



PLANNING COMMISSION MEETING

LOCATION: TOWNSHIP ANNEX, 7527 HIGHLAND ROAD, WHITE LAKE, MI 48383
THURSDAY, DECEMBER 05, 2024 – 6:30 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. [November 7, 2024](#)
6. CALL TO THE PUBLIC (FOR ITEMS NOT ON THE AGENDA)
7. PUBLIC HEARING
 - A. [9101 Highland Development](#)
[Location: Property described as 9101 Highland Road, identified as parcel number 12-23227-003, located south of Highland Road, west of Sunnybeach Boulevard, consisting of approximately 5.02 acres.](#)
[Request: Preliminary site plan approval recommendation and special land use approval](#)
[Applicant: Affinity 10 Investments, LLC](#)
 - B. [9451 Elizabeth Lake - Rezoning Request](#)
[Location: property identified as Parcel Number 12-26-204-002 \(9451 Elizabeth Lake Road\), located on the south side of Elizabeth Lake Road, east of Marina Court, consisting of approximately 1.33 acres.](#)
[Request: The applicant requests to rezone the property from GB \(General Business\) to RM-1 \(Attached Single-Family\) or any other appropriate zoning district.](#)
[Applicant: Shirin Raimifar](#)
8. CONTINUING BUSINESS
9. NEW BUSINESS
10. OTHER BUSINESS
 - A. [Conceptual Presentation - Mark DeGross](#)
11. LIAISON'S REPORT
12. DIRECTOR'S REPORT
13. NEXT MEETING DATE: December 19, 2024
14. 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
NOVEMBER 7, 2024**

CALL TO ORDER

Chairperson Seward called the meeting to order at 6:30 P.M. He then led the Pledge of Allegiance.

ROLL CALL

Present:

T. Joseph Seward, Chairperson
Merrie Carlock, Vice Chairperson
Mona Sevic
Pete Meagher
Robert Seeley
Steve Anderson
Debby Dehart
Scott Ruggles, Township Board Liaison

Absent:

Matt Slicker

Others:

Sean O'Neil, Community Development Director
Hannah Kennedy-Galley, Recording Secretary

Chairperson Seward congratulated Commissioner Anderson on his election to the Board of Trustees.

APPROVAL OF AGENDA

MOTION by Commissioner Carlock, seconded by Commissioner Seeley to approve the agenda as presented. The motion carried with a voice vote: (8 yes votes).

APPROVAL OF MINUTES

A. October 17, 2024

MOTION by Commissioner Seeley, seconded by Commissioner Carlock to approve the minutes as presented. The motion carried with a voice vote: (8 yes votes).

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

None.

PUBLIC HEARING

A. ELR Rezoning (southwest corner of Elizabeth Lake Road and Highland Road)

Location: Property is described as vacant parcel number 12-21-426-007, located on the southwest corner of Elizabeth Lake Road and Highland Road (M-59), consisting of approximately 8.6 acres.

Request: The applicant would like to rezone the property from (AG) Agricultural to GB (General Business) or any other appropriate zoning district.

Director O'Neil went over a summary of the applicant's request. The request is for the rezoning of the parcel, a site plan was not included or considered at this time.

Commissioner Carlock asked staff what happened with the applicant's original rezoning request for Planned Development. Director O'Neil said the applicant can answer that.

Commissioner Sevic asked the staff if wetlands would be impacted. Director O'Neil said the applicant will have to adhere to the 25' natural features setback, and he didn't believe an impact to the wetlands will be proposed.

Commissioner Anderson stated on the concept plan, there was a call out south of the parking lot had a for "future development" that he wanted clarification on.

David Yaldo, 4036 Telegraph, Bloomfield Hills, said this project has been under the works for several years. He said the plan is conceptual only, and a real site plan needs to be created. Only 6 acres of the site is useable, the rest is wetlands. The wetlands have already been demarcated. There are no real users for the project, but once the rezoning is approved, users will be considered. The site will be developed into a beneficial use for the community.

Commissioner Carlock asked Mr. Yaldo why the Planned Development rezoning request was abandoned. Mr. Yaldo said there was an issue with the cross-access requirement to the southern property owners. There would have been many financial constraints with more traffic into the site and the possibility of having to install a traffic light.

Commissioner Anderson asked Mr. Jawich about the future developments proposed. Ned Jawich, property owner, said the call out was from the residential component from the previous plan, but now will be considered for any future commercial use that aligned with the final zoning designation on the property.

Commissioner Anderson asked Mr. Yaldo if the conceptual drive thrus were set in stone. Mr. Yaldo said no, it was merely there for the conceptual piece.

Commissioner Dehart asked staff if a liquor license could be obtained for the General Business zoning. Director O'Neil stated that restaurants with a liquor license would be allowed under the General Business zoning, and drive thrus and outdoor seating would be allowed with a special land use approval.

Chairperson Seward opened the public hearing at 6:53 P.M. Seeing none, he closed the public hearing at 6:55 P.M.

Commissioner Ruggles said General Business is an appropriate zoning for the site and has no opposition to the request.

Commissioner Sevic stated she doesn't oppose the zoning request, but there are too many proposed buildings on the conceptual plan.

MOTION by Commission Anderson, seconded by Commissioner Ruggles, to recommend the Township Board approve the rezoning requested by ELR Development for vacant parcel 12-21-426-007, to rezone from Agricultural (AG) to General Business (GB). The motion carried with a roll call vote: (8 yes votes). (Ruggles/yes, Sevic/yes, Anderson/yes Seward/yes, Carlock/yes, Dehart/yes, Seeley/yes, Meagher/yes).

CONTINUING BUSINESS

None.

NEW BUSINESS

None.

OTHER BUSINESS

A. 2025 Meeting Dates

MOTION by Commissioner Carlock, seconded by Commissioners Anderson, to approve the 2025 meeting dates, excluding the January 2 and July 3 meetings. The motion carried with a voice vote: (8 yes votes).

PLANNING CONSULTANT'S REPORT

None.

LIAISON'S REPORT

The groundbreaking ceremony for the new Civic Center was held on October 24, 2024.

Stanley Park will be re-bid with construction manager services provided by McCarthy & Smith. Bids can be submitted December 23, 2024 and will be open until January 16, 2025.

ZBA met last one and heard two cases. One was for an addition and garage, and the other was for Lasting Impression's gravel parking lot on the west side of the site.

DIRECTOR'S REPORT

There are several projects coming down the home stretch and scheduled for pre-construction meetings: Lakepointe, West Valley, Culver's, and Ginko Storage. The Civic Center is going well, and the foundations will go in late this month or next month. If the weather remains warm, the construction can continue into the winter. Elizabeth Lake Road should be open next Monday, November 11, 2024. The Township Board will be considering a resolution to reduce the Planning Commission to nine members.

COMMUNICATIONS

The November 21 meeting will likely be canceled.

WHITE LAKE TOWNSHIP
PLANNING COMMISSION
NOVEMBER 7, 2024

NEXT MEETING DATE: December 5, 2024

ADJOURNMENT

MOTION by Commissioner Meagher, seconded by Commissioner Dehart to adjourn at 7:21 P.M. The motion carried with a voice vote: (8 yes votes).

DRAFT

Director's Report

Project Name: 9101 Highland
 Description: Preliminary site plan approval recommendation & special land use approval
 Date on Agenda this packet pertains to: December 5, 2024

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

Contact	Consultants & Departments	Approval	Denial	Approved w/Conditions	Other	Comments
Sean O'Neil	Community Development Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Based on comments from staff & consultants
Mike Leuffgen	DLZ	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 11/6/2024
Matteo Passalacqua	Carlisle Wortman Associates, Inc	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 11/25/24
Jason Hanifen	WLT Fire Marshal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 10/31/24



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

November 6, 2024

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

RE: 9101 Highland Road-Proposed Commercial Development- Preliminary Site Plan Review – 2nd Review

Ref: DLZ No. 2445-7696-06 Design Professional: Stonefield Engineering & Design

Dear Mr. O' Neil,

Our office has performed a Preliminary Site Plan review for the above-mentioned revised plan dated October 17, 2024. The plans were reviewed for feasibility based on general conformance with the Township Engineering Design Standards.

General Site Information

This 4.5 acre site is located south of M-59, east of Fisk Road, and west of Sunny Beach Boulevard.

Site Improvement Information:

- Construction of two (2) commercial retail/restaurant buildings. Building containing Suites 1-3 is proposed at 7,227 square feet and building containing Suites 4-6 is proposed at 6,418 square feet.
- Associated paved and curbed parking areas, including a total of six (6) ADA parking spaces.
- One (1) entrance off M-59/Highland Road.
- Water and sanitary sewer service.
- Storm water management facilities.

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

We note that comments from our September 24, 2024 review are in *italics*. Responses to those comments are in **bold**. New comments are in standard font.



INNOVATIVE IDEAS
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WLT-9101 Highland Road- PSP Review.02

November 6, 2024

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- a) *Cover sheet C-1- Provide ALTA/NSPS Land Title Survey with next submittal. Comment addressed at the preliminary level and remains. The survey has now been provided. Please provide surveyor seal and signature on this sheet on the Final Site Plan/Final Engineering Plan.*
- b) *Sheet C-2- Provide the two benchmarks shown on this plan sheet in list format. Provide BM descriptions and elevations. Benchmarks shall be on NAVD88 datum. Please indicate as such. Comment addressed. The benchmark descriptions, elevations, and NAVD88 designations have now been provided.*
- c) *Any work within the existing two (2) watermain easements that run parallel to M-59 shall require permission from the Township. Comment remains as a notation.*
- d) *Provide plan indicating standard length fire truck access and turning radii so as to demonstrate adequate fire truck accessibility to and within the site. Comment addressed. Fire truck turning analysis has now been provided.*
- e) *Sheet C-3-Provide ADA space calculations. Comment addressed. ADA space calculations are now shown.*
- f) *ADA parking spaces will need to meet ADA standards in terms of slopes and dimensions; further details will be required at the time of Final Site Plan/Final Engineering Plan submittal/review. Comment remains.*
- g) *Sheet C-3-The existing sidewalk along M-59 appears to be in disrepair. In addition, the sidewalk does not meet the requirements of the current Township Zoning Ordinance Sections 5.20 and 5.21 in terms of required clear zones. We defer to the Township as to whether a new sidewalk meeting the Zoning Ordinance shall be required. Comment partially addressed and remains. A new 8' wide asphalt pathway is now proposed. The proposed pathway location continues to not meet the required clear zone dimensions. We continue to defer to the Township regarding the inadequacy of the required clear zones. In addition, a portion of the proposed pathway is now shown in a proposed sidewalk easement. The sidewalk easement exhibit(s) will be required to be reviewed by our office prior to execution and recording of the easement.*
- h) *Sheet C-3- Provide dimensions for northeastern parking spaces. Comment addressed. Dimensions have been provided.*
- i) *Sheet C-3-There is a recorded temporary construction easement shown. Please indicate if this easement has been vacated. If the easement has not been vacated, it shall be required to be vacated prior to FSP/FEP approval. Comment remains. Design engineer states that they will coordinate vacation of the easement with the Township prior to FSP/FEP submittal.*
- j) *There is a recorded 20' wide easement for ingress and egress that runs semi parallel to Highland Road; this will be required to be vacated prior to FSP/FEP approval. Comment remains. Design engineer states that they will coordinate vacation of the easement with the Township prior to FSP/FEP submittal.*
- k) *Sheet C-4- What is the grading intent for the northeastern greenspace area of the site? We note that there is an existing storm sewer end section which connects to the existing 12" diameter storm sewer that crosses M-59. It is assumed that this end section is to collect the drainage at the low point of approximately 966' and route the drainage to the north under M-59; however, the existing CB to the*

north (#70140) shows a higher invert elevation than the existing ES elevation to the south. Please clarify. We also note that the site post- development runoff to this end section shall be $<$ or $=$ to the current runoff (Q) to this area. **Comment addressed at preliminary level and remains. The existing pipe shall be removed, and the area regraded such that the depression shall be filled. Per the design engineer, calculations are intended to be provided on the FSP/FEP to demonstrate post development runoff to the M-59 right of way be $<$ or $=$ to the current runoff.**

- l) Sheet C-4- Grading Notes- Note 5-Minimum slope for concrete surfaces can be 0.50% as per WLT Engineering Standards. **Comment addressed. Note has been updated.**
- m) Preliminary grading of the site has been proposed and demonstrates general drainage patterns mainly within the confines of the proposed impervious areas; please provide on the revised preliminary site plan general proposed grading for all greenspace areas. A more detailed grading review will be provided at the time of Final Engineering Plan submittal/review. **Comment remains.**
- n) Sheet C-5- Remove duplicate proposed Water Quality Unit label (the label showing 15" diameter invert elevations). **Comment addressed. Duplicate label has been removed.**
- o) Sheet C-5-Retention basin slope scales to 1:4, which would require a fence around basin. Is the intent to fence in the basin? **Comment partially addressed and remains. A fence is now shown around the basin. A 10' wide basin access gate is now shown as well as 10 LF of mountable curbing at the parking space across from the gate. The parking space across from the basin access gate shall be designated as an 'Authorized Vehicles Only' space and /or striped so as to allow maintenance vehicle parking and access to the retention basin.**
- p) Sheet C-5- Provide/show retention basin spillway and pathway of overland flow. In addition, 1' of freeboard is required for the basin. **Comment addressed at the PSP level and remains. A spillway and a general pathway of the overland flow are now shown. 1' of freeboard for basin is now shown. It will be required to be shown/demonstrated on the Final Engineering Plan that an overflow event from the retention basin shall not impact adjacent properties.**
- q) Sheet C-5- Based on basin capacity and storage elevation for a 2-100 year back to back storm event, there would be surcharging in upstream piping with what appears to be storage of stormwater above some of the upstream storm sewer rim elevations. It will be required to be demonstrated on the Final Engineering Plan that the HGL will be contained within or at 1' below storm rim elevations. **Comment addressed at the PSP level and remains. The basin has been reconfigured and the top of storage of basin has been lowered to match the proposed CB grate/rim elevations. We continue to note that the second half of our above comment regarding HGL will be required to be addressed on the FSP/FEP.**
- r) We note that this property falls within a wellhead protection area. We defer to Township DPS regarding special requirements. **Comment remains as a notation.**
- s) Sheet C-5- Provide SCS Soil Types. In addition, provide water table information to substantiate that water levels shall return to preexisting conditions at least one time per year. **Comment addressed at PSP level and remains. SCS soil types are now shown. Design engineer notes that a geotechnical report will be provided prior to FSP/FEP submittal to confirm the water table level.**



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- t) *Sheet C-5-Demonstrate that the basin shall dewater a 100 year storm within 72 hours based on infiltration rates of soils present. **Comment addressed. Dewatering calculations have been provided showing that basin will dewater in 45 hours.***
- u) *Sheet C-5- Stormwater Management Calculations table- The incorrect property address is shown in this section. Please revise. **Comment addressed. Address has been corrected.***
- v) *Sheet C-6- Specify size of the proposed grease interceptor for the westernmost building. A minimum capacity of 1000 gallons is required. **Comment outstanding. Although a detail for the GB-75 grease trap has now been provided on plan, it appears that the capacities (liquid-125 gal, grease-118 gal, and solids-31 gal) fall significantly short of the 1000 gallon minimum volume requirement.***
- w) *Sheet C-6-Since the sanitary sewer leads are each contributing to a sanitary sewer grinder station, all leads shall be 6" diameter and shall have cleanouts at 75' intervals and at each change in direction. The gravity lead from the monitoring manhole to the grinder station shall also be 6" diameter. **Comment addressed. All leads are now 6" diameter and clean outs are shown every 75' and at directional changes in leads.***
- x) *Sheet C-6- Move duplex grinder pump outside of the existing watermain easement. **Comment addressed. Pump has been moved outside of existing watermain easement.***
- y) *We defer to the Township Fire Department regarding hydrant coverage. **Comment remains as a notation.***
- z) *Sheet C-6- Shift the westernmost water service line west away from influence of monument sign. **Comment addressed. Water service line horizontal separation between it and sign has now been optimized.***
- aa) *Sheet C-8- Show proposed sanitary sewer, water service, and storm sewer. Please provide a minimum of 10' horizontal separation between trees and these utilities and add a note to this effect on this sheet. **Comment addressed. Utilities are now shown on plan sheet.***
- bb) *Sheet C-8- There is an existing tree that is shown to remain in the area of the proposed retention basin. Tree will likely be required to be removed, or basin location revised so as to avoid tree In basin. **Comment partially addressed. Existing tree within the basin shall be removed per the design engineer; however, please cross out this tree on Sheet C-2.***

Recommendation

The majority of our above comments have been addressed. Any remaining comments can be addressed on the Final Site Plan/ Final Engineering Plan. We are now recommending approval of the Preliminary Site Plan.

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

Sincerely,

DLZ Michigan



INNOVATIVE IDEAS
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WLT-9101 Highland Road- PSP Review.02

November 6, 2024

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Michael Leuffgen, P.E.
Department Manager

Victoria Loemker, P.E.
Senior Engineer

Cc: Andrew Littman, Community Development, *via email*
Hannah Kennedy-Galley, Community Development, *via email*
Matteo Passalacqua, Carlisle Wortman, *via email*
Aaron Potter, DPS Director, White Lake Township, *via email*
Jason Hanifen, Fire Marshall, White Lake Township, *via email*

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Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

November 25, 2024

**Preliminary Site Plan / Special Land Use Review
for
White Lake Charter Township, Michigan**



Applicant:	Affinity 10 Investment, LLC
Project Name:	9101 Highland Road
Plan Date:	July 24, 2024
First Revision Date:	October 17, 2024
Location:	South side of Highland Road (M-59), West of Sunny Beach Boulevard. Parcel ID: 12-23-227-003
Action Requested:	Preliminary site plan and special land use review

PROJECT NARRATIVE

The applicant is requesting to rezone a 4.5-acre parcel along Highland Road (M-59) from R1-C, Single Family Residential District to RB, Restricted Business District for the purpose of constructing two (2) multi-tenant retail shopping centers. Both structures will provide suites with drive-thru amenities and outdoor patios. Restaurants with drive-thru’s and outdoor dining areas are a special land use and subject to the standards set forth in Sections 4.17, 4.18 and 6.10 of the zoning ordinance.

The applicant has commenced the rezoning process. Per Section 7.9 of the Zoning Ordinance, all proposed amendments to the provisions of the Ordinance or the Official Zoning Map shall be referred to the Planning Commission for public hearing and recommendation to the Township Board, prior to consideration thereof by the Township Board. This review will assess the preliminary site plan and special land use application under the premise that the rezoning has been approved.

The site contains one principal building and one accessory structure as well as a parking lot and fenced-in side yard. The principal structure is the Calvary Lutheran Church of White Lake. The current plan calls for the razing of all existing structures and improvements to accommodate the new use and proposed buildings. All existing utilities as well as some periphery trees are to remain and be protected during construction.

The proposed retail buildings would be approx. seven thousand two hundred twenty seven (7,227) sqft

Benjamin R. Carlisle, *President* John L. Enos, *Vice President* Douglas J. Lewan, *Principal*
David Scurto, *Principal* Sally M. Elmiger, *Principal* R. Donald Wortman, *Principal* Craig Strong, *Principal*
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Senior Associate*
Richard K. Carlisle, *Past President/Senior Principal*

9101 Highland

Preliminary Site Plan and Special Land Use Review (Revision 1)
November 25, 2024

and six-thousand four-hundred eighteen (6,418) sqft. Both buildings would offer three (3) suites with both drive thru suites being at the east end of both buildings.

Sheet C-3 indicates the applicant is requesting a waiver for site access. We note later in this review that the Planning Commission may waive this requirement per certain criteria.

Preliminary site plans are reviewed by the Planning Commission with recommendations then provided to the Township Board for approval, approval with conditions or denial. Final site plan review and approval is conducted solely by the Planning Commission. The Planning Commission is the review and approval authority for special land uses.

Items to be Address: None.

SITE DESCRIPTION

Lot Area:	4.5 gross acres
Frontage:	Approx. 458 feet along Highland Road (M-59).
Address:	9101 Highland Road
Current Use:	Institutional (Place of Worship)

Aerial image of the site

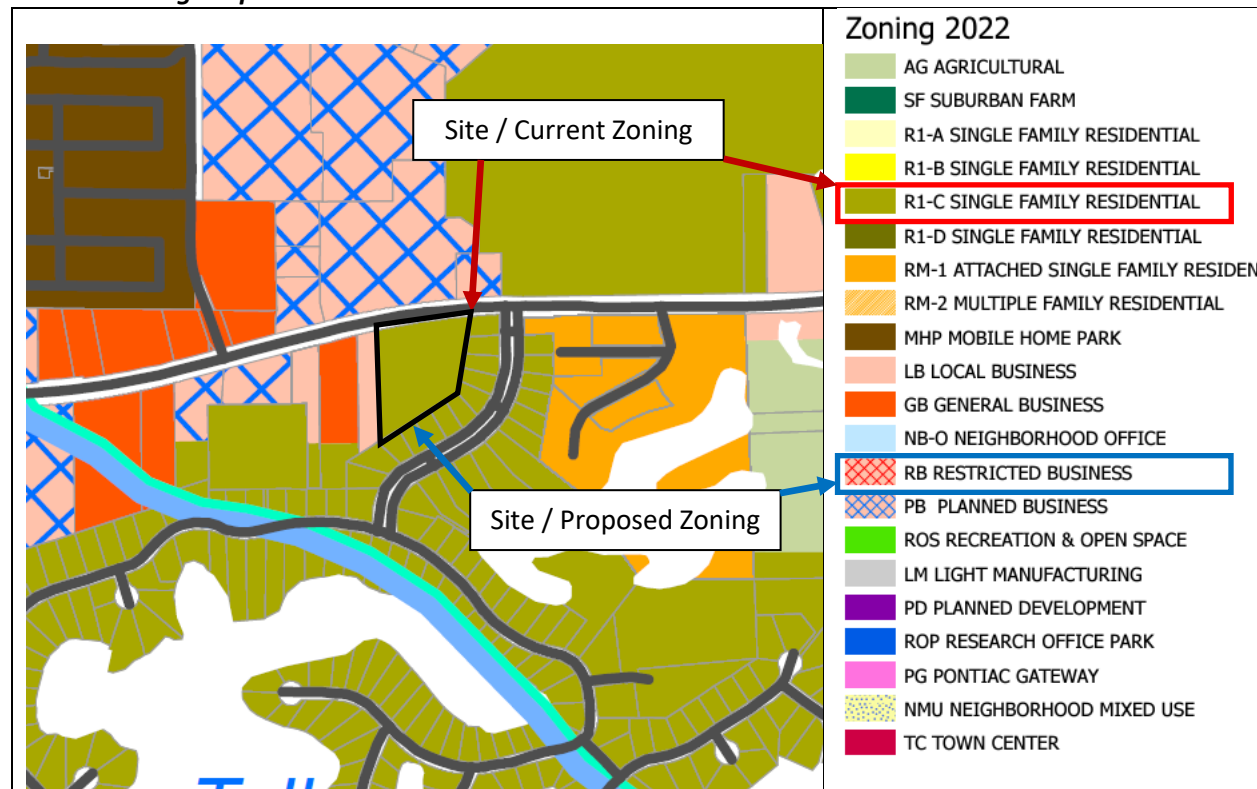


Source: NearMap June 8, 2024

	North	East	South	West
Surrounding Zoning	<i>PD, Planned Business</i>	<i>R1-C, Single Family Residential</i>	<i>R1-C, Single Family Residential</i>	<i>LB, Local Business</i>
Surrounding Land Uses	<i>Big Box Retail</i>	<i>Single Family Homes</i>	<i>Single Family Homes</i>	<i>Child Daycare</i>
Future Land-Use Map	<i>Commercial Corridor</i>	<i>Neighborhood Residential</i>	<i>Neighborhood Residential</i>	<i>Commercial Corridor</i>

Current Zoning **RB, Restricted Business (IF REZONED FROM R1-C)**
The intent of the Restricted Business District is to provide a uniform set of regulations that will provide for and encourage retail and office development in accordance with the unique character of White Lake Township, with emphasis on preservation and enhancement of landscaping and natural areas. The Restricted Business District should contain diverse types of retail and office business, but it is not intended that the district become an intensive, high-volume commercial strip.

Current Zoning Map



9101 Highland

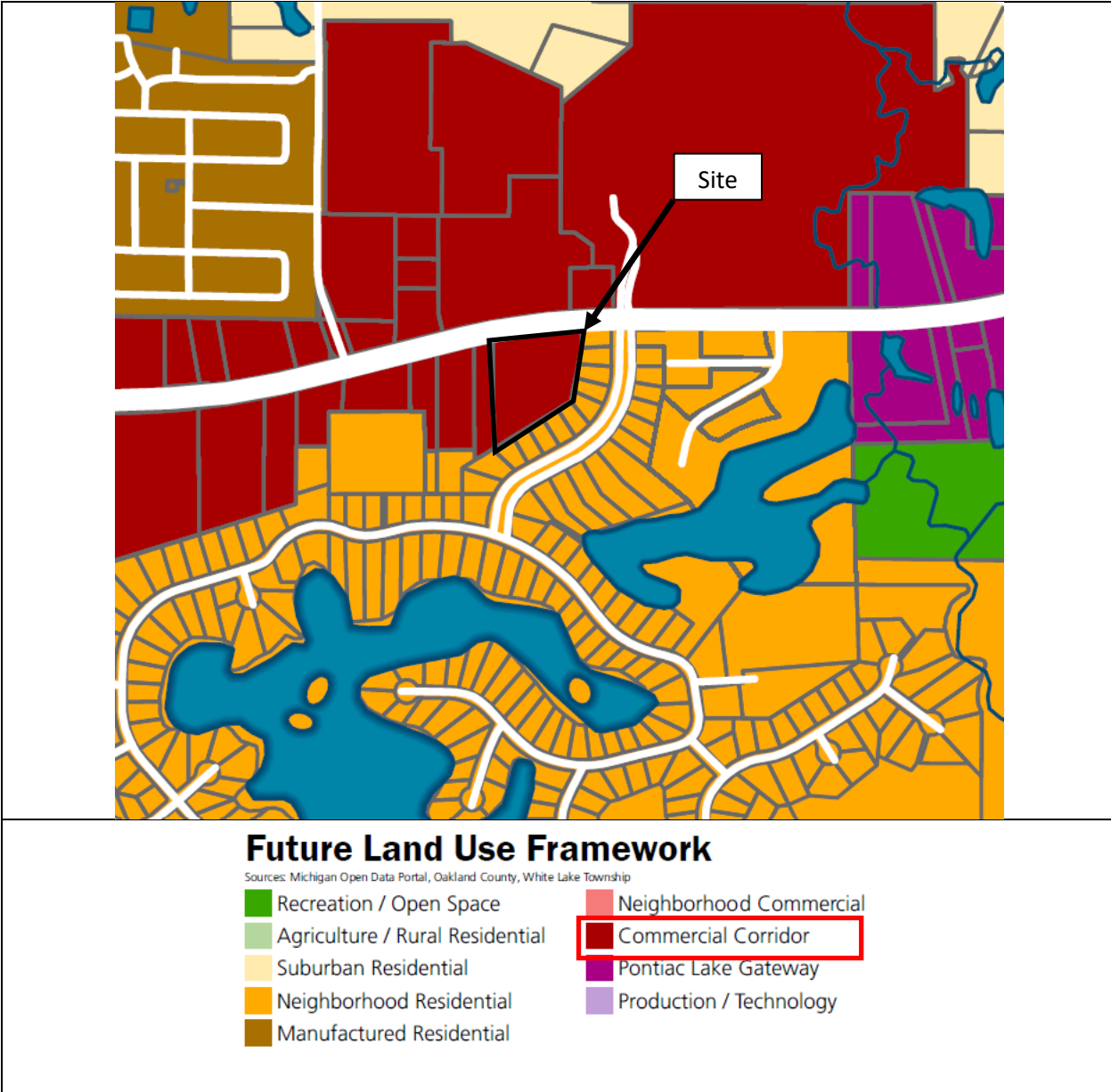
Preliminary Site Plan and Special Land Use Review (Revision 1)

November 25, 2024

Item A.

Future Land Use	Commercial Corridor <i>Commercial Corridor: Provides regional goods and services to residents and non-residents. Includes large box stores and drive thrus.</i>
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Future Land Use Map



Item to be Addressed: None

NATURAL RESOURCES

Topography: Sheet C-4 show existing site topography as well as the proposed grading. With the exception of a natural depression along Highland Road (M-59) on the east side of the site, the lot is predominantly flat. Minor grading will be required to support proposed structures and site improvements with more extensive excavation required for the proposed detention pond south of the development.

We defer to Township Engineering for any concerns with the proposed grading plans as well as any issues cited regarding stormwater management and natural environment protection.

Wetlands: Per the Department of Environment, Great Lakes and Energy (EGLE), no wetlands are present onsite.

Woodland: The site is relatively clear of mature tree clusters. Individual mature trees are located along the periphery. It appears that approximately sixteen (16) of these trees are slated to be preserved and protected during construction.

Soils: Oshtemo, Boyer, Urban Land and Spinks soils are all present onsite and suitable for development.

Water: No waterbodies are present onsite.

General Notes: None.

Items to be Addressed: Any cited concerns from Township Engineering.

AREA, WIDTH, HEIGHT, SETBACKS

Proposed building envelopes and setback standards are shown on Sheet C-3 as well as district bulk and lot regulations. Standard bulk and lot regulations for the RB zoning district are set forth in Section 3.1.14.

RB Restricted Business District Developmental Standards

RB, Restricted Business	Required:	Proposed:	Complies
Building Setbacks			
Front (Sec. 4.17.A)	60 foot minimum	103.8 feet	Yes
Side	15 feet on one side / 30 foot total of two sides	81 feet / 164.6 feet combined	Yes
Rear	20 feet	154.6 feet	Yes
Wetland	25 feet	N/A	N/A

9101 Highland
 Preliminary Site Plan and Special Land Use Review (Revision 1)
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Building Height			
	35 feet or 2 stories (whichever is less)	1 story	Yes
Lot Standards			
Minimum Lot Area	1 acre	4.5 gross and net acres	Yes
Minimum Lot Width	120 feet	458.4 feet	Yes
Maximum Lot Coverage	TBD	6.75%	TBD
Depth to Width	4 to 1	Approx. 1 to 1	Yes

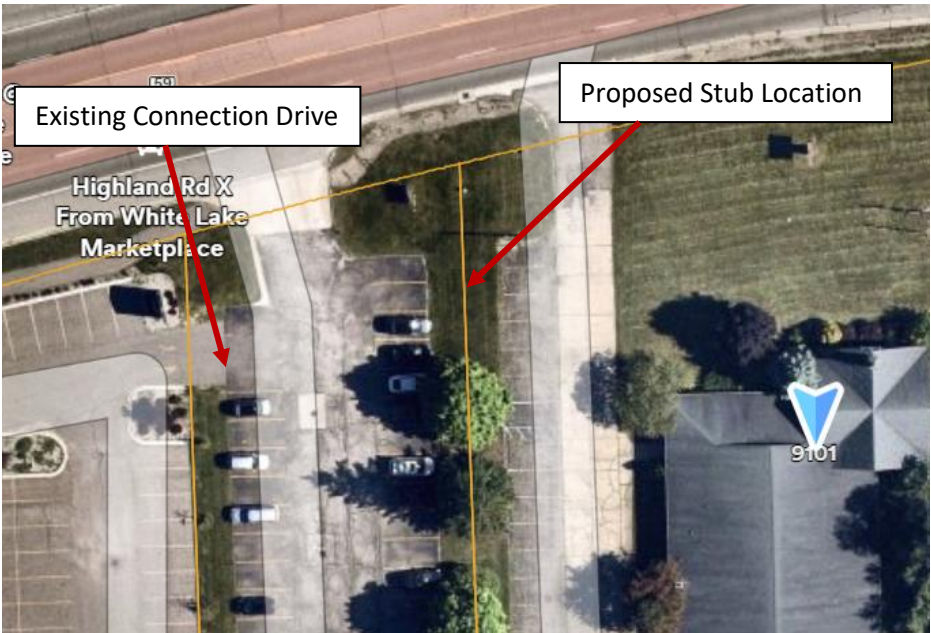
Items to be Addressed: None.

ACCESS & CIRCULATION

Vehicle Access & Circulation

Section 6.4 outlines site access requirements however the site’s sole access is from Highland Road (M-59) which is under jurisdiction of the Michigan Department of Transportation (MDOT).

Sheet C-3 shows a proposed stub access drive at the west end of the property. A note indicates the drive is a proposed twenty-four (24) foot access drive and easement to be stubbed at the property line. The aerial image below shows the neighboring site to the west does not currently have a stub to the subject property. However the neighboring property does share an internal drive with the adjacent property to the west. The applicant indicates the stub road will be connected to the neighboring site when that site is redeveloped. Concrete parking blocks are shown to detour vehicles from entering the temporary stub.



Source: NearMap June 8, 2024

9101 Highland

Preliminary Site Plan and Special Land Use Review (Revision 1)

November 25, 2024

Page 7 of the traffic impact study (TIS) dated April 22nd, 2024 indicates the site's proposed driveway distance from existing driveways and/or intersections. The only distance requirement that is met relates to the Ross Drive entrance way to the shopping center opposite Highland Road (M-59). We defer to Engineering on their assessment of this deficiency but note the applicant has incorporated a dedicated left hand turn egress lane and deceleration lane to the site plan per MDOT requirements.

Non-Motorized Access and Circulation

Sections 5.20 and 5.21 provide requirements for site sidewalks and pathways. A sidewalk is present across the Highland Road (M-59) frontage of the site. The applicant is proposing to demolish the sidewalk and install an eight (8) foot wide asphalt pathway mostly within the ROW. Pathways along the corridor are required to be eight (8) feet wide with two (2) foot clear zones on each side and at least six (6) feet from the curb of the adjacent road. Dimensions on Sheet C-3 indicate the pathway will be no closer than two (2) feet to Highland Road (M-59). While this does not meet the requirements of the zoning ordinance, we cite dimensional constraints with meeting the requirement and defer to any concerns of MDOT for the pathways proposed location and design.

An easement will be provided for the portion of the pathway that occupies the applicant's property. Pedestrian access from the proposed pathway to the site is provided via a walkway in front of the west building that leads to a crosswalk. We recommend an additional pedestrian access be mirrored on the east end of the site to accommodate foot traffic attempting to access the site from the East.

Public Transit

Public Transit access is available via the SMART Bus Highland Road Route 759. The line runs east/west between Oakland University and Bogie Lake Road along Highland Road (M-59). The accessible Westbound stop is located at the Highland Road (M-59) and Sunny Beach Boulevard intersection. The accessible eastbound stop is located along Highland Road (M-59) at the White Lake Marketplace development. The route operates from approximately 6:00am until 11:00pm on weekdays and 9:00am until 6:00pm on Saturdays.

White Lake Township is also served by the Western Oakland Transportation Authority which provides schedule transportation for Township residents with specific needs.

Items to be Addressed: 1.) Any concerns cited by Public Safety 2.) Any concerns cited by Engineering. 3.) MDOT will need to approve the pathway along Highland Road (M-59). 4.) A pedestrian connection from the sidewalk to the development's east building should be added to avoid foot traffic in the ingress/egress drive isle.

PARKING & LOADING

Section 5.11 outlines requirements for off-street parking. Sheet C-3 provides parking locations and calculations for the various retail and restaurant functions anticipated for the site. Parking is placed predominantly around the periphery of the two buildings with a limited number of spaces located between the structures. Parking lot and drive aisles will be constructed of asphalt. Concrete is proposed for limited portions of the drive thru and dumpster pads.

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Each building has drive thru facilities located at its eastern end. Stacking for these spaces commences at the western end of the structure and wraps around the rear of the building. Each stacking lane has bailout drives. A loading zone is located in rear of the property and the end of the central drive aisle. One loading zone is provided and meets the dimensional requirements of the ordinance.

The site plan indicates there will be three (3) retail users between both buildings totaling six thousand one hundred ninety-four (6,194) sqft. Two (2) restaurants with drive thrus are proposed totaling four thousand nine hundred forty-nine (4,949) sqft and one (1) restaurant that does not sell alcohol and has no drive thru is proposed utilizing two thousand five hundred two (2,502) sqft. Based on these uses, one hundred twenty-two (122) parking spaces are required. One hundred sixteen (116) are proposed, however the zoning ordinance allows for a parking reduction up to twenty-five (25%) percent of the required parking.

All spaces and dimensions for stacking lanes meet ordinance requirements.

Included in the provided parking are six (6) handicap accessible spaces. Count and dimension requirements for accessible spaces, as well as van accessibility space requirements, have been met.

We note that the site plan does not show dual white striped parking space paint however details on Sheet C-10 specify dual striped paint.

Items to be Addressed: None.

ESSENTIAL SERVICES & UTILITIES

Sheet C-5 and 6 provide information on existing and proposed utilities. Stormwater management is proposed to be directed into a ground infiltration detention pond. Gas, water, sewer and electric services are proposed underground. We defer to Township Engineering for any concerns with utility layouts and calculations.

We note underground electric routes along the eastern property line conflict with proposed landscaping. Over time, large tree roots can cause problems for underground utilities.

Fire lane locations are required for preliminary site plan review and should be shown on Sheet C-3 as well as proposed fire department building hookups and/or water sources to confirm corresponding locations. We defer to Township Public Safety for any utility capacity or locations concerns.

Items to be Addressed: 1.) Any cited concerns of Township Engineering. 2.) Any cited concerns of Township Public Safety.

LANDSCAPING & SCREENING

Landscape and screening information is required at final site plan review. The applicant has provided a detailed landscape plan on Sheet C-8. Per this information, we will provide a full review of the landscape plan. Any deficiencies noted should be addressed at final site plan review.

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Section 5.19.B outlines general provisions for site landscaping. We note that no trees are to be planted closer than four (4) feet from any property line. While distance dimensions were not provided, it appears several trees along the southern and eastern property line may encroach this setback requirement.

Section 5.19.D provides requirements for screening along property lines as it relates to adjacent districts. Those standards are reviewed below:

Greenbelts

Property Line	Required	Provided	Complaint
North (ROW)	Depth: 20 feet 14 large deciduous or evergreen trees AND 110 shrubs	Depth: 25.4 feet 14 large deciduous trees AND 110 shrubs	Yes
East & South (R1-C)	Depth: 20 feet 56 large deciduous or evergreen trees AND 223 shrubs 5 foot visual barrier	Depth: 30 feet 56 large deciduous trees (49 new / 7 existing) AND 223 shrubs 8 foot obscuring fence	Yes
West (LB)	None	N/A	N/A

We note that several areas along the perimeter of the site show existing tree canopies and cite that they will remain. An aerial of the site is provided below for reference.

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Source: NearMap June 8, 2024

Interior Landscaping

Interior landscaping areas are required to equal at least fifteen (15) percent of the total lot area. One (1) large deciduous, small ornamental deciduous, or evergreen tree and five (5) shrubs shall be planted for every three hundred (300) square feet of required interior landscaping area.

Standard	Required	Provided	Complaint
Lot Area	29,335 sqft (15%)	110,896 sqft (56%)	Yes
Deciduous Trees	97 trees	97 trees (81 new / 16 existing)	Yes
Shrubs	489 shrubs	489 shrubs	Yes

Parking Lot Landscaping

Any off-street parking areas containing ten (10) or more parking spaces shall have parking lot landscaping as prescribed in the table provided in Section 5.19.G. Additional standards require:

1. *One (1) large deciduous tree or small deciduous ornamental tree and three (3) shrubs for every one hundred (100) square feet of required parking lot landscaping area.*
2. *Parking lot landscaping areas shall be curbed with 6-inch concrete curbing. Planting islands containing trees shall not be less than fifty (50) square feet in area and not have any dimension across the island of less than five (5) feet.*

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Commercial Use	Required	Provided	Complaint
Lot Area	2,340 sqft	7,199 sqft	Yes
Deciduous or Ornamental Trees	23 trees	23 trees	Yes
Shrubs	70 shrubs	70 shrubs	Yes
Curbs	6 inch concrete	2'	Yes
Lot Islands	50 sqft area minimum and at least 5 feet wide	4 Islands	Yes

Minimum Plant Size

All tree and plant material meet size requirements.

Trash Receptacles

Trash enclosures are to be constructed of similar materials as the principal structure on the site. Brickform concrete or stained, decorative CMU block may be permitted where the principal building is not masonry, however, plain CMU block is not allowed. Details on Sheet C-13 indicate enclosure walls are constructed of split face block CMU but do not indicate a staining or decorative treatment. Sheet A-302 provides enclosure details that reference enclosure walls as CMU and gates materials as stained wooded with a metal frame. The applicant should remove the trash enclosure detail from Sheet C-13 and clarify the CMU enclosure wall decorative feature on Sheet A-302 for final site plan.

Mechanical Equipment Screening

Sheet A-400 provides an elevation showing the rooftop mechanical equipment and the parapet dimensions which provide screening. Other onsite mechanical equipment is screened via landscaping.

Fencing

Sheet C-3 shows a six (6) foot high vinyl fence around the detention basin. Per landscaping buffer requirements between specific zones, an eight (8) foot obscuring fence is proposed along the eastern and southern lot lines where the property abuts residential districts. Specification of screening materials are required for final site plan.

Items to be Addressed: 1.) Dimensions between trees and property lines should be included on Sheet C-8 and conform to the four (4) foot setback requirement. 2.) The applicant should remove the trash enclosure detail from Sheet C-13 and clarify the CMU enclosure wall decorative feature on Sheet A-302 for final site plan. 3.) Specification of screening materials proposed for the eight (8) foot property line fence are required for final site plan.

LIGHTING & NOISE

Lighting Requirements

The applicant has provided site lighting information on Sheets C-7 and 12. Lighting standards are provided in Section 5.18.G and required at final site plan review however this review will note any deficiencies with the proposed lighting plan.

Given the site will have multiple tenants, Sheet C-7 should have a note stating that there shall be no flashing, oscillating, moving or intermittent type of lighting or illumination on the site.

All site lighting is provided via LED fixtures mounted to twenty (20) foot poles. Footcandle requirements at the property lines and fixture height requirements are met. No building wall pack lighting is proposed at this time. Section 5.18.G.viii outlines footcandle maximums for specific areas of the site. The site plan offers measurements for the overall site and property lines but does not offer averages for the driveway, parking, walks, protective, building or loading areas. These will be required at final site plan.

Noise Requirements

Noise standards are provided in Section 5.18.A and required at final site plan review.

Items to be Addressed: *Additional area footcandle average information required for final site plan per Section 5.18.G.viii.*

SIGNAGE

Sheet C-3 provides the basic location of a proposed monument sign at the development's entrance. Basic dimension parameters are provided in the "Signage Requirements" table. We note the sign should complement both the design and construction materials of the principal structures on-site. Signs are approved administratively but complete sign information outlined in Section 5.9 is required at final site plan review.

Items to be Addressed: *None.*

ARCHITECTURE & LAYOUT

Sheets A100 through A301 provide general floorplans and elevations of the buildings. We do note that sheets are not stamped and sealed by a licensed architect.

Elevations of all building sides is required at preliminary site plan. Architectural information required at final site plan review includes the types of facing materials to be used on structures. Interior layouts are open to allow flexibility for potential user interior design but will be required to meet building codes during the permitting process.

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Section 6.8.E provides architectural requirements for developments along the Highland Road (M-59) corridor. Proposed exterior materials for the buildings are fiber cement planes, metal coping, EFIS, brick veneer, prefinished aluminum and metal awnings. We recommend color renderings showing exterior construction materials in place for final site plan review. Window coverage along front facades must be at least 30%. These calculations should be added to the final site plan.

Exterior construction material boards will be required for Planning Commission review during final site plan as well as samples of furniture, fixtures or equipment to be located on the proposed patios.

Items to be Addressed: 1.) Window coverage calculations should be added to exterior elevations facing Highland Road (M-59). 2.) Architectural drawings should be stamped and sealed by the professional that prepared them.

SPECIAL LAND USE

Restaurants with drive-thru's and outdoor dining areas are a special land use and subject to the standards set forth in Sections 4.17, 4.18 and 6.10 of the zoning ordinance. Special land uses are reviewed and approved/denied by the Planning Commission.

General and special use requirements are provided in Section 6.10. Use standards specific to drive-in or drive-thru window services are outlined in Section 4.17. Use standards for eating establishments with outdoor dining are provided in Section 4.18. The following information is a review of each requirement for this use as prescribed in the Zoning Ordinance.

Section 4.17 / Drive-In or Drive-Thru Window Services

A. *A front yard setback of at least sixty (60) feet shall be required.*

CWA Comment: Standard met.

B. *Entrance and exit drives shall be at least one hundred (100) feet from any street intersection and two hundred (200) feet from any residential district.*

CWA Comment: Standard met.

C. *An outdoor lighting plan shall specify the type of fixtures to be used, light intensity, and method of shielding the fixtures so that light does not project onto adjoining properties or on any public or private street or right-of-way. Dropped fixtures shall not be allowed. The site plan shall include a photometric plan and catalog details for all proposed fixtures. Outdoor lights must meet the performance standards of Section 5.18.*

CWA Comment: Information is still required to assess conformance to lighting standards however footcandle measurements shown on Sheet C-7 do not indicate light spillover into residential areas.

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D. An obscuring fence, screen wall, or land form buffer shall be provided in accordance with the provisions of Section 5.19 on all sides abutting a residential district.

CWA Comment: Standard met.

E. Adequate off-street waiting space shall be provided to prevent drive-through customers from waiting on a public or private street. A minimum of four (4) spaces per drive-up window, including order windows or per ATM machine, shall be required. The Planning Commission may increase this requirement up to seven (7) spaces per window based on the circumstances of individual uses and sites.

CWA Comment: Standard met.

Section 4.18 / Eating Establishments with Entertainment and/or Outdoor Dining

These requirements are intended to regulate restaurants with large outdoor eating areas and possible entertainment. that the applicant has stated no outdoor entertainment is to occur onsite for restaurant patrons. For this reason, we have only applied the standards applicable to casual outdoor eating within the patio areas specified for each building.

i. The establishment may operate only during the following hours: Monday thru Thursday 8 am—12 midnight, Friday 8 am—2 am, Saturday 10 am—2 am, Sunday 10 am—10 pm.

CWA Comment: The applicant has provided a list of anticipated tenants for the site as well as their possible hours of operation. Some operating times are beyond the window permitted for outdoor dining however we do not anticipate the patrons of these potential tenants utilizing outdoor patios to a disruptive degree. The outdoor patio areas are modest in size and not meant for large amounts of customers.

ii. The use of exterior loudspeakers is prohibited where the site abuts a residential district or use. The noise level at the lot line shall not exceed 70 dB.

CWA Comment: No noise or speaker systems were included in the site plan. Applicant should be aware of this requirement when considering tenant types.

Section 6.10 / General SLU Standards

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.

CWA Comment: The proposed use of the site is conducive with that found along the corridor and other major thoroughfares.

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

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of sight distances, location and access of off-street parking and provisions for pedestrian traffic, with particular attention to minimizing child-vehicle interfacing.

CWA Comment: Site access approval will be required from MDOT however the applicant has implemented a deceleration lane, dedicated left turn lanes, new roadside pathway and internal pedestrian paths to improve vehicle and pedestrian circulation.

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.

CWA Comment: Per comments provided in the Special Land Use 4.18 requirements portion of this review, areas for outdoor dining are modest in size and the applicant should ensure tenants are aware of noise requirements.

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.

CWA Comment: Standard met.

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.

CWA Comment: The proposed food service and retail uses are conducive to major thoroughfares and are similar or complementary to other commercial uses in the area.

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.

CWA Comment: Standard met.

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.

CWA Comment: We defer to Township Engineering and Township Public Safety relating to public facilities and service concerns.

viii. Protection of the natural environment and conservation of natural resources and energy.

CWA Comment: No items of concern.

ix. The proposed use is necessary for the public convenience at the proposed location.

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CWA Comment: The proposed use of the site is conducive with that found along the corridor and other major thoroughfares and will provide services to Township residents.

x. The proposed use is so designed, located, planned and to be operated that the public health, safety and welfare will be protected.

CWA Comment: No items of concern.

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.

CWA Comment: The proposed use is more intense than the current institutional use but not uncommon to major thoroughfares and/or proximity to residential uses. Appropriate landscaping and screening requirements have been met to ensure a buffer between the development and adjacent residential uses.

Community Impact Statement

Section 3.1.14 and 6.6 of the zoning ordinance outline the need for a Community Impact Statement (CIS) for special land uses, planned developments and the like. Given the proposed use is an increase in intensity from the current use as well as the adjacency to residential districts, the applicant has provided a CIS for the proposed development.

The CIS is dated November 12th, 2024 and was prepared by Stonefield Engineering and Design, LLC.

General

The CIS provides relevant information about the development regarding site layout, uses, and general hours of operation for tenants. Information provided is consistent with typical multi-tenant retail centers. As noted in the statement and this review, the use and zoning are consistent with the 2024 Master Plan. Surrounding uses are provided and are not uncommon when adjacent to retail along large thoroughfares (M-59).

Community Facilities and Services

The applicant states the site is anticipated to have a low to medium impact on police and fire services. No establishments are proposed to sell alcohol and fire department inspections are required to ensure the site is compliant with life safety standards. The fire department has provided preliminary approval of the site plan. No concerns are cited with the estimated demand on water and sewer systems.

Deliveries for tenants are expected to be once to twice per week. With the potential of up to six (6) tenants, this could generate six (6) to twelve (12) deliveries per week. Single axle box trucks are anticipated to provide the majority of deliveries to the site. Given the loading zone is located in the rear of the development, we suggest a possible condition that trucks not be allowed to idle while loading, unloading or staging.

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Economics

The site is anticipated to generate approximately fifty (50) to sixty (60) temporary jobs (construction) and approximately fifty (50) permanent service jobs. It is estimated that the proposed development will contribute roughly \$70,000 per year to White Lake Township and local schools from annual property taxes.

Environment

The site is relatively free of major natural features such as clustered woodlands or bodies of water. The primary source of pollution to the site would be particulate matter during construction and personal vehicle operation once built. No major hazardous materials are expected to be kept onsite. The CIS does acknowledge that some tenants will likely be food service business that will generate kitchen odors from cooking operations. It should be discussed as to whether any mitigation is available to reduce the impact of odors generated from tenant activities.

Noise

The CIS notes that drive thru facilities in the east building will be pickup window only thus eliminating noise from order kiosks that utilize loudspeakers to communicate with drivers. This is a positive step to help reduce noise pollution. The stipulation that no order kiosk or loudspeaker system shall be constructed for the east building should be added to the site plan to avoid future tenants requesting installation of such equipment.

Traffic

Traffic information does indicate that levels of service are anticipated to remain relatively the same after the site is operating. The traffic impact study does indicate that vehicles attempting to make a left turn out of the site may find the maneuver difficult during peak PM hours.

Mapping

The overhead image provided in the CIS highlights the character of uses along the corridor. Retail uses are prevalent to the west of the site with varying densities of residential throughout the area.

Items to be Addressed: 1.) Condition that trucks not be allowed to idle during loading, unloading, or staging while onsite. 2.) Mitigation techniques to reduce the impact of kitchen odors should be implemented. 3.) No order kiosk or loudspeaker system shall be constructed for the east building should be added to the site plan to avoid future tenants requesting installation of such equipment.

SUMMARY

The preliminary site plan is substantially complete. We recommend a public hearing be noticed and the application be placed on the Planning Commission’s agenda.

Should the Planning Commission approve the preliminary site plan, special land use, and CIS, we recommend conditions listed below:

Potential Conditions of Approval

1. *Any cited concerns from Township Engineering are addressed.*
2. *Any cited concerns from Township Public Safety are addressed.*
3. *MDOT will need to approve the pathway along Highland Road (M-59)*
4. *A pedestrian connection from the sidewalk to the development’s east building should be added to avoid foot traffic in the ingress/egress drive isle.*
5. *Trucks not be allowed to idle during loading, unloading, or staging while onsite.*
6. *Mitigation techniques to reduce the impact of kitchen odors should be implemented.*
7. *No order kiosk or loudspeaker system shall be constructed for the east building should be added to the site plan to avoid future tenants requesting installation of such equipment.*

Waivers / Modifications / Determinations

Below is a list of waivers, modifications or determinations necessary from the Planning Commission for the current proposal to be approved.

1. *Planning Commission may grant/deny waiver request for placement of access drive per lot and placement restrictions however site access is under the jurisdiction of MDOT.*

Final Site Plan Items (Notations / Not Required for PSP Approval)

The items listed below are not required for preliminary site plan approval but will need to be addressed prior to final site plan consideration.

PLEASE NOTE: Should the Planning Commission grant approval or conditional approval of the preliminary site plan, these items should not be included in the motion.

1. *Additional area footcandle average information required for final site plan per Section 5.18.G.viii.*
2. *Dimensions between trees and property lines should be included on Sheet C-8 and conform to the four (4) foot setback requirement.*
3. *Specification of screening materials for the eight (8) foot property line fence are required for final site plan.*
4. *The applicant should remove the trash enclosure detail from Sheet 13 and clarify the CMU enclosure wall decorative feature on Sheet A-302 for final site plan. Exterior construction material boards will be required for Planning Commission review during final site plan as well as samples of furniture, fixtures or equipment to be located on the proposed patios.*

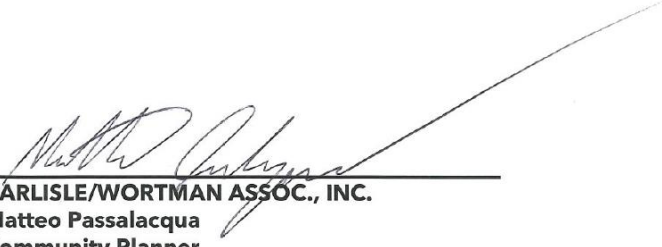
9101 Highland

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November 25, 2024

5. *Window coverage calculations should be added to exterior elevations facing Highland Road (M-59).*
6. *Architectural drawings should be stamped and sealed by the professional that prepared them.*
7. *Material specifications for the proposed eight (8) foot obscuring fence should be provided at final site plan review.*

Respectfully,



CARLISLE/WORTMAN ASSOC., INC.
Matteo Passalacqua
Community Planner



Fire Department

Charter Township of White Lake

7420 Highland Road
White Lake, MI 48383
Office (248) 698-3993
www.whitelaketwp.com/fire

Site / Construction Plan Review

To: Sean O'Neil, Planning Department Director

Date: 10-31-2024

Project: 9101 Highland Road

Job #: DET-230229

Date on Plans: 10-17-2024

The Fire Department has the following comments with regards to the 2nd review of preliminary site plans for the project known as 9101 Highland Road.

1. The access drive and parking lot shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all weather driving capabilities.
2. The required turning radius shall accommodate the largest Fire Department apparatus (40') and provide a turn radius profile showing apparatus on all future plans. **Needs to be shown throughout the entire site.**
3. The angle of approach/Departure to and from White Lake roads shall not exceed 8 degrees.
4. Wall mounted KNOX Box required, location to be determined.
5. One additional fire hydrant with bollard protection will be required on the south side of the of the buildings, centrally located, Possibly on the island east of the proposed loading zone.

Jason Hanifen
Fire Marshal
Charter Township of White Lake
(248)698-3993
jhanifen@whitelaketwp.com

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



SOURCE: USGS MAPPING SYSTEM

LOCATION MAP

SCALE: 1" = 2,000'±

SITE DEVELOPMENT PLANS FOR 9101 HIGHLAND ROAD PROPOSED COMMERCIAL DEVELOPMENT

PID: 12-23-227-003
9101 HIGHLAND ROAD (M-59)
WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

APPLICANT / OWNER

AFFINITY 10 INVESTMENT LLC
44512 SOUTH SHORE STREET
WATERFORD, MICHIGAN 48328
248-702-0624
THANNAWA@ENCOREIS.COM

ARCHITECT

BOWERS + ASSOCIATES, INC
2400 SOUTH HURON PARKWAY
ANN ARBOR, MICHIGAN 48104
734-975-2400
SUSANB@BOWERSARCH.COM

ISSUE	DATE	BY	DESCRIPTION
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JJP	FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JJP	SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM	FOR PRELIMINARY MDOT REVIEW
1	11/29/2023	JRC/JJP	SUBMISSION FOR REZONING

NOT APPROVED FOR CONSTRUCTION



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9101 HIGHLAND ROAD

PROPOSED COMMERCIAL DEVELOPMENT

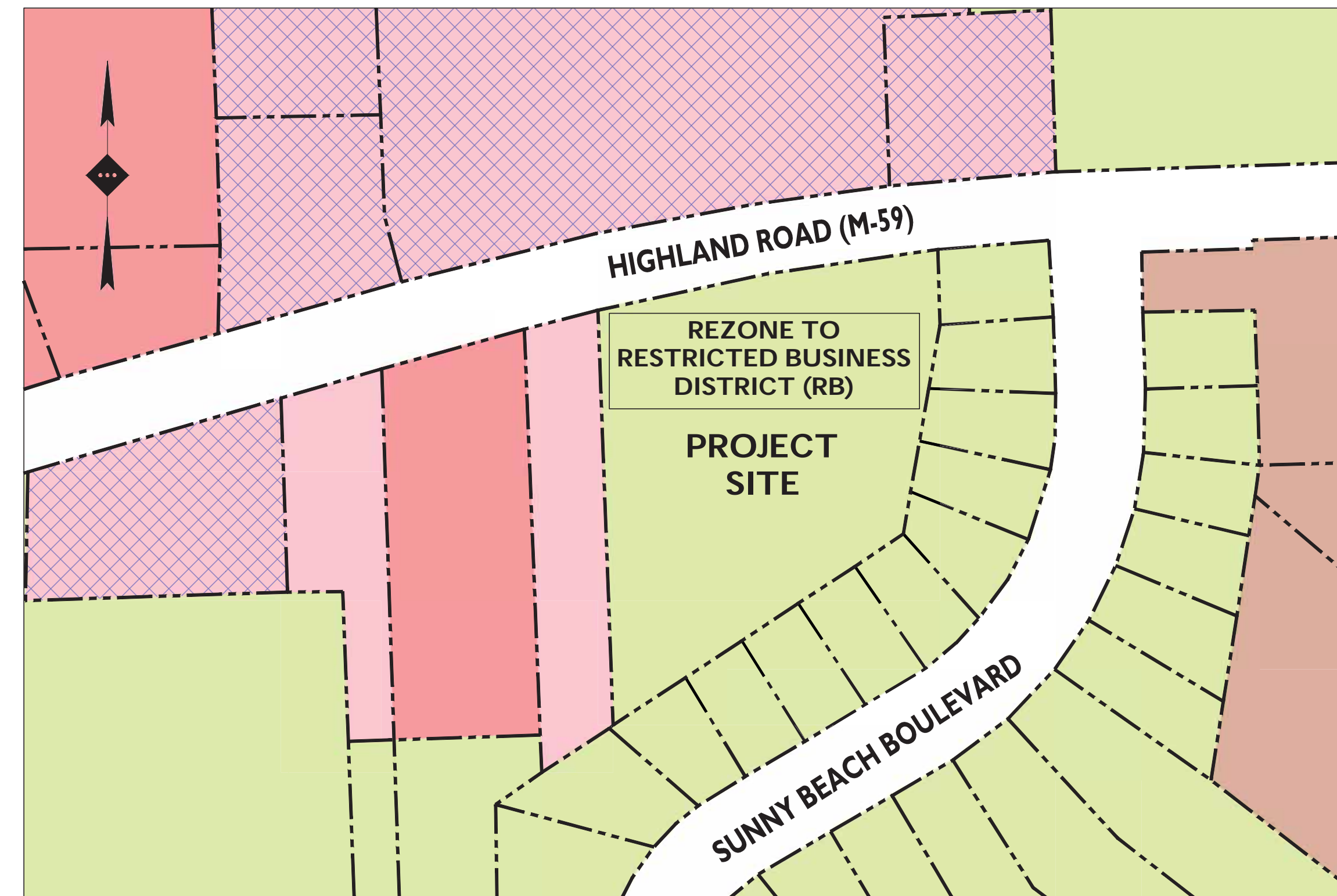
PARCEL ID: 12-23-227-003
9101 HIGHLAND ROAD
WHITE LAKE TOWNSHIP
OAKLAND COUNTY, MICHIGAN



SOURCE: GOOGLE EARTH PRO. DATE RETRIEVED 12/11/2023

AERIAL MAP

SCALE: 1" = 150'±



SOURCE: TOWNSHIP OF WHITE LAKE OFFICIAL ZONING MAP. DATED 10/10/2022

ZONING KEY

- R1-C SINGLE FAMILY RESIDENTIAL
- RM-1 ATTACHED SINGLE FAMILY RESIDENTIAL
- GB GENERAL BUSINESS
- PB PLANNED BUSINESS
- LB LOCAL BUSINESS

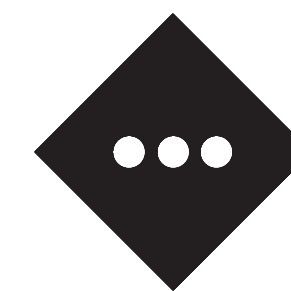
ZONING MAP

SCALE: 1" = 150'±

PLANS PREPARED BY:



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Phone 248.247.1115

PLAN REFERENCE MATERIALS:

- THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
 - ALTA/NSPS LAND TITLE SURVEY PREPARED BY KEM-TEC ASSOCIATES DATED 09/28/2023
 - ARCHITECTURAL PLANS OBTAINED FROM BOWER & ASSOCIATES, INC DATED 10/17/2024
 - AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO 10/10/2022
 - LOCATION MAP OBTAINED FROM USGS ONLINE MAPPER 08/07/2023
 - TRAFFIC STUDY OBTAINED FROM FLEIS & VANDENBRINK DATED 04/22/2024
- ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

SHEET INDEX

DRAWING TITLE	SHEET #
COVER SHEET	C-1
DEMOLITION PLAN	C-2
SITE PLAN	C-3
GRADING PLAN	C-4
STORMWATER MANAGEMENT PLAN	C-5
UTILITY PLAN	C-6
LIGHTING PLAN	C-7
LANDSCAPING PLAN	C-8 & C-9
FIRE TRUCK TURNING ANALYSIS	C-10
REFUSE TRUCK TURNING ANALYSIS	C-11
CONSTRUCTION DETAILS	C-12 TO C-14

ADDITIONAL SHEETS

DRAWING TITLE	SHEET #
ALTA / NSPS LAND TITLE SURVEY	1 OF 1
WHITE LAKE TWP WATERMAIN DETAILS	1 OF 1
WHITE LAKE TWP STORM SEWER DETAILS	1 OF 1
WHITE LAKE TWP SANITARY DETAILS	1 OF 1
OAKLAND COUNTY SOIL EROSION DETAILS	1 OF 1

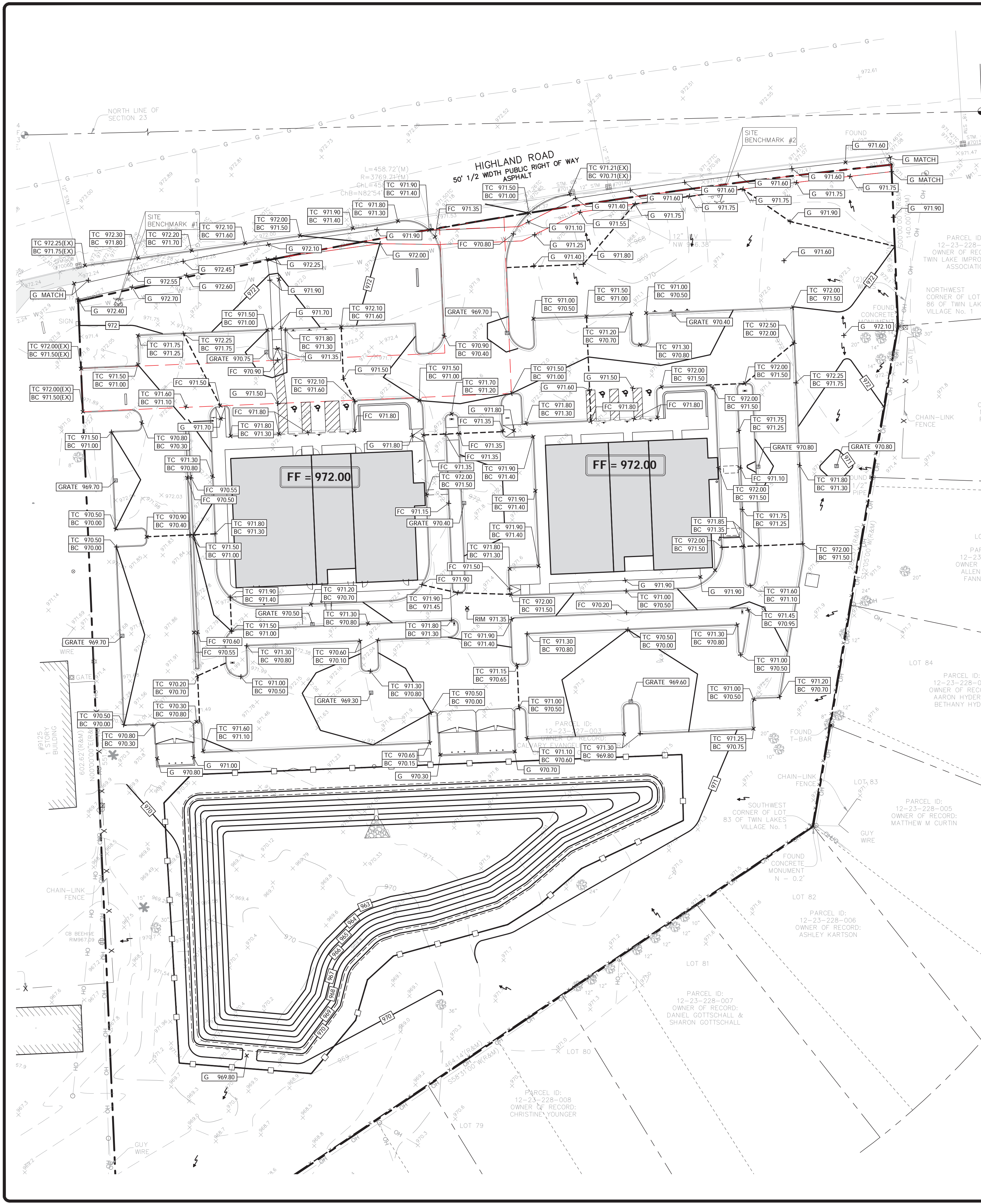


SCALE: AS SHOWN PROJECT ID: DET-230229

TITLE:
COVER SHEET

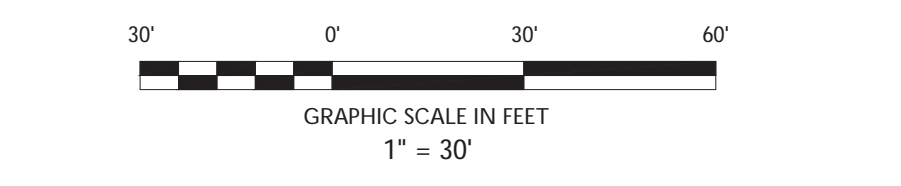
DRAWING:

C-1



SYMBOL	DESCRIPTION
---	PROPERTY LINE
—100—	PROPOSED GRADING CONTOUR
—RIDGELINE—	PROPOSED GRADING RIDGELINE
←	PROPOSED DIRECTION OF DRAINAGE FLOW
X G 100.00	PROPOSED GRADE SPOT SHOT
X TC 100.50 BC 100.00	PROPOSED TOP OF CURB / BOTTOM OF CURB SPOT SHOT
X FC 100.00	PROPOSED FLUSH CURB SPOT SHOT

- GRADING NOTES**
- ALL SOIL AND MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS. ANY GROUNDWATER DE-WATERING PRACTICES SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE DISCHARGE OF DE-WATERED GROUNDWATER. ALL SOIL IMPORTED TO THE SITE SHALL BE CERTIFIED CLEAN FILL. CONTRACTOR SHALL MAINTAIN RECORDS OF ALL FILL MATERIALS BROUGHT TO THE SITE.
 - THE CONTRACTOR IS REQUIRED TO PROVIDE TEMPORARY AND/OR PERMANENT SHORING WHERE REQUIRED DURING EXCAVATION ACTIVITIES INCLUDING BUT NOT LIMITED TO UTILITY TRENCHES TO ENSURE THE STRUCTURAL INTEGRITY OF NEARBY STRUCTURES AND STABILITY OF THE SURROUNDING SOILS.
 - PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 4 INCHES TO 7 INCHES ABOVE EXISTING GRADES UNLESS OTHERWISE NOTED. THE CONTRACTOR WILL SUPPLY ALL STAKEOUT CURB GRADE SHEETS TO STONEFIELD ENGINEERING & DESIGN, LLC. FOR REVIEW AND APPROVAL PRIOR TO POURING CURBS.
 - THE CONTRACTOR IS RESPONSIBLE TO SET ALL PROPOSED UTILITY COVERS AND RESET ALL EXISTING UTILITY COVERS WITHIN THE PROJECT LIMITS TO PROPOSED GRADE IN ACCORDANCE WITH ANY APPLICABLE MUNICIPAL COUNTY, STATE AND/OR UTILITY AUTHORITY REGULATIONS.
 - MINIMUM SLOPE REQUIREMENTS TO PREVENT PONDING SHALL BE AS FOLLOWS:
 - CURB GUTTER: 0.50%
 - CONCRETE SURFACES: 0.50%
 - ASPHALT SURFACES: 1.00%
 - A MINIMUM SLOPE OF 1.00% SHALL BE PROVIDED AWAY FROM ALL BUILDINGS. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FROM THE BUILDING IS ACHIEVED AND SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IF THIS CONDITION CANNOT BE MET.
 - FOR PROJECTS WHERE BASEMENTS ARE PROPOSED, THE DEVELOPER IS RESPONSIBLE TO DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED STRUCTURE. IF GROUNDWATER IS ENCOUNTERED WITHIN THE BASEMENT AREA, SPECIAL CONSTRUCTION METHODS SHALL BE UTILIZED AND REVIEWED/APPROVED BY THE CONSTRUCTION CODE OFFICIAL. IF SUMP PUMPS ARE UTILIZED, ALL DISCHARGES SHALL BE CONNECTED DIRECTLY TO THE PUBLIC STORM SEWER SYSTEM WITH APPROVAL FROM THE GOVERNING STORM SEWER AUTHORITY.
- ADA NOTES**
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION WITHIN THE ADA PARKING SPACES AND ACCESS AISLES.
 - THE CONTRACTOR SHALL PROVIDE COMPLIANT SIGNAGE AT ALL ADA PARKING AREAS IN ACCORDANCE WITH STATE GUIDELINES.
 - THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 5.00% RUNNING SLOPE AND A MAXIMUM OF 2.00% CROSS SLOPE ALONG WALKWAYS WITHIN THE ACCESSIBLE PATH OF TRAVEL (SEE THE SITE PLAN FOR THE LOCATION OF THE ACCESSIBLE PATH). THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE ACCESSIBLE PATH OF TRAVEL IS 36 INCHES WIDE OR GREATER UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
 - THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION AT ALL LANDINGS. LANDINGS INCLUDE, BUT ARE NOT LIMITED TO, THE TOP AND BOTTOM OF AN ACCESSIBLE RAMP. AT ACCESSIBLE BUILDING ENTRANCES, AT AN AREA IN FRONT OF A WALK-UP ATM, AND AT TURNING SPACES ALONG THE ACCESSIBLE PATH OF TRAVEL, THE LANDING AREA SHALL HAVE A MINIMUM CLEAR AREA OF 60 INCHES BY 60 INCHES UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
 - THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 8.33% RUNNING SLOPE AND A MAXIMUM 2.00% CROSS SLOPE ON ANY CURB RAMPS ALONG THE ACCESSIBLE PATH OF TRAVEL. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 10.00%. IF A LANDING AREA IS PROVIDED AT THE TOP OF THE RAMP, FOR ALTERATIONS, A CURB RAMP FLARE SHALL NOT HAVE A SLOPE GREATER THAN 8.33% IF A LANDING AREA IS NOT PROVIDED AT THE TOP OF THE RAMP. CURBS RAMPS SHALL NOT RISE MORE THAN 6 INCHES IN ELEVATION WITHOUT A HANDRAIL. THE CLEAR WIDTH OF A CURB RAMP SHALL BE NO LESS THAN 36 INCHES WIDE.
 - ACCESSIBLE RAMPS WITH A RISE GREATER THAN 6 INCHES SHALL CONTAIN COMPLIANT HANDRAILS ON BOTH SIDES OF THE RAMP AND SHALL NOT RISE MORE THAN 30" IN ELEVATION WITHOUT A LANDING AREA IN BETWEEN RAMP RUNS. LANDING AREAS SHALL ALSO BE PROVIDED AT THE TOP AND BOTTOM OF THE RAMP.
 - A SLIP RESISTANT SURFACE SHALL BE CONSTRUCTED ALONG THE ACCESSIBLE PATH AND WITHIN ADA PARKING AREAS.
 - THE CONTRACTOR SHALL ENSURE A MAXIMUM OF 1/8 INCHES VERTICAL CHANGE IN LEVEL ALONG THE ACCESSIBLE PATH. WHERE A CHANGE IN LEVEL BETWEEN 1/8 INCHES AND 1/4 INCHES EXISTS, CONTRACTOR SHALL ENSURE THAT THE TOP 1/4 INCH CHANGE IN LEVEL IS BEVELED WITH A SLOPE NOT STEEPER THAN 1 UNIT VERTICAL AND 2 UNITS HORIZONTAL (2:1 SLOPE).
 - THE CONTRACTOR SHALL ENSURE THAT ANY OPENINGS (GAPS OR HORIZONTAL SEPARATION) ALONG THE ACCESSIBLE PATH SHALL NOT ALLOW PASSAGE OF A SPHERE GREATER THAN 1/4 INCH.



REVISED PER PRELIMINARY SITE PLAN REVIEW #1	EM	BY
FOR SITE PLAN REVIEW <td>EM/JEP <td></td> </td>	EM/JEP <td></td>	
SUBMISSION FOR REVISED REZONING REQUEST <td>JRC/JEP <td></td> </td>	JRC/JEP <td></td>	
FOR PRELIMINARY MDOT REVIEW <td>EM <td></td> </td>	EM <td></td>	
SUBMISSION FOR REZONING <td>JRC/JEP <td></td> </td>	JRC/JEP <td></td>	
ISSUE	DATE	DESCRIPTION
5	10/17/2024	
4	07/22/2024	
3	04/22/2024	
2	04/15/2024	
1	11/29/2023	

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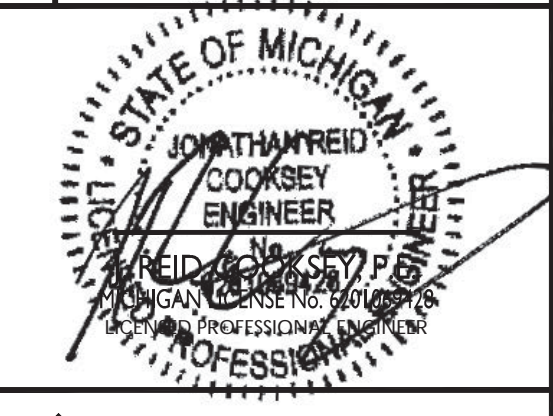
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9101 HIGHLAND ROAD
PROPOSED COMMERCIAL DEVELOPMENT

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PARCEL ID: 12-23-227-003
9101 HIGHLAND ROAD
WHITE LAKE TOWNSHIP
OAKLAND COUNTY, MICHIGAN



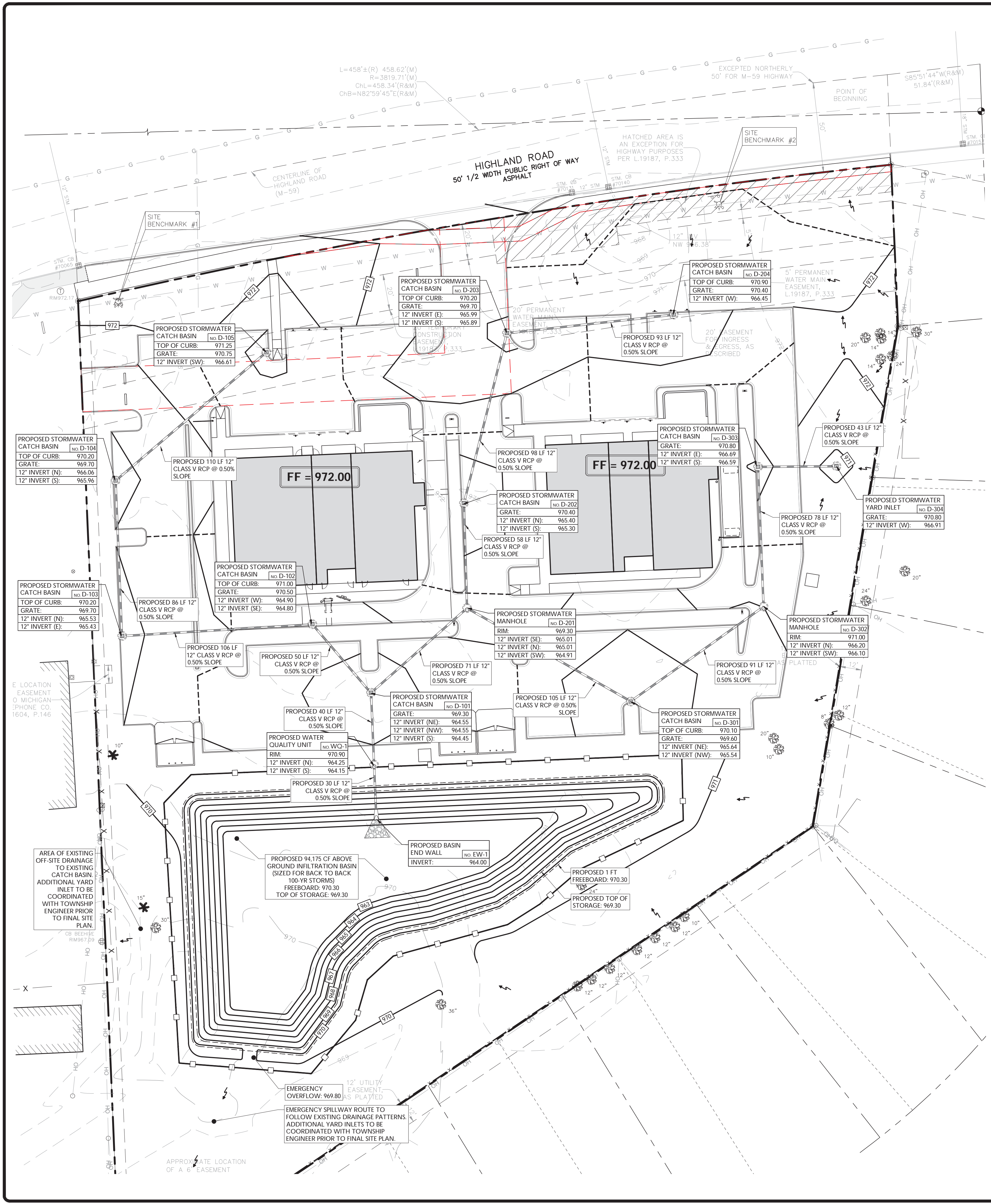
STONEFIELD
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SCALE: 1" = 30' PROJECT ID: DET-230229

TITLE: **GRADING PLAN**

DRAWING: **C-4**

NOT TO SCALE. THIS DRAWING IS A PRELIMINARY DESIGN. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD.



WHITE LAKE DETENTION VOLUME REQUIREMENT

V = (33,000)(C)(A)

C (VALUE)	0.590
A (AREA)	195,568 SF (4.49 AC)
V =	87,413 CF

SOIL CHARACTERISTICS CHART

TYPE OF SOIL	OSHTEMO-BOYER LOAMY SANDS (13B)	URBAN LAND-SPINKS COMPLEX
PERCENT OF SITE COVERAGE	68.3%	31.7%
HYDROLOGIC SOIL GROUP	A	A
DEPTH TO RESTRICTIVE LAYER	> 80 INCHES	> 80 INCHES
SOIL PERMEABILITY	1.98 TO 5.95 IN / HR	1.98 TO 5.95 IN / HR
DEPTH TO WATER TABLE	> 80 INCHES	> 80 INCHES

STORMWATER MANAGEMENT CALCULATIONS
(Based on Oakland County Stormwater Management Regulations (11-21-2021) ordinance)

Project: 9101 Highland Road White Lake Twp, MI Designer: JRC Date: 10/14/24

Determination of Surface Runoff

Landcover	Area (AC)	Area (SF)	C-Value*	Weighted Value
Building / Pavement	1.98	86,236	0.95	81,924
Basin Area	0.47	20,572	1.00	20,572
Landscape Area	HSG A	2.04	88,760	13,314
Subtotals	4.49	195,568		115,810

*C-values obtained from Oakland County Standards, Section 11, Part 'A'

Composite C Value, C: 0.590

Water Quality Intensity, I_{wq}: 2.76 IN/HR

Design Storm Period, P_d: 1 YEARS

Time of Concentration, T_c: 10.0 MINS

Detention Volume Requirement (White Lake)

V = 33,000 x C x A

Detention Volume Required, V_d: 87,412.97 CF

Proposed Basin Volume

Elevation	Surface Area (SF)	Total Volume (CF)
963.00	9315	0
964.00	10,887	10,101
965.00	12,617	21,853
966.00	14,470	35,397
967.00	16,451	50,857
968.00	18,502	68,334
969.00	20,605	87,887
969.30	21,317	94,175 Top of Storage Elevation
970.30	23,495	116,581 Freeboard

Basin volume calculated based on a trapezoidal prism

DEWATERING CALCULATIONS

Time (hours)	Inflow (cfs)	Storage (cubicfeet)	Elevation (feet)	Discarded (cfs)
0:00	0.00	0	963.00	0.00
2:50	0.00	0	963.00	0.00
5:00	0.00	0	963.00	0.00
7:50	0.03	12	963.04	0.02
10:00	0.47	924	963.43	0.21
12:50	4.88	55,657	967.60	1.28
15:00	1.30	62,686	967.99	1.37
17:50	0.82	59,585	967.82	1.33
20:00	0.87	54,215	967.52	1.28
22:50	0.51	48,056	967.16	1.18
25:00	0.00	40,776	966.71	1.08
27:50	0.00	31,645	966.12	0.95
30:00	0.00	23,622	965.55	0.83
32:50	0.00	16,593	965.01	0.73
35:00	0.00	10,535	964.51	0.62
37:50	0.00	5,420	964.04	0.52
40:00	0.00	1,754	963.50	0.29
42:50	0.00	131	963.15	0.07
45:00	0.00	0	963.00	0.00
47:50	0.00	0	963.00	0.00
50:00	0.00	0	963.00	0.00
52:50	0.00	0	963.00	0.00
55:00	0.00	0	963.00	0.00
57:50	0.00	0	963.00	0.00
60:00	0.00	0	963.00	0.00
62:50	0.00	0	963.00	0.00
65:00	0.00	0	963.00	0.00
67:50	0.00	0	963.00	0.00
70:00	0.00	0	963.00	0.00
72:50	0.00	0	963.00	0.00
75:00	0.00	0	963.00	0.00
77:50	0.00	0	963.00	0.00
80:00	0.00	0	963.00	0.00

PER HYDROCAD MODEL, STORMWATER BASIN DEWATERS IN 45 HOURS ASSUMING AN INFILTRATION RATE OF 2.00 IN / HR (INFILTRATION TO BE CONFIRMED WITH GEOTECHNICAL INVESTIGATION PRIOR TO FINAL SITE PLAN.)

SYMBOL DESCRIPTION

---	PROPERTY LINE
---	PROPOSED GRADING CONTOUR
---	PROPOSED GRADING RIDGELINE
---	PROPOSED STORMWATER STRUCTURES
---	PROPOSED STORMWATER PIPING
---	PROPOSED UNDERGROUND OUTLET STRUCTURE

DRAINAGE AND UTILITY NOTES

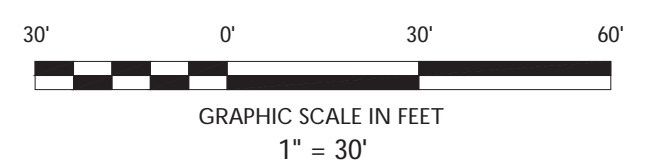
- THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR STORMWATER IMPROVEMENTS SHOULD A CONFLICT EXIST. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
- CONTRACTOR SHALL START CONSTRUCTION OF STORM LINES AT THE LOWEST INVERT AND WORK UP-GRADE.
- THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

EXCAVATION, SOIL PREPARATION, AND DEWATERING NOTES

- THE CONTRACTOR IS REQUIRED TO REVIEW THE REFERENCED GEOTECHNICAL DOCUMENTS PRIOR TO CONSTRUCTION. THESE DOCUMENTS SHALL BE CONSIDERED A PART OF THE PLAN SET.
- THE CONTRACTOR IS REQUIRED TO PREPARE SUBGRADE SOLS BENEATH ALL PROPOSED IMPROVEMENTS AND BACKFILL ALL EXCAVATIONS IN ACCORDANCE WITH RECOMMENDATIONS BY THE GEOTECHNICAL ENGINEER OF RECORD.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHORING FOR ALL EXCAVATIONS AS REQUIRED. CONTRACTOR SHALL HAVE THE SHORING DESIGN PREPARED BY A QUALIFIED PROFESSIONAL SHORING DESIGNER. THESE DESIGNS SHALL BE SUBMITTED TO STONEFIELD ENGINEERING & DESIGN, LLC AND THE OWNER PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL OPEN EXCAVATIONS ARE PERFORMED AND PROTECTED IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DEWATERING DESIGN AND OPERATIONS AS REQUIRED. TO CONSTRUCT THE PROPOSED IMPROVEMENTS, THE CONTRACTOR SHALL OBTAIN ANY REQUIRED PERMITS FOR DEWATERING OPERATIONS AND GROUNDWATER DISPOSAL.

STORMWATER INFILTRATION BMP CONSTRUCTION NOTES

- PRIOR TO THE START OF CONSTRUCTION, ANY AREA DESIGNATED TO BE USED FOR AN INFILTRATION BMP (E.G. BASIN, BIORETENTION AREA, ETC.) SHALL BE FENCED OFF AND SHALL NOT BE UTILIZED AS STORAGE FOR CONSTRUCTION EQUIPMENT OR AS A STOCKPILE AREA FOR CONSTRUCTION MATERIALS. NO ACTIVITY SHALL BE PERMITTED WITHIN THE INFILTRATION BASIN AREA UNLESS RELATED TO THE CONSTRUCTION OF THE INFILTRATION BASIN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL SUBCONTRACTORS OF BASIN AREA RESTRICTIONS.
- THE CONTRACTOR SHALL MAKE EVERY EFFORT, WHERE PRACTICAL TO AVOID SUBGRADE SOIL COMPACTION IN THE AREAS DESIGNATED TO BE USED FOR AN INFILTRATION BMP.
- ALL EXCAVATION WITHIN THE LIMITS OF ANY INFILTRATION BMP SHALL BE PERFORMED WITH THE LIGHTEST PRACTICAL EXCAVATION EQUIPMENT. ALL EXCAVATION EQUIPMENT SHALL BE PLACED OUTSIDE THE LIMITS OF THE BASIN WHERE FEASIBLE. THE USE OF LIGHT-WEIGHT, RUBBER-TIRED EQUIPMENT (LESS THAN 8 PSI) APPLIED TO THE GROUND SURFACE IS RECOMMENDED WITHIN THE BASIN LIMITS.
- THE SEQUENCE OF SITE CONSTRUCTION SHALL BE COORDINATED WITH BASIN CONSTRUCTION TO ADHERE TO SEQUENCING LIMITATIONS.
- DURING THE FINAL GRADING OF AN INFILTRATION BASIN, THE BOTTOM OF THE BASIN SHALL BE DENSELY TILLED WITH A ROTARY TILLER OR DISC HARROW AND THEN SMOOTHED OUT WITH A LEVELING DRAW OR EQUIVALENT GRADING EQUIPMENT. ALL GRADING EQUIPMENT SHALL BE LOCATED OUTSIDE OF THE BASIN BOTTOM WHERE FEASIBLE.
- FOLLOWING CONSTRUCTION OF AN INFILTRATION BASIN, SOIL INFILTRATION TESTING BY A LICENSED GEOTECHNICAL ENGINEER IS REQUIRED TO CERTIFY COMPLIANCE WITH THE DESIGN INFILTRATION RATES IN ACCORDANCE WITH APPENDIX E OF THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION'S BEST MANAGEMENT PRACTICES MANUAL, LATEST EDITION. IF THE FIELD INFILTRATION RATES ARE LOWER THAN THE RATE USED DURING DESIGN, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING IMMEDIATELY TO DETERMINE THE APPROPRIATE COURSE OF ACTION.
- THE CONTRACTOR SHALL NOTIFY THE MUNICIPALITY TO DETERMINE IF WITNESS TESTING IS REQUIRED DURING INFILTRATION BASIN EXCAVATION AND/OR SOIL INFILTRATION TESTING.



REVISED PER PRELIMINARY SITE PLAN REVIEW #1	EM	BY	DESCRIPTION
FOR SITE PLAN REVIEW	EM/JRC		
SUBMISSION FOR REVISED REZONING REQUEST	JRC/JRC		
FOR PRELIMINARY PDOT REVIEW	EM		
SUBMISSION FOR REZONING	JRC/JRC		

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9101 HIGHLAND ROAD
PROPOSED COMMERCIAL DEVELOPMENT

PARCEL ID: 12-23-227-003
9101 HIGHLAND ROAD
WHITE LAKE TOWNSHIP
OAKLAND COUNTY, MICHIGAN

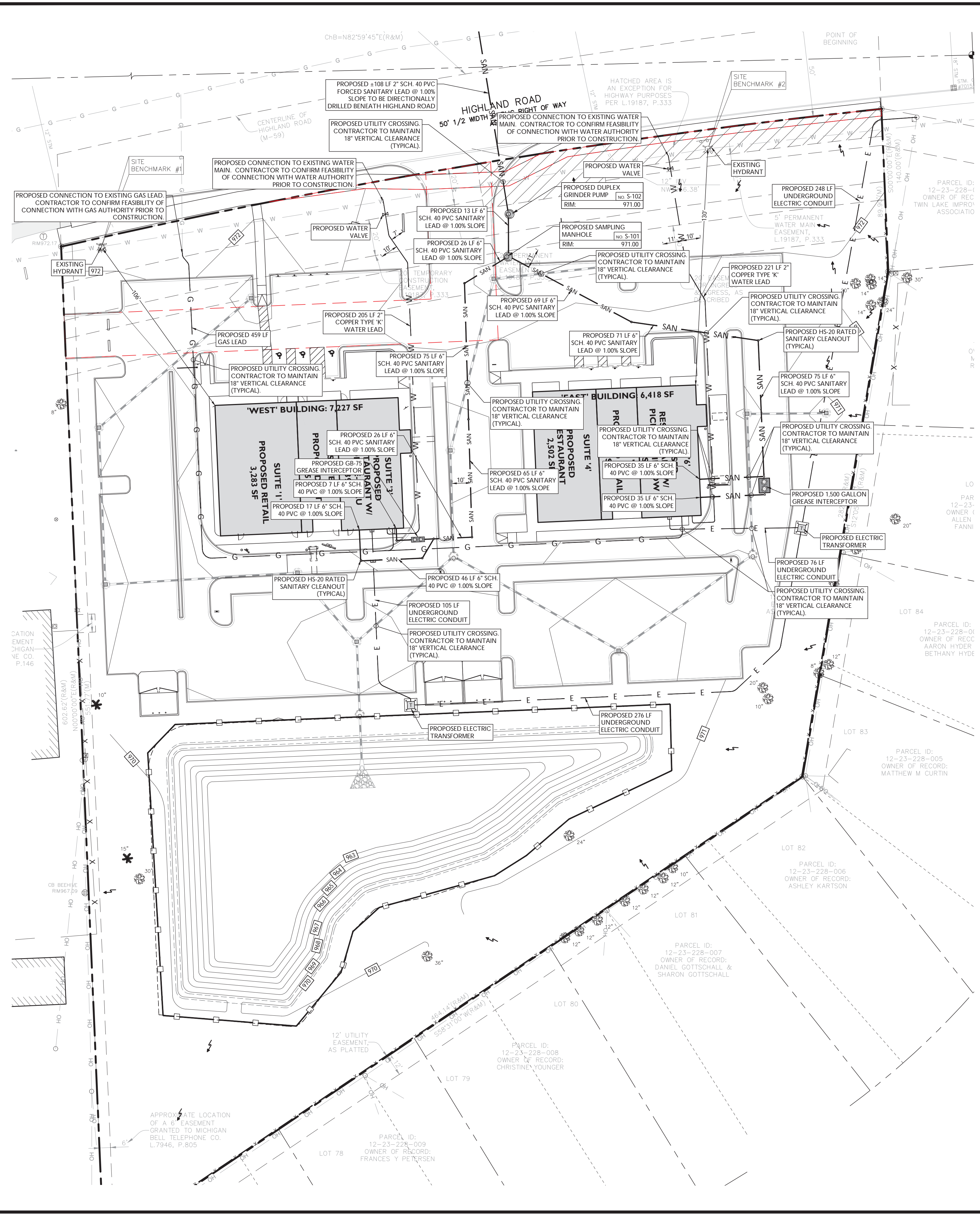
STATE OF MICHIGAN
JONATHAN REID
COOKSEY
ENGINEER
PROFESSIONAL

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SCALE: 1" = 30' PROJECT ID: DET-230219

TITLE:
STORMWATER MANAGEMENT PLAN

DRAWING:
C-5

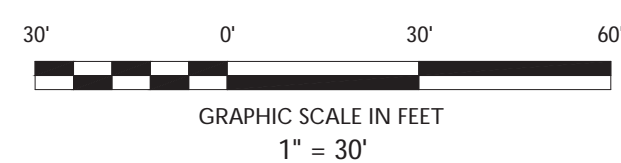


SYMBOL	DESCRIPTION
---	PROPERTY LINE
— SAN —	PROPOSED SANITARY LATERAL
— W —	PROPOSED DOMESTIC WATER SERVICE
— E —	PROPOSED ELECTRIC CONDUITS
— G —	PROPOSED GAS LINE
⊗	PROPOSED VALVE
○	PROPOSED CLEANOUT
T	PROPOSED TRANSFORMER ON CONCRETE PAD WITH BOLLARDS

MANHOLE SCHEDULE

NUM	TYPE	RIM (FT)	SIZE (IN)	DIR	INV ELEV (FT)
70065	CATCH BASIN	971.68	12	N	968.03
70131	CATCH BASIN	970.71	12	E	966.71
70140	CATCH BASIN	970.70	12	W	966.50
		970.70	12	N	966.45
		970.70	12	S	966.55
70157	CATCH BASIN	971.02	18	N	964.12

- DRAINAGE AND UTILITY NOTES**
- THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
 - THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
 - THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
 - A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASUREMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
 - ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASUREMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
 - THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
 - THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
 - CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP-GRADE.
 - THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE DEMOLITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
 - THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.



REVISED PER PRELIMINARY SITE PLAN REVIEW #1	FOR SITE PLAN REVIEW	EM/JEP	EM/JEP	DATE	BY	DESCRIPTION
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3	04/22/2024	JEP	JEP			
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1	11/29/2023	JEP	JEP			

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SITE DEVELOPMENT PLANS

9101 HIGHLAND ROAD

PROPOSED COMMERCIAL DEVELOPMENT

PARCEL ID: 12-23-227-003
9101 HIGHLAND ROAD
WHITE LAKE TOWNSHIP
OAKLAND COUNTY, MICHIGAN



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SCALE: 1" = 30' PROJECT ID: DET-230229

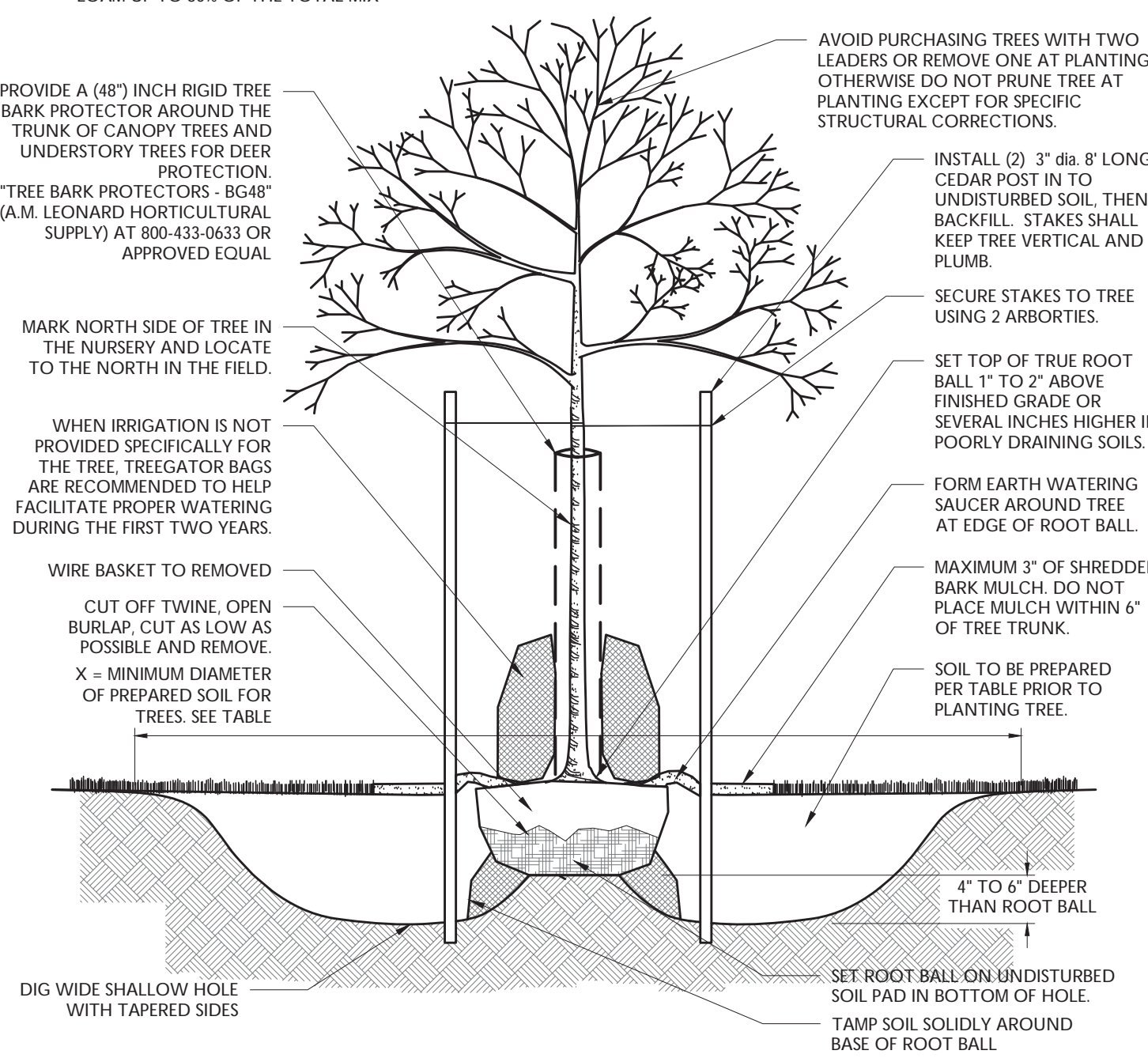
TITLE: UTILITY PLAN

DRAWING: C-6

NOT TO SCALE. DATE: 12-20-2024. DRAWN BY: JEP. CHECKED BY: JEP. SCALE: 1" = 30'. PROJECT ID: DET-230229.

NOTES:
1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL...

- 1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL...
2. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING...

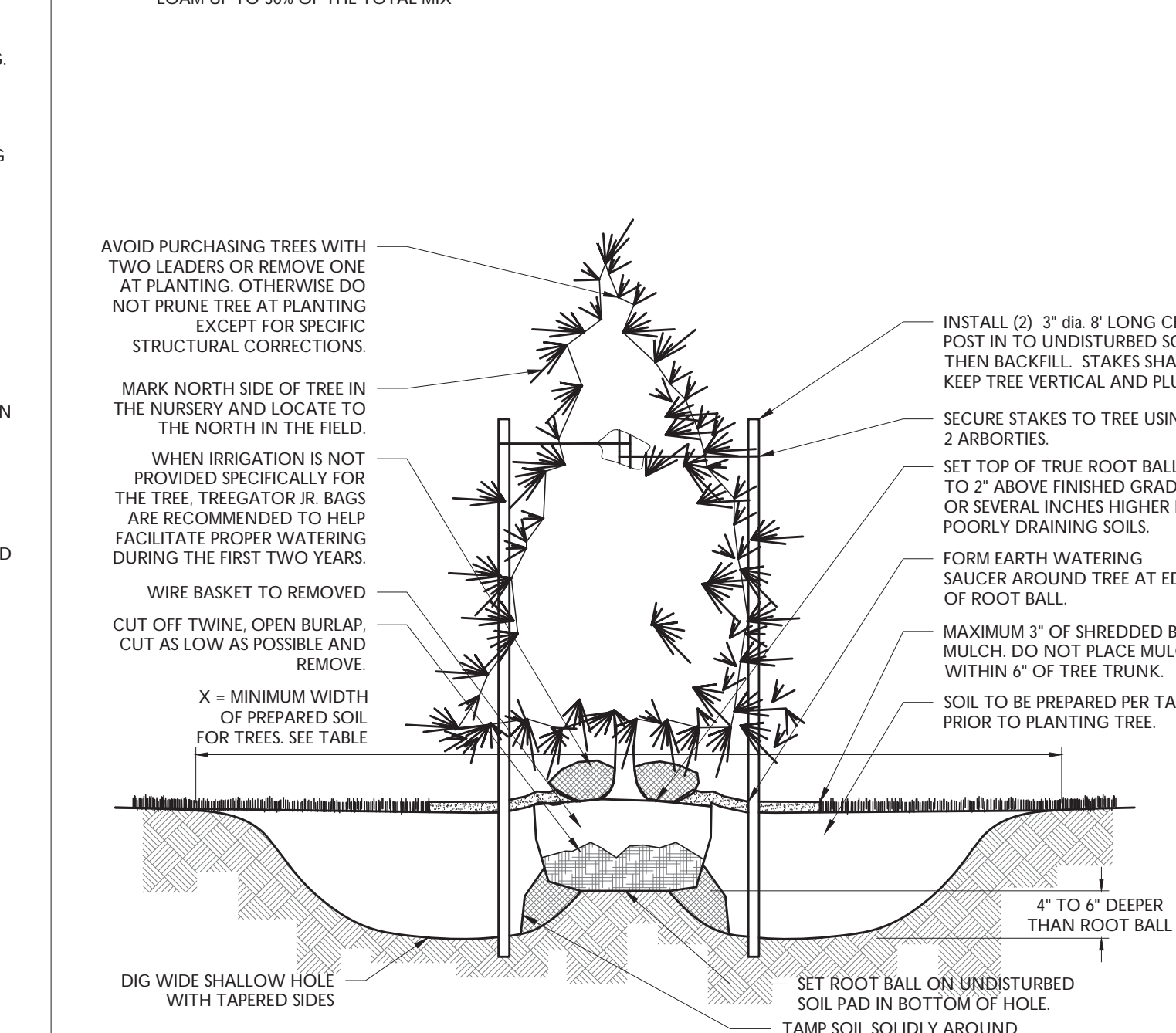


DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

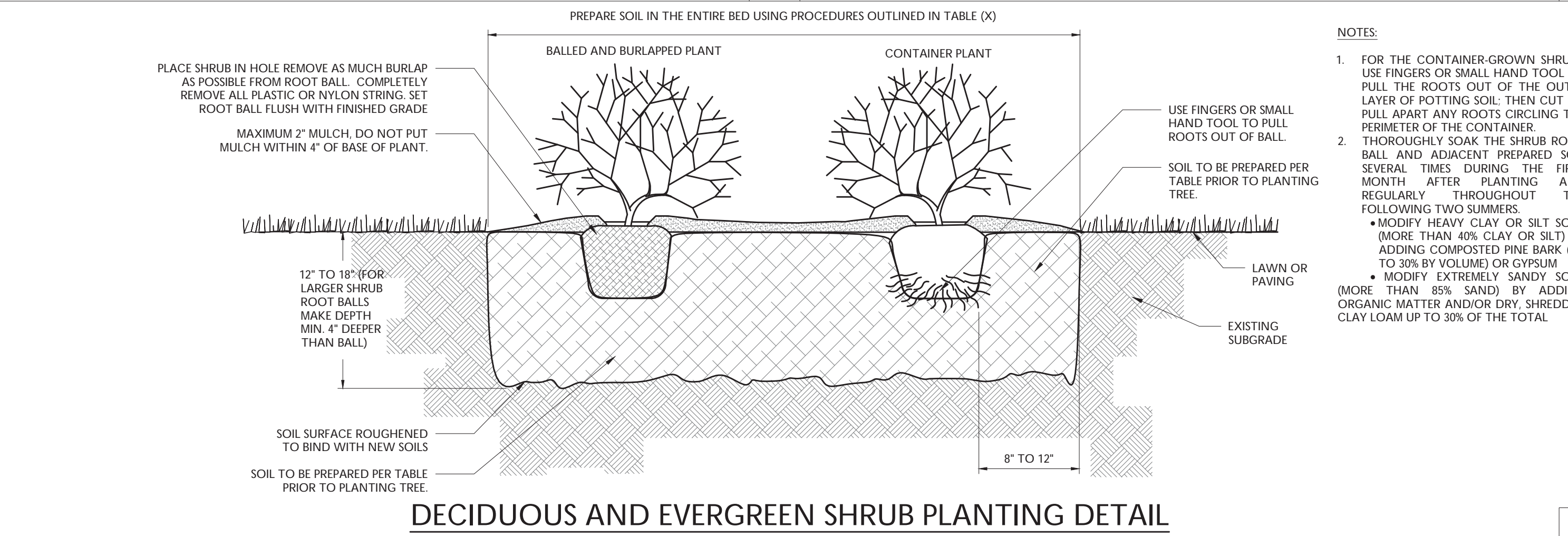
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CONIFEROUS TREE PLANTING DETAIL

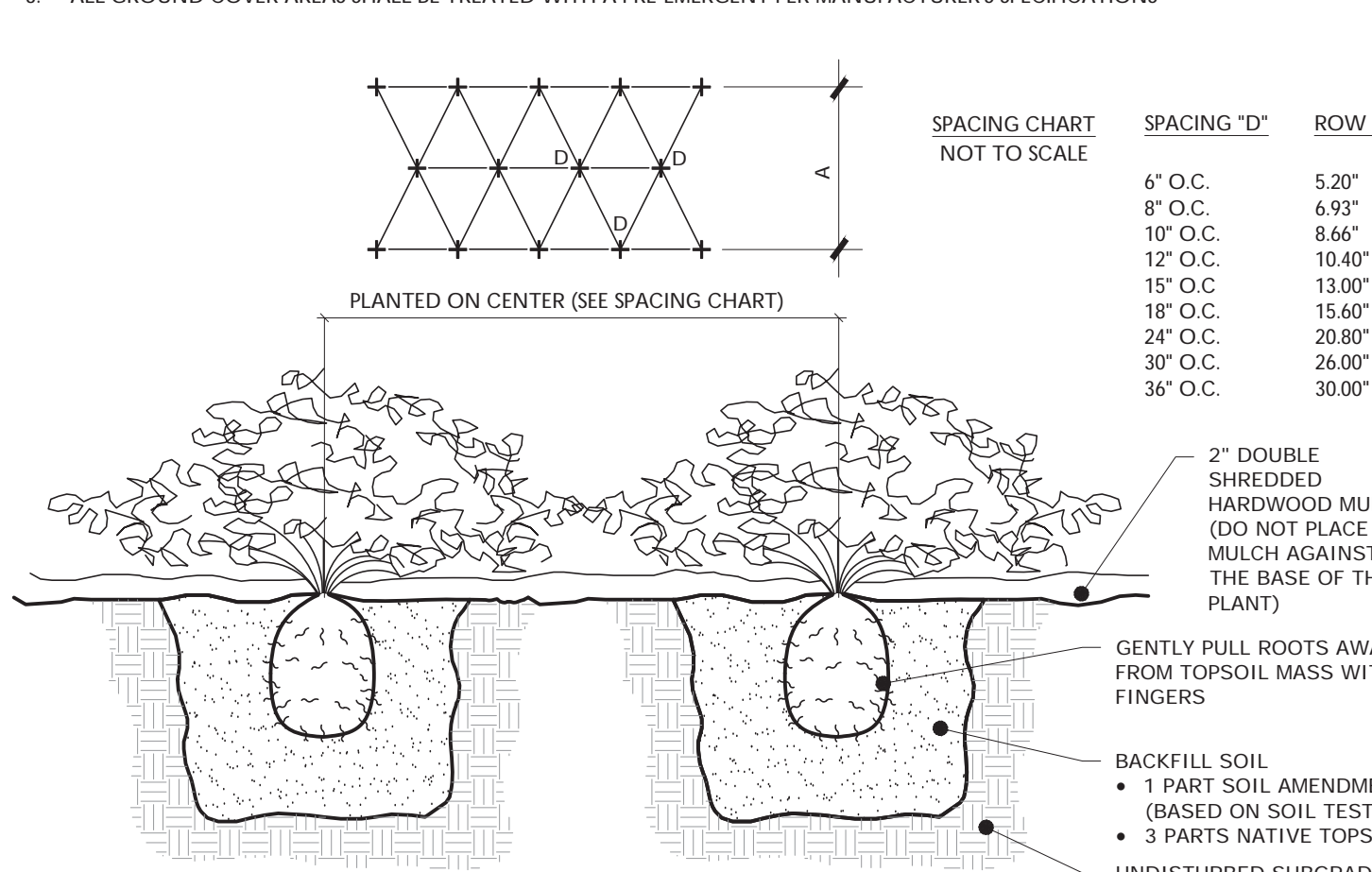
NOT TO SCALE



DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL

NOT TO SCALE

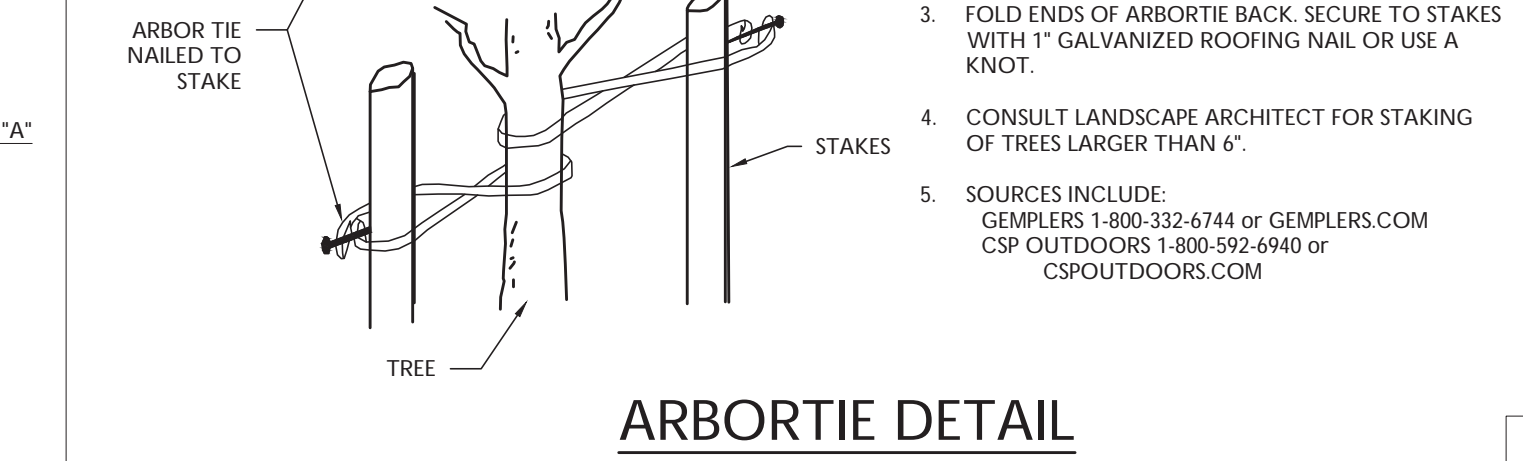
- NOTES:
1. THOROUGHLY SOAK THE GROUND COVER ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING...



GROUND COVER/PERENNIAL/ANNUAL PLANTING DETAIL

NOT TO SCALE

- NOTES:
1. FOR THE CONTAINER-GROWN SHRUBS, USE FINGERS OR SMALL HAND TOOL TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL...



ARBOR TIE DETAIL

NOT TO SCALE

GENERAL LANDSCAPING NOTES:

- 1. THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK IN ACCORDANCE WITH THESE SPECIFICATIONS, APPROVED OR FINAL DRAWINGS, AND INSTRUCTIONS PROVIDED BY THE PROJECT LANDSCAPE DESIGNER...

PROTECTION OF EXISTING VEGETATION NOTES:

- 1. BEFORE COMMENCING WORK, ALL EXISTING VEGETATION WHICH COULD BE IMPACTED AS A RESULT OF THE PROPOSED CONSTRUCTION ACTIVITIES MUST BE PROTECTED FROM DAMAGE BY THE INSTALLATION OF TREE PROTECTION FENCING...

SOIL PREPARATION AND MULCH NOTES:

- 1. LANDSCAPE CONTRACTOR SHALL OBTAIN A SOIL TEST OF THE IN SITU TOPSOIL BY A CERTIFIED SOIL LABORATORY PRIOR TO PLANTING...

PLANT QUALITY AND HANDLING NOTES:

- 1. ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z601-2004) OR LATEST REVISION AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION...

PLANT MATERIAL GUARANTEE NOTES:

- 1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR (1 YR) FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE PROJECT LANDSCAPE DESIGNER...

LAWN (SEED OR SOD) NOTES:

- 1. SEED MIXTURE SHALL BE FRESH, CLEAN, NEW CROP SEED. SOD SHALL BE STRONGLY ROOTED, UNIFORM IN THICKNESS, AND FREE OF WEEDS, DISEASE, AND PESTS...

IRRIGATION DURING ESTABLISHMENT table with columns for size at planting, irrigation for vitality, and irrigation for survival.

- TABLE NOTES:
1. AT EACH IRRIGATION, APPLY TWO TO THREE GALLONS PER INCH TRUNK CALIPER TO THE ROOT BALL SURFACE...

Table with columns for revision number, date, and description of changes.

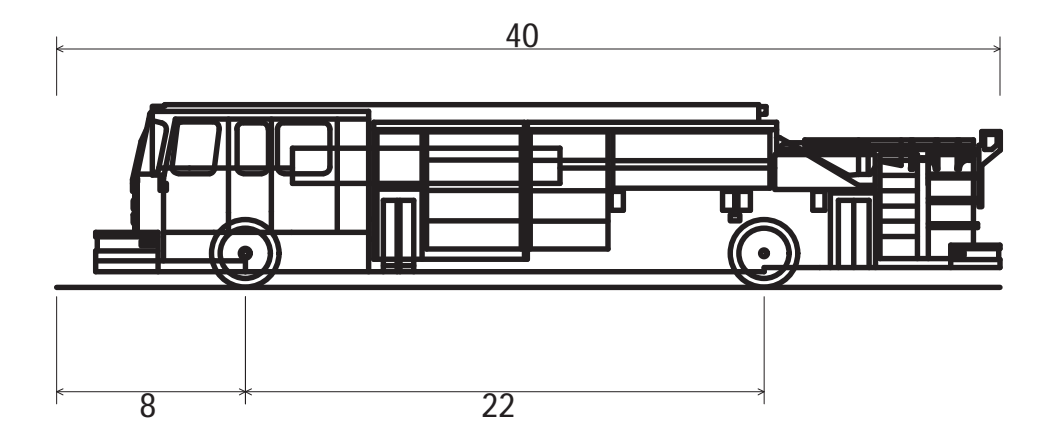
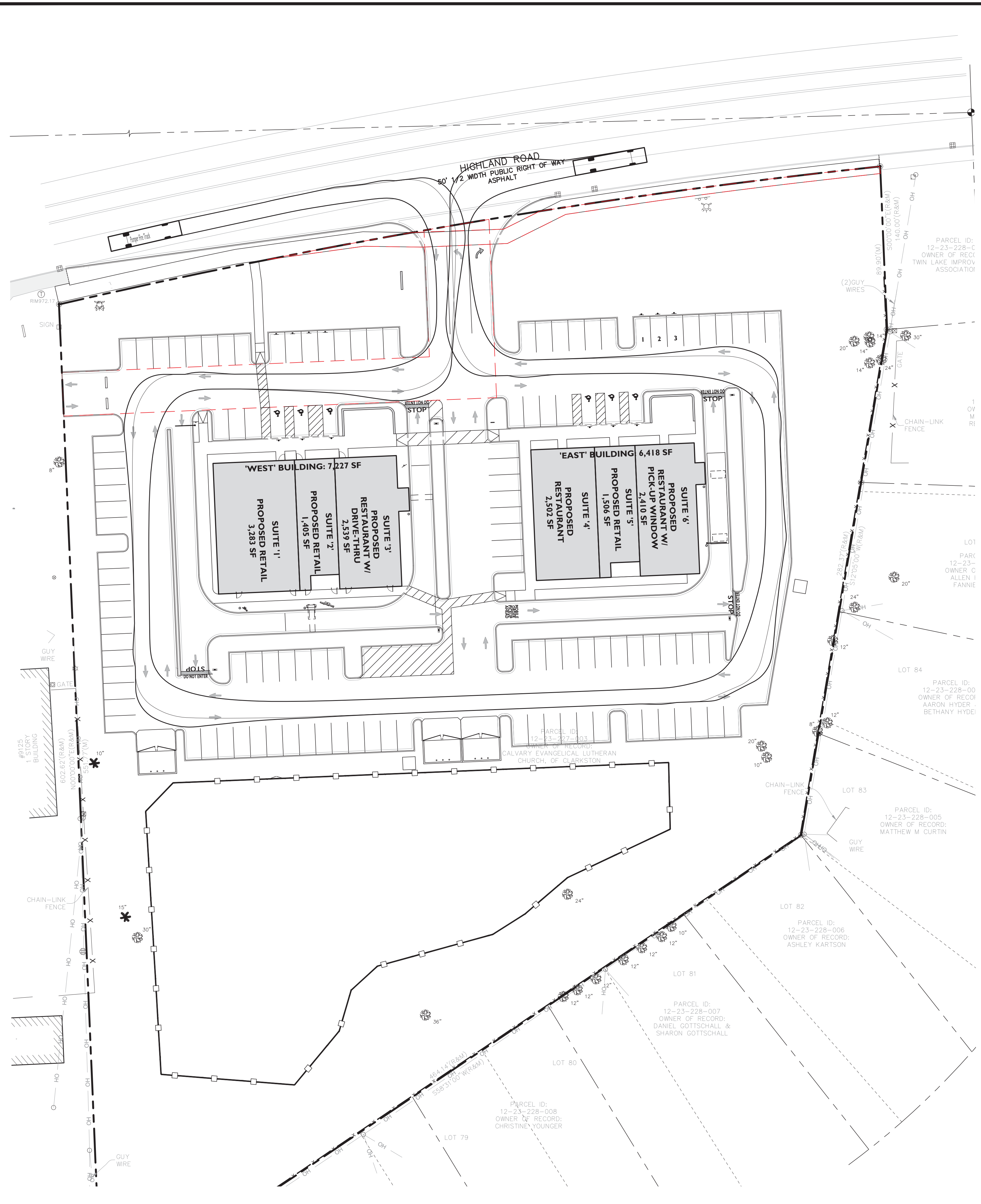
NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design logo and contact information for Birmingham, MI and Boston, MA.

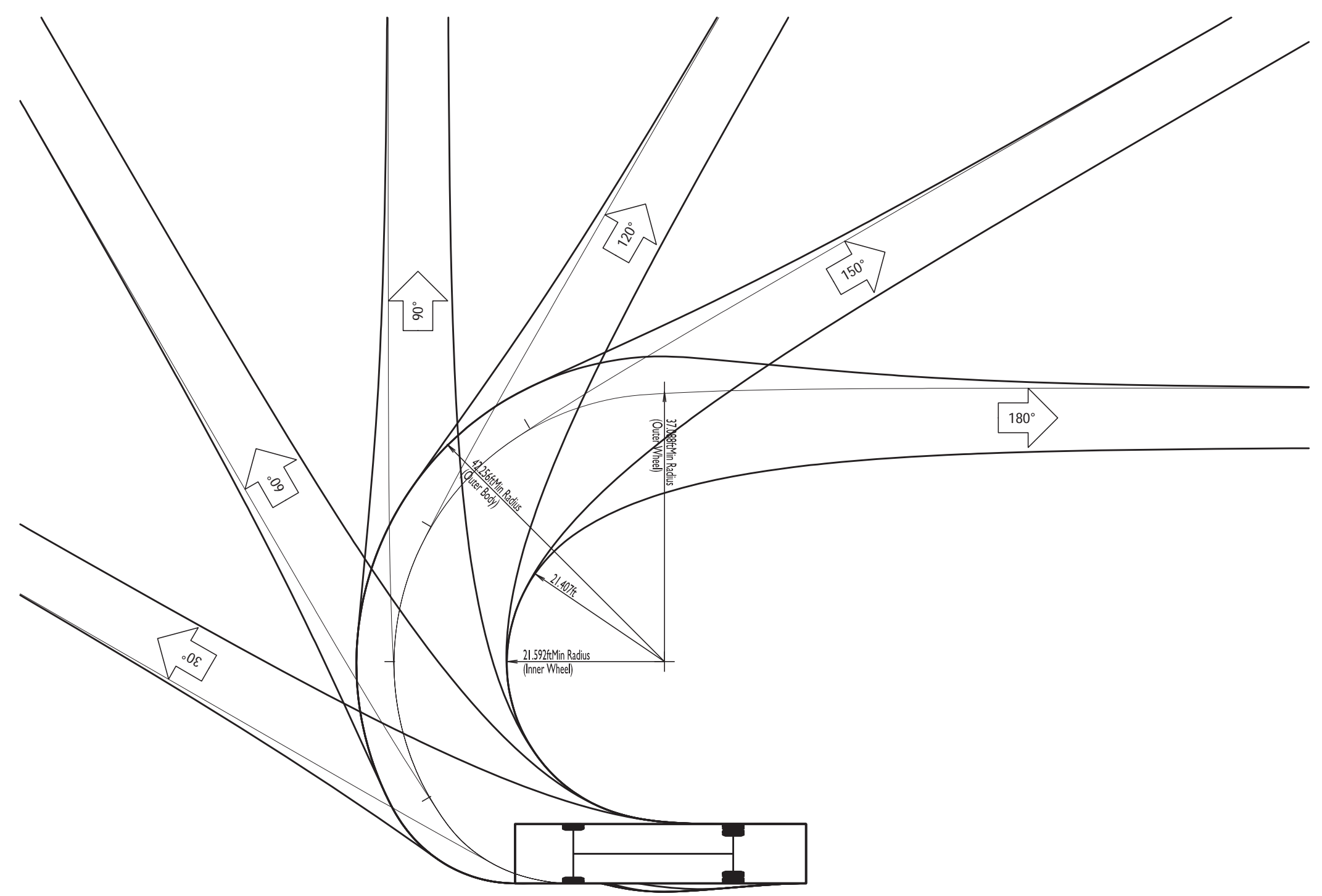
9101 HIGHLAND ROAD PROPOSED COMMERCIAL DEVELOPMENT SITE DEVELOPMENT PLANS logo and address information.

Professional Engineer seal for Jonathan Reed Cooksey, State of Michigan.

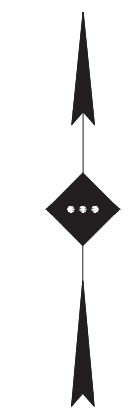
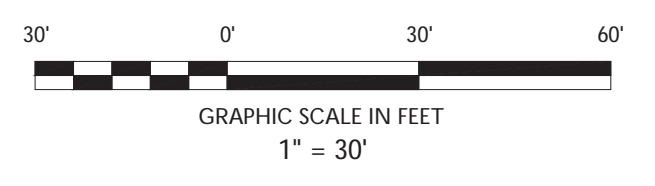
STONEFIELD engineering & design logo, scale, project ID, title, drawing, and drawing number C-9.



Pumper Fire Truck
 Overall Length 40.000ft
 Overall Width 8.167ft
 Overall Body Height 7.745ft
 Min Body Ground Clearance 0.656ft
 Track Width 8.167ft
 Lock-to-lock time 5.00s
 Max Wheel Angle 45.00°



VEHICLE PROFILE AND TURN TEMPLATE
 NOT TO SCALE



ISSUE	DATE	BY	DESCRIPTION
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	JRC/JJP	FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JJP	SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM	FOR PRELIMINARY HDOT REVIEW
1	11/29/2023	JRC/JJP	SUBMISSION FOR REZONING

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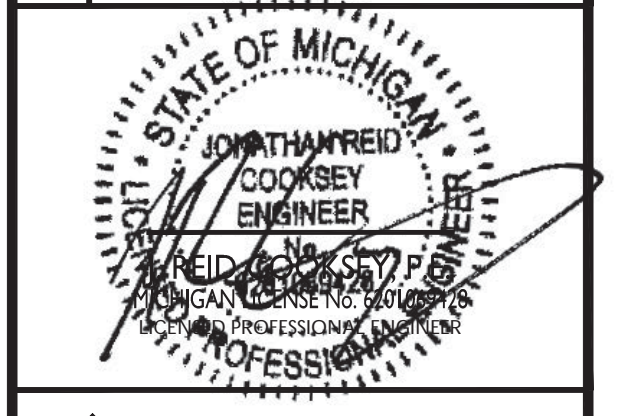
555 S Old Woodward Suite 12L Birmingham, MI 48009
 Phone 248.247.1115

SITE DEVELOPMENT PLANS

9101 HIGHLAND ROAD

PROPOSED COMMERCIAL DEVELOPMENT

PARCEL ID: 12-23-227-003
 9101 HIGHLAND ROAD
 WHITE LAKE TOWNSHIP
 OAKLAND COUNTY, MICHIGAN



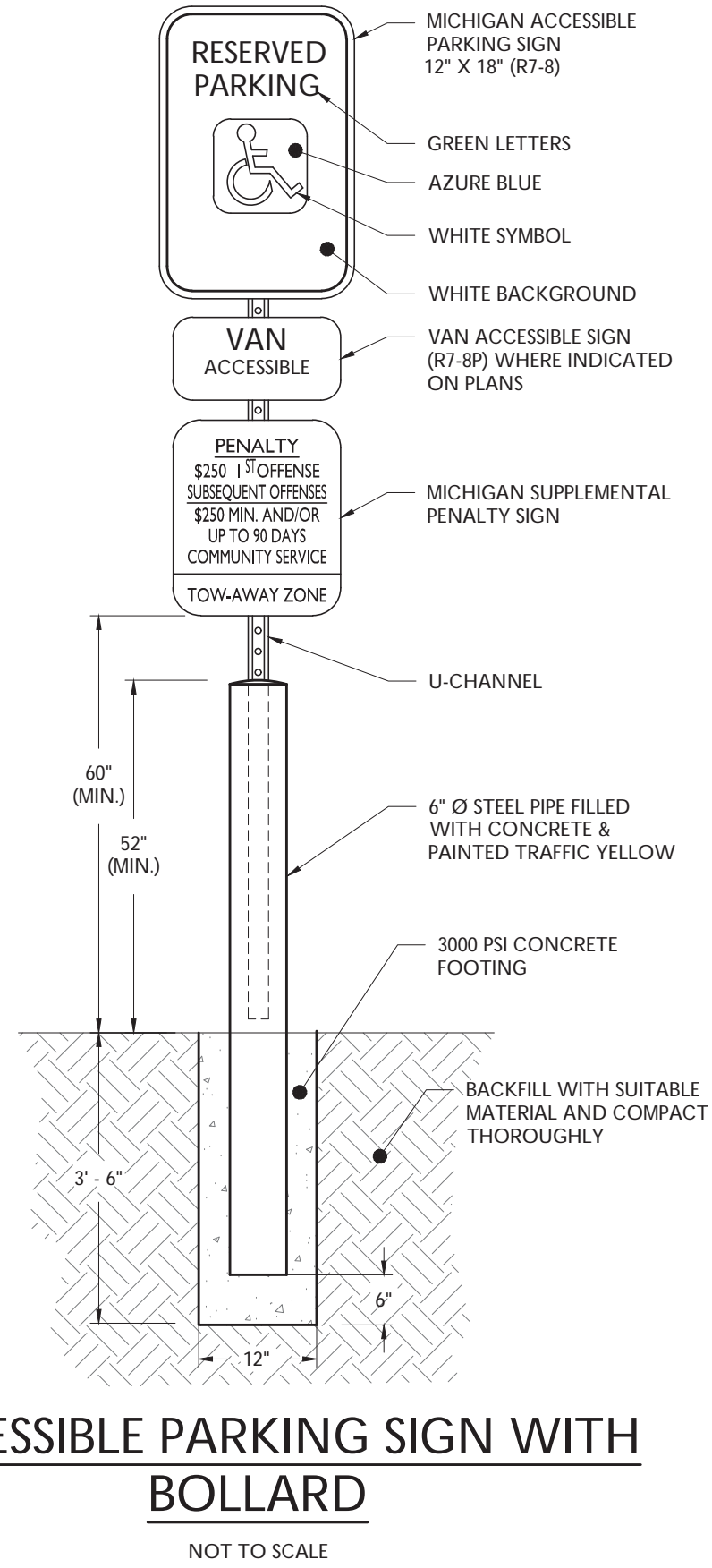
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SCALE: 1" = 30' PROJECT ID: DET-230229

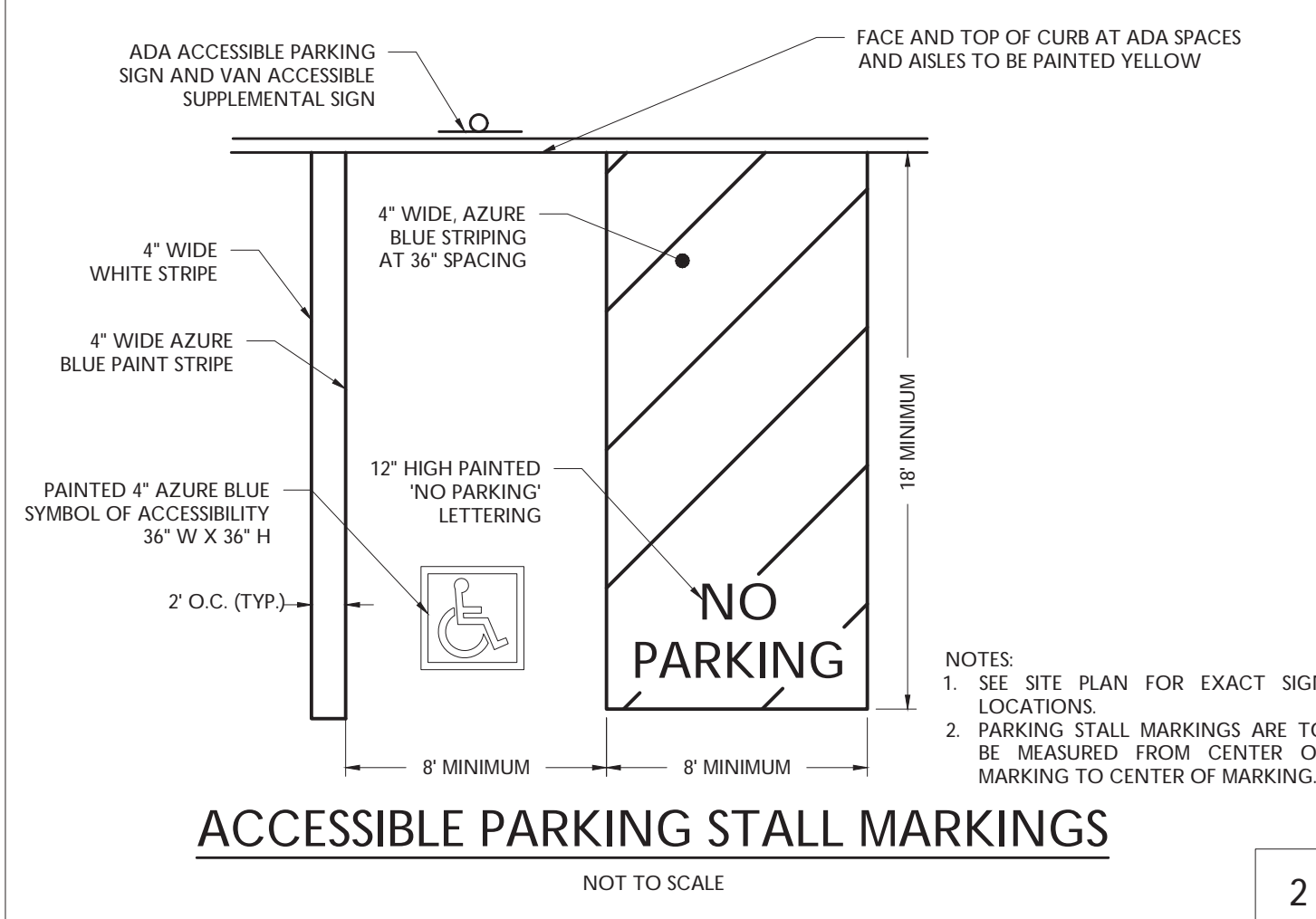
TITLE:
FIRE TRUCK TURNING ANALYSIS

DRAWING:
C-10

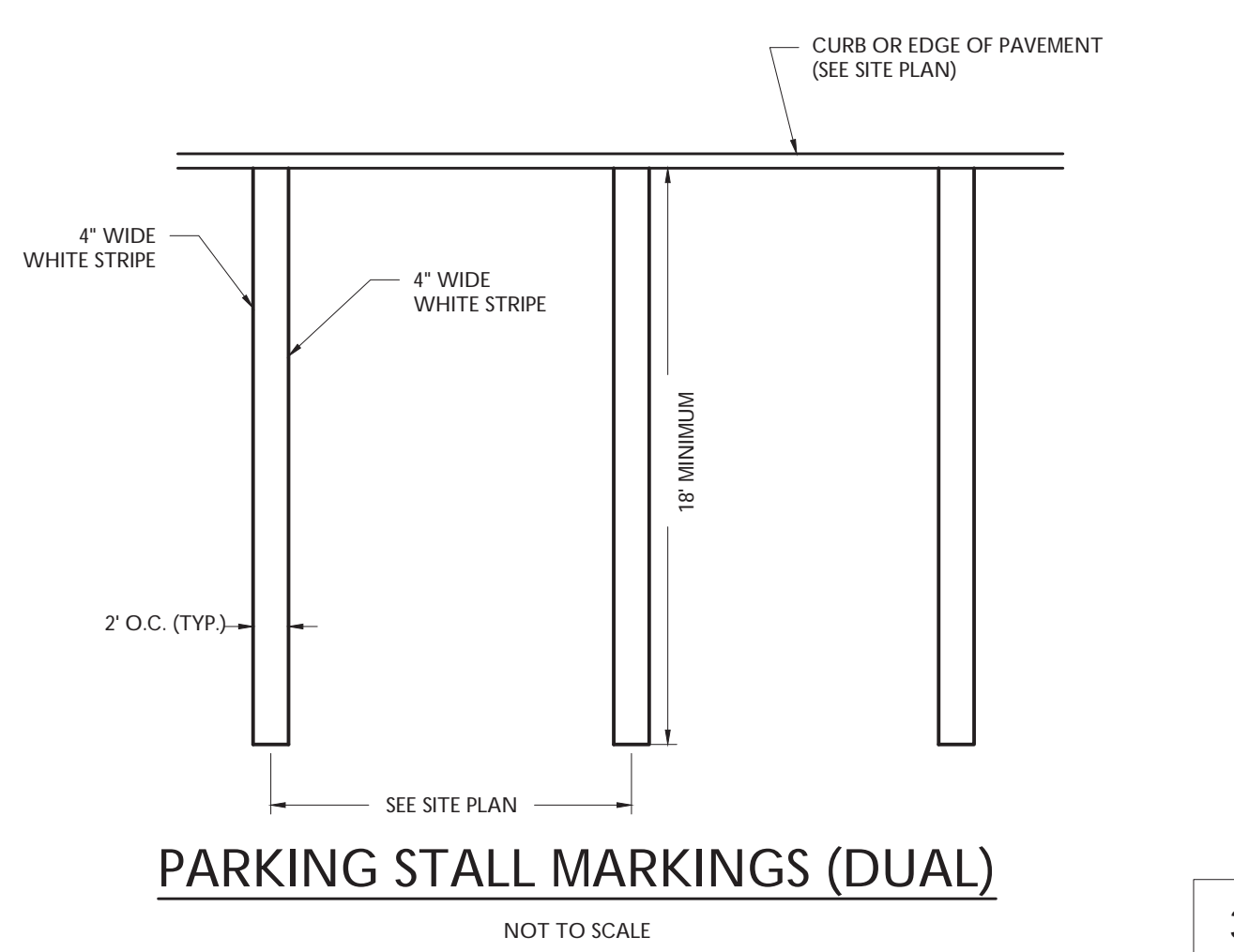
V:\0123\DET-230229\ATTN:18 INVESTMENT\9101 HIGHLAND ROAD, WHITE LAKE, MICHIGAN\LOT80P-91117\TRUCKING



ACCESSIBLE PARKING SIGN WITH BOLLARD
NOT TO SCALE

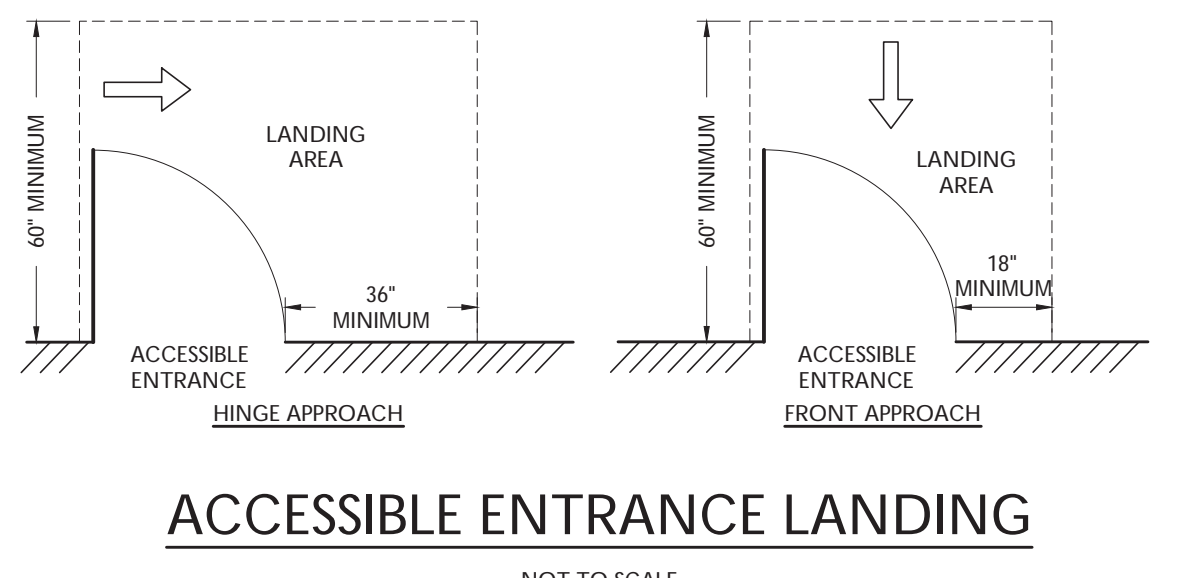


ACCESSIBLE PARKING STALL MARKINGS
NOT TO SCALE



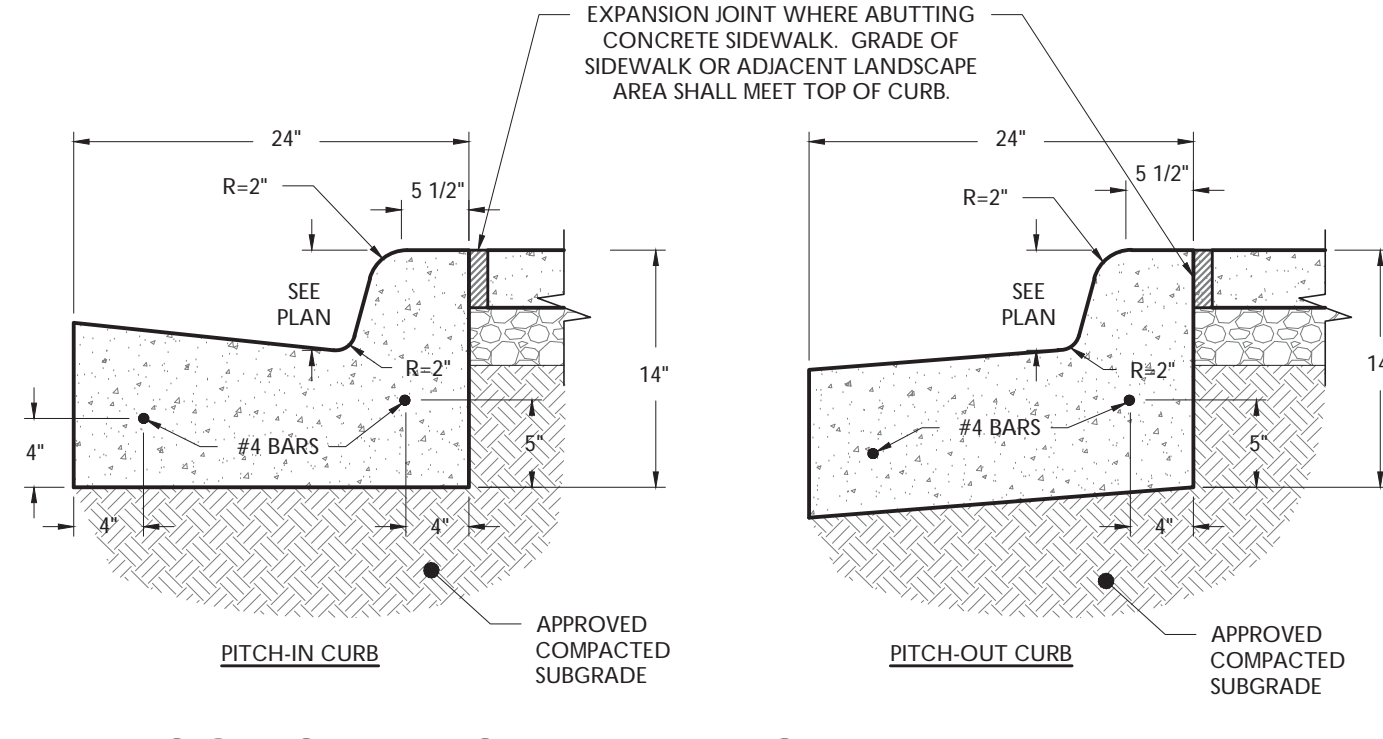
PARKING STALL MARKINGS (DUAL)
NOT TO SCALE

- PAVEMENT STRIPING & MARKINGS NOTES:**
1. ALL SIGNING AND STRIPING IN EXISTING CONDITION IN CONFLICT WITH THE PROPOSED DESIGN PLAN SHALL BE REMOVED.
 2. ALL PROPOSED SIGNING AND STRIPING SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
 3. PAVEMENT STRIPING AND MARKINGS SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL, COUNTY AND STATE REQUIREMENTS.
 4. UNLESS OTHERWISE SPECIFIED, ALL STRIPING AND MARKINGS IN THE PUBLIC RIGHT-OF-WAY SHALL BE OF THERMOPLASTIC PAINT OR PREFORMED THERMOPLASTIC MARKINGS.
 5. UNLESS OTHERWISE SPECIFIED, ON SITE PARKING STALL STRIPING, FIRE LANE STRIPING AND DIRECTIONAL ARROWS SHALL BE EPOXY PAINT. ON SITE STOP BARS, "DO NOT ENTER" BARS, AND ASSOCIATED LETTERING SHALL BE THERMOPLASTIC PAINT OR PREFORMED THERMOPLASTIC MARKINGS.



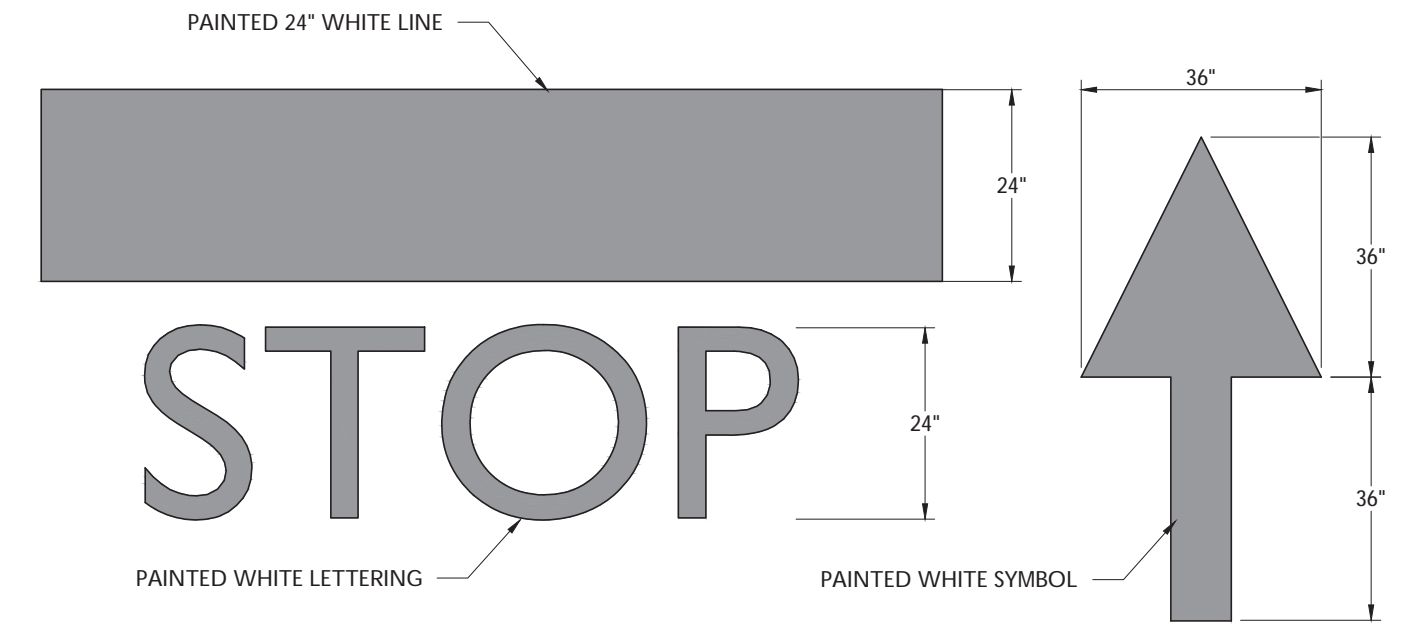
ACCESSIBLE ENTRANCE LANDING
NOT TO SCALE

- NOTES:**
1. MAXIMUM SLOPE ON LANDING SHALL BE 1:50 IN ALL DIRECTIONS.
 2. DIMENSIONS SHOWN HERE ARE THE MINIMUM DIMENSIONS REQUIRED FOR AN ADA COMPLIANT LANDING AT THE ACCESSIBLE ENTRANCE. REFER TO SITE PLAN FOR SITE SPECIFIC DIMENSIONS THAT MAY SPECIFY A LARGER LANDING AREA.
 3. CONTRACTOR SHALL CONTACT THE ENGINEER BEFORE CONSTRUCTION IF THE ACCESSIBLE ENTRANCE ON SITE DOES NOT MATCH THE SCENARIO SHOWN ABOVE.

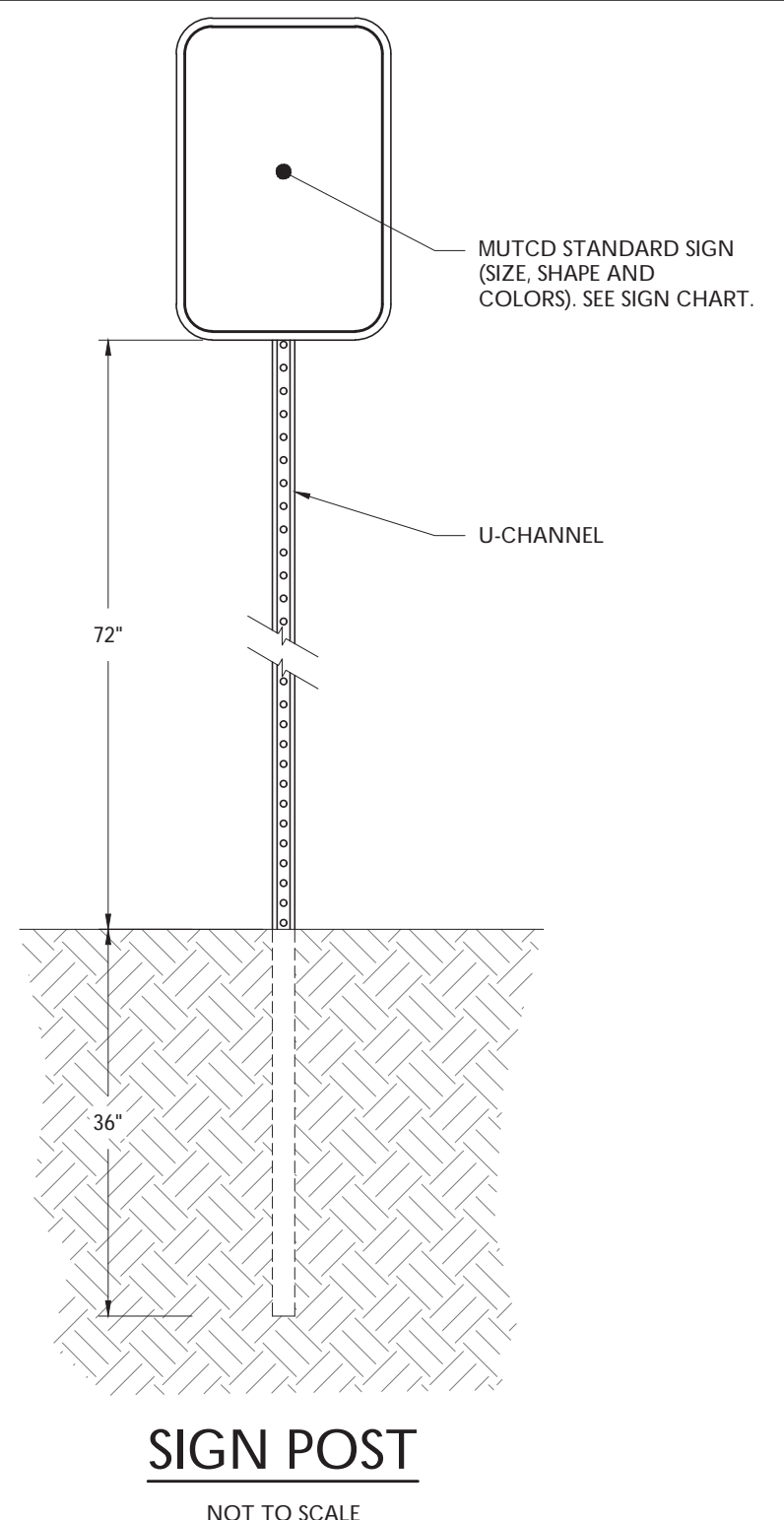


CONCRETE CURB AND GUTTER DETAIL (ON-SITE)
NOT TO SCALE

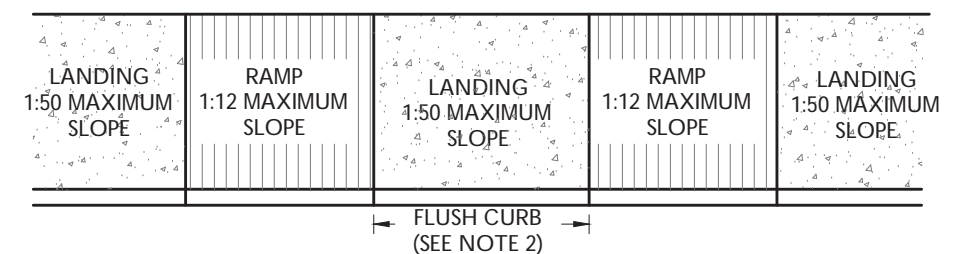
- NOTES:**
1. CONCRETE SHALL BE 3500 PSI AT 28 DAYS, AIR-ENTRAINED.
 2. TRANSVERSE EXPANSION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM SURFACE.
 3. HALF DEPTH CONTRACTION JOINTS SHALL BE PROVIDED AT 10 FOOT INTERVALS.
 4. 14" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.



STOP BAR & ARROW
NOT TO SCALE

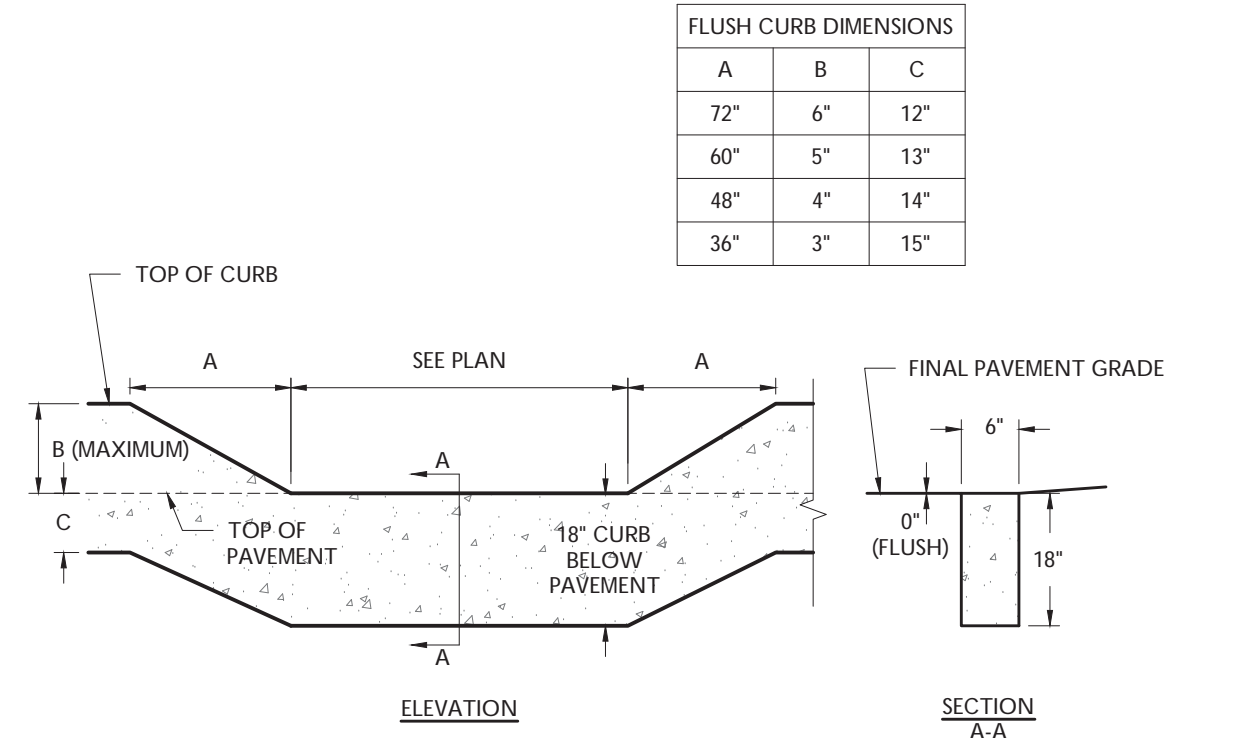


SIGN POST
NOT TO SCALE

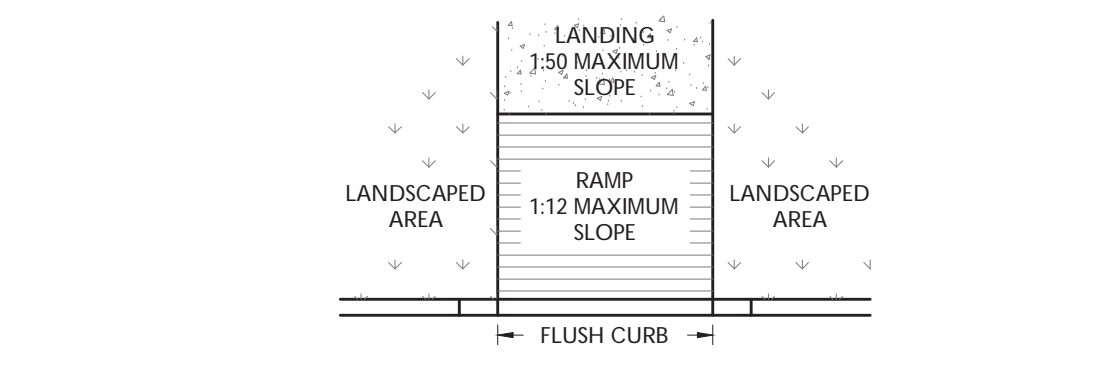


TRANSITION RAMP DETAIL
NOT TO SCALE

- NOTES:**
1. CROSS SLOPE ON RAMP SHALL NOT EXCEED 2%.
 2. A FLUSH CURB SHALL HAVE A MINIMUM WIDTH OF 36". SEE PLAN FOR EXACT WIDTH.
 3. RAMP SHALL HAVE A MAXIMUM RISE OF 6" WITHOUT A HANDRAIL.

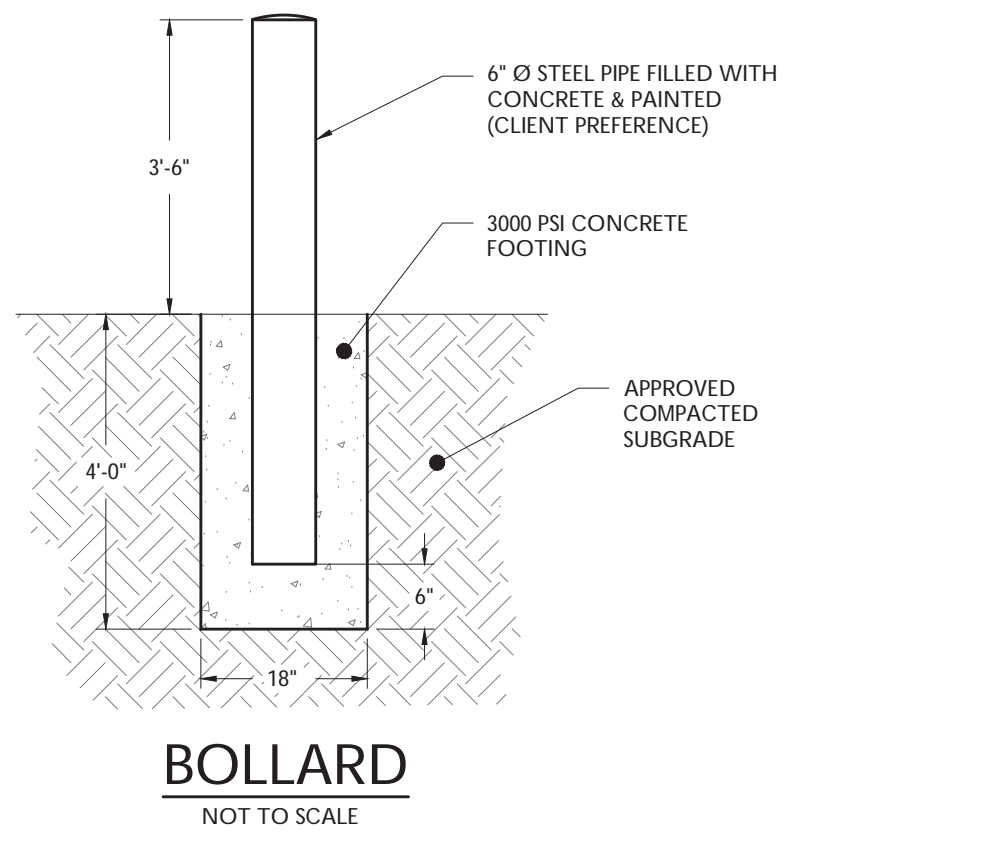


FLUSH CURB
NOT TO SCALE

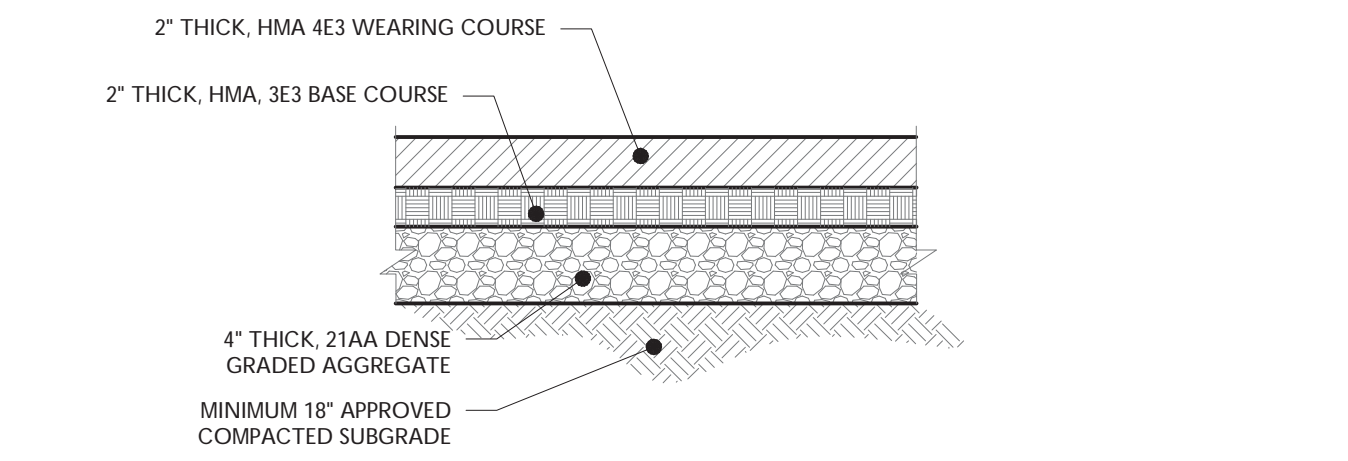


CURB RAMP DETAIL
NOT TO SCALE

- NOTES:**
1. CROSS SLOPE ON RAMP SHALL NOT EXCEED 2%.
 2. A FLUSH CURB SHALL HAVE A MINIMUM WIDTH OF 36". SEE PLAN FOR EXACT WIDTH.
 3. RAMP SHALL HAVE A MAXIMUM RISE OF 6" WITHOUT A HANDRAIL.



BOLLARD
NOT TO SCALE



ASPHALT WALKWAY DETAIL (FOR USE WITHIN MDOT ROW)
NOT TO SCALE

- NOTES:**
1. HMA MIX AND DENSE GRADED AGGREGATE SHALL CONFORM TO THE MICHIGAN DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

M.U.T.C.D. NUMBER	TEXT	COLOR LEGEND	BACKGROUND	SIZE OF SIGN (WIDTH X HEIGHT)	TYPE OF MOUNT
STOP SIGN (R1-1)		WHITE	RED	36"x36"	GROUND
DO NOT ENTER (RS-1)		RED	WHITE	30"x30"	GROUND

SIGN DATA TABLE
NOT TO SCALE

- NOTE:**
1. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) EXCEPT AS NOTED.
 2. ALL SIGNS SHALL BE MOUNTED AS TO NOT OBSTRUCT THE SHAPE OF "STOP" (R1-1) AND "YIELD" (R1-2) SIGNS.

8

12

13

14

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PROPOSED COMMERCIAL DEVELOPMENT

PARCEL ID: 12-23-227-003
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OAKLAND COUNTY, MICHIGAN

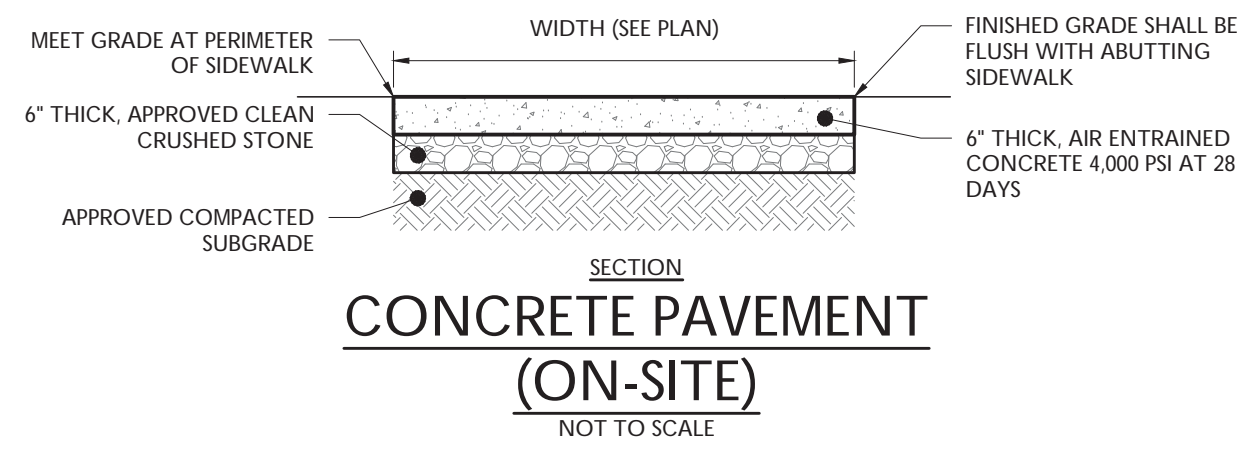
STATE OF MICHIGAN
JONATHAN REID
COOKSEY
ENGINEER

STONEFIELD
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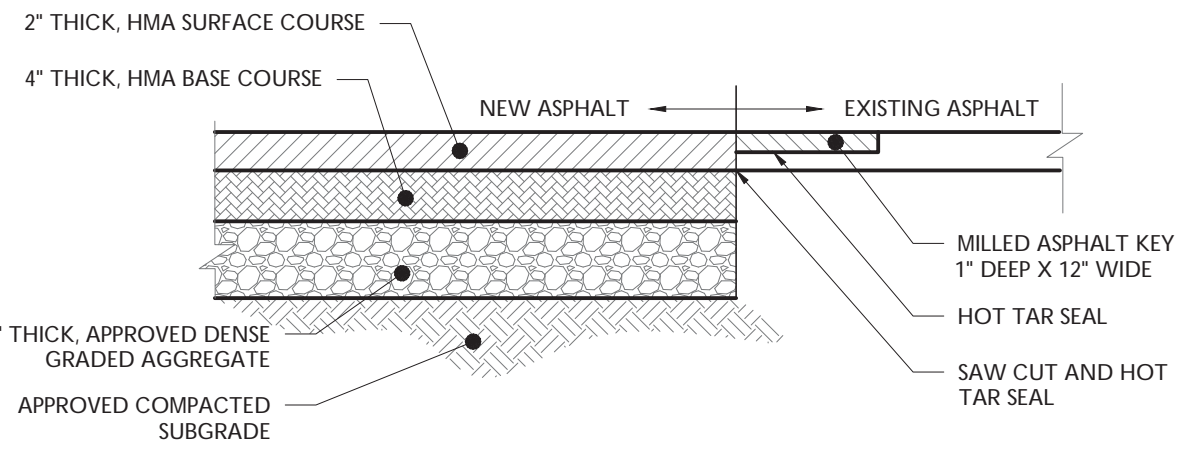
SCALE: AS SHOWN PROJECT ID: DET-230229

TITLE:
CONSTRUCTION DETAILS

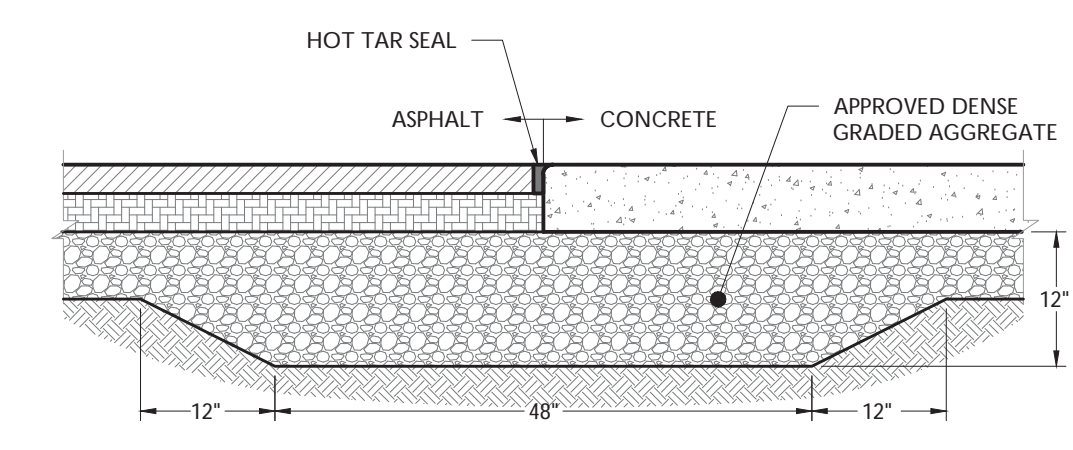
DRAWING:
C-12



- NOTES:
- 1/2" EXPANSION JOINTS WITH WATER SEAL SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/4" FROM THE SURFACE. LONGITUDINAL REBAR TO BE CUT AT EXPANSION JOINTS.
 - 1" DEEP BY 1/2" WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT MID-POINT BETWEEN EXPANSION JOINTS OR 6' INTERVALS MAX.
 - CONCRETE SHALL RECEIVE BROOM FINISH.
 - ALL EXPOSED CORNERS TO HAVE 12" CHAMFER.



NOTE:
HMA MIX AND DENSE GRADED AGGREGATE SHALL CONFORM TO STATE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.



CONCRETE TO ASPHALT TRANSITION
NOT TO SCALE

PANELS & GATE STYLES

71" Fence Panel (available in six heights) Flat and Arched Gates

36" (914mm) 42" (1067mm) 48" (1219mm) 54" (1372mm) 60" (1524mm) 72" (1829mm)

Walk Gates 4' & 5' Drive Gates 6'

*2 & 3 Rail options available
Meets ICC Pool Code (2 Rail Option Only)

Flat-Top 2 + 3 Rail, Flat-Top/Flat-Bottom 2 + 3 Rail, Extended Picket 2 + 3 Rail, Extended Picket/Flat-Bottom 2 + 3 Rail, Pressed Spool 2 + 3 Rail, Pressed Spool/Flat-Bottom 2 + 3 Rail, Flat Top 2 + 3 Rail, Pressed Spool/Flat Top Flat Bottom 3 Rail Only

HARDWARE & ACCESSORIES

Post + Post Accessories

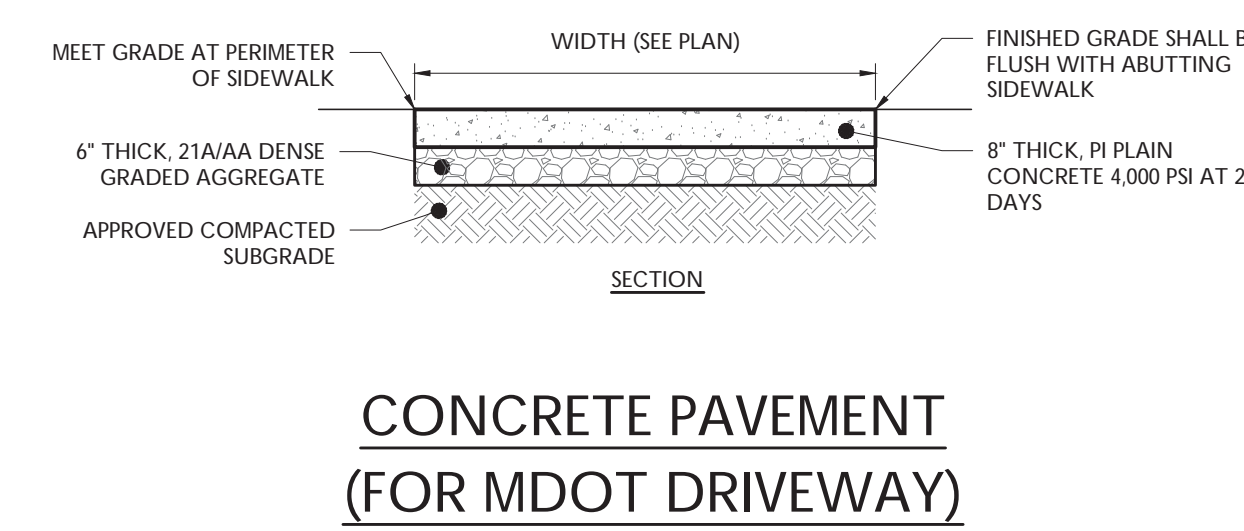
60" (1524mm), 66" (1676mm), 72" (1829mm), 78" (1981mm), 84" (2134mm), 90" (2286mm)

Punched 2" (50mm) and 2.5" (63mm)
Posts (End, Line, Corner and Blank) .060 and .125

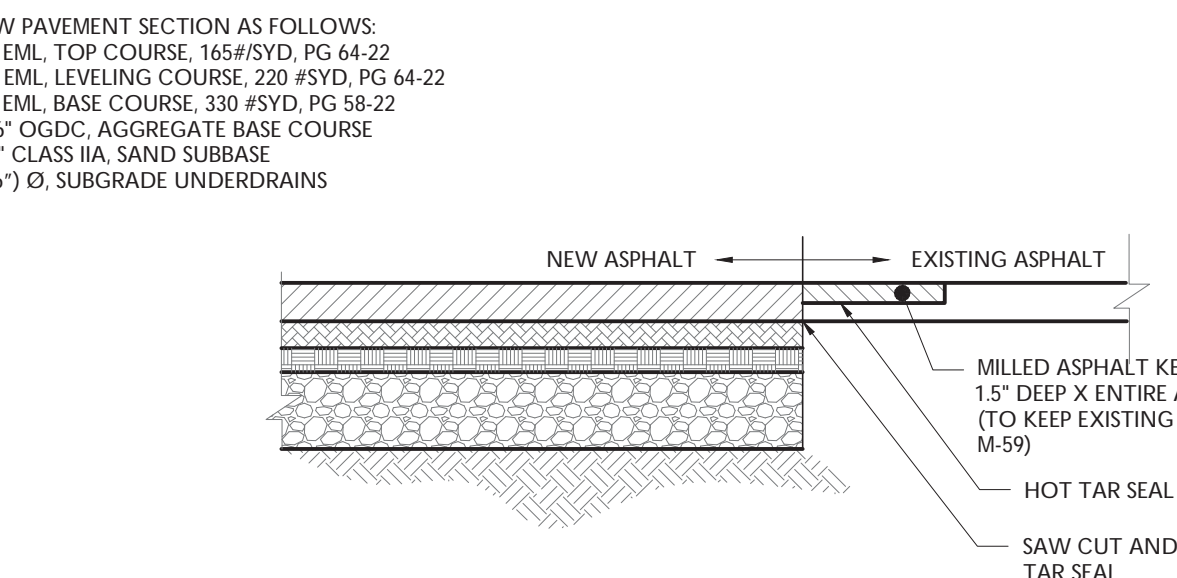
Pressed Dome Cap, Wall Mount Bracket, 2" Post Base Adapter, Swivel Bracket, Gate Latch and Hinge Kit

ATHENS™ Residential Aluminum Fence FORTRESS

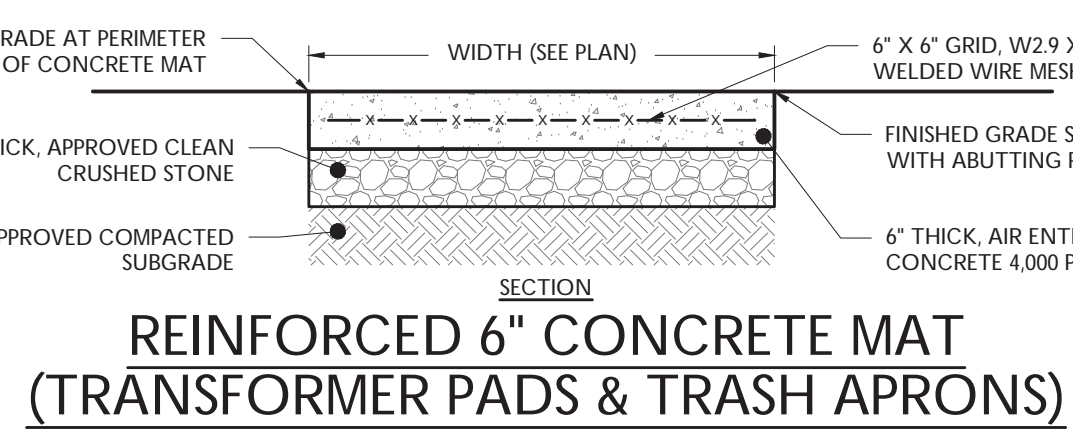
4 FT ALUMINUM FENCE SPECIFICATIONS
NOT TO SCALE



- NOTES:
- 1/2" EXPANSION JOINTS WITH WATER SEAL SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/4" FROM THE SURFACE. LONGITUDINAL REBAR TO BE CUT AT EXPANSION JOINTS.
 - 1" DEEP BY 1/2" WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT MID-POINT BETWEEN EXPANSION JOINTS OR 6' INTERVALS MAX.
 - CONCRETE SHALL RECEIVE BROOM FINISH.
 - ALL EXPOSED CORNERS TO HAVE 12" CHAMFER.

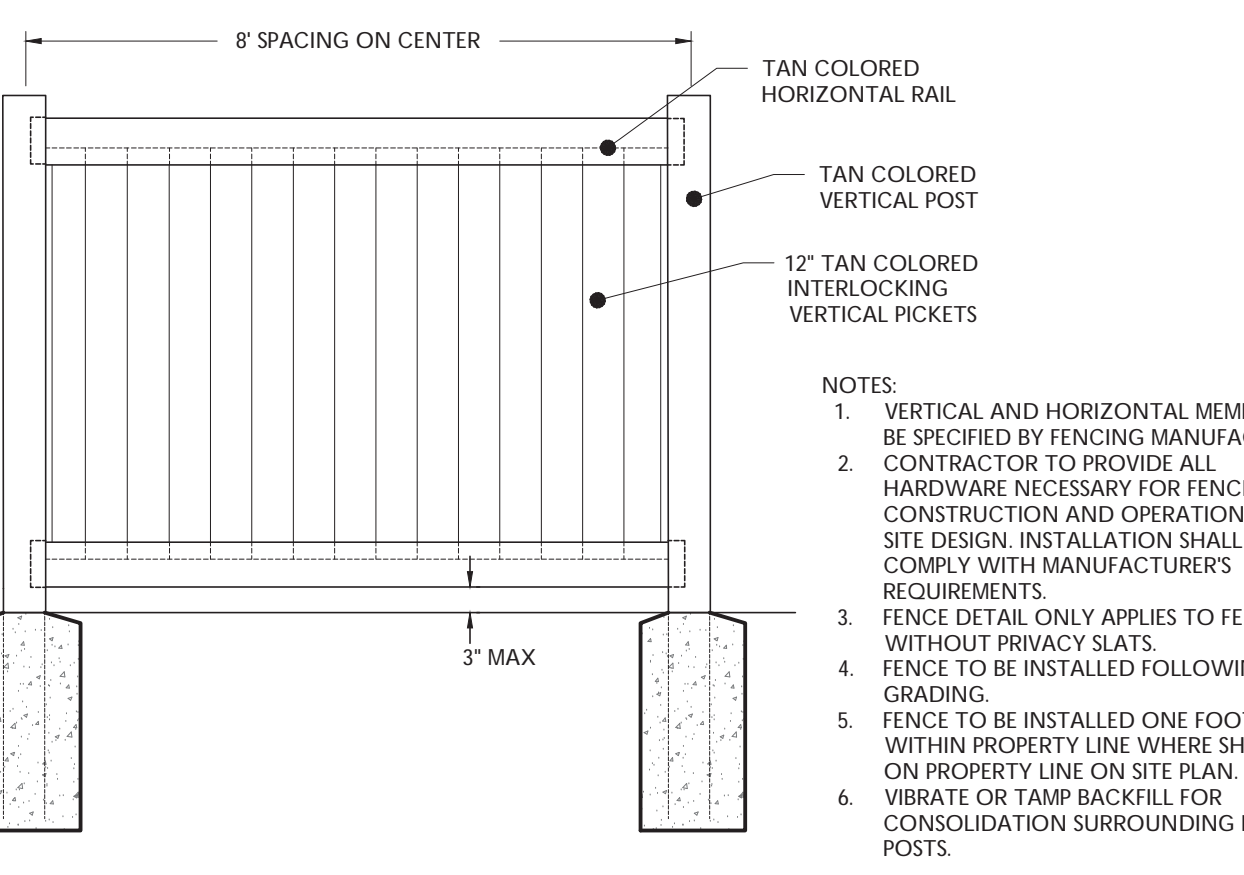


- BELOW PAVEMENT SECTION AS FOLLOWS:
- 5 EML TOP COURSE, 168#SYD, PG 64-22
 - 4 EML LEVELING COURSE, 220 #SYD, PG 64-22
 - 3 EML BASE COURSE, 330 #SYD, PG 58-22
 - 16" OGDC, AGGREGATE BASE COURSE
 - 8" CLASS IIA, SAND SUBBASE
 - (6") Ø, SUBGRADE UNDERDRAINS
- NOTES:
- HMA MIX AND DENSE GRADED AGGREGATE SHALL CONFORM TO THE MICHIGAN DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
 - IF EXISTING PAVEMENT THICKNESS IS GREATER, CONTRACTOR SHALL MATCH EXISTING CONDITIONS.



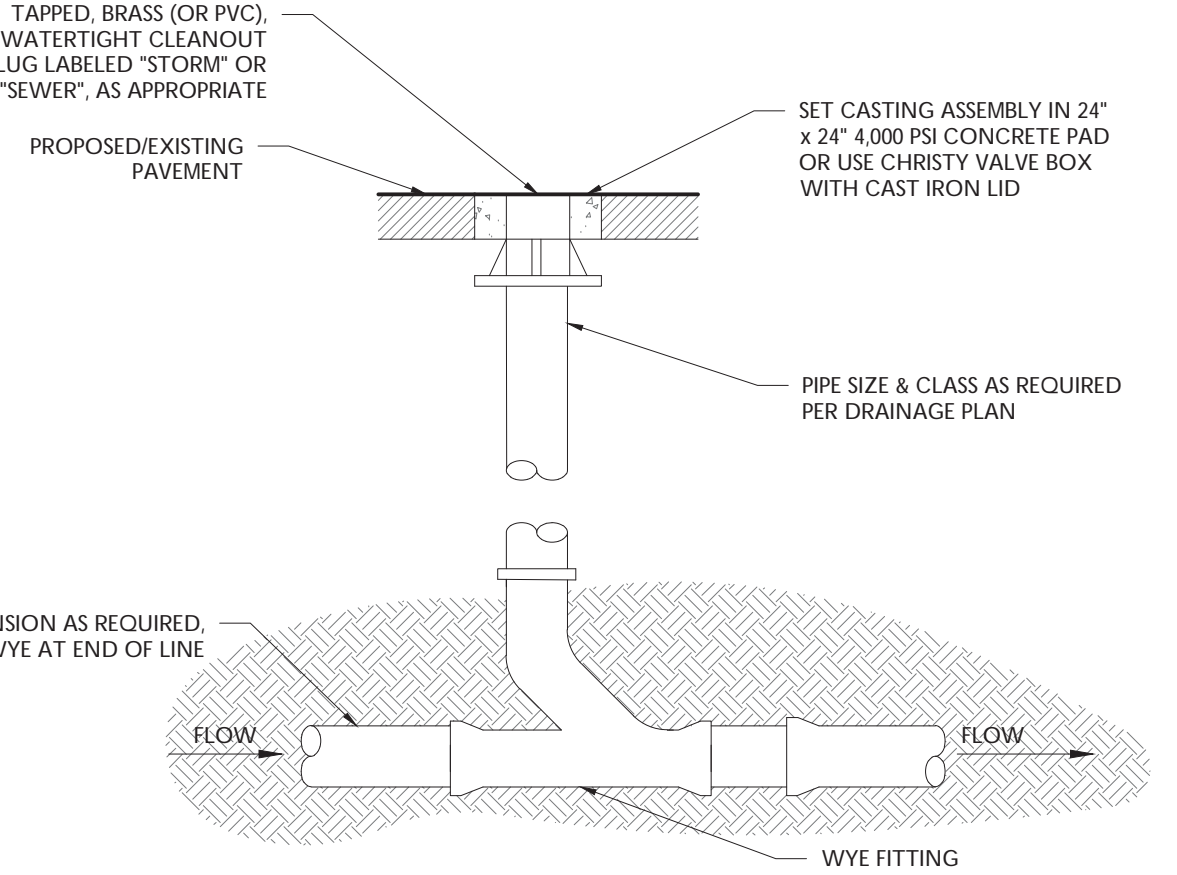
- NOTES:
- 1/2" EXPANSION JOINTS WITH WATER SEAL SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/4" FROM THE SURFACE. LONGITUDINAL REBAR TO BE CUT AT EXPANSION JOINTS.
 - 1" DEEP BY 1/2" WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT MID-POINT BETWEEN EXPANSION JOINTS OR 6' INTERVALS MAX.
 - CONCRETE SHALL RECEIVE BROOM FINISH.
 - ALL EXPOSED CORNERS TO HAVE 12" CHAMFER.

REINFORCED 6" CONCRETE MAT (TRANSFORMER PADS & TRASH APRONS)
NOT TO SCALE

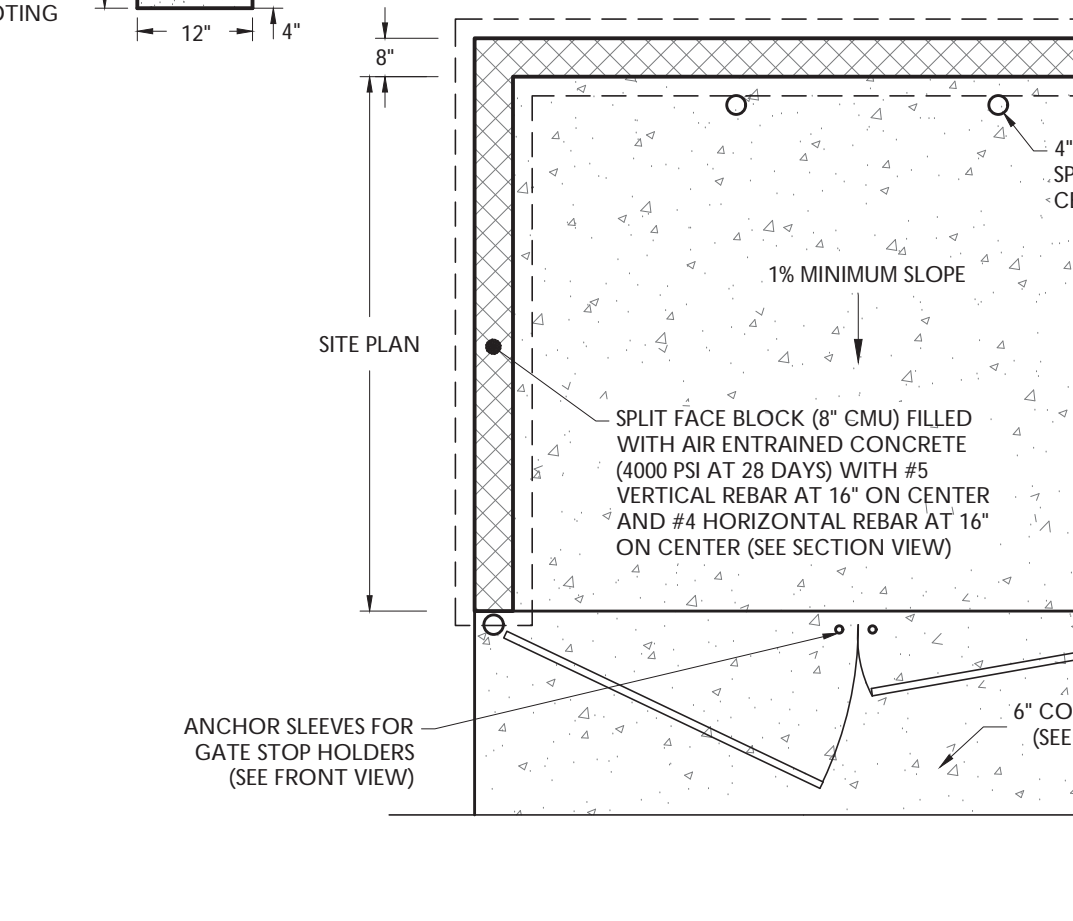
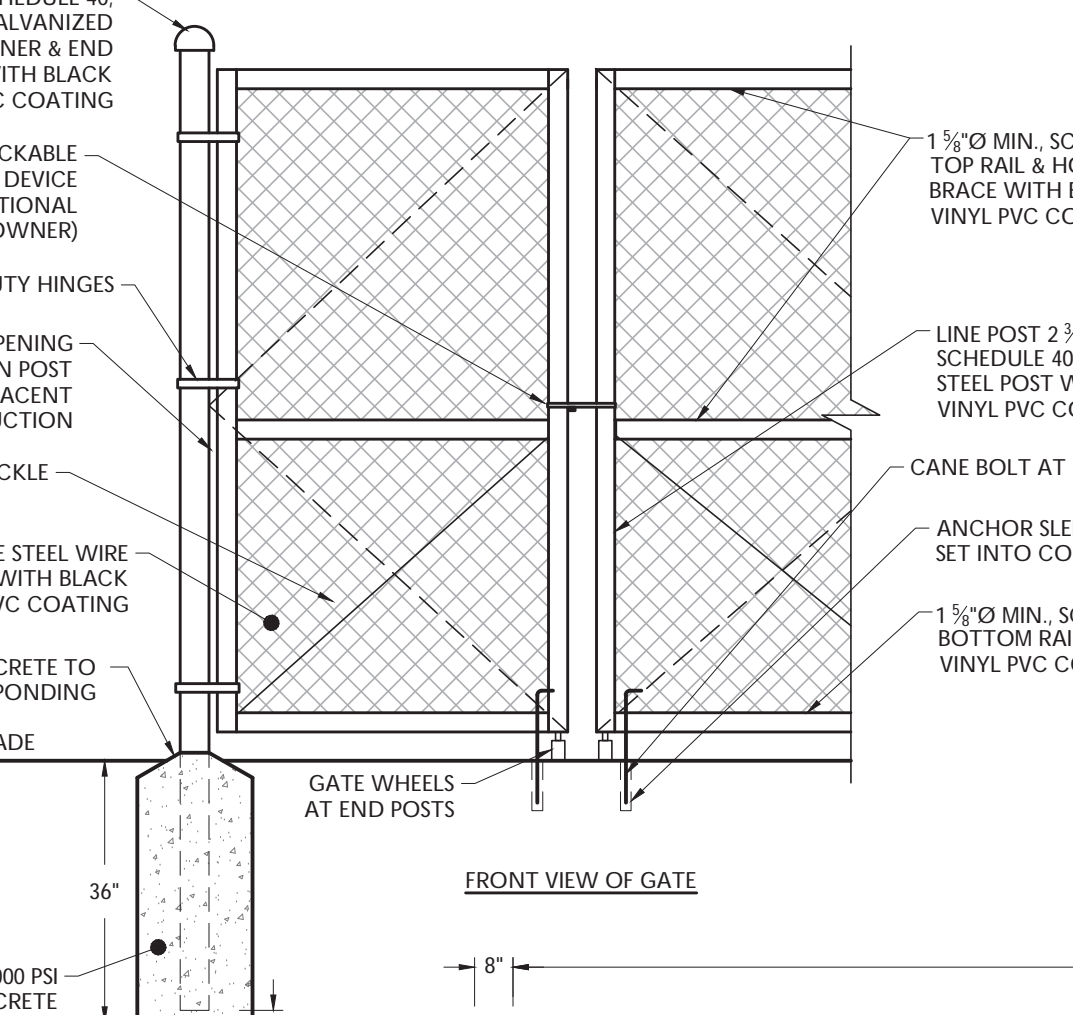


- NOTES:
- VERTICAL AND HORIZONTAL MEMBER TO BE SPECIFIED BY FENCING MANUFACTURER.
 - CONTRACTOR TO PROVIDE ALL HARDWARE NECESSARY FOR FENCE CONSTRUCTION AND OPERATION, PER SITE DESIGN. INSTALLATION SHALL COMPLY WITH MANUFACTURER'S REQUIREMENTS.
 - FENCE DETAIL ONLY APPLIES TO FENCE WITHOUT PRIVACY SLATS.
 - FENCE TO BE INSTALLED FOLLOWING SITE GRADING.
 - FENCE TO BE INSTALLED ONE FOOT WITHIN PROPERTY LINE WHERE SHOWN ON PROPERTY LINE ON SITE PLAN.
 - VIBRATE OR TAMP BACKFILL FOR CONSOLIDATION SURROUNDING FENCE POSTS.

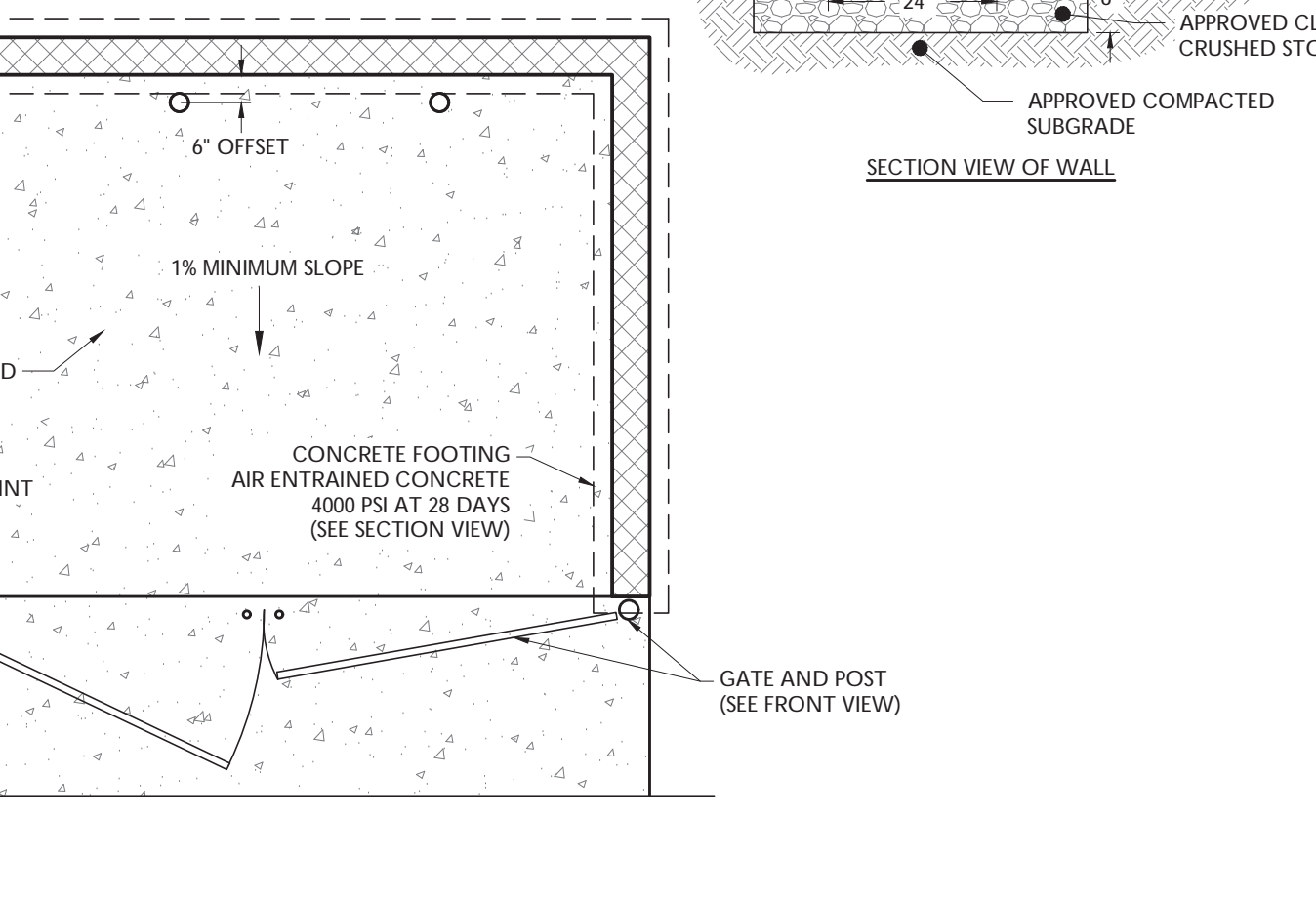
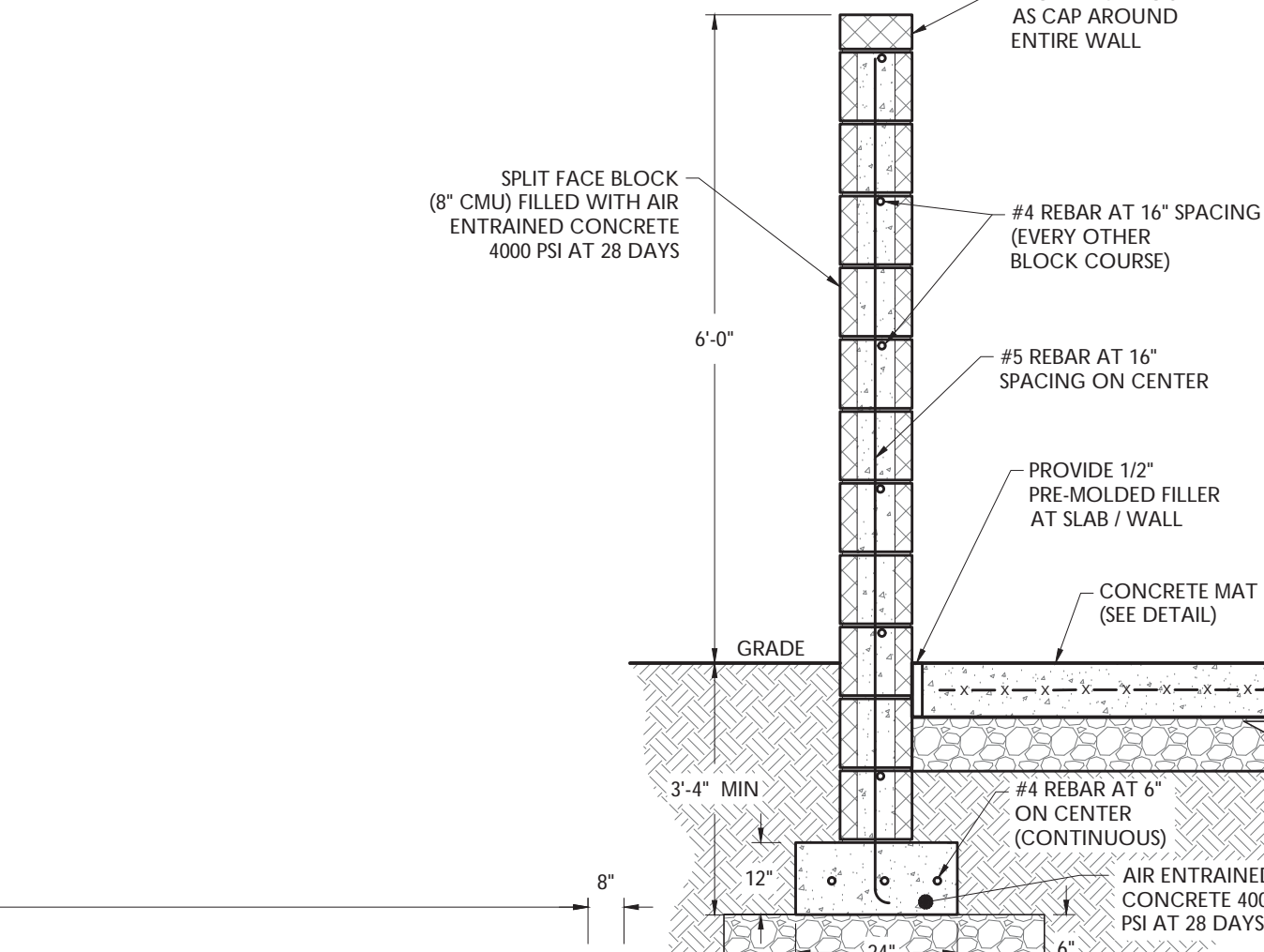
6 FT VINYL FENCE DETAIL
NOT TO SCALE



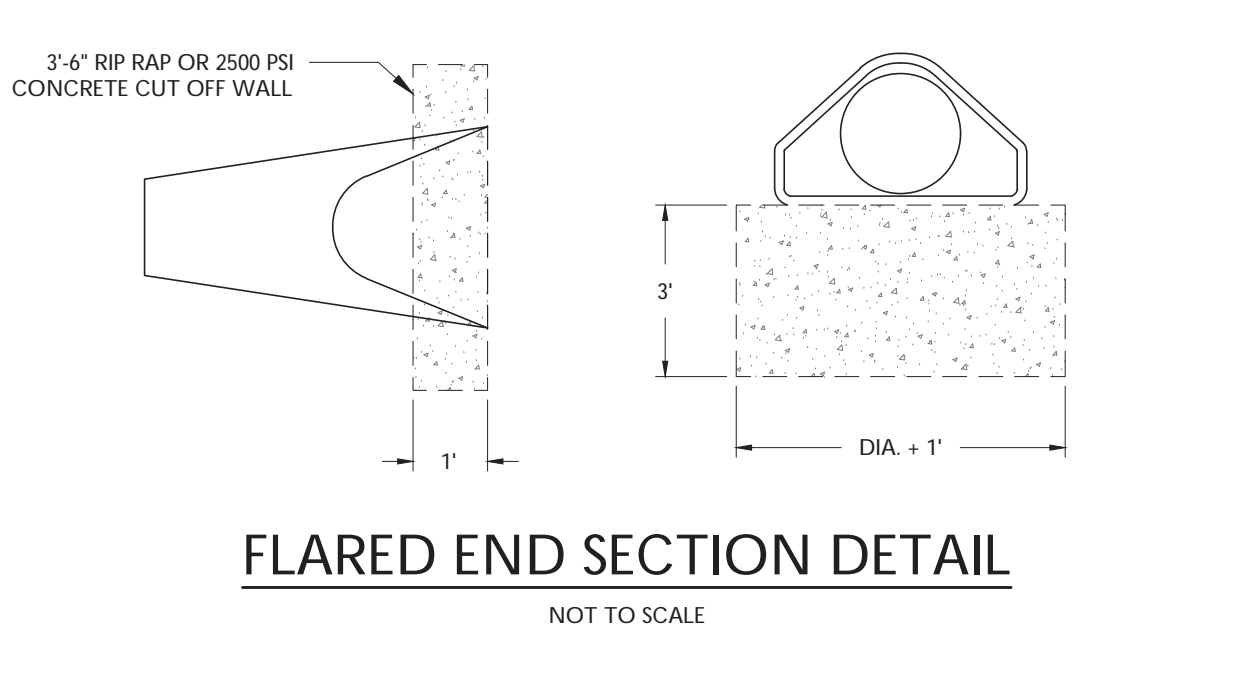
HARDSCAPE CLEAN-OUT
NOT TO SCALE



DOUBLE TRASH / RECYCLE ENCLOSURE DETAIL
NOT TO SCALE



DOUBLE TRASH / RECYCLE ENCLOSURE DETAIL
NOT TO SCALE



FLARED END SECTION DETAIL
NOT TO SCALE

REVISION	DATE	ISSUE	BY	DESCRIPTION
5	10/17/2024	EM		REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JJP		FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JJP		SUBMISSION FOR REVISED REZONING REQUEST
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1	11/09/2023	JRC/JJP		SUBMISSION FOR REZONING

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SITE DEVELOPMENT PLANS

9101 HIGHLAND ROAD

PROPOSED COMMERCIAL DEVELOPMENT

PARCEL ID: 12-23-227-003
9101 HIGHLAND ROAD
WHITE LAKE TOWNSHIP
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN
JONATHAN REID
COCKEY
ENGINEER
PROFESSIONAL ENGINEER
LICENSE NO. 94000

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SCALE: AS SHOWN PROJECT ID: DET-230229

TITLE:
CONSTRUCTION DETAILS

DRAWING:
C-13

NOT TO SCALE. DATE: 12/20/2024. DRAWING: 13. INVESTMENT: 100.00. HIGHWAY: 10. WHITE LAKE, MICHIGAN. PROJECT: 23-0229. SHEET: 13 OF 13.

Mirada Medium (MRM)
Outdoor LED Area Light

MRM-LED-30L-SIL-FT-30-70CRI-L-IES
MRM-LED-18L-SIL-FT-30-70CRI-IES

OVERVIEW	
Lumen Package	7000 - 48,000
Wattage Range	53 - 401
Efficacy Range (LPW)	93 - 148
Weight (lbs/kg)	30 (13.6)

QUICK LINKS
[Ordering Guide](#) | [Performance](#) | [Photometrics](#) | [Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Designed to mount to square or round poles.
- Fixtures are finished with LSI's DuraGrip polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 30 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide excellent coverage and uniformity in IES Types 2, 3, 5W, FT, FTA and AM.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero spillage.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak Intensity at 60nm.
- Minimum CRI of 70.
- Integral luminaire (L) and house-side shield (H) options available for improved backlight control without sacrificing street side performance. See page 3 for more details.

Electrical

- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (0% - 100%) standard.
- Standard Universal Voltage (20-277 Vac) Input 50/60 Hz or optional High Voltage (247-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance on Page 5)
- Total harmonic distortion <20%.
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L and 48L luminaire packages rated to +40°C.
- Power factor: >90.
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls

- Optional integral passive infrared Bluetooth™ motion and photocell sensor (see page 9 for more details). Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7. (See page 9 for more details).

Installation

- A single fastener secures the electrical door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes LSI's traditional "J" drill pattern B3 for easy fastening of LSI products. (See drawing on page 9)

Warranty

- LSI LED Fixtures carry a 5-year warranty.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Bureau of Energy Efficiency requirements.
- ICDA compliant, with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations.
- IP66 rated Luminaire per IEC 60598.
- UL listed for ANSI C136.3 high vibration applications are qualified.

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Mirada Medium Outdoor LED Area Light

ORDERING GUIDE | [Back to Quick Links](#)

TYPICAL ORDER EXAMPLE: **MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL**

Component	Part Number	Description	Value	Option
Luminaire	MRM-LED-30L-SIL-FT-30-70CRI-L-IES	30" LED Area Light	7000-48000 Lumens	
Light Source	LED	LED	7000-48000 Lumens	
Light Output	3000-10000 lm	3000-10000 lm	3000-10000 lm	
Beam Spread	12°-24°	12°-24°	12°-24°	
Color Temp	3000K-5000K	3000K-5000K	3000K-5000K	
Color Rendering	93-148	93-148	93-148	
Finish	BRZ	Brushed Aluminum	BRZ	
Options	IL	Integral Luminaire (L) and House-Side Shield (H)	IL	

Accessories

Accessory	Part Number	Description
PCSB	PCSB	PCSB
PCSB-DT	PCSB-DT	PCSB-DT
PCSB-DT-2	PCSB-DT-2	PCSB-DT-2
PCSB-DT-3	PCSB-DT-3	PCSB-DT-3
PCSB-DT-4	PCSB-DT-4	PCSB-DT-4
PCSB-DT-5	PCSB-DT-5	PCSB-DT-5
PCSB-DT-6	PCSB-DT-6	PCSB-DT-6
PCSB-DT-7	PCSB-DT-7	PCSB-DT-7
PCSB-DT-8	PCSB-DT-8	PCSB-DT-8
PCSB-DT-9	PCSB-DT-9	PCSB-DT-9
PCSB-DT-10	PCSB-DT-10	PCSB-DT-10
PCSB-DT-11	PCSB-DT-11	PCSB-DT-11
PCSB-DT-12	PCSB-DT-12	PCSB-DT-12
PCSB-DT-13	PCSB-DT-13	PCSB-DT-13
PCSB-DT-14	PCSB-DT-14	PCSB-DT-14
PCSB-DT-15	PCSB-DT-15	PCSB-DT-15
PCSB-DT-16	PCSB-DT-16	PCSB-DT-16
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PCSB-DT-99	PCSB-DT-99	PCSB-DT-99
PCSB-DT-100	PCSB-DT-100	PCSB-DT-100

Accessories

Mounting Accessories

- Universal Mounting Bracket
- Adjustable Slip Fitter (2" - 2.5" Tube)
- Incorporate Slip Fitter (2" - 2.5" Tube)
- Quick Mount Pole Bracket (Square Pole)
- Quick Mount Pole Bracket (Round Pole)
- 1.5" Dia Quick Mount Pole Bracket (Square Pole)
- 1.5" Dia Quick Mount Pole Bracket (Round Pole)
- Wall Mount Bracket
- Shelf Mount Bracket (Minimum Pole Diameter)

Fastening Accessories

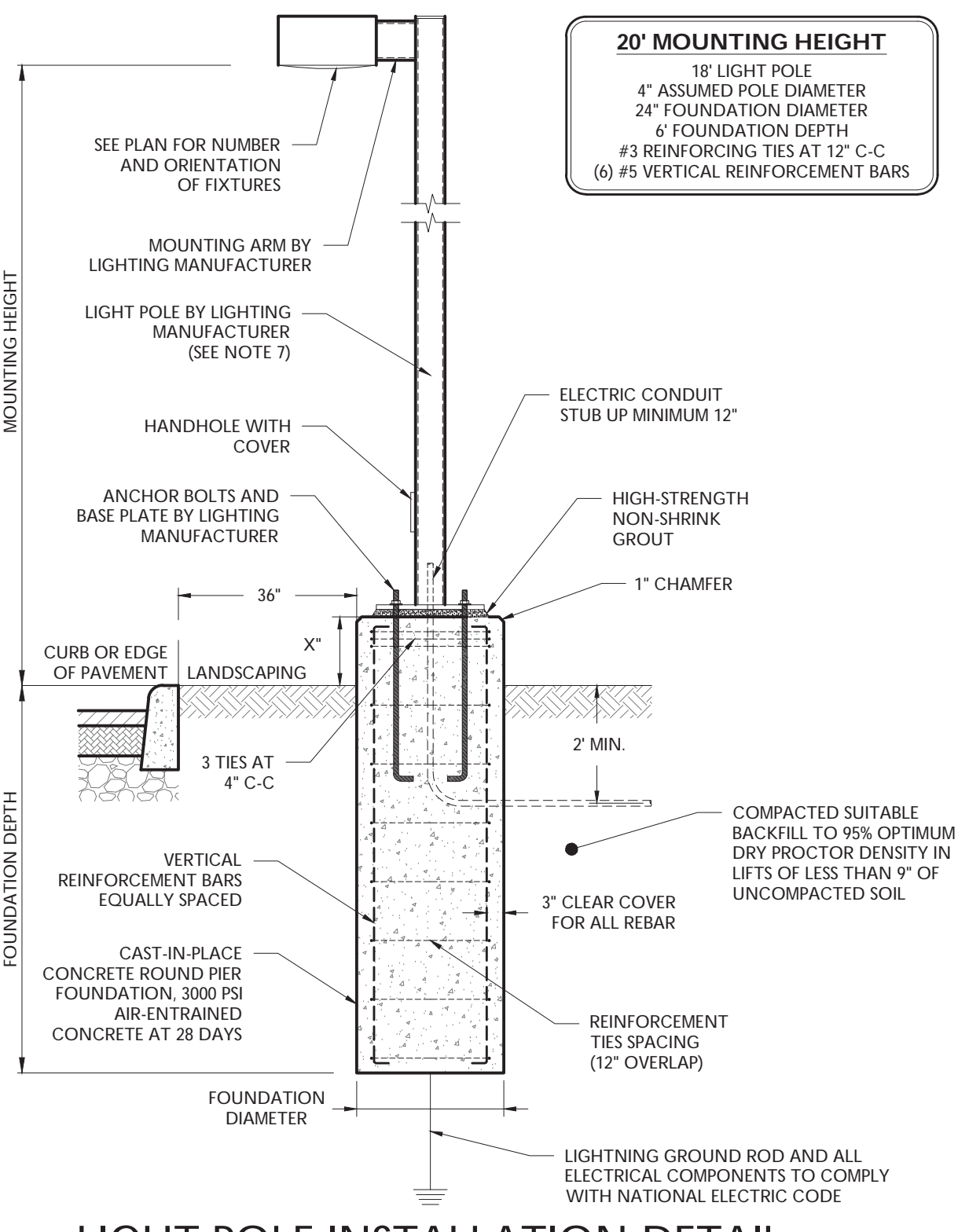
- Single Flange (1/2")
- Single Flange (3/4")
- Double Flange (1/2")
- Double Flange (3/4")
- Double Flange (1")
- Double Flange (1.5")

FOOTNOTES:

- Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not D.L.C. listed.
- Only available with 50k distribution.
- Consult factory for availability.
- Not available in NY.
- IP66 is field configurable via the LSI app that can be downloaded from your smartphone's app store.
- Control device or shorting cap must be ordered separately. See Accessory Ordering Information.

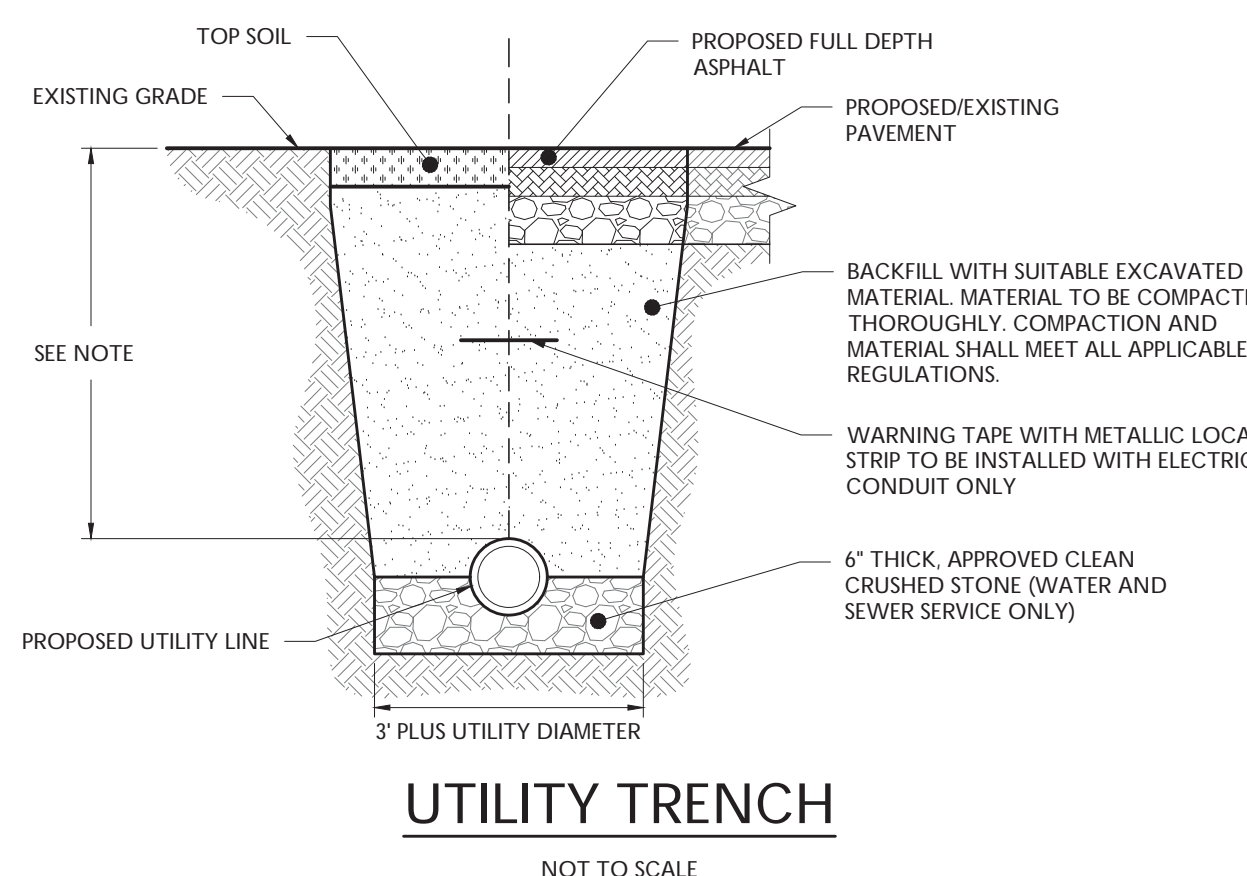
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SPECIFICATIONS FOR FIXTURES 'A' & 'B'

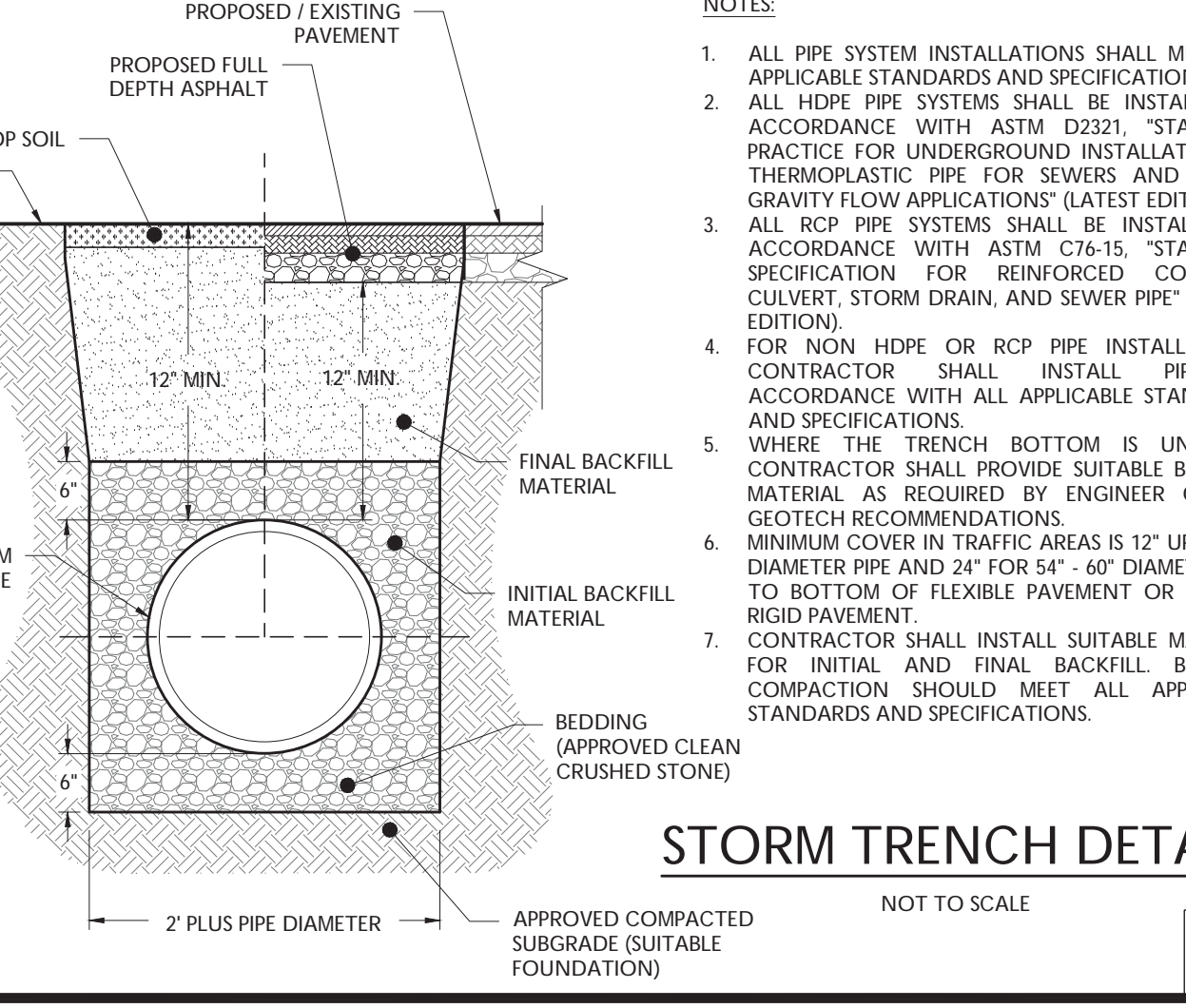


LIGHT POLE INSTALLATION DETAIL

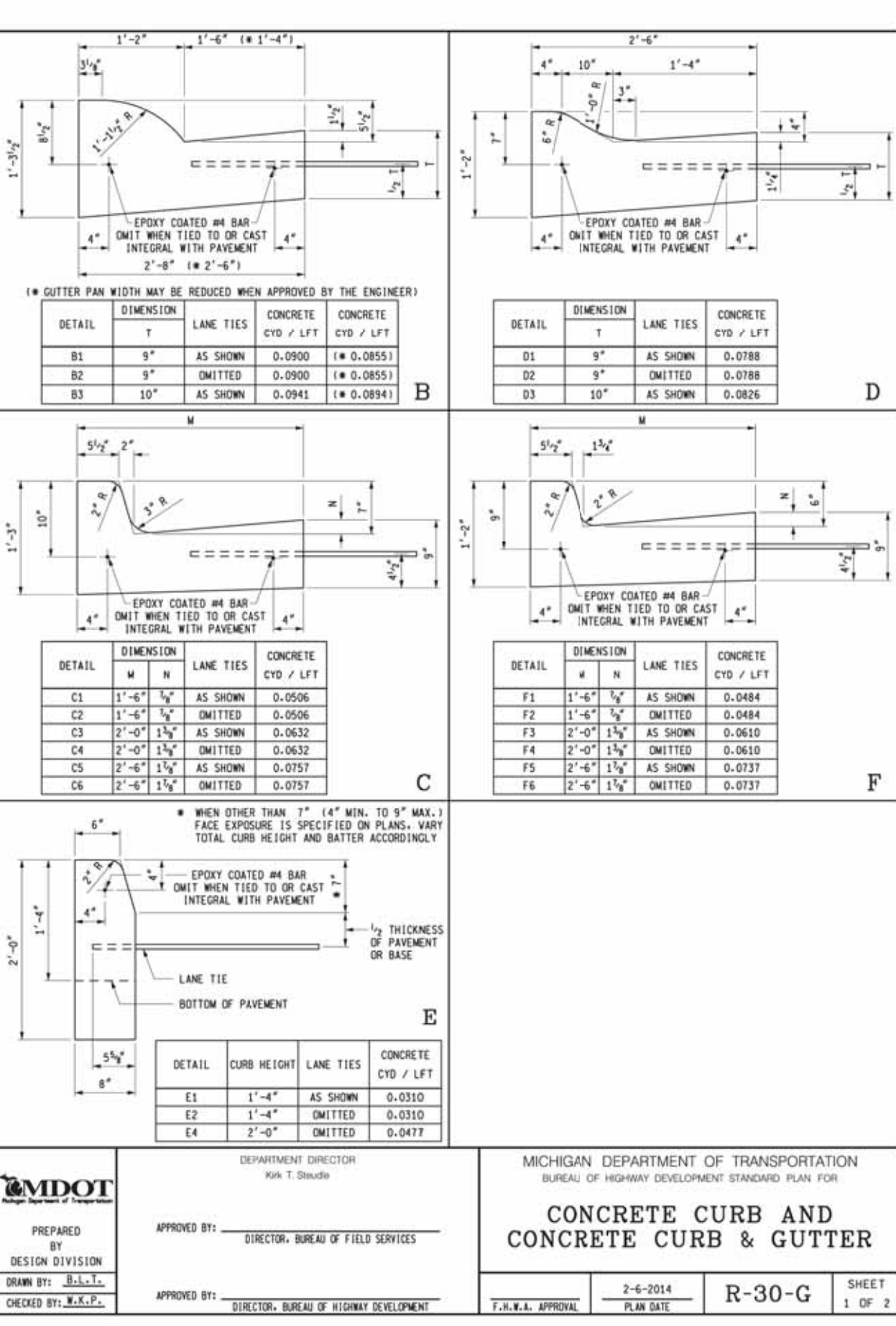
- NOT TO SCALE
- NOTES:
- MINIMUM SOIL BEARING PRESSURE OF 1500 PSF. SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
 - CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
 - ALL REBAR TO BE NEW GRADE 60 STEEL.
 - PRE-CAST PIERS ACCEPTABLE UPON WRITTEN APPROVAL OF SHOP DRAWING BY ENGINEER.
 - CONCRETE TO BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO INSTALLING LIGHT POLE. POURED CONCRETE MIX REQUIRED TO OBTAIN 80% OF DESIGN STRENGTH PRIOR TO INSTALLING LIGHT POLE.
 - CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4" (WITHIN 1" TOLERANCE).
 - POLE SHALL BE RATED FOR 10 MPH HIGHER THAN MAXIMUM WIND SPEED 33FT ABOVE GROUND FOR THE AREA BASED ON ANS/ASCE 7-93.
 - POUR TO BE TERMINATED AT A FORM.
 - WORK SHALL CONFORM TO ACI BEST PRACTICES FOR APPROPRIATE TEMPERATURE AND WEATHER CONDITIONS.
 - CONTRACTOR TO TEMPORARILY SUPPORT ADJACENT SOIL AND STRUCTURES DURING EXCAVATION IF REQUIRED.



- NOT TO SCALE
- NOTES:
- MINIMUM PIPE COVER SHALL BE AS FOLLOWS:
 - ELECTRIC SERVICE - PER APPLICABLE UTILITY AUTHORITY
 - GAS SERVICE - PER APPLICABLE UTILITY AUTHORITY
 - SEWER SERVICE - 36" MINIMUM
 - WATER SERVICE - 48" MINIMUM

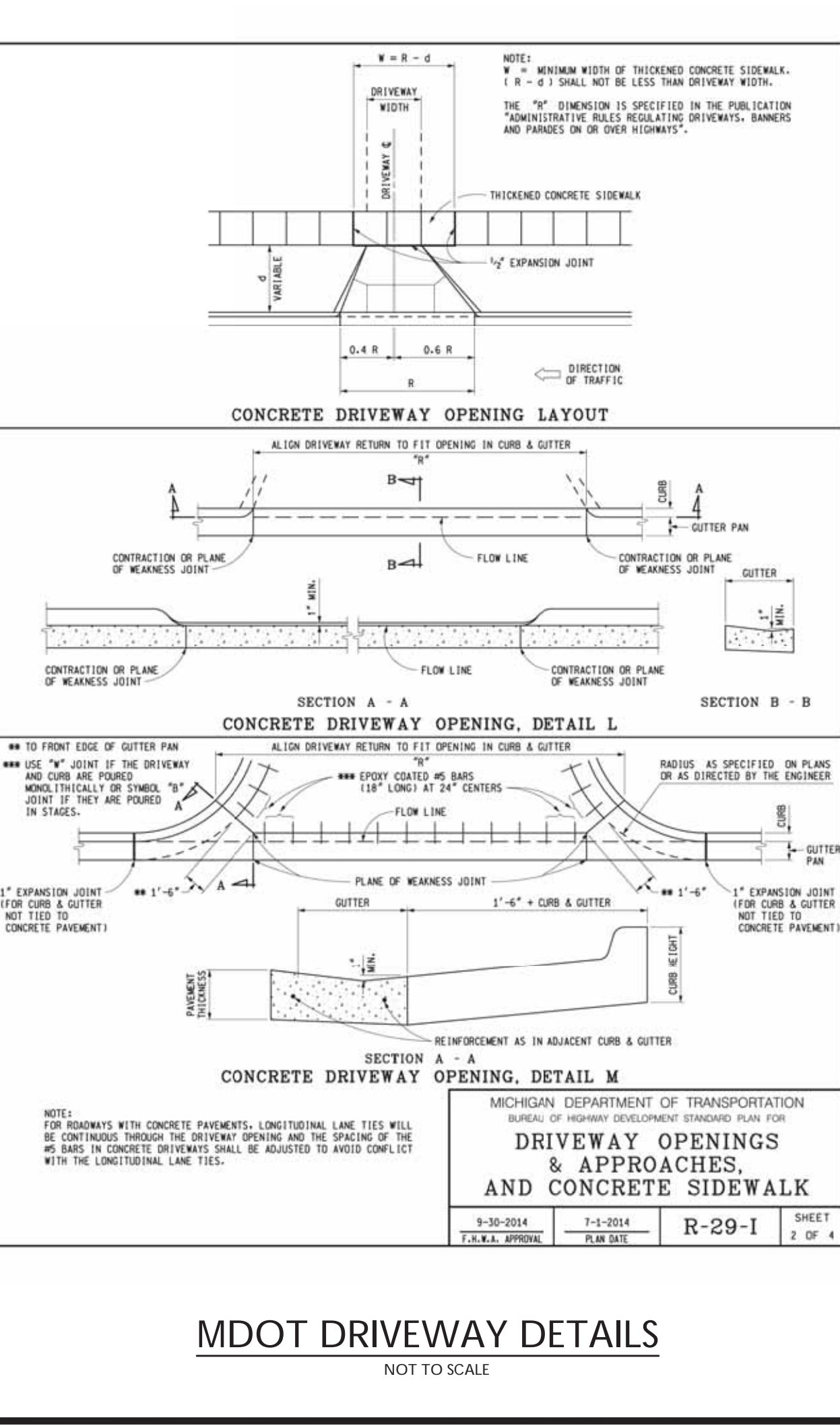


STORM TRENCH DETAIL



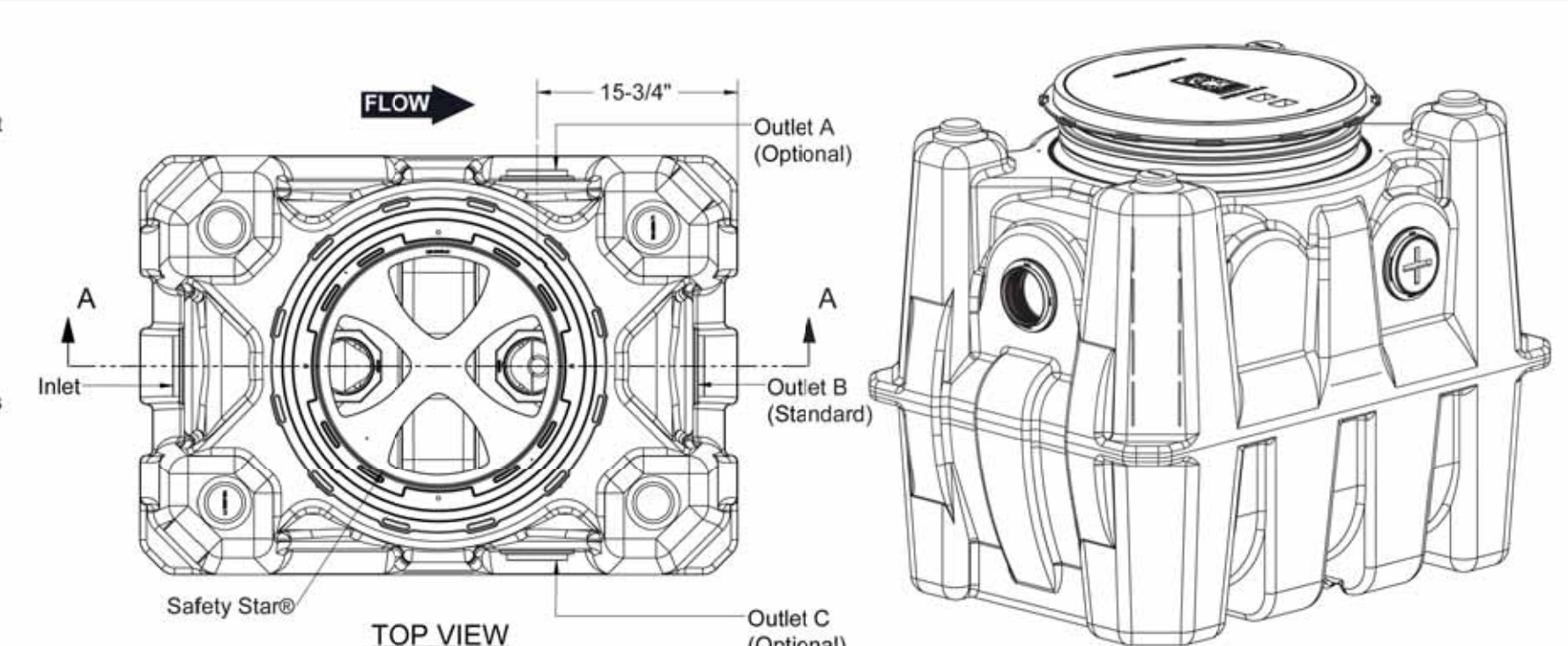
MDOT CONCRETE CURB & GUTTER DETAILS

NOT TO SCALE



SPECIFICATIONS

- Notes:
- 4" FPT inlet/outlet with 4" plain end adapters, single inlet and triple outlet.
 - Unit weight - w/ cast iron covers: 190 lbs. (For wet weight add 1,043 lbs.)
 - Maximum operating temperature: 150° F continuous
 - Capacities - Liquid: 125 gal.
Grease: 861 lbs. (118 gal.) @75 GPM
Solids: 31 gal.
 - For gravity drainage applications only.
Do not use for pressure applications.
 - Cover placement allows full access to tank for proper maintenance.
 - Vent not required unless per local code.
 - Engineered inlet and outlet diffusers with inspection ports are removable to inspect / clean piping.
 - Integral air relief / Anti-siphon / Sampling access.
 - Adjustable cover adapter provides up to 4" of additional height.
 - Designed for below-grade, above-grade, indoor and outdoor installations.
 - Safety Star® access restrictor built into cover adapter, prevents accidental entry to tank (450 lb rating).



ENGINEER SPECIFICATION GUIDE

Schier Great Basin™ grease interceptor model # GB-75 shall be lifetime guaranteed and made in USA of seamless, rotationally-molded polyethylene with minimum 3/16" uniform wall thickness. Interceptor shall be furnished for above or below-grade installation with adjustable cover adapter, Safety Star® access restrictor built into each cover adapter, and three outlet options. Interceptor shall be certified to ASME A112.14.3 (Type D) and CSA B481.1. Interceptor flow rate shall be 75 GPM. Interceptor grease capacity shall be 861 lbs. Cover shall provide water/gas-tight seal and have minimum 16,000 lbs. load capacity.



CERTIFIED PERFORMANCE

Great Basin™ hydromechanical grease interceptors are third party performance-tested and listed by IAPMO to ASME #A112.14.3 and CSA B481.1 grease interceptor standards and greatly exceed requirements for grease separation and storage. They are compliant to the Uniform Plumbing Code and the International Plumbing Code.

Type D certification does not require a flow control

SPECIFICATION SHEET

MODEL NUMBER: GB-75	PART NUMBER: 4045-007-02
DESCRIPTION: GB-75 GREASE INTERCEPTOR 75 GPM, 4" INLET/OUTLET, H-20 RATED CAST IRON COVER	
<small>PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SCHIER PRODUCTS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SCHIER PRODUCTS IS PROHIBITED.</small>	
DWG BY: C. BUSENITZ	DATE: 4/14/2022
REV: -	ECO: -

SCHIER
6455 Woodland Dr
Shawnee, KS 66218
Tel: 913-951-3300
Fax: 913-951-3399
schierproducts.com

GB-75 GREASE TRAP SPECIFICATIONS (WEST BUILDING)

ISSUE	DATE	BY	DESCRIPTION
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JJP	FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JJP	SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM	FOR PRELIMINARY MDOT REVIEW
1	11/29/2023	JRC/JJP	SUBMISSION FOR REZONING

NOT APPROVED FOR CONSTRUCTION

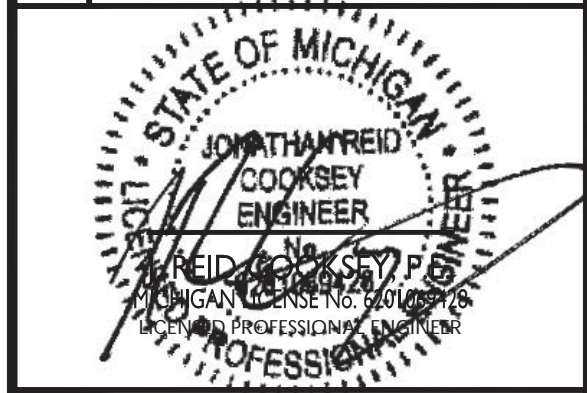
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engineering & design

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555 S Old Woodward Suite 12L Birmingham, MI 48009
Phone: 248.247.1115

9101 HIGHLAND ROAD
PROPOSED COMMERCIAL DEVELOPMENT

PARCEL ID: 12-23-227-003
9101 HIGHLAND ROAD
WHITE LAKE TOWNSHIP
OAKLAND COUNTY, MICHIGAN

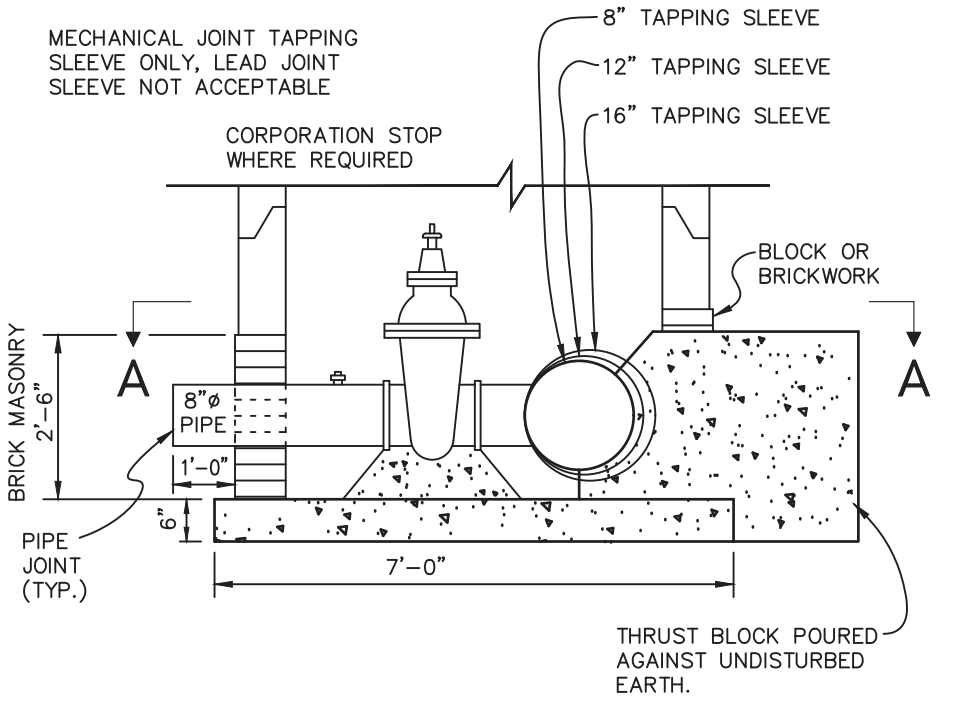


STONEFIELD
engineering & design

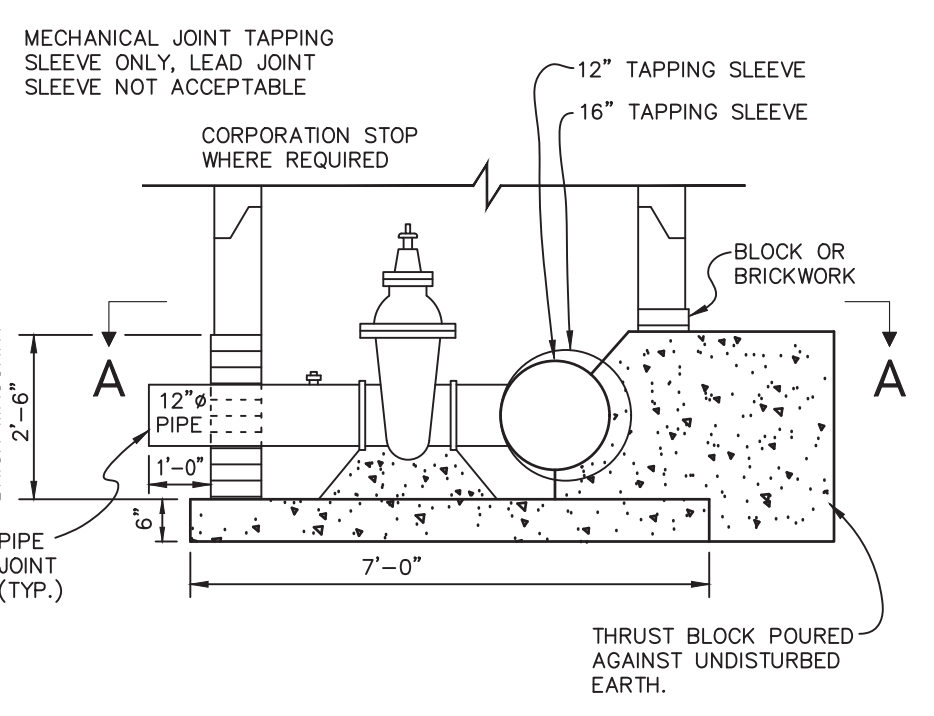
SCALE: AS SHOWN PROJECT ID: DET-230229

TITLE:
CONSTRUCTION DETAILS

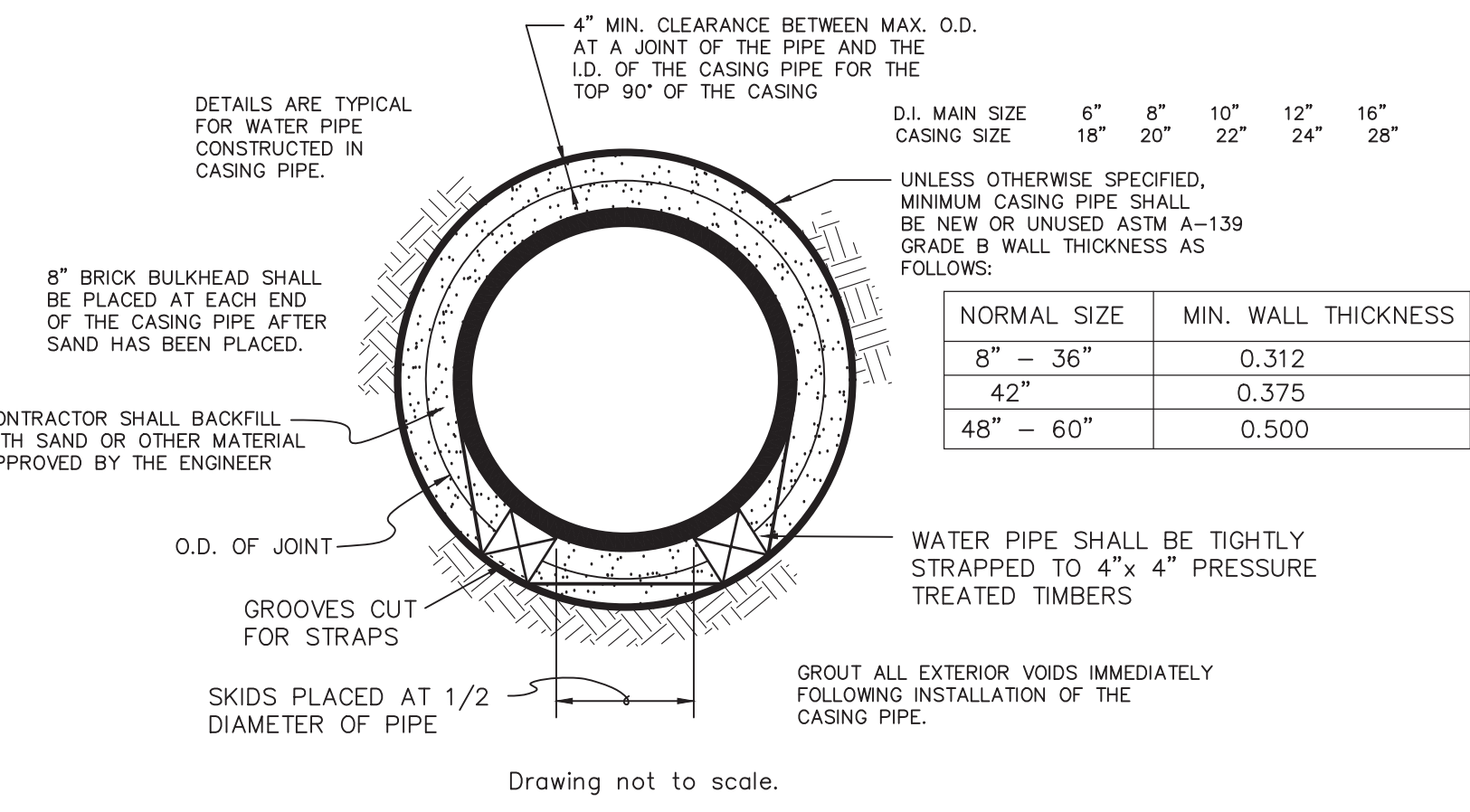
DRAWING:
C-15



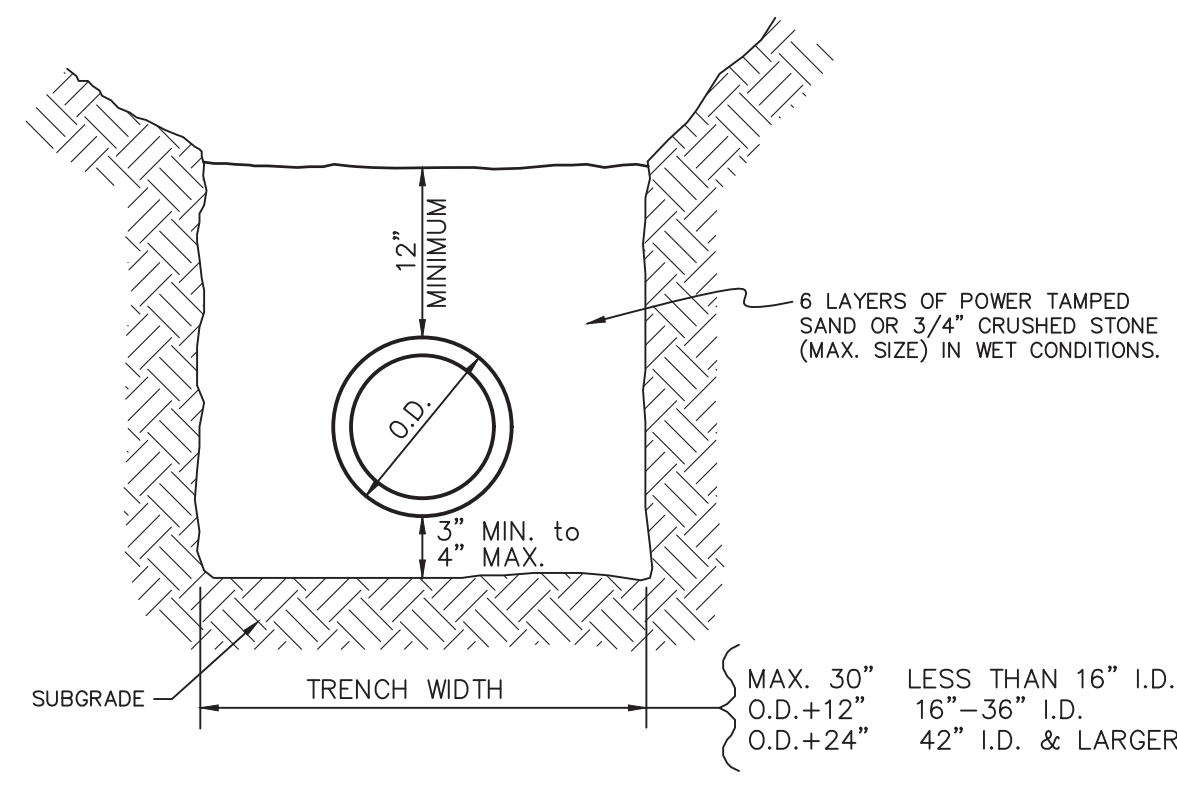
16" X 8", 12" X 8", 8" X 8"
TAPPING SLEEVE, VALVE & WELL
(B-B)



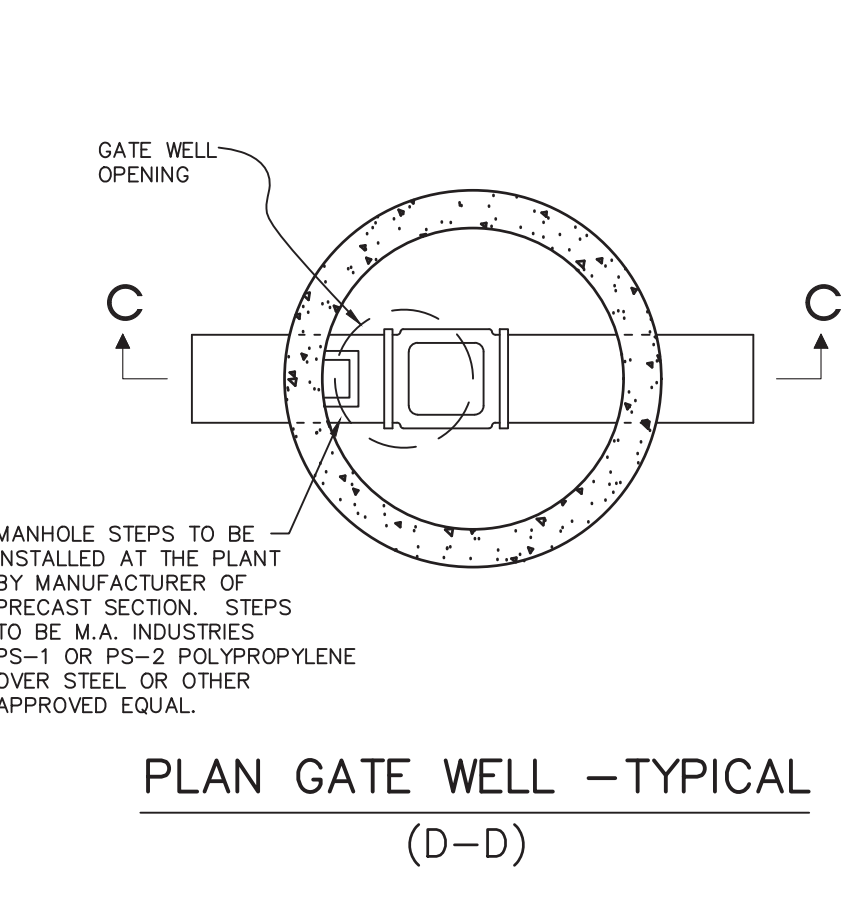
16" X 12", 12" X 12"
TAPPING SLEEVE, VALVE & WELL
(B-B)



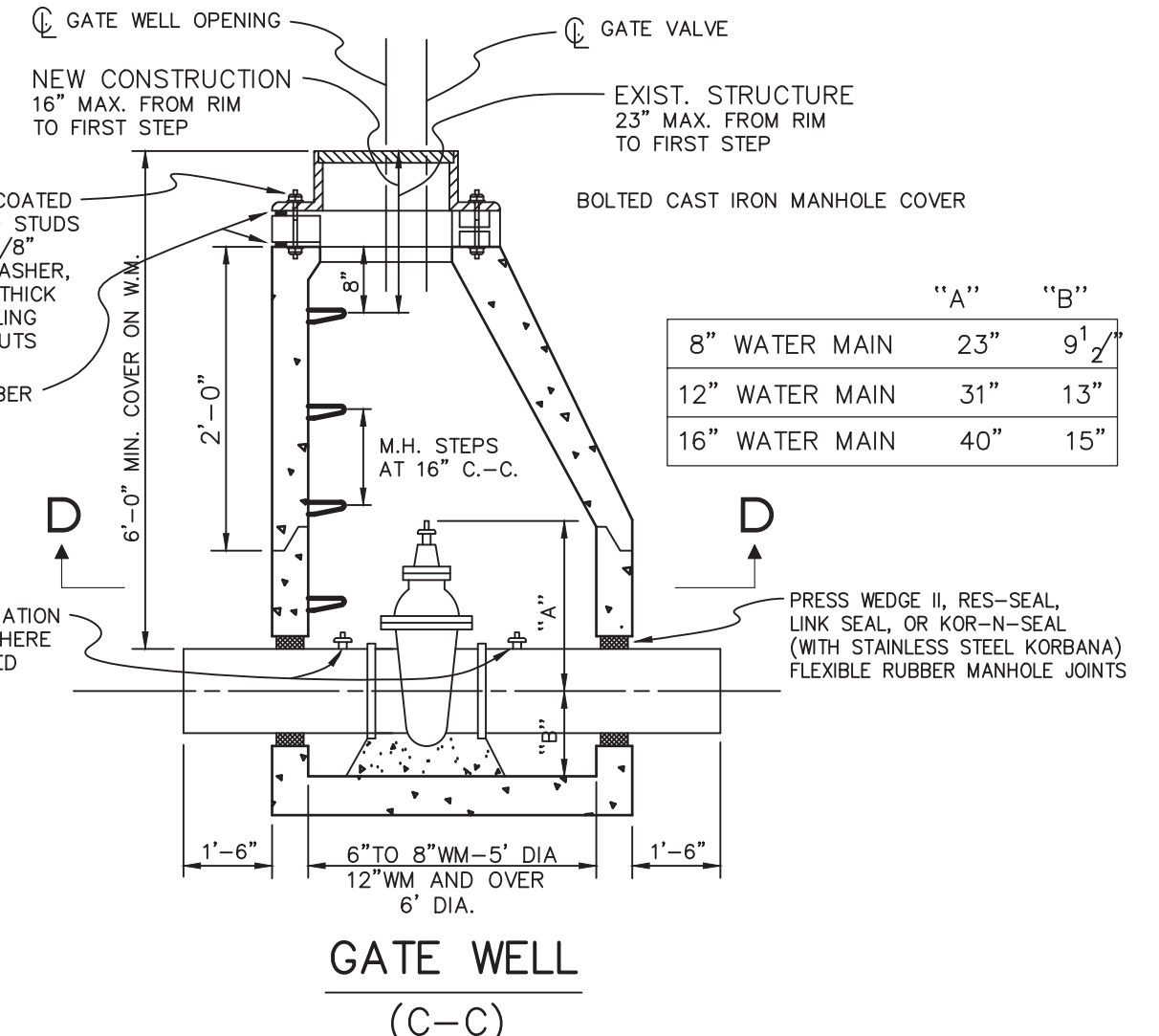
PIPE BARREL SUPPORT FOR WATER MAIN
CONSTRUCTED IN CASING



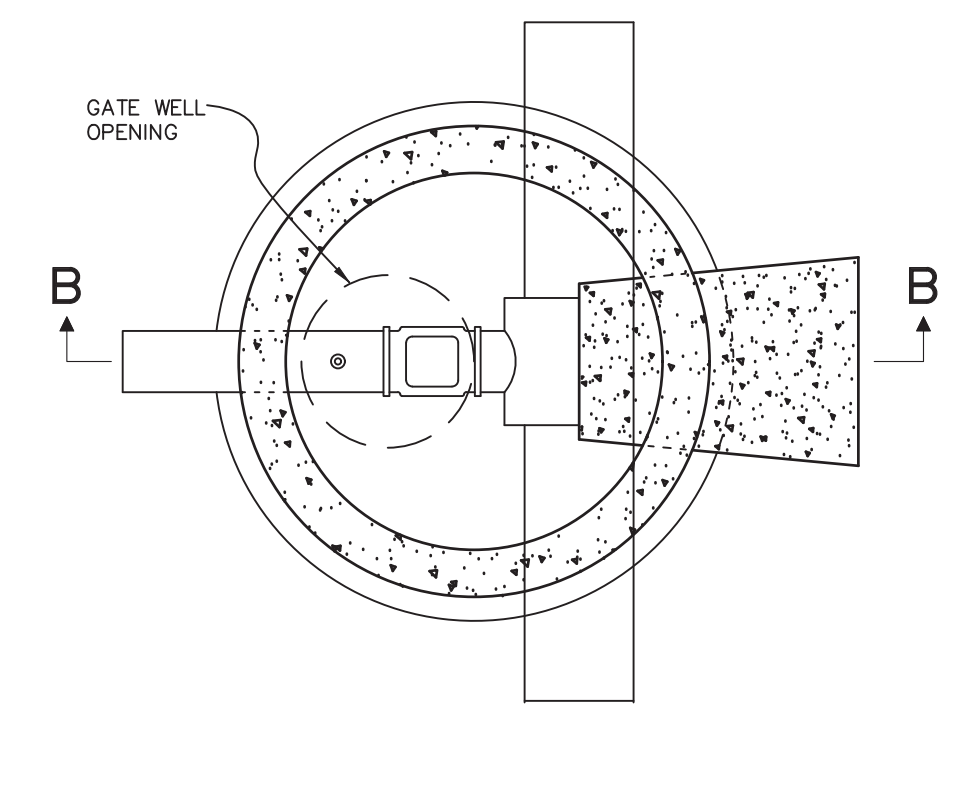
STANDARD BEDDING
FOR WATER PIPE



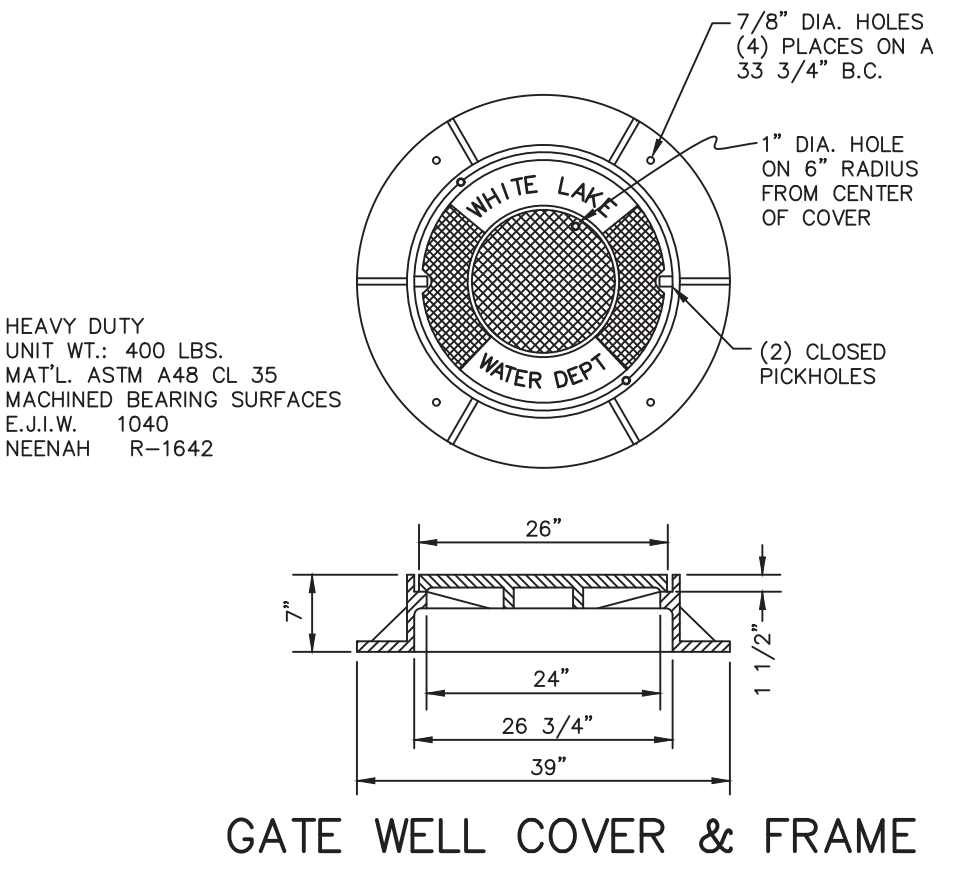
PLAN GATE WELL - TYPICAL
(D-D)



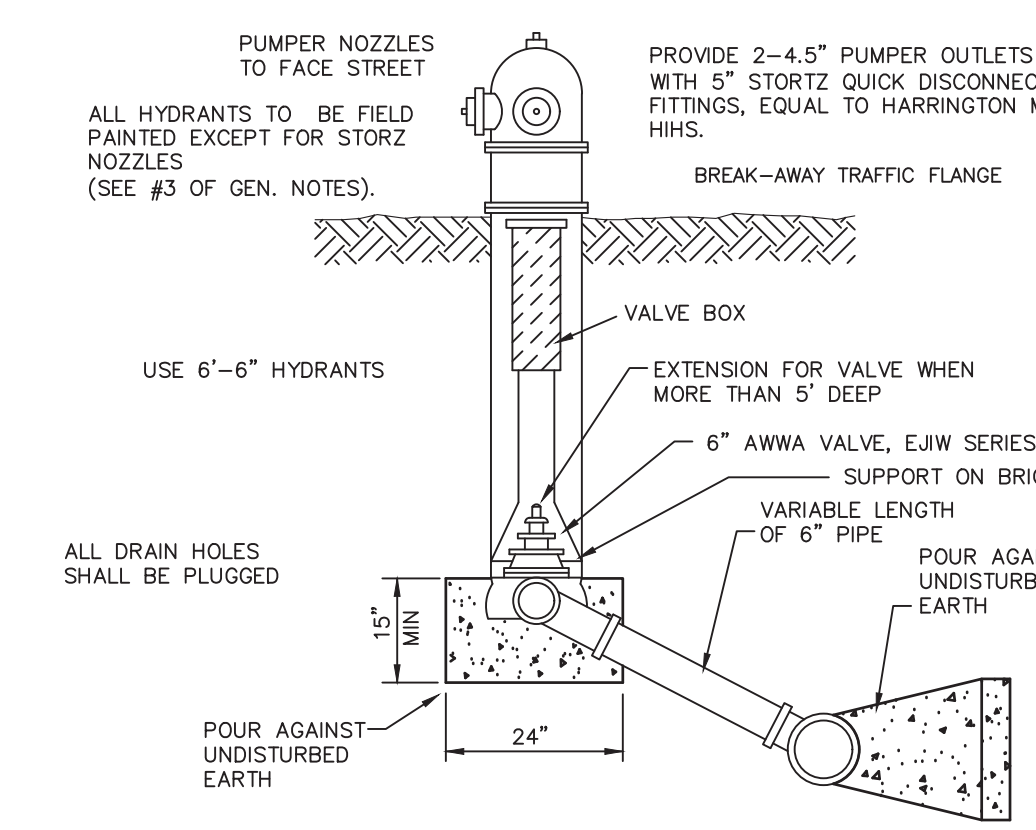
GATE WELL
(C-C)



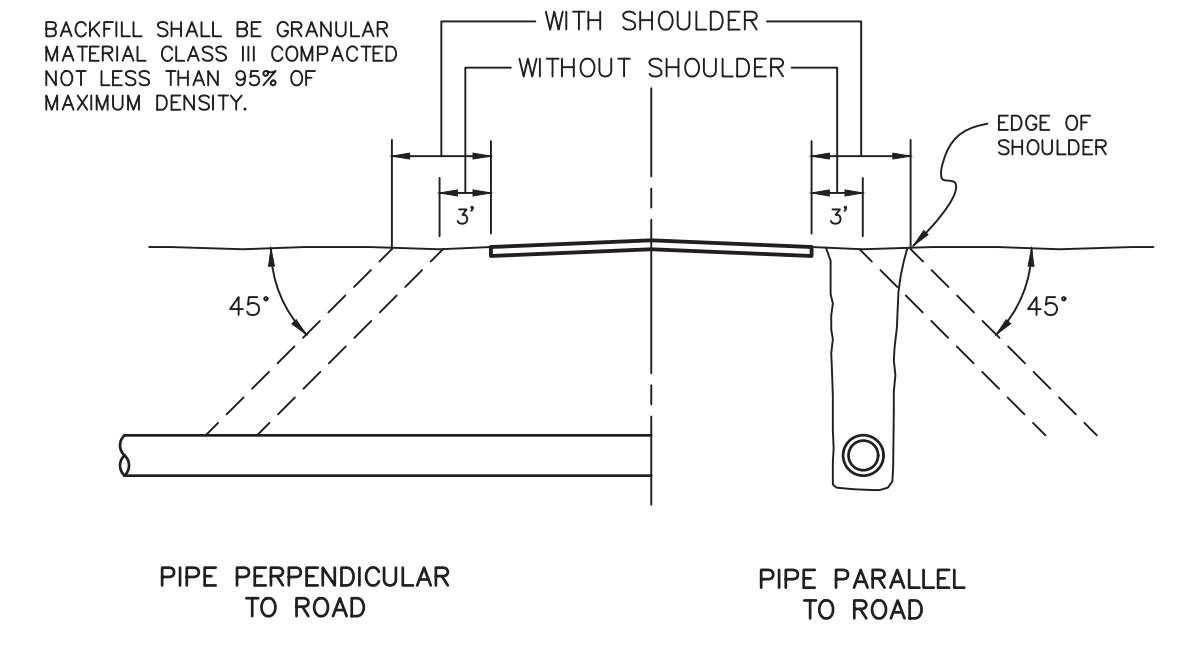
PLAN TAPPING SLEEVE, VALVE & WELL - TYPICAL
(A-A)



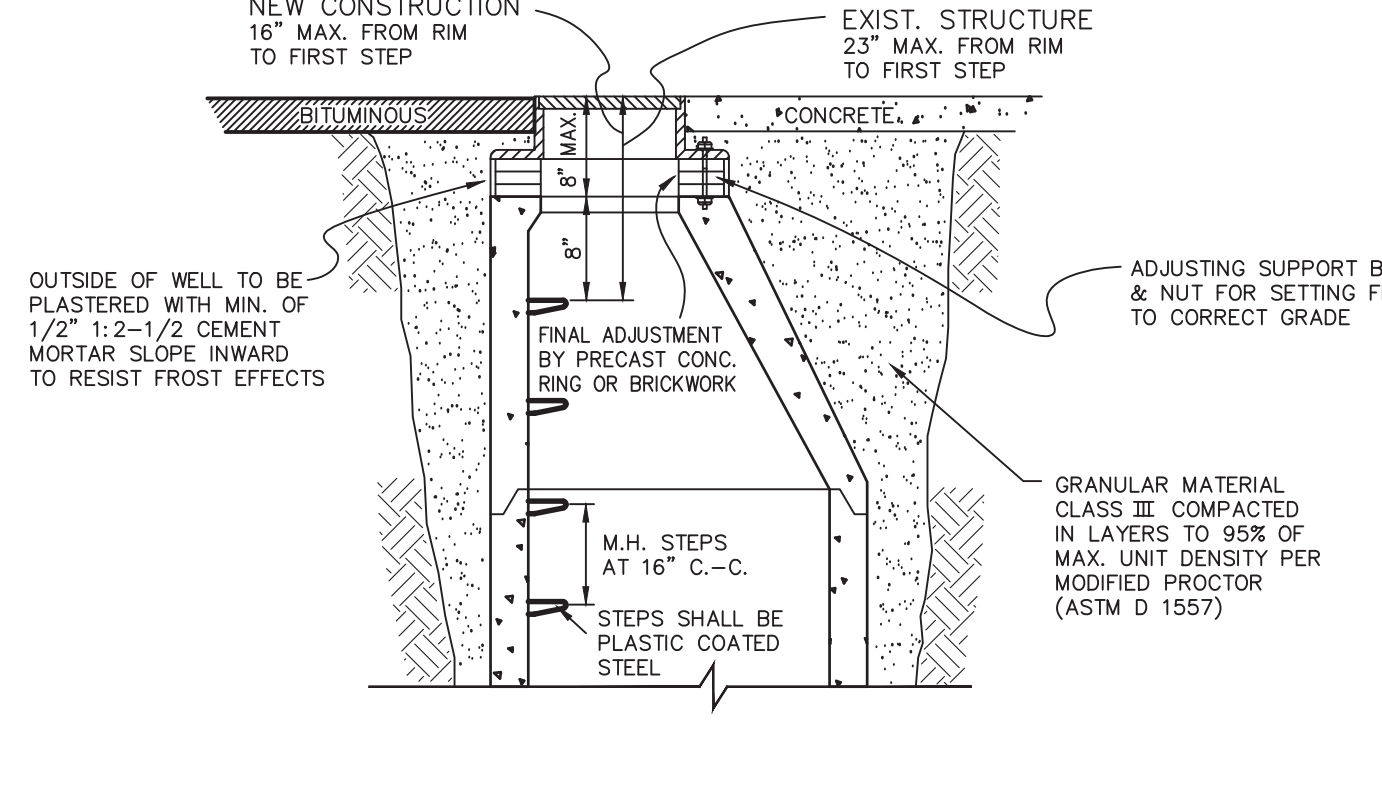
GATE WELL COVER & FRAME



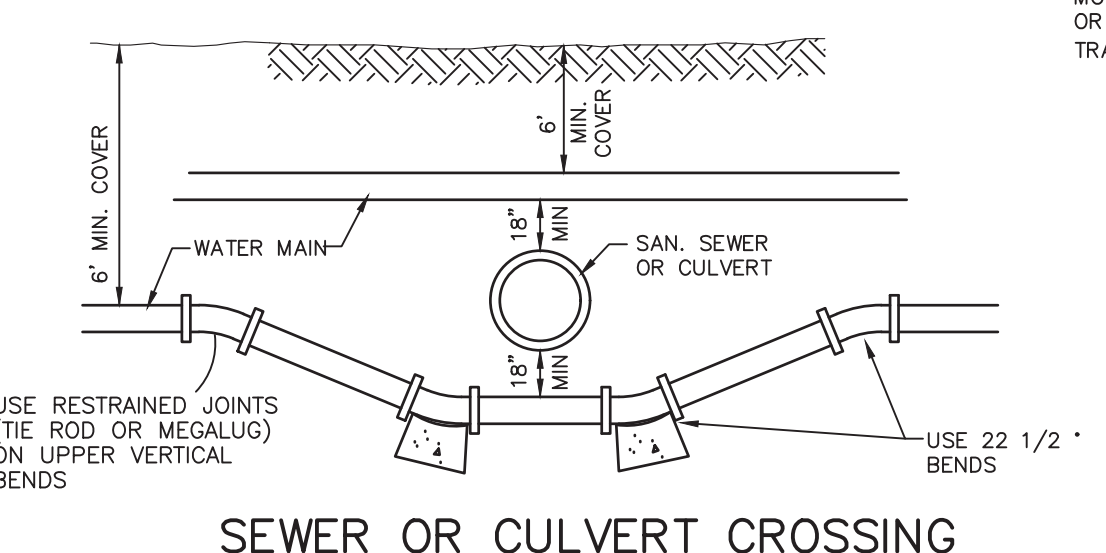
DETAIL OF HYDRANT SETTINGS



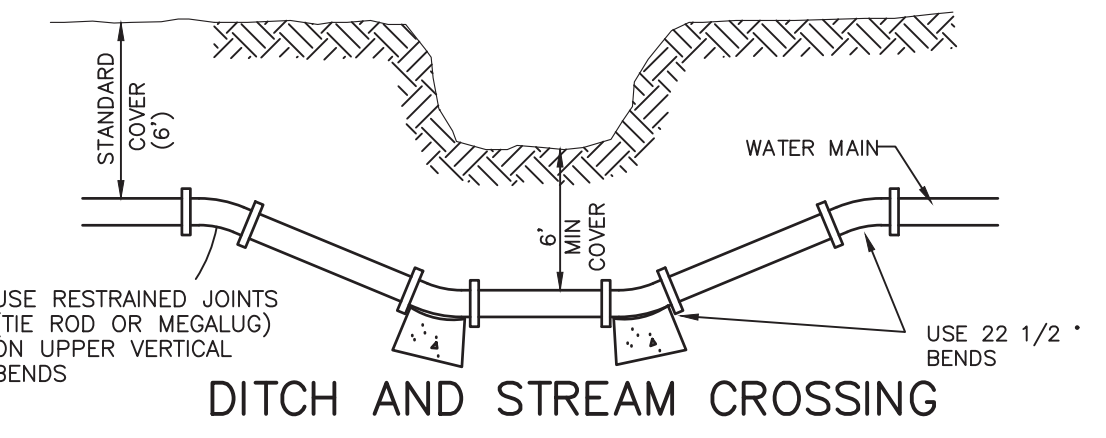
BACKFILL IN THE AREA OF STREETS,
ALLEYS, SIDEWALKS, DRIVES & PARKING AREAS



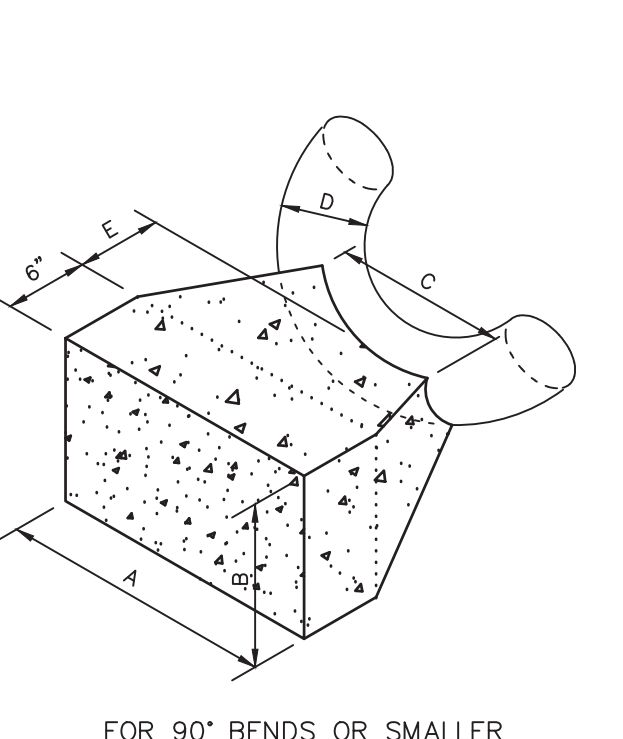
GATE WELL TOPS WITHIN PAVEMENT AREAS



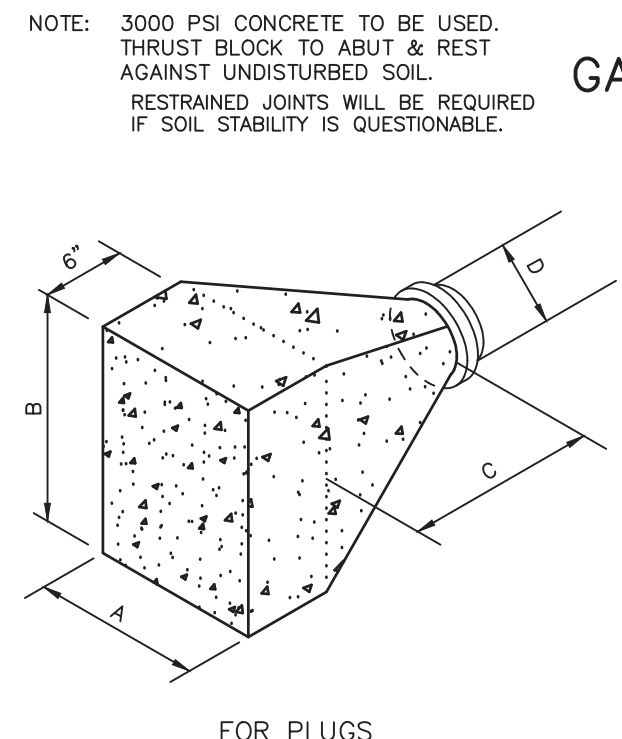
SEWER OR CULVERT CROSSING



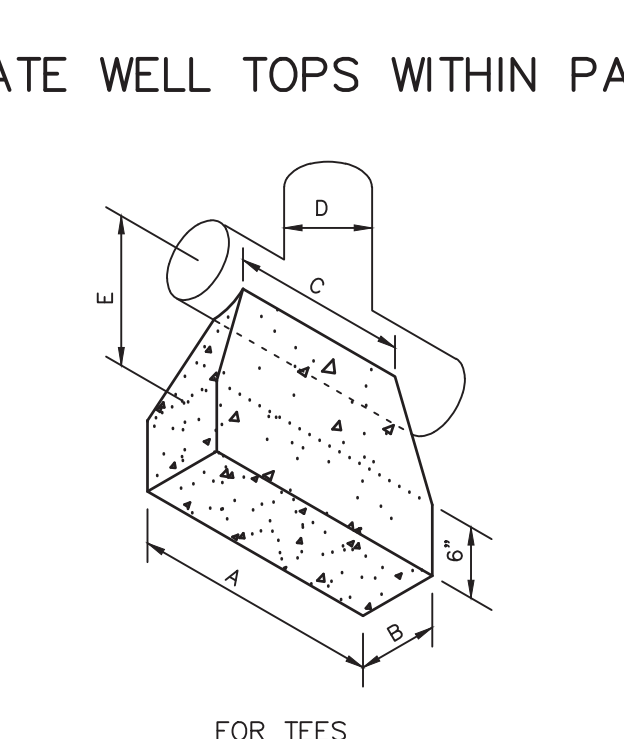
DITCH AND STREAM CROSSING



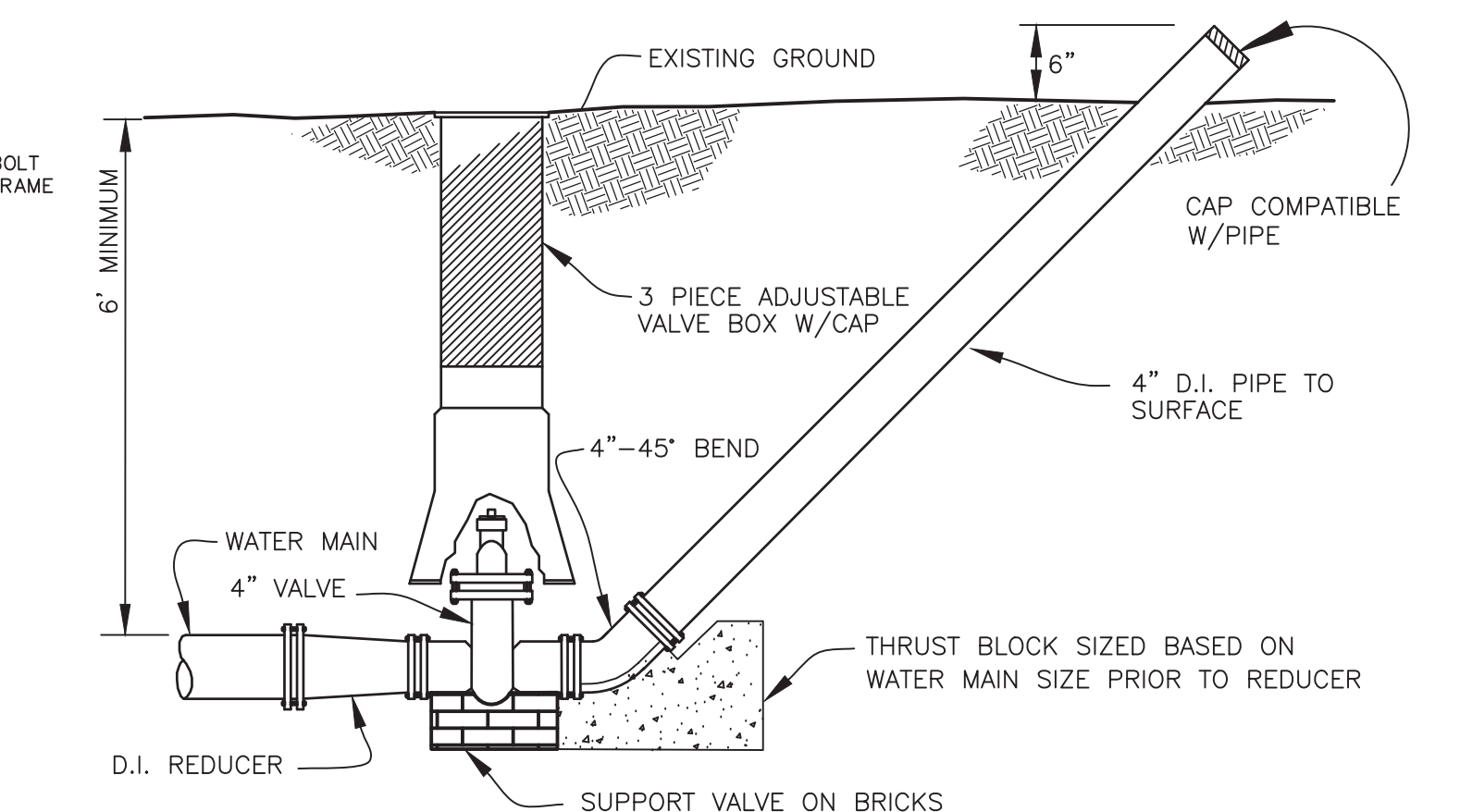
FOR 90° BENDS OR SMALLER



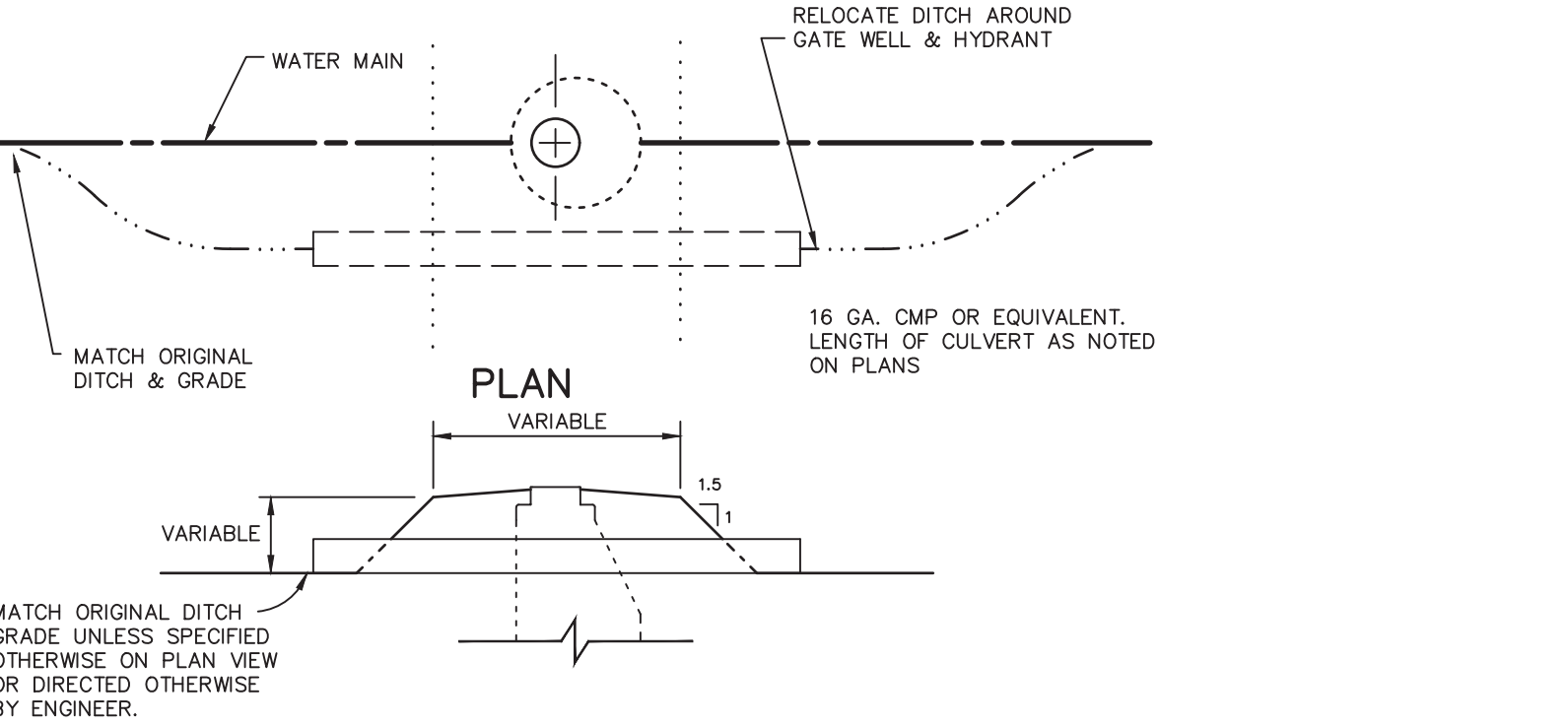
FOR TEES



FOR PLUGS



TEMPORARY BLOWOFF ASS'Y



DITCH ENCLOSURE AT GATE WELL

- WATER MAIN NOTES**
- All construction procedures and materials used on this project shall conform to White Lake Township current standards and specifications.
 - All hydrants shall be East Jordan Iron Works 5BR-250 traffic model. Self-draining hydrants shall not be used. Valve shall have 1-1/2" pentagon nut and shall open counter-clockwise. Provide two 4.5" Storz quick connect nozzles (Harrington Integral Hydrant Storz, Model HHS) as manufactured by Harrington, Inc. of Erie, PA.
 - All hydrants shall be field painted with a heavy coat of bright safety red polyurethane or alkyl glass enamel, except for the Storz fittings and caps, which shall be left unpainted.
 - Johnson and Anderson, Inc. field personnel will affix to the fixed collar of each Storz connection 1" wide 3M Scotch reflective tape, color coded per NFPA 291 guidelines flow capacity.
 - All water mains shall be ductile iron pipe Class 54, cement lined with push on joints. Mechanical joints allowed only for tapping sleeves, hydrants & hydrant valves. Only Cor-Blue bolts shall be used for assembling mechanical joints. All bands, tees, valves and hydrant tees shall have a poured concrete thrust block as detailed on this sheet. Joints which have thrust blocks bearing on soil of questionable stability shall be fully restrained utilizing Tyler swivel ells and adapters or a system approved by the Township Engineer. HDPE pipe for directional boring, if approved by the Township Engineer, shall meet all of the requirements of the MDEQ and shall be DR9 (200 psi), and shall have two #8 tracer wires, terminated in the nearest gate well at the highest step.
 - Tapping sleeve shall be mechanical joint or approved equal. Ductile iron or Stainless steel are allowed.
 - Specifications shall include direction of operation of all valves. All valves shall be counter clockwise open.
 - All necessary easements shall be provided in the name of White Lake Township before acceptance of the water distribution system.
 - The design engineer shall furnish White Lake Township with one reproducible sets of "As-Built" water main plans or an AutoCAD file upon completion of the job.
 - All required cross-connection devices shall be installed as required by the local plumbing inspector and in accordance with the standards of the Michigan Department of Public Health.
 - Gate well frame and cover shall be as follows: East Jordan heavy manhole cover, base flange type #1040 or Neenah Foundry heavy duty #R-1642 Manhole frame, solid lid cover shall be non-rocking and marked "White Lake Water Department"
 - Gate valves shall be AWWA approved and of a double disc or resilient wedge design with push on joints, 16" gate valves may be mechanical joint provided Cor-Blue bolts are used. All gate valves with operating nuts greater than 5' below ground surface shall be provided with an extension stem. The length of the extension shall be such that it will be within 5' of the ground surface when an extension is used it shall be held in place by an extension stem guide suitably fastened to the wall of the gate well.
 - 1" corporation stops are to be placed on the main at each side of each main line gate valve and at such other locations as may be required by the engineer.
 - All pipe and fittings shall be subjected to a hydro-static pressure test of 150 PSI for a 2 hour duration; Township Engineer must be present. Maximum segment 2000 feet except that longer segments may be tested with allowable leakage based on 2000 feet.
 - 2 consecutive safe bacteria samples shall be taken from the water system approx. 24 hours apart at points established by the Township Engineer. Samples shall be taken by the Township Engineer.
 - Filling, flushing and sampling of water main can only be performed with a "Jumper" Line, the jumper shall be equipped with an approved RPZ type of backflow preventer.
 - Adjustments on gate wells shall be limited to 23" maximum from top of rim to first step in accordance with MIOSHA Rule 341.
 - All new water service lines shall have a minimum nominal size of 1". Services from 1" to 2" may be type K copper tubing or plastic DR-9 (200 PSI rated) meeting ASTM D2277-03 (Standard Specification for Polyethylene (PE) plastic tubing). ASTM Designation and pressure rating shall be stamped on the pipe by the manufacturer. Plastic pipe shall also meet AWWA C-301 Specifications. All sizes shall relate to the copper tubing outside diameter standard size (CTS). Copper pipe joints shall be flared. Fittings shall adapt to the plastic pipe with compression to iron pipe thread adapter. Plastic pipes shall be either compression style with a steel insert or may be fusion welded in the larger sizes.
 - Plastic water service pipes shall be traced with two #10 copper tracer wires or two #12 copper coated steel or stainless steel wires insulated with a minimum of 30 mils of polyethylene insulation. The tracer wires shall be terminated to supply line so as to be locatable at the building and the curb box without digging.
 - Water services sizes 3" and greater shall be Class 54 cement lined ductile iron with push on joints or HDPE DR-9 (200 PSI rated) with fusion welded joints and fittings, DIPS (Ductile Iron Pipe Size).
 - A stop box shall be installed at the property or easement line and shall be equivalent to an A.Y. McDonald Mfg. 6100 flare regular pattern ball valve. The curb box shall have a 1" riser pipe with an Erie 2-hole pattern cover equivalent to A.Y. McDonald Mfg. 5601L. Stop box shall be protected with a 2'x4' painted blue extending 4 feet above ground.
 - Standard pipe cover shall be 6'-0".
 - Air release manholes shall consist of a standard 5' diameter gate well style structure with a ValMatic Model 25C air release valve mounted on a 1" corporation stop. Air release shall be equipped with the vacuum check option. A 1/2" diameter galvanized pipe or discharge shall be extended to within 12" of the top of the structure. A goose-neck trap shall be installed at the top of the riser to prevent debris & water from entering the valve.

DRAWN: CAD DESIGN: OA CHECKED: - SCALE: VERT. - HORZ. AS NOTED

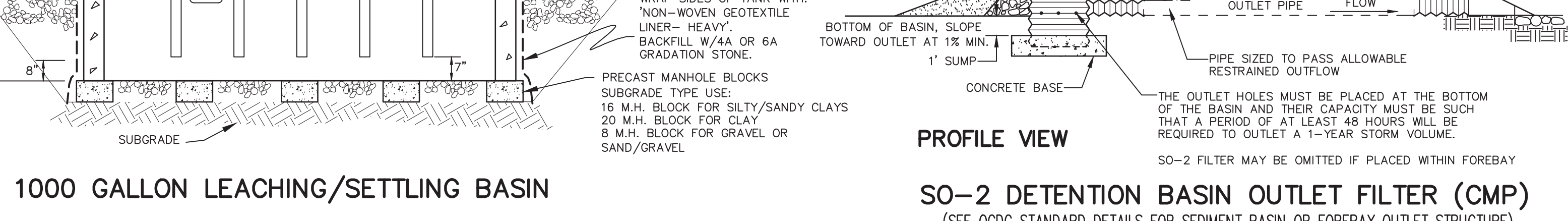
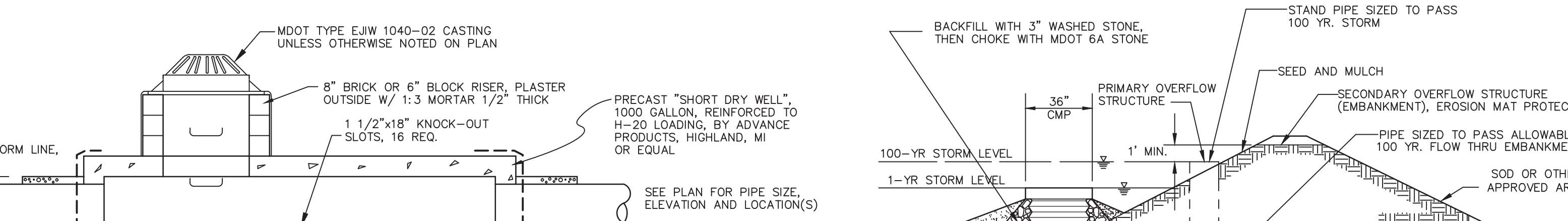
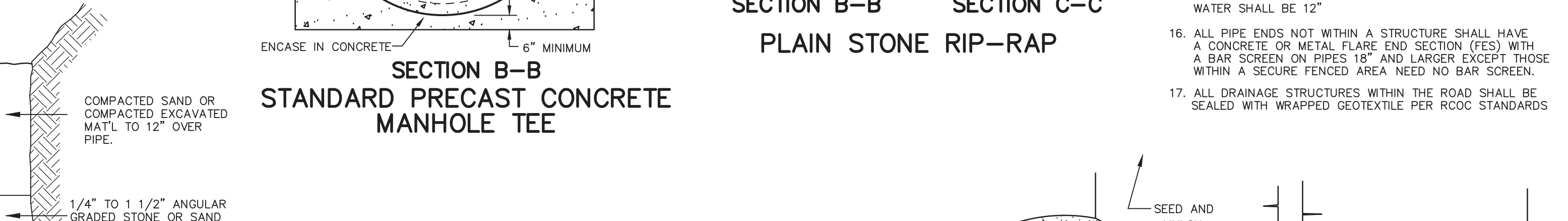
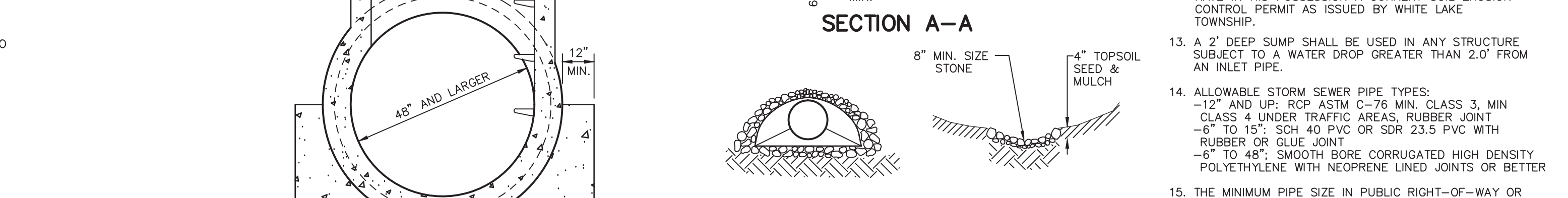
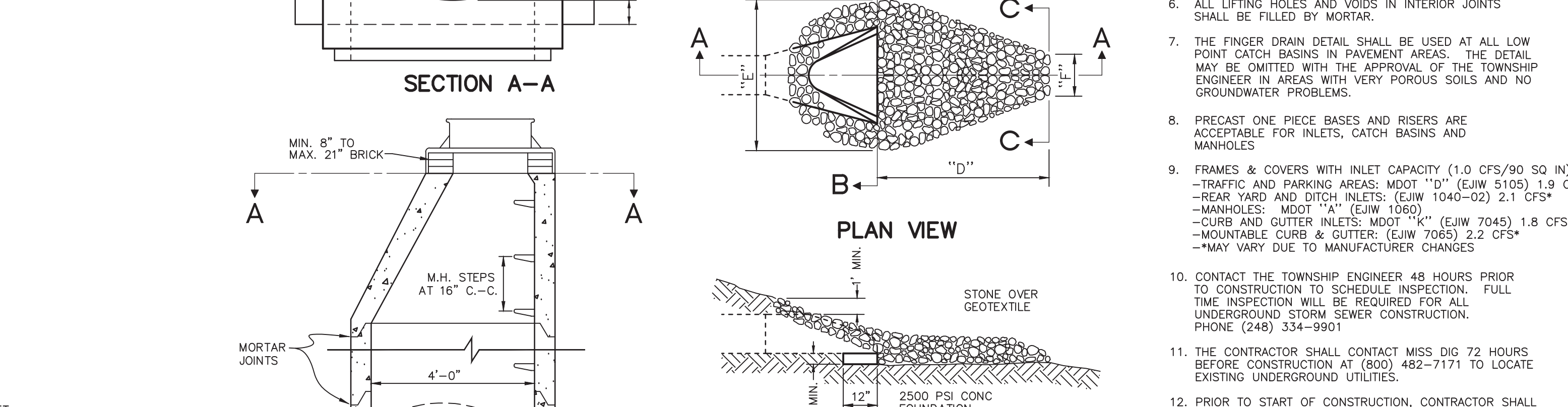
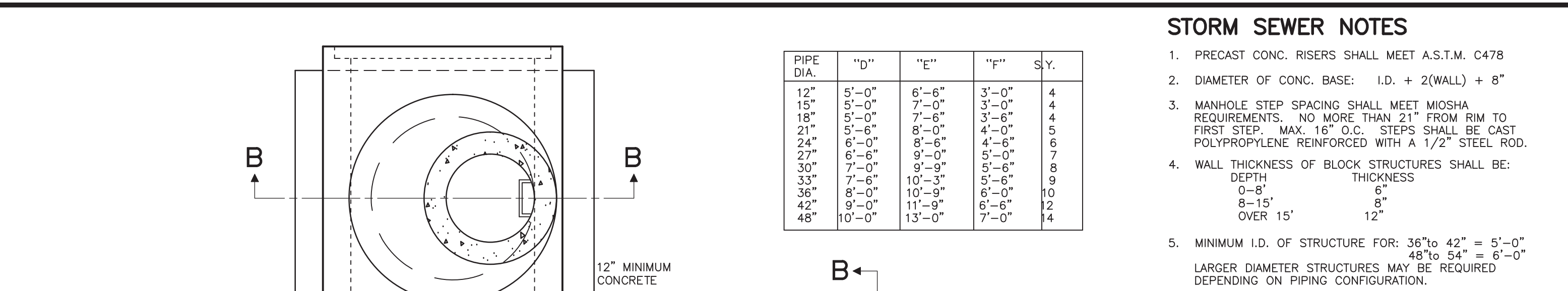
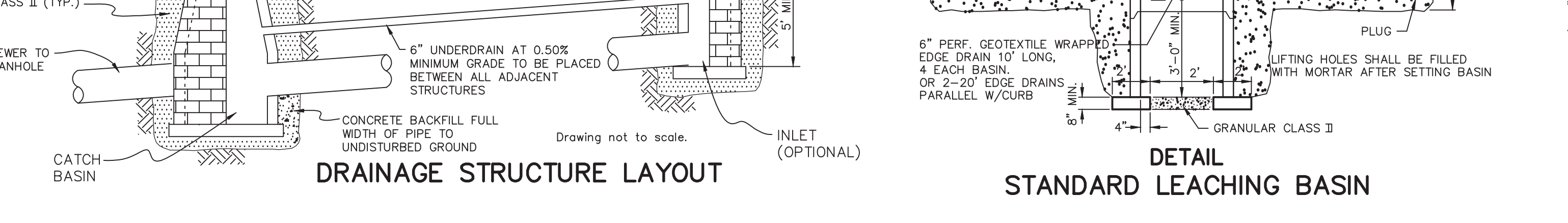
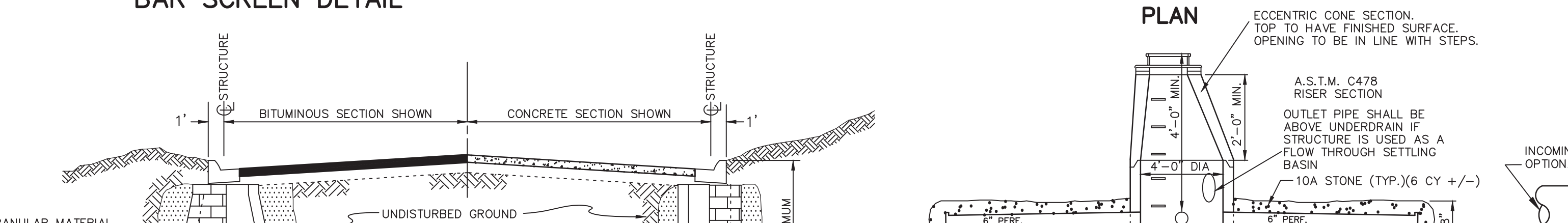
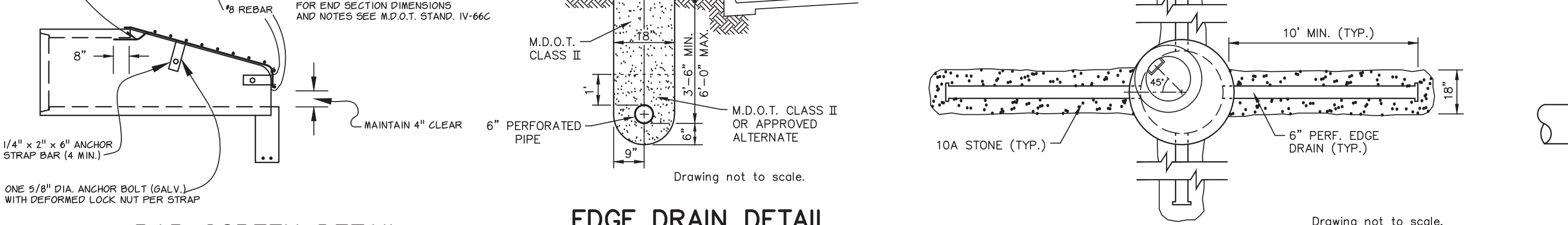
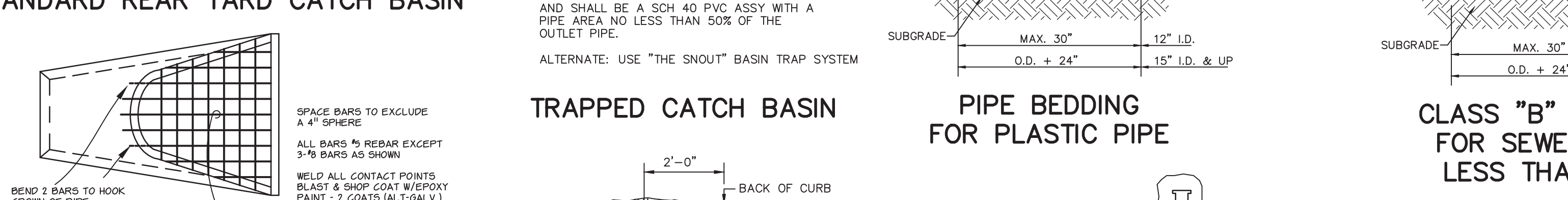
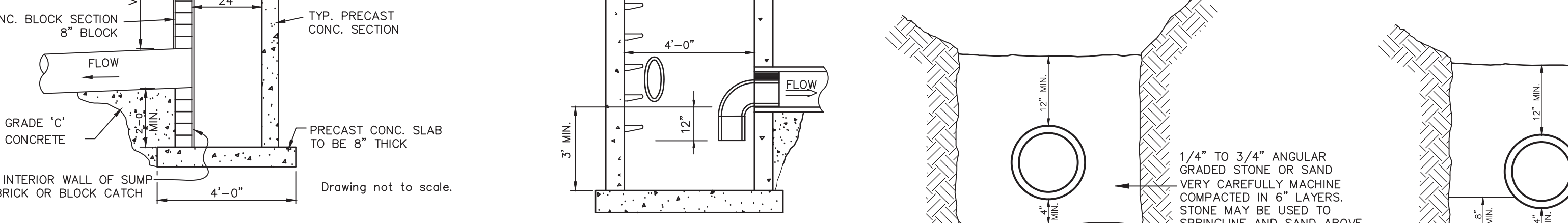
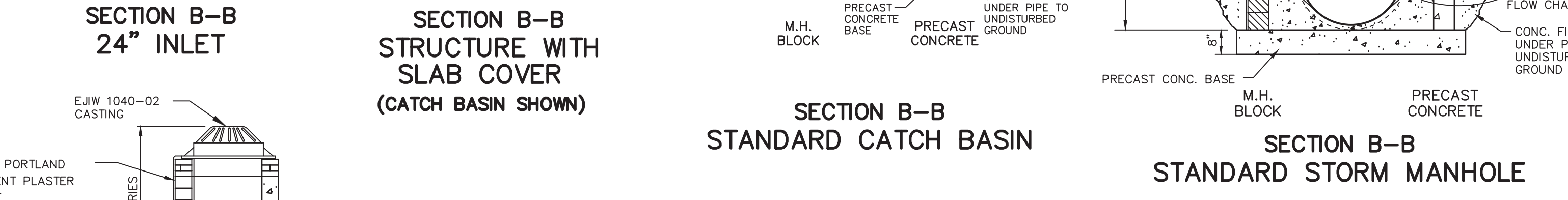
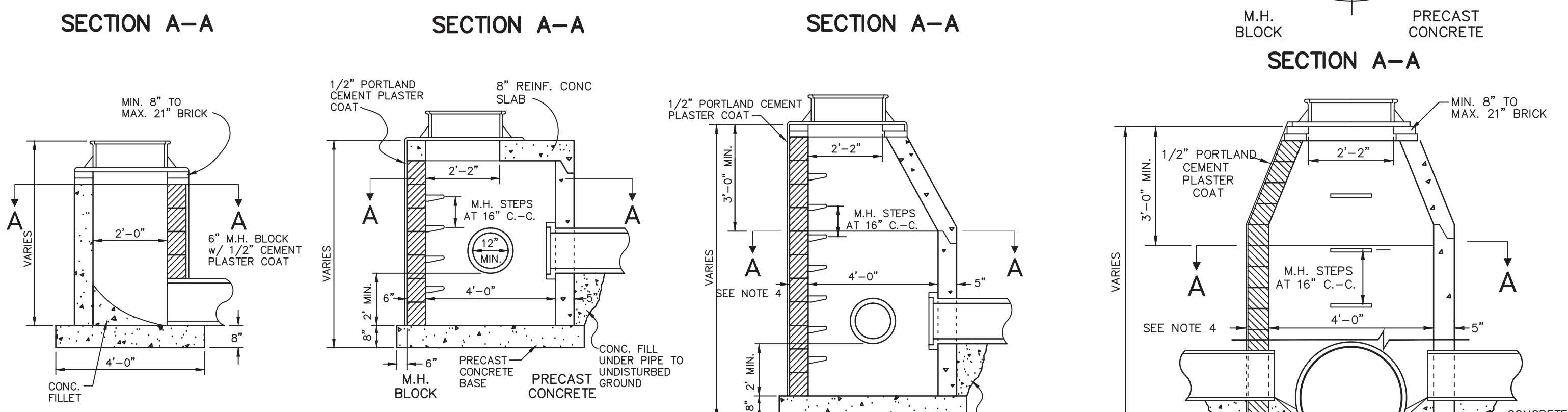
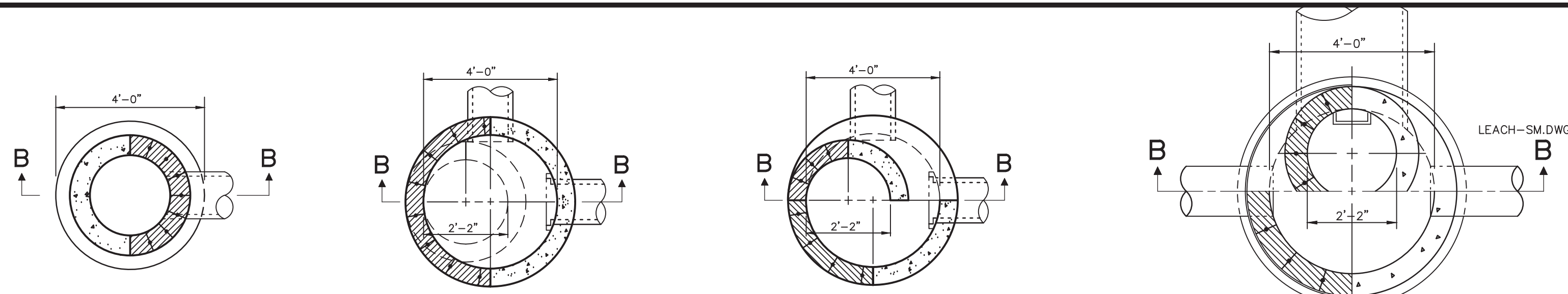
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	GENERAL	REVISION TO CAD	12/29/95		GW & NUT SIZE	07/23/98		CLARIFY HYD. SPEC	02/07/01
	ADD NOTE	17	11/04/97		PIPE COVER & FLANGE TAPE	05/12/99		5-BR HYD. WS STAKE	07/18/05
	REVISE	HYD. & THRUSTING	05/18/98		ADD BLOWOFF	07/06/99		ADD NOTE 19	07/23/03
								UPDATED TITLE BLOCK	04/30/13

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 4494 Elizabeth Lake Road Waterford, Michigan 48328
 1060 W. Norton Avenue, Suite 7 Muskegon, Michigan 49441
 2291 Water Street, Suite 6 Port Huron, Michigan 48060
 tel (248) 881-7800 fax (248) 881-2660 tel (231) 780-3100 fax (231) 780-3115 tel (810) 987-7820 fax (810) 987-7895

White Lake Township
 7525 Highland Road (M-59)
 White Lake, Michigan 48383
 248-698-3300

WATER MAIN STANDARD DETAILS

JOB NO. _____
 DATE ISSUED _____
 SHEET NO. _____



PIPE DIA.	"D"	"E"	"F"	S.Y.
12"	5'-0"	6'-6"	3'-0"	4
15"	5'-0"	7'-0"	3'-0"	4
18"	5'-0"	7'-6"	3'-0"	4
21"	5'-6"	8'-0"	4'-0"	5
24"	6'-0"	8'-6"	4'-6"	6
27"	6'-6"	9'-0"	5'-0"	7
30"	7'-0"	9'-6"	5'-6"	8
33"	7'-6"	10'-3"	5'-6"	9
36"	8'-0"	10'-9"	6'-0"	10
42"	9'-0"	11'-9"	6'-6"	12
48"	10'-0"	13'-0"	7'-0"	14

- STORM SEWER NOTES**
- PRECAST CONC. RISERS SHALL MEET A.S.T.M. C478
 - DIAMETER OF CONC. BASE: I.D. + 2(WALL) + 8"
 - MANHOLE STEP SPACING SHALL MEET MIOSHA REQUIREMENTS. NO MORE THAN 21" FROM RIM TO FIRST STEP. MAX. 16" O.C. STEPS SHALL BE CAST POLYPROPYLENE REINFORCED WITH A 1/2" STEEL ROD.
 - WALL THICKNESS OF BLOCK STRUCTURES SHALL BE:
DEPTH THICKNESS
0-8' 8"
8-15' 8"
OVER 15' 12"
 - MINIMUM I.D. OF STRUCTURE FOR: 36" to 42" = 5'-0"
48" to 54" = 6'-0"
LARGER DIAMETER STRUCTURES MAY BE REQUIRED DEPENDING ON PIPING CONFIGURATION.
 - ALL LIFTING HOLES AND VOIDS IN INTERIOR JOINTS SHALL BE FILLED BY MORTAR.
 - THE FINGER DRAIN DETAIL SHALL BE USED AT ALL LOW POINT CATCH BASINS IN PAVEMENT AREAS. THE DETAIL MAY BE OMITTED WITH THE APPROVAL OF THE TOWNSHIP ENGINEER IN AREAS WITH VERY POROUS SOILS AND NO GROUNDWATER PROBLEMS.
 - PRECAST ONE PIECE BASES AND RISERS ARE ACCEPTABLE FOR INLETS, CATCH BASINS AND MANHOLES
 - FRAMES & COVERS WITH INLET CAPACITY (1.0 CFS/90 SQ IN) -TRAFFIC AND PARKING AREAS: MDOT "D" (EJW 5105) 1.9 CFS* -REAR YARD AND DITCH INLETS: (EJW 1040-02) 2.1 CFS* -MANHOLES: MDOT "A" (EJW 1060) -CURB AND GUTTER INLETS: MDOT "K" (EJW 7045) 1.8 CFS* -MOUNTABLE CURB & GUTTER: (EJW 7065) 2.2 CFS* *MAY VARY DUE TO MANUFACTURER CHANGES
 - CONTACT THE TOWNSHIP ENGINEER 48 HOURS PRIOR TO CONSTRUCTION TO SCHEDULE INSPECTION. FULL TIME INSPECTION WILL BE REQUIRED FOR ALL UNDERGROUND STORM SEWER CONSTRUCTION. PHONE: (248) 334-9901
 - THE CONTRACTOR SHALL CONTACT MISS DIG 72 HOURS BEFORE CONSTRUCTION AT (800) 482-7171 TO LOCATE EXISTING UNDERGROUND UTILITIES.
 - PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL HAVE IN HIS POSSESSION A CURRENT SOIL EROSION CONTROL PERMIT AS ISSUED BY WHITE LAKE TOWNSHIP.
 - A 2' DEEP SUMP SHALL BE USED IN ANY STRUCTURE SUBJECT TO A WATER DROP GREATER THAN 2.0' FROM AN INLET PIPE.
 - ALLOWABLE STORM SEWER PIPE TYPES:
-12" AND UP: RCP ASTM C-76 MIN CLASS 3, MIN CLASS 4 UNDER TRAFFIC AREAS, RUBBER JOINT
-6" TO 15": SCH 40 PVC OR SDR 23.5 PVC WITH RUBBER OR GLUE JOINT
-6" TO 48": SMOOTH BORE CORRUGATED HIGH DENSITY POLYETHYLENE WITH NEOPRENE LINED JOINTS OR BETTER
 - THE MINIMUM PIPE SIZE IN PUBLIC RIGHT-OF-WAY OR EASEMENTS AND FOR PIPES CARRYING OFF-SITE STORM WATER SHALL BE 12"
 - ALL PIPE ENDS NOT WITHIN A STRUCTURE SHALL HAVE A CONCRETE OR METAL FLARE END SECTION (FES) WITH A BAR SCREEN ON PIPES 18" AND LARGER EXCEPT THOSE WITHIN A SECURE FENCED AREA NEED NO BAR SCREEN.
 - ALL DRAINAGE STRUCTURES WITHIN THE ROAD SHALL BE SEALED WITH WRAPPED GEOTEXTILE PER ROC STANDARDS

MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE
	FIRST ISSUE	08/16/95		REVISE	10-03-02		REVISE	06-01-07
	ADD SO-1	06-17-96		REVISE	12-17-03		UPDATED TITLE BLOCK	04/30/13
	NEW BAR GRATE	11-03-97		SEC REFERENCE	05-17-05			

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3910 Lapeer Road
Port Huron, Michigan 48060
tel (810) 987-7820 fax (810) 987-7895

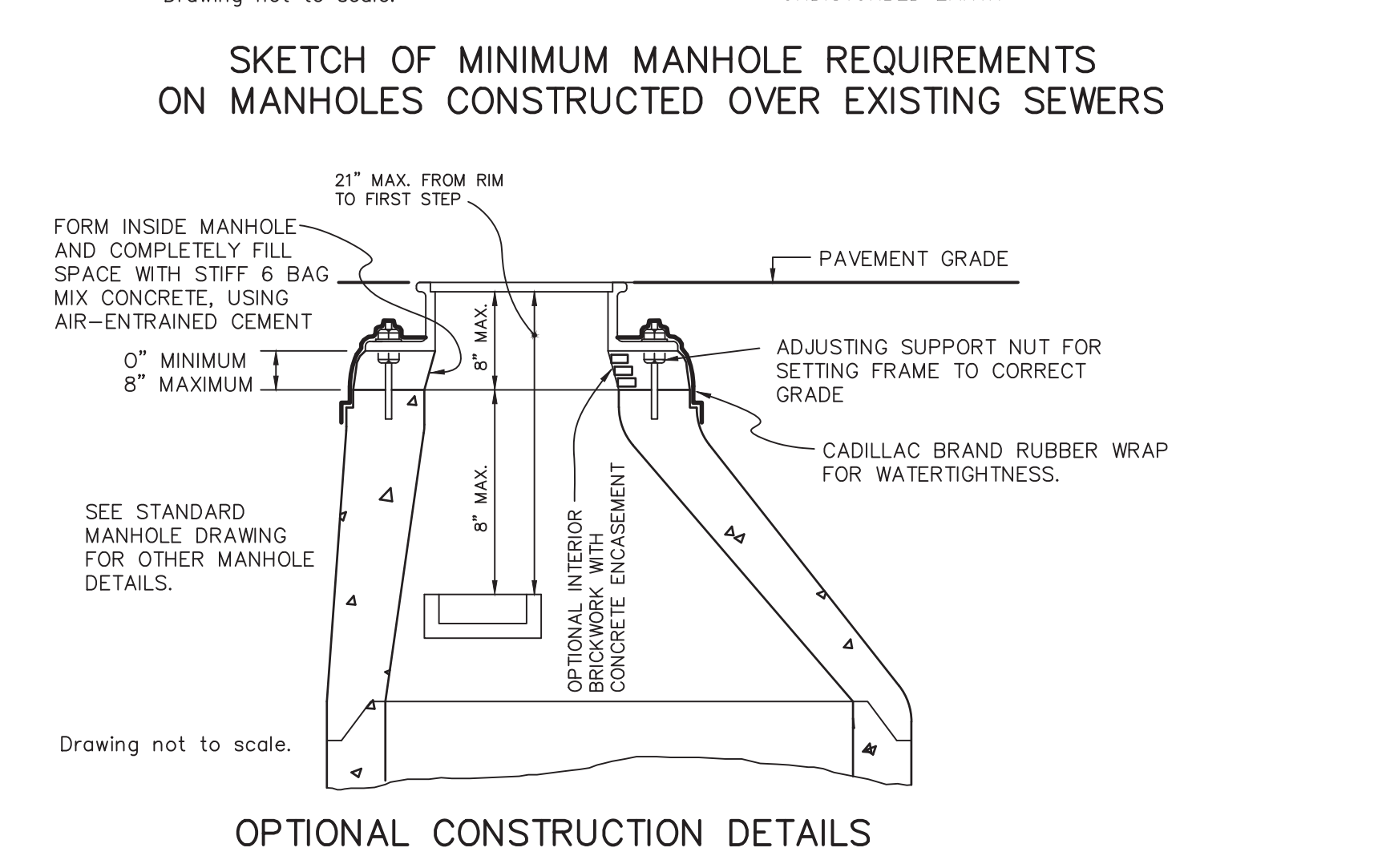
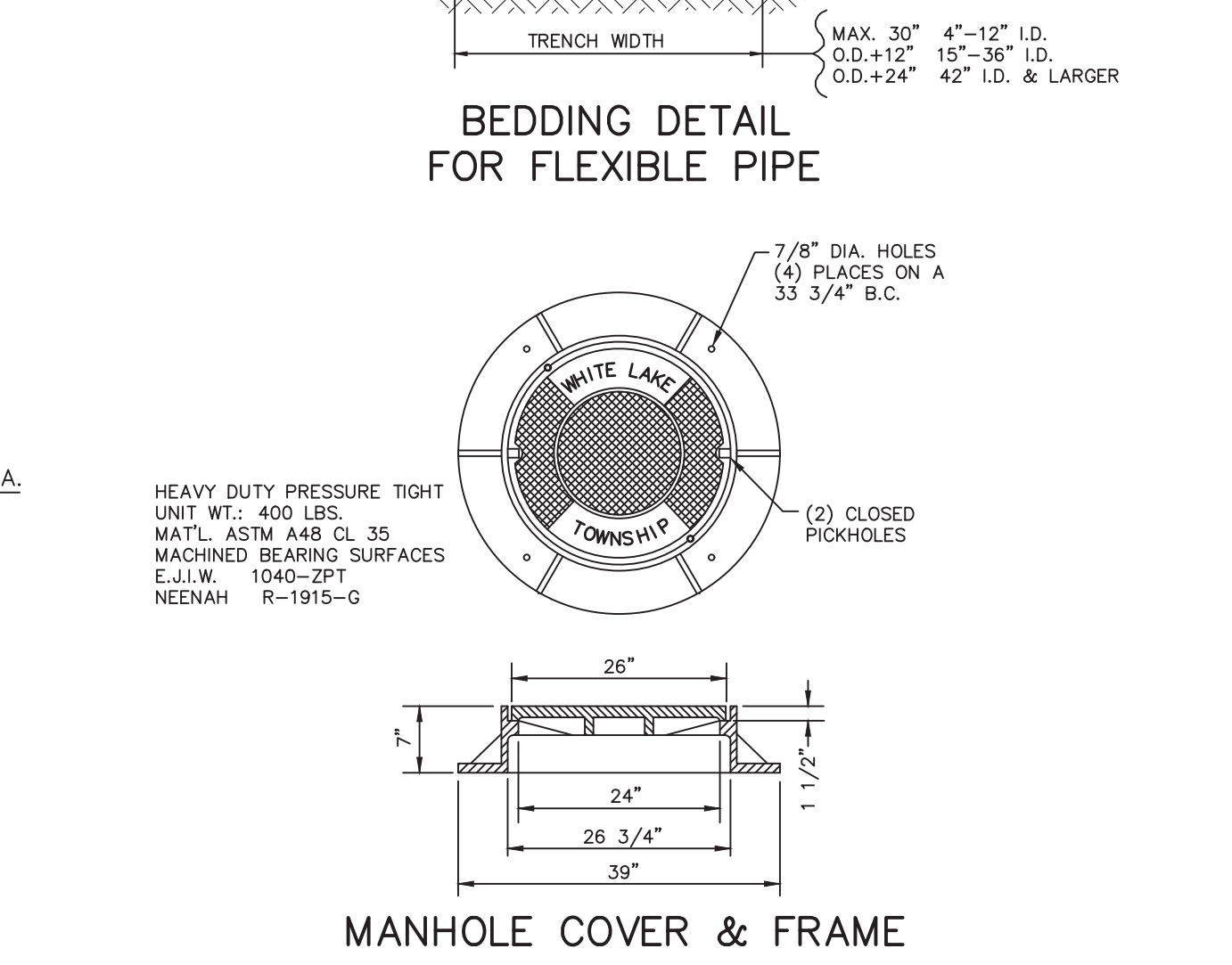
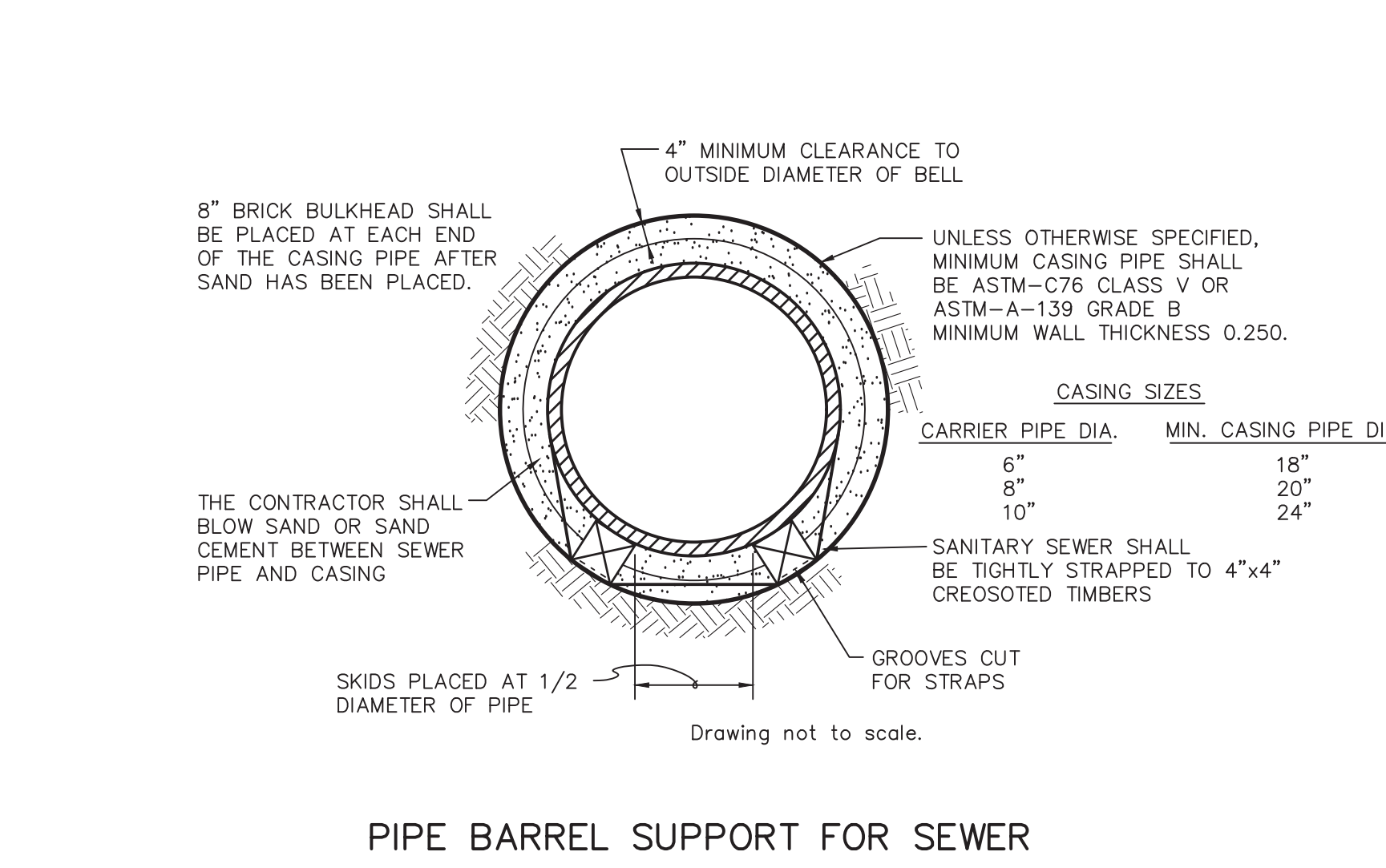
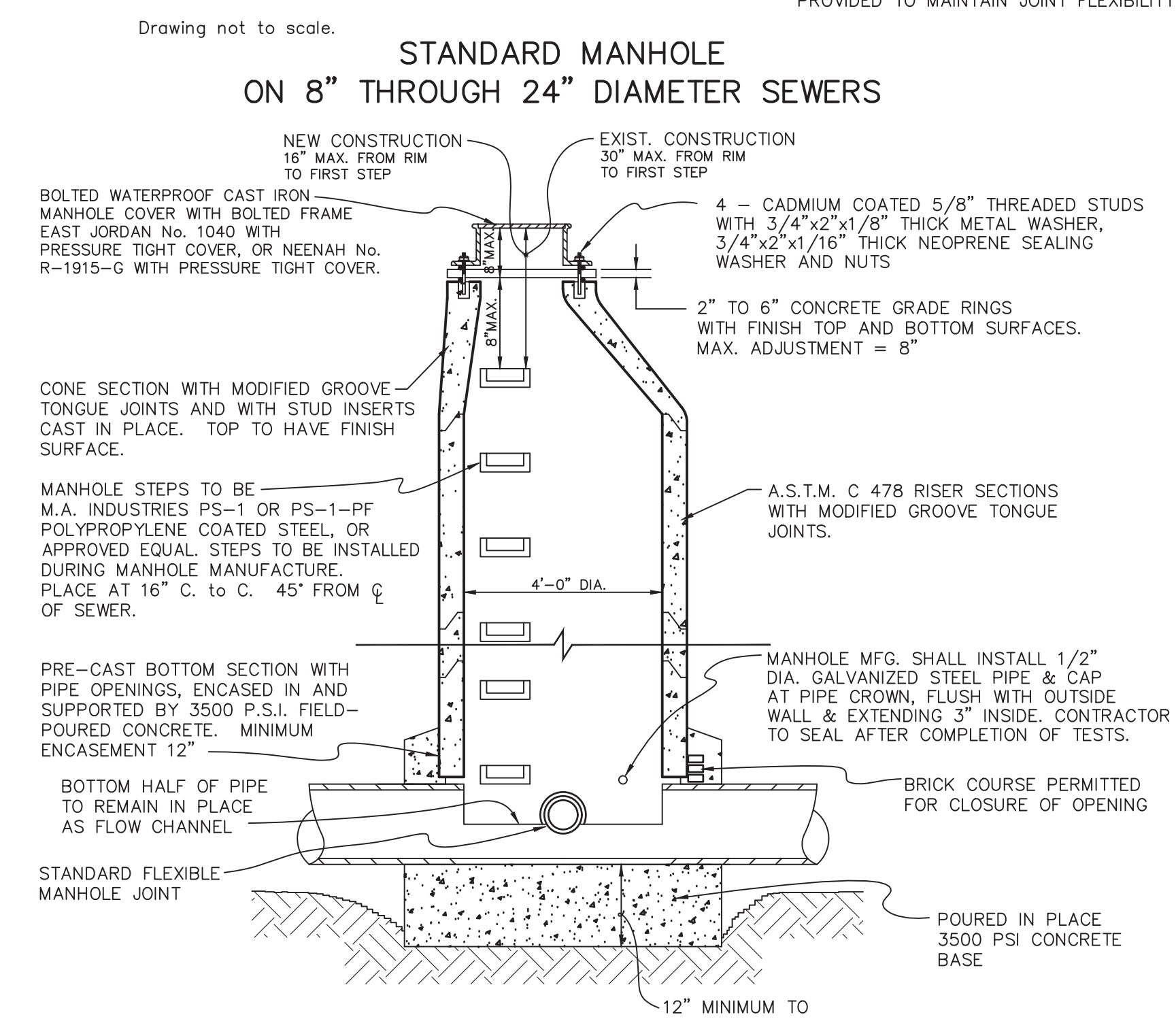
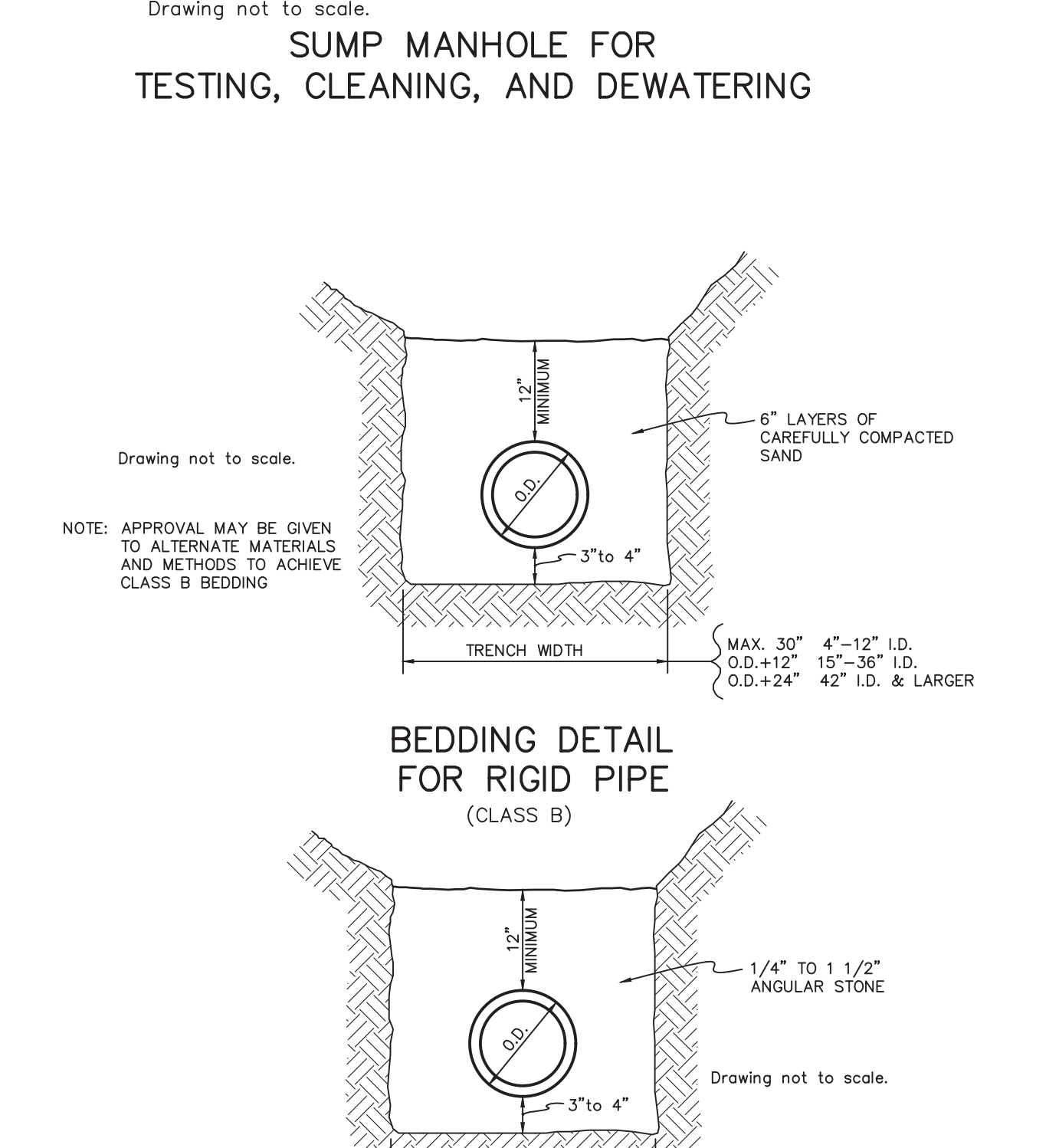
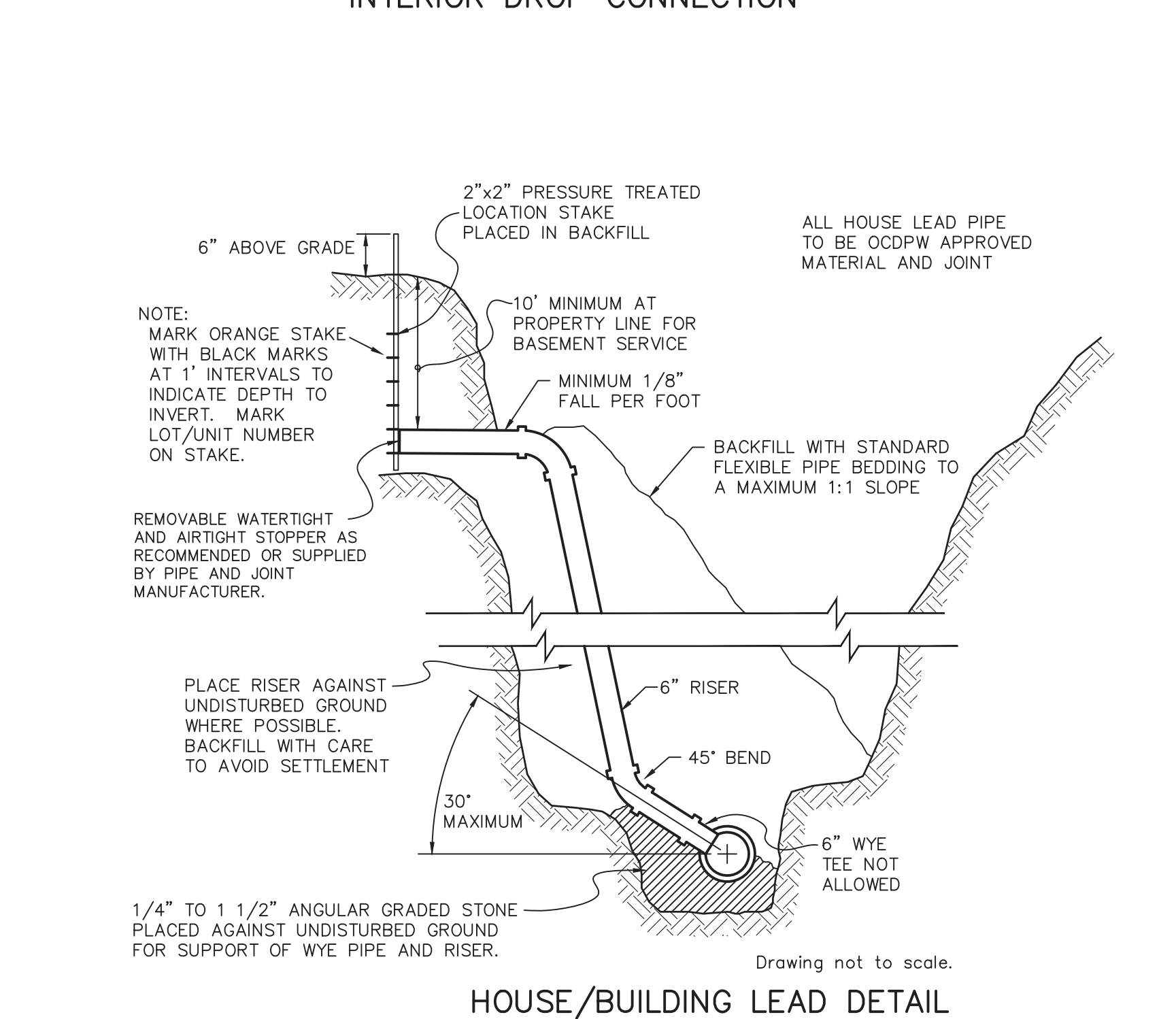
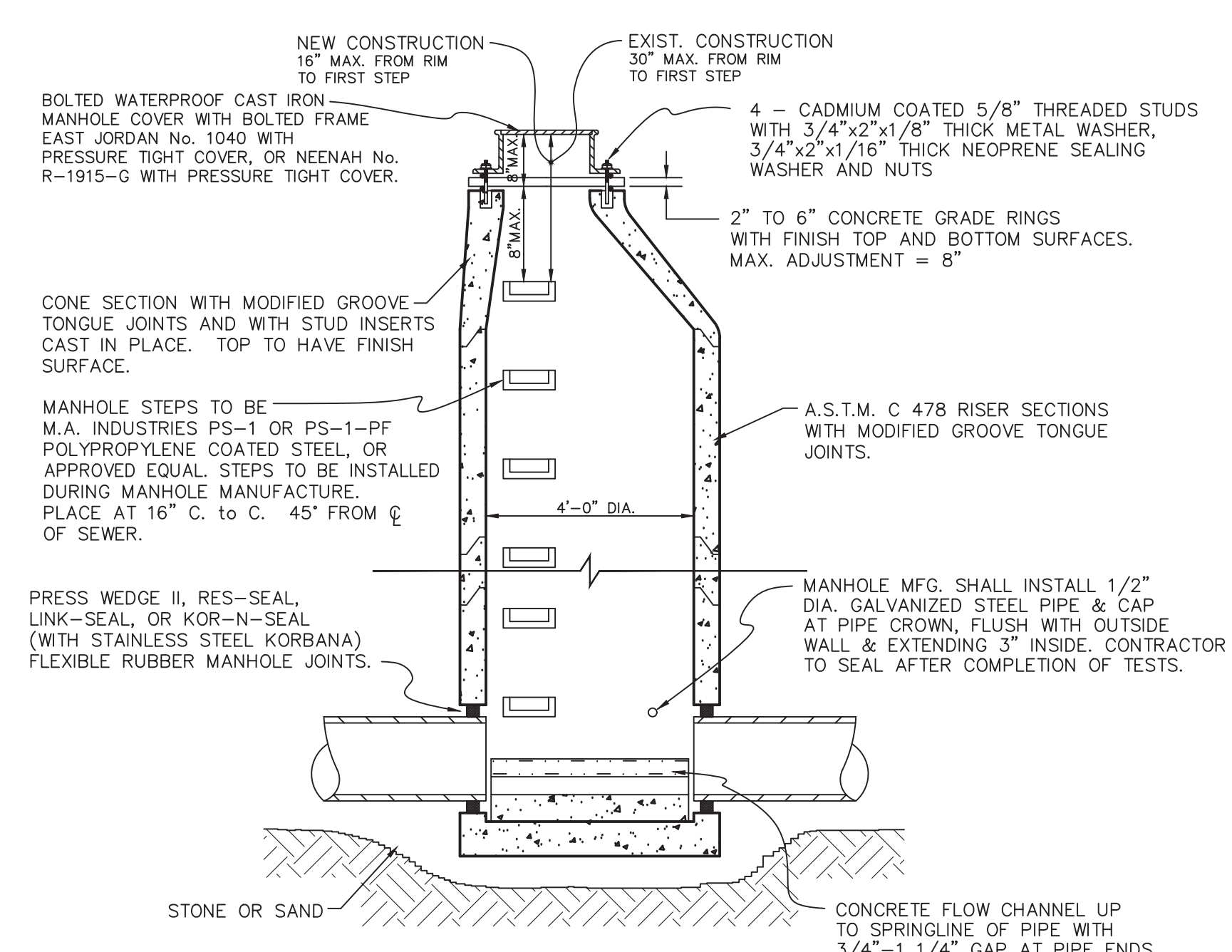
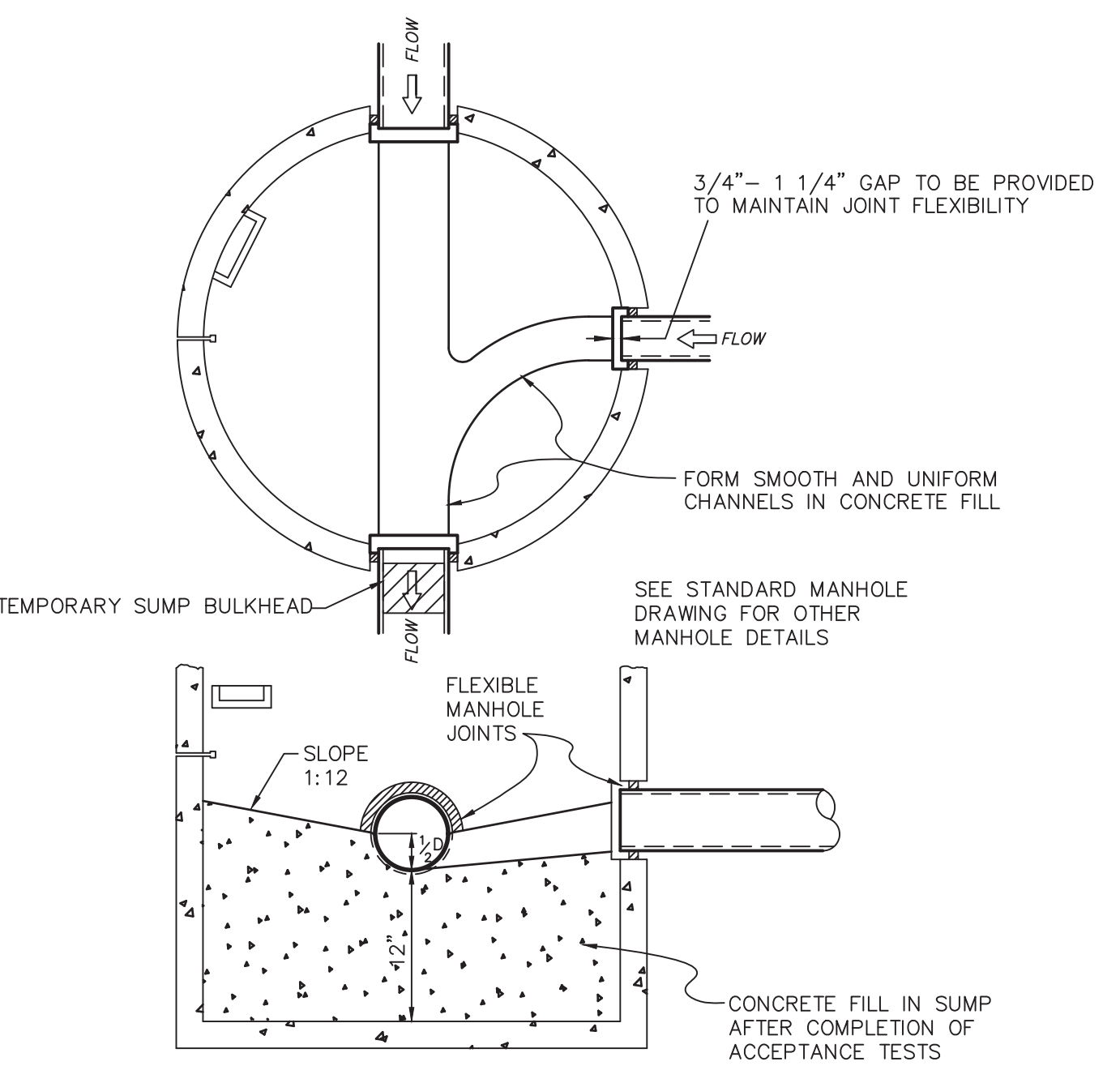
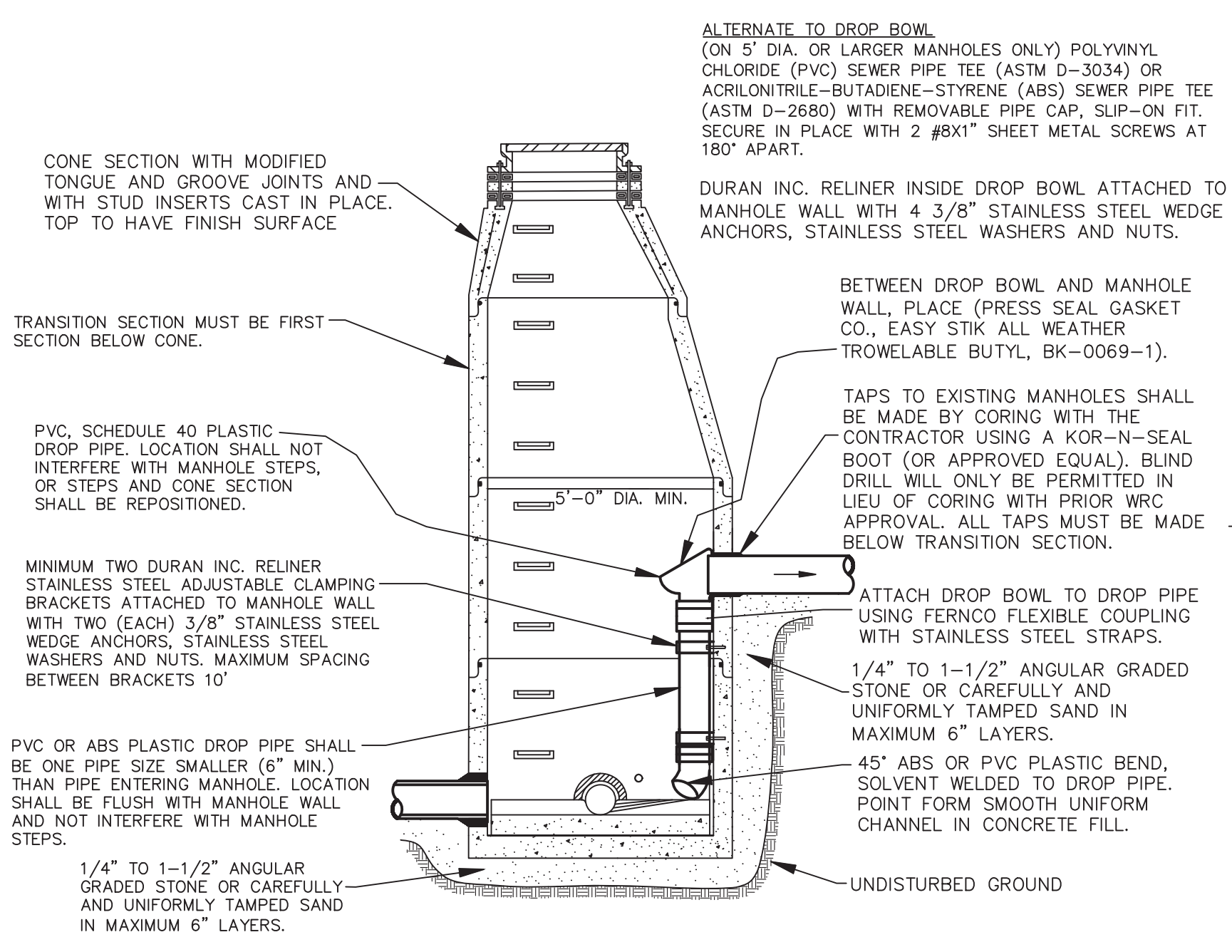
White Lake Township
7525 Highland Road (M-59)
White Lake, Michigan 48383
248-698-3300

**STORM SEWER
STANDARD DETAILS**

DATE ISSUED: 08/16/95
JOB NO.:
SHEET NO.:

SANITARY SEWER CONSTRUCTION NOTES

- All construction shall conform to the current standards and specifications of the local unit of government and the Oakland County Water Resources Commissioner (OCWRC). All sanitary sewer construction shall have full time inspection supervised by a professional engineer provided by or caused to be provided by the local unit of government.
- At all connections to Oakland County Water Resources Commissioner's sewers or extensions, and before start of construction, the Contractor must obtain a Sewer Inspection Permit issued by the OCWRC. Gravity sewer permit charges are \$250.00 for each connection plus \$25.00 for each manhole constructed. Pressure sewer permit charges are \$250.00 per 2460 L.F. of force main with a minimum permit fee of \$250.00. Failure to pass any test segment will result in an additional charge to the Contractor for each retest, in accordance with the above price schedule. The Contractor shall also have posted with the OCWRC a \$5,000.00 surety bond and \$500.00 cash deposit. The Contractor shall notify the local unit of government and the OCWRC (248-858-1110) 24 hours prior to the beginning of any construction. Final acceptance tests must be witnessed by County personnel and must be scheduled by Municipality or its consultant in advance with 24 hour notice at 248-858-1110.
- No sewer installation shall have an infiltration or exfiltration exceeding 100 gallons per inch diameter per mile of pipe in a 24 hour period, and no single run of sewer between manholes shall exceed 100 gallons per inch diameter per mile. Air tests in lieu of infiltration tests shall be as specified in the OCWRC "Acceptance Tests", dated September, 1972. Only pipe and pipe joints approved by the Oakland County Water Resources Commissioner may be used for sanitary sewer construction.
- Located in the first manhole upstream from the point of all connections to an existing OCWRC sewer, or extension thereto, a temporary 12-inch deep sump shall be provided in the first manhole above the connection which will be filled in after such successful completion of any acceptance test up to the standard fill provided for the flow channel. A watertight bulkhead shall be provided on the downstream of the sump manhole.
- All building leads and risers shall be 6-inch S.D.R. 23.5 ABS OR PVC pipe with chemically fused joints, or an approved equal pipe and joint. Sewer pipe wye shall contain factory installed premium joint material of an approved type compatible with that of the building lead pipe used. Building leads to be furnished with removable air tight and water-tight stoppers.
- All rigid sewer pipe shall be installed in Class "B" bedding or better. All flexible, semi-flexible or composite sewer pipe shall be installed in conformance to the Oakland County Water Resources Commissioner specifications.
- All new manholes shall have Oakland County Water Resources Commissioner approved flexible, water-tight seals where pipes pass through walls. Manholes shall be of precast sections with modified groove tongue and rubber gasket type joints. Precast manhole cone sections shall be Oakland County Water Resources Commissioner approved modified eccentric cone type. All manholes shall be provided with bolted, water-tight covers.
- At all connections to manholes on Oakland County Water Resources Commissioner's sewers or extensions thereto drop connections will be required when the difference in invert elevations exceeds 18-inches. Outside drop connections only will be approved.
- Taps to existing manholes shall be made by coring. The Contractor shall place a KOR-N-SEAL boot (or OCWRC approved equal) after coring is completed. Blind drilling will not be permitted in lieu of coring.
- New manholes constructed directly on Oakland County Water Resources Commissioner's sewers shall be provided with covers reading "Oakland County - Sanitary" in raised letters. New manholes built over an existing sanitary sewer shall have monolithic poured bottoms.
- No ground water, storm water, construction water, downspout drainage or weep tile drainage shall be allowed to enter any sanitary sewer installation.
- Prior to excavation, the Contractor shall telephone MISS DIG (647-7344) for the location of underground pipeline and cable facilities, and shall also notify representatives of other utilities located in the vicinity of the work.
- 18" minimum vertical separation and 10' minimum horizontal separation must be maintained between sanitary sewer and water main.
- Manhole frame and cover shall be as follows: East Jordan heavy manhole cover, base flange type #1040 or Neenah Foundry heavy duty #R-1642 manhole frame. Solid lid cover shall be non-rocking and marked "WHITE LAKE TOWNSHIP SEWER DEPARTMENT."



DRAWN:CAD
DESIGN:OA
CHECKED:-

VERT. -
SCALE: HORZ. AS NOTED

REVISIONS	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE
		FIRST ISSUE	09/11/97		OCWRC COMMENTS	11/06/15			
		UPDATED TITLE BLOCK	04/30/13						
		UPDATED NOTES	02/17/15						

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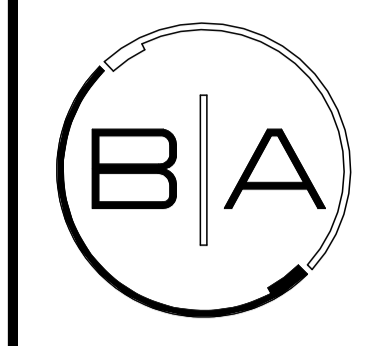
2291 Water Street, Suite 6 Port Huron, Michigan 48060 tel (810) 987-7820 fax (810) 987-7895

White Lake Township

7525 Highland Road (M-59)
White Lake, Michigan 48383
248-698-3300

SANITARY SEWER STANDARD DETAILS

JOB NO. _____
DATE ISSUED 09/11/97
SHEET NO. _____



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WWW.BOWERSARCH.COM

CONSULTANT + NAME

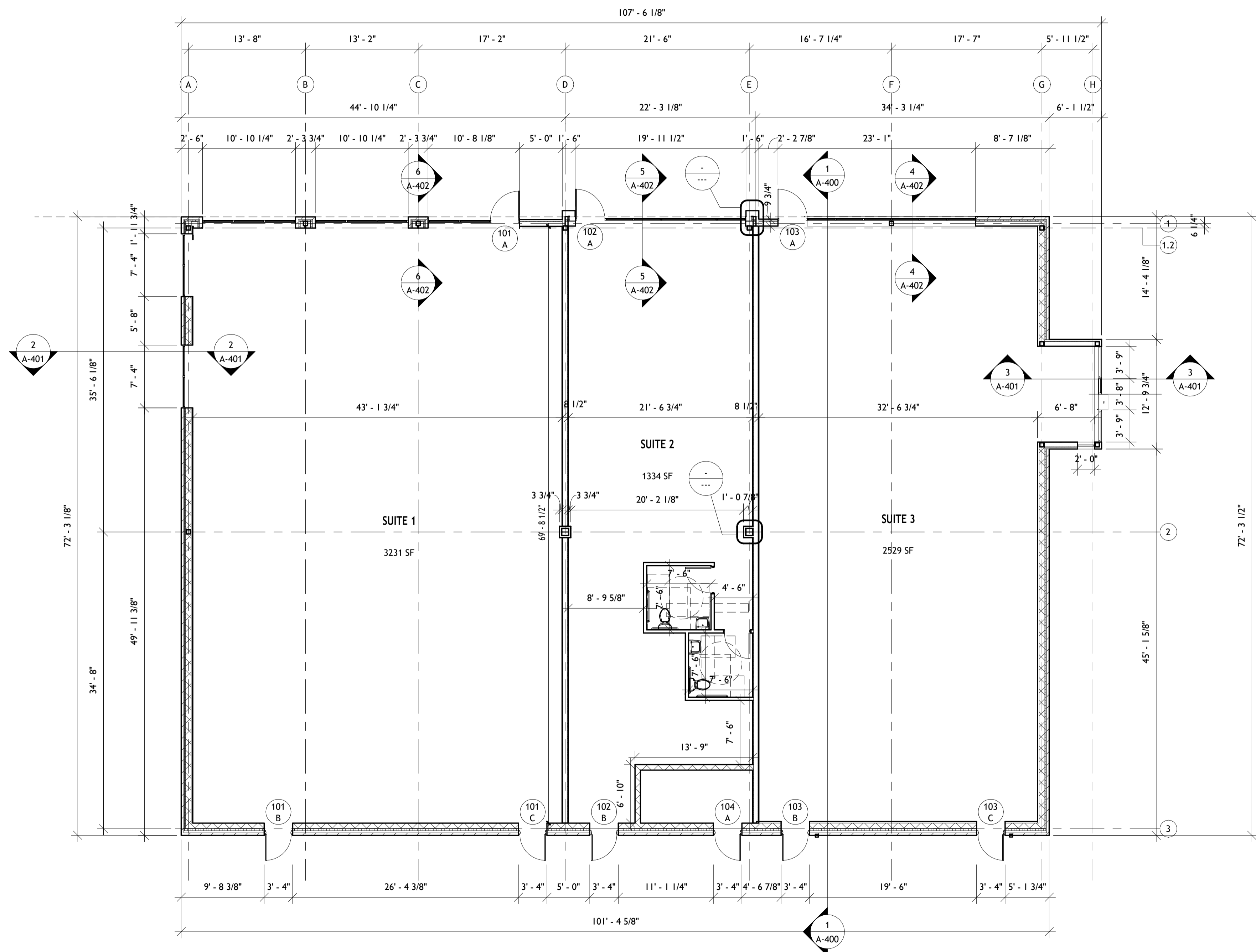
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**WHITE LAKE
RETAIL**
Enter address here
Address Line 2

PROJECT + NUMBER
23-306

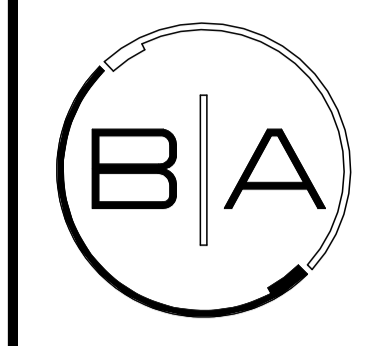
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23 APR 2024 REV
13 MAY 2024 REV
12 JULY 2024 REV
17 JULY 2024
24 JULY 2024 REV
21 AUG 2024 REV
17 OCT 2024 SPLN

SHEET + TITLE
FLOOR PLANS - WEST
BUILDING

SHEET + NUMBER
A-100



I FLOOR PLAN - WEST BUILDING
A-100 A-300 SCALE: 1/8" = 1'-0"



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**WHITE LAKE
RETAIL**
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PROJECT + NUMBER

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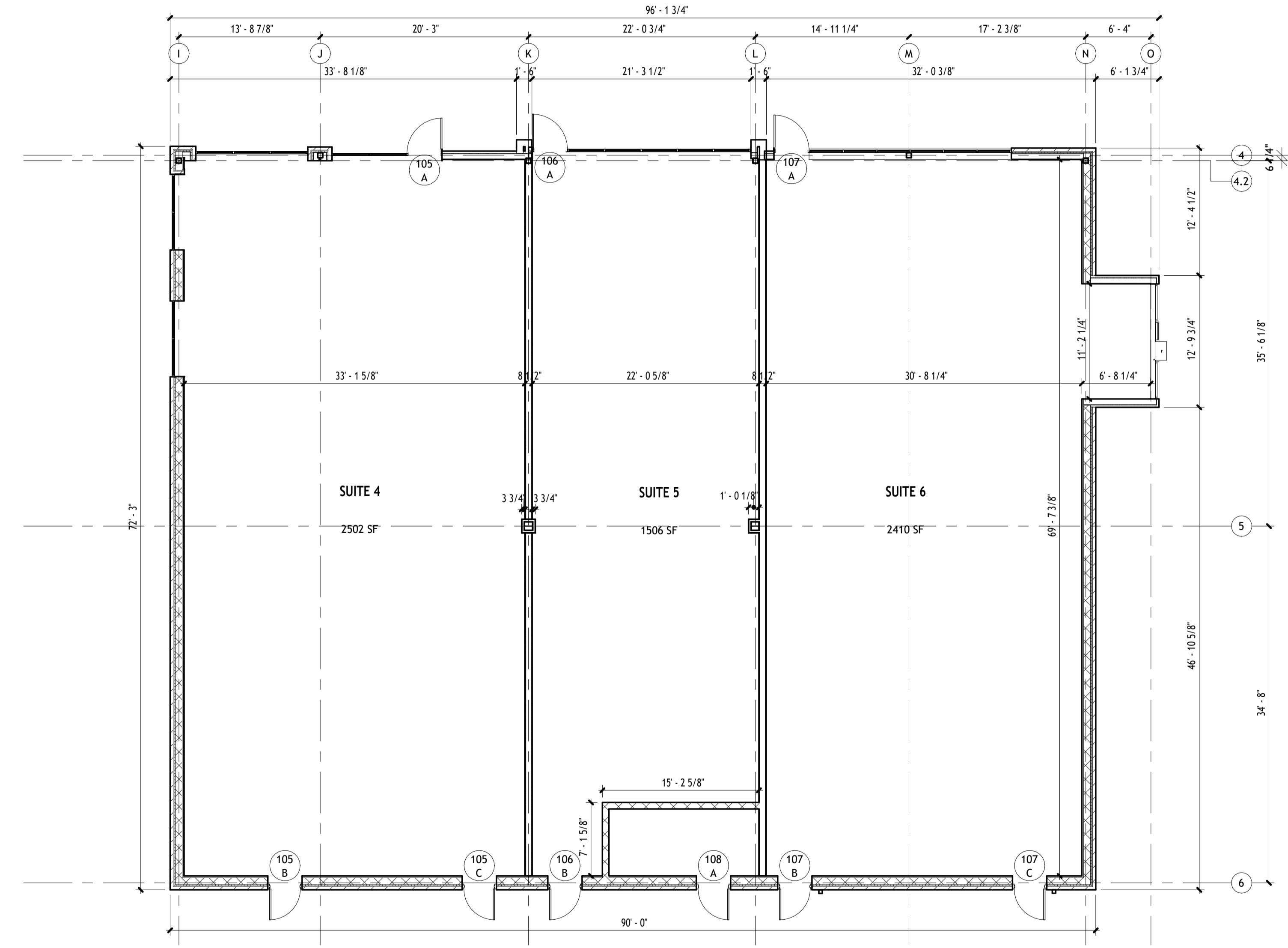
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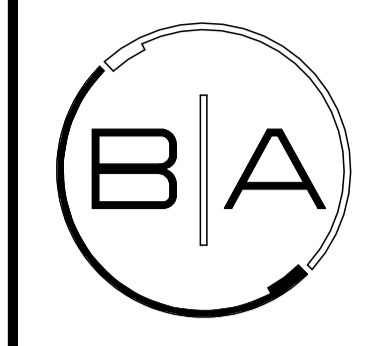
SHEET + TITLE
FLOOR PLAN - EAST
BUILDING

SHEET + NUMBER

A-101



I FLOOR PLAN - EAST BUILDING
A-101 | A-300 SCALE: 1/8" = 1'-0"



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**WHITE LAKE
RETAIL**
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PROJECT + NUMBER

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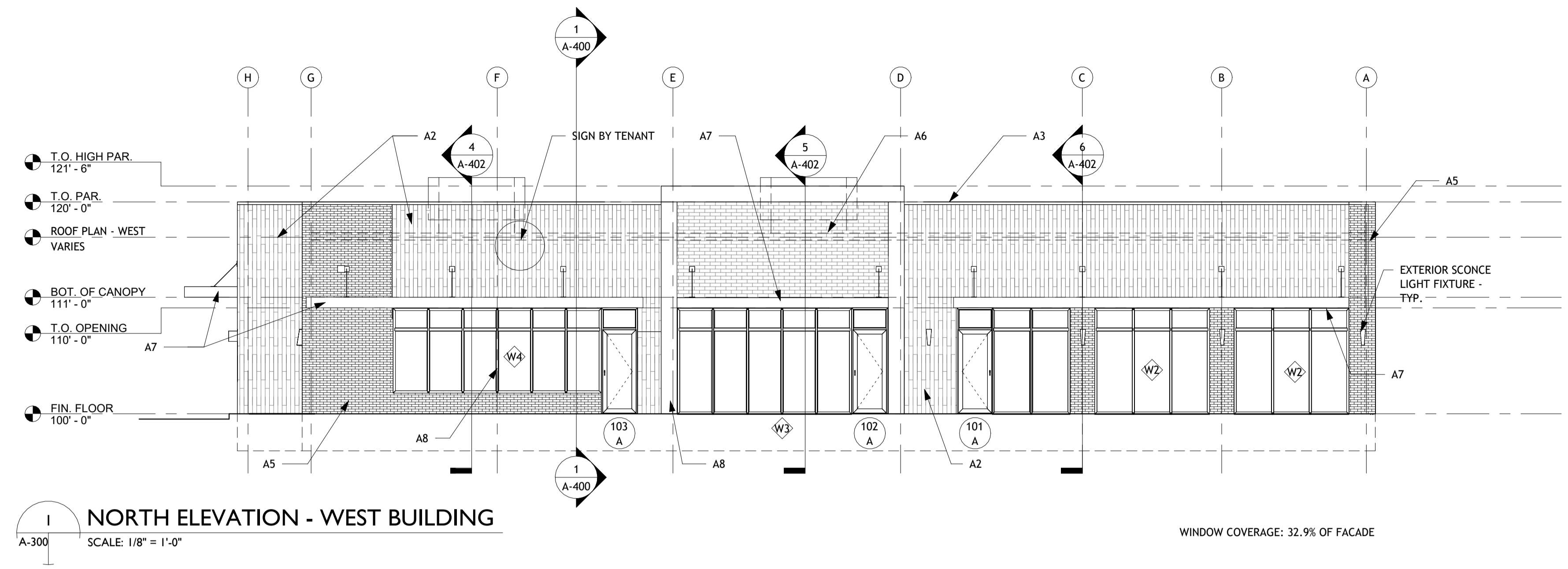
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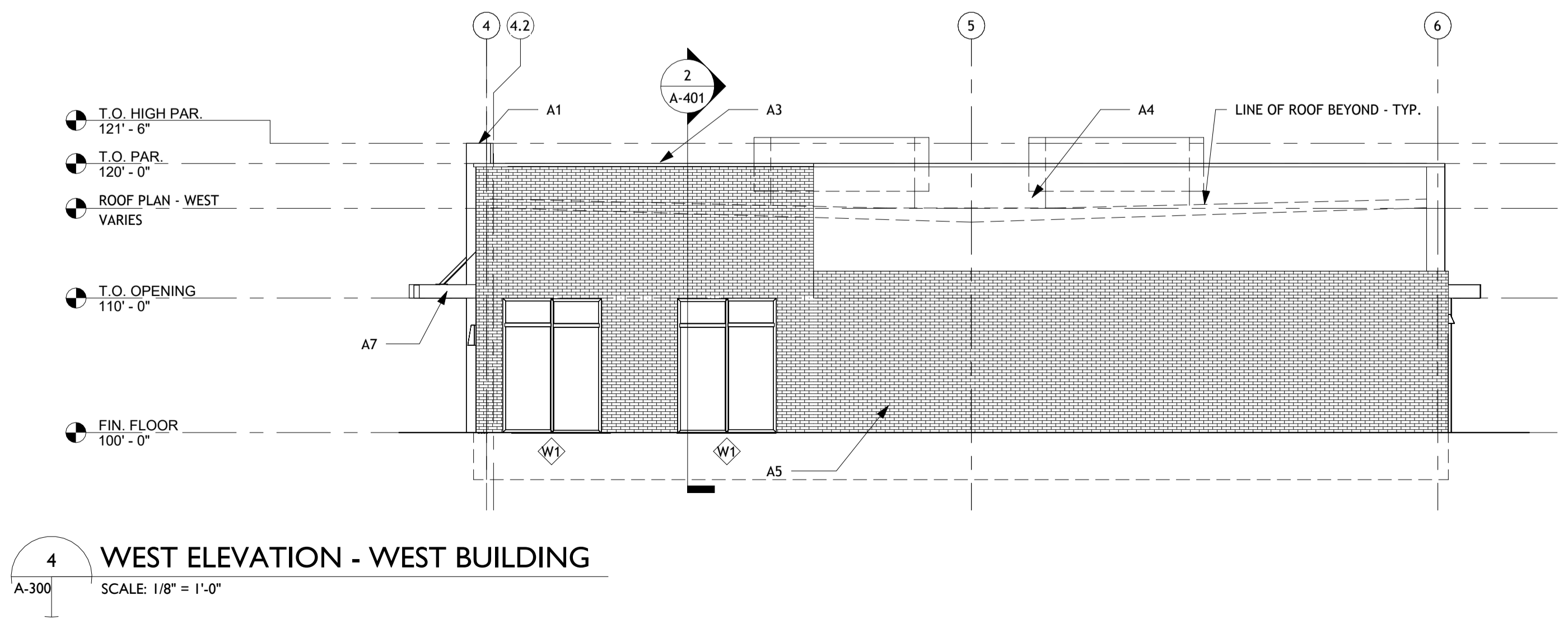
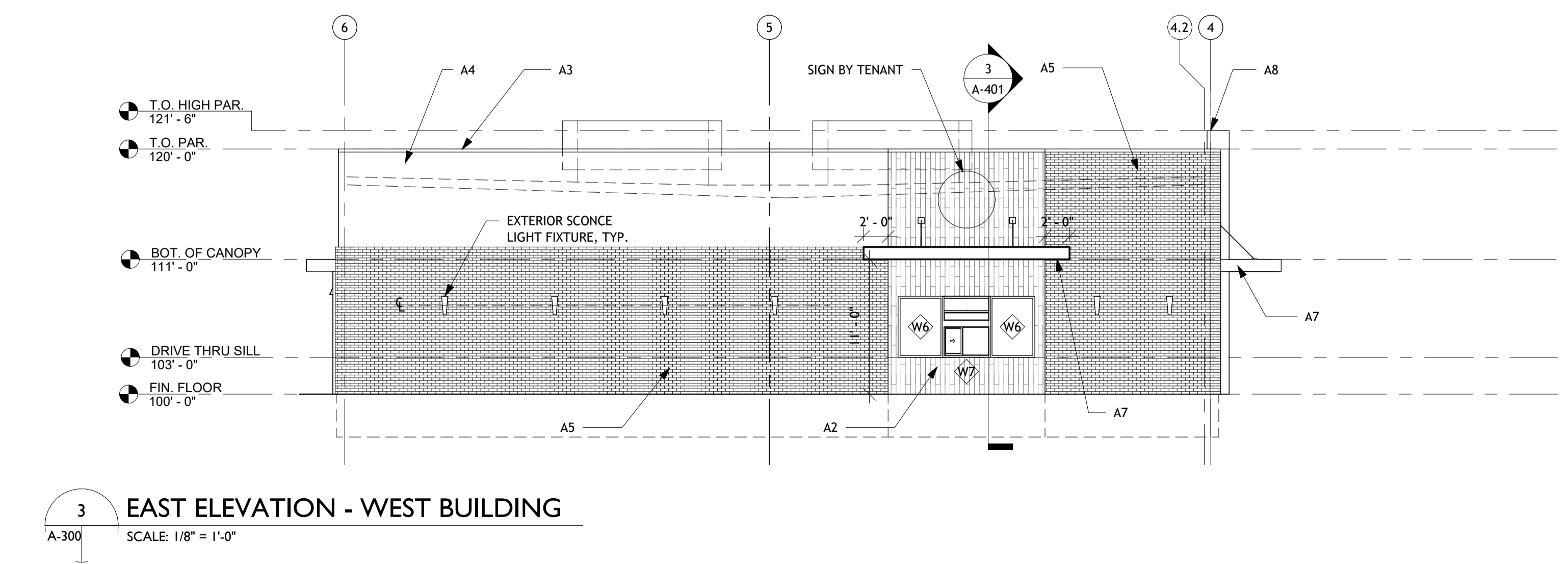
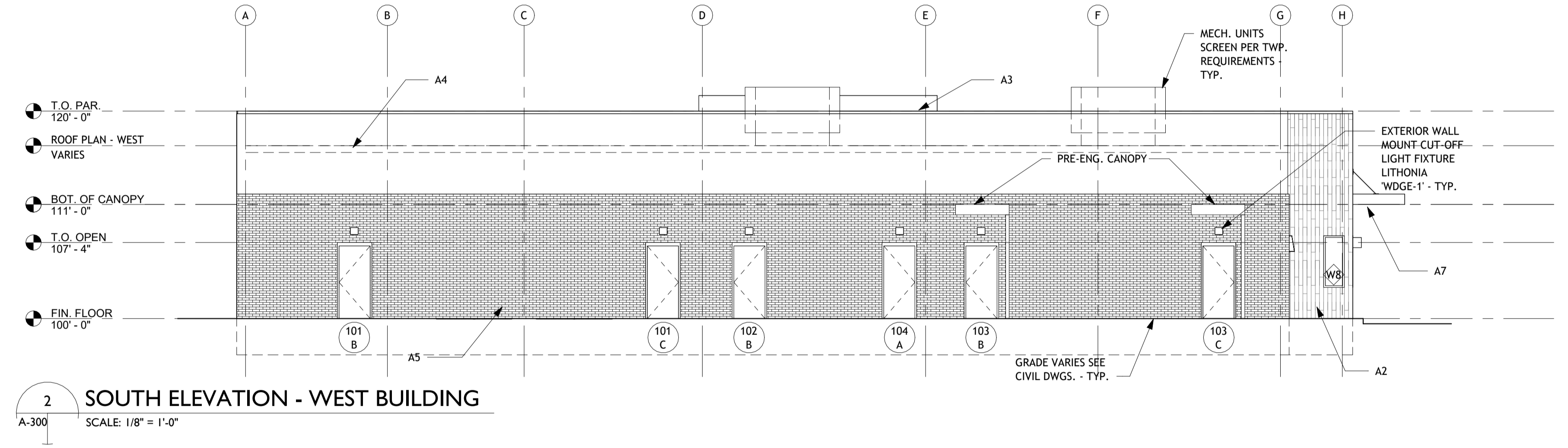
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ELEVATIONS - WEST
BUILDING

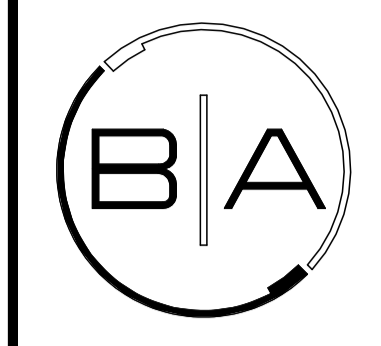
SHEET + NUMBER

A-300



EXTERIOR FINISHES LEGEND					
TAG	MATERIAL	MANUF/STYLE	COLOR	FINISH / STYLE	FASTENER TYPE
A1	FIBER CEMENT PANELS	NICHIHA			
A2	FIBER CEMENT PANELS	NICHIHA			
A3	PREFIN. METAL COPING	PAC-CLAD OR EQUAL TO MATCH	TO MATCH RAL #7021 MATTE BLACK STEEL - MTO028 - FLAT ROCK	ANODIZED	
A4	EXTERIOR INSULATION FINISH SYSTEM (EIFS)	DRYVIT	COLOR TO MATCH SW 7030 ANEW GRAY	SANDBLAST TEXTURE	
A5	BRICK VENEER	BELDEN BRICK			
A6	BRICK VENEER	GLEN-GERY	ASPEN WHITE		
A7	PREFIN. METAL AWNING	TBD	TO MATCH RAL #7021	PRE-FINISHED	
A8	PREFIN. ALUM.	TBD	TO MATCH RAL #7021	PRE-FINISHED	





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PROJECT + NUMBER

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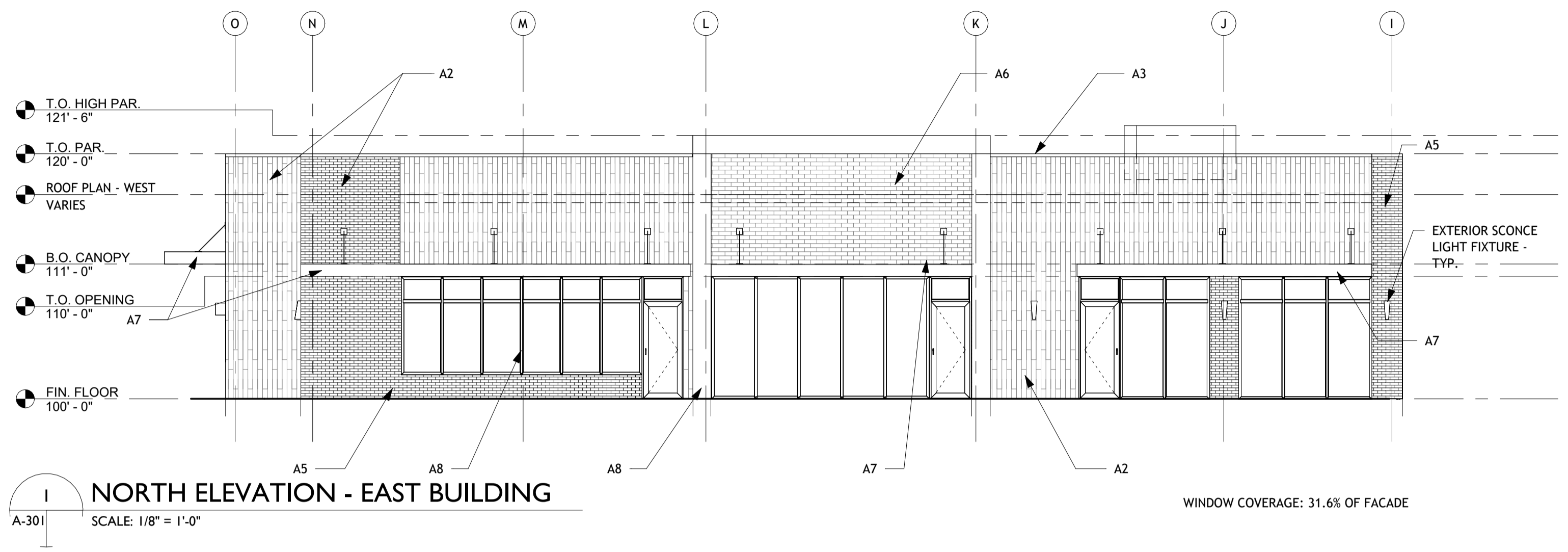
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29 APR 2024
13 MAY 2024
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17 OCT 2024
REV
REV
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SPLAN

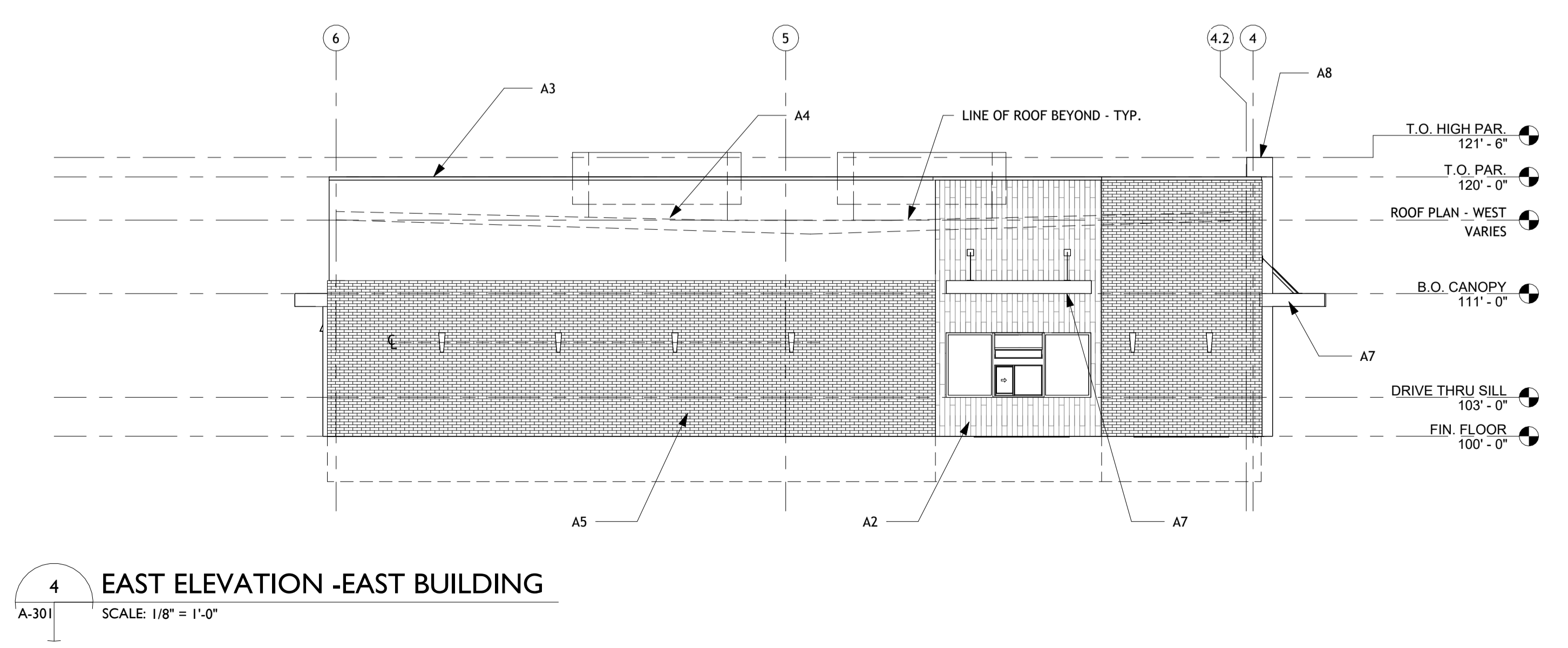
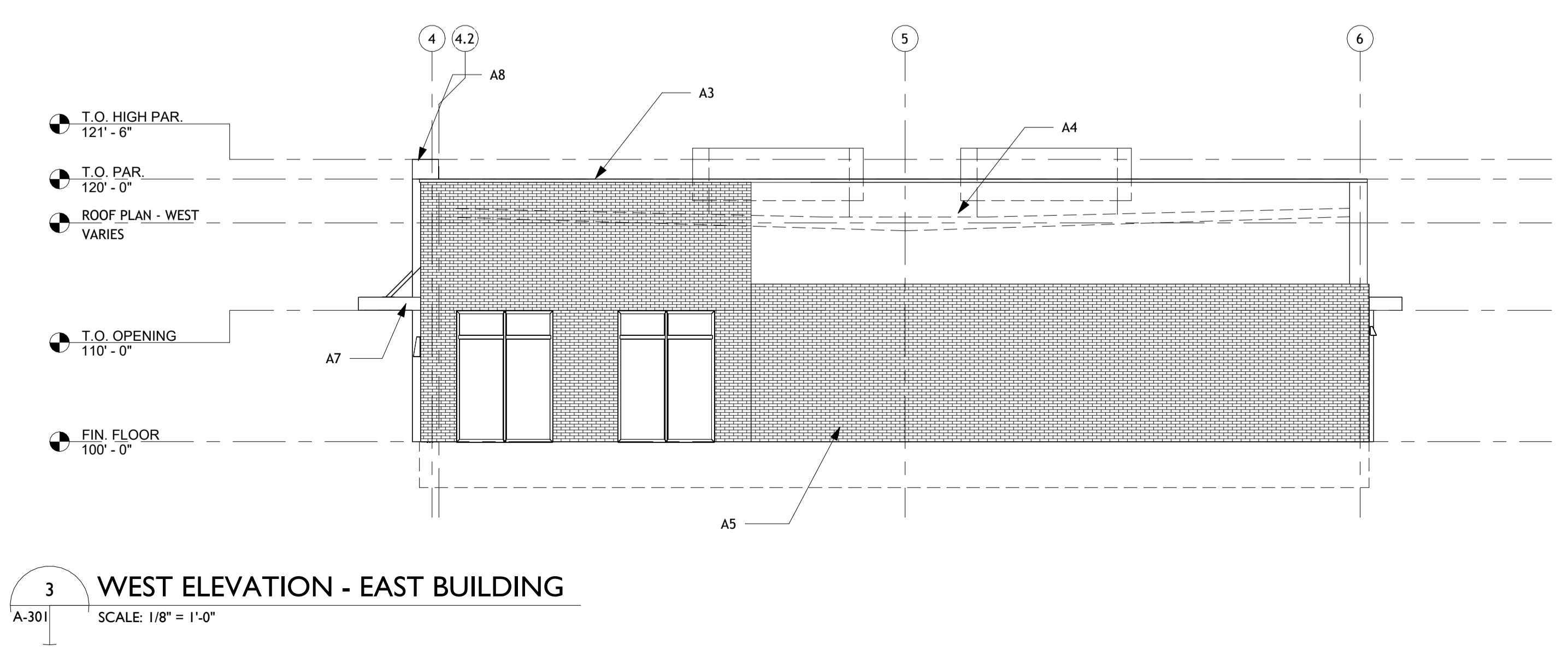
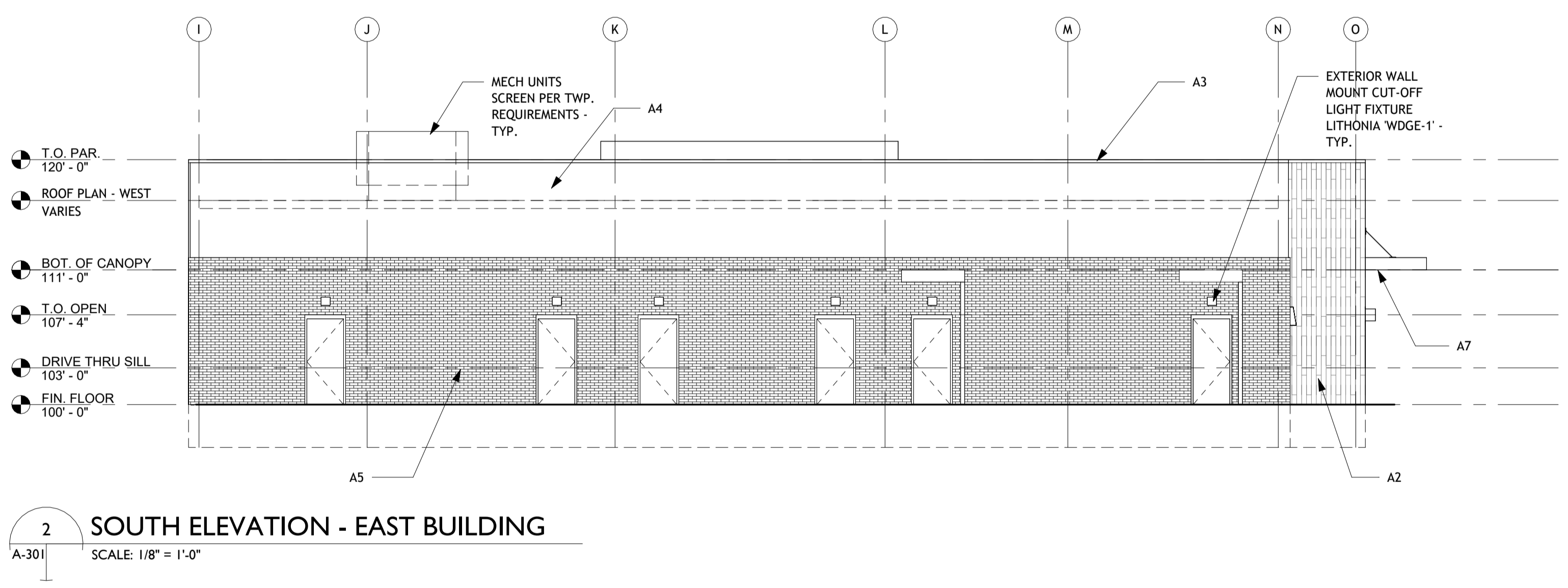
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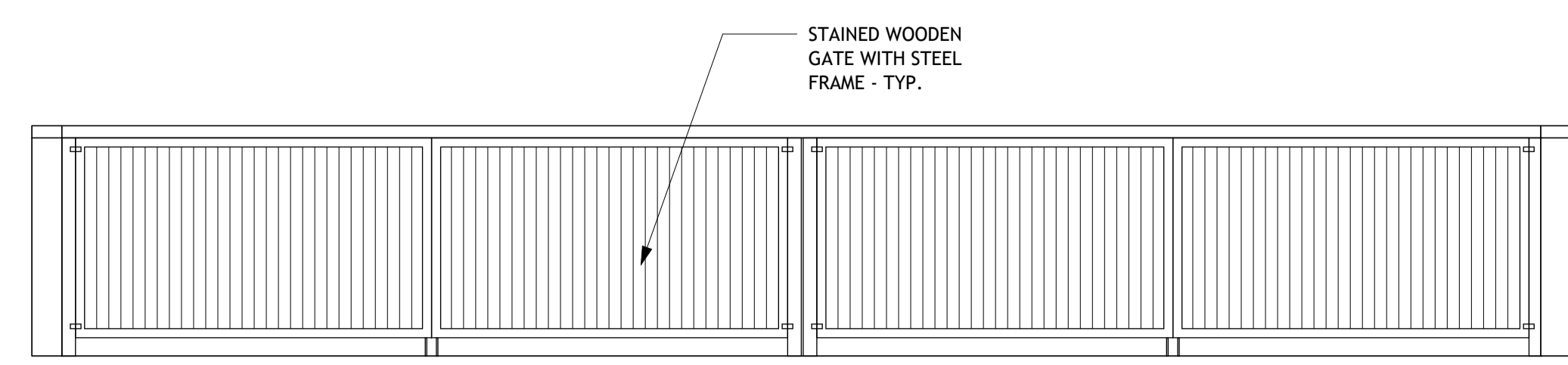
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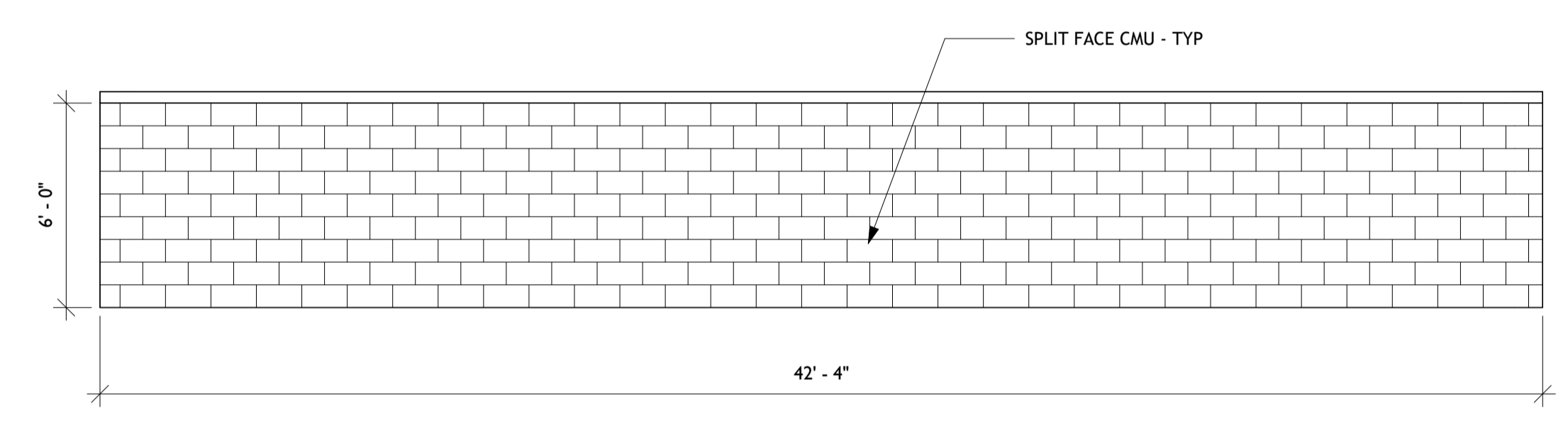


EXTERIOR FINISHES LEGEND					
TAG	MATERIAL	MANUF/STYLE	COLOR	FINISH / STYLE	FASTENER TYPE
A1	FIBER CEMENT PANELS	NICHIHA			
A2	FIBER CEMENT PANELS	NICHIHA			
A3	PREFIN. METAL COPING	PAC-GLAD OR EQUAL TO MATCH	TO MATCH RAL #7021 MATTE BLACK STEEL - MT0028 - FLAT ROCK COLOR TO MATCH SW 7030 ANEW GRAY	ANODIZED	
A4	EXTERIOR INSULAION FINISH SYSTEM (EIFS)	DRYVIT		SANDBLAST TEXTURE	
A5	BRICK VENEER	BELDEN BRICK			
A6	BRICK VENEER	GLEN-GERY	ASPEN WHITE		
A7	PREFIN. METAL AWNING	TBD	TO MATCH RAL #7021	PRE-FINISHED	
A8	PREFIN. ALUM	TBD	TO MATCH RAL #7021	PRE-FINISHED	

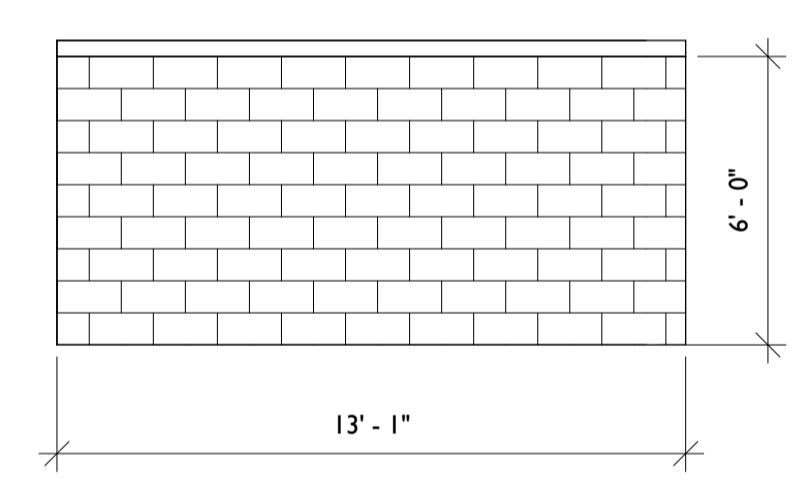




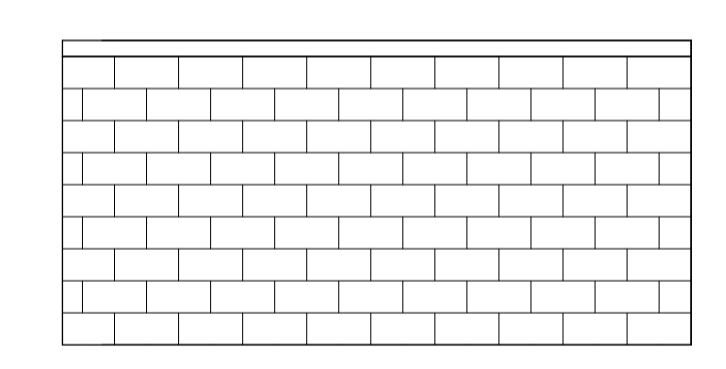
1 DUMPSTER GATE ELEV
 A-302 SCALE: 1/4" = 1'-0"



2 DUMPSTER REAR ELEV
 A-302 SCALE: 1/4" = 1'-0"



3 DUMPSTER EAST ELEV
 A-302 SCALE: 1/4" = 1'-0"



4 DUMPSTER WEST ELEV
 A-302 SCALE: 1/4" = 1'-0"



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 2400 SOUTH HURON PARKWAY
 ANN ARBOR, MI 48104
 P: 734.975.2400
 WWW.BOWERSARCH.COM

CONSULTANT + NAME

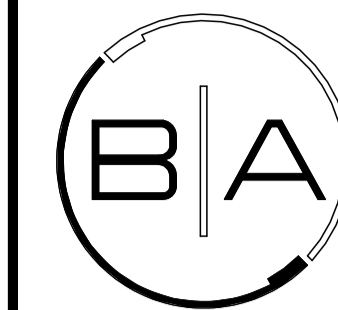
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**WHITE LAKE
 RETAIL**
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 Address Line 2

PROJECT + NUMBER
23-306

ISSUE + DATE
 3 MAR 2024
 29 APR 2024 REV
 13 MAY 2024 REV
 24 JULY 2024 REV
 17 OCT 2024 SPLAN

SHEET + TITLE
 DUMPSTER ENCLOSURE
 ELEVATIONS

SHEET + NUMBER
A-302



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PROJECT + INFORMATION
**WHITE LAKE
RETAIL**
Enter address here
Address Line 2

PROJECT + NUMBER

23-306

ISSUE + DATE

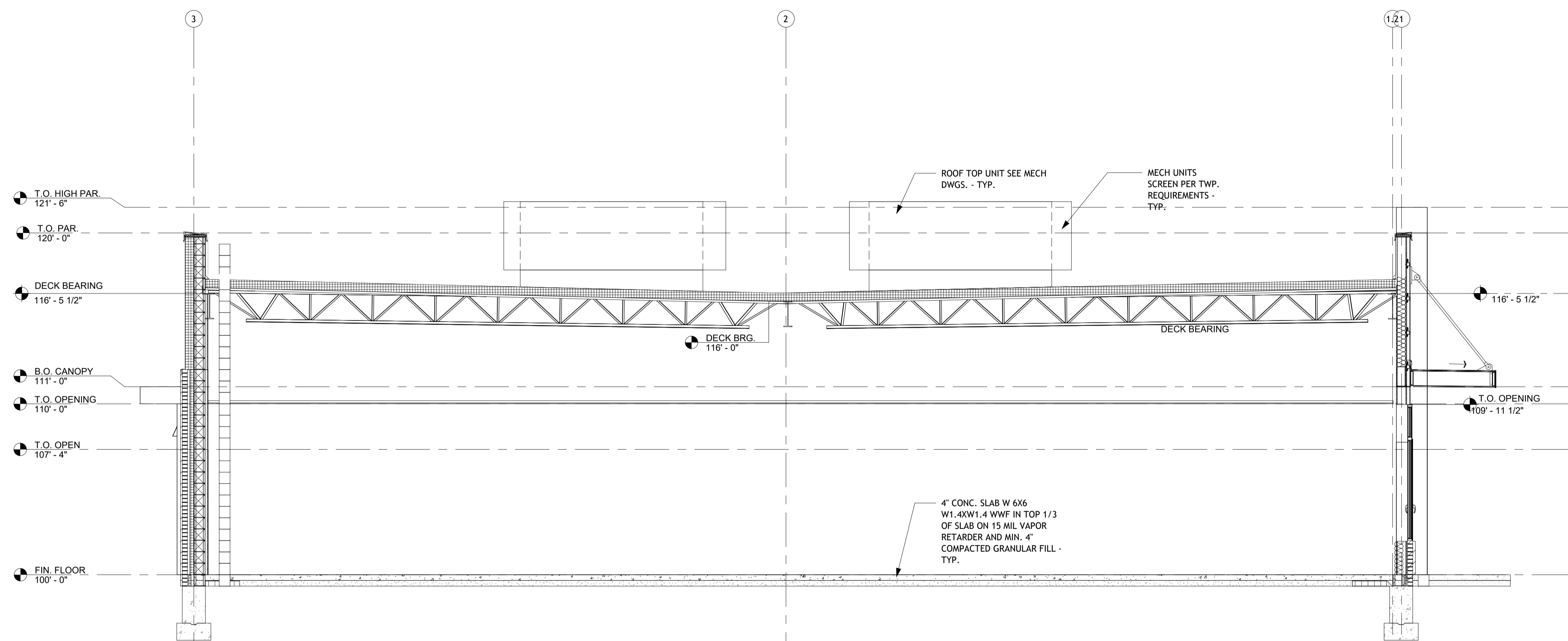
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23 APR 2024	REV
13 MAY 2024	REV
12 JULY 2024	REV
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24 JULY 2024	REV
17 OCT 2024	SPLAN

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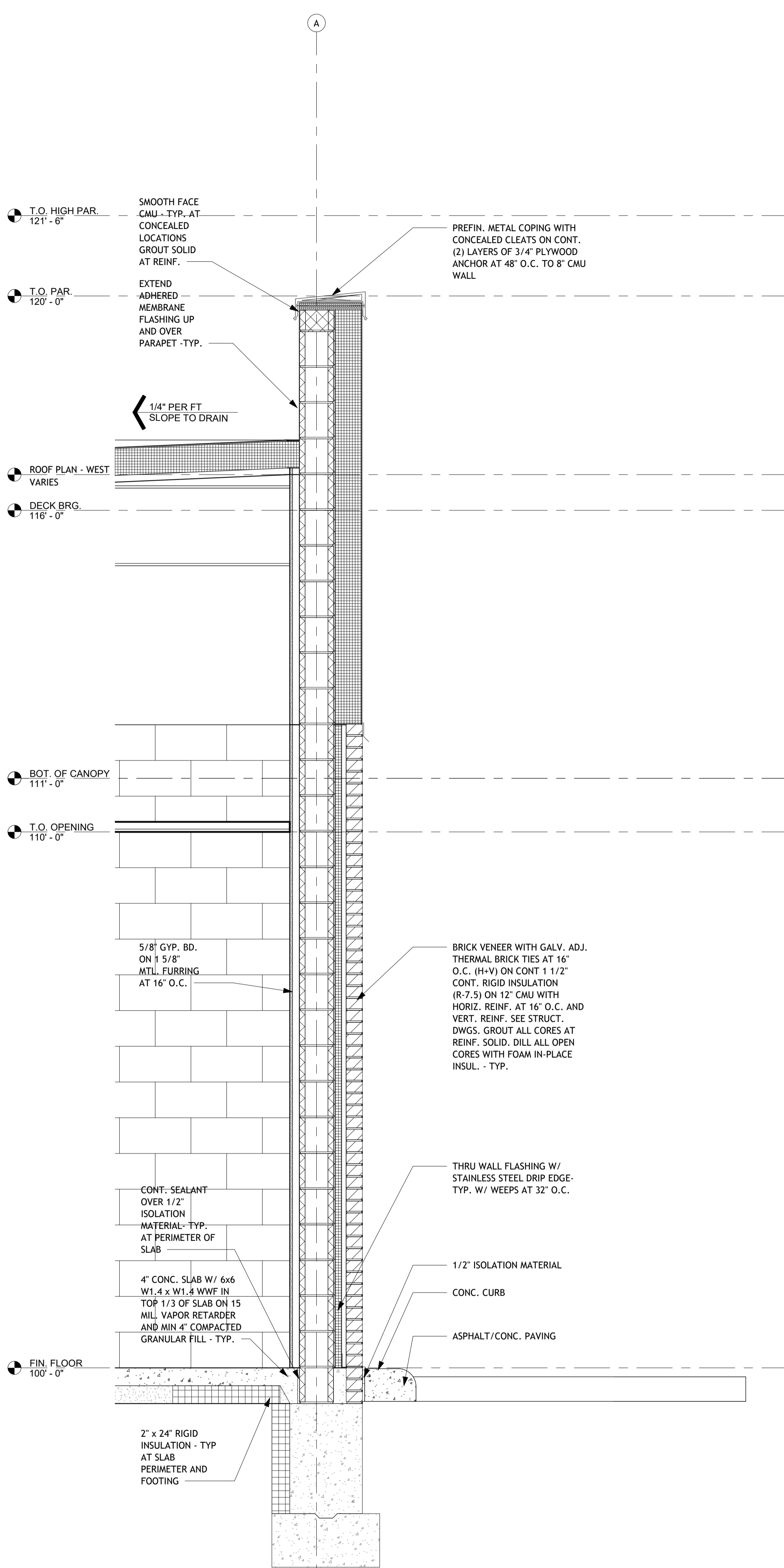
BUILDING SECTION - WEST
BUILDING

SHEET + NUMBER

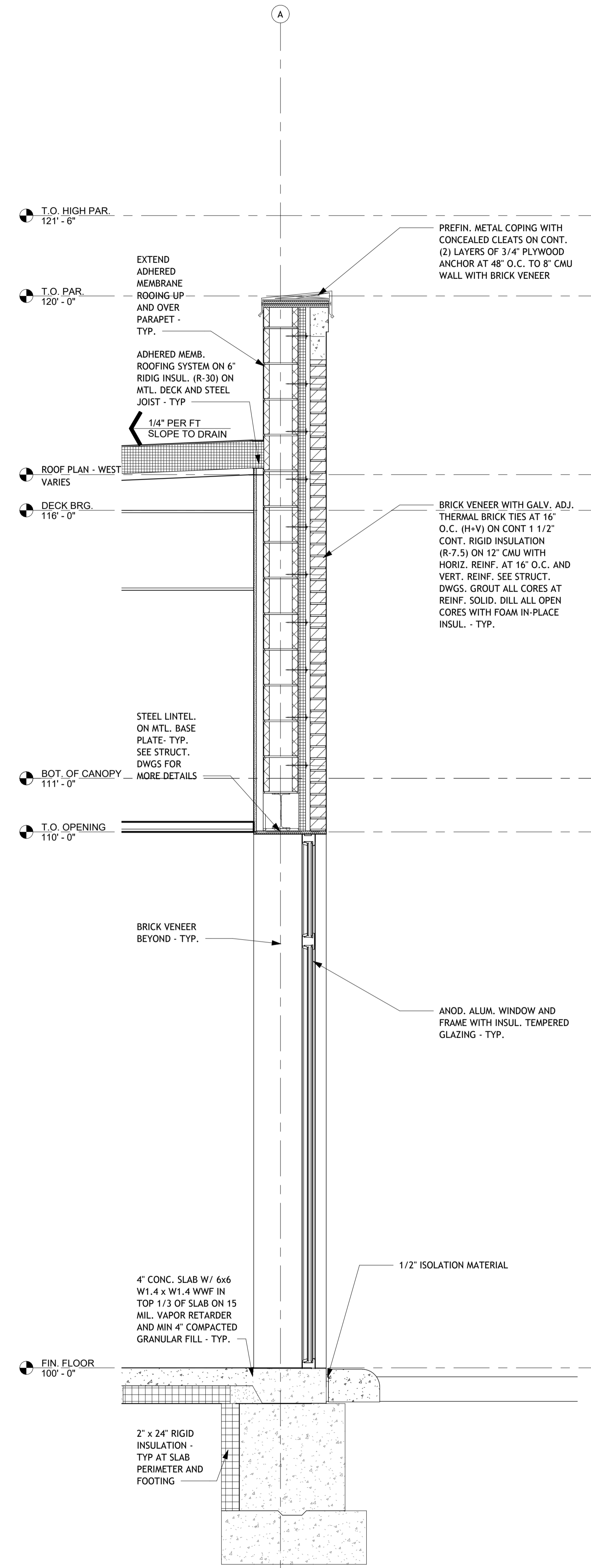
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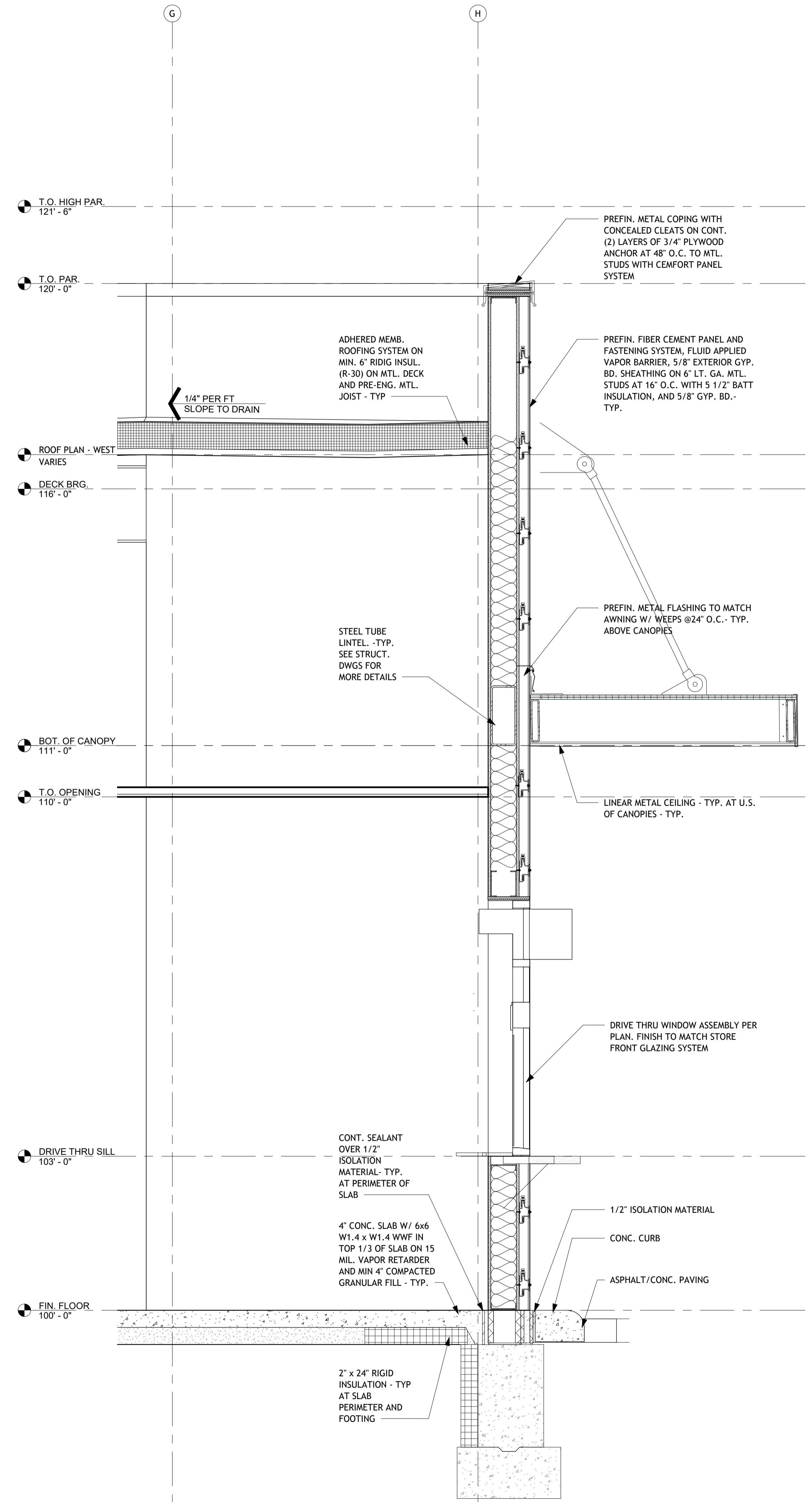
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A-400 A-100 SCALE: 1/4" = 1'-0"



1 WALL SECTION - 1
A-401 SCALE: 3/4" = 1'-0"



2 WALL SECTION - 2
A-401/A-100 SCALE: 3/4" = 1'-0"



3 WALL SECTION - 3
A-401/A-100 SCALE: 3/4" = 1'-0"

Item A.



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PROJECT + INFORMATION

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Address Line 2

PROJECT + NUMBER

23-306

ISSUE + DATE

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23 APR 2024	REV
13 MAY 2024	REV
12 JULY 2024	REV
17 JULY 2024	
24 JULY 2024	REV
17 OCT 2024	SPLAN

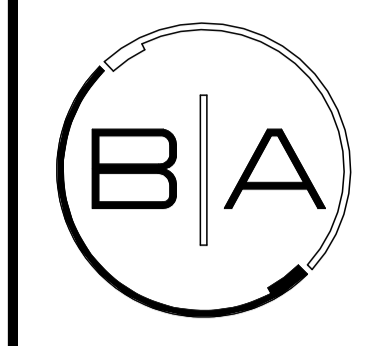
SHEET + TITLE

WALL SECTION

SHEET + NUMBER

A-401

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CONSULTANT + NAME

PROJECT + INFORMATION
**WHITE LAKE
RETAIL**
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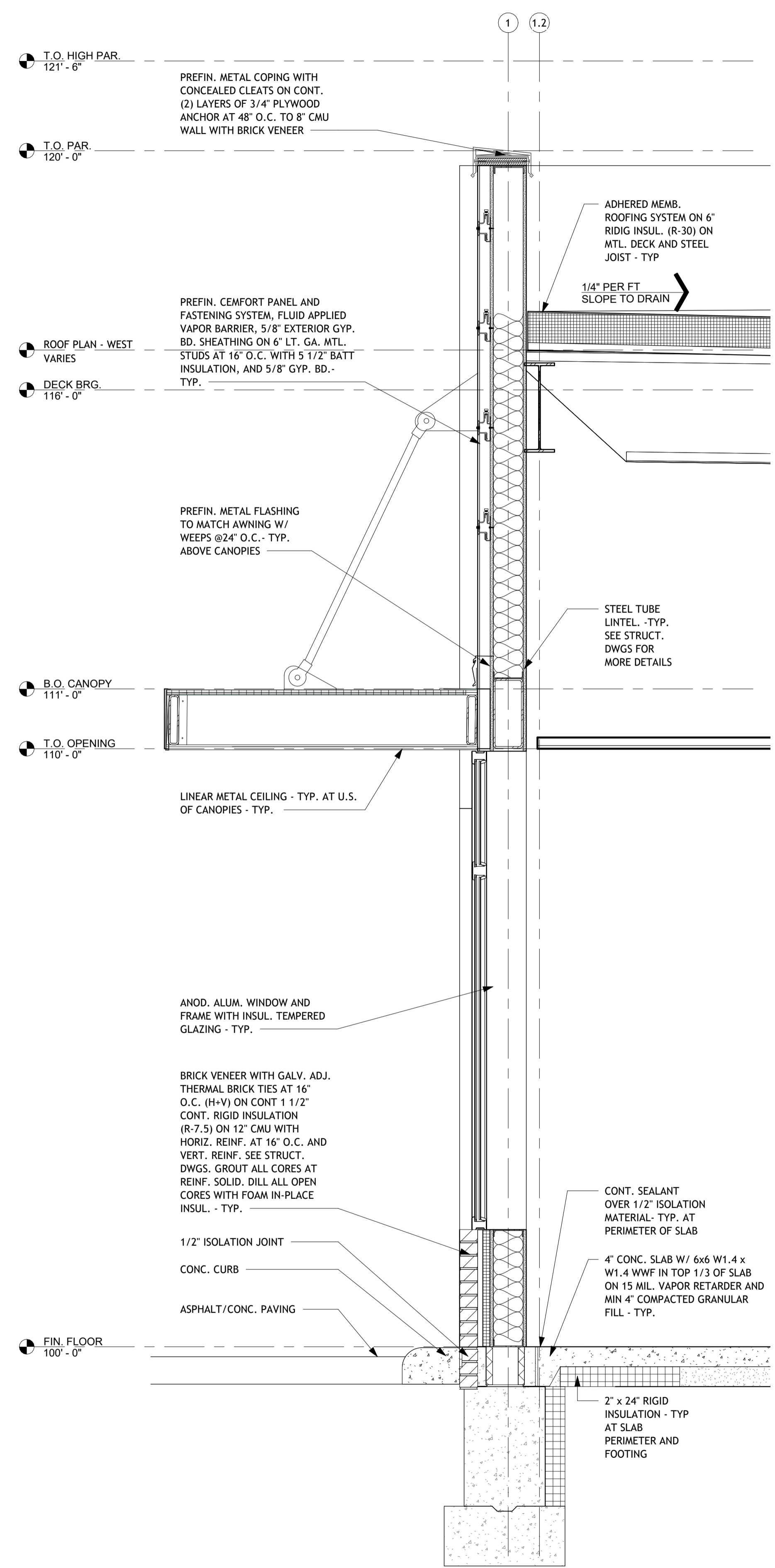
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ISSUE + DATE

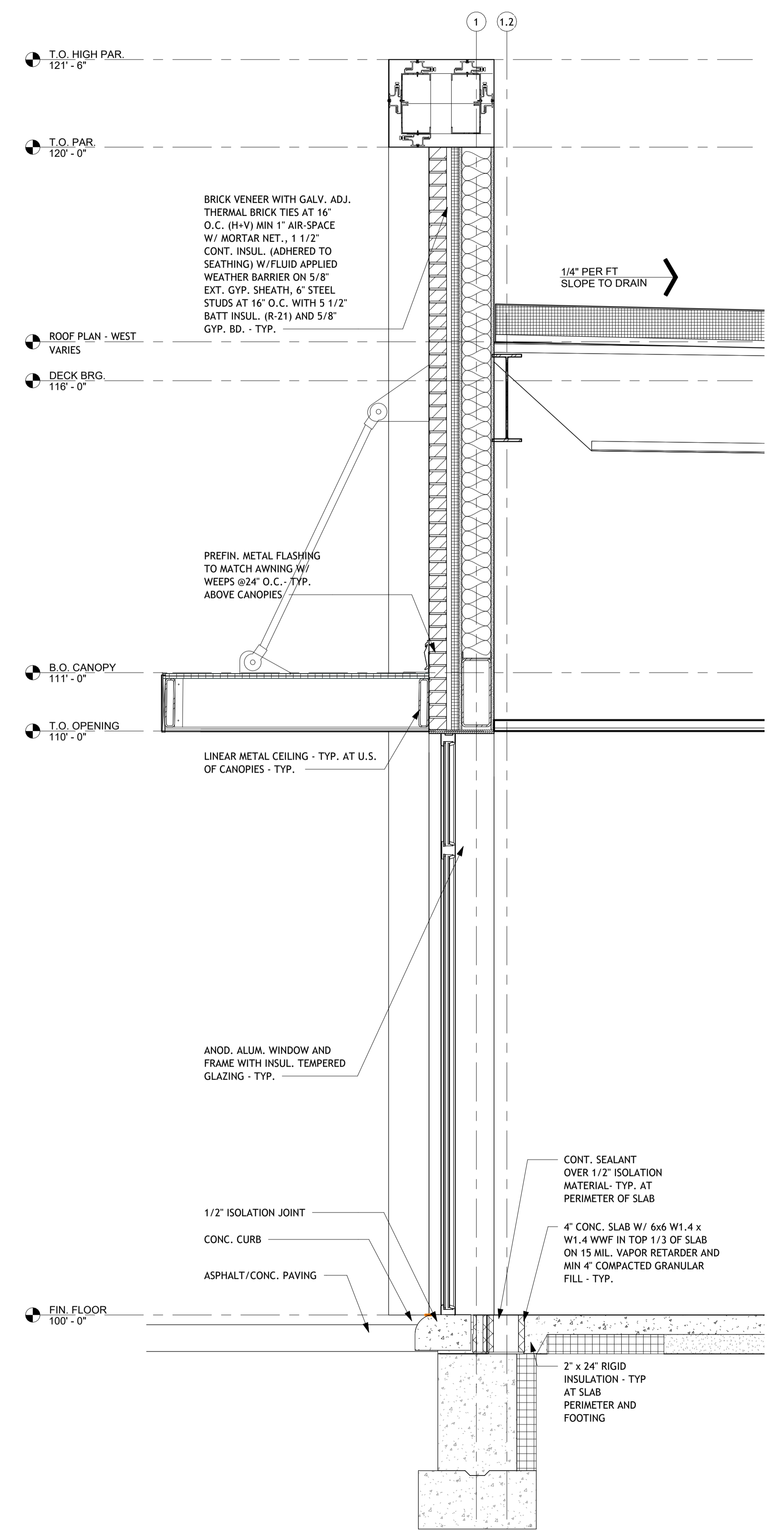
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17 OCT 2024	SPLAN

SHEET + TITLE
WALL SECTION

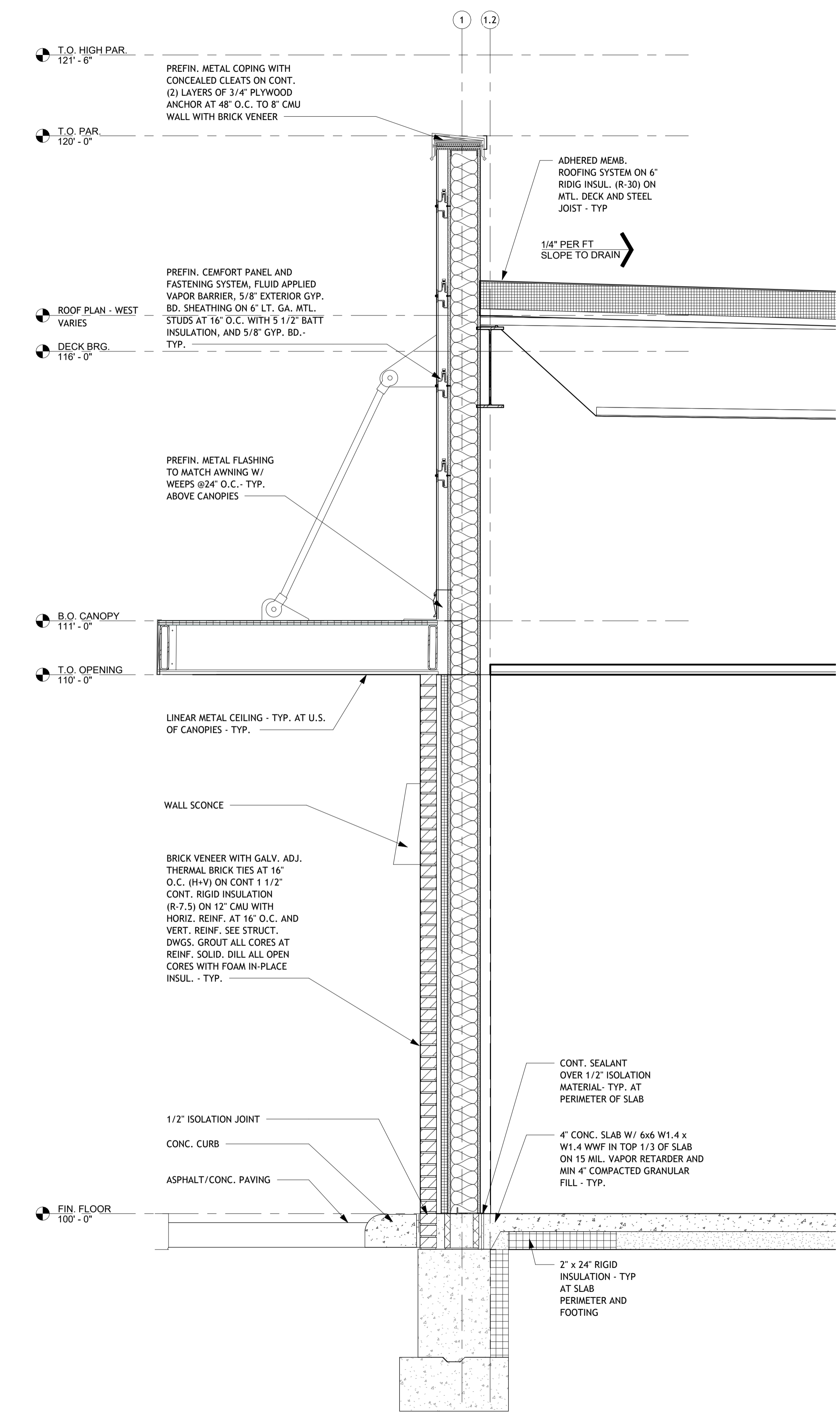
SHEET + NUMBER
A-402



4 WALL SECTION - 4
A-402 A-100 SCALE: 3/4" = 1'-0"



5 WALL SECTION - 5
A-402 A-100 SCALE: 3/4" = 1'-0"



6 WALL SECTION - 6
A-402 A-100 SCALE: 3/4" = 1'-0"

WHITE LAKE TOWNSHIP NOTICE OF PUBLIC HEARING

Item A.

Notice is hereby given the Planning Commission of the Charter Township of White Lake will hold a public hearing on **Thursday, December 5, 2024 at 6:30 P.M.** at the Township Annex, 7527 Highland Road, White Lake, Michigan 48383, to consider the following request for Special Land Use Approval, under Zoning Ordinance No. 58 – Article 4 Section 17 Drive-in or Drive-Thru Window Service and Article 4, Section 18, Eating Establishments with Entertainment and/or Outdoor Dining.

Property described as 9101 Highland Road, identified as parcel number 12-23-227-003, located south of Highland Road, west of Sunnybeach Boulevard, consisting of approximately 5.02 acres.

Applicant is requesting to **construct two restaurants with drive-thru windows as well as outdoor dining.**

Persons interested are requested to be present. Pertinent information relative to this special land use request is on file at the Community Development Department and may be examined at any time during regular business hours of 8:00 a.m. to 5:00 p.m. Persons interested may visit the Community Development Department, contact the Community Development Department by telephone at 248-698-3300, ext. 5, or attend the Public Hearing on the date specified. Written comments are also welcome at 7525 Highland Road, White Lake, MI 48383. Individuals with disabilities requiring auxiliary aids or services should contact the Clerk's Office at least 5 days before the hearing.

60

Sean O'Neil, AICP
Community Development Director

Director's Report

Project Name: 9451 Elizabeth Lake Road
 Description: Rezoning Request
 Date on Agenda this packet pertains to: December 5, 2024

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

Contact	Consultants & Departments	Approval	Denial	Approved w/Conditions	Other	Comments
Sean O'Neil	Community Development Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Based on comments from the Planning Consultant
Matteo Passalacqua	Carlisle Wortman Associates, Inc	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 11/25/24



Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: November 25th, 2024

**Rezoning Review
For
White Lake Township, Michigan**

Applicant:	Shirin Rahemifar / Viviana Group
Project Name:	9451 Elizabeth Lake Road Rezoning
Location:	South side of Elizabeth Lake Road, East of Union Lake Road.
Parcel ID:	12-26-204-002
Parcel Size:	1.33 gross acres
Application Date:	November 6 th , 2024
Current Zoning:	GB, General Business District
Action Requested:	Rezone to RM-1, Attached Single Family Residential

PROJECT DESCRIPTION

The Applicant is requesting a zoning change for the parcel located near Union Lake Road on the south side of Elizabeth Lake Road to convert the permissible uses of the site from commercial to attached residential. The rezoning statement states *“This rezoning request aligns closely with the White Lake Township’s Master Plan, fulfilling critical community needs, and is supported by statistical evidence that highlights immediate and long term benefits to the township.”*. The applicant has provided a concept plan showing a multi-tenant residential building. The application states the building will contain ten (10) units. It appears units will be a for sale product. We note these are concept plans. No formal site plan has been submitted.

Benjamin R. Carlisle, *President* Douglas J. Lewan, *Executive Vice President* John L. Enos, *Vice President*
David Scurto, *Principal* Sally M. Elmiger, *Principal* R. Donald Wortman, *Principal*
Paul Montagno, *Principal*, Megan Masson-Minock, *Principal*, Laura Kreps, *Senior Associate*
Richard K. Carlisle, *Past President/Senior Principal*

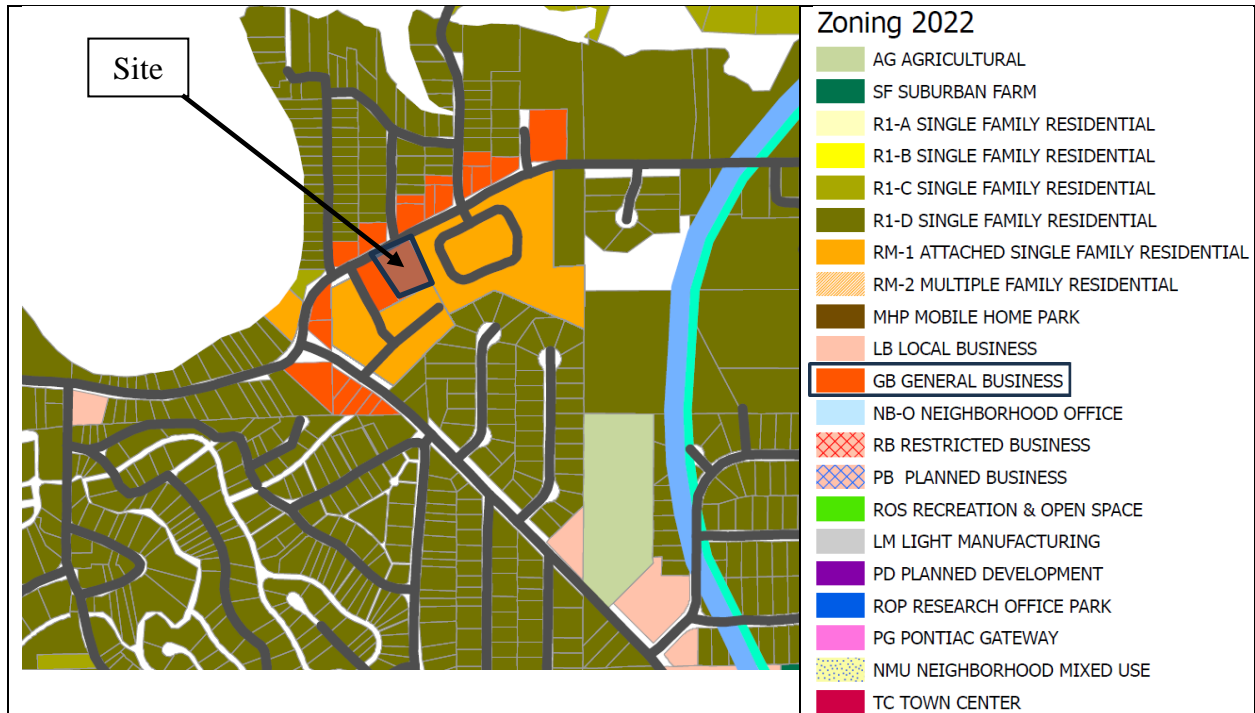
Aerial Photograph



Source: NearMap October, 2024

NEIGHBORING ZONING AND LAND USE

Zoning



The zoning and existing land uses for the subject site and surrounding parcels are identified in the following table:

Direction	Zoning	Existing Use
North	GB – General Business	Construction Material Supplier
South	RM-1 – Single Family Attached Residential	Multi-Family Residences
East	RM-1 – Single Family Attached Residential	Multi-Family Residences
West	GB – General Business	Vehicle Towing Company

The application does not indicate how many bedrooms the development would have. Using the lot size standards set forth in Section 3.1.8, the site could support approximately eight (8) to ten (10) units depending on bedroom count. Permitted and special land uses in the RM-1 zone are shown below.

RM-1 Zoning District	
Permitted Land Uses	Special Land Uses
Attached single-family dwellings	Hospitals and other health care facilities
Two family dwellings	Adult foster care congregate facilities
Outdoor recreation uses, other public and private parks and similar outdoor recreation uses not listed in §4.38	Local utility structures, stations and substations
Adult foster care family home in detached dwelling	Public and private schools
Adult foster care small group home	Utility transmission systems
Adult foster care large group home	Wireless communication antennas
Family day care home in detached dwelling	Convalescent or nursing homes
	Nursery schools, group adult and child care centers

Considerations:

- 1) *The permitted uses in the GB district offer an array of commercial options. Some uses would not be able to fit on a lot of this size. Some uses may not be seen as compatible with neighboring existing multi-family developments but are permitted by right.*
- 2) *The site being developed as an RM-1 multi-family development would be conducive to neighboring residential uses but may not be conducive to the neighboring commercial uses.*

NATURAL FEATURES

The lot is undeveloped and cleared of vegetation along the majority of the site. Tree rows exist along the site’s perimeter. No natural feature information was provided in the application. Below is our observed condition of the site.

Topography: The site appears relatively flat.

Wetlands: The Department of Environment, Great Lakes and Energy indicate wetlands located just east of the parcel.

Woodland: No major woodlands are present on the site.

Soils: Predominant soils are Spinks Loamy Sand.

Water: No waterbodies exist onsite. The site is approx. 315 feet from Oxbow Lake but does not have access.

Items to be addressed: None.

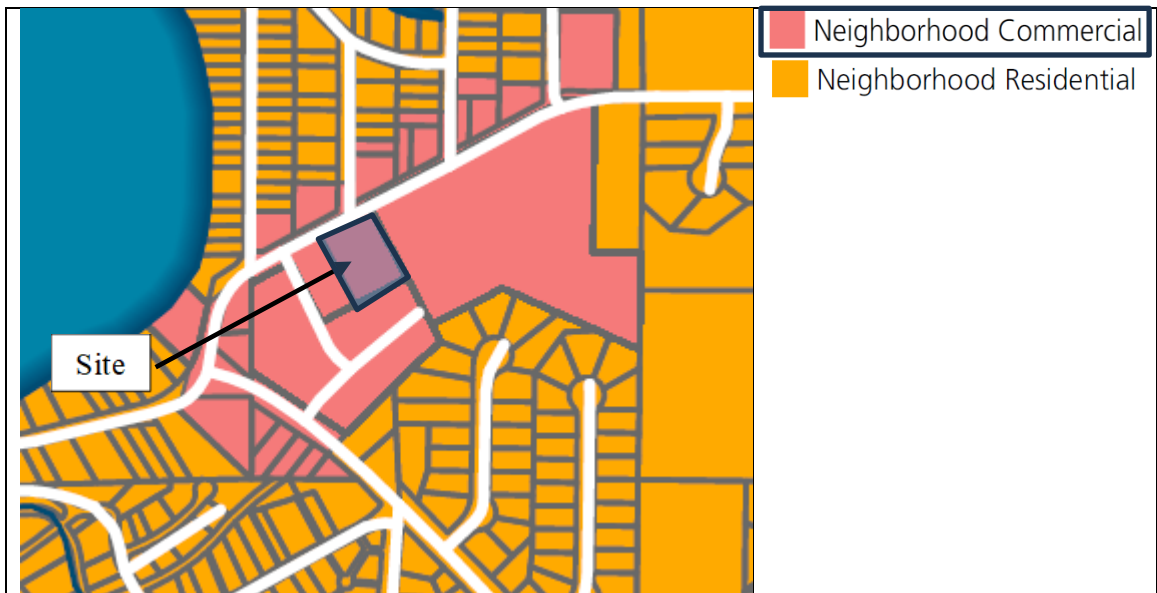
MASTER PLAN

The Township’s Master Plan is a comprehensive document that includes many elements that should be considered when determining rezoning requests. Pertinent sections to review include future land uses, as well as goals, objectives and strategies of the site(s) proposed for rezoning.

The application states that the 2024 Master Plan emphasizes a growing need for affordable, diverse, middle-class housing. Census data is cited regarding average incomes and cost of housing to support residential housing.

Future Land Use

Under the current Master Plan, the site is located in the Neighborhood Commercial district which is shown below:



The description and example of uses (not an exhaustive list) for the Neighborhood Commercial district is:

Description: *“Provides neighborhood scale commercial establishments that have daily goods and services for residents. Creates centers of neighborhood life, encouraging a mix of compatible retail, service, office, and residential uses in a walkable environment.”*

Example of Uses: “Professional services/office, personal care, restaurants, mixed-use”

Lot sizes are not prescribed in the Master Plan for future land use designations however the corresponding zoning districts associated with the Neighborhood Commercial district are LB, RB, NB-O, and NMU.

There is a conflict between the future land use designation in the 2024 Master Plan and proposed zoning for the site. As the description indicates, the goal of Neighborhood Commercial is to promote small scale retail or commercial uses that are walkable. The only use indicated to promote residential in the district is mixed use. While residential may be a component of this type of use, it is not the sole function of the site.

2011-2012 Master Plan designated the site as Planned Neighborhood and included the location in a focus area. The designation called for a mix of limited density residential and small-scale commercial. The Union Lake Road / Elizabeth Lake Road Focus Area outlines uses and forms for the area. Both residential and small-scale commercial are referenced.

The reference to the former Master Plan was to establish whether a trend was present in the way the community viewed the area in question and its future development.

2024 Master Plan Housing Section

The proposed rezoning conflicts with the 2024 Master Plan future land use designation however does support the Township’s need for diversified housing. The Master Plan Housing section cites the Township’s dominant dwelling type is single family detached housing. Demographic information highlights that household sizes (number of individuals in a family) are decreasing in the Township thus indicating that future demand for large single-family housing may decline. Allowing for the permitted use of smaller scale single family attached housing does align with the 2024 Master Plan.

Considerations:

- 1) *RM-1 zoning conflicts with 2024 Master Plan future land use designation of Neighborhood Commercial.*
- 2) *Additional and diversified housing options are a stated need in the 2024 Master Plan.*

DEVELOPMENT POTENTIAL

Per lot size standards in Section 3.1.8. it is important to note that ten (10) units could be developed on the site if units were a mixture of efficiency (studio) or one-bedroom units.

If rezoned, the lot will allow for attached single family developments as noted earlier in this report regarding permitted and special land uses. Accounting for current market conditions, infrastructure, the concept plan provided in the application, or similar plans indicating residential development, it is likely the site would be developed sooner for residential than small scale

commercial. The applicant has stated they believe residential development on the site would offer a more reasonable return on investment over commercial uses.

Considerations:

- 1) *The site has been designated for commercial land use in the last two master plans and is zoned GB but has not garnered any viable commercial development interest. It is likely the site would be developed sooner if rezoned to residential use and provide a higher rate of return.*

REZONING STANDARDS

Section 7.9 of the White Lake Township Zoning Ordinance states that all proposed amendments to the provisions of the Ordinance or the Official Zoning Map shall be referred to the Planning Commission for public hearing and recommendation to the Township Board, prior to consideration thereof by the Township Board.

Section 7.13 of the White Lake Township Zoning Ordinance outlines the criteria the Planning Commission and Township Board are to utilize when assessing any petition for an amendment to the Official Zoning Map. Below is a review of the materials provided by the applicant as they relate to the proposed rezoning.

- 1) *Consistency with the goals, policies and future land use map of the White Lake Township Master Plan, including any subarea or corridor studies. If conditions have changed since the Master Plan was adopted, the consistency with recent development trends in the area.*

Applicant Response: The 2024 White Lake Township Master Plan emphasizes a growing need for affordable, diverse housing options, particularly for middle-income families, Census Bureau data (2020) shows White Lake's median income at \$81,633, positioning many households within the middle-income bracket, which aligns well with the proposed housing. Furthermore, with rental costs averaging \$1,192 per month—higher than the county and state averages—this development will offer homeownership opportunities that address a housing affordability gap for this demographic.

CWA Comment: The future land use map from the 2024 Master Plan designates the subject site in the Neighborhood Commercial category, which is not conducive with the proposed RM-1 zoning district and uses. Attached residential uses would be consistent with goals highlighted in the Housing section of the master plan.

- 2) *Compatibility of the site's physical, geological, hydrological and other environmental features with the host of uses permitted in the proposed zoning district.*

Applicant Response: Not provided

CWA Comment: The RM-1 designation is a compatible use taking into account the site's environmental features.

- 3) *Evidence the applicant cannot receive a reasonable return on investment through developing the property with one (1) of the uses permitted under the current zoning.*

Applicant Response: The current BG zoning designation has limited viability, as commercial demand is lower in this predominantly residential area. Attempts to develop the land commercially have been hindered by a lack of demand, making residential zoning more practical and in line with adjacent properties. RM1 zoning would not only ensure a reasonable return on investment but also enable the development of needed housing.

CWA Comment: We note BG is likely a typo and meant to be GB. GB permits a wide array of uses however some uses require lot sizes in excess of the site's 1.33 acres which limits development possibilities. As noted earlier in this report, developing the site as RM-1 is possible and in a higher demand. However, ten (10) units may not be permitted depending on the unit type proposed.

- 4) *The compatibility of all the potential uses allowed in the proposed zoning district with surrounding uses and zoning in terms of land suitability, impacts on the environment, density, nature of use, traffic impacts, aesthetics, infrastructure and potential influence on property values.*

Applicant Response: The property is bordered on two sides by residential zones, making RM1 a seamless fit that will harmonize with neighboring homes. By converting this parcel to a well-planned residential development, the community will experience aesthetic improvements and an overall increase in neighborhood appeal.

CWA Comment: The multifamily residential uses to the south and east are compatible with RM-1. Uses north (construction material supplier) and west (vehicle towing yard) of the site conflict with residential uses, aesthetics, and potential nuisance to residential properties. Some permitted uses in GB would be non-compatible with the existing neighboring multi-family developments.

- 5) *The capacity of Township utilities and services sufficient to accommodate the uses permitted in the requested district without compromising the "health, safety and welfare" of the Township.*

Applicant Response: The township's existing water and sewer infrastructure can support this development, as confirmed by capacity assessments, preserving the community's health, safety, and welfare.

CWA Comment: Utilities are present for the site. Township public safety services are 2.5 miles from the site. We cite no concerns with Township services but note that Public Safety and Engineering will be consulted on any proposed development for the site.

- 6) *The capability of the street system to safely and efficiently accommodate the expected traffic generated by uses permitted in the requested zoning district.*

Applicant Response: Elizabeth Lake Road is equipped to handle the modest increase in traffic from 10 new units, and analysis confirms there will be no adverse impact on traffic flow.

CWA Comment: No traffic analysis was provided in the application. We do not cite concerns regarding the traffic that would be generated by a multi-family development on the site given the geographical limits for maximum units permitted.

- 7) *The apparent demand for the types of uses permitted in the requested zoning district in relation to the amount of land in the township currently zoned and available to accommodate the demand.*

Applicant Response: RM1 zoning would not only ensure a reasonable return on investment but also enable the development of needed housing.

CWA Comment: RM-1 exists throughout the Township's primary corridors but is not the predominant residential zoning. Residential uses are in demand for the Township and metropolitan area.

- 8) *The boundaries of the requested rezoning district are reasonable in relationship to its surroundings, and construction on the site will be able to meet the dimensional regulations for the zoning district listed in the Schedule of Regulations.*

Applicant Response: Not provided.

CWA Comment: The lot is 1.33 gross acres. As noted in this review, the applicant's proposed use of ten (10) attached residential units may not be permissible based on the lot size. However, pending issues identified in a site plan review, some level of multi-family development is possible for the site.

- 9) *The requested zoning district is considered to be more appropriate from the township's perspective than another zoning district.*

Applicant Response: Applicant has stated RM-1 is in higher demand than commercial.

CWA Comment: Given surrounding developments, both GB and RM-1 uses could be appropriate for the site. Many GB permitted uses would be challenged by the site's size as well as compatibility issues with neighboring residential uses.

10) If the request is for a specific use, is rezoning the land more appropriate than amending the list of permitted or special land uses in the current zoning district to allow the use?

Applicant Response: Not provided.

CWA Comment: Rezoning is more appropriate than amending the uses in GB.

11) The requested rezoning will not create an isolated and unplanned spot zone.

Applicant Response: Not provided.

CWA Comment: No spot zoning is proposed. The surrounding and nearby areas are zoned R1-D, RM-1 and GB.

12) The request has not previously been submitted within the past one (1) year, unless conditions have changed or new information has been provided.

Applicant Response: Not provided.

CWA Comment: This request is a new application.

13) An offer of conditions submitted as part of a conditional rezoning request shall bear a reasonable and rational relationship to the property for which rezoning is requested.

Applicant Response: Not Applicable

CWA Comment: No conditions were offered in the application.

14) Other factors deemed appropriate by the Planning Commission and Township Board.

Applicant Response: Not Applicable

CWA Comment: The Planning Commission and Township Board may also consider other factors which may be relevant to the rezoning request.

Items to be addressed: None.

RECOMMENDATION

While the proposed rezoning does conflict with the 2024 Master Plan future land use designation, it does align with housing goals stated in the plan. The site has remained vacant under the GB zoning and 2012 / 2024 Master Plan future land use commercial designations. While several factors determine site specific use demands, residential demand in the Township and region is currently higher than small scale commercial.


Conflicting adjacent land uses would exist whether the site was developed residential or commercial. Given the array of permitted uses in GB and the site’s limited size, it is likely that a GB zoned development would be less conducive to the adjacent existing residential developments than a new RM-1 development being adjacent to the existing commercial businesses.

For these reasons, and the findings outlined in the rezoning standards, we recommend the proposed rezoning. The Planning Commission may wish to consider the items listed in this report and below while developing their determination.

Considerations

- 1) *The permitted uses in the GB district offer an array of commercial options. Some uses would not be able to fit on a lot of this size. Some uses may not be seen as compatible with neighboring existing multi-family developments but are permitted by right.*
- 2) *The site being developed as an RM-1 multi-family development would be conducive to neighboring residential uses but may not be conducive to the neighboring commercial uses.*
- 3) *RM-1 zoning conflicts with 2024 Master Plan future land use designation of Neighborhood Commercial.*
- 4) *Additional and diversified housing options are a stated need in the 2024 Master Plan.*
- 5) *The site has been designated for commercial land use in the last two master plans and is zoned GB but has not garnered any viable commercial development interest. It is likely the site would be developed sooner if rezoned to residential use and provide a higher rate of return.*

Respectfully,



CARLISLE/WORTMAN ASSOC., INC.
Matteo Passalacqua
Community Planner

CHARTER TOWNSHIP OF WHITE LAKE
COMMUNITY DEVELOPMENT DEPARTMENT
7525 Highland Road, White Lake, Michigan 48383-2900
248-698-3300, Ext. 163

APPLICATION TO REZONE PROPERTY

Date: 11-06-2024

Applicant: Shirin Rahimifar

Address: 2118 Middlebelt Rd. west-bloomfield 48324

Phone No.: 646-399-6494 Fax No.: —

E-mail: Shirinrf@gmail.com / info@keegocconsulting.com

Applicant's Interest in Property: owner

Property Owner: ~~##~~ Viviana Grouy - Shirin Rahimifar

Owner's Address: 2118 Middlebelt Rd. west Bloomfield 48324

Phone No.: 646 399 6494 Fax No.: —

Location of Property: 9451 Elizabeth lake Rd.

Sidwell No(s): _____

Total area of change: 1.3 acres

I, the undersigned (owner, attorney, or option holder) hereby request that this property now classified as ~~RHXX~~ GB District, be reclassified as RN1 District.

Applicant's Signature: _____
(If owner does not sign application, attach letter signed by owner, requesting zoning change.)

Please Print Name: Shirin Rahimifar

Required Attachments:

- 1. Legal description of the property proposed to be rezoned.
- 2. Location map
- 3. Rezoning sign location map
- 4. Statement indicating why change is requested
- 5. Review fee (check payable to the Charter Township of White Lake)

RECEIVED
NOV 06 2024
COMMUNITY DEVELOPMENT DEPARTMENT

Supporting Statement for Rezoning from BG to RM1 at 9451 Elizabeth Lake Road

Thank you for considering this request to rezone the vacant property at 9451 Elizabeth Lake Road from BG (Business General) to RM1 (Residential Multi-Family 1). This rezoning request aligns closely with White Lake Township's Master Plan, fulfilling critical community needs, and is supported by statistical evidence that highlights immediate and long-term benefits to the township.

1. Alignment with the Master Plan and Community Demand

The 2024 White Lake Township Master Plan emphasizes a growing need for affordable, diverse housing options, particularly for middle-income families. Census Bureau data (2020) shows White Lake's median income at \$81,633, positioning many households within the middle-income bracket, which aligns well with the proposed housing. Furthermore, with rental costs averaging \$1,192 per month—higher than the county and state averages—this development will offer homeownership opportunities that address a housing affordability gap for this demographic.

2. Housing Affordability and Availability

Statistics indicate a pressing need for mid-sized homes. Almost half (46%) of White Lake residents currently live in homes between 1,000-2,000 square feet, and demand for similarly sized, affordable options remains high. The township's Master Plan also reports an affordability issue, with nearly 64% of renters paying 35% or more of their income on housing. This proposed development of 10 attached single-family units will directly address this gap, providing housing options that meet the financial needs of middle-income families and reducing the local housing cost burden.

3. Financial Viability and Limitations of Current Zoning

The current BG zoning designation has limited viability, as commercial demand is lower in this predominantly residential area. Attempts to develop the land commercially have been hindered by a lack of demand, making residential zoning more practical and in line with adjacent properties. RM1 zoning would not only ensure a reasonable return on investment but also enable the development of needed housing.

4. Compatibility with Surrounding Residential Uses

The property is bordered on two sides by residential zones, making RM1 a seamless fit that will harmonize with neighboring homes. By converting this parcel to a well-planned residential development, the community will experience aesthetic improvements and an overall increase in neighborhood appeal.

5. Traffic and Infrastructure Impact

Elizabeth Lake Road is equipped to handle the modest increase in traffic from 10 new units, and analysis confirms there will be no adverse impact on traffic flow. Additionally, the township's existing water and sewer infrastructure can support this development, as confirmed by capacity assessments, preserving the community's health, safety, and welfare.

6. **Support for Township Utilities and Tax Revenue**

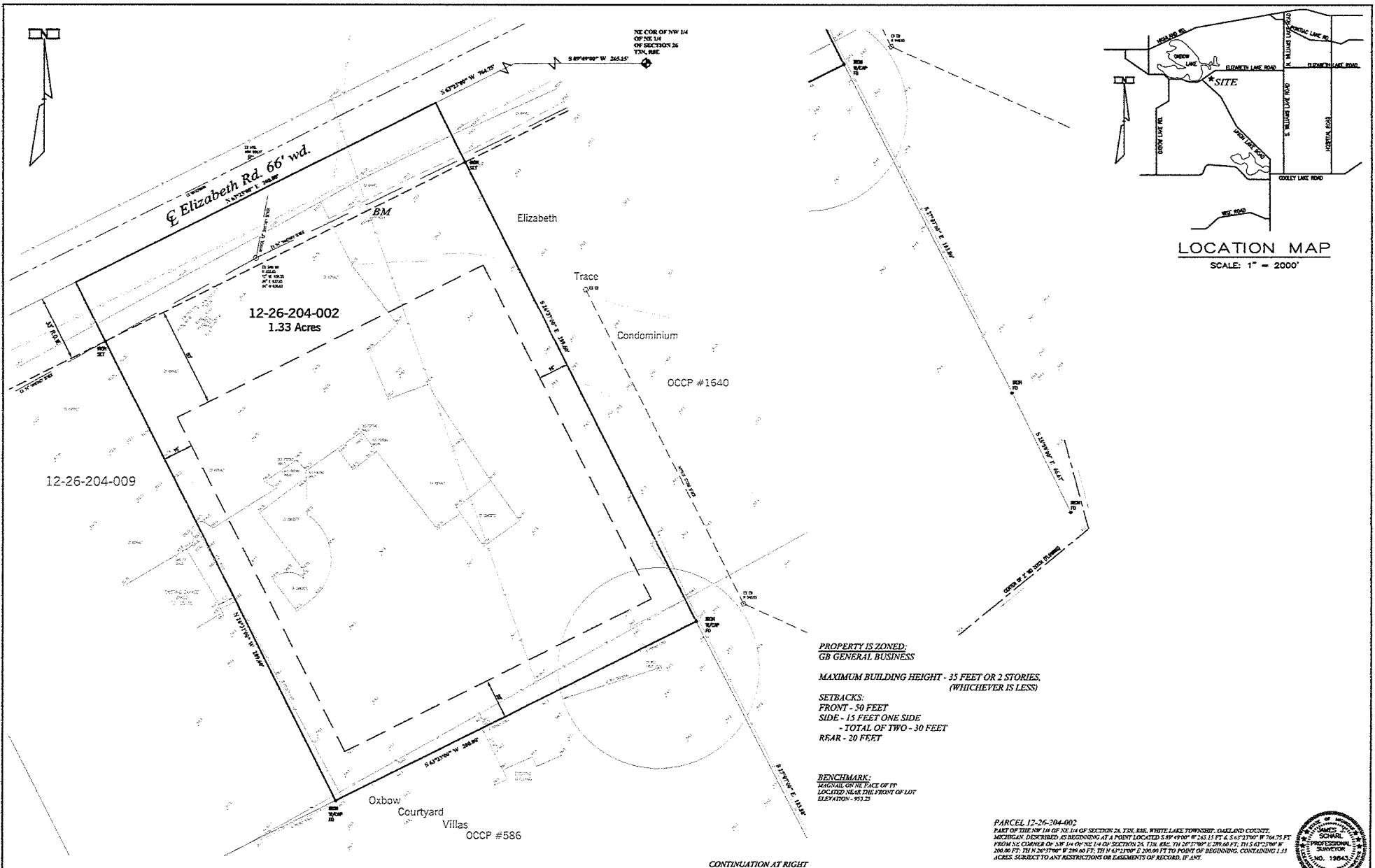
This development will generate new tax revenue, while the moderate density of the proposed housing will not strain township utilities or services. The property's conversion from vacant land to productive use also contributes to White Lake's financial health and addresses Master Plan goals.

In conclusion, this rezoning is fully consistent with White Lake Township's Master Plan, addressing both immediate housing needs and long-term goals for sustainable growth. The proposed development will directly address local housing demands, provide financial benefits, and seamlessly integrate into the existing residential community.

Attached are the following supporting documents:

1. **Site Survey** – This includes detailed topographical data of the land, as well as boundary markings with setback information, providing a clear understanding of the physical characteristics of the site.
2. **Preliminary Proposed Plan** – This preliminary plan outlines the layout of the 10-unit residential buildings, including initial traffic flow and parking arrangements to ensure accessibility and minimize impact on surrounding infrastructure. Please note that further development and detailed drawings will be provided once the rezoning request is accepted, allowing for more refined information as proper architectural and engineering drawings are developed.
3. **Highlighted Master Plan Pages** – Relevant pages from the White Lake Township Master Plan are attached, with key sections highlighted and annotated to correspond with references made in the rezoning statement. These references underscore the development's alignment with township goals, housing needs, and infrastructure compatibility.

Item B.

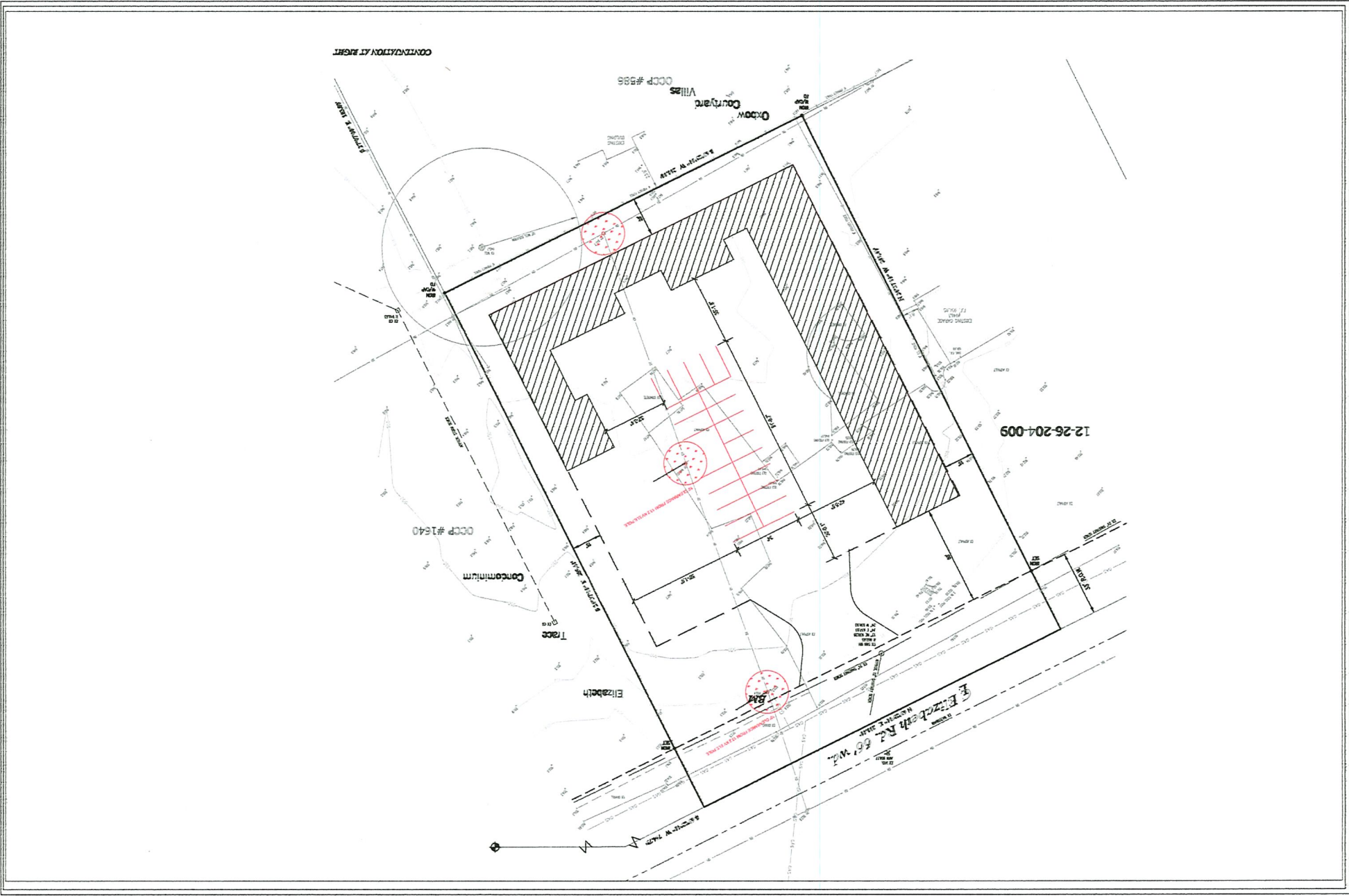


CONTINUATION AT RIGHT

DATE	ISSUE	PROPRIETOR: RSI HOLDINGS LLC 2450 ELIZABETH LAKE ROAD WHITE LAKE, MI 48306 (248) 770-3828	THIS DRAWING IS THE PROPERTY OF KIEFT ENGINEERING, INC. AND MAY NOT BE USED, REPRODUCED OR FORWARDED, BY ANY OR IN WHOLE, WITHOUT EXPRESSED WRITTEN PERMISSION FROM KIEFT ENGINEERING, INC.	KIEFT ENGINEERING, INC. REG. PROF. ENGINEER AND REG. LAND SURVEYOR 3032 SOUTH MAIN STREET, STE #1, CLARKSTON, MICHIGAN 48346 PHONE (248) 625-5251 FAX (248) 625-7110	SHEET 3-25-18 DRAWN JM SECTION 28	CDD. BY DAVE 72 HOURS OF WORK (MIN.) BEFORE YOU DIG CALL MESS DFC 800-482-7171 (TOLL FREE)	BOUNDARY / TOPOGRAPHIC SURVEY PARCEL 12-26-204-002 WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN	SCALE 1" = 20' SHEET 1 OF 1 KE 2016.125

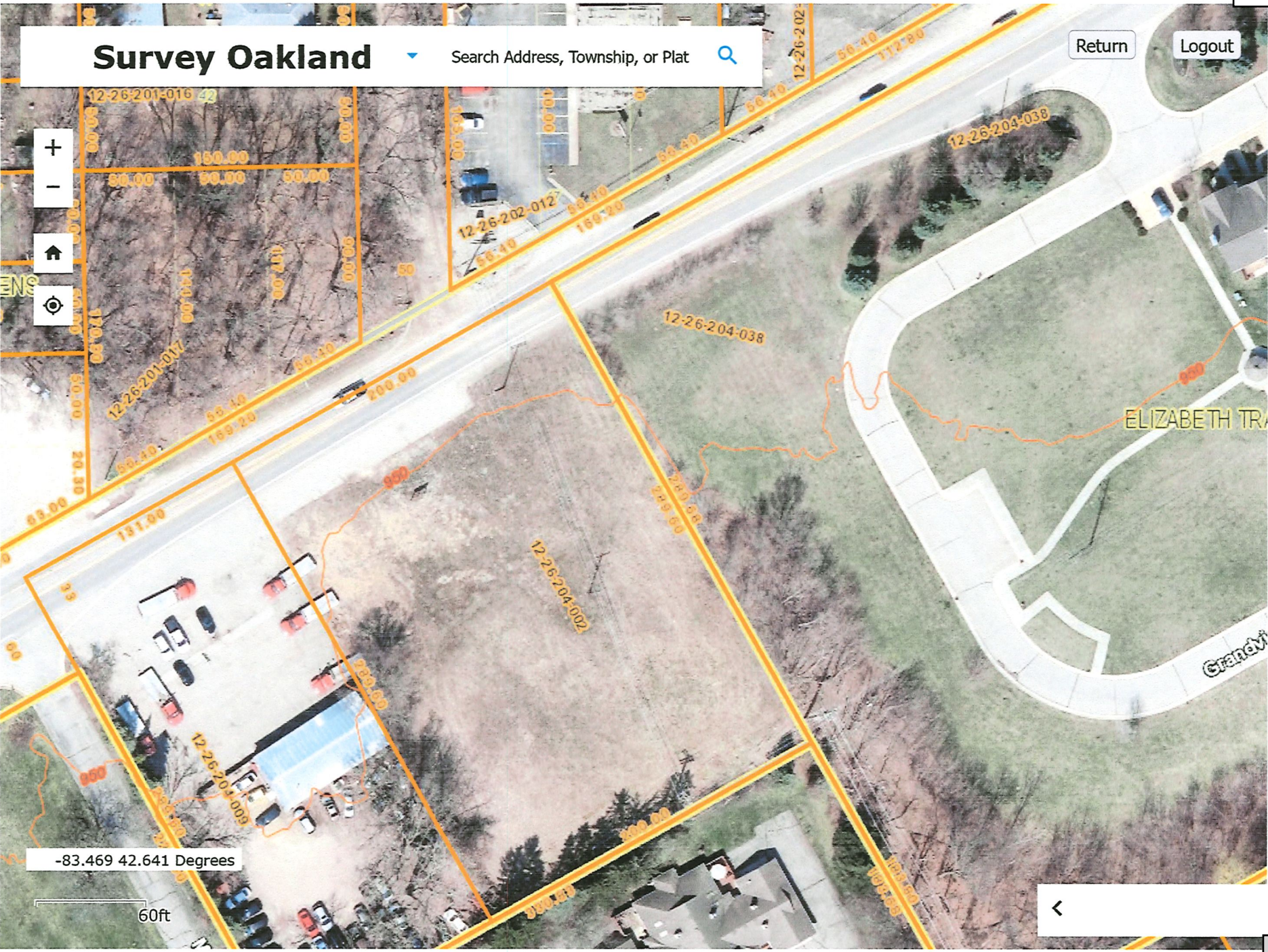


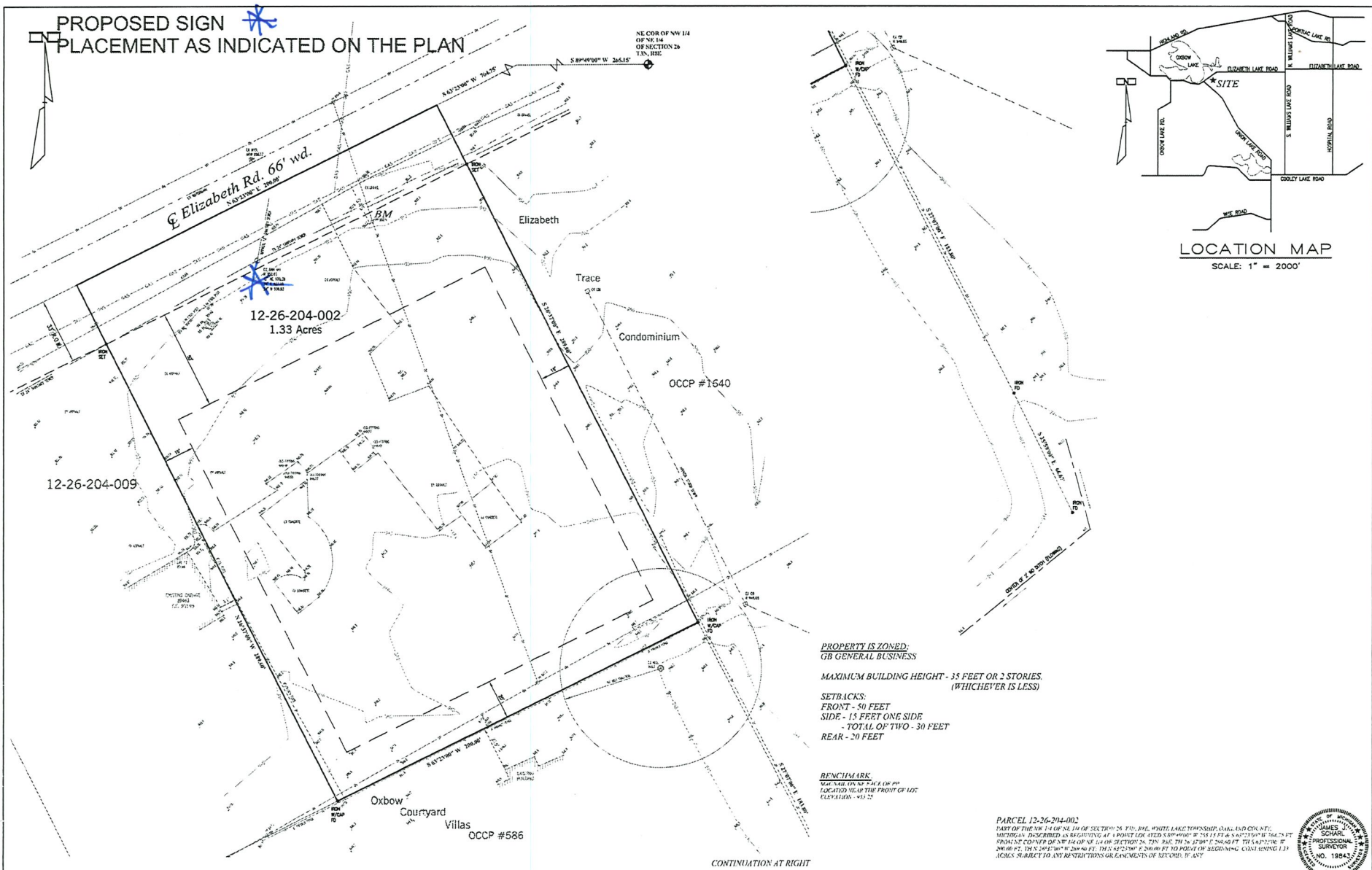
PROPOSED SITE PLAN OVERLAY





Item B.





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Land Legal Description

PART OF THE NW ¼ OF SECTION 26, T3N, R8E, WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN. DESCRIBED AS BEGINNING AT A POINT LOCATED S 89DEGREE 49'00" W 764.75 FT FROM NE CORNER OF NW ¼ OF NE ¼ OF SECTION 26, T3N, R8E. TH 26DEGREE 23'00" W 200.00 FT; TH 26DEGREE 37'00" W 289.60 FT; TH N 63 DEGREE 23'00" E 200.00 FT TO POINT OF BEGINNING. CONTAINING 1.33 ACRES. SUBJECT TO ANY RESTRICTIONS OR EASEMENTS OF RECORD, IF ANY.

WHITE LAKE TOWNSHIP NOTICE OF PUBLIC HEARING

Item B.

Notice is hereby given the Planning Commission of the Charter Township of White Lake will hold a public hearing on **Thursday, December 5, 2024, at 6:30 P.M.** at the Township Annex, 7527 Highland Road, White Lake, Michigan 48383, to consider the following changes to the zoning map:

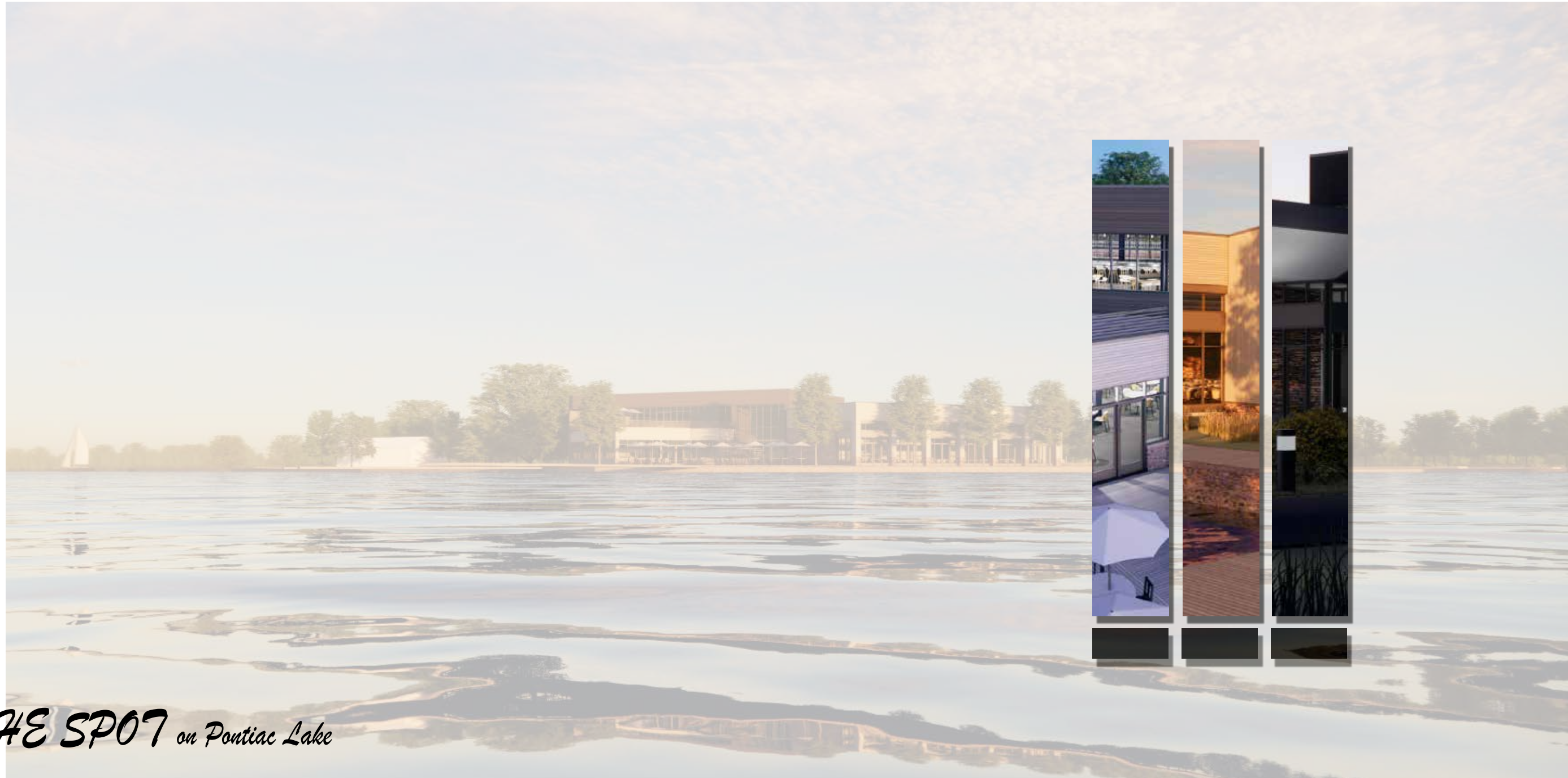
Property identified as Parcel Number 12-26-204-002 (9451 Elizabeth Lake Road), located on the south side of Elizabeth Lake Road, east of Marina Court, consisting of approximately 1.33 acres.

The applicant requests to rezone the property from GB (General Business) to RM-1 (Attached Single-Family) or any other appropriate zoning district.

Persons interested are requested to be present. Pertinent information relative to this rezoning request is on file at the Community Development Department and may be examined at any time during regular business hours of 8:00 a.m. to 5:00 p.m. Persons interested may visit the Community Development Department, contact the Community Development Department by telephone at 248-698-3300, ext. 5, or attend the Public Hearing on the date specified. Written comments are also welcome at 7525 Highland Road, White Lake, MI 48383. Individuals with disabilities requiring auxiliary aids or services should contact the Clerk's Office at least 5 days before the hearing.

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Sean O'Neil, AICP
Community Development Director

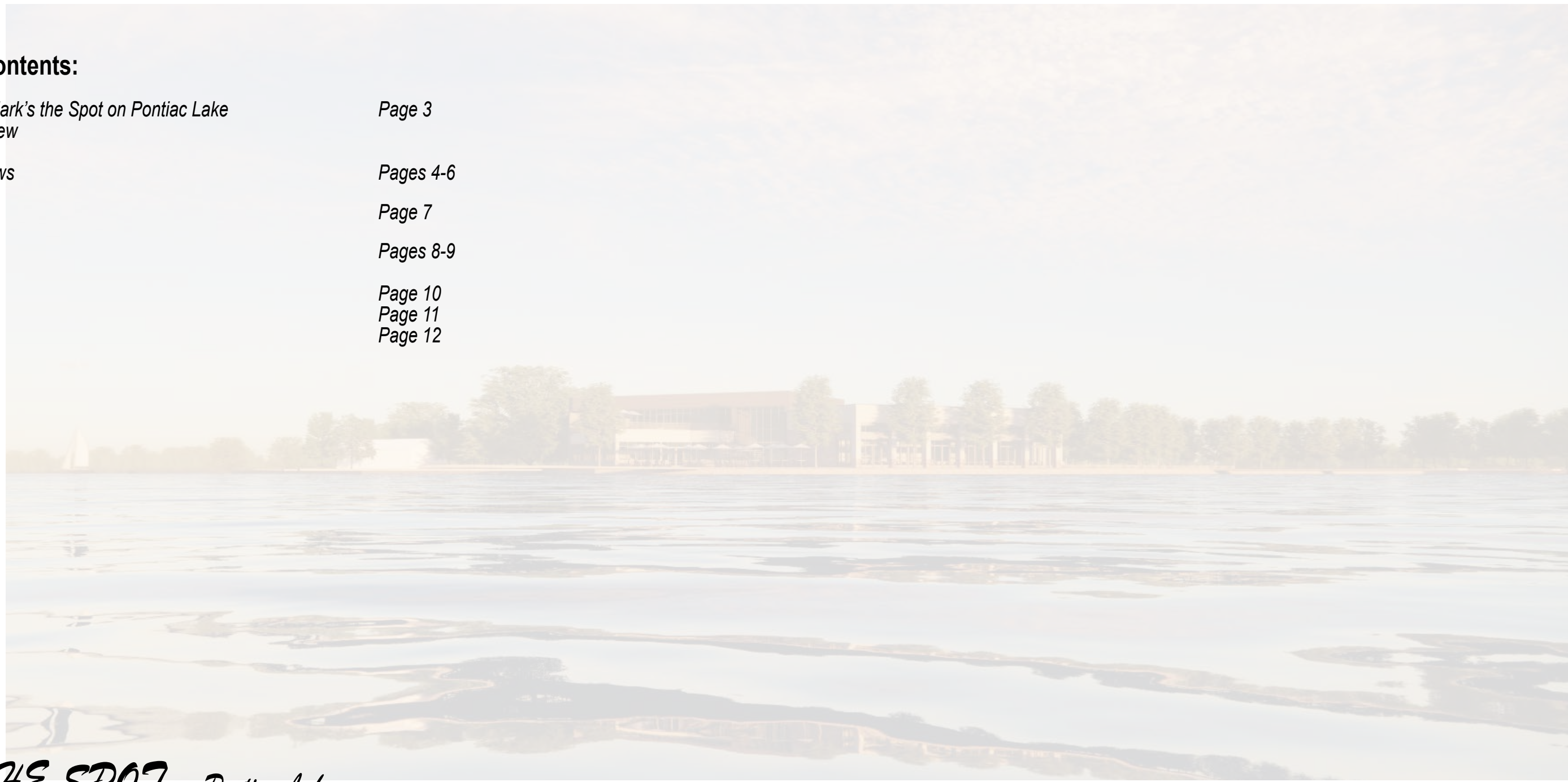


Mark's **THE SPOT** on Pontiac Lake

Bruce Roberts Originals llc
21 November 2024

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Mark's THE SPOT on Pontiac Lake



Proposal for Mark's THE SPOT on Pontiac Lake

Project Name: Mark's The Spot on Pontiac Lake Location: 8300 Pontiac Lake Road, White Lake, Michigan

Project Type: Multi-Venue Hospitality and Entertainment Complex

Total Seating Capacity: 500 (Banquet Hall, BBQ Restaurant, Cocktail Lounge)

Project Overview

Mark's THE SPOT on Pontiac Lake is an ambitious and unique multi-venue destination designed to become a central hub for community events, dining, and entertainment in White Lake, Michigan. The project will include three distinct but interconnected venues:

1. The Hall: up to 300-seat banquet hall designed for weddings, corporate events, and other large gatherings.
2. The Q: A 150-seat Texas-style BBQ restaurant offering an authentic Southern barbecue experience.
3. The Nest: A 75-seat cocktail lounge with stunning sunset views over Pontiac Lake, creating an ideal atmosphere for casual dining and special occasions.

Mark's THE SPOT will become a regional destination for both locals and visitors, blending excellent food, top-tier event spaces, and a scenic environment, all in a convenient location. The combination of a versatile banquet hall, a specialized BBQ restaurant, and an intimate lounge with lake views makes this a one-of-a-kind project that promises strong revenue streams from a variety of customer bases.

Location and Market Need

White Lake, with its scenic views and recreational appeal, draws a diverse range of visitors year-round. However, there is a noticeable lack of high-quality, multi-purpose event spaces and unique dining options in the area. Mark's THE SPOT addresses this gap by offering a one-stop destination for both large-scale events and intimate gatherings.

White Lake and surrounding communities have seen a steady rise in population and economic growth. With the increasing demand for event spaces, Mark's THE SPOT will fill a significant market need and enhance the local hospitality scene.

Mark's THE SPOT on Pontiac Lake





Mark's THE SPOT on Pontiac Lake

Lakeside view of the Spot





Mark's THE SPOT on Pontiac Lake

Lake Side View of Banquet Hall



Birdseye view from North West



Birdseye view from South East



Mark's THE SPOT on Pontiac Lake

Lake Side View of Restaurant and Bar



Birdseye view from North East



Birdseye view from South West



Mark's THE SPOT on Pontiac Lake

Entrance view of the Spot



Main Intersection view of the Spot



Entry Drive view of the Spot

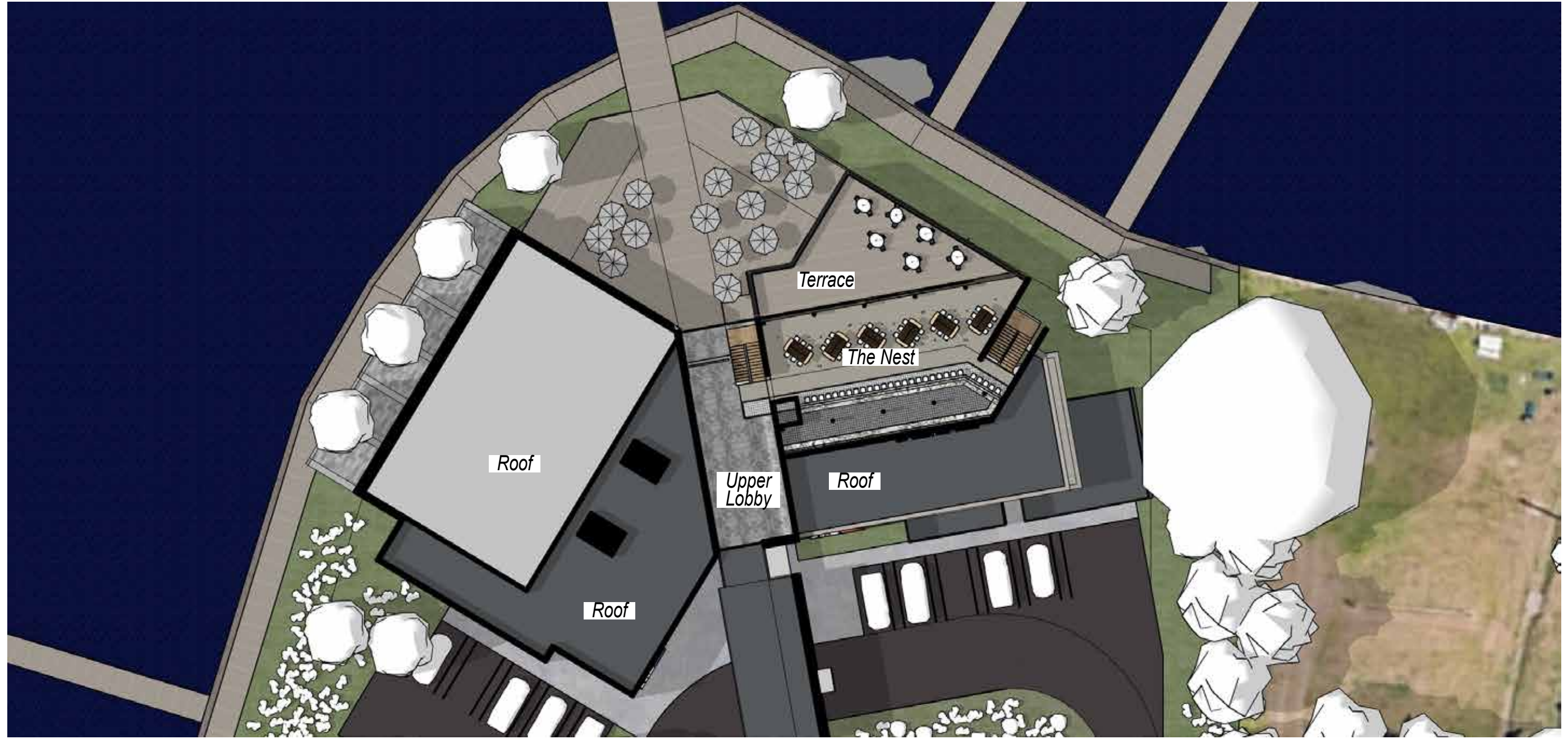


Lake Level Floor Plan

Mark's **THE SPOT** on Pontiac Lake

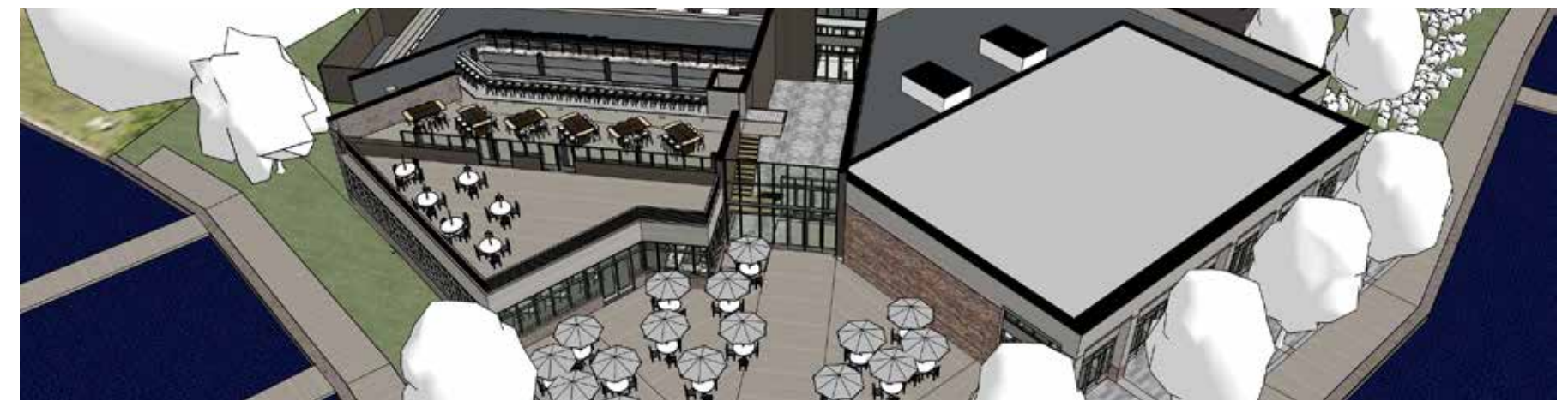


Lake Level Birdseye View
page 8



Bar Level Floor Plan

Mark's **THE SPOT** on Pontiac Lake



Bar Level Birdseye View



Mark's THE SPOT on Pontiac Lake

The Hall (Banquet Hall)

A modern banquet facility equipped with state-of-the-art audio-visual systems, flexible seating configurations, and a full catering kitchen. This space will target weddings, corporate events, community celebrations, and large social gatherings.

- Size: up to 300 seats
- Target Market: Weddings, corporate events, conferences, family reunions, and special occasions.
- Key Features: Customizable seating arrangements, State-of-the-art sound system and lighting , On-site catering available from The Q, Outdoor terrace with views of Pontiac Lake

Banquet Hall view of Pontiac Lake



view across Banquet Hall



view of Banquet Hall
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Mark's THE SPOT on Pontiac Lake

The Q (Texas-Style BBQ Restaurant)

Featuring a rustic yet contemporary design, this Texas-style BBQ restaurant will serve a menu focused on smoked meats, classic southern sides, and locally sourced ingredients. A menu with a variety of items specially prepared will appease every pallet. It's relaxed atmosphere and spacious patio make it a perfect place for family dining, casual business lunches, and weekend gatherings.

- Size: 150 seats
- Target Market: Casual diners, BBQ enthusiasts, families, tourists, and lake visitors.
- Key Features: Authentic Texas-style barbecue with wood-fired smokers, Outdoor seating and takeout services, Potential for hosting BBQ festivals and events

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Restaurant and Bar view of Pontiac Lake



view across Bar



view across Restaurant



Bar view of Pontiac Lake

Mark's *THE SPOT* on Pontiac Lake

The Nest (Cocktail Lounge)

A chic upstairs cocktail lounge with an emphasis on craft cocktails, premium spirits, and locally sourced appetizers. The highlight of this space is the panoramic sunset view over Pontiac Lake, offering guests a relaxed and picturesque setting for evening drinks and private parties.

- Size: 75 seats
- Target Market: Couples, small groups, professionals, and those seeking an elevated dining and drink experience.
- Key Features: Rooftop lounge with lake and sunset views, Specialty cocktails and light appetizers, Cozy and intimate setting with live music options

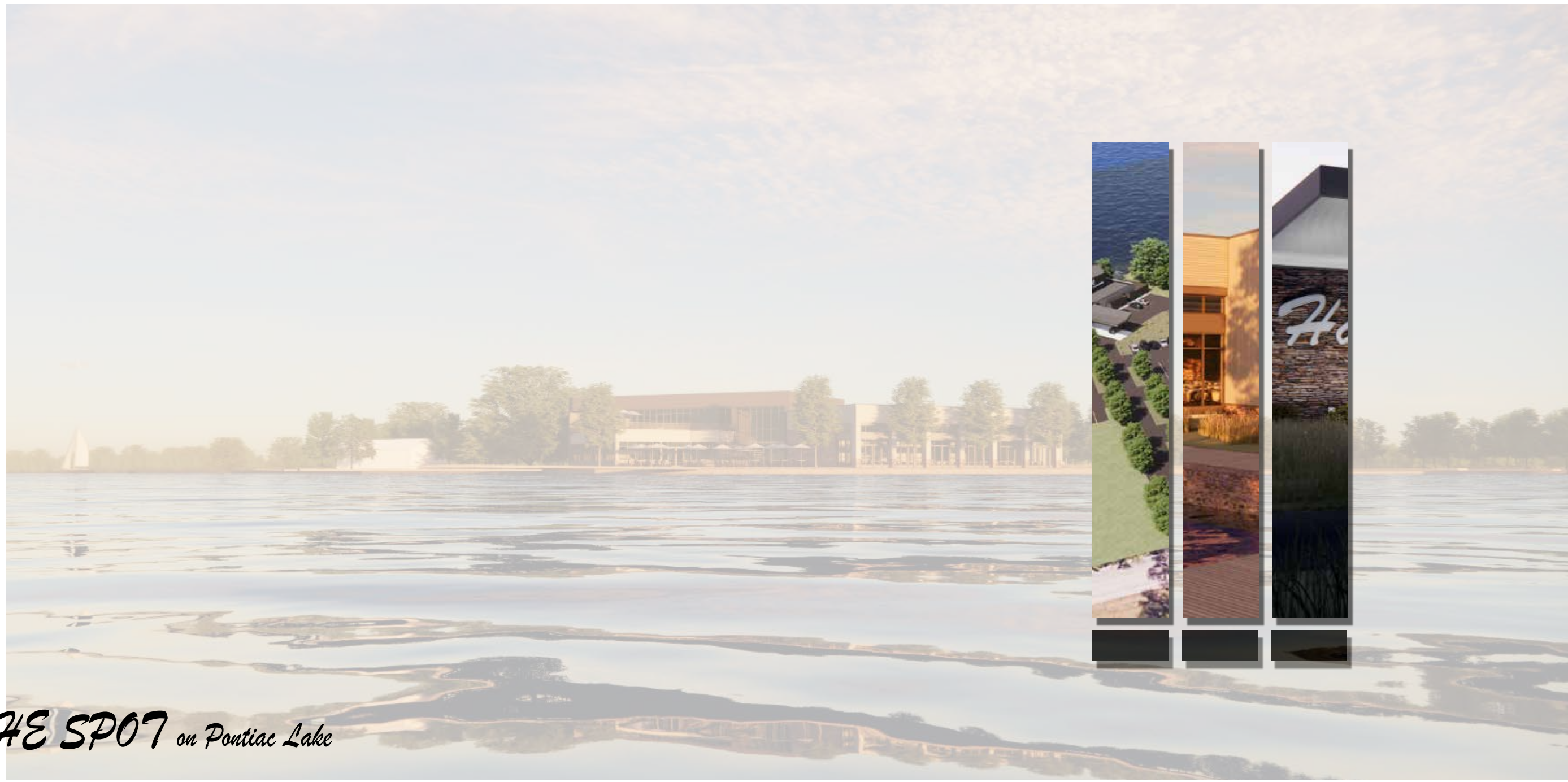
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view across Bar



view of Bar
page 12



Mark's **THE SPOT** on Pontiac Lake

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