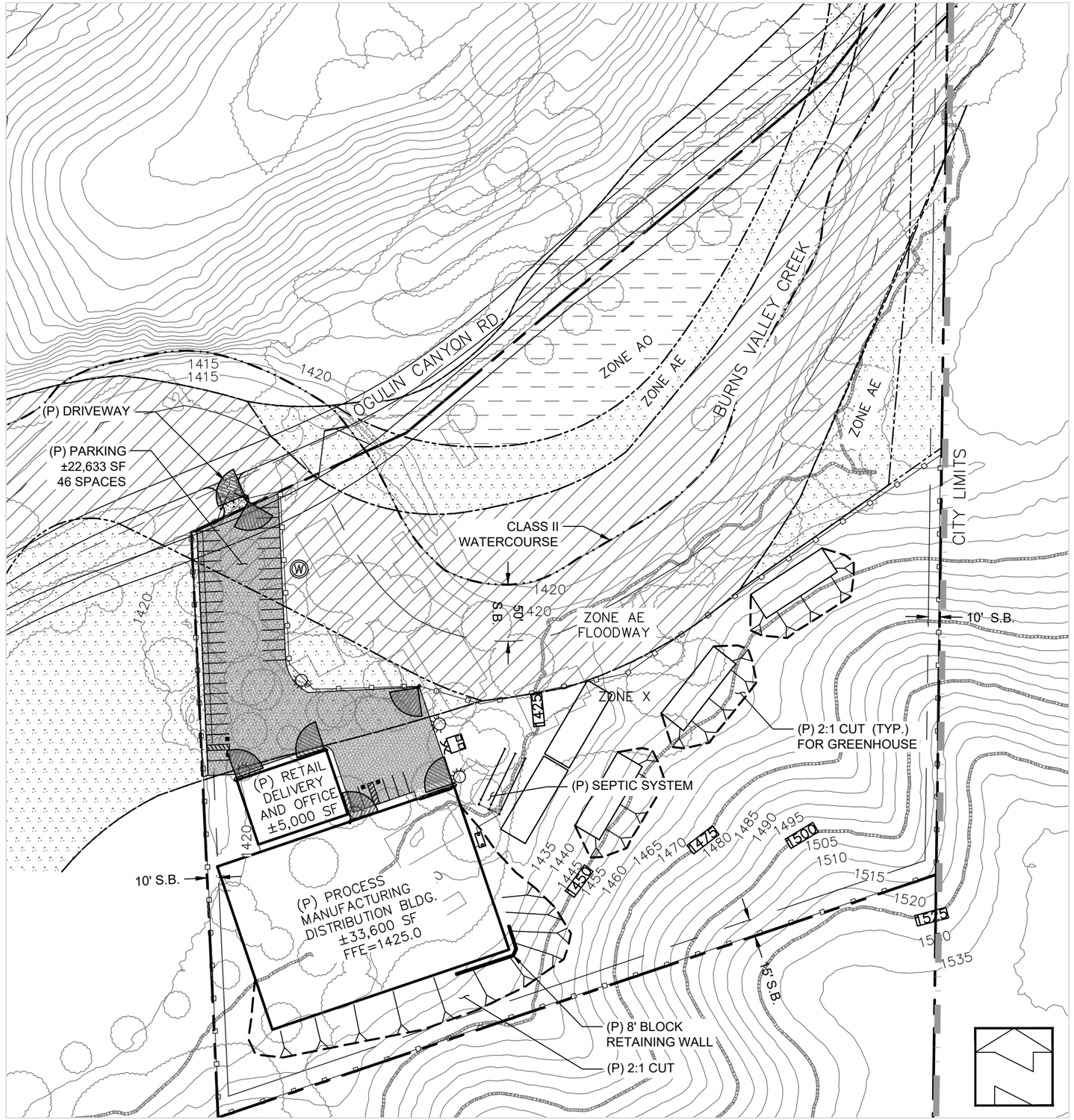
EARTHWORK QUANTITIES

CUT: 8,000 CY
FILL: 4,000 CY

NET: 4,000 CY EXPORT

LEGEND

- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- (P) ACCESS ROAD/DRIVEWAY
- (E) ACCESS ROAD/DRIVEWAY
- (E) TREE/BRUSH LINE
- FEMA FLOOD ZONE BOUNDARY
- (P) LANDSCAPE
- (P) 6' CHAIN LINKE FENCE
- (P) TRASH ENCLOSURE
- (P) THERMAL CAMERA
- (P) LIGHT POLE
- (P) GREENHOUSES (75'X25')
- ZONE AE
- ZONE AE FLOODWAY
- ZONE AO
- ZONE X



SUBMITTED TO:
CITY OF CLEARLAKE
COMMUNITY DEVELOPMENT DEPT.
14050 OLYMPIC DRIVE
CLEARLAKE, CA 95422

VanDerWall Engineering, Inc.
PO BOX 431
KELSEYVILLE, CA 95451
707-279-4887

Ogulin Cannabis Facilities II
SITE PLAN
APN: 010-044-21
2160 Ogulin Canyon Road
CLEARLAKE, CALIFORNIA

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE JAN. 2021
PROJ 21-02
DWG 644
SHEET 1 OF 2

BIOLOGICAL RESOURCE ASSESSMENT WITH BOTANICAL SURVEY

For

Ogulin Cannabis Facilities II

2160 Ogulin Canyon Road

Lake County, California

June 25, 2021

Prepared for: Ogulin Estates Holdings,LLC

637 Lindard Street

San Rafael, CA 94901

Prepared by: Lawrence Ray,
nativeplantguy@msn.com

Ecological Consultant

201 Navigator Drive
Scotts Valley, CA
95066

CONTENTS

Section		Page
1.0	**PROJECT DESCRIPTION**	4
	1.1 Project Location	5
	1.2 Proposed Project	6
2.0	**ASSESSMENT METHODOLOGY**	7
	2.1 Botanical Survey Methods	8
	2.2 Survey Dates	8
	2.3 Biological Assessment Staff	8
3.0	**SITE CHARACTERISTICS**	9
	3.1 Topography and Drainage	9
	3.2 Soils	9-11
	3.3 Vegetation Types	12-14
4.0	**PRE-SURVEY RESEARCH RESULTS**	15
	4.1 CNPS Electronic Inventory Analysis	15
	4.2 California Natural Diversity Database	15
	4.3 Sensitive Wildlife Habitat Analysis Results	16-24
	4.4 Wildlife Assessment	25-29
5.0	**FIELD SURVEY RESULTS**	30
	5.1 Botanical Field Survey Results	30-32
6.0	**SUMMARY AND RECOMMENDATIONS**	33
	6.1 Summary	33
	6.2 Potential Impacts and Proposed Mitigation	34-37
7.0	**BIBLIOGRAPHY**	38-40

FIGURES AND TABLES

Section		Page
Figure 1	Location Map	5
Figure 2	Project Drawing	51
Figure 3	Vegetation	12
Figure 4	Soil Map	11
Table 1	Plant Communities and Other Cover	12
Table 2	Selected CNPS Plants	16
Table 3	CNDDB Sensitive Plant and Wildlife Species	20
Table 4	Flora list	30

APPENDIX A CWHR Results

1.0 PROJECT DESCRIPTION

1.1 The parcel is located 2160 Ogulin Canyon Road, north-east of Clearlake, CA and approximately ½ mile east of CA State Highway 53. See **Figure 1** attached.

Figure 1; Location

The local permitting agency is requesting completion of a botanical survey and assessment of biological resources on the property as part of the California Environmental Quality Act (CEQA) review required for new development. The initial phase of this assessment evaluates the potential of the property to contain sensitive plant and wildlife habitat. The second phase consists of field surveys, including a botanical survey listing all plant taxa[1]. The biological resource assessment will determine whether the property contains sensitive plants or potentially contains sensitive wildlife requiring mitigation under the California Environmental Quality Act (CEQA) or National Environmental Policy Act (NEPA). As used here, the terms sensitive plant or wildlife includes all state or federal rare, threatened, or endangered species and all species listed in the California Natural Diversity Database (CNDDB) list of "Special Status Plants, Animals, and Natural Communities".

A delineation of waters of the U.S. was not conducted due to the lack of water and hydric soil not present on the parcel. A wetland is defined as 1. The presence of water 2. Hydric soils and 3. Wetland plants. The presence of woody riparian species and the evidence of water flow does qualify as potential wetland. Riparian areas are considered sensitive areas and are to be protected. Setback requirements would be needed for the existing riparian area (depicted I **Section 3.3, Vegetation Types and graphically on Figure 3, Vegetation Types**). **Figure 2** of this report illustrates that the riparian area will not be altered or encroached upon in any significant way from the actions proposed in the project. All wetlands and drainages within the project area are depicted in Table 5.

1.2 **Proposed Project:** This survey covers 1 parcel totaling approximately 9.56 acres in the east central part of Lake County APN: 010-044-21. Ogulin Estates Holdings, LLC is the landholder of the parcel located in the Burns Valley creek watershed. The area proposed for development comprise approximately 2 to 3 acres in size. The area is comprised of an existing set of buildings with associated roads and service ways. Proposed project drawing is attached, see **Figure 2.**

2.0 ASSESSMENT METHODOLOGY

The basis of the biological resource assessment is a comparison of existing habitat conditions within the project boundaries to the geographic range and habitat requirements of sensitive plants and wildlife. It includes all sensitive species that occupy habitats similar to those found in the project area and whose known geographic ranges encompass it. The approach is conservative in that it tends to over-estimate the actual number of species present. The analysis includes the following site characteristics:

- Location of the project area with regard to the geographic range of sensitive plant and wildlife species
- Location(s) of known populations of sensitive plant and wildlife species as mapped in the California Natural Diversity Database (CNDDB)
- Soils of the project area
- Elevation
- Presence or absence of special features such as vernal pools and serpentine soils
- Plant communities existing within the project area

In addition to knowledge of the local plants and wildlife, the following computer databases were used to analyze the suitability of the site for sensitive species:

- California Department of Fish and Wildlife (CDFW), *California Natural Diversity Database (CNDDB)*; RareFind 5, 2021
- California Native Plant Society's (CNPS) *Electronic Inventory of Rare and Endangered Vascular Plants of California* (v9-01 0.0)
- California Department of Fish and Wildlife, *California Wildlife Habitat Relationships System (CWHR Version 9.0)*

The CNDDB and RareFind 5 databases consist of maps and records of all known populations of sensitive plants and wildlife in California. This data is continually updated by the CDFW with new sensitive species population data.

The CNPS database produces a list of sensitive plants potentially occurring at a site based on the various site characteristics listed above. While use of the CNPS inventory does not in itself eliminate the need for an in-season botanical survey, it can, when used in conjunction with other information, provide a very good indication of thesuitability of a site as habitat for sensitive plant species.

The CWHR database operates on the same basis as the CNPS inventory. Input includes geographic area, plant community (including development stage), soil structure, and special features such as presence of water, snags, cover, and food (fruit, seeds, insects, etc.).

[1] Many sensitive plants and wildlife are subspecies or varieties which are taxonomic subcategories of species. The term "taxa" refers to species and their sub-specific categories.

2.1 Botanical Survey Methods: An in-season botanical survey was conducted for the project site. The CNDDB report and maps for the Lower Lake, CA quadrangle were referenced prior to the survey. Vegetation communities were identified based on the nomenclature of *A Manual of California Vegetation* (Sawyer, Keeler-Wolf, andEvens, 2009), and mapped on a 1"=600' aerial photo (due to the large size of the survey area). Vegetation type names are based on an assessment of dominant cover species.

Plants occurring on the site were identified using *The Jepson Manual, Higher Plants of California,* 2012. Where necessary, species names were updated based on the 6th edition, *CNPS Inventory of Rare and Endangered Plants of California*. A map of the vegetation types at the site is provided in **Figure 2.**

2.2 Survey Dates: Site visits for the plant surveys, vegetation mapping, and the delineation were conducted on May 10, 18, and June 10,11, 2021.

2.3 Biological Assessment Staff: The field surveys, plant taxonomy, and vegetation mapping, were conducted by Lawrence Ray principal biologist. Mr. Ray has a Master of Science Degree in Ecology from the Antioch University/UC Berkeley and a Bachelor of Science Degree in Environmental Studies from the Antioch University. He hasover 35 years of experience as a biologist in the government and private sectors. Supportstaff was provided by Austin Ray who holds an AA Degree in Horticulture from Cabrillo College.

3.0 SITE CHARACTERISTICS

3.1Site Topography and Drainage: The parcel occupies a relatively flat topography from 1,418 (mean sea level) at the entrance on Ogulin Canyon Road to 1,513 feet msl at the southeast corner. Drainage from the surrounding slopes is to Burns Valley Creek which is drains southwest to Clear Lake. Topography is shown in **Figure 1.**

3.2 Soils: Based on the *Soil Surveys of Lake County and Mendocino County (Eastern Part), California* prepared by the U.S. Resource Conservation Service, the survey area contains the following soil types:

161-Manzanita loam, 15 to 25 percent slopes. Thisvery deep, well drained soil is on terraces. It formed in alluvium derived from mixed rock sources. The vegetation is oak, manzanita, and annual grasses.

Elevation is 1,400 to 1,600 feet. The average annual precipitation is 25 to 35 inches, the average annual airtemperature is 55 to 59 degrees F, and the average frost-free period is 160 to 200 days.
Typically, the upper 5 inches of the surface layer is light yellowish brown loam and the lower 14 inches is strong brown loam. The upper 9 inches of the subsoil isstrong brown loam, and the lower 56 inches is variegated strong brown and yellowish red clay loam.

197-Phipps complex, 30 to 50 percent slopes.
This map unit is on uplifted, dissected hills. These soils are susceptible to slumping and gullying. The vegetationis mainly oak and annual grasses. Elevation is 1,100 to 2,000 feet. The average annual precipitation is about 25 to 35 inches, the average annual air temperature is about 55 to 59 degrees F, and the average frost-free period is about 160 to 200 days.
This unit is about 50 percent Phipps clay loam, loamysubstratum, and 15 percent Phipps loam. The components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used.
Included in this unit are small areas of Bally and Forbesville soils. Also included are small areas of olive gray clayey soils that form deep, wide cracks when dry and are 20 to 40 inches deep over unconsolidated sediment; highly eroded or gullied soils in steep ravines; soils on north-facing slopes that are similar to these Phipps soils but are cooler or have slopes of 50 to 75 percent; and soils that are similar to these Phipps soils but have a thick, dark-colored surface layer, have more clay throughout the profile, or have less clay in the subsoil. Included areas make up about 35 percent of thetotal acreage. The percentage varies from one area to another.
The Phipps clay loam is very deep and well drained. Itformed in alluvium derived from mixed rock sources.
Typically, the surface layer is pale brown clay loam about7 inches thick. The upper 11 inches of the subsoil is palebrown and light yellowish brown clay loam, and the lower24 inches is yellowish brown clay. The substratum to a depth of 60 inches or more is light yellowish brown clay loam.

246- Wolfcreek gravelly loam. This very deep, welldrained soil is on flood plains. It formed in alluvium derived from mixed rock sources. Slope is O to 2 percent. The vegetation is mainly annual grasses and forbs. Elevation is 1,300 to 2,600 feet. The average annual precipitation is 25 to 40 inches, the average annual air

temperature is 55 to 59 degrees F, and the average frost-free period is 150 to 205 days.

Typically, the surface layer is pale brown gravelly loam1O inches thick. The underlying material to a depth of 72inches is stratified, brown clay loam, sandy clay loam, and very gravelly sandy clay loam.
Included in this unit are small areas of Talmage soils. Also included are small areas of soils that are similar to this Wolfcreek soil but are nongravelly, have a darker colored surface layer and more clay, or are in low areasthat are subject to occasional flooding. Included areas make up about 15 percent of the total acreage. The percentage varies from one area to another.
Permeability of this Wolfcreek soil is moderately slow. Available water capacity is 7.5 to 10.0 inches. Effective rooting depth is 60 inches or more. Surface runoff is very slow, and the hazard of erosion is slight. This soil is subject to rare periods of flooding during prolonged,
high-intensity storms.

249-Xerofluvents-Riverwash complex. This map unit is on narrow flood plains adjacent to stream channels and in active stream channels. Slope is 0 to 2 percent. The vegetation is mainly sparse annual grassesand forbs. Elevation is 750 to 2,800 feet. The average annual precipitation is 25 to 40 inches, the average annual air temperature is 54 to 59 degrees F, and the average frost-free period is 135 to 200 days.

This unit is about 55 percent Xerofluvents and 30 percent Riverwash. The components of this unit are sointricately intermingled that it was not practical to map them separately at the scale used.

Included in this unit are small areas of Kelsey, Maywood Variant, and Talmage soils. Included areasmake up about 15 percent of the total acreage. The percentage varies from one area to another.
Xerofluvents consist of very deep, excessively drainedsoils that formed in alluvium derived from mixed rock sources. No single profile of Xerofluvents is typical, but one commonly observed in the survey area has a surface layer of grayish brown very gravelly sandy loam 5 inches thick. The underlying material to a depth of 84 inches is stratified, light brownish gray very gravelly loamy coarse sand and very gravelly coarse sand.

Figure 4; Soils Map

Soil Map—Lake County, California
(2160 OCnyn)

Map Scale: 1:2,060 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 30 60 120 180

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

3.3 **Vegetation Types:** This project contains five distinct plant communities or vegetation types based on or derived from the "Standardized Classification" scheme described in the California Native Plant Society (CNPS) *A Manual of California Vegetation.* These vegetation types and other cover types are listed in **Table 1.** They are described below and shown in the vegetation map provided in **Figure 2.**

Figure 2; Vegetation Map

1Blue Oak Alliance/Developed Areas with Blue Oak

2.Ruderal/Waste area dominated by Eriogonum sp

3. Chamise chaparral Shrub Alliance

4. Brome Grasslands

5. Riparian Area-Salix lasiolepis Shrub Alliance

TABLE 1. PLANT COMMUNITIES AND OTHER COVER TYPES PRESENT

COVER TYPE	Total Acres of Cover Type on Property	Percent of Property Supporting Cover Type
Blue Oak Woodland-Quercus douglasii Woodland Alliance	6.25	66
Ruderal non-specific waste area (Eriogonum)	0.94	9.8
Chamise chaparral- Adenostoma fasciculatum Shrubland Alliance	0.39	3.5
Annual brome grasslands - Bromus(diandrus,hordeaceus)	1.52	16
Riparian- Salix lasiolepis Shrubland Alliance	0.46	4.7
Total	**9.56**	**100.00**

1.Blue Oak Woodland/*Quercus douglasii* Woodland Alliance. Quercus douglasii is dominant or co-dominant in the tree canopy Aesculus californica, Juniperus californica,Pinus sabiniana, Quercus agrifolia, Q. lobata, and *Q. wislizeni*. Trees < 20 m; with conifers35m; canopy is intermittent to continuous, or savanna-like; it may be one or two tiered. Shrub layer is sparse to intermittent. Herbaceous layer is sparse or grassy, and forbs are present seasonally. **Habitats:** Valley bottoms, foothills, rocky outcroppings. Soils are shallow, low in fertility, moderately to excessively drained with extensive rock fragments. **Elevation:** 30-1900 m.

2.Ruderal/non-specific waste area. This area is dominated by extremely sparse vegetation due to high compaction of soils and extreme disturbance from industrial use. Two dominant natives cover the greatest percentage of the area; Eriogonum nudum and Eriogonum wrightii. Some scattered grasses and forbs are also present included in the Annual Brome Grassland section and are present around the margins and sparsely throughout the area.

3. Chamise chaparral/*Andenostoma fasciculatum* Shrub Alliance. *Adenostoma fasciculatum* is dominant in the shrub canopy with *A. sparsifolium, Arctostahylos glandulosa, A. manzanita, A. viscida, Ceanothus spp., Diplacus aurantiacus, Eroidictyon californicum, Eriogonum fasciculatum, Hesperoyucca whipplei, Heteromeles arbutifolia, Quercus berberidifolia, Q. wislizeni, Salvia apiana, S. leucophylla, S. mellifera,* and *Toxicodendron diversilobum*. Emergent trees may be present at low cover. Shrubs < 4 m;canopy is intermittent to continuous. Herbaceous layer is sparse to intermittent. **Habitats:**Varied topography. Soils are commonly shallow over colluvium and many kinds of bedrock. **Elevation**: 10-1800 m.

4. Annual brome grasslands/*Bromus (diandrus, hordeaceus) – Brachypodium distachyon*Bromus diandrus, B. hordeaceus, or Brachypodium distachyon is dominant or co- dominant with non-natives in the herbaceous layer. Emergent trees and shrubs may be present at low cover. Herbs < 75 cm; cover is intermittent to continuous. **Habitats:** All topographic settings in foothills, waste places, rangelands, openings in woodlands.**Elevation**: 0-2200 m.

5.Salix lasiolepis Shrubland Alliance. Arroyo willow thickets are small and scattered in the riparian area of the parcel. Also scattered are a few Fremont cottonwood (*Populus fremontii)* as well as a few *Sambucus nigra*. Found along streambanks and benches, slope seeps and stringers along drainages. **The USFWS Wetland Inventory** (1996 national list) recognizes Salix lasiolepis as a **FACW plant.** Elevation**: 0-2170**

4.0 PRE-SURVEY RESEARCH RESULTS

4.1 CNPS On-Line Electronic Inventory Analysis: A California Native Plant Society (CNPS) analysis was conducted for all plants with federal and state regulatory status, and all non-status plants on the CNPS Lists 1B through 4. The query included all plants within this area of the county occurring within the plant communities identified on the project site. The inventory lists species potentially occurring at the site; these are listed in **Table 2**. These species were included in the list of potentially sensitive species specifically searched for during field surveys. It is important to note that this list includes species for which appropriate habitat is not present on the parcel. The CNPS database search does not allow fine tuning for specific soil types and many specific habitats.

Note: *The CNPS list is used to broaden the list of sensitive species considered during the subsequent field surveys; however, it must be used with discretion because the database search does not allow fine-tuning for specific soil types or for many specific habitats required by sensitive plant taxa. Consequently, the CNPS list generated for a site may include several taxa for which the required habitat is not present.*

4.2 California Natural Diversity Database: The California Natural Diversity Database (CNDDB) and CDFW RareFind 5 data and maps for the Purdy's Gardens 7½' and adjacent quadrangles were reviewed for this project. **Table 3** presents a list of sensitive plant and wildlife species known to occur within this quadrangle. In addition to listing the species present within the quadrangle, the table provides a brief descriptor of the habitat requirements and blooming season, along with an assessment of whether the project area contains the necessary habitat requirements for each species. **Appendix A** at the end of this report lists the species within the nine quadrangles in the vicinity of this property.

4.3 **California Natural Diversity Database:** The California Natural Diversity Database (CNDDB) and CDFW RareFind 5 data and maps for the Lower Lake 7½' and adjacent quadrangles were reviewed for this project. **Table 3** presents a list of sensitive plant and wildlife species known to occur within this quadrangle. In addition to listing the species present within the quadrangle, the table provides a brief descriptor ofthe habitat requirements and blooming season, along with an assessment of whether the project area contains the necessary habitat requirements for each species. **Appendix A** at the end of this report lists the species within the nine quadrangles in the vicinity of this property.

TABLE 2. CALIFORNIA NATIVE PLANT SOCIETY'S INVENTORY OF RARE AND ENDANGERED PLANTS

Selected CNPS Plants by Scientific Name

Ogulin Cannabis Facilities II

Scientific Name	Common Name	Family	Lifeform	CRPR	CESA	FESA	Blooming Period	Habitat
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	1B.2	None	None	Mar-Jun	Coastal bluff scrub, Cismontane woodland, Valley and foothill grassland
Arctostaphylos manzanita ssp. elegans	Konocti manzanita	Ericaceae	perennial evergreen shrub	1B.3	None	None	(Jan)Mar-May(Jul)	Chaparral, Cismontane woodland, Lower montane coniferous forest; volcanic
Astragalus breweri	Brewer's milk-vetch	Fabaceae	annual herb	4.2	None	None	Apr-Jun	Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland (open, often gravelly); often serpentinite, volcanic
Calystegia collina ssp. oxyphylla	Mt. Saint Helena morning-glory	Convolvulaceae	perennial rhizomatous herb	4.2	None	None	Apr-Jun	Chaparral, Lower montane coniferous forest, Valley and foothill grassland; serpentinite
Ceanothus confusus	Rincon Ridge ceanothus	Rhamnaceae	perennial evergreen shrub	1B.1	None	None	Feb-Jun	Closed-cone coniferous forest, Chaparral, Cismontane woodland; volcanic or serpentinite

Scientific Name	Common Name	Family	Lifeform	CRPR	CESA	FESA	Blooming Period	Habitat
Clarkia gracilis ssp. tracyi	Tracy's clarkia	Onagraceae	annual herb	4.2	None	None	Apr-Jul	Chaparral (openings, usually serpentinite)
Collomia diversifolia	serpentine collomia	Polemoniaceae	annual herb	4.3	None	None	May-Jun	Chaparral, Cismontane woodland serpentinite, rocky or gravelly
Cryptantha dissita	serpentine cryptantha	Boraginaceae	annual herb	1B.2	None	None	Apr-Jun	Chaparral (serpentinite)
Eryngium constancei	Loch Lomond button celery		Annual herb	1B.1	endangered	endangered		Vernal pool, wetland
Fritillaria purdyi	Purdy's fritillary	Liliaceae	perennial bulbiferous herb	4.3	None	None	Mar-Jun	Chaparral, Cismontane woodland, Lower montane coniferous forest; usually serpentinite
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	1B.2	**CE**	None	Apr-Aug	Marshes and swamps (lake margins), Vernal pools; clay
Hesperolinon adenophyllum	glandular western flax	Linaceae	annual herb	1B.2	None	None	May-Aug	Chaparral, Cismontane woodland, Valley and foothill grassland; usually serpentinite
Horkelia bolanderi	Bolander's horkelia	Rosaceae	perennial herb	1B.2	None	None	(May)Jun-Aug	Chaparral, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland; edges, vernally mesic areas
Lasthenia burkei	Burke's goldfields		Annual herb	1B.1	endangered	endangered		Meadow, seeps, vernal pool, wetland
Layia septentrionalis	Colusa layia	Asteraceae	annual herb	1B.2	None	None	Apr-May	Chaparral, Cismontane woodland, Valley and foothill grassland; sandy, serpentinite
Lilium rubescens	redwood lily	Liliaceae	perennial bulbiferous herb	4.2	None	None	Apr-Aug(Sep)	Broadleafed upland forest, Chaparral, Lower montane coniferous forest, North Coast coniferous forest, Upper montane coniferous forest. Sometimes serpentinite, sometimes roadsides
Monardella viridis	green monardella	Lamiaceae	perennial rhizomatous herb	4.3	None	None	Jun-Sep	Broadleafed upland forest, Chaparral, Cismontane woodland

Streptanthus glandulosus ssp. hoffmanii	Hoffman's bristly jewelflower	Brassicaceae	annual herb	1B.3	None	None	Mar-Jul	Chaparral, Cismontane woodland, Valley and foothill grassland (often serpentinite); rocky
Streptanthus hesperidis	green jewelflower	Brassicaceae	annual herb	1B.2	None	None	May-Jul	Chaparral (openings), Cismontane woodland; serpentinite, rocky
Tracyina rostrata	beaked tracyina	Asteraceae	annual herb	1B.2	None	None	May-Jun	Chaparral, Cismontane woodland, Valley and foothill grassland
Viburnum ellipticum	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	2B.3	None	None	May-Jun	Chaparral, Cismontane woodland, Lower montane coniferous forest

KEY FOR TABLE 2:

CNPS Rare Plant-Threat Rank Definitions:

1B.1 = Rare, threatened, or endangered in California and elsewhere; seriously threatened in California
1B.2 = Rare, threatened, or endangered in California and elsewhere; moderately threatened in California
1B.3 = Rare, threatened, or endangered in California and elsewhere; not very threatened in California
2A = Presumed extinct in California, but extant elsewhere

2B.1 = Rare, threatened, or endangered in Calif., but more common elsewhere; seriously threatened in Calif.
2B.2 = Rare, threatened, or endangered in Calif., but more common elsewhere; moderately threatened in Calif.
2B.3 = Rare, threatened, or endangered in Calif., but more common elsewhere; not very threatened in Calif.

3 = Plants about which we need more information (Review List)

3.1 = Plants about which we need more information (Review List); seriously threatened in California

3.2 = Plants about which we need more information (Review List); moderately threatened in California

3.3 = Plants about which we need more information (Review List); not very threatened in California

4.1 = Plants of limited distribution (watch list); seriously threatened in California

4.2 = Plants of limited distribution (watch list); moderately threatened in California

4.3 = Plants of limited distribution (watch list); not very threatened in California

State and Federal Status:

CESA = California Endangered Species Act
FESA = Federal Endangered Species Act

SR	*= State. Rare*	*SE*	*= State Endangered.*
ST	*= State. Threatened*	*SD*	*= State Delisted*
SSC	*= CDFW Species of Special Concern*	*FP*	*= CDFW Fully Protected*
WL	*= CDFW Watch List*	*FE*	*= Federal Endangered*
FT	*= Federal Threatened*	*FD*	*= Federal Delisted*

TABLE 3. CNDDB SENSITIVE PLANT AND WILDLIFE SPECIES WITHIN THE LOWER LAKE AND ADJACENT CALIFORNIA 7½' QUADRANGLES

Habitat Type	Habitat Present
Northern Interior Cypress Forest	No
Serpentine Bunchgrass	No

Plant Species	Common Name	Habitat Requirements/ Fed-State-CNPS* Status	Blooming Season/Form	Habitat Present
Amsinckia lunaris	bent-flowered fiddleneck	Coastal bluff scrub, cismontane woodland, valley & foothill grassland; --/--/1B.2	March-June ann. herb	Habitat present but not found during surveys
Antirrhinum virga	twig-like snapdragon	Chaparral, lower montane coniferous forest,/rocky, openings, often serpentinite; --/--/4.3	June-July per. herb	Poor habitat present
Arctostaphylos manzanita ssp. elegans	Konocti manzanita	Chaparral, cismontane woodland, lower montane conif. forest/volcanic; --/--/1B.3	March-May everg. shrub	Poor habitat present
Arctostaphylos stanfordiana ssp. raichei	Raiche's manzanita	Chaparral, lower montane coniferous forest/rocky, often serpentine; --/--/1B.1	Feb.-April ann. herb	Poor habitat present
Astragalus breweri	Brewer's milk-vetch	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland (open, often gravelly)/often serpentinite, volcanic; --/--/4.2	April-June ann. herb	Poor habitat present
Brasenia schreiberi	watershield	Marshes & swamps/freshwater; --/--/2B.3	March-Sept rhizom. herb	Habitat not present
Calystegia collina ssp. oxyphylla	Mt. Saint Helena morning-glory	Chaparral, lower montane conif. forest, valley & foothill grassland/serpentinite; --/--/4.2	April-June rhizom. herb	Habitat not present
Carex comosa	bristly sedge	Coastal prairie, marshes and swamps (lake margins), valley and foothill grassland; --/--/2B.1	May-Sept. per. rhizom. herb	Habitat not present
Ceanothus confusus	Rincon ridge ceanothus	Closed cone conif. forest, chaparral, cismontane woodland/volcanic; --/--/1B.1	Feb.-April everg. shrub	Poor habitat present
Clarkia gracilis ssp. tracyi	Tracy's clarkia	Chaparral (openings, usually serpentinite); --/--/4.2	April-June ann. herb	Habitat not present
Collomia diversifolia	serpentine collomia	Chaparral, cismontane woodland/serpentinite, rocky or gravelly; --/--/4.3	May-June ann. herb	Habitat not present
Cryptantha dissita	serpentine cryptantha	Chaparral/serpentine outcrops; --/--/1B.2	April-June ann. herb	Habitat not present

Plant Species	Common Name	Habitat Requirements/ Fed-State-CNPS* Status	Blooming Season/Form	Habitat Present
Entosthodon kochii	Koch's cord moss	Cismontane woodland (soil); --/--/1B.3	moss	Habitat present but not found during surveys
Erythranthe nudata	bare monkeyflower	Chaparral, cismontane woodland, serpentinite seeps; --/--/4.3	May-June ann. herb	Habitat not present
Fritillaria purdyi	Purdy's fritillary	Chaparral, cismontane woodland, lower montane coniferous forest; usually serpentinite; --/--/4.3	March-June bulb. herb	Habitat not present
Gratiola heterosepala	Boggs Lake hedge-hyssop	Freshwater marsh, marshes & swamps (freshwater), vernal pools, sometimes lake margins/clay; --/SE/1B.2	April-Aug. ann. herb	Habitat not present
Hesperolinon adenophyllum	glandular western flax	Chaparral, cismontane woodland, valley & foothill grassland/usually serpentine chaparral; --/--/1B.2	May-Aug. ann. herb	Habitat not present
Horkelia bolanderi	Bolander's horkelia	Lower montane conif. forest, chaparral, meadows & seeps, valley & foothill grassland/grassy margins of vernal pools and meadows; --/ --/1B.2	June-Aug. per. herb	Habitat present but not found during surveys
Kopsiopsis hookeri	small groundcone	North Coast coniferous forest/redwood forest; --/--/2B.3 (parasitic)	April-August per. rhizom. herb	Habitat not present
Layia septentrionalis	Colusa layia	Chaparral, cismontane woodland, valley & foothill grassland/sandy or serpentine; --/--/1B.2	April-May ann. herb	Habitat present, not found during surveys
Leptosiphon acicularis	bristly leptisiphon	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland; --/--/4.2	April-July ann. herb	Habitat present but not found during surveys
Monardella viridis	green monardella	Broadleaved upland forest, chaparral, cismontane woodland; --/--/4.3	June-Sept. rhizom. herb	Habitat present but not found during surveys
Plagiobothrys lithocaryus	Mayacamas popcorn-flower	Chaparral, cismontane woodland, valley & foothill grassland/mesic; --/--/1A (presumed extinct)	April-May ann. herb	No habitat present
Ranunculus lobbii	Lobb's aquatic buttercup	Cismontane woodland, North Coast coniferous forest, valley and foothill grassland, vernal pools/mesic--/--/4.2	Feb.-May ann. herb (aquatic)	Habitat not present
Sidalcea keckii	Keck's checkerbloom	Chaparral, cismontane woodland, coastal prairie,valley and foothill grassland;Endangered/1B1/	April-May annual herb	Poor habitat present, not found

Streptanthus glandulosus ssp. hoffmanii	Hoffman's bristly jewelflower	Chaparral, cismontane woodland, valley and foothill grassland/rocky, often serpentinite; --/--/1B.3	March-July ann. herb	Habitat not present
Tracyina rostrata	beaked tracyina	Cismontane woodland, valley & foothill grassland; --/--/1B.2	May-June ann. herb	Habitat present but not found during surveys

Plant Species	Common Name	Habitat Requirements/ Fed-State-CNPS* Status	Blooming Season/Form	Habitat Present
Viburnum ellipticum	oval-leaved viburnum	Chaparral, cismontane woodland, lower montane coniferous forest; --/--/2B.3	May-June decid. shrub	Habitat present but not found during surveys

*See CNPS list for key

Wildlife Species	Common Name	Habitat Requirements, Status	Season Present	Habitat Present
Bombus occidentalis	western bumblebee	Once common in the western U.S., these bees are important pollinators of both wild plants and crops. Threats to be bee include insecticides, loss of habitat, climate change and diseases from commercial bee rearing. G4/S1	year-round	Habitat may be present
Bombus caliginosus	obscure bumble bee	A black and yellow bee found in California, Oregon, Washington. Food plant genera: Baccharis, Cirsium, Lupinus, Lotus, Grindelia, Phacelia; G3G4/CA-SNR	year-round	Poor habitat present
Taricha rivularis	red-bellied newt	Occurs near high to moderate gradient streams and rivers, riffles, pools. Burrows in soil or debris near water, emerges during fall rains to water to breed; G4/SNR	year-round	No Habitat present
Rana boylii	foothill yellow-legged frog	Riparian/aquatic: partly-shaded, shallow streams & riffles with a rocky substrate in variety of habitats; SSC/SCT/G3/S2S3	year-round	No Habitat present
Emys marmorata	western pond turtle	Aquatic turtle found in ponds, lakes, rivers, creeks, marshes & irrigation ditches with abundant vegetation and rocky or muddy bottoms; In woodland, forest, & grasslands; SSC/G3G4/S3	year-round	No Habitat present
Elanus leucurus	white-tailed kite	Open areas near woodlands and water; SFP/G5/S3	year-round	Habitat is present
Circus cyaneus	northern harrier	Coastal salt and freshwater marshes, meadows, grasslands near wetlands; nests in brush on ground; SSC/G5/S3	migratory	Habitat is present
Pandion haliaetus	osprey	Large, fish-bearing waters usually in mixed conifer habitats/typically nests are within 15 miles of good fish-producing body of water; WL/G5/S4	sometimes migratory	Habitat not present

Wildlife Species	Common Name	Habitat Requirements, Status	Season Present	Habitat Present
Agelaius tricolor	tricolored blackbird	Fresh emergent wetland (marshes) with cattails, tules, sedges. Largely endemic to California; SCE//G2G3/S1S2	year-round	No Habitat is present
Ammodramus savannarum	grasshopper sparrow	Prefers open grassland habitats with patches of bare ground and shrubby vegetation. Breeds in various types of grassland vegetation. Eats insects, grain, and seeds on the ground; SSC/G5/S3	sometimes migratory	Habitat is present
Corynorhinus townsendii	Townsend's big-eared bat	Roosts in open near relatively mesic sites, mainly montane forest habitats; SSC/G3/S2	local migrant	Habitat is present
Antrozous pallidus	pallid bat	Open, dry habitats, forest habitats, in caves, tunnels, buildings, bridges; sensitive to human disturbance; SSC/G5/S3	local migrant	Habitat is present
Pekania pennanti	fisher, West Coast DPS	No. Coast conifer forest: old-growth conifer or riparian forests; cavities, snags, logs, rocky areas; SCT/SSC/G5/S3	year-round	Poor habitat present
Taxidea taxus	American badger	Dryer open stages of shrub, forest, & herbaceous habitats. Needs friable soils for burrows and open uncultivated ground; SSC/G5/S3	year-round	Habitat is present
Erethizon dorsatum	North American porcupine	Occurs in a wide variety of coniferous and mixed woodland habitats in Sierra Nevada, Cascade, and Coast Ranges/ uses fallen and standing dead trees as cover; G5/S3	year-round	No Habitat present

KEY FOR TABLE 3:

State and Federal:

SE/ST/SD=State Endangered/Threatened/Delisted

SC/SCD=State Candidate for Listing/Delisting

SSC=CDFW Species of Special Concern

SFP=CDFW Fully Protected

WL=CDFW Watch List

FE/FT/FD=Federal Endangered/Threatened/Delisted
FPE/FPT/FPD/FP=Federal Proposed Endangered/Threatened/Delisting

FC=Federal Candidate

NatureServe Conservation Status:

G1/S1 = Global/State Critically Imperiled

G2/S2 = Global/State Imperiled

G3/S3 = Global/State Vulnerable

G4/S4 = Global/State Apparently Secure

G5/S5 = Global/State Secure

SNR=Not rated

4.4 Wildlife Habitat Analysis Results: The California Wildlife Habitat Relationships analysis lists a number of native species with sensitive and non- sensitive status as potentially occurring on the site based on the geographic location and wildlife habitats present. This list is included as **Appendix B**.

4.5 Wildlife Assessment: Based on the pre-survey research conducted for this study, a total of 15 sensitive wildlife species need to be accounted for within the project area. These consist of the species identified as present within and adjacent to the Lower Lake quadrangle by the CNDDB. Accepted protocol requires that all CNDDB species in the surrounding U.S.G.S. quadrangle be discussed even through suitable habitat may not occur on the site.

- **Western bumble bee (*Bombus occidentalis*):**
  Once common in the western and northwestern U.S., these bees are important pollinators of both wild plants and crops and has been commercially reared to pollinate crops such as greenhouse tomatoes and cranberries; they also have been an important pollinator of alfalfa, avocado, apples, cherries, blackberries, and blueberry. Since 1998 populations have declined due to insecticides, loss of habitat, climate change and diseases from commercial bee rearing. This bumblebee is a generic forager and its habitat requirements are non-specific. Identification of bees is based on their sex and markings.

- **Obscure bumble bee (*Bombus oliginosus*):**
  This bumblebee is native to the west coast; in the Coast Range it inhabits meadows. It is similar in appearance and co-exists with the common *Bombus vosnesenskii* and may be mistaken for this bee. *B. oliginosus* is threatened by climate change and loss of habitat, and does not thrive in developed urban or agricultural areas. Its food sources include plant genera *Baccharis, Cirsium, Lupinus, Lotus, Grindelia*, and *Phacelia*. There is a low potential for it to occur on the property.

- **Red-bellied newt (*Taricha rivularis*):**
  This species is often found under rocks, logs, soil or duff, or in rodent burrows in coastal woodlands and redwood forests. Newts occur near high to moderate gradient streams and rivers, in riffles, and pools. Newts burrow in soil or debris near water, and emerge during fall rains to breed; and may migrate up to a mile or more between terrestrial habitat and stream breeding sites. They usually breed in flowing water, from late February through May. Appropriate habitat for newts does not occur within the streams on the project site. Streams on the surrounding slopes are short-term seasonal drainages, these drainages generally are unsuitable for this species.

- **Foothill yellow-legged frog (*Rana boylii*):**
  These frogs are relatively common along the shaded banks of perennial headwater streams. They are heavily dependent on the presence of perennial water and are seldom far from pools where they can seek shelter from predation. The larvae require three to four months to mature, making most ephemeral (seasonal) streams unsuitable as breeding sites. Burns Valley Creek may provide suitable habitat for this species. These frogs may spend dry summer months in shallows and backwaters after stream channels become dry, which do not occur in this watershed.

- **Western pond turtle (*Emys marmorata*):**
  These turtles prefer slow or ponded water with sheltering vegetation but will range widely through less suitable habitat in search of these sites. Eggs are laid on land in sheltered nests. Stream channels are often used as movement corridors between waterways or ponds. While turtles may use the stream corridor , there is no suitable habitat on this parcel for them to remain.

- **White-tailed kite (*Elanus leucurus*):**
  Usually found near agricultural areas, the kite prefers open terrain near woodlands and water. These raptors hunt over open country and prefer large, deciduous trees surrounded by expanses of grassland, meadows, farmland, and/or wetlands for nesting and roosting sites. The property contains woodlands adjacent to expanses of open grasslands with nearby water (Clearlake); this would provide marginal habitat for kites for both nesting and hunting. This is a California Fully Protected species. All raptors are protected under the Migratory Bird Treaty Act and California Department of Fish and Wildlife code.

- **Northern harrier (*Circus cyaneus hudsonius*):**
  This raptor occurs in annual grassland and is also found at high elevations. It inhabits meadows, open grasslands and rangelands, and emergent wetlands; it prefers habitat such as the broad, open grasslands and wetlands of the Sacramento Valley where this species is commonly seen. It is seldom found in wooded or agricultural areas. Formerly called the “marsh hawk”, it nests on the ground in dense shrubby vegetation in and near wetlands. The harrier feeds on insects and small mammals, birds, etc., and competes with the red-tailed hawk for food. These raptors nest from April to August and have California Species of Concern status during that period. This parcel does not provide habitat for harriers.

- **Osprey (*Pandion haliaetus*):**
  This species occurs near large, fish-bearing waters in ponderosa pine or mixed conifer habitats where it feeds on open waters for fish, although it also takes small birds and mammals. It hunts over wide expanses of open water and usually nests in the tops of large isolated trees near shorelines. Nests are made on platforms of stickson top of large snags, dead-topped trees, or man-made structures. Nests areusually within close proximity of large fish-producing water bodies. The stick nests constructed by this species are readily apparent when present. Ospreys prefer to nest near large bodies of water and are unlikely to nest on the property.

- **Tricolored blackbird (*Agelaius tricolor*):**
  These blackbirds are colony nesters in fresh emergent wetland habitat (tule or cattail marsh), but may also occur in dense blackberry or willow shrub communities adjacent to water. Cover is required for nesting. Proximity to insects is preferred, although food includes seeds and grain. Breeding occurs April through June. The species is usually readily observed when present and has a distinctive call. This site does not contain suitable habitat for this species.

- **Grasshopper sparrow (*Ammodramus savannarum*):**
  This sparrow is a summer resident in foothills and lowlands west of the Cascade-Sierra Nevada crest from Mendocino and Trinity counties to southern California. It occurs in dry, dense grasslands with scattered shrubs for singing perches. Grasshopper sparrows are secretive in winter. They need thick grasslands and forbs for cover, and nest in small depressions on the ground. They breed from April to mid-July. Sparrows feed primarily on insects but also eat other invertebrates, grains, and forb seeds. They search for food on the ground. They may be present in the grasslands.

- **Townsend's western big-eared bat (*Corynorhinus townsendii ssp. townsendii*):**
  This bat is a California Species of Special Concern. Physical traits include bilateral nose lumps and very large ears. The most restrictive resource required by this species is daytime roosting habitat. This bat prefers caves and mines and is easily observed when present, hanging from open surfaces in mines and caves. Less frequently it will roost in tunnels, bridges, or other human-made structures, or hollow trees. Roost sites may vary from year to year. These bats typically prefer relatively mesic (moist)habitat such as streams near woodland habitats and may travel long distances for foraging. The majority of their diet consists of moths. This species is extremely sensitive to disturbance of roosting sites: These sites are frequently abandoned after being visited by humans. This property contains a riparian corridor, however it is low quality habitat for this species.

- **Pallid bat (*Antrozous pallidus*):**
  Optimal habitat for these bats consists of open, dry habitats with rocky areas, but the bats are also found in oak savanna grasslands, and in open forest and woodlands with access to riparian and open water for feeding and drinking. Foraging occurs over open country. These bats prefer the cool summer temperatures of caves, crevices, and mines as roosting sites where they are known to wedge themselves into small spaces; they will also roost in buildings, bridges, and hollow trees. Preferred roosts are high above the ground and inaccessible to terrestrial predators, although they are occasionally found roosting on the ground underneath sacks, tarps, and other objects left by humans.

  The bats have a home range of 1 to 3 miles and are known to roost with other bat species. This species of bat does not migrate long distances between seasons. It is extremely sensitive to human disturbance of roosting sites. Populations in California have declined due to habitat destruction and use of pesticides. The project site contains oak woodlands with limited water, which may provide some habitat for this species.

- **Pacific fisher, West Coast DPS (*Martes pennanti*):**
  Fishers are found mostly in dense coniferous or deciduous riparian habitats that include older trees and snags. Fishers are mainly carnivorous, eating smaller mammals, rodents, birds, carrion, and fruits. They hunt for prey on the ground and in trees. Cover is provided by cavities in large trees, snags and logs and their nests are built in protected cavities, brush-piles or logs. Young are born between February and May. Fishers are listed for a distant quad in the CNDDB near Scotts Creek, but the species has not been reported in this area since 1941. While there is no chance that they occur on this parcel due to no dense forest on this parcel.

- **American badger (*Taxidea taxus*):**
  Badgers are found mostly in drier open stages of shrub, forest, and herbaceous habitats with friable soils such as open grasslands, fields, and pastures. They are found from high alpine meadows to sea level and occur throughout the stateexcept for the northern North Coast. This species is carnivorous, eating mostly fossorial rodents; they also will eat reptiles, insects, birds, eggs, and carrion. They dig burrows in friable or sandy soil for cover and nesting, and often reuse old burrows. Breeding occurs in late summer or fall. Nests are in areas with little overstory cover, often a grass-lined den, and young are born mostly in March and April. Young become independent in 5 or 6 months. The single occurrence mapped by CNDDB within the Lakeport quadrangle is near the west boundary of the City of Lakeport onan unknown date. They would be unlikely to occur on this property.

- **North American porcupine (*Erethizon dorsatum*):**
  This large, primarily nocturnal rodent prefers conifer and hardwood forests and woodlands, but is also found in forested wetlands and chaparral. They can withstand extreme cold temperatures. Porcupines use downed logs and debris, as well as snags and tree hollows, as cover and dens. Food is vegetation including twigs, berries, roots, seeds, needles, and bark; porcupines commonly climb trees for food. The porcupine breeds from September to November or December, giving birth in the spring. Lifespan is relatively long.

  Porcupines may occur in the area and on the property. This species is listed in the CNDDB as "G5" (Global Secure) and "SNR" (Species Not Rated-California). It is therefore not a species with sensitive regulatory status although its local accounts are included in the database.

Raptors and passerines lacking sensitive regulatory status but otherwise protected under the Migratory Bird Treaty Act may also be present on the property in their sensitive status.

5.0 FIELD SURVEY RESULTS

5.1 Botanical Field Survey Results: Table 4 presents the results of the botanicalsurvey for the project. Each of the sensitive plant species potentially occurring at the site and listed in Tables 2 and 3 was specifically searched for during the surveys. The surveys identified a total of 61 plant taxa on the property.

TABLE 4. Flora of 2160 Ogulin Canyon Road

Habit	Species	Common Name	Family	Origin
forb	*Chlorogalum pomeridiaum*	Wavyleaf soap plant	Agavaceae	N
forb	*Andostoma fasciculatum*	chamise	Alismataceae	N
forb	*Allium serra*	jeweled onion	Alliaceae	N
forb	*Conium maculatum*	poison hemlock	Apiaceae	A
forb	*Lomatium dasycarpum ssp. dasycarpum*	woolly-fruited lomatium	Apiaceae	N
forb	*Lomatium macrocarpum*	Large fruited lomatium	Apiaceae	N
forb	*Sanicula bipinnata*	Poisin sanicle	Apiaceae	N
forb	*Agoseris apargioides var apargioides*	coast dandelion	Asteraceae	N
forb	*Chamomilla suaveolens*	pineapple weed	Asteraceae	A
forb	*Centaurea solstitialis*	Yellow star thistle	Asteraceae	A
forb	*Eriogonum nedum*	Naked buckwheat	Polygonaceae	N
forb	*Eriophyllum lanatum var. lanatum*	common woolly sunflower	Asteraceae	N
forb	*Madia gracilis*	gumweed, slender tarweed	Asteraceae	N
forb	*Micropus californicus*	cottontop	Asteraceae	N
forb	*Wyethia angustifolia*	narrow-leaved mule ears	Asteraceae	N
forb	*Cynoglossum grande*	grand hound's tongue	Boraginaceae	N
forb	*Lepidium nitidum var. nitidum*	shining peppergrass	Brassicaceae	N
forb	*Dichelostemma capitatum*	Blue dicks	Brodiaea	N
forb	*Lonicera interrupta*	Chaparral honeysuckle	Caprifoliaceae	N
forb	*Cerastium glomeratum*	mouse-ear chickweed, sticky mouse-ear	Caryophyllaceae	A

Habit	Species	Common Name	Family	Origin
forb	*Acmispon glaber*	deerweed	Fabaceae	N
forb	*Lupinus bicolor*	miniature lupine	Fabaceae	N
forb	*Trifolium hirtum*	rose clover	Fabaceae	A
forb	*Vicia americana var. americana*	American vetch	Fabaceae	N
forb	*Erodium cicutarium*	red-stem storksbill	Geraniaceae	A
forb	*Geranium dissectum*	cut-leaved geranium	Geraniaceae	A

Habit	Species	Common Name	Family	Origin
forb	*Toxicoscordion fremontii*	Fremont's death camus	Liliaceae	
forb	*Clarkia purpurea*	purple clarkia, winecup clarkia, four-spot	Onagraceae	N
forb	*Eschscholzia californica*	California poppy	Papaveraceae	N
forb	*Delphinium hesperium*	foothill larkspur	Ranunculaceae	N
forb	*Galium divaricatum*	Lamarck's bedstraw	Rubiaceae	N
forb	*Penstemon heterophyllus*	foothill penstemon	Scrophulariaceae	N

Habit	Species	Common Name	Family	Origin
grass	*Avena barbata*	slender wild oat	Poaceae	A
grass	*Briza minor*	small quaking grass	Poaceae	A
grass	*Bromus diandrus*	ripgut grass, ripgut brome	Poaceae	A
grass	*Bromus hordeaceus*	soft chess	Poaceae	A
grass	*Bromus jinermis*	smooth brome	Poaceae	A
grass	*Bromus laevipes*	woodland brome	Poaceae	N
grass	*Bromus madritensis ssp. rubens*	red brome	Poaceae	A
grass	*Elymus caput-medusae*	medusahead	Poaceae	A
grass	*Elymus glaucus ssp. glaucus*	blue wildrye	Poaceae	N
grass	*Festuca myuros*	rattail sixweeks grass	Poaceae	A
shrub	*Sambucus nigra ssp. caerulea*	blue elderberry	Adoxacaceae	N
shrub	*Toxicodendron diversilobum*	poison oak	Anacardiaceae	N
shrub	*Baccharis pilularis*	coyote brush, chaparral broom	Asteraceae	N
shrub	*Symphoricarpos albus var. laevigatus*	common snowberry	Caryophyllaceae	N

Habit	Species	Common Name	Family	Origin
shrub	*Arctostaphylos manzanita ssp. manzanita*	common manzanita	Ericaceae	N
shrub	*Arctostaphylos viscida*	white-leaf manzanita	Ericaceae	N
shrub	*Pickeringia montana*	chaparral pea	Fabaceae	N
shrub	*Eriodictyon californicum*	California yerba santa	Hydrophyllaceae	N
shrub	*Lepechinia calycina*	pitcher sage	Lamiaceae	N
shrub	*Ceanothus cuneatus var. cuneatus*	buckbrush	Rhamnaceae	N
shrub	*Adenostoma fasciculatum*	chamise	Rosaceae	N
shrub	*Cercocarpus betuloides var. betuloides*	birch-leaf mountain mahogany	Rosaceae	N
shrub	*Heteromeles arbutifolia*	toyon	Rosaceae	N
tree	*Quercus douglasii*	Blue oak	Fagaceae	N
Tree	*Quercus wislizeni*	interior live oak	Fagaceae	N
Tree	*Pinus sabiniana*	California foothill pine	Pinaceae	N
Tree	*Populus fremontii*	Fremont cottonwood	Salicaceae	N
Tree	*Salix lasiolepis*	Arroyo willow	Salicaceae	N

vine	*Calystegia occidentalis ssp. occidentalis*	western morning-glory	Convolvulaceae	N
	N=Native A=Alien (non-native)			

6.0SUMMARY AND RECOMMENDATIONS

6.1Summary: This biological resource assessment involved the following analyses and surveys for sensitive plants and wildlife potentially occurring in the vicinity of the project:

- Review of current California Natural Diversity Database (CNDDB) mapping of known sensitive plant and wildlife populations within the region.
- An analysis of the suitability of the site for sensitive plants and wildlife using the California Native Plant Society *On-line Inventory of Rare and Endangered Vascular Plants of California,* and the California Department of Fish and Wildlife's *California Wildlife Habitat Relations System*.
- A California Department of Fish and Wildlife protocol, floristic-level field survey of the plants occurring within the property.
- A delineation of waters of the U.S.

Sensitive Plants: A total of 61 native and introduced plant taxa were identified within the survey areas during the in-season botanical survey. As used here, the term sensitive includes species having state or federal regulatory status, included on Lists 1B through 4 by the California Native Plant Society, or otherwise listed in the California Natural Diversity Database.

Sensitive Wildlife: A total of 15 sensitive wildlife species were assessed for potential occurrence at the site because of inclusion in the CNDDB database for the quadrangle and the CWHR database. Based on the habitat assessment, the following conclusions are made regarding species with sensitive regulatory status:

- Sensitive status species that have a potential to be present in their sensitive state:

  Obscure bumble bee, Foothill yellow legged frog; Western pond turtle; White- tailed kite; Northern harrier; Tricolored blackbird; Grasshopper sparrow; Townsend's big-eared bat; Pallid bat; American badger; Pacific fisher; North American porcupine

Possible Waters of the U.S.: A small riparian area is present on this parcel. It is of very low quality and does not exhibit all three criteria for designation as wetland.

6.2Potential Impacts and Proposed Mitigation for Biological Resources:

(For all recommended mitigation measures accepted as conditions of approval, the text should be modified to use declarative language, i.e. "should" should become "shall", etc.)

- Habitat Fragmentation

Potential Impacts: The proposed gardens and processing facility shown in Figure 2 are comparatively small and unlikely to significantly impair wildlife movement through the corridor. Use of outdoor lighting has a potential to disrupt wildlife movement, much of which occursat night.

Proposed Mitigation for Habitat Fragmentation:

Measure 1: The use of deer fencing should be restricted to the perimeters of the proposed gardens. No deer fencing or other obstacles to wildlife passage should be installed that will restrict wildlife movement.

Measure 2: Outdoor lighting, if used, should be restricted to the processing facility and should be directed downward so as not to illuminate adjacent areas.

- Woodland and Forest Resources

Potential Impact: As shown in **Table 1**, the property contains a combined total of 6.25 acres of woodland. The proposed project design limits project components to the existing infrastructure areas and would not impact woodland resources.

Existing Blue Oaks within the development zone should be preserved when possible.

Proposed Mitigation for Impacts to Woodland and Forest: No mitigation recommended if the project is constructed within the area of existing infrastructure.

- Sensitive Plants and Wildlife

Potential Impacts:

Plants: No plants with sensitive regulatory status were found on the property during the floristic-level botanical survey.

Wildlife: The following wildlife species have a potential to be present on the Benmore Ranch property:

- Obscure bumble bee
- Western pond turtle
- White-tailed kite
- Northern harrier
- Grasshopper sparrow
- Pallid bat
- American badger
- North American porcupine

Use of pesticides resulting in drift has a potential to result in the incidental take of the obscure bumble bee, if present. Pesticide contamination of waterways or direct impacts to waterways has a potential to result in incidental take of foothill yellow-legged frog and/or western pond turtle downstream from the project area.

Other sensitive species listed above depend primarily on woodland, forest, and grassland habitats. Woodland and forest habitat would not be impacted by this project. Impacts to grasslands would be minimal based on the current project design.

Proposed Mitigation for impacts to Wildlife:

Measure 3: To mitigate potential impacts to obscure bumble bee, foothill yellow-legged frog, and western pond turtle, State and Federal regulations on pesticide selection and use should be strictly followed. Pesticide use should not occur during periods when winds may transport spray to adjacent areas. As an alternative, the operator may wish to use organic growing methods. It should be noted that State of California regulations for cannabis cultivation include strict standards for purity which may pre-empt use of pesticides.

- Waters of the U.S.

Potential Impacts: As shown in **Figure 2**, the development would not significantly alter the existing riparian area.

Placement of fill within Waters of the U.S. may require a Nationwide permit by the Corps of Engineers (possibly a non-reporting permit under the Nationwide Permit Program), along with a 401 Water Quality Certification from the Regional Water Quality Control Board, and 1604 Stream Alteration Agreement from the California Department of Fish and Wildlife. The County of Lake may require stream setbacks.

Erosion Control:

Potential Impacts: Vegetation clearing and grading activities have a potential to result in sediment runoff to Burns Valley Creek.

Proposed Mitigation: All work in or near waterways and wetlands should incorporate extensive erosion control measures consistent with Lake County Grading Regulations in order to avoid erosion and the potential for transport of sediments to Burns Valley Creek. Coverage under the National Pollutant Discharge Elimination System (NPDES), General Permit for Storm Water Discharges associated with a Construction Activity (General Permit) and a Storm Water Pollution Prevention Plan (SWPPP)may be required.

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APPENDIX A

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPSSYSTEM

RESULTS

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM

supported by the

CALIFORNIA INTERAGENCY WILDLIFE TASK GROUP

and maintained by the

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Database Version: 9.0

SPECIES SUMMARY REPORT

FE = Federal Endangered
FT = Federal Threatened
CE = California Endangered
CT = California Threatened
CF = California Fully Protected
CP = California Protected
SC = California Species of Special Concern
PE = Federally-Proposed Endangered
PT = Federally-Proposed Threatened
FC = Federal Candidate
BL = BLM Sensitive
FS = USFS Sensitive
CD = CDF Sensitive
HA = Harvest

Note: Any given status code for a species may apply to the full species or to only one or more subspecies or distinct population segments.

ID	Species Name	Status	Native/Introduced
A004	CALIFORNIA GIANT SALAMANDER		NATIVE
A006	ROUGH-SKINNED NEWT		NATIVE
A007	CALIFORNIA NEWT	SC	NATIVE
A012	COMMON ENSATINA	SC BL FS	NATIVE
A014	CALIFORNIA SLENDER SALAMANDER		NATIVE
A020	SPECKLED BLACK SALAMANDER		NATIVE
A022	ARBOREAL SALAMANDER		NATIVE
A032	WESTERN TOAD		NATIVE
A039	PACIFIC TREEFROG		NATIVE
A048	COASTAL GIANT SALAMANDER		NATIVE
A071	CALIFORNIA RED-LEGGED FROG	FT SC	NATIVE
B003	COMMON LOON	SC	NATIVE
B049	AMERICAN BITTERN		NATIVE
B050	LEAST BITTERN	SC	NATIVE
B051	GREAT BLUE HERON	CD	NATIVE
B052	GREAT EGRET	CD	NATIVE
B053	SNOWY EGRET		NATIVE
B057	CATTLE EGRET		NATIVE
B058	GREEN HERON		NATIVE
B059	BLACK-CROWNED NIGHT HERON		NATIVE
B067	TUNDRA SWAN		NATIVE
B071	SNOW GOOSE	HA	NATIVE
B075	CANADA GOOSE	HA	NATIVE
B076	WOOD DUCK	HA	NATIVE
B077	GREEN-WINGED TEAL	HA	NATIVE
B079	MALLARD	HA	NATIVE

B080	NORTHERN PINTAIL						HA		NATI
B083	CINNAMON TEAL						HA		NATIVE
B084	NORTHERN SHOVELER						HA		NATIVE
B085	GADWALL						HA		NATIVE
B086	EURASIAN WIGEON						HA		NATIVE

ID	Species Name	Status							Native/Introduced
B087	AMERICAN WIGEON						HA		NATIVE
B089	CANVASBACK						HA		NATIVE
B091	RING-NECKED DUCK						HA		NATIVE
B093	GREATER SCAUP						HA		NATIVE
B094	LESSER SCAUP						HA		NATIVE
B101	COMMON GOLDENEYE						HA		NATIVE
B102	BARROW'S GOLDENEYE			SC			HA		NATIVE
B103	BUFFLEHEAD						HA		NATIVE
B104	HOODED MERGANSER						HA		NATIVE
B105	COMMON MERGANSER						HA		NATIVE
B106	RED-BREASTED MERGANSER						HA		NATIVE
B107	RUDDY DUCK						HA		NATIVE
B108	TURKEY VULTURE								NATIVE
B110	OSPREY							CD	NATIVE
B111	WHITE-TAILED KITE		CF			BL			NATIVE
B113	BALD EAGLE	CE	CF			BL	FS	CD	NATIVE
B114	NORTHERN HARRIER			SC					NATIVE
B115	SHARP-SHINNED HAWK								NATIVE
B116	COOPER'S HAWK								NATIVE
B117	NORTHERN GOSHAWK			SC		BL	FS	CD	NATIVE
B119	RED-SHOULDERED HAWK								NATIVE
B123	RED-TAILED HAWK								NATIVE
B124	FERRUGINOUS HAWK								NATIVE
B125	ROUGH-LEGGED HAWK								NATIVE
B126	GOLDEN EAGLE		CF			BL		CD	NATIVE
B127	AMERICAN KESTREL								NATIVE
B128	MERLIN								NATIVE
B129	PEREGRINE FALCON		CF					CD	NATIVE
B131	PRAIRIE FALCON								NATIVE
B140	CALIFORNIA QUAIL			SC				HA	NATIVE
B141	MOUNTAIN QUAIL							HA	NATIVE
B145	VIRGINIA RAIL								NATIVE
B146	SORA								NATIVE
B148	COMMON GALLINULE							HA	NATIVE
B149	AMERICAN COOT							HA	NATIVE
B158	KILLDEER								NATIVE
B165	GREATER YELLOWLEGS								NATIVE
B166	LESSER YELLOWLEGS								NATIVE
B199	WILSON'S SNIPE								NATIVE

B251	BAND-TAILED PIGEON				HA	NATIVE
B255	MOURNING DOVE				HA	NATIVE
B259	YELLOW-BILLED CUCKOO	CE		PT BL FS		NATIVE
B260	GREATER ROADRUNNER					NATIVE

ID	Species Name	Status			Native/Introduced
B262	BARN OWL				NATIVE
B263	FLAMMULATED OWL				NATIVE
B264	WESTERN SCREECH OWL				NATIVE
B265	GREAT HORNED OWL				NATIVE
B267	NORTHERN PYGMY OWL				NATIVE
B269	BURROWING OWL		SC	BL	NATIVE
B270	SPOTTED OWL	FT	SC	BL FS CD	NATIVE
B272	LONG-EARED OWL		SC		NATIVE
B273	SHORT-EARED OWL		SC		NATIVE
B274	NORTHERN SAW-WHET OWL				NATIVE
B277	COMMON POORWILL				NATIVE
B281	VAUX'S SWIFT		SC		NATIVE
B282	WHITE-THROATED SWIFT				NATIVE
B287	ANNA'S HUMMINGBIRD				NATIVE
B291	RUFOUS HUMMINGBIRD				NATIVE
B292	ALLEN'S HUMMINGBIRD				NATIVE
B293	BELTED KINGFISHER				NATIVE
B294	LEWIS' S WOODPECKER				NATIVE
B296	ACORN WOODPECKER				NATIVE
B299	RED-BREASTED SAPSUCKER				NATIVE
B302	NUTTALL'S WOODPECKER				NATIVE
B303	DOWNY WOODPECKER				NATIVE
B304	HAIRY WOODPECKER				NATIVE
B305	WHITE-HEADED WOODPECKER				NATIVE
B307	NORTHERN FLICKER				NATIVE
B309	OLIVE-SIDED FLYCATCHER		SC		NATIVE
B311	WESTERN WOOD-PEWEE				NATIVE
B317	HAMMOND'S FLYCATCHER				NATIVE
B318	DUSKY FLYCATCHER				NATIVE
B320	PACIFIC-SLOPE FLYCATCHER				NATIVE
B321	BLACK PHOEBE				NATIVE
B323	SAY'S PHOEBE				NATIVE
B326	ASH-THROATED FLYCATCHER				NATIVE
B333	WESTERN KINGBIRD				NATIVE
B337	HORNED LARK				NATIVE
B338	PURPLE MARTIN		SC		NATIVE
B339	TREE SWALLOW				NATIVE
B340	VIOLET-GREEN SWALLOW				NATIVE

B341	NORTHERN ROUGH-WINGED SWALLOW			NATIVE
B342	BANK SWALLOW	CT	BL	NATIVE
B343	CLIFF SWALLOW			NATIVE
B346	STELLER'S JAY			NATIVE

ID	Species Name	Status		Native/Introduced
B348	WESTERN SCRUB-JAY			NATIVE
B350	CLARK'S NUTCRACKER			NATIVE
B352	YELLOW-BILLED MAGPIE			NATIVE
B353	AMERICAN CROW		HA	NATIVE
B354	COMMON RAVEN			NATIVE
B356	MOUNTAIN CHICKADEE			NATIVE
B357	CHESTNUT-BACKED CHICKADEE			NATIVE
B358	OAK TITMOUSE			NATIVE
B360	BUSHTIT			NATIVE
B361	RED-BREASTED NUTHATCH			NATIVE
B362	WHITE-BREASTED NUTHATCH			NATIVE
B363	PYGMY NUTHATCH			NATIVE
B364	BROWN CREEPER			NATIVE
B367	CANYON WREN			NATIVE
B368	BEWICK'S WREN	SC		NATIVE
B369	HOUSE WREN			NATIVE
B370	WINTER WREN			NATIVE
B372	MARSH WREN	SC		NATIVE
B375	GOLDEN-CROWNED KINGLET			NATIVE
B376	RUBY-CROWNED KINGLET			NATIVE
B377	BLUE-GRAY GNATCATCHER			NATIVE
B380	WESTERN BLUEBIRD			NATIVE
B381	MOUNTAIN BLUEBIRD			NATIVE
B382	TOWNSEND'S SOLITAIRE			NATIVE
B385	SWAINSON'S THRUSH			NATIVE
B386	HERMIT THRUSH			NATIVE
B389	AMERICAN ROBIN			NATIVE
B390	VARIED THRUSH			NATIVE
B391	WRENTIT			NATIVE
B393	NORTHERN MOCKINGBIRD			NATIVE
B398	CALIFORNIA THRASHER			NATIVE
B404	AMERICAN PIPIT			NATIVE
B407	CEDAR WAXWING			NATIVE
B408	PHAINOPEPLA			NATIVE
B410	LOGGERHEAD SHRIKE	FE	SC	NATIVE
B415	CASSIN'S VIREO			NATIVE
B417	HUTTON'S VIREO	SC		NATIVE

B418	WARBLING VIREO		NATIVE
B425	ORANGE-CROWNED WARBLER		NATIVE
B426	NASHVILLE WARBLER		NATIVE
B430	YELLOW WARBLER	SC	NATIVE
B435	YELLOW-RUMPED WARBLER		NATIVE
B436	BLACK-THROATED GRAY WARBLER		NATIVE

ID	Species Name	Status	Native/Introduced
B437	TOWNSEND'S WARBLER		NATIVE
B438	HERMIT WARBLER		NATIVE
B460	MACGILLIVRAY'S WARBLER		NATIVE
B461	COMMON YELLOWTHROAT	SC	NATIVE
B463	WILSON'S WARBLER		NATIVE
B467	YELLOW-BREASTED CHAT	SC	NATIVE
B471	WESTERN TANAGER		NATIVE
B475	BLACK-HEADED GROSBEAK		NATIVE
B477	LAZULI BUNTING		NATIVE
B482	GREEN-TAILED TOWHEE		NATIVE
B483	SPOTTED TOWHEE	SC	NATIVE
B484	CALIFORNIA TOWHEE	FT CE	NATIVE
B487	RUFOUS-CROWNED SPARROW	SC	NATIVE
B489	CHIPPING SPARROW		NATIVE
B493	BLACK-CHINNED SPARROW		NATIVE
B495	LARK SPARROW		NATIVE
B497	BELL'S SPARROW	FT SC	NATIVE
B499	SAVANNAH SPARROW	CE SC	NATIVE
B501	GRASSHOPPER SPARROW	SC	NATIVE
B504	FOX SPARROW		NATIVE
B505	SONG SPARROW	SC	NATIVE
B506	LINCOLN'S SPARROW		NATIVE
B509	GOLDEN-CROWNED SPARROW		NATIVE
B510	WHITE-CROWNED SPARROW		NATIVE
B512	DARK-EYED JUNCO		NATIVE
B519	RED-WINGED BLACKBIRD	SC	NATIVE
B520	TRICOLORED BLACKBIRD	SC BL	NATIVE
B521	WESTERN MEADOWLARK		NATIVE
B522	YELLOW-HEADED BLACKBIRD	SC	NATIVE
B524	BREWER'S BLACKBIRD		NATIVE
B528	BROWN-HEADED COWBIRD		NATIVE
B532	BULLOCK'S ORIOLE		NATIVE
B536	PURPLE FINCH		NATIVE
B537	CASSIN'S FINCH		NATIVE
B538	HOUSE FINCH		NATIVE
B539	RED CROSSBILL		NATIVE

B542	PINE SISKIN		NATIVE
B543	LESSER GOLDFINCH		NATIVE
B544	LAWRENCE'S GOLDFINCH		NATIVE
B545	AMERICAN GOLDFINCH		NATIVE
B546	EVENING GROSBEAK		NATIVE
B548	CLARK'S GREBE		NATIVE
B554	PLUMBEOUS VIREO		NATIVE

ID	Species Name	Status	Native/Introduced
B656	RED PHALAROPE		NATIVE
B699	BARRED OWL		NATIVE
B773	AMERICAN REDSTART		NATIVE
B798	WHITE-THROATED SPARROW		NATIVE
B799	HARRIS'S SPARROW		NATIVE
B809	INDIGO BUNTING		NATIVE
M006	ORNATE SHREW	FE SC	NATIVE
M012	TROWBRIDGE'S SHREW		NATIVE
M015	SHREW-MOLE		NATIVE
M018	BROAD-FOOTED MOLE	SC	NATIVE
M023	YUMA MYOTIS	BL	NATIVE
M025	LONG-EARED MYOTIS	BL	NATIVE
M027	LONG-LEGGED MYOTIS		NATIVE
M028	CALIFORNIA MYOTIS		NATIVE
M030	SILVER-HAIRED BAT		NATIVE
M031	CANYON BAT		NATIVE
M033	WESTERN RED BAT	SC FS	NATIVE
M034	HOARY BAT		NATIVE
M037	TOWNSEND'S BIG-EARED BAT	SC BL FS	NATIVE
M038	PALLID BAT	SC BL FS	NATIVE
M039	BRAZILIAN FREE-TAILED BAT		NATIVE
M045	BRUSH RABBIT	FE CE HA	NATIVE
M047	AUDUBON'S COTTONTAIL	HA	NATIVE
M051	BLACK-TAILED JACKRABBIT	SC HA	NATIVE
M055	YELLOW-PINE CHIPMUNK		NATIVE
M057	SHADOW CHIPMUNK		NATIVE
M059	SONOMA CHIPMUNK		NATIVE
M072	CALIFORNIA GROUND SQUIRREL		NATIVE
M075	GOLDEN-MANTLED GROUND SQUIRREL		NATIVE
M077	WESTERN GRAY SQUIRREL	HA	NATIVE
M079	DOUGLAS' SQUIRREL	HA	NATIVE
M080	NORTHERN FLYING SQUIRREL	SC FS	NATIVE
M081	BOTTA'S POCKET GOPHER		NATIVE
M084	MAZAMA POCKET GOPHER		NATIVE

M105	CALIFORNIA KANGAROO RAT			SC			NATIVE
M112	AMERICAN BEAVER					HA	NATIVE
M113	WESTERN HARVEST MOUSE						NATIVE
M117	DEER MOUSE			SC			NATIVE
M119	BRUSH MOUSE						NATIVE
M127	DUSKY-FOOTED WOODRAT	FE		SC			NATIVE
M134	CALIFORNIA VOLE	FE	CE	SC	BL		NATIVE
M139	COMMON MUSKRAT					HA	NATIVE

ID	Species Name	Status					Native/Introduced
M146	COYOTE					HA	NATIVE
M147	RED FOX		CT		FS	HA	NATIVE
M149	GRAY FOX					HA	NATIVE
M151	BLACK BEAR					HA	NATIVE
M152	RINGTAIL		CF				NATIVE
M153	RACCOON					HA	NATIVE
M154	MARTEN			SC	FS		NATIVE
M155	FISHER			SC	FC BL FS		NATIVE
M156	ERMINE					HA	NATIVE
M157	LONG-TAILED WEASEL					HA	NATIVE
M158	AMERICAN MINK					HA	NATIVE
M160	AMERICAN BADGER			SC		HA	NATIVE
M162	STRIPED SKUNK					HA	NATIVE
M163	NORTHERN RIVER OTTER			SC			NATIVE
M165	MOUNTAIN LION			SC			NATIVE
M166	BOBCAT					HA	NATIVE
M177	ELK					HA	NATIVE
M181	MULE DEER					HA	NATIVE
R004	WESTERN POND TURTLE			SC	BL FS		NATIVE
R022	WESTERN FENCE LIZARD						NATIVE
R023	COMMON SAGEBRUSH LIZARD				BL		NATIVE
R036	WESTERN SKINK			SC	BL		NATIVE
R039	TIGER WHIPTAIL						NATIVE
R040	SOUTHERN ALLIGATOR LIZARD						NATIVE
R042	NORTHERN ALLIGATOR LIZARD						NATIVE
R046	NORTHERN RUBBER BOA		CT		FS		NATIVE
R048	RING-NECKED SNAKE				FS		NATIVE
R049	COMMON SHARP-TAILED SNAKE						NATIVE
R051	NORTH AMERICAN RACER						NATIVE
R053	STRIPED RACER	FT	CT				NATIVE
R057	GOPHERSNAKE			SC			NATIVE
R058	EASTERN KINGSNAKE						NATIVE
R059	CALIFORNIA MOUNTAIN KINGSNAKE			SC	BL FS		NATIVE

R060	LONG-NOSED SNAKE		NATIVE
R061	COMMON GARTERSNAKE	FE CE CF SC	NATIVE
R062	TERRESTRIAL GARTERSNAKE		NATIVE
R071	DESERT NIGHTSNAKE		NATIVE
R076	WESTERN RATTLESNAKE		NATIVE
R078	AQUATIC GARTERSNAKE		NATIVE

Total Number of Species: 283

Query Parameters

Included Locations

Lake Co

Included Location Seasons

Migrant, Summer, Winter, Yearlong

Included Habitats & (Stages)

Annual Grassland, Closed-cone Pine-cypress, Fresh Emergent Wetland, Lacustrine, Mixed Chaparral, MontaneHardwood, Ponderosa Pine, Valley Foothill Riparian, Wet Meadow

Habitat Suitability Threshold

Reproduction - Low, Cover - Low, Feeding - Low

Included Habitat Seasons

Migrant, Summer, Winter, Yearlong

Excluded Elements

Barren, Bogs, Brush Pile, Buildings, Campground, Cave, Dump, Fences, Jetty, Lakes, Lithic, Mine, Mud Flats, NestBox, Nest Island, Nest Platform, Pack Stations, Rivers, Salt Ponds, Sand Dune, Shrub/agriculture, Soil - Saline, Soil -Sandy, Springs - Hot, Springs - Mineral, Talus, Tidepools, Transmission Lines, Trees - Fir, Vernal Pools, Water - Fast,Wharf

Included Species AllSpecies Included

Included Special Statuses

Native

OWNER

OGULIN ESTATES HOLDINGS, LLC
BRIAN D. PENSACK
637 LINDARD ST., SUITE 201
SAN RAFAEL, CA 94901

SITE PLAN DATA

AREA OF PROPERTY	9.56 ACRES TOTAL
ZONING	I - INDUSTRIAL
FLOOD ZONE	X, AE, AO

NOTES

1) THIS IS NOT A BOUNDARY SURVEY. ALL LOT LINES SHOWN ARE BASED ON A.P.N. MAP.

2.) EACH GREENHOUSE TO BE EQUIPED WITH A THERMAL CAMERA.

3.) ELECTRIC, PHONE, AND CABLE LINES ARE PROPOSED TO BE UNDERGROUND ON SITE.

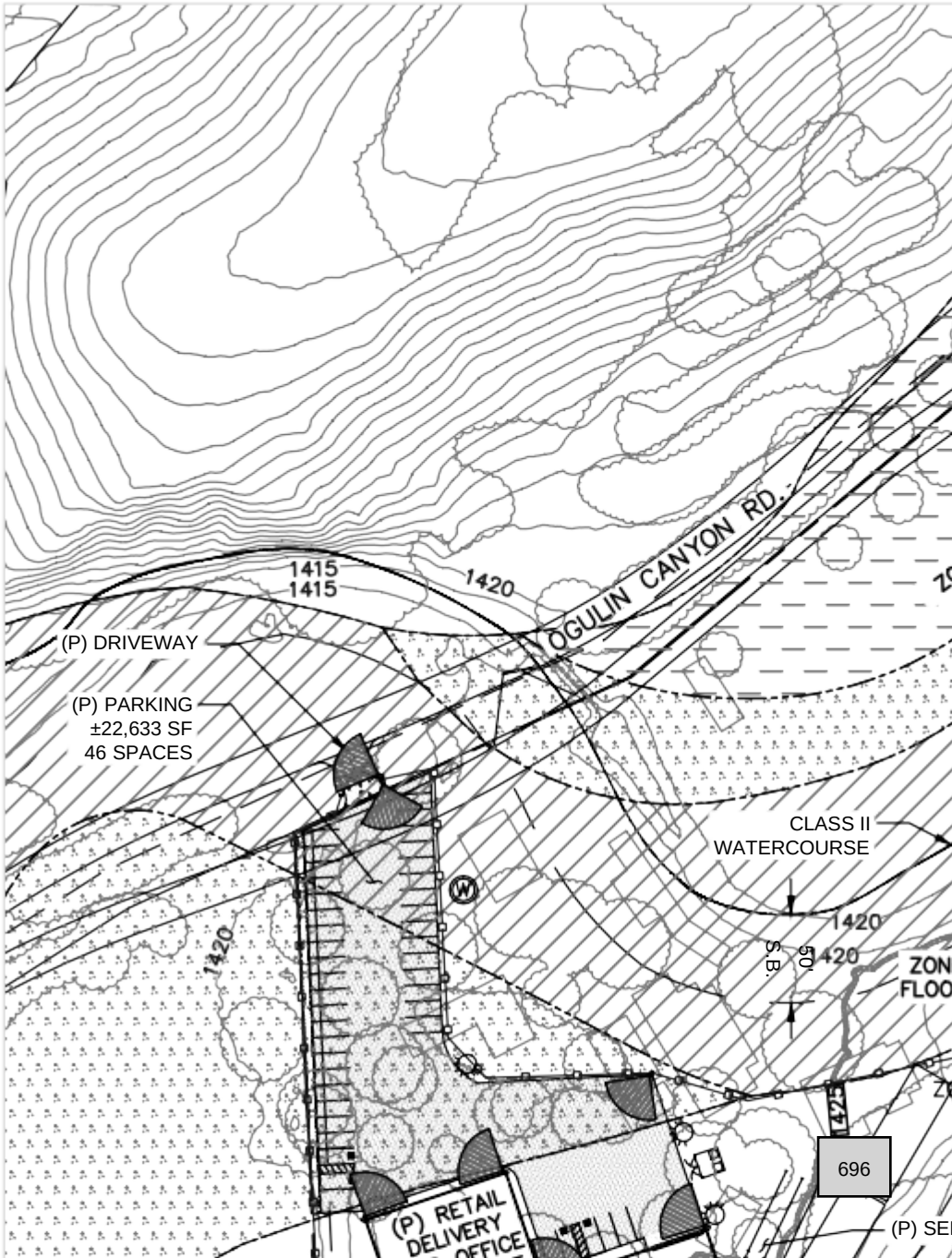
EARTHWORK QUANTITIES

CUT: 8,000 CY
FILL: 4,000 CY

NET: 4,000 CY EXPORT

LEGEND

PROPERTY LINE
SETBACK LINE
EASEMENT LINE
(P) ACCESS ROAD/DRIVEWAY
(E) ACCESS ROAD/DRIVEWAY
(E) TREE/BRUSH LINE
FEMA FLOOD ZONE BOUNDARY



City of Clearlake
14050 Olympic Drive, Clearlake, California 95422
(707) 994-8201 Fax (707) 995-2653

RECEIVED
APR 20 2021
BY: EH

DISTRIBUTION DATE: April 20, 2020

REQUEST FOR REVIEW (RFR)

	CITY DEPARTMENTS		LOCAL AGENCIES		STATE/FEDERAL AGENCIES
@	*Building Dept*	@	*Air Quality Management*	@	*CalTrans*
@	*Code Enforcement*	@	*Assessor's/Recorders Office*		*BLM*
@	*Police Department*	@	*Environmental Health Dept.*		*CA Dept. of Fish & Wildlife*
@	*Public Works/Engineering.*		*Lakebed Management*		*Army Core of Eng.*
		@	*Lake County Special Districts*		*U.S Fish & Wildlife Serv.*
			Lake County Water Resources	@	*Sonoma State (NWIC)*
	OTHER AGENCIES		*Lake County Tax Collector*		*CHP*
@	*PG&E*		*Lake Transit*	@	*CA Dept. of Drinking Water*
			Lake Area Planning Council		*Cal Fire*
					ABC
			WATER DISTRICT		
			Golden State Water		CANNABIS PROJECTS
		@	*Konocti Water Co,*	@	*Cal Cannabis*
			Highlands Water Co.	@	*CA Dept. Public Health (Manufacturing)*
				@	*Bureau of Cannabis Control (retailers, distributors, 3rd party testing laboratories and microbusinesses)*

REQUEST: REQUEST: *Please review and comment on the enclosed application packet material for the proposed project below. Please return all comments by* ***May 7, 2020. Please email your comments to*** mroberts@clearlake.ca.us ***or mail them to the address listed in the letterhead above.***

APPLICATIONS:

- *UP 2021-23 – Cultivation*
- *UP 2021-24 – Manufacturing*
- *UP 2021-25 – Distribution*
- *UP 2021-26 – Processing*
- *UP 2021-27 – Retail Delivery*
- *UP 2021-28 – Nursery*

LOCATION(S): 2160 Ogulin Canyon Road; Clearlake, CA 95422

APPLICANT: Ogulin Hills Holdings, LLC c/o Brian Pensack

APN(s): 010-044-210-000

LAND USE DESIGNATION(S): Commercial

GENERAL PLAN DESINATION(S): Commercial

PROPOSAL: The applicant is requesting approval of the above use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following: **Please refer to attached packet, site plans and architectural plans for further details.**

- Hours of Operation:
  - Monday Through Saturday: 8:00AM to 5:00PM.
  - Up to 35 employees
  - Up to +/- 4 managers

- Proposed Structures:
  - 33,600 SQFT cannabis processing, manufacturing, and distribution building
  - 5,000 SQFT office building that will also serve as the administrative center and the cannabis delivery and storage space.
  - Five (5) Greenhouse – Each greenhouse will be 75' X 25' (1,875 SQFT Each)

- Proposed Parking:
  - +/- 46 Parking Spaces

COMMENTS:

See attached memorandum

NAME: Tina Rubin **DATE:** 5/28/21

COUNTY OF LAKE
Health Services Department
Environmental Health Division
922 Bevins Court
Lakeport, California 95453-9739
Telephone 707/263-1164
FAX 707/263-1681

Denise Pomeroy
Health Services Director

Gary Pace, MD, MPH
Health Officer

Craig Wetherbee
Environmental Health Director

MEMORANDUM

DATE: May 28, 2021

TO: Mark Roberts, Planner

FROM: Tina Dawn-Rubin, Environmental Health Aide

RE: Multiple Use Permits
Commercial Cannabis

APN: 010-044-21 2160 Ogulin Canyon Rd, Clearlake

Lake County Division of Environmental Health (EH) has on file for the subject parcel:
APN: 010-044-21 – a 1974 septic permit 3402-S designed to service a 3 bedroom residence. The permit also indicates there is a well on the property.

The applicant must meet the EH requirements regarding Onsite Wastewater Treatment System (OWTS) and potable water.

For any proposed building permits or projects where the parcel is serviced by an OWTS or well, the applicant may need to demonstrate the location of any proposed or existing structures including residential or commercial dwellings, garages, driveways, shed, barns, green houses, non-perimeter fences, well houses, etc., *and* the location of the proposed project on a to-scale site plan prior to building permit issuance and/or project approval.

Due to the limited documentation on file for this parcel, a field clearance will be required to validate septic or well locations prior to site plan approval.

If the applicant is proposing a commercial cannabis operation and the operation will be constructing or utilizing an existing structure (i.e., processing facility) that will have plumbing for a restroom, sink, etc, that structure will be required to have its own OWTS, separate from any existing or new OWTS designed to service a residential structure.

If the applicant is proposing an OWTS, then applicant must apply for a site evaluation and, if the site is acceptable to support an OWTS, apply for a permit.

EH requires all applicants to provide a written declaration of the chemical names and quantities of any hazardous material to be used on site. As a general rule, if a material has a Safety Data Sheet, that material may be considered as part of the facilities hazardous materials declaration.

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

May 6, 2021 File No.: 20-2099

Mark Roberts, Senior Planner
City of Clearlake
14050 Olympic Drive
Clearlake, California 95422

re: UP 2021-23, UP 2021-24, UP 2021-25, UP 2021-26, UP 2021-27, UP 2021-28 / APN 010-044-210, 2160 Ogulin Canyon Road / Ogulin Hills Holdings, LLC c/o Brian Pensack

Dear Mark Roberts,

Records at this office were reviewed to determine if this project could adversely affect cultural resources. **Please note that use of the term cultural resources includes both archaeological sites and historical buildings and/or structures. The review for possible historic-era building/structures, however, was limited to references currently in our office and should not be considered comprehensive.**

Project Description: The applicant is requesting approval of the above use permits to allow the development of a commercial cannabis operation. Hours of Operation: Monday Through Saturday: 8:00AM to 5:00PM. Up to 35 employees. Up to +/- 4 managers. Proposed Structures: 33,600 SQFT cannabis processing, manufacturing, and distribution building. 5,000 SQFT office building that will also serve as the administrative center and the cannabis delivery and storage space. Five (5) Greenhouse – Each greenhouse will be 75' X 25' (1,875 SQFT Each) Proposed Parking: +/- 46 Parking Spaces.

Previous Studies:

XX This office has no record of any previous cultural resource field survey for the proposed project area conducted by a professional archaeologist or architectural historian *(see recommendation below)*.

Archaeological and Native American Resources Recommendations:

XX The proposed project area has the possibility of containing unrecorded archaeological site(s). A study by a qualified professional archaeologist is recommended prior to commencement of project activities.

XX We recommend that the lead agency contact the local Native American tribe(s) regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at (916) 373-3710.

____ The proposed project area has a low possibility of containing unrecorded archaeological site(s). Therefore, no further study for archaeological resources is recommended.

Built Environment Recommendations:

XX Since the Office of Historic Preservation has determined that any building or structure 45 years or older may be of historical value, if the project area contains such properties, it is recommended that prior to commencement of project activities, a qualified professional familiar with the architecture and history of Lake County conduct a formal CEQA evaluation.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

For your reference, a list of qualified professionals in California that meet the Secretary of the Interior's Standards can be found at http://www.chrisinfo.org. If archaeological resources are encountered during the project, work in the immediate vicinity of the finds should be halted until a qualified archaeologist has evaluated the situation. If you have any questions please give us a call (707) 588-8455.

Sincerely,

Bryan Much
Coordinator

From: Fahmy Attar
To: Mark Roberts
Cc: Doug Gearhart
Subject: Re: RFR - 2160 Ogulin Canyon road Cannabis Project
Date: Monday, June 7, 2021 11:42:19 AM
Importance: High

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Mark,

For a Cannabis operation site, here is a list of Air Quality requirements that may be applicable to the site:

1. Off-site odor impacts should be mitigated to minimize nuisance to nearby residences, property, and public roads.

2. Any manufacturing or delivery Cannabis operations must comply with LCAQMD rules and regulations. An application must be submitted. Contact LCAQMD for more details.

3. Any demolition or renovation is subject to the Federal National Emissions Standard for Hazardous Air Pollutants (NESHAP) for asbestos in buildings requires asbestos inspections by a Certified Asbestos Consultant for all major renovations and all demolition. An Asbestos Notification Form with the Asbestos inspection report must be submitted to the District at least 14 days prior to beginning any demolition work. The applicant must contact the District for more details and proper approvals. Regardless of asbestos content or reporting requirements all demolition and renovation activities should use adequate water/ amended water to prevent dust generation and nuisance conditions.

4. Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls.

5. If construction or site activities are conducted within Serpentine soils, a Serpentine Control Plan may be required. Any parcel with Serpentine soils must obtain proper approvals from LCAQMD prior to beginning any construction activities. Contact LCAQMD for more details.

6. All engines must notify LCAQMD prior to beginning construction activities and prior to engine Use. Mobile diesel equipment used for construction and/or maintenance must be in compliance with State registration requirements. All equipment units must meet Federal, State and local requirements. All equipment units must meet RICE NESHAP/NSPS requirements including proper maintenance to minimize airborne emissions and proper record-keeping of all activities, all units must meet the State Air Toxic Control Measures for CI engines, and must meet local regulations. Contact LCAQMD for more details.

7. Site development, vegetation disposal, and site operation shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation

be chipped and spread for ground cover and erosion control. Burning is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal.

8. Significant dust may be generated from increase vehicle traffic if driveways and parking areas are not adequately surfaced. Surfacing standards should be included as a requirement in the use permit to minimize dust impacts to the public, visitors, and road traffic. At a minimum, the District recommends chip seal as a temporary measure for primary access roads and parking. Paving with asphaltic concrete is preferred and should be required for long term occupancy. All areas subject to semi truck / trailer traffic should require asphaltic concrete paving or equivalent to prevent fugitive dust generation. Gravel surfacing may be adequate for low use driveways and overflow parking areas, however, gravel surfaces require more maintenance to achieve dust control, and permit conditions should require regular palliative treatment if gravel is utilized. White rock is not suitable for surfacing (and should be prohibited in the permit) because of its tendency to break down and create excessive dust. Grading and re-graveling roads should utilizing water trucks if necessary, reduce travel times through efficient time management and consolidating solid waste removal/supply deliveries, and speed limits.

Best Regards,

Fahmy Attar
Air Quality Engineer
Lake County Air Quality Management District
2617 S. Main Street, Lakeport, CA, 95453
fahmya@lcaqmd.net

On Apr 20, 2021, at 10:44 AM, Mark Roberts <mroberts@clearlake.ca.us> wrote:

Good Morning,

I hope you are well. This email is in regards to the proposed project/development located at 2160 Ogulin Canyon Road; Clearlake, CA 95422. The applicant is requesting approval of multiple use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following: **Please refer to attached packet, site plans and architectural plans for further details.** If you have any concerns and/or comments on the project, please submit them **no later than May 7th, 2021.** –

- Hours of Operation:
  - Monday Through Saturday: 8:00AM to 5:00PM.
  - Up to 35 employees
  - Up to +/- 4 managers

From: Andrew White
To: Mark Roberts
Subject: RE: RFR - 2160 Ogulin Canyon road Cannabis Project
Date: Wednesday, April 28, 2021 10:05:04 AM
Attachments: image001.png
image002.png
image003.png

Good Morning,

The Police Department opposes the application as presented for failing to demonstrate compliance with City Ordinances related to the proposed operation. Additionally, although the application seems to represent that a criminal history check has been completed and approved by me. I have not reviewed or approved any criminal history check with regards to this applicant.

The security plan, consisting of one sentence, is wholly inadequate and requires further review in the interest of public safety, health and welfare.

We look forward to the applicant submitting a complete application that sufficiently demonstrates compliance with the City Code. We are also open to meeting with the applicant to address any questions or concerns as they revise their submittal.

Thank you

Andrew White | *Chief of Police*
Clearlake Police Department
14050 Olympic Dr | Clearlake, CA 95422
(O) 707 994-8251 x301 | (C) 707 681-5688 | Dispatch: 707 994-8251

From: Mark Roberts <mroberts@clearlake.ca.us>
Sent: Tuesday, April 20, 2021 10:45 AM
Subject: RFR - 2160 Ogulin Canyon road Cannabis Project
Importance: High

Good Morning,

I hope you are well. This email is in regards to the proposed project/development located at 2160 Ogulin Canyon Road; Clearlake, CA 95422. The applicant is requesting approval of multiple use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following:

Please refer to attached packet, site plans and architectural plans for further details. If you have any concerns and/or comments on the project, please submit them **no later than May 7th, 2021.** –

- Hours of Operation:
  - Monday Through Saturday: 8:00AM to 5:00PM.
  - Up to 35 employees
  - Up to +/- 4 managers

- Proposed Structures:
  - 33,600 SQFT cannabis processing, manufacturing, and distribution building
  - 5,000 SQFT office building that will also serve as the administrative center and the cannabis delivery and storage space.
  - Five (5) Greenhouse – Each greenhouse will be 75' X 25' (1,875 SQFT Each)

-

- Proposed Parking:
  - +/- 46 Parking Spaces

If you have any questions and/or need additional information, please let me know.

Sincerely,

Mark Roberts | *Senior Planner*
City of Clearlake
14050 Olympic Drive | Clearlake, CA 95422
707-994-8201

From: Lori Baca
To: Mark Roberts
Subject: RE: RFR - 2160 Ogulin Canyon road Cannabis Project
Date: Wednesday, April 28, 2021 9:49:25 AM
Attachments: image003.png
image001.png

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mark,

Parcel 010-044-210 is outside of any Special Districts service area, no impact.

Have a wonderful day!

Lori A. Baca
Customer Service Coordinator
Lori.Baca@lakecountyca.gov
Office Number (707) 263-0119
Fax (707) 263-3836

From: Mark Roberts [mailto:mroberts@clearlake.ca.us]
Sent: Tuesday, April 20, 2021 10:45 AM
Subject: [SUSPICIOUS MESSAGE] RFR - 2160 Ogulin Canyon road Cannabis Project
Importance: High

This Message contains suspicious characteristics and has originated outside your organization. This message appears to be from an individual who works for the County, but does not come from a County address.

Good Morning,

I hope you are well. This email is in regards to the proposed project/development located at 2160 Ogulin Canyon Road; Clearlake, CA 95422. The applicant is requesting approval of multiple use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following: **Please refer to attached packet, site plans and architectural plans for**

From: kcwd@mchsi.com
To: Mark Roberts
Subject: Re: RFR - 2160 Ogulin Canyon road Cannabis Project
Date: Friday, April 23, 2021 9:48:03 AM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Konocti County Water District has no comments. This area is not in our district. Thank you, Frank.

----- Original Message -----
From: "Mark Roberts" <mroberts@clearlake.ca.us>
Sent: Tuesday, April 20, 2021 10:44:30 AM
Subject: RFR - 2160 Ogulin Canyon road Cannabis Project

Good Morning,

I hope you are well. This email is in regards to the proposed project/development located at 2160 Ogulin Canyon Road; Clearlake, CA 95422. The applicant is requesting approval of multiple use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following: Please refer to attached packet, site plans and architectural plans for further details. If you have any concerns and/or comments on the project, please submit them no later than May 7th, 2021.

· Hours of Operation:

o Monday Through Saturday: 8:00AM to 5:00PM.

o Up to 35 employees

o Up to +/- 4 managers

· Proposed Structures:

o 33,600 SQFT cannabis processing, manufacturing, and distribution building

o 5,000 SQFT office building that will also serve as the administrative center and the cannabis delivery and storage space.

o Five (5) Greenhouse - Each greenhouse will be 75' X 25' (1,875 SQFT Each)

· Proposed Parking:

o +/- 46 Parking Spaces

If you have any questions and/or need additional information, please let me know.

Water Availability Report
2160 Ogulin Canyon Road
Cannabis Processing and Cultivation Project

The subject property is a 9.65-acre parcel located at 2160 Ogulin Canyon Road in Clearlake, California (APN 010-044-21).

The proposed project is a cannabis processing and cultivation facility that will include a 33,600 ft.² manufacturing, processing, distribution building, an attached 5,000 ft.² office and retail delivery building, and five (5) - 25' x 75' mixed light cultivation greenhouses.

A. The water source for both domestic and irrigation uses will be delivered from a new water well as noted on the site plan below. The well was drilled in late September/early October of 2021 and is approximately 300 feet deep, with a supply capacity of 100+ gallons per minute (see attached well completion report).

Water Availability Report
2160 Ogulin Canyon Road
Cannabis Processing and Cultivation Project

B. The water system will use ground water pumped from the well into a proposed new elevated 50,000-gallon water tank for distribution to the building(s) plumbing system and to the greenhouses for irrigation.

C. A water meter will be installed in the water system and water consumption will be logged. Water use efficiency will be analyzed on a regular basis and a water budget will be generated for each new grow cycle.

D. Water Demand - The California Department of Food and Agriculture (CDFA) in 2017 reported the following regarding the water use for cannabis. "According to Hammon et al. (2015), water use requirements for mixed light cannabis production (25-35 inches per year) are generally in line with water use for other agricultural crops, such as corn (20-25 inches per year), alfalfa (30-40 inches per year), tomatoes (15-25 inches per year), peaches (30-40 inches per year), and hops (20-30 inches per year).

E. Irrigation Water Demand - is from the CDFA - CalCannabis Environmental Impact Report (CDFA 2017) = 3,000 gallons per day for 1 acre of cannabis canopy. The combined land area associated with the five (5) proposed greenhouses is less than ½ acre. The daily requirement is about 1 gallon of water per minute for .5 acres of cannabis canopy (1,440 gallons per day). Using 1,440 gallons per day for .5 acre of cannabis canopy, with a grow season of 300 irrigation days annually, the annual irrigation water demand for the project is estimated to be 432,000 gallons per year.

F. Domestic Water Demand - for the light industrial warehouse and distribution land uses is estimated using the following formula: 38,600 square feet of floor area x 3.4 gallons/square foot/year = 131,240 gallons per year (+) plus 50 gallons/employee x 35 employees x 300 work days/year = 525,000 gallons /year = Total estimated water use for the 2160 Ogulin Canyon Road Processing Building = 656,240 gallons per year.

G. Total Water Demand - the estimated total water demand for the project is 1,088,240 gallons per year (Irrigation - 432,000 gallons + Domestic - 656,240 gallons).

H. Total Water Supply Capacity - the well report yield is 100 gallons per minute, which results in a supply capacity of 9+ million gallons per year (40 hours/week [2,400 minutes/week] x 52 weeks/year x 80 gallons/minute).

I. The facility will implement water conservation practices, including:

- Selection of plant varieties that are suitable for mixed light cultivation.
- The use of driplines and drip emitters (instead of spray irrigation).
- The use of mulch to reduce evaporation.
- Water application rates modified from data from soil moisture meters and weather monitoring.

Water Availability Report
2160 Ogulin Canyon Road
Cannabis Processing and Cultivation Project

- Rooftop rainwater collection (where feasible and permitted).
- Shutoff valves on hoses and water pipes.
- Daily visual inspections of irrigation systems.
- Immediate repair of leaking or malfunctioning equipment.
- Water metering and budgeting.
- Practices to prevent discharges from water supply equipment.
- Water application rates minimized as necessary to prevent runoff and water equipment leaks repaired immediately.
- Water filtration systems to be installed.
- The elevated tank will supply gravitational flow to the irrigation system. PVC pipes will deliver the water to the plants.
- Mixing tanks will be used to mix liquid fertilizers, which will then be injected into the irrigation system supply lines.
- At each planting station, black polyvinyl flexible tubes and drip emitters will be used to irrigate the plants.

I. Groundwater – The following information is from: ***Lake County Watershed Protection District Lake County Groundwater Management Plan - March 31, 2006 - page 2-24 to 27.*** The project site is in the Burns Valley Groundwater Basin. Burns Valley Basin is in the Shoreline Inventory Unit. The Franciscan Formation borders the Burns Valley Basin on the north, Clear Lake borders the basin on the west, and the Cache Formation borders the basin on the south and east.

Water-Bearing Formations:

Quaternary Alluvium

The valley lowlands contain stream channel gravel and adjacent floodplain deposits. These lowland deposits are Quaternary Alluvium and are composed of silt, sand, and gravel. The southern end of the valley has a maximum thickness of approximately 50 feet (DWR 2003). Groundwater in this formation is unconfined and typically provides water for domestic use.

Quaternary Terrace Deposits

Quaternary Terrace Deposits have been deposited on the sides of the alluvial plain in the Burns Valley Basin. The terrace deposits are approximately 15 feet above the valley

Water Availability Report
2160 Ogulin Canyon Road
Cannabis Processing and Cultivation Project

floor and slope up the valley to a similar elevation as the foothill exposures of the Cache Formation. Groundwater in this formation is not well understood.

Lower Lake Formation

The Lower Lake Formation, consisting of lake deposits, underlies the alluvial and terrace deposits in the Burns Valley Basin. The formation consists of fine sands, silts, and thick interbeds of marl and limestone (Rymer 1981) and has a maximum thickness of 200 feet (DWR 2003). The formation has low permeability and provides water to wells at up to a few hundred gallons per minute (DWR 2003).

Groundwater Hydrogeology

The Watershed Protection District monitors one well in the Burns Valley Basin. The monitoring well indicates that groundwater levels fluctuate from 2 feet below ground surface in the spring to 10 feet below ground surface in the fall. The well also indicates that water levels rose in the Burns Valley Basin in 1981-1983. No information on groundwater movement is available. DWR estimates the useable storage capacity to be 1,400-acre feet (DWR 1960). Average-year agricultural groundwater demand in the Burns Valley basin is approximately 14 acre-feet per year.

Groundwater Quality/Inelastic Land Surface Subsidence

DWR monitors a number of wells for water quality in the Burns Valley Basin. Monitoring is not extensive enough to determine trends in groundwater quality nor the overall character of groundwater in the basin. Information was not available from DHS for the Burns Valley Groundwater Basin. Current information regarding inelastic land surface subsidence is unavailable.

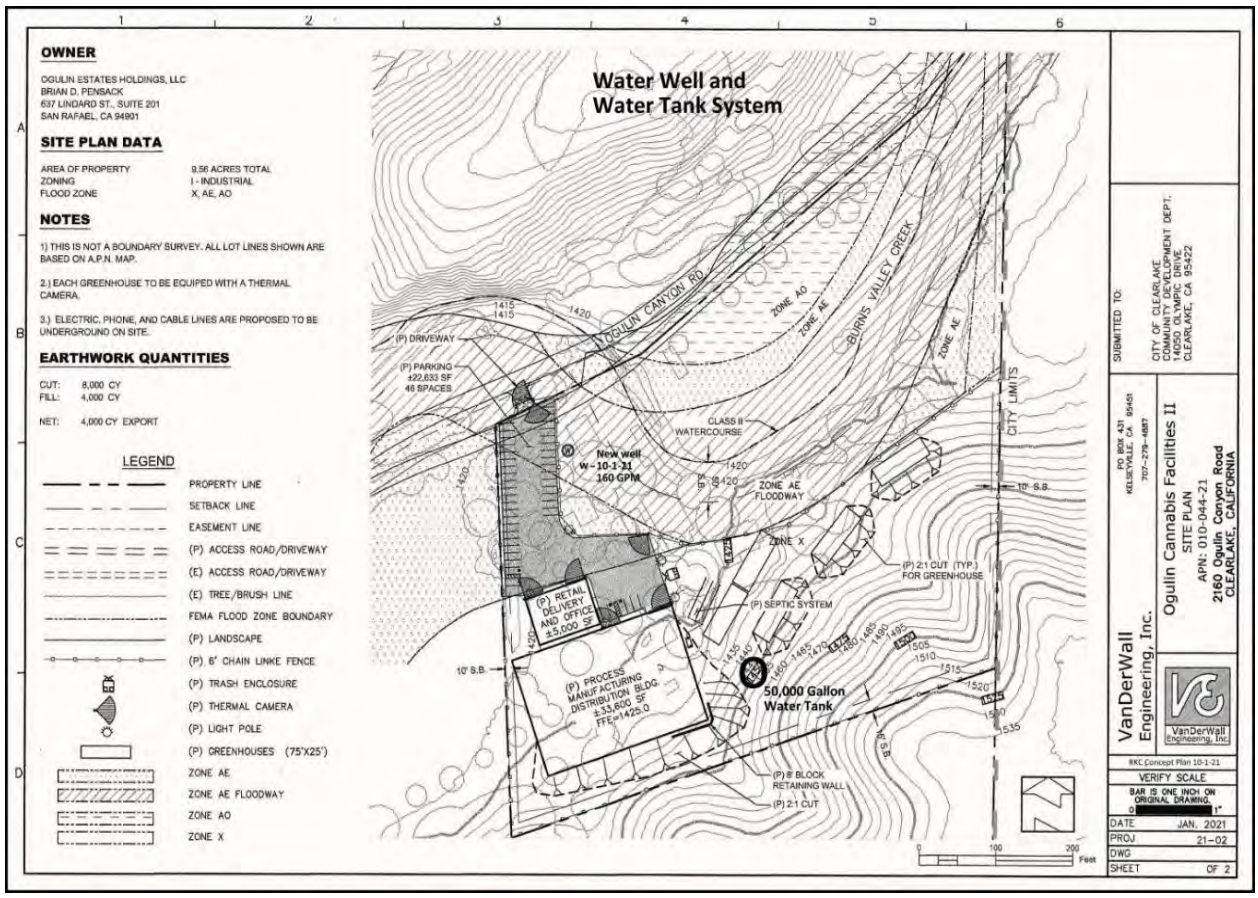
Groundwater Wells

There are 86 domestic wells and 13 irrigation wells in the Burns Valley Basin. Approximately 50 percent of domestic wells are shallower than 75 feet deep, and approximately 50 percent of irrigation wells are shallower than 250 feet deep.

Conclusion - Water Availability

Based on the fact that the new well will have a supply capacity of over 9,000,000 gallons per year and that the estimated water demand for the project is 1,088,240 gallons per year, there is adequate water availability for the project.

Water Availability Report
2160 Ogulin Canyon Road
Cannabis Processing and Cultivation Project



Richard Knoll Consulting
825 South Main Street
Lakeport, California 95453
707-349-0639
richardk2255@hotmail.com
October 14, 2021

COUNTY OF LAKE
HEALTH SERVICES DEPARTMENT
Division of Environmental Health
922 Bevins Court, Lakeport, CA 95453-9739
Telephone 707/ 263-1164 FAX: 263-1681

Denise Pomeroy
Health Services Director

Erin Gustafson
Public Health Officer

Jasjit Kang
Environmental Health Director

SEAL WITHOUT WITNESS

Permit Number: WE 5718-AG

Site Address: 2160 Ogulin Canyon RD Clearlake CA. 95422

Assessor's Parcel No: 010 - 044 - 21

Owner Name: Ogulin Hills Holdings LLC

Date: 10/1/21

REASON FOR SEAL WITHOUT WITNESS:

☐ **Emergency Seal – Explain:** _____

☒ **Inspector unable to witness**

☐ **Other:** _____

IMPERMEABLE LAYER in which annular space terminates:

2" **at a depth of** 20' **feet.**

SEALANT USED: Bentonite clay & concrete
METHOD OF PLACEMENT: pour down Hole and mix and pour concrete cap

I hereby certify that I have installed the annular seal in accordance with the provisions of the Lake County Well Ordinance and unless otherwise specified in the Lake County Well Ordinance, with the California Department of Water Resources Bulletin 74-81 or as modified by subsequent revisions or supplements.

DRILLING CONTRACTOR SIGNATURE: _____

COMPANY: Will Petersen well Drilling **LICENSE NO:** 1009053

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

Section F, Item 4.

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. XXXXXXX

Page 1 of 1

Owner's Well Number 2

Date Work Began 9-29-21 Date Work Ended 10-1-21

Local Permit Agency Lake County Environmental Health

Permit Number WE-5718AG Permit Date 9-28-21

DWR Use Only – Do Not Fill

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log

Orientation ● Vertical ○ Horizontal ○ Angle Specify

Drilling Method Air Rotary Drilling Fluid NA

Depth from Surface Feet	to Feet	Description (Describe material, grain size, color, etc)
0	20	gravel and Brown clay
20	70	gravel & tan clay
70	220	fransicon gravel trace of sandstone
220	240	fransicon gravel
240	300	green stone

Total Depth of Boring 305 Feet

Total Depth of Completed Well 300 Feet

Well Owner

Name Ogulin Hills Holdings

Mailing Address 637 Lindaro St. Suite 201

City San Rafael State CA Zip 94901

Well Location

Address 2160 Ogulin canyon RR

City Clearlake CA County Lake

Latitude Deg. Min. Sec. N Longitude Deg. Min. Sec. W

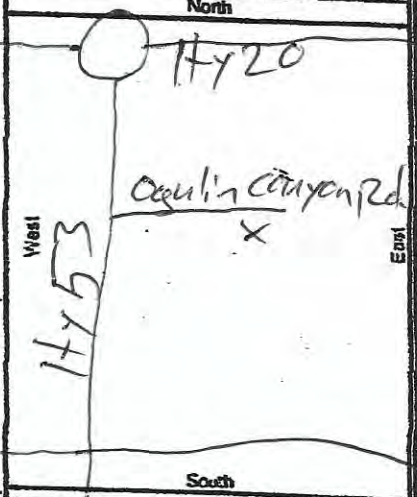
Datum Dec. Lat. Dec. Long.

APN Book 010 Page 044 Parcel 21

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)



Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

● New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "CFOI DG/C1 DG"

Planned Uses

● Water Supply

☒ Domestic ☐ Public

☒ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water 80' (Feet below surface)

Depth to Static Water Level 30' (Feet) Date Measured 9-30-21

Estimated Yield* 100+ (GPM) Test Type Airlift

Test Length 2 hrs (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
0	80	9"	F480	PVC	1/4"	4 1/2"	None	None
80	100	9"	F480	PVC	1/4"	4 1/2"	Perfs	.032
100	240	9"	F480	PVC	1/4"	4 1/2"	Blanks	N/A
240	300	9"	F480	PVC	1/4"	4 1/2"	Perfs	.032

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	20	Concrete	SEAL
1	21	Bentonite	
21	300	5/16 Pea	Gravel Pack

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Will Peterson Well Drilling

Person, Firm or Corporation

P.O. Box 695A Kelseyville CA 95451

Address City State Zip

Signed [signature] 10-1-21 1009053

C-57 Licensed Water Well Contractor Date Signed C-57 License Number

DWR 188 REV 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

OWNER

OGULIN ESTATES HOLDINGS, LLC
BRIAN D. PENSACK
637 LINDARD ST., SUITE 201
SAN RAFAEL, CA 94901

SITE PLAN DATA

AREA OF PROPERTY	9.56 ACRES TOTAL
ZONING	I - INDUSTRIAL
FLOOD ZONE	X, AE, AO

NOTES

1) THIS IS NOT A BOUNDARY SURVEY. ALL LOT LINES SHOWN ARE BASED ON A.P.N. MAP.

2.) EACH GREENHOUSE TO BE EQUIPED WITH A THERMAL CAMERA.

3.) ELECTRIC, PHONE, AND CABLE LINES ARE PROPOSED TO BE UNDERGROUND ON SITE.

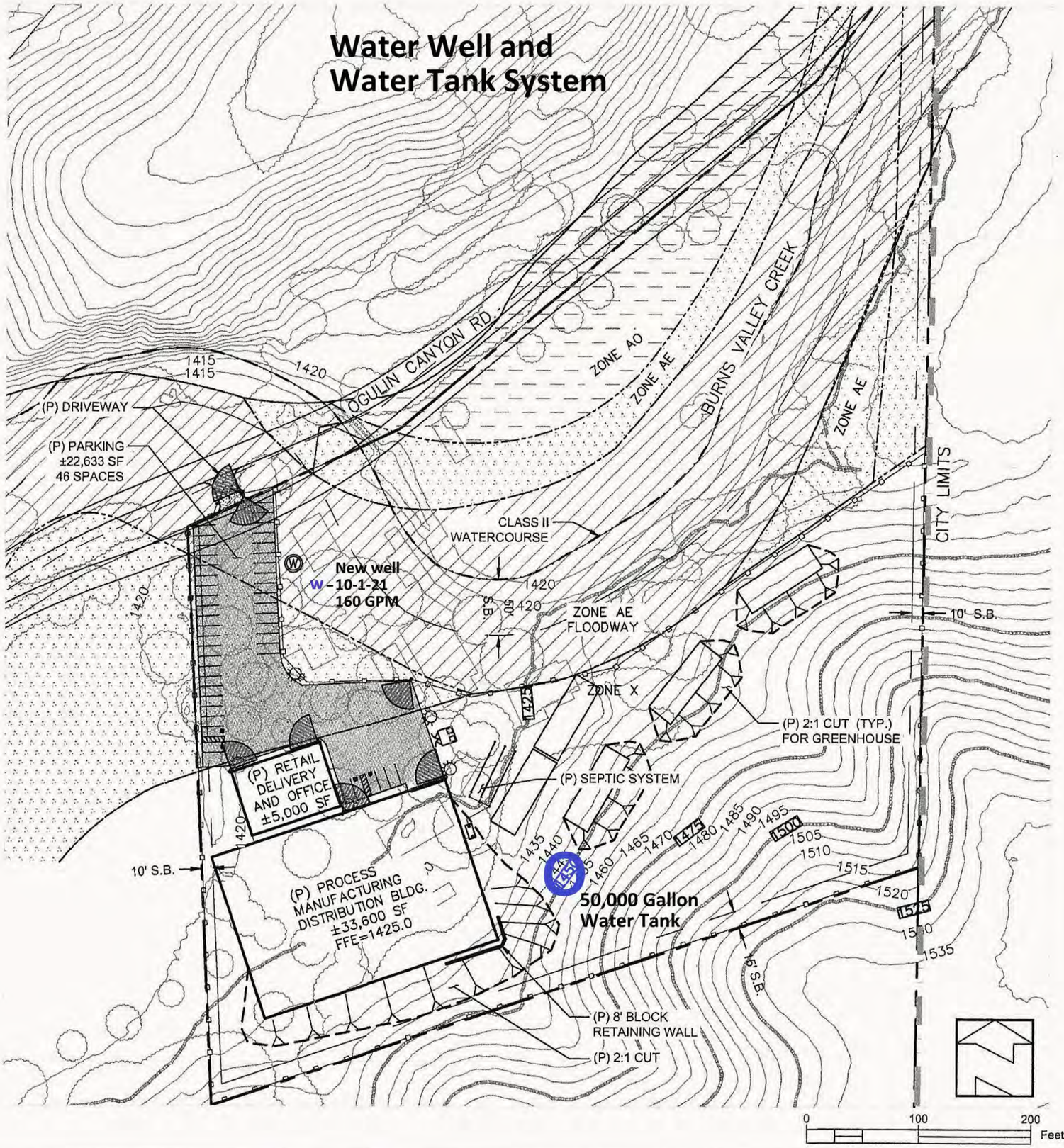
EARTHWORK QUANTITIES

CUT: 8,000 CY
FILL: 4,000 CY

NET: 4,000 CY EXPORT

LEGEND

- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- (P) ACCESS ROAD/DRIVEWAY
- (E) ACCESS ROAD/DRIVEWAY
- (E) TREE/BRUSH LINE
- FEMA FLOOD ZONE BOUNDARY
- (P) LANDSCAPE
- (P) 6' CHAIN LINKE FENCE
- (P) TRASH ENCLOSURE
- (P) THERMAL CAMERA
- (P) LIGHT POLE
- (P) GREENHOUSES (75'X25')
- ZONE AE
- ZONE AE FLOODWAY
- ZONE AO
- ZONE X



SUBMITTED TO:
CITY OF CLEARLAKE
COMMUNITY DEVELOPMENT DEPT.
14050 OLYMPIC DRIVE
CLEARLAKE, CA 95422

VanDerWall Engineering, Inc.
PO BOX 431
KELSEYVILLE, CA 95451
707-279-4887

Ogulin Cannabis Facilities II
SITE PLAN
APN: 010-044-21
2160 Ogulin Canyon Road
CLEARLAKE, CALIFORNIA

VanDerWall Engineering, Inc.

RKC Concept Plan 10-1-21
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	JAN. 2021
PROJ	21-02
DWG	
SHEET	OF

Traffic Impact Study for the Ogulin Canyon Road Cannabis Cultivation Facilities

Prepared for the City of Clearlake and the County of Lake

Submitted by
W-Trans

September 23, 2021

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Table of Contents

Executive Summary 1

Introduction 2

Transportation Setting 4

Capacity Analysis 6

Alternative Modes 18

Access and Circulation 19

Vehicle Miles Traveled 21

Parking 22

Conclusions and Recommendations 23

Study Participants and References 24

Figures

1. Study Area and Existing Lane Configurations 3
2. Existing and Future Traffic Volumes 8
3. 2185 Ogulin Canyon Road Site Plan 10
4. 2160 Ogulin Canyon Road Site Plan 11
5. 2050 Ogulin Canyon Road Site Plan 12
6. 1756 Ogulin Canyon Road Site Plan 13
7. Project Traffic Volumes, Trip Distriburtion, and Near-Term Traffic Volumes 15

Tables

1. Two-Way Stop-Controlled Intersection Level of Service Criteria 6
2. Existing Peak Hour Intersection Levels of Service 7
3. Future Peak Hour Intersection Levels of Service 9
4. Trip Generation Summary – Harvest Conditions 14
5. Existing and Existing plus Project Peak Hour Intersection Levels of Service at SR 53/Ogulin Canyon Road 16
6. Near-Term Peak Hour Intersection Levels of Service 16
7. Future and Future plus Project Peak Hour Intersection Levels of Service 17
8. Parking Analysis 22

Appendices

A. Intersection Level of Service Calculations
B. Growth Rate Calculations

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Executive Summary

The proposed cannabis cultivation and support facilities would be located at 2185, 2160, 2050, and 1756 Ogulin Canyon Road to the east of SR 53. The two projects proposed at 2185 and 2160 Ogulin Canyon Road are at sites in the City of Clearlake and the two project sites at 2050 and 1756 are located in unincorporated Lake County. Cumulatively, the projects would include 749,995 square feet of cannabis cultivation area, 43,600 square feet of manufacturing, processing, and distribution facilities, and 8,000 square feet of office and delivery retail space. A maximum of 85 full- and part-time employees are anticipated during harvest seasons. The four proposed projects would be expected to result in a total of 259 new daily trips during the peak season, including 44 trips during the morning peak hour and 41 trips during the evening peak hour.

The operational analysis study area includes the intersection of SR 53 with Ogulin Canyon Road. Analysis indicates that the study intersection would be expected to operate acceptably at LOS A overall and LOS D or better on the stop-controlled Ogulin Canyon Road approach during both peak hours and under all scenarios evaluated, including with cumulative traffic from all four projects and upon buildout of the City of Clearlake General Plan. Each individual project was therefore determined to have an acceptable effect on operation of the surrounding roadway network.

As of the date of this analysis, the City of Clearlake and County of Lake have not yet adopted thresholds of significance related to VMT, though the *Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study* was prepared for Lake Area Planning Council (LAPC) in November 2020. Many of the recommendations in the Regional Baseline Study are consistent with guidance published by the California Governor's Office of Planning and Research (OPR) in the publication *Technical Advisory on Evaluating Transportation Impacts in CEQA,* 2018. As a result, individual project-related VMT impacts were assessed based on OPR guidance. Under this guidance, each of the four proposed projects can be presumed to have a less-than-significant transportation impact on VMT under the "small project" screening threshold since each individual project would result in fewer than 110 new daily trips during the peak season and even less when averaged over the course of the year.

There were no collisions recorded at the intersection of SR 53/Ogulin Canyon Road or on Ogulin Canyon Road during the most recent five-year study period indicating that there are no readily apparent safety issues in the study area. With the increase in trips from the four projects, the entirety of Ogulin Canyon Road would have an annual ADT below the AASHTO 400-trip threshold that defines a "Very Low Volume Roadway" and since the roadway has been operating acceptably in terms of safety, it is reasonable to expect the facility to continue doing so. Additionally, adequate stopping sight distance is available on Ogulin Canyon Road for the anticipated travel speeds at the project driveways. To maintain available sight lines, it is recommended that any new landscaping or signage planned for the project frontages be placed outside the driver's vision triangle at the driveways.

Although there are no pedestrian, transit, or bicycle facilities in the vicinity of the project sites, the existing condition is acceptable given that the project sites are located in an automobile-oriented rural area without any expected demand for walking or transit and limited demand for bicycling.

The City of Clearlake and County of Lake do not have published parking requirements for cannabis cultivation and support uses so the anticipated peak parking demand was estimated based on the proposed employee count and the number of company-owned vehicles proposed for the distribution uses. It was determined that the proposed parking supply for each project would be more than adequate to meet the anticipated peak parking demand.

Introduction

This report presents an analysis of the potential transportation impacts and traffic effects that would be associated with development of four cannabis cultivation projects on Ogulin Canyon Road, with two in the City of Clearlake and two in unincorporated Lake County. The traffic study was completed in accordance with the criteria established by the City of Clearlake and County of Lake, reflects a scope of work approved by City staff, and is consistent with standard traffic engineering techniques. While a single traffic study report has been prepared for all four of the proposed projects, the CEQA-related issues have been assessed for each project individually.

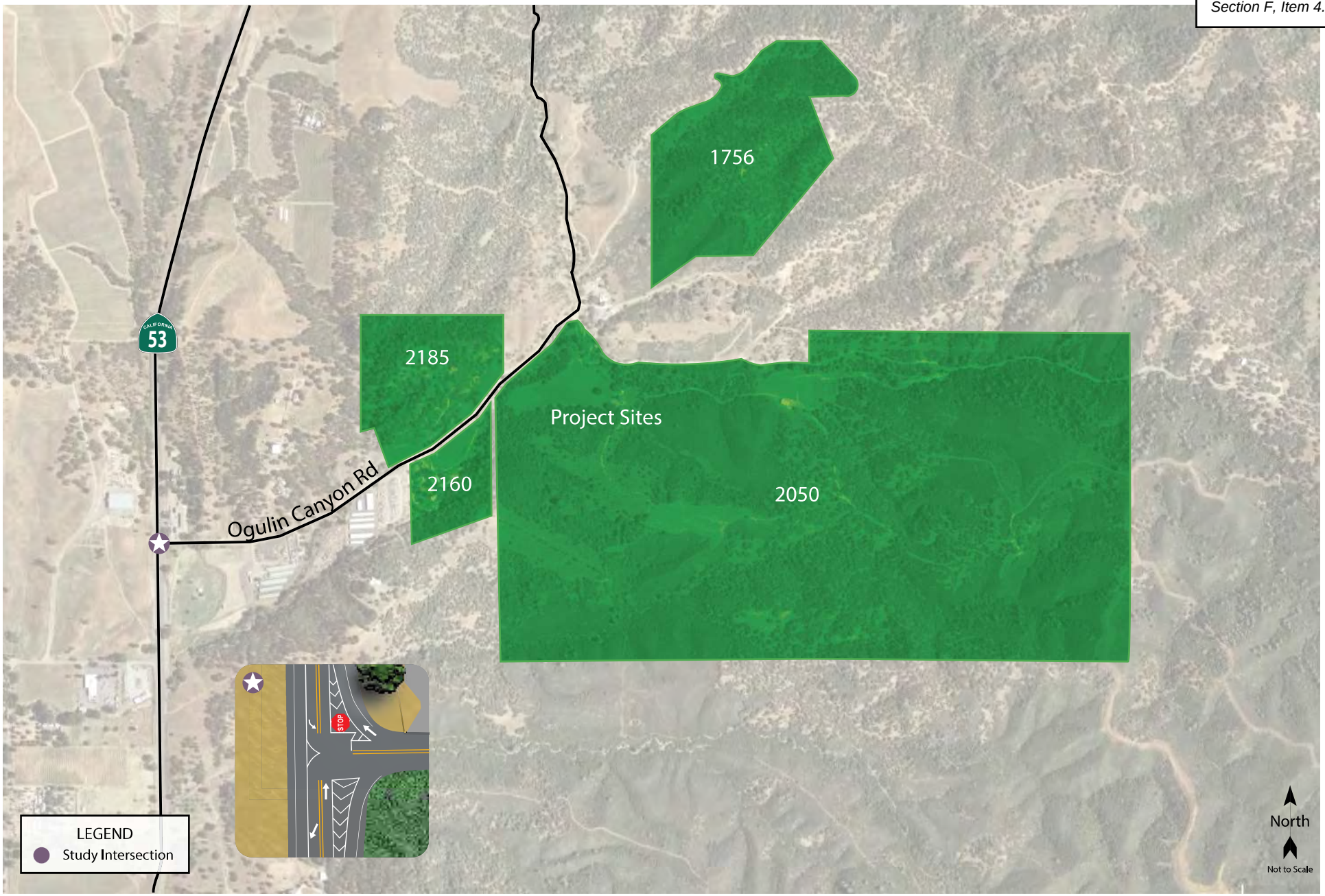
Prelude

The purpose of a traffic impact study is to provide Agency staff and policy makers with data they can use to make an informed decision regarding the potential transportation impacts and traffic effects of a proposed project, and any associated improvements that would be required to mitigate these impacts to a level of insignificance under CEQA or reduce an adverse effect to an acceptable level under the jurisdiction's General Plan or other policies. Impacts relative to access for pedestrians, bicyclists, and to transit are addressed in the context of the CEQA criteria. Consistent with SB 743, the project's transportation impacts were analyzed using VMT. While no longer a part of the CEQA review process, vehicular traffic service levels at a key intersection were evaluated for consistency with General Plan policies by determining the number of new trips that the proposed use would be expected to generate, distributing these trips to the surrounding street system based on anticipated travel patterns specific to the proposed project, then analyzing the effect the new traffic would be expected to have on the operation of the study intersection.

Project Profile

The four proposed cannabis cultivation projects would be located at 2185, 2160, 2050, and 1756 Ogulin Canyon Road to the east of SR 53. The two projects proposed at 2185 and 2160 Ogulin Canyon Road are in the City of Clearlake and the two projects at 2050 and 1756 are located in unincorporated Lake County. Cumulatively, the projects include 749,995 square feet of cannabis cultivation, 43,600 square feet of manufacturing, processing, and distribution facilities, and 8,000 square feet of office and delivery retail space. A maximum of 85 full- and part-time employees are anticipated during harvest seasons. Detailed descriptions for each of the individual projects are provided in the "Project Description" section of this report.

The study area and location of the four project sites are shown in Figure 1.



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Traffic Impact Study for the Ogulin Canyon Road Cannabis Cultivation Facilities

Figure 1 – Study Area and Existing Lane Configurations

Transportation Setting

Operational Analysis

Study Area and Periods

The operational analysis study area selected with input from City staff consists of the intersection of SR 53/ Ogulin Canyon Road. Operating conditions during the weekday a.m. and p.m. peak periods were evaluated to capture the highest potential volumes for the proposed project as well as the highest volumes on the local transportation network. The morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work commute, while the p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward-bound commute.

Study Intersection

SR 53/Ogulin Canyon Road is a tee intersection stop-controlled on the westbound Ogulin Canyon Road approach. The intersection has a left-turn lane on the southbound approach and channelized right-turn lanes on the northbound and westbound approaches. The westbound right-turn channelization feeds into a dedicated lane on northbound SR 53. Additionally, an acceleration lane is provided for traffic turning left from Ogulin Canyon Road onto southbound SR 53; this allows motorists to complete their left-turn movement in two stages.

The location of the study intersection and the existing lane configurations and control are shown in Figure 1.

Study Roadway

Ogulin Canyon Road is located on the east side of SR 53 and generally runs east-west with a width ranging between 16 and 25 feet. The section between SR 53 and the project driveway at the 2185 address is paved and does not have a posted speed limit. The section to the east of 2185 transitions to a mostly gravel surface with a speed limit of 15 miles per hour (mph) indicated by signing that appears to have been erected by landowners and not the County. Based on traffic count data collected on April 6, 2021 specifically for this study, Ogulin Canyon Road has an average daily traffic (ADT) volume of approximately 220 vehicles to the west of the mini storage facility and 60 vehicles to the east.

Collision History

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue. Collision records were obtained from the California Highway Patrol (CHP) as published in their Statewide Integrated Traffic Records System (SWITRS) reports. For the five-year study period between April 1, 2015 through March 31, 2020, there were no recorded collisions at the study intersection of SR 53/ Ogulin Canyon Road or on the entire segment of Ogulin Canyon Road, indicating that there are no readily apparent safety issues in the study area.

Alternative Modes

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. Consistent with the rural location of the study area, there are no dedicated pedestrian facilities in the vicinity of the project sites, nor would such facilities be appropriate in this setting.

Bicycle Facilities

The *Highway Design Manual*, Caltrans, 2017, classifies bikeways into four categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

There are no existing dedicated bicycle facilities on Ogulin Canyon Road or SR 53, nor are there any plans to provide such facilities in the *Active Transportation Plan for Lake County* (ATP), Lake County/ City Area Planning Council, December 2016. However, bicyclists are able to ride on the shoulders of SR 53 and share the roadway with motorists on Ogulin Canyon Road.

Transit Facilities

Transit Services in the City of Clearlake, and throughout Lake County, are provided by Lake Transit. The nearest transit stop is located approximately 2.5 miles southwest of the project sites near the intersection of Olympic Drive/Burns Valley Road, which is not within a walkable distance; therefore, the project sites are not readily accessible by transit.

Although there is a lack of transit service in the project vicinity, dial-a-ride, also known as paratransit or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. Lake Transit offers dial-a-ride service in Clearlake, Lower Lake, and Lakeport during the same days and hours as the local bus routes. Passengers certified as eligible for the Americans with Disabilities Act (ADA) paratransit service receive reservation priority when calling one day or more in advance. Additionally, passengers in areas that are not served by dial-a-ride can use the "flex-stop" service and the bus will travel up to one mile off of its regular route, as needed.

Capacity Analysis

Intersection Level of Service Methodologies

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free-flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The Levels of Service for the intersection of SR 53/Ogulin Canyon Road were analyzed using the "Two-Way Stop-Controlled" intersection capacity method from the *Highway Capacity Manual* (HCM), Transportation Research Board, 6th Edition, 2018. This methodology determines a level of service for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements together with the weighted overall average delay for the intersection.

The ranges of delay associated with the various levels of service are indicated in Table 1.

Table 1 – Two-Way Stop-Controlled Intersection Level of Service Criteria

LOS A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.
LOS B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.
LOS C	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.
LOS D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.
LOS E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.
LOS F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.

Reference: *Highway Capacity Manual*, Transportation Research Board, 6th Edition, 2018

Traffic Operation Standards

City of Clearlake

The City of Clearlake established a Level of Service (LOS) Standard of LOS D for all intersections and roadways in Policy Cl 1.3.4 of *City of Clearlake 2040 General Plan Update,* City of Clearlake, 2017. Exceptions to this may be considered by the City Council when an unacceptable LOS (E or F) would result in clear public benefit. Such circumstances may include when improvements to achieve the LOS standard would result in impacts to unique historic resources or highly sensitive environmental areas; if right-of-way acquisition is infeasible; and/or if there are overriding economic or social circumstances.

Caltrans

While the study intersection is on a State highway, Caltrans does not have a standard of significance relative to operation as this is no longer a CEQA issue. The new *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (TISG), published in May 2020, replaced the *Guide for the Preparation of Traffic Impact Studies*, 2002. As

indicated in the TISG, the Department is transitioning away from requesting LOS or other vehicle operations analyses of land use projects and will instead focus on Vehicle Miles Traveled (VMT).

Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the weekday a.m. and p.m. peak periods. This condition does not include project-generated traffic volumes. Volume data for the study intersection was collected on April 6, 2021. Peak hour factors (PHFs) were calculated based on the counts obtained and used in the analysis.

Intersection Levels of Service

Under Existing Conditions, SR 53/Ogulin Canyon Road operates acceptably at LOS A overall and LOS B or C on the stop-controlled westbound approach during both peak hours. A summary of the intersection Level of Service calculations is contained in Table 2, the Existing traffic volumes are shown in Figure 2, and copies of the Level of Service calculations for all evaluated scenarios are provided in Appendix A.

Table 2 – Existing Peak Hour Intersection Levels of Service

Study Intersection ***Approach***	**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**
SR 53/Ogulin Canyon Rd	0.2	A	0.7	A
Westbound (OCR) Approach	*10.2*	*B*	*21.1*	*C*

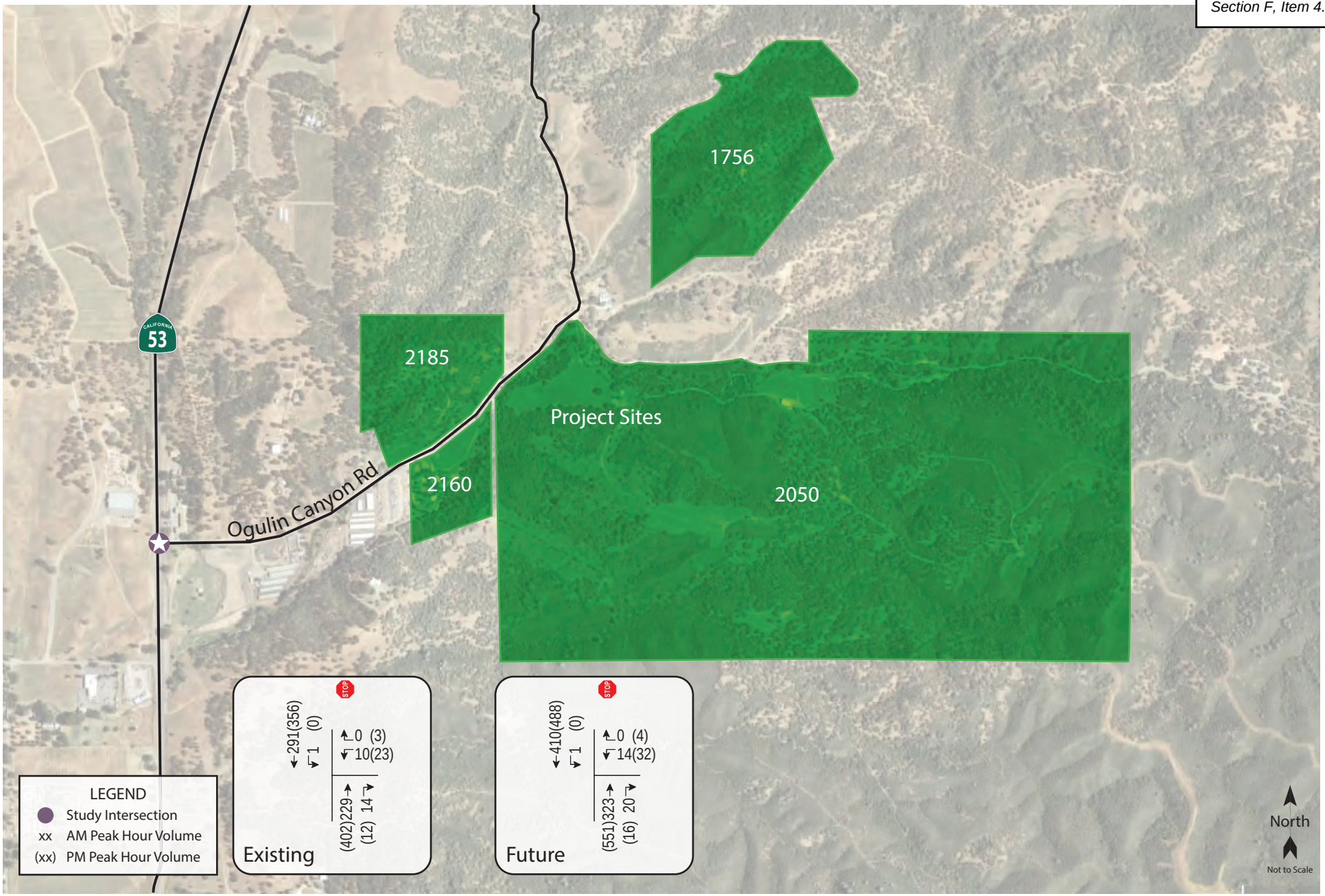
Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; OCR = Ogulin Canyon Road

Future Conditions

Future volumes for the horizon year 2040 were developed for the study intersection using information contained in the traffic analysis that was prepared for the *City of Clearlake 2040 General Plan Update*. The study intersection was not analyzed as part of the General Plan update so a growth factor was calculated between existing and future volume projections for the nearest intersection on the SR 53 corridor that was analyzed in the General Plan analysis and then applied to the existing volumes at the study intersection in order to project likely future volumes. Anticipated General Plan buildout volumes for the intersection of SR 53/Olympic Drive, which is approximately one mile south of the study intersection, indicate a growth factor of 1.51 for the a.m. peak hour and 1.46 for the p.m. peak hour. After adjusting for the four years of growth that have already occurred since the General Plan analysis, a growth factor of 1.41 and 1.37 was applied to the existing 2021 counts in order to estimate 2040 volumes. The growth factors were applied uniformly to all movements at the study intersection. A spreadsheet indicating the growth factor calculations is provided in Appendix B.

Intersection Levels of Service

Under the anticipated Future volumes, the intersection of SR 53/Ogulin Canyon Road is expected to continue operating acceptably at LOS A overall and LOS D or better on stop-controlled westbound approach during both peak hours. Future volumes are shown in Figure 2 and operating conditions are summarized in Table 3.



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Traffic Impact Study for the Ogulin Canyon Road Cannabis Cultivation Facilities

Figure 2 – Existing and Future Traffic Volumes

Table 3 – Future Peak Hour Intersection Levels of Service				
Study Intersection *Approach*	**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**
SR 53/Ogulin Canyon Rd	0.2	A	0.9	A
Westbound (OCR) Approach	*10.8*	*B*	*28.3*	*D*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; OCR = Ogulin Canyon Road

Project Description

The four proposed cannabis cultivation projects would be located at 2185, 2160, 2050, and 1756 Ogulin Canyon Road; the 2185 and 2160 addresses are in the City of Clearlake, while the properties at 2050 and 1756 are in unincorporated Lake County. Following are detailed descriptions of each individual project:

- **2185 Ogulin Canyon Road** – The first phase of the project includes 10,000 square feet of cannabis manufacturing, processing, and distribution uses, 3,000 square feet for office and retail delivery space, and ten greenhouses for mixed light cultivation totaling 18,750 square feet. During typical operation, an average of ten full-time employees are anticipated, which would increase to a total of 25 employees during harvest season.
- **2160 Ogulin Canyon Road** – The proposed project includes the development of 5,000 square feet of delivery and office space and 33,600 square feet of cannabis processing, manufacturing, and distribution uses. Five greenhouses are also proposed for indoor cannabis cultivation totaling 9,375 square feet. During the harvest season a maximum of 35 employees are anticipated.
- **2050 Ogulin Canyon Road** – The proposed Lake Vista Farms project includes 15 acres of outdoor cultivation canopy across five sites. There would be eight full-time employees during typical operation and up to 20 employees during the planting and harvesting seasons.
- **1756 Ogulin Canyon Road** – The proposed Blue Oaks Farm project consists of approximately two acres of cannabis canopy and associated storage facilities. During typical operation, there would be two employees on-site and an additional three crew members would be hired during the harvest season.

The project site plans are shown in Figures 3 through 6.

Trip Generation

To be consistent with traffic studies that have been prepared for other similar cannabis cultivation projects in Humboldt County and Sonoma County, the trip generation for the proposed projects were estimated using standard rates for "General Light Industrial" (Land Use #110) published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual*, 10th Edition, 2017. Experience indicates that the application of rates using employees as the independent variable, rather than floor area, is better suited for cultivation projects since the cultivation, processing, manufacturing, and distribution of cannabis generally requires a substantially lower number of employees for a given floor area compared to other industrial uses. The proposed projects would be expected to generate more trips during harvest than non-harvest operation so as is typical for uses that have a "high season" the trip generation for the project was estimated using harvest employment projections considering both full-time and seasonal employees so that the resulting analysis reflects worst-case impacts during the peak season.

Based on a total of 85 employees across all four project sites, collectively the proposed projects would be expected to result in 259 trips per day on Ogulin Canyon Road during the peak season, including 44 trips during the weekday a.m. peak hour and 41 trips during the weekday p.m. peak hour. As is the case with all standard trip generation rates, although employees are the independent variable, trips generated by all aspects of the uses are included,

OWNER

OGULIN HILLS HOLDINGS, LLC
BRIAN D. PENSACK
637 LINDARD ST., SUITE 201
SAN RAFAEL, CA 94901

SITE PLAN DATA

AREA OF PROPERTY	21.25 ACRES TOTAL
ZONING	C-4 CITY OF CLEARLAKE
FLOOD ZONE	X

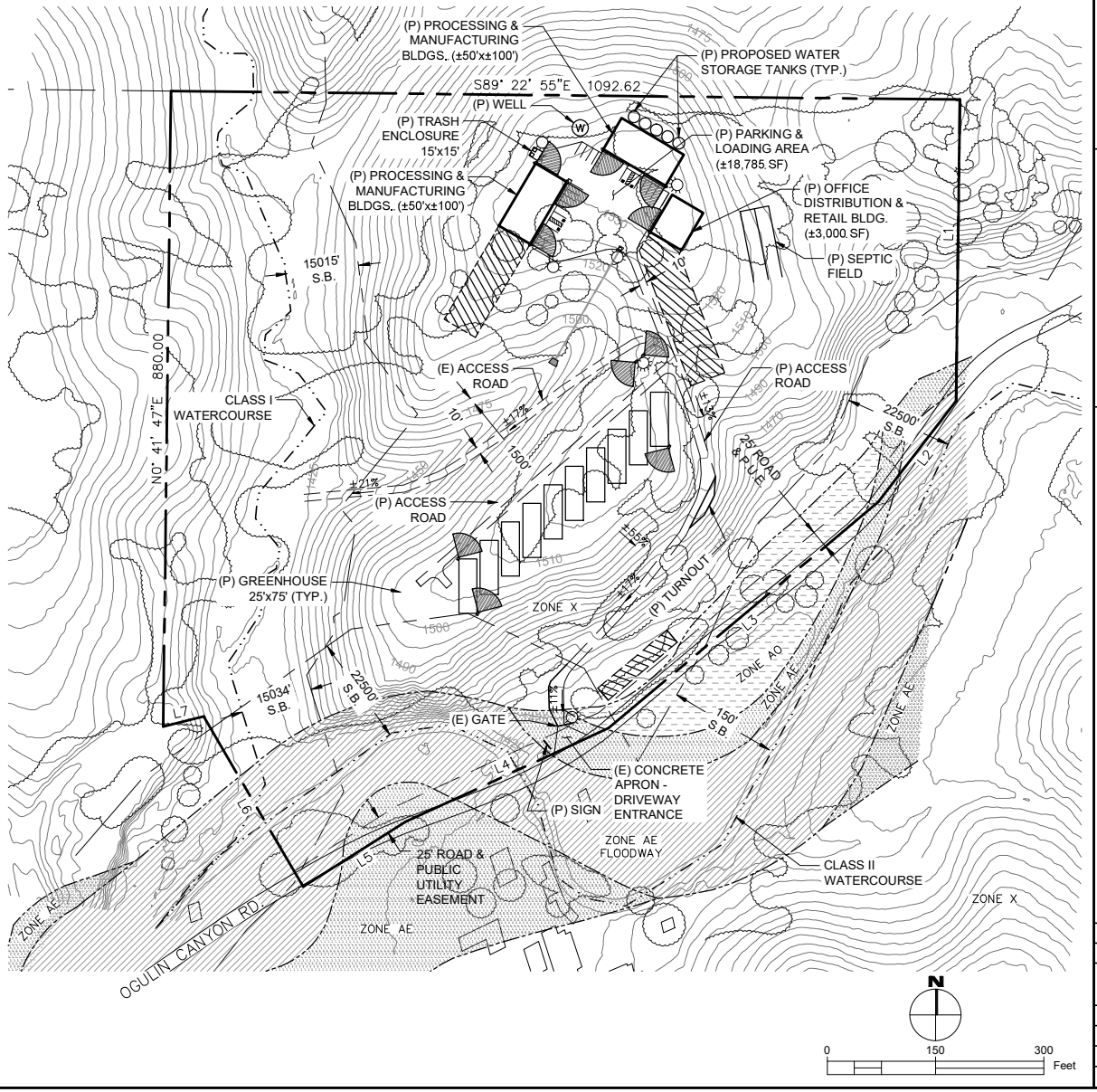
NOTES

1) THIS IS NOT A BOUNDARY SURVEY. ALL LOT LINES SHOWN ARE BASED ON A.P.N. MAP.

Parcel Line Table		
Line #	Length	Direction
L1	417.23	N0° 43' 08"E
L2	176.50	N37° 35' 16"E
L3	487.57	S50° 02' 51"W
L4	310.04	N65° 13' 21"E
L5	167.51	S57° 33' 36"W
L6	273.07	N30° 16' 00"W
L7	57.82	N75° 56' 03"E

LEGEND

- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- (P) ACCESS ROAD/DRIVEWAY
- (E) ACCESS ROAD/DRIVEWAY
- (E) TREE/BRUSH LINE
- FEMA FLOOD ZONE BOUNDARY
- (P) THERMAL CAMERA
- (P) LIGHT POLE
- (P) BUILDINGS
- (P) GREENHOUSES
- AREA FOR FUTURE BUILDINGS
- ZONE AE
- ZONE AE FLOODWAY
- ZONE AO
- ZONE X



SUBMITTED TO:
CITY OF CLEARLAKE
COMMUNITY DEVELOPMENT DEPT.
14050 OLYMPIC DRIVE
CLEARLAKE, CA 95422

VanDerWall Engineering, Inc.
PO BOX 431
KELSEYVILLE, CA 95451
707-279-4887

Ogulin Cannabis Facilities
SITE PLAN
APN: 010-044-17
2185 Ogulin Canyon Road
CLEARLAKE, CALIFORNIA

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"

DATE	DEC 2020
PROJ	20-60
DWG	
SHEET	1 OF 2

Source: VanDerWall Engineering, Inc. 7/2

cle025.ai 7/21

Traffic Impact Study for the Ogulin Canyon Road Cannabis Cultivation Facilities

Figure 3 – 2185 Site Plan

OWNER

OGULIN ESTATES HOLDINGS, LLC
BRIAN D. PENSACK
637 LINDARD ST., SUITE 201
SAN RAFAEL, CA 94901

SITE PLAN DATA

AREA OF PROPERTY	9.56 ACRES TOTAL
ZONING	I - INDUSTRIAL
FLOOD ZONE	X, AE, AO

NOTES

1) THIS IS NOT A BOUNDARY SURVEY. ALL LOT LINES SHOWN ARE BASED ON A.P.N. MAP.

2.) EACH GREENHOUSE TO BE EQUIPED WITH A THERMAL CAMERA.

3.) ELECTRIC, PHONE, AND CABLE LINES ARE PROPOSED TO BE UNDERGROUND ON SITE.

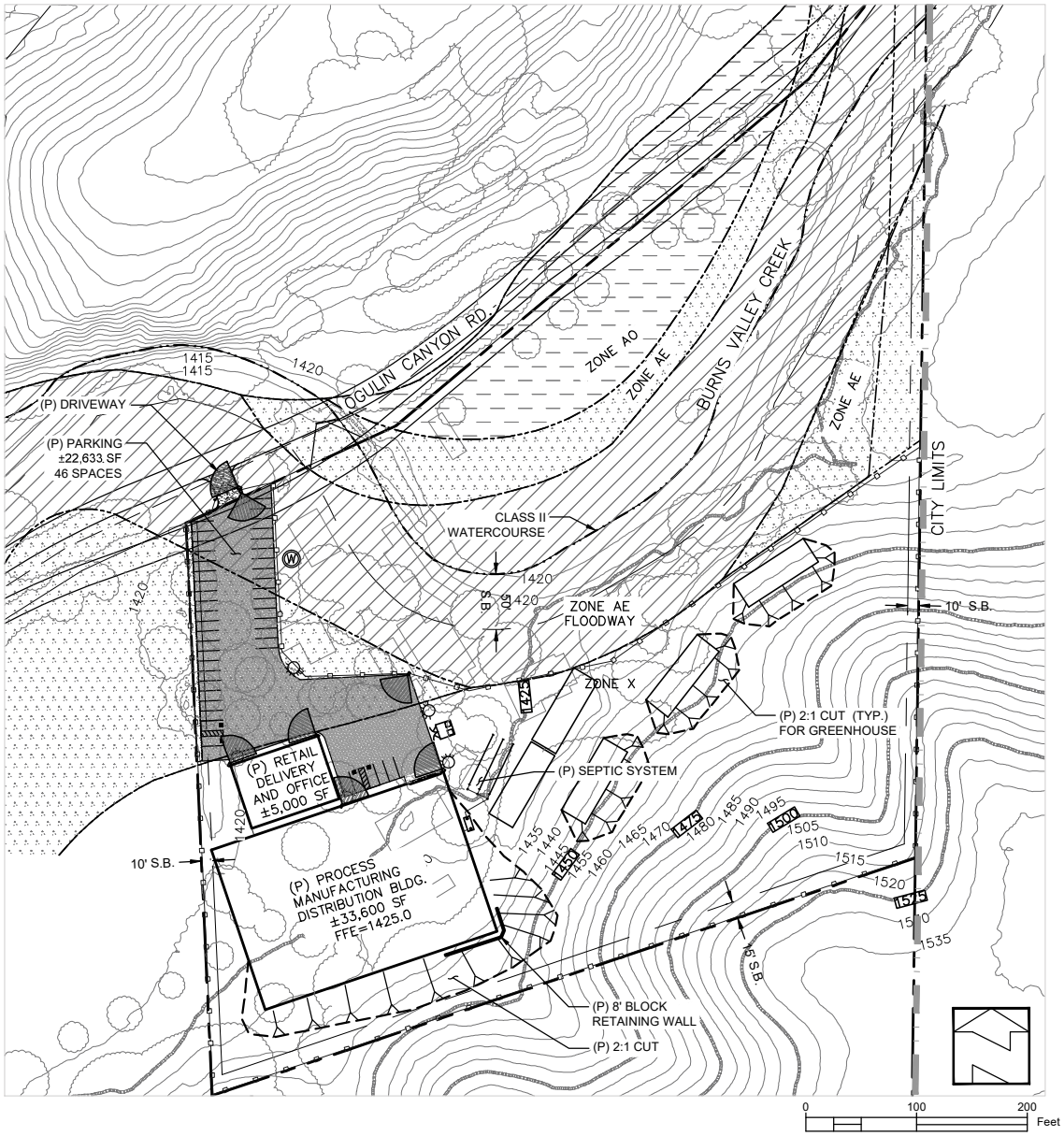
EARTHWORK QUANTITIES

CUT: 8,000 CY
FILL: 4,000 CY

NET: 4,000 CY EXPORT

LEGEND

- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- (P) ACCESS ROAD/DRIVEWAY
- (E) ACCESS ROAD/DRIVEWAY
- (E) TREE/BRUSH LINE
- FEMA FLOOD ZONE BOUNDARY
- (P) LANDSCAPE
- (P) 6' CHAIN LINKE FENCE
- (P) TRASH ENCLOSURE
- (P) THERMAL CAMERA
- (P) LIGHT POLE
- (P) GREENHOUSES (75'X25')
- ZONE AE
- ZONE AE FLOODWAY
- ZONE AO
- ZONE X



SUBMITTED TO:
CITY OF CLEARLAKE
COMMUNITY DEVELOPMENT DEPT.
14050 OLYMPIC DRIVE
CLEARLAKE, CA 95422

VanDerWall Engineering, Inc.
PO BOX 431
KELSEYVILLE, CA 95451
707-279-4887

Ogulin Cannabis Facilities II
SITE PLAN
APN: 010-044-21
2160 Ogulin Canyon Road
CLEARLAKE, CALIFORNIA

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	JAN. 2021
PROJ	21-02
DWG	
SHEET	OF 2

Source: VanDerWall Engineering, Inc. 7/2

cle025.ai 7/21

Traffic Impact Study for the Ogulin Canyon Road Cannabis Cultivation Facilities

Figure 4 – 2160 Site Plan

COVER SHEET - Five (5) Cultivation Area Site Plans

APN'S: 010-053-01 & 02 2050 and 2122 OGULIN CANYON RD CLEARLAKE, CA

SITE PLAN DATA

	010-053-01	010-053-02
AREA OF PROPERTY	145.81	156.64 acres
ZONING	RL	RL
FLOOD ZONE	D	D

CULTIVATION LICENSE

THE INTENTION OF THIS SITE MAP IS FOR THE SUBMITTAL OF AN APPLICATION FOR A MAJOR USE PERMIT SUBMITTAL TO LAKE COUNTY CALIFORNIA AND FOR CALIFORNIA STATE LICENSE FOR 5 ACRES OF OUTDOOR CANOPY.

NOTE:
1.) THIS IS NOT A RECORD OF SURVEY. THE BOUNDARY SHOWN IS APPROXIMATE AND BASED OFF OF ASSESSOR'S PARCEL MAPS. NO SURVEY MONUMENTS ARE FOUND NOR SHOWN.
2.) CONTOURS SHOWN WERE IMPORTED FROM LAKE CO GIS MAPPING DEPARTMENT AND ALL AERIAL PHOTOS BY GOOGLE EARTH.

PROPERTY OWNER

Brian D Pensack &
Garrett W. Burdick
637 Lindarost
Petaluma, CA 94952
(415) 637-6456
lakeviewfarms@gmail.com

APPLICANT

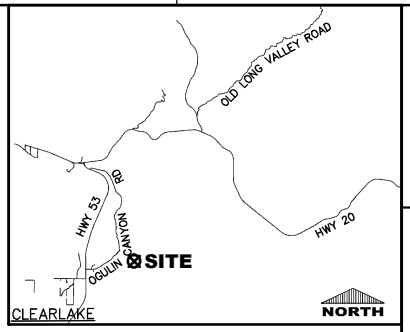
Lake Vista Farms LLC
Brian Pensack
141 Upham Street
Petaluma, CA 94952
(415) 317-2365

AGENT

Mike Mitzel, Consultant
3430 Gaddy Lane
Kelseyville, CA 95451
(707) 315-1764
konoctidag@gmail.com

WELL LOCATIONS

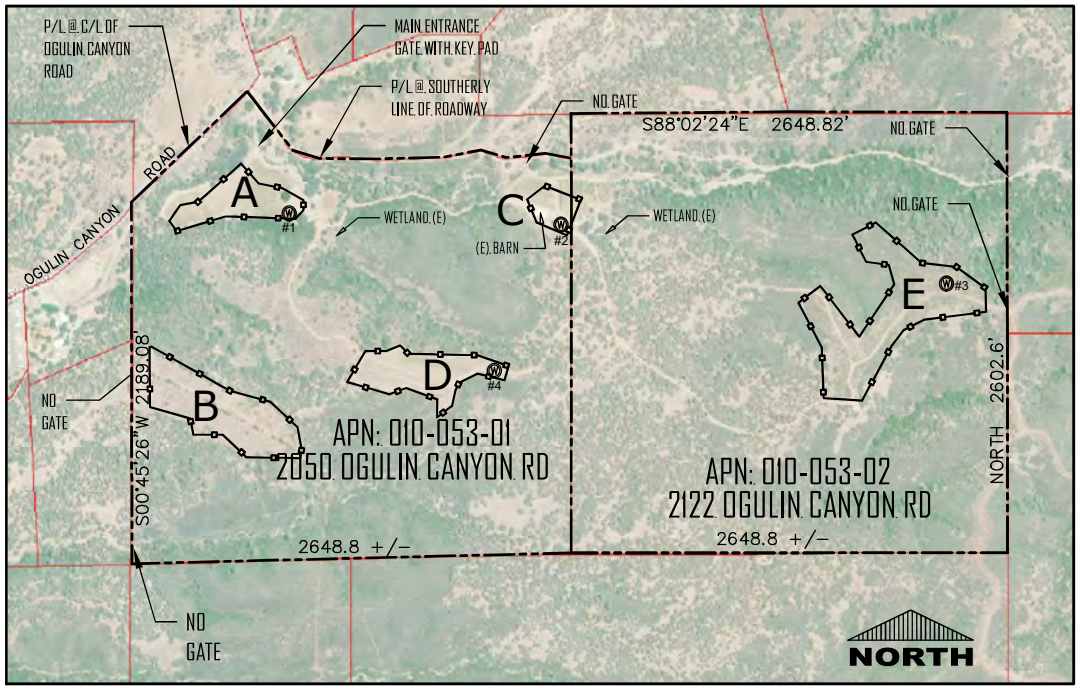
	LATITUDE	LONGITUDE
WELL #1	38°58'55.24"N....	122°35'59.64"W
WELL #2	38°58'55.32"N....	122°35'39.05"W
WELL #3	38°58'51.53"N....	122°35'10.39"W
WELL #4	38°58'46.45"N....	122°35'44.75"W
WELL #5		



LOCATION MAP

CULTIVATION AREA INDEX

NAME	CULTIVATION AREA	SHEETS
A Northwest Hops Field	3.4 ACRES	A-1 thru A-4
B Southwest Clearing	6.4 ACRES	B-1 thru B-4
C Northeast Hops Field	3.4 ACRES	C-1 thru C-5
D Central Hops Field	4.2 ACRES	D-1 thru D-4
E Chaparall Clearing	8.4 ACRES	E-1 thru E-4



SITE MAP

0 700 1400 Feet

LEGEND

- PROPERTY LINE
- CREEKS
- SETBACK LINE
- CULTIVATION FENCE (P)
- FENCE (E)
- ACCESS ROAD/DRIVEWAY
- TREE LINE
- WELL
- UTILITY POLE (P)
- TREE (E)
- LANDSCAPING TREE (P)
- STREET LIGHT (P)
- THERMAL CAMERA VIEW SHED (P)
- NON-THERMAL CAMERA VIEW SHED (P)

STORMWATER BMPS LEGEND*

- FIBER ROLLS (SE-5)
- SURFACE STABILIZATION (EC-2,6,7,8,15,16)
- SILT FENCE (SE-1)
- ROAD/PARKING LOT MGT (SC-40,43,44)
- STOCK PILE MGT (WE-1, WM-1,3)
- CHEMICAL HANDLING BMP (WM-1,2,3,4,5,6)
- SWALE MGT (EC-9, SE-6,8,9)
- WASTE MANAGEMENT (WM-5,6,7, SC-3,4)
- SEDIMENT TRAP/BASEIN (SE-2,3)
- WATER QUALITY MONITORING LOCATION

* ALL STORMWATER BMPS SHALL BE INSTALLED AND MAINTAINED AS PER CALIFORNIA STORMWATER BMP HANDBOOK.

SUBMITTED TO:
LAKE COUNTY
COMUNITY DEVELOPMENT DEPT
COUNTY OF LAKE
LAKEPORT, CA

VanDerWall Engineering, Inc.
PO BOX 431
KELSEYVILLE, CA 95451
707-279-4887

COVER SHEET
APN'S: 010-053-01 & 02
2050 & 2122 OGULIN CANYON RD
CLEARLAKE, CALIFORNIA

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	SEPT 2019
PROJ	19-37
DWG	
SHEET	1

Source: VanDerWall Engineering, Inc. 7/2

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Traffic Impact Study for the Ogulin Canyon Road Cannabis Cultivation Facilities
Figure 5 – 2050 Site Plan

COVER SHEET - Blue Oaks Farms Cultivation Site Plan

1756 OGULIN CANYON RD. . CLEARLAKE CA . . . APN: 010-055-46

SITE PLAN DATA

AREA OF PROPERTY	46.52 +/- ACRES
CULTIVATION AREA	2.0 ACRE (P)
ZONING	RL - RURAL LANDS

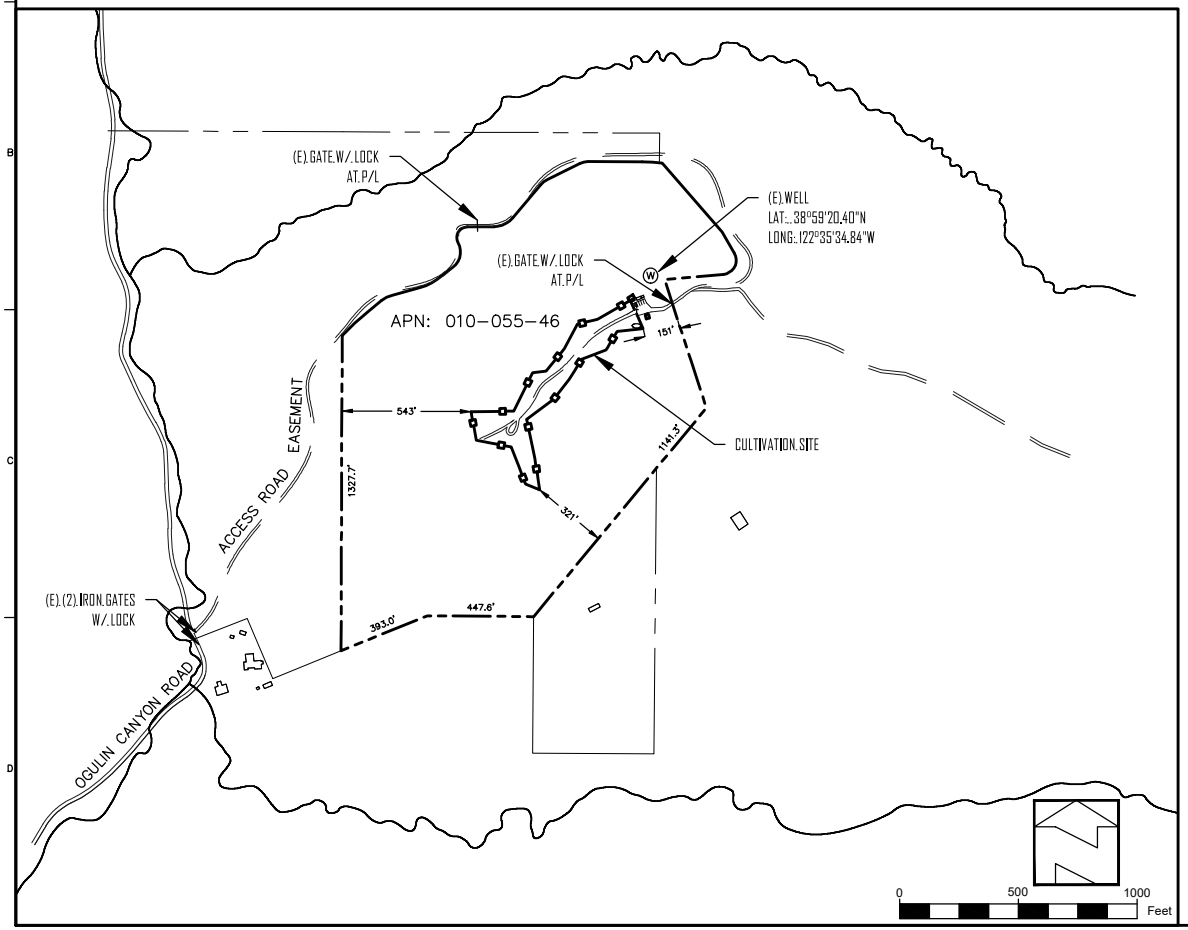
CULTIVATION LICENSE

THE INTENTION OF THIS SITE MAP IS FOR THE SUBMITTAL APPLICATION FOR CALIFORNIA STATE LICENSE TYPE 3 OUTDOOR-SMALL OUTDOOR .

PROPERTY OWNER & APPLICANT

Brian Pensack, Kim Gardner
Blue Oaks Farms LLC
637 Lindaro Street Suite 201
San Rafael, CA 94901

PHONE: (415) 317-2345
EMAIL: homehelpforyou@gmail.com



LOCATION MAP

LEGEND

- PROPERTY LINE
- SETBACK LINE
- CULTIVATION FENCE (P)
- WIRE FENCE (E)
- ACCESS ROAD/DRIVEWAY
- TREE/BRUSH LINE
- W — IRRIGATION LINE (E)
- (W) IRRIGATION WELL
- SECURITY CAMERA

NOTE:
1.). THIS IS NOT A RECORD OF SURVEY.. THE BOUNDARY SHOWN IS APPROXIMATE AND BASED OFF OF ASSESSOR'S PARCEL MAPS.. NO SURVEY MONUMENTS ARE FOUND NOR SHOWN.

SITE PLAN INDEX

SHEET 1	COVER SHEET
SHEET 2	SURROUNDING AREA AERIAL
SHEET 3	CANNABIS CULTIVATION SITE
SHEET 4	CANNABIS CULTIVATION IMPROVEMENTS
SHEET 5	DETAIL DRAWINGS

SUBMITTED TO:
LAKE COUNTY COMMUNITY DEVELOPEMENT DEPT.
COUNTY OF LAKE
LAKEPORT, CA

VanDerWall Engineering, Inc.
PO BOX 431
KELSEYVILLE, CA 95451
707-279-4887

Cover Sheet
Blue Oaks Farm
APN: 010-055-46
1756 OGULIN CANYON ROAD

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	NOV 202
PROJ	19-38
DWG	
SHEET	1 C

Source: VanDerWall Engineering, Inc. 7/2

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Traffic Impact Study for the Ogulin Canyon Road Cannabis Cultivation Facilities
Figure 6 – 1756 Site Plan

so trips associated with deliveries, visitors, shipments, and other activities are reflected in the rate and resulting trip estimates. The trip generation estimates for each project, as well as the sum for all four projects, are summarized in Table 4.

Table 4 – Trip Generation Summary – Harvest Conditions

Land Use	Units	Daily		AM Peak			PM Peak		
		Rate	Trips	Trips	In	Out	Trips	In	Out
2185 Ogulin Canyon Rd									
General Light Industrial	25 empl	3.05	76	13	11	2	12	3	9
2160 Ogulin Canyon Rd									
General Light Industrial	35 empl	3.05	107	18	15	3	17	4	13
2050 Ogulin Canyon Rd (Lake Vista Farms)									
General Light Industrial	20 empl	3.05	61	10	9	1	10	2	8
1756 Ogulin Canyon Rd (Blue Oaks Farm)									
General Light Industrial	5 empl	3.05	15	3	2	1	2	1	1
Total Trips			**259**	**44**	**37**	**7**	**41**	**10**	**31**

Note: empl = employees

It should be noted that under typical non-harvest operations approximately 40 employees are anticipated across all four projects and would be expected to result in 122 daily trips on average, including 21 trips during the a.m. peak hour and 20 trips during the p.m. peak hour.

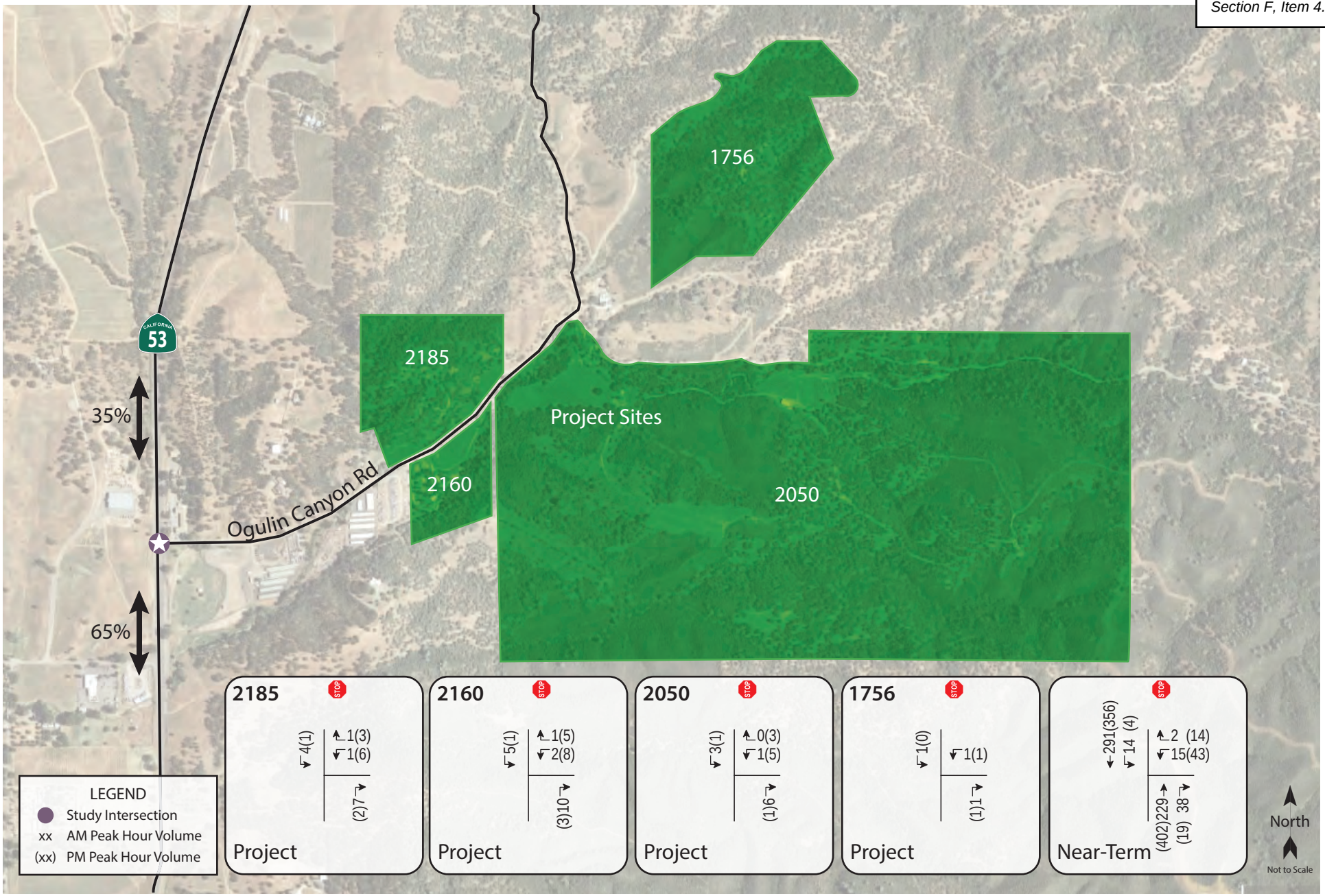
Trip Distribution

The pattern used to allocate new project trips to the street network was based on a review of the intersection turning movement volumes at SR 53/Ogulin Canyon Road and knowledge of the area and the surrounding region as well as the anticipated travel patterns for the project employees and deliveries. A distribution of 35 percent of the project trips were assigned to SR 53 north of Ogulin Canyon Road and 65 percent were assigned to the south. This information is shown on Figure 7 along with the individual project traffic volumes.

Intersection Operation

Existing plus Project Conditions

Upon adding trips associated with each individual project to Existing volumes, the study intersection of SR 53/Ogulin Canyon Road would be expected to continue operating acceptably at LOS A overall and LOS B or C on the Ogulin Canyon Road approach during both peak hours, with minor increases in delay. Individual project traffic volumes are shown in Table 5.



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Traffic Impact Study for the Ogulin Canyon Road Cannabis Cultivation Facilities

Figure 7 – Project Traffic Volumes, Trip Distribution, and Near-Term Traffic Volumes

Table 5 – Existing and Existing plus Project Peak Hour Intersection Levels of Service at SR 53/Ogulin Canyon Road

Project *Approach*	Existing Conditions				Existing plus Project			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
2185 Ogulin Canyon Rd	0.2	A	0.7	A	0.3	A	0.9	A
Westbound (OCR) Approach	*10.2*	*B*	*21.1*	*C*	*10.2*	*B*	*20.8*	*C*
2160 Ogulin Canyon Rd	0.2	A	0.7	A	0.3	A	1.0	A
Westbound (OCR) Approach	*10.2*	*B*	*21.1*	*C*	*10.2*	*B*	*20.6*	*C*
2050 Ogulin Canyon Rd (Lake Vista Farms)	0.2	A	0.7	A	0.3	A	0.9	A
Westbound (OCR) Approach	*10.2*	*B*	*21.1*	*C*	*10.2*	*B*	*20.5*	*C*
1756 Ogulin Canyon Rd (Blue Oaks Farm)	0.2	A	0.7	A	0.2	A	0.7	A
Westbound (OCR) Approach	*10.2*	*B*	*21.1*	*C*	*10.2*	*B*	*21.2*	*C*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; OCR = Ogulin Canyon Road

Finding – The study intersection of SR 53/Ogulin Canyon Road would continue operating acceptably with trips from each individual project added to Existing volumes and all four projects would have an acceptable effect on operation of the surrounding roadway network.

Near-Term Conditions

Near-Term operating conditions were assessed with traffic from all four proposed projects added to the Existing volumes. As shown in Table 6, upon the cumulative addition of traffic associated with all four proposed cannabis facilities, SR 53/Ogulin Canyon Road is expected to operate acceptably at LOS A overall and LOS B or C on the stop-controlled westbound approach during both peak hours. Near-term traffic volumes are shown in Figure 7.

Table 6 – Near-Term Peak Hour Intersection Levels of Service

Study Intersection *Approach*	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
SR 53/Ogulin Canyon Rd	0.5	A	1.5	A
Westbound (OCR) Approach	*10.3*	*B*	*21.3*	*C*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; OCR = Ogulin Canyon Road

Finding – Under Near-Term conditions with trips from all four proposed projects added, SR 53/Ogulin Canyon Road would be expected to continue operating acceptably.

Future plus Project Conditions

Under the future traffic volumes that would be expected upon buildout of the City's General Plan, and with cumulative traffic from the four proposed projects, the study intersection of SR 53/Ogulin Canyon Road is expected to continue operating acceptably at LOS A overall and at LOS D or better on the westbound approach during both peak hours. It should be noted that the proposed projects are consistent with the industrial land use assumptions applied in the General Plan traffic analysis, so project trips could reasonably be expected to be included in the Future traffic volumes; however, to provide a conversative assessment of the project's potential traffic effects, trips from all four projects were added to Future volumes. The Future plus Project operating conditions are summarized in Table 7.

Table 7 – Future and Future plus Project Peak Hour Intersection Levels of Service

Study Intersection *Approach*	Future Conditions				Future plus Projects			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 53/Ogulin Canyon Rd	0.2	A	0.9	A	0.4	A	1.8	A
Westbound (OCR) Approach	*10.8*	*B*	*28.3*	*D*	*10.9*	*B*	*29.7*	*D*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; OCR = Ogulin Canyon Road

Finding – Under Future Conditions expected upon buildout of the City's General Plan and with the addition of traffic from all four projects, SR 53/Ogulin Canyon Road is expected to continue operating acceptably.

Alternative Modes

Pedestrian Facilities

Given the rural location of the project sites, the lack of existing facilities, and the nature of the proposed projects, employees are not expected to want to walk to the site.

Finding – The lack of existing dedicated facilities for pedestrians in the project vicinity is consistent with the rural setting and is therefore considered acceptable.

Bicycle Facilities

There are no bicycle facilities within the vicinity of the project sites including along SR 53 and Ogulin Canyon Road. Given the rural context, the existing condition wherein cyclists ride on the roadway shoulders of SR 53 or share the travel lanes with motorists on Ogulin Canyon Road is considered acceptable.

Finding – The lack of dedicated bicycle facilities in the vicinity of the project sites is considered acceptable for the minimal number of trips anticipated.

Transit

The lack of transit facilities serving the four projects does not result in an impact given the location and type of projects proposed.

Finding – There are no transit facilities serving the project sites; however, there is not anticipated to be any demand.

Access and Circulation

Site Access

All of the proposed projects would be accessed from existing gated driveways on Ogulin Canyon Road, except the project proposed at the 2160 address where a new driveway would be constructed. The projects in the City of Clearlake would be accessed from the segment of Ogulin Canyon Road that is paved, while the two projects in unincorporated Lake County would be accessed from the section further east with a gravel surface. The roadway has a width that varies between 16 and 25 feet and has turnouts before or after sections where the width is narrow to allow motorists to pass one another.

Very Low Volume Roadways

The daily volume for Ogulin Canyon Road is 220 vehicle trips to the west of the mini storage facility and 60 vehicle trips to the east. Roadways with volumes of 400 vehicles per day or less are considered "Very Low Volume Roadways" under criteria published by the American Association of State Highway and Transportation Officials (AASHTO). Collectively, the four projects are anticipated to result in 122 daily trips during typical operation and 259 trips during harvest conditions. Assuming that harvest conditions will account for three months out of the year, the projects would result in an annual ADT volume of 156 daily trips so even with the addition of new project trips the entire section of Ogulin Canyon Road would still have a daily volume below 400 and the designation as a "very low volume" roadway would be retained.

In the AASHTO *Guidelines for Geometric Design of Very Low-Volume Local Roads* published in 2001, design criteria are presented that are less restrictive than those applied to higher volume roads. These standards do not compromise safety, but discourage widening of lanes and shoulders, changes in horizontal and vertical alignment, and other roadside improvements except where such changes are likely to provide substantial safety benefits. To determine if the roadway has an existing safety issue that could be improved with widening, the collision history for the roadway was reviewed and it was determined that there were no collisions reported in the five-year period between April 1, 2015 and March 31, 2020, the most recent period for which data is available. While a roadway with a consistent width of at least 20 feet would be desirable, since users have been navigating the roadway safely under its current condition, no widening appears necessary.

Finding – With the increase in trips from the four projects, the entirety of Ogulin Canyon Road would have an annual ADT below the AASHTO threshold that defines a "Very Low Volume Roadway" and since the roadway has been operating acceptably in terms of safety, it is reasonable to expect the facility to continue doing so.

Sight Distance

Consideration was given to the adequacy of sight lines along Ogulin Canyon Road and the ability for opposing motorists to see one another in order to move to the side of the road for a passing maneuver to occur. Stopping sight distances were evaluated based on sight distance criteria published by AASHTO that are applicable for "Very Low Volume Roadways. These values are developed using a brake reaction time and driver deceleration that are in line with observed driver behavior on roadways with volumes below 400 vehicles per day. There is no posted speed limit on Ogulin Canyon Road between SR 53 and approximately 850 feet east of the driveway to the property at 2185 so a speed limit of 25 miles per hour (mph) was assumed for this section. The gravel section to the east has an indicated speed limit of 15 mph. For speeds of 15 and 25 mph, the recommended stopping sight distances needed for very low volume roadways are 65 and 125 feet, respectively. Based on a review of aerial photography, it was determined that sight lines between following and opposing motorists are expected to extend at least 150 feet along the paved roadway segment and 100 feet along the gravel section, which are both adequate for anticipated travel speeds.

Consideration was also given to adequacy of stopping sight distance at the project driveways. Sight lines were field measured at the two driveways within the City Limits and were determined to extend approximately 200 feet, which is more than adequate for anticipated travel speeds. Sight lines at the project driveways in unincorporated Lake County were measured using aerial imagery and determined to extend at least 100 feet, which is adequate for speeds of 15 mph, though it should be noted that given the low volume on this section of the roadway, turning movement conflicts would be minimal to non-existent.

Finding – Adequate stopping sight distance is available on Ogulin Canyon Road for the anticipated travel speeds and the very low volume roadway designation.

Recommendation – To maintain available sight lines on Ogulin Canyon Road, any new landscaping or signage planned for the project frontages should be placed outside the driver's vision triangle at the driveways.

Vehicle Miles Traveled

Background and Threshold of Significance

Senate Bill (SB) 743 established a change in the metric to be applied to determining transportation impacts associated with development projects. Rather than the delay-based criteria associated with a Level of Service (LOS) analysis, the change in Vehicle Miles Traveled (VMT) as a result of a project is now the basis for determining impacts with respect to transportation and traffic under CEQA. As of the date of this analysis, the City of Clearlake and County of Lake have not yet adopted thresholds of significance related to VMT, though the *Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study* was prepared for Lake Area Planning Council (LAPC) in November 2020. Many of the recommendations in the Regional Baseline Study are consistent with guidance published by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018. As a result, individual project-related VMT impact were assessed based on OPR guidance.

Project Impact

The OPR Technical Advisory identifies several criteria that may be used by jurisdictions to identify certain types of projects that are unlikely to have a significant VMT impact and can be "screened" from further analysis. One of these screening criteria pertains to "small projects," which OPR identifies as generating fewer than 110 new vehicle trips per typical weekday. OPR specifies that VMT should be based on a typical weekday and averaged over the course of the year to take into consideration seasonal fluctuations. As shown in Table 4, each of the four individual proposed projects is anticipated to generate less than the small project threshold of 110 daily vehicle trips during the peak season, and even less during non-harvest conditions. As a result, it is reasonable to conclude that each project can be presumed to have a less-than-significant transportation impact on VMT.

Finding – Based on OPR guidance, all four projects can be presumed to have a less-than-significant transportation impact on VMT under the small project screening threshold.

Parking

Each of the four projects was analyzed to determine whether the proposed vehicle parking supply would be sufficient for the anticipated peak parking demand. Since the City of Clearlake and County of Lake do not have published parking requirements for cannabis cultivation and support uses, the anticipated peak parking demand was estimated based on the employee count as well as the number of company-owned vehicles proposed for distribution uses. It is recommended that a minimum of one parking space be provided for each full- and part-time employee during the largest shift. Further, for the distribution components proposed for the projects located at 2185 and 2160 Ogulin Canyon Road, it is suggested that one parking space be provided for each company-owned vehicle.

Based on these rates, a minimum of 27 parking spaces would need to be provided at 2185, 37 spaces at 2160, 20 spaces at 2050, and five spaces at 1765 Ogulin Canyon Road in order to satisfy the anticipated peak demand. As shown in Table 8, the proposed parking supplies for all four projects are more than adequate for the anticipated peak demand.

Table 8 – Parking Analysis

Project	Units	Rate	Estimated Peak Demand	Proposed Supply
2185 Ogulin Canyon Rd	25 empl & 2 veh	1 space/empl & 1 space/veh	27	**32**
2160 Ogulin Canyon Rd	35 empl & 2 veh	1 space/empl & 1 space/veh	37	**46**
2050 Ogulin Canyon Rd	20 empl	1 space/empl	20	**27**
1756 Ogulin Canyon Rd	5 empl	1 space/empl	5	**6**

Notes: empl = employee; veh = company vehicle

Finding – The proposed parking supply for each project would be adequate to meet the anticipated peak season parking demand based on the proposed employee count and number of company-owned vehicles.

Conclusions and Recommendations

Conclusions

- The four proposed projects would be expected to result in a total of 259 new daily trips during the peak season, including 44 trips during the morning peak hour and 41 trips during the evening peak hour.
- Under Existing Conditions, SR 53/Ogulin Canyon Road operates acceptably at LOS A overall and LOS B or C on the stop-controlled approach and would be expected to continue operating at the same service levels with the addition of traffic from each individual project.
- Under Near-Term Conditions, which includes cumulative traffic from all four projects added to Existing volumes, SR 53/Ogulin Canyon Road would be expected to operate acceptably at LOS A overall and LOS B or C on stop-controlled westbound approach during both peak hours.
- The study intersection of SR 53/Ogulin Canyon Road would be expected to operate at LOS A overall and LOS D or better on stop-controlled approach during both peak hours under the anticipated Future volumes and with cumulative traffic from all four projects added.
- Based on OPR guidance, all four projects can be presumed to have a less-than-significant transportation impact on VMT under the small project screening threshold.
- There were no collisions recorded at the intersection of SR 53/Ogulin Canyon Road or on Ogulin Canyon Road during the most recent five-year study period indicating that there are no readily apparent safety issues in the study area.
- Although there are no pedestrian, transit, or bicycle facilities in the vicinity of the project sites, the existing condition is acceptable given that the project sites are located in an automobile-oriented rural area without any expected demand for walking or transit and limited demand for bicycling.
- With the increase in trips from the four projects, the entirety of Ogulin Canyon Road would have an annual ADT below the AASHTO 400-trip threshold that defines a "Very Low Volume Roadway" and since the roadway has been operating acceptably in terms of safety, it is reasonable to expect the facility to continue doing so.
- Adequate stopping sight distance is available on Ogulin Canyon Road for the anticipated travel speeds.
- The proposed parking supplies for all four projects are more than adequate to meet the anticipated peak parking demand.

Recommendation

- To maintain available sight lines on Ogulin Canyon Road, any new landscaping or signage planned for the project frontages should be placed outside the driver's vision triangle at the driveways.

Study Participants and References

Study Participants

Principal in Charge	Dalene J. Whitlock, PE, PTOE
Associate Engineer	Cameron Nye, EIT
Assistant Planner	Jade Kim
Graphics	Cameron Wong
Editing/Formatting	Alex Scrobonia, Cameron Wong, Hannah Yung-Boxdell
Quality Control	Dalene J. Whitlock, PE, PTOE

References

2016 Collision Data on California State Highways, California Department of Transportation, 2017
Active Transportation Plan for Lake County, Lake County/City Area Planning Council, 2016
California Manual on Uniform Traffic Control Devices for Streets and Highways, California Department of Transportation, 2014
City of Clearlake 2040 General Plan Update, City of Clearlake, 2017
Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤ 400), American Association of State Highway and Transportation Officials, 2001
Highway Capacity Manual, 6th Edition, Transportation Research Board, 2018
Highway Design Manual, 6th Edition, California Department of Transportation, 2017
Lake Transit Authority, http://www.laketransit.org
Municipal Code of the City of Clearlake, Coded Systems LLC, 2017
Senate Bill No. 743, California Legislative Information, http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB743
Statewide Integrated Traffic Records System (SWITRS), California Highway Patrol, 2015-2020
Technical Advisory on Evaluating Transportation Impacts in CEQA, Governor's Office of Planning and Research, 2018
Trip Generation Manual, 10th Edition, Institute of Transportation Engineers, 2017
Vehicle Miles Traveled-Focused Transportation Impact Study Guide, California Department of Transportation, 2020

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Appendix A

Intersection Level of Service Calculations

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Version 2021 (SP 0-0)

Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.016

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	229	14	1	291	10	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	229	14	1	291	10	0
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	4	0	80	3	0
Total Analysis Volume [veh/h]	252	15	1	320	11	0
Pedestrian Volume [ped/h]	0		0		0	

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Version 2021 (SP 0-0)

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		6	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.78	0.00	10.18	9.58
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.05	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.06	0.00	1.19	0.00
d_A, Approach Delay [s/veh]	0.00		0.02		10.18	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.20					
Intersection LOS	B					

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Version 2021 (SP 0-0)

Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	22.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.107

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	402	12	0	356	23	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	402	12	0	356	23	3
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	109	3	0	97	6	1
Total Analysis Volume [veh/h]	437	13	0	387	25	3
Pedestrian Volume [ped/h]	0		0		0	

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Version 2021 (SP 0-0)

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.11	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.24	0.00	22.29	10.84
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.36	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	8.89	0.36
d_A, Approach Delay [s/veh]	0.00		0.00		21.06	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.68					
Intersection LOS	C					

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Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	10.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	229	14	1	291	10	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.4100	1.4100	1.4100	1.4100	1.4100	1.4100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	323	20	1	410	14	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	81	5	0	103	4	0
Total Analysis Volume [veh/h]	323	20	1	410	14	0
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		6	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.96	0.00	10.75	10.01
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.07	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.06	0.00	1.68	0.00
d_A, Approach Delay [s/veh]	0.00		0.02		10.75	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.21					
Intersection LOS	B					

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Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	30.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.184

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	402	12	0	356	23	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3700	1.3700	1.3700	1.3700	1.3700	1.3700
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	551	16	0	488	32	4
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	138	4	0	122	8	1
Total Analysis Volume [veh/h]	551	16	0	488	32	4
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.18	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	8.58	0.00	30.35	11.79
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.65	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	16.33	0.57
d_A, Approach Delay [s/veh]	0.00		0.00		28.29	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	0.93					
Intersection LOS	D					

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Version 2021 (SP 0-0)

Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.017

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	229	14	1	291	10	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	7	4	0	1	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	229	21	5	291	11	1
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	6	1	80	3	0
Total Analysis Volume [veh/h]	252	23	5	320	12	1
Pedestrian Volume [ped/h]	0		0		0	

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Version 2021 (SP 0-0)

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		6	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.81	0.00	10.23	9.58
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.00	0.05	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.29	0.00	1.31	0.10
d_A, Approach Delay [s/veh]	0.00		0.12		10.18	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.28					
Intersection LOS	B					

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Version 2021 (SP 0-0)

Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	23.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.138

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	402	12	0	356	23	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	1	0	6	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	402	14	1	356	29	6
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	109	4	0	97	8	2
Total Analysis Volume [veh/h]	437	15	1	387	32	7
Pedestrian Volume [ped/h]	0		0		0	

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Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.14	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	8.25	0.00	22.96	10.88
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.47	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.07	0.00	11.76	0.86
d_A, Approach Delay [s/veh]	0.00		0.02		20.79	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.93					
Intersection LOS	C					

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Version 2021 (SP 0-0)

Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.019

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	229	14	1	291	10	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	10	5	0	2	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	229	24	6	291	12	1
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	7	2	80	3	0
Total Analysis Volume [veh/h]	252	26	7	320	13	1
Pedestrian Volume [ped/h]	0		0		0	

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Version 2021 (SP 0-0)

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		6	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.82	0.00	10.27	9.58
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.00	0.06	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.41	0.00	1.43	0.10
d_A, Approach Delay [s/veh]	0.00		0.17		10.22	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.32					
Intersection LOS	B					

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Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	23.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.146

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	402	12	0	356	23	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	3	1	0	8	5
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	402	15	1	356	31	8
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	109	4	0	97	8	2
Total Analysis Volume [veh/h]	437	16	1	387	34	9
Pedestrian Volume [ped/h]	0		0		0	

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Version 2021 (SP 0-0)

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.15	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	8.25	0.00	23.14	10.90
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.50	0.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.07	0.00	12.61	1.11
d_A, Approach Delay [s/veh]	0.00		0.02		20.58	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.01					
Intersection LOS	C					

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Version 2021 (SP 0-0)

Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.017

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	229	14	1	291	10	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	3	0	1	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	229	20	4	291	11	0
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	5	1	80	3	0
Total Analysis Volume [veh/h]	252	22	4	320	12	0
Pedestrian Volume [ped/h]	0		0		0	

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Version 2021 (SP 0-0)

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		6	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.80	0.00	10.22	9.58
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.00	0.05	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.23	0.00	1.30	0.00
d_A, Approach Delay [s/veh]	0.00		0.10		10.22	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.25					
Intersection LOS	B					

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Version 2021 (SP 0-0)

Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	22.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.129

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	402	12	0	356	23	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	1	0	5	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	402	13	1	356	28	6
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	109	4	0	97	8	2
Total Analysis Volume [veh/h]	437	14	1	387	30	7
Pedestrian Volume [ped/h]	0		0		0	

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Version 2021 (SP 0-0)

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.13	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	8.25	0.00	22.79	10.88
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.44	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.07	0.00	10.94	0.86
d_A, Approach Delay [s/veh]	0.00		0.02		20.53	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.88					
Intersection LOS	C					

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Version 2021 (SP 0-0)

Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.017

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	229	14	1	291	10	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	1	0	1	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	229	15	2	291	11	0
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	4	1	80	3	0
Total Analysis Volume [veh/h]	252	16	2	320	12	0
Pedestrian Volume [ped/h]	0		0		0	

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Version 2021 (SP 0-0)

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		6	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.78	0.00	10.20	9.58
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.05	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.12	0.00	1.30	0.00
d_A, Approach Delay [s/veh]	0.00		0.05		10.20	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.23					
Intersection LOS	B					

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Version 2021 (SP 0-0)

Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	22.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.112

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	402	12	0	356	23	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	0	0	1	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	402	13	0	356	24	3
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	109	4	0	97	7	1
Total Analysis Volume [veh/h]	437	14	0	387	26	3
Pedestrian Volume [ped/h]	0		0		0	

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Version 2021 (SP 0-0)

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.11	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.24	0.00	22.37	10.84
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.37	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	9.28	0.36
d_A, Approach Delay [s/veh]	0.00		0.00		21.18	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.71					
Intersection LOS	C					

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Version 2021 (SP 0-0)

Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	229	14	1	291	10	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	24	13	0	5	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	229	38	14	291	15	2
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	10	4	80	4	1
Total Analysis Volume [veh/h]	252	42	15	320	16	2
Pedestrian Volume [ped/h]	0		0		0	

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Version 2021 (SP 0-0)

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		6	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.87	0.00	10.39	9.59
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.04	0.00	0.07	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.90	0.00	1.80	0.19
d_A, Approach Delay [s/veh]	0.00		0.35		10.30	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.47					
Intersection LOS	B					

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Version 2021 (SP 0-0)

Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	24.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.205

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	402	12	0	356	23	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	7	4	0	20	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	402	19	4	356	43	14
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	109	5	1	97	12	4
Total Analysis Volume [veh/h]	437	21	4	387	47	15
Pedestrian Volume [ped/h]	0		0		0	

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Version 2021 (SP 0-0)

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.20	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	8.28	0.00	24.66	10.96
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.00	0.75	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.27	0.00	18.68	1.86
d_A, Approach Delay [s/veh]	0.00		0.08		21.34	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.49					
Intersection LOS	C					

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Version 2021 (SP 0-0)

Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.031

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	229	14	1	291	10	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.4100	1.4100	1.4100	1.4100	1.4100	1.4100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	24	13	0	5	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	323	44	14	410	19	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	81	11	4	103	5	1
Total Analysis Volume [veh/h]	323	44	14	410	19	2
Pedestrian Volume [ped/h]	0		0		0	

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Version 2021 (SP 0-0)

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		6	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.03	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.06	0.00	10.99	10.03
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.04	0.00	0.09	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.89	0.00	2.37	0.21
d_A, Approach Delay [s/veh]	0.00		0.27		10.89	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.42					
Intersection LOS	B					

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Version 2021 (SP 0-0)

Intersection Level Of Service Report
Intersection 1: SR 53/Ogulin Canyon Rd

Control Type:	Two-way stop	Delay (sec / veh):	34.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.303

Intersection Setup

Name	SR 53		SR 53		Ogulin Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	350.00	280.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	SR 53		SR 53		Ogulin Canyon Rd	
Base Volume Input [veh/h]	402	12	0	356	23	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.3700	1.3700	1.3700	1.3700	1.3700	1.3700
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	7	3	0	20	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	551	23	3	488	52	15
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	138	6	1	122	13	4
Total Analysis Volume [veh/h]	551	23	3	488	52	15
Pedestrian Volume [ped/h]	0		0		0	

Generated with PTV VISTRO

Version 2021 (SP 0-0)

Intersection Settings

Priority Scheme	Free		Free		Stop	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance					Yes	
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.30	0.03
d_M, Delay for Movement [s/veh]	0.00	0.00	8.61	0.00	34.81	11.94
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.00	1.21	0.09
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.23	0.00	30.14	2.16
d_A, Approach Delay [s/veh]	0.00		0.05		29.69	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	1.78					
Intersection LOS	D					

Appendix B

Growth Rate Calculations

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Future Growth Factor Calcuations

Traffic Impact Study for the the Ogulin Canyon Road Cannabis Cultivation Facilities

AM Peak Hour Volume

Intersection	Year	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total
SR 53/Olympic Dr	2017	167	225	0	0	288	69	58	0	208	0	0	0	**1015**
SR 53/Olympic Dr	2040	235	400	0	0	440	95	80	0	285	0	0	0	**1535**

PM Peak Hour Volume

Intersection	Year	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total
SR 53/Olympic Dr	2017	297	258	0	0	221	100	108	0	260	0	0	0	**1244**
SR 53/Olympic Dr	2040	370	445	0	0	415	125	135	0	330	0	0	0	**1820**

Source: City of Clearlake 2040 General Plan Update

Growth Rate Calculations

	AM	PM
Growth Factor (2017 to 2040)	1.51	1.46
Annual Growth Rate	1.8%	1.7%
Growth Factor (2021 to 2040)	1.41	1.37

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TECHNICAL MEMORANDUM

To: City of Clearlake Planning Department

From: Annjanette Dodd, PhD, CA PE #77756 Exp. 6/30/2023

Date: March 7, 2022

Subject: Groundwater Hydrology Addendum – 2160 Ogulin Canyon Road, Clearlake, CA, APN 010-044-21

A Groundwater Hydrology Technical Memorandum (TM) was prepared for 2160 Ogulin Canyon Road, Clearlake, CA (APN 010-044-21) dated December 23, 2021 and submitted to the City of Clearlake Planning Department. The TM addressed groundwater recharge and cumulative impacts and concluded the project's water use would not likely have a cumulative impact on the surrounding area for the following reasons:

- The cannabis demand is only 0.12% of the usable storage capacity in the BVGB; and
- There is sufficient recharge over the project's recharge area to meet the project's demand during both average and dry years.

The purpose of the TM Addendum is to provide supplemental information regarding water demand in the Burns Valley Groundwater Basin (BVGB) and potential cumulative impacts associated with implementation of the proposed project.

GROUNDWATER USE AND TRENDS IN BVGB

Review of Google Earth Imagery shows extensive agricultural development, in the form of walnut/pear orchards and vineyards, in the BVGB since at least 1985. Existing orchards and vineyards established prior to 2003 should have been included as part of the groundwater irrigation demand in the Lake County Groundwater Management Plan, however, this does not appear to be the case. According to the Lake County Water Demand Forecast, the average annual water demand for vineyards and walnut/pear orchards in Lake County is 0.5 acre-feet per acre and 2.2 acre-feet per acre, respectively. Using current Google Earth imagery, there are roughly 450 acres of existing vineyards and 150 acres of orchards in Burns Valley. Orchard production in the valley has decreased over time. Accounting for existing vineyards and orchards, the approximate agricultural demand in the valley is about 555 acre-feet per year which is supplied via existing groundwater wells. The 2006 Lake County Groundwater Management Plan stated that the agricultural demand in the BVGB during an average year is 105 acre-feet, with 14 acre-feet of this supplied from groundwater, which appears to be an underestimate of the existing groundwater agricultural demand. The estimate of existing agricultural demand of 555 acre-feet per year is likely a high estimate because most of the orchards and some of the vineyards are likely being dry farmed.

The northern residential district of the City of Clearlake relies on groundwater wells as the main source of water. The Highlands Mutual Water Company supplies the majority of residents in the lower part of the BVGB (Figure ***8***). According to the Lake County Agency Formation Commission 2021 Report on Clearlake Water Providers (ClearlakeH20_MSR-SOI_2021EDIT-2._cl_docx_(lakelafco.org)), the Highlands Mutual Water Company serves 6,072 people with water via 2,568 services connections using water drawn from Clear Lake. Approximately 120 residential parcels are not served by HMWC and are assumed to rely on groundwater wells. According to the Environmental Protection Agency (EPA,

https://www.epa.gov/watersense/how-we-use-water), the average American family uses 300 gallons of water per day, which equates to an annual demand of 40 acre-feet per year for 120 residences.

The main sources of groundwater in the BVGB are within the *Quaternary Alluvium Formation* and the *Lower Lake Formation*. *Quaternary Alluvium* is the predominant formation the southwestern portion of the BVGB, where both residential development and well development are most dense (Figure 1 and Figure 2). The alluvium has a thickness of up to 50 feet; groundwater in this formation is unconfined and typically provides water for domestic use. Wells screened in unconfined aquifers are more directly influenced by lack of rain than those screened in deeper, confined aquifers. The *Lower Lake Formation* underlies the alluvial deposits in the BVGB. This formation has low permeability and provides water to wells at up to a few hundred gallons per minute and is the dominant source of agricultural water demand in the BVGB. Note that the existing vineyards and the existing and proposed cannabis projects are located outside of the alluvial valley in the upper half of the BVGB (Figure 1).

Fortunately, there is a California Statewide Groundwater Elevation Monitoring (CASGEM) Program well located within the BVGB that has been used to monitor long-term groundwater trends (CASGEM well ID: 39925, Lat/Long: 38.96535, -122.63186, Figure ***3***) for over 50 years. The CASGEM well is drilled 177 feet below ground surface (bgs) into the deeper *Lower Lake Formation*. Groundwater levels in the CASGEM well are measured twice annually, approximately every April and November, to visualize the fall drawdown (November) and spring recharge (April). In general, since 1952, there appears to be an increasing trend in groundwater levels in the BVGB (Figure ***4***). However, a vertical shift is apparent and occurs in about 1980. Since it is unknown if this is a natural shift in the data or a shift due to change in measurement protocol, data prior to 1980 was removed. Since 1980, the data indicate that the long-term groundwater trend has been relatively stable (Figure ***5***), with consistent recharge during each annual wet season, even during years with low annual precipitation and accounting for the existing and historical agricultural demand. In addition, according to the Statewide Summary of Household Water Supply Shortage Reportage System reports (https://mydrywell.water.ca.gov/report/publicpage), no wells have been reported as going dry in the BVGB.

Well production loss in the Alluvium Formation is not surprising as Lake County has experienced a severe drought, with driest levels occurring fall of 2021. As stated above, wells screened in the shallower, unconfined aquifer, would be more directly influenced by the lack of rain and likely to lose production or go dry. There is also a likelihood that shallow groundwater in the southern portion of Burns Valley is hydrologically coupled to surface water levels in Clear Lake. As a result of the drought, surface water levels in the lake recorded in August through October of 2021 were the lowest on record since 2000, which could have a direct impact on shallow groundwater well production (Figure ***6***). Additional monitoring and reporting within the *Quaternary Alluvium* are recommended and would be helpful in understanding shallow groundwater trends in the BVGB.

FUTURE GROUNDWATER USE AND SUPPLY

The potential cumulative effects of the project were addressed in the December 2021 Technical Memorandum prepared for 2160 Ogulin Canyon Road. However, more detailed information is presented herein to further support the conclusions made in the original Technical Memorandum.

As discussed above, the current groundwater agricultural demand in the BVGB is roughly 555 acre-feet per year. Approximately 225 acre-feet is from existing vineyards in the upper portion of the BVGB and 330 acre-feet is from orchards located within the lower portion the BVGB. The current residential demand, located in the central portion of the BVGB, is approximately 40 acre-feet per year. A summary of

proposed cannabis projects and the approximate annual water demand is provided in Table 1. All the proposed projects are located in the upper portion of the BVGB east of State Highway 53 (Figure ***1***).

Table 1. Approximate water demand of proposed cannabis projects within the BVGB (information obtained from the City of Clearlake and Lake County websites and CEQAnet Database). Refer to Figure 1 for approximate locations.

Location (jurisdiction)	APN(s)	Parcel Area (acres)	Cultivation (Acres)	Cultivation % of Parcel Area	Approximate Annual Water Demand (acre-feet)
1756 Ogulin Canyon Road (County) (Blue Oak Farms)	010-055-46	46.5	2.0	4.3	3.3
2050 Ogulin Canyon Road (County) (Lake Vista Farms)	010-053-01 & 02	302.4	15.0	5.0	24.9
2185 Ogulin Canyon Road (City)	010-044-17	21.3	0.5	2.3	1.8
2160 Ogulin Canyon Road (City)	**010-044-21**	**9.6**	**0.2**	**2.1**	**1.7**
2560 Highway 53 (City)	010-048-05	15.4	1.3	8.4	4.3
2250 Ogulin Canyon Road (City)	010-044-19	13.0	0.4	3.1	1.0
Total		408.2	19.4	n/a	37.0

Table 2: Base zones designations, total areas associated with each base zone designation, parcel count, and base zone eligibility for potential cannabis cultivation within the Burns Valley Groundwater Basin.

Zone	Description	Total Parcel Area (acres)*	# of Parcels
RL	Rural Lands	1105.9	18
RR	Rural Residential	677.3	18
Split	Combined Zoning (Dominant Zones are A and RL)	136.5	4
City	Cannabis District	242	23
*This is the total area of the parcel, not just the portion within the BVGB			

To assess the potential for additional cannabis cultivation within the BVGB, not included in Table 1, a parcel inventory analysis was completed (Figure ***7*** and Table 2) to identify those parcels that meet requirements for potential cannabis cultivation with an approved permit from the Lake County or the City of Clearlake (City).

The Lake County Zoning Ordinance allows 1-acre of outdoor canopy for each 20 acres of parcel size for these zones. There are 40 parcels that are within or intersect the BVGB with a cumulative parcel area of about 1920 acres (total parcel area, not the intersected area, was used for conservativeness). Of these parcels, 10 parcels or 596 acres are existing vineyards and 2 parcels, or 349 acres have proposed cultivation shown in Table 1. Excluding these parcels, there are 28 parcels or 975 acres of base zoning that could be eligible for outdoor cultivation with a County permit. Thus, there is the potential for up to 48 acres of potentially new outdoor cultivation (the County allows only 1-acre of cultivation for each 20 acres of parcel area). However, accounting for existing development, steep topography, waterbody setbacks, flood zones, residential setbacks, and parcel setbacks, there is limited area for development and

only approximately 10 to 20 acres of new outdoor cultivation would likely be possible. The increased irrigation demand could be up to approximately 33.1 acre-feet per year assuming 3,000 gallons per day per acre for 180 days. This does not account for the fact that the project at 2050 Ogulin Canyon Road is replacing a 13.6-acre hops farm that utilized approximately 43.6 acre-feet per year of water, creating a reduction in water use of 18.7 acre-feet per year.

The City of Clearlake Zoning Ordinance allows for mixed-light/indoor cultivation in the BVGB, with a City Cannabis Permit, on 23 parcels with a total area of 242 acres. Accounting for the proposed projects listed in Table 1, existing development, steep topography, waterbody setbacks, and flood zones, only approximately 18 to 20 acres of this area could have the potential for mixed-light/indoor cultivation. The increased irrigation demand could be up to approximately 55.2 acre-feet assuming 3,000 gallons per day per acre for 300 days.

The total potential demand from both the County and City for cannabis cultivation could be up to 125.3 acre-feet per year, which includes the proposed projects listed in Table 1 and a conservative (high) estimate of total potential cultivation.

Thus, the total potential agricultural demand within the BVGB is existing, 555 acre-feet, plus proposed, 125.3 acre-feet, is approximately 680.3 acre-feet per year, with residential demand, the total groundwater demand is approximately 720.3 acre-feet per year. The dominant demand in the BVGB is associated with residential development and orchards in the lower part of BVGB and vineyards in the upper part of the BVGB.

The estimated storage capacity of the BVGB is 4,000 AF, with a usable storage capacity of 1,400 AF. The total potential demand is 51% of the usable storage capacity. According to DWR, groundwater in the BVGB is derived from rain that falls within the 12.5 square mile Burns Valley Watershed drainage area. Recharge estimates provided in Hydrology Reports for 2160 Ogulin Canyon Road, 1756 Ogulin Canyon Road, 2185 Ogulin Canyon Road, and Lake Vista Farms demonstrated that there is sufficient recharge over each project's contributing recharge area (a small fraction of the entire Burns Valley Watershed area) to meet each project's demand during both average and dry years. Overall, the proposed projects in Table 1 represent 2.6% of the usable storage capacity in the BVGB and only 5.1% of the existing demand in the BVGB.

SUMMARY AND DISCUSSION

- A Hydrology Technical Memorandum was prepared for 2160 Ogulin Canyon Road dated December 23, 2021 and submitted to the City of Clearlake Planning Department that addressed groundwater recharge and cumulative impacts and concluded that there is sufficient recharge and supply to meet the project's demand during average and dry years.
- The existing demand associated with vineyards and orchards is likely higher than reported in the 2006 Lake County Groundwater Management Plan. The higher estimate has been incorporated herein, along with estimated residential demand.
- The main sources of groundwater in the BVGB are within the *Quaternary Alluvium Formation* and the *Lower Lake Formation*. The *Quaternary Alluvium* dominates the southwestern portion of the BVGB, where both residential development and well development are most dense. The alluvium has a thickness of up to 50 feet; groundwater in this formation is unconfined and typically provides water for domestic use. Wells screened in unconfined aquifers are more directly influenced by lack of rain than those screened in deeper, confined aquifers.

- The *Lower Lake Formation* underlies the alluvial deposits in the BVGB. This formation has low permeability and provides water to wells at up to a few hundred gallons per minute and is the dominant source of agricultural water demand in the BVGB.
- Groundwater storage capacity is estimated to be 4,000 acre-feet based on an area of 1,000 acres, a saturated thickness of 50 feet, and a specific yield of 8 percent, which represents only the *Alluvium Formation* and does not account for groundwater storage capacity in the deeper *Lower Lake Formation*. Thus, the usable storage capacity is most likely an underestimate of the overall capacity of the BVGB, which has a surface area of 2,900 acres.
- Long-term groundwater monitoring in the BVGB shows a stable trend in groundwater levels within the deeper formation, with consistent recharge during each annual wet season, even during years with low annual precipitation and accounting for the existing vineyard and orchard demand that has occurred over this time.
- No wells within the BVGB were reported to the State Water Supply Shortage Reporting System. Additional monitoring and reporting within the *Quaternary Alluvium* are recommended and would be helpful in understanding shallow groundwater trends in the basin.
- The existing vineyards and the existing and proposed cannabis projects are located outside of the alluvial valley in the upper half of the BVGB.
- The dominant demand in the BVGB is associated with residential development and orchards in the lower part of BVGB and vineyards in the upper part of the BVGB. The Highlands Mutual Water Company supplies the majority of residents in the lower part of the BVGB using surface water drawn from Clear Lake. The total groundwater demand, accounting for existing agriculture, residential use, and potential cannabis projects, is approximately 720.3 acre-feet per year. The estimated storage capacity of the BVGB is 4,000 AF, with a usable storage capacity of 1,400 AF. The total potential future agricultural demand is 51% of the usable storage capacity. Thus, there is sufficient storage capacity to meet existing and proposed demand.
- Recharge estimates provided in the Hydrology Reports for 1756 Ogulin Canyon Road (Blue Oak Farms), 2050 Ogulin Canyon Road (Lake Vista Farms), 2160 Ogulin Canyon Road, and 2185 Ogulin Canyon Road, demonstrated that there is sufficient recharge over each project's contributing recharge area (a small fraction of the entire Burns Valley Watershed area) to meet each project's demands during both average and dry years.
- Overall, the proposed projects in Table 1 represent 2.6% of the usable storage capacity in the BVGB and only 6.7% of the existing demand for irrigation of existing vineyards and orchards.
- The demand associated with 2160 Ogulin Canyon Road represents only a fraction, 0.12% of the usable storage capacity of the BVGB, 0.2% of the total potential future demand in the BVGB, the total demand associated with the proposed projects listed in Table 1 is only 2.6% of the usable storage capacity of the BVGB and 5.1% of the potential future demand in the BVGB. Thus, it is unlikely that this project, in combination the existing and proposed demand, would adversely impact existing wells in the BVGB.

ATTACHMENTS

- Figure 1. Local geology (source: https://pubs.usgs.gov/imap/2362/), cultivation well locations, and CASGEM well location. QTc = Clear Lake Cache Formation, 'tb' = nonmarine terrace deposits, and 'al' = alluvium.
- Figure 2. Map of # (n) of Well Completion Reports (WCRs) with in each Public Land Survey System (PLSS) grid along with average well depth. The Burns Valley Groundwater Basin is outlined in red. Parcel coloring is provided in Figure 7.

- Figure 3. CASGEM Monitoring well location.
- Figure 4. CASGEM Monitoring Well data from 1952 to 2020.
- Figure 5. CASGEM Monitoring Well data from 1980 to 2020.
- Figure 6. Clear Lake stage height 2000 through 2021.
- Figure 7. City of Clearlake Cannabis District and Lake County parcel base zoning designations.
- Figure 8. Water Systems within the City of Clearlake Boundary (Source: ClearlakeH20 MSR-SOI 2021EDIT-2. cl docx (lakelafco.org))

QUALIFICATIONS OF AUTHOR

I have a PhD in Water Resources Engineering. In addition, I am a registered Professional Engineer with the State of California with 30-years of experience practicing and teaching Water Resources Engineering, including over 15 years of teaching, practicing, and modeling surface and groundwater hydrology.

LIMITATIONS

The study of groundwater hydrology is very complex and often relies on limited data, especially in rural areas. Recommendations and conclusions provided herein are based on professional judgment made using information of the groundwater systems and geology in Lake County, which is limited and allows only for a general assessment of groundwater aquifer conditions and recharge. NorthPoint Consulting Group, Inc. is making analyses, recommendations, and conclusions based on readily available data, including studies and reports conducted by other professionals, Lake County, the State of California, and other consultants hired by the project proponent to prepare technical studies for the proposed project. If additional information or data becomes available for the project area, the recommendations and conclusions presented herein may be subject to change.

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FIGURES

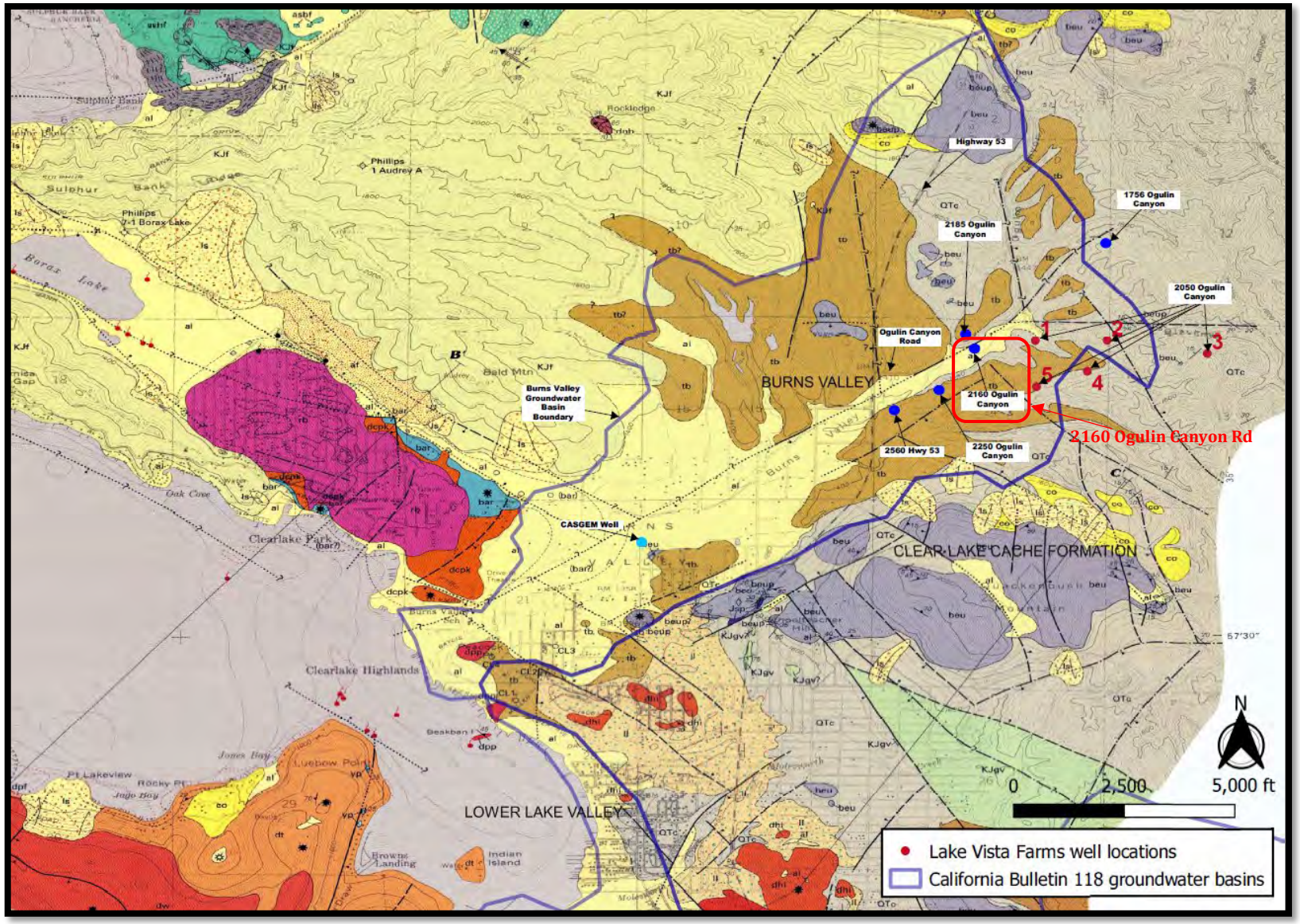


Figure 1. Burns Valley Groundwater Basin local geology (source: https://pubs.usgs.gov/imap/2362/), cultivation well locations, and CASGEM well location. QTc = Clear Lake Cache Formation, 'tb' = nonmarine terrace deposits, and 'al' = alluvium.

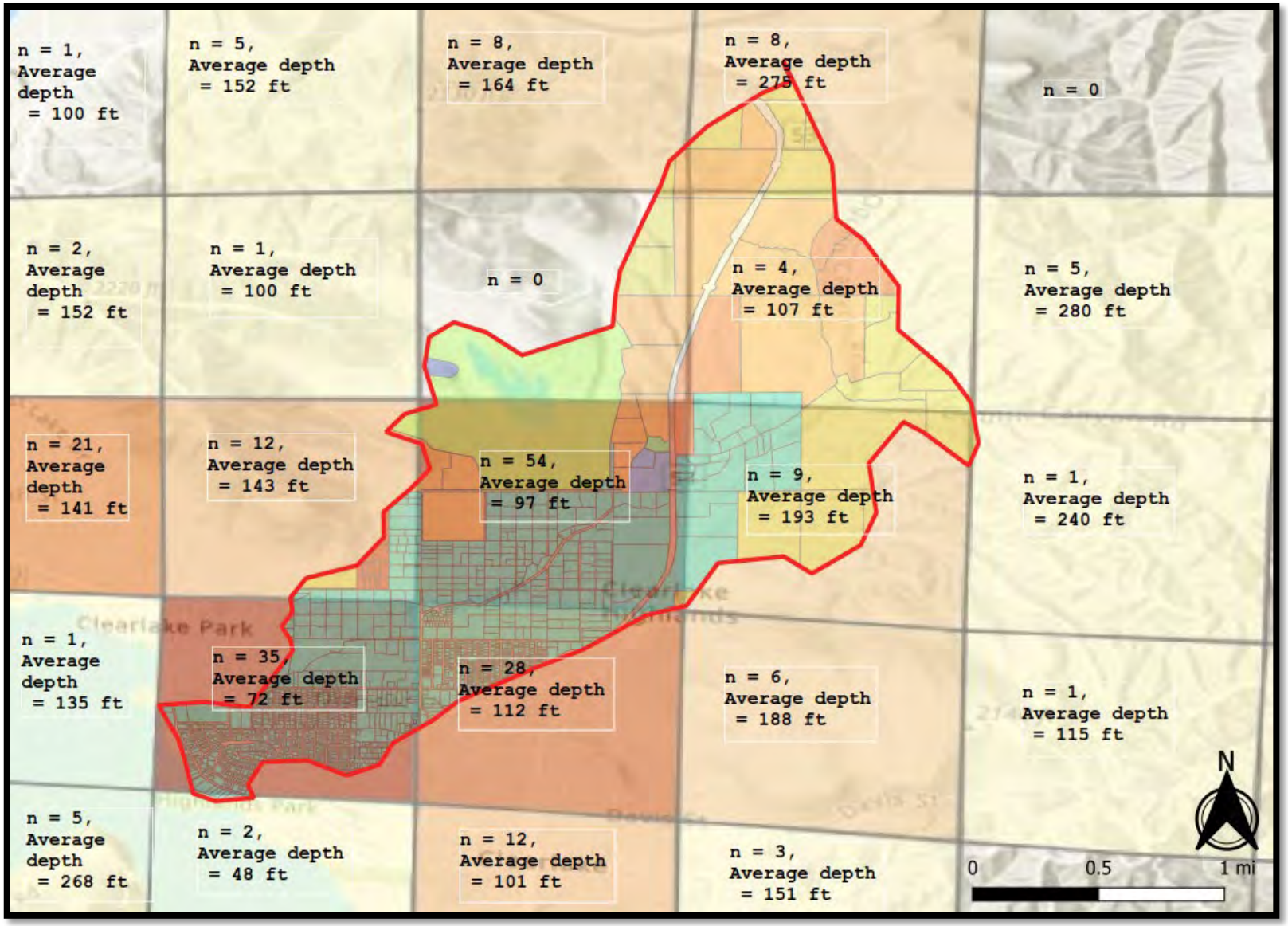


Figure 2. Map of # (n) of Well Completion Reports (WCRs) within each Public Land Survey System (PLSS) grid along with average well depth. The Burns Valley Groundwater Basin is outlined in red. Parcel coloring is provided in Figure 7.

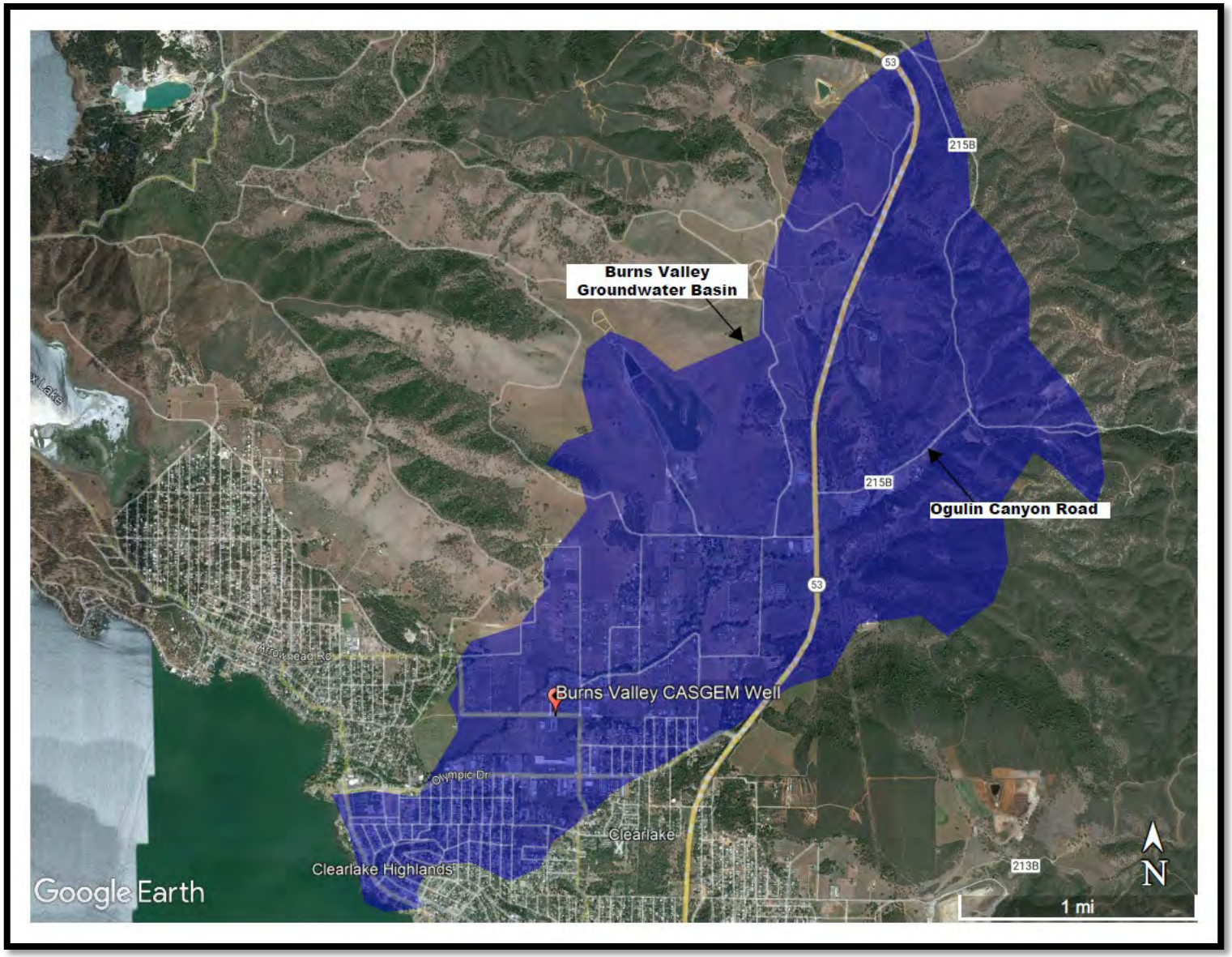


Figure 3. CASGEM Monitoring well location.

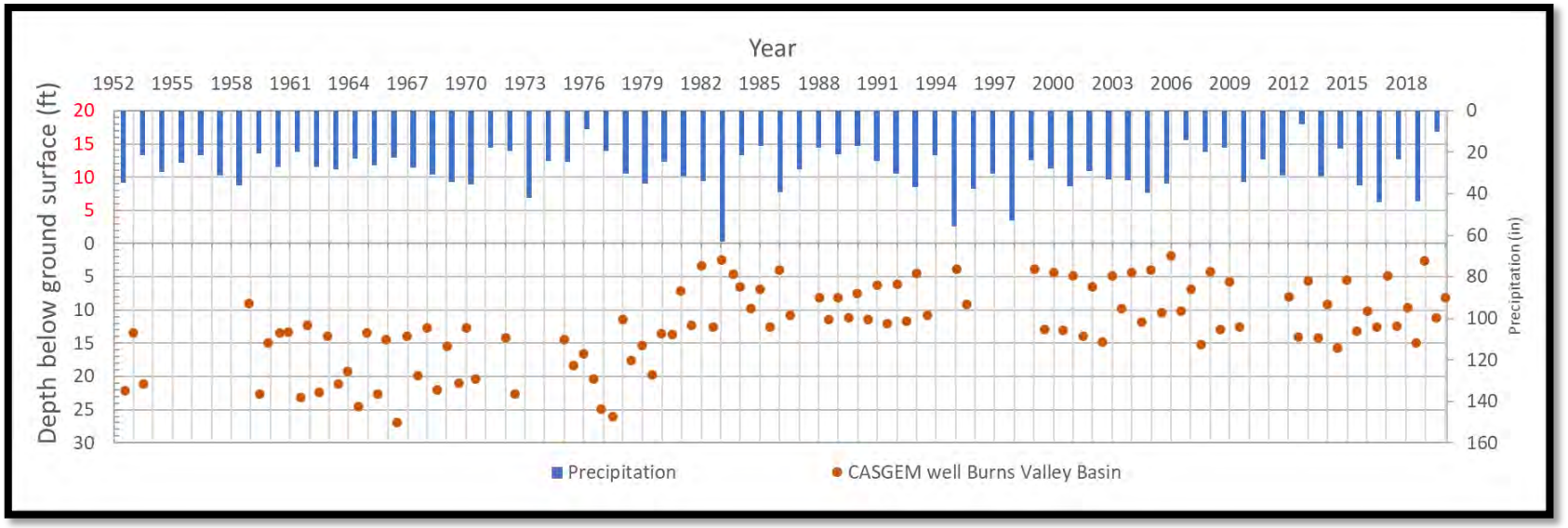
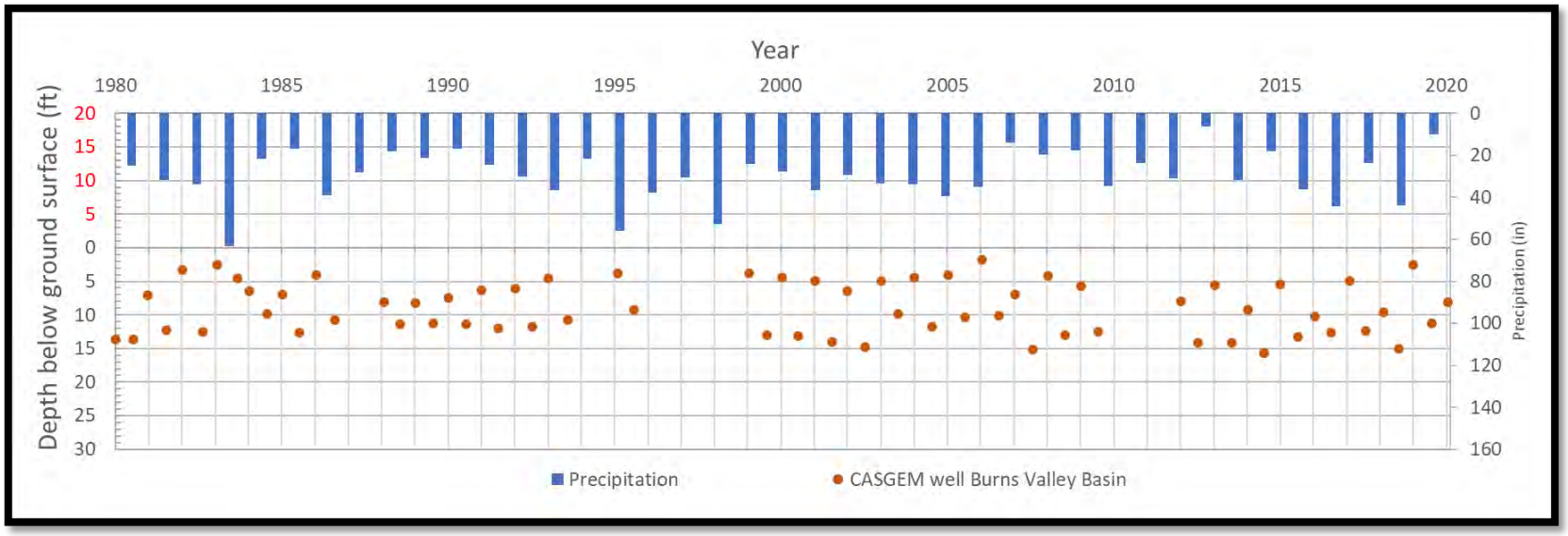


Figure 4. CASGEM Monitoring Well data from 1952 to 2020.



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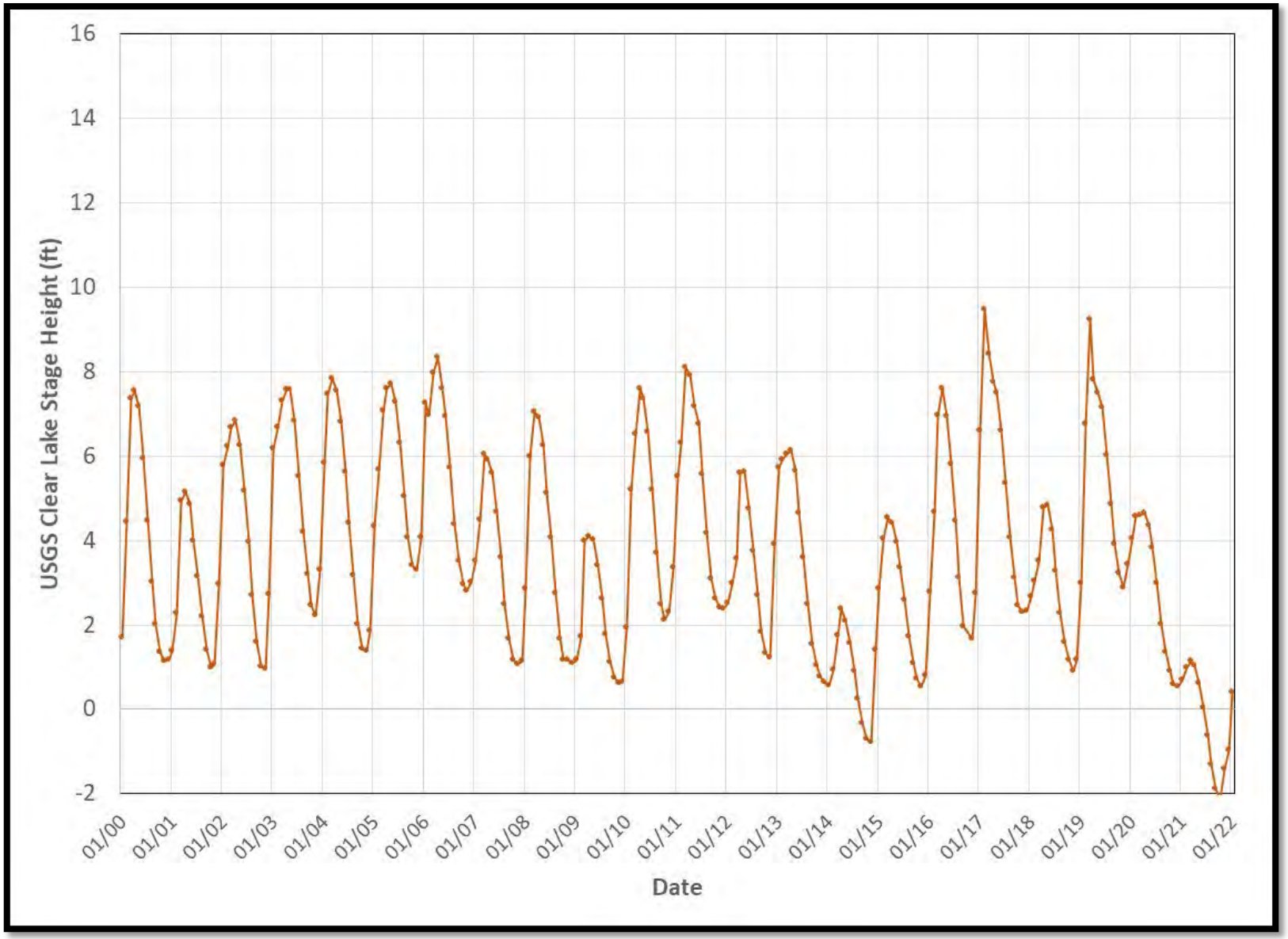

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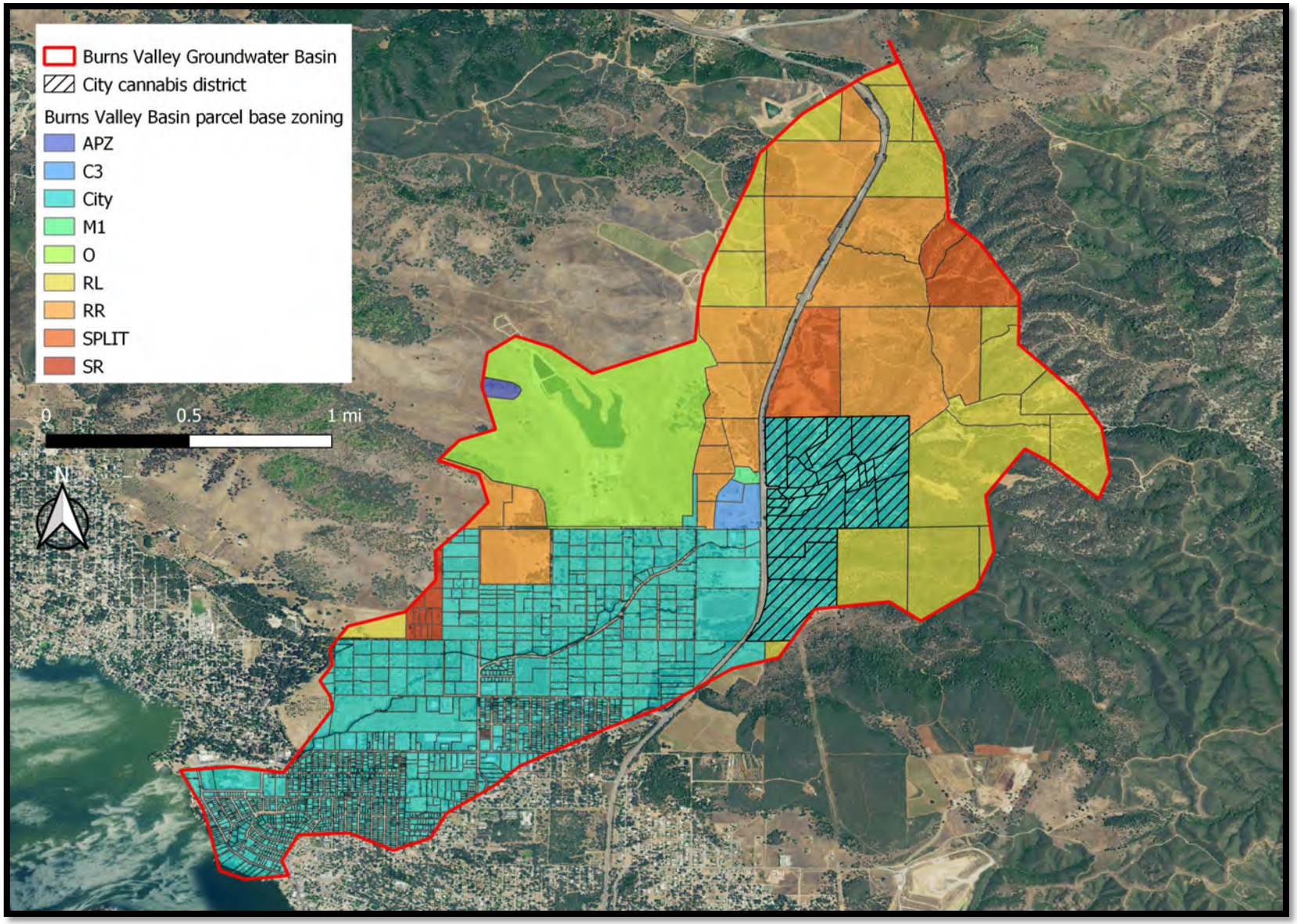

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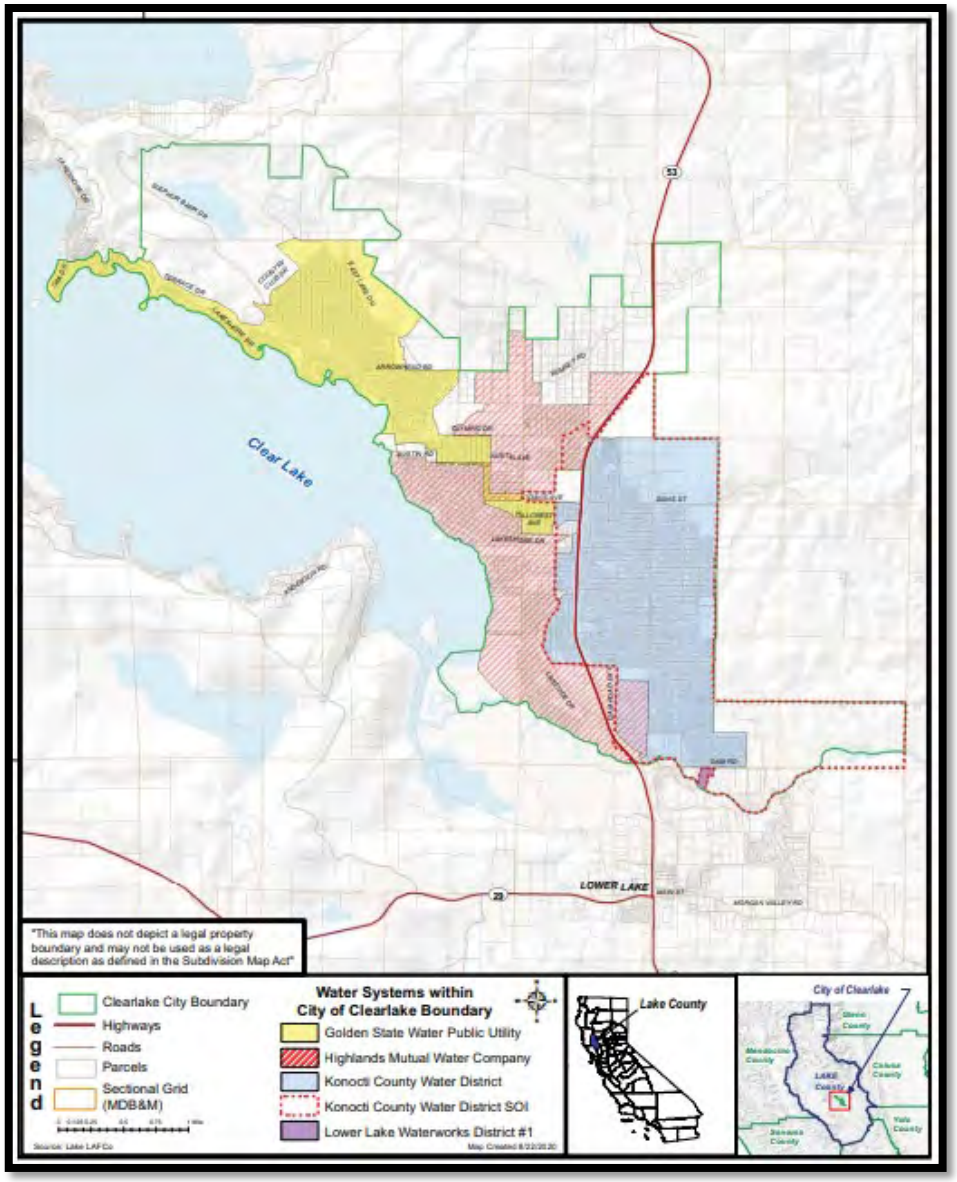

Figure 8. Water Systems within the City of Clearlake Boundary (Source: [ClearlakeH20 MSR-SOI 2021EDIT-2. cl docx (lakelafco.org)])

NORTHPOINT
CONSULTING GROUP, INC.

TECHNICAL MEMORANDUM

To: City of Clearlake

From: Annjanette Dodd, PhD, CA PE #77756 Exp. 6/30/2023

Date: January 3, 2022

Subject: Response to Appeal Comments – 2185 Ogulin Canyon Road (APN 010-044-17)

On November 15, 2021, an appeal to the Conditional Use Permits approved by the City of Clearlake (City) Planning Commission on November 9, 2021, for the proposed cannabis facilities at 2185 Ogulin Canyon Road, was submitted to the City. The appellant filed the appeal on behalf of at least 11 property owners in the Burns Valley Groundwater Basin (BVGB) area southwest of the subject property and argues the following:

1) "The subject property is within the Burns Valley Watershed. Many of the wells in Burns Valley have been adversely affected by development of property within the watershed for grape vineyards and other cannabis grow projects",
2) "The Water Availability Analysis did not discuss or analyze the cumulative effect that the use will have on the (Burns Valley) watershed nor did it address the cumulative effect of the project when combined with existing or approved projects",
3) "We feel the cumulative effect of adding this project to the existing uses should be considered prior to approval a Use Permit. On the West side there is a wine grape vineyard covering approximately 500 acres. Some of the Burns Valley property owners feel their wells were impacted by the vineyard. This year there are 2 active and permitted cannabis grow operations north of Ogulin on the East side of State Hwy 53; there is also an additional recently approved cannabis grow permit further north on Ogulin Canyon Rd from the 2185 site. The City approved a cannabis operation earlier this year at 2560 State Hwy 53 bordering Burns Valley Creek and located across from the school bus yard at Hwy 53 and Old Hwy 53. Thursday, November 18, 2021, the Lake County Planning Commission will consider a Use Permit for a cannabis grow just outside the Clearlake City Limits at 2050 Ogulin Canyon Rd; we will be attending this hearing and asking for a more extensive cumulative study of the watershed",
4) "Studies referenced in the various hydrology reports for the various projects are dated with some going back as far as 1960; the most referenced is the March 2006 Lake County Groundwater Management Plan, which is now 15 years old", and
5) "It is our feeling that a more complete hydrology study should be completed which includes the effect of this project and considering the vineyard plus the existing and approved cannabis projects to determine the impact on the water supply in the Burns Valley basin".

A Groundwater Hydrology Technical Memorandum was prepared for 2185 Ogulin Canyon Road on November 9, 2021 and submitted to the Planning Commission that addressed groundwater recharge and cumulative impacts and concluded that there is sufficient recharge and supply to meet the project's demand during average and dry years; the project's demand is only 0.1% of the usable storage capacity of the BVGB; and the potential future cannabis demand in the basin is a fraction of the usable storage capacity of the BVGB and that the proposed project water use would have little to no cumulative impact on the surrounding area. The purpose of the current Technical Memorandum (TM) is to add to the information provided in the November 9, 2021

EXISTING AGRICULTURAL GROUNDWATER USE AND TRENDS

Review of Google Earth Imagery shows extensive agricultural development, in the form of walnut/pear orchards and vineyards, in the Burns Valley since at least 1985. The existing vineyards mentioned by the appellant were established prior to 2003 and should have been considered in the Lake County Groundwater Management Plan. According to the Lake County Water Demand Forecast, the average annual water demand for vineyards and walnut/pear orchards in Lake County is 0.5 acre-feet per acre and 2.2 acre-feet per acre, respectively. Using current Google Earth imagery, there are roughly about 450 acres of existing vineyards and 150 acres of orchards in Burns Valley. Orchard production in the valley has decreased over time. Accounting for existing vineyards and orchards, the approximate agricultural demand in the valley is about 555 acre-feet per year which is supplied via existing groundwater wells. The 2006 Lake County Groundwater Management Plan stated that the agricultural demand in the BVGB during an average year is 105 acre-feet, with 14 acre-feet of this supplied from groundwater, which appears to be an underestimate of the existing groundwater agricultural demand.

The main sources of groundwater in the BVGB are within the *Quaternary Alluvium Formation* and the *Lower Lake Formation*. The *Quaternary Alluvium* dominates the southwestern portion of the BVGB, where both residential development and well development are most dense (Figure 1 and Figure 2). The alluvium has a thickness of up to 50 feet; groundwater in this formation is unconfined and typically provides water for domestic use. Wells screened in unconfined aquifers are more directly influenced by lack of rain than those screened in deeper, confined aquifers. The *Lower Lake Formation* underlies the alluvial deposits in the BVGB. This formation has low permeability and provides water to wells at up to a few hundred gallons per minute and is the dominant source of agricultural water demand in the BVGB. Note that the existing vineyards and the existing and proposed cannabis projects are located outside of the alluvial valley in the upper half of the BVGB (Figure 1).

Fortunately, there is a California Statewide Groundwater Elevation Monitoring (CASGEM) Program well located within the BVGB that has been used to monitor long-term groundwater trends (CASGEM well ID: 39925, Lat/Long: 38.96535, -122.63186, Figure ***3***) for over 50 years. The CASGEM well is drilled 177 feet below ground surface (bgs) into the deeper *Lower Lake Formation*. Groundwater levels in the CASGEM well are measured twice annually, approximately every April and November, to visualize the fall drawdown (November) and spring recharge (April). In general, since 1952, there appears to be an increasing trend in groundwater levels in the BVGB (Figure ***4***). However, a vertical shift is apparent and occurs in about 1980. Since it is unknown if this is a natural shift in the data or a shift due to change in measurement, data prior to 1980 was removed. Since 1980, the data indicate that the long-term groundwater trend has been relatively stable (Figure ***5***), with consistent recharge during each annual wet season, even during years with low annual precipitation and accounting for the existing and historical agricultural demand.

The appellant has indicated that many of the wells in the BVGB have been adversely impacted by development, the vineyards, and other cannabis projects. However, no information was provided regarding the impacted wells. Verbal correspondence with the City and Lake County have indicated anecdotal evidence of lower well production and possibly dry wells in the BVGB, however, without specific context and data, reports of 'dry wells' are only anecdotal and cannot be adequately assessed using the available data. In addition, according to the Statewide Summary of Household Water Supply Shortage Reportage System reports (https://mydrywell.water.ca.gov/report/publicpage), no wells have been reported as going dry in the BVGB.

The anecdotal evidence regarding well production is not surprising as Lake County has been in the midst of a severe drought. As stated above, wells screened in the shallower, unconfined aquifer, would be more

directly influenced by the lack of rain and likely to go dry. There is also a likelihood that shallow groundwater in the southern portion of Burns Valley is hydrologically coupled to surface water levels in Clear Lake. As a result of the drought, surface water levels in the lake recorded in August and September of 2021 were the lowest on record since 2000, which could have a direct impact on shallow groundwater well production (Figure ***6***). Additional monitoring and reporting within the *Quaternary Alluvium* are recommended and would be helpful in understanding shallow groundwater trends in the basin.

FUTURE AGRICULTURAL GROUNDWATER USE AND SUPPLY

The potential cumulative effects and the dated nature of the Lake County Groundwater Management Plan were both addressed in the November 9, 2021 Groundwater Hydrology Technical Memorandum prepared for 2185 Ogulin Canyon Road. However, more detailed information is presented herein to further support the conclusions made in the original Groundwater Hydrology Technical Memorandum.

As discussed above, the current groundwater agricultural demand in the BVGB is roughly 555 acre-feet per year. Approximately 225 acre-feet is from existing vineyards in the upper portion of the BVGB and 330 acre-feet is from orchards located within the lower portion the BVGB. A summary of proposed cannabis projects and the approximate annual water demand is provided in Table 1. All the proposed projects are located in the upper portion of the BVGB east of State Highway 53 (Figure ***1***).

Table 1. Approximate water demand of proposed cannabis projects within the BVGB (information obtained from the City of Clearlake and Lake County websites and CEQAnet Database). Refer to Figure 1 ***for approximate locations.***

Location (jurisdiction)	APN(s)	Parcel Area (acres)	Cultivation (Acres)	Cultivation % of Parcel Area	Approximate Annual Water Demand (acre-feet)
1756 Ogulin Canyon Road (County) (Blue Oak Farms)	010-055-46	46.5	2.0	4.3	3.3
2050 Ogulin Canyon Road (County) (Lake Vista Farms)	010-053-01 & 02	302.4	15.0	5.0	24.9
2185 Ogulin Canyon Road (City)	010-044-17	21.3	0.5	2.3	1.8
2160 Ogulin Canyon Road (City)	010-044-21	9.6	0.2	2.1	1.7
2560 Highway 53 (City)	010-048-05	15.4	1.3	8.4	4.3
2250 Ogulin Canyon Road (City)	010-044-19	13.0	0.4	3.1	1.0
Total		408.2	19.4	n/a	37.0

Table 2: Base zones designations, total areas associated with each base zone designation, parcel count, and base zone eligibility for potential cannabis cultivation within the Burns Valley Groundwater Basin.

Zone	Description	Total Parcel Area (acres)*	# of Parcels
RL	Rural Lands	1105.9	18
RR	Rural Residential	677.3	18
Split	Combined Zoning (Dominant Zones are A and RL)	136.5	4

City	Cannabis District	242	23
*This is the total area of the parcel, not just the portion within the BVGB			

To assess the potential for additional cannabis cultivation within the BVGB, not included in Table 1, a parcel inventory analysis was completed (Figure ***7*** and Table 2) to identify those parcels that meet requirements for potential cannabis cultivation with an approved permit from the City or Lake County. The Lake County Zoning Ordinance allows 1-acre of outdoor canopy for each 20 acres of parcel size for these zones. There are 40 parcels that are within or intersect the BVGB with a cumulative parcel area of about 1920 acres (total parcel area, not the intersected area, was used for conservativeness). Of these parcels, 10 parcels or 596 acres are existing vineyards and 2 parcels, or 349 acres have proposed cultivation shown in Table 1.

Excluding these parcels, there are 28 parcels or 975 acres of base zoning that could be eligible for outdoor cultivation. Thus, there is the potential for up to 48 acres of potentially new outdoor cultivation (the County allows only 1-acre of cultivation for each 20 acres of parcel area). However, accounting for existing development, steep topography, waterbody setbacks, flood zones, residential setbacks, and parcel setbacks, there is limited area for development and only approximately 10 to 20 acres of new outdoor cultivation would likely be possible. The increased irrigation demand could be up to approximately 33.1 acre-feet per year assuming 3,000 gallons per day per acre for 180 days. This does not account for the fact that the project at 2050 Ogulin Canyon Road is replacing a 13.9-acre hops farm that utilized approximately 43.6 acre-feet per year of water, creating a deficit of 18.7 acre-feet. Subtracting 18.7 acre-feet from 33.1 acre-feet results in an approximate increased demand of 14.4 acre-feet per year due to potential cannabis projects approved by Lake County.

The City of Clearlake Zoning Ordinance allows for mixed-light/indoor cultivation in the BVGB, with a City Cannabis Permit, on 23 parcels with a total area of 242 acres. Accounting for the proposed projects listed in Table 1, existing development, steep topography, waterbody setbacks, and flood zones only approximately 18 to 20 acres of this area could have the potential for mixed-light/indoor cultivation. The increased irrigation demand could be up to approximately 55.2 acre-feet assuming 3,000 gallons per day per acre for 300 days. The total potential demand from both the County and City for cannabis cultivation could be up to 106.6 acre-feet per year, which includes the proposed projects listed in Table 1 and a conservative (high) estimate of total potential cultivation.

Thus, the total potential agricultural demand within the BVGB is existing, 555 acre-feet, plus proposed, 106.6 acre-feet, is approximately 661.6 acre-feet per year. The dominant demand in the BVGB is associated with residential development and orchards in the lower part of BVGB and vineyards in the upper part of the BVGB. The Highlands Mutual Water Company supplies the majority of residents in the lower part of the BVGB (Figure ***8***). According to the Lake County Agency Formation Commission 2021 Report on Clearlake Water Providers (ClearlakeH20 MSR-SOI 2021EDIT-2. cl docx (lakelafco.org)), the Highlands Mutual Water Company serves 6,072 people with water via 2,568 services connections using water drawn from Clear Lake. Thus, the overall groundwater demand is mainly from agriculture.

The estimated storage capacity of the BVGB is 4,000 AF, with a usable storage capacity of 1,400 AF. The total potential agricultural demand is 47% of the usable storage capacity. According to DWR, groundwater in the BVGB is derived from rain that falls within the 12.5 square mile Burns Valley Watershed drainage area. Recharge estimates provided in Hydrology Reports for 1756 Ogulin Canyon Road, 2060 Ogulin Canyon Road, 2160 Ogulin Canyon Road, and 2185 Ogulin Canyon Road, demonstrate that there is sufficient recharge over the project's contributing recharge area (a small fraction of the entire Burns

Valley Watershed area) to meet the projects' demands during both average and dry years. Overall, the proposed projects in Table 1 represent 2.6% of the usable storage capacity in the BVGB and only 6.7% of the existing demand for irrigation of existing vineyards and orchards.

The demand associated with 2185 Ogulin Canyon Road represents only a small fraction, 0.1% of the usable storage capacity of the BVGB, only 0.3% of the total potential future demand in the BVGB, the total demand associated with the proposed projects listed in Table 1 is only 2.6% of the usable storage capacity of the BVGB and 6% of the potential future demand in the BVGB.

SUMMARY AND DISCUSSION

- A Groundwater Hydrology Technical Memorandum was prepared for 2185 Ogulin Canyon Road on November 9, 2021 and submitted to the Planning Commission that addressed groundwater recharge and cumulative impacts and concluded that there is sufficient recharge and supply to meet the project's demand during average and dry years; the project's demand is only 0.1% of the usable storage capacity of the Burns Valley Groundwater Basin (BVGB); and the potential future cannabis demand in the basin is a fraction of the usable storage capacity of the BVGB and that the proposed project water use would have little to no cumulative impact on the surrounding area.
- The existing demand associated with vineyards and orchards is likely higher than reported in the 2006 Lake County Groundwater Management Plan. The higher estimate has been incorporated herein.
- The main sources of groundwater in the BVGB are within the *Quaternary Alluvium Formation* and the *Lower Lake Formation*. The *Quaternary Alluvium* dominates the southwestern portion of the BVGB, where both residential development and well development are most dense. The alluvium has a thickness of up to 50 feet; groundwater in this formation is unconfined and typically provides water for domestic use. Wells screened in unconfined aquifers are more directly influenced by lack of rain than those screened in deeper, confined aquifers.
- The *Lower Lake Formation* underlies the alluvial deposits in the BVGB. This formation has low permeability and provides water to wells at up to a few hundred gallons per minute and is the dominant source of agricultural water demand in the BVGB.
- Long-term groundwater monitoring in the BVGB shows a stable trend in groundwater levels within the deeper formation, with consistent recharge during each annual wet season, even during years with low annual precipitation and accounting for the existing vineyard and orchard demand that has occurred over this time.
- Although there has been anecdotal evidence of wells going dry in the BVGB, no information regarding these wells was provided so that they could be adequately assessed. It is likely these wells are located in the shallower alluvium formation and are more directly influenced by lack of rain and the low water levels in Clear Lake. No wells within the BVGB were reported to the State Water Supply Shortage Reporting System. Additional monitoring and reporting within the *Quaternary Alluvium* are recommended and would be helpful in understanding shallow groundwater trends in the basin.
- The existing vineyards and the existing and proposed cannabis projects are located outside of the alluvial valley in the upper half of the BVGB.
- The dominant demand in the BVGB is associated with residential development and orchards in the lower part of BVGB and vineyards in the upper part of the BVGB. The Highlands Mutual Water Company supplies the majority of residents in the lower part of the BVGB using surface water drawn from Clear Lake. Thus, agriculture accounts for the majority of groundwater demand. The

agriculture demand, accounting for existing agriculture and potential cannabis projects, is approximately 661.6 acre-feet per year. The estimated storage capacity of the BVGB is 4,000 AF, with a usable storage capacity of 1,400 AF. The total potential future agricultural demand is 47% of the usable storage capacity. Thus, there is sufficient storage capacity to meet existing and proposed demand.

- Recharge estimates provided in the Hydrology Reports for 1756 Ogulin Canyon Road (Blue Oak Farms), 2050 Ogulin Canyon Road (Lake Vista Farms), 2160 Ogulin Canyon Road, and 2185 Ogulin Canyon Road, demonstrate that there is sufficient recharge over each project's contributing recharge area (a small fraction of the entire Burns Valley Watershed area) to meet each project's demands during both average and dry years.
- Overall, the proposed projects in Table 1 represent 2.6% of the usable storage capacity in the BVGB and only 6.7% of the existing demand for irrigation of existing vineyards and orchards.
- The demand associated with 2185 Ogulin Canyon Road represents only a small fraction, 0.1% of the usable storage capacity of the BVGB, only 0.3% of the total potential future demand in the BVGB, the total demand associated with the proposed projects listed in Table 1 is only 2.6% of the usable storage capacity of the BVGB and 6% of the potential future demand in the BVGB. Thus, it is unlikely that these projects, in combination with the 2185 Ogulin Canyon Road project, will adversely impact wells in the lower portion of the BVGB.

ATTACHMENTS

- Figure 1. Local geology (source: https://pubs.usgs.gov/imap/2362/), cultivation well locations, and CASGEM well location. QTc = Clear Lake Cache Formation, 'tb' = nonmarine terrace deposits, and 'al' = alluvium.
- Figure 2. Map of # (n) of Well Completion Reports (WCRs) with in each Public Land Survey System (PLSS) grid along with average well depth. The Burns Valley Groundwater Basin is outlined in red. Parcel coloring is provided in Figure 7.
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- Figure 8. Water Systems within the City of Clearlake Boundary (Source: ClearlakeH20 MSR-SOI 2021EDIT-2. cl docx (lakelafco.org))

QUALIFICATIONS OF AUTHOR

I have a PhD in Water Resources Engineering. In addition, I am a registered Professional Engineer with the State of California with 30-years of experience practicing and teaching Water Resources Engineering, including over 15 years of teaching, practicing, and modeling surface and groundwater hydrology.

LIMITATIONS

The study of groundwater hydrology is very complex and often relies on limited data, especially in rural areas. Recommendations and conclusions provided herein are based on professional judgment made using information of the groundwater systems and geology in Lake County, which is limited and allows only for a general assessment of groundwater aquifer conditions and recharge. NorthPoint Consulting Group, Inc. is making analyses, recommendations, and conclusions based on readily available data,

including studies and reports conducted by other professionals, Lake County, the State of California, and other consultants hired by the project proponent to prepare technical studies for the proposed project. If additional information or data becomes available for the project area, the recommendations and conclusions presented herein may be subject to change.

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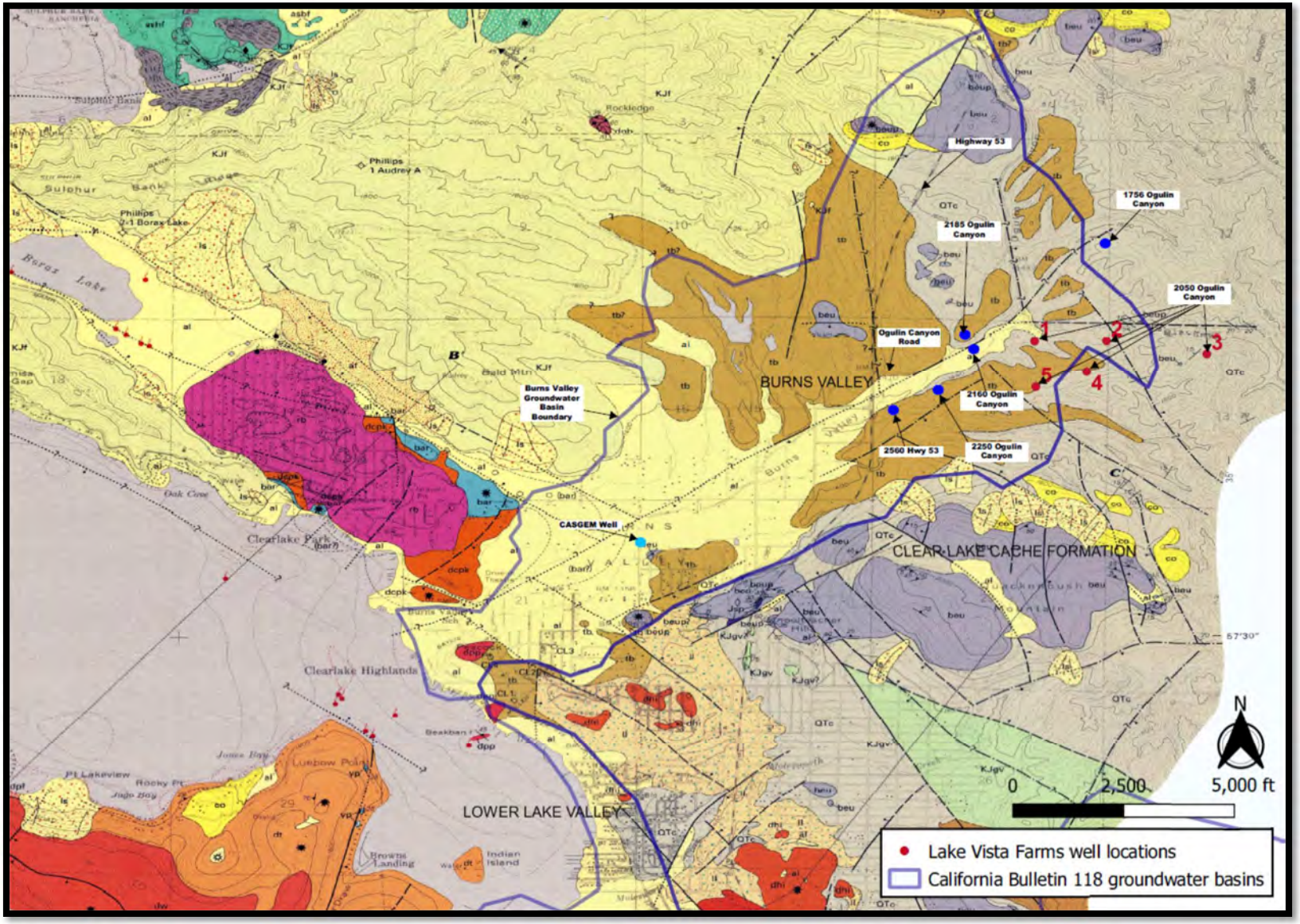
FIGURES



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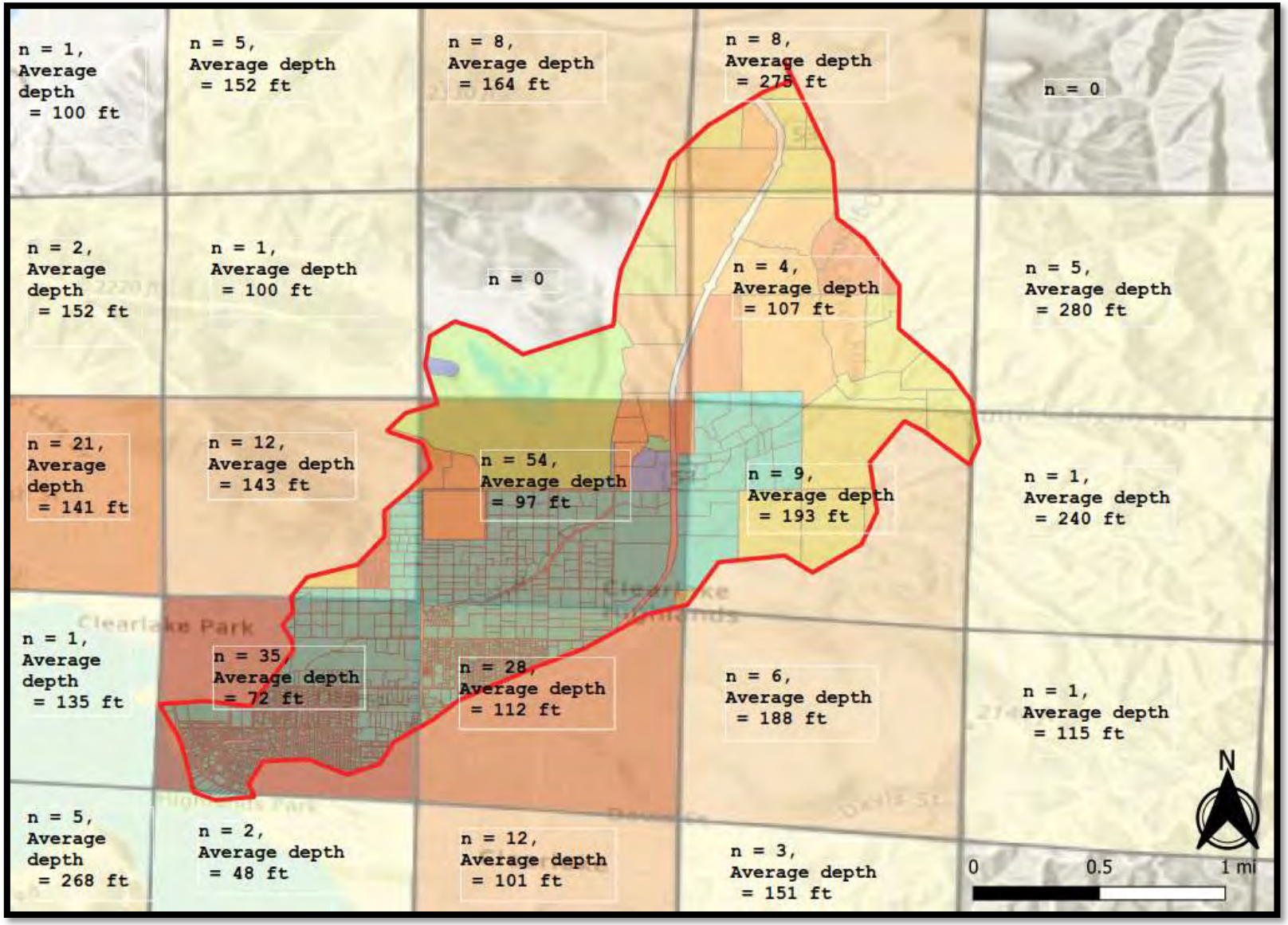

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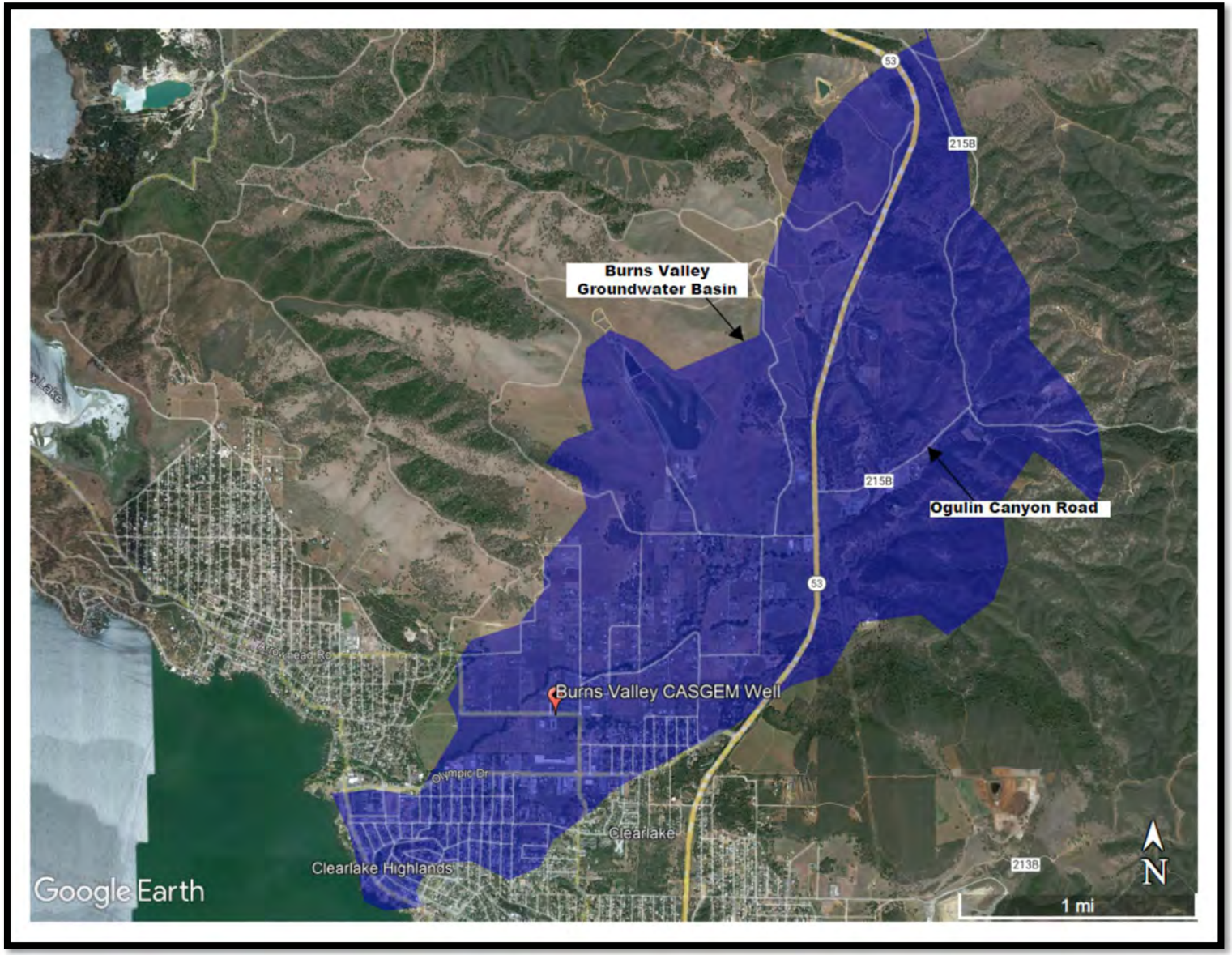

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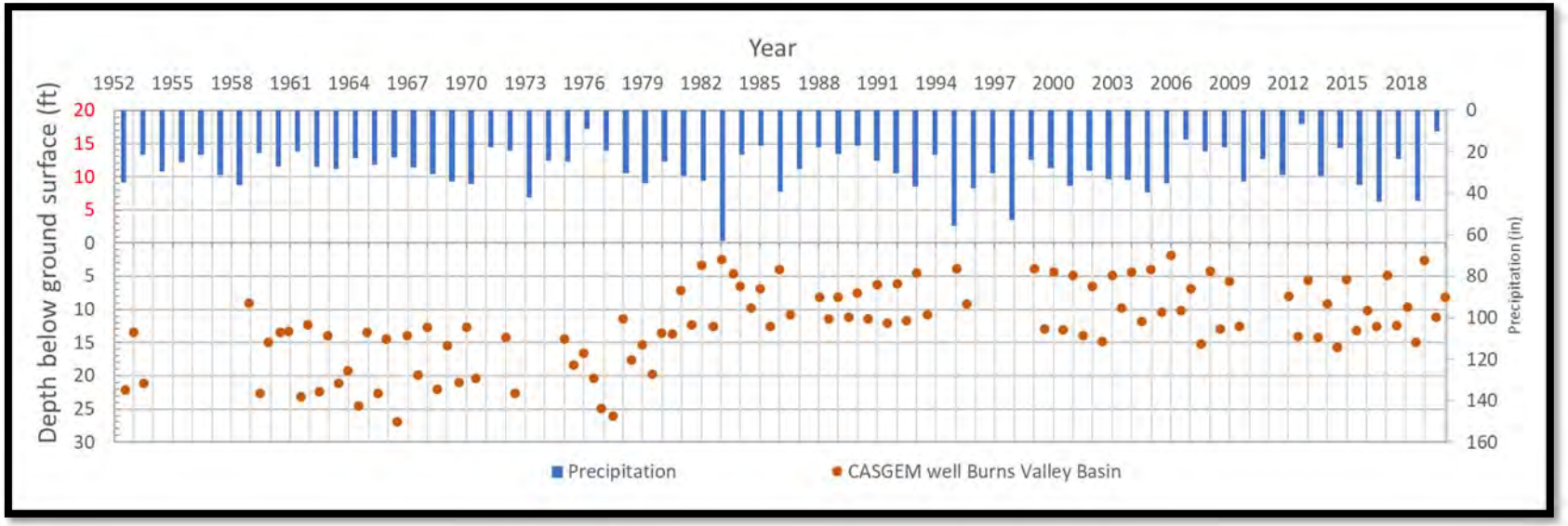

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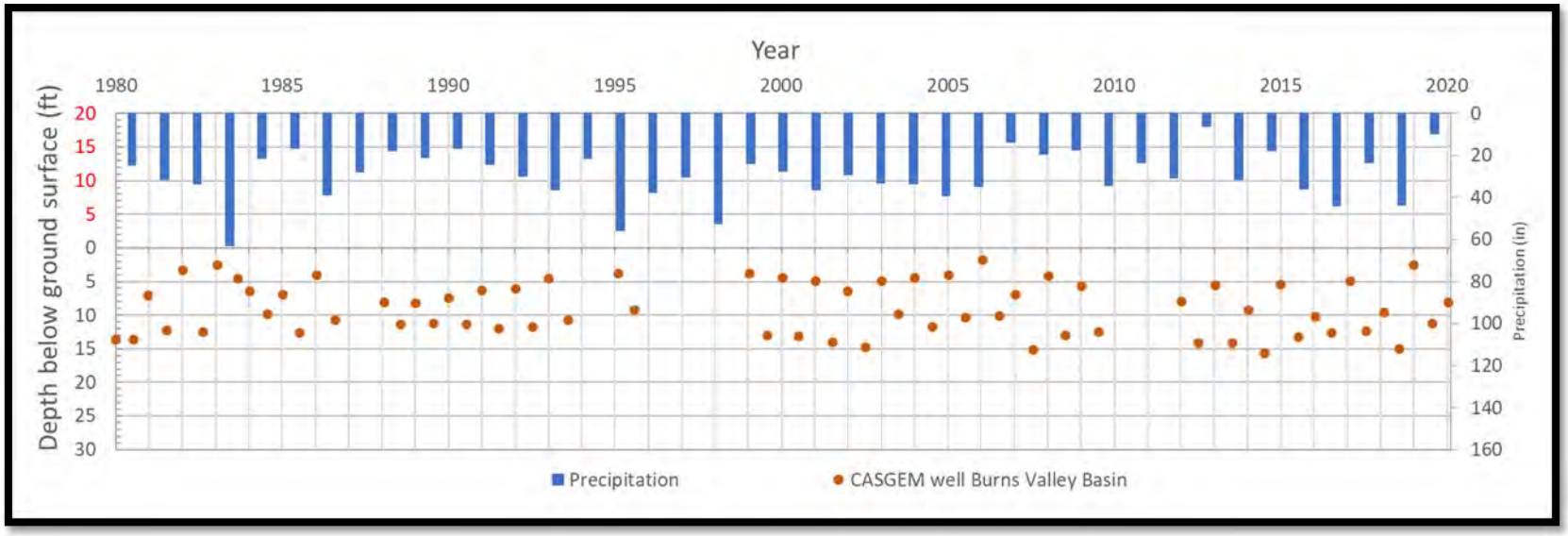

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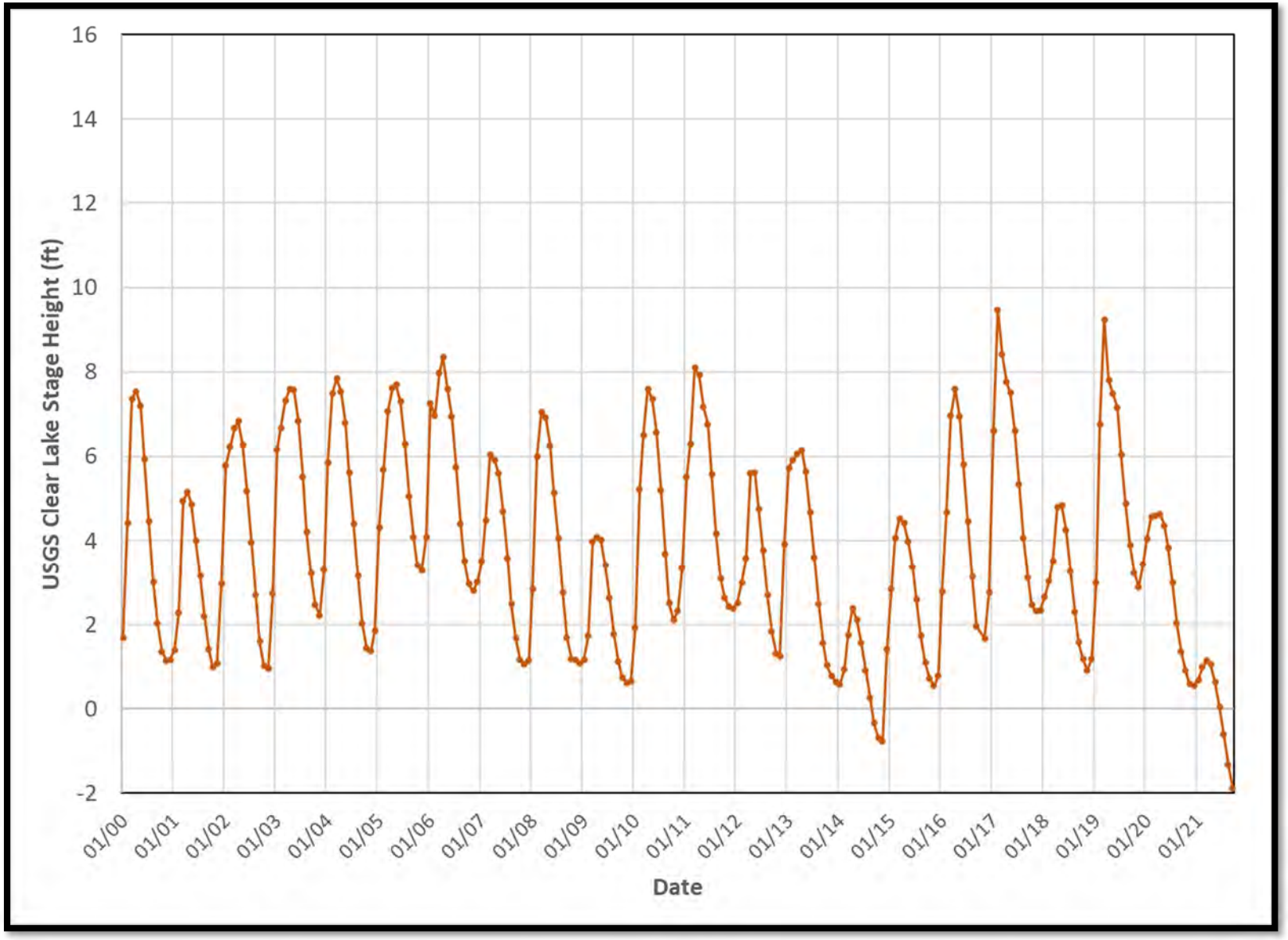

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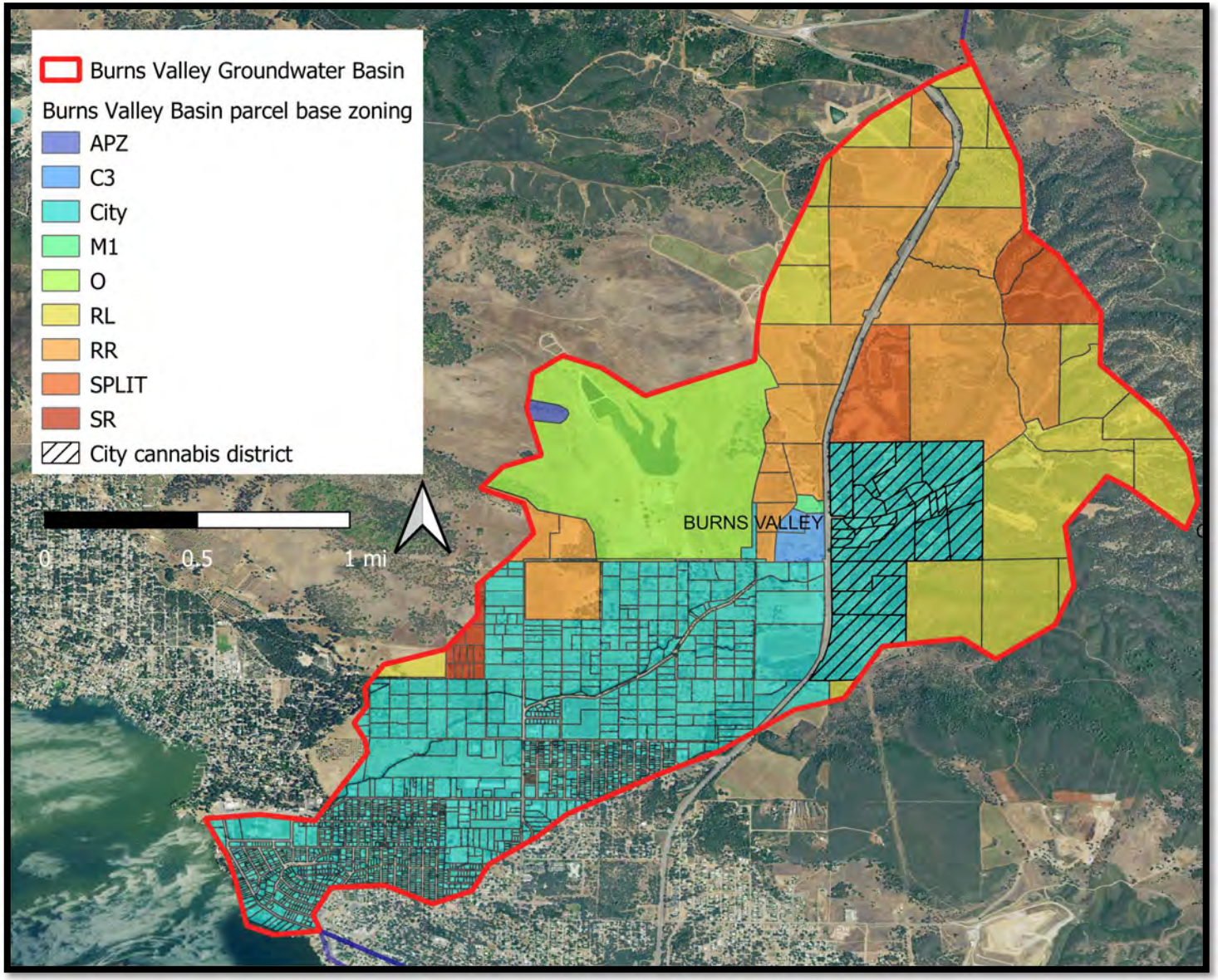

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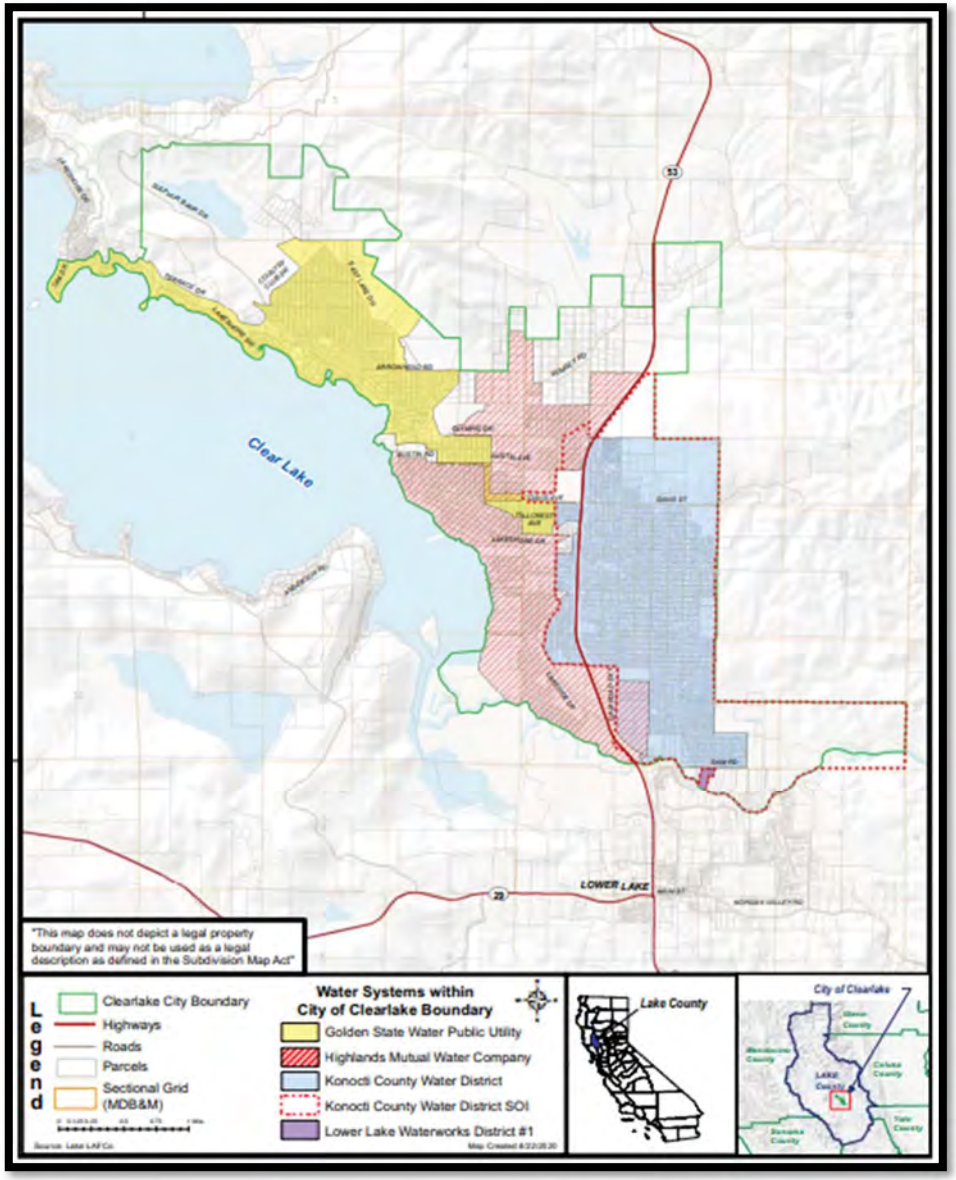


Figure 8. Water Systems within the City of Clearlake Boundary (Source: [ClearlakeH20 MSR-SOI 2021EDIT-2. cl docx (lakelafco.org)])

TECHNICAL MEMORANDUM

To: Mr. Brian Pensack

From: Annjanette Dodd, PhD, CA PE #77756

Date: November 9, 2021

Subject: Groundwater Hydrology – 2185 Ogulin Canyon Road, Clearlake, CA

PURPOSE AND BACKGROUND

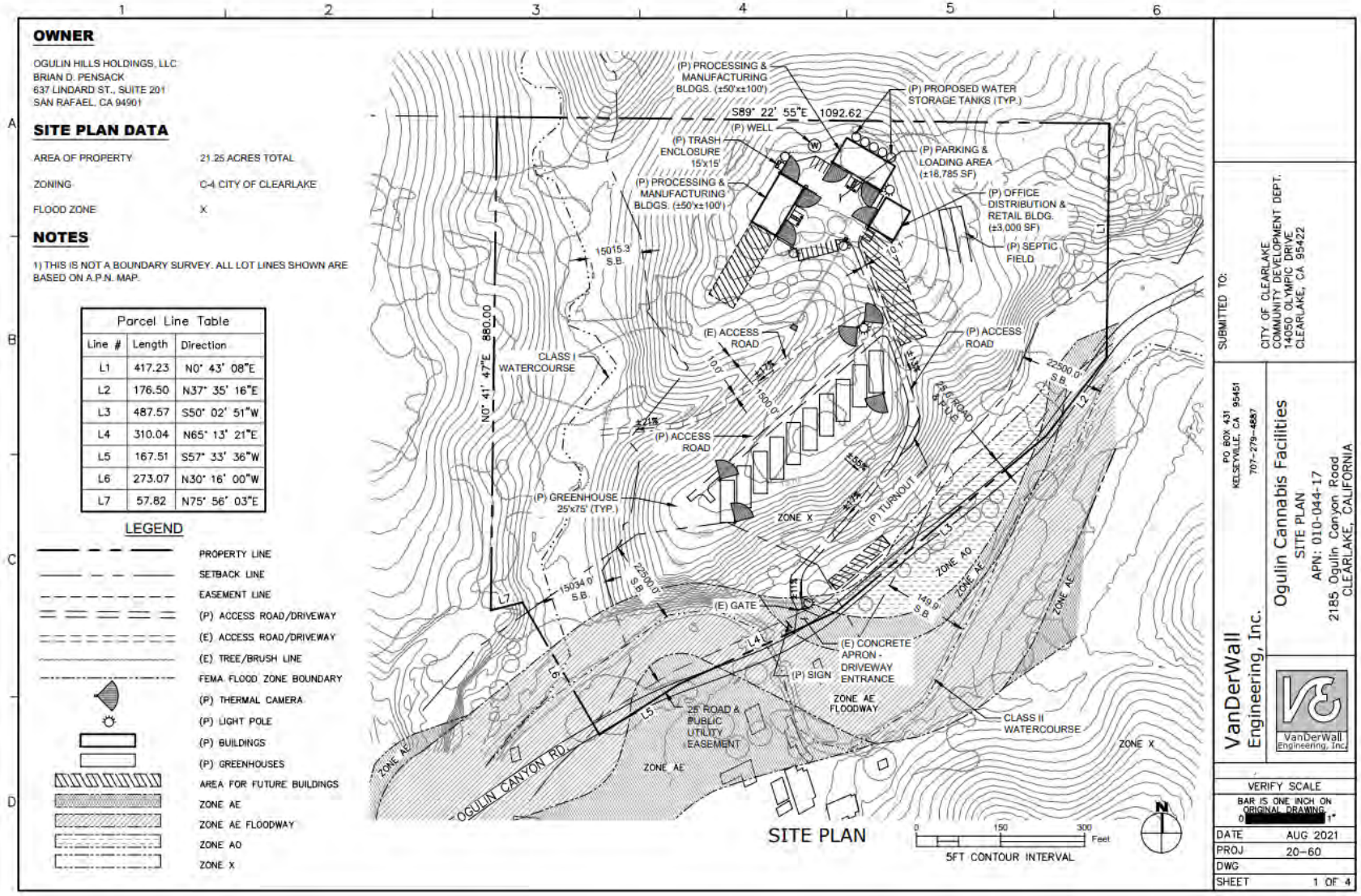
The purpose of this Technical Memorandum is to provide an evaluation of the potential impacts the proposed project would have on the surrounding groundwater resources. The project is located at 2185 Ogulin Canyon Road, Clearlake, Lake County, California. The project proposes 0.5-acres of mixed-light cannabis cultivation, 10,000 sq. ft. of manufacturing, processing, and distribution, and a 3,000 sq. ft. office, retail, and delivery building (Figure 1). A Water Availability Analysis (WAA) was prepared for the project in June 2021 by Richard Knoll Consulting and submitted to the City of Clearlake.

The estimated project water demand for cultivation (300-day cultivation period) was estimated in the WAA using standard industry values for cultivation (3,000 gallons per acre per day, or 2.1 gallons per minute) and warehouse demand (0.85 gallons per square foot, or 11,000 gallons per month). The project proposes ten employees, water demand based on the number of employees is equivalent to sanitary sewer generation for factories with shower facilities. According to the Lake County Rules and Regulations for On-Site Sewage Disposal (Lake County, 2010), the demand would be 35 gallons per day, per person. Thus, the proposed project employee demand would be 350 gallons per day or about 10,500 gallons per month, which corroborates the employee estimate provided in the WAA. The total estimated water demand for the proposed project provided in the WAA is 582,000 gallons per year or 1.8 acre-feet per year. The daily demand is about 1.3 gallons per minute (gpm).

WATER SOURCE AND SUPPLY

There is one (1) existing, permitted groundwater well (Permit Number: WE 5569AG) that will be used for cultivation (Lat/Long 38.983147, -122.604709). The well is approximately 375 feet deep and was drilled in March 2021. The well is screened between 280- and 375-feet below the ground surface. During the drilling of the well, the depth of first water was at 280-feet below the ground surface (bgs) and the static water level was estimated to be 280-feet bgs (Attachment 1 – Well Log).

The well was estimated to have a yield of 80 gpm (129.0 acre-feet per year). The potential daily demand of 1.3 gpm represents approximately 1.6% of the well yield and 2.5% of the annual well production in acre-feet.


OWNER
OGULIN HILLS HOLDINGS, LLC
BRIAN D. PENSACK
637 LINDARD ST., SUITE 201
SAN RAFAEL, CA 94901
SITE PLAN DATA
AREA OF PROPERTY 21.25 ACRES TOTAL
ZONING C-4 CITY OF CLEARLAKE
FLOOD ZONE X
NOTES
1) THIS IS NOT A BOUNDARY SURVEY. ALL LOT LINES SHOWN ARE BASED ON A.P.N. MAP.
Parcel Line Table
Line # | Length | Direction
L1 | 417.23 | N0° 43' 08"E
L2 | 176.50 | N37° 35' 16"E
L3 | 487.57 | S50° 02' 51"W
L4 | 310.04 | N65° 13' 21"E
L5 | 167.51 | S57° 33' 36"W
L6 | 273.07 | N30° 16' 00"W
L7 | 57.82 | N75° 56' 03"E
LEGEND
PROPERTY LINE
SETBACK LINE
EASEMENT LINE
(P) ACCESS ROAD/DRIVEWAY
(E) ACCESS ROAD/DRIVEWAY
(E) TREE/BRUSH LINE
FEMA FLOOD ZONE BOUNDARY
(P) THERMAL CAMERA
(P) LIGHT POLE
(P) BUILDINGS
(P) GREENHOUSES
AREA FOR FUTURE BUILDINGS
ZONE AE
ZONE AE FLOODWAY
ZONE AO
ZONE X
(P) PROCESSING & MANUFACTURING BLDGS. (±50'x±100')
(P) PROPOSED WATER STORAGE TANKS (TYP.)
S89° 22' 55"E 1092.62
(P) WELL
(P) TRASH ENCLOSURE 15'x15'
(P) PARKING & LOADING AREA (±18,785 SF)
(P) PROCESSING & MANUFACTURING BLDGS. (±50'x±100')
(P) OFFICE DISTRIBUTION & RETAIL BLDG. (±3,000 SF)
(P) SEPTIC FIELD
1501 5.3' S.B.
(E) ACCESS ROAD
CLASS I WATERCOURSE
N0° 41' 47"E 880.00
(P) ACCESS ROAD
(P) ACCESS ROAD
(P) GREENHOUSE 25'x75' (TYP.)
ZONE X
(P) TURNOUT
ZONE AO
ZONE AE
ZONE AE
1503 4.0' S.B.
2250 0.0' S.B.
(E) GATE
(E) CONCRETE APRON - DRIVEWAY ENTRANCE
(P) SIGN
ZONE AE FLOODWAY
25' ROAD & PUBLIC UTILITY EASEMENT
CLASS II WATERCOURSE
ZONE AE
OGULIN CANYON RD.
ZONE AE
ZONE X
SITE PLAN
0 150 300 Feet
5FT CONTOUR INTERVAL
SUBMITTED TO:
CITY OF CLEARLAKE
COMMUNITY DEVELOPMENT DEPT.
14050 OLYMPIC DRIVE
CLEARLAKE, CA 95422
VanDerWall Engineering, Inc.
PO BOX 431
KELSEYVILLE, CA 95451
707-279-4857
Ogulin Cannabis Facilities
SITE PLAN
APN: 010-044-17
2185 Ogulin Canyon Road
CLEARLAKE, CALIFORNIA
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
DATE AUG 2021
PROJ 20-60
DWG
SHEET 1 OF 4

GROUNDWATER BASIN INFORMATION AND HYDROGEOLOGY

The well site is in the Burns Valley Groundwater Basin (Basin #5-17). According to the California Department of Water Resources (DWR), almost all the groundwater in the Burns Valley Basin is derived from rain that falls within the 12.5 square mile Burns Valley Watershed drainage area (DWR Bulletin 118).

The Burns Valley Basin is within the Burns Valley Watershed. The Franciscan Formation borders the Burns Valley Basin on the north, Clear Lake borders the basin on the west, and the Cache Formation borders the basin on the south and east. The valley is drained by Burns Valley Creek, flowing southwest, and eventually into Clearlake. There are three water bearing formations in the Burns Valley Basin, the Quaternary Alluvium, Quaternary Terrace Deposits, and Lower Lake Formation. The *Quaternary Alluvium* located in the valley lowlands in the southern end of the valley are composed of silt, sand, and gravel with a thickness up to 50 feet. Groundwater in this formation is unconfined and typically provides water for domestic use. *Quaternary Terrace Deposits* have been deposited on the sides of the alluvial plain in the Burns Valley Basin. The terrace deposits are approximately 15 feet above the valley floor and slope up the valley to a similar elevation as the foothill exposures of the Cache Formation. Groundwater in this formation is not well understood. The *Lower Lake Formation*, consisting of lake deposits, underlies the alluvial and terrace deposits in the basin. The formation consists of fine sands, silts, and thick interbeds of marl and limestone, and has a maximum thickness of 200 feet. The formation has low permeability and provides water to wells at up to a few hundred gallons per minute. Based on the depth of the well, it is likely in the deeper, higher yielding, water bearing formation. The California Department of Water Resources (DWR) estimated a storage capacity of the Burns Valley Basin as 4,000 AF with a usable storage capacity of 1,400 AF. Well depths mostly range between 25- and 425-feet. (CDM 2006 and California DWR 2003, 2021)

The Burns Valley Groundwater Basin has not been identified by the California Department of Water Resources (DWR) as critically overdrafted basins. Critically overdrafted is defined by DWR as, “A basin subject to critical overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts." In addition, as part of the California Statewide Groundwater Elevation Monitoring (CASGEM) Program, DWR created the CASGEM Groundwater Basin Prioritization statewide ranking system to prioritize California groundwater basins in order to help identify, evaluate, and determine the need for additional groundwater level monitoring. California’s groundwater basins were classified into one of four categories high-, medium-, low-, or very low-priority. The Burns Valley Groundwater Basin is ranked as very low-priority basins by the CASGEM ranking system. (DWR, 2021)

RECHARGE RATE

The annual recharge can be estimated using a water balance equation, where recharge is equal to precipitation (P) less runoff (Q) and abstractions that do not contribute to infiltration (e.g., evapotranspiration). A simple tool that can be used to estimate runoff and abstractions, that uses readily available data, is the Natural Resources Conservation Service (NRCS) Curve Number (CN) Method (NRCS, 1986). Determination of the CN depends on the watershed’s soil and cover conditions, cover type, treatment, and hydrologic condition. The CN Method runoff equation is

$$Q = \frac{(P - I_a)^2}{(P - I_a) + S}$$

Where,

Q = runoff (inches)
P = rainfall (inches)
S = potential maximum retention after runoff begins (inches) and
I_a = initial abstraction (inches)

The initial abstraction (I_a) represents all losses before runoff begins, including initial infiltration, surface depression storage, evapotranspiration, and other factors. The initial abstraction is estimated as $I_a = 0.2S$. S is related to soil and cover conditions of the watershed through the CN, determined as $S = 1000/CN - 10$. Using these relations, the runoff equation becomes:

$$Q = \frac{(P - 0.2S)^2}{(P + 0.8S)}$$

The CN is estimated based on hydrologic soil group (HSG), cover type, condition, and land use over the area of recharge, which is estimated as the area of the Burns Valley Watershed. However, to be conservative, the project parcel area of 21.3 acres was used as the recharge area.

The recharge area soils are classified into four HSGs (A, B, C, and D) according to the soils ability to infiltrate water; where HSG A has the highest infiltration potential and HSG D has the lowest infiltration potential. HSGs are based on soil type and can be determined from the NRCS Web Soil Survey (Attachment 2). The recharge area is comprised of HSG C. The land use is undeveloped with a cover type of woods with grassland in fair condition (50% to 75% ground cover) and has a CN of 76 for HSG C.

The PRISM Climate Group gathers climate observations from a wide range of monitoring networks and provides time series values of precipitation for individual locations (https://prism.oregonstate.edu/explorer/). Using the annual precipitation from 1895 to 2020, as predicted by PRISM, the annual average precipitation over this period is 27.6 inches and the minimum precipitation over this period is 6.5 inches (Attachment 3).

Using the above information, and assuming that 50% of the initial abstraction infiltrates and the remainder is evapotranspiration (0.31 inches or 0.56 AF), the estimated annual recharge over the recharge area of 21.3 acres is 5.6 AF during an average year and 4.2 AF during a dry year (Table 1).

Table 1. Estimated annual recharge over the recharge area of the project's well.

Recharge Area (acres)	P (inches)	CN	S (inches)	I_a (inches)	Q (inches)	Recharge = $P - Q - 0.5*I_a$ (inches)	Recharge (AF)
21.3	6.5	76	3.16	0.63	3.81	2.37	4.2
21.3	27.6	76	3.16	0.63	24.17	3.14	5.6

CUMULATIVE IMPACT TO SURROUNDING AREAS

Annual water demand of the proposed project is approximately 1.8 AF per year. The demand represents

approximately 32% and 43% of the annual recharge during an average and dry year, respectively. Recharge in the Burns Valley Groundwater Basin is derived from rain that falls within the 12.5 square mile Burns Valley Watershed. The area used to estimate the recharge for the proposed project is only 0.3% of the entire recharge area. Thus, the recharge estimate is a conservative (low) estimate of the available recharge over the entire recharge area. Overall, there is sufficient recharge, on an annual basis, to meet the project's demand during both a dry year and average year.

The estimated storage capacity of the Burns Valley Basin is 4,000 AF, with a usable storage capacity of 1,400 AF. According to DWR, the groundwater in the Burns Valley Basin is derived from rain that falls within the 12.5 square mile Burns Valley Watershed drainage area. The project's demand is only 0.1% of the usable storage capacity of the Burns Valley Groundwater Basin.

According to the Lake County Groundwater Management Plan, there are 86 domestic wells and 9 irrigation wells in the Burns Valley Groundwater Basin and the agricultural demand in the basin during an average year is 105 AF per year; of this, 14 AF is supplied from groundwater. The Groundwater Management Plan is dated 2006, and does not include the demand from additional proposed cannabis cultivation projects in the Burns Valley Groundwater Basin. The total additional proposed cannabis cultivation is unknown. Assuming there is the potential for approximately 20 to 40 acres of new cannabis cultivation, the annual agricultural demand could increase by an additional 66.3 AF. Cumulatively, with the proposed project at 2185 Ogulin Canyon Road, the annual demand could increase to 82.1 AF or up to 6.0% of the usable storage capacity of the Burns Valley Basin. However, the demand of the proposed project is only 2% of the potential future demand.

Since there is sufficient recharge and supply to meet the project's demand during average and dry years; the project's demand is only 0.1% of the usable storage capacity of the Burns Valley Groundwater Basin; and the potential future cannabis demand in the basin is a fraction of the usable storage capacity. Thus, the proposed project water use would have little to no cumulative impact on the surrounding area.

Additionally, if needed in the future to create water redundancy for the project, the project could install storage for rainwater catchment. The project proposes 31,750 sq. ft. of footprint that could be utilized as rainwater catchment. The rainwater catchment potential is approximately 0.39 acre-feet (129,000 gallons) during a dry year and up to 1.7 acre-feet (546,000 gallons) during a wet year.

QUALIFICATIONS OF AUTHOR

I have a PhD in Water Resources Engineering. In addition, I am a registered Professional Engineer with the State of California with 30-years of experience practicing and teaching Water Resources Engineering, including over 15 years of teaching, practicing, and modeling surface and groundwater hydrology.

LIMITATIONS

The study of groundwater hydrology is very complex and often relies on limited data, especially in rural areas. Recommendations and conclusions provided herein are based on professional judgment made using information of the groundwater systems and geology in Lake County, which is limited and allows only for a general assessment of groundwater aquifer conditions and recharge. NorthPoint Consulting Group, Inc. is making analyses, recommendations, and conclusions based on readily available data, including studies and reports conducted by other professionals, Lake County, the State of California, and

other consultants hired by the project proponent to prepare technical studies for the proposed project. If additional information or data becomes available for the project area, the recommendations and conclusions presented herein may be subject to change.

ATTACHMENTS

1. Well Completion Report
2. NRCS Soil Survey Results
3. PRISM Climate Precipitation 1985-2020

REFERENCES

Bauer S, Olson J, Cockrill A, van Hattem M, Miller L, Tauzer M, et al. (2015). Impacts of Surface Water Diversions for Marijuana Cultivation on Aquatic Habitat in Four Northwestern California Watersheds. PLoS ONE 10(9): e0137935. https://doi.org/10.1371/journal.pone.0137935

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California DWR California Statewide Groundwater Monitoring Program (CASGEM) (2021). https://water.ca.gov/Programs/Groundwater-Management/Groundwater-Elevation-Monitoring--CASGEM. Accessed August 2021.

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ATTACHMENT 1

PROJECT'S WELL COMPLETION REPORT

COUNTY OF LAKE
HEALTH SERVICES DEPARTMENT
Division of Environmental Health
922 Bevins Court, Lakeport, CA 95453-9739
Telephone 707/ 263-1164 FAX: 263-1681

Denise Pomeroy
Health Services Director

Erin Gustafson
Public Health Officer

Jasjit Kang
Environmental Health Director

SEAL WITHOUT WITNESS

Permit Number: WE 5569 AG

Site Address: 2185 Ogulin Canyon Rd. clearlake CA

Assessor's Parcel No: 010 - 044 - 17

Owner Name: Ogulin Hills Holdings

Date: 4-1-21

REASON FOR SEAL WITHOUT WITNESS:

☐ **Emergency Seal – Explain:** _____

☒ **Inspector unable to witness**

☐ **Other:** _____

IMPERMEABLE LAYER in which annular space terminates:

2" **at a depth of** 23' **feet.**

SEALANT USED: Bentonite clay with concrete cap
METHOD OF PLACEMENT: Poor Down Hole Mix concrete cap

I hereby certify that I have installed the annular seal in accordance with the provisions of the Lake County Well Ordinance and unless otherwise specified in the Lake County Well Ordinance, with the California Department of Water Resources Bulletin 74-81 or as modified by subsequent revisions or supplements.

DRILLING CONTRACTOR SIGNATURE: [signature]

COMPANY: Will Peterson Well Drilling **LICENSE NO:** 1009053

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

Page 1 of 1

State of California
Well Completion Report

Refer to Instruction Pamphlet No. XXXXXX

Owner's Well Number 1

Date Work Began 3/24/2021 Date Work Ended 3/25/2021

Local Permit Agency Environmental Health

Permit Number WE 5569 AG Permit Date 2/22/2021

DWR Use Only – Do Not Fill

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log

Orientation ● Vertical ○ Horizontal ○ Angle Specify

Drilling Method Air Rotary Drilling Fluid na

Depth from Surface Feet	to Feet	Description: Describe material, grain size, color, etc
0	40	Brown Clay, some gravel
40	380	cemented Franciscan gravels

Total Depth of Boring 380 Feet

Total Depth of Completed Well 375 Feet

Well Owner

Name Oguln Hills Holdings

Mailing Address 637 Lindaro St. Ste 201

City San Rafael State CA Zip 94901

Well Location

Address 2185 Oguln Canyon Rd.

City Clearlake County Lake

Latitude Deg. Min. Sec. N Longitude Deg. Min. Sec. W

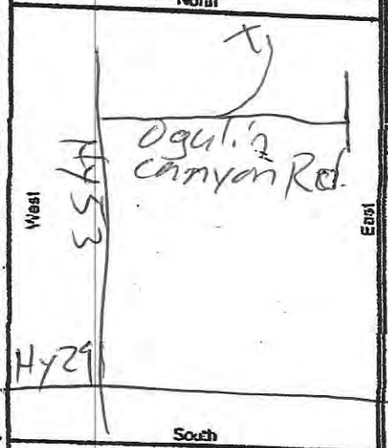
Datum Dec. Lat. Dec. Long.

APN Book 010 Page 044 Parcel 17

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)



Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

● New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

● Water Supply
☐ Domestic ☐ Public
☒ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water 280 (Feet below surface)

Depth to Static Water Level 280 (Feet) Date Measured 3/25/21

Estimated Yield * 80 (GPM) Test Type Air Lift

Test Length 2 (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
0	280	9	F480	PVC	1/4"	4 1/2	na	na
280	375	9	F480	PVC	1/4"	4 1/2	PERF	.035

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	1	Concrete	seal
1	23	bentonite	seal
23	375	5/16 pea	gravel pack

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other

Attach additional information, if exists

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Will Peterson Well Drilling
Person, Firm or Corporation

P.O. Box 1095 Kelseyville CA 95451
Address City State Zip

Signed [signature] 4-1-21
C-57 Licensed Water Well Contractor Date Signed

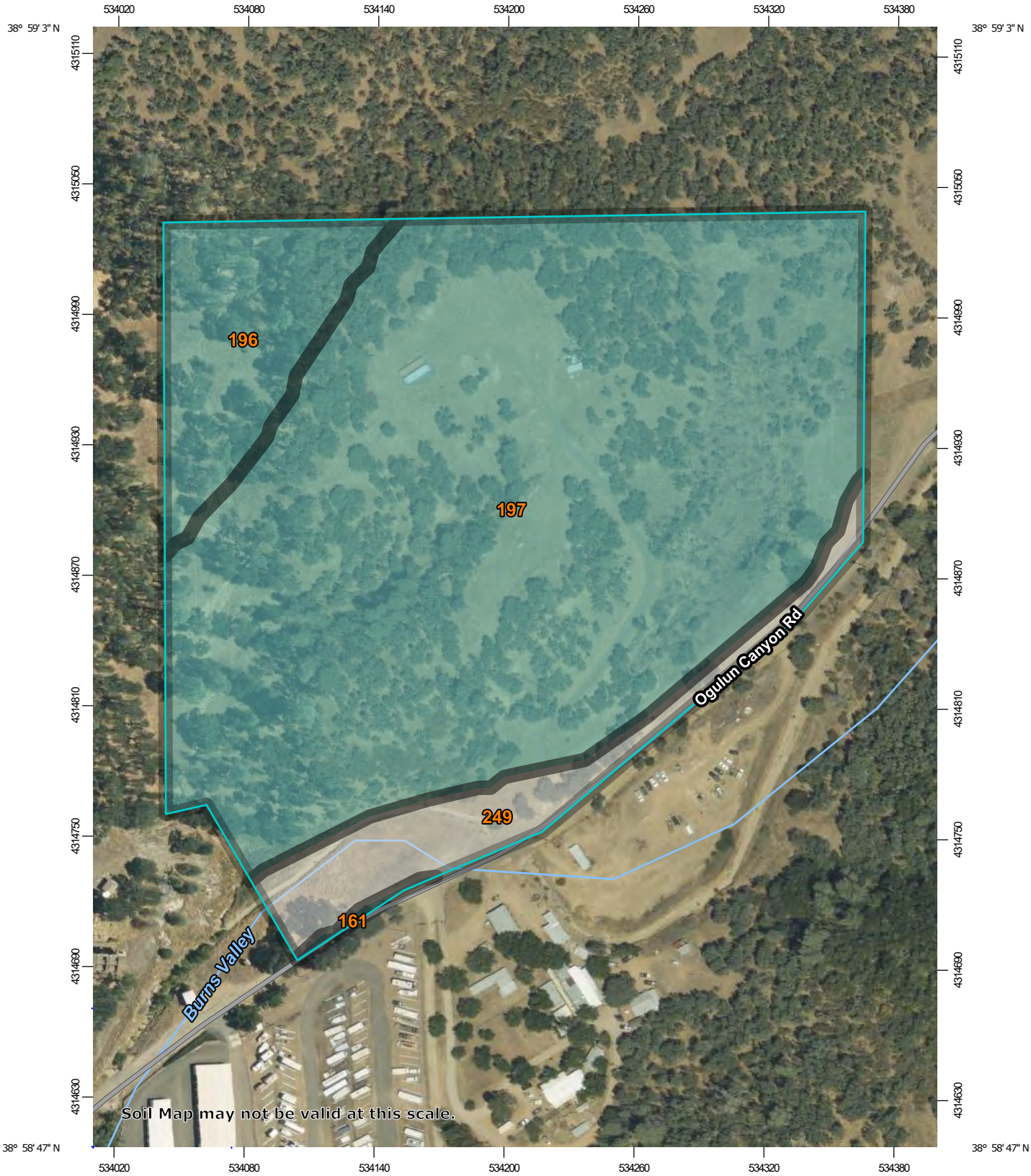
1009053
C-57 License Number

DWR 188 REV 1/2005

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ATTACHMENT 2
NRCS SOIL SURVEY RESULTS
HYDROLOGIC SOIL GROUPS

Hydrologic Soil Group—Lake County, California



Map Scale: 1:2,510 if printed on A portrait (8.5" x 11") sheet.

N

0 35 70 140 210 Meters

0 100 200 400 600 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lake County, California
Survey Area Data: Version 18, Sep 6, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 2, 2019—Jul 5, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
161	Manzanita loam, 15 to 25 percent slopes	C	0.0	0.2%
196	Phipps complex, 15 to 30 percent slopes	C	2.2	10.4%
197	Phipps complex, 30 to 50 percent slopes	C	17.2	81.1%
249	Xerofluvents-Riverwash complex		1.8	8.3%
Totals for Area of Interest			**21.3**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

ATTACHMENT 3

PRISM PRECIPITATION 1895-2020

PRISM Time Series Data
Location: Lat: 38.9831 Lon: -122.6047 Elev: 1637ft
Climate variable: ppt
Spatial resolution: 4km
Period: 1895 - 2020
Dataset: AN81m
PRISM day definition: 24 hours ending at 1200 UTC on the day shown
Grid Cell Interpolation: On
Time series generated: 2021-Nov-08
Details: http://www.prism.oregonstate.edu/documents/PRISM_datasets.pdf

Date	ppt (inches)
1895	33.63
1896	39.53
1897	26.55
1898	15.13
1899	36.1
1900	24.89
1901	26.27
1902	34.58
1903	26.84
1904	42.96
1905	23.18
1906	43.17
1907	35.74
1908	18.81
1909	45.51
1910	17.48
1911	33.96
1912	20.53
1913	26.29
1914	31.26
1915	35.72
1916	30.02
1917	12.99
1918	20.6
1919	23.04
1920	29.98
1921	24.18
1922	27.47
1923	14.73
1924	21.14
1925	26.24
1926	34.63
1927	28.51
1928	20.62
1929	15.3
1930	17.4

	Precip (inches)
Average	27.63
Minimum	6.49

1931	25.04
1932	12.78
1933	20.87
1934	18.96
1935	25.54
1936	25.52
1937	34.47
1938	31.9
1939	12.63
1940	46.05
1941	45.26
1942	32.35
1943	21.27
1944	26.51
1945	29.28
1946	14.21
1947	16.82
1948	23.43
1949	16.82
1950	34.39
1951	29.8
1952	34.49
1953	21.26
1954	29.45
1955	25.1
1956	21.25
1957	30.95
1958	35.77
1959	20.73
1960	27.2
1961	20.06
1962	27.13
1963	28.56
1964	23.1
1965	26.06
1966	22.75
1967	27.62
1968	30.56
1969	34.16
1970	35.49
1971	17.75
1972	19.43
1973	41.8
1974	24.09
1975	24.41
1976	8.7
1977	19.25

1978	30.31
1979	35.17
1980	24.72
1981	31.37
1982	33.74
1983	62.67
1984	21.4
1985	16.78
1986	38.8
1987	27.96
1988	17.74
1989	21.03
1990	16.9
1991	24.2
1992	30.08
1993	36.42
1994	21.42
1995	55.55
1996	37.21
1997	30.34
1998	52.68
1999	23.66
2000	27.61
2001	36.24
2002	28.87
2003	33.08
2004	33.64
2005	39.25
2006	34.93
2007	13.8
2008	19.43
2009	17.73
2010	34.1
2011	23.25
2012	30.53
2013	6.49
2014	31.39
2015	18.19
2016	35.97
2017	43.71
2018	23.67
2019	43.27
2020	10

From: Annje Dodd, PhD P.E.
To: Mark Roberts
Cc: Brian Pensack; Richard Knoll
Subject: Updated Hydro information- 2160 Ogulin Canyon
Date: Wednesday, September 7, 2022 11:34:09 AM
Attachments: image002.png
image003.png
image004.png
Ogulin Estate Holdings Hydrology UP with Attachments.pdf

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mark,

It is my understanding that the project description associated with Ogulin Estates Holdings at 2160 Ogulin Canyon Road has been reduced in size from approximately 35 employees to 8 employees and no longer includes cultivation or nursery activities. This reduces the projected water demand from 561,000 gallons per year (1.7 acre feet per year) to 102,200 gallons per year (0.31 acre feet per year); based on 8 employees at 35 gallons per day for 365 days.

This is about an 80% reduction in proposed water demand compared to the originally proposed project. The conclusions in the attached hydrology report were based on a higher projected demand and do not change.

Please let me know if you have any questions or need additional information.

Annje Dodd, PhD, P.E.
Principal Engineer
NORTHPOINT
CONSULTING GROUP, INC
1117 Samoa Blvd. Arcata, CA 95521
P: (707) 798-6438 EXT. 703 C: (707) 845-1340
Annje@northpointeureka.com
www.northpointeureka.com

NORTHPOINT
CONSULTING GROUP, INC.

TECHNICAL MEMORANDUM

To: Mr. Brian Pensack

From: Annjanette Dodd, PhD, CA PE #77756

Date: December 23, 2021

Subject: Groundwater Hydrology – 2160 Ogulin Canyon Road, Clearlake, CA, APN 010-044-21

PURPOSE AND BACKGROUND

The purpose of this Technical Memorandum is to provide an evaluation of the potential impacts the proposed project would have on the surrounding groundwater resources. The project is located at 2160 Ogulin Canyon Road, Clearlake, Lake County, California. The project includes the development of industrial style structures to be used for cannabis related facilities, including a 33,600 square-foot (sq ft) single story building for processing, manufacturing, and distribution, a 5,000 sq ft office building, five (5) 75 x 25 ft greenhouses for indoor cannabis cultivation, and a 22,600 sq ft, 46-car parking lot (Figure 1). A Water Availability Analysis (WAA) was prepared for the project in June 2021 by Richard Knoll Consulting and submitted to the City of Clearlake.

Irrigation Demand: The estimated project water demand for cultivation (300-day cultivation period) was estimated in the WAA using standard industry values for cultivation (3,000 gallons per acre per day, or 2.1 gallons per minute, per acre; CDFA, 2017). The maximum potential canopy area for five (5) 25 ft x 75 ft greenhouses is 9,375 sq ft, resulting in a daily demand of approximately 645 gallons (0.5 gpm) and annual irrigation demand of approximately 194,000 gallons per year over the course of a 300-day growing season. This cultivation demand estimate is less than presented in the WAA, which was based on 0.5 acres of canopy which is more than double the canopy proposed.

Employee Demand: The project proposes 35 employees. Water demand based on the number of employees is assumed to be equivalent to sanitary sewer generation for factories with shower facilities, which, according to the Lake County Rules and Regulations for On-Site Sewage Disposal (Lake County, 2010), would be 35 gallons per day, per person. The employee demand estimate is less than presented in the WAA, which was not based on standard values for Lake County. At 35 gallons per employee per day, the proposed project employee demand would be 1,225 gallons per day or 367,500 gallons per year based on a 300-day work season.

Total Demand: The total estimated water demand for the proposed project using the numbers provided herein is 1,875 gallons per day (1.3 gpm) and 561,500 gallons per year or 1.7 acre-feet per year.

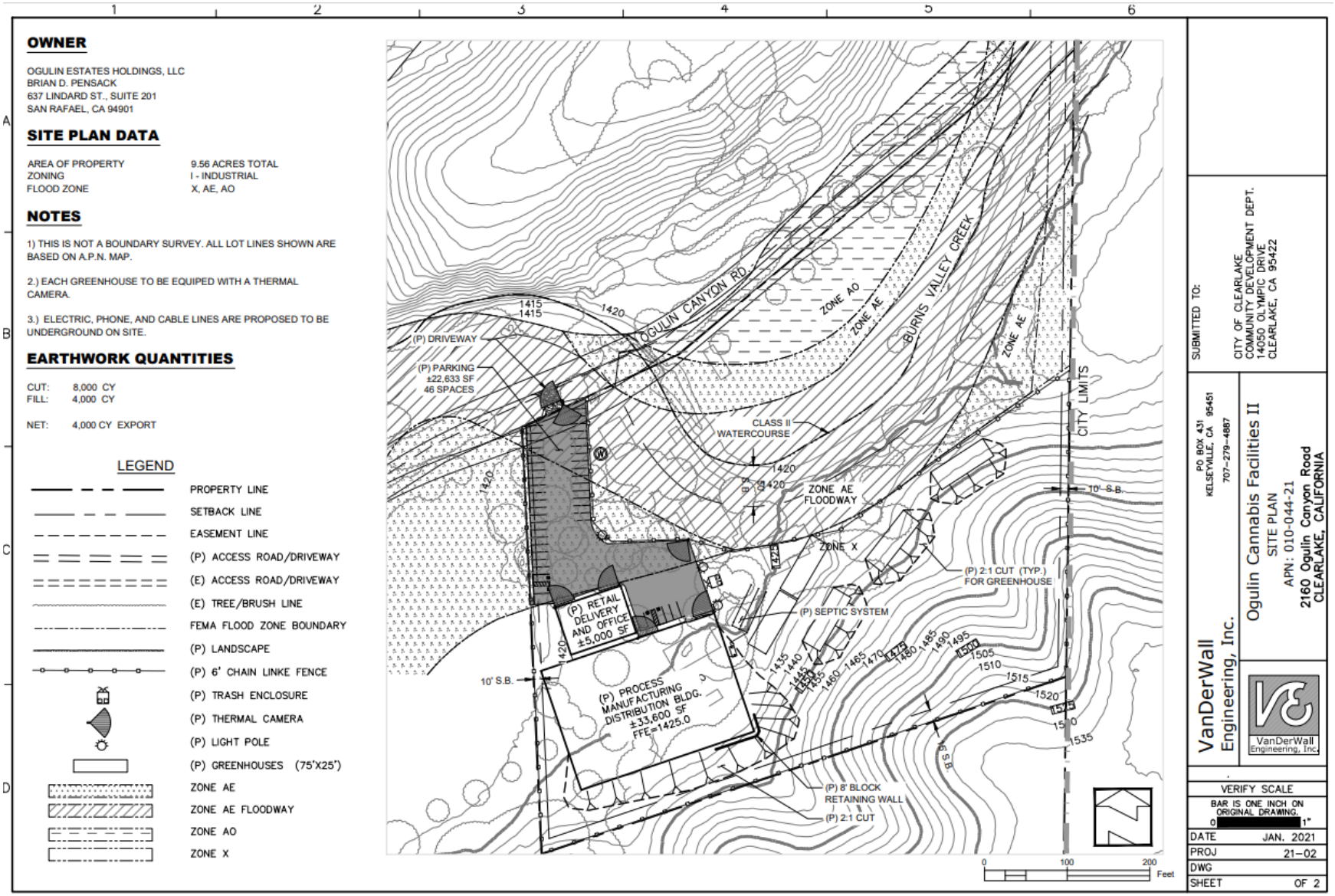


Figure 1: Site Plan for the proposed project at APN 010-044-21.

WATER SOURCE, SUPPLY, AND STORAGE

There is one (1) existing, permitted groundwater well (Permit Number: WE 5718AG) that will be used for cultivation (Lat/Long: 38.98068, -122.60521). The well is approximately 300-feet deep and was drilled in September 2021, during a drought period. The well casing is screened at two intervals with 0.32-inch perforated PVC casing - between 80- and 100-feet and between 240- and 300-feet below the ground surface (bgs). During the drilling of the well, the depth of first water was at 80-feet bgs and the static water level was estimated to be 30-feet bgs (Attachment 1 – Well Log).

The well was estimated to have a yield of 100 gpm (161.0 AF per year). The project's demand of 1.7 AF represents 1.1% of the annual well yield in AF.

The project proposes one (1) 50,000-gallon water tank for water storage or approximately 26 days of storage based on the average total daily demand of approximately 1,875 gallons. At 100 gpm, the tank would fill in about 8.3 hours

GROUNDWATER BASIN INFORMATION AND HYDROGEOLOGY

The well site is in the Burns Valley Groundwater Basin (Basin #5-17). According to the California Department of Water Resources (DWR), almost all the groundwater in the 4 square mile Burns Valley Groundwater Basin is derived from rain that falls within the 12.5 square mile Burns Valley Watershed (DWR Bulletin 118).

The Burns Valley Groundwater Basin is within the Burns Valley Watershed. Franciscan Formation borders the Burns Valley Groundwater Basin on the north, Clear Lake borders the basin on the west, and Clear Lake Cache Formation borders the basin on the south and east. The valley is drained by Burns Valley Creek, flowing southwest, and eventually into Clearlake. There are three primary water bearing formations in the Burns Valley Groundwater Basin - Quaternary Alluvium, Quaternary Terrace Deposits, and the Lower Lake Formation (CDM, 2006). The *Quaternary Alluvium* aquifer is in the valley lowlands in the southern end of the valley and is composed of silt, sand, and gravel with a thickness up to 50 feet. Groundwater in this formation is unconfined and typically provides water for domestic use. *Quaternary Terrace Deposits* have been deposited on the sides of the alluvial plain in the Burns Valley Groundwater Basin. The terrace deposits are approximately 15 feet above the valley floor and slope up the valley to a similar elevation as the foothill exposures of the Clear Lake Cache Formation. Groundwater in this formation is not well understood. The *Lower Lake Formation*, consisting of lake deposits, underlies the alluvial and terrace deposits in the basin. This formation consists of fine sands, silts, and thick interbeds of marl and limestone, and has a maximum thickness of 200 feet. The formation has low permeability and provides water to wells at up to a few hundred gallons per minute. Based on the Well Completion Report (WCR) Geologic Log and the depths of the screened intervals of the well (80-100 and 240-300 ft bgs), the well draws water from both the shallower, Quaternary alluvium aquifer system, and the deeper water-bearing formation that corresponds with the described greenstone geologic unit, likely Franciscan Formation. The California Department of Water Resources (DWR) estimated the storage capacity of the Burns Valley Groundwater Basin to be 4,000 AF with a usable storage capacity of 1,400 AF. Well depths in the basin mostly range between 25- and 425-feet (CDM 2006; California DWR 2003, 2021).

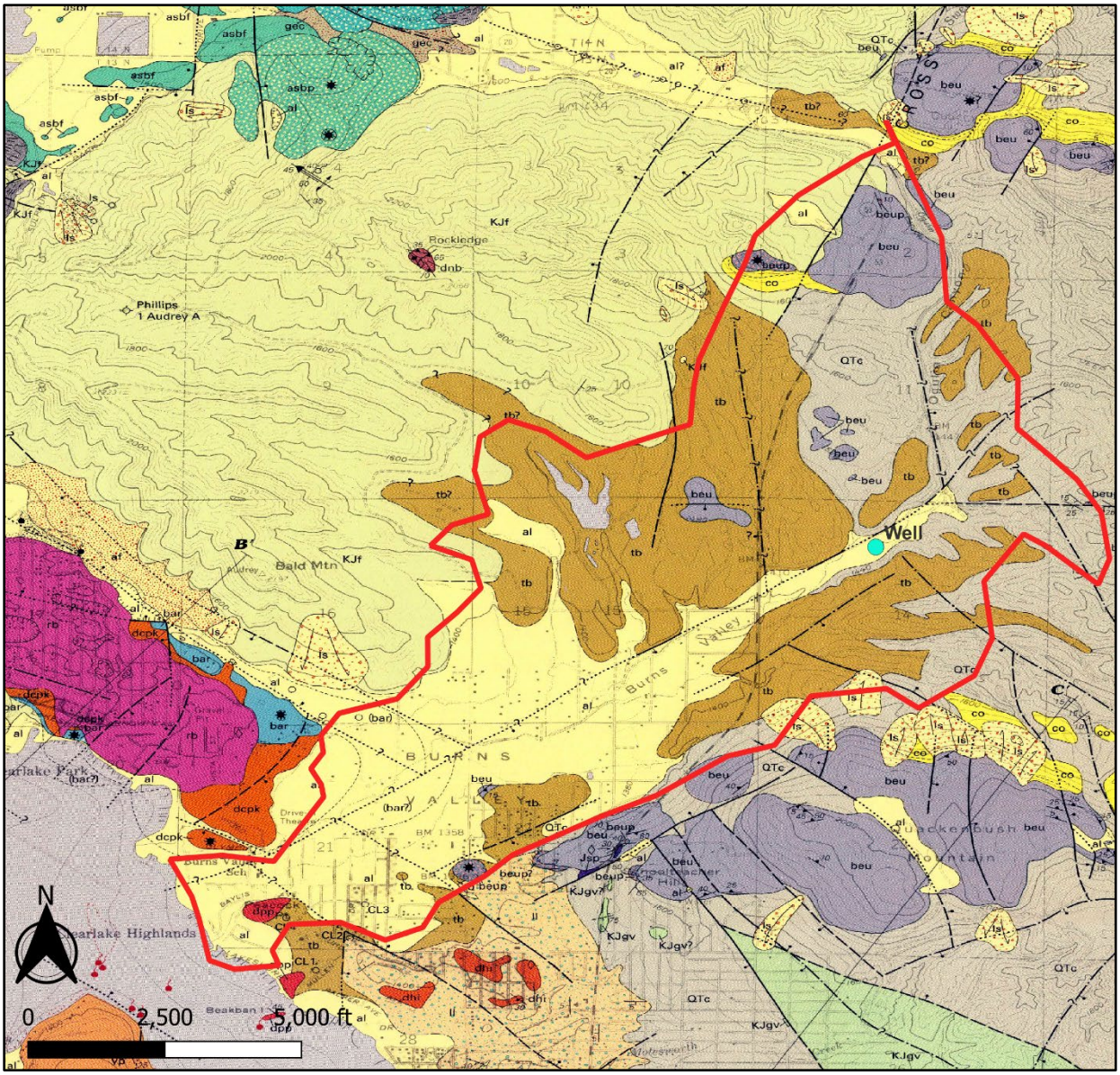


Figure 2: The project well location (blue dot) plotted on the Hearn et al. (1995) geologic map. The project well is in an area mapped as Quaternary Alluvium in the upper Burns Valley Creek. The boundary for the California Bulletin 118 Burns Valley Groundwater Basin is shown in red.

The Burns Valley Groundwater Basin has not been identified by the California Department of Water Resources (DWR) as a critically overdrafted basin. Critically overdrafted is defined by DWR as, "A basin subject to critical overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts." In addition, as part of the California Statewide Groundwater Elevation Monitoring (CASGEM) Program, DWR created the CASGEM Groundwater Basin Prioritization statewide ranking system to prioritize California groundwater basins in order to help identify, evaluate, and determine the need for additional groundwater level monitoring. California's groundwater basins were classified into one of four categories high-, medium-, low-, or very low-priority. The Burns Valley Groundwater Basin is ranked as very low-priority basins by the CASGEM ranking system (DWR, 2021).

RECHARGE RATE

The annual recharge can be estimated using a water balance equation, where recharge is equal to precipitation (P) less runoff (Q) and abstractions that do not contribute to infiltration (e.g., evapotranspiration). A simple tool that can be used to estimate runoff and abstractions, which uses readily available data, is the Natural Resources Conservation Service (NRCS) Curve Number (CN) Method (NRCS, 1986). Determination of the CN depends on the watershed's soil and cover conditions, cover type, treatment, and hydrologic condition. The CN Method runoff equation is

$$Q = \frac{(P - I_a)^2}{(P - I_a) + S}$$

Where,

Q = runoff (inches)
P = rainfall (inches)
S = potential maximum retention after runoff begins (inches) and
I_a = initial abstraction (inches)

The initial abstraction (I_a) represents all losses before runoff begins, including initial infiltration, surface depression storage, evapotranspiration, and other factors. The initial abstraction is estimated as $I_a = 0.2S$. S is related to soil and cover conditions of the watershed through the CN, determined as $S = 1000/CN - 10$. Using these relations, the runoff equation becomes:

$$Q = \frac{(P - 0.2S)^2}{(P + 0.8S)}$$

The CN is estimated based on hydrologic soil group (HSG), cover type, condition, and land use over the area of recharge, which is estimated as the area of the Burns Valley Watershed. However, to be conservative, a small unnamed 23.1-acre tributary draining to the project parcel and eventually into Burns Valley Creek was used as the recharge area (Figure 2).

Soils are classified into four HSGs (A, B, C, and D) according to the ability of the soil to infiltrate water; where HSG A has the highest infiltration potential and HSG D has the lowest infiltration potential. HSGs are based on soil type and can be determined from the NRCS Web Soil Survey. 100% of the recharge area is comprised of HSG C. Approximately 70% of the recharge area is undeveloped with a cover type of 'Woods' in fair condition (wooded area may be grazed but not burnt, with some leaf litter on ground) with a CN of 73 for HSG C. The remaining recharge area is classified as 'Woods-grass combination' in fair condition due to sparse rows of trees with annual grassland in aerial imagery, represented with a CN of 76. The weighted CN for the recharge area is 74.

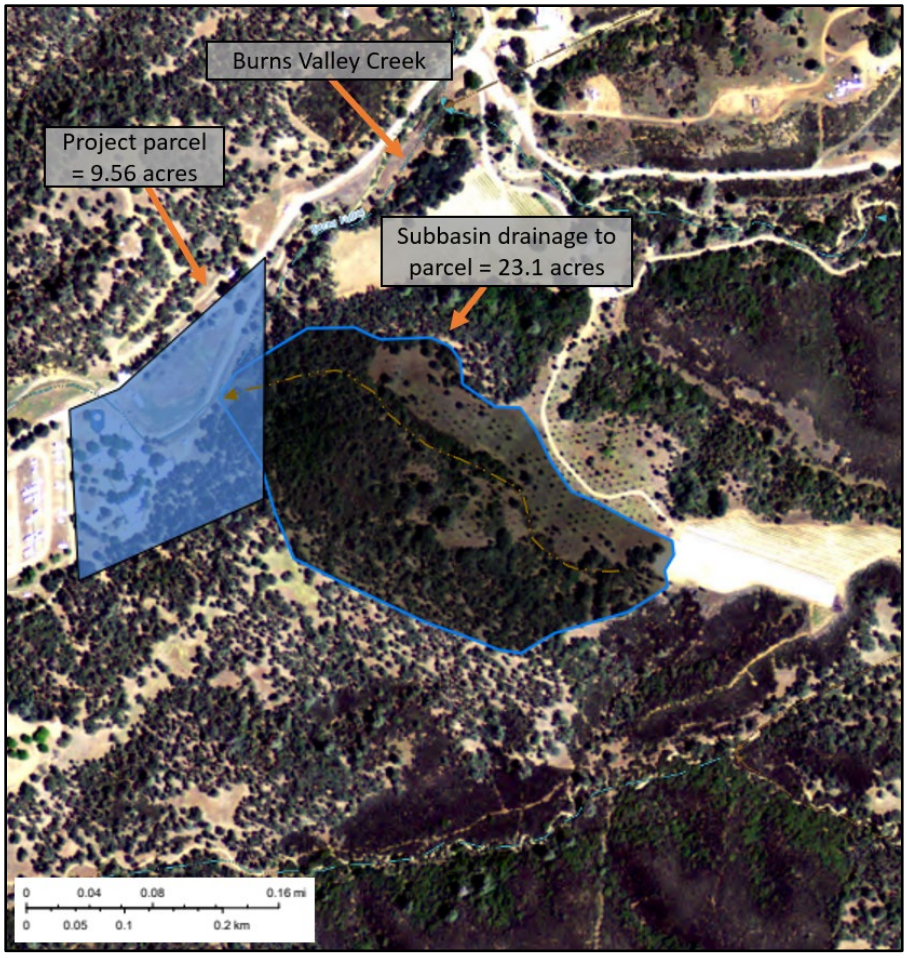


Figure 3: The recharge area for the proposed project is a 23.1-acre subbasin that drains to the project parcel and Burns Valley Creek.

The PRISM Climate Group gathers climate observations from a wide range of monitoring networks and provides time series values of precipitation for individual locations (https://prism.oregonstate.edu/explorer/). Using the annual precipitation from 1895 to 2020, as predicted by PRISM, the annual average precipitation over this period is 27.6 inches and the minimum precipitation over this period is 6.5 inches.

Using the above information, and assuming that 50% of the initial abstraction infiltrates and the remainder is evapotranspiration (0.35 inches or 0.7 AF), the estimated annual recharge over the recharge area of 23.1 acres is 6.7 AF during an average year and 4.9 AF during a dry year (Table 1).

Table 1. Estimated annual recharge over the recharge area of the project's well.

Recharge Area (acres)	P (inches)	CN	S (inches)	I_a (inches)	Q (inches)	Recharge = $P - Q - 0.5*I_a$ (inches)	Recharge (AF)
23.1	6.5	74	3.5	0.70	3.6	2.5	4.9
23.1	27.6	74	3.5	0.70	23.8	3.5	6.7

CUMULATIVE IMPACT TO SURROUNDING AREAS

Annual water demand of the proposed project is approximately 1.7 AF per year. The demand represents approximately 25% and 35% of the annual recharge during an average and dry year, respectively. Recharge in the Burns Valley Groundwater Basin is derived from rain that falls within the 12.5 square mile Burns Valley Watershed, which drains to the Burns Valley Groundwater Basin, delineated as 4 square miles of area (CDM, 2006). The area used to estimate the recharge for the proposed project is only 0.3% of the Burns Valley Watershed that drains to and recharges the Burns Valley Groundwater Basin. The area used to estimate the recharge did not include the project parcel, which would provide additional recharge. Thus, the recharge estimate is a conservative (low) estimate of the available recharge over the entire recharge area. Overall, the project would need only 0.9-inches of rainfall to infiltrate over the recharge area to meet the project's demand. Thus, there is sufficient recharge, on an annual basis, to meet the project's demand during both average and dry years.

The estimated storage capacity of the Burns Valley Groundwater Basin is 4,000 AF, with a usable storage capacity of 1,400 AF. According to DWR, groundwater in the Burns Valley Groundwater Basin is derived from rain that falls within the 12.5 square mile Burns Valley Watershed drainage area. It takes 2.1-inches of rainfall to infiltrate into the 12.5 square mile watershed to recharge 1,400 AF. The project's demand is only 0.12% of the usable storage capacity of the Burns Valley Groundwater Basin.

According to the Lake County Groundwater Management Plan, there are 86 domestic wells and 9 irrigation wells in the Burns Valley Groundwater Basin and agricultural demand during an average year is 105 AF per year; of this, 14 AF is supplied from groundwater. The Groundwater Management Plan is dated 2006 and does not include the demand from additional proposed/potential cannabis cultivation projects in the Burns Valley Groundwater Basin. The Lake County Zoning Ordinance allows 1-acre of outdoor canopy for each 20 acres of parcel size for specific zones. Within the Burns Valley Groundwater Basin, there are 57 parcels with total area of 1,124 acres with zoning that would allow for outdoor cultivation with a County Use Permit, of this area, approximately 11 parcels or 741 acres, are existing vineyards/hops/agriculture. Excluding these 11 parcels, there are 46 parcels with 383 acres eligible for cannabis cultivation in areas without pre-existing agriculture activities, or up to 19 acres of potentially new cultivation/agriculture (the County allows only 1-acre of cultivation for each 20 acres of parcel area). The increased irrigation demand could be up to approximately 31.5 AF assuming 3,000 gallons per day per acre for 180 days. The City of Clearlake Zoning Ordinance allows for mixed-light/indoor cultivation in the Burns Valley Groundwater Basin, with a City Cannabis Permit, on 23 parcels with a total area of 242 acres. Accounting for existing development, steep topography, waterbody setbacks, and flood zones only approximately 20 to 25 acres of this area could have the potential for mixed-light/indoor cultivation. The increased irrigation demand could be up to approximately 69 AF assuming 3,000 gallons per day per acre for 300 days. The total potential new demand from both the County and City for cannabis cultivation could be up to 89 AF per year, which includes the proposed project at 2160 Ogulin Canyon Road.

Cumulatively, the existing (CDM, 2006) and potential new agricultural groundwater demand could be up to 103 AF per year or up to 7.4% of the usable storage capacity in the Burns Valley Groundwater Basin. The demand of the proposed project, 1.7 AF, is only 1.7% of the potential future demand.

Since project's well has sufficient yield to meet the project's demand; the project proposes 26 days of water storage; there is sufficient recharge and supply to meet the project's demand during average and dry years; the project's demand is only 0.12% of the usable storage capacity of the Burns Valley

Groundwater Basin; and the potential future cannabis demand in the basin is a fraction of the usable storage capacity, the proposed project water use would have little to no cumulative impact on the surrounding area.

Additionally, if needed in the future to create water redundancy for the project, the project could install a rainwater catchment system. The project proposes 47,975 sq. ft. of footprint that could be utilized as rainwater catchment. The rainwater catchment potential is approximately 0.60 acre-feet (195,500 gallons) during a dry year and up to 2.5 acre-feet (814,600 gallons) during a wet year.

QUALIFICATIONS OF AUTHOR

I have a PhD in Water Resources Engineering. In addition, I am a registered Professional Engineer with the State of California with 30-years of experience practicing and teaching Water Resources Engineering, including over 15 years of teaching, practicing, and modeling surface and groundwater hydrology.

LIMITATIONS

The study of groundwater hydrology is very complex and often relies on limited data, especially in rural areas. Recommendations and conclusions provided herein are based on professional judgment made using information of the groundwater systems and geology in Lake County, which is limited and allows only for a general assessment of groundwater aquifer conditions and recharge. NorthPoint Consulting Group, Inc. is making analyses, recommendations, and conclusions based on readily available data, including studies and reports conducted by other professionals, Lake County, the State of California, and other consultants hired by the project proponent to prepare technical studies for the proposed project. If additional information or data becomes available for the project area, the recommendations and conclusions presented herein may be subject to change.

ATTACHMENTS

1. Well Completion Report
2. NRCS Soil Survey Results
3. PRISM Climate Precipitation 1895-2020

REFERENCES

Bauer S, Olson J, Cockrill A, van Hattem M, Miller L, Tauzer M, et al. (2015). Impacts of Surface Water Diversions for Marijuana Cultivation on Aquatic Habitat in Four Northwestern California Watersheds. PLoS ONE 10(9): e0137935. https://doi.org/10.1371/journal.pone.0137935

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ATTACHMENT 1:
WELL COMPLETION REPORT

COUNTY OF LAKE
HEALTH SERVICES DEPARTMENT
Division of Environmental Health
922 Bevins Court, Lakeport, CA 95453-9739
Telephone 707/ 263-1164 FAX: 263-1681

Denise Pomeroy
Health Services Director

Erin Gustafson
Public Health Officer

Jasjit Kang
Environmental Health Director

SEAL WITHOUT WITNESS

Permit Number: WE 5718-AG

Site Address: 2160 Ogulin Canyon RD Clearlake CA. 95422

Assessor's Parcel No: 010 - 044 - 21

Owner Name: Ogulin Hills Holdings LLC

Date: 10/1/21

REASON FOR SEAL WITHOUT WITNESS:

☐ **Emergency Seal – Explain:** _____

☒ **Inspector unable to witness**

☐ **Other:** _____

IMPERMEABLE LAYER in which annular space terminates:

2" **at a depth of** 20' **feet.**

SEALANT USED: Bentonite clay & concrete
METHOD OF PLACEMENT: pour down Hole and mix and pour concrete cap

I hereby certify that I have installed the annular seal in accordance with the provisions of the Lake County Well Ordinance and unless otherwise specified in the Lake County Well Ordinance, with the California Department of Water Resources Bulletin 74-81 or as modified by subsequent revisions or supplements.

DRILLING CONTRACTOR SIGNATURE: _____

COMPANY: Will Petersen well Drilling **LICENSE NO:** 1009053

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

Section F, Item 4.

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. XXXXXXX

Page 1 of 1

Owner's Well Number 2

Date Work Began 9-29-21 Date Work Ended 10-1-21

Local Permit Agency Lake County Environmental Health

Permit Number WE-5718AG Permit Date 9-28-21

DWR Use Only – Do Not Fill

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log

Orientation ● Vertical ○ Horizontal ○ Angle Specify

Drilling Method Air Rotary Drilling Fluid NA

Depth from Surface Feet	to Feet	Description (Describe material, grain size, color, etc)
0	20	gravel and Brown clay
20	70	gravel & tan clay
70	220	fransicon gravel trace of sandstone
220	240	fransicon gravel
240	300	green stone

Total Depth of Boring 305 Feet

Total Depth of Completed Well 300 Feet

Well Owner

Name Ogulin Hills Holdings

Mailing Address 637 Lindaro St. Suite 201

City San Rafael State CA Zip 94901

Well Location

Address 2160 Ogulin canyon RD

City Clearlake CA County Lake

Latitude Deg. Min. Sec. N Longitude Deg. Min. Sec. W

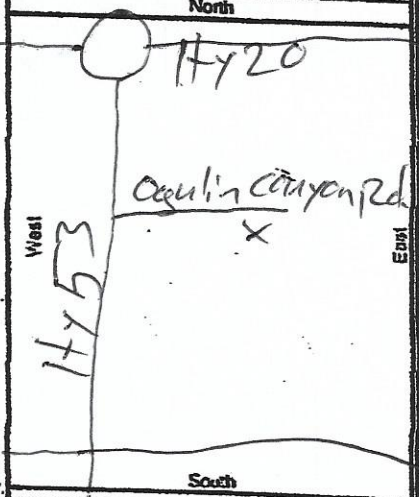
Datum Dec. Lat. Dec. Long.

APN Book 010 Page 044 Parcel 21

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)



Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

● New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

● Water Supply

☒ Domestic ☐ Public

☒ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water 80' (Feet below surface)

Depth to Static Water Level 30' (Feet) Date Measured 9-30-21

Estimated Yield* 100+ (GPM) Test Type Airlift

Test Length 2 hrs (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
0	80	9"	F480	PVC	1/4"	4 1/2"	None	None
80	100	9"	F480	PVC	1/4"	4 1/2"	Perfs	.032
100	240	9"	F480	PVC	1/4"	4 1/2"	Blanks	N/A
240	300	9"	F480	PVC	1/4"	4 1/2"	Perfs	.032

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	20	Concrete	SEAL
1	21	Bentonite	
21	300	5/16 Pea	Gravel Pack

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Will Peterson Well Drilling

Person, Firm or Corporation

P.O. Box 6954 Kelseyville CA 95451

Address City State Zip

Signed [signature] 10-1-21 1009053

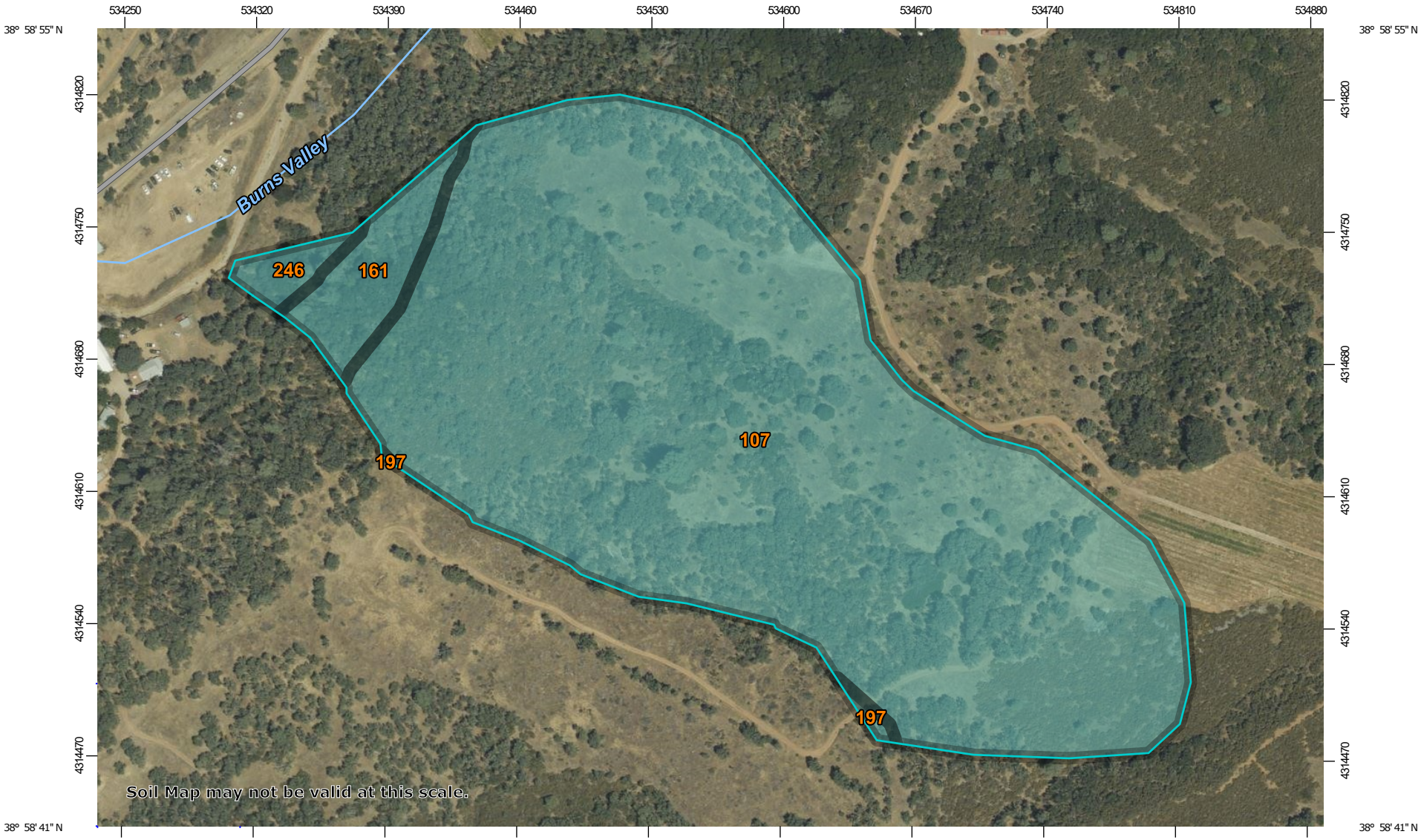
C-57 Licensed Water Well Contractor Date Signed C-57 License Number

DWR 188 REV 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ATTACHMENT 2:
NRCS SOIL SURVEY RESULTS

Hydrologic Soil Group—Lake County, California
(2160 Ogulin Rd recharge area)



Map Scale: 1:2,980 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 40 80 160 240

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lake County, California
Survey Area Data: Version 18, Sep 6, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 2, 2019—Jul 5, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
107	Bally-Phipps complex, 15 to 30 percent slopes	C	20.8	93.4%
161	Manzanita loam, 15 to 25 percent slopes	C	1.1	4.8%
197	Phipps complex, 30 to 50 percent slopes	C	0.1	0.3%
246	Wolfcreek gravelly loam	C	0.3	1.5%
Totals for Area of Interest			**22.3**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

ATTACHMENT 3:

PRISM CLIMATE PRECIPITATION 1985-2020

PRISM Time Series Data
Location: Lat: 38.9801 Lon: -122.6001 Elev: 1637ft
Climate variable: ppt
Spatial resolution: 4km
Period: 1895 - 2020
Dataset: AN81m
PRISM day definition: 24 hours ending at 1200 UTC on the day shown
Grid Cell Interpolation: On
Time series generated: 2021-Dec-15
Details: http://www.prism.oregonstate.edu/documents/PRISM_datasets.pdf

Date	ppt (inches)		
1895	33.65	average	27.64
1896	39.54	minimum	6.47
1897	26.51		
1898	15.11		
1899	36.11		
1900	24.89		
1901	26.3		
1902	34.57		
1903	26.85		
1904	43.01		
1905	23.19		
1906	43.23		
1907	35.8		
1908	18.8		
1909	45.52		
1910	17.49		
1911	33.98		
1912	20.54		
1913	26.32		
1914	31.28		
1915	35.75		
1916	30.09		
1917	13.05		
1918	20.66		
1919	23.08		
1920	29.95		
1921	24.21		
1922	27.56		
1923	14.72		
1924	21.12		
1925	26.24		
1926	34.62		
1927	28.56		
1928	20.66		
1929	15.35		
1930	17.43		

1931	25.08
1932	12.81
1933	20.93
1934	18.96
1935	25.57
1936	25.58
1937	34.51
1938	31.94
1939	12.69
1940	46.18
1941	45.3
1942	32.4
1943	21.32
1944	26.56
1945	29.34
1946	14.25
1947	16.85
1948	23.47
1949	16.87
1950	34.45
1951	29.85
1952	34.57
1953	21.29
1954	29.51
1955	25.11
1956	21.24
1957	30.94
1958	35.76
1959	20.72
1960	27.18
1961	20.09
1962	27.14
1963	28.56
1964	23.1
1965	26.03
1966	22.74
1967	27.62
1968	30.57
1969	34.17
1970	35.46
1971	17.75
1972	19.43
1973	41.75
1974	24.09
1975	24.4
1976	8.68
1977	19.26

1978	30.31
1979	35.13
1980	24.72
1981	31.37
1982	33.72
1983	62.59
1984	21.31
1985	16.74
1986	38.77
1987	27.96
1988	17.68
1989	21.03
1990	16.85
1991	24.17
1992	30.03
1993	36.44
1994	21.37
1995	55.6
1996	37.2
1997	30.3
1998	52.65
1999	23.63
2000	27.59
2001	36.25
2002	28.89
2003	33.03
2004	33.67
2005	39.24
2006	34.9
2007	13.72
2008	19.47
2009	17.74
2010	34.12
2011	23.3
2012	30.68
2013	6.47
2014	31.45
2015	18.12
2016	35.83
2017	43.81
2018	23.64
2019	43.4
2020	9.97

City of Clearlake
14050 Olympic Drive, Clearlake, California 95422
(707) 994-8201 Fax (707) 995-2653

RECEIVED
APR 2 0 2021
BY: EH

DISTRIBUTION DATE: April 20, 2020

REQUEST FOR REVIEW (RFR)

	CITY DEPARTMENTS		LOCAL AGENCIES		STATE/FEDERAL AGENCIES
@	*Building Dept*	@	*Air Quality Management*	@	*CalTrans*
@	*Code Enforcement*	@	*Assessor's/Recorders Office*		*BLM*
@	*Police Department*	@	*Environmental Health Dept.*		*CA Dept. of Fish & Wildlife*
@	*Public Works/Engineering.*		*Lakebed Management*		*Army Core of Eng.*
		@	*Lake County Special Districts*		*U.S Fish & Wildlife Serv.*
			Lake County Water Resources	@	*Sonoma State (NWIC)*
	OTHER AGENCIES		*Lake County Tax Collector*		*CHP*
@	*PG&E*		*Lake Transit*	@	*CA Dept. of Drinking Water*
			Lake Area Planning Council		*Cal Fire*
					ABC
			WATER DISTRICT		
			Golden State Water		CANNABIS PROJECTS
		@	*Konocti Water Co,*	@	*Cal Cannabis*
			Highlands Water Co.	@	*CA Dept. Public Health (Manufacturing)*
				@	*Bureau of Cannabis Control (retailers, distributors, 3rd party testing laboratories and microbusinesses)*

REQUEST: REQUEST: *Please review and comment on the enclosed application packet material for the proposed project below. Please return all comments by* ***May 7, 2020. Please email your comments to*** mroberts@clearlake.ca.us ***or mail them to the address listed in the letterhead above.***

APPLICATIONS:

- *UP 2021-23 – Cultivation*
- *UP 2021-24 – Manufacturing*
- *UP 2021-25 – Distribution*
- *UP 2021-26 – Processing*
- *UP 2021-27 – Retail Delivery*
- *UP 2021-28 – Nursery*

LOCATION(S): 2160 Ogulin Canyon Road; Clearlake, CA 95422

APPLICANT: Ogulin Hills Holdings, LLC c/o Brian Pensack

APN(s): 010-044-210-000

LAND USE DESIGNATION(S): Commercial

GENERAL PLAN DESINATION(S): Commercial

PROPOSAL: The applicant is requesting approval of the above use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following: **Please refer to attached packet, site plans and architectural plans for further details.**

- Hours of Operation:
  - Monday Through Saturday: 8:00AM to 5:00PM.
  - Up to 35 employees
  - Up to +/- 4 managers

- Proposed Structures:
  - 33,600 SQFT cannabis processing, manufacturing, and distribution building
  - 5,000 SQFT office building that will also serve as the administrative center and the cannabis delivery and storage space.
  - Five (5) Greenhouse – Each greenhouse will be 75' X 25' (1,875 SQFT Each)

- Proposed Parking:
  - +/- 46 Parking Spaces

COMMENTS:

See attached memorandum

NAME: Tina Rubin **DATE:** 5/28/21

COUNTY OF LAKE
Health Services Department
Environmental Health Division
922 Bevins Court
Lakeport, California 95453-9739
Telephone 707/263-1164
FAX 707/263-1681

Denise Pomeroy
Health Services Director

Gary Pace, MD, MPH
Health Officer

Craig Wetherbee
Environmental Health Director

MEMORANDUM

DATE: May 28, 2021

TO: Mark Roberts, Planner

FROM: Tina Dawn-Rubin, Environmental Health Aide

RE: Multiple Use Permits
Commercial Cannabis

APN: 010-044-21 2160 Ogulin Canyon Rd, Clearlake

Lake County Division of Environmental Health (EH) has on file for the subject parcel:
APN: 010-044-21 – a 1974 septic permit 3402-S designed to service a 3 bedroom residence. The permit also indicates there is a well on the property.

The applicant must meet the EH requirements regarding Onsite Wastewater Treatment System (OWTS) and potable water.

For any proposed building permits or projects where the parcel is serviced by an OWTS or well, the applicant may need to demonstrate the location of any proposed or existing structures including residential or commercial dwellings, garages, driveways, shed, barns, green houses, non-perimeter fences, well houses, etc., *and* the location of the proposed project on a to-scale site plan prior to building permit issuance and/or project approval.

Due to the limited documentation on file for this parcel, a field clearance will be required to validate septic or well locations prior to site plan approval.

If the applicant is proposing a commercial cannabis operation and the operation will be constructing or utilizing an existing structure (i.e., processing facility) that will have plumbing for a restroom, sink, etc, that structure will be required to have its own OWTS, separate from any existing or new OWTS designed to service a residential structure.

If the applicant is proposing an OWTS, then applicant must apply for a site evaluation and, if the site is acceptable to support an OWTS, apply for a permit.

EH requires all applicants to provide a written declaration of the chemical names and quantities of any hazardous material to be used on site. As a general rule, if a material has a Safety Data Sheet, that material may be considered as part of the facilities hazardous materials declaration.

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

May 6, 2021 File No.: 20-2099

Mark Roberts, Senior Planner
City of Clearlake
14050 Olympic Drive
Clearlake, California 95422

re: UP 2021-23, UP 2021-24, UP 2021-25, UP 2021-26, UP 2021-27, UP 2021-28 / APN 010-044-210, 2160 Ogulin Canyon Road / Ogulin Hills Holdings, LLC c/o Brian Pensack

Dear Mark Roberts,

Records at this office were reviewed to determine if this project could adversely affect cultural resources. **Please note that use of the term cultural resources includes both archaeological sites and historical buildings and/or structures. The review for possible historic-era building/structures, however, was limited to references currently in our office and should not be considered comprehensive.**

Project Description: The applicant is requesting approval of the above use permits to allow the development of a commercial cannabis operation. Hours of Operation: Monday Through Saturday: 8:00AM to 5:00PM. Up to 35 employees. Up to +/- 4 managers. Proposed Structures: 33,600 SQFT cannabis processing, manufacturing, and distribution building. 5,000 SQFT office building that will also serve as the administrative center and the cannabis delivery and storage space. Five (5) Greenhouse – Each greenhouse will be 75' X 25' (1,875 SQFT Each) Proposed Parking: +/- 46 Parking Spaces.

Previous Studies:

XX This office has no record of any previous cultural resource field survey for the proposed project area conducted by a professional archaeologist or architectural historian *(see recommendation below)*.

Archaeological and Native American Resources Recommendations:

XX The proposed project area has the possibility of containing unrecorded archaeological site(s). A study by a qualified professional archaeologist is recommended prior to commencement of project activities.

XX We recommend that the lead agency contact the local Native American tribe(s) regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at (916) 373-3710.

____ The proposed project area has a low possibility of containing unrecorded archaeological site(s). Therefore, no further study for archaeological resources is recommended.

Built Environment Recommendations:

XX Since the Office of Historic Preservation has determined that any building or structure 45 years or older may be of historical value, if the project area contains such properties, it is recommended that prior to commencement of project activities, a qualified professional familiar with the architecture and history of Lake County conduct a formal CEQA evaluation.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

For your reference, a list of qualified professionals in California that meet the Secretary of the Interior's Standards can be found at http://www.chrisinfo.org. If archaeological resources are encountered during the project, work in the immediate vicinity of the finds should be halted until a qualified archaeologist has evaluated the situation. If you have any questions please give us a call (707) 588-8455.

Sincerely,

Bryan Much
Coordinator

From: Fahmy Attar
To: Mark Roberts
Cc: Doug Gearhart
Subject: Re: RFR - 2160 Ogulin Canyon road Cannabis Project
Date: Monday, June 7, 2021 11:42:19 AM
Importance: High

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Mark,

For a Cannabis operation site, here is a list of Air Quality requirements that may be applicable to the site:

1. Off-site odor impacts should be mitigated to minimize nuisance to nearby residences, property, and public roads.

2. Any manufacturing or delivery Cannabis operations must comply with LCAQMD rules and regulations. An application must be submitted. Contact LCAQMD for more details.

3. Any demolition or renovation is subject to the Federal National Emissions Standard for Hazardous Air Pollutants (NESHAP) for asbestos in buildings requires asbestos inspections by a Certified Asbestos Consultant for all major renovations and all demolition. An Asbestos Notification Form with the Asbestos inspection report must be submitted to the District at least 14 days prior to beginning any demolition work. The applicant must contact the District for more details and proper approvals. Regardless of asbestos content or reporting requirements all demolition and renovation activities should use adequate water/ amended water to prevent dust generation and nuisance conditions.

4. Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls.

5. If construction or site activities are conducted within Serpentine soils, a Serpentine Control Plan may be required. Any parcel with Serpentine soils must obtain proper approvals from LCAQMD prior to beginning any construction activities. Contact LCAQMD for more details.

6. All engines must notify LCAQMD prior to beginning construction activities and prior to engine Use. Mobile diesel equipment used for construction and/or maintenance must be in compliance with State registration requirements. All equipment units must meet Federal, State and local requirements. All equipment units must meet RICE NESHAP/NSPS requirements including proper maintenance to minimize airborne emissions and proper record-keeping of all activities, all units must meet the State Air Toxic Control Measures for CI engines, and must meet local regulations. Contact LCAQMD for more details.

7. Site development, vegetation disposal, and site operation shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation

be chipped and spread for ground cover and erosion control. Burning is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal.

8. Significant dust may be generated from increase vehicle traffic if driveways and parking areas are not adequately surfaced. Surfacing standards should be included as a requirement in the use permit to minimize dust impacts to the public, visitors, and road traffic. At a minimum, the District recommends chip seal as a temporary measure for primary access roads and parking. Paving with asphaltic concrete is preferred and should be required for long term occupancy. All areas subject to semi truck / trailer traffic should require asphaltic concrete paving or equivalent to prevent fugitive dust generation. Gravel surfacing may be adequate for low use driveways and overflow parking areas, however, gravel surfaces require more maintenance to achieve dust control, and permit conditions should require regular palliative treatment if gravel is utilized. White rock is not suitable for surfacing (and should be prohibited in the permit) because of its tendency to break down and create excessive dust. Grading and re-graveling roads should utilizing water trucks if necessary, reduce travel times through efficient time management and consolidating solid waste removal/supply deliveries, and speed limits.

Best Regards,

Fahmy Attar
Air Quality Engineer
Lake County Air Quality Management District
2617 S. Main Street, Lakeport, CA, 95453
fahmya@lcaqmd.net

On Apr 20, 2021, at 10:44 AM, Mark Roberts <mroberts@clearlake.ca.us> wrote:

Good Morning,

I hope you are well. This email is in regards to the proposed project/development located at 2160 Ogulin Canyon Road; Clearlake, CA 95422. The applicant is requesting approval of multiple use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following: **Please refer to attached packet, site plans and architectural plans for further details.** If you have any concerns and/or comments on the project, please submit them **no later than May 7th, 2021.** –

- Hours of Operation:
  - Monday Through Saturday: 8:00AM to 5:00PM.
  - Up to 35 employees
  - Up to +/- 4 managers

From: Andrew White
To: Mark Roberts
Subject: RE: RFR - 2160 Ogulin Canyon road Cannabis Project
Date: Wednesday, April 28, 2021 10:05:04 AM
Attachments: image001.png
image002.png
image003.png

Good Morning,

The Police Department opposes the application as presented for failing to demonstrate compliance with City Ordinances related to the proposed operation. Additionally, although the application seems to represent that a criminal history check has been completed and approved by me. I have not reviewed or approved any criminal history check with regards to this applicant.

The security plan, consisting of one sentence, is wholly inadequate and requires further review in the interest of public safety, health and welfare.

We look forward to the applicant submitting a complete application that sufficiently demonstrates compliance with the City Code. We are also open to meeting with the applicant to address any questions or concerns as they revise their submittal.

Thank you

Andrew White | *Chief of Police*
Clearlake Police Department
14050 Olympic Dr | Clearlake, CA 95422
(O) 707 994-8251 x301 | (C) 707 681-5688 | Dispatch: 707 994-8251

From: Mark Roberts <mroberts@clearlake.ca.us>
Sent: Tuesday, April 20, 2021 10:45 AM
Subject: RFR - 2160 Ogulin Canyon road Cannabis Project
Importance: High

Good Morning,

I hope you are well. This email is in regards to the proposed project/development located at 2160 Ogulin Canyon Road; Clearlake, CA 95422. The applicant is requesting approval of multiple use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following:

Please refer to attached packet, site plans and architectural plans for further details. If you have any concerns and/or comments on the project, please submit them **no later than May 7th, 2021.** –

- Hours of Operation:
  - Monday Through Saturday: 8:00AM to 5:00PM.
  - Up to 35 employees
  - Up to +/- 4 managers

- Proposed Structures:
  - 33,600 SQFT cannabis processing, manufacturing, and distribution building
  - 5,000 SQFT office building that will also serve as the administrative center and the cannabis delivery and storage space.
  - Five (5) Greenhouse – Each greenhouse will be 75' X 25' (1,875 SQFT Each)

-

- Proposed Parking:
  - +/- 46 Parking Spaces

If you have any questions and/or need additional information, please let me know.

Sincerely,

Mark Roberts | *Senior Planner*
City of Clearlake
14050 Olympic Drive | Clearlake, CA 95422
707-994-8201

From: Lori Baca
To: Mark Roberts
Subject: RE: RFR - 2160 Ogulin Canyon road Cannabis Project
Date: Wednesday, April 28, 2021 9:49:25 AM
Attachments: image003.png
image001.png

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mark,

Parcel 010-044-210 is outside of any Special Districts service area, no impact.

Have a wonderful day!

Lori A. Baca
Customer Service Coordinator
Lori.Baca@lakecountyca.gov
Office Number (707) 263-0119
Fax (707) 263-3836

From: Mark Roberts [mailto:mroberts@clearlake.ca.us]
Sent: Tuesday, April 20, 2021 10:45 AM
Subject: [SUSPICIOUS MESSAGE] RFR - 2160 Ogulin Canyon road Cannabis Project
Importance: High

This Message contains suspicious characteristics and has originated outside your organization. This message appears to be from an individual who works for the County, but does not come from a County address.

Good Morning,

I hope you are well. This email is in regards to the proposed project/development located at 2160 Ogulin Canyon Road; Clearlake, CA 95422. The applicant is requesting approval of multiple use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following: **Please refer to attached packet, site plans and architectural plans for**

From: kcwd@mchsi.com
To: Mark Roberts
Subject: Re: RFR - 2160 Ogulin Canyon road Cannabis Project
Date: Friday, April 23, 2021 9:48:03 AM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Konocti County Water District has no comments. This area is not in our district. Thank you, Frank.

----- Original Message -----
From: "Mark Roberts" <mroberts@clearlake.ca.us>
Sent: Tuesday, April 20, 2021 10:44:30 AM
Subject: RFR - 2160 Ogulin Canyon road Cannabis Project

Good Morning,

I hope you are well. This email is in regards to the proposed project/development located at 2160 Ogulin Canyon Road; Clearlake, CA 95422. The applicant is requesting approval of multiple use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following: Please refer to attached packet, site plans and architectural plans for further details. If you have any concerns and/or comments on the project, please submit them no later than May 7th, 2021.

· Hours of Operation:

o Monday Through Saturday: 8:00AM to 5:00PM.

o Up to 35 employees

o Up to +/- 4 managers

· Proposed Structures:

o 33,600 SQFT cannabis processing, manufacturing, and distribution building

o 5,000 SQFT office building that will also serve as the administrative center and the cannabis delivery and storage space.

o Five (5) Greenhouse - Each greenhouse will be 75' X 25' (1,875 SQFT Each)

· Proposed Parking:

o +/- 46 Parking Spaces

If you have any questions and/or need additional information, please let me know.

From: Mark Roberts
To: Gary Price
Subject: FW: RFR - 2160 Ogulin Canyon road Cannabis Project
Date: Tuesday, April 12, 2022 9:24:00 AM
Attachments: image003.png
image004.png
image006.png

Bureau of Cannabis Control Comments for 2160 Ogulin Canyon RD

From: BCCLocalGov@DCA <BCCLocalGov@dca.ca.gov>
Sent: Tuesday, April 20, 2021 11:45 AM
To: Mark Roberts <mroberts@clearlake.ca.us>
Subject: RE: RFR - 2160 Ogulin Canyon road Cannabis Project

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning,

This appears to be information related to an internal local process. The Bureau has no information to add to this.

Thank you,

Janet Zimmer
Local Liaison/Equity Manager
(916) 465-9057
www.bcc.ca.gov
https://cannabis.ca.gov

From: Mark Roberts <mroberts@clearlake.ca.us>
Sent: Tuesday, April 20, 2021 10:45 AM
Subject: RFR - 2160 Ogulin Canyon road Cannabis Project
Importance: High

[EXTERNAL]: mroberts@clearlake.ca.us

CAUTION: THIS EMAIL ORIGINATED OUTSIDE THE DEPARTMENT OF CONSUMER AFFAIRS!
DO NOT: click links or open attachments unless you know the content is safe.
NEVER: provide credentials on websites via a clicked link in an Email.

Good Morning,

I hope you are well. This email is in regards to the proposed project/development located at 2160 Ogulin Canyon Road; Clearlake, CA 95422. The applicant is requesting approval of multiple use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following: **Please refer to attached packet, site plans and architectural plans for further details.** If you have any concerns and/or comments on the project, please submit them **no later than May 7th, 2021. –**

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- Proposed Parking:
  - +/- 46 Parking Spaces

If you have any questions and/or need additional information, please let me know.

Sincerely,

Mark Roberts | *Senior Planner*
City of Clearlake
14050 Olympic Drive | Clearlake, CA 95422
707-994-8201

CALIFORNIA Water Boards

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

13 May 2022

Mark Roberts
City of Clearlake
14050 Olympic Drive
Clearlake, CA 95422
mroberts@clearlake.ca.us

COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, OGULIN HILLS HOLDINGS, LLC - COMMERCIAL CANNABIS OPERATION PROJECT, SCH#2022040072, LAKE COUNTY

Pursuant to the State Clearinghouse's 4 April 2022 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the Ogulin Hills Holdings, LLC - Commercial Cannabis Operation Project, located in Lake County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore, our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of

Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website: http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Cannabis General Order

Cannabis cultivation operations are required to obtain coverage under the State Water Resources Control Board's *General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities Order No. WQ 2017-0023-DWQ* (the Cannabis General Order). Cultivators that divert and store surface water (stream, lake, subterranean stream, etc.) to irrigate cannabis also need a valid water right.

The Water Boards Cannabis Cultivation Programs offer an easy-to-use online Portal for cultivators to apply for both Cannabis General Order coverage and a Cannabis Small Irrigation Use Registration (SIUR) water right, if needed. Visit the Water Boards Cannabis Cultivation Programs Portal at: https://public2.waterboards.ca.gov/CGO

Additional information about the Cannabis General Order, Cannabis SIUR Program, and Portal can be found at: www.waterboards.ca.gov/cannabis

For questions about the Cannabis General Order, please contact the Central Valley Water Board's Cannabis Permitting and Compliance Unit at: centralvalleysacramento@waterboards.ca.gov or (916) 464-3291. For questions about Water Rights (Cannabis SIUR), please contact the State Water Board's Division of Water Rights at: CannabisReg@waterboards.ca.gov or (916) 319-9427.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ. For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at:
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project

will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter Minkel

Peter Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

CALIFORNIA Water Boards

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

May 12, 2022

Clearlake, City of
Attn: Mark Roberts
14050 Olympic Drive
Clearlake, CA 95422

CITY OF CLEARLAKE (CITY), MITIGATED NEGATIVE DECLARATION (MND) FOR THE OGULIN HILLS HOLDINGS, LLC- COMMERCIAL CANNABIS OPERATION PROJECT (PROJECT); SCH # 2022040072

Dear Mr. Mark Roberts:

Thank you for the opportunity to review the Mitigated Negative Declaration for the proposed Project. The State Water Resources Control Board, Division of Drinking Water (State Water Board, DDW) is responsible for issuing water supply permits pursuant to the Safe Drinking Water Act. A project requires a permit if it includes water system consolidation or changes to a water supply source, storage, or treatment or a waiver or alternative from Waterworks Standards (California Code of Regulations (CCR) title 22, chapter 16 et. seq). The above referenced Project will require a new water supply permit.

<u>The State Water Board, DDW, as a responsible agency under CEQA, has the following comments on the City's draft MND:</u>

- The State Water Board regulates public water systems in Lake County. The Project will create a new public water system. On PDF page 5 under "23. Federal and State Agencies:" please list "State Water Resources Control Board, Division of Drinking Water".
- The Project will use an existing well that was drilled in late September/early October 2021 for domestic and irrigation water (PDF page 28). The water will be pumped from a 400+ gallon per minute well into a new 50,000-gallon elevated water tank for distribution (PDF page 28 & Appendix E). Will the water require treatment? Further describe any new water system infrastructure that will be installed as part of the Project.
- The document states on PDF page 38, that, "The project area to be developed is not located within the vicinity of known waterways nor is it located within a designated flood zone. Therefore, the risk of flooding/runoff, landslides, slope instability, or drainage changes would not be increased due to this project" (PDF page 38). However, there are several contradictory statements in the document:
    - "The report notes that a small riparian area is present on the subject parcel. Since Burns Valley Creek travels through the site and the creek will be impacted by the project, such as erosion, sedimentation, changes in drainage patterns." (PDF page 20)
    - "However, since improvements are being constructed within the creek wetlands located down-stream will be impacted." (PDF page 21)
    - "There will be modifications to the drainage pattern of Burns Valley Creek due to grading and introduction of parking improvements withing the Burns Valley

Creek. These proposed improvements within the Burns Valley Creek area could impact and alter the existing drainage pattern of the site or the area, including the alteration of the course of a stream." (PDF page 30)

- Project designs also show Burns Valley Creek runs through the Project site and the proposed driveway and parking area occur within Zone AE, a flood zone. (PDF page 4)

Please resolve the discrepancies in the document relating to potential impacts to waters of the state and discuss possible flooding impacts related to domestic water quality. Include best management practices and/or mitigation measures to reduce impacts to waters of the state as needed.

- The Project appears to have other water quality concerns that should be addressed. Please coordinate with the following contacts to address waste discharge water quality issues and the Project permitting requirements, before going to construction:

Division / Unit	Project Issues/ Concerns	Permit	Contact	Phone Number	Email
State Water Board, Division of Water Quality (DWQ), NPDES Industrial and Construction Stormwater Unit	Stormwater Construction Impacts for construction that disturbs greater than one acre of soil	General Stormwater NPDES permit	Brandon Roosenboom	(916) 341-5566	Brandon.Roosenboom@waterboards.ca.gov & stormwater@waterboards.ca.gov
Central Valley Regional Water Quality Control Board (Central Valley Water Board, Redding), Cannabis Regulation and State Water Board, DWQ	Discharge impacts for cannabis operations	Cannabis Cultivation Waste Discharge Permit	Janae Fried	(530) 224-3291	Janae.Fried@waterboards.ca.gov & CannabisWR@waterboards.ca.gov
Central Valley Water Board, Sacramento, Non-15 Permitting	Small domestic wastewater treatment systems over 10,000 gallons per day	General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems, WQO 2014-0153-DWQ	Lani Andam	(916) 464-4723	Lani.Andam@waterboards.ca.gov

Once the MND is adopted, please forward the following items in support of the new water system's permit application to the State Water Board, DDW Mendocino District Office at DWPDIST03@waterboards.ca.gov:

- Copy of the draft and final MND and Mitigation Monitoring and Reporting Plan (MMRP);
- Copy of any comment letters received and the lead agency responses as appropriate;
- Copy of the Resolution or Board Minutes adopting the MND and MMRP; and
- Copy of the stamped Notice of Determination filed at the Lake County Clerk's Office and the Governor's Office of Planning and Research, State Clearinghouse.

Please contact Lori Schmitz of the State Water Board at (916) 449-5285 or Lori.Schmitz@waterboards.ca.gov, if you have any questions regarding State Water Board CEQA comments.

Sincerely,

Lori Schmitz

Lori Schmitz
Environmental Scientist
Division of Financial Assistance
Special Project Review Unit
1001 I Street, 16th floor
Sacramento, CA 95814

Cc:

Office of Planning and Research, State Clearinghouse

Zachary Rounds
State Water Board, DDW
Mendocino District
District Engineer

Brandon Roosenboom
State Water Board, DWQ
NPDES Industrial and Construction Stormwater Unit
Water Resources Control Engineer

Landi Andam
Central Valley Regional Board, Sacramento
Non 15 Permitting
Water Resources Control Engineer

Janae Fried
Central Valley Regional Board, Redding
Cannabis Regulation
Engineering Geologist

COUNTY OF LAKE
Health Services Department
Environmental Health Division
922 Bevins Court
Lakeport, California 95453-9739
Telephone 707/263-1164
FAX 707/263-1681

Jonathan Portney
Health Services Director

Jennifer Baker
Deputy Health Services Director

Erik McLaughlin, MD, MPH
Public Health Officer

Craig Wetherbee
Environmental Health Director

MEMORANDUM

DATE: April 12, 2022

TO: Mark Roberts, Planner

FROM: Tina Dawn-Rubin, Environmental Health Aide

RE: Multiple Use Permits
Commercial Cannabis

APN: 010-044-21 2160 Ogulin Canyon Rd, Clearlake

Since the initial review completed on May 28, 2021 (see below) a field clearance was performed on September 9, 2021 and it was determined that a minor repair would be required to ensure the existing septic tank is water and vapor proof; septic abandonment permits (19157 D and 19158 D) was issued and final via photos completed on September 22, 2021 for buildings being removed and to abandon gray water system; a well permit (WE 5718 AG) for an AG well was issued September 28, 2021.

Initial Review dated May 28, 2021

Lake County Division of Environmental Health (EH) has on file for the subject parcel:
APN: 010-044-21 – a 1974 septic permit 3402-S designed to service a 3 bedroom residence. The permit also indicates there is a well on the property.

The applicant must meet the EH requirements regarding Onsite Wastewater Treatment System (OWTS) and potable water.

For any proposed building permits or projects where the parcel is serviced by an OWTS or well, the applicant may need to demonstrate the location of any proposed or existing structures including residential or commercial dwellings, garages, driveways, shed, barns, green houses, non-perimeter fences, well houses, etc., *and* the location of the proposed project on a to-scale site plan prior to building permit issuance and/or project approval.

Due to the limited documentation on file for this parcel, a field clearance will be required to validate septic or well locations prior to site plan approval.

If the applicant is proposing a commercial cannabis operation and the operation will be constructing or utilizing an existing structure (i.e., processing facility) that will have plumbing for a restroom, sink, etc, that structure will be required to have its own OWTS, separate from any existing or new OWTS designed to service a residential structure.

If the applicant is proposing an OWTS, then applicant must apply for a site evaluation and, if the site is acceptable to support an OWTS, apply for a permit.

EH requires all applicants to provide a written declaration of the chemical names and quantities of any hazardous material to be used on site. As a general rule, if a material has a Safety Data Sheet, that material may be considered as part of the facilities hazardous materials declaration.

Tina Rubin

From: Mark Roberts <mroberts@clearlake.ca.us>
Sent: Monday, April 4, 2022 2:14 PM
Subject: [SUSPICIOUS MESSAGE] Notice of Intent - 2160 Ogulin Canyon Rd (Cannabis Operation)
Attachments: image001_png was removed from this message; Final Draft CEQA for 2160 Ogulin Canyon -NOI Circulation_pdf was removed from this message; Attachment A - Project Description_pdf was removed from this message; Attachment B - Proposed Grading and Site Plans_pdf was removed from this message; Attachment C – Biological AssessmentReport_pdf was removed from this message; Attachment D - Agency Comments_pdf was removed from this message; Attachment E - Water Availabilty Report_pdf was removed from this message; Attachment F - Traffic Impact Report_pdf was removed from this message; Attachment G - Technical Memorandum – Ground Water Hydrology_pdf was removed from this message

Received
APR 0 4 2022
Environmental Health

Importance: High

This Message contains suspicious characteristics and has originated outside your organization. This message appears to be from an individual who works for the County, but does not come from a County address.

Good Afternoon,

Notice is hereby given that the City of Clearlake has tentatively determined that the project described below will not result in a significant adverse impact on the environment and that, in accordance with the California Environmental Quality Act, the City is prepared to issue a "mitigated negative declaration" in accordance with the California Environmental Quality Act (CEQA).

Project Summary: The proposed project includes development of industrial style structures to be used for cannabis related facilities including a 33,600 ft.² single story building and a 5,000 ft.² office building that will also serve as the administrative center/cannabis delivery and storage space. Five - 75' x 25' greenhouses for indoor cannabis cultivation will be developed. The amount of paved surface area will include 22,660 square feet of parking lot. Specific project uses are to include: 1. Cannabis cultivation/processing; 2. Cannabis manufacturing; 3. Cannabis distribution; 4. Cannabis nursery. For a detailed description of the project, please refer to the link below.

Project Location: 2160 Ogulin Canyon Road, Clearlake, CA 95422, Assessor Parcel Number (APN): 010-044-21.

This tentative determination is based on an environmental study that assesses the project's potential environmental impacts and those potential impacts have been reduced to less than significant levels with the incorporated mitigation measures. Anyone can review this study at Clearlake City Hall, 14050 Olympic Drive, Clearlake, CA 95901, during normal business hours or by downloading from the State Clearinghouse Website at: (I have also attached a Complete Initial Packet above for your convenience.

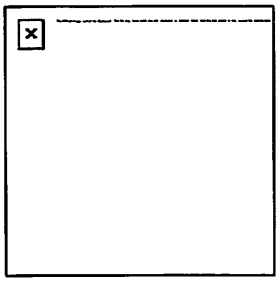
- https://ceqanet.opr.ca.gov/

Final environmental determinations are made by the decision-making body, which, in this case would be the City of Clearlake, Planning Commission. The public review period for this notice will remain open for a period of at least 30 days from the publication of this **Notice (04/07/2022), until (05/13/2022).** For more information, please call (707) 994-8201 during normal business hours of City Hall (Monday through Thursday – 8am to 5pm). During

this period written comments on the project and the proposed mitigated negative declaration may be addressed. You may also submit comments via email at mroberts@clearlake.ca.us **(Please Note: All comments must be received no later than May 13, 2022 by 5pm).**

City of Clearlake
Planning Department
Attn: Mark Roberts
14050 Olympic Drive
Clearlake, CA 95422

Published Date: April 4, 2022



Mark Roberts | *Senior Planner*
City of Clearlake
14050 Olympic Drive | Clearlake, CA 95422
707-994-8201

City of Clearlake
14050 Olympic Drive, Clearlake, California 95422
(707) 994-8201 Fax (707) 995-2653

RECEIVED
APR 2 0 2021
BY: EH

DISTRIBUTION DATE: April 20, 2020

REQUEST FOR REVIEW (RFR)

	CITY DEPARTMENTS		LOCAL AGENCIES		STATE/FEDERAL AGENCIES
@	*Building Dept*	@	*Air Quality Management*	@	*CalTrans*
@	*Code Enforcement*	@	*Assessor's/Recorders Office*		*BLM*
@	*Police Department*	@	*Environmental Health Dept.*		*CA Dept. of Fish & Wildlife*
@	*Public Works/Engineering.*		*Lakebed Management*		*Army Core of Eng.*
		@	*Lake County Special Districts*		*U.S Fish & Wildlife Serv.*
			Lake County Water Resources	@	*Sonoma State (NWIC)*
	OTHER AGENCIES		*Lake County Tax Collector*		*CHP*
@	*PG&E*		*Lake Transit*	@	*CA Dept. of Drinking Water*
			Lake Area Planning Council		*Cal Fire*
					ABC
			WATER DISTRICT		
			Golden State Water		**CANNABIS PROJECTS**
		@	*Konocti Water Co,*	@	*Cal Cannabis*
			Highlands Water Co.	@	*CA Dept. Public Health (Manufacturing)*
				@	*Bureau of Cannabis Control (retailers, distributors, 3rd party testing laboratories and microbusinesses)*

REQUEST: REQUEST: *Please review and comment on the enclosed application packet material for the proposed project below. Please return all comments by* ***May 7, 2020. Please email your comments to*** mroberts@clearlake.ca.us ***or mail them to the address listed in the letterhead above.***

APPLICATIONS:

- *UP 2021-23 – Cultivation*
- *UP 2021-24 – Manufacturing*
- *UP 2021-25 – Distribution*
- *UP 2021-26 – Processing*
- *UP 2021-27 – Retail Delivery*
- *UP 2021-28 – Nursery*

LOCATION(S): 2160 Ogulin Canyon Road; Clearlake, CA 95422

APPLICANT: Ogulin Hills Holdings, LLC c/o Brian Pensack

APN(s): 010-044-210-000

LAND USE DESIGNATION(S): Commercial

GENERAL PLAN DESINATION(S): Commercial

PROPOSAL: The applicant is requesting approval of the above use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following: **Please refer to attached packet, site plans and architectural plans for further details.**

- Hours of Operation:
  - Monday Through Saturday: 8:00AM to 5:00PM.
  - Up to 35 employees
  - Up to +/- 4 managers

- Proposed Structures:
  - 33,600 SQFT cannabis processing, manufacturing, and distribution building
  - 5,000 SQFT office building that will also serve as the administrative center and the cannabis delivery and storage space.
  - Five (5) Greenhouse – Each greenhouse will be 75' X 25' (1,875 SQFT Each)

- Proposed Parking:
  - +/- 46 Parking Spaces

COMMENTS:

See attached memorandum

NAME: Lina Rubin **DATE:** 5/28/21

COUNTY OF LAKE
Health Services Department
Environmental Health Division
922 Bevins Court
Lakeport, California 95453-9739
Telephone 707/263-1164
FAX 707/263-1681

Denise Pomeroy
Health Services Director

Gary Pace, MD, MPH
Health Officer

Craig Wetherbee
Environmental Health Director

MEMORANDUM

DATE: May 28, 2021

TO: Mark Roberts, Planner

FROM: Tina Dawn-Rubin, Environmental Health Aide

RE: Multiple Use Permits
Commercial Cannabis

APN: 010-044-21 2160 Ogulin Canyon Rd, Clearlake

Lake County Division of Environmental Health (EH) has on file for the subject parcel:
APN: 010-044-21 – a 1974 septic permit 3402-S designed to service a 3 bedroom residence. The permit also indicates there is a well on the property.

The applicant must meet the EH requirements regarding Onsite Wastewater Treatment System (OWTS) and potable water.

For any proposed building permits or projects where the parcel is serviced by an OWTS or well, the applicant may need to demonstrate the location of any proposed or existing structures including residential or commercial dwellings, garages, driveways, shed, barns, green houses, non-perimeter fences, well houses, etc., *and* the location of the proposed project on a to-scale site plan prior to building permit issuance and/or project approval.

Due to the limited documentation on file for this parcel, a field clearance will be required to validate septic or well locations prior to site plan approval.

If the applicant is proposing a commercial cannabis operation and the operation will be constructing or utilizing an existing structure (i.e., processing facility) that will have plumbing for a restroom, sink, etc, that structure will be required to have its own OWTS, separate from any existing or new OWTS designed to service a residential structure.

If the applicant is proposing an OWTS, then applicant must apply for a site evaluation and, if the site is acceptable to support an OWTS, apply for a permit.

EH requires all applicants to provide a written declaration of the chemical names and quantities of any hazardous material to be used on site. As a general rule, if a material has a Safety Data Sheet, that material may be considered as part of the facilities hazardous materials declaration.

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

May 6, 2021

File No.: 20-2099

Mark Roberts, Senior Planner
City of Clearlake
14050 Olympic Drive
Clearlake, California 95422

re: UP 2021-23, UP 2021-24, UP 2021-25, UP 2021-26, UP 2021-27, UP 2021-28 / APN 010-044-210, 2160 Ogulin Canyon Road / Ogulin Hills Holdings, LLC c/o Brian Pensack

Dear Mark Roberts,

Records at this office were reviewed to determine if this project could adversely affect cultural resources. **Please note that use of the term cultural resources includes both archaeological sites and historical buildings and/or structures. The review for possible historic-era building/structures, however, was limited to references currently in our office and should not be considered comprehensive.**

Project Description: The applicant is requesting approval of the above use permits to allow the development of a commercial cannabis operation. Hours of Operation: Monday Through Saturday: 8:00AM to 5:00PM. Up to 35 employees. Up to +/- 4 managers. Proposed Structures: 33,600 SQFT cannabis processing, manufacturing, and distribution building. 5,000 SQFT office building that will also serve as the administrative center and the cannabis delivery and storage space. Five (5) Greenhouse – Each greenhouse will be 75' X 25' (1,875 SQFT Each) Proposed Parking: +/- 46 Parking Spaces.

Previous Studies:

XX This office has no record of any previous cultural resource field survey for the proposed project area conducted by a professional archaeologist or architectural historian *(see recommendation below)*.

Archaeological and Native American Resources Recommendations:

XX The proposed project area has the possibility of containing unrecorded archaeological site(s). A study by a qualified professional archaeologist is recommended prior to commencement of project activities.

XX We recommend that the lead agency contact the local Native American tribe(s) regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at (916) 373-3710.

____ The proposed project area has a low possibility of containing unrecorded archaeological site(s). Therefore, no further study for archaeological resources is recommended.

Built Environment Recommendations:

XX Since the Office of Historic Preservation has determined that any building or structure 45 years or older may be of historical value, if the project area contains such properties, it is recommended that prior to commencement of project activities, a qualified professional familiar with the architecture and history of Lake County conduct a formal CEQA evaluation.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

For your reference, a list of qualified professionals in California that meet the Secretary of the Interior's Standards can be found at http://www.chrisinfo.org. If archaeological resources are encountered during the project, work in the immediate vicinity of the finds should be halted until a qualified archaeologist has evaluated the situation. If you have any questions please give us a call (707) 588-8455.

Sincerely,

Bryan Much
Coordinator

From: Fahmy Attar
To: Mark Roberts
Cc: Doug Gearhart
Subject: Re: RFR - 2160 Ogulin Canyon road Cannabis Project
Date: Monday, June 7, 2021 11:42:19 AM
Importance: High

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Mark,

For a Cannabis operation site, here is a list of Air Quality requirements that may be applicable to the site:

1. Off-site odor impacts should be mitigated to minimize nuisance to nearby residences, property, and public roads.

2. Any manufacturing or delivery Cannabis operations must comply with LCAQMD rules and regulations. An application must be submitted. Contact LCAQMD for more details.

3. Any demolition or renovation is subject to the Federal National Emissions Standard for Hazardous Air Pollutants (NESHAP) for asbestos in buildings requires asbestos inspections by a Certified Asbestos Consultant for all major renovations and all demolition. An Asbestos Notification Form with the Asbestos inspection report must be submitted to the District at least 14 days prior to beginning any demolition work. The applicant must contact the District for more details and proper approvals. Regardless of asbestos content or reporting requirements all demolition and renovation activities should use adequate water/ amended water to prevent dust generation and nuisance conditions.

4. Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls.

5. If construction or site activities are conducted within Serpentine soils, a Serpentine Control Plan may be required. Any parcel with Serpentine soils must obtain proper approvals from LCAQMD prior to beginning any construction activities. Contact LCAQMD for more details.

6. All engines must notify LCAQMD prior to beginning construction activities and prior to engine Use. Mobile diesel equipment used for construction and/or maintenance must be in compliance with State registration requirements. All equipment units must meet Federal, State and local requirements. All equipment units must meet RICE NESHAP/NSPS requirements including proper maintenance to minimize airborne emissions and proper record-keeping of all activities, all units must meet the State Air Toxic Control Measures for CI engines, and must meet local regulations. Contact LCAQMD for more details.

7. Site development, vegetation disposal, and site operation shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation

be chipped and spread for ground cover and erosion control. Burning is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal.

8. Significant dust may be generated from increase vehicle traffic if driveways and parking areas are not adequately surfaced. Surfacing standards should be included as a requirement in the use permit to minimize dust impacts to the public, visitors, and road traffic. At a minimum, the District recommends chip seal as a temporary measure for primary access roads and parking. Paving with asphaltic concrete is preferred and should be required for long term occupancy. All areas subject to semi truck / trailer traffic should require asphaltic concrete paving or equivalent to prevent fugitive dust generation. Gravel surfacing may be adequate for low use driveways and overflow parking areas, however, gravel surfaces require more maintenance to achieve dust control, and permit conditions should require regular palliative treatment if gravel is utilized. White rock is not suitable for surfacing (and should be prohibited in the permit) because of its tendency to break down and create excessive dust. Grading and re-graveling roads should utilizing water trucks if necessary, reduce travel times through efficient time management and consolidating solid waste removal/supply deliveries, and speed limits.

Best Regards,

Fahmy Attar
Air Quality Engineer
Lake County Air Quality Management District
2617 S. Main Street, Lakeport, CA, 95453
fahmya@lcaqmd.net

On Apr 20, 2021, at 10:44 AM, Mark Roberts <mroberts@clearlake.ca.us> wrote:

Good Morning,

I hope you are well. This email is in regards to the proposed project/development located at 2160 Ogulin Canyon Road; Clearlake, CA 95422. The applicant is requesting approval of multiple use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following: **Please refer to attached packet, site plans and architectural plans for further details.** If you have any concerns and/or comments on the project, please submit them **no later than May 7th, 2021.** –

- Hours of Operation:
  - Monday Through Saturday: 8:00AM to 5:00PM.
  - Up to 35 employees
  - Up to +/- 4 managers

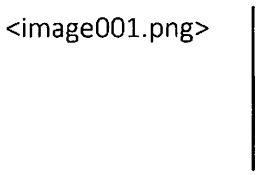
- Proposed Structures:
  - 33,600 SQFT cannabis processing, manufacturing, and distribution building
  - 5,000 SQFT office building that will also serve as the administrative center and the cannabis delivery and storage space.
  - Five (5) Greenhouse – Each greenhouse will be 75' X 25' (1,875 SQFT Each)

-

- Proposed Parking:
  - +/- 46 Parking Spaces

If you have any questions and/or need additional information, please let me know.

Sincerely,



Mark Roberts | *Senior Planner*
City of Clearlake
14050 Olympic Drive | Clearlake, CA 95422
707-994-8201

<RFR - All Agencies 2160 Ogulin Canyon RD.pdf>

From: Andrew White
To: Mark Roberts
Subject: RE: RFR - 2160 Ogulin Canyon road Cannabis Project
Date: Wednesday, April 28, 2021 10:05:04 AM
Attachments: image001.png
image002.png
image003.png

Good Morning,

The Police Department opposes the application as presented for failing to demonstrate compliance with City Ordinances related to the proposed operation. Additionally, although the application seems to represent that a criminal history check has been completed and approved by me. I have not reviewed or approved any criminal history check with regards to this applicant.

The security plan, consisting of one sentence, is wholly inadequate and requires further review in the interest of public safety, health and welfare.

We look forward to the applicant submitting a complete application that sufficiently demonstrates compliance with the City Code. We are also open to meeting with the applicant to address any questions or concerns as they revise their submittal.

Thank you

Andrew White | *Chief of Police*
Clearlake Police Department
14050 Olympic Dr | Clearlake, CA 95422
(O) 707 994-8251 x301 | (C) 707 681-5688 | Dispatch: 707 994-8251

From: Mark Roberts <mroberts@clearlake.ca.us>
Sent: Tuesday, April 20, 2021 10:45 AM
Subject: RFR - 2160 Ogulin Canyon road Cannabis Project
Importance: High

Good Morning,

I hope you are well. This email is in regards to the proposed project/development located at 2160 Ogulin Canyon Road; Clearlake, CA 95422. The applicant is requesting approval of multiple use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following:

Please refer to attached packet, site plans and architectural plans for further details. If you have any concerns and/or comments on the project, please submit them **no later than May 7th, 2021.** –

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-

- Proposed Parking:
  - +/- 46 Parking Spaces

If you have any questions and/or need additional information, please let me know.

Sincerely,

Mark Roberts | ***Senior Planner***
City of Clearlake
14050 Olympic Drive | Clearlake, CA 95422
707-994-8201

From: Lori Baca
To: Mark Roberts
Subject: RE: RFR - 2160 Ogulin Canyon road Cannabis Project
Date: Wednesday, April 28, 2021 9:49:25 AM
Attachments: image003.png
image001.png

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mark,

Parcel 010-044-210 is outside of any Special Districts service area, no impact.

Have a wonderful day!

Lori A. Baca
Customer Service Coordinator
Lori.Baca@lakecountyca.gov
Office Number (707) 263-0119
Fax (707) 263-3836

From: Mark Roberts [mailto:mroberts@clearlake.ca.us]
Sent: Tuesday, April 20, 2021 10:45 AM
Subject: [SUSPICIOUS MESSAGE] RFR - 2160 Ogulin Canyon road Cannabis Project
Importance: High

This Message contains suspicious characteristics and has originated outside your organization. This message appears to be from an individual who works for the County, but does not come from a County address.

Good Morning,

I hope you are well. This email is in regards to the proposed project/development located at 2160 Ogulin Canyon Road; Clearlake, CA 95422. The applicant is requesting approval of multiple use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following: **Please refer to attached packet, site plans and architectural plans for**

further details. If you have any concerns and/or comments on the project, please submit them **no later than May 7th, 2021.** –

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-

- Proposed Parking:
  - +/- 46 Parking Spaces

If you have any questions and/or need additional information, please let me know.

Sincerely,

Mark Roberts | *Senior Planner*
City of Clearlake
14050 Olympic Drive | Clearlake, CA 95422
707-994-8201

From: kcwd@mchsi.com
To: Mark Roberts
Subject: Re: RFR - 2160 Ogulin Canyon road Cannabis Project
Date: Friday, April 23, 2021 9:48:03 AM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Konocti County Water District has no comments. This area is not in our district. Thank you, Frank.

----- Original Message -----
From: "Mark Roberts" <mroberts@clearlake.ca.us>
Sent: Tuesday, April 20, 2021 10:44:30 AM
Subject: RFR - 2160 Ogulin Canyon road Cannabis Project

Good Morning,

I hope you are well. This email is in regards to the proposed project/development located at 2160 Ogulin Canyon Road; Clearlake, CA 95422. The applicant is requesting approval of multiple use permits to allow the development of a commercial cannabis operation. According to the application packet, the project includes but is not limited to the following: Please refer to attached packet, site plans and architectural plans for further details. If you have any concerns and/or comments on the project, please submit them no later than May 7th, 2021.

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o Five (5) Greenhouse - Each greenhouse will be 75' X 25' (1,875 SQFT Each)

- Proposed Parking:

o +/- 46 Parking Spaces

If you have any questions and/or need additional information, please let me know.

Sincerely,

[cid:image001.png@01D735CE.BED42BF0]
Mark Roberts | Senior Planner
City of Clearlake
14050 Olympic Drive | Clearlake, CA 95422
707-994-8201

RECORDING REQUESTED BY AND WHEN RECORDED MAILTO:

City of Clearlake
14050 Olympic Dr.
Clearlake, CA 95422
Attention: City Clerk

SPACE ABOVE THIS LINE FOR RECORDER'S USE

Recording Fee Exempt per Government Code §27383

DEVELOPMENT AGREEMENT

THIS DEVELOPMENT AGREEMENT (this "Agreement") is made and entered into this **13th day of December 2022** (the "Execution Date"), by and between the **CITY OF CLEARLAKE, a California municipal corporation** ("City") and **Brian Pensack, Manager Ogulin Hills Estates, LLC** ("Owner"). City and Owner are sometimes referenced together herein as the "Parties." In instances when a provision hereof applies to each of the Parties individually, either may be referenced as a "Party."The Parties hereby jointly render the following statement as to the background facts andcircumstances underlying this Agreement.

RECITALS

A. The State of California enacted California Government Code Sections 65864 *et seq*. ("Development Agreement Statutes") to authorize municipalities to enter into developmentagreements with those having an interest in real property to strengthen the public planning process, encourage private participation in comprehensive planning, and reduce the economic risk of development in connection with the development of real property within their jurisdiction.

B. The purpose of the Development Agreement Statutes is to authorize municipalities, in their discretion, to establish certain development rights in real property for a period of years regardless of intervening changes in land use regulations, to vest certain rights in thedeveloper, and to meet certain public purposes of the local government.

C. Owner owns an approximately +/- 9.56 acres acre property at 2160 Ogulin Canyon Road, Clearlake, CA, Assessor's Parcel No. 010-044-21-000 and proposes development and operation of cannabis Processing – No Cultivation and/or Nursery Activities will occur onsite); manufacturing, distribution, and retail delivery with development of related facilities as described in more detail per development applications submitted to the City of Clearlake, on file with the City of Clearlake Community Development Department.

D. Owner intends to operate a cannabis facility and operation. All such cannabis facilities shall operate in accordance with the California State Compassionate Use Act (Health & Safety Code § 11362.5) ("CUA"), the Medical Marijuana Program Act (Health & Safety Code §§ 11362.7 etseq.) ("MMPA"), and the 2008 Guidelines for the Security and Non-Diversion of Marijuana Grown for Medical Use issued by the California Attorney General (the "AG Guidelines"), and Senate Bill 94, the Medicinal and Adult Use of Cannabis Regulation and Safety Act ("MAUCRSA"), creating a unified regulatory structure for adult use and medical cannabis, andall regulations promulgated by the responsible state agencies to implement MAUCRSA(collectively the "California Cannabis Laws"). Prior to operating a cannabis facility, Owner shall be required to obtain use and cannabis business regulatory permits from the City for thefacility and operations.

E. Ultimately, Owner intends to obtain state licenses issued pursuant to MAUCRSA to operate cannabis facilities at the Site, once such licenses are being issued.

F. Owners presently intend to develop and open a cannabis operation on the Site consistent with the California Cannabis Laws and Project Approvals (known as the "Project").

G. Owner applied to City for a development agreement and will subsequently need to obtain special use permits and regulatory permits for the Project. This Agreement, and the special use and regulatory permits, when and if issued by the City, shall collectively be referred to as"Project Approvals".

H. The Project will maintain inventory of cannabis and cannabis products under the California Cannabis Laws.

I. The City adopted a Zoning Ordinance permitting Cannabis Delivery OnlyDispensaries and Cannabis Businesses (as those terms are defined in the applicable city ordinances) in strict compliance with the applicable California Cannabis Laws regulating delivery only dispensaries and cannabis cultivation, manufacturing, processing, and distribution under certain conditions and provisions.

J. City and Owner have agreed that, as a condition of allowing the Project, as defined herein, and due to the unique circumstances of the proposed Project, Owner shall pay to the City a semi-annual fee based on the gross revenue of the operations, and an annual Facility Fee, ashereinafter defined, which fees shall abate if and when the City adopts a tax on Cannabis Delivery Only Dispensaries and Cannabis Businesses.

K. All procedures of the California Environmental Quality Act ("CEQA"), California Public Resources Code §21000 *et seq*., and the CEQA guidelines, title 14 of the California Code of Regulations, chapter 3, §15000 *et seq.* have been satisfied as the project is categorically exempt under CEQA guidelines sec. 15301, for modification of existing facilities.

L. City has given public notice of its intention to adopt this Agreement and has conducted publichearings thereon pursuant to California Government Code §65867. City has found that the provisions of this Agreement and its purposes are consistent with the objectives, policies, general land uses and programs specified in City's General Plan, zoning code and municipal ordinances.

M. City, in entering into this Agreement, acknowledges that certain City obligations hereby assumed shall survive beyond the terms of the present Council members, that this Agreementwill serve to bind City and future Councils to the obligations hereby undertaken, and that thisAgreement shall limit the future exercise of certain governmental and proprietary powers of City. By approving this Agreement, the Council has elected to exercise certain governmentalpowers at the time of entering into this Agreement rather than defer its actions to some undetermined future date. The terms and conditions of this Agreement have undergone extensive review by City and the Council and have been found to be fair, just and reasonable.City has concluded that the pursuit of the Project will serve the best interests of its citizens and that the public health, safety and welfare are best served by entering into this obligation.Owner has represented to City that it would not consider or engage in the Project absent Cityapproving this Agreement; *i.e.*, assuring Owner that it will enjoy the development rights.

N. The City agrees that Owner's land use entitlements for the Project shall vest for the term of this Agreement as described below.

O. After conducting a duly noticed hearing on **December 13th, 2022,** in conjunction with certain amendments and additions to the City's Municipal Code, the Planning Commission of the City reviewed, considered and approved the Project and recommended approval of the executionof this Agreement to the City Council. The Planning Commission found the Project: consistentwith the objectives, policies, general land uses and programs specified in the general plan; compatible with the uses authorized zoning code; is in conformity with the public necessity, public convenience, general welfare and good land use practices; will not be detrimental to the health, safety and general welfare of the city; will not adversely affect the orderly development of property or the preservation of property values; and will have a positive fiscalimpact on the City.

P. After conducting a duly noticed hearing on **December 13th, 2022**, in conjunction with amendmentsand additions to the City's Municipal Code creating an allowable use, appropriate zoning, andcomprehensive regulations for the proposed use, and after independent review and consideration, the City Council approved the execution of this Agreement. The City Council found the Project: consistent with the objectives, policies, general land uses and programs specified in the general plan; compatible with the uses authorized in the zoning code; is in conformity with good land use practices; will not be detrimental to the health, safety and general welfare of the City; and is in the best interest of the City of Clearlake and its residents.

NOW, THEREFORE, in consideration of the mutual covenants and agreements containedherein, and other good and valuable consideration, the receipt and legal sufficiency of which arehereby acknowledged, the Parties do hereby agree as follows:

AGREEMENT

1. Binding Effect of Agreement. The Parties agree that the Recitals above are true and correct and intend to be bound by same; the Parties further agree to the incorporation by reference herein of said Recitals, together with all definitions provided and exhibits referenced therein. This Agreement pertains to the Site as described in **Exhibit A (Legal Description)** and shown in **Exhibit B (Site Map)** and incorporates by reference all Development Approvals approved by the City for the Site. Except as otherwise provided in Section 15 of this Agreement,the burdens of this Agreement are binding upon, and the benefits of this Agreement inure to, allsuccessors-in-interest of the Parties and constitute covenants which run with the Site. In order to provide continued notice thereof, the Parties will record this Agreement with the Lake CountyRecorder. The word "Owner" as previously defined and used herein shall include successor owners, apart from government or quasi-public agencies, of any portion of the Site. Should the size or orientation of any Site component specified above be changed in minor respects, *e.g.*, changed by a lot line adjustment, this Agreement shall not thereby be deemed to have been affected or invalidated, but the rights and obligations of the Parties and their successors shall remain as provided herein.

2. Relationship of the Parties. It is hereby specifically understood and acknowledgedthat the Project is a private project and that neither City nor Owners will be deemed to be the agent of the other for any purpose whatsoever. City and Owners hereby renounce the existenceof any form of joint venture or partnership between or among them and agree that nothing contained herein or in any document executed in connection herewith shall be construed as making City and Owners joint ventures or partners.

3. Term. Except as otherwise specified herein, the term of this Agreement (the "Term") is 3 years from the date the Owner begins commercial operation at the Project Site ("Operation Date"). The Operation Date shall be no later than 12 months following the ExecutionDate. The Term shall generally be subject to earlier termination or extension as hereinafter provided.

3.1 Term Extension – Third Party Issues. Notwithstanding the Parties' expectation that there will be no limit or moratorium upon the Project's development or the issuance of building or other development related permits (a "Development Limitation") during the Term, the Parties understand and agree that various third parties may take action causing a *de facto* Development Limitation. Consequently, the Term shall be extended for any delay arising from or related to any of the potential Development Limitations that follow in the subsections below for a time equal to the duration of that delay occurring during the Term. No DevelopmentLimitation may arise or result from an action or omission by Owner.

3.1.1 Litigation. Any third party-initiatedlitigation that arises from or is related to any City action or omission with respect to this Agreement or any subsequent City approval required in connection with the Project's development, or third party- initiated litigation having the actual effect of delaying the Project's development. Thisextension period related hereto shall include any time during which appeals maybe filed or are pending.

3.1.2 Government Agencies. Any delay arising from or related to the act(s) or omission(s) any third-party governmental agency, quasi-public entity or public utility,and beyond the reasonable control of Owner.

3.1.3 *Force Majeure*. Any delay resulting from riot, war, acts of terrorism, an event during the Term creating radioactive or toxic/hazardous contamination, a catastrophic earthquake, flood, fire or otherphysical natural disaster, excluding weatherconditions regardless of severity, strikes or industrial disputes at national level effecting development involved personnel not employed by Owner, their subcontractors or suppliers and effecting anessential portion of the Project's development, excluding any industrial dispute that is specific to development taking place as a part of the Project.

3.2 Term Extensions. The Term of this Agreement will be extended for seven additional years upon a determination of the City Council, by way of resolution of the City Councilacted on at a regularly scheduled meeting, that both of the conditions listed in subparts 3.2.1 and

3.2.2 below have been fully satisfied are the Owner is in full compliance:

3.2.1. No Default by Owner. Owner shall not be in default with respect to any provision of this Agreement or any subsequent agreement or understanding between theParties arising from or related to this Agreement, having received notice from City of said defaultper this Agreement, or if Owner did in fact default as to this Agreement, upon notice from City, that Owner did cure said default during the period to cure provided herein to City's satisfaction.

3.2.2 Finding of Community Compatibility. The City Council shall reviewthe operations of Owner prior to granting an extension of the term of this Agreement and makea finding that the Project, notwithstanding that the Project activities may not be in precise technical compliance with the issued regulatory permit and special use permit, continue to be compatible with surrounding land uses and are not detrimental to the public health, safety and general welfare.

3.2.3. Mutual Agreement of Parties. In addition to the process listed above for a seven-year term extension, this Agreement's Term may be extended by mutualagreement of the Parties and formal amendment of this Agreement.

3.3 Termination of Agreement. Upon the termination of this Agreement, either by expiration or otherwise, Owner shall have no right to engage in the Projectactivities at the Project Site, except as may otherwise be allowed by City ordinance, law or separate development agreement.

4. Defined Terms. As used in this Agreement, the following terms shall have themeanings hereinafter set forth:

4.1. Certified Report. "Certified Report" shall mean a detailed documentprepared by Owner on a form acceptable to the City's Director of Finance to report to the City thegross receipts of the Project's operations and sales, as defined herein, in the Project during each semi-annual period starting January 1 and July 1 of each calendar year. Each Certified Report shallbe certified as true and correct by a duly-authorized officer of Owner.

4.2. Development Approvals. "Development Approvals" means the land use entitlements approved by the City for the development of site improvements and buildings on theSite which define the permitted uses of the property, the density or intensity of use, and the maximum height and size of proposed buildings.

4.3. Production Fee. "Production Fee" shall mean a semi-annual fee remitted to the City by Owner based on the Gross Receipts of its Project operations, as defined below, in the amount of 5% of gross sales from operations.

4.4. Certification of Non-Income Tax Exemption. Owner certifies that Owner is not income tax exempt under State or Federal Law and that Owner will not file for such an exemption from the Internal Revenue Service or the Franchise Tax Board.

4.5. Facility Fee. Facility Fee shall mean an annual fee remitted to the City by Owner in the amount of $2 per gross square foot of the entire Project facility. The Facility Fee shallbe paid annually, starting July 1st of each year. A late fee of 5% of the amount due shall be added to any payment 5 days past due. Fees later than 30 days

past due will constitute a breach subjectto Section 20 of this agreement.

4.6. Semi-Annual Production Fee. The semi-annual Production Fee will be due no later than July 30th for the preceding period of January 1st through June 30th and no later than January 31st for the preceding period of July 1st through December 31st. A late fee of 5% of the amount due shall be added to any payment 30 days past due.

4.7. "Land Use Regulations" shall mean all ordinances, resolutions, codes,rules, regulations and official policies of the City governing the development and use of land, including, without limitation, the permitted use of land, the density or intensity of use, subdivisionrequirements, timing and phasing of development, the maximum height and size of buildings, theprovisions for reservation or dedication of land for public purposes, and the design, improvementand construction and initial occupancy standards and specifications applicable to the Project. "Land Use Regulations" do not include any City ordinance, resolution, code, rule, regulation or official policy governing:

4.7.1. The conduct or taxation of businesses, professions, and occupations applicable to all businesses, professions, and occupations in the City;

4.7.2. Other than as provided in this Agreement, taxes and assessments of general application upon all residents of the City, provided that the taxes andassessments are not imposed for the purpose of taxing the right, power or privilege of developing or improving land (e.g., excise tax) or to directly finance the acquisition or dedication of open space or any other public improvement in respect of which the Developeris paying any fee or providing any improvement pursuant to this Agreement;

4.7.3. The control and abatement of nuisances;

4.7.4. The granting of encroachment permits and the conveyanceof rights and interests which provides for the use of, access to or the entry upon public property, as may be approved by mutual agreement between Developer and City; and

4.7.5. The exercise of the power of eminent domain.

4.8. "Existing Land Use Regulations" means all Land Use Regulations in effect as of the approval date of this Agreement, including the Project Approvals.

4.9. "Gross Receipts" means 5% (five percent) for 1) wholesale and retail salesof cannabis products by Owner to third parties.

5. Fee Payments by Owner. In consideration of City's entering into this Agreement and authorizing the development and operation of the Project, the requirements for City servicescreated by the Project, the City insuring Owner's compliance with this Agreement, California Cannabis Laws and the City's municipal ordinances, throughout the Term of this Agreement, Owner shall make the following payments to City:

5.1. Production Fee Payments by Owner. Semi-annual payments of the Production Fee by Owner to the City as specified in Section 7 herein. The obligations of Owner under this Section shall survive the expiration or any earlier termination, as applicable, of this Agreement, but the Production Fee under this Agreement shall cease if any City-wide tax is imposed specifically on Cannabis cultivation.

5.2. Facility Fee Payments by Owner. Annual payments of the Facility Fee by Owner to the City. The obligations of Owner under this Section shall survive the expiration or anyearlier termination of this Agreement, but the Facility Fee shall cease if any City-wide tax is imposed specifically on Cannabis cultivation.

5.3. Sales Tax Point of Sale. Owner agrees that Clearlake will be designated as the point of sale for all operations, as allowed by law.

6. Community Participation. Owner agrees to participate in the community as agood corporate citizen and sponsor events and organizations that improve the community.

6.1. Clearlake Chamber of Commerce. Owner agrees to immediately apply formembership in the Clear Lake Chamber of Commerce and, if accepted, maintain an annual membership in good standing.

7. Payment Procedures. The following payment procedures shall apply during theoperation of the Project:

7.1. Remittance of Production Fee/Certified Reports. Within thirty (30) calendar days following the end of each semi-annual period during the Term of this Agreement, Owner shall submit the Certified Report to the City's Finance Director and a payment for the Production Fee for that Operational Period as identified in the Certified Report. Owner shall pay Production Fees to the City on a semi-annual basis without exception. Any material misstatementor misrepresentation in the Certified Report and any failure to pay Production Fees when due shallconstitute events of default by Owner subject to the default provisions of this Agreement.

7.2. Maintenance of Records. Owner shall maintain complete records of theiroperations to substantiate and document the content of each Certified Report. Such records shallinclude, without limitation, invoices and payments taken by Tenants and/or any operator of the facility. Owner shall maintain such records in a form and location reasonably accessible to the City, following reasonable notice to Owner and/or any operator, for a period of at least five (5) calendar years following Owner's submission of the Certified Report to which the records apply.

7.3. Audit. Within ninety (90) calendar days following the end of each semi- annual payment term, the City may conduct an audit or arrange for a third-party independent audit, at Owner' expense, of Owner records regarding Certified Reports and the Production Fees.The City's Finance Director shall provide at least seven (7) business days written notice of the commencement of such audit to Owner, and shall reasonably attempt to schedule the audit so asto reduce the impact on Tenants' operations as much as is feasible. Owner shall cooperate with the City in completing the audit. If the audit reveals that Owner has underpaid the Production Fee, Owner shall pay such underpaid amounts to the City within thirty (30) calendar days of receiptof written notice from the City's Director of Finance in addition to all costs of the audit, including city staff time and outside consultants. If the audit reveals that the Owner has overpaid any amount of the Production Fee, City shall provide written notification to Owner and shall credit such amount against Owner's subsequent semi-annual payment of Production Fees.

8. Covenants of Owner. During the Term of this Agreement, Owner herebycovenants and agrees with the City as follows:

8.1. Implementation. Owner shall use commercial reasonable efforts to pursue the implementation of the Project as expeditiously as feasible, in the form approved by the City, subject to all applicable laws, this Agreement, the Project Approvals and the Municipal Code.

8.2. Enhanced Design Requirement. Owner shall submit a design plan for the building and site, for review and approval by the Planning Director, which shall incorporate at a minimum upgraded fencing and landscaping improvements consistent with the Community Character and Design Policies in the City's General Plan.

8.3. Maintain & Operate Project. Owner shall maintain and operate the Projecton the Site throughout the Term of this Agreement, in accordance with the Project Approvals andall City, and State laws.

8.4. Hold Harmless. Owner shall defend (with counsel reasonably acceptable toCity), indemnify and hold City and its councilpersons, officers, attorneys, agents, contractors, and employees (collectively, the "Indemnified Parties") harmless from and against all losses, costs andexpenses (including, without limitation, reasonable attorneys' fees and costs), damages (including,without limitation, consequential damages), claims and liabilities arising from the Project, this Agreement, the approval of the Project, and the activities of Owner, their members, officers, employees, agents, contractors, invitees and any third parties on the Site, from and against any challenges to the validity of this Agreement or other Project Approvals. The obligations of Ownerunder this Section shall survive the expiration or any earlier termination, as applicable, of this Agreement.

9. Covenants of City. During the Term of this Agreement, City hereby covenants andagrees with Owner as follows:

9.1. Expeditious Services. City shall process applications and address questionsand concerns raised by Owner representatives at the "counter" at City Hall as expeditiously as reasonably possible. Upon Owner's request, or if, in an exercise of City's own discretion, City staffdetermines that it cannot comply with this section, City shall expeditiously engage the services ofprivate contract planners, plan checkers or inspectors ("Private Contractors") to perform such services as may be necessary to assist in processing the project plans as described herein.Compensation of such Private Contractors shall be at Owner's sole cost and expense, inclusive of any administrative cost to City of integrating services by Private Contractors into the project's development processing. Owner shall pay such costs and expenses of Private Contractors via reimbursement to City, per City's applicable policies and procedures. City shall have absolute discretion in the selection of such Private Contractors.

9.2 Vested Rights. During the Term of this Agreement, Owner shall have the vested right and entitlement to develop and operate the Project in accordance with theExisting Land Use Ordinances, in addition to any Cannabis Cultivation Operating Standards adopted by the City Council, which may be amended at the City's discretion. Parties acknowledgethat neither the City nor the Owner can at this time predict when or the rate at which or the order in which parts of the Project will be developed. Owner shall have the vested right to develop the Project in such order and at such rate and at such times as Owner deems appropriatein the exercise of its business judgment, provided that Owner is in compliance with the Project Approvals.

9.3 Building Permits and Other Approvals and Permits. Subject to (a) Owner's compliance with this Agreement, the Project Approvals the Existing Land Use Ordinances, the Building Ordinances, and Operating Standards; and (b) payment of the usual andcustomary fees and charges of general application charged for the processing of such applications, permits and certificates and for any utility connection, or similar fees and charges of general application, the City shall process and issue to Owner promptly upon application therefore all necessary use permits, building permits, occupancy certificates, regulatory permits,licenses and other required permits for the construction, use and occupancy of the Project, or any portion thereof, as applied for, including connection to all utility systems under the City's jurisdiction and control (to the extent that such connections are physically feasible and that suchutility systems are capable of adequately servicing the Project).

9.4 Procedures and Standards. The standards for granting or withholding permits or approvals required hereunder in connection with the development of the Project shallbe governed as provided herein by the standards, terms and conditions of this Agreement and the Project Approvals, and to the extent not inconsistent therewith, the Existing Land Use Ordinances, but the procedures for processing applications for such permits or approvals (including the usual and customary fees of general application charged for such processing) shall be governed by such ordinances and regulations as may then be applicable.

10. Effect of Agreement.

10.1 Grant of Right. This Agreement shall constitute a part of the Enacting Ordinance, as if incorporated by reference therein in full. The Parties acknowledge that this Agreement grants to Owner the right and entitlement to develop the Project and use the land pursuant to specified and known criteria and rules as set forth in the Project Approvals and Existing Land Use Ordinances, and to grant the City and the residents of the City certain benefitswhich they otherwise would not receive.

10.2 Binding on City/Vested Right of Owner. This Agreement shall be binding upon the City and its successors in accordance with and subject to its terms andconditions notwithstanding any subsequent action of the City, whether taken by ordinance or resolution of the City Council, by referenda, initiative, or otherwise. The Parties acknowledge and agree that by entering into this Agreement and relying thereupon, the Owner has obtained,subject to the terms and conditions of this Agreement, a vested right to proceed with its development of the Project as set forth in the Project Approvals and the Existing Land Use Ordinances, and the timing provisions of Section 3, and the City has entered into this in order tosecure the public benefits conferred upon it hereunder which are essential to alleviate current and potential problems in the City and to protect the public health, safety and welfare of the Cityand its residents, and this Agreement is an essential element in the achievement of those goals.

10.3 Future Conflicting Local Laws. If any City law, including ordinances,resolutions, rules, regulations, standards, policies, conditions and specifications (collectively "CityLaws") are enacted or imposed by a citizen-sponsored initiative or referendum, or by the City Council directly or indirectly in connection with any

proposed initiative or referendum, which CityLaw would conflict with this Agreement, such City Law shall not apply to the Project Site or Project. The Parties, however, acknowledge that the City's approval of this Agreement and the City Approvals are legislative actions subject to referendum.

10.3.1 Without limiting the generality of the foregoing, nomoratorium or other limitation whether relating to the rate, timing, phasing or sequencing of development affecting subdivision maps, building permits, or other Subsequent Approvals shall apply to the Project. Owner agrees and understands that the City does not have authority or jurisdiction over another public agency's authority to grant a moratorium or to impose any otherlimitation that may affect the Project.

11. Specific Criteria Applicable to Development of the Project.

11.1 Applicable Ordinances. Except as set forth in the Project Approvalsand subject to the provisions of Section 10.2 below, the Existing Land Use Ordinances shall governthe development of the Site hereunder and the granting or withholding of all permits orapprovals required to develop the Site; provided, however, that (a) Owner shall be subject to allchanges in processing, inspection and plan-check fees and charges imposed by City in connectionwith the processing of applications for development and construction upon the Site so long as such fees and charges are of general application and are not imposed solely with respect to the Project Site, (b) Owner shall abide by the Building Ordinances in effect at the time of such applications, (c) Development Impact Fees to be paid by Owner shall be those in effect at the time permits are issued subject to those fees, and (d) development shall be consistent with current Operating Standards.

11.2 Amendment to Applicable Ordinances. Any change to the ExistingLand Use Ordinances that conflicts with the Project Approvals shall nonetheless apply to the Project if, and only if (i) it is consented to in writing by Owner in Owner's sole and absolute discretion; (ii) it is determined by City and evidenced through findings adopted by the City Councilthat the change or provision is reasonably required in order to prevent a condition dangerous tothe public health or safety; (iii) it is required by changes in State or Federal law; (iv) it consists ofchanges in, or new fees permitted by, Section 4.1;or (v) it is otherwise expressly permitted by this Agreement. The Parties anticipate that the City shall subsequently adopt Operating Standards that govern this type of use, which Regulations, and any amendments thereto, shall apply to the Project.

11.3 Applicability of Zoning Amendments. In the event that the City zoning ordinance is amended by the City in a manner which provides more favorable site development standards for the Project Site or any part thereof than those in effect as of the Effective Date, Owner shall have the right to notify the City in writing of its desire to be subject to all or any such new standards for the remaining term of this Agreement. If City agrees, by resolution of the City Council, such new standards shall become applicable to the Project. ShouldCity thereafter amend such new standards, upon the effective date of such amendment, the original new standards shall continue to apply to the Project as provided above, but Owner maynotify City in writing of its desire to be subject to all or any such amended new standards and Cityshall agree in the manner above provided to apply such amended new standards to the Project.

12. Permitted Delays, Supersedure by Subsequent Laws.

12.1 Permitted Delays. In addition to any other provisions of this Agreement with respect to delay, Owner and City shall be excused from performance of their obligations hereunder during any period of delay caused by acts of mother nature, civil commotion, riots, strikes, picketing, or other labor disputes, shortage of materials or supplies, ordamage to or prevention of work in process by reason of fire, floods, earthquake, or other casualties, litigation, acts or neglect of the other party, any referendum elections held on the Enacting Ordinance, or the Land Use Ordinances, or any other ordinance effecting the Project orthe approvals, permits or other entitlements related thereto, or restrictions imposed or mandated by governmental or quasi-governmental entities, enactment of conflicting provisions of the Constitution or laws of the United States of America or the State of California or any codes, statutes, regulations or executive mandates promulgated thereunder (collectively, "Laws"), orders of courts of competent jurisdiction, or any other cause similar or dissimilar to theforegoing beyond the reasonable control of City or Owner, as applicable. Each Party shall promptly notify the other Party of any delay hereunder as soon as possible

after the same has been ascertained. The time of performance of such obligations shall be extended by the period of any delay hereunder.

12.2 Supersedure of Subsequent Laws or Judicial Action.

12.2.1 The provisions of this Agreement shall, to the extent feasible, be modified or suspended as may be necessary to comply with any new Law or decisionissued by a court of competent jurisdiction (a "Decision"), enacted or made after the Effective Date which prevents or precludes compliance with one or more provisions of this Agreement. Promptly after enactment of any such new Law, or issuance of such Decision, the Parties shall meet and confer in good faith to determine the feasibility of any such modification or suspensionbased on the effect such modification or suspension would have on the purposes and intent of this Agreement. In addition, Owner and City shall have the right to challenge the new Law or theDecision preventing compliance with the terms of this Agreement. In the event that such challenge is successful, this Agreement shall remain unmodified and in full force and effect, except that the Term shall be extended, in accordance with Section 2.1 above, for a period of time equal to the length of time the challenge was pursued, to extent such challenge delayed theimplementation of the project.

13. Operating Memoranda. The provisions of this Agreement require a close degree of cooperation between the City and the Owner. It is anticipated due to the term of thisAgreement that refinements to the approvals may be appropriate with respect to the details of performance of the City and the Owner. To the extent allowable by law, the Owner shall retain a certain degree of flexibility as provided herein with respect to all matters, items and provisionscovered in general under this Agreement. When and if the Owner finds it necessary or appropriate to make changes, adjustments or clarifications, the Parties shall enter into memoranda ("Operating Memoranda") approved by the Parties in writing, which reference this Section of the Agreement. Operating Memoranda are not intended to constitute an amendmentto this Agreement but mere ministerial clarifications; therefore, public notices and hearings shallnot be required. The City Attorney shall be authorized upon consultation with the Owner, to determine whether a requested clarification may be effectuated pursuant to this Section or whether the requested clarification is of such character to constitute an amendment to the Agreement which requires compliance with the provisions of this Agreement pertaining to amendments. The authority to enter into such Operating Memoranda is hereby delegated to theCity Manager, and the City Manager is hereby authorized to execute any operating Memorandahereunder without further City Council action.

14. CEQA. All procedures of the California Environmental Quality Act ("CEQA"),California Public Resources Code §21000 *et seq*., and the CEQA guidelines, Title 14 of the California Code of Regulations, chapter 3, §15000 *et seq*. have been satisfied based on the Projectbeing categorically exempt.

15. Building Permits. Nothing set forth herein shall impair or interfere with the right of City to require the processing of building permits as required by law relating to any specific improvements proposed for the Project pursuant to the applicable provisions of the City's municipal code, inclusive of such California and International Codes as have been adopted in accord therewith, that are in effect at the time such permits are applied for; provided, however, no such permit processing shall authorize or permit City to impose any condition on and/or withhold approval of any proposed improvement the result of which would be inconsistent withthis Agreement.

16. Assignment and Transfer of Rights. Except as otherwise provided in this Section, the burdens of this Agreement are binding upon, and the benefits of this Agreement inure to, allsuccessors-in-interest of the Parties and constitute covenants that run with the Site. Owner, for itself, its heirs, distributes, executors, administrators, legal representatives, successors andassigns, shall not, at any time during the Term, assign, convey, lease, sell or otherwise transfer allor any portion of its rights under this Agreement ("Assignable Rights") to a third party, a subordinate entity, or a related entity (make an "Assignment") without the prior written consentof City in each instance, which consent may be withheld in City's sole discretion. Any assignmentin violation of this Section will be void. No permitted assignee of this Agreement may further assign this Agreement without City's prior written consent.

17. Review for Compliance.

17.1 Periodic Review. Pursuant to CGC §65865.1, City shall engage in an annualreview this Agreement, on or before the anniversary of the date of execution, in order to ascertain Owner's good faith compliance

with its terms (the "Periodic Review"). In the event Cityfails to formally conduct such annual review, Owner shall be deemed to be in full compliance with the Agreement.

18. Amendment or Cancellation. This Agreement may be amended or canceled in whole or in part only by mutual consent of the Parties or in the manner provided in CGC §65865.1or CGC §65868 and subsection 3.2 above.

18.1 Provide Notice. Provide the other Party with written notice of such State or Federal law or regulation, a copy of such law or regulation and a statement identifying how such law regulation conflicts with the provisions of this Agreement.

18.2 Meet and Confer. Upon notice by one Party to another as to preemption or frustration of this Agreement by law or regulation, the Parties shall promptly meet and conferin good faith and make a reasonable attempt to modify or suspend this Agreement to comply with such applicable Federal or State law or regulation. If the Parties cannot agree on a manneror method to comply with such Federal or State law or regulation, the Parties may, but shall notbe required to, engage in alternative dispute resolution.

19. Notices. All notices or other communications required or permitted hereunder shall be in writing and shall be either personally delivered (which shall include deliveryby means of professional overnight courier service which confirms receipt in writing [such as Federal Express or UPS]), sent by telecopier or facsimile ("Fax") machine capable of confirming transmission and receipt, or sent by certified or registered mail, return receipt requested, postage prepaid to the following parties at the following addresses or numbers:

If to City: City of Clearlake 14050
Olympic Drive
Clearlake CA 95422
Attention: City Manager

With copy to: Jones & Mayer, City Attorney8150 Sierra

College Blvd., Suite 190
Roseville California 95661
Attention: Ryan R. Jones, Esq.

If to Owner: Ogulin Hills Estates, LLC
637 Lindaro St., Suite 201
San Rafael, CA 94901

Notices sent in accordance with this Section shall be deemed delivered upon the: ***(a)*** dateof delivery as indicated on the written confirmation of delivery (if sent by overnight courier service); ***(b)*** date of actual receipt (if personally delivered by other means); ***(c)*** date of transmission (if sent by email or telecopier, so long is sender receives actual confirmation that the transmission was received); or ***(d)*** date of delivery as indicated on the return receipt (if sent by certified or registered mail, return receipt requested). Notice of change of address shall begiven by written notice in the manner detailed in this Section.

20. Breach and Remedies. Notwithstanding any provision of this Agreement to the contrary, Owner shall not be deemed to be in default under this Agreement with respect to any obligation owed solely to City, and City may not terminate or modify Owner' rights underthis Agreement, unless City shall have first delivered a written notice of any alleged default to Owner that specifies the nature of such default. If such default is not cured by Owner within sixty (60) days after receipt of such notice of default, or with respect to defaults that cannot be cured within such period, Owner fails to commence to cure the default within thirty (30) days after receipt of the notice of default, or thereafter fails to diligently pursue the cure of such default, City may terminate Owner's rights under this Agreement. Default by any Assignee or Owner's successor in interest shall affect only that portion of the Site owned by such Assignee or successor, and shall not cancel or diminish in any way Owner's rights with respect to any portion of the Site not owned by such Assignee or successor. In the event that a breach of this Agreementoccurs, irreparable

harm is likely to occur to the non-breaching Party and damages will be an inadequate remedy. To the extent permitted by law, therefore, it is expressly recognized that injunctive relief and specific enforcement of this Agreement are proper and desirable remedies,and it is agreed that any claim by Owner against City for an alleged breach of this Agreement shallbe remedied by injunctive relief or an appropriate action for specific enforcement of thisAgreement and not by a claim or action for monetary damages.

21. Entire Agreement. This Agreement and the Exhibits herein contain the entire integrated agreement among the Parties. The Parties intend that this Agreement state their agreement in full to each and every one of its provisions. Any prior agreements, understandings,promises, negotiations or representations respecting the matters dealt with herein or the dutiesof any Party in relation thereto, not expressly set forth in this Agreement, are agreed by all Partiesto be null and void.

22. Severability. If any term, provision, condition, or covenant of this Agreement, or the application thereof to any Party or circumstance, shall to any extent be held invalid or unenforceable, the remainder of the instrument, or the application of such term, provision, condition or covenant to persons or circumstances other than those as to whom or which it is held invalid or unenforceable, shall not be affected thereby and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

23. Attorneys' Fees. If the services of any attorney are required by any party to securethe performance of this Agreement or otherwise upon the breach or default of another party, or if any judicial remedy or arbitration is necessary to enforce or interpret any provisions of this Agreement or the rights and duties of any person in relation to this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees, costs and other expenses, in addition to anyother relief to which such party may be entitled. Prevailing party includes (a) a party who dismisses an action in exchange for sums allegedly due; (b) the party that receives performance from the other party of an alleged breach of covenant or a desired remedy, if it is substantially equal to the relief sought in an action; or (c) the party determined to be prevailing by a court of law.

Whenever provision is made in this Agreement for the payment of attorney's fees, such fees shall be payable whether the legal services are rendered by a salaried employee for the partyor by independent counsel and shall include such fees as are incurred in connection with any pretrial proceeding, trial or appeal of the action. Any award of damages following judicial remedyor arbitration as a result of the breach of this Agreement or any of its provisions shall include anaward of prejudgment interest from the date of the breach at the maximum amount of interestallowed by law.

24. Counterparts. This Agreement may be executed in one or more counterparts, each of which will be deemed an original, but all of which constitute one and the same instrument.

25. Execution of Agreement. The Parties shall sign this Agreement on or within five (5) business days of approval.

26. Authority to Execute. All persons executing this Agreement on behalf of a party warrant that they have the authority to execute this Agreement on behalf of that party.

27. Estoppel Certificate. City shall, at any time and from time to time within ten (10) days after receipt of written notice from Owner so requesting, execute, acknowledge and deliverto Owner a statement in writing: ***(a)*** certifying that this Agreement is unmodified and in full forceand effect (or, if modified, stating the nature of such modification and certifying that this Agreement, as so modified, is in full force and effect); and ***(b)*** acknowledging that there are no uncured defaults on the part of Owner hereunder or specifying such defaults if any are claimed. Any such statement may be relied upon by any prospective purchaser or encumbrances of all orany portion of the Site. Upon Owner's written request, City shall issue a certificate of performance evidencing completion of any of Owner's obligation(s) under this Agreement.

28. Encumbrances on Real Property.

28.1 Discretion to Encumber. The Parties hereto agree that this Agreement shall not prevent or limit Owner, in any manner, at Owner's sole discretion, from encumbering the Site or any portion thereof or any improvements thereon then owned by such person with any mortgage, deed of trust or other security device ("Mortgage") securing financing with respectto the Site or such portion. City acknowledges that the lenders providing such financing may require certain modifications, and City agrees, upon request, from time to time, to meet with Owner and/or representatives of such lenders to negotiate in good faith any such request for modification. City further agrees that it will not unreasonably withhold its consent to any such requested modification. Any mortgagee or trust deed beneficiary of the Site or any portion thereof or any improvements thereon and its successors and assigns ("Mortgagee") shall be entitled to the following rights and privileges.

28.2 Lender Requested Modification/Interpretation. City acknowledges that the lenders providing financing to Owner may request certain interpretations and modificationsof this Agreement. City therefore agrees upon request, from time to time, to meet with the Owner and representatives of such lenders to negotiate in good faith any such request for interpretation or modification. The City will not unreasonably withhold its consent to any such requested interpretation or modification provided such interpretation or modification is consistent with the intent and purposes of this Agreement, provided, further, that any modifications of this Agreement are subject to the provisions of this Agreement relative to modifications or amendments.

28.3 Mortgage Protection. This Agreement shall be superior and senior to the lien of any Mortgage. Notwithstanding the foregoing, no breach of this Agreement shall defeat,render invalid, diminish or impair the lien of any Mortgage made in good faith and for value, andany acquisition or acceptance of title or any right or interest in or with respect to the Site or anyportion thereof by a Mortgagee (whether pursuant to a Mortgage, foreclosure, trustee's sale, deed in lieu of foreclosure or otherwise) shall be subject to all of the terms and conditions of thisAgreement.

28.4 Mortgagee Not Obligated. Notwithstanding the provisions of Section 26.2,no Mortgagee will have any obligation or duty under this Agreement to perform the obligations of Owner or other affirmative covenants of Owner hereunder, or to guarantee such performance,except that to the extent that Mortgagee opts to receive the benefits of the Agreement, includingthe right to operate, any covenant to be performed by Owner is a condition to the performanceof a covenant by City, the performance thereof shall continue to be a condition precedent to City's performance hereunder. No Mortgagee will be liable for any monetary defaults arising prior to its acquisition of title to the Site or any portion thereof. Uncured monetary defaults willterminate the Agreement and Mortgagee's right to operate.

28.5 Written Notice of Default. Each Mortgagee shall be entitled to receive written notice from City of any default by Owner under this Agreement, if such default is not cured within thirty (30) days, provided such Mortgagee has delivered a written request to City for such notice. Each Mortgagee shall have a further right, but not the obligation, to cure such default for a period of thirty (30) days after receipt of such notice of default. Any non-curable defaults of Owner of any obligation owed solely to City arising prior to Mortgagee's acquisition of title to the Site or any portion thereof shall be waived; provided, however, the non-payment of money shall not be deemed a non-curable default.

29. Binding Effect. This Agreement shall be binding on and inure to the benefit of theParties to this Agreement and, subject to City's written consent, their heirs, personal representatives, successors, and assigns, except as otherwise provided in this Agreement.

30. Governing Law and Venue. This Agreement and the legal relations between the Parties shall be governed by and construed in accordance with the laws of the State of California.Furthermore, the Parties agree to venue in the Superior Court of Lake County, California.

31. Mutual Covenants. The covenants contained herein, including those contained inthe Recitals herein, are mutual covenants and also constitute conditions to the concurrent or subsequent performance by the party benefited thereby of the covenants to be performed hereunder by such benefited party.

32. Successors in Interest. The burdens of this Agreement shall be binding upon, and the benefits of this Agreement shall inure to, all successors in interest to the Parties to this Agreement ("Successors"). Furthermore, the rights and remedies, together with the benefits andburdens of this Agreement of each Party to this Agreement shall be coextensive with those of itsSuccessors. All provisions of this Agreement shall be enforceable as equitable servitude's

and constitute covenants running with the land. Each covenant to do or refrain from doing some acthereunder with regard to development of the Site: *(a)* is for the benefit of and is a burden upon every portion of the Site; *(b)* runs with the Site and each portion thereof; and, *(c)* is binding uponeach Party and each Successor during ownership of the Site or any portion thereof. From and after recordation of this Agreement, the Agreement shall impute notice to all persons and entities in accord with the recording laws of this State.

33. No Third Party Beneficiaries. This Agreement is made and entered into for the sole protection and benefit of the Parties and their Successors and Assignees. No other person or entity shall have any right of action based upon any provision of this Agreement.

34. Waiver. Failure by a Party to insist upon the strict performance of any of thisAgreement's provisions by the other party, or the failure by a Party to exercise its rights upon thedefault of the other Party, shall not constitute a waiver of such Party's right to insist and demandstrict compliance by the other Party with the terms of this Agreement thereafter. The waiver byany party to this Agreement of a breach of any provision of this Agreement shall not be deemeda continuing waiver or a waiver of any subsequent breach of that or any other provision of this Agreement.

35. Time of Essence. Time is of the essence in the performance of the provisions of this Agreement as to which time is an element.

36. Recordation of Agreement. This Agreement and any amendment or cancellation thereof shall be recorded with the County Recorder by the City Clerk within the period required by Government Code Section 65868.5.

37. Headings. The headings in this Agreement are inserted for convenience only. They do not constitute part of this Agreement and shall not be used in its construction.

38. Jointly Drafted. It is agreed among the parties that this Agreement was jointly negotiated and jointly drafted by the Parties and their respective counsel, and that it shall not beinterpreted or construed in favor of or against any party solely on the ground that it drafted theAgreement. It is also agreed and represented by all Parties that said Parties were of equal or relatively equal bargaining power and that in no way whatsoever shall this Agreement be deemed to be a contract of adhesion, or unreasonable or unconscionable.

39. Independent Legal Counsel. Each party acknowledges that it has been represented by independent legal counsel of its own choice throughout all of the negotiations that preceded the execution of this Agreement or has knowingly and voluntarily declined to consult legal counsel, and that each Party has executed this Agreement with the consent and onthe advice of such independent legal counsel.

40. Further Cooperation. The parties herein agree to execute any and all agreements,documents or instruments as may be reasonably necessary in order to fully effectuate the agreements and covenants of the Parties contained in this Agreement, or to evidence this Agreement as a matter of public record, if required to fulfill the purposes of this Agreement. TheParties further agree to mutually cooperate with one another in carrying out the purposes of this Agreement.

41. Enforceability. This Agreement shall not become binding and shall have no force and effect whatsoever until such time as it has been fully executed by and delivered to all of theparties hereto.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of theExecution Date.

"**CITY"**

CITY OF CLEARLAKE, CA a California Municipal Corporation

Date: <**Insert date and year >**

By: _____

Mayor

Attest:

By: _____

City Clerk

Approved as to form:

Jones & Mayer

By:_____

Ryan R. Jones, Esq.

City Attorney

"OWNER"

Ogulin Hills Estates, LLC, Brian D. Pensack, Manager

Date:_____, _____

By: _____

Brian D. Pensack, Manager

EXHIBIT A LEGAL DESCRIPTION

Doc # 2021003188
Page 1 of 2
Date: 2/23/2021 11:39A
Filed by: FIRST AMERICAN TITLE
Filed & Recorded in Official Records
of COUNTY OF LAKE
RICHARD A. FORD
COUNTY RECORDER
Fee: $627.50

RECORDING REQUESTED BY:
First American Title Company

MAIL TAX STATEMENT
AND WHEN RECORDED MAIL DOCUMENT TO:
OGULIN ESTATES HOLDINGS LLC
637 Lindaro St, Suite 201
San Rafael, Ca 94901

Space Above This Line for Recorder's Use Only

A.P.N.: 010-044-21-00 File No.: 1701-6465534 (KH)

GRANT DEED

The Undersigned Grantor(s) Declare(s): DOCUMENTARY TRANSFER TAX $**610.50**; CITY TRANSFER TAX $;
SURVEY MONUMENT FEE $
[X] computed on the consideration or full value of property conveyed, OR
[ ] computed on the consideration or full value less value of liens and/or encumbrances remaining at time of sale,
[ ] unincorporated area; [X] City of **Clearlake**, and
EXEMPT FROM BUILDING HOMES AND JOBS ACTS FEE PER GOVERNMENT CODE 27388.1(a)(2)

TAX PAID

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, **MISTY M. SPRINGER, A MARRIED WOMAN AS HER SOLE AND SEPARATE PROPERTY**

hereby GRANTS to **OGULIN ESTATES HOLDINGS LLC, a Delaware limited liability company**

the following described property in the City of **Clearlake**, County of **Lake**, State of **California**:

PARCEL B AS SHOWN ON A MAP FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAID LAKE COUNTY ON JULY 17, 1987, IN BOOK 29 OF PARCEL MAPS AT PAGES 30 AND 31.

Mail Tax Statements To: **SAME AS ABOVE**

8

Grant Deed - continued

Date: **02/17/2021**

A.P.N.: 010-044-21-00

File No.: 1701-6465534 (KH)

Dated: February 17, 2021

Misty M. Springer

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF California)SS

COUNTY OF Lake)

On February 18, 2021 before me, Robert K. Crosby, Notary Public, personally appeared Misty M. Springer

who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ whose name~~(s)~~ is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity~~(ies)~~, and that by ~~his~~/her/~~their~~ signature~~(s)~~ on the instrument the person~~(s)~~, or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

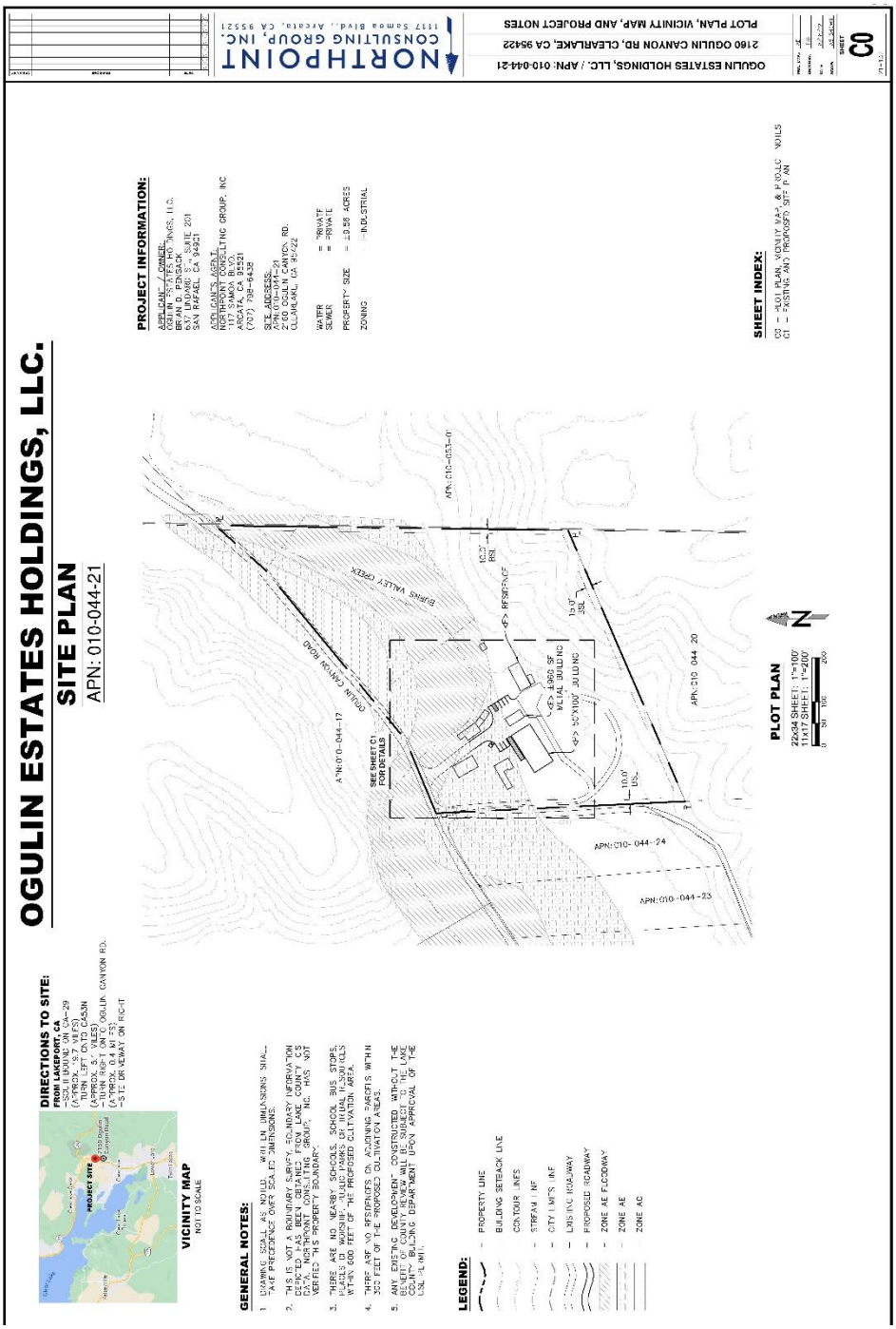
WITNESS my hand and official seal.

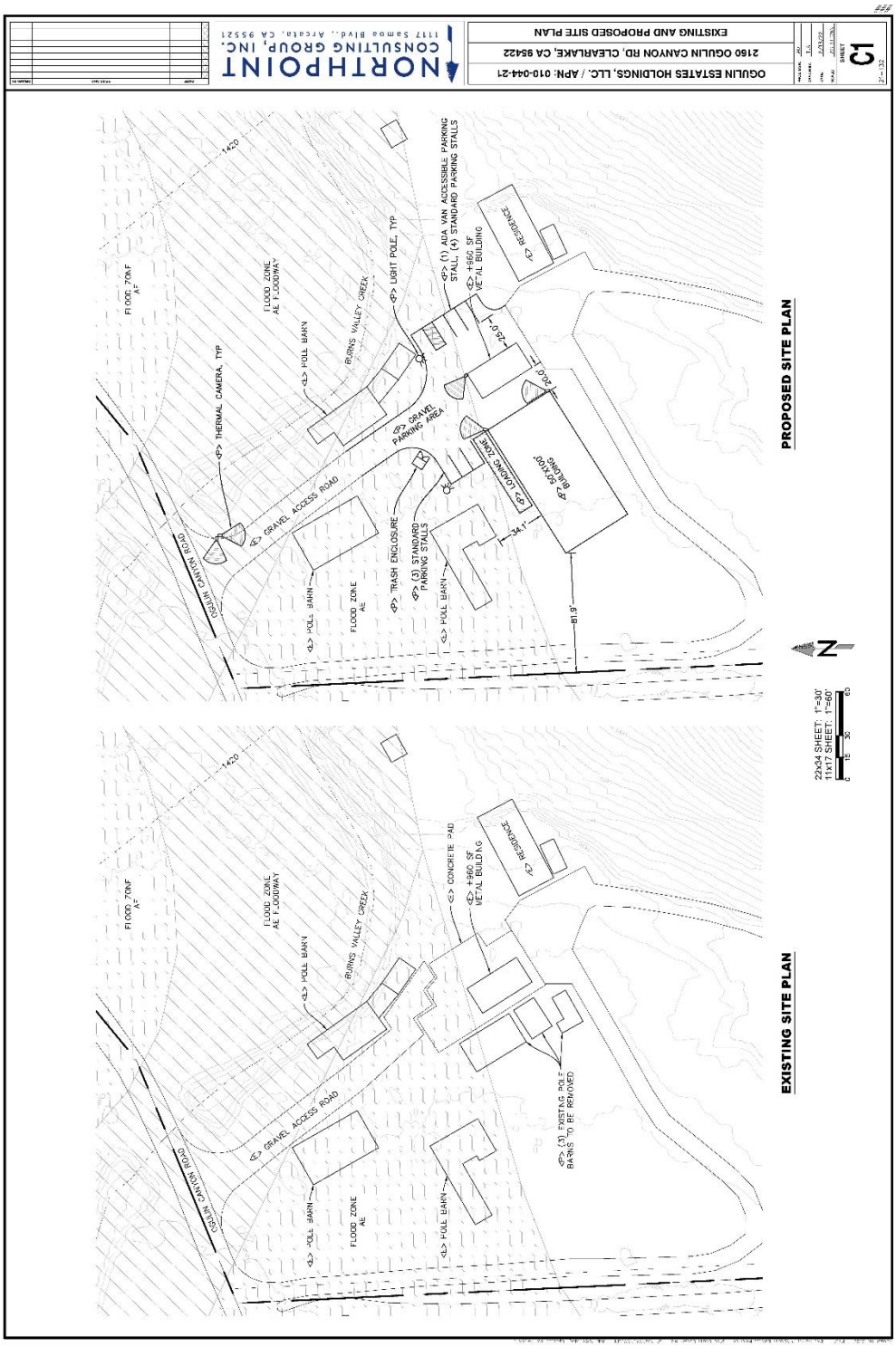
Notary Signature Robert K. Crosby

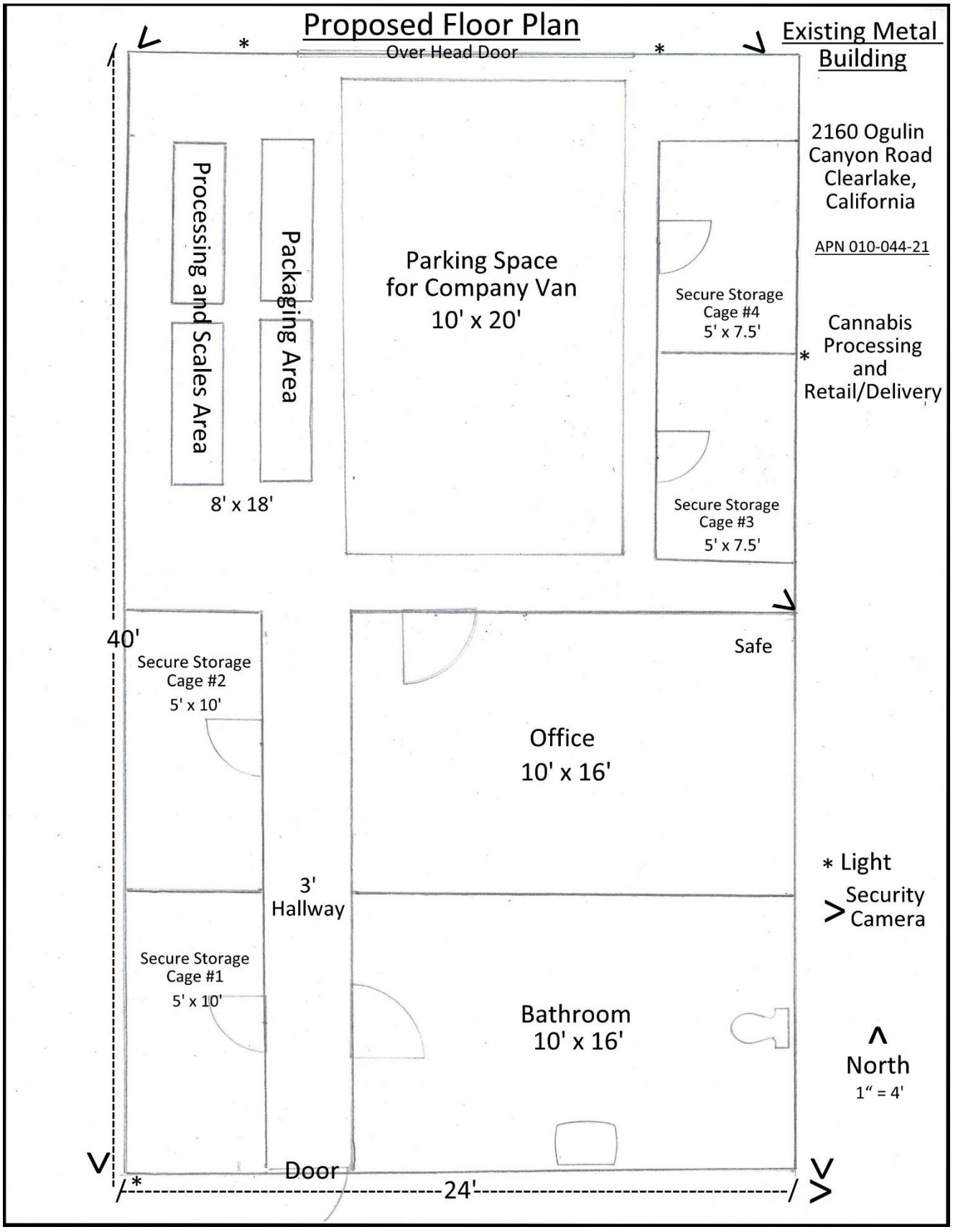
This area for official notarial seal.

ROBERT K. CROSBY
Notary Public - California
Lake County
Commission # 2268754
My Comm. Expires Dec 23, 2022

EXHIBIT B – SITE PLANS




OGULIN ESTATES HOLDINGS, LLC. / APN: 010-044-21
2160 OGULIN CANYON RD, CLEARLAKE, CA 95422
EXISTING AND PROPOSED SITE PLAN
C1
NORTHPOINT CONSULTING GROUP, INC.
1117 Samoa Blvd., Arcata, CA 95521
PROPOSED SITE PLAN
EXISTING SITE PLAN
OGULIN CANYON ROAD
GRAVEL ACCESS ROAD
RUINS VALLEY CREEK
FLOOD ZONE AE FLOODWAY
FLOOD ZONE AE
FLOOD ZONE AF
POLE BARN
RESIDENCE
THERMAL CAMERA, TYP
LIGHT POLE, TYP
(1) ADA VAN ACCESSIBLE PARKING STALL, (4) STANDARD PARKING STALLS
+960 SF METAL BUILDING
GRAVEL PARKING AREA
TRASH ENCLOSURE
(3) STANDARD PARKING STALLS
LOADING ZONE
40'X100' BUILDING
CONCRETE PAD
(3) EXISTING POLE BARNS TO BE REMOVED
22x34 SHEET: 1"=30'
11x17 SHEET: 1"=60'


Proposed Floor Plan
Over Head Door
Existing Metal Building
2160 Ogulin Canyon Road Clearlake, California
APN 010-044-21
Processing and Scales Area
Packaging Area
8' x 18'
Parking Space for Company Van 10' x 20'
Secure Storage Cage #4 5' x 7.5'
Cannabis Processing and Retail/Delivery
Secure Storage Cage #3 5' x 7.5'
40'
Secure Storage Cage #2 5' x 10'
Safe
Office 10' x 16'
3' Hallway
* Light
Security Camera
Secure Storage Cage #1 5' x 10'
Bathroom 10' x 16'
North
1" = 4'
Door
24'

ACKNOWLEDGEMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA }

COUNTY OF_____}

On_____ before me,

_____

(insert name and title of the officer)

personally appeared _____, who proved to me on thebasis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to thewithin instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executedthe instrument.

I certify under PENALTY OF PERJURY under the laws of the State of Californiathat the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____

Signature of Notary

City of Clearlake –Notice of Intent to Adopt a Mitigated Negative Declaration

Notice is hereby given that the City of Clearlake has tentatively determined that the project described below will not result in a significant adverse impact on the environment and that, in accordance with the California Environmental Quality Act, the City is prepared to issue a "mitigated negative declaration" in accordance with the California Environmental Quality Act (CEQA).

Project Summary: The proposed project includes development of industrial style structures to be used for cannabis related facilities including a 33,600 ft.² single story building and a 5,000 ft.² office building that will also serve as the administrative center/cannabis delivery and storage space. Five - 75' x 25' greenhouses for indoor cannabis cultivation will be developed. The amount of paved surface area will include 22,660 square feet of parking lot. Specific project uses are to include: 1. Cannabis cultivation/processing; 2. Cannabis manufacturing; 3. Cannabis distribution; 4. Cannabis nursery. For a detailed description of the project, please refer to the link below.

Project Location: 2160 Ogulin Canyon Road, Clearlake, CA 95422, Assessor Parcel Number (APN): 010-044-21.

This tentative determination is based on an environmental study that assesses the project's potential environmental impacts and those potential impacts have been reduced to less than significant levels with the incorporated mitigation measures. Anyone can review this study at Clearlake City Hall, 14050 Olympic Drive, Clearlake, CA 95901, during normal business hours or by downloading from the State Clearinghouse Website at: (I have also attached a Complete Initial Packet above for your convenience.

- https://ceqanet.opr.ca.gov/

Final environmental determinations are made by the decision-making body, which, in this case would be the City of Clearlake, Planning Commission. The public review period for this notice will remain open for a period of at least 30 days from the publication of this **Notice (04/04/2022), until (05/13/2022).** For more information, please call (707) 994-8201 during normal business hours of City Hall (Monday through Thursday – 8am to 5pm). During this period written comments on the project and the proposed mitigated negative declaration may be addressed. You may also submit comments via email at mroberts@clearlake.ca.us **(Please Note: All comments must be received no later than May 13, 2022 by 5pm).**

City of Clearlake
Planning Department
Attn: Mark Roberts
14050 Olympic Drive
Clearlake, CA 95422

Published Date: April 4, 2022

CITY OF CLEARLAKE
PUBLIC HEARING NOTICE
PLANNING COMMISSION

NOTICE IS HEREBY GIVEN that the City of Clearlake Planning Commission will hold a public hearing at a regularly scheduled meeting on **Tuesday, December 13th, 2022, at 6:00 p.m.** or soon thereafter in the City Council Chambers at City Hall, 14050 Olympic Drive, Clearlake, CA., to consider:

- *Conditional Use Permit Applications CUP 2022-03 (Processing – No Cultivation and/or Nursery Activities will occur onsite); CUP 2022-04 (Manufacturing), CUP 2022-05 (Distribution), CUP 2022-06 (Retail Dispensary; Delivery Only); Development Agreement and corresponding Environmental Analysis (CEQA IS 2022-02) to allow a Commercial Cannabis Operations located at 2160 Ogulin Canyon Road; Clearlake, CA 95422 further described as Assessor Parcel Number 010-044-21*

If you would like to comment remotely, please send all comments to Senior Planner Mark Roberts at mroberts@clearlake.ca.us prior to the commencement of the meeting and be sure to identify the subject you wish to comment on in the subject line.

The Council Chambers are open to the public and members of the public may also participate via Zoom *(link to be circulated with agenda materials).* Please contact the Community Development Department for any additional information or questions, available by phone at (707) 994-8201.

The City of Clearlake does not discriminate in housing or employment on the basis of race, religion, sex, age, national origin, or disability. The location of the public hearing is fully accessible to mobility-impaired individuals. In compliance with the Americans with Disabilities Act, the City of Clearlake encourages those with disabilities to participate fully in the public hearing process. If you require special accommodations in order for you to participate in this public meeting process, please contact the City Clerk at (707) 994-8201 or by e-mail at mswanson@clearlake.ca.us in advance of the public hearing so that we may make every reasonable effort to accommodate you.

POSTED: Saturday, December 3rd, 2022