



PLANNING COMMISSION MEETING

LOCATION: TOWNSHIP ANNEX, 7527 HIGHLAND ROAD, WHITE LAKE, MI 48383
THURSDAY, MARCH 02, 2023 – 7:00 PM

White Lake Township | 7525 Highland Rd | White Lake, MI 48383 | Phone: (248) 698-3300 | www.whitelaketwp.com

AGENDA

1. CALL TO ORDER
 2. ROLL CALL
 3. PLEDGE OF ALLEGIANCE
 4. APPROVAL OF AGENDA
 5. APPROVAL OF MINUTES
 - A. [Minutes of January 19, 2023](#)
 6. CALL TO THE PUBLIC (FOR ITEMS NOT ON THE AGENDA)
 7. PUBLIC HEARING
 - A. [Sunset Cove](#)
[Located on the north side of Pontiac Lake Road, north of Highland Road \(M-59\). Currently zoned PG \(Pontiac Lake Gateway\). Identified as 12-13-451-011 \(8300 Pontiac Lake Road\). Consisting of approximately 2.68 acres.](#)
[Requests:](#)
 - 1) [Preliminary site plan approval](#)
 - 2) [Special land use approval](#)[Applicant: White Lake JZ, LLC](#)
[30201 Orchard Lake Road, Ste 250](#)
[Farmington Hills, MI 48334](#)
8. CONTINUING BUSINESS
9. NEW BUSINESS
10. OTHER BUSINESS
 - A. [Lakepointe & West Valley final site plan extension request](#)
11. LIAISON'S REPORT
12. DIRECTOR'S REPORT
13. COMMUNICATIONS
14. NEXT MEETING DATE: March 16, 2023 & April 6, 2023
15. ADJOURNMENT

Procedures for accommodations for persons with disabilities: The Township will follow its normal procedures for individuals with disabilities needing accommodations for effective participation in this meeting. **Please contact the Township Clerk's office at (248) 698-3300 X-164 at least two days in advance of the meeting.** An attempt will be made to make reasonable accommodations.

WHITE LAKE TOWNSHIP PLANNING COMMISSION

Township Annex, 7527 Highland Road
White Lake, MI 48383
January 19, 2023 @ 7:00 PM

CALL TO ORDER

Chairperson Seward called the meeting to order at 7:00 PM and led the Pledge of Allegiance. Roll was called.

ROLL CALL

T. Joseph Seward
Steve Anderson
Debby Dehart
Scott Ruggles
Robert Seeley
Merrie Carlock

Absent: Pete Meagher
Matt Slicker
Mark Fine

Also Present: Sean O'Neil, Community Development Director
Rowan Brady, Project and Technology Planner with Beckett & Raeder
Lisa Kane, Recording Secretary

Visitors: Approximately 3 members of the public were present

APPROVAL OF AGENDA

Commissioner Seeley moved to approve the agenda of the January 19, 2023 Planning Commission Meeting.
Commissioner Carlock supported and the MOTION CARRIED with a voice vote: 6 yes votes.

APPROVAL OF MINUTES

- a. Regular meeting minutes of January 5, 2023

Commissioner Anderson moved to approve the Minutes of January 5, 2023.
Commissioner Seeley supported and the MOTION CARRIED with a voice vote: 6 yes votes.

CALL TO THE PUBLIC (FOR ITEMS NOT ON THE AGENDA)

Commissioner Seward opened public comment at 7:03 p.m.

Randee Kushner of 46 Crouty Street suggested the White Lake Planning Commission adopt a tree ordinance.

Commissioner Seward closed public comment at 7:06 p.m.

PUBLIC HEARING

None.

CONTINUING BUSINESS

None.

NEW BUSINESS

- A. Review & Discussion - Draft Master Plan Survey

Director O'Neil introduced Rowan Brady of Beckett & Raeder.

Mr. Brady presented the draft survey questions for the Master Plan.

The Commissioners reviewed and discussed the survey questions, the desired length of the survey, and the distribution method.

Mary Early of 5925 Pine Ridge Court inquired if this survey would be only available online. Mrs. Early noted typos and stated it took her longer than 15 minutes to complete the survey.

Mr. Brady stated the survey would be released soon and be open for approximately three to four weeks depending on responses.

The next Master Plan meeting would occur March 2, 2023. Mr. Brady would present preliminary survey results at that meeting.

OTHER BUSINESS

None.

LIAISON'S REPORT

Commissioner Dehart stated there was not a ZBA meeting since last Planning Commission meeting.

Commissioner Carlock stated the public hearing occurred on the Parks and Recreation Master Plan and it was presented to the Township Board.

Commissioner Ruggles stated the Township Board voted to approve the Parks and Recreation Master Plan. A permit for the Winter Carnival at the White Lake Inn was approved, but likely would not occur due to lack of ice. The Township Board approved a resolution to request the DNR to restrict hunting on White Lake Township parks and property. The first reading of the rezoning on Gale Road was approved. The Board agreed to proceed with a contract with RedStone Architects to design the new Public Safety building and with Straub, Pettitt and Yaste to design the Township Hall.

DIRECTOR'S REPORT

Director O'Neil reported the Corridor Improvement Authority members had been appointed. The tax increment financing (TIF) plan was being worked on by Carlisle Wortman. The design for Elizabeth Lake Road was being sent to the Road Commission for Oakland County for review soon. The projects West Valley and Lake Point had no changes in status. New Hope White Lake had not opened yet but was expected to very soon; they were waiting on the State Fire Marshal's final approval.

COMMUNICATIONS

NEXT MEETING DATES: February 2, 2023
February 16, 2023

ADJOURNMENT

Commissioner Dehart moved to adjourn the meeting at 8:36 PM.
Commissioner Seeley supported and the **MOTION CARRIED** with a voice vote: 6 yes votes

DRAFT

Director's Report

Project Name: Sunset Cove
 Description: Preliminary site plan & special land use approvals
 Date on Agenda this packet pertains to: March 2nd, 2023

- Public Hearing
- Special Land Use
- Initial Submittal
- Rezoning
- Revised Plans
- Other:
- Preliminary Approval
- Final Approval

Contact	Consultants & Departments	Approval	Denial	Approved w/Conditions	Other	Comments
Sean O'Neil	Planning Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
DLZ	Engineering Consultant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See letter dated 02/05/2023.
DLZ	Traffic Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See letter dated 02/17/2023.
Justin Quagliata	Staff Planner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See letter dated 02/03/2023.
John Holland	WLT Fire Chief	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See letter dated 02/10/2023.



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

February 5, 2023

Sean O' Neil
Community Development Department
Charter Township of White Lake
7525 Highland Road
White Lake, Michigan 48383

RE: Sunset Cove Condominiums- Preliminary Site Plan Review – 2nd Review

Ref: DLZ No. 2245-7382-19

Design Professional: Sieber Keast Lehner

Dear Mr. O' Neil,

Our office has performed a Preliminary Site Plan review for the above-mentioned revised plan dated January 19, 2023. The plans were reviewed for feasibility based on general conformance with the Township Engineering Design Standards.

General Site Information

This site fronts Pontiac Lake and is east of Pontiac Lake Road and north of M-59. Total site acreage is approximately 3.31 acres.

Site Improvement Information:

- Construction of two 4-story and one 3- story residential buildings with first floor parking, including ADA parking.
- Construction of a 2-story restaurant (4,836 sq.ft.) with associated parking, including ADA parking.
- Site to be serviced by proposed water main and sanitary sewer.
- Storm water runoff is proposed to be routed via storm sewer to and detained in Pontiac Lake.



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The following items should be noted with respect to Planning Commission review:

Note that comments from our December 5, 2022 review are in *italics*. Responses to those comments are in **bold**. New comments are in standard font.

- a) *The site benchmarks shown will be invalid once construction starts as the two hydrants being used as benchmarks are proposed to be relocated. Provide two additional permanent benchmarks for the site (on NAVD88 datum).* **Comment addressed at this level of review. The designer has noted that additional site benchmarks will be established after PSP approval. We note that new benchmarks will be required to be shown on the FSP/FEP.**
- b) *The legal description provided does not appear to correspond with the metes and bounds shown in plan view on the Topographic Survey Sheet 2. Please revise as necessary.* **Comment addressed at this level of review. The designer has indicated that a boundary survey and legal description will be prepared after the PSP approval. This item will be required to be addressed on the FSP/FEP.**
- c) *Indicate whether there is an easement for the existing Caruso Circle and the status of this easement. If an easement exists, it will need to be vacated prior to Final Site Plan/Final Engineering Plan approval.* **Comment addressed at this level of review. The designer states that an ALTA survey has not yet been performed on the property. If the survey indicates an existing easement for Caruso Circle, it will need to be vacated prior to FSP/FEP approval.**
- d) *Indicate what will be done with the existing utilities on the property: sanitary sewer and storm sewer.* **Comment addressed. A note has been added to the plan stating that the existing utilities will be removed.**
- e) *Indicate what will be done with the existing wells on the site.* **Comment addressed. The existing wells will be abandoned in accordance with OCHD requirements; a note has been added to the plan.**
- f) *Provide the soil boring report. If high water table or poor soils are present, a statement shall be provided addressing how the proposed buildings and underground utilities shall be supported with such conditions.* **Comment partially addressed. Designer notes in response letter that plan Sheets 6 and 7 containing soil boring report was provided. We note that only Sheet 6 (borings 1-7) was provided with this submittal. Please provide Sheet 7.**
- g) *The existing 12" diameter watermain along the Pontiac Lake Road frontage will need to be extended across the property frontage to the north property line per the White Lake Township Water System Master Plan.* **Comment addressed. The existing main is now shown to be extended as far west as permissible; a temporary blow off assembly is proposed for the stub.**



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- h) *Show proposed water service leads to all buildings.* **Comment addressed. All leads are now shown. We note that the water service lead for Building 2 is to be branched off from the hydrant lead that is located to the east, this long hydrant lead shall be a minimum pipe diameter of 8".**
- i) *We defer to the Township Fire Department regarding hydrant spacing/coverage.* **Comment remains as a notation.**
- j) *Provide fire truck turning plan to demonstrate adequate turning radii for fire trucks.* **Comment addressed. A turning plan has been provided.**
- k) *Provide a dedicated parking space for a sanitary sewer pump station and valve pit maintenance vehicle.* **Comment addressed. A dedicated space has been provided. A sign indicating that this space is reserved shall be provided on the FSP/FEP.**
- l) *Please clarify the intent for the proposed sanitary sewer pump station; the proposed 2" force main appears to indicate a grinder pump is proposed, however the proposed valve vault contradicts this intent.* **Comment addressed at this level of review. The intent is to connect the proposed 2" force main to the existing 3" diameter force main along Pontiac Lake Road. Further detail regarding the design of the pump station shall be required at the time of FSP/FEP submittal.**
- m) *Specify width of sidewalk adjacent to restaurant parking.* **Comment addressed. Sidewalk width has been provided.**
- n) *Label the drive width just to the northwest of the restaurant ADA parking.* **Comment addressed. Drive width has been provided.**
- o) *Label all drive widths for the drives entering the first floor parking for all buildings.* **Comment addressed. All widths for entrances to the first floor building parking areas have been provided.**
- p) *Show location of 10' X 50' loading space for restaurant.* **Comment addressed. Loading space has now been shown on plan.**
- q) *Provide dimensions (both width and length) for the following parking spaces: 1) Two spaces located between Buildings 1 and 2. 2) ADA space for Building 3. 3) Spaces north, southwest, and southeast of Building 3. 4) Building 3 parking.* **Comment addressed. All dimensions have been provided.**
- r) *Please consider relocating the ADA parking space for Building 3 next to and on the same side as the elevator. The current location proposes a safety concern for ADA residents attempting to cross the parking lot entrance in their attempt to reach the elevator on the opposite side of the entrance.* **Comment partially addressed. The applicant has provided the following statement regarding the location of the ADA parking space: "ADA parking space was located across the lobby entrance because the dimension between grid lines 4 & 5 to fit 3 spaces (one being ADA space) and therefore will not meet parking count requirement. The access from the ADA space to the building lobby meets the code requirements as it is the shortest route to an accessible entrance." Although**



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this provides a reasoning for the chosen location of the ADA space, it does not address our concern relative to the issue of safety. We defer further discussion of this item to the Township.

- s) *The sidewalk stub to the south should be coordinated with the property to the south. A curb cut on the property to the south was left but the small section of sidewalk has not been installed. Comment outstanding. We defer discussion to the Township regarding the above comment. It is our opinion that the applicant should coordinate installation of the small section of sidewalk to the east with the adjacent property owner so as to provide continuity of the sidewalk in accordance with White Lake Township's desire for connectivity within the Township's pedestrian system.*
- t) *Revise Pontiac Lake flood elevation to 964.8' per Oakland County FIS dated January 2009. Comment addressed.*
- u) *It will need to be verified that no structures proposed are to be located in the floodplain per the FIRM map panel referenced on the Overall Plan Sheet 3 and Grading Plan Sheet 4. It appears that there is the possibility that a portion of Building 1 and/or the restaurant may be in the floodplain based on location and not elevation. If this is correct, a LOMA from FEMA will be required to correct the FIRM as White Lake Township is an NFIP participant. Comment remains. If a LOMA is required, issuance by FEMA shall be required prior to issuance of Final Certificate of Occupancy and approval of the as built plan. We note that it can take up to 60 days for FEMA to issue a LOMA from the time of application submittal.*
- v) *Pontiac Lake is a level-controlled lake under the jurisdiction of Oakland County, storm water discharge will need to be reviewed and approved by Oakland County. Comment outstanding. The designer has indicated that OCWRC has been contacted regarding the above and that the designer is awaiting response.*
- w) *The permitting jurisdiction regarding proposed boat docks is unclear, DLZ defers this comment to the Township Planning Department, Oakland County, or EGLE depending on who has ultimate jurisdiction. Comment remains.*
- x) *Two parking spaces located along/near the east side of the property are now shown as part of a cross access easement. Is the intent for future access to the adjacent property? Please clarify.*

Recommendation

There are a few outstanding items that DLZ has referred to the Township Planning Department regarding ADA parking configuration and the sidewalk connection to the adjacent property. There are also a few items that remain outstanding relating to the possible need for a LOMA, and confirmation regarding the stormwater jurisdiction. Additionally, the permitting jurisdiction for the proposed docks is unclear and may



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not be feasible until that jurisdiction and requirements are clarified. These items can be clarified on future submittals, but it should be noted the site plan may need to change to meet these requirements.

Please feel free to contact our office should you have any questions.

Sincerely,

DLZ Michigan

Michael Leuffgen, P.E.
Department Manager

Victoria Loemker, P.E.
Senior Engineer

Encl. None

Cc: Justin Quagliata, Community Development, *via email*
Hannah Micallef, Community Development, *via email*
Aaron Potter, DPS Director, White Lake Township, *via email*
John Holland, Fire Chief, White Lake Township, *via email*
Jason Hanifen, Fire Marshall, White Lake Township, *via email*

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INNOVATIVE IDEAS
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February 17, 2023

Sean O'Neil, Director
Community Development Department
Charter Township of White Lake
7525 Highland Road
White Lake, Michigan 48383

**Re: Sunset Cove
Traffic Impact Assessment Review**

Ref: DLZ File No. 2245-7382-19

Date of Study: 2/8/2023

Design Professional: Jacob Swanson, PE;
Kyle J. Paulson; Fleis & VandenBrink Engineering

The applicant has submitted a Traffic Impact Assessment (TIA) for P.I. 12-13-451-011, located along the north side of Pontiac Lake Road approximately 150 feet west of the Highland Road (M-59) intersection. The proposed development in the TIA is a multi-family development with 46 proposed dwelling units and a sit-down restaurant. The TIA utilized a combination of existing Turning Movement Counts (TMC) and the SEMCOG traffic count database to evaluate the existing traffic volumes along Pontiac Lake Road. The latest traffic counts present in the SEMCOG database were from 2021 and the TMC were collected on December 8 and 9, 2021. The tube traffic volume counter collected data on Tuesday, January 17, 2022.

We have reviewed the analysis; the methodology is in line with standard practices, and the findings are supported by the data provided. Based on data from the Multi-Family (Mid-Rise) section of the 11th edition of the "ITE Trip Generation Manual", the additional daily trips are 173 trips per day with 9 AM Peak Hour trips per day and 18 PM Peak Hour trips anticipated to be added to the existing traffic volumes each day. The data for a High Turnover (Sit-down) Restaurant anticipates an additional 518 daily trips, with 46 AM Peak Hour trips and 44 PM Peak Hour trips per day. Based on the White Lake Zoning Ordinance, the number of daily trips generated by the site falls with the thresholds for requiring a Traffic Impact Assessment (500-750 daily trips). The analysis indicates that the development will not significantly negative impact on the traffic in the analysis zone. The level of service (LOS) for the development site drives never fall below a "B", while the existing Pontiac Lake Road LOS primarily maintains a LOS of "A" during the AM and PM peak hours.

The study also evaluated the need for turn lanes or tapers at the proposed site drives. Due to the right-in right-out only easterly drive, a left turn lane warrant was not evaluated for that site driveway. For the westerly site drive, no left turn treatment was warranted. Based on the volume of traffic on Pontiac Lake Road and the number of anticipated right turns into the development, it was determined that a right turn deceleration lane or taper is not warranted at either site driveway. However, the Road Commission for Oakland County (RCOC)



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Sunset Cove
Traffic Impact Assessment Review
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often requires right turn tapers on developments of this nature along their roadways. An RCOC permit will be required prior to construction.

If you have any questions, please feel free to contact to me.

Respectfully,
DLZ, Inc.

Leigh Merrill, P.E.
Project Manager

Cc: Michael Leuffgen, P.E., DLZ *via email*
Hannah Micallef, Community Development *via e-mail*

WHITE LAKE TOWNSHIP PLANNING COMMISSION

REPORT OF THE COMMUNITY DEVELOPMENT DEPARTMENT

TO: Planning Commission

FROM: Sean O'Neil, AICP, Community Development Director
Justin Quagliata, Staff Planner

DATE: February 3, 2023

RE: Sunset Cove
Preliminary Site Plan and Special Land Use – Review #2

White Lake JZ, LLC has requested preliminary site plan (PSP) approval to construct three **(now two)**, four-story multiple-family residential buildings, **one, three-story multiple-family residential building**, and a 4,836 square foot two-story restaurant at 8300 Pontiac Lake Road **(the address and parcel number shall be provided on Sheet 1 of the PSP) (comment addressed – address and parcel number are now on Sheet 1)**, located on the north side of Pontiac Lake Road, north of Highland Road (M-59). The 2.68-acre (net area) site is zoned PG (Pontiac Lake Gateway) and contains 509.45 feet of frontage on Pontiac Lake Road. **The legal description of the parcel shall be reviewed by the Township Engineering Consultant. (Comment outstanding). Additionally, the surveyor's seal and signature shall be placed on Sheet 2 of the PSP. (Comment outstanding. The response letter provided to the first review by the Developer's architect states a boundary survey/legal description will be done if the PSP is approved).**

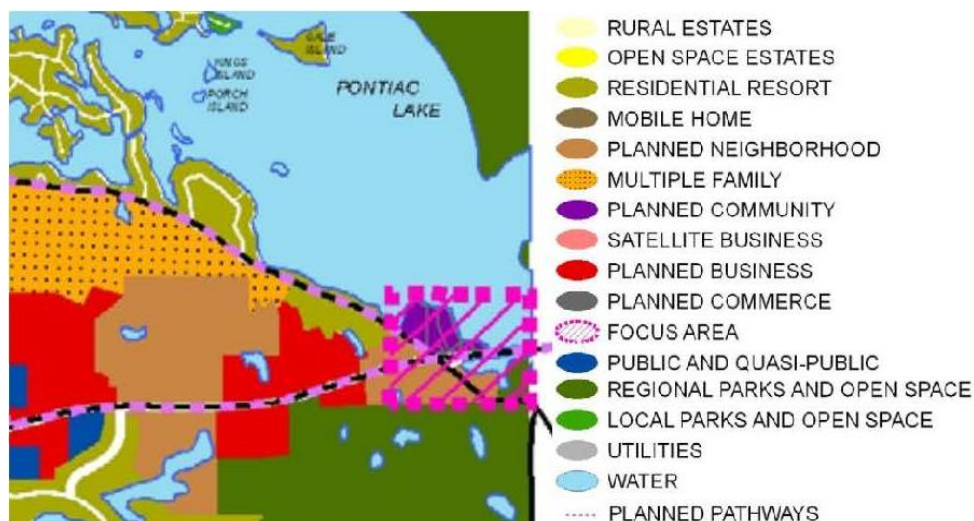
The PSP notes the development shall be constructed as a single phase. Overall, there would be 50 **(now 46)** units among three buildings consisting of two, 18-unit buildings and one, 14-unit **(now 10-unit)** building. All of the units would contain two bedrooms and be accessed from the interior of the buildings via a common corridor circulating through the buildings. Upper floors could be accessed by an elevator or stairways. Unit sizes range from 1,000 square feet to 1,214 square feet. The **four-story** residential buildings would be ~~four stories in height (55'-4")~~ **in height, and require special land use approval (in the PG district buildings over 40 feet or four-stories in height require special land use approval).** ~~with~~ **All of the residential buildings would have** covered parking (garage) on the first floors. 27 **(now 26)** parking spaces would be on the first floor of Building Type 1 (18-unit buildings) and 20 **(now 19)** parking spaces would be on the first floor of Building Type 2 (14-unit **(now 10-unit)** building). All of the units would have a balcony.

The Developer must clarify if the units would be apartments for rent (and provide anticipated lease rates) or condominiums for sale (and provide anticipated price range). (Comment addressed. The response letter provided to the first review by the Developer’s architect indicates the units would be condos for sale ranging from \$400,000 - \$500,000 (based on economy and interest rates).

Master Plan

The Future Land Use Map from the Master Plan designates the subject site in the Planned Community category, and the property is located in the Pontiac Lake Gateway Focus Area. Planned Community is intended to be characterized by a mix of uses including higher residential densities and a variety of housing product types as well as a core area with retail, dining, entertainment, governmental, recreational, institutional, office and personal service establishments. Residential elements of a Planned Community may take the form of a freestanding neighborhood, or may be permitted on the upper floors of nonresidential development in the community core area. Multi-use/story buildings are expected to have two or three stories, however open space must be provided. Connections to and segments of the Township community-wide pathway system are required as an integral part of all developments. With 50 total units on 2.68 net acres, density of the proposed multiple-family portion of the development is 18.66 dwelling units per acre (du/a). Multiple-family developments are typically limited to a maximum of 10 du/a. Given the subject property is zoned PG, **staff suggests 14 du/a as appropriate maximum density for the site. A reduction of 12 units, from 50 units to 38 units, would reduce the density to 14.18 du/a.** (Comment outstanding. The fourth floor of Building 3 has been eliminated, reducing the quantity of units from 50 units to 46 units. With 46 total units on 2.68 net acres, density of the proposed multiple-family portion of the development is 17.16 du/a (density only reduced 1.5 du/a). Staff continues to suggest 14 du/a (which is 4 du/a more than allowed in the most-dense multiple-family zoning district) as appropriate for the site. A reduction of 8 units, from 46 units to 38 units, would reduce the density to 14.18 du/a).

FUTURE LAND USE MAP



Zoning

The subject site is located in the PG (Pontiac Lake Gateway) zoning district, which requires a minimum of 5,000 square feet of lot area. The PG district does not have a minimum lot width requirement. Restaurants with or without alcoholic beverage service are permitted with site plan review and approval in the PG zoning district. Drive-in or drive-thru restaurants require special land use approval. The type of restaurant or tenant has not been identified by the Developer. **The Planning Commission, and ultimately the Township Board, should specify the type of restaurant required on this site (carry-out, sit-down, etc.).** (Comment outstanding. No information has been provided as to the type of restaurant proposed).

ZONING MAP



Physical Features

The site was formerly occupied by Village on the Lake mobile home community, but is currently vacant. Topography of the site is generally level. Pontiac Lake is adjacent to the north and west sides of the site.

Access

The site fronts on Pontiac Lake Road, which along the property is a paved, two-lane public road without curb and gutter designated as a thoroughfare with a 120-foot right-of-way requirement by the Road Commission for Oakland County (RCOC). **The Developer will be required to dedicate the additional portion of the future right-of-way at the north side of Pontiac Lake Road to the RCOC.** (Comment remains as a notation. The future right-of-way is proposed to be dedicated and shown on the site plan).

Two, two-way driveways are proposed to serve the site. Two-way undivided driveways must have a throat width of 25 feet. **The throat width shall be increased to 25 feet (throat length is the distance parallel to the centerline of a driveway from the public or private road right-of-way or access easement to the first on-site location at which a driver can make a right-turn or left-turn).** (Comment addressed. Throat width has been revised).

All dimensions for drive widths and parking space depth shall be revised. (Comment partially addressed. Not all drive widths have been revised (for example: the drive width between Building 1 and Building 2). **The site plan measures drive widths to the back of curb; road measurement surface is taken between the edges of the gutter pan (required drive width shall be provided between the edges of the gutter pan).** Furthermore, curb and gutter (including gutter pan) shall not be included in the measurement of parking space depth. **If required drive width and parking space depth are not provided, variances shall be required from the Zoning Board of Appeals.** (As proposed, a drive aisle width variance is required). **Additionally, the plans shall be revised to clearly indicate the on-site circulation pattern.** (Comment addressed. A traffic control device (raised island) has been added to the easterly driveway for right-in, right-out access only).

The zoning ordinance requires site plans incorporate cross-access with neighboring sites via connected parking aisles or frontage roads, shared side service drives and/or site access drives, and rear service drives connecting to side roads. Such cross-access shall be supported by general-purpose (unrestricted) easements, as well as agreements regarding maintenance responsibilities. **The required cross-access shall be provided to the east property line.** (Comment outstanding. An 18-foot-wide cross-access easement area is shown in two parking spaces along the east side of the site. If the required cross-access is not built to the property line as part of this project, an agreement (subject to approval of the Township Attorney) would have to be submitted by the Developer and approved by the Township Board at final site plan. Also, if the cross-access, when implemented, eliminates required parking spaces, an additional variance would be required from the Zoning Board of Appeals as the site is already deficient in parking spaces. Furthermore, the required drive width is 24 feet. If the cross-access easement area is not widened, a variance from the Zoning Board of Appeals is required).

The zoning ordinance requires a minimum six-foot-wide sidewalk placed one-foot from the inside edge of the right-of-way along the Pontiac Lake Road property frontage, which the Developer will be required to install as part of the project. The submitted site plan shows an eight-foot concrete sidewalk along the property frontage. **The frontage sidewalk along Pontiac Lake Road shall be constructed to the west property line and through the driveways (concrete sections through the approaches).** (Comment outstanding. If the sidewalk is not constructed to the west property line, a variance is required from the Zoning Board of Appeals). Internal sidewalks along Pontiac Lake are five-foot-wide, and seven-foot-wide (not labeled – scaled by staff) along a portion of the accessible parking spaces adjacent to the restaurant building. **A seven-foot-wide sidewalk is required south of the restaurant building – label the aforementioned sidewalk width on the site plan.** (Comment addressed. A seven-foot-wide sidewalk is provided and labeled south of the restaurant building).

The Developer shall submit a trip generation analysis prepared which estimates future vehicle trips that could be generated by development of the property with the proposed project. (Comment partially addressed. A trip generation analysis was submitted which shows the anticipated number of vehicle trips triggers the requirement to provide a traffic impact assessment (TIA). The response letter provided to the first review by the Developer’s engineer indicates a TIA is being performed by Fleis & Vandenbrink). The purpose of a trip generation analysis is to determine, based on the projected traffic volumes, if the thresholds for requiring a traffic impact assessment or traffic impact statement are met. A traffic impact assessment is required if the proposed use(s) would generate between 500 and 749 driveway trips per day, or between 50 and 99 peak-hour, peak-direction driveway trips. A traffic impact statement is required if the proposed use(s) would generate 750 or more driveway trips per day, or 100 or more peak-hour, peak-direction driveway trips. An average day is the average 24-hour total of all vehicle trips counted to and from a study site from Monday through Friday. A peak hour of traffic is the hour of highest volume of traffic entering and exiting the site during the morning and afternoon hours.

Utilities

The project would be served by both the municipal water and sanitary sewer systems. The Township Engineering Consultant will perform an analysis of grading, stormwater, and location and capacity of utilities to ensure compliance with all applicable ordinances as well as the Township Engineering Design Standards.

Staff Analysis

The development standards for the PG district allow for 0-foot front yard setbacks, and 0-foot side yard setbacks (0-foot side yards are permitted when interior (within) the PG district). Building 2 is located 1.5 feet (now 1.43 feet) from the future Pontiac Lake Road right-of-way and Building 3 is located 5.64 feet (now 4.73 feet) from the future Pontiac Lake Road right-of-way. The minimum setback from Pontiac Lake is 30 feet for buildings three stories or less, with an additional five feet required for each story over three, and an additional five feet required for each 100 feet of building length. Both Buildings 1 and 2 are four-stories in height and 156 feet in length; therefore, Buildings 1 and 2 each require a 42.8-foot setback from Pontiac Lake (note staff prorated the setback (45 feet could have been required under strict interpretation of the ordinance)).

The restaurant building is two-stories in height and less than 100 feet in length; therefore, a 30-foot setback from Pontiac Lake is required. Note all buildings and structures are also subject to the required 25-foot natural features setback from Pontiac Lake.

The following setback variances are required from Pontiac Lake:

- Building 1
 - 27.8-foot (**now 30.35 foot**) variance from Pontiac Lake building setback
 - 10-foot (**now 12.55 foot**) variance for natural features setback encroachment
- Building 2
 - 19.8-foot (**now 22.04 foot**) variance from Pontiac Lake building setback
 - 2-foot (**now 4.24 foot**) variance for natural features setback encroachment
- Restaurant Building
 - 9.2-foot (**now 10.46 foot**) variance from Pontiac Lake building setback
 - 4.2-foot (**now 5.46 foot**) variance for natural features setback encroachment

For safety reasons and to provide open space, the zoning ordinance requires setbacks between buildings. Where two or more multiple-family structures are erected on the same lot, a minimum setback of 20 feet must be provided between structures. If the structures have a common yard, this setback must be increased by two feet for each ten feet or part thereof by which each of the buildings exceed 40 feet in length on that side of the building facing the common yard. Both Buildings 1 and 2 are over 40 feet in length facing the common yard; therefore, a 45.5-foot setback is required between Buildings 1 and 2. Furthermore, structures located within a multiple-family development must have a minimum setback of 25 feet from the back of sidewalk or 25 feet from back of curb for developments without sidewalks. Buildings 1, 2, and 3 do not meet the required setbacks. Also, the minimum setback between Building 1 (residential) and the restaurant building is 35 feet (the 35-foot setback is the minimum commercial building side yard setback of 15 feet (in General Business and Restricted Business) plus the minimum setback between buildings of 20 feet in a multiple-family development); ~~only 34.4~~ **37.46** feet is provided.

The following building setback variances are required:

- Buildings 1 and 2
 - 11.4-foot (**now 10.8 foot**) variance from setback between buildings
- ~~• Building 1 and Restaurant Building~~
 - ~~○ 0.6 foot variance from setback between buildings~~
- Building 1
 - 25-foot variance from back of sidewalk
- Building 2
 - 25-foot variance from back of sidewalk
- Building 3
 - 25-foot variance from back of sidewalk (east)
 - 20-foot (**now 21.5 foot**) variance from back of curb (west)

In the PG zoning district, buildings must occupy 75 percent of the front build-to-line of a site, which is defined as its front right-of-way line. For Commissioners unfamiliar with this concept, a build-to-line is the building line to which a building must be constructed. Generally, a build-to-line is the opposite of a setback; however, similar to setback, a build-to-line runs parallel to the right-of-way and is established to create a generally consistent building line along a street. The build-to-line designates the specific location or range within which the front building line must be located. A variance is required from the 75 percent build-to-line coverage.

Building Architecture and Design

Generally, exterior building materials should be comprised primarily of high quality, durable, low maintenance material, such as masonry, stone, brick, glass, or equivalent materials. Buildings should be completed on all sides with acceptable materials. The proposed residential building materials are a mix of hardie lap siding (horizontal) with aluminum panels (accents), and split-face block approximately 11 feet up around the base of the buildings, with asphalt shingle roofing. Metal (likely aluminum) balconies would be located on the buildings, using tension rods with turnbuckles anchored to wall plates to attach to the buildings.

The proposed building materials and architecture on the buildings are substandard in nature and not acceptable for a development of this magnitude. The residential buildings are 123-156 feet in length, 55'-4" in height, and could be considered imposing in appearance. In order to soften the appearance, **the facades shall be divided vertically into segments no greater than 60 feet wide. Articulation and relief of the facades shall be achieved by utilizing variegated, high-quality building materials, with each of the aforementioned segments recessed/off-set (change in the building plane) at least two and no more than five feet across the facades of the buildings. At least 70 percent of the facades shall be finished with a combination of masonry, stone, brick, glass, or equivalent materials. Additionally, horizontal cladding (siding) shall not be permitted on the facades; vertical (board and batten style) siding may be utilized outside of the aforementioned 70 percent requirement. (Comments addressed. The building materials have been revised to include a larger quantity of masonry products, articulation of the facade is shown on the revised elevations, and horizontal cladding has been replaced with vertical batten-style siding). Aluminum panels shall not be permitted on the buildings. (Comment outstanding. Aluminum panels remain on the building. The response letter provided to the first review by the Developer's architect indicates the panels have a wood color and texture, and the product is durable. While the Planning Commission has the ability to allow aluminum panels, staff suggests an alternate product be utilized as an accent material (e.g., a tile product). If any hardie lap siding is proposed on the revised building elevations, the colors shall be revised to complement the brick and/or stone product utilized. (Comment addressed. See comment in last paragraph on this page). The exterior elevations shall be revised accordingly. (The building material percentages on Sheets A.200 and A.201 do not result in 100 percent. Other materials (such as the aluminum panels) need to be included in the calculations and the calculations need to be corrected to result in 100 percent. Furthermore, on Sheets A.200 and A.201 the facade areas next to the elevations differ from the sum of the material areas listed in the tables on those sheets. Revise for consistency).**

Colors were also noted on the elevations of the residential buildings showing the different building materials for the project. **The currently proposed color scheme of the buildings should be revised; black and grey building material colors are not compatible with or complimentary to the architectural character the Township intends to achieve in the PG district. A brown/tan/taupe color scheme should be utilized on the buildings. (Comment addressed. The facade color scheme has been revised to utilize brown/tan/taupe colors).**

A sample board of building materials to be displayed at the Planning Commission meeting is required by the zoning ordinance and must be submitted at final site plan. (Comment remains as a notation. This requirement was acknowledged by the Developer’s architect in the response letter provided to the first review). Additionally, the address (street number) locations shall be shown on the buildings. Six-inch-tall numbers visible from the street shall be required. The address locations are subject to approval of the Township Fire Marshal. (Comment remains as a notation. The revised elevations show the address of the building).

Exterior elevations shall be provided for the restaurant building at final site plan. Building materials for the restaurant building shall match the residential buildings. (Comment remains as notation. The response letter provided to the first review by the Developer’s architect indicates exterior elevations for the restaurant building will be completed and submitted separately from the residential buildings. As the development would be constructed as a single phase (as indicated on the site plan), exterior elevations for the restaurant building shall be provided at final site plan). An outdoor patio should be provided on the lakeside of the restaurant building. If provided, details for the items to be located on the patio and details for the patio surfacing shall be provided at final site plan. An ornamental paving treatment should be required by the Planning Commission. The treatment should be something either decorative or something to provide aesthetic quality to the patio. Potential options for ornamental paving treatments include, but are not limited to, CMU pavers; brick; stone; or stamped, stained, and sealed concrete.

Accessory items such as railings, benches, trash receptacles, outdoor seating (such as tables and chairs), or sidewalk planters located in the vicinity of sidewalks and/or outdoor seating areas are required to be of commercial quality and complement the building design and style. **These details shall be provided at final site plan. (Comment remains as a notation. The response letter provided to the first review by the Developer’s architect states see the revised plans. However, details regarding the site accessories described above have not been provided).**

The PG district requires a first/ground floor be at least 14 feet in height, and upper floors are required to be at least 10 feet in height. All three residential buildings have a proposed first/ground floor height of 12 feet. A variance from the minimum floor height standard is required for each of the three buildings.

Trash Receptacle Screening

The zoning ordinance requires dumpsters to be surrounded by a six-foot-tall wall on three sides and an obscuring wood gate on a steel frame on the fourth side, located on a six-inch concrete pad extending 10 feet in front of the gate, with six-inch concrete-filled steel bollards to protect the rear wall and gates. **The pad does not satisfy zoning ordinance standards. A six-foot concrete apron is proposed; therefore, a four-foot variance is required from the Zoning Board of Appeals.** (Comment rescinded. The dumpster pad apron has been increased to 10 feet). The zoning ordinance also states dumpsters and trash storage enclosures shall be constructed of the same decorative masonry materials as the buildings to which they are accessory. Brickform concrete (simulated brick pattern) or stained, decorative CMU block are not permitted where the principal building contains masonry. Plain CMU block is also prohibited. **The dumpster enclosure shall match the same masonry product as the facade of the restaurant building with a steel-backed wood gate painted a complementary color to the masonry product.** (Comment remains as a notation. Note 11 on Sheet 3 reiterates the aforementioned requirement). **A trash enclosure detail shall be provided showing compliance with the zoning ordinance and incorporation of the aforementioned design elements.** (Comment addressed. Dumpster enclosure details have been provided on Sheet A.001). **Furthermore, the dumpster enclosure should be reoriented southwest to be at a 45-degree angle with the drive aisle it is currently facing.** (Comment addressed. The dumpster has been reoriented southwest to be at a 45-degree angle with the drive aisle).

A trash collection plan shall be provided for the residential portion of the project. (Comment partially addressed. Trash rooms are now shown on the ground floor of the residential buildings on Sheets 3, A.100, and A.101. The Developer shall clarify if the intent is for a trash collection company to drive a trash truck through the site, stop at each building, enter the garages to collect trash from the trash rooms, and take the trash to the trash truck).

Parking

For multiple-family dwellings, the zoning ordinance requires two parking spaces for each dwelling unit plus ¼ of a space per bedroom for guest parking in common areas. With 50 (now 46) multiple-family dwelling units consisting of 100 (now 92) bedrooms, a total of 125 (now 115) spaces would be required for the project (100 (now 92) resident spaces and 25 (now 23) guest spaces). A total of 125 (now 115) spaces are proposed (74 (now 71) covered spaces and 51 (now 44) spaces not associated with individual units). **The most northerly parking space east of Building 1 and the two parking spaces between Buildings 1 and 2 shall be removed.** (Comment partially addressed. The most northerly parking space east of Building 1 has been removed. However, the two parking spaces between Buildings 1 and 2 have not been removed. Staff recommends denial of the two aforementioned parking spaces due to access and circulation concerns).

For restaurants (not fast-food (with or without alcohol)), the zoning ordinance requires one parking space per each 60 square feet of gross floor area. With 4,836 square feet, 81 parking spaces would be required to serve the restaurant. A total of 81 spaces are proposed.

The zoning ordinance requires each individual parking space be delineated by dual stripes, two feet apart centered on the dividing lines and painted white. The site plan shall be revised to indicate the required striping. (Comment outstanding. The site plan shall be revised to show the required box pattern). Additionally, a parking stall striping detail shall be provided for the barrier-free space and access aisle as well as the standard space. A “Van Accessible” sign detail for the barrier-free parking shall also be provided. (Comments addressed. The aforementioned details have been added to Sheet 3).

Boat docks are proposed on Pontiac Lake consisting of 26 (now 30) spaces. **The docks/spaces shown east of the parcel’s lake frontage shall be removed. (Comment addressed. The docks/spaces have been shifted west so they are not in front of the adjacent parcel’s lake frontage). The Planning Commission, and ultimately the Township Board, must decide if boat docks would be allowed as part of the site plan. If allowed, approval would also be required from the Michigan Department of Environment, Great Lakes, and Energy (EGLE). (Comments remain as a notation). Furthermore, if allowed, the Township should restrict dock usage west of the parcel to residents on the property. Only the docks (if allowed) in front of the restaurant should be utilized by the public. (Comments remain as a notation. The response letter provided to the first review by the Developer’s architect states the Developer agrees the docks west of the parcel shall be restricted to resident use and the docks in front of the restaurant would be utilized by the public). A boat livery or boat marina shall be prohibited. (Comment remains as a notation. The response letter provided to the first review by the Developer’s architect states it is noted a boat livery or boat marina is prohibited). Furthermore, the Developer may request the Zoning Board of Appeals make an interpretation allowing the number of required automobile parking spaces on the site to be reduced by one automobile parking space for every two boat parking spaces installed adjacent to the site, up to a maximum of 10 percent of the total number of required automobile parking spaces. Only the Zoning Board of Appeals has the authority to make the aforementioned interpretation. (Comment remains as a notation. A variance is requested to allow for a reduction of 15 parking spaces. 196 parking spaces are required to serve the site (115 residential spaces and 81 restaurant spaces) and 194 parking spaces are proposed).**

The existing wood boat dock at the west property line shall be removed (note on site plan). (Comment addressed. A note indicating removal has been added to Sheet 3).

Off-Street Loading Requirements

The zoning ordinance requires one loading space to serve the proposed restaurant. Such loading and unloading space must be an area 10 feet by 50 feet, with a 15-foot height clearance. **No loading space is proposed, so a variance is required from the Zoning Board of Appeals.** (Comment rescinded. A loading space has been added for the restaurant. The response letter provided to the first review by the Developer’s architect states the location of the loading space will not interrupt parking for the restaurant because loading/unloading operations will only occur during off-hours).

Signs

The zoning ordinance requires the area, quantity, location, and dimensions of all signs to be provided with a preliminary site plan. The site plan shows the location of a monument sign within the future road right-of-way. **A permit from the RCOC and a variance from the Zoning Board of Appeals would be required to install a sign in the road right-of-way.** (Comment rescinded. The sign is now located outside of the Pontiac Lake Road right-of-way). **Placement of the monument sign should be revised to meet locational requirements of the zoning ordinance.** (A variance for the sign location is still be required as the monument sign does not meet the minimum required setback from the road right-of-way). **The aforementioned signage details shall also be provided.** (Comment outstanding).

Landscaping and Screening

Landscaping must comply with the provisions of the zoning ordinance and should be designed to preserve existing significant natural features and to buffer service areas, parking lots, and dumpsters. A mix of evergreen and deciduous plants and trees are preferred, along with seasonal accent plantings. A landscape plan ~~will be~~ **was** provided and **will be** reviewed in detail during final site plan if the preliminary site plan is approved. Following are initial comments relative to a landscape plan:

- **A 20-foot greenbelt with one large deciduous or evergreen tree and eight shrubs for every 30 linear feet is required for circulation drives, parking lots, and delivery/service areas adjacent to the Pontiac Lake Road right-of-way. An approximately 16-foot variance from the Zoning Board of Appeals is required based on the proposed parking setback. Furthermore, with lack of land area to maintain landscaping, the required greenbelt plant material likely cannot be provided, requiring an additional variance.** (Comment rescinded. A variance is not required as circulation drives and parking stalls are now at least 20 feet from the Pontiac Lake Road right-of-way).

- **A snow storage plan was not provided. Information on method of snow storage shall be provided at final site plan. (Comment remains as a notation. This requirement was acknowledged by the Developer’s architect in the response letter provided to the first review). Winter maintenance of parking lot landscape islands (insufficient parking lot landscape islands for plant material – variance required from the Zoning Board of Appeals) shall be required where heavy applications of salt and de-icing products occur through the use of salt tarps which minimize soil absorption and ultimately reduce plant disorders. (Comment remains as a notation).**
- **Note on the site plan what would be done with the existing chain-link fence and existing wood fence (both are currently in poor condition). (Comment addressed. Sheet 3 indicates the existing fencing will be removed).**

Outdoor Lighting

Site lighting is required to comply with the zoning ordinance. Information on site lighting (photometric plan and lighting fixture specification sheets) must be provided at final site plan and will be reviewed in detail at that time. While the site plan shows locations of light poles and the elevations show wall-mounted sconce lighting, site lighting is only reviewed and approved via a photometric plan and required attachments. **All luminaries shall be removed from existing sheets in the plan set (architectural and engineered plans). (Comment partially addressed. All wall-mounted luminaries have been removed from the elevations (Sheets A.200 and A.201. The site plan still shows locations for light poles). Note the type of wall-mounted sconce lighting shown on the elevations is not permitted in the Township and would require a variance from the Zoning Board of Appeals to install. (Comment addressed. See previous comment).**

Planning Commission Options / Recommendation

The Planning Commission may recommend approval, approval with conditions, or denial of the preliminary site plan to the Township Board.; **action on the special land use is determined by the Planning Commission. Special land uses for building height are evaluated using the general standards for all special land uses listed in Section 6.10 of the zoning ordinance (attached). ~~Staff recommends the plans be revised and resubmitted to address the items identified in this memorandum. All site plan review submittals, following the initial PSP review, shall include a response letter detailing the changes made to the plan since the previous submittal. A list of any requested variances shall also be provided.~~ (Staff recommends once the TIA is submitted and reviewed the project is eligible for consideration by the Planning Commission. Any recommendation of approval of the PSP or approval of the special land use shall be conditioned on the Developer addressing all staff and consultant review comments and recommendations, and requesting/receiving the necessary variances from the Zoning Board of Appeals. Please note the number of variances proposed (21) is excessive. Noncompliance with zoning ordinance standards is being driven by the proposed density on a site of 2.68 net acres. It is unlikely the Zoning Board of Appeals will grant 21 variances. The Planning Commission should consider directing the Developer to revise their plans to eliminate the need for so many variances).**

Notes:

1. The site plan application shall be revised to list White Lake JZ, LLC as the property owner. (Comment addressed. The site plan application has been revised).
2. Notarized signatures of the applicant and property owner shall be provided on the site plan application. (Comment rescinded. See following comment).
3. Evidence, satisfactory to the Township Attorney, that the signatories on the application are authorized to execute on behalf of the applicant and property and owner shall be provided (company/corporate resolution). (Comment outstanding).
4. The note in the title block on the architectural plans regarding scale drawings and dimensions shall be removed. The zoning ordinance requires plans be to scale. Revise accordingly. (Comment outstanding. Contrary to the Architect's response letter to the first review indicating this item has been addressed, the architectural plans still contain the aforementioned note).

a special land use within that particular zoning district, a site plan shall be submitted consistent with the requirements of Section 6.8 – Site Plan Review and Approval, as well as Section 6.10 and 6.11 – Procedures and Standards for Approval of Special Land Uses.

- b. Identify any functional deficiencies of the existing site and/or structure, including (but not necessarily limited to):
 - (1) Parking lot layout, design, and construction
 - (2) Access (driveway) location and design
 - (3) Exterior lighting (location, height, prevention of glare)
 - (4) Signage (design, dimension, method of illumination, and/or location)
 - (5) Barrier-free accessibility
 - (6) Stormwater drainage
 - (7) Connection to municipal utilities (water and sewer)
 - (8) Wetlands delineation and protection
 - (9) Non-motorized access (sidewalks and/or pathways)

ii. Should the Director of the Community Development Department determine that the existing structure and/or property requires improvements in order to bring it into reasonable compliance with the standards of the Zoning Ordinance, those improvements shall be completed prior to issuance by the Building Official of a Change of Use Permit.

L. “As-built” engineering plans shall be provided to the Township following construction of the approved site plan.

6.9 PROVISION OF SEWER AND WATER SERVICE

The Township, in approval of a site plan, may condition approval on the applicant making provisions for water, sanitary sewer, and storm sewer facilities in accordance with this section. The Township may, at its option, condition Site

Plan approval on the applicant providing one or more of the following documents and/or guarantees:

- A. A requirement to connect the subject property to the Township’s water or sanitary sewer system if the system abuts the subject property or is extended to the subject property.
- B. Advance approval of a special assessment district for water and sewer services, including, if necessary, requiring the following:
 - i. Appointment of an individual or association to bind the property to participation in a special assessment district;
 - ii. Execution of any required petitions or other documents;
 - iii. Participation in the district;
 - iv. Prohibition against a challenge to the district; and
 - v. Payment of the special assessments as provided in the roll to be confirmed, subject to any appeal of the amount of the assessment(s) allowed by law.
- C. If the Township Board conditions approval upon one or more of the items set forth in this section, the applicant shall execute documentation, in form satisfactory to the Township attorney, to effectuate these conditions.

6.10 GENERAL STANDARDS FOR ALL SPECIAL LAND USES

A. General Requirements. For all special land uses, a site plan shall be submitted to the White Lake Township Planning Commission and conform to the Requirements and Procedures for Site Plan Review set forth in Section 6.8. If the plans meet the required standards of this Ordinance, Article and applicable sections and indicate no adverse effects which, in the opinion of the approval authority, cause injury to the residents, users or adjoining property, or the Township as a whole, the Planning Commission shall approve the use. The power to approve or disapprove all special land uses shall be vested with the Planning Commission as provided by State Law and this Ordinance. In consideration of all applications for special land use approval, the Planning Commission shall review each



1 Purpose and Introduction

2 Definitions

3 Zoning Districts

4 Use Standards

5 Site Standards

6 Development Procedures

7 Admin and Enforcement

case individually as to its applicability and must find affirmatively to each of the following standards of the proposed special land use if it is to be approved. Such uses shall be subject to conditions, restrictions and safeguards deemed necessary within the scope of the law as set forth below.

- i. The proposed special land use shall be of such location, size and character that it will be in harmony with the appropriate and orderly development of the surrounding neighborhood and/or vicinity and applicable regulations of the zoning district in which it is to be located.
- ii. The proposed use shall be of a nature that will make vehicular and pedestrian traffic no more hazardous than is normal for the district involved, taking into consideration vehicular turning movements in relation to routes of traffic flow, proximity and relation to intersections, adequacy of sight distances, location and access of off-street parking and provisions for pedestrian traffic, with particular attention to minimizing child-vehicle interfacing.
- iii. The proposed use shall be designed as to the location, size, intensity, site layout and periods of operation of any such proposed use to eliminate any possible nuisance emanating therefrom which might be noxious to the occupants of any other nearby permitted uses, whether by reason of dust, noise, fumes, vibration, smoke or lights.
- iv. The proposed use shall be such that the proposed location and height of buildings or structures and location, nature and height of walls, fences and landscaping will not interfere with or discourage the appropriate development and use of adjacent land and buildings or unreasonably affect their value.

- v. The proposed use shall relate harmoniously with the physical and economic aspects of adjacent land uses as regards prevailing shopping habits, convenience of access by prospective patrons, continuity of development, and need for particular services and facilities in specific areas of the Township.
- vi. The standards of density and required open spaces for the proposed special land use shall be at least equal to those required by this Ordinance in the Zoning District in which the proposed special land use is to be located.
- vii. The public services and facilities affected by a proposed special land use or activity shall be capable of accommodating increased service and facility loads caused by the land use or activity.
- viii. Protection of the natural environment and conservation of natural resources and energy.
- ix. The proposed use is necessary for the public convenience at the proposed location.
- x. The proposed use is so designed, located, planned and to be operated that the public health, safety and welfare will be protected.
- xi. The proposed use shall not cause substantial injury to the value of other property in the neighborhood in which it is to be located and will not be detrimental to existing and/or other permitted land uses in the zoning district.

6.11 PROCEDURES FOR REVIEW AND APPROVAL OF SPECIAL LAND USES

- A. Approval. If the Planning Commission determines that the particular special land use(s) should be allowed, it shall endorse its approval thereof on the written application and clearly set forth in a special land use permit the particular use(s) which have been allowed and applicable conditions. Thereafter, the enforcing officer may issue a building permit in conformity with the particular special land use so approved. In all cases where a particular special land use has been granted as



provided herein, application for a building permit in pursuance thereof must be made and received by the Township not later than one (1) year thereafter, or such approval shall automatically be revoked, provided, however, the Planning Commission or Township Board may grant an extension thereof for good cause shown under such terms and conditions and for such period of time not exceeding one (1) year as it shall determine to be necessary and appropriate. If granted concurrently, the duration of final site plan approval and special land use approval shall be the same.

B. Denial. If the Planning Commission determines that the particular special land use(s)

requested does not meet the standards of this Ordinance or otherwise will tend to be injurious to the public health, safety, welfare or orderly development of the Township, it shall deny the application by a written endorsement thereon which clearly sets forth the reason for such denial.

C. Record. The decision on a special land use shall be incorporated in a statement of findings and conclusions relative to the special land use under consideration. The decision shall specify the basis for the decision, and any conditions imposed.

D. Hearings. The Planning Commission shall investigate the circumstances of each such case and give notice of the time and place of any hearing, meeting or review which may be held relative thereto as required by State Law and/or its rules of procedure.

E. Conditions.

The Planning Commission may impose such conditions or limitations in granting approval as may be permitted by State Law and this Ordinance which it deems necessary to fulfill the spirit and purpose of this Ordinance. The conditions may include, conditions necessary to insure that public services and facilities affected by a proposed land use or activity will be capable of accommodating increased service and facility loads caused by the land use or activity, to protect the natural environment and conserve natural resources and energy, to insure compatibility with adjacent uses of land, and to promote the use of land in a socially and economically desirable manner.

Conditions imposed shall do all the following:

- i. Be designed to protect natural resources, the health, safety, and welfare, as well as the social and economic well-being of those who will use the land use or activity under consideration, residents and landowners immediately adjacent to the proposed land use or activity, and the community as a whole.
- ii. Be related to the valid exercise of the police power and purposes which are affected by the proposed use or activity.
- iii. Be necessary to meet the intent and purpose of the zoning regulations; be related to the standards established in this Ordinance for the land use or activity under consideration; and be necessary to insure compliance with those standards.

The conditions imposed with respect to the approval of a land use or activity shall be recorded in the record of the approval action and shall remain unchanged except upon the mutual consent of the approving authority and the landowner. The Planning Commission shall maintain a record of changes granted in conditions.





Fire Department
Charter Township
of White Lake

Site / Construction Plan Review

To: Sean O'Neil, Planning Department Director

Date: 02/10/23

Project: Sunset Cove

File #: N/A

Date on Plans: 01/23/23

The Fire Department has the following comments with regard to the second review of preliminary plans for the project known as Sunset Cove:

1. **Access drive.**

Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet, approved aerial fire apparatus access roads shall be provided. For the purpose of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater.

- a. Access drive minimum, unobstructed width requirement = **26'**, **exclusive of shoulders, in the immediate vicinity of the building or portion thereof.**
- b. Access drive proximity to the buildings - At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet and a maximum of 30 feet from the buildings, and shall be positioned parallel to one entire side of each building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire code official. **Comment has been Addressed**
- c. **All turn radiuses shall accommodate aerial apparatus (50').**
- d. **Provide a turn radius profile on future submittals showing apparatus movement.**
- e. The angle of approach and departure shall not exceed 8 degrees.

2. **Hydrants.**

- a. Relocate the hydrant positioned near the restaurant, to the area west of the dumpster enclosure (impact protection to be provided).
- b. Hydrant within the SAN LEAD island (Minimum, 50' setback from the building)
- c. Hydrant spacing shall not exceed 300'.

3. **Construction / life safety courtesy comment.**

- a. Suppression, alarm, FDC, Standpipe, Flow Indication, and Knox box requirements will be addressed during the construction plan review phase.

John Holland
Fire Chief

jholland@whitelaketwp.com

Plans are reviewed using the International Fire Code (IFC), 2015 Edition and Referenced NFPA Standards.

Sunset Cove Condominiums

8300 Pontiac Lake Road White Lake Township, MI 48386

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Owner

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Architect

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Civil Engineer

Seiber Keast Lehner, Inc
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Farmington Hills, MI 48331
P.248.308.3331

General Scope of Work:

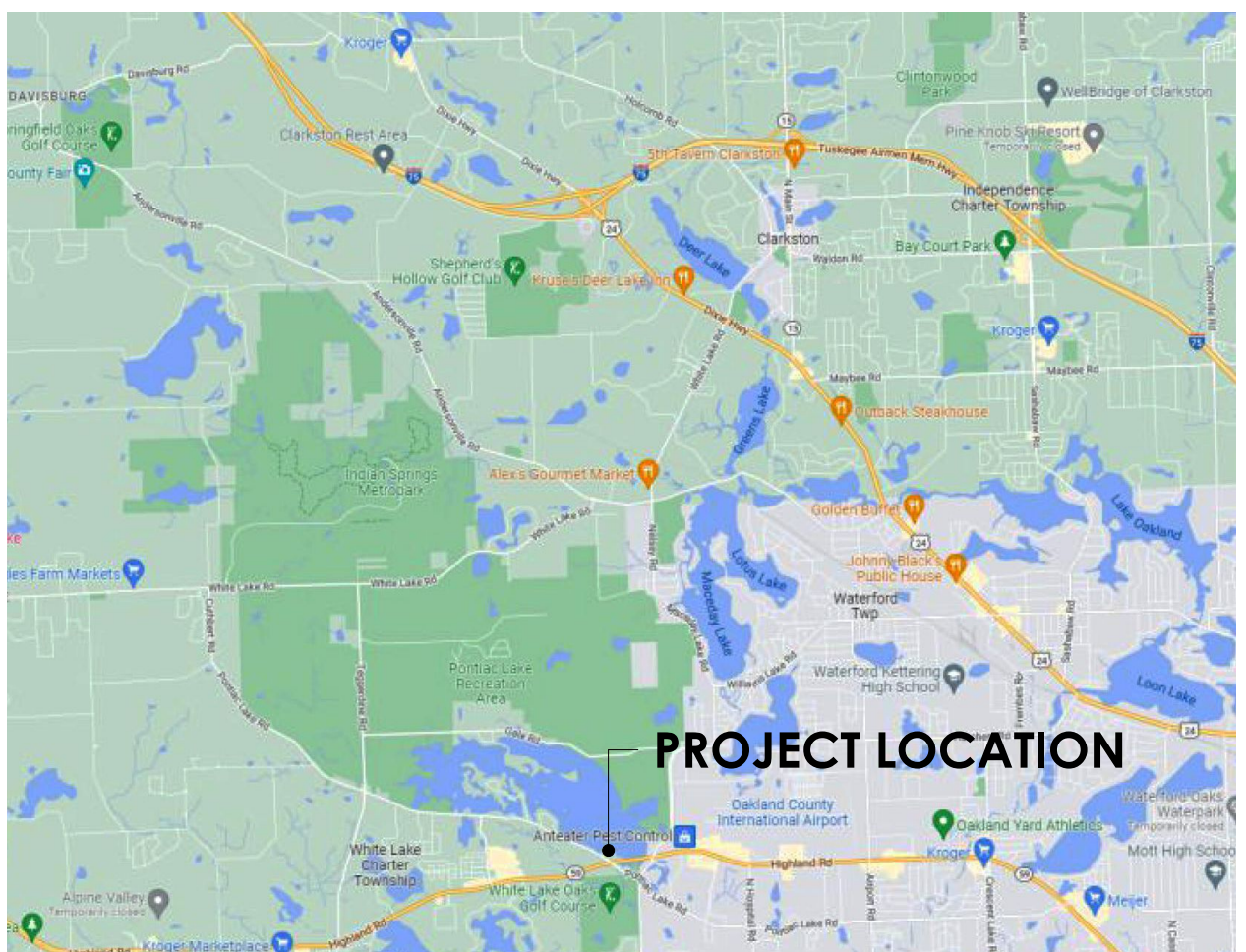
1. Redevelopment of an existing site; new parking lot and new paths for vehicular and pedestrian
2. Construction of (3) new residential buildings with enclosed parking on first floor. (46) total units.
3. Construction of new restaurant.

Sheet Index:

- G.001 Cover Sheet
- 1. Civil Cover Sheet
- 2. Topographic Survey Plan
- 3. Overall Site Plan
- 4. Grading Site Plan
- 5. Fire Truck Route
- 5A. Large Passenger Vehicle Route
- 6. Soil Borings Logs
- 7. Soil Borings Logs
- L-1 Overall Landscape Plan
- L-2 Landscape Enlargement Plans
- L-3 Landscape Details
- A.001 Site Details
- A.100 Floor Plans - Building Type 1
- A.101 Floor Plans - Building Type 2
- A.102 Floor Plans - Building Type 2
- A.200 Building Elevations - Typ.
- A.201 Building Elevations - Typ.

Project:
Sunset Cove Condominiums
8300 Pontiac Lake Road
White Lake Township, MI 48386

Issued	Description	By
11.16.2022	SPA	
01.10.23	SPA Revisions (1)	
01.23.23	SPA Revisions (2)	



North
Location Map
NTS



North
Site Location
NTS



View from Pontiac Lake



View from Pontiac Lake

PRELIMINARY NOT FOR CONSTRUCTION

Seal:

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:
Cover Sheet

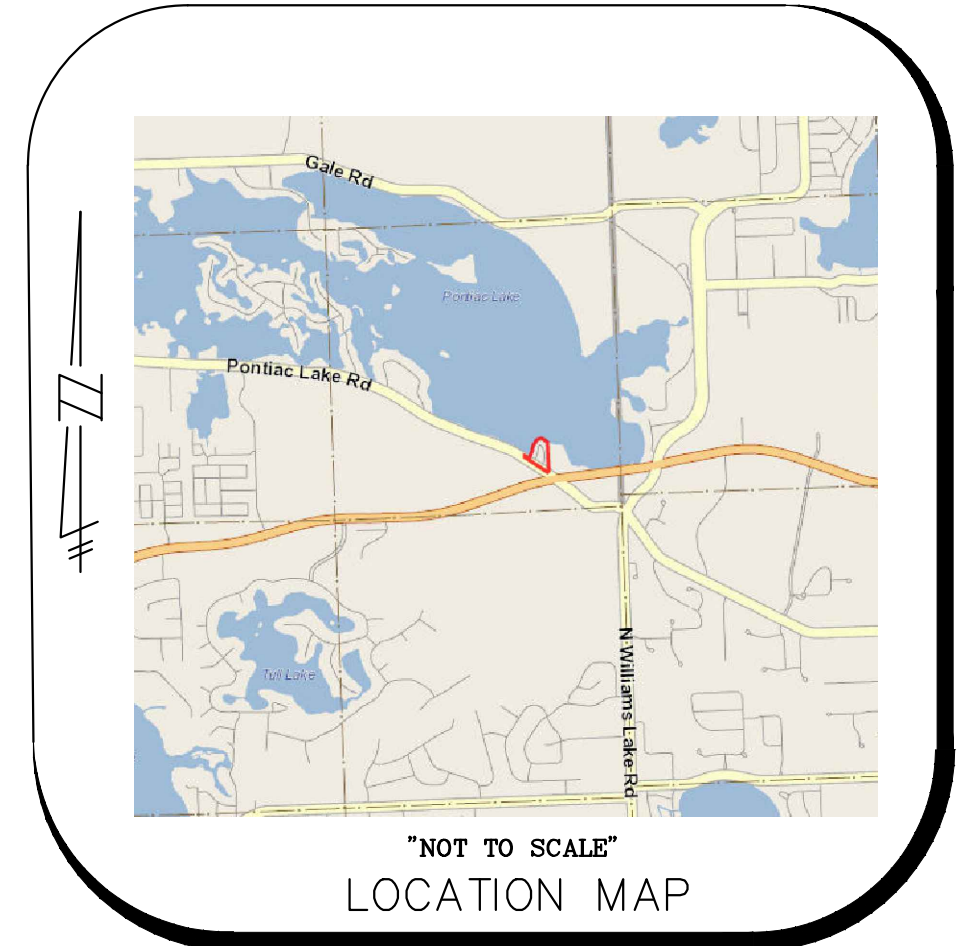
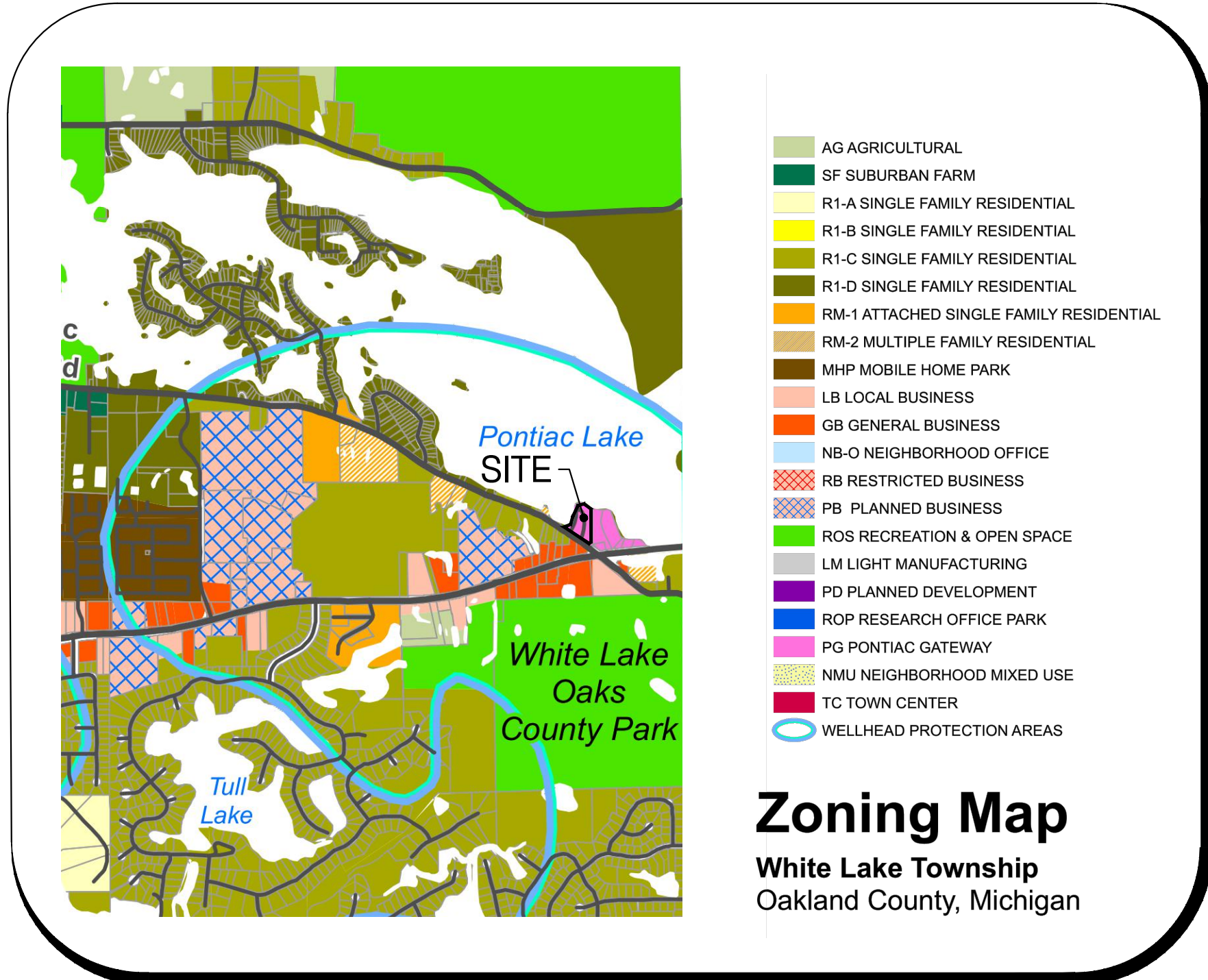
Project Number:
Project Number

Sheet Number:
G.001

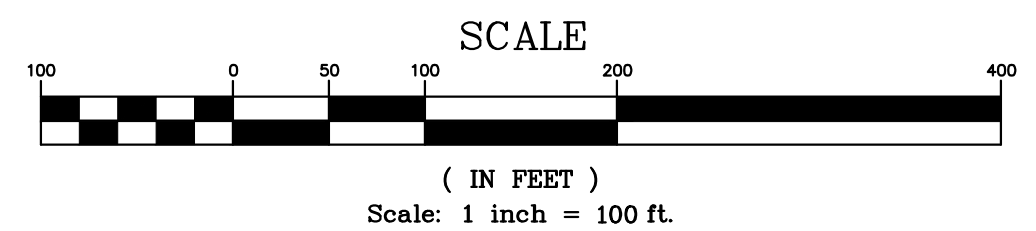
PRELIMINARY SITE PLAN FOR SUNSET COVE CONDOMINIUMS

PART OF THE WEST 1/2 OF THE SOUTHEAST 1/4
OF SECTION 13, T 3 NORTH, R 8 EAST,
WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN
PARCEL # 12-13-451-011
8300 PONTIAC LAKE ROAD, WHITE LAKE TWP., MI 48386

APPLICANT:
WHITE LAKE JZ, LLC
MICHAEL ZEER
30201 ORCHARD LAKE ROAD, SUITE 250
FARMINGTON HILLS, MI 48334
CELL: 248-892-3444
mikezeer@aol.com



- SHEET INDEX—SITE CIVIL
1. COVER SHEET
 2. TOPOGRAPHIC SURVEY PLAN
 3. OVERALL PLAN
 4. GRADING PLAN
 5. FIRE TRUCK AUTO TURN
 - 5A. LARGE PASSENGER VEHICLE AUTO TURN
 6. SOIL BORING LOGS
 7. SOIL BORING LOGS

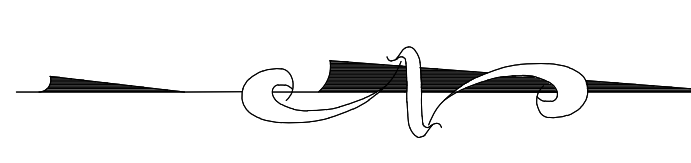


SKL SEIBER KEAST LEHNER
ENGINEERING | SURVEYING

CLINTON TOWNSHIP OFFICE
17001 NINETEEN MILE ROAD, SUITE 3
CLINTON TOWNSHIP, MI 48038
586.412.7050

FARMINGTON HILLS OFFICE
39205 COUNTRY CLUB DRIVE, SUITE C8
FARMINGTON HILLS, MI 48331
248.308.3331

	ENGINEER'S SEAL	DATE: 11-15-2023	DESIGNED BY: A.A. JOB NUMBER: 21-306											
			CHECKED BY: J.E. DRAWING FILE: 1-21306-CV											
	<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>ITEM</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>REV. PER TWP. REVIEW</td> <td>1-5-23</td> </tr> <tr> <td>2.</td> <td>REV. BLDG. 3 AND PARKING PER OWNER</td> <td>1-19-23</td> </tr> </tbody> </table>			REVISIONS			NO.	ITEM	DATE	1.	REV. PER TWP. REVIEW	1-5-23	2.	REV. BLDG. 3 AND PARKING PER OWNER
REVISIONS														
NO.	ITEM	DATE												
1.	REV. PER TWP. REVIEW	1-5-23												
2.	REV. BLDG. 3 AND PARKING PER OWNER	1-19-23												
COVER SHEET		SHEET 1												
		<small>CLINTON TOWNSHIP OFFICE 17001 NINETEEN MILE ROAD, SUITE 3 CLINTON TOWNSHIP, MI 48038 586.412.7050</small> <small>FARMINGTON HILLS OFFICE 39205 COUNTRY CLUB DRIVE, SUITE C8 FARMINGTON HILLS, MI 48331 248.308.3331</small>												



LEGEND

- OVERHEAD UTILITY LINES
- EXISTING DITCH
- EXISTING FENCE
- EXISTING SANITARY MANHOLE OR CLEANOUT
- EXISTING STORM SQ. CATCH BASIN
- EXISTING STORM ROUND CATCH BASIN
- EXISTING STORM MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING VALVE IN WELL
- EXISTING TELEPHONE RISER
- EXISTING CABLE RISER
- EXISTING ELEC. TRANSFORMER
- EXISTING ELECTRICAL METER
- GAS METER
- WATER SHUT OFF
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- P.I. SIGN
- SECTION CORNER
- F.I. FOUND IRON
- S.I. SET IRON
- (M) MEASURED
- (R) RECORD

BENCHMARKS:
 SITE BENCHMARK NO. 1
 ARROW ON HYDRANT
 LOCATED NORTH SIDE OF PONTIAC LAKE ROAD
 ELEVATION=969.06 (NAVD88)

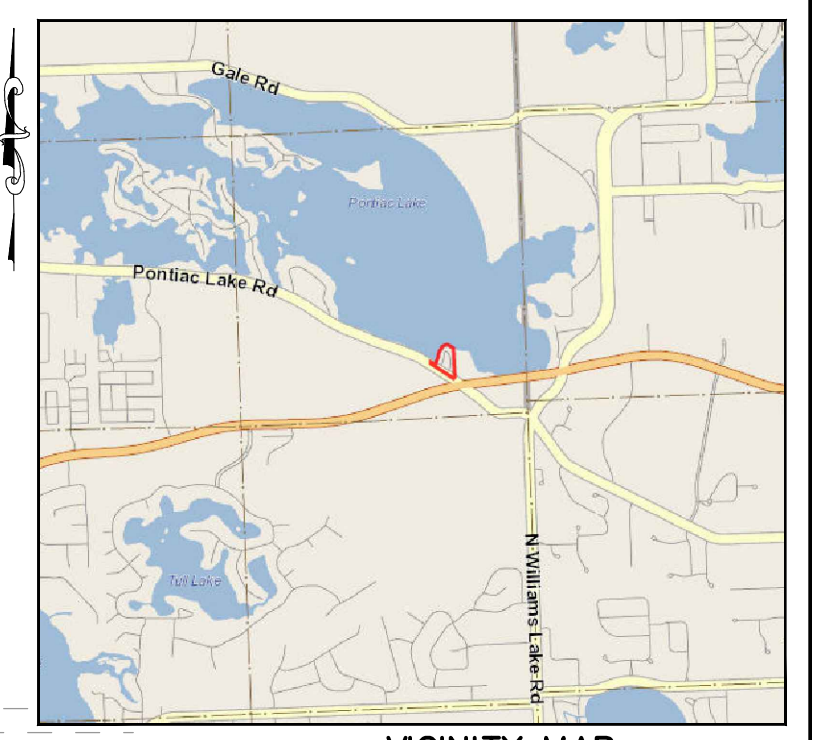
SITE BENCHMARK NO. 2
 ARROW ON HYDRANT
 LOCATED NORTH SIDE OF PONTIAC LAKE ROAD
 ELEVATION=968.85 (NAVD88)

FLOOD_ZONE CLASSIFICATION:
 MAP No.: 26125C0337F
 DATED: SEPTEMBER 29, 2006
 COMMUNITY PANEL NO.: 260479 0337 F

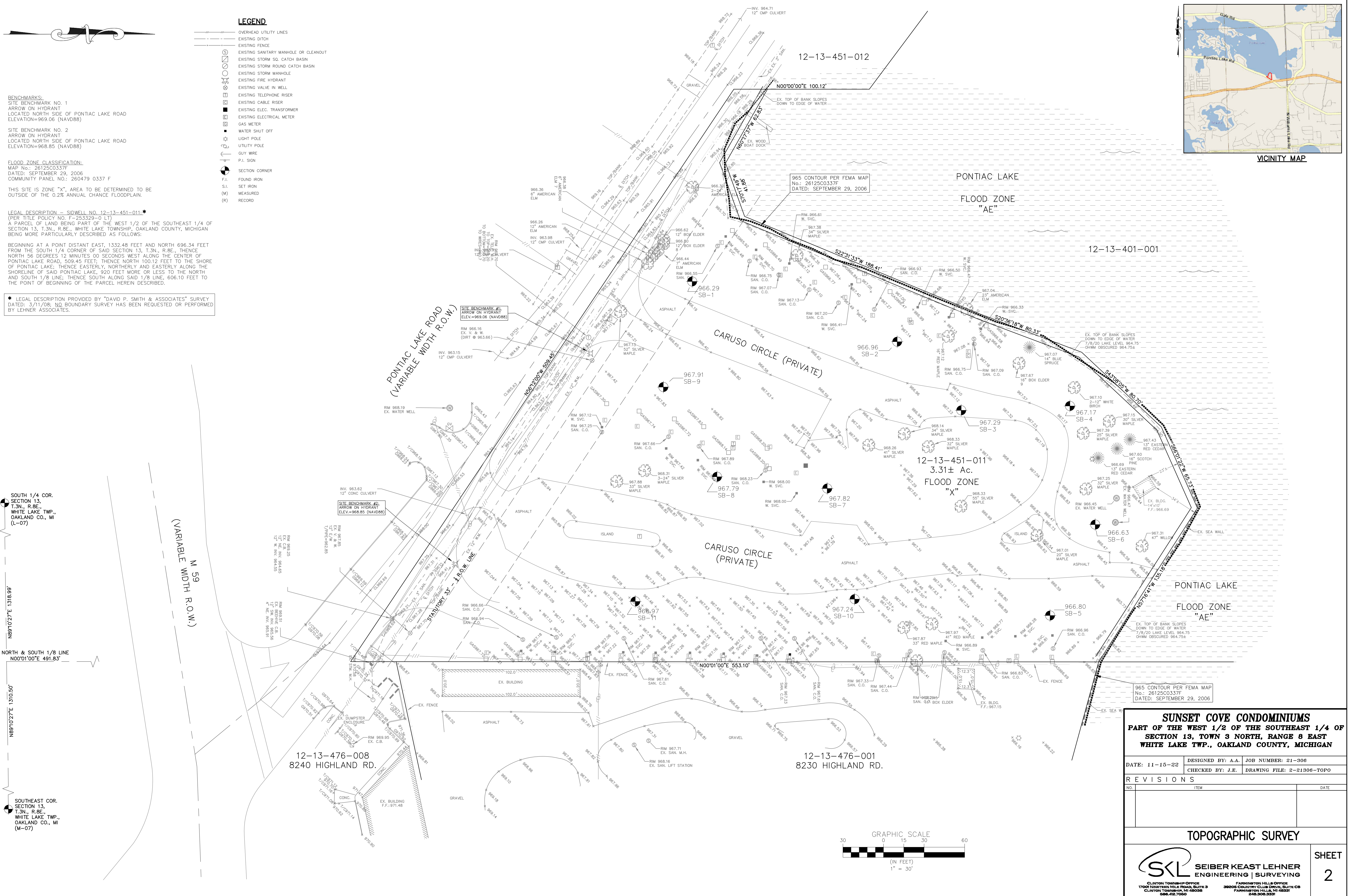
THIS SITE IS ZONE "X", AREA TO BE DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

LEGAL DESCRIPTION - SIDWELL NO. 12-13-451-011:
 (PER TITLE POLICY NO. F-253329-0 LT)
 A PARCEL OF LAND BEING PART OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 13, T.3N., R.8E., WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
 BEGINNING AT A POINT DISTANT EAST, 1332.48 FEET AND NORTH 696.34 FEET FROM THE SOUTH 1/4 CORNER OF SAID SECTION 13, T.3N., R.8E., THENCE NORTH 56 DEGREES 12 MINUTES 00 SECONDS WEST ALONG THE CENTER OF PONTIAC LAKE ROAD, 509.45 FEET; THENCE NORTH 100.12 FEET TO THE SHORE OF PONTIAC LAKE; THENCE EASTERLY, NORTHERLY AND EASTERLY ALONG THE SHORELINE OF SAID PONTIAC LAKE, 920 FEET MORE OR LESS TO THE NORTH AND SOUTH 1/8 LINE; THENCE SOUTH ALONG SAID 1/8 LINE, 606.10 FEET TO THE POINT OF BEGINNING OF THE PARCEL HEREIN DESCRIBED.

* LEGAL DESCRIPTION PROVIDED BY "DAVID P. SMITH & ASSOCIATES" SURVEY DATED: 3/11/08; NO BOUNDARY SURVEY HAS BEEN REQUESTED OR PERFORMED BY LEHNER ASSOCIATES.



VICINITY MAP



SUNSET COVE CONDOMINIUMS
 PART OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 13, TOWN 3 NORTH, RANGE 8 EAST WHITE LAKE TWP., OAKLAND COUNTY, MICHIGAN

DATE: 11-15-22 DESIGNED BY: A.A. JOB NUMBER: 21-306
 CHECKED BY: J.E. DRAWING FILE: 2-21306-TOPO

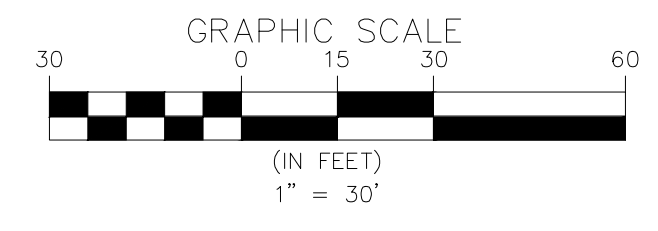
REVISIONS		
NO.	ITEM	DATE

TOPOGRAPHIC SURVEY

SKL SEIBER KEAST LEHNER ENGINEERING | SURVEYING

CLINTON TOWNSHIP OFFICE: 17001 NINETEEN MILE ROAD, SUITE 3 CLINTON TOWNSHIP, MI 48038 886.412.7060
 FARMINGTON HILLS OFFICE: 39206 COUNTRY CLUB DRIVE, SUITE C8 FARMINGTON HILLS, MI 48331 248.308.3331

SHEET 2



SOUTH 1/4 COR. SECTION 13, T.3N., R.8E., WHITE LAKE TWP., OAKLAND CO., MI (L-07)

NORTH & SOUTH 1/8 LINE N00°01'00"E 491.83'

SOUTHEAST COR. SECTION 13, T.3N., R.8E., WHITE LAKE TWP., OAKLAND CO., MI (M-07)

SITE DATA:

PARCEL ADDRESS: 8300 PONTIAC LAKE RD., WHITE LAKE TWP., MI 48386
 PARCEL IDENTIFICATION #: 12-13-451-011

GROSS AREA OF SITE: 3.31 AC.
 60' WD. R.O.W. AREA: 0.63 AC.
 NET AREA OF SITE: 2.68 AC.

EXISTING ZONING: PG - PONTIAC GATEWAY
 ADJACENT ZONING:
 NORTH: NO ZONING (PONTIAC LAKE)
 SOUTH: R1-C SINGLE FAMILY RESIDENTIAL AND G8 GENERAL BUSINESS
 EAST: PG - PONTIAC GATEWAY
 WEST: NO ZONING (PONTIAC LAKE)

MAX. BUILDING HEIGHT ALLOWED: 70 FT.
 BUILDING HEIGHT PROPOSED: 55 FT. +/-

RESIDENTIAL:
 TOTAL UNITS PROVIDED: 46 UNITS
 BUILDING 1: 18 (2 BEDROOM UNITS) 36 BEDROOMS
 BUILDING 2: 18 (2 BEDROOM UNITS) 36 BEDROOMS
 BUILDING 3: 10 (2 BEDROOM UNITS) 20 BEDROOMS
 TOTAL NUMBER OF BEDROOMS PROVIDED: 92 BEDROOMS

PARKING SPACES REQUIRED: 2 SPACES PER UNIT PLUS 1/4 SPACE PER BEDROOM
 2 x 46 UNITS = 92 SPACES
 1/4 x 92 BEDROOMS = 23 SPACES
 PARKING SPACES REQUIRED = 115 SPACES

RESTAURANT:
 GROSS AREA: 4,836 S.F.
 PARKING SPACES REQUIRED: 1 SPACE PER 60 S.F. OF GROSS AREA
 4,836 / 60 = 80.6 SPACES
 PARKING SPACES REQUIRED = 81 SPACES

PARKING VARIANCE REQUEST FOR BOAT DOCKING:
 APPLICANT REQUESTS A PARKING REQUIREMENT VARIANCE DUE TO DOCKING PROVIDED. THIRTY (30) BOAT DOCKING SPACES HAVE BEEN PROVIDED. A VARIANCE FROM THE ZONING BOARD OF APPEALS (ZBA) IS REQUESTED TO REDUCE THE PARKING REQUIREMENT BY ONE (1) PARKING SPACE FOR EVERY TWO (2) BOAT DOCKING SPACES. THEREFORE, A PARKING REQUIREMENT VARIANCE (REDUCTION) OF FIFTEEN (15) PARKING SPACES IS REQUESTED.

PARKING REQUIREMENT // PROVIDED:
 TOTAL PARKING REQUIRED:
 RESIDENTIAL = 115 SPACES
 RESTAURANT = 81 SPACES
 BOAT PARKING VARIANCE = -15 SPACES (REDUCTION)
 TOTAL PARKING REQUIRED = 181 SPACES
 TOTAL PARKING SPACES PROVIDED INCLUDING = 194 SPACES
 ONE SPACE DEDICATED FOR SAN. PUMP STATION

BARRIER-FREE RESERVED PARKING SIGNS

NOTE: ACCESSIBLE PARKING SPACE SIGNS SHALL HAVE A MIN. HEIGHT AND SIZE TO PERMIT THE SPACE TO BE EASILY IDENTIFIED AND ARE ELEVATED SUCH THAT THEY SHALL NOT PRESENT A HAZARD TO PERSONS WALKING NEAR THE SIGN.

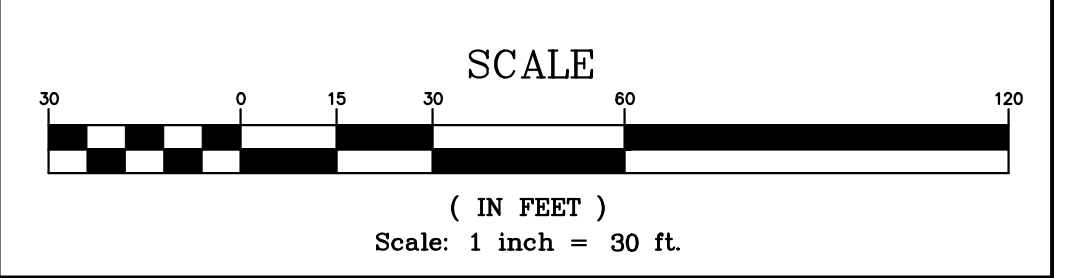
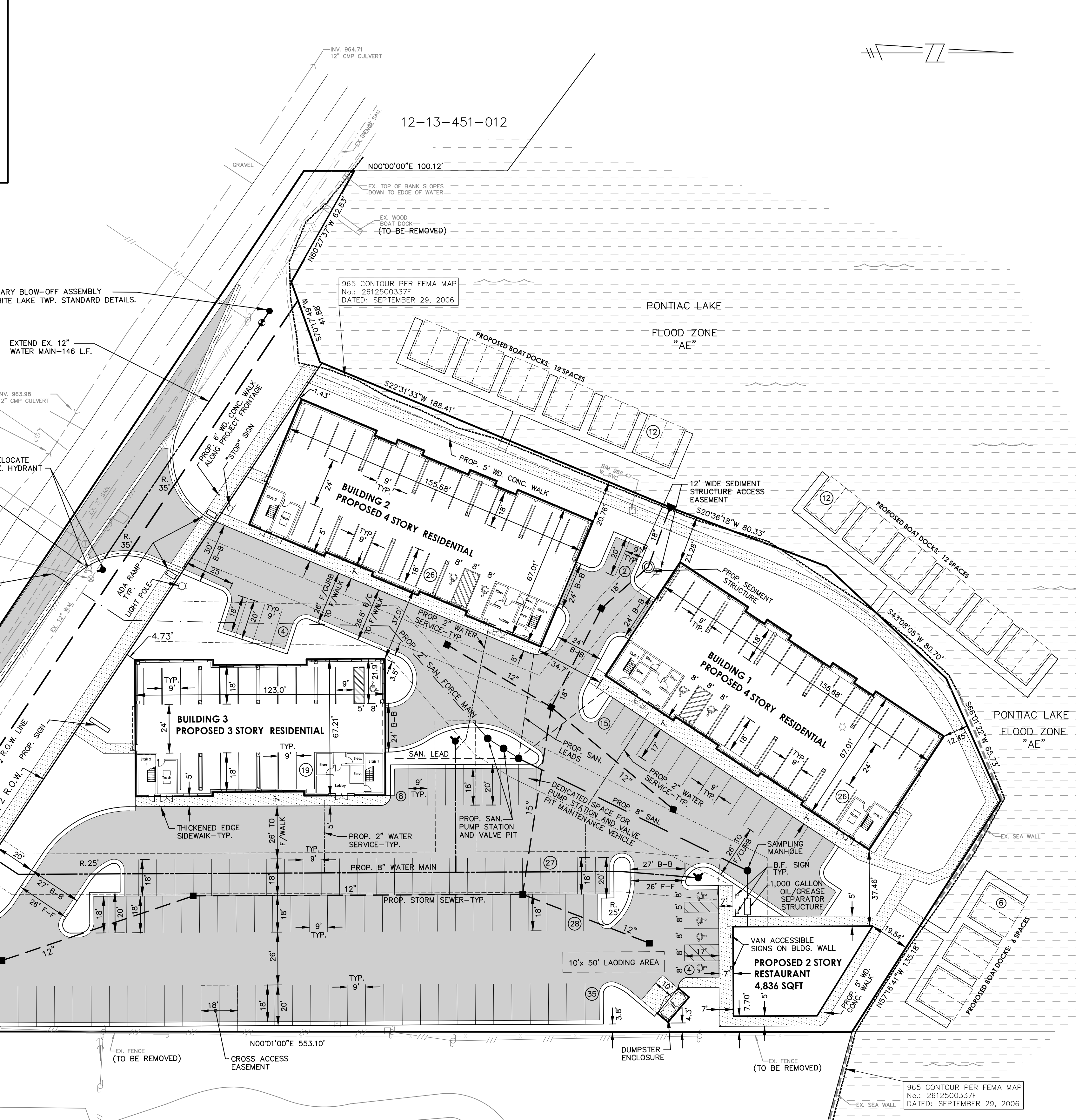
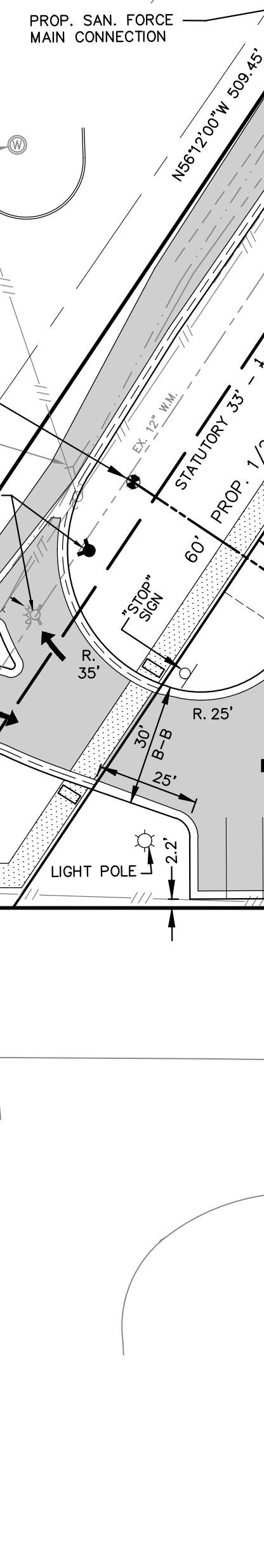
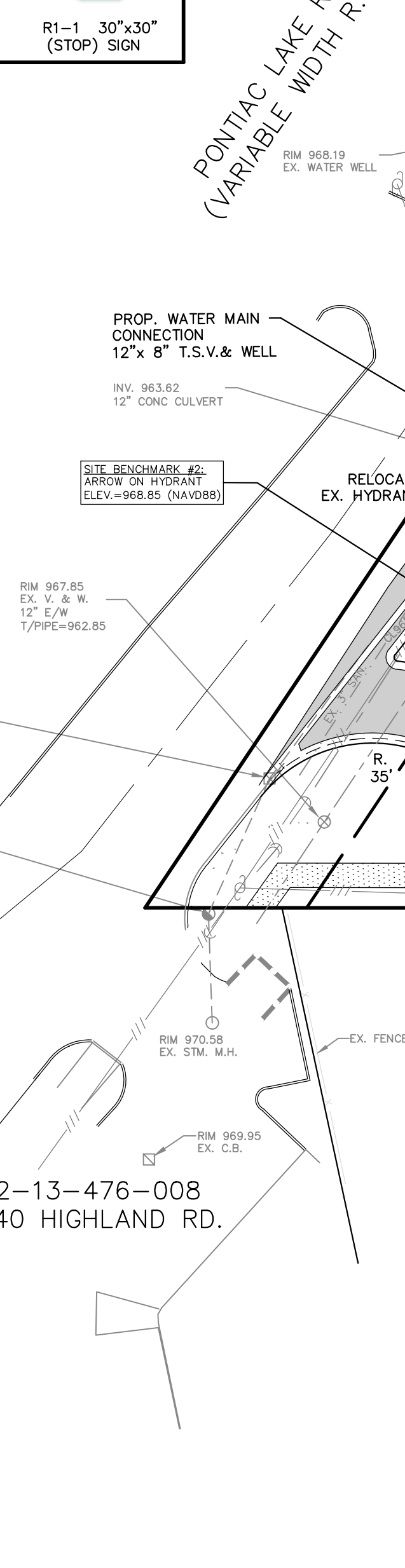
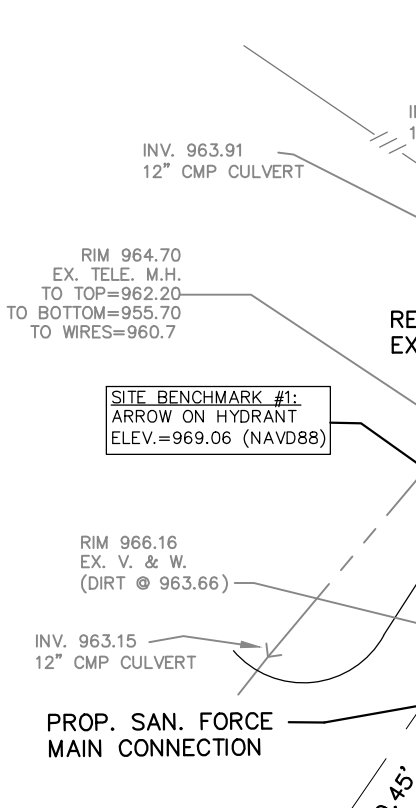
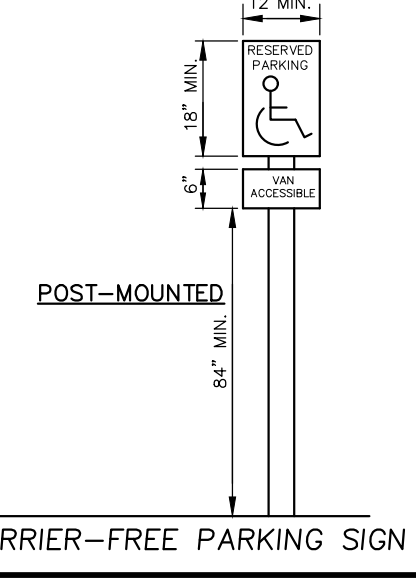
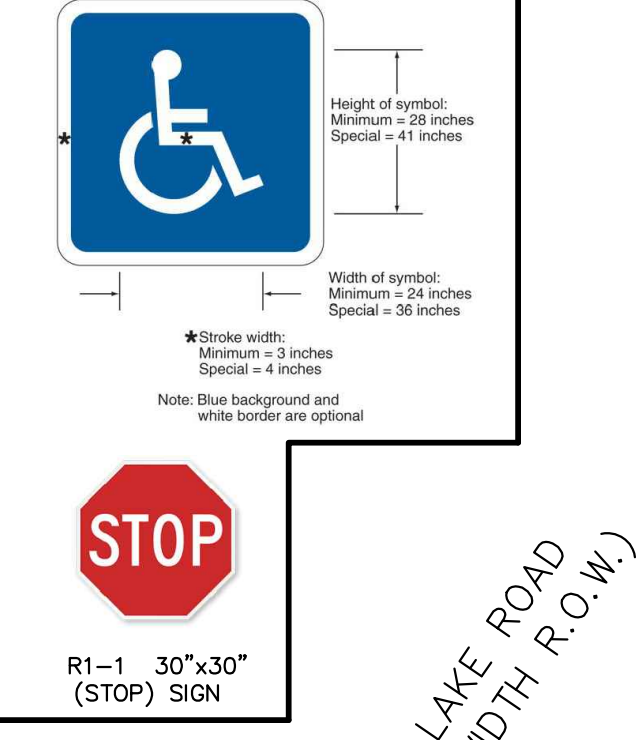
SIGNING NOTES

- ALL SIGNS SHALL HAVE A MINIMUM BOTTOM MOUNTING HEIGHT OF 7' FROM FINAL GRADE FOR GROUND MOUNTED SIGNS. WALL MOUNTED SIGNS MAY HAVE A BOTTOM MOUNTING HEIGHT OF 5'.
- ALL ROADSIDE SIGNS SHOULD BE INSTALLED TWO FEET FROM THE FACE OF THE CURB TO THE NEAR EDGE OF THE SIGN.
- SINGLE SIGNS WITH NOMINAL DIMENSIONS OF 12"x18" OR SMALLER IN SIZE SHALL BE MOUNTED ON A GALVANIZED 2 LB. U-CHANNEL POST. MULTIPLE SIGNS AND/OR SIGNS WITH NOMINAL DIMENSIONS GREATER THAN 12"x18" SHALL BE MOUNTED ON A GALVANIZED 3 LB. OR GREATER U-CHANNEL POST AS DICTATED BY THE WEIGHT OF THE PROPOSED SIGNS.
- TRAFFIC CONTROL SIGNS SHALL USE THE FHWA STANDARD ALPHABET SERIES.
- TRAFFIC CONTROL SIGNS SHALL HAVE A HIGH INTENSITY PRISMATIC (HIP) SHEETING TO MEET FHWA RETROREFLECTIVITY REQUIREMENTS.

STRIPING NOTES:

- PARKING LOTS SHALL HAVE PARKING AREAS AND RAMP PAVEMENT MARKINGS MARKED BY PAINTED 4-INCH WIDE LINES ACCURATELY AND NEATLY ARRANGED AS INDICATED ON THE PLAN. LINES SHALL BE PAINTED WITH AN APPROVED WHITE TRAFFIC PAINT COMPATIBLE WITH BITUMINOUS/CONCRETE SURFACES SUCH AS SHERWIN WILLIAMS NO. B2 9W; PRO TYPE 11-3 OR 11-4, OR AS APPROVED BY THE OWNER. PROTECT ALL PAINTED AREAS UNTIL PAINT IS COMPLETELY DRY. PARKING AREAS FOR THE PHYSICALLY HANDICAPPED SHALL BE PAINTED WITH BLUE PAINT FOR STRIPING. WHEEL CHAIR SYMBOL SHALL BE PAINTED WHITE. ALL PAINTED MARKINGS AND STRIPING SHALL BE PROVIDED IN TWO COATS.
- THE INTERNATIONAL SYMBOL FOR ACCESSIBILITY SHALL BE WHITE OR WHITE WITH BLUE BACKGROUND.
- WHEN A BARRIER FREE PARKING SPACE IS ADJACENT TO A STANDARD PARKING SPACE, BLUE AND WHITE LINES ABUTTING EACH OTHER SHALL BE PROVIDED.

Figure 3B-22: International Symbol of Accessibility Parking Space Marking



LOT COVERAGE:

GROSS AREA OF SITE	=	3.31 Ac.
BUILDING AREA	=	0.72 Ac.
PROPOSED LOT COVERAGE	=	0.72 / 3.31
	=	21.7%

SIGN QUANTITIES

SYMBOL	DESCRIPTION	QUANTITY	PANEL POST
○	R1-1 30"x30" (STOP) SIGN	2	2
□	R7-B 12"x8" BARRIER FREE HANDICAP SIGN	2	2
□	R7-BP 12"x6" (VAN ACCESSIBLE) SIGN	2	0

- PROPOSED IMPROVEMENTS:**
- MUNICIPAL SEWER TO BE PROVIDED BY CONSTRUCTING ON SITE GRAVITY SANITARY SEWER SYSTEM AND ON-SITE PUMP STATION AND FORCE MAIN. THE PROPOSED FORCE MAIN WILL CONNECT TO AN EXISTING 3" DIAMETER FORCE MAIN LOCATED IN PONTIAC LAKE ROAD.
 - WATER SUPPLY TO BE PROVIDED BY CONNECTING TO AN EXIST. 12" WATERMAIN ALONG PONTIAC LAKE ROAD. PROPOSED WATERMANS SHALL BE 8" AS SHOWN.
 - ON-SITE STORM WATER SYSTEM WILL FLOW TO A SEDIMENT STRUCTURE THEN DISCHARGE TO PONTIAC LAKE. STORM WATER DETENTION TO BE PROVIDED BY PONTIAC LAKE.
 - AN 8' WIDE CONC. SIDEWALK TO BE CONSTRUCTED ALONG THE NORTH R.O.W. OF PONTIAC LAKE ROAD AS SHOWN. SEE PAVEMENT CROSS SECTION AND CURB DETAILS ON SHEET 4.
 - ALL ELECTRIC, CABLE TV & PHONE LINES SHALL BE LOCATED UNDERGROUND AND SHALL BE PLACED WITHIN EASEMENTS DEDICATED FOR SUCH USE.

- NOTES:**
- ON-SITE SANITARY SEWER, SANITARY FORCE MAINS, AND WATER MAINS SHALL BE CENTERED IN A 20'-FOOT WD. EASEMENT.
 - ALL FORCE MAIN, PUMP STATION AND WATER MAIN IMPROVEMENTS WILL BECOME PUBLIC PROPERTY.
 - PROVISIONS PURSUANT TO OAKLAND COUNTY WATER RESOURCE COMMISSION AND SOIL EROSION CONTROL MANUAL WILL BE UNDERTAKEN INCLUDING, BUT NOT LIMITED TO, SILT FENCE AND INLET FILTERS.
 - PROPOSED GRADES WILL MATCH EXISTING ELEVATIONS AT THE PROPERTY LINES UNLESS RETAINING WALLS ARE PROVIDED OR GRADING EASEMENTS OBTAINED.
 - A PERMIT FROM THE ROAD COMMISSION FOR OAKLAND COUNTY WILL BE REQUIRED FOR ALL WORK IN THE PONTIAC LAKE ROAD RIGHT-OF-WAY.
 - ALL WATER MAIN SHALL BE CLASS 54 DUCTILE IRON & ALL GATE VALVES SHALL BE PLACED IN GATE WELLS.
 - ALL STORM STRUCTURES EXCEPT FOR INLETS WHICH CONNECT TO CATCH BASINS WILL BE A MINIMUM OF 4 FEET IN DIAMETER.
 - THE DEVELOPMENT SHALL BE CONSTRUCTED AS A SINGLE PHASE.
 - ALL EXISTING UTILITIES ON THE PROPERTY WILL BE REMOVED, INCLUDING SANITARY SEWER AND STORM SEWER.
 - ALL EXISTING WELLS ON SITE WILL BE ABANDONED IN ACCORDANCE WITH OAKLAND COUNTY HEALTH DEPARTMENT REQUIREMENTS.
 - THE DUMPSTER ENCLOSURE SHALL MATCH THE SAME WOODEN PRODUCT AS THE RESTAURANT BUILDING WITH A STEEL-BACKED WOOD GATE PAINTED WITH A COMPLEMENTARY COLOR TO THE MASONRY PRODUCT.
 - THE ANGLE OF APPROACH AND DEPARTURE SHALL NOT EXCEED 300 FEET.
 - REMOVE OR RELOCATE FIXED OBJECTS LOCATED WITHIN THE R.O.C.D. RIGHT-OF-WAY PRIOR TO EXCAVATION. FIXED OBJECTS SHALL BE NO NEARER THAN 5' FROM BACK OF CURB, OR 12' FROM LANE LINE.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
▭	▭	PAVEMENT (ASPHALT)
▭	▭	SIDE WALK (CONCRETE)
▭	▭	CONCRETE CURB AND GUTTER
▭	▭	STORM SEWER
▭	▭	SANITARY FORCE MAIN
▭	▭	SANITARY GRAVITY MAIN
▭	▭	WATER MAIN
○	○	MANHOLE
○	○	CATCH BASIN
▭	▭	END SECTION
▭	▭	GATE VALVE
▭	▭	HYDRANT
▭	▭	CONTOURS
▭	▭	SPOT ELEVATION
▭	▭	SURFACE DRAINAGE

SUNSET COVE CONDOMINIUMS
 PART OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 13, TOWN 3 NORTH, RANGE 8 EAST WHITE LAKE TWP., OAKLAND COUNTY, MICHIGAN

DATE: 11-15-22 DESIGNED BY: A.A. JOB NUMBER: 21-306
 CHECKED BY: J.E. DRAWING FILE: 3-21306-0A

REVISIONS

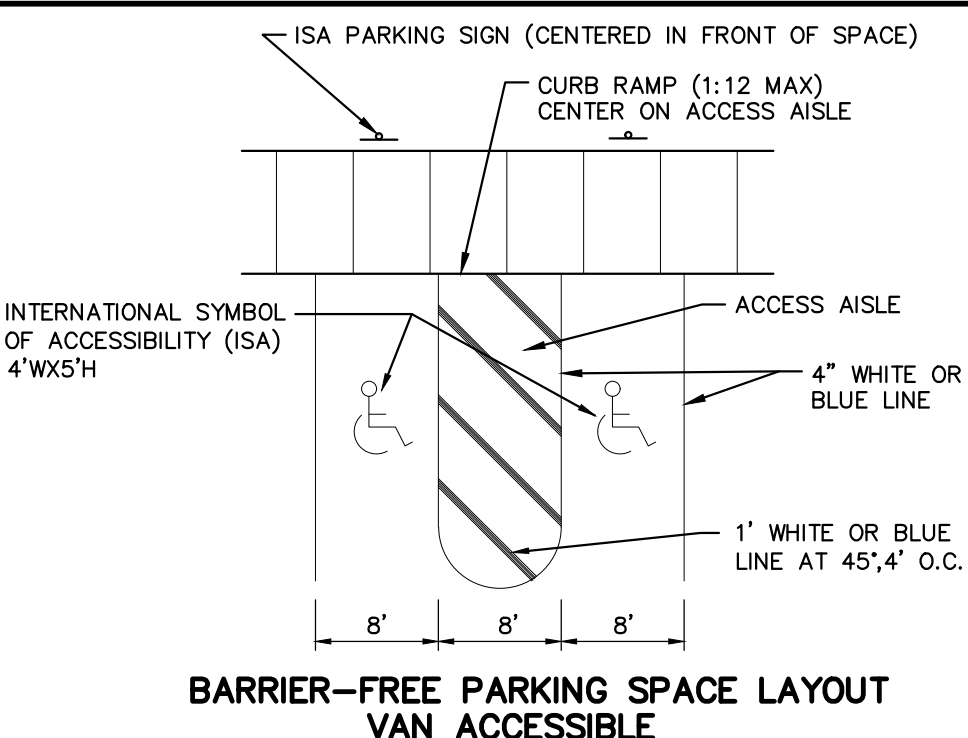
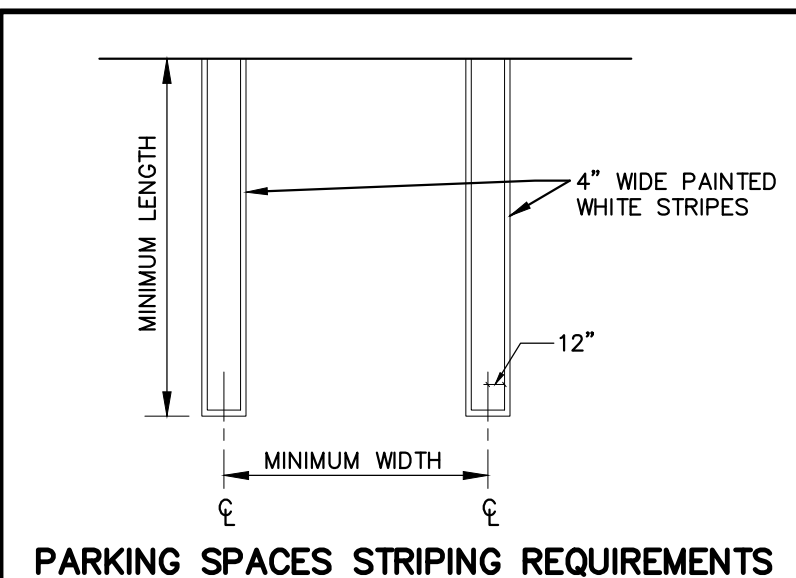
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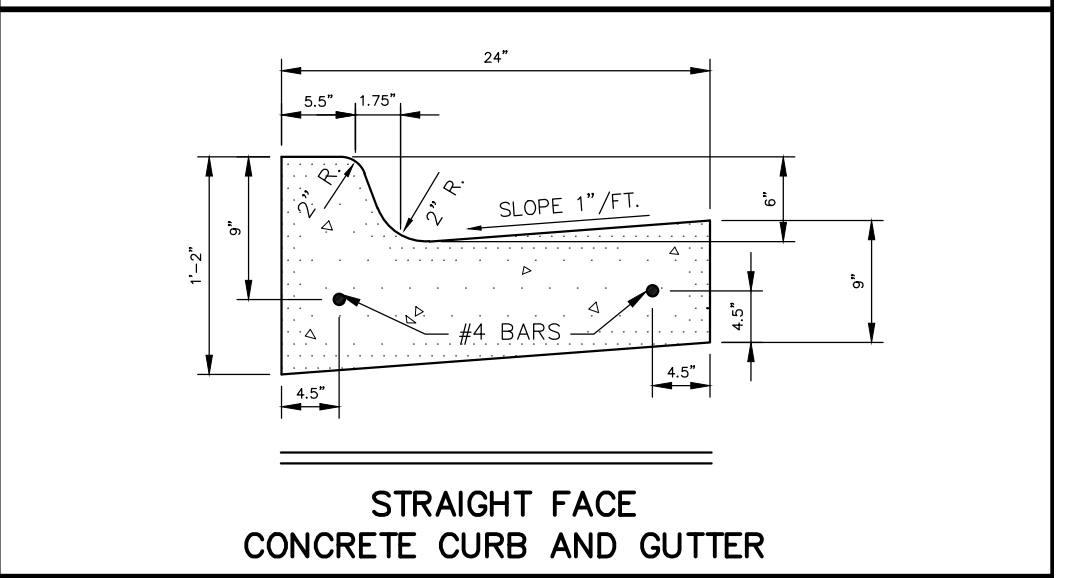
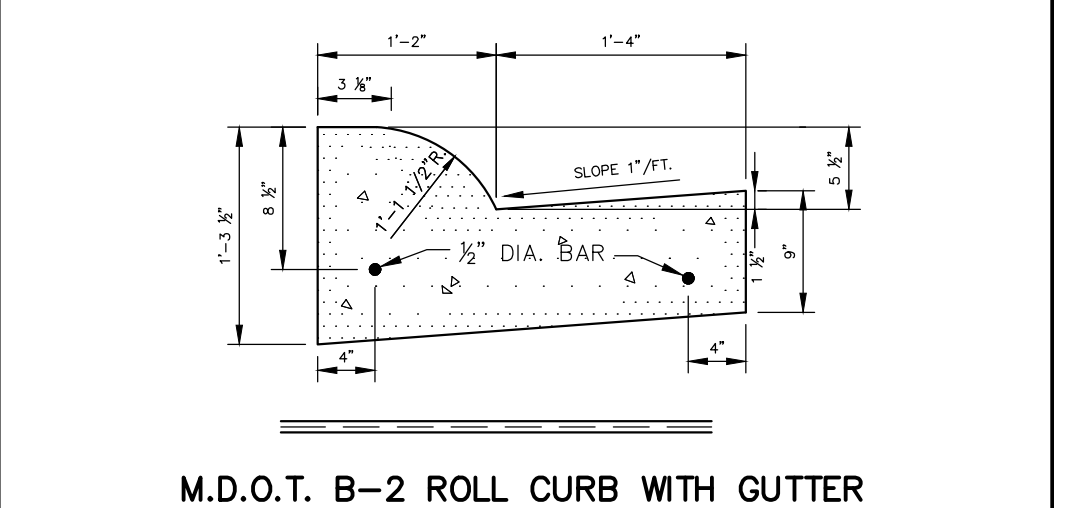
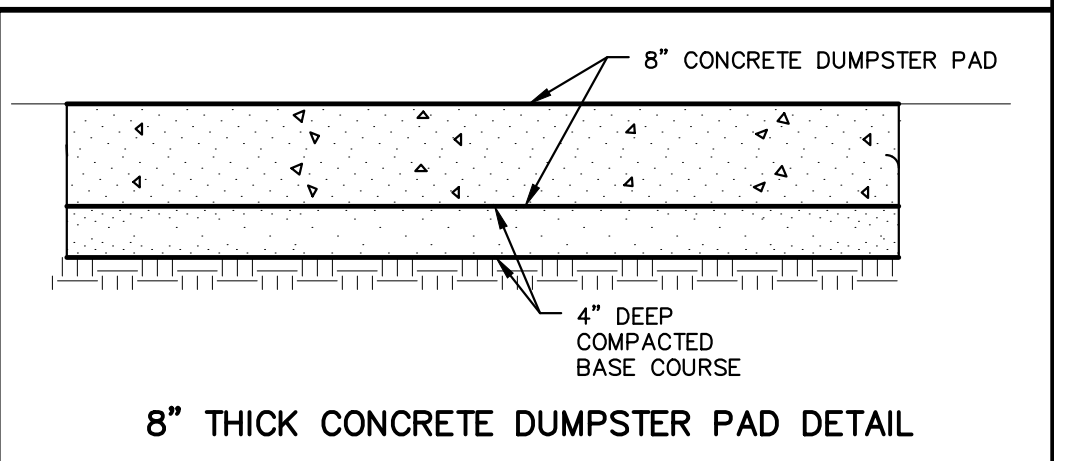
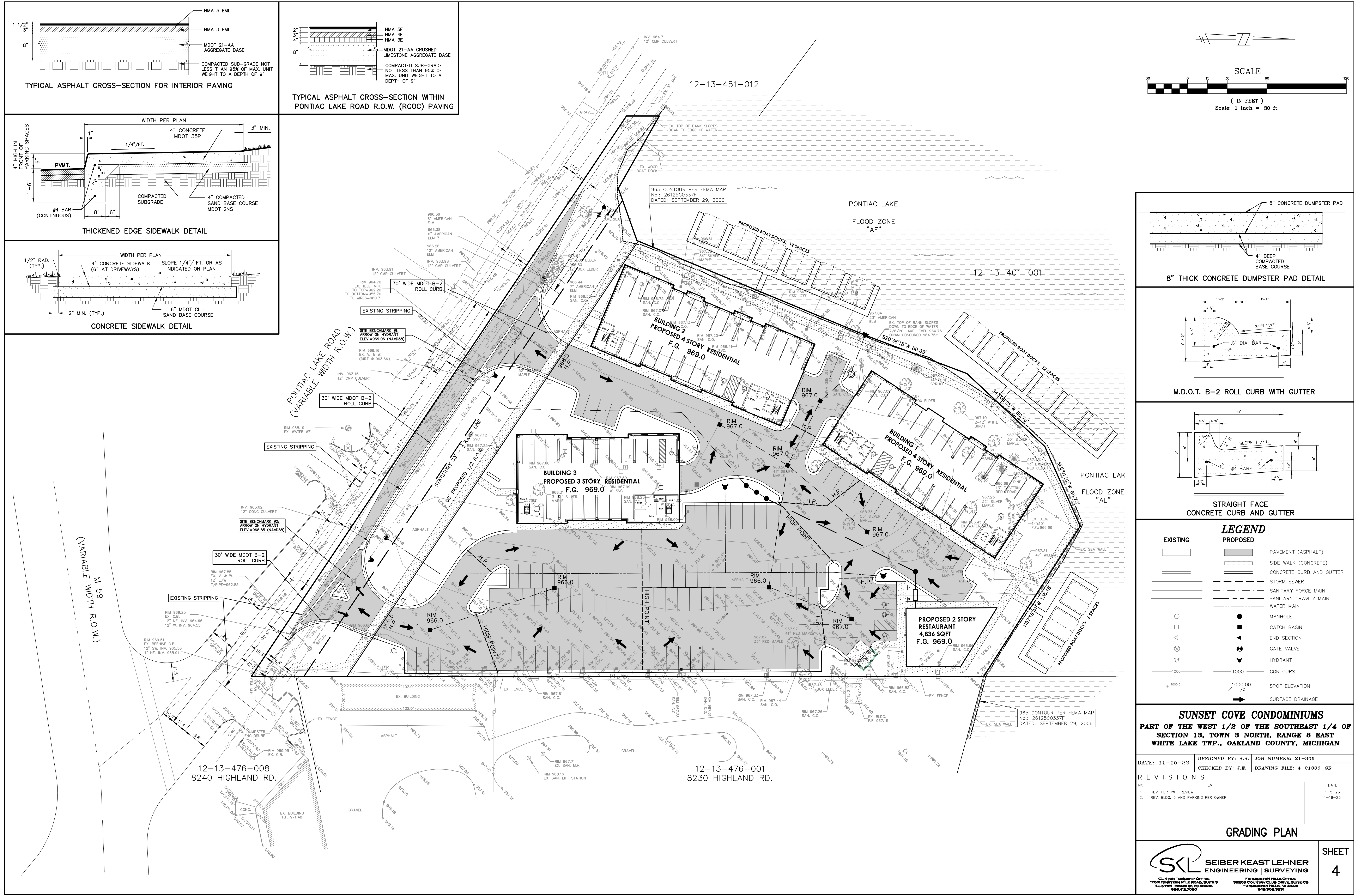
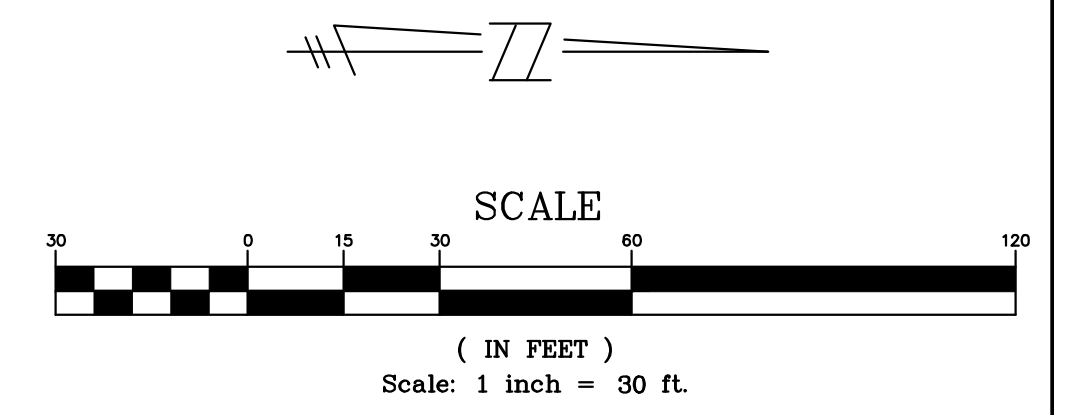
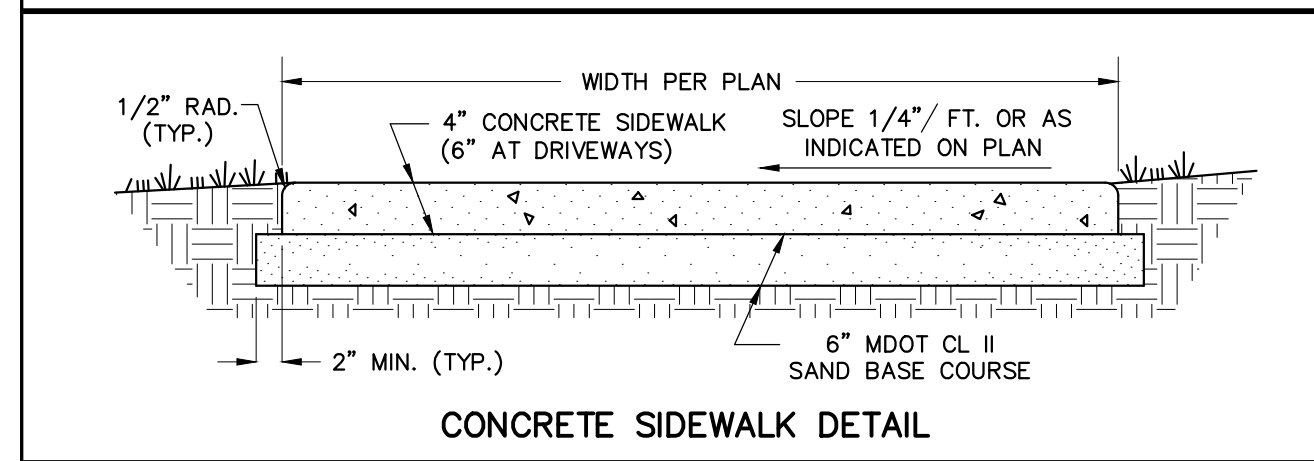
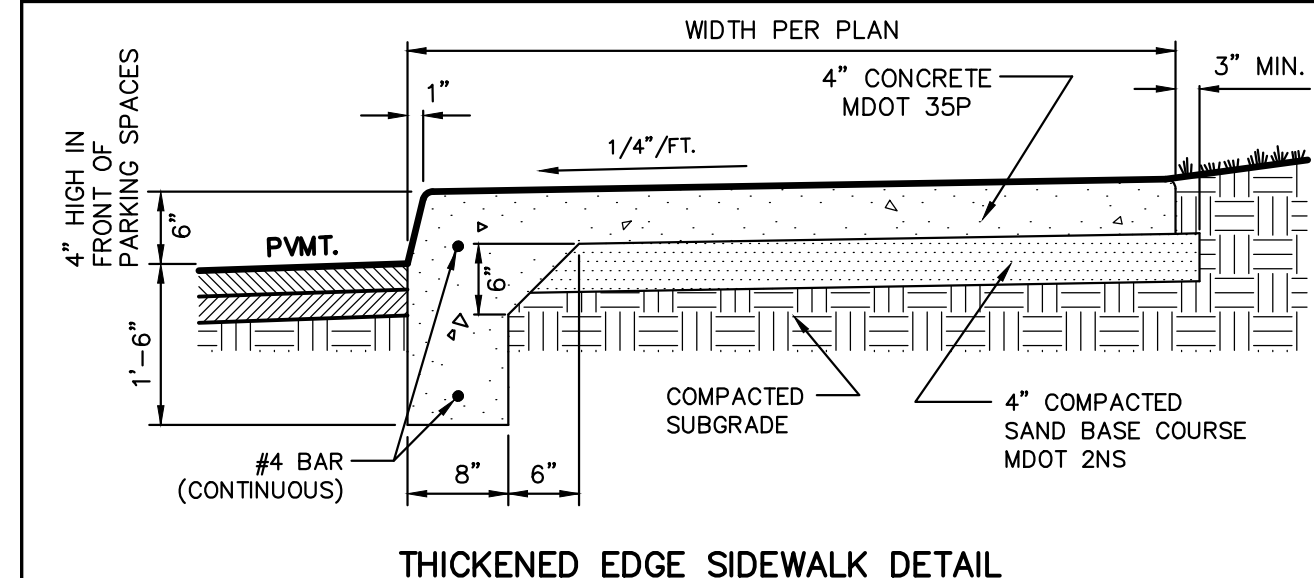
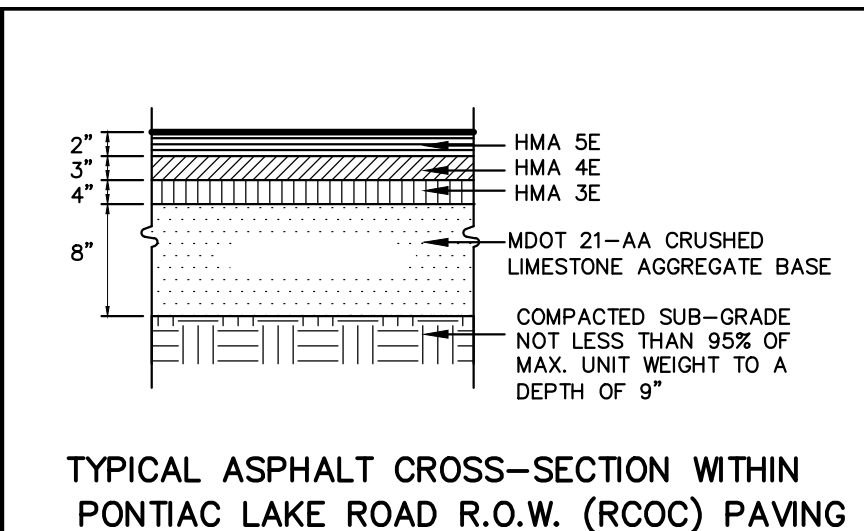
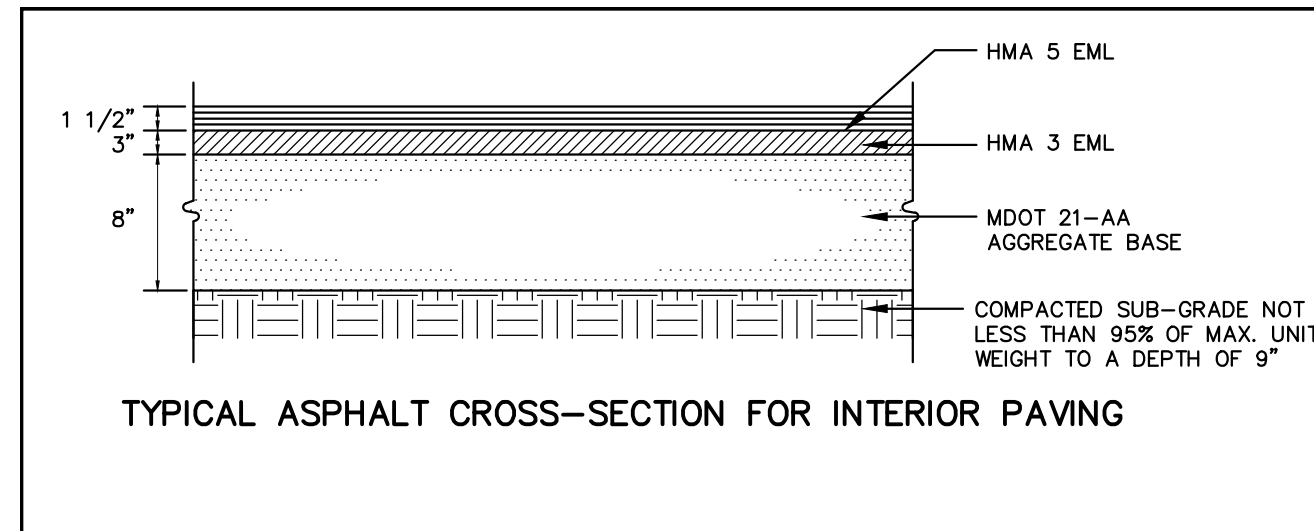
OVERALL PLAN

SKL SEIBER KEAST LEHNER ENGINEERING | SURVEYING

CLINTON TOWNSHIP OFFICE: 1700 NINETEEN MILE ROAD, SUITE 3 CLINTON TOWNSHIP, MI 48038 986.412.7060
 FARMINGTON HILLS OFFICE: 3806 COUNTRY CLUB DRIVE, SUITE C8 FARMINGTON HILLS, MI 48331 248.308.3331

SHEET 3





LEGEND

EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	PAVEMENT (ASPHALT)
[Symbol]	[Symbol]	SIDE WALK (CONCRETE)
[Symbol]	[Symbol]	CONCRETE CURB AND GUTTER
[Symbol]	[Symbol]	STORM SEWER
[Symbol]	[Symbol]	SANITARY FORCE MAIN
[Symbol]	[Symbol]	SANITARY GRAVITY MAIN
[Symbol]	[Symbol]	WATER MAIN
[Symbol]	[Symbol]	MANHOLE
[Symbol]	[Symbol]	CATCH BASIN
[Symbol]	[Symbol]	END SECTION
[Symbol]	[Symbol]	GATE VALVE
[Symbol]	[Symbol]	HYDRANT
[Symbol]	[Symbol]	CONTOURS
[Symbol]	[Symbol]	SPOT ELEVATION
[Symbol]	[Symbol]	SURFACE DRAINAGE

SUNSET COVE CONDOMINIUMS
 PART OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 13, TOWN 3 NORTH, RANGE 8 EAST WHITE LAKE TWP., OAKLAND COUNTY, MICHIGAN

DATE: 11-15-22 DESIGNED BY: A.A. JOB NUMBER: 21-306
 CHECKED BY: J.E. DRAWING FILE: 4-21306-GR

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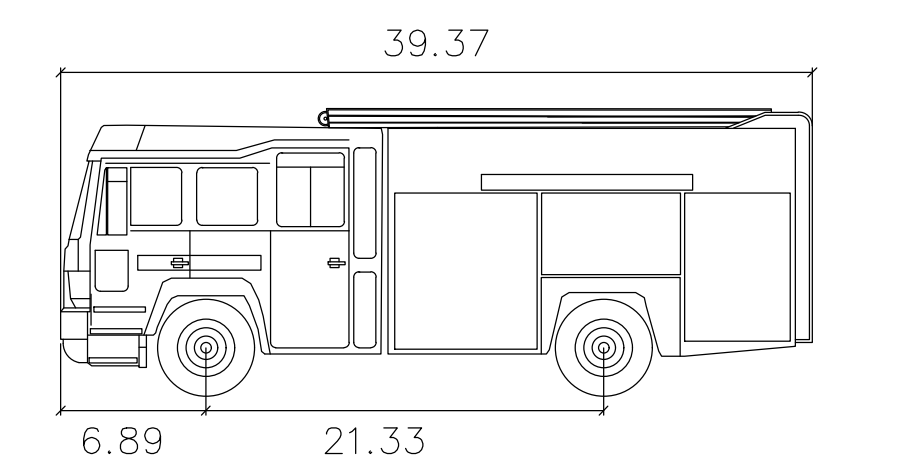
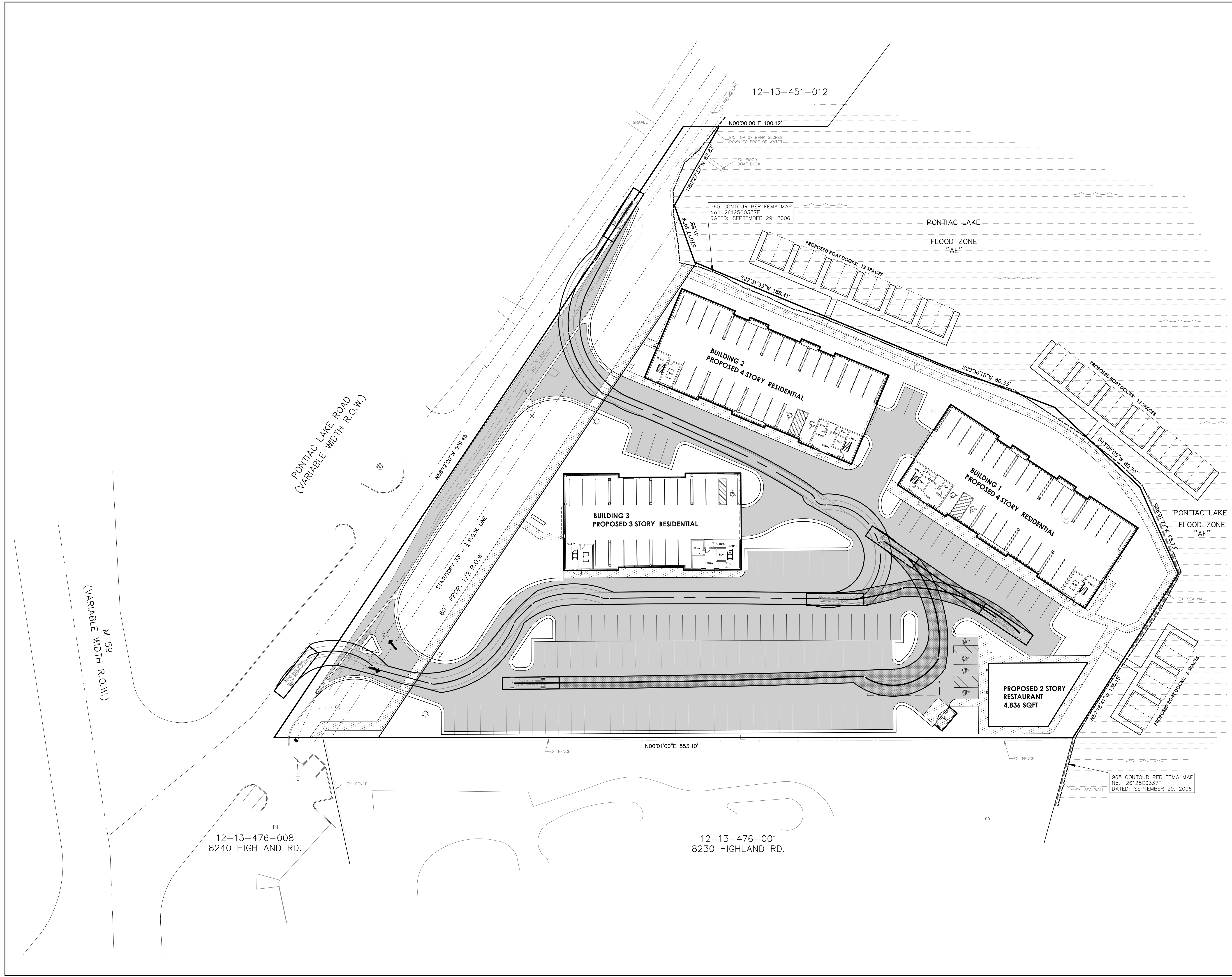
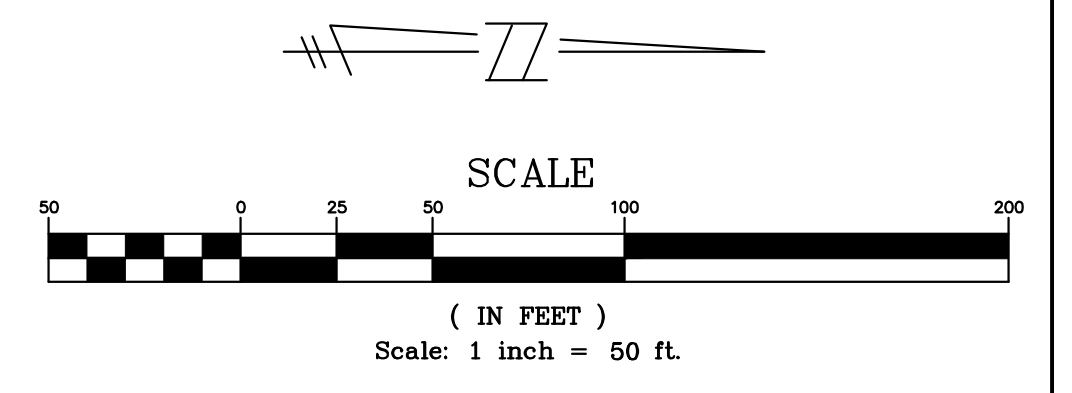
GRADING PLAN

SKL SEIBER KEAST LEHNER ENGINEERING | SURVEYING

CLINTON TOWNSHIP OFFICE: 1700 NINETEEN MILE ROAD, SUITE 3 CLINTON TOWNSHIP, MI 48038 986.412.7060

FARMINGTON HILLS OFFICE: 39006 COUNTRY CLUB DRIVE, SUITE C8 FARMINGTON HILLS, MI 48331 248.308.3331

SHEET 4



Brandweerauto
 feet
 Width : 8.37 Lock to Lock Time : 6.0
 Track : 7.89 Steering Angle : 36.2

SUNSET COVE CONDOMINIUMS
 PART OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 13, TOWN 3 NORTH, RANGE 8 EAST WHITE LAKE TWP., OAKLAND COUNTY, MICHIGAN

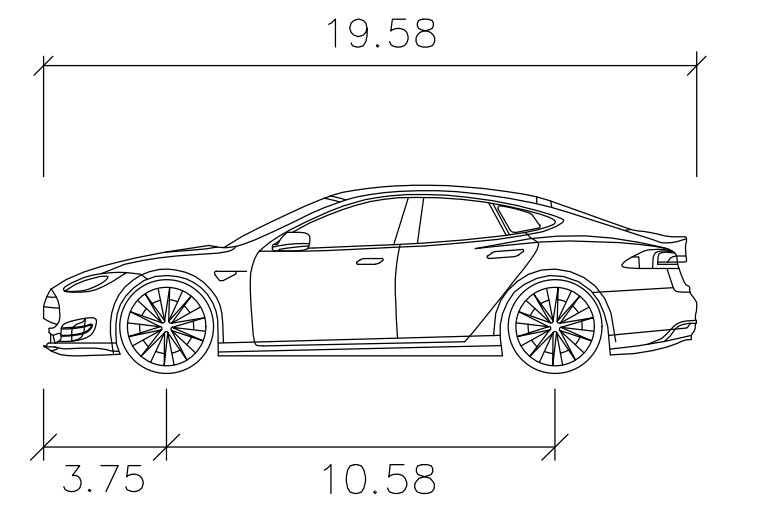
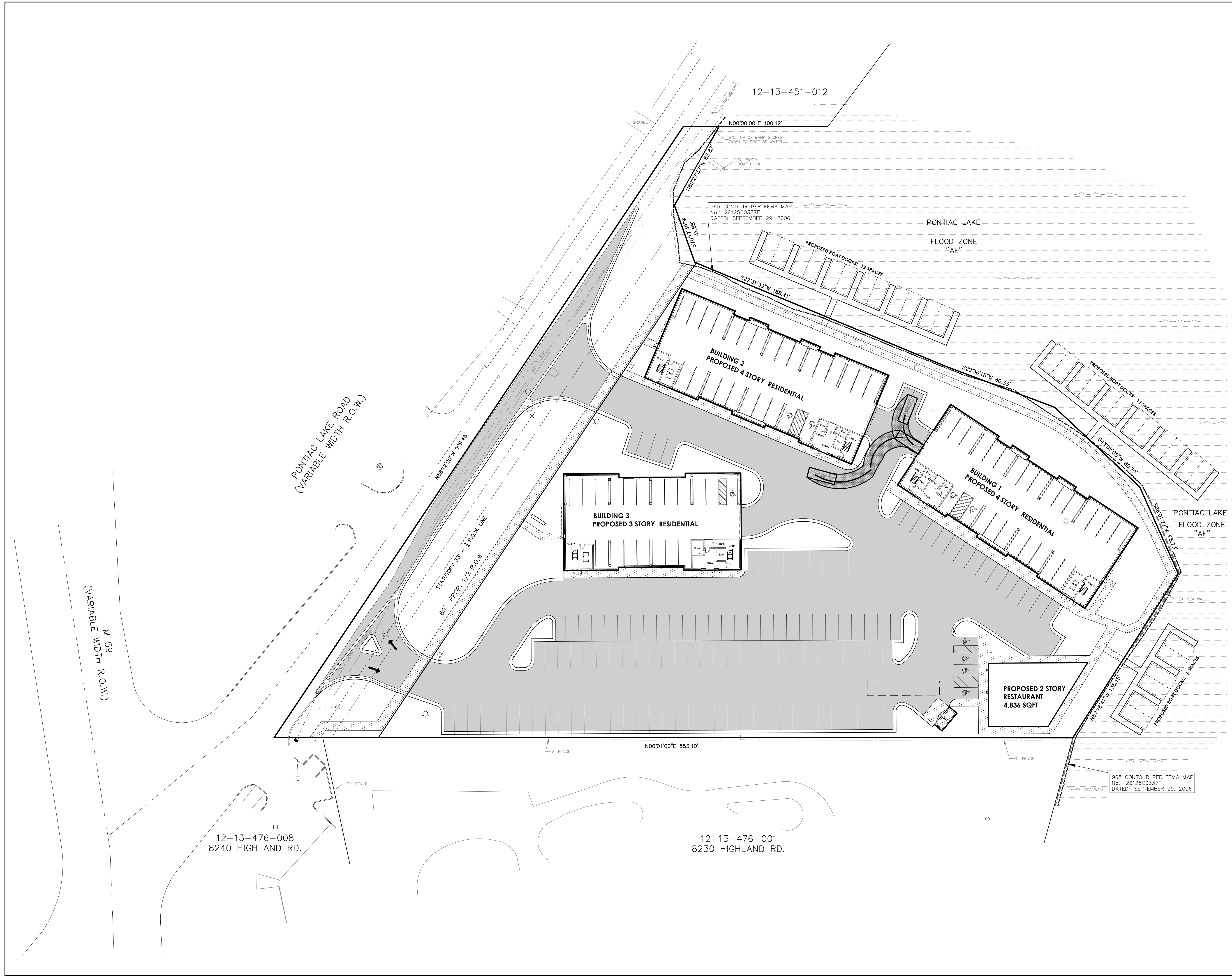
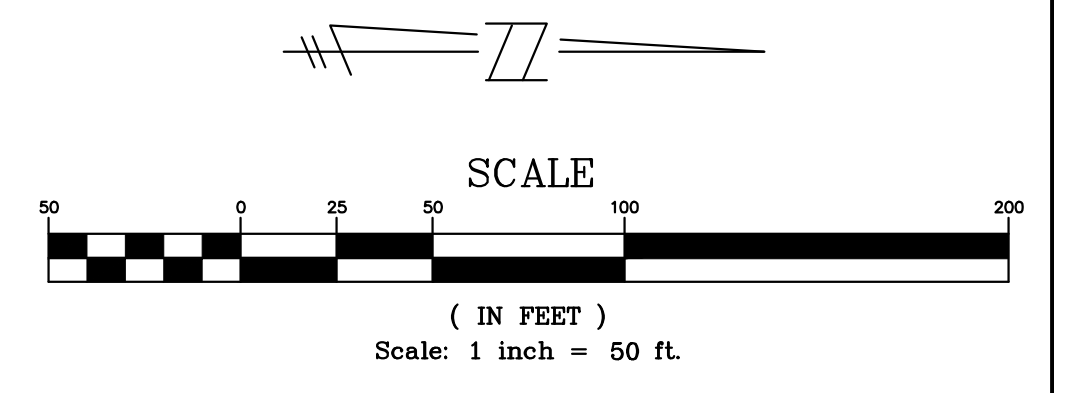
DATE: 1-5-23 DESIGNED BY: A.A. JOB NUMBER: 21-306
 CHECKED BY: J.E. DRAWING FILE: 5-21306-AT

REVISIONS		
NO.	ITEM	DATE
1.	REV. BLDG. 3 AND PARKING PER OWNER	1-19-23

FIRE TRUCK ROUTE

SKL SEIBER KEAST LEHNER
 ENGINEERING | SURVEYING
CLINTON TOWNSHIP OFFICE 39006 COUNTRY CLUB DRIVE, SUITE C8 FARMINGTON HILLS, MI 48331 586.412.7060
 FARMINGTON HILLS OFFICE 17001 NINETEEN MILE ROAD, SUITE 3 CLINTON TOWNSHIP, MI 48038 586.412.7060

SHEET
5



Passenger Car

feet

Width : 7.00
 Track : 6.00
 Lock to Lock Time : 6.0
 Steering Angle : 31.6

SUNSET COVE CONDOMINIUMS
 PART OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 13, TOWN 3 NORTH, RANGE 8 EAST WHITE LAKE TWP., OAKLAND COUNTY, MICHIGAN

DATE: 1-5-23 DESIGNED BY: A.A. JOB NUMBER: 21-306
 CHECKED BY: J.E. DRAWING FILE: 5-21306-AT

REVISIONS		
NO.	ITEM	DATE
1.	REV. BLDG. 3 AND PARKING PER OWNER	1-19-23

LARGE PASSENGER VEHICLE ROUTE

CLINTON TOWNSHIP OFFICE: 1700 NINETEEN MILE ROAD, SUITE 3 CLINTON TOWNSHIP, MI 48038 866.412.7060
 FARMINGTON HILLS OFFICE: 39206 COUNTRY CLUB DRIVE, SUITE C8 FARMINGTON HILLS, MI 48331 248.308.3331

SHEET 5A

McDOWELL & ASSOCIATES
Geotechnical, Environmental, & Hydrogeologic Services
2155 Hatcher Avenue • Ferndale, MI 48220
Phone: (248) 399-2066 • Fax: (248) 399-2157

LOG OF SOIL BORING NO. 1
PROJECT: Soils Investigation
LOCATION: 8300 Pontiac Lake Road, White Lake Township, Michigan
DATE: 8/9/2022
JOB NO.: 22-304

Soil & Depth	Legend	SOIL DESCRIPTION	Penetration % D.R.P. (1/8")	Moisture % (1/8")	Natural W.P.C. (%)	Dry Density (lb./cu.ft.)	U.C. Comp. Strength (PSF)	St. %
1	1	Moist dark brown sandy TOPSOIL, fill	2	18.8	10	117		
2	2	Medium compact moist brown fine SAND with topsoil streaks, fill	2	3.6	95			
3	3	Medium compact moist brown fine SAND with trace of silt, fill	4					
4	4	Medium compact moist brown fine SAND with trace of silt, fill	1	17.5	117			
5	5	Slightly compact wet brown fine SAND with most topsoil seams, fill	3					
6	6	Medium compact wet brown fine SAND with trace of silt	3	21.6				
7	7	Medium compact wet brown fine SAND with trace of silt	1	19.7	119			
8	8	Slightly compact wet brown fine SAND with trace of silt	2					
9	9							
10	10							
11	11							
12	12							
13	13							
14	14	Very compact wet brown fine SAND with trace of gravel	3					
15	15		6					
16	16		8					
17	17							
18	18							
19	19		5					
20	20	Extremely compact wet gray SAND & GRAVEL	6					
21	21		12					
22	22							
23	23							
24	24	Very compact wet gray fine SAND with trace of silt	5					
25	25	NOTES:	7					

TYPE OF SAMPLE: D - DISTURBED, UL - UNDESTRUCTURED, S1 - SHEEP TUBE, S2 - SHEEP TUBE, S3 - SHUTTER, RC - ROCK CORE, () - PENETROMETER

REMARKS: (1) Used Automatic Hammer, (2) 8VHG KHDGRIZDWHU H

GROUND WATER OBSERVATIONS: G.W. ENCOUNTERED AT 4 FT. 6 INS., G.W. ENCOUNTERED AT 4 FT. 6 INS., G.W. AFTER COMPLETION 4 FT. 3 INS., G.W. AFTER MIN. Heavy, Cave: G D W

Standard Penetration Test: "ULYLGJ" 2 8P8DHU 1 1 -DPFHU JDDGLQJ - ARXQW GSGH DW

McDOWELL & ASSOCIATES
Geotechnical, Environmental, & Hydrogeologic Services
2155 Hatcher Avenue • Ferndale, MI 48220
Phone: (248) 399-2066 • Fax: (248) 399-2157

LOG OF SOIL BORING NO. 2
PROJECT: Soils Investigation
LOCATION: 8300 Pontiac Lake Road, White Lake Township, Michigan
DATE: 8/9/2022
JOB NO.: 22-304

Soil & Depth	Legend	SOIL DESCRIPTION	Penetration % D.R.P. (1/8")	Moisture % (1/8")	Natural W.P.C. (%)	Dry Density (lb./cu.ft.)	U.C. Comp. Strength (PSF)	St. %
1	1	Moist dark brown sandy TOPSOIL, fill	2	18.8	10	117		
2	2	Medium compact moist brown fine SAND with topsoil streaks, fill	2	8.7	101			
3	3	Medium compact moist brown fine SAND with trace of silt, fill	3					
4	4	Slightly compact moist brown fine SAND with most topsoil seams, fill	1	12.9				
5	5	Slightly compact wet brown fine SAND with trace of silt	2	20.2	122			
6	6							
7	7	Slightly compact wet brown fine to medium SAND with trace of gravel and silt	1	19.2	127			
8	8		2					
9	9							
10	10	Slightly compact wet brown fine SAND with trace of silt	1	18.8				
11	11		1					
12	12							
13	13							
14	14		3					
15	15	Compact wet brown fine SAND with trace of silt	4					
16	16		6					
17	17							
18	18							
19	19		9					
20	20	Extremely compact wet gray silty fine SAND	9					
21	21		11					
22	22							
23	23							
24	24							
25	25							

TYPE OF SAMPLE: D - DISTURBED, UL - UNDESTRUCTURED, S1 - SHEEP TUBE, S2 - SHEEP TUBE, S3 - SHUTTER, RC - ROCK CORE, () - PENETROMETER

REMARKS: (1) Used Automatic Hammer, (2) Used head of water below

GROUND WATER OBSERVATIONS: G.W. ENCOUNTERED AT 4 FT. 6 INS., G.W. ENCOUNTERED AT 4 FT. 6 INS., G.W. AFTER COMPLETION 3 FT. 1 INS., G.W. AFTER MIN. Heavy, Cave: G D W

Standard Penetration Test: "ULYLGJ" 2 8P8DHU 1 1 -DPFHU JDDGLQJ - ARXQW GSGH DW

McDOWELL & ASSOCIATES
Geotechnical, Environmental, & Hydrogeologic Services
2155 Hatcher Avenue • Ferndale, MI 48220
Phone: (248) 399-2066 • Fax: (248) 399-2157

LOG OF SOIL BORING NO. 3
PROJECT: Soils Investigation
LOCATION: 8300 Pontiac Lake Road, White Lake Township, Michigan
DATE: 8/9/2022
JOB NO.: 22-304

Soil & Depth	Legend	SOIL DESCRIPTION	Penetration % D.R.P. (1/8")	Moisture % (1/8")	Natural W.P.C. (%)	Dry Density (lb./cu.ft.)	U.C. Comp. Strength (PSF)	St. %
1	1	Moist dark brown sandy TOPSOIL, fill	2	18.8	10	117		
2	2	Moist brown fine SAND with topsoil streaks, fill	4					
3	3	Compact moist brown fine SAND with trace of silt	5	5.4	104			
4	4	Medium compact moist brown fine SAND with trace of silt	2					
5	5	Medium compact moist brown fine SAND with trace of silt	2	20.2	122			
6	6							
7	7	Medium compact wet gray fine SAND with traces of gravel and silt	1	18.9	125			
8	8		2					
9	9							
10	10	Slightly compact wet gray fine SAND	1	22.3	121			
11	11		2					
12	12							
13	13							
14	14	Medium compact wet brown fine SAND with trace of gravel	2					
15	15		2					
16	16		3					
17	17							
18	18							
19	19							
20	20							
21	21							
22	22							
23	23							
24	24							
25	25							

TYPE OF SAMPLE: D - DISTURBED, UL - UNDESTRUCTURED, S1 - SHEEP TUBE, S2 - SHEEP TUBE, S3 - SHUTTER, RC - ROCK CORE, () - PENETROMETER

REMARKS: (1) Used Automatic Hammer

GROUND WATER OBSERVATIONS: G.W. ENCOUNTERED AT 3 FT. 8 INS., G.W. ENCOUNTERED AT 3 FT. 8 INS., G.W. AFTER COMPLETION 3 FT. 3 INS., G.W. AFTER MIN. Heavy, Cave: G D W

Standard Penetration Test: "ULYLGJ" 2 8P8DHU 1 1 -DPFHU JDDGLQJ - ARXQW GSGH DW

McDOWELL & ASSOCIATES
Geotechnical, Environmental, & Hydrogeologic Services
2155 Hatcher Avenue • Ferndale, MI 48220
Phone: (248) 399-2066 • Fax: (248) 399-2157

LOG OF SOIL BORING NO. 4
PROJECT: Soils Investigation
LOCATION: 8300 Pontiac Lake Road, White Lake Township, Michigan
DATE: 8/9/2022
JOB NO.: 22-304

Soil & Depth	Legend	SOIL DESCRIPTION	Penetration % D.R.P. (1/8")	Moisture % (1/8")	Natural W.P.C. (%)	Dry Density (lb./cu.ft.)	U.C. Comp. Strength (PSF)	St. %
1	1	Moist dark brown sandy TOPSOIL, fill	2	18.8	10	117		
2	2	Moist brown fine SAND with trace of vegetation and topsoil streaks, fill	2	9.8	110			
3	3	Medium compact moist brown fine SAND with traces of silt and vegetation, fill	1	20.5	123			
4	4	Slightly compact wet brown fine to medium SAND with discolorated streaks, possible fill	1	18.6	122			
5	5		1					
6	6		1	20.0	123			
7	7	Slightly compact wet brown fine SAND with traces of gravel and silt	1					
8	8							
9	9							
10	10	Extremely compact wet brown fine SAND with occasional wet gravelly sand seams	8					
11	11		9					
12	12		12					
13	13							
14	14		8					
15	15	Extremely compact wet brown fine SAND with occasional wet gravelly sand seams	9					
16	16		12					
17	17							
18	18							
19	19		7					
20	20	Extremely compact wet brown fine SAND	14					
21	21		20					
22	22							
23	23							
24	24							
25	25							

TYPE OF SAMPLE: D - DISTURBED, UL - UNDESTRUCTURED, S1 - SHEEP TUBE, S2 - SHEEP TUBE, S3 - SHUTTER, RC - ROCK CORE, () - PENETROMETER

REMARKS: (1) Used Automatic Hammer

GROUND WATER OBSERVATIONS: G.W. ENCOUNTERED AT 4 FT. 1 INS., G.W. ENCOUNTERED AT 4 FT. 1 INS., G.W. AFTER COMPLETION 3 FT. 7 INS., G.W. AFTER MIN. Heavy, Cave: G D W

Standard Penetration Test: "ULYLGJ" 2 8P8DHU 1 1 -DPFHU JDDGLQJ - ARXQW GSGH DW

McDOWELL & ASSOCIATES
Geotechnical, Environmental, & Hydrogeologic Services
2155 Hatcher Avenue • Ferndale, MI 48220
Phone: (248) 399-2066 • Fax: (248) 399-2157

LOG OF SOIL BORING NO. 4 (continued)
PROJECT: Soils Investigation
LOCATION: 8300 Pontiac Lake Road, White Lake Township, Michigan
DATE: 8/9/2022
JOB NO.: 22-304

Soil & Depth	Legend	SOIL DESCRIPTION	Penetration % D.R.P. (1/8")	Moisture % (1/8")	Natural W.P.C. (%)	Dry Density (lb./cu.ft.)	U.C. Comp. Strength (PSF)	St. %
26	26	Extremely stiff moist blue silty CLAY with wet silt seams	5					
27	27		7					
28	28		8					
29	29	Very compact wet gray SAND & GRAVEL with occasional stones	5					
30	30		7					
31	31		8					
32	32							
33	33							
34	34							
35	35							
36	36							
37	37							
38	38							
39	39							
40	40							
41	41							
42	42							
43	43							
44	44							
45	45							
46	46							
47	47							
48	48							
49	49							
50	50							

TYPE OF SAMPLE: D - DISTURBED, UL - UNDESTRUCTURED, S1 - SHEEP TUBE, S2 - SHEEP TUBE, S3 - SHUTTER, RC - ROCK CORE, () - PENETROMETER

REMARKS: (1) Used Automatic Hammer, (2) Re-checked blow counts for B Sample with 8VHG KHDGRIZDWHU H

GROUND WATER OBSERVATIONS: G.W. ENCOUNTERED AT 4 FT. 1 INS., G.W. ENCOUNTERED AT 4 FT. 1 INS., G.W. AFTER COMPLETION 3 FT. 7 INS., G.W. AFTER MIN. Heavy, Cave: G D W

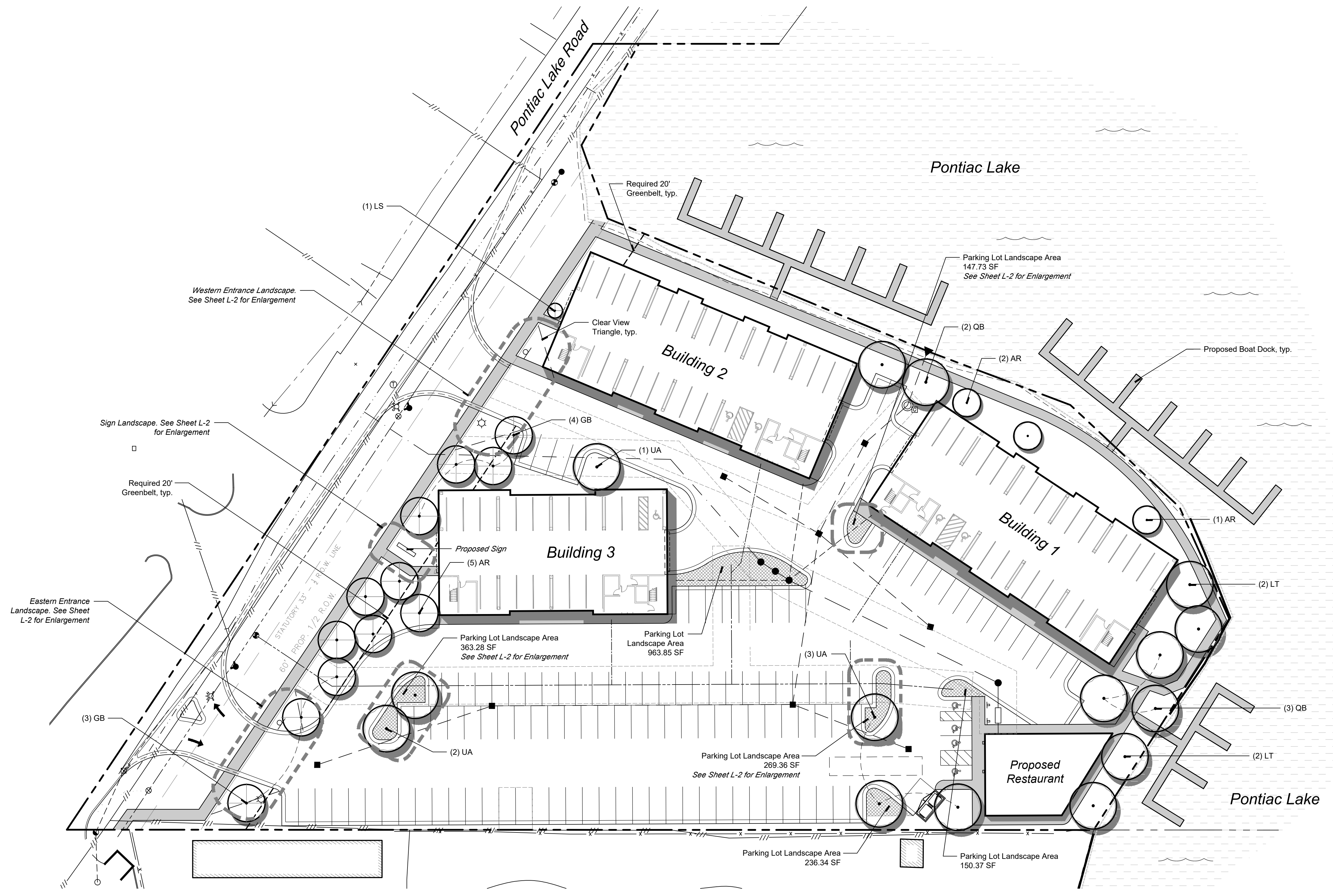
Standard Penetration Test: "ULYLGJ" 2 8P8DHU 1 1 -DPFHU JDDGLQJ - ARXQW GSGH DW

NOTES:
1) Used Automatic Hammer.
2) Re-checked blow counts for B Sample with 8VHG KHDGRIZDWHU H

McDOWELL & ASSOCIATES
Geotechnical, Environmental, & Hydrogeologic Services
2155 Hatcher Avenue • Ferndale, MI 48220
Phone: (248) 399-2066 • Fax: (248) 399-2157

LOG OF SOIL BORING NO. 5
PROJECT: Soils Investigation
LOCATION: 8300 Pontiac Lake Road, White Lake Township, Michigan
DATE: 8/9/2022
JOB NO.: 22-304

Soil & Depth	Legend	SOIL DESCRIPTION	Penetration % D.R.P. (1/8")	Moisture % (1/8")	Natural W.P.C. (%)	Dry Density (lb./cu.ft.)	U.C. Comp. Strength (PSF)	St. %
1	1	Moist dark brown sandy TOPSOIL with traces of silt and wood, fill	2	16.9	131			
2	2	Medium compact moist brown fine SAND with trace of silt, topsoil streaks and vegetation, fill	3					
3	3	Compact wet brown fine SAND with trace of silt	4					
4	4	Medium compact wet brown fine SAND with traces of silt, topsoil and gravel, possible fill	1	16.9	125			
5	5	Slightly compact wet brown silty fine to medium SAND with trace of gravel	3	16.0	125			
6	6		3					
7	7	Compact wet brown fine SAND with trace of gravel and silt	1	23.2	119			
8	8		1					
9	9							
10	10	Slightly compact wet brown fine SAND with trace of silt	1	20.1	116			
11	11		3					
12	12							
13	13							
14	14	Medium compact wet brown fine SAND with trace of gravel	2					
15	15		2					
16	16		3					
17	17							
18	18							
19	19	Very compact brown fine SAND	4					
20								



sheet title:
Overall Landscape Plan

project title:
Sunset Cove Condominiums

White Lake Township, Michigan
prepared for:
White Lake JZ, LLC
30201 Orchard Lake Road, Suite 250
Farmington Hills, MI 48334

Phone: 248.892.3444

job number: 23001
date: 01.05.2023

drawn by: EMJ
checked by: WTK

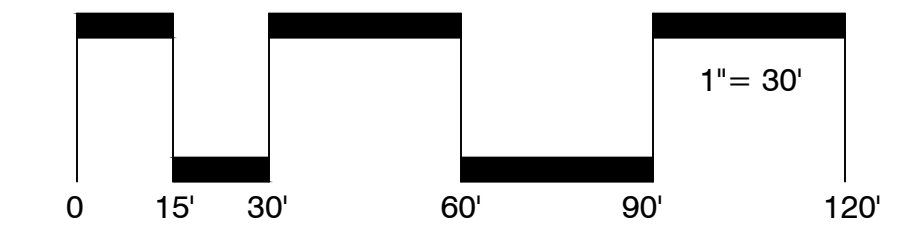
Landscape Summary

- Greenbelt Requirements**
- Required: 20' Greenbelt
1 tree & 3 shrubs / 30 LF of frontage
395.75 LF
 - Length of Frontage: 20' Greenbelt
 - Required: 13 Trees & 105 Shrubs
 - Proposed: Variable Greenbelt (1.39' min.)
13 Trees & 105 Shrubs
- Parking Lot Landscape**
- Required: 15 SF / Parking Space for Parking Landscape Area
1 Tree & 3 Shrubs / 100 SF Parking Landscape Area
118 spaces (198 less spaces in Buildings & areas less than 10 spaces)
 - Required: 1,770.00 SF Parking Landscape Area
18 Trees & 53 Shrubs
 - Proposed: 2,130.98 SF Parking Landscape Area
18 Trees & 54 Shrubs

Plant Schedule This Sheet

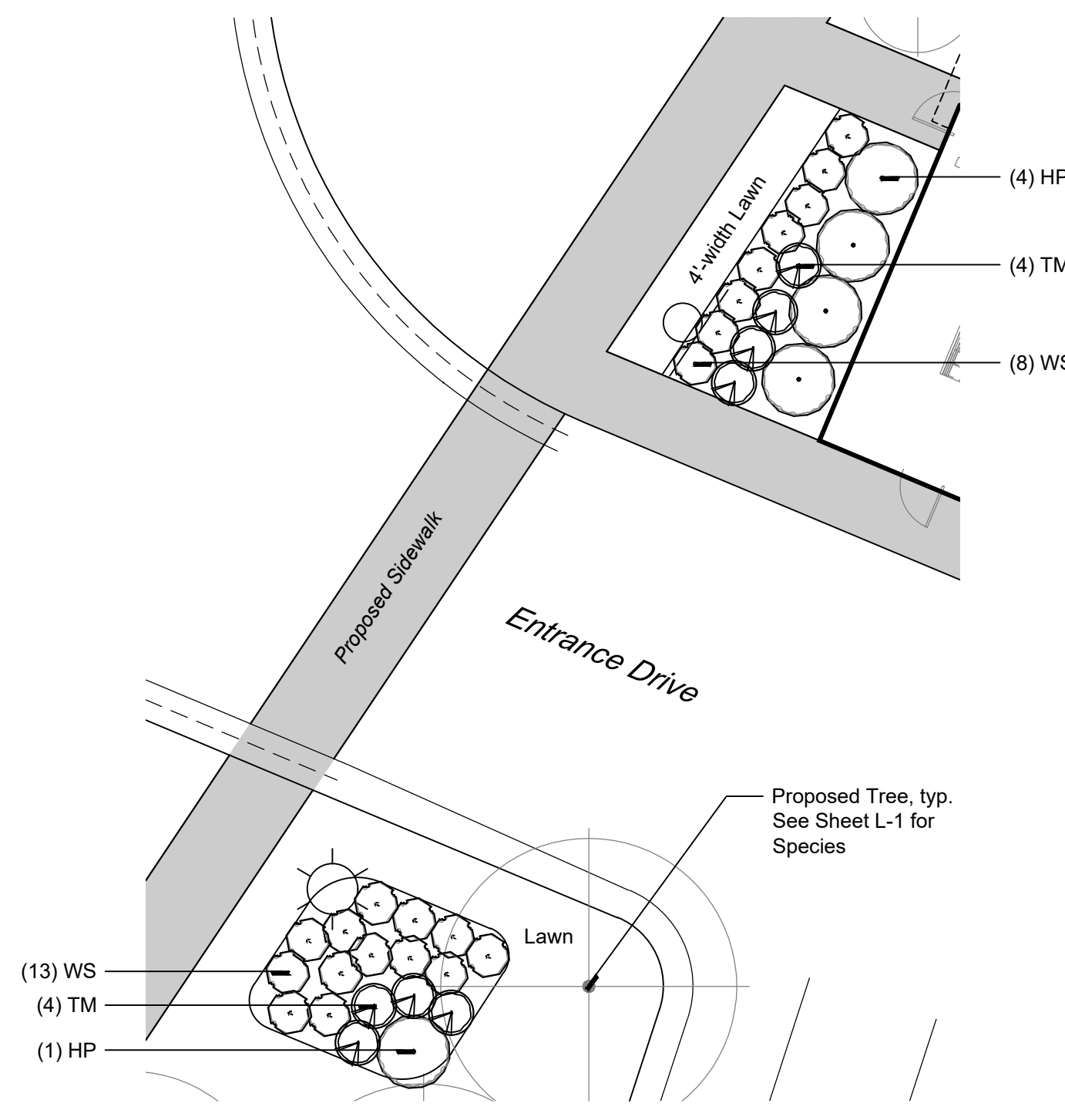
Trees						
sym.	qty.	botanical name	common name	size	spacing	root
AR	8	<i>Acer rubrum</i> 'Bowhall'	Bowhall Red Maple	2.5" cal.	per plans	B&B
GB	7	<i>Ginkgo biloba</i> 'Princeton Sentry'	Princeton Sentry Ginkgo	2.5" cal.	per plans	B&B
LS	1	<i>Liquidambar styraciflua</i> 'Slender Silhouette'	Slender Silhouette Sweetgum	2.5" cal.	per plans	B&B
LT	4	<i>Liriodendron tulipifera</i>	Tulip Tree	2.5" cal.	per plans	B&B
QB	5	<i>Quercus bicolor</i>	Swamp White Oak	2.5" cal.	per plans	B&B
UA	6	<i>Ulmus americana</i> 'Princeton'	Princeton American Elm	2.5" cal.	per plans	B&B

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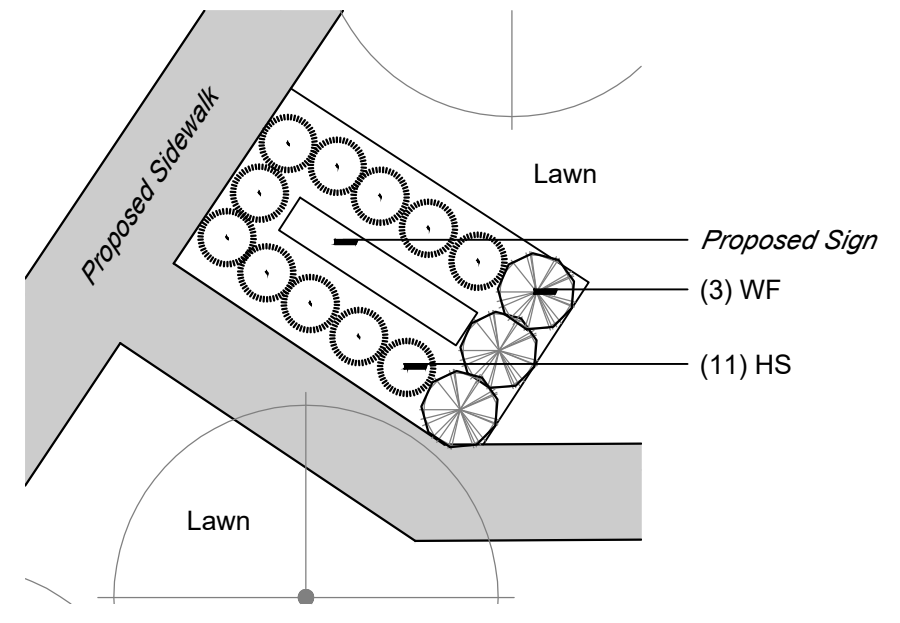
revisions:
01.19.2023 Per Site Revisions

sheet no.
L-1



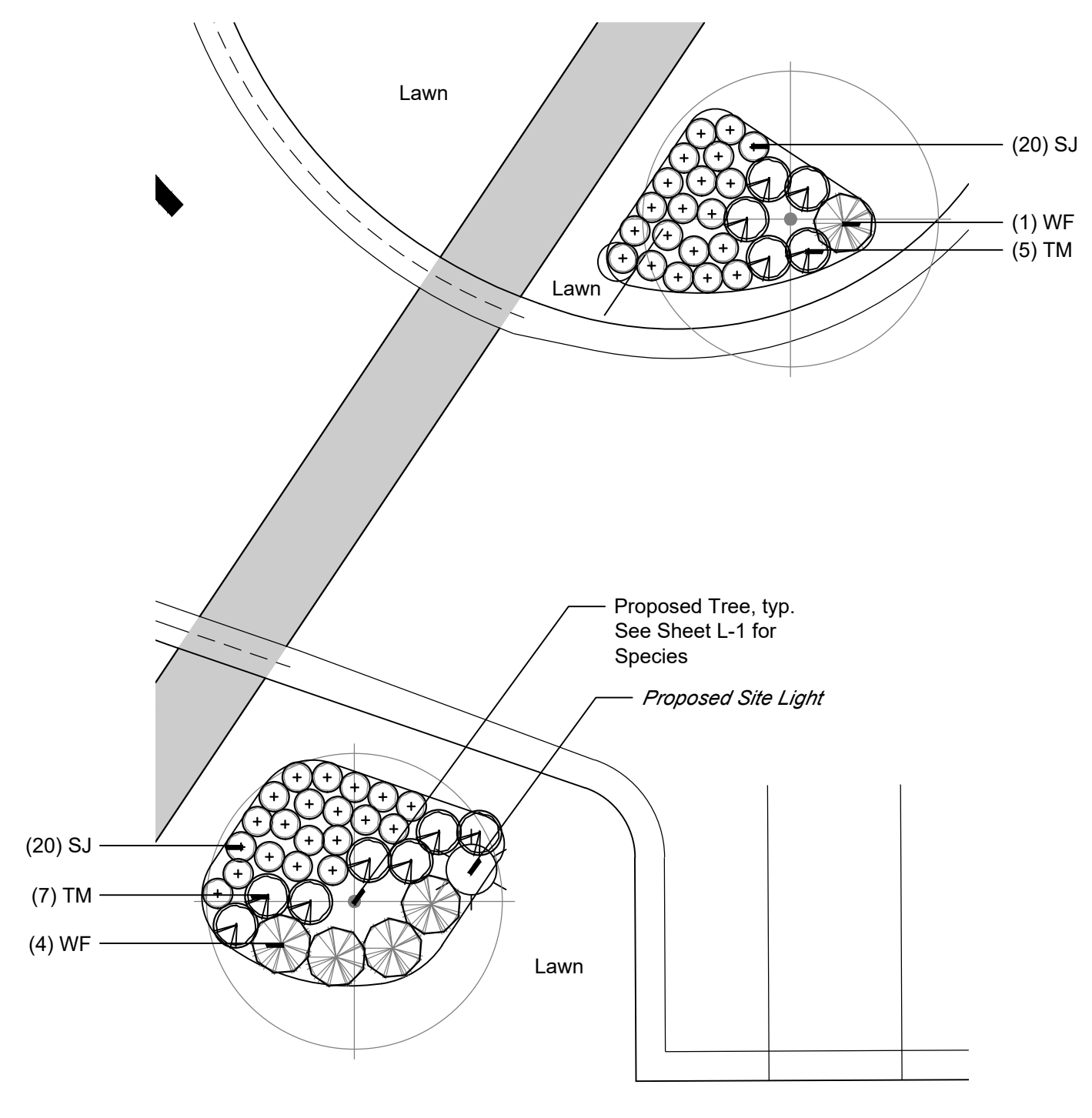
Western Entrance Landscape Enlargement

Note: All shrubs included in this detail are counted towards "Greenbelt Shrubs". See L-1



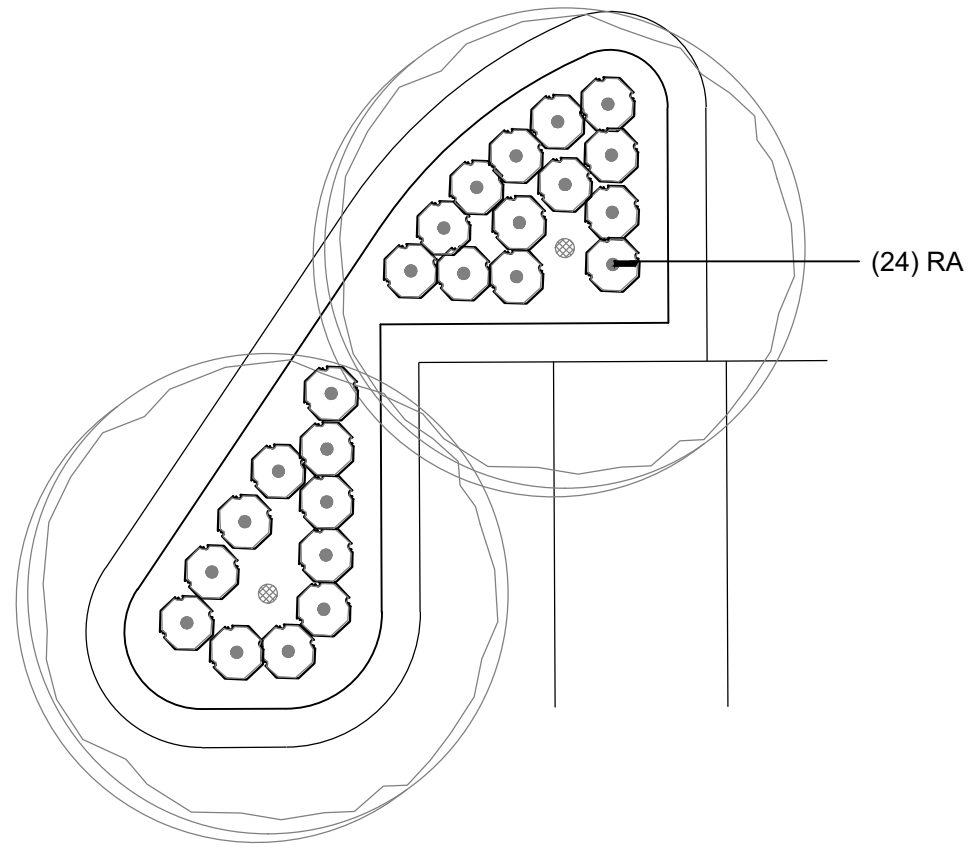
Sign Landscape Enlargement

Note: All shrubs included in this detail are counted towards "Greenbelt Shrubs". See L-1



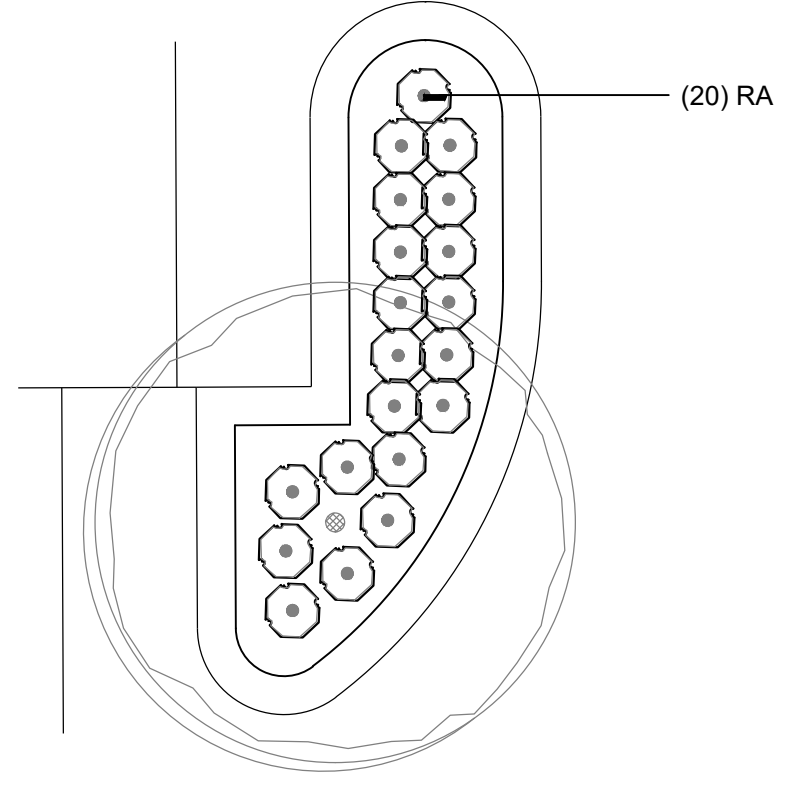
Eastern Entrance Landscape Enlargement

Note: All shrubs included in this detail are counted towards "Greenbelt Shrubs". See L-1



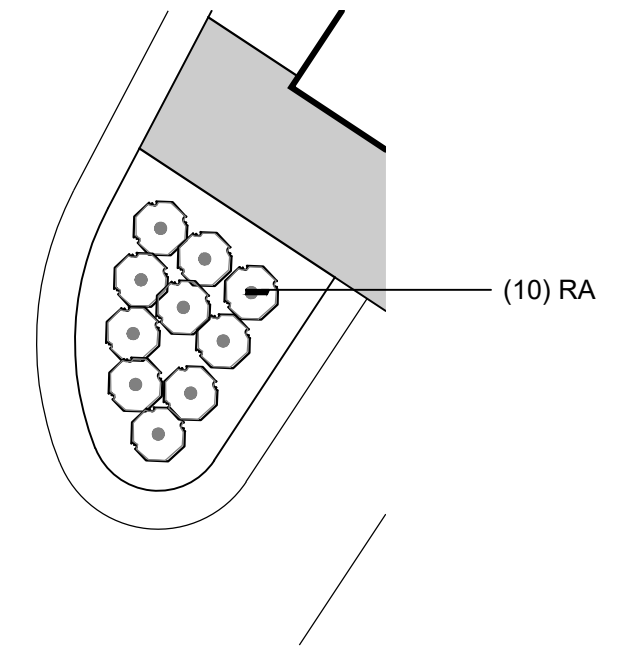
Parking Landscape Area Enlargement

Note: All shrubs included in this detail are counted towards "Parking Lot Landscape Shrubs". See L-1



Parking Landscape Area Enlargement

Note: All shrubs included in this detail are counted towards "Parking Lot Landscape Shrubs". See L-1

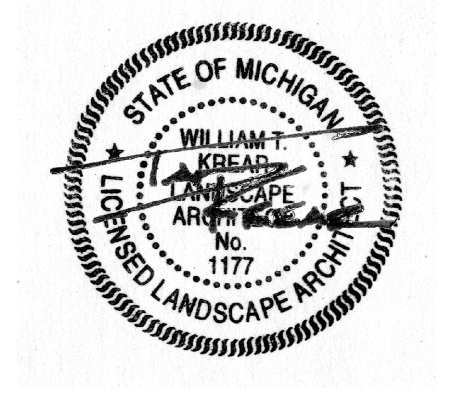


Parking Landscape Area Enlargement

Note: All shrubs included in this detail are counted towards "Parking Lot Landscape Shrubs". See L-1

Plant Schedule This Sheet

Shrubs							
sym.	qty.	botanical name	common name	size	spacing	root	notes
HP	5	<i>Hydrangea paniculata</i> 'Little Quickfire'	Little Quickfire Panicle Hydrangea	30" ht.	5' o.c.	cont.	
HS	11	<i>Hydrangea serrata</i> 'Tuff Stuff'	Tuff Stuff Mountain Hydrangea	30" ht.	36" o.c.	cont.	
RA	54	<i>Rhus aromatica</i> 'Gro Low'	Gro Low Fragrant Sumac	30" ht.	36" o.c.	cont.	Maintain +/- 12" back from curb
SJ	40	<i>Spiraea japonica</i> 'Walburna'	Magic Carpet Spiraea	No. 3	24" o.c.	cont.	
TM	20	<i>Taxus x media</i> 'Densiformis'	Dense Yew	30" ht.	36" o.c.	B&B	Maintain at +/- 30" height
WF	8	<i>Weigela florida</i> 'Wine & Roses'	Wine & Roses Weigela	30" ht.	48" o.c.	cont.	
WS	21	<i>Weigela florida</i> 'Spilled Wine'	Spilled Wine Weigela	30" ht.	36" o.c.	cont.	



sheet title:
Landscape Enlargement Plans

project title:
Sunset Cove Condominiums
 White Lake Township, Michigan

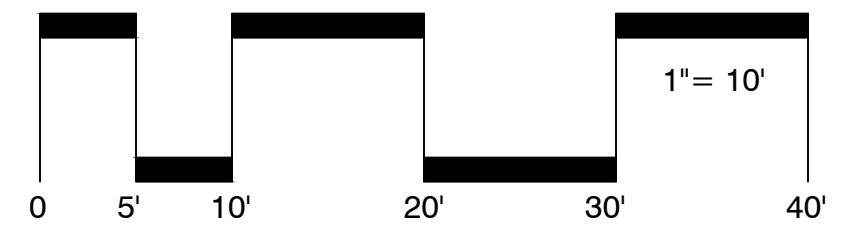
prepared for:
 White Lake JZ, LLC
 30201 Orchard Lake Road, Suite 250
 Farmington Hills, MI 48334

Phone: 248.892.3444

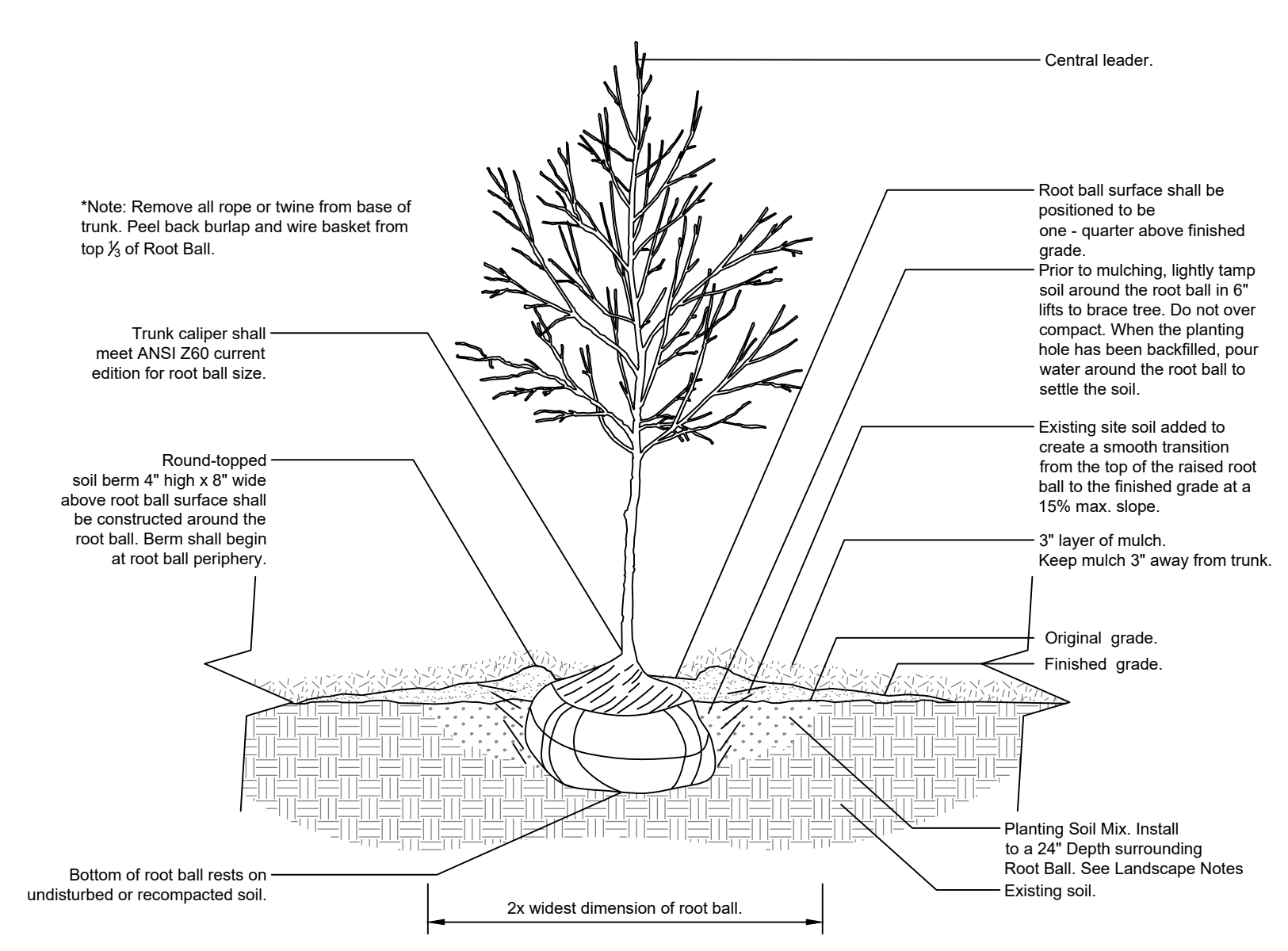
job number: 23001
 date: 01.05.2023

drawn by: EMJ
 checked by: WTK

revisions:
 01.19.2023 Per Site Revisions

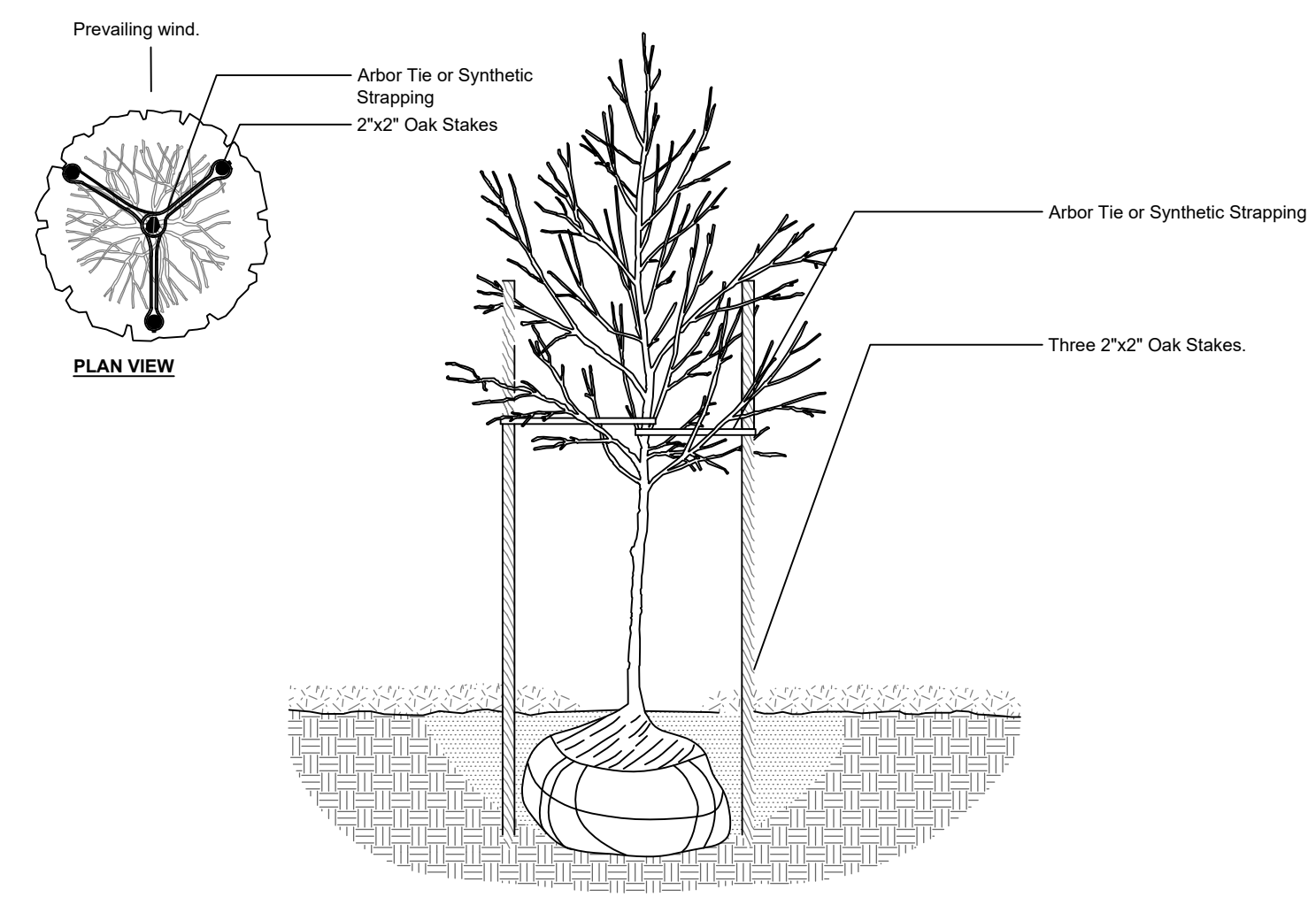


sheet no.
L-2



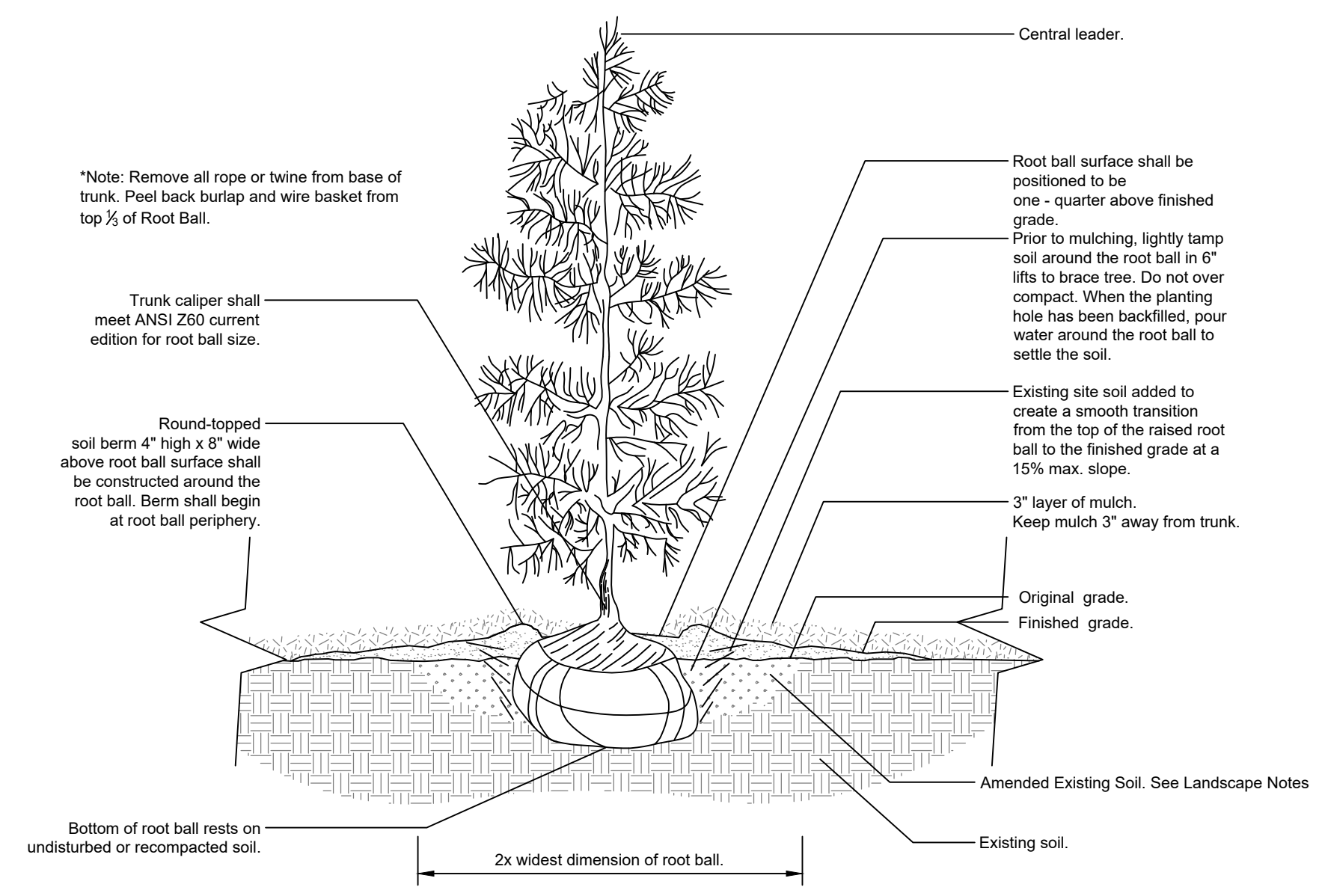
Tree in Existing Soil Detail

NTS



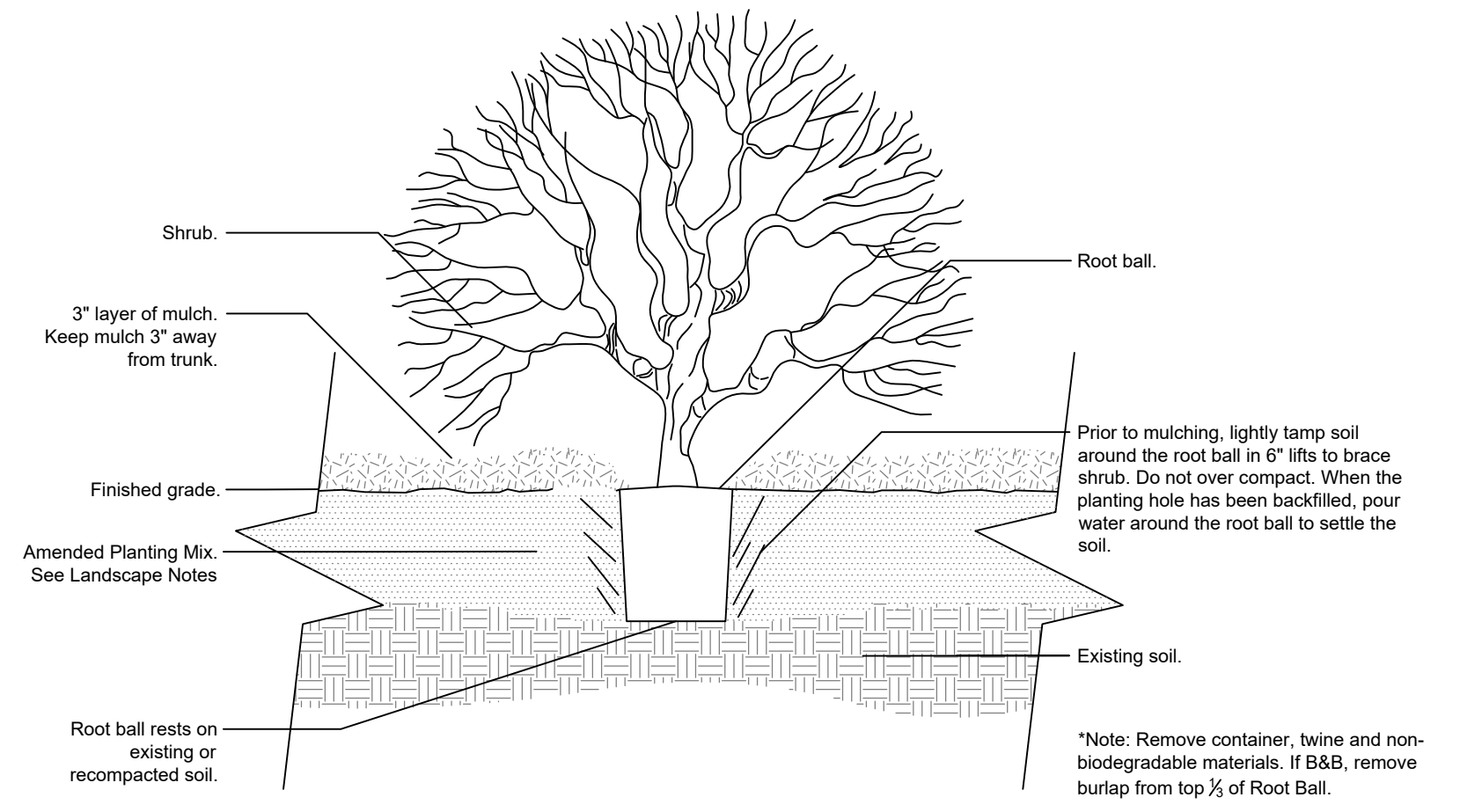
Tree Staking Detail

NTS



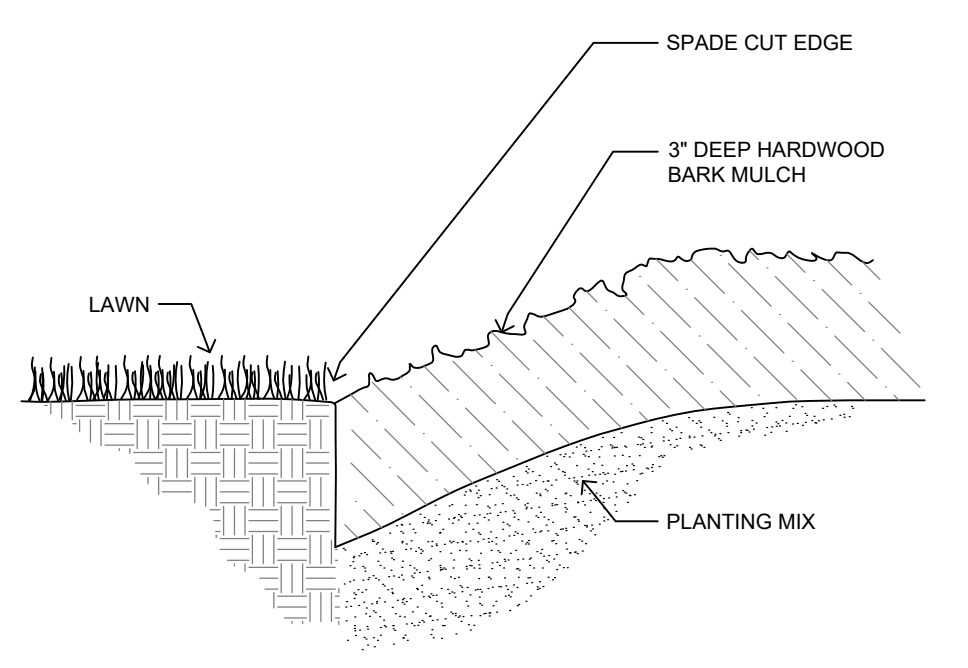
Evergreen Tree Planting Detail

Scale: NTS



Shrub in Planting Bed Detail

NTS



Spade Cut Edging Detail

NTS

Landscape Notes

- All plant material shall be true to name and free from physical damage and wind burn.
- Plants shall be full, well-branched, and in a healthy, vigorous growing condition.
- Plants shall be watered before an after planting is complete.
- All trees must be staked, fertilized, and mulched and shall be guaranteed to exhibit a normal growth cycle for at least one (1) full year following planting.
- All material shall conform to the guidelines established in the most recent edition of the American Standard for Nursery Stock.
- Provide clean backfill soil, using material stockpiled on site. Soil shall be screened and free of any debris, foreign material, or stone.
- "Agriform" tabs or similar slow-release fertilizer shall be added to the planting pits before being backfilled.
- Amended planting mix shall consist of 1/3 screened topsoil, 1/3 sand, and 1/3 peat.
- All plantings shall be mulched with shredded hardwood bark, spread to a minimum depth of 3". Mulch is to be free from debris and foreign material and shall contain no pieces of inconsistent size.
- The Landscape Contractor shall be responsible for all work shown on the Landscape Drawings and Specifications.
- No substitutions or changes of location, or plant types shall be made without the approval of the Landscape Architect or Owner's Representative.
- The Landscape Architect shall be notified of any discrepancies between the plans and field conditions prior to installation.
- The Landscape Contractor shall be responsible for maintaining all plant material in a vertical condition throughout the guaranteed period.
- The Landscape Architect shall have the right, at any stage of the installation, to reject any work, or material, that does not meet the requirements of the plan and specifications, if requested by Owner.
- The Contractor shall be responsible for checking plant quantities to ensure quantities on drawings and plant list are the same. In the event of a discrepancy, the quantities on the plans shall prevail.
- The Landscape Contractor shall seed and mulch or sod all areas disturbed during construction, throughout the contract limits.
- A pre-emergent weed control agent, "Preen" or equal, shall be applied uniformly to all planting beds prior to mulching.
- The Owner and Landscape Architect reserve the right to change location of plant material and alter plant species/variety at the time of installation based upon availability and quantity of material as well as site conditions. Materials will be of similar size, appearance, and growth habit.
- All Lawn areas shall be seeded or sodded.
- All Lawn areas shall be irrigated
- All Landscape areas shall be irrigated by an automatic irrigation system with separate zones for Lawn and Plants.



sheet title:

Landscape Details

project title:

Sunset Cove Condominiums

White Lake Township, Michigan

prepared for:

White Lake JZ, LLC
30201 Orchard Lake Road, Suite 250
Farmington Hills, MI 48334

Phone: 248.892.3444

job number:

23001

date:

01.05.2023

drawn by:

EMJ

checked by:

WTK

revisions:

01.19.2023 Per Site Revisions



Know what's below.
Call before you dig.

sheet no.

L-3

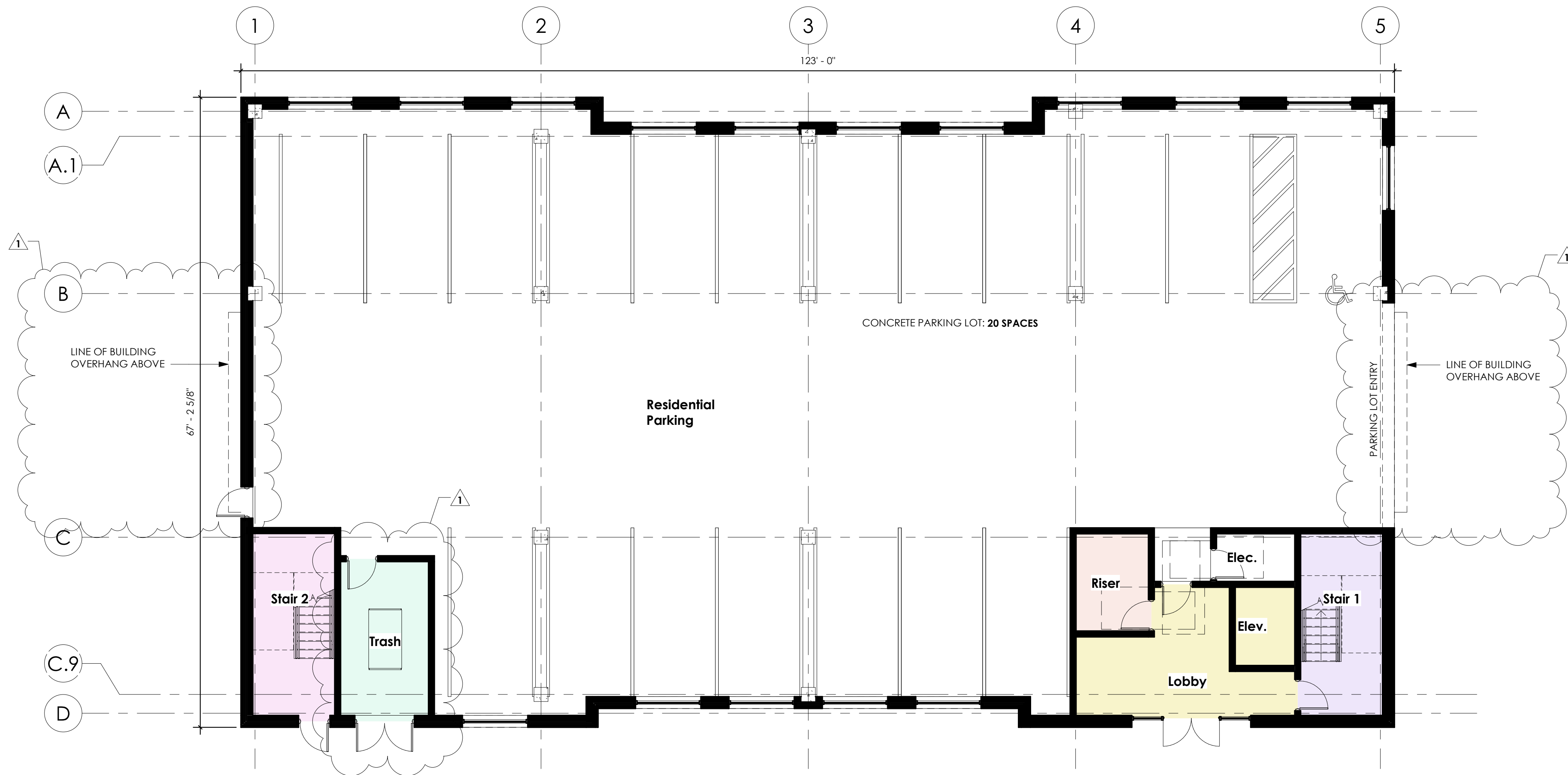
Client:

White Lake JZ, LLC
30201 Orchard Lake Road, Suite 250
Farmington Hills, MI 48334

Project:

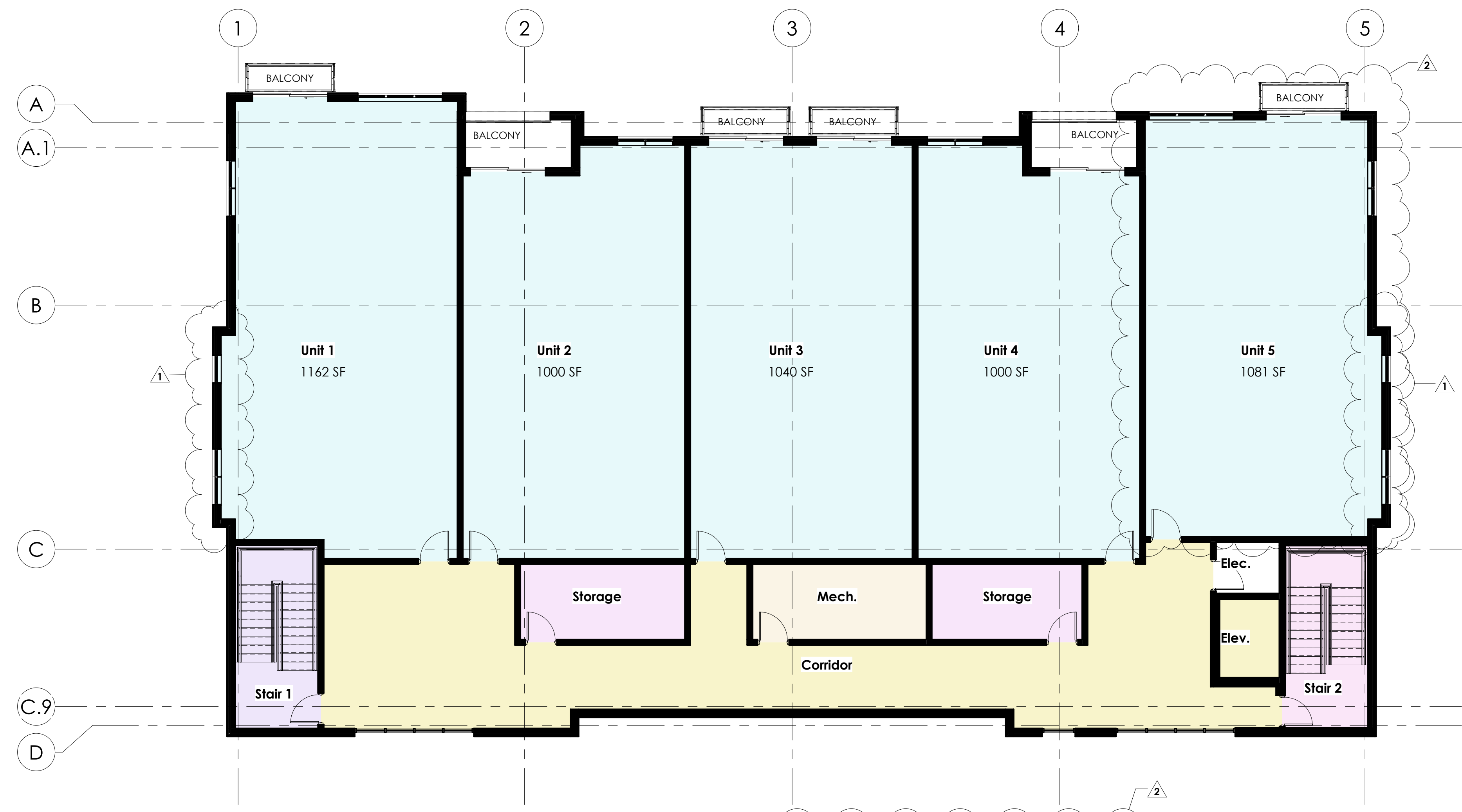
Sunset Cove
8300 Pontiac Lake Road
White Lake Township, MI 48386

Issued	Description	By
11.16.2022	SPA	
01.10.2023	SPA Revisions (1)	
01.23.2023	SPA Revisions (2)	



First Floor & Parking Plan

1/8" = 1'-0"

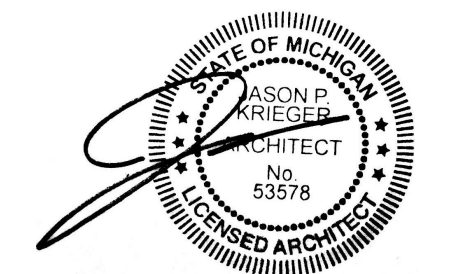


Second - Third Floor Plan

1/8" = 1'-0"

PRELIMINARY NOT FOR CONSTRUCTION

Seal:



Note:

Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:

Floor Plans - Building Type 2

Project Number:

Project Number

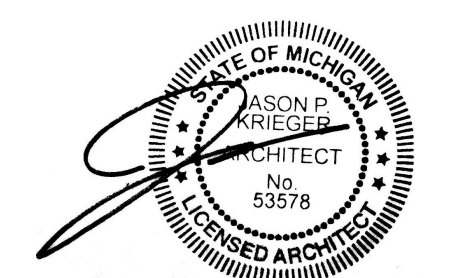
Sheet Number:

A.101

Issued	Description	By
11.16.2022	SPA	
01.10.23	SPA Revisions (1)	
01.23.23	SPA Revisions (2)	

PRELIMINARY NOT FOR CONSTRUCTION

Seal:



Note:
 Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:
 Elevations - Typ.

Project Number:
 Project Number

Sheet Number:

A.200



Front Elevation (Lake Side)

1/8" = 1'-0"

Exterior Material Percentages: Front Facade

SYMBOL	DESCRIPTION	AREA SQFT	PERCENTAGE	REQUIRED
	BRICK, STONE, GLASS	5,850 SQFT	81.57%	MIN. 70%
	BATTEN BOARD	1,234 SQFT	17.21%	MAX. 30%

Exterior Material Schedule

SYMBOL	DESCRIPTION	LOCATION	MANUFACTURER	FINISH / COLOR
M-1	CULTURED STONE BASE	AS NOTED ON ELEVATIONS	CUSTOM CAST STONE	SPLIT FACE / DARK BUFF
M-2	MASONRY (BRICK)	AS NOTED ON ELEVATIONS	ENDICOTT PRODUCTS OR SIMILAR	EXECUTIVE IRONSPOT
M-3	EXTERIOR SIDING (BATTEN)	AS NOTED ON ELEVATIONS	JAMES HARDIE BATTEN SIDING	MONTEREY TAUPE
M-4	ASPHALT SHINGLES	AS NOTED ON ELEVATIONS	CERTAINTED	LANDMARK / CHARCOAL BLACK
M-5	ALUM. STOREFRONT	AS NOTED ON ELEVATIONS	KAWNEER OR SIMILAR	ANODIZED / DARK BRONZE
M-6	ALUM. PANELS (WOOD TEXTURE)	AS NOTED ON ELEVATIONS	LONGBOARD OR SIMILAR	WOODGRAIN / WESTERN RED CEDAR

Exterior Material Percentages: Side Facade

SYMBOL	DESCRIPTION	AREA SQFT	PERCENTAGE	REQUIRED
	BRICK, STONE, GLASS	2,373 SQFT	79.39%	MIN. 70%
	BATTEN BOARD	618 SQFT	20.66%	MAX. 30%

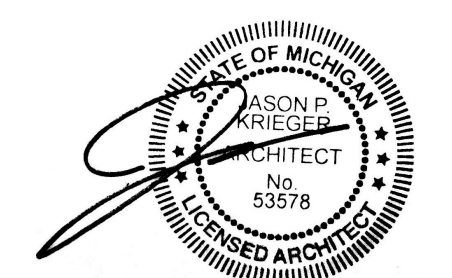


Side Elevation

1/8" = 1'-0"

Issued	Description	By
11.16.2022	SPA	
01.10.23	SPA Revisions (1)	
01.23.23	SPA Revisions (2)	

Seal:



Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.
North Arrow:

Sheet Title:
Elevations - Typ.

Project Number:
Project Number

Sheet Number:



Rear Elevation (Parking Side)

1/8" = 1'-0"

Exterior Material Percentages: Rear Facade

SYMBOL	DESCRIPTION	AREA SQFT	PERCENTAGE	REQUIRED
	BRICK, STONE, GLASS	5,911 SQFT	79.85%	MIN. 70%
	BATTEN BOARD, LONGBOARD	1,373 SQFT	18.55%	MAX. 30%

Exterior Material Schedule [X]

SYMBOL	DESCRIPTION	LOCATION	MANUFACTURER	FINISH / COLOR
M-1	CULTURED STONE BASE	AS NOTED ON ELEVATIONS	CUSTOM CAST STONE	SPLIT FACE / DARK BUFF
M-2	MASONRY (BRICK)	AS NOTED ON ELEVATIONS	ENDICOTT PRODUCTS OR SIMILAR	EXECUTIVE IRONSPOT
M-3	EXTERIOR SIDING (BATTEN)	AS NOTED ON ELEVATIONS	JAMES HARDIE BATTEN SIDING	MONTEREY TAUPE
M-4	ASPHALT SHINGLES	AS NOTED ON ELEVATIONS	CERTAINTEED	LANDMARK / CHARCOAL BLACK
M-5	ALUM. STOREFRONT	AS NOTED ON ELEVATIONS	KAWNEER OR SIMILAR	ANODIZED / DARK BRONZE
M-6	ALUM. PANELS (WOOD TEXTURE)	AS NOTED ON ELEVATIONS	LONGBOARD OR SIMILAR	WOODGRAIN / WESTERN RED CEDAR

Exterior Material Percentages: Side Facade

SYMBOL	DESCRIPTION	AREA SQFT	PERCENTAGE	REQUIRED
	BRICK, STONE, GLASS	2,132 SQFT	76.88%	MIN. 70%
	BATTEN BOARD	618 SQFT	22.29%	MAX. 30%



Side Elevation (Vehicle Entry)

1/8" = 1'-0"

PRELIMINARY NOT FOR CONSTRUCTION

BROOKS WILLIAMSON*and Associates, Inc.*Environmental/Wetland
Consultingbrooks@brookswilliamson.com

(248) 624-9100

(248) 420-3280

January 23, 2023

Mr. Michael Zeer
Sunset Cove Condominiums
30201 Orchard Lake Rd., Ste. 250
Farmington Hills, MI 48334

--- via email ---

**RE: Boat Slip Analysis, Sunset Cove Condominiums,
Pontiac Lake, White Lake Township, MI**

To Whom It May Concern,

The proposed Sunset Cove Condominiums project at 8300 Pontiac Lake Road in White Lake Township proposes the placement of two (2) twelve-slip boat docks for the residents of the condominiums along with the placement of a six-slip boat dock at the proposed restaurant. The details of the dock placement are shown on the Seiber/Keast/Lehner plans. The purpose of this analysis is to determine if there is significant impact to the lake based on the number of docks.

Pontiac Lake is a 640-acre all-sports lake within the 3,745-acre Pontiac Lake State Recreation Area. The majority of the land west and east of the lake is part of the State Recreation Area complex. The central portion of the lake, including the islands, the north shore, and the south shore, are in private ownership, where most of this property is dedicated to recreational cottages/cabins.

There are two public launches that are present on the lake with more frequent/heavier use of the public facilities occurring on the weekends, Memorial Day, the 4th of July, and Labor Day.

The proposed Sunset Cove project anticipates placement of three boat docks. The first of the three is a six-slip arrangement on the waterfront for the proposed restaurant. This dock is for transient traffic only and not for long-term overnight mooring. Watercraft in use on the lake will utilize this dock for short-term purposes for eating at the restaurant and take out. These docks do not increase the number of watercrafts being used on the lake.

The other two docking facilities are to accommodate owners of the condominium units. The docks proposed are designed for watercraft in the range of 14 - 24 feet with a maximum beam of 8 - 8.5 feet. The two docks have slips/spaces for 12 watercraft each, so the total number will be 24. This will allow for mooring of runabouts, fishing boats, and pontoon boats. Use of the watercraft will parallel the public launch use with the main holidays as the peak use periods.

The permanently moored watercraft at Sunset Cove will have minimal impact on watercraft traffic even when compared to historical use. Historic aerial photography (Oakland County, Google Earth, and Detroit Edison) shows that the shoreline in this area has been used for docking boats from the late-80s until the previous mobile home community was removed in 2015-2016. Dock count along the shoreline varied over the years, starting with 5-6 and increasing to 20-22 as late as 2015. The docks present in 2015 could accommodate 24 boats.

Generally speaking, docking facilities such as the ones proposed have less than 20% (5 boats) usage during weekdays/evenings and 40% (10 boats) on busier, peak use days. In most cases, the use periods last for only about 5 hours. Overall, this is very light use when compared to the demand created by the public facilities. Close review of the use of the lake by Sunset Cove is not anticipated to create any problem whatsoever.

The Sunset Cove docks are NOT anticipated to create any major impact on lake use. Condominium owners will most likely use the lake after work hours when there is light demand from the public facilities. Holiday use is acknowledged to be greater but only a minor percentage when compared to the public facilities.

The Sunset facilities will provide an amenity for a few of the condominium owners without causing lake safety problems or over boating. If you have any questions, please do not hesitate to contact this office.

Sincerely,



Brooks B Williamson

Brooks Williamson and Associates, Inc.

(248) 624-9100

(248) 420-3280

Email: brooks@brookswilliamson.com

MEMO

VIA EMAIL mikezeer@aol.com

To: Mike Zeer
White Lake JZ, LLC

From: Jacob Swanson, PE
Kyle J. Paulson
Fleis & VandenBrink Engineering

Date: February 8, 2023

Re: [Sunset Cove Development](#)
[White Lake Township, Michigan](#)
[Traffic Impact Assessment](#)

1 INTRODUCTION

This memorandum presents the results of the Traffic Impact Assessment (TIA) for the proposed Sunset Cove development in White Lake Township, Michigan. The project site is located at 8300 Pontiac Lake Road, generally in the north quadrant of the Highland Road (M-59) and Pontiac Lake Road intersection, as shown on the attached **Figure 1**. The proposed development includes the construction of multi-family residential housing and a restaurant. Site access is proposed via two (2) driveways on Pontiac Lake Road: one (1) east most Right-In/Right-Out (RIRO) only driveway and one (1) full access driveway to the west. As part of the site plan approval process and for the permitting of site access, White Lake Township has required a TIA for the proposed development to determine the impact of the site-generated traffic on the adjacent roadway system.

The scope of the study was developed based on Fleis & VandenBrink's (F&V) understanding of the development program, accepted traffic engineering practice, and methodologies published by the Institute of Transportation Engineers (ITE). Additionally, White Lake Township and the Road Commission for Oakland County (RCOC) provided input on the scope of work for this project. The study analyses were completed using Synchro/SimTraffic (Version 11) traffic analysis software. Sources of data for this study include F&V subconsultant Quality Counts (QC), White Lake Township, the Southeast Michigan Council of Governments (SEMCOG), RCOC, and ITE.

2 BACKGROUND DATA

2.1 EXISTING ROAD NETWORK

Vehicle transportation for the study area is provided via Highland Road (M-59). The lane use and traffic control at the study intersections are shown on the attached **Figure 2** and the study roadways are further described below. For the purposes of this study, site driveways and minor street were assumed to have an operating speed of 25 miles per hour (mph), unless otherwise noted.

Pontiac Lake Road generally runs in the northwest and southeast directions, adjacent to the south side of the project site. Pontiac Lake Road is classified as a *Major Collector*, is under the jurisdiction of the RCOC, and has a posted speed limit of 35 mph. The study section of the roadway provides a two-lane cross-section, with one (1) lane in each direction. Additionally, at the intersection with Highland Road (M-59), Pontiac Lake Road widens to provide exclusive left- and right-turn lanes in both directions.

27725 Stansbury Boulevard, Suite 195
Farmington Hills, MI 48334

P: 248.530.0000
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www.fver

2.2 EXISTING TRAFFIC VOLUMES

F&V subconsultant QC collected 24-hours of existing weekday Turning Movement Count (TMC) data on Tuesday, January 17th, 2023 in the vicinity of the proposed site driveway intersection on Pontiac Lake Road.

During collection of the turning movement counts, Peak Hour Factors (PHFs), pedestrian and bike volumes, and commercial truck percentages were recorded and used in the traffic analysis. The peak hour traffic volumes for each intersection were utilized and the volumes were balanced upward through the study network and balanced through the proposed site driveways. Therefore, the raw traffic volumes shown in the data collection may not match the traffic volumes used in the analysis and shown on the attached traffic volume figures.

The AM and PM peak hours for the study roadway network were observed to generally occur on weekdays between 7:15 AM to 8:15 AM and 4:30 PM to 5:30 PM, respectively. F&V collected an inventory of existing lane use and traffic controls, as shown on the attached **Figure 2**. The existing 2023 peak hour traffic volumes are shown on the attached **Figure 2**. All applicable background data referenced in this memorandum is attached.

3 BACKGROUND (2026) CONDITIONS

Historical population and economic profile data was obtained for White Lake Township from SEMCOG in order to calculate a background growth rate to project the existing 2023 peak hour traffic volumes to the site buildout year of 2026. Population and employment projections from 2020 to 2045 were reviewed and show an average annual growth of 0.16% and 0.01%, respectively. Therefore, a conservative background growth rate of **0.5%** per year was applied to the existing peak hour traffic volumes to forecast the background 2026 traffic volume **without the proposed development**.

In addition to the background traffic growth, it is important to account for traffic that will be generated by developments within the vicinity of the study area that are currently under construction or will be within the buildout year. At the time of this study, no planned background developments were identified, within the vicinity of the project site. Therefore, the background peak hour traffic volumes shown on the attached **Figure 2** were calculated based on the application of the annual background growth rate applied to the existing peak hour traffic volumes shown on the attached **Figure 2**.

4 SITE TRIP GENERATION

The number of weekday peak hour (AM and PM) and daily vehicle trips generated by the proposed development were calculated using the rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation, 11th Edition*. The proposed development includes the construction of a 4,836 square foot restaurant and 46 units of multi-family residential housing. Review of the ITE *Trip Generation Manual, 11th Edition*, indicates that the following land uses codes (LUC) were determined to be the best fit for the proposed development. Additionally, in order to provide a conservative evaluation of the proposed development, pass-by trips and internal trip capture was not considered. The trip generation used in this analysis is summarized in **Table 1**.

LUC 221: Multi-Family Housing (Mid-Rise)

- Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four (4) and ten (10) floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

LUC 932: High Turnover (Sit-down) Restaurant

- This land use consists of sit-down, full-service eating establishments (that may include alcohol service) with a typical duration of stay of 60 minutes or less. A patron typically waits to be seated, is served by wait staff, orders from a menu, and pays after the meal. A small proportion of customers may carry-out orders.

Table 1: Trip Generation Summary

Land Use	ITE Code	Amount	Units	Average Daily Traffic (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
					In	Out	Total	In	Out	Total
Multi-Family Housing (Mid-Rise)	221	46	DU	173	2	7	9	11	7	18
High Turnover (Sit-down) Restaurant	932	4,836	SF	518	25	21	46	27	17	44
Total New Trips				691	27	28	55	38	24	62

5 SITE TRIP DISTRIBUTION

The vehicular trips that would be generated by the proposed development were assigned to the study roadway network based on the proposed site access plan and driveway configurations, the existing peak hour traffic patterns in the adjacent roadway network, and the methodologies published by ITE. The ITE trip distribution methodology assumes that new trips will enter the network and access the development, then leave the development and return to their direction of origin. The site trip distributions utilized in this analysis are summarized in **Table 2**.

Table 2: Site Trip Distribution

To/From	Via	Residential		Commercial	
		AM	PM	AM	PM
East	Pontiac Lake Road	80%	65%	19%	65%
West	Pontiac Lake Road	20%	35%	81%	35%
Total		100%	100%	100%	100%

The vehicular traffic volumes shown in **Table 1** were distributed to the study network according to the distribution shown in **Table 2**. The site-generated trips shown on the attached **Figure 5** were added to the background peak hour traffic volumes shown on the attached **Figure 4**, in order to calculate the future peak hour traffic volumes with the addition of the proposed development. Future peak hour traffic volumes are shown on the attached **Figure 6**.

6 FUTURE (2026) CONDITIONS

The future peak hour vehicle delays and LOS *with the proposed development* were calculated based on the future lane use and traffic control shown on the attached **Figure 2**, the proposed site access plan and driveway configurations, future peak hour traffic volumes shown on the attached **Figure 6**, and the methodologies presented in the HCM6. The results of the future conditions analysis, *with the addition of the proposed development*, are attached and summarized in **Table 3**.

Table 3: Future Intersection Operations

	Intersection	Control	Approach	Future Conditions			
				AM Peak		PM Peak	
				Delay (s/veh)	LOS	Delay (s/veh)	LOS
1	Pontiac Lake Road & W. Site Drive	Stop (Minor)	EBL	7.3	A	7.8	A
			WB	Free			
			SB	9.4	A	10.7	B
2	Pontiac Lake Road & Gas Station Drive	Stop (Minor)	EB	Free			
			WBL	7.6	A	7.5	A
			NB	9.3	A	9.9	A
3	Pontiac Lake Road & E. Site Drive	Stop (Minor)	EB	Free			
			WB	Free			
			SBR	8.6	A	9.5	A

The results of the future conditions analysis indicates that all the study intersection approaches and movements are expected to operate acceptably, at LOS D or better during both the AM and PM peak periods. Additionally, review of SimTraffic network simulations at the existing gas station and proposed site drive intersections indicates acceptable operations and minimal vehicle queueing. Vehicles at the stop-controlled study intersections and site driveways were observed to find adequate gaps within the through traffic along Pontiac Lake Road, without experiencing significant delays or excessive vehicle queueing.

7 ACCESS MANAGEMENT – AUXILIARY TURN LANE EVALUATION

Pontiac Lake Road is under the jurisdiction of the RCOC; therefore, the RCOC warranting threshold guidelines were utilized in order to determine the need for auxiliary turn lanes at the proposed site driveways. The proposed E. Site Drive will operate as a Right-In/Right-Out (RIRO) driveway; therefore, left-turn lane warrants were not evaluated at this location. The result of the analyses shown on the attached RCOC warrant charts and are summarized in **Table 4**.

Table 4: Turn Lane Warrant Analysis Summary

Site Driveway Intersection	Right-Turn Treatment	Left-Turn Treatment
Pontiac Lake Road & West Site Drive	No Treatment	No Treatment
Pontiac Lake Road & East Site Drive	No Treatment	N/A

The results of the auxiliary turn lane evaluations indicates that auxiliary turn lane treatments are NOT warranted or recommended at the proposed site driveways on Pontiac Lake Road.

8 CONCLUSIONS

The conclusions of this TIA are as follows:

- The results of the future conditions analysis indicates that all the study intersection approaches and movements are expected to operate acceptably, at LOS D or better during both peak periods. Additionally, review of SimTraffic microsimulations also indicated acceptable operations throughout the study roadway network during both peak periods, with minimal vehicle queueing observed.
- The RCOC auxiliary turn lane warranting thresholds were evaluated at the proposed site driveways on Pontiac Lake Road. The results of the evaluation indicate that auxiliary turn lane treatments are NOT warranted or recommended at the proposed site driveways on Pontiac Lake Road.

Any questions related to this memorandum, study, analysis, and results should be addressed to Fleis & VandenBrink.



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Michigan.

Jacob Swanson

Digitally signed by
 Jacob Swanson
 Date: 2023.02.08
 17:44:30 -05'00'

Attached: Figures 1-2
 Proposed Site/Concept Plan
 Traffic Volume Data
 Synchro / SimTraffic Results
 Auxiliary Turn Lane Warrants



FIGURE 1

SITE LOCATION MAP

SUNSET COVE DEVELOPMENT
WHITE LAKE TOWNSHIP, MICHIGAN



LEGEND

SITE LOCATION

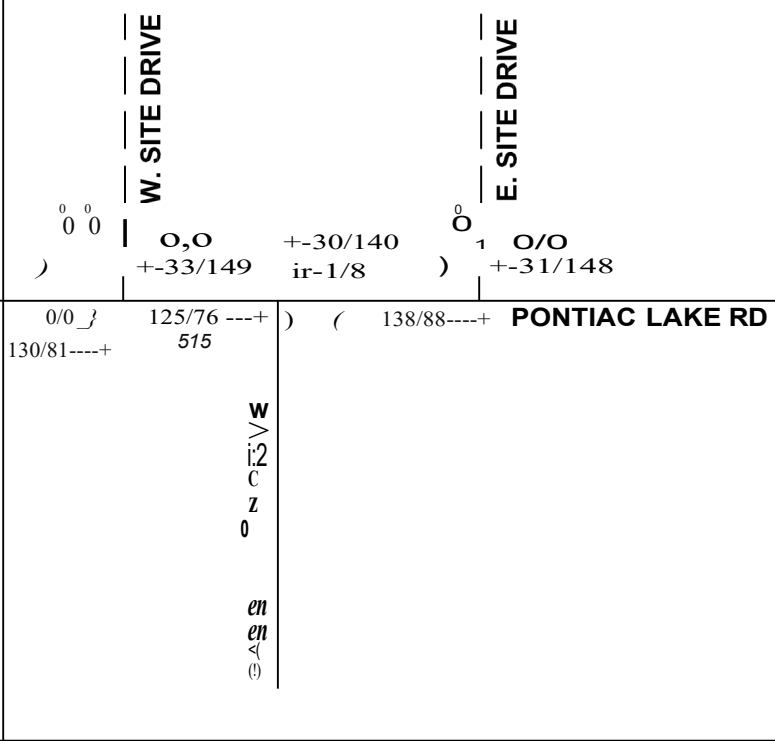
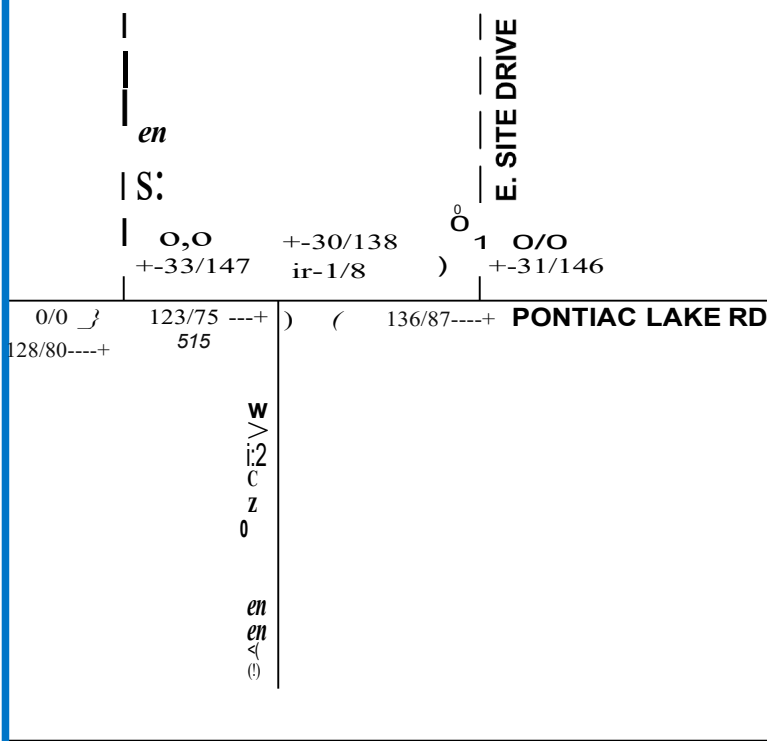


NORTH
SCALE: NOT TO

Item A.

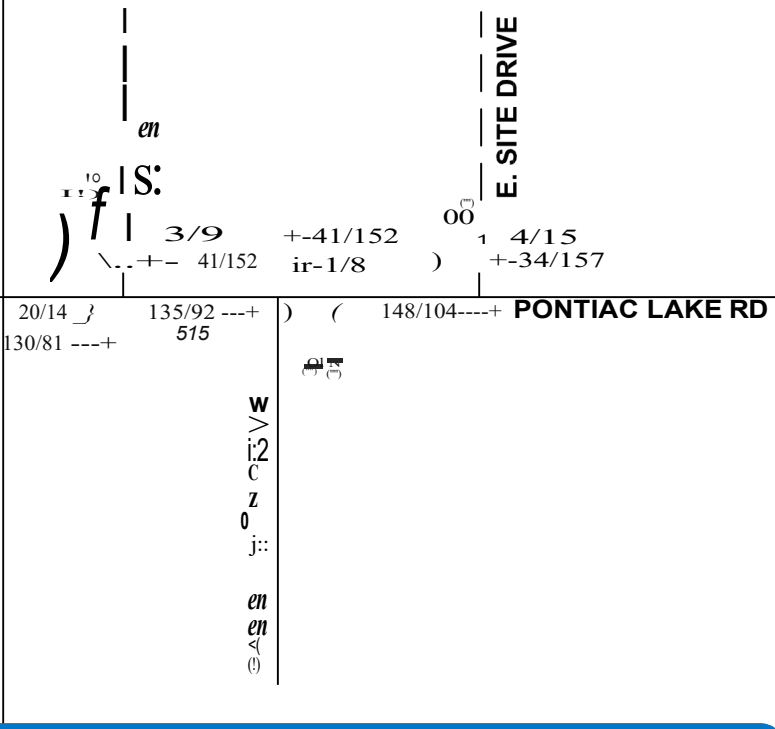
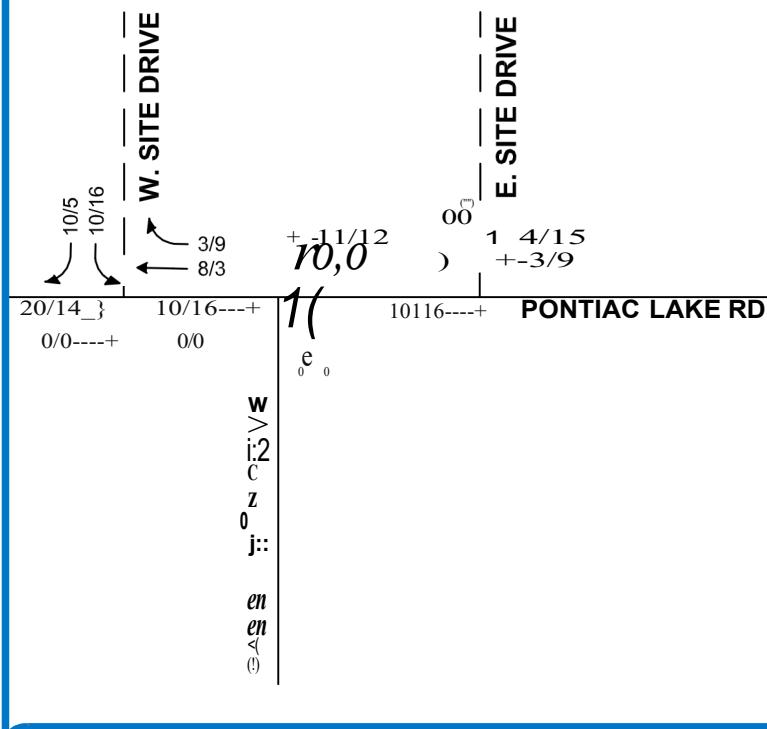
EXISTING

BACKGROUND



SITE GEN

FUTURE



**FIGURE 2
TRAFFIC VOLUMES**

SUNSET COVE DEVELOPMENT
WHITE LAKE TOWNSHIP, MICHIGAN

LEGEND

- NORTH
SCALE: NOT TO SCALE
- ROADS
- PROPOSED ROADS
- TRAFFIC VOLUMES (AM PM)

Site DATA:

PARCEL ADDRESS: 8300 PONTIAC LAKE RD., WHITE LAKE TWP., MI 48386
PARCEL IDENTIFICATION #: 12-13-451-011

GROSS AREA OF SITE: 3.31 AC.
60' W.O. R.O.W. AREA: 0.83 AC.
NET AREA OF SITE: 2.88 AC.

EXISTING ZONING: PG - PONTIAC GATEWAY
ADJACENT ZONING: NORTH: NO ZONING (PONTIAC LAKE)
SOUTH: R1-C SINGLE FAMILY RESIDENTIAL AND GB GENERAL BUSINESS
EAST: PG - PONTIAC GATEWAY
WEST: NO ZONING (PONTIAC LAKE)

MAX. BUILDING HEIGHT ALLOWED: 70 FT.
BUILDING HEIGHT PROPOSED: 55 FT +/-

RESIDENTIAL:
TOTAL UNITS PROVIDED: 46 UNITS
BUILDING 1: 18 (2 BEDROOM UNITS) 36 BEDROOMS
BUILDING 2: 18 (2 BEDROOM UNITS) 36 BEDROOMS
BUILDING 3: 10 (2 BEDROOM UNITS) 20 BEDROOMS
TOTAL NUMBER OF BEDROOMS PROVIDED: 92 BEDROOMS

PARKING SPACES REQUIRED: 2 SPACES PER UNIT
PLUS 1/4 SPACE PER BEDROOM
2 x 46 UNITS = 92 SPACES
1/4 x 92 BEDROOMS = 23 SPACES
PARKING SPACES REQUIRED = 115 SPACES

RESTAURANT:
GROSS AREA: 4,836 S.F.
PARKING SPACES REQUIRED: 1 SPACE PER 60 S.F. OF GROSS AREA
4,836 / 60 = 80.6 SPACES
PARKING SPACES REQUIRED = 81 SPACES

PARKING VARIANCE REQUEST FOR BOAT DOCKING:
APPLICANT REQUESTS A PARKING REQUIREMENT VARIANCE DUE TO DOCKING PROVIDED. THIRTY (30) BOAT DOCKING SPACES HAVE BEEN PROVIDED. A VARIANCE FROM THE ZONING BOARD OF APPEALS (ZBA) IS REQUESTED TO REDUCE THE PARKING REQUIREMENT BY ONE (1) PARKING SPACE FOR EVERY TWO (2) BOAT DOCKING SPACES. THEREFORE, A PARKING REQUIREMENT VARIANCE (REDUCTION) OF FIFTEEN (15) PARKING SPACES IS REQUESTED.

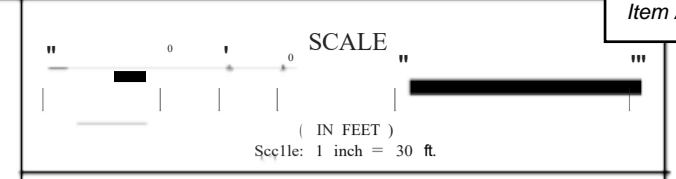
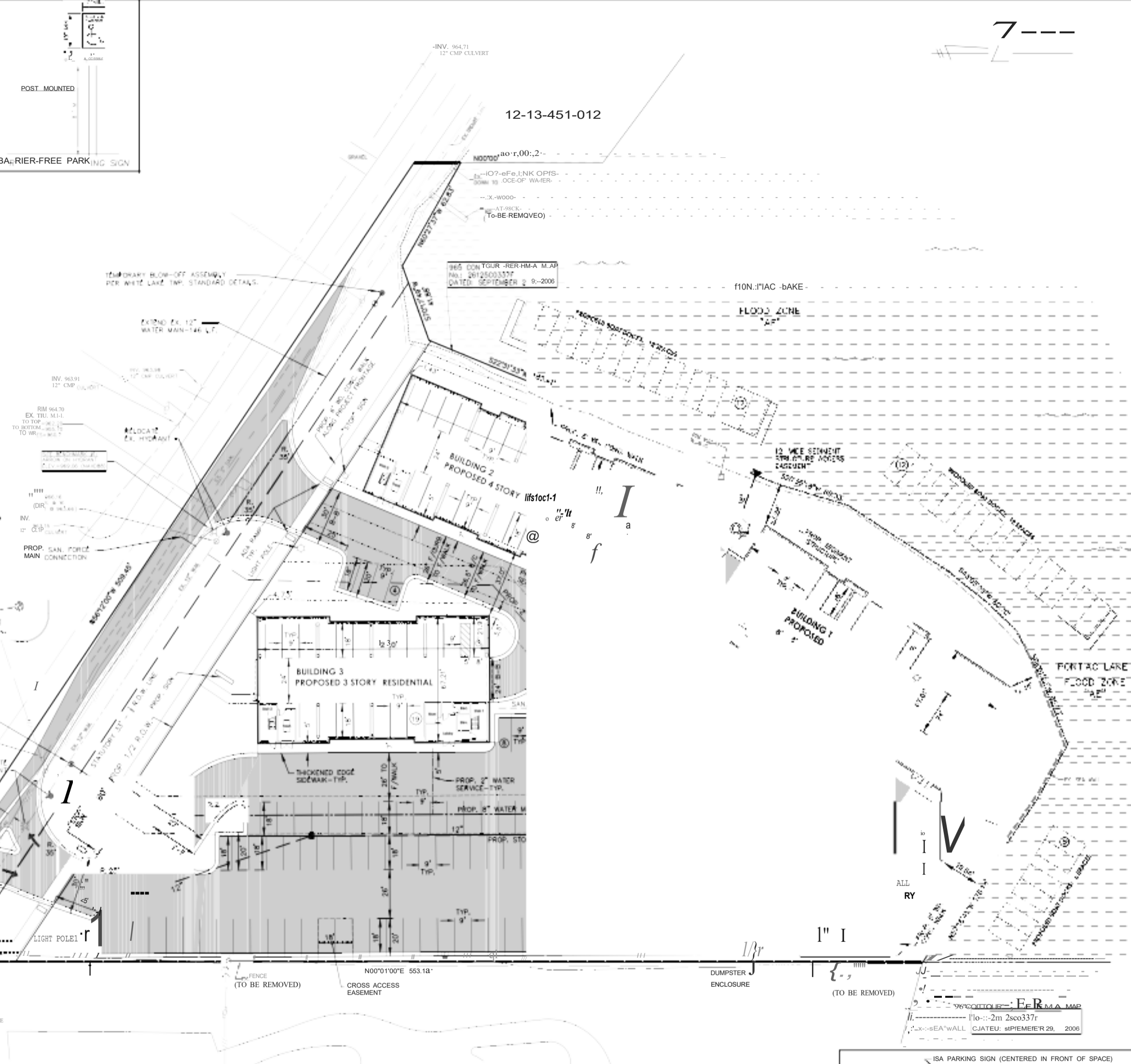
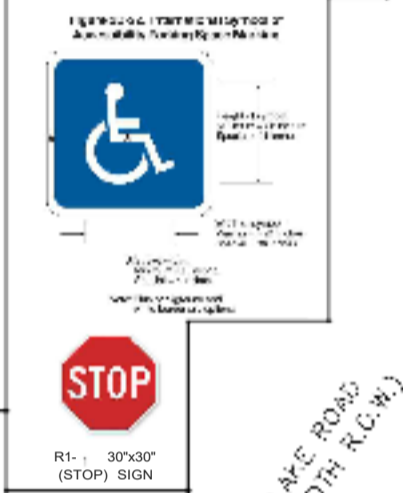
PARKING REQUIREMENT / PROPOSED:
TOTAL PARKING REQUIRED:
RESIDENTIAL = 115 SPACES
RESTAURANT = 81 SPACES
BOAT PARKING VARIANCE = -15 SPACES (REDUCTION)
TOTAL PARKING REQUIRED = 181 SPACES
TOTAL PARKING SPACES PROVIDED INCLUDING = 194 SPACES
ONE SPACE DEDICATED FOR SAN. PUMP STATION

BARRIER-FREE RESERVED PARKING SIGNS

NOTE: ACCESSIBLE PARKING SPACE SIGNS SHALL HAVE A MIN. HEIGHT AND SIZE TO PERMIT THE SPACE TO BE EASILY IDENTIFIED AND ARE ELONGATED SUCH THAT THEY SHALL NOT PRESENT A HAZARD TO PERSONS WALKING NEAR THE SIGN.

- SIGNING NOTES**
- ALL SIGNS SHALL HAVE A MINIMUM BOTTOM MOUNTING HEIGHT OF 7' FROM FINAL GRADE FOR GROUND MOUNTED SIGNS. WALL MOUNTED SIGNS MAY HAVE A BOTTOM MOUNTING HEIGHT OF 0'.
 - ALL ROADSIDE SIGNS SHOULD BE INSTALLED TWO FEET FROM THE FACE OF THE CURB TO THE NEAR EDGE OF THE SIGN.
 - SINGLE SIGNS WITH NOMINAL DIMENSIONS OF 12"X18" OR SMALLER IN SIZE SHALL BE MOUNTED ON A GALVANIZED 2 LB U-CHANNEL POST. MULTIPLE SIGNS AND/OR SIGNS WITH NOMINAL DIMENSIONS GREATER THAN 12"X18" SHALL BE MOUNTED ON A GALVANIZED 1 LB OR GREATER U-CHANNEL POST AS DICTATED BY THE WEIGHT OF THE PROPOSED SIGNS.
 - TRAFFIC CONTROL SIGNS SHALL USE THE FHWA STANDARD ALPHABET SERIES.
 - TRAFFIC CONTROL SIGNS SHALL HAVE A HIGH INTENSITY PRISMATIC (HIS) SHEETING TO MEET FHWA RETROREFLECTIVITY REQUIREMENTS.

- STRIPING NOTES:**
- PARKING LOTS SHALL HAVE PARKING AREAS AND RAMP PAVEMENT MARKINGS MARKED BY PAINTED 4-INCH WIDE LINES. ACCURATELY AND NEATLY ARRANGED AS INDICATED ON THE PLAN. LINES SHALL BE PAINTED WITH AN APPROVED WHITE TRAFFIC PAINT COMPATIBLE WITH BITUMINOUS CONCRETE SURFACES SUCH AS SHERWIN WILLIAMS POLYURETHANE TYPE 13 OR 14 OR AS APPROVED BY THE OWNER. PROTECT ALL PAINTED AREAS UNTIL PAINT IS COMPLETELY DRY. PARKING AREAS FOR THE PHYSICALLY HANDICAPPED SHALL BE PAINTED WITH BLUE PAINT FOR STRIPING. WHEEL CHAIR SYMBOL SHALL BE PAINTED WHITE. ALL PAINT MARKINGS AND STRIPING SHALL BE PROVIDED IN TWO COATS.
 - THE INTERNATIONAL SYMBOL FOR ACCESSIBILITY SHALL BE WHITE OR WHITE WITH BLUE BACKGROUND.
 - WHEN A BARRIER FREE PARKING SPACE IS ADJACENT TO A STANDARD PARKING SPACE, BLUE AND WHITE LINES ABOUTING EACH OTHER SHALL BE PROVIDED.



LOT COVERAGE:

GROSS AREA OF SITE	=	3.31 AC.
BUILDING AREA	=	0.72 AC.
PROPOSED LOT COVERAGE	=	0.72 / 3.31 = 21.7%

SIGN QUANTITIES

SYMBOL	DESCRIPTION	QUANTITY	PANEL POST
R1-1	30"x30" (STOP) SIGN	2	2
S	R7-8 12"x8" BARRIER FREE HANDICAP SIGN	2	2
Q	R7-8P 12"x8" (VAN ACCESSIBLE) SIGN	2	0

- PROPOSED IMPROVEMENTS:**
- MUNICIPAL SEWER TO BE PROVIDED BY CONSTRUCTING ON SITE GRAVITY SANITARY SEWER SYSTEM AND ON-SITE PUMP STATION AND FORCE MAIN. THE PROPOSED FORCE MAIN WILL CONNECT TO AN EXISTING 3' DIAMETER FORCE MAIN LOCATED IN PONTIAC LAKE ROAD.
 - WATER SUPPLY TO BE PROVIDED BY CONNECTING TO AN EXIST. 12" WATERMAIN ALONG PONTIAC LAKE ROAD. PROPOSED WATERMANS SHALL BE 8" AS SHOWN.
 - ON-SITE STORM WATER SYSTEM WILL FLOW TO A SEDIMENT STRUCTURE THEN DISCHARGE TO PONTIAC LAKE. STORM WATER DETENTION TO BE PROVIDED BY PONTIAC LAKE.
 - AN 8' WIDE CONC. SIDEWALK TO BE CONSTRUCTED ALONG THE NORTH R.O.W. OF PONTIAC LAKE ROAD AS SHOWN. SEE PAVEMENT CROSS SECTION AND CURB DETAILS ON SHEET 4.
 - ALL ELECTRIC, CABLE TV & PHONE LINES SHALL BE LOCATED UNDERGROUND AND SHALL BE PLACED WITHIN EASEMENTS DEDICATED FOR SUCH USE.

- NOTES:**
- ON-SITE SANITARY SEWER, SANITARY FORCE MAINS, AND WATER MAINS SHALL BE CENTERED IN A 20-FOOT W.O. EASEMENT.
 - ALL FORCE MAIN, PUMP STATION AND WATER MAIN IMPROVEMENTS WILL BECOME PUBLIC PROPERTY.
 - PROVISIONS PURSUANT TO OAKLAND COUNTY WATER RESOURCE COMMISSION AND SOIL EROSION CONTROL MANUAL WILL BE UNDERTAKEN INCLUDING, BUT NOT LIMITED TO, SILT FENCE AND INLET FILTERS.
 - PROPOSED GRADES WILL MATCH EXISTING ELEVATIONS AT THE PROPERTY LINES UNLESS RETAINING WALLS ARE PROVIDED OR GRADING EASEMENTS OBTAINED.
 - A PERMIT FROM THE ROAD COMMISSION FOR OAKLAND COUNTY WILL BE REQUIRED FOR ALL WORK IN THE PONTIAC LAKE ROAD RIGHT-OF-WAY.
 - ALL WATER MAIN SHALL BE CLASS 54 DUCTILE IRON & ALL GATE VALVES SHALL BE PLACED IN GATE WELLS.
 - ALL STORM STRUCTURES EXCEPT FOR INLETS WHICH CONNECT TO CATCH BASINS WILL BE A MINIMUM OF 4 FEET IN DIAMETER.
 - THE DEVELOPMENT SHALL BE CONSTRUCTED AS A SINGLE PHASE.
 - ALL EXISTING UTILITIES ON THE PROPERTY WILL BE REMOVED, INCLUDING SANITARY SEWER AND STORM SEWER.
 - ALL EXISTING WELLS ON SITE WILL BE ABANDONED IN ACCORDANCE WITH OAKLAND COUNTY HEALTH DEPARTMENT REQUIREMENTS.
 - THE DUMPSTER ENCLOSURE SHALL MATCH THE SAME MASONRY PRODUCT AS THE RESTAURANT BUILDING WITH A STEEL-BACKED WOOD GATE PAINTED WITH A COMPLEMENTARY COLOR TO THE MASONRY PRODUCT.
 - THE ANGLE OF APPROACH AND DEPARTURE SHALL NOT EXCEED 300 FEET.
 - REMOVE OR RELOCATE FIXED OBJECTS LOCATED WITHIN THE R.O.C.O. RIGHT-OF-WAY PRIOR TO EXCAVATION. FIXED OBJECTS SHALL BE NO NEARER THAN 5' FROM BACK OF CURB, OR 12' FROM LANE LINE.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	PAVEMENT (ASPHALT)
[Symbol]	[Symbol]	SIDE WALK (CONCRETE)
[Symbol]	[Symbol]	CONCRETE CURB AND GUTTER
[Symbol]	[Symbol]	STORM SEWER
[Symbol]	[Symbol]	SANITARY FORCE MAIN
[Symbol]	[Symbol]	SANITARY GRAVITY MAIN
[Symbol]	[Symbol]	WATER MAIN
[Symbol]	[Symbol]	MANHOLE
[Symbol]	[Symbol]	CATCH BASIN
[Symbol]	[Symbol]	END SECTION
[Symbol]	[Symbol]	GATE VALVE
[Symbol]	[Symbol]	HYDRANT
[Symbol]	[Symbol]	CONTOURS
[Symbol]	[Symbol]	SPOT ELEVATION
[Symbol]	[Symbol]	SURFACE DRAINAGE

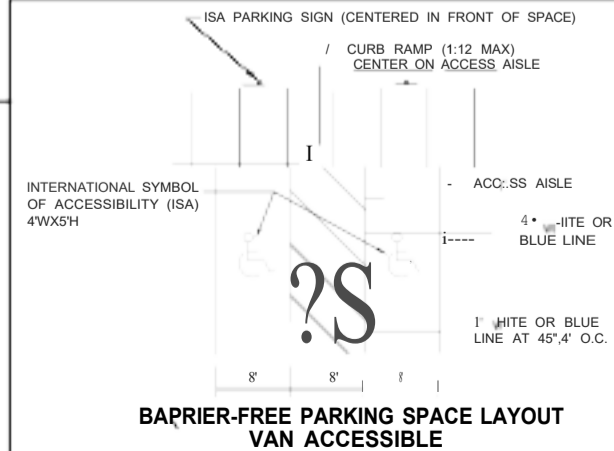
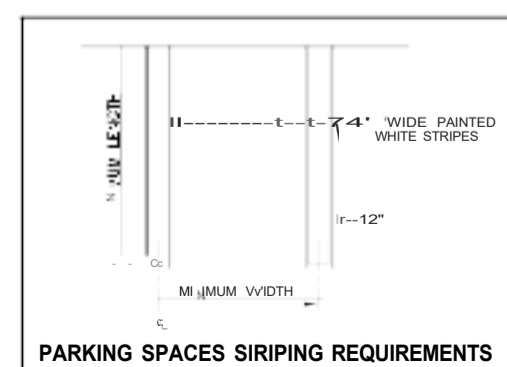
SUNSET COVE CONDOMINIUMS
PART OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 13, TOWN 3 NORTH, RANGE 8 EAST WHITE LAKE TWP., OAKLAND COUNTY, MICHIGAN

DATE: 11-15-22 DESIGNED BY: A.A. JOB NUMBER: 21-306
CHECKED BY: J.E. DRAWING FILE: 11-21306-0A

REVISIONS

NO.	DESCRIPTION	DATE
1	REV. PER TWP. REVIEW	1-5-23
2	REV. BLDG. 3 AND PARKING PER OWNER	1-19-23

OVERALL PLAN



Groups Printed- Passenger Vehicles - Heavy Vehicles

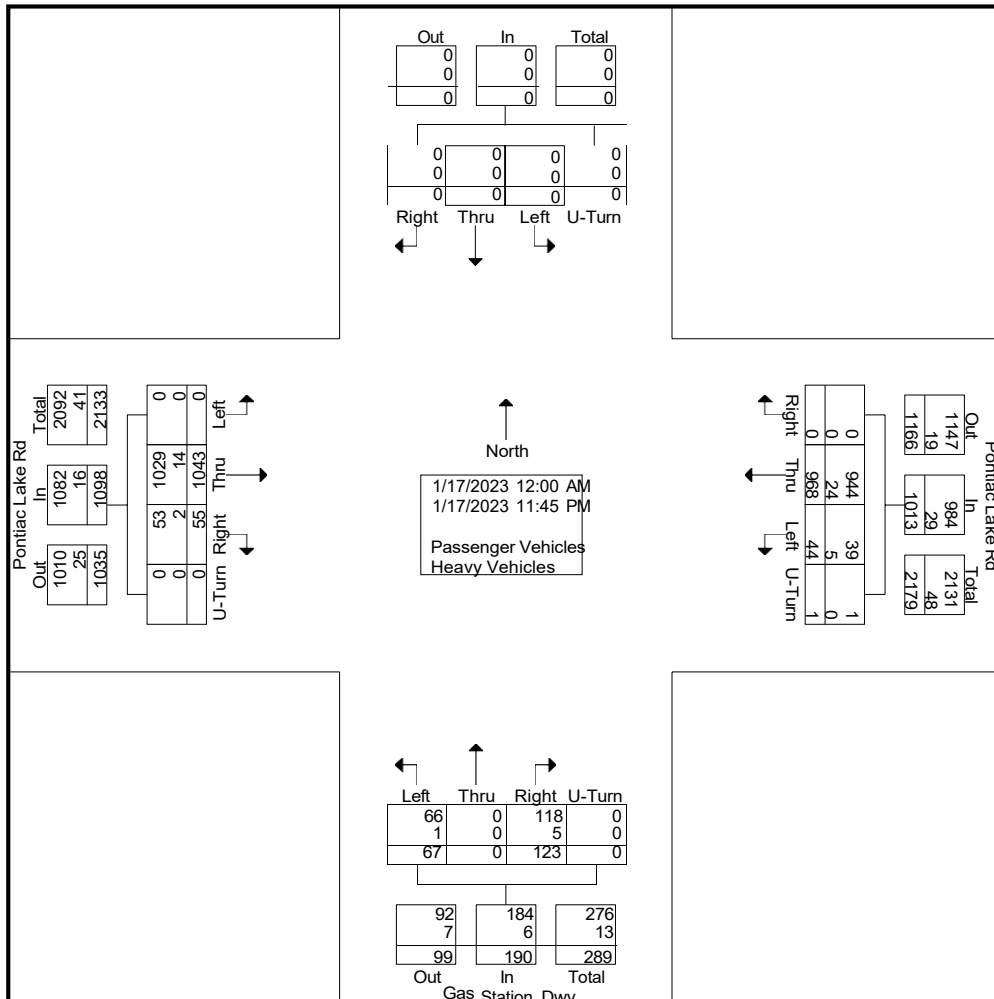
Start Time	Pontiac Lake Rd Eastbound					Pontiac Lake Rd Westbound					Gas Station Dwy Northbound					Southbound					Int. Total
	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	
12:00 AM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
12:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
12:30 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
12:45 AM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
Total	0	4	0	0	4	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	9
01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00 AM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	4	0	0	4	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	5
04:00 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:15 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
04:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 AM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	0	9	0	0	9	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	10
05:00 AM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
05:15 AM	0	13	0	0	13	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	14
05:30 AM	0	12	1	0	13	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	15
05:45 AM	0	12	0	0	12	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	15
Total	0	41	1	0	42	1	5	0	0	6	0	0	0	0	0	0	0	0	0	0	48
06:00 AM	0	13	2	0	15	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	17
06:15 AM	0	20	1	0	21	0	2	0	0	2	1	0	0	0	1	0	0	0	0	0	24
06:30 AM	0	25	1	0	26	0	3	0	0	3	0	0	2	0	2	0	0	0	0	0	31
06:45 AM	0	33	2	0	35	0	3	0	0	3	0	0	2	0	2	0	0	0	0	0	40
Total	0	91	6	0	97	0	9	0	0	9	1	0	5	0	6	0	0	0	0	0	112
07:00 AM	0	27	1	0	28	0	4	0	0	4	1	0	2	0	3	0	0	0	0	0	35
07:15 AM	0	26	1	0	27	0	7	0	0	7	0	0	3	0	3	0	0	0	0	0	37
07:30 AM	0	38	2	0	40	1	8	0	0	9	2	0	3	0	5	0	0	0	0	0	54
07:45 AM	0	28	1	0	29	0	5	0	0	5	0	0	3	0	3	0	0	0	0	0	37
Total	0	119	5	0	124	1	24	0	0	25	3	0	11	0	14	0	0	0	0	0	163
08:00 AM	0	31	1	0	32	0	10	0	0	10	1	0	4	0	5	0	0	0	0	0	47
08:15 AM	0	21	0	0	21	1	8	0	0	9	0	0	0	0	0	0	0	0	0	0	30
08:30 AM	0	33	1	0	34	0	6	0	0	6	0	0	2	0	2	0	0	0	0	0	42
08:45 AM	0	15	0	0	15	4	7	0	0	11	1	0	1	0	2	0	0	0	0	0	28
Total	0	100	2	0	102	5	31	0	0	36	2	0	7	0	9	0	0	0	0	0	147
09:00 AM	0	18	0	0	18	0	5	0	0	5	1	0	2	0	3	0	0	0	0	0	26
09:15 AM	0	16	3	0	19	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	27
09:30 AM	0	12	2	0	14	0	6	0	0	6	2	0	3	0	5	0	0	0	0	0	25
09:45 AM	0	11	3	0	14	0	10	0	0	10	0	0	1	0	1	0	0	0	0	0	25
Total	0	57	8	0	65	0	29	0	0	29	3	0	6	0	9	0	0	0	0	0	103
10:00 AM	0	16	0	0	16	0	13	0	0	13	1	0	3	0	4	0	0	0	0	0	33

Groups Printed- Passenger Vehicles - Heavy Vehicles

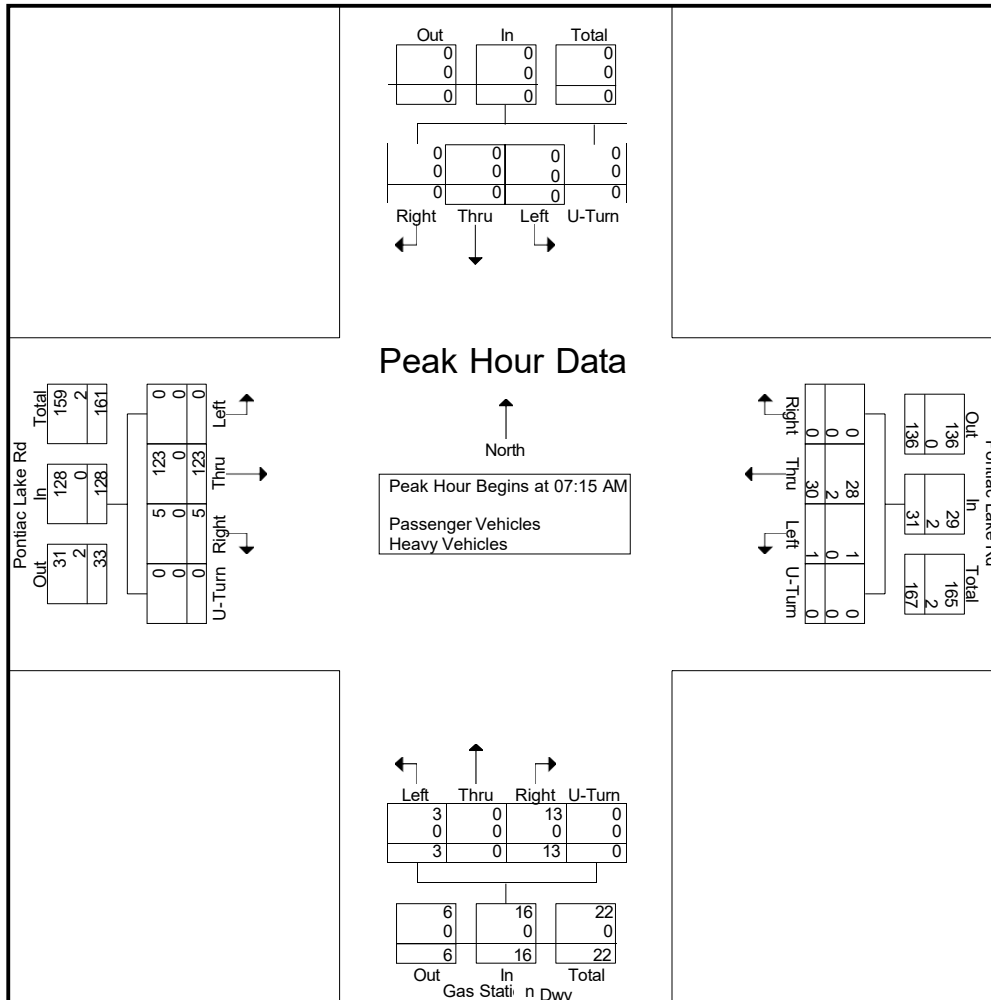
Start Time	Pontiac Lake Rd Eastbound					Pontiac Lake Rd Westbound					Gas Station Dwy Northbound					Southbound					Int. Total
	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	
10:15 AM	0	17	1	0	18	1	7	0	0	8	0	0	1	0	1	0	0	0	0	0	27
10:30 AM	0	19	2	0	21	2	4	0	0	6	1	0	0	0	1	0	0	0	0	0	28
10:45 AM	0	11	2	0	13	0	7	0	0	7	3	0	3	0	6	0	0	0	0	0	26
Total	0	63	5	0	68	3	31	0	0	34	5	0	7	0	12	0	0	0	0	0	114
11:00 AM	0	12	1	0	13	1	6	0	0	7	0	0	2	0	2	0	0	0	0	0	22
11:15 AM	0	12	0	0	12	1	10	0	0	11	1	0	2	0	3	0	0	0	0	0	26
11:30 AM	0	19	2	0	21	1	13	0	0	14	3	0	2	0	5	0	0	0	0	0	40
11:45 AM	0	17	1	0	18	1	17	0	0	18	0	0	4	0	4	0	0	0	0	0	40
Total	0	60	4	0	64	4	46	0	0	50	4	0	10	0	14	0	0	0	0	0	128
12:00 PM	0	14	0	0	14	1	7	0	0	8	2	0	4	0	6	0	0	0	0	0	28
12:15 PM	0	11	1	0	12	0	18	0	0	18	2	0	2	0	4	0	0	0	0	0	34
12:30 PM	0	16	0	0	16	0	14	0	0	14	0	0	2	0	2	0	0	0	0	0	32
12:45 PM	0	18	0	0	18	0	12	0	0	12	1	0	1	0	2	0	0	0	0	0	32
Total	0	59	1	0	60	1	51	0	0	52	5	0	9	0	14	0	0	0	0	0	126
01:00 PM	0	10	2	0	12	0	15	0	0	15	0	0	1	0	1	0	0	0	0	0	28
01:15 PM	0	7	0	0	7	0	12	0	0	12	0	0	4	0	4	0	0	0	0	0	23
01:30 PM	0	15	1	0	16	0	13	0	0	13	0	0	3	0	3	0	0	0	0	0	32
01:45 PM	0	14	0	0	14	2	14	0	1	17	2	0	1	0	3	0	0	0	0	0	34
Total	0	46	3	0	49	2	54	0	1	57	2	0	9	0	11	0	0	0	0	0	117
02:00 PM	0	15	0	0	15	0	15	0	0	15	0	0	2	0	2	0	0	0	0	0	32
02:15 PM	0	14	1	0	15	0	16	0	0	16	1	0	2	0	3	0	0	0	0	0	34
02:30 PM	0	19	1	0	20	2	26	0	0	28	1	0	3	0	4	0	0	0	0	0	52
02:45 PM	0	14	0	0	14	0	23	0	0	23	2	0	1	0	3	0	0	0	0	0	40
Total	0	62	2	0	64	2	80	0	0	82	4	0	8	0	12	0	0	0	0	0	158
03:00 PM	0	11	0	0	11	2	21	0	0	23	1	0	2	0	3	0	0	0	0	0	37
03:15 PM	0	15	0	0	15	0	36	0	0	36	2	0	0	0	2	0	0	0	0	0	53
03:30 PM	0	17	2	0	19	0	26	0	0	26	3	0	0	0	3	0	0	0	0	0	48
03:45 PM	0	25	2	0	27	0	27	0	0	27	1	0	5	0	6	0	0	0	0	0	60
Total	0	68	4	0	72	2	110	0	0	112	7	0	7	0	14	0	0	0	0	0	198
04:00 PM	0	12	0	0	12	0	17	0	0	17	3	0	6	0	9	0	0	0	0	0	38
04:15 PM	0	22	1	0	23	2	33	0	0	35	1	0	3	0	4	0	0	0	0	0	62
04:30 PM	0	8	1	0	9	1	26	0	0	27	2	0	6	0	8	0	0	0	0	0	44
04:45 PM	0	26	2	0	28	2	35	0	0	37	1	0	1	0	2	0	0	0	0	0	67
Total	0	68	4	0	72	5	111	0	0	116	7	0	16	0	23	0	0	0	0	0	211
05:00 PM	0	20	2	0	22	2	27	0	0	29	2	0	1	0	3	0	0	0	0	0	54
05:15 PM	0	21	0	0	21	3	50	0	0	53	4	0	4	0	8	0	0	0	0	0	82
05:30 PM	0	13	0	0	13	1	22	0	0	23	3	0	2	0	5	0	0	0	0	0	41
05:45 PM	0	8	2	0	10	1	26	0	0	27	1	0	2	0	3	0	0	0	0	0	40
Total	0	62	4	0	66	7	125	0	0	132	10	0	9	0	19	0	0	0	0	0	217
06:00 PM	0	15	0	0	15	0	26	0	0	26	1	0	4	0	5	0	0	0	0	0	46
06:15 PM	0	15	0	0	15	2	25	0	0	27	1	0	1	0	2	0	0	0	0	0	44
06:30 PM	0	17	0	0	17	0	26	0	0	26	0	0	3	0	3	0	0	0	0	0	46
06:45 PM	0	16	0	0	16	0	20	0	0	20	0	0	1	0	1	0	0	0	0	0	37
Total	0	63	0	0	63	2	97	0	0	99	2	0	9	0	11	0	0	0	0	0	173
07:00 PM	0	8	1	0	9	0	16	0	0	16	0	0	1	0	1	0	0	0	0	0	26
07:15 PM	0	9	1	0	10	2	15	0	0	17	1	0	1	0	2	0	0	0	0	0	29
07:30 PM	0	7	1	0	8	2	14	0	0	16	2	0	1	0	3	0	0	0	0	0	27
07:45 PM	0	5	0	0	5	1	11	0	0	12	4	0	2	0	6	0	0	0	0	0	23
Total	0	29	3	0	32	5	56	0	0	61	7	0	5	0	12	0	0	0	0	0	105
08:00 PM	0	5	0	0	5	2	9	0	0	11	0	0	1	0	1	0	0	0	0	0	17
08:15 PM	0	0	0	0	0	1	13	0	0	14	3	0	0	0	3	0	0	0	0	0	17
08:30 PM	0	6	1	0	7	0	7	0	0	7	0	0	1	0	1	0	0	0	0	0	15
08:45 PM	0	4	0	0	4	0	15	0	0	15	0	0	1	0	1	0	0	0	0	0	20
Total	0	15	1	0	16	3	44	0	0	47	3	0	3	0	6	0	0	0	0	0	69

Groups Printed- Passenger Vehicles - Heavy Vehicles

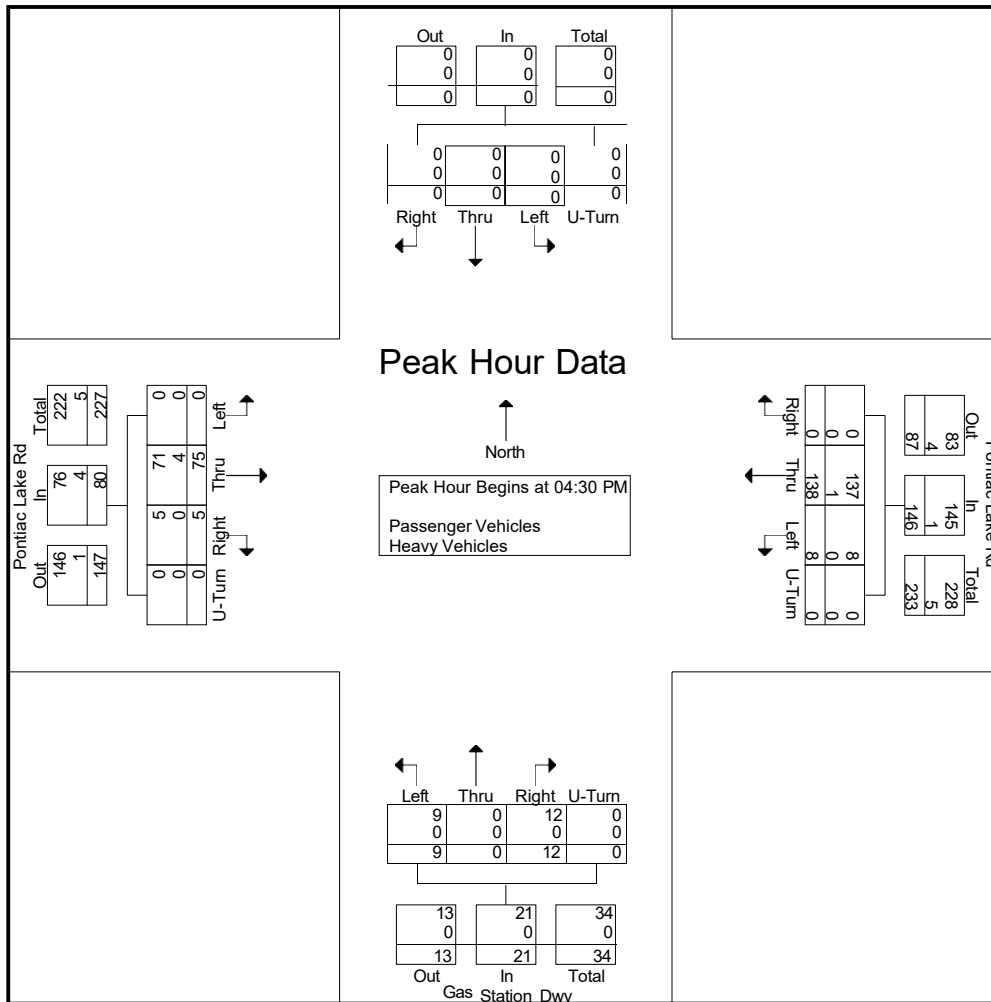
Start Time	Pontiac Lake Rd Eastbound					Pontiac Lake Rd Westbound					Gas Station Dwy Northbound					Southbound					Int. Total
	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	
09:00 PM	0	5	0	0	5	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0
09:15 PM	0	2	0	0	2	0	8	0	0	8	0	0	1	0	1	0	0	0	0	0	0
09:30 PM	0	4	0	0	4	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0
09:45 PM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
Total	0	12	0	0	12	0	24	0	0	24	0	0	1	0	1	0	0	0	0	0	0
10:00 PM	0	3	0	0	3	0	5	0	0	5	0	0	1	0	1	0	0	0	0	0	0
10:15 PM	0	1	0	0	1	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	2	1	0	3	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	2	1	0	3	1	6	0	0	7	1	0	0	0	1	0	0	0	0	0	0
Total	0	8	2	0	10	1	22	0	0	23	1	0	1	0	2	0	0	0	0	0	0
11:00 PM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	0	0	0	0	0	0
11:30 PM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	0	3	0	9	0	0	9	1	0	0	0	1	0	0	0	0	0	0
Grand Total	0	1043	55	0	1098	44	968	0	1	1013	67	0	123	0	190	0	0	0	0	0	2301
Apprch %	0	95	5	0		4.3	95.6	0	0.1		35.3	0	64.7	0		0	0	0	0		
Total %	0	45.3	2.4	0	47.7	1.9	42.1	0	0	44	2.9	0	5.3	0	8.3	0	0	0	0	0	
Passenger Vehicles	0	1029	53	0	1082	39	944	0	1	984	66	0	118	0	184	0	0	0	0	0	2250
% Passenger Vehicles	0	98.7	96.4	0	98.5	88.6	97.5	0	100	97.1	98.5	0	95.9	0	96.8	0	0	0	0	0	97.8
Heavy Vehicles	0	14	2	0	16	5	24	0	0	29	1	0	5	0	6	0	0	0	0	0	51
% Heavy Vehicles	0	1.3	3.6	0	1.5	11.4	2.5	0	0	2.9	1.5	0	4.1	0	3.2	0	0	0	0	0	2.2



Start Time	Pontiac Lake Rd Eastbound					Pontiac Lake Rd Westbound					Gas Station Dwy Northbound					Southbound					Int. Total
	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	
Peak Hour Analysis From 12:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	26	1	0	27	0	7	0	0	7	0	0	3	0	3	0	0	0	0	0	37
07:30 AM	0	38	2	0	40	1	8	0	0	9	2	0	3	0	5	0	0	0	0	0	54
07:45 AM	0	28	1	0	29	0	5	0	0	5	0	0	3	0	3	0	0	0	0	0	37
08:00 AM	0	31	1	0	32	0	10	0	0	10	1	0	4	0	5	0	0	0	0	0	47
Total Volume	0	123	5	0	128	1	30	0	0	31	3	0	13	0	16	0	0	0	0	0	175
% App. Total	0	96.1	3.9	0		3.2	96.8	0	0		18.8	0	81.2	0		0	0	0	0		
PHF	.000	.809	.625	.000	.800	.250	.750	.000	.000	.775	.375	.000	.813	.000	.800	.000	.000	.000	.000	.000	.810
Passenger Vehicles	0	123	5	0	128	1	28	0	0	29	3	0	13	0	16	0	0	0	0	0	173
% Passenger Vehicles	0	100	100	0	100	100	93.3	0	0	93.5	100	0	100	0	100	0	0	0	0	0	98.9
Heavy Vehicles	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
% Heavy Vehicles	0	0	0	0	0	0	6.7	0	0	6.5	0	0	0	0	0	0	0	0	0	0	1.1



Start Time	Pontiac Lake Rd Eastbound					Pontiac Lake Rd Westbound					Gas Station Dwy Northbound					Southbound					Int. Total	
	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total		
Peak Hour Analysis From 12:00 PM to 11:45 PM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 04:30 PM																						
04:30 PM	0	8	1	0	9	1	26	0	0	27	2	0	6	0	8	0	0	0	0	0	0	44
04:45 PM	0	26	2	0	28	2	35	0	0	37	1	0	1	0	2	0	0	0	0	0	0	67
05:00 PM	0	20	2	0	22	2	27	0	0	29	2	0	1	0	3	0	0	0	0	0	0	54
05:15 PM	0	21	0	0	21	3	50	0	0	53	4	0	4	0	8	0	0	0	0	0	0	82
Total Volume	0	75	5	0	80	8	138	0	0	146	9	0	12	0	21	0	0	0	0	0	0	247
% App. Total	0	93.8	6.2	0		5.5	94.5	0	0		42.9	0	57.1	0		0	0	0	0	0		
PHF	.000	.721	.625	.000	.714	.667	.690	.000	.000	.689	.563	.000	.500	.000	.656	.000	.000	.000	.000	.000	.753	
Passenger Vehicles	0	71	5	0	76	8	137	0	0	145	9	0	12	0	21	0	0	0	0	0	0	242
% Passenger Vehicles	0	94.7	100	0	95.0	100	99.3	0	0	99.3	100	0	100	0	100	0	0	0	0	0	0	98.0
Heavy Vehicles	0	4	0	0	4	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5
% Heavy Vehicles	0	5.3	0	0	5.0	0	0.7	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	2.0



Groups Printed- Bikes, Peds

Start Time	Pontiac Lake Rd Eastbound					Pontiac Lake Rd Westbound					Gas Station Dwy Northbound					Southbound					Int. Total	
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	2
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



File Name : 16067501 - Gas Station Dwy -- Pontiac
 Site Code : 16067501
 Start Date : 1/17/2023
 Page No : 2

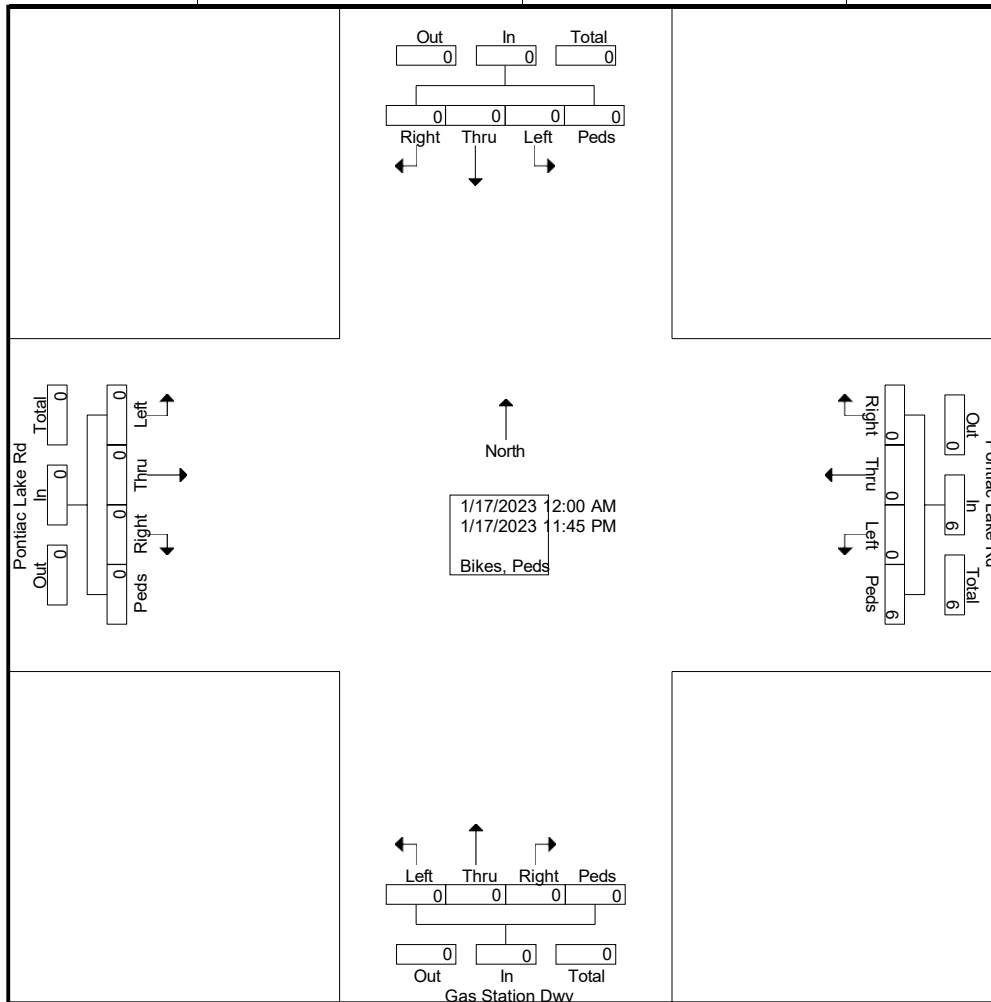
Item A.

Groups Printed- Bikes, Peds

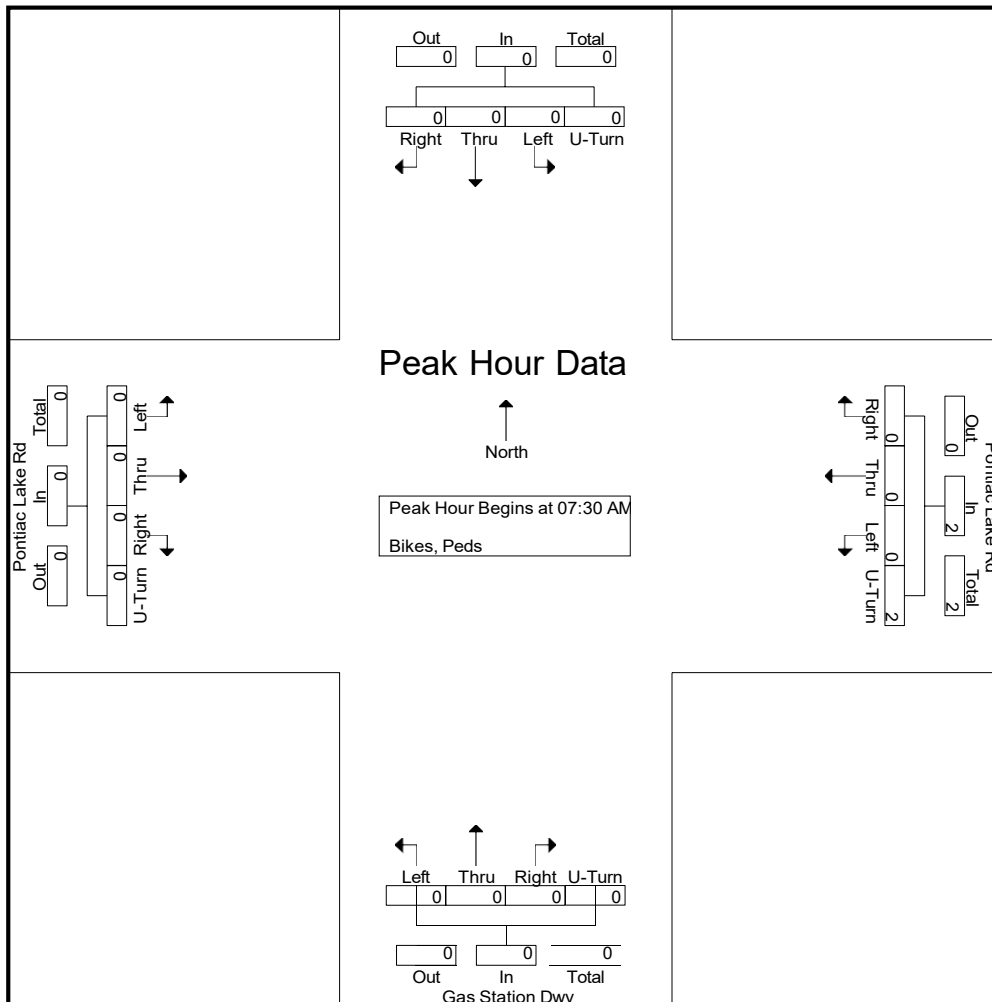
Start Time	Pontiac Lake Rd Eastbound					Pontiac Lake Rd Westbound					Gas Station Dwy Northbound					Southbound					Int. Total	
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total		
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	2
01:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Groups Printed- Bikes, Peds

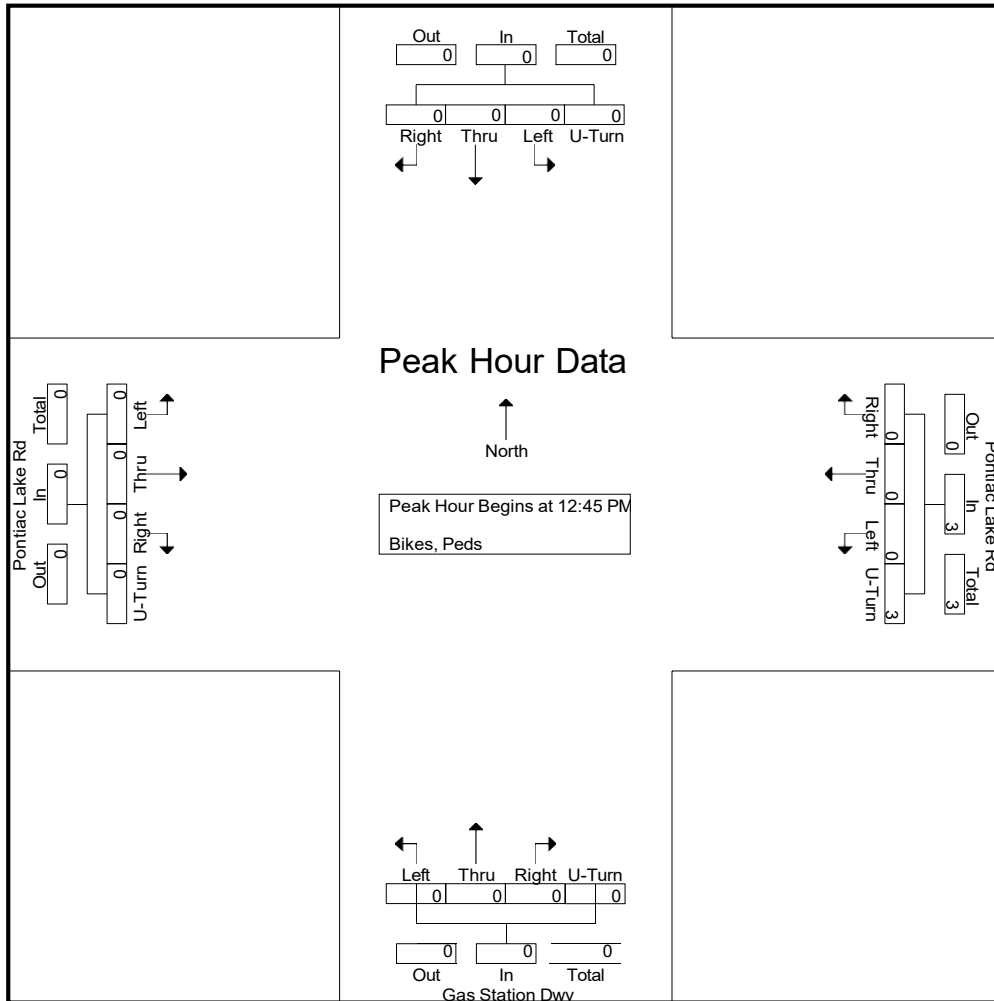
Start Time	Pontiac Lake Rd Eastbound					Pontiac Lake Rd Westbound					Gas Station Dwy Northbound					Southbound					Int. Total					
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total						
09:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Apprch %	0	0	0	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



Start Time	Pontiac Lake Rd Eastbound					Pontiac Lake Rd Westbound					Gas Station Dwy Northbound					Southbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 12:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2
% App. Total	0	0	0	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0	100
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500



Start Time	Pontiac Lake Rd Eastbound					Pontiac Lake Rd Westbound					Gas Station Dwy Northbound					Southbound					Int. Total	
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total		
Peak Hour Analysis From 12:00 PM to 11:45 PM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 12:45 PM																						
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.375	.375	.375	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375



HCM 6th TWSC
1: Pontiac Lake Road & W. Site Drive

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	20	130	41	3	10	10
Future Vol, veh/h	20	130	41	3	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	78	78	92	92
Heavy Vehicles, %	0	0	7	7	2	2
Mvmt Flow	25	163	53	4	11	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	57	0	-	0	268 55
Stage 1	-	-	-	-	55 -
Stage 2	-	-	-	-	213 -
Critical Hdwy	4.1	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.2	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1560	-	-	-	721 1012
Stage 1	-	-	-	-	968 -
Stage 2	-	-	-	-	823 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1560	-	-	-	708 1012
Mov Cap-2 Maneuver	-	-	-	-	708 -
Stage 1	-	-	-	-	951 -
Stage 2	-	-	-	-	823 -

Approach	EB	WB	SB
HCM Control Delay, s	1	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1560	-	-	-	833
HCM Lane V/C Ratio	0.016	-	-	-	0.026
HCM Control Delay (s)	7.3	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 6th TWSC
2: Gas Station Drive & Pontiac Lake Road

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	135	5	1	41	3	13
Future Vol, veh/h	135	5	1	41	3	13
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	78	78	80	80
Heavy Vehicles, %	0	0	7	7	0	0
Mvmt Flow	169	6	1	53	4	16

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	175	0	227 175
Stage 1	-	-	-	-	172 -
Stage 2	-	-	-	-	55 -
Critical Hdwy	-	-	4.17	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.263	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1372	-	766 874
Stage 1	-	-	-	-	863 -
Stage 2	-	-	-	-	973 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1372	-	765 872
Mov Cap-2 Maneuver	-	-	-	-	765 -
Stage 1	-	-	-	-	863 -
Stage 2	-	-	-	-	972 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	850	-	-	1372	-
HCM Lane V/C Ratio	0.024	-	-	0.001	-
HCM Control Delay (s)	9.3	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
3: Pontiac Lake Road & E. Site Drive

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	148	34	4	0	8
Future Vol, veh/h	0	148	34	4	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	78	78	92	92
Heavy Vehicles, %	0	0	7	7	2	2
Mvmt Flow	0	185	44	5	0	9

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	----- 6.22		
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	----- 3.318		
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	----- 1022		
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	1022
HCM Lane V/C Ratio	-	-	-	0.009
HCM Control Delay (s)	-	-	-	8.6
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 6th TWSC
1: Pontiac Lake Road & W. Site Drive

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	↔
Traffic Vol, veh/h	14	81	152	9	16	5
Future Vol, veh/h	14	81	152	9	16	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	69	69	92	92
Heavy Vehicles, %	5	5	1	1	2	2
Mvmt Flow	20	114	220	13	17	5

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	233	0	-	0	381 227
Stage 1	-	-	-	-	227 -
Stage 2	-	-	-	-	154 -
Critical Hdwy	4.15	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.245	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1317	-	-	-	621 812
Stage 1	-	-	-	-	811 -
Stage 2	-	-	-	-	874 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1317	-	-	-	611 812
Mov Cap-2 Maneuver	-	-	-	-	611 -
Stage 1	-	-	-	-	798 -
Stage 2	-	-	-	-	874 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1317	-	-	-	649
HCM Lane V/C Ratio	0.015	-	-	-	0.035
HCM Control Delay (s)	7.8	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 6th TWSC
2: Gas Station Drive & Pontiac Lake Road

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	92	5	8	152	9	12
Future Vol, veh/h	92	5	8	152	9	12
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	69	69	66	66
Heavy Vehicles, %	5	5	1	1	0	0
Mvmt Flow	130	7	12	220	14	18

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	137	0	378 137
Stage 1	-	-	-	-	134 -
Stage 2	-	-	-	-	244 -
Critical Hdwy	-	-	4.11	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.209	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1453	-	628 917
Stage 1	-	-	-	-	897 -
Stage 2	-	-	-	-	801 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1453	-	622 914
Mov Cap-2 Maneuver	-	-	-	-	622 -
Stage 1	-	-	-	-	897 -
Stage 2	-	-	-	-	794 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	761	-	-	1453	-
HCM Lane V/C Ratio	0.042	-	-	0.008	-
HCM Control Delay (s)	9.9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
3: Pontiac Lake Road & E. Site Drive

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	104	157	15	0	3
Future Vol, veh/h	0	104	157	15	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	69	69	92	92
Heavy Vehicles, %	5	5	1	1	2	2
Mvmt Flow	0	146	228	22	0	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-----6.22		
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-----3.318		
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-----800		
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	800
HCM Lane V/C Ratio	-	-	-	0.004
HCM Control Delay (s)	-	-	-	9.5
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection: 1: Pontiac Lake Road & W. Site Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	24	34
Average Queue (ft)	1	13
95th Queue (ft)	11	37
Link Distance (ft)	420	181
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Gas Station Drive & Pontiac Lake Road

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	3	32
Average Queue (ft)	0	12
95th Queue (ft)	3	35
Link Distance (ft)	54	118
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Pontiac Lake Road & E. Site Drive

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	8
95th Queue (ft)	30
Link Distance (ft)	166
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 0

Intersection: 1: Pontiac Lake Road & W. Site Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	28	31
Average Queue (ft)	2	15
95th Queue (ft)	13	38
Link Distance (ft)	420	181
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Gas Station Drive & Pontiac Lake Road

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	2	19	40
Average Queue (ft)	0	1	15
95th Queue (ft)	2	7	39
Link Distance (ft)	54	137	118
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

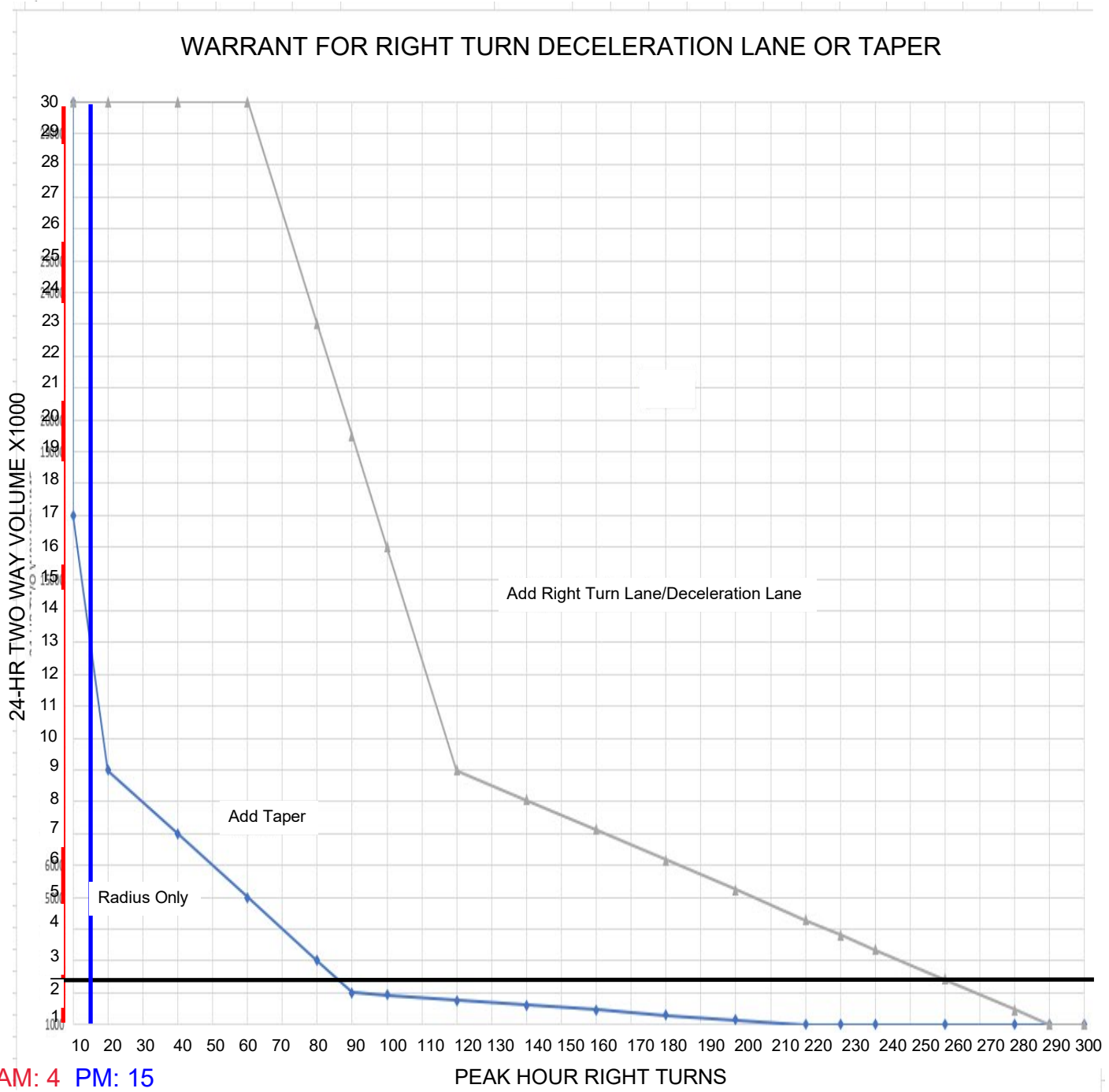
Intersection: 3: Pontiac Lake Road & E. Site Drive

Movement	EB	SB
Directions Served	T	R
Maximum Queue (ft)	3	30
Average Queue (ft)	0	2
95th Queue (ft)	3	16
Link Distance (ft)	137	166
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

FIGURE 6-3

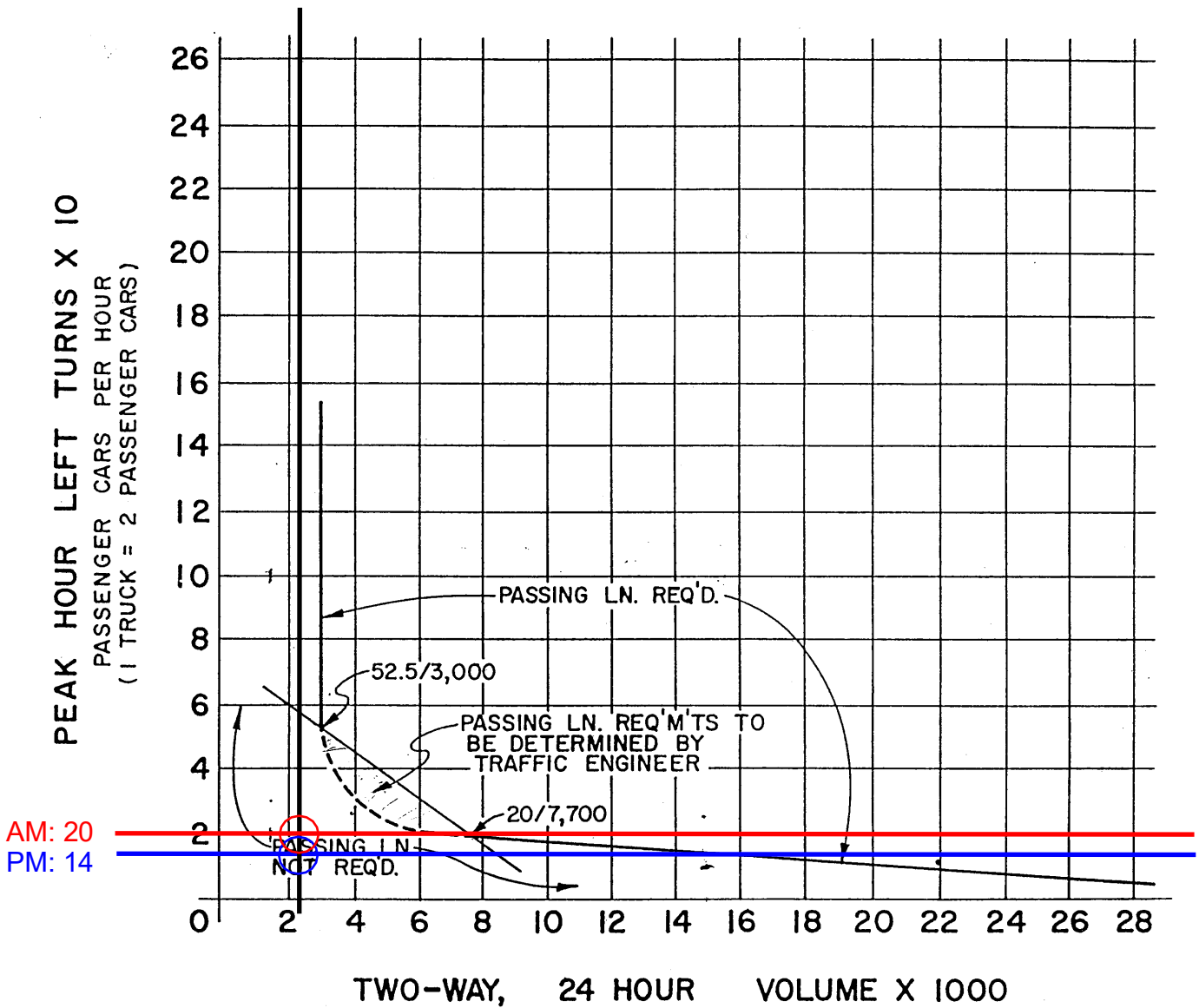


PM IS THE CONTROLLING
SCENARIO:
RT TREATMENT
NOT
RECOMMENDED

2-way Peak Volume (AM) = 186 vph
 2-way Peak Volume (PM) = 276 vph
 2-way Peak Volume (Avg.) = 231 vph
 Assuming k-factor is 10% of ADT volume
2-way 24-Hr Volume = 2,310 vpd

WARRANT FOR LEFT TURN PASSING LANE

(BASED ON TOTAL DEVELOPMENT)

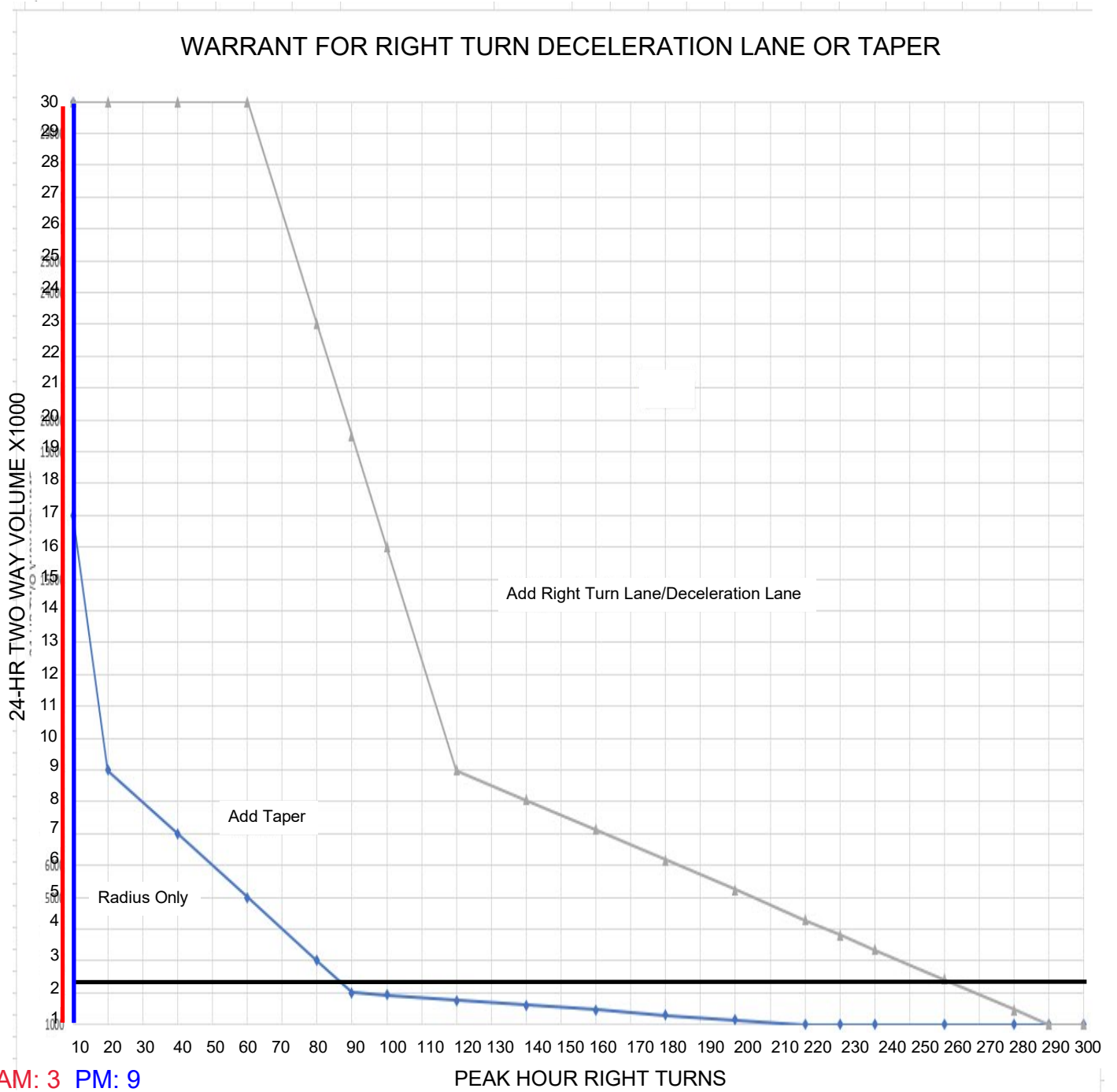


2-way Peak Volume (AM) = 194 vph
 2-way Peak Volume (PM) = 256 vph
 2-way Peak Volume (Avg.) = 225 vph
 Assuming k-factor is 10% of ADT volume
2-way 24-Hr Volume = 2,250 vpd

**AM IS THE CONTROLLING
SCENARIO:**

**LT TREATMENT
NOT
RECOMMENDED**

FIGURE 6-3



AM: 3 PM: 9

PM IS THE CONTROLLING SCENARIO:


**RT TREATMENT
NOT
RECOMMENDED**

2-way Peak Volume (AM) = 194 vph
 2-way Peak Volume (PM) = 256 vph
 2-way Peak Volume (Avg.) = 225 vph
 Assuming k-factor is 10% of ADT volume
2-way 24-Hr Volume = 2,250 vpd

WHITE LAKE TOWNSHIP PLANNING COMMISSION

REPORT OF THE COMMUNITY DEVELOPMENT DEPARTMENT

TO: Planning Commission

FROM: Sean O'Neil, AICP, Community Development Director 
Justin Quagliata, Staff Planner

DATE: February 23, 2023

RE: Lake Pointe and West Valley final site plan extensions

Seiber Keast Lehner, on behalf of JMF White Lake LLC, submitted a letter dated February 2, 2023 requesting a one-year extension of the final site plan approval for Lake Pointe and West Valley. The Township zoning ordinance allows the Applicant of the final site plans to request an extension in writing prior to the expiration date.

Both Lake Pointe (located on the east side of Union Lake Road, north of Carpathian Drive) and West Valley (located on the west side of Union Lake Road, across from Carpathian Drive) consist of 69 attached-single family ranch-style apartments.

The Township Board previously granted preliminary site plan extensions for Lake Pointe (February 16, 2021) and West Valley (October 20, 2020). In 2021 the Planning Commission granted final site plan approval for Lake Pointe (May 6, 2021) and West Valley (March 18, 2021), and last year granted one-year extensions for both projects' final site plans. The current final site plan approvals would have expired on March 18, 2023 (West Valley) and May 6, 2023 (Lake Pointe) if the Applicant had not applied for extensions. The Applicant is requesting a one-year extension of the final site plans. If approved the new expiration dates would be March 18, 2024 (West Valley) and May 6, 2024 (Lake Pointe).

Planning Commission Options / Recommendation

The Planning Commission has the option to approve, approve with conditions, or deny the extension requests. If the extensions are denied, the Applicant must resubmit the preliminary site plans. **As both projects have already received two, one-year extensions (one from the Township Board and one from the Planning Commission), staff recommends four-month extensions for both projects' final site plans. If approved, the new expiration dates would be July 18, 2023 (West Valley) and September 6, 2023 (Lake Pointe).**

Attachment:

1. Letter from Seiber Keast Lehner requesting extensions dated February 2, 2023.

February 2, 2023

Sean O’Neil, AICP
Community Development Director
Charter Township of White Lake
7525 Highland Road
White Lake, MI 48383

RE: West Valley & Lake Pointe – Final Site Plan – Request for 1 Year Extension

Dear Mr. O’Neil,

On behalf of the Applicant, JMF White Lake LLC, Seiber Keast Lehner, Inc (“SKL”) respectfully requests the White Lake Township Planning Commission (“WLT PC”) to extend the Final Site Plan Approval for West Valley for one year from March 18, 2023 to March 18, 2024 and to extend the Final Site Plan Approval for Lake Pointe by one year from May 6, 2023 to May 6, 2024. When considering this request, the Applicant would like to request the WLT PC to consider the following:

1. A site plan is currently being reviewed by White Lake Township (“Township”) for Comfort Care on Parcel 12-36-176-002.
2. The Applicant for West Valley and the Applicant for Comfort Care have been in contact with each other and are currently coordinating their Site Plans. West Valley recently submitted revised Final Site Plans to the Township that include all of the below noted changes. The coordination of these projects could potentially have many benefits for the Township’s residents and for the Township Public Services including:
 - a. One less water main tap to the existing water main in Union Lake Road which would result in less future maintenance for the Department of Public Services / Water & Sewer.
 - b. On less Pressure Relief Valve on the proposed water main systems which would result in less future maintenance for the Department of Public Services / Water & Sewer.
 - c. Providing a positive drainage overflow storm water outlet for the Comfort Care Site. The revised storm sewer, grading and easement across West Valley has been designed to accommodate a 100 year overflow from Comfort Care without impacting proposed buildings on West Valley.
 - d. Provide a secondary means of emergency access between the two projects to improve access for emergency response vehicles.
 - e. Eliminate the need for a secondary access road on West Valley to Cedar Island Drive which removes the gate and snow removal concerns from the Township’s Fire Department and a paved access point to Cedar Island Road.
3. Lake Pointe depends on West Valley for a storm water outlet and therefore needs its Site Plan Approval extend as well so West Valley and Comfort Care can engineer the potential synergies between the two projects.
4. The Applicant has already submitted revised Final Site Plan to the Township for West Valley. Assuming the Township’s Engineer finds the plans acceptable, the routing for water

and sewer permits can continue. The Applicant is prepared to resubmit Final Site Plans for Lake Pointe in the very near future.

Please feel free to contact me at 248-308-3331 or je@seiberkeast.com should you have any questions.

Sincerely,

SEIBER KEAST LEHNER, INC.

Jason M. Emerine, P.E

cc: Michael Furnari, JMF White Lake, LLC (via email only)
Aaron Potter, White Lake Township DPS Water / Sewer
Mike Leuffgen, DLZ, Township Engineer
John Holland, White Lake Township Fire Marshall