

Director's Report

Project Name: 9101 Highland

Description: Revised special land use approval and final site plan approval

Date on Agenda this packet pertains to: September 18, 2025

☒ Public Hearing

☒ Special Land Use

☐ Initial Submittal

☐ Rezoning

☒ Revised Plans

☐ Other:

☐ Preliminary Approval

☒ Final Approval

Contact	Consultants & Departments	Approval	Denial	Approved w/Conditions	Other	Comments
Sean O'Neil	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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 09/05/2025
Matteo Passalacqua	Carlisle Wortman Associates, Inc	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 08/27/2025
Jason Hanifen	WLT Fire Marshal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 08/19/2025



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

September 5, 2025

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- Final Site Plan/Final Engineering Plan Review – 3rd Review

Ref: DLZ No. 2445-7696-06

Design Professional: Stonefield Engineering & Design

Dear Mr. O' Neil,

Our office has reviewed the above-mentioned revised plan prepared by Stonefield Engineering & Design and dated August 12, 2025. These plans were reviewed for conformance with the Township Engineering Design Standards. We offer the following comments for your consideration:

In addition, the following remaining comments from our Preliminary Site Plan review letter dated January 7, 2025 are listed below:

- a) *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. Design engineer notes that they will coordinate with WLT DPW for all work proposed in the watermain easements and that plans have been submitted directly to WLT DPW for permission/approval. **Per WLT DPW, approval for work to begin in the two easements will be granted at the time of preconstruction meeting.***
- b) *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 partially addressed. Although grades at ADA spaces and loading areas are shown on FEP, please provide a blown-up grading detail of all ADA spaces showing proposed grades and % slopes. We note that slopes will need to conform to ADA standards. Comment partially addressed. ADA grading details for spaces for both buildings plus the loading zone detail have been provided; however, there are several areas where proposed grades on details, as well as other grading items that will require revision, do not match those shown on grading plan. Please see attached marked up plan Sheet C-4. **Comment addressed. Proposed grades on grading details now match grading plan.***

- c) *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. The proposed pathway now appears to conform with the required clear zone dimensions as outlined in Township Zoning Ordinance 5.20. We consider the portion of the above comment regarding this to be addressed. The portion of the above comment referencing the sidewalk easement remains. Comment addressed. Revised sidewalk easement exhibit has been received. Review comments from our office will be sent under separate cover.*
Comment addressed. Per our review letter dated July 31, 2025, the sidewalk easement exhibit document was acceptable and recommended for execution and recording.
- d) *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. Comment addressed. Design engineer states "Per Liber 19187 Page 333, the temporary easement shall terminate upon completion date of construction. This in regard to the water main within the site frontage and therefore the easement is terminated. The temporary construction easement has been removed from the survey and plans."*
Comment remains as a notation.
- e) *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. Comment remains. Design engineer notes that application for vacation of existing easement has been requested from the Township and that the engineer is awaiting further direction from the Township.*
Per design engineer, the applicant's attorney is in process of vacating the existing access easement.
- f) *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. Comment partially addressed. The*
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existing pipe has been demolished, and the depression will be filled and the area graded out as shown on the grading plan. Comment regarding calculation for pre-versus post development runoff for this area is outstanding. Comment addressed. Per the post development drainage map provided, it now shows that the drainage that originally flowed to the M-59 ROW via the 12" ES to the south of existing storm CB #70140, now flows south and is collected in the proposed on site CB D-204.

Comment remains as a notation.

- g) *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. Comment outstanding regarding basin overflow routing. Although the design engineer notes that the basin overflow will flow to the southeast to an existing low point at the southern property line and will not impact the adjacent properties, this is not clear as shown on the Stormwater Management Plan Sheet C-5. Additional off-site grades beyond the southern property line shall be required in order to clearly show where the basin overflow would go relative to the existing residential homes that are to the east and south of the 9101 property. Comment partially addressed. Two additional catch basins will collect storm water runoff at the SW corner of the site and on the western side of the site/retention basin. The emergency overflow for the proposed basin has now been moved from the south side of the basin to the west side of the basin. The basin overflow drainage is shown to be routed to an existing CB beehive structure just to the west of the property line. Does this existing structure have the capacity to accommodate overflow from the retention basin? What is the condition of this existing basin? Is the adjacent property owner willing to grant an easement for storm drainage to this structure? Per design engineer, this was discussed with our office on August 11, 2025. The engineer states the following: "the proposed site development eliminates off-site stormwater drainage by catching stormwater onsite within storm structures and conveying it to the on-site retention basin. This is an improvement compared to existing conditions. Additionally, the retention basin is sized for the back-to-back 100-year storm and site soils provide 40 in/hr of infiltration. The emergency spillway will not be utilized under normal conditions-only in a very severe stormwater event. Therefore, it has been determined that the emergency spillway design is adequate and no easement is required with the adjacent property owner."*
- h) *We note that this property falls within a wellhead protection area. We defer to Township DPS regarding special requirements. Comment remains as a notation.*
- i) *We defer to the Township Fire Department regarding hydrant coverage. Comment remains as a notation.*
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FSP/FEP Comments

We note that comments from our July 18, 2025 review letter are in *italics*. Responses to those comments are in **bold**. New comments are in standard font. We also note that a response letter from the design engineer dated August 12, 2025 was received by our office.

General

1. *ALTA/NSPS Survey Sheet-Site BM #2- Arrow for BM label is shown as pointing to hydrant while BM description references traffic signal post. Please correct and update all relevant sheets (C-2, C-4 to C-6). Comment outstanding. Correction has not been made. We note that Site BM #2 on Sheet C-2 and all subsequent sheets now shows and lists the hydrant as BM #2; the ALTA/NSPS Survey sheet lists the traffic signal as BM#2 but is shown as pointing to the hydrant. Please go through all plan sheets and ALTA survey and assure that the benchmarks listed and what they are pointing to is consistent.*
Comment addressed. All sheets, including the ALTA/NSPS survey sheet now match regarding BM#2.
2. *Cover Sheet C-1- Sheet Index-Sheet C-7 in the Index should read as POST-Development.* **Comment addressed. Revision has been made.**
3. *Site Plan- Sheet C-3- We note that the architectural plans dated 05/29/2025 (Sheets A-100 and A-101) show four (4) suites for the western building and three (3) suites for the eastern building. This does not match what is shown on the engineering plan.* **Comment addressed. The engineering plan and the architectural plans (dated 08/12/2025) now match regarding the number of suites per building.**
4. *Cover Sheet C-1- Plan Reference Materials- Bullet point 1-ALTA/NSPS Survey- Latest date is 08/25/2025.*

Sanitary Sewer

1. *Sheet C-8- Provide top of pipe and bottom of pipe elevations for all areas where lead crosses other utilities. Comment partially addressed. There are a few areas where top of pipe and bottom of pipe elevations have not been provided: 1) Western building – Where sanitary lead crosses water lead for the sanitary lead that goes to the grease interceptor; 2) Western building – Sanitary lead out from*
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grease interceptor crosses watermain. Comment rescinded. Water and sanitary layouts have changed so this comment is no longer applicable.

2. *Architectural Sheet A-100- We recommend showing the location of the grease interceptor on this sheet per engineering plan. Comment addressed. Grease interceptor locations are now shown on architectural plan Sheets A-100 and A-101.*
 3. *Architectural Sheet A-101- Update location of grease interceptor per engineering plan. Also show location of second grease interceptor on this sheet. Comment addressed. Grease interceptor locations are now shown on architectural plan Sheets A-100 and A-101.*
 4. *Sheet C-8-Show grease interceptors accurately on this sheet. There are 3 covers on these structures; only two covers are shown for the interceptors on this sheet. Comment addressed. Grease interceptor manholes are now shown correctly on this plan sheet.*
 5. *Sheet C-8- Move sanitary line for the eastern building (north side) away from the knee wall base influence. Comment addressed. Sanitary line has been relocated away from knee wall base.*
 6. *Sheet C-8- Lead segment for eastern building near knee wall shall require a cleanout as the proposed current length is 97'. Cleanouts are required every 75' for leads. Comment addressed. Cleanouts have now been provided at a minimum of every 75'.*
 7. *Sheet C-8- The 95' of lead between the two buildings requires a cleanout. Cleanouts are required every 75' for leads. Comment rescinded. The sanitary layout has been revised and cleanouts are now shown at a minimum of every 75'.*
 8. *Sheet C-8- Shift sanitary lead at storm CB D-203 such that there is a minimum of 10' horizontal separation between storm and sanitary. Comment addressed. There is now a minimum of 10' horizontal separation between storm and sanitary.*
 9. *Sheet C-8- Add a cleanout where the sanitary lead from the western building intersects with the sanitary lead from the eastern building. Provide cleanout invert. Comment rescinded The sanitary layout has been revised; cleanouts are shown at all wye connections and directional changes.*
 10. *Sheet C-8- Remove the grease interceptor that is right against the eastern building on the south side. This is the interceptor just to the east of the proposed 1,500-gallon interceptor. Comment addressed. Per the design engineer this is not a grease interceptor. The tank is a grease tank for the fryers.*
 11. *Sheet C-8- See red-lined profile sheet for snippet of western building grease interceptor. Provide specified lead footage and wye invert. Comment rescinded. The sanitary sewer layout has been revised; all lead footage and invert information has been provided.*
 12. *Sheet C-8- It is required that there is a minimum 12" drop and maximum 15" drop at the monitoring MH per OCWRC requirements. We note that these criteria were previously met but due to the new sanitary sewer layout, these criteria have now not been met.*
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13. Sheet C-8- There are a few items that will require additional notes or clarification. Please reference red-lined sheet we have provided with this review.

Watermain

1. *Sheet C-8- Provide top of pipe and bottom of pipe invert elevations for all areas where lead crosses other utilities. Comment outstanding. Provide above requested information where lead for eastern building heads West and crosses over proposed storm sewer on Sheet C-8 and for western building water service lead where it crosses sanitary lead for western building. **Comment addressed. Per the design engineer, all lead crossings for storm and watermain are shown on the storm sewer profiles. The sanitary and water lead crossing mentioned in the above comment has now been eliminated.***
 2. *Sheet C-8-Westernmost building-Move water ~~service line~~ main away from building and outside of foundation influence as it is too close to the proposed foundation, in particular at drive thru window. **Comment addressed. The proposed watermain has been relocated away from the influence of the proposed foundation and drive thru window.***
 3. *Sheet C-8-Specify/show TSV&W at proposed connection to existing watermain. **Comment partially addressed. The TSV&W is now specified at the watermain connection. Please correct spelling of 'ALKE' to 'LAKE' in connection note on this sheet.***
 4. *Sheet C-8- Provide/show watermain stationing on this sheet. **Comment addressed. Stationing has now been provided.***
 5. *Sheet C-8- Call out hydrant on this sheet. **Comment addressed. Hydrant has been called out on this sheet.***
 6. *Sheet C-8- Call out sanitary/watermain crossing where sanitary crosses watermain just to the east of the grease interceptor for the western building. Provide TP/BP elevations and demonstrate a minimum 18" vertical separation with the watermain above sanitary. **Comment rescinded. This crossing has been eliminated due to reconfiguration of the watermain and sanitary sewer on site.***
 7. *Sheet C-8- Move proposed sign near M-59 such that there is a minimum of 10' horizontal separation between it and the watermain. Currently, 5' of separation is shown. **Comment addressed. Sign has been relocated to provide 10' horizontal separation between it and watermain.***
 8. *Sheet C-8- Currently a 10' wide easement is proposed for the watermain. A 20' easement with the watermain centered in the easement is required. **Comment partially addressed. A 20' wide easement is now shown. Please extend easement at hydrant at least 10' to the west of hydrant. The watermain easement exhibit document shall be updated to reflect this change.***
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9. *Sheet C-8- Specify the Ductile Iron pipe as Class 54.* **Comment addressed. Material has been specified.**
10. *Sheet C-8- The watermain is too close to the drive thru window for the western building. Move watermain such that there is a minimum of 10' horizontal separation between it and the drive thru.* **Comment addressed. Watermain has been relocated to provide proper clearance.**
11. *Sheet C-8-Western building- Water lead and sanitary lead-Where these two leads cross right where they exit the building-Provide crossing information. The water service lead shall be located above the sanitary lead with a vertical separation of 18".* **Comment rescinded. This crossing has been eliminated due to reconfiguration of the watermain and sanitary sewer on site.**
12. *Sheet C-8- Western building- There shall be a minimum of 10' horizontal separation between the hydrant and grease interceptor.* **Comment addressed. Minimum 10' separation is now shown.**
13. *Sheet C-8- Change 90-degree bend at hydrant to 2-45-degree bends.* **Comment addressed. 45-degree bends are now shown.**

Grading/Paving

1. *Provide a Soil Erosion plan and also reference this in the Sheet Index on Sheet C-1. Comment partially addressed. A SESC plan sheet has now been provided; however, please provide the following revisions to this sheet: 1) Sequence of Construction-NOTE-Line 2-Correct spelling of 'guile' to 'guide'; 2) Large bold note regarding trees-Line 2- Correct spelling of 'construcition' to 'construction.'; 3) The location of the silt fencing line is not clear. Provide adequate separation on plan between the lines for Limit of Disturbance and Silt Fencing; 4) Sequence of Construction- NOTE-Line 4-Change 'City' to 'Township.'* **Comment addressed. All corrections have been made.**
 2. *Sheet C-4-Please reference red lined plan sheet for a few concerns. Comment partially addressed. The majority of comments have been addressed; however, there are additional items on the grading plan sheet (due to the addition of ADA grading details) that shall require revision. The marked up grading plan red-lined sheet has been attached for the design engineer's use.* **Comment partially addressed. The rim elevation of 970.85 for storm structure D-201 does not match the rim elevation of 970.90 on Sheets C-8 and C-19.**
 3. *Architectural Sheet A-101-The ADA spaces and loading locations are incorrect. Please revise locations on this sheet. Please reference engineering plan for correct locations.*
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Stormwater Management

1. *Provide storm sewer profiles (including ES and partial profile of the basin) showing the following: 1) Pipe crossings (minimum 18" vertical separation); 2) Compacted sand backfill where needed; 3) Rim elevations; 4) Pipe length, slope, type of pipe, and diameter; 5) Invert elevations; 6) HGL 7) Diameter of all CBs and/or MHs-Note that minimum 48" diameter is required except for inlets where stormwater is discharged directly into a CB(these may be 24" diameter). Please check that plan and profiles match in terms of rim elevations, pipe lengths, slopes, etc....* **Comment partially addressed. The majority of information requested has now been provided; however, there are some revisions required to the profiles. Please see attached red lined Sheet C-19.**
 2. *Provide water quality unit detail and demonstrate that size is adequate for 80% TSS removal. Comment partially addressed. A water quality unit detail(Contech Cascade) has now been provided; however, please provide the Contech table showing this unit is of adequate size to remove 80% TSS.* **Comment partially addressed. Contech table demonstrating unit is of adequate size to remove at least 80% TSS has now been provided. Please update project address (currently shown as 9191 Highland Road) to 9101 Highland Road on Pages 1-4 of Contech report.**
 3. *Provide drainage area map. Comment partially addressed. Drainage area map has been provided; however, please adjust C factor for the basin surface area to 1.00. See 'Sheet flow to Basin' on Sheet C-7- A portion of the 'Grass, Good' for the basin area shall be C=1.00.* **Comment partially addressed. A C-factor =1.00 has now been shown for the basin. This change of C (from 0.202 to 0.546) to the "Sheet Flow to Basin Areas" shall be factored into the 'Composite C Value' for the Stormwater Management Calculations on Sheet C-18.**
 4. *Sheet C-5-Revise note: 'See Sheet C-17 for Stormwater Management Calculations' to 'See Sheet C-15...'* **Comment outstanding. Note was updated to Sheet C-17, but the plan sheets have been renumbered. Please update this note to reference Sheet C-18. Comment addressed. Sheet references have now been updated.**
 5. *Sheet C-5-Provide basin spillway detail. Note that spillway shall be an armored spillway. Comment partially addressed. Spillway detail has now been provided. Please add a note to sheets C-4 and C-5 to reference Sheet C-17 for spillway detail.* **Comment addressed. A note has been added to both sheets.**
 12. *Sheet C-8- Shift storm sewer that runs adjacent to grease interceptor on east side of eastern building such that there will be a minimum of 10' horizontal separation between the interceptor and storm sewer.* **Comment addressed. Storm sewer has been shifted such that there is 10' minimum horizontal separation between it and watermain or sanitary sewer.**
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13. *Sheet C-8- Provide crossing information where the storm sewer and water line cross just north of storm MH D-201. Comment outstanding. Watermain crossing is shown on storm sewer profile; however, it is in incorrect location. Currently, it is shown on profile between Structures D-101 and D-201. The main should be between Structures D-201 and D-202.*
14. *Sheet C-18- HydroCAD Model- Correct 'Detention' to 'Retention.' This shall be corrected in two places. Comment outstanding.*
15. *Sheet C-18- Stormwater System Design (10-Year Storm)- There are several items on here which shall require revision. Please see snippet on red lined profiles sheet for comments. Comment outstanding.*

Landscape Plan

1. *Sheet C-10- Shift the Serbian Spruce and White Fir trees at least 10' horizontal separation from the proposed storm sewer pipe that enters the retention basin from the south. Comment addressed. Trees are now located a 10' minimum horizontal separation from storm sewer.*

Required Permits and Approvals

The following permits and approvals will be required:

1. Permit from MDOT for all work within the M-59 Road right of way. **Plans have been resubmitted to MDOT for final approval on 08/12/2025.**
 2. SESC permit from OCWRC. **Plans have been submitted to OCWRC on 08/12/2025.**
 3. Permission from White Lake Township for work within the two (2) existing watermain easements that run parallel to M-59. *Plans have been submitted to WLT DPW for permission/approval. Per WLT DPW, approval for work to begin within the two easements will be granted at the preconstruction meeting.*
 4. Executed Stormwater Maintenance Agreement and exhibit. *Agreement without exhibits has been received. Comments from our office shall be forthcoming under separate cover. Please reference Agreement comments in our review letter dated July 31,2025. Stormwater Access easement exhibit and Stormwater Pipe easement exhibit have been received with the current submittal. Review comments are forthcoming under separate cover.*
 5. Sidewalk easement for the portion of sidewalk that is outside of M-59 Road ROW. Exhibit received by our office with the current submittal; comments will be sent under separate cover. *Revised easement exhibit has been resubmitted. Comments from our office shall be forthcoming under*
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separate cover. Please reference our review letter dated July 31, 2025. Our office recommended execution and recording of the sidewalk easement exhibit.

6. Access easement to the property to the west. Exhibit received by our office with the current submittal; comments will be sent under separate cover. *Revised easement exhibit has been resubmitted. Comments from our office shall be forthcoming under separate cover. Please reference our review letter dated July 31, 2025. Our office recommended execution and recording of the access easement exhibit.*
7. A permit from EGLE for the proposed watermain extension. **Per the design engineer, the EGLE permit application will be submitted by WLT DPW. This was requested on 08/12/2025.**

Recommendation

While the majority of the above comments have been addressed, we are not recommending approval of the plan at this time. We note that additional comments have been generated due to changes in the layout of the watermain and sanitary sewer. The above comments are required to be addressed and revised plans submitted for our review. **In order to streamline the review process, we request a response letter to the above comments be provided by the engineer upon revised plan resubmittal.**

Please contact our office should you have any questions.

Sincerely,

DLZ Michigan



Michael Leuffgen, P.E.
Department Manager



Victoria Loemker, P.E.
Senior Engineer

Attachments: Sheet C-8- Utility Plan- Red lined
 Sheet C-18-Construction Details-Red lined
 Sheet C-19-Utility & Stormwater Profiles-Red lined

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

X:\Projects\2024\2445\769606 WLT 9101 Highland Road\FSP&FEP Review.03\FSP and FEP Review.03.docx

PLAN VIEW
INTERNALS NOT SHOWN

CONTRACTOR TO GROUT TO FINISHED GRADE
CONTRACTOR TO PROVIDE GRADE RINGS/RISERS

30" Ø FRAME AND COVER
4" Ø I.D.
4.875" O.D.

INLET 1
OUTLET 1

PLAN VIEW FOR PIPE ORIENTATION
TOP SLAB NOT SHOWN

180°

CASCADE CYLINDER INSERT

MATERIAL LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
1	CS-4 CYLINDER INSERT, STD.	CONTECH
4	CS-4 ALUMINUM INSTALLATION BRACKETS	CONTECH
1	CS-4 HARDWARE KIT	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
1	30" X 4" FRAME AND COVER, EJ #41800483, OR EQUIV.	CONTRACTOR

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE: www.ContechES.com
- CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- STRUCTURE SHALL MEET ASTM D1530 LOAD RATING, ASSUMING EARTH COVER OF 0'-2" AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET ASTM D556 AND BE CAST WITH THE CONTECH LOGO.
- CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-408 AND ASTM D1530 LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

- ANY SUB-BASE, BACKFILL, DEPTH, AND/OR ANTI-FLOUTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE LIMIT IS WATER TIGHT. HOLDING WATER TO FLOWLINE INVERT. MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

ELEVATION VIEW

CONTRACTOR TO GROUT TO FINISHED GRADE
CONTRACTOR TO PROVIDE GRADE RINGS/RISERS

CASCADE CYLINDER INSERT

INLET 1
18" Ø RCP
(26" Ø OPENING)

OUTLET 1
18" Ø RCP
(26" Ø OPENING)

INLET 1 INVERT
ELEV. 566.27

OUTLET 1 INVERT
ELEV. 564.17

SOLIDS STORAGE SUMP

RM ELEV. 570.4+/-

TOP OF STRUCTURE
ELEV. 570.19

OUTSIDE BOTTOM
ELEV. 559.87

4'-10"

ELEVATION VIEW

CONTECH PROPOSAL DRAWING

PROJECT: MSB
SHEET: 010
DATE: 06/19/20

DESIGNED BY: LHP
CHECKED BY: MSB
APPROVED BY: MSB
REVISION: 010

CONTECH
a member of
CASCADIA
separator

NO. 1
LAYOUT: 1

WATER QUALITY UNIT SPECIFICATIONS

HydroCAD Model_White Lake, MI		<i>Type II 24-hr Back to Back 100-year Rainfall=10.94"</i>		
Prepared by Stonefield Engineering & Design		Printed 6/19/2025		
HydroCAD @ 10.20-6a s/n 10626 © 2024 HydroCAD Software Solutions LLC		Page 3		
Hydrograph for Pond 5P: Proposed Detention Pond				
Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Discarded (cfs)
7.00	0.00	0	962.00	0.00
7.25	0.01	1	962.00	0.01
7.50	0.03	4	962.00	0.03
7.75	0.05	6	962.00	0.05
8.00	0.08	9	962.00	0.07
8.25	0.10	12	962.00	0.10
8.50	0.14	17	962.00	0.13
8.75	0.18	23	962.00	0.18
9.00	0.24	29	962.00	0.23
9.25	0.29	35	962.00	0.28
9.50	0.32	40	962.01	0.32
9.75	0.38	47	962.01	0.37
10.00	0.47	57	962.01	0.45
10.25	0.58	71	962.01	0.56
10.50	0.73	89	962.01	0.71
10.75	0.93	113	962.01	0.89
11.00	1.19	146	962.02	1.15
11.25	1.62	198	962.02	1.55
11.50	2.31	280	962.04	2.21
11.75	9.36	1,310	962.16	4.49
12.00	42.75	17,777	963.92	5.99
12.25	9.58	34,602	965.32	7.36
12.50	4.88	33,951	965.27	7.31
12.75	3.35	31,029	965.05	7.08
13.00	2.10	27,539	964.71	6.80

HydroCAD Model: White Lake, MI		Type II 24-hr Back to Back 100-year Design		
Prepared by Stonefield Engineering & Design		Printed		
HydroCAD® 10.02-6a s/n 10626 © 2024 HydroCAD Software Solutions LLC				
Hydrograph for Pond 5P: Proposed Detention Pond (continued)				
Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Discarded (cfs)
13.25	2.39	23,864	964.46	6.50
13.50	2.10	20,169	964.14	6.19
13.75	1.88	16,515	963.80	5.86
14.00	1.66	12,939	963.45	5.58
14.25	1.51	9,474	963.10	5.26
14.50	1.40	6,187	962.74	4.96
14.75	1.37	3,124	962.38	4.67
15.00	1.33	377	962.05	2.98
15.25	1.23	157	962.02	1.24
15.50	1.16	148	962.02	1.17
15.75	1.09	139	962.02	1.10
16.00	1.01	130	962.02	1.02
16.25	0.96	122	962.02	0.97
16.50	0.93	119	962.02	0.94
16.75	0.91	116	962.01	0.91
17.00	0.88	112	962.01	0.89
17.25	0.86	109	962.01	0.86
17.50	0.83	106	962.01	0.84
17.75	0.81	103	962.01	0.81
18.00	0.78	100	962.01	0.79
18.25	0.76	96	962.01	0.76
18.50	0.73	93	962.01	0.73
18.75	0.70	90	962.01	0.71
19.00	0.68	86	962.01	0.68
19.25	0.65	83	96.01	0.66

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Discarded (cfs)
19.50	0.63	80	962.01	0.63
19.75	0.60	79	962.01	0.60
20.00	0.57	73	962.01	0.58
20.25	0.56	71	962.01	0.58
20.50	0.55	70	962.01	0.55
20.75	0.55	69	962.01	0.55
21.00	0.54	68	962.01	0.54
21.25	0.54	68	962.01	0.54
21.50	0.53	67	962.01	0.53
21.75	0.53	67	962.01	0.53
22.00	0.52	66	962.01	0.52
22.25	0.52	65	962.01	0.52
22.50	0.51	65	962.01	0.51
22.75	0.51	64	962.01	0.51
23.00	0.51	63	962.01	0.51
23.25	0.50	63	962.01	0.50
23.50	0.49	62	962.01	0.49
23.75	0.48	62	962.01	0.48
24.00	0.48	61	962.01	0.48
24.25	0.05	12	962.00	0.09
24.50	0.00	0	962.00	0.00
24.75	0.00	0	962.00	0.00
25.00	0.00	0	962.00	0.00
25.25	0.00	0	962.00	0.00
25.50	0.00	0	962.00	0.00
25.75	0.00	0	962.00	0.00
26.00	0.00	0	962.00	0.00
26.25	0.00	0	962.00	0.00

DEWATERING CALCULATIONS

		STORMWATER SYSTEM DESIGN (10-YEAR STORM)															
Line #	Line ID	Rim Elevation Downstream (FT)	Rim Elevation Upstream (FT)	Invert Downstream (FT)	Invert Upstream (FT)	Pipe Size (IN)	Pipe Length (FT)	Pipe Slope (%)	Flow Rate (CFS)	Pipe Capacity (CFS)	Velocity Downstream (ft/s)	HGL Downstream (FT)	HGL Upstream (FT)	Drainage Area (AC)	Runoff Coefficient	Time of Concentration (MIN)	Rainfall Intensity (IN/HR)
1	EW-1 TO WQ-1	964.00	970.90	964.02	964.17	18	30	0.50	6.65	7.42	3.76	965.52	965.63	0.00	0.00	20.30	3.90
2	WQ-1 TO D-101	970.90	969.30	964.27	964.44	18	40	0.42	6.68	6.85	3.90	965.66	965.80	0.31	0.86	20.10	3.90
3	D-101 TO D-102	969.30	970.50	964.54	964.80	12	50	0.52	2.26	2.57	2.87	966.10	966.30	0.24	0.91	18.10	3.90
4	D-102 TO D-103	970.50	969.70	964.90	965.43	12	106	0.50	1.53	2.52	1.95	966.46	966.65	0.18	0.67	17.10	3.90
5	D-103 TO D-104	969.70	969.70	965.53	965.96	12	86	0.50	1.12	2.52	1.43	966.74	966.82	0.25	0.68	16.20	3.90
6	D-104 TO D-105	969.70	970.75	966.06	966.61	12	110	0.50	0.51	2.72	0.75	966.86	966.97	0.20	0.65	15.00	3.90
7	D-101 TO D-201	969.30	971.10	964.54	964.85	15	63	0.49	3.70	4.53	3.02	966.10	966.30	0.00	0.00	19.70	3.90
8	D-201 TO D-202	971.10	970.40	964.95	965.30	12	71	0.49	2.21	2.50	2.81	966.44	966.71	0.13	0.83	16.80	3.90
9	D-202 TO D-203	970.40	969.70	965.40	965.89	12	98	0.50	1.85	2.52	2.36	966.77	967.04	0.38	0.69	16.10	3.90
10	D-203 TO D-204	969.70	970.40	965.99	966.45	12	93	0.49	0.90	2.50	1.14	967.16	967.21	0.48	0.48	15.00	3.90
11	D-201 TO D-301	971.10	969.60	965.05	965.54	12	99	0.49	1.72	2.51	2.19	966.44	966.67	0.55	0.77	18.90	3.90
12	D-301 TO D-302	969.60	971.00	965.64	966.10	12	91	0.51	0.29	2.53	0.36	966.77	966.78	0.00	0.00	15.80	3.90
13	D-302 TO D-303	971.00	970.40	966.20	966.59	12	79	0.49	0.29	2.50	0.62	966.76	966.86	0.18	0.42	15.00	3.90
14	EW-2 TO D-501	964.83	968.08	964.75	965.80	12	105	1.00	0.24	3.56	0.31	965.75	966.00	0.31	0.20	15.00	3.90
15	EW-3 TO D-601	965.45	968.08	965.38	965.80	12	42	1.00	0.14	3.56	0.18	966.38	966.38	0.18	0.20	15.00	3.90

Notes: j-Line contains hyd. jump

[illegible]

ISSUE	DATE	BY	DESCRIPTION
9	08/12/2025	EM	REVISED PER PSP REVIEW #2
8	06/19/2025	EM	REVISED PER PSP REVIEW #1
7	03/07/2025	EM	SUBMISSION FOR FINAL SITE PLAN APPROVAL
6	12/20/2024	EM	REVISED FOR PRELIMINARY SITE PLAN REVIEW
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JP	FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JP	SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM	FOR PRELIMINARY MDOT REVIEW
1	11/29/2023	JRC/JP	SUBMISSION FOR REZONING

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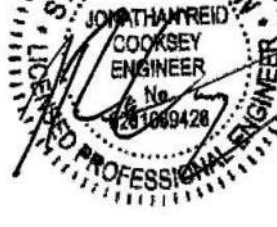

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Phone 248.247.1115

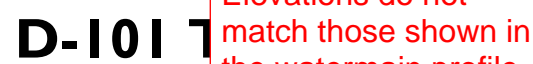
SITE DEVELOPMENT PLANS

9101 HIGHLAND ROAD

**PROPOSED COMMERCIAL
DEVELOPMENT**

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

	
 STONEFIELD engineering & design	
SCALE: AS SHOWN	PROJECT ID: DET-230229
TITLE: CONSTRUCTION DETAILS	
DRAWING: C-18	



5' 0' 5' 10'

GRAPHIC SCALE IN FEET
1" = 5'

VERTICAL SCALE

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





Carlisle | Wortman
ASSOCIATES, INC.

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

August 27, 2025

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

Applicant:	Affinity 10 Investment, LLC
Project Name:	9101 Highland Road
Plan Date:	March 7, 2025
Revised Date:	June 19, 2025
Second Revision:	August 8, 2025
Location:	South side of Highland Road (M-59), West of Sunny Beach Boulevard. Parcel ID: 12-23-227-003
Action Requested:	Final Site Plan / Amend Special Lane Use

PROJECT NARRATIVE

The applicant is requesting to construct two (2) multi-tenant retail and restaurant buildings on a 4.5-acre parcel along Highland Road (M-59). The site was recently rezoned from R1-C, Single Family Residential to RB, Restricted Business. The special land use and preliminary site plan were reviewed by the Planning Commission during the December 5th, 2024, regular meeting. Several nearby residents voiced concerns regarding the proposal citing apprehensions about traffic generated from the dual drive thrus and general noise production. The applicant was amenable to working with the Township on hours of operation for tenants as well as site lighting being turned off within an hour of tenants closing for business.

The Planning Commission voiced concerns with traffic generated by the drive thrus as well as site layout and circulation. After discussion, the following motions were made:

MOTION by Commissioner, seconded by Commissioner Meagher, to approve the special land use for 9101 Highland, identified as parcel number 12-23-227-003, accepting all the concessions made by the applicant concerning lighting, sidewalk, hours of operations, idling trucks, and the sewer stub and all comments from staff and consultants, including the two outdoor seating areas and the drive through and pick up windows. The motion failed with a voice vote: (5 no votes).

MOTION by Commissioner Carlock, seconded by Commissioner Seward, to approve the special land

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

Final Site Plan and Special Land Use Review (Second Revision)

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use for 9101 Highland, identified as parcel number 12-23-227-003, accepting all the concessions made by the applicant concerning lighting, sidewalk, hours of operations, idling trucks, and the sewer stub and all comments from staff and consultants, including the two outdoor seating areas and one drive-thru. The motion carried with a roll call vote: (8 yes votes).

MOTION by Commissioner Meagher, seconded by Commissioner Seeley to recommend the Township Board approve the preliminary site plan for 9101 Highland, identified as parcel number 12-23-227-003 subject to the specifications outlined in the special land use approval. The motion failed with a roll call vote: (5 no votes).

Via the motions, the Planning Commission conditionally approved the special land use but denied the preliminary site plan. Per these actions, the applicant was given an opportunity to revise the site plan to better meet the criteria of the special land use and modify site layout and specifications to address the community and commission concerns.

During the January 16th, 2025 regular meeting, the Planning Commission granted conditional approval to the preliminary site plan. The Township Board granted preliminary site plan approval at their January 21st, 2025 regular meeting.

Both structures will retain outdoor patios, however the drive thru pickup window on the east building has been removed. 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. Since preliminary site plan approval, the applicant has increased the outdoor patio size and count. Per these changes, an amended special land use permit is required. The Planning Commission shall consider the amendment special land use at a public hearing.

The proposed retail buildings were modified in size and tenant count. The west building has been modified from seven thousand ninety four (7,094) sqft to seven thousand one hundred eighty eight (7,188) sqft and setup to accommodate four tenants instead of the originally proposed three (3). The east building has been modified from seven thousand eight hundred sixty five (7,865) to seven thousand nine hundred forty one (7,941) sqft and setup to accommodate three (3) tenants instead of the originally proposed four (4).

The site currently contains one principal building and one accessory structure as well as a parking lot and fenced 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. Most existing utilities as well as some periphery trees are to remain and be protected during construction.

Notable changes from preliminary approval have been:

- Slight modification of landscaping layout and counts.
- East and West building patio modifications in location, size and count.
- East and West building modification in size and tenant count.
- Additional mobile order parking space.
- Removal of one standard parking space.

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

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is conducted solely by the Planning Commission. The Planning Commission is the review and approval authority for special land uses.

Items to be Address: The modification of the outdoor seating patio special land use count and size require a public hearing for Planning Commission review.

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	PD, Planned Business	R1-C, Single Family Residential	R1-C, Single Family Residential	LB, Local Business
Surrounding Land Uses	Big Box Retail	Single Family Homes	Single Family Homes	Child Daycare
Future Land-Use Map	Commercial Corridor	Neighborhood Residential	Neighborhood Residential	Commercial Corridor

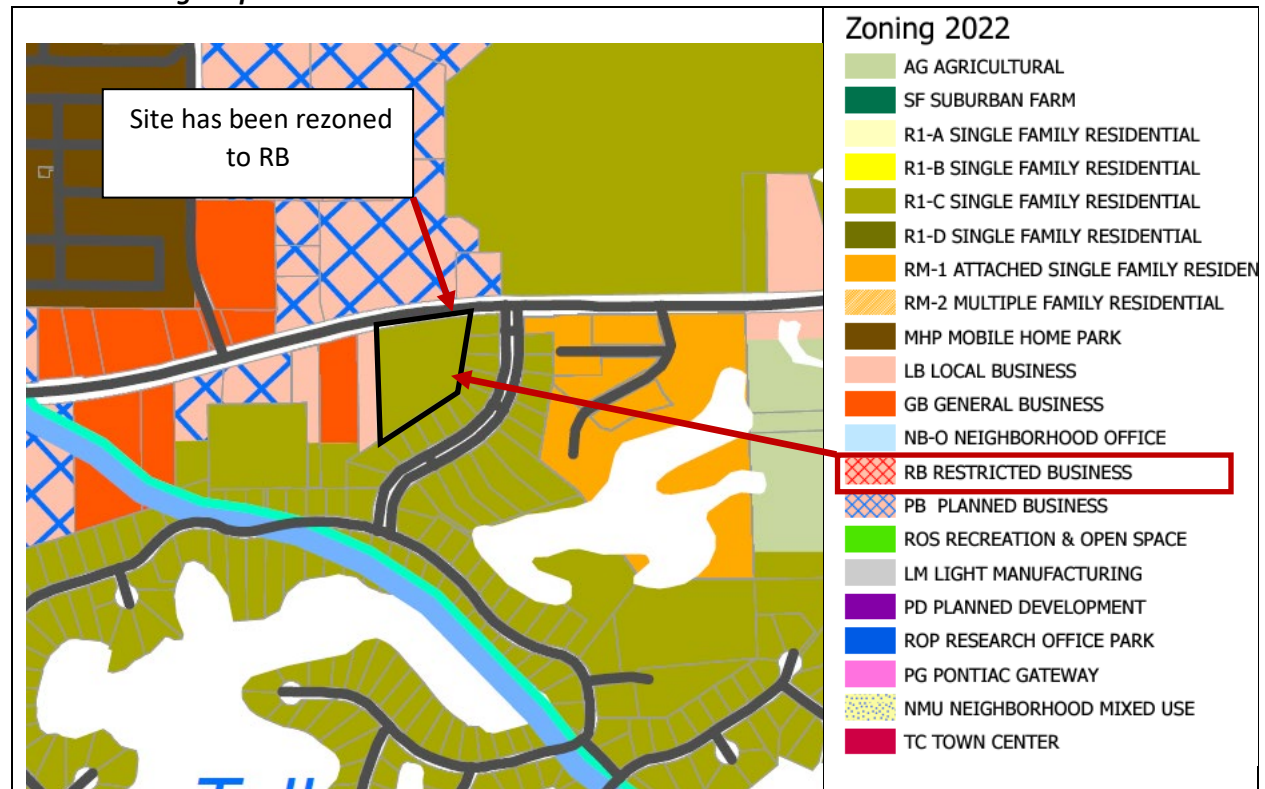
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Current Zoning	RB, Restricted Business <i>The intent of the Restricted Business District is to provide a uniform set of regulations that will provide for and encourage retail and office development in accordance with the unique character of White Lake 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.</i>
-----------------------	---

Current Zoning Map



9101 Highland

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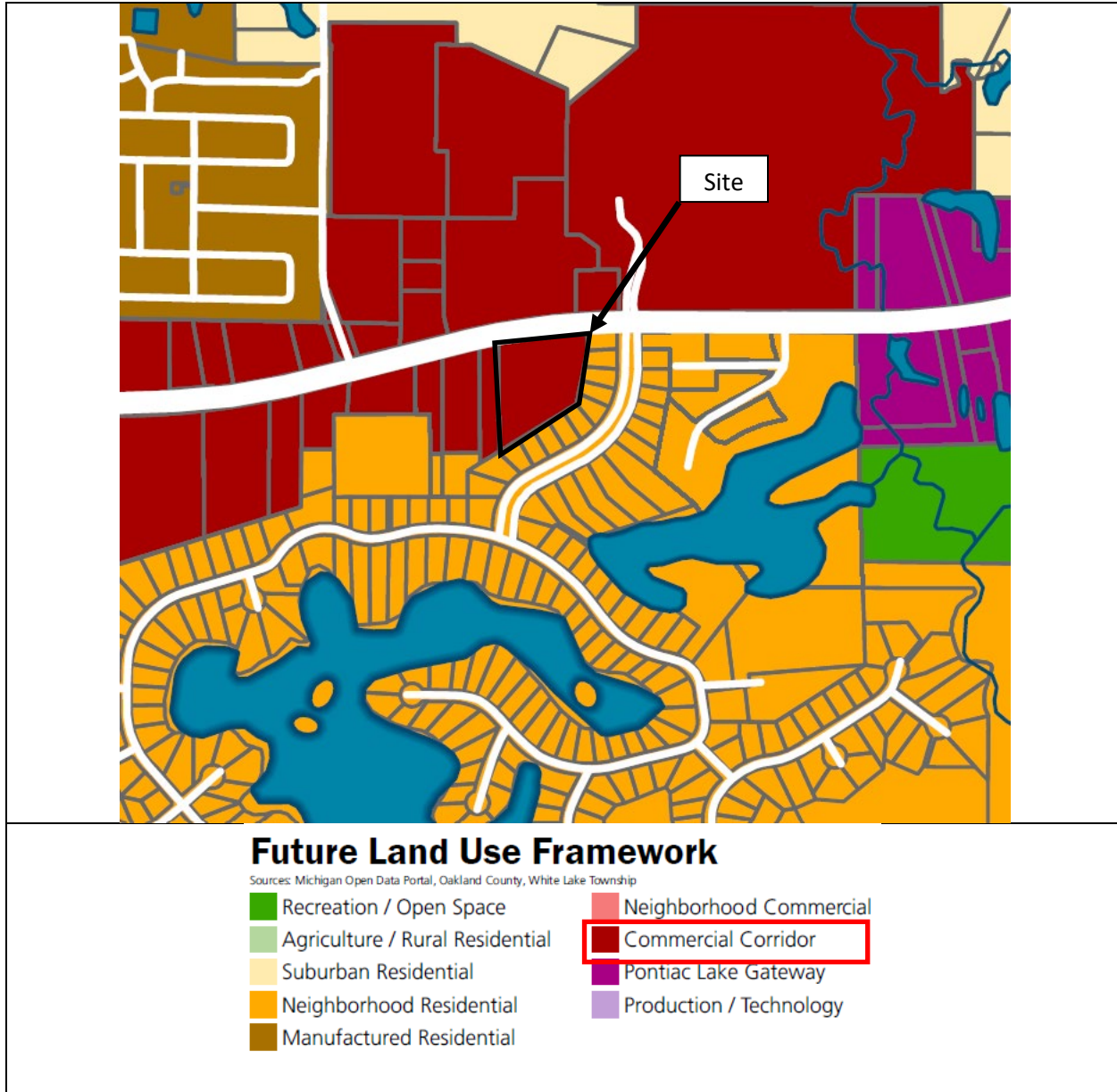
August 27, 2025

Future Land Use

Commercial Corridor

Commercial Corridor: Provides regional goods and services to residents and non-residents. Includes large box stores and drive thrus.

Future Land Use Map



Item to be Addressed: None

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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 fifteen (15) 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 concerns cited by 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 to the west / 56 feet to the east / 137 feet combined	Yes
Rear	20 feet	149.1 feet	Yes
Wetland	25 feet	N/A	N/A

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Building Height			
	35 feet or 2 stories (whichever is less)	20 feet / 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. The site's sole access is from Highland Road (M-59) which is under jurisdiction of the Michigan Department of Transportation (MDOT). The response letter from Stonefield dated August 12, 2025 states plans were resubmitted to MDOT for final approval August 12, 2025.

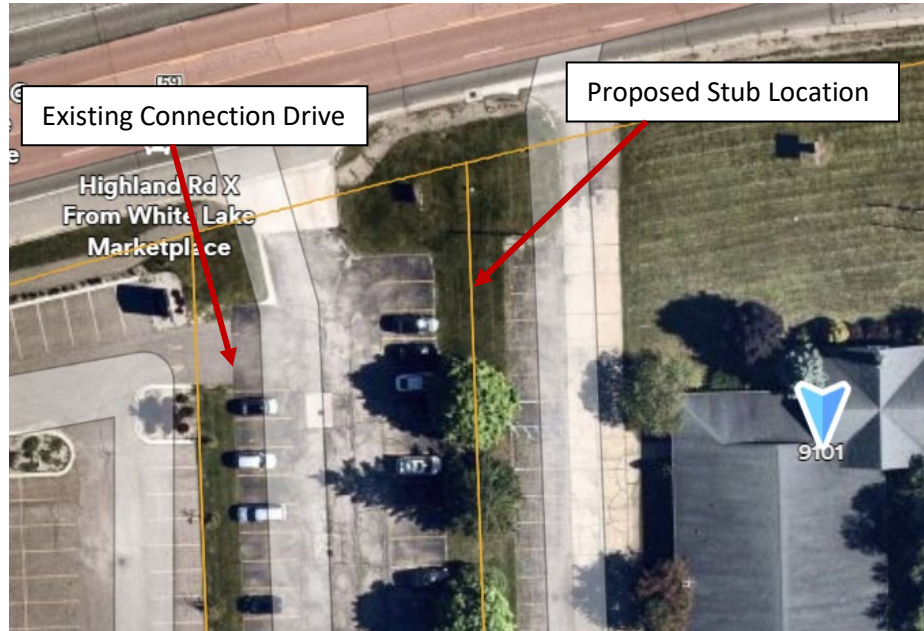
Sheet C-3 shows a proposed stub access drive at the west end of the property. A note indicates the drive is a proposed twenty four (24) foot access drive and easement to be stubbed at the property line. Also included in the final site plan application is an exhibit showing the location and dimensions of the proposed access easement.

The aerial image on the next page shows the neighboring site to the west does not currently have a stub to the subject property. 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.

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Source: NearMap June 8, 2024

Page 8 of the traffic impact study (TIS) dated May 3, 2025 indicates the site's proposed driveway distance from existing driveways and/or intersections. The only distance requirement that is met via MDOT standards 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. The TIS also recommends optimizing the PM peak hour signal timing at Highland Road (M-59) and Fisk Road.

Sheet C-12 provides circulation information for fire trucks. We defer to Township Public Safety on concerns with emergency vehicle maneuverability.

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 outside of 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 eight (8) feet to Highland Road (M-59) which is compliant.

A draft easement has been 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 east and west building. Both crosswalks extend across the drive aisle to connect with the west and east building.

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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) and site access.

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.

Only the west building offers drive thru facilities which wrap around the entire building. The stacking lane has two bailout drives. A loading zone is located behind the west building at the end of the central drive aisle. One loading zone is provided and meets the dimensional requirements of the ordinance. Refuse and Delivery truck circulation is provided on Sheet C-13. Two pedestrian crosswalks are shown with dashed markings to allow delivery personnel to access the rear of each building.

The site plan indicates there will be seven (7) total tenants between both buildings. Of the seven (7), two (2) are identified as retail totaling four thousand eight hundred six (4,806) sqft. The remaining five (5) are identified as restaurants (one with drive thru amenities). Total restaurant square footage is ten thousand three hundred thirty eight (10,338). Based on these uses, one hundred thirty six (136) parking spaces are required.

Parking has been reconfigured to allow for larger proposed patio areas in front of both buildings. One additional mobile order pickup space has been added and one standard space has been removed since preliminary approval. The site layout indicates one hundred twenty one (121) spaces are provided. The Off-Street Parking Requirements table on Sheet C-3, as well as the landscape plan on Sheet C-10, state one hundred nineteen (119) parking spaces are provided. The math computing the total required parking in the "Off-Street Parking Requirements" table states one hundred forty six (146) spaces are required. These errors do not affect compliance with parking requirements, however the correct amount of provided parking should be reflected in all calculations and site layouts.

All spaces and dimensions for stacking lanes meet ordinance requirements.

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Included in the 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-15 specify dual striped paint.

Items to be Addressed: *The correct amount of parking should be reflected in all calculations, tables and site layouts*

ESSENTIAL SERVICES & UTILITIES

Sheet C-5 and C-8 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 shown on Sheet C-12. 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

The applicant provided full landscaping specifications during the preliminary site plan review. With the exception of items relating to dimensional and screening information, the plan was compliant with ordinance standards. Between preliminary and final, the landscaping layout and material count has been modified per Sheet C-10. Changes to the landscape plan include:

- Plant layout along M-59 is more uniform.
- Tree count between the trash enclosures has been increased.
- Landscaping behind the east building has been relocated.
- Landscaping around the west building drive thru has been increased.
- Landscaping along the lot lines abutting residential has slightly increased.

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. Three (3) existing trees are within this setback however their presence aids in the screening intent of the ordinance.

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

9101 Highland

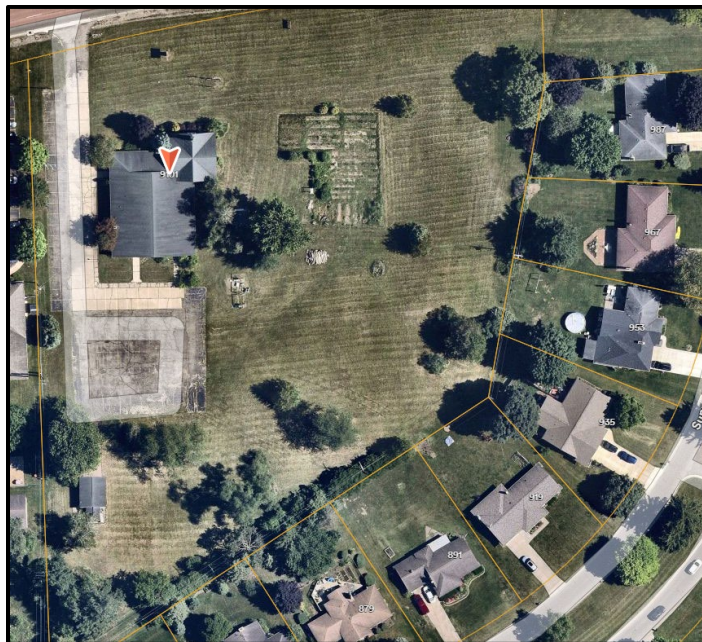
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Greenbelts

Property Line	Required	Provided	Complaint
North (ROW)	Depth: 20 feet 14 large deciduous or evergreen trees AND 107 shrubs	Depth: 25.4 feet 14 large deciduous trees AND 107 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

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.



Source: NearMap June 8, 2024

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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%)	105,080 sqft (54%)	Yes
Deciduous Trees	97 trees	97 trees (83 new / 14 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:

- 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.*
- 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.*

Commercial Use	Required	Provided	Complaint
Lot Area	2,420 sqft	4,879 sqft	Yes
Deciduous or Ornamental Trees	24 trees	24 trees	Yes
Shrubs	72 shrubs	72 shrubs	Yes
Curbs	6 inch concrete	2'	Yes
Lot Islands	50 sqft area minimum and at least 5 feet wide	4 Islands	Yes

While compliant, the landscaping and buffer requirement table on Sheet C-10 should be corrected to account for the correct parking space count. A note in the Stonefield response letter dated June 20, 2025 indicates the original parking lot landscaping area calculations were incorrect. Revised square footages are provided and compliant.

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

9101 Highland

Final Site Plan and Special Land Use Review (Second Revision)

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concrete or stained, decorative CMU block may be permitted where the principal building is not masonry, however, plain CMU block is not allowed. Sheet A-302 provides enclosure details that reference enclosure walls as CMU with brick veneer and wood stained gates with a metal frame.

Mechanical Equipment Screening

Sheets A-300 and A-301 provide elevations 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 parallel to the eastern and southern lot lines where the property abuts residential districts. The fence is located 20 feet in from the site's property line. Sheet A-302 shows the fence will be an eight (8) foot tall white vinyl fence.

Items to be Addressed: None.

LIGHTING & NOISE

Lighting Requirements

The applicant has provided site lighting information on Sheets C-9 and C-17. Lighting standards are provided in Section 5.18.G and required at final site plan review.

Given the site will have multiple tenants, Sheet C-9 contains 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 footcandle measurements for the overall site and property lines as well as driveway, parking, walkways, and loading areas. All areas are below or at maximum footcandle allowances.

Noise Requirements

Noise standards are provided in Section 5.18.A and required at final site plan review. No noise information was provided. Normal operations of the site are not anticipated to generate noise beyond permitted levels. The applicant will be required to ensure tenants are aware of standards which will include the use of outdoor patio space and drive thru speakers.

Items to be Addressed: None

SIGNAGE

Sheets C-3 and SP-100 provide the basic location and construction materials of a proposed monument sign at the development's entrance. Basic dimension parameters are provided in the "Signage

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Requirements” table. We note the sign complements 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.

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.

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. Window coverage along front facades must be at least 30%. The west building provides 33% window coverage and the east building provides 40% window coverage.

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.

Sheet A-101 does not reflect the modified patio layout for the east building and should be updated.

Items to be Addressed: 1.) Color renderings and sample boards are required for Planning Commission review. 2.) Sheet 101 should be updated to reflect revised east building patio layout.

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: Standard met. A note on Sheet C-3 indicates site lighting shall be turned off within one hour of close of business.

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. 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.

One patio each was proposed for both buildings in the preliminary site plan. The east building patio was three hundred fifteen (315) sqft and the west building patio was four hundred thirty (430) sqft. The final site plan shows that the east building now has two (2) patios at each end of the front parking area. The patio to the east end of the east building is proposed to be five hundred (500) square feet. The patio on the west end of the east building is proposed to be two hundred sixty (260) square feet. The west building patio has been reduced in size from four hundred thirty (430) square feet to three hundred fifteen (315) square feet. This is a net increase of approximately four hundred forty five (445) square feet of patio space and an increase from two (2) outdoor dining areas to three (3) outdoor dining areas. This is a deviation from what was approved in the original special land use permit and will require a new public hearing and approval from the Planning Commission

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

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permitted for outdoor dining however we do not anticipate the patrons of these potential tenants utilizing outdoor patios to a disruptive degree. The Planning Commission approved the preliminary site plan with these prospective tenant hours in mind.

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. The applicant should be aware of this requirement when considering tenant types. The community impact statement indicates that the east building shall not include a drive thru, pick-up window, menu board, or speaker box. The west building is the only building with drive thru facilities. The CIS states that per the use of landscaping and screening, noise generated from the site should be greatly reduced at property lines shared with residences.

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 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, the Planning Commission will need to approve of the enlarged patio area and count and the applicant should ensure tenants are aware of noise requirements. The applicant has eliminated the drive thru for the east building in response to nuisance concerns cited by the Planning Commission and community.

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

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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.

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. Drive thru facilities have been reduced from two (2) to one (1) to accommodate concerns of the community.

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 dated February 27, 2025.

Most information provided in the CIS is still relevant to the revised plan however building and suite square footage as well as tenant count have not been updated to reflect the current site plan. The CIS also has a dated traffic study attached.

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 seven (7) tenants, this could generate seven (7) to fourteen (14) deliveries per week. Single axle box trucks are anticipated to provide the majority of deliveries to the site. A note on Sheet C-3 indicates trucks will not be allowed to idle during loading, unloading, or staging while onsite.

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

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generate kitchen odors from cooking operations. A note on Sheet C-3 states restaurant tenants shall implement increased mitigation techniques to reduce the impact of kitchen odors.

Noise

Drive thru facilities for the east building have been eliminated and a note on Sheet C-3 states that no drive thru, order kiosk, or loudspeaker system shall be constructed for the east building. The west building drive thru has been identified as a traditional drive thru with menu boards, speakers, and pickup window. This building is the furthest from the residential homes to the east and south.

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.) Planning Commission to consider increased patio size and count for east and west building. 2.) Building and suite square footage as well as tenant count have not been updated in the CIS to reflect the current site plan. The CIS also has a dated traffic study attached. These should be updated to reflect the current plan.

SUMMARY

The final site plan is substantially complete and may be placed on a public hearing agenda for the Planning Commission. However the following clarifications/updates must be provided in writing to the Township prior to the meeting in order to allow the Planning Commission to craft a potential conditional approval.

Clarifications / Updates

1. Please clarify proposed parking counts. Site layout count is 121 parking spaces. Table on C-3 and C-10 states 119 parking spaces are proposed. Parking spaces needed by use are 136. Math provided in table on C-3 states 146 parking spaces are required.
2. The CIS has not been updated regarding building square footages and tenant counts, and has January 2025 (not May 2025) TIS attached.

9101 Highland

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August 27, 2025

Potential Conditions

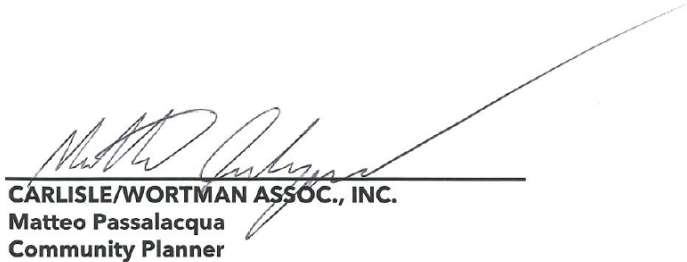
1. *Any cited concerns from Township Engineering are addressed.*
2. *Any cited concerns from Township Public Safety are addressed.*
3. *MDOT will need to approve site access and the pathway along Highland Road (M-59).*
4. *The correct amount of parking should be reflected in all calculations, tables and site layouts*
5. *Sheet 101 should be updated to reflect revised east building patio layout.*
6. *Building and suite square footage as well as tenant count and TIS have not been updated in the CIS to reflect the current site plan.*
7. *Color renderings and sample boards are required for Planning Commission review.*

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 to consider altered patio count and layout for east and west building per special land use standards.*

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: 08-19-2025

Project: 9101 Highland Road

Job #: DET-230229

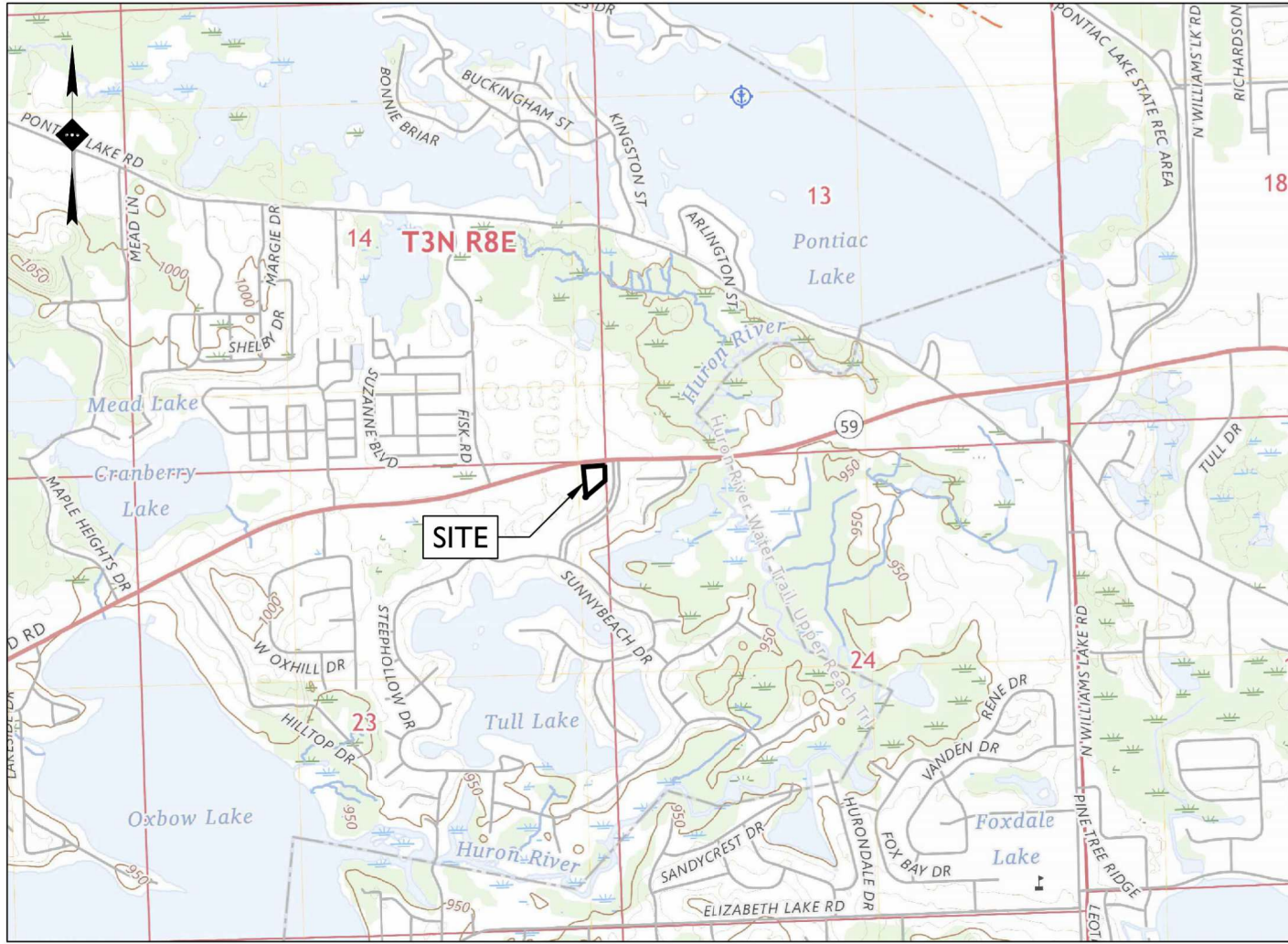
Date on Plans: 08-12-2025

The Fire Department has the following comments with regard to the 6th review of site plan for the project known as 9101 Highland Road.

1. The Fire Dept. has no further comments at this time.

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

Plans are reviewed using the International Fire Code (IFC), 2021 Edition and Referenced NFPA Standards.



SOURCE: USGS MAPPING SYSTEM

LOCATION MAP

SCALE: 1" = 2,000'±



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

AERIAL MAP

SCALE: 1" = 150'±

WHITE LAKE CHARTER TOWNSHIP ENGINEERING NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWNSHIP'S CURRENT STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION, 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- CONTRACTOR SHALL CONTACT MISS DIG AT 800-482-7171, 72 HOURS IN ADVANCE OF CONSTRUCTION, FOR EXISTING UNDERGROUND UTILITY LOCATIONS.
- IN ORDER TO VERIFY COMPLIANCE WITH APPROVED PLANS, FULL-TIME CONSTRUCTION OBSERVATION WILL GENERALLY BE REQUIRED DURING ALL PHASES OF UNDERGROUND SITE CONSTRUCTION INCLUDING INSTALLATION OF SANITARY SEWER, STORM SEWERS, DRAINS, WATERMAINS AND APPURTENANCES AS WELL AS PRIVATE STREET CURBING AND PAVING CONSTRUCTION. INTERMITTENT OBSERVATIONS WILL BE MADE FOR SITE GRADING, PARKING LOT CURBING AND PAVING, RETAINING WALL CONSTRUCTION AND OTHER SURFACE ACTIVITY.

PLAN REFERENCE MATERIALS:

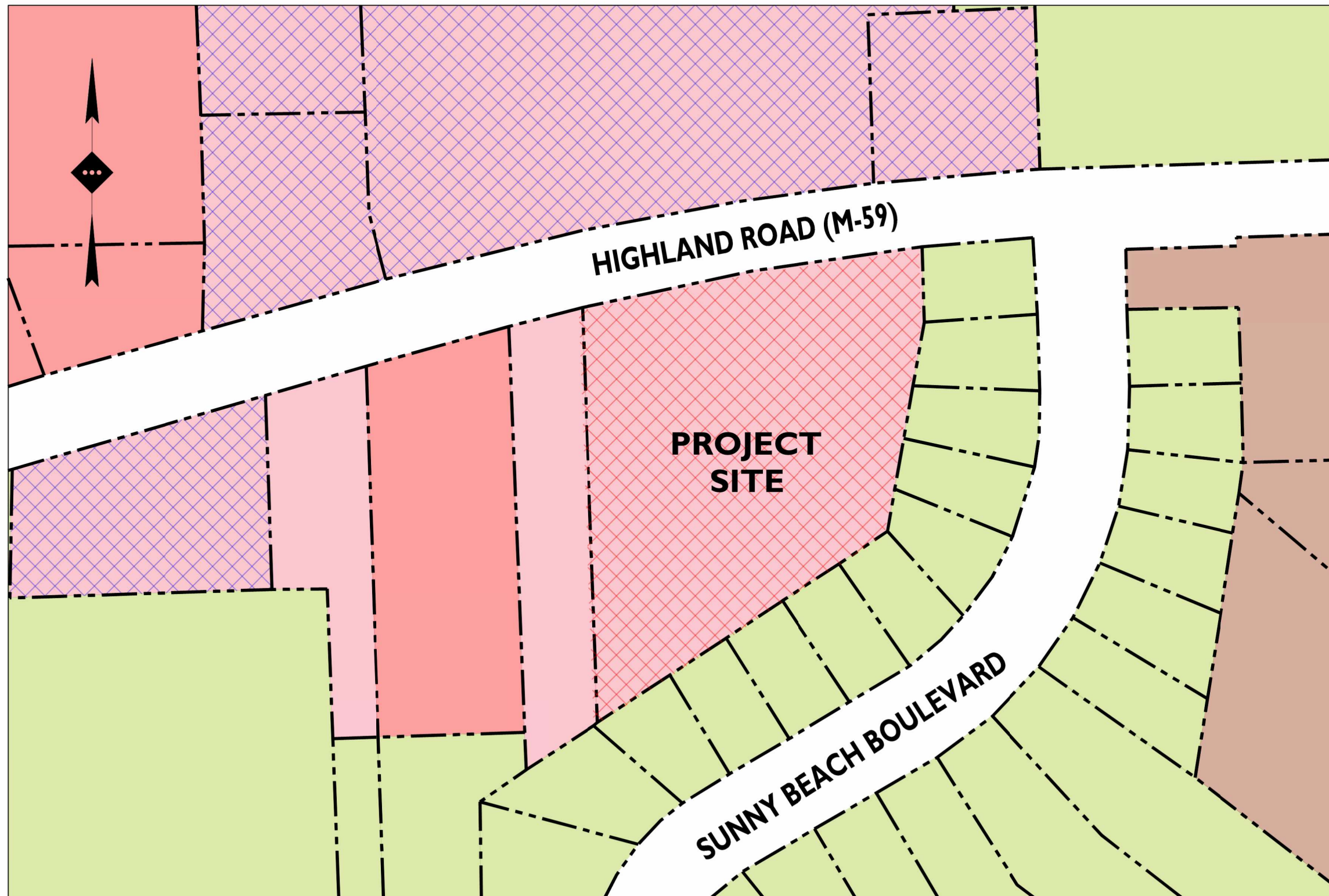
- THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
 - ALTA/NSPS LAND TITLE SURVEY PREPARED BY KEM-TEC ASSOCIATES DATED 08/05/2025
 - ARCHITECTURAL PLANS PREPARED BY BOWER & ASSOCIATES, INC DATED 08/12/2025
 - TRAFFIC STUDY PREPARED BY FLEIS & VANDENBRINK DATED 05/03/2025
 - GEOTECHNICAL REPORT PREPARED BY G2 CONSULTING DATED 09/24/2024
 - INFILTRATION REPORT PREPARED BY G2 CONSULTING DATED 05/07/2025
 - AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO 12/11/2023
 - LOCATION MAP OBTAINED FROM USGS ONLINE MAPPER 08/07/2023
- 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.

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



SOURCE: TOWNSHIP OF WHITE LAKE OFFICIAL ZONING MAP, DATED 10/10/2022 & TOWNSHIP BOARD MEETING MINUTES FROM 9/17/2024 APPROVING THE REZONE TO RESTRICTED BUSINESS

ZONING KEY

- | | |
|---|------------------------|
| RI-C SINGLE FAMILY RESIDENTIAL | RB RESTRICTED BUSINESS |
| RM-1 ATTACHED SINGLE FAMILY RESIDENTIAL | PB PLANNED BUSINESS |
| GB GENERAL BUSINESS | LB LOCAL BUSINESS |

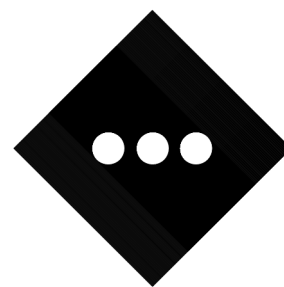
ZONING MAP

SCALE: 1" = 150'±

PLANS PREPARED BY:



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Phone 248.247.1115

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THANNAWA@ENCOREIS.COM

ARCHITECT

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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



STONEFIELD
engineering & design

SCALE: AS SHOWN PROJECT ID: DET-230229

TITLE:

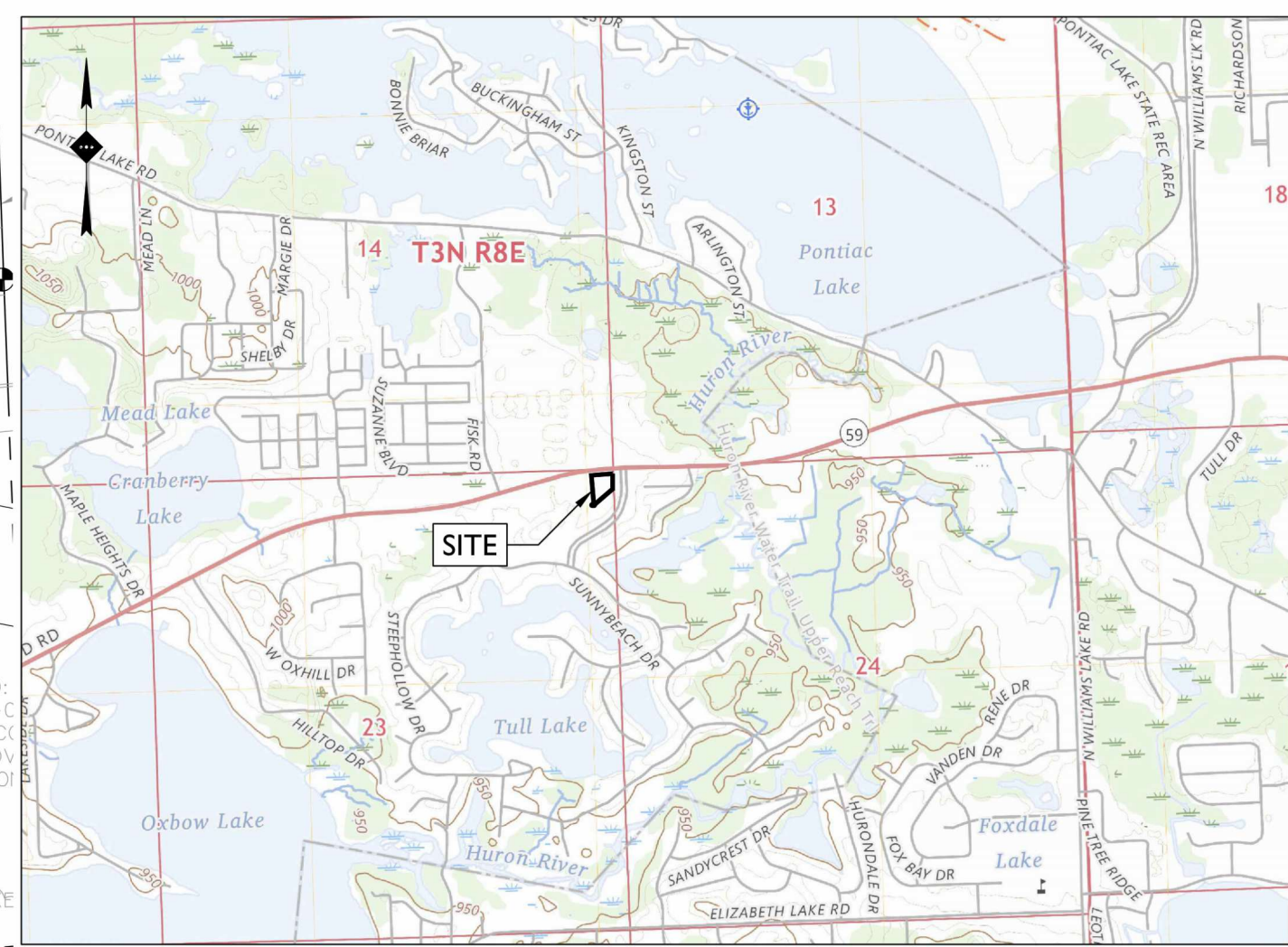
COVER SHEET

DRAWING:

C-1

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
PRE-DEVELOPMENT DRAINAGE AREA MAP	C-6
POST-DEVELOPMENT DRAINAGE AREA MAP	C-7
UTILITY PLAN	C-8
LIGHTING PLAN	C-9
LANDSCAPING PLAN	C-10 & C-11
FIRE TRUCK TURNING ANALYSIS	C-12
COMMERCIAL TRUCK TURNING ANALYSIS	C-13
SOIL EROSION PLAN	C-14
CONSTRUCTION DETAILS	C-15 TO C-18
UTILITY & STORMWATER PROFILES	C-19

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: 1" = 2,000'±

(W)	WAIVER
(1)	REQUIREMENT FOR RESTAURANT WITH DRIVE-THRU
(2)	NO PARKING SIGN SHALL BE LOCATED ADJACENT TO R.O.W LINE, STREET EASEMENT OR SIDEWALK WHICHEVER IS CLOSER
(3)	NO ENCLOSURES SHALL BE PERMITTED CLOSER TO THE FRONT LOT LINE THAN THE PRINCIPAL BUILDING
(4)	PLANNING COMMISSION APPROVED SPECIAL LAND USE FOR ONE (1) DRIVE-THRU TENANT DECEMBER 5, 2024

- (1) PARKING SPACE LENGTH MAY BE REDUCED TO 17 FT WHERE 7 FT SIDEWALK OR LANDSCAPE IS PROVIDED.
- (2) AT LEAST 75% OF THE MAXIMUM ALLOWABLE NUMBER OF PARKING SPACES SHALL BE PROVIDED.

1. TRUCKS SHALL NOT BE ALLOWED TO IDLE DURING LOADING, UNLOADING OR STAGING WHILE ONSITE.
2. NO DRIVE-THRU, ORDER KIOSK OR LOUDSPEAKER SYSTEM SHALL BE CONSTRUCTED FOR THE EAST BUILDING
3. SITE LIGHTING SHALL BE TURNED OFF WITHIN ONE HOUR OF CLOSE OF BUSINESS
4. THERE SHALL BE NO FLASHING, OSCILLATING, MOVING OR INTERMITTENT TYPE OF LIGHTING OR ILLUMINATION ON THE SITE
5. RESTAURANT TENANTS SHALL IMPLEMENT INCREASED MITIGATION TECHNIQUES TO REDUCE THE IMPACT OF KITCHEN ODORS

SITE BENCHMARK #1
ARROW ON HYDRANT, WEST SIDE OF ASPHALT ENTRANCE.
ELEVATION = 975.36' (NAVD 88)

SITE BENCHMARK #2
ARROW ON HYDRANT, S. SIDE OF HIGHLAND ROAD, EAST SIDE OF PROPERTY
ELEVATION = 974.20' (NAVD 88)

THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE NOTES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS IN ACCORDANCE WITH ALL CITY, STATE, AND FEDERAL CONDITIONS AND THE PROPOSED WORK. THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL CITY, STATE, AND FEDERAL APPROVALS ARE OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.

THE CONTRACTOR SHALL BE LIABLY PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC, AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN CONNECTION WITH THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.

THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THESE NOTES. ANY APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.

THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.

THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PROPERTY.

THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE TIME OF CONSTRUCTION.

THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC, WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE CURRENT CITY OF CHICAGO ORDINANCES.


THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.

THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.

SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC, BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.

ISSUE	DATE	BY	DESCRIPTION
9	08/12/2025	EM	REVISED PER FSP REVIEW #2
8	06/19/2025	EM	REVISED PER FSP REVIEW #1
7	03/07/2025	EM	SUBMISSION FOR FINAL SITE PLAN APPROVAL
6	12/20/2024	EM	REVISION FOR PRELIMINARY SITE PLAN APPROVAL
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JLP	FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JLP	SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM	FOR PRELIMINARY MDOT REVIEW
1	11/29/2023	JRC/JLP	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



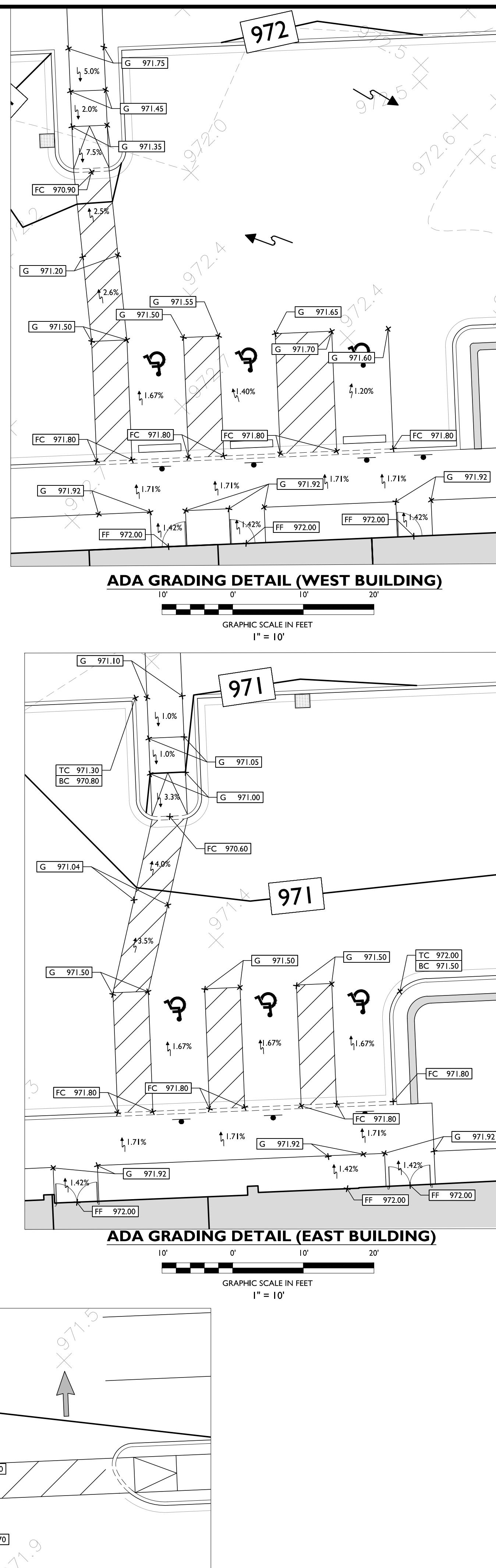
 **STONEFIELD**
engineering & design


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


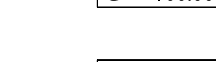
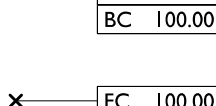

SITE PLAN

DRAWING:

C-3





SYMBOL	DESCRIPTION
---	PROPERTY LINE
	PROPOSED GRADING CONTOUR
	PROPOSED GRADING RIDGELINE
	PROPOSED DIRECTION OF DRAINAGE FLOW
	PROPOSED GRADE SPOT SHOT
	PROPOSED TOP OF CURB / BOTTOM OF CURB SPOT SHOT
	PROPOSED FLUSH CURB SPOT SHOT

GRADING NOTES

1. 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.
2. 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.
3. 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 STONEHEDGE ENGINEERING & DESIGN, LLC. FOR REVIEW AND APPROVAL PRIOR TO POURING CURBS.
4. 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.
5. MINIMUM SLOPE REQUIREMENTS TO PREVENT PONDING SHALL BE AS FOLLOWS:
 - CURB GUTTER: 0.50%
 - CONCRETE SURFACES: 0.50%
 - ASPHALT SURFACES: 1.00%
6. 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 STONEHEDGE ENGINEERING & DESIGN, LLC. IF THIS CONDITION CANNOT BE MET.
7. 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 REMEDIATED/PROVED BY THE CONSTRUCTION CODE OFFICIAL. IF PUMP PUMPS ARE UTILIZED, ALL DISCHARGES SHALL BE CONNECTED DIRECTLY TO THE PUBLIC STORM SEWER SYSTEM WITH APPROVAL FROM THE GOVERNING STORM SEWER SYSTEM AUTHORITY.

BENCHMARK

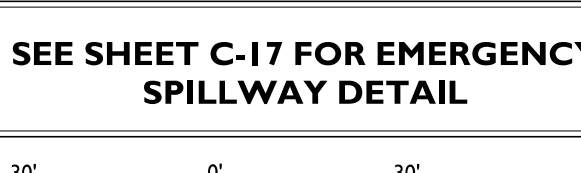
SITE BENCHMARK #1
 ARROW ON HYDRANT, WEST SIDE OF ASPHALT ENTRANCE.
 ELEVATION = 975.36' (NAVD 88)

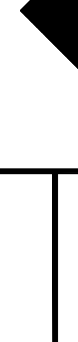
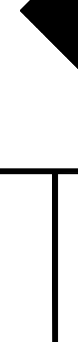

SITE BENCHMARK #2
 ARROW ON HYDRANT, S SIDE OF HIGHLAND ROAD, EAST SIDE OF PROPERTY.
 ELEVATION = 974.20' (NAVD 88)

ADA NOTES

1. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION WITHIN THE ADA PERMITTED SPACES AND ACCESS AISLES.
2. THE CONTRACTOR SHALL PROVIDE COMPLIANT SIGNAGE AT ALL ADA PARKING AREAS IN ACCORDANCE WITH STATE GUIDELINES.
3. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 5.00% RUNNING SLOPE AND A MAXIMUM QOE 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.
4. 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.
5. 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 FLARES SHALL NOT HAVE A SLOPE GREATER THAN 8.33% IF A LANDING AREA IS NOT PROVIDED AT THE TOP OF THE RAMP. CURB 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.
6. ADA COMPLIANT 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.
7. A SLIP RESISTANT SURFACE SHALL BE CONSTRUCTED ALONG THE ACCESSIBLE PATH AND WITHIN ADA PARKING AREAS.
8. THE CONTRACTOR SHALL ENSURE A MAXIMUM OF 1/4 INCHES VERTICAL CHANGE IN LEVEL ALONG THE ACCESSIBLE PATH, WHERE A CHANGE IN LEVEL BETWEEN 1/4 INCHES AND 1/2 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).
9. THE CONTRACTOR SHALL ENSURE THAT ANY OPENINGS (GAPS OR HORIZONTAL SEPARATION) ALONG THE ACCESSIBLE PATH SHALL NOT ALLOW PASSAGE OF A SPHERE GREATER THAN 1/2 INCH.

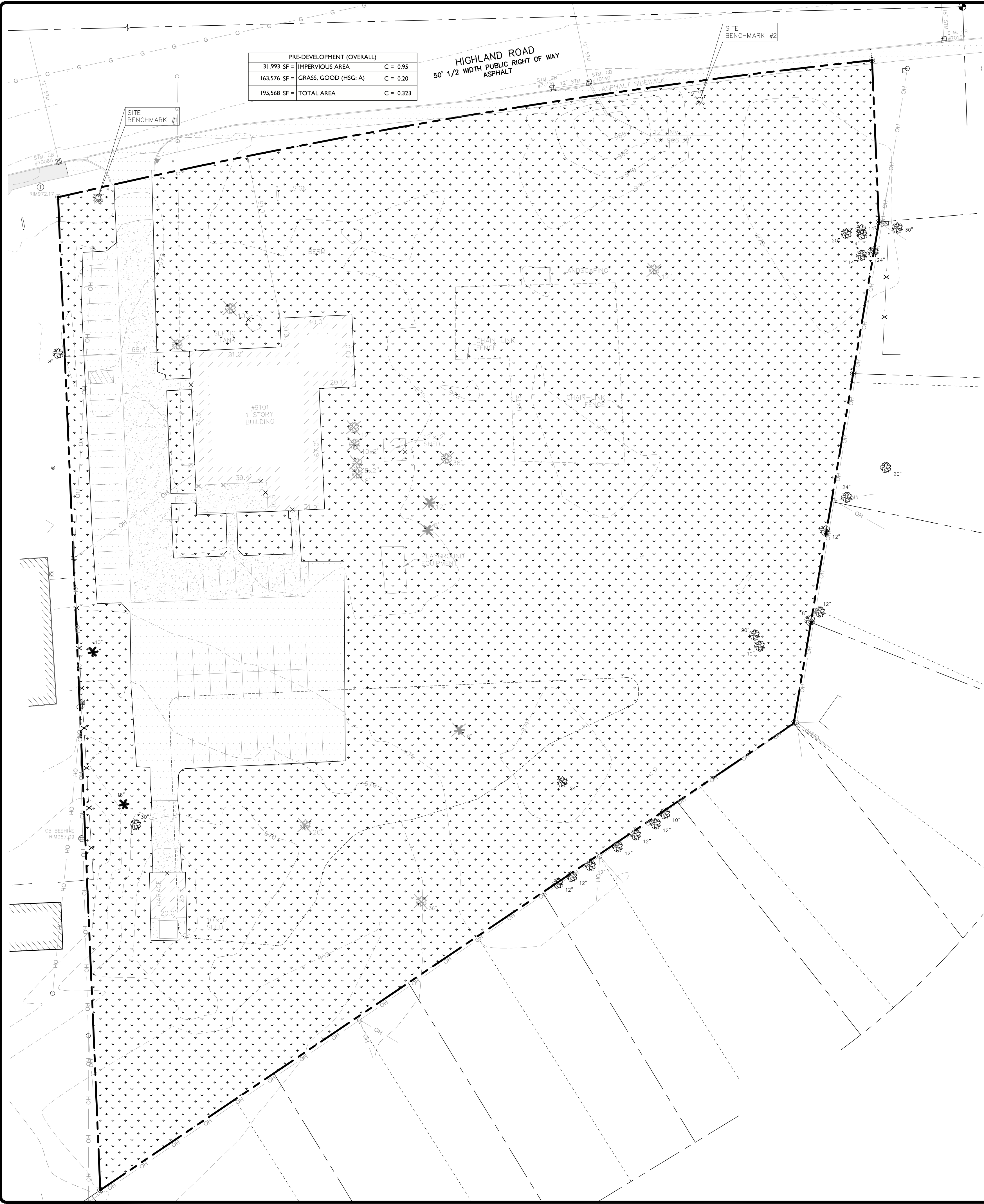
SEE SHEET C-17 FOR DETAILED SPILLWAY EMERGENCY



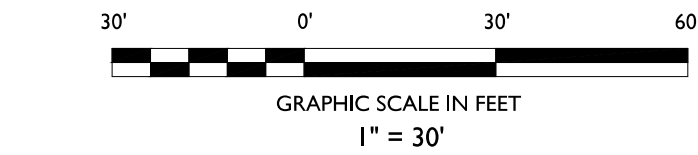
SITE DEVELOPMENT PLANS		<div><h1>9101 HIGHLAND ROAD</h1><h2>PROPOSED COMMERCIAL DEVELOPMENT</h2><p>PARCEL ID: 12-23-227-003 9101 HIGHLAND ROAD WHITE LAKE TOWNSHIP OAKLAND COUNTY, MICHIGAN</p></div>		<div><h1>STONEFIELD</h1><p>engineering & design</p><p>Birmingham, MI · Rutherford, NJ · New York, NY Boston, MA · Princeton, NJ · Tampa, FL www.stonefieldeng.com</p><p>555 S Old Woodward Suite 12L Birmingham, MI 48009 Phone 248.247.1115</p></div>		<table><tr><td>9</td><td>08/12/2025</td><td>EM</td><td>REVISED PER PSP REVIEW #2</td></tr><tr><td>8</td><td>06/19/2025</td><td>EM</td><td>REVISED PER PSP REVIEW #1</td></tr><tr><td>7</td><td>03/07/2025</td><td>EM</td><td>SUBMISSION FOR FINAL SITE PLAN APPROVAL</td></tr><tr><td>6</td><td>12/20/2024</td><td>EM</td><td>REVISED FOR PRELIMINARY SITE PLAN APPROVAL</td></tr><tr><td>5</td><td>10/17/2024</td><td>EM</td><td>REVISED PER PRELIMINARY SITE PLAN REVIEW #1</td></tr><tr><td>4</td><td>07/22/2024</td><td>EM/JP</td><td>FOR SITE PLAN REVIEW</td></tr><tr><td>3</td><td>04/22/2024</td><td>JRC/JP</td><td>SUBMISSION FOR REVISED REZONING REQUEST</td></tr><tr><td>2</td><td>04/15/2024</td><td>EM</td><td>FOR PRELIMINARY MDOT REVIEW</td></tr><tr><td>1</td><td>11/29/2023</td><td>JRC/JP</td><td>SUBMISSION FOR REZONING</td></tr><tr><td>ISSUE</td><td>DATE</td><td>BY</td><td>DESCRIPTION</td></tr></table>		9	08/12/2025	EM	REVISED PER PSP REVIEW #2	8	06/19/2025	EM	REVISED PER PSP REVIEW #1	7	03/07/2025	EM	SUBMISSION FOR FINAL SITE PLAN APPROVAL	6	12/20/2024	EM	REVISED FOR PRELIMINARY SITE PLAN APPROVAL	5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1	4	07/22/2024	EM/JP	FOR SITE PLAN REVIEW	3	04/22/2024	JRC/JP	SUBMISSION FOR REVISED REZONING REQUEST	2	04/15/2024	EM	FOR PRELIMINARY MDOT REVIEW	1	11/29/2023	JRC/JP	SUBMISSION FOR REZONING	ISSUE	DATE	BY	DESCRIPTION
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PRE-DEVELOPMENT (OVERALL)			
31,993 SF =	IMPERVIOUS AREA	C =	0.95
163,576 SF =	GRASS, GOOD (HSG: A)	C =	0.20
195,568 SF =	TOTAL AREA	C =	0.323



SYMBOL	DESCRIPTION
---	PROPERTY LINE
- - - - -	PROPOSED DRAINAGE AREA



SITE DEVELOPMENT PLANS

9101 HIGHLAND ROAD
PROPOSED COMMERCIAL
DEVELOPMENT

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



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

TITLE:
PRE-DEVELOPMENT
DRAINAGE AREA MAP

DRAWING:

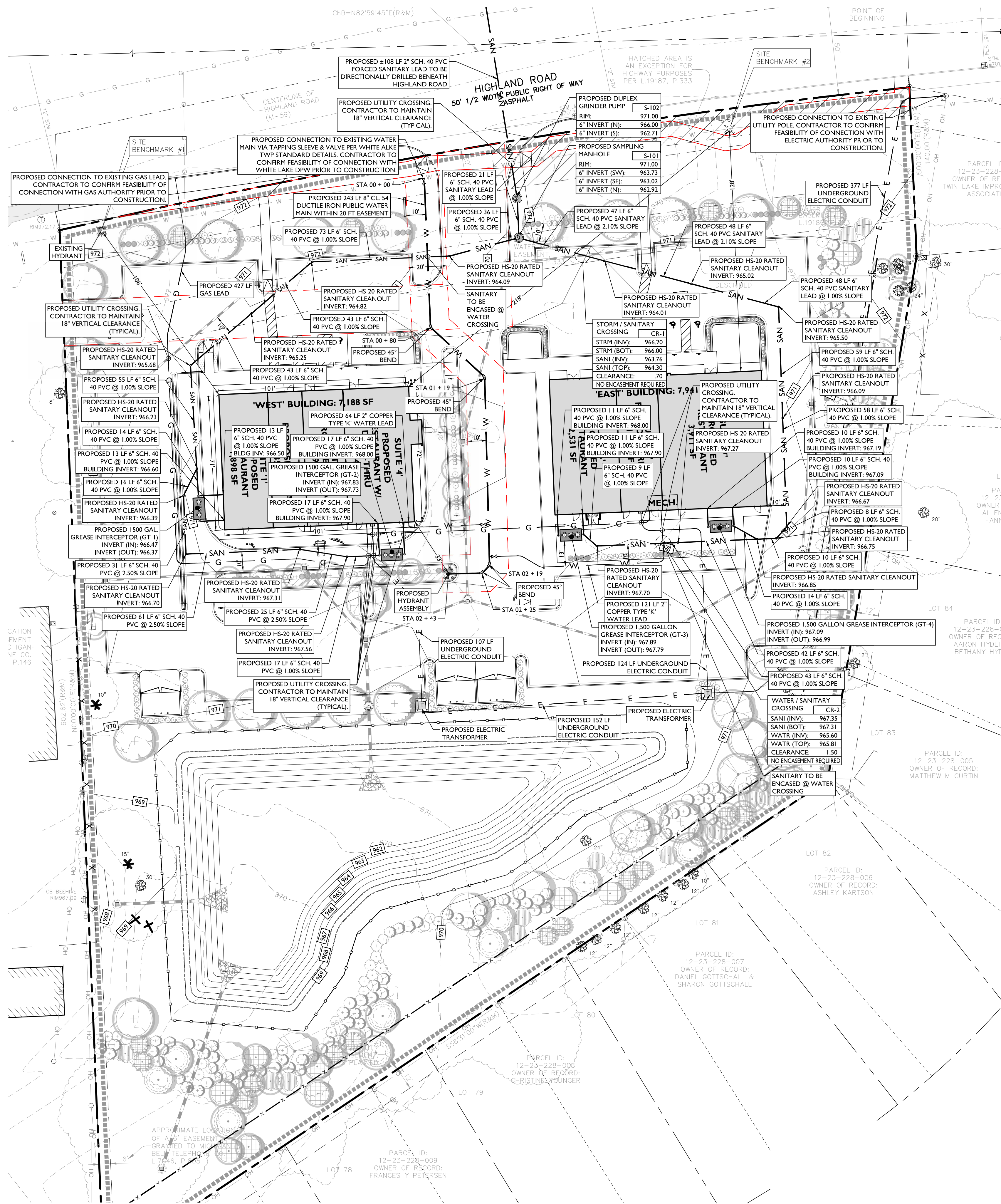
C-6








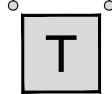


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1	11/29/2023	JRC/JJP	SUBMISSION FOR REZONING



SYMBOL	DESCRIPTION
	PROPERTY LINE
	PROPOSED SANITARY LATERAL
	PROPOSED DOMESTIC WATER SERVICE
	PROPOSED ELECTRIC CONDUITS
	PROPOSED GAS LINE
	PROPOSED VALVE
	PROPOSED CLEANOUT
	PROPOSED TRANSFORMER ON CONCRETE PAD WITH BOLLARDS

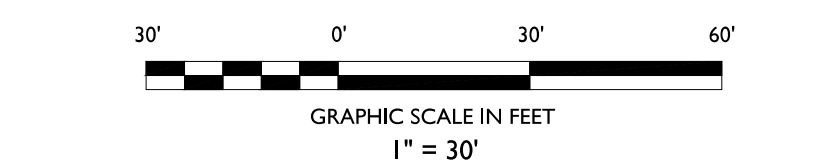
MANHOLE SCHEDULE					
NUM	TYPE	RIM (FT)	SIZE (IN)	DIR	INV ELEV (FT)
70065	CATCH BASIN	971.68	12	N	968.03
70131	CATCH BASIN	970.71	12	E	966.71
70140	CATCH BASIN	970.70	12	W	966.50
		970.70	12	N	966.45
		970.70	12	S	966.55
70157	CATCH BASIN	971.02	18	N	964.12

BENCHMARK

SITE BENCHMARK #1
ARROW ON HYDRANT, WEST SIDE OF ASPHALT ENTRANCE.
ELEVATION = 975.36' (NAVD 88)

SITE BENCHMARK #2
ARROW ON HYDRANT, S. SIDE OF HIGHLAND ROAD, EAST SIDE OF PROPERTY.
ELEVATION = 974.20' (NAVD 88)

- DRAINAGE AND UTILITY NOTES**
1. THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AGENCIES FOR ALL UTILITIES TO BE EXPOSED AND TO SET A 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 BY MEANS OF SURVEY. CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING, IF THE 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.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
 3. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING UTILITIES OR TO THE GROUND SURFACE WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
 4. A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES IF THE EXISTING SEWER LINES AND WATER LINES ARE NOT CONCRETE ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN LLC.
 5. IF THE EXISTING LINES ARE NOT CONCRETE ENCASEMENT, THE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
 6. 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.
 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AGENCY.
 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP-GRADIENT.
 9. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN EXPOSED AND REMOVED. THE CONTRACTOR SHALL RECORD THE DEMOLITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
 10. 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 EXISTING RECORDS AND THE AS-BUILT LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.



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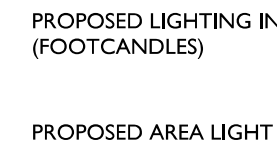
SITE DEVELOPMENT PLANS

9101 HIGHLAND ROAD

**PROPOSED COMMERCIAL
DEVELOPMENT**




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

	
 STONEFIELD engineering & design	
SCALE: 1" = 30'	PROJECT ID: DET-230229
TITLE: UTILITY PLAN	
DRAWING: C-8	



**SITE LIGHTING SHALL BE TURNED OFF
WITHIN ONE HOUR OF CLOSE OF
BUSINESS**

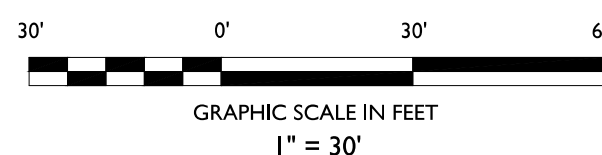
**THERE SHALL BE NO FLASHING,
OSCILLATING, MOVING OR
INTERMITTENT TYPE OF LIGHTING OR
ILLUMINATION ON THE SITE**

PROPOSED LUMINAIRE SCHEDULE								
SYMBOL	LABEL	QUANTITY	SECURITY LIGHTING	DISTRIBUTION	LLF	MANUFACTURER	CONTROL	IES FILE
	A	4	MIRADA MEDIUM- MRM OUTDOOR LED AREA LIGHT SINGLE WITH HOUSE SIDE SHIELD	FT	0.9	LSI INDUSTRIES	-	MRM-LED-30L-SIL-FT-40-70CRI-ILIES
	B	6	MIRADA MEDIUM- MRM OUTDOOR LED AREA LIGHT TWO @ 180 °	FT	0.9	LSI INDUSTRIES	-	MRM-LED-12L-SIL-FT-40-70CRI-ILIES
	C	1	MIRADA MEDIUM- MRM OUTDOOR LED AREA LIGHT SINGLE WITH HOUSE SIDE SHIELD	FT	0.9	LSI INDUSTRIES	-	MRM-LED-12L-SIL-FT-40-70CRI-ILIES

(I) CUT OFF FIXTURES ARE REQUIRED



1. THE LIGHTING LEVELS DEPICTED WITHIN THE PLAN SET ARE CALCULATED UTILIZING DATA OBTAINED FROM THE LISTED MANUFACTURER, ACTUAL ILLUMINATION LEVELS AND PERFORMANCE FACTORS MAY VARY DUE TO UNCONTROLLABLE VARIABLES SUCH AS WEATHER, VOLTAGE SUPPLY, LAMP TOLERANCE, EQUIPMENT SERVICE LIFE AND OTHER VARIABLE FIELD CONDITIONS.
2. WHERE APPLICABLE, THE EXISTING LIGHT LEVELS DEPICTED WITHIN THE PLAN SET SHALL BE CONSIDERED APPROXIMATE. THE EXISTING LIGHT LEVELS ARE BASED ON FIELD OBSERVATIONS AND THE MANUFACTURER'S DATA OF THE ASSUMED OR MOST SIMILAR LIGHTING FIXTURES.
3. UNLESS NOTED ELSEWHERE WITHIN THIS PLAN SET, THE LIGHT LOSS FACTORS USED IN THE LIGHTING ANALYSIS ARE AS FOLLOWS:
 - LIGHT EMITTING DIODES (LED): 0.90
 - HIGH PRESSURE SODIUM: 0.72
 - METAL HALIDE: 0.72
4. THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING, PRIOR TO THE START OF CONSTRUCTION, AND PROPOSED LIGHTING FIXTURES THAT WILL DEVIATE FROM EXISTING PROPOSED LIGHTING FIXTURES OR OTHER IMPROVEMENTS.
5. THE CONTRACTOR IS RESPONSIBLE TO PREPARE A WIRING PLAN AND PROVIDE ELECTRIC SERVICE TO ALL PROPOSED LIGHTING FIXTURES. THE CONTRACTOR IS REQUIRED TO PREPARE AN AS-BUILT PLAN OF WIRING AND PROVIDE IT TO THE OWNER AND STONEFIELD ENGINEERING & DESIGN, LLC.



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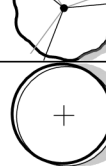


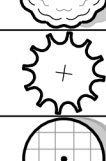
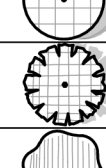
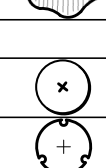
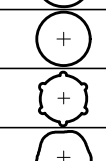
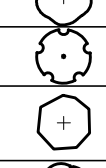
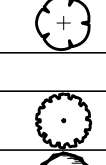
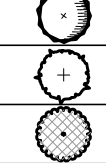
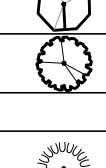
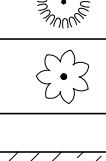
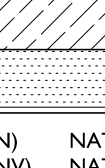
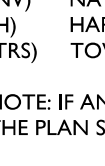









PROPOSED COMMERCIAL DEVELOPMENT

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

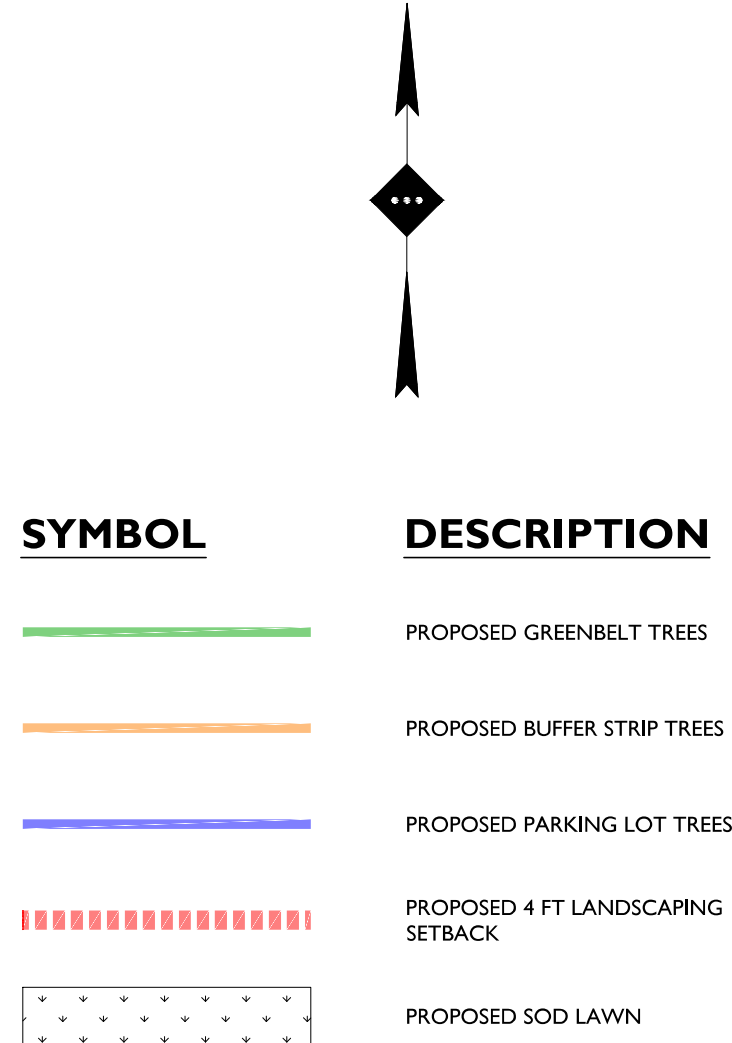


\A\DET\2023\DET-230029-AFFINITY 10 INVESTMENT-9191 HIGHLAND ROAD, WHITE LAKE, MICADDIPLOTS\SDP-09-LIGHT.DWG



PLANT SCHEDULE							
SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS
DECIDUOUS TREES							
	SAC	4	ACER SACCHARUM "CADDOR"	CADDO SUGAR MAPLE	2.5" - 3" CAL	B&B	(NV), (TRS)
	PSG	13	GINKGO BILOBA "PRINCETON SENTRY"	PRINCETON SENTRY MAIDENHAIR TREE	2.5" - 3" CAL	B&B	(H), (TRS)
	SKY	3	GLEDITZIA TRIACANTHOS INERMIS "SKYCOLE"	SKYLINE HONEY LOCUST	2.5" - 3" CAL	B&B	(NV), (TRS)
	LIQ	3	LIQUIDAMBAR STYRACIFLUA "MORAINÉ"	MORAINÉ SWEET GUM	2.5" - 3" CAL	B&B	(NV), (TRS)
	ALB	5	QUERCUS ALBA	WHITE OAK	2.5" - 3" CAL	B&B	(N), (TRS)
	PAL	6	QUERCUS PALUSTRIS	PIN OAK	2.5" - 3" CAL	B&B	(N), (TRS)
	RUB	5	QUERCUS RUBRA	NORTHERN RED OAK	2.5" - 3" CAL	B&B	(N), (TRS)
	TIL	4	TILIA AMERICANA	AMERICAN LINDEN	2.5" - 3" CAL	B&B	(N), (TRS)
EVERGREEN TREES							
	ABI	13	ABIES CONCOLOR	WHITE FIR	7' - 8' HT	B&B	(H), (TRS)
	JUN	57	JUNIPERUS SCOPULORUM "SKYROCKET"	SKYROCKET JUNIPER	7' - 8' HT	B&B	(H), (TRS)
	OMO	14	PICEA OMORIKA	SERBIAN SPRUCE	7' - 8' HT	B&B	(H), (TRS)
	PUN	22	PICEA PUNGENS	COLORADO SPRUCE	7' - 8' HT	B&B	(H), (TRS)
	PSE	17	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	7' - 8' HT	B&B	(H), (TRS)
SHRUBS							
	CEA	9	CEANOTHUS AMERICANUS	NEW JERSEY TEA	30" - 36"	POT	(N)
	CLE	15	CLETHRA ALNIFOLIA "RUBY SPICE"	RUBY SPICE SUMMERSWEET	30" - 36"	POT	(H)
	HQU	37	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	30" - 36"	POT	(H)
	IVE	19	ILEX VERTICILLATA	WINTERBERRY	30" - 36"	POT	(N)
	IJI	6	ILEX VERTICILLATA 'JIM DANDY'	'JIM DANDY' WINTERBERRY	30" - 36"	POT	(NV)
	PHY	17	PHYSOCARPUS OPULIFOLIUS	NINEBARK	30" - 36"	POT	(N)
	PHO	32	PHYSOCARPUS OPULIFOLIUS 'LITTLE DEVIL'	'LITTLE DEVIL' DWARF NINEBARK	30" - 36"	POT	(NV)
	VDE	43	VIBURNUM DENTATUM	VIBURNUM	30" - 36"	POT	(N), (TRS)
EVERGREEN SHRUBS							
	SUF	52	BUXUS SEMPERVIRENS "SUFFRUTICOSA"	SUFFRUTICOSA COMMON BOXWOOD	12" - 15"	POT	(H), (TRS)
	GRV	40	BUXUS X 'GREEN VELVET'	GREEN VELVET BOXWOOD	12" - 15"	POT	(H), (TRS)
	IGL	36	ILEX GLABRA	INKBERRY HOLLY	30" - 36"	POT	(H), (TRS)
	ICO	65	ILEX GLABRA 'COMPACTA'	COMPACT INKBERRY	30" - 36"	POT	(H), (TRS)
	RMA	38	RHODODENDRON MAXIMUM	ROSEBAY RHODODENDRON	30" - 36"	POT	(H), (TRS)
	DEN	76	TAXUS X MEDIA "DENSIFORMIS"	DENSE ANGLO-JAPANESE YEW	30" - 36"	POT	(H), (TRS)
GRASSES							
	CAL	20	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER GRASS REED FEATHER	1 GAL.	POT	(H)
	PEN	27	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	'LITTLE BUNNY' FOUNTAIN GRASS	1 GAL.	POT 18" O.C.	(H)
GROUNDCOVERS							
	BAR	55	JUNIPERUS HORIZONTALIS "BAR HARBOR"	BAR HARBOR CREEPING JUNIPER	1 GAL.	POT, 36" O.C.	(NV)
	SED	135	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	1 GAL.	POT	(N)

LANDSCAPE MAINTENANCE SCHEDULE															
MAINTENANCE TASK	WINTER			SPRING				SUMMER				FALL			
	DEC	JAN	FEB	MAR	APR	MAY	FREQUENCY	JUN	JUL	AUG	FREQUENCY	SEP	OCT	NOV	FREQUENCY
SITE INSPECTION				X			ONCE PER SEASON				ONCE PER SEASON			X	ONCE PER SEASON
DIRT & WEED CONTROL				X	X		BI-WEEKLY	X	X	X	BI-WEEKLY	X	X		BI-WEEKLY
IRRIGATION MAINTENANCE							ONCE PER SEASON				N/A				ONCE PER SEASON
MULCHING							ONCE PER SEASON				N/A				N/A
SEASONAL PLANTINGS							ONCE PER SEASON				WEEKLY				WEEKLY
MOWING OF LAWN							WEEKLY				WEEKLY				WEEKLY
PRUNING							MONTHLY				N/A				ONCE PER SEASON
FERTILIZER & AMENDMENTS				X	X		MONTHLY				BI-WEEKLY				BI-WEEKLY
INSECT & DISEASE CONTROL							ONCE PER SEASON				BI-WEEKLY				N/A
PLANTING RENOVATION							ONCE PER SEASON				N/A				ONCE PER SEASON
COATING MAINTENANCE							ONCE PER SEASON				N/A				ONCE PER SEASON
GRAVED SURFACE MAINTENANCE				X	X		ONCE PER SEASON				N/A				N/A



LANDSCAPING AND BUFFER REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 5.19.C.i. TABLE 5.19	<u>BUFFER STRIP STANDARDS (EAST PROPERTY LINE)</u>	
	MINIMUM WIDTH: 20 FT	30.0 FT
	5 FT HIGH VISUAL BARRIER REQUIRED	COMPLIES
	1 DECIDUOUS/EVERGREEN TREE & 4 SHRUBS FOR EVERY 15 LF EAST: 836 FT	
	(836 FT) * (1 TREE / 15 LF) = 56 TREES	7 EXISTING TREES 49 PROPOSED TREES 223 SHRUBS
	(836 FT) * (4 SHRUBS / 15 LF) = 223 SHRUBS	
	<u>FENCE STANDARDS</u>	
	MINIMUM HEIGHT: 6-8 FT	8 FT
	<u>GREENBELT STANDARDS (HIGHLAND ROAD)</u>	
	MINIMUM WIDTH: 30 FT	25.4 FT
	1 DECIDUOUS/EVERGREEN TREE & 8 SHRUBS FOR EVERY 30 LF HIGHLAND ROAD: 400 FT	
	(400 FT) * (1 TREE / 30 LF) = 14 TREES	14 TREES
	(400 FT) * (8 SHRUBS / 30 LF) = 107 SHRUBS	107 SHRUBS
	<u>REQUIRED SCREENING</u>	
	RB ZONE TO RI-C: BUFFER STRIP & FENCE REQUIRED	COMPLIES
§ 5.19.D.i. TABLE 5.19.D	RB ZONE TO R.O.W.: GREENBELT REQUIRED	COMPLIES
	<u>INTERIOR LOT LANDSCAPING</u>	
§ 5.19.E.	MINIMUM LOT AREA LANDSCAPING: 15% (195,568 SF) * (0.15) = 29,335 SF	
	1 TREE & 5 SHRUBS PER 300 SF OF REQUIRED LANDSCAPING (29,335 SF) * (1 TREE / 300 SF) = 97 TREES	105,080 SF (54%)
		14 EXISTING TREES 83 PROPOSED TREES 489 SHRUBS
	(29,335 SF) * (5 SHRUBS / 300 SF) = 489 SHRUBS	
	<u>PARKING LOT LANDSCAPING</u>	
§ 5.19.G.ii	20 SF OF LANDSCAPING PER PARKING SPACE (119 SPACES) * (20 SF / 1 SPACE) = 2,380 SF	
	1 TREE & 3 SHRUBS PER 100 SF OF REQUIRED LANDSCAPING (2,380 SF) * (1 TREE / 100 SF) = 24 TREES	4,879 SF
	(2,380 SF) * (3 SHRUBS / 100 SF) = 71 SHRUBS	24 TREES
	MINIMUM AREA (CONTAINING TREES): 50 SF	72 SHRUBS
	MINIMUM WIDTH (CONTAINING TREES): 5 FT	COMPLIES
		COMPLIES
		COMPLIES

IRRIGATION NOTE:

IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA. PRIOR TO CONSTRUCTION, DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL. WHERE POSSIBLE, DRIP IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES SUCH AS RAIN SENSORS SHALL BE IMPLEMENTED. CONTRACTOR TO VERIFY MAXIMUM ON SITE DYNAMIC WATER PRESSURE AVAILABLE MEASURED IN PSI, PRESSURE REDUCING DEVICES OR BOOSTER PUMPS SHALL BE PROVIDED TO MEET SYSTEM PRESSURE REQUIREMENTS. DESIGN TO SHOW ALL VALVES, PIPING, HEADS, BACKFLOW PREVENTION, METERS, CONTROLLERS, AND SLEEVES WITHIN HARDCAPE AREAS.

LANDSCAPING NOTES

5. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
6. THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS TO A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
7. THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 1 INCH LAYER OF MULCH.
8. ALL SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1 SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
9. THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS AND LINES IN ACCORDANCE WITH THE CITY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE.
10. THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED LANDSCAPED AREAS ARE GRADED TO MEET FLUSH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABRUPT CHANGES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING AREAS.

ISSUE	DATE	BY	DESCRIPTION
9	08/12/2025	EM	REVISED PER FSP REVIEW #2
8	06/19/2025	EM	REVISED PER FSP REVIEW #1
7	03/07/2025	EM	SUBMISSION FOR FINAL SITE PLAN APPROVAL
6	12/20/2024	EM	REVISED FOR PRELIMINARY SITE PLAN APPROVAL
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	ENJ/P	FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JP	SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM	FOR PRELIMINARY MDOT REVIEW
1	11/29/2023	JRC/JP	SUBMISSION FOR REZONING



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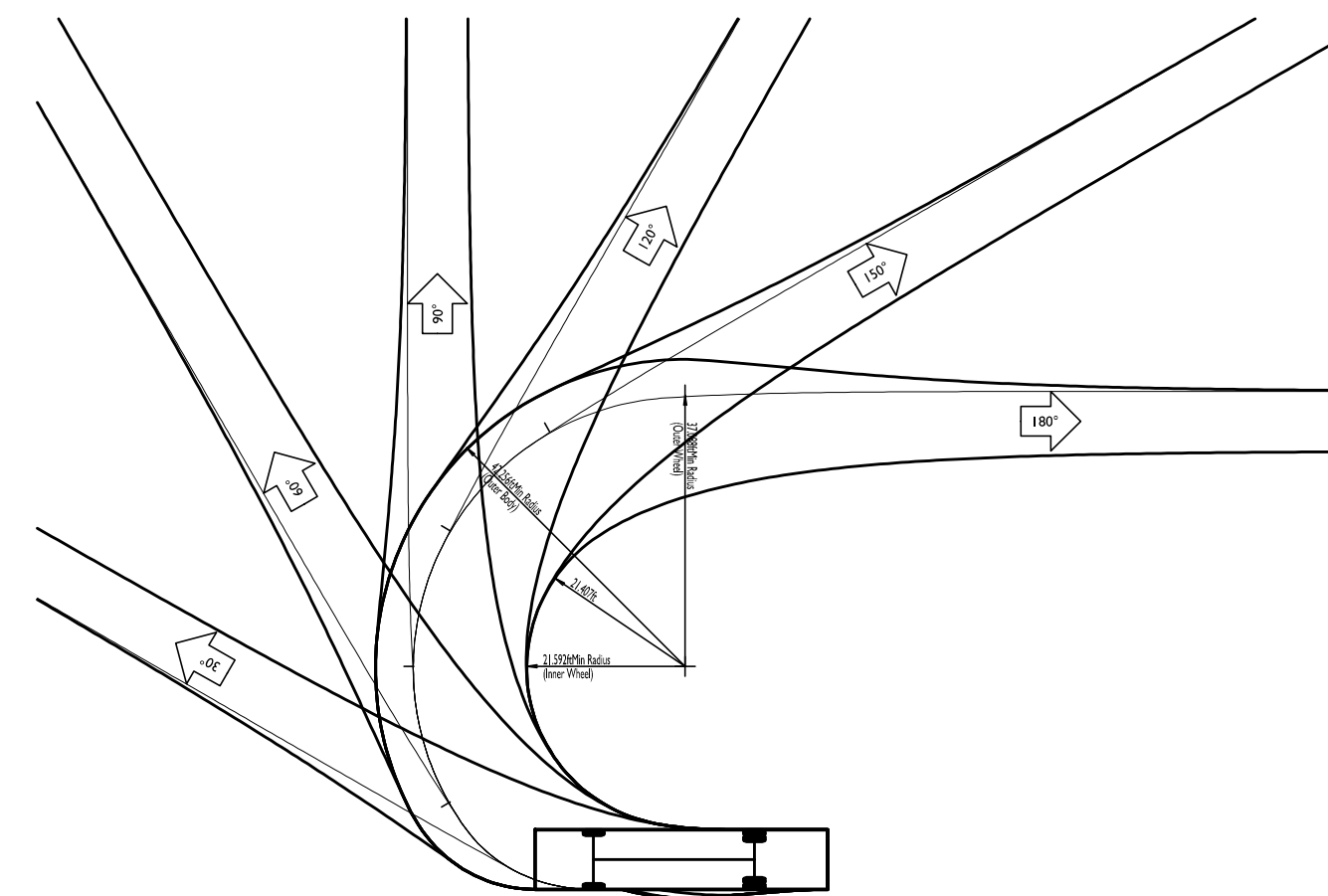
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SITE DEVELOPMENT PLANS

9101 HIGHLAND ROAD

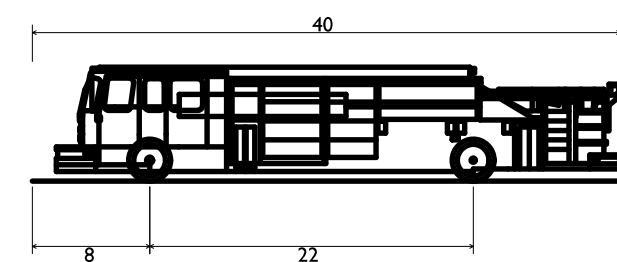
PROPOSED COMMERCIAL DEVELOPMENT





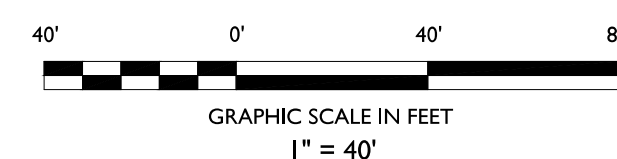
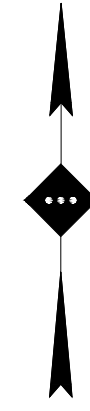
VEHICLE PROFILE AND TURN TEMPLATE

NOT TO SCALE



Pumper Fire Truck
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock-to-lock time
Max Wheel Angle

40.000ft
8.167ft
7.745ft
0.656ft
8.167ft
5.00s
45.00°



SITE DEVELOPMENT PLANS

9101 HIGHLAND ROAD
PROPOSED COMMERCIAL
DEVELOPMENT

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



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

FIRE TRUCK TURNING ANALYSIS

DRAWING:

C-12

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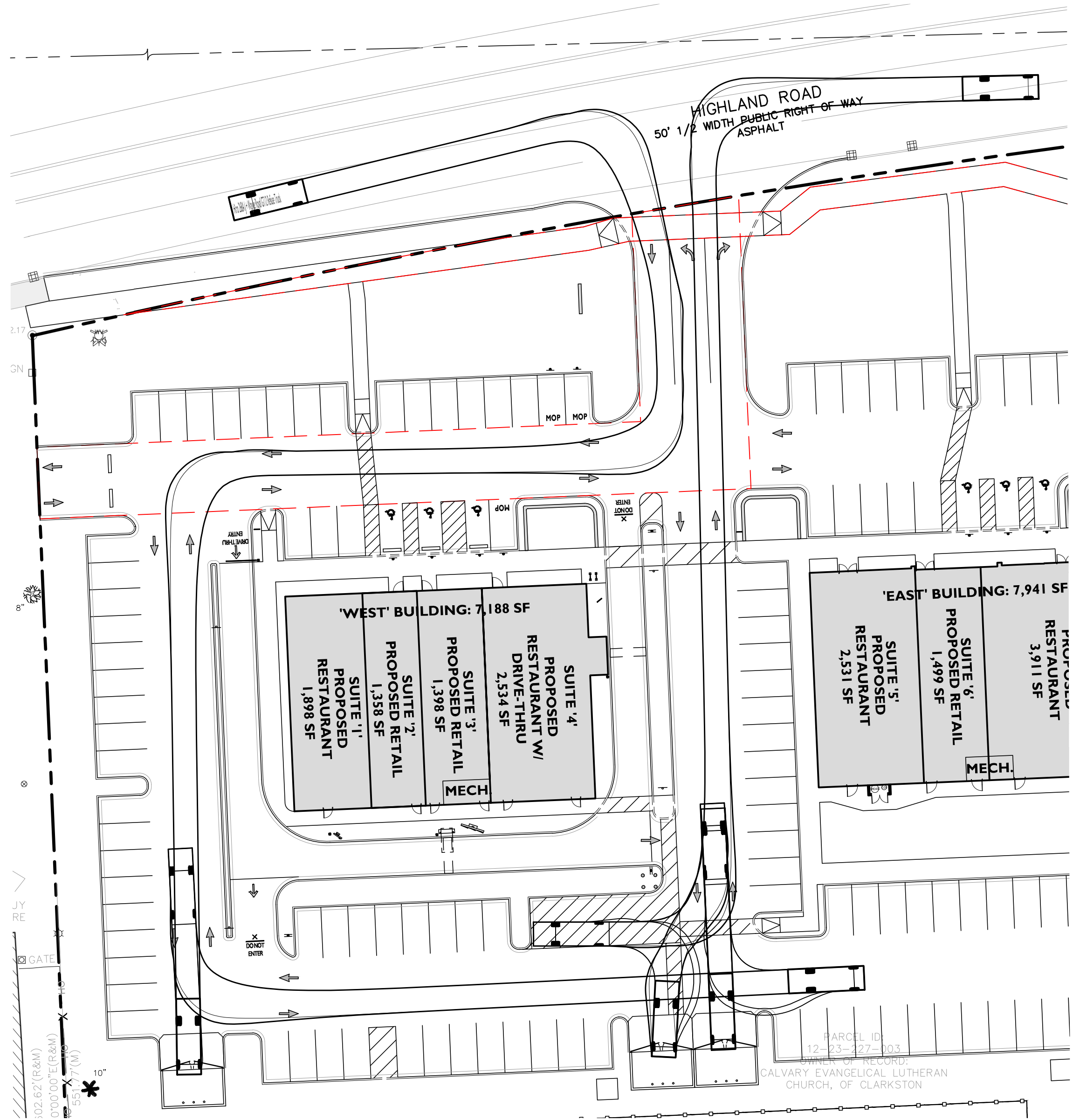
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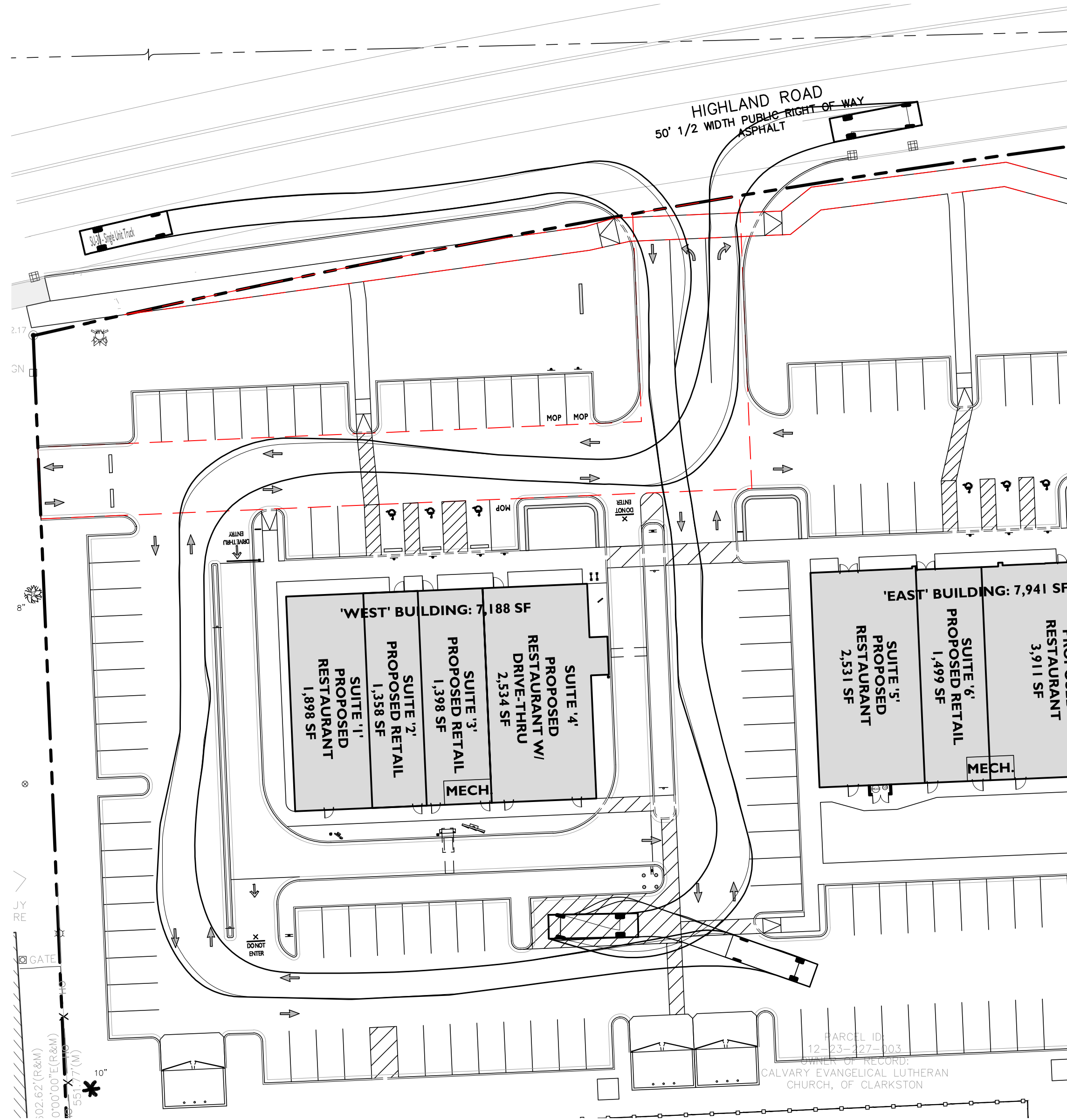
Phone 248.247.1115

ISSUE	DATE	BY	DESCRIPTION
1	11/29/2023	JRCJ/P	SUBMISSION FOR REZONING
2	04/15/2024	EM	FOR PRELIMINARY MDOT REVIEW
3	04/22/2024	JRCJ/P	SUBMISSION FOR REZONING REQUEST
4	07/22/2024	EM/JLP	FOR SITE PLAN REVIEW
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
6	12/20/2024	EM	REVISED FOR PRELIMINARY SITE PLAN APPROVAL
7	03/07/2025	EM	SUBMISSION FOR FINAL SITE PLAN APPROVAL
8	06/19/2025	EM	REVISED PER PSP REVIEW #1
9	08/12/2025	EM	REVISED PER PSP REVIEW #2

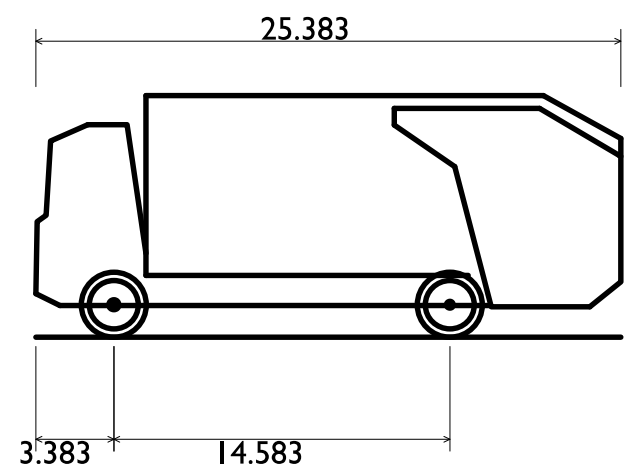
\\012\001\DET-23022\APP\18 81857\B21191 HIGHLAND ROAD, WHITE LAKE, MI\400\LOT\B211-1\11 TRACKING



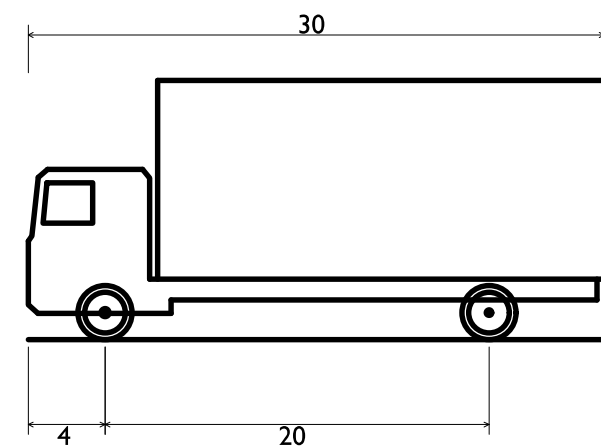
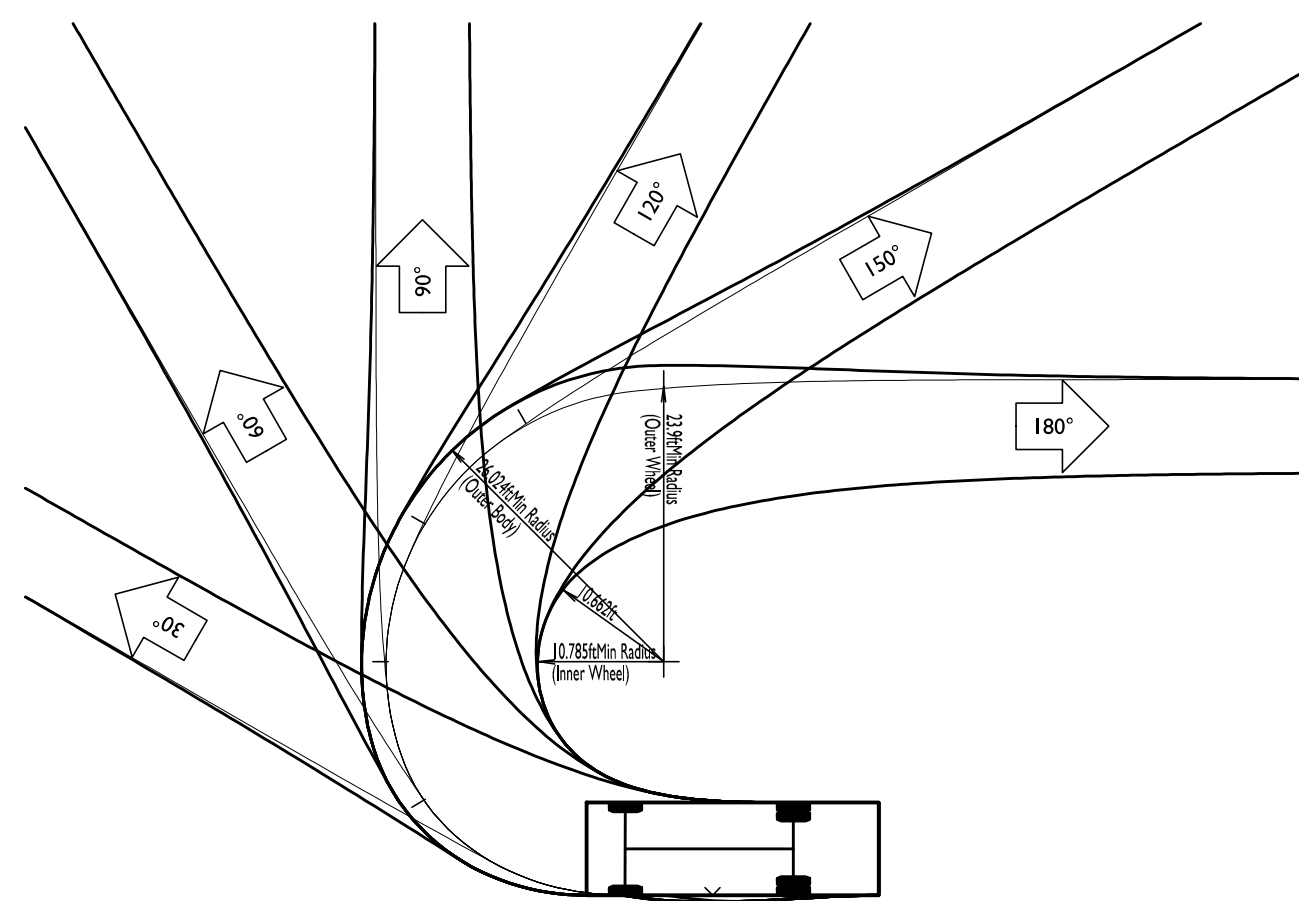
REFUSE VEHICLE TURN ANALYSIS



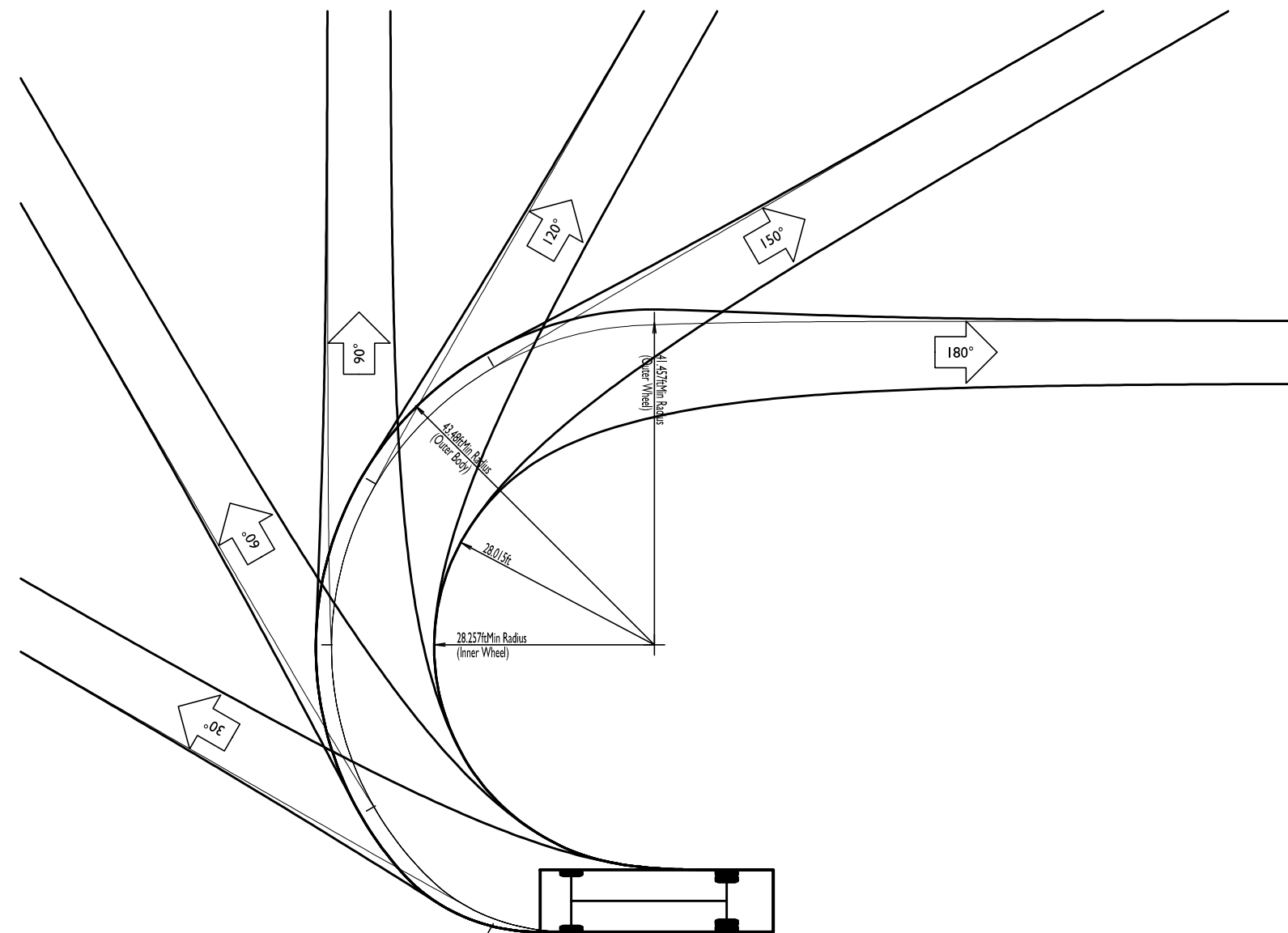
LOADING VEHICLE TURN ANALYSIS



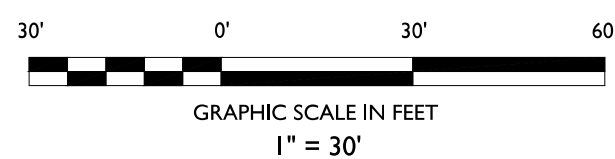
Hino 268A J + Wayne Royal GT12 Refuse Truck
Overall Length 25.383ft
Overall Width 8.042ft
Overall Body Height 10.488ft
Min Body Ground Clearance 1.318ft
Track Width 8.042ft
Lock-to-lock time 6.00s
Curb to Curb Turning Radius 23.900ft



SU-30 - Single Unit Truck
Overall Length 30.000ft
Overall Width 8.000ft
Overall Body Height 13.500ft
Min Body Ground Clearance 1.367ft
Track Width 8.000ft
Lock-to-lock time 5.00s
Max Steering Angle (Virtual) 31.80°



VEHICLE PROFILE AND TURN TEMPLATES
NOT TO SCALE



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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:

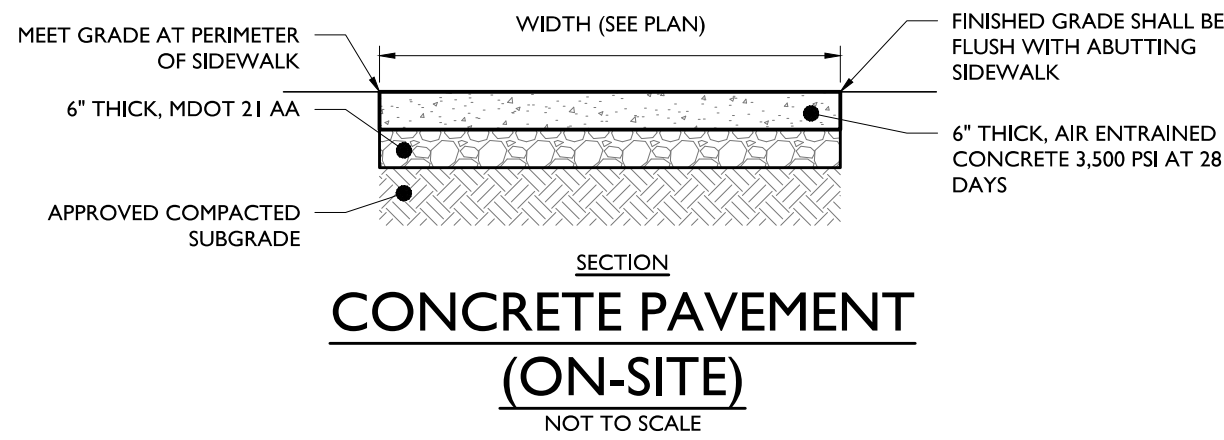
COMMERCIAL TRUCK TURNING ANALYSIS

DRAWING:

C-13

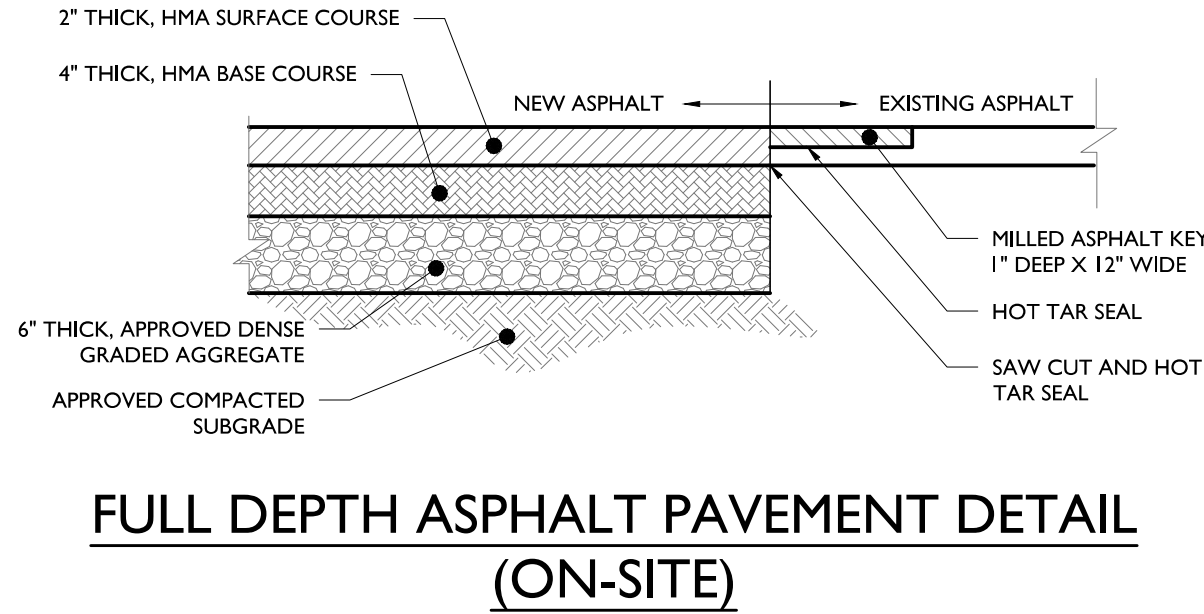
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1	11/29/2023	JRC/JP	SUBMISSION FOR REZONING

V:\DET\23022\DET-23022-APPENDIX 18 181517\B181517\9101 HIGHLAND ROAD, WHITE LAKE, MI\ROAD\DET-23022-APP-18-181517.DWG



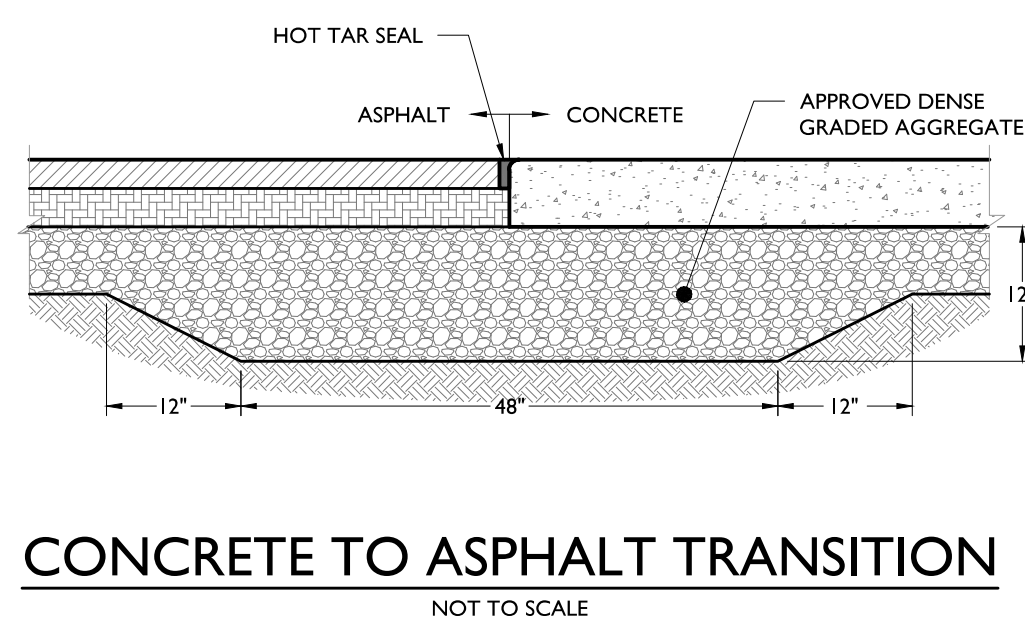
- NOTES:
1. ALL CONCRETE AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH M.D.O.T. STANDARDS.
 2. 1/2" EXPANSION JOINTS WITH WATER SEAL SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM THE SURFACE. LONGITUDINAL REBAR TO BE CUT AT EXPANSION JOINTS.
 3. 1" DEEP BY 1/2" WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT MID-POINT BETWEEN EXPANSION JOINTS OR 6' INTERVALS MAX.
 4. CONCRETE SHALL RECEIVE BROOM FINISH.
 5. ALL EXPOSED CORNERS TO HAVE 12" CHAMFER.

1



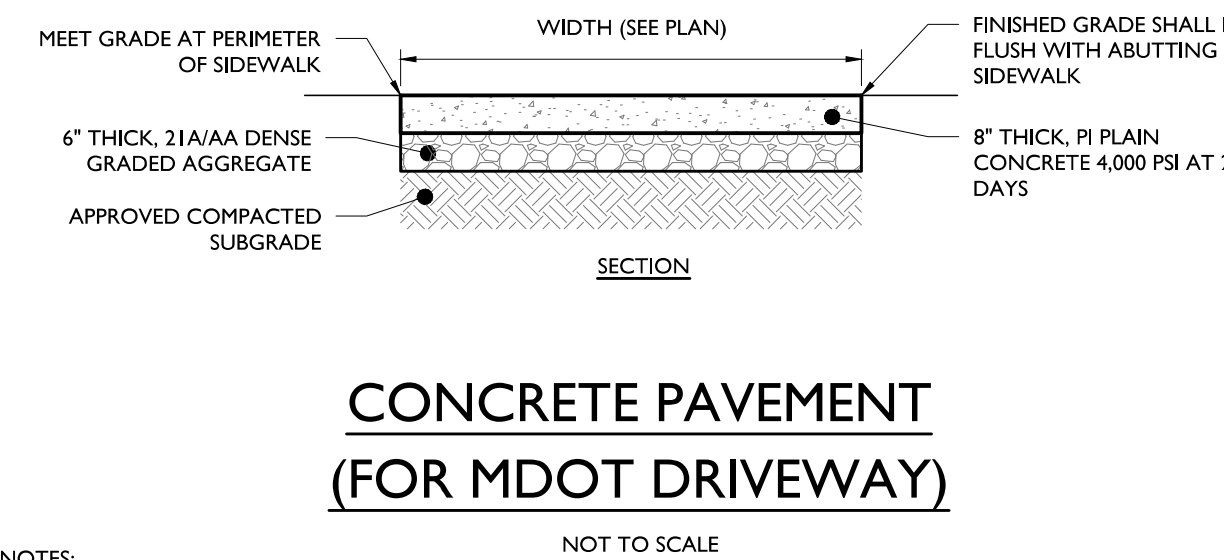
- NOTE:
- HMA MIX AND DENSE GRADED AGGREGATE SHALL CONFORM TO STATE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

2



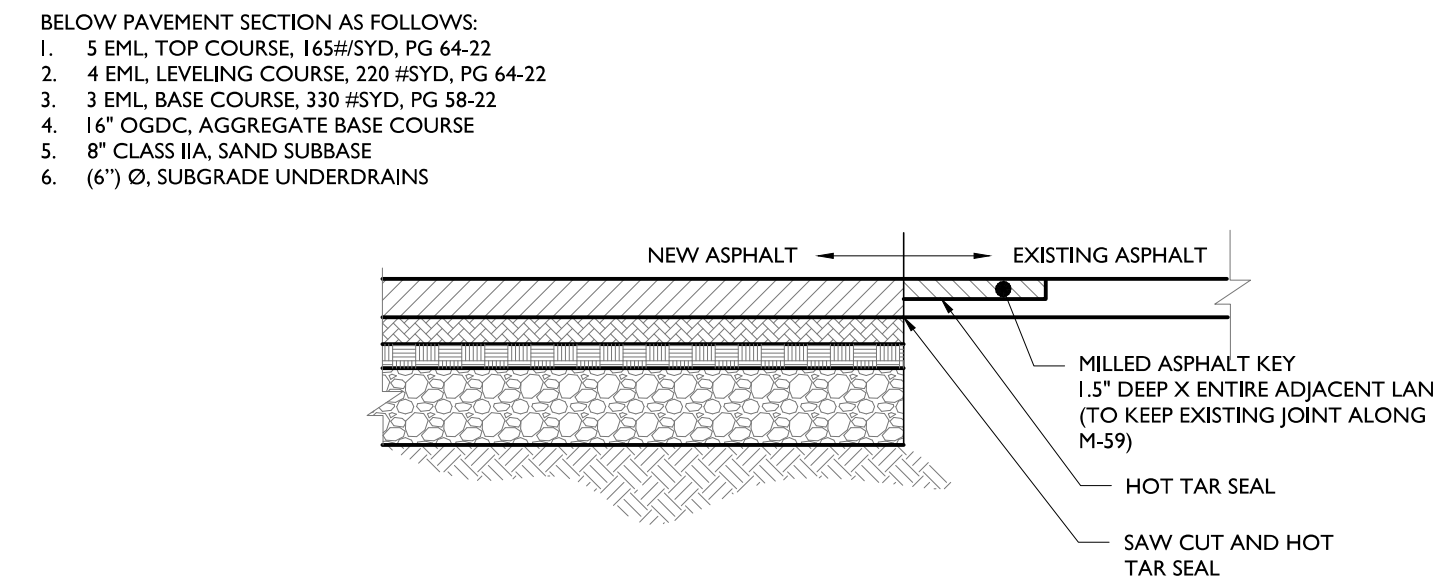
CONCRETE TO ASPHALT TRANSITION

3



- NOTES:
1. 1/2" EXPANSION JOINTS WITH WATER SEAL SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM THE SURFACE. LONGITUDINAL REBAR TO BE CUT AT EXPANSION JOINTS.
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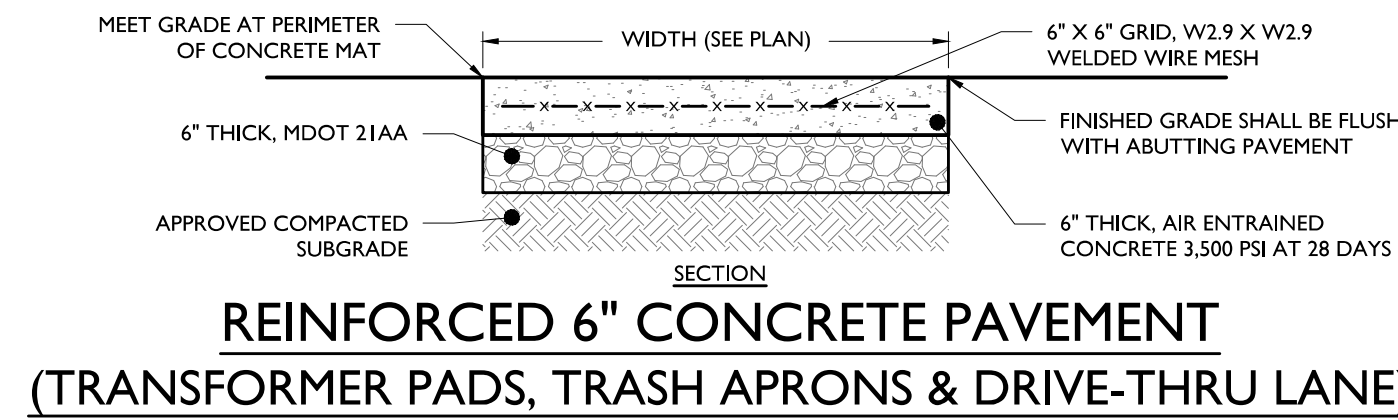
4



FULL DEPTH ASPHALT PAVEMENT DETAIL (FOR USE WITHIN MDOT ROW)

- NOTES:
1. HMA MIX AND DENSE GRADED AGGREGATE SHALL CONFORM TO THE MICHIGAN DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
 2. IF EXISTING PAVEMENT THICKNESS IS GREATER, CONTRACTOR SHALL MATCH EXISTING CONDITIONS.

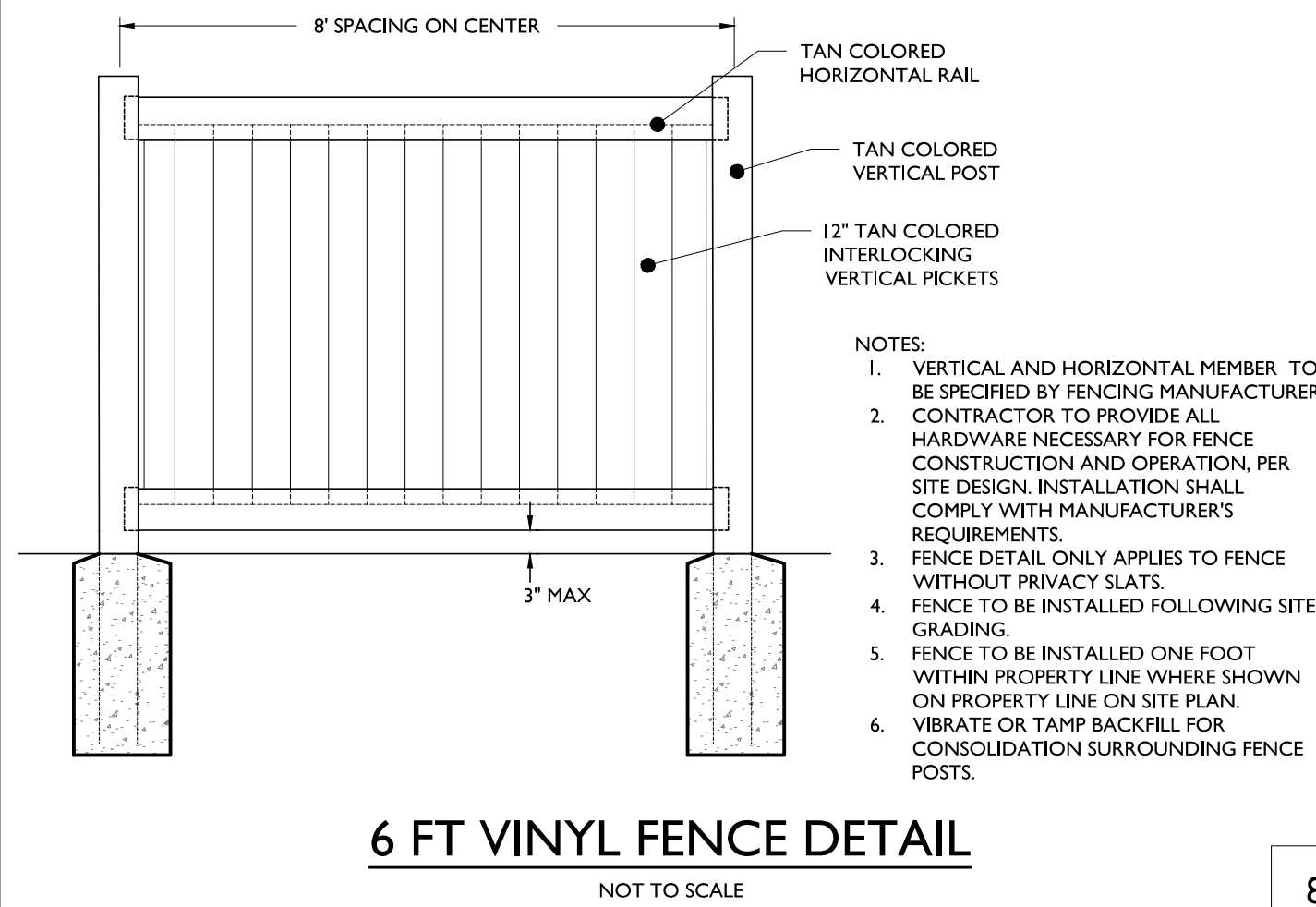
5



REINFORCED 6" CONCRETE PAVEMENT (TRANSFORMER PADS, TRASH APRONS & DRIVE-THRU LANE)

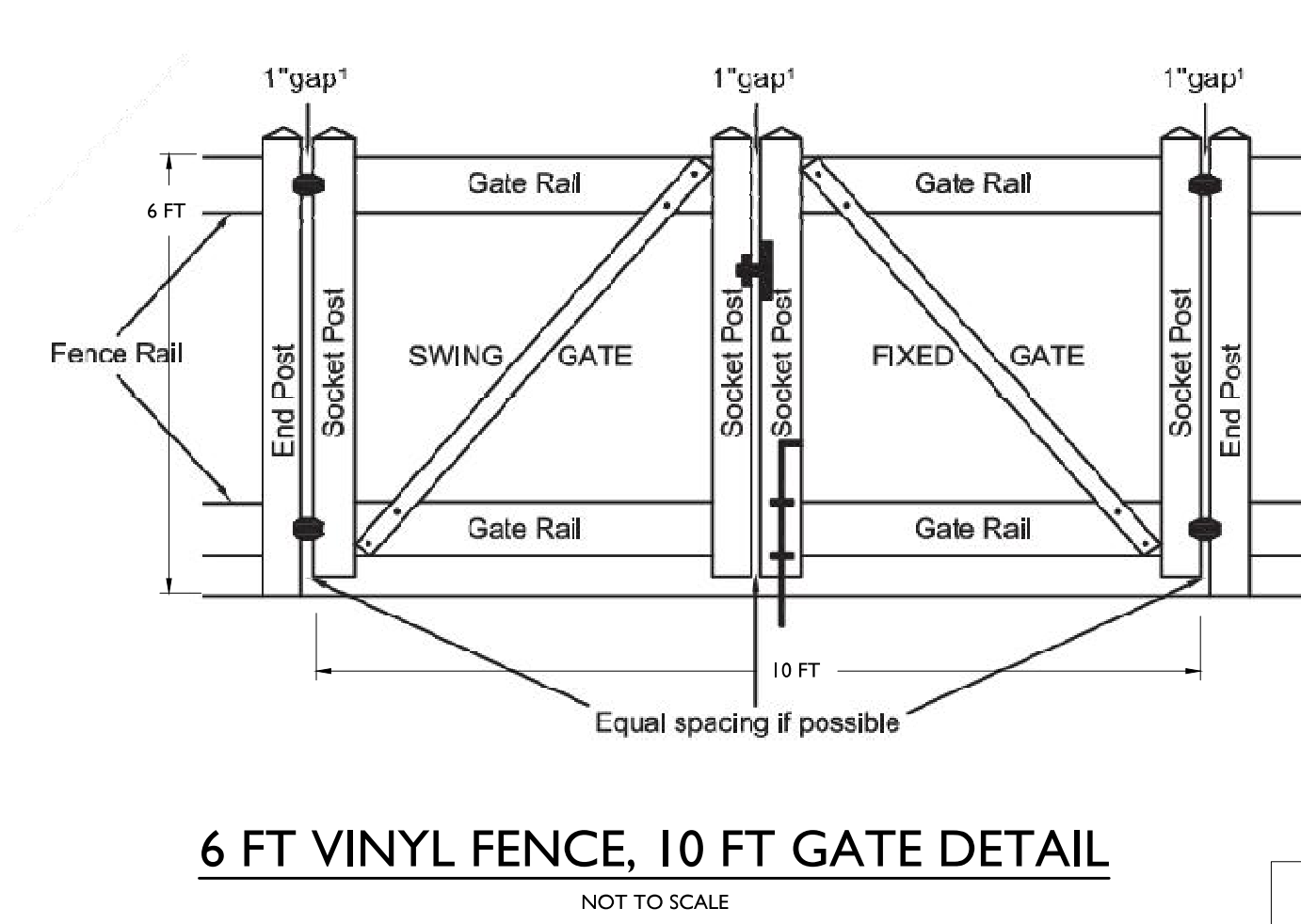
- NOTES:
1. 1/2" EXPANSION JOINTS WITH WATER SEAL SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM THE SURFACE. LONGITUDINAL REBAR TO BE CUT AT EXPANSION JOINTS.
 2. 1" DEEP BY 1/2" WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT MID-POINT BETWEEN EXPANSION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

6



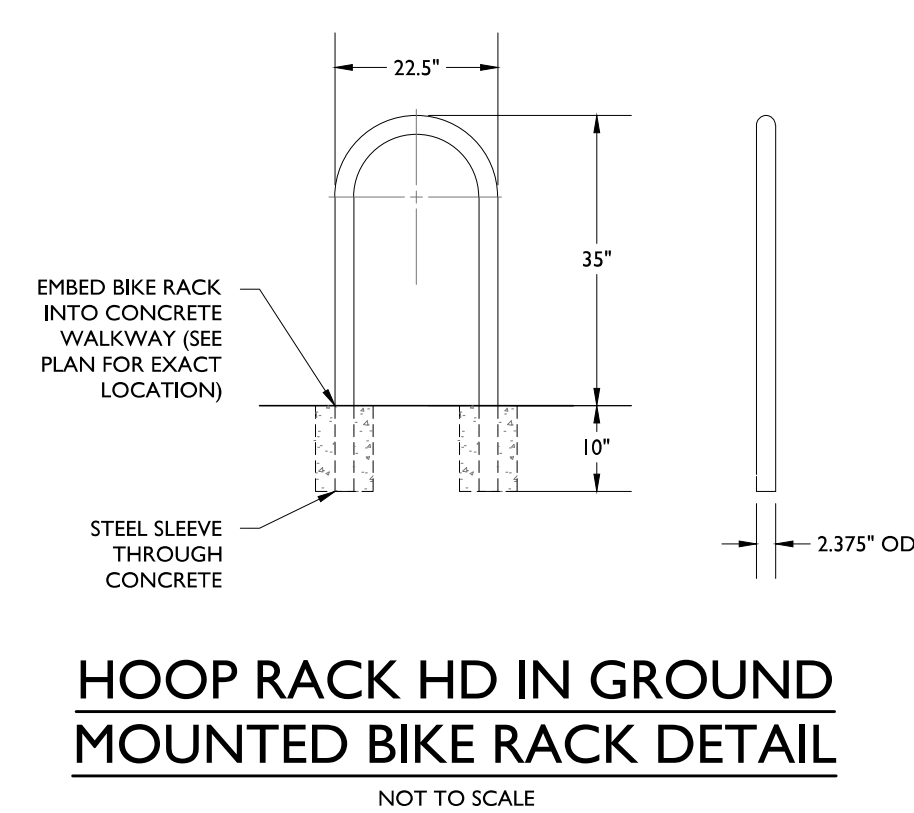
6 FT VINYL FENCE DETAIL

8



6 FT VINYL FENCE, 10 FT GATE DETAIL

9



HOOP RACK HD IN GROUND MOUNTED BIKE RACK DETAIL

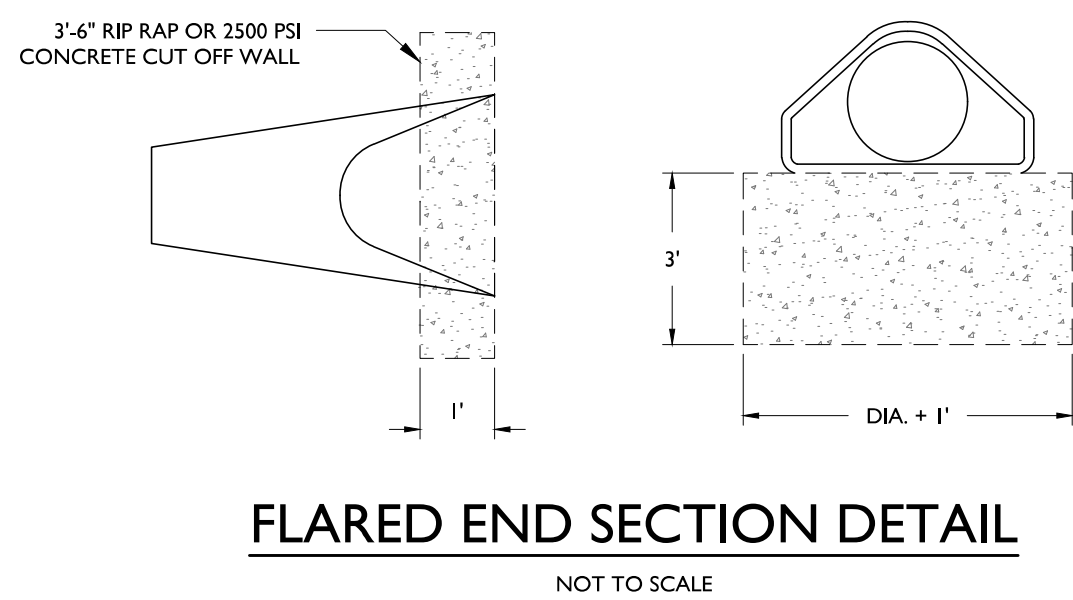
- NOTES:
1. BIKE RACK TO BE MANUFACTURED BY DERO BIKE RACKS OR APPROVED EQUAL.
 2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

10



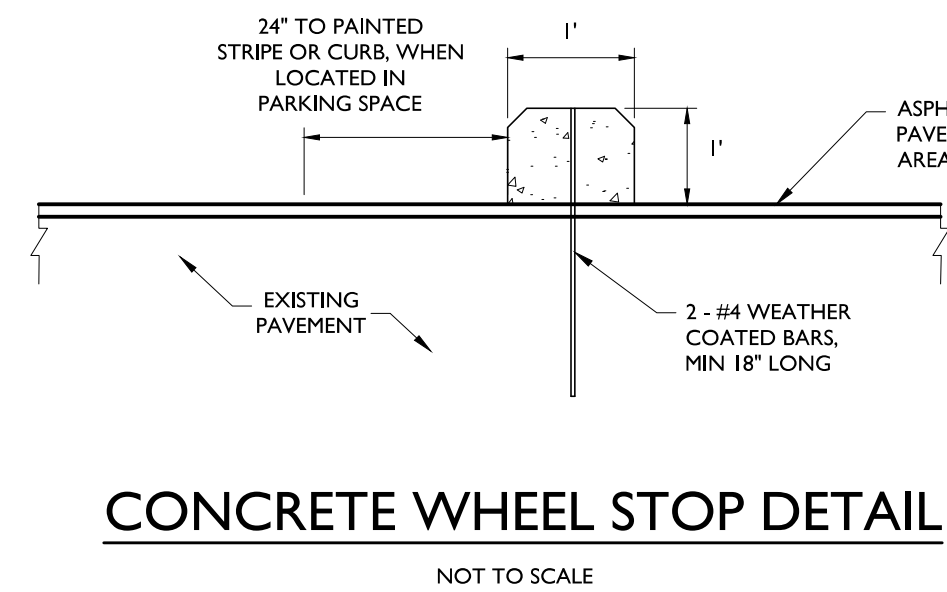
FIRE LANE SIGN

11



FLARED END SECTION DETAIL

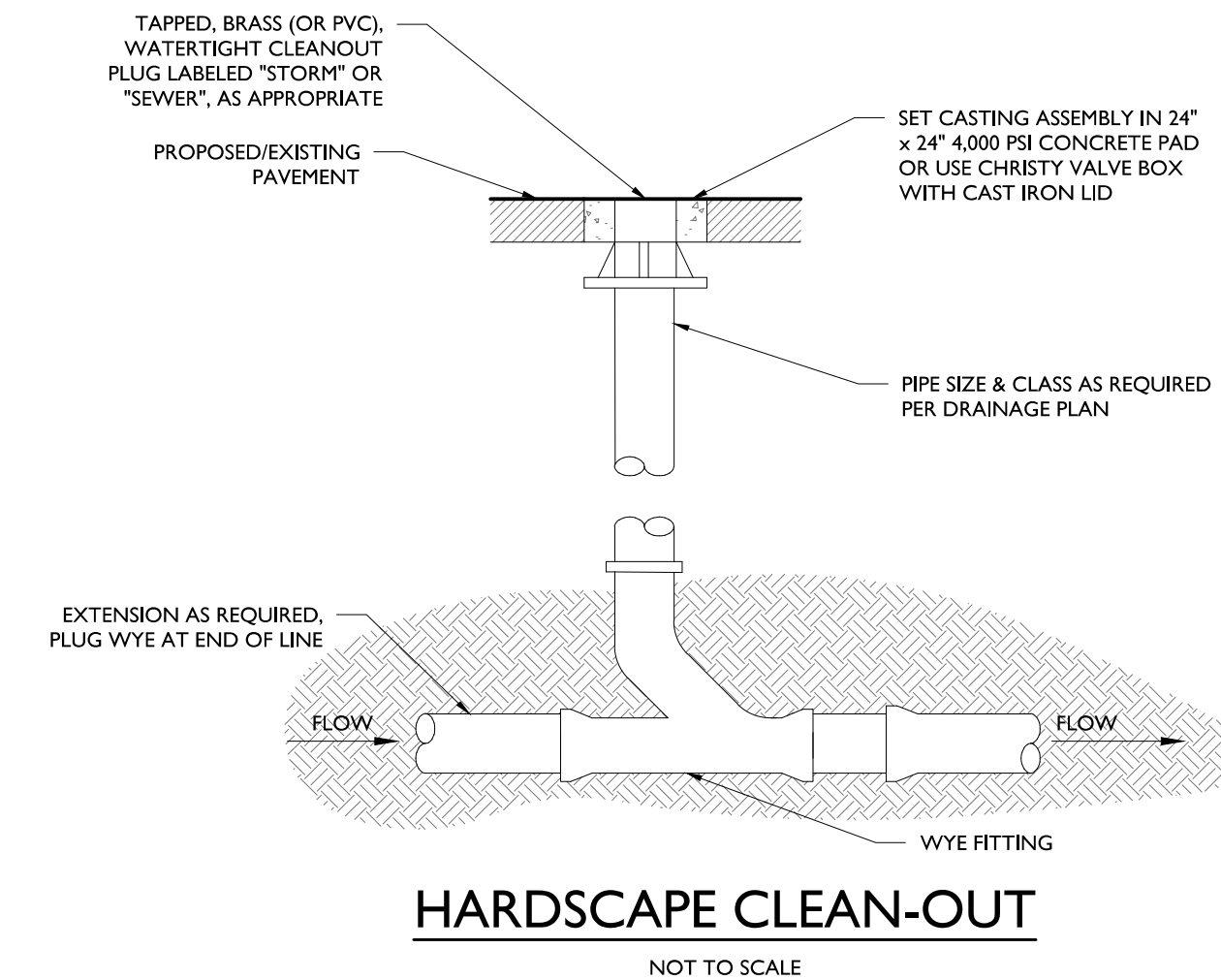
12



CONCRETE WHEEL STOP DETAIL

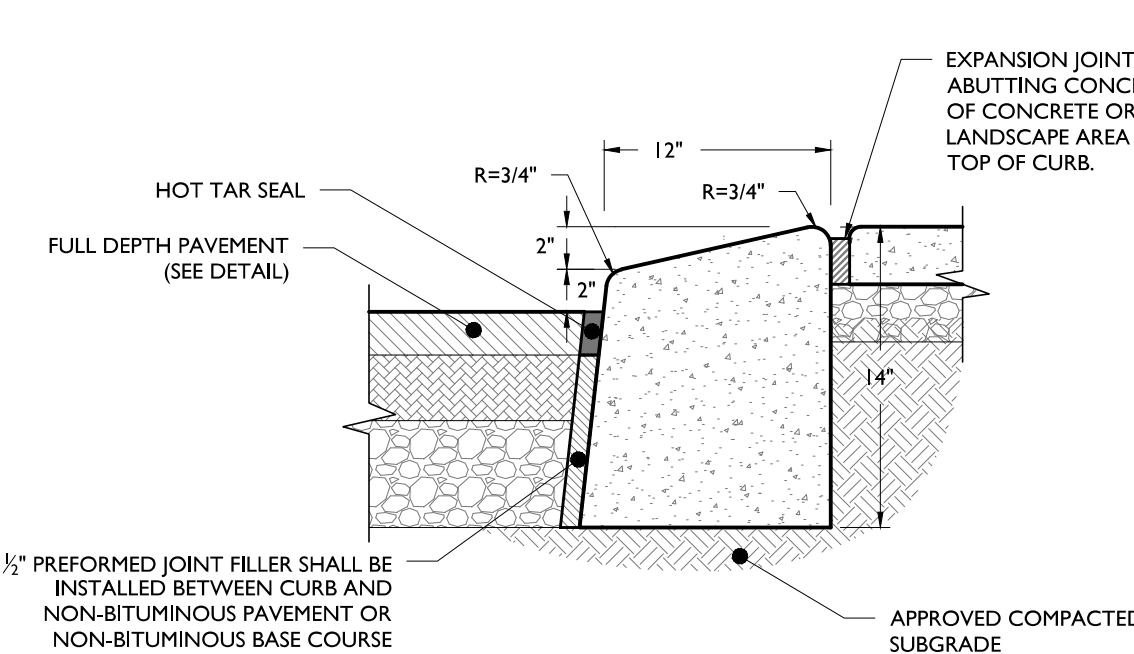
- NOTES:
1. ON CONCRETE PAVEMENT, SECURE WHEEL STOP WITH EPOXY BONDING AGENT.
 2. WHEEL STOP SHALL BE 6' LONG.
 3. WHEEL STOP SHALL BE PREFABRICATED CONCRETE.

13



HARDSCAPE CLEAN-OUT

14



MOUNTABLE CONCRETE CURB DETAIL

- 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. 18" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.

15

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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: AS SHOWN PROJECT ID: DET-230229

TITLE:

**CONSTRUCTION
DETAILS**

DRAWING:

C-16

SPECIFICATIONS

- Notes:
- 6" plain end inlet/outlet
 - Unit weight - w/ cast iron covers: 1,280 lbs. (for wet weight add 12,525 lbs.)
 - Maximum operating temperature: 150° F continuous
 - Capacities - Liquid: 1,500 gal.; Grease: 10,061 lbs. (1,379 gal.) @ 100GPM; Grease: 9,446 lbs. (1,234 gal.) @ 200GPM; Solids: 318 gal.
 - Satisfies Miami DERM 99% efficiency requirements; retaining the following capacities at 99% efficiency: 9,897 lbs. (1,356 gal.) @ 100GPM; 8,093 lbs. (1,109 gal.) @ 200GPM
 - 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 adapters provide up to 4" of additional height.
 - Designed for below-grade, above-grade, indoor or outdoor installations.
 - Safety Star® access restrictor built into each cover adapter, prevents accidental entry to tanks (450 lb rating).

ENGINEER SPECIFICATION GUIDE

Schier Great Basin™ grease interceptor model # GB-1500 shall be lifetime guaranteed and made in USA of seamless, molded polyethylene with minimum 7/16" uniform wall thickness. Interceptor shall be furnished for above or below-grade installation with adjustable cover adapter and Safety Star® access restrictor built into each cover adapter. This unit is certified for hydromechanical performance to ASME A112.14.3/CSA B481.1-2022 (Type D) as well as certified to ANSI/CAN/APMO Z1001-2021 for gravity grease interceptors. Flow control not required. Interceptor flow rate shall be 100 GPM or 200 GPM. Interceptor grease capacity shall be 10,061 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/CSA B481.1-2022 (Type D) 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.

Satisfies Miami DERM 99% efficiency requirements. Product labels are permanently attached to inside and outside of unit for easy viewing.

SPECIFICATION SHEET

MODEL NUMBER:

GB-1500

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF SCHIER PRODUCTS. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF SCHIER PRODUCTS IS PROHIBITED.

PART NUMBER: 4085-001-01

DESCRIPTION:

GREASE INTERCEPTOR 100 GPM / 200 GPM, 6" PLAIN INLET/OUTLET, H-20 RATED PICKABLE CAST IRON COVERS

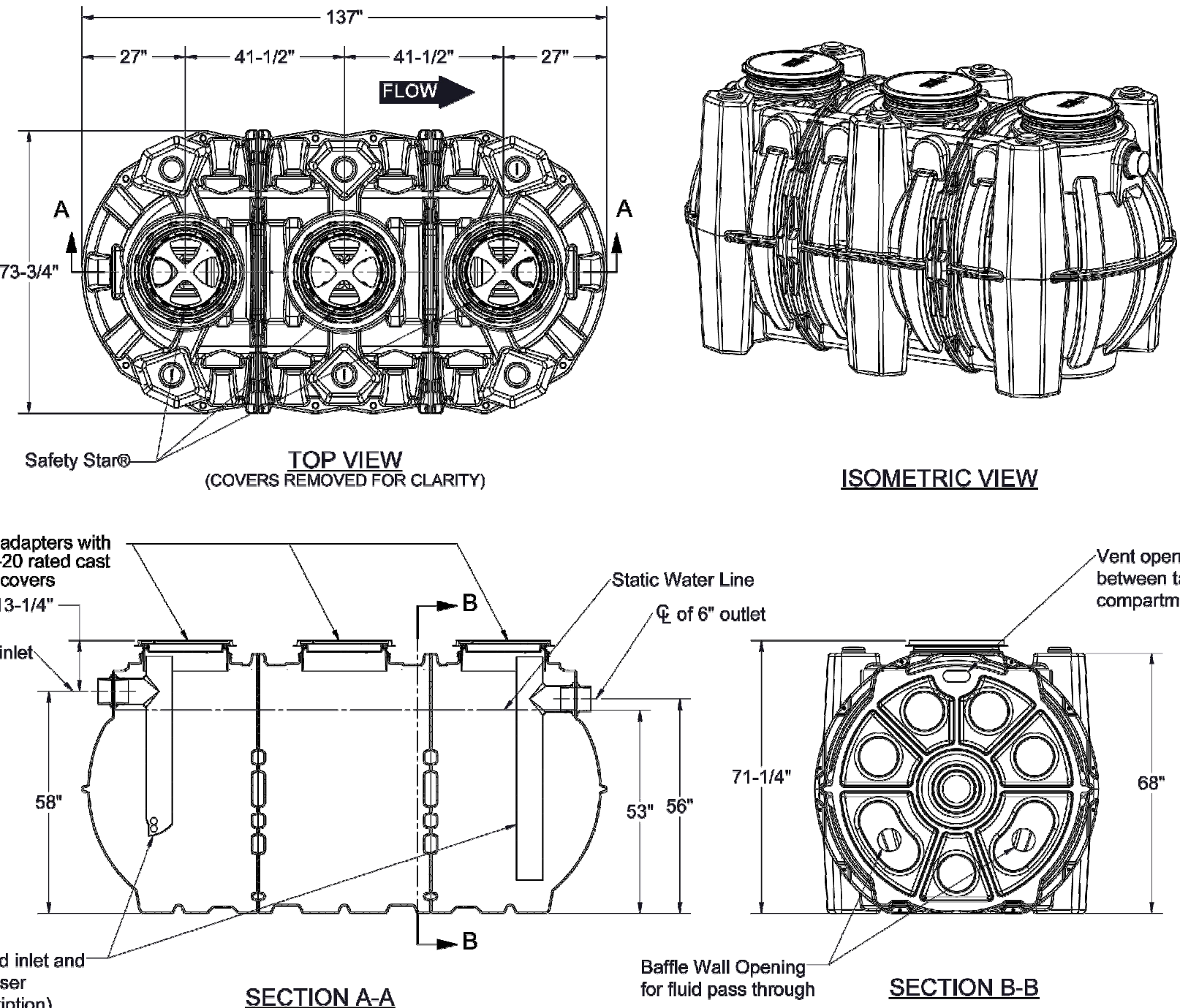
DWG BY: T.ASAY

DATE: 12/13/2022

REV: C

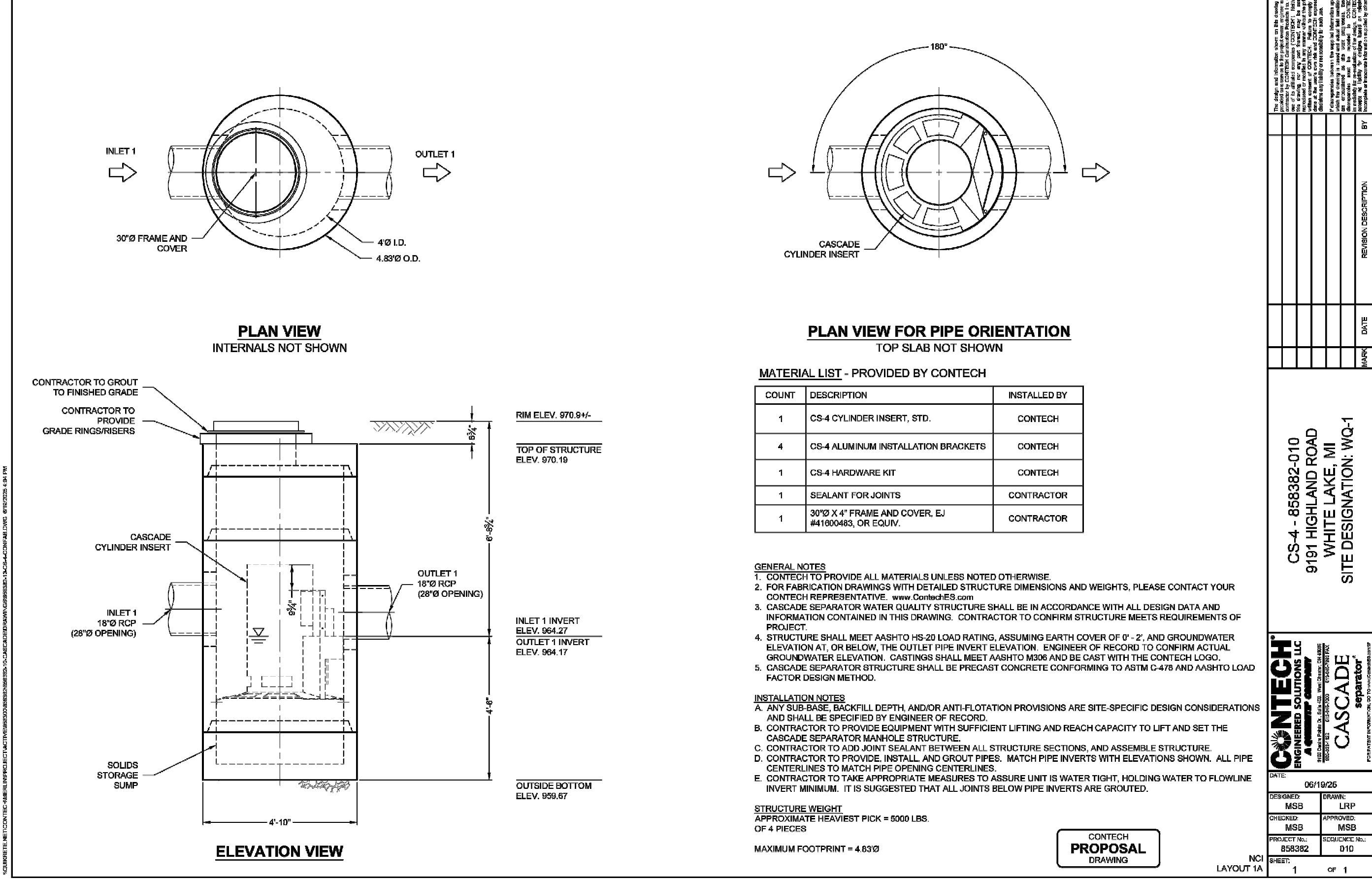
ECO: 121423CS

GREASE TRAP SPECIFICATIONS



SCHIER

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



WATER QUALITY UNIT SPECIFICATIONS

STORMWATER MANAGEMENT CALCULATIONS

Based on Oakland County Stormwater Management Regulations (Updated as of 04/07/2025)

Project: 9101 Highland Road White Lake Twp, MI Designer: ECM Date: 06/17/25

Determination of Surface Runoff

Landcover	Area (AC)	Area (SF)	
Building / Pavement	1.97	85,807	
Landscaped Areas	HSG A	2.52	109,761
Subtotals	4.49	195,568	

C -Values obtained from Oakland County Standards, Section 2 Part B

$I_{wq} = 30.20P^{0.22} / (9.17 + T)^{0.51}$

T_c , Time of Concentration:

Residential - Assume 20 min
Commercial/Industrial - Assume 15 min
Sites < 5 acres - Assume 10 min

Retention Volume Requirement (White Lake)

$V = 33,000 \times C \times A$

Retention Volume Required, V: 78,524 CF

Elevation	Surface Area (SF)	Total Volume (CF)
962.00	7834	0
963.00	9315	8,575
964.00	10,887	18,676
965.00	12,617	30,428
966.00	14,470	43,971
967.00	16,451	59,432
968.00	18,502	76,908
969.00	20,605	96,462
969.08	20,775	98,117

Basin volume calculated based on a trapezoidal prism

STORMWATER CALCULATIONS

HydroCAD Model_White Lake, MI Type II 24-hr Back to Back 100-year Rainfall=10.94"
Prepared by Stonefield Engineering & Design Printed 6/19/2025
HydroCAD® 10.20-6a s/n 10626 © 2024 HydroCAD Software Solutions LLC Page 3

Hydrograph for Pond 5P: Proposed Detention Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Discarded (cfs)
7.00	0.00	0	962.00	0.00
7.25	0.01	1	962.00	0.01
7.50	0.03	4	962.00	0.03
7.75	0.05	6	962.00	0.05
8.00	0.08	9	962.00	0.07
8.25	0.10	12	962.00	0.10
8.50	0.14	17	962.00	0.13
8.75	0.18	23	962.00	0.18
9.00	0.24	29	962.00	0.23
9.25	0.29	35	962.00	0.28
9.50	0.32	40	962.01	0.32
9.75	0.38	47	962.01	0.37
10.00	0.47	57	962.01	0.45
10.25	0.58	71	962.01	0.56
10.50	0.73	89	962.01	0.71
10.75	0.93	113	962.01	0.89
11.00	1.19	146	962.02	1.15
11.25	1.62	196	962.02	1.55
11.50	2.31	280	962.04	2.21
11.75	3.36	1,310	962.16	4.49
12.00	4.27	17,777	963.02	5.98
12.25	9.58	34,602	965.32	7.36
12.50	4.88	33,951	965.27	7.31
12.75	3.35	31,029	965.05	7.08
13.00	2.80	27,539	964.77	6.80

* SYSTEM MODELED USING HYDROCAD, BACK TO BACK 100-YEAR STORMS (10.41" RAINFALL EVENT)
* DESIGN INFILTRATION RATE OF 24 IN / HR (FACTOR OF SAFETY OF 2)

HydroCAD Model_White Lake, MI Type II 24-hr Back to Back 100-year Rainfall=10.94"
Prepared by Stonefield Engineering & Design Printed 6/19/2025
HydroCAD® 10.20-6a s/n 10626 © 2024 HydroCAD Software Solutions LLC Page 3

Hydrograph for Pond 5P: Proposed Detention Pond (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Discarded (cfs)
13.25	2.39	23,864	964.46	6.50
13.50	2.10	20,189	964.14	6.19
13.75	1.86	16,515	963.80	5.88
14.00	1.66	12,939	963.45	5.58
14.25	1.51	9,474	963.10	5.26
14.50	1.44	6,197	962.74	4.96
14.75	1.37	3,124	962.38	4.67
15.00	1.30	377	962.05	2.98
15.25	1.23	157	962.02	1.24
15.50	1.16	148	962.02	1.17
15.75	1.09	139	962.02	1.10
16.00	1.01	130	962.02	1.02
16.25	0.96	122	962.02	0.97
16.50	0.93	119	962.02	0.94
16.75	0.91	116	962.01	0.91
17.00	0.88	112	962.01	0.89
17.25	0.86	109	962.01	0.86
17.50	0.83	106	962.01	0.84
17.75	0.81	103	962.01	0.81
18.00	0.78	100	962.01	0.79
18.25	0.76	96	962.01	0.76
18.50	0.73	93	962.01	0.73
18.75	0.70	90	962.01	0.71
19.00	0.68	86	962.01	0.68
19.25	0.65	83	962.01	0.66

DEWATERING CALCULATIONS

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Discarded (cfs)
19.50	0.63	80	962.01	0.63
19.75	0.60	76	962.01	0.60
20.00	0.57	73	962.01	0.58
20.25	0.56	71	962.01	0.56
20.50	0.55	70	962.01	0.55
20.75	0.55	69	962.01	0.55
21.00	0.54	69	962.01	0.54
21.25	0.54	68	962.01	0.54
21.50	0.53	67	962.01	0.53
21.75	0.53	67	962.01	0.53
22.00	0.52	66	962.01	0.52
22.25	0.52	65	962.01	0.52
22.50	0.51	65	962.01	0.51
22.75	0.51	64	962.01	0.51
23.00	0.50	63	962.01	0.50
23.25	0.50	63	962.01	0.50
23.50	0.49	62	962.01	0.49
23.75	0.49	62	962.01	0.49
24.00	0.48	61	962.01	0.48
24.25	0.05	12	962.00	0.09
24.50	0.00	0	962.00	0.00
24.75	0.00	0	962.00	0.00
25.00	0.00	0	962.00	0.00
25.25	0.00	0	962.00	0.00
25.50	0.00	0	962.00	0.00
25.75	0.00	0	962.00	0.00
26.00	0.00	0	962.00	0.00
26.25	0.00	0	962.00	0.00

STORMWATER SYSTEM DESIGN (10-YEAR STORM)

Line #	Line ID	Rim Elevation Downstream (FT)	Rim Elevation Upstream (FT)	Invert Downstream (FT)	Invert Upstream (FT)	Pipe Size (IN)	Pipe Length (FT)	Pipe Slope (%)	Flow Rate (CFS)	Pipe Capacity (CFS)	Velocity Downstream (ft/s)	HGL Downstream (FT)	HGL Upstream (FT)	Drainage Area (AC)	Runoff Coefficient	Time of Concentration (MIN)	Rainfall Intensity (IN/HR)
1	EW-1 TO WQ-1	964.00	970.90	964.02	964.17	18	30	0.50	6.65	7.42	3.76	965.52	965.63	0.00	0.00	20.30	3.90
2	WQ-1 TO D-101	970.90	969.30	964.27	964.44	18	40	0.42	6.68	6.85	3.90	965.66	965.80	0.31	0.86	20.10	3.90
3	D-101 TO D-102	969.30	970.50	964.54	964.80	12	50	0.52	2.26	2.57	2.87	966.10	966.30	0.24	0.91	18.10	3.90
4	D-102 TO D-103	970.50	969.70	964.90	965.43	12	106	0.50	1.53	2.52	1.95	966.46	966.65	0.18	0.67	17.10	3.90
5	D-103 TO D-104	969.70	969.70	965.53	965.96	12	86	0.50	1.12	2.52	1.43	966.74	966.82	0.25	0.68	16.20	3.90
6	D-104 TO D-105	969.70	970.75	966.06	966.61	12	110	0.50	0.51	2.52	0.75	966.86	966.97	0.20	0.65	15.00	3.90
7	D-101 TO D-201	969.30	971.10	964.54	964.85	15	63	0.49	3.70	4.53	3.02	966.10	966.30	0.00	0.00	19.70	3.90
8	D-201 TO D-202	971.10	970.40	964.95	965.30	12	71	0.49	2.21	2.50	2.81	966.44	966.71	0.13	0.83	16.80	3.90
9	D-202 TO D-203	970.40	969.70	965.40	965.89	12	98	0.50	1.85	2.52	2.36	966.77	967.04	0.38	0.69	16.10	3.90
10	D-203 TO D-204	969.70	970.40	965.99	966.45	12	93	0.49	0.90	2.50	1.14	967.16	967.21	0.48	0.48	15.00	3.90
11	D-201 TO D-301	971.10	969.60	965.05	965.54	12	99	0.49	1.72	2.51	2.19	966.44	966.67	0.55	0.77	18.90	3.90
12	D-301 TO D-302	969.60	971.00	965.64	966.10	12	91	0.51	0.29	2.53	0.36	966.77	966.78	0.00	0.00	15.80	3.90
13	D-302 TO D-303	971.00	970.40	966.20	966.59	12	79	0.49	0.29	2.50	0.62	966.78	966.86	0.18	0.42	15.00	3.90
14	EW-2 TO D-501	964.83	968.08	964.75	965.80	12	105	1.00	0.24	3.56	0.31	965.75	966.00	0.31	0.20	15.00	3.90
15	EW-3 TO D-601	965.45	968.08	965.38	965.80	12	42	1.00	0.14	3.56	0.18	966.38	966.38	0.18	0.20	15.00	3.90

Notes: -Line contains hyd. jump

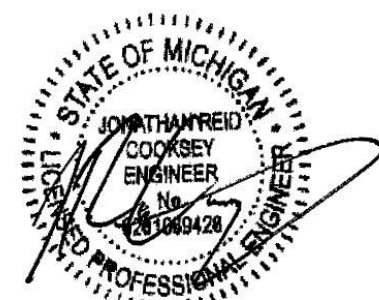
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SITE DEVELOPMENT PLANS
9101 HIGHLAND ROAD
PROPOSED COMMERCIAL
DEVELOPMENT

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



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SCALE: AS SHOWN PROJECT ID: DET-230229

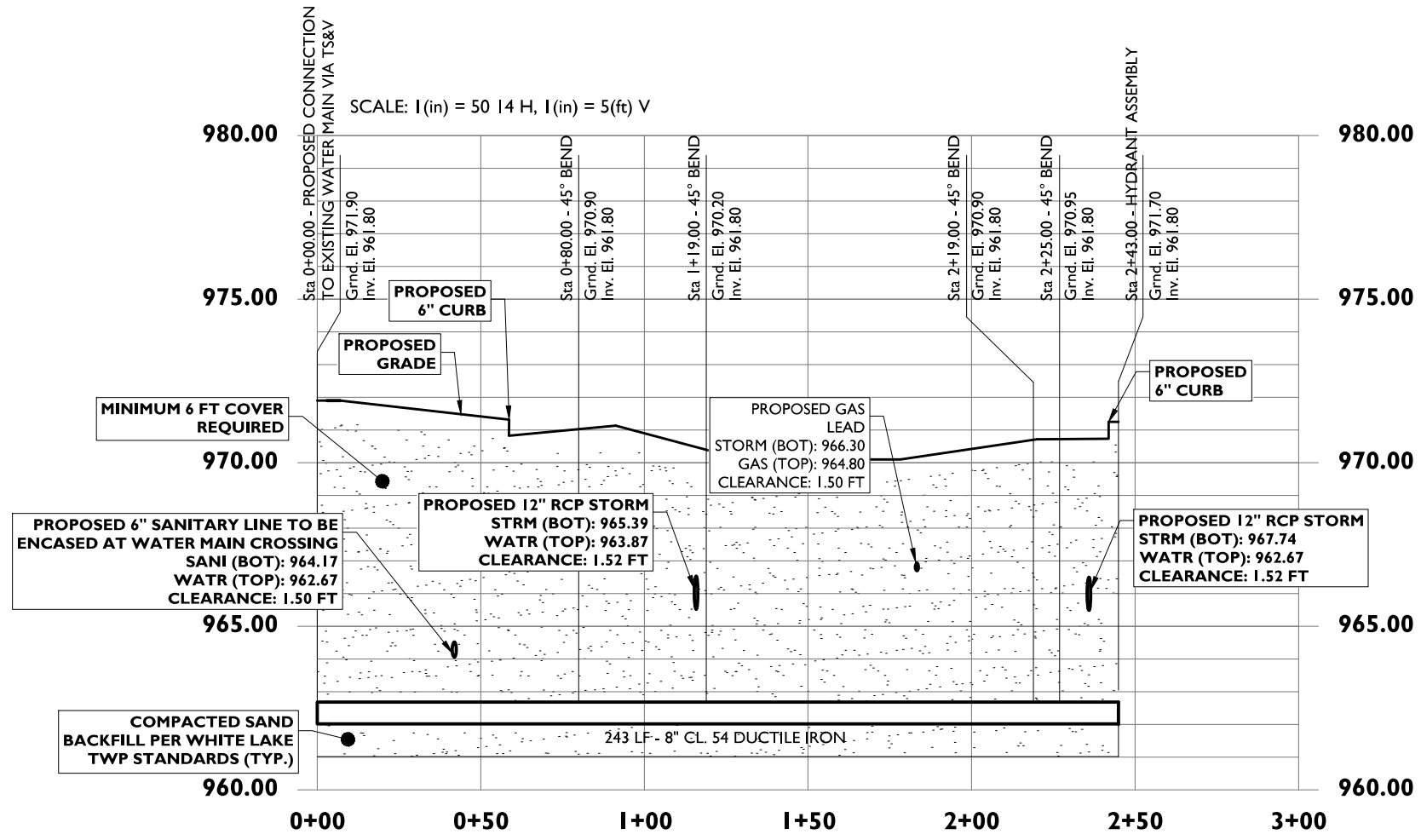
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CONSTRUCTION
DETAILS

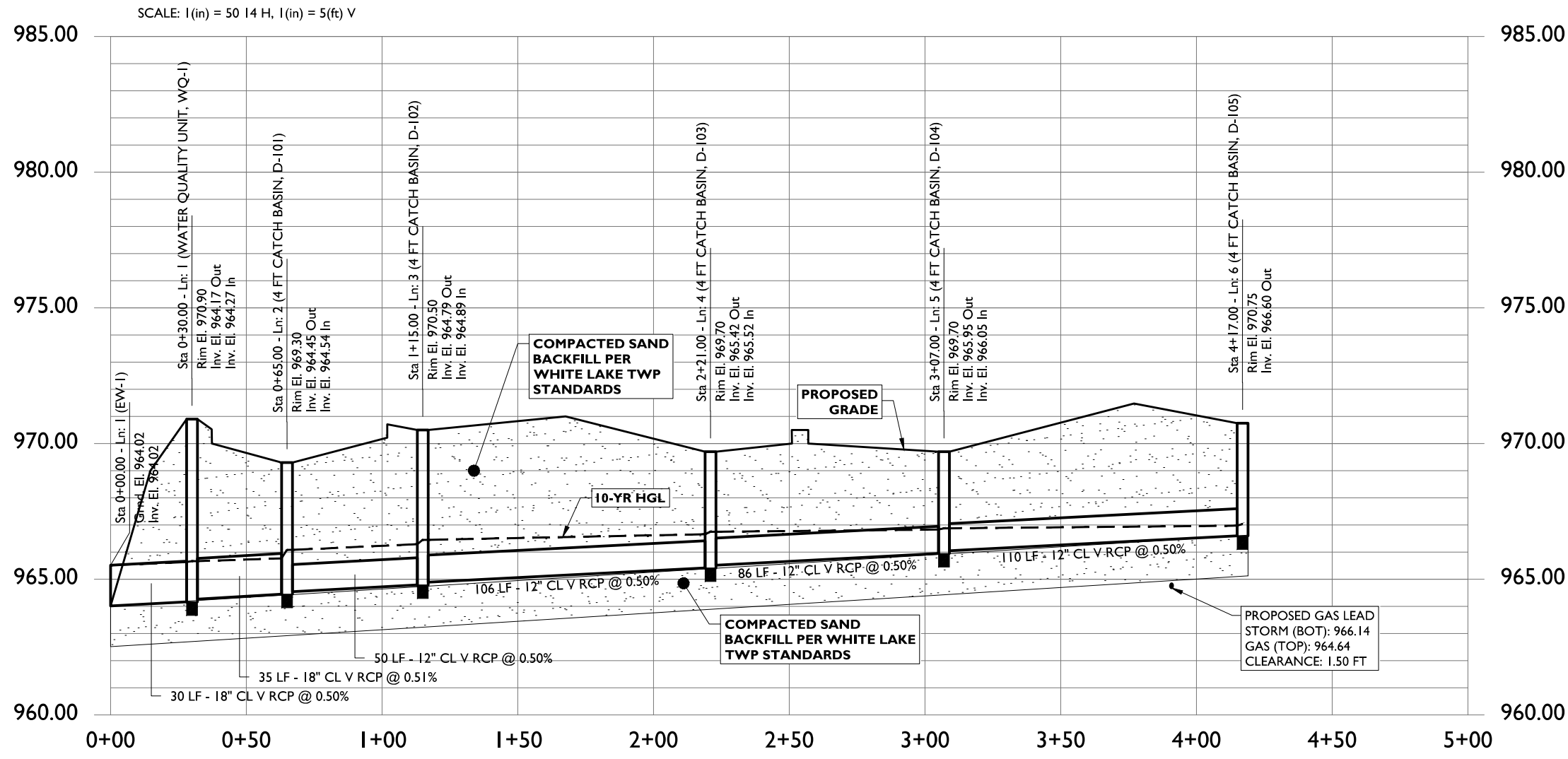
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C-18

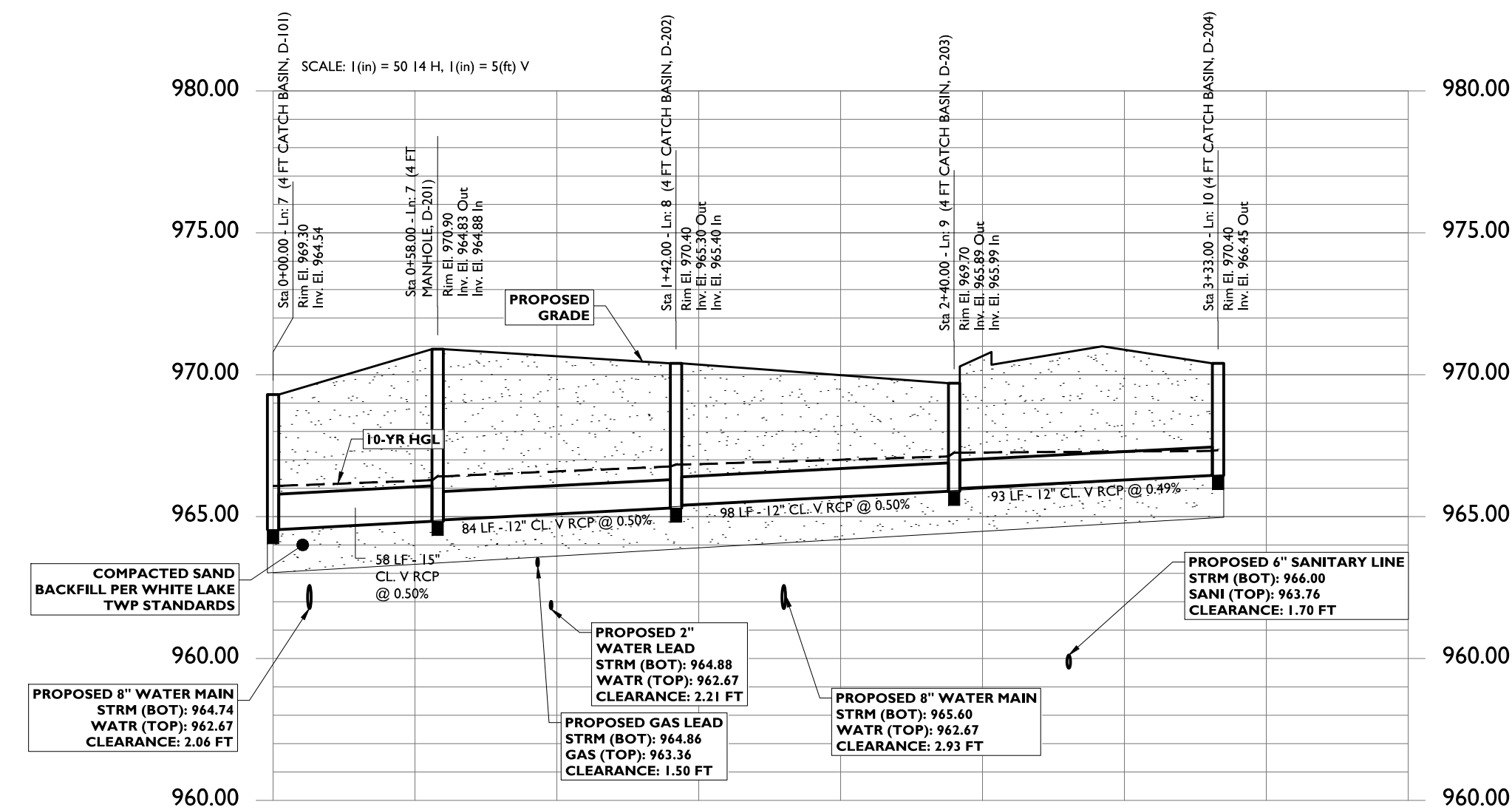
\\01\2023\DET-23022\AR-118\REVISED\2111 HIGHLAND ROAD, WHITE LAKE, MI\CAD\PROFILES\HMP\DWG



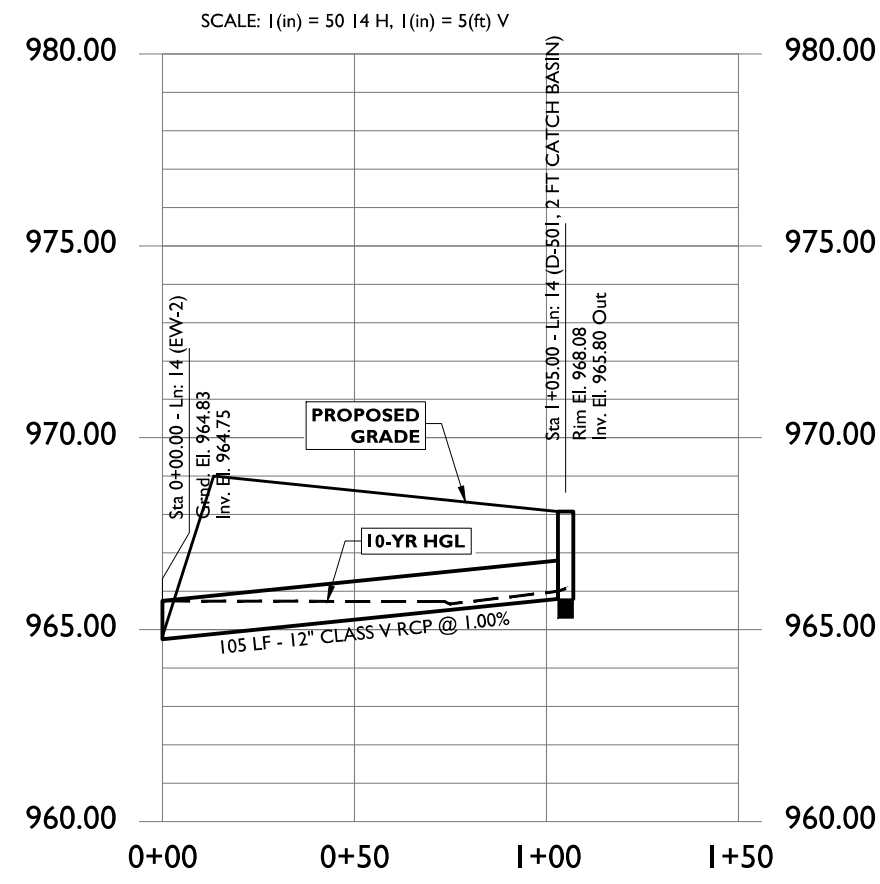
WATER MAIN PROFILE



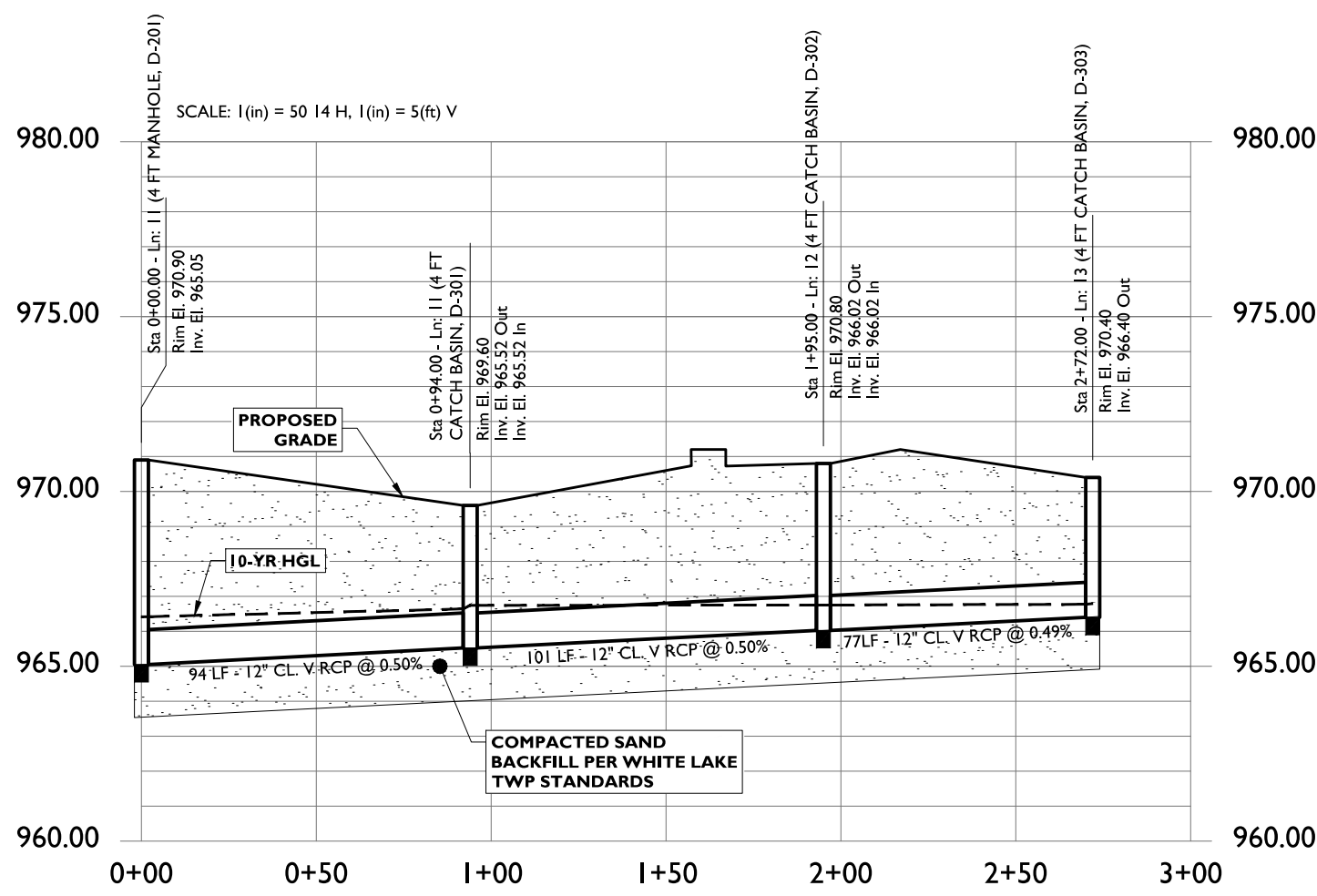
EW-1 TO D-105



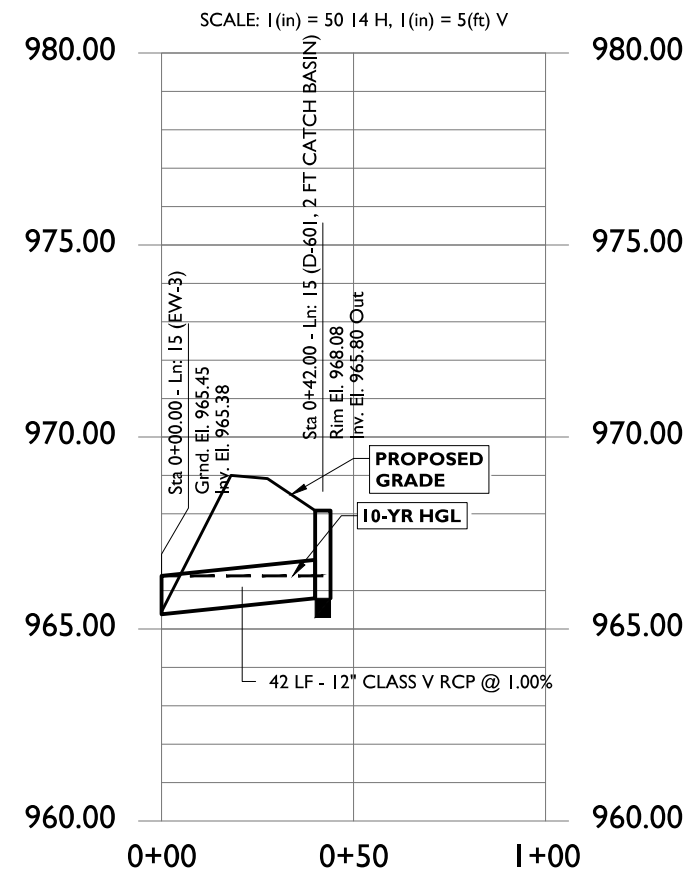
D-101 TO D-204



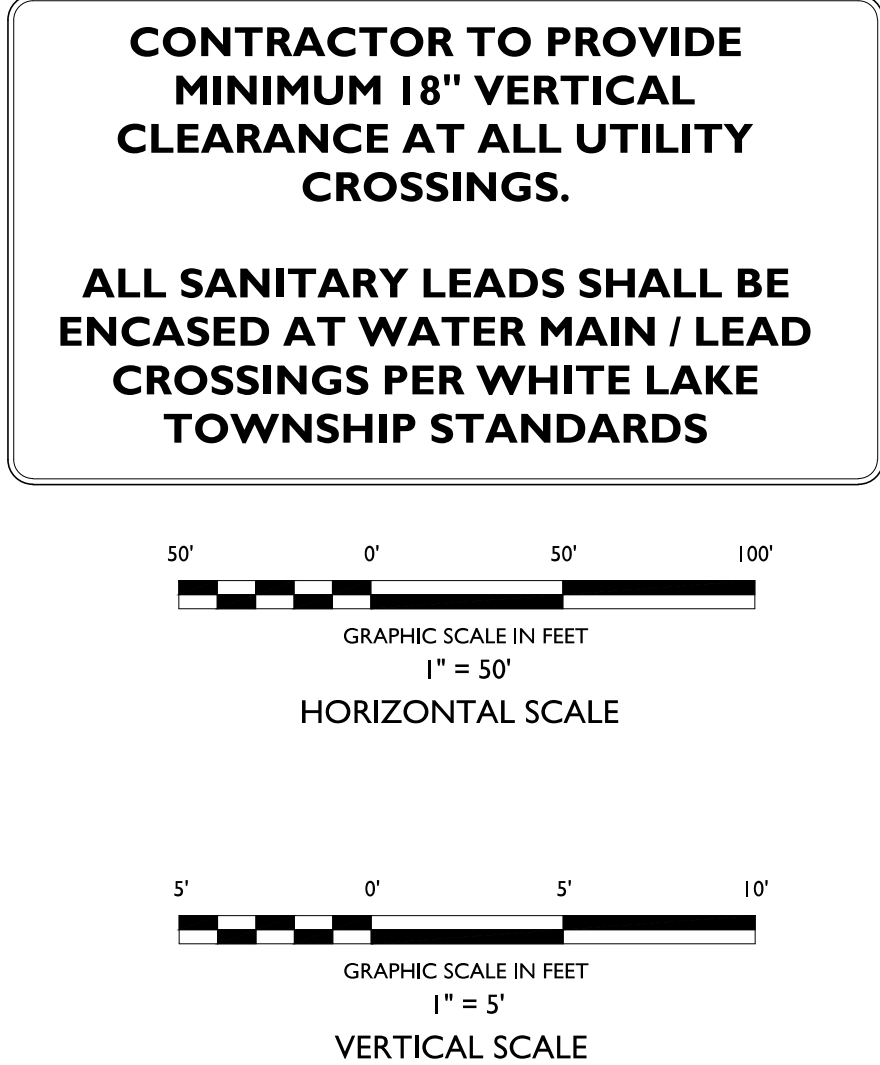
EW-2 TO D-501



D-201 TO D-303



EW-3 TO D-601



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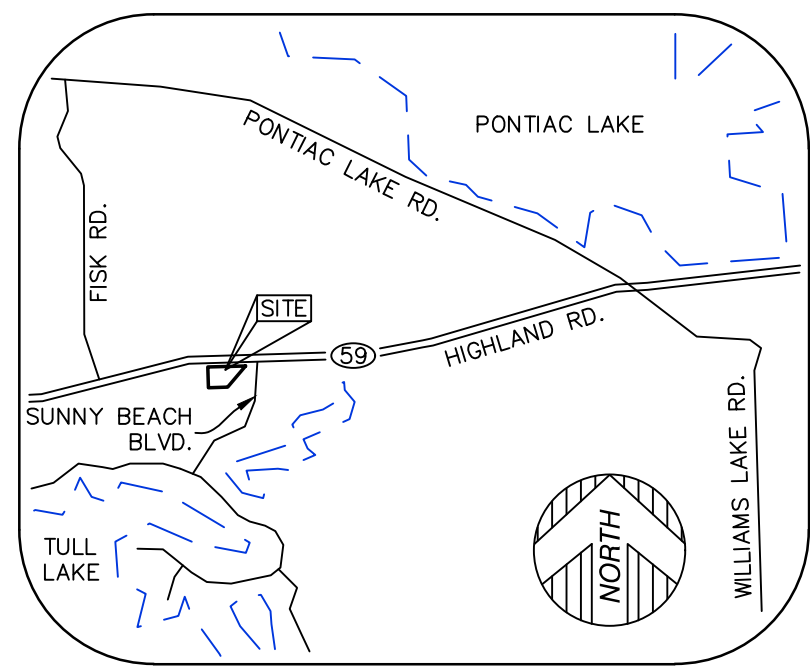
SITE DEVELOPMENT PLANS

9101 HIGHLAND ROAD
PROPOSED COMMERCIAL
DEVELOPMENT

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



SCALE: 1" = 30' PROJECT ID: DET-230229
TITLE: UTILITY & STORMWATER PROFILES
DRAWING: C-19



VICINITY MAP
(NOT TO SCALE)

PARKING

HANDICAP PARKING = 2 STALLS
STANDARD PARKING = 50 STALLS

PARCEL AREA

195,568± SQUARE FEET = 4.49± ACRES

BASIS OF BEARING

SOUTH 85°14'44" WEST, BEING THE CENTERLINE OF HIGHLAND ROAD (M-59), AS DESCRIBED.

BENCHMARK

SITE BENCHMARK #1
ARROW ON HYDRANT, WEST SIDE OF ASPHALT ENTRANCE.
ELEVATION = 975.36' (NAVD 88)

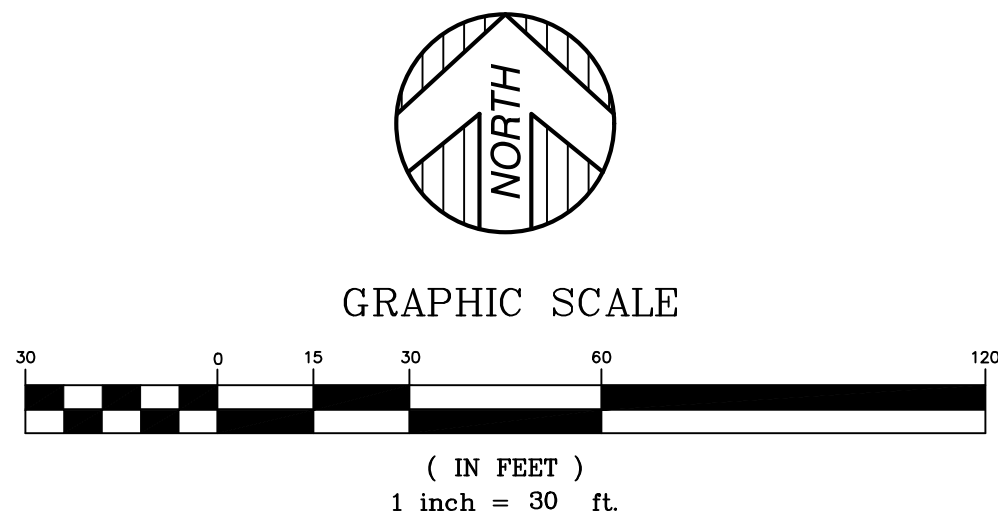
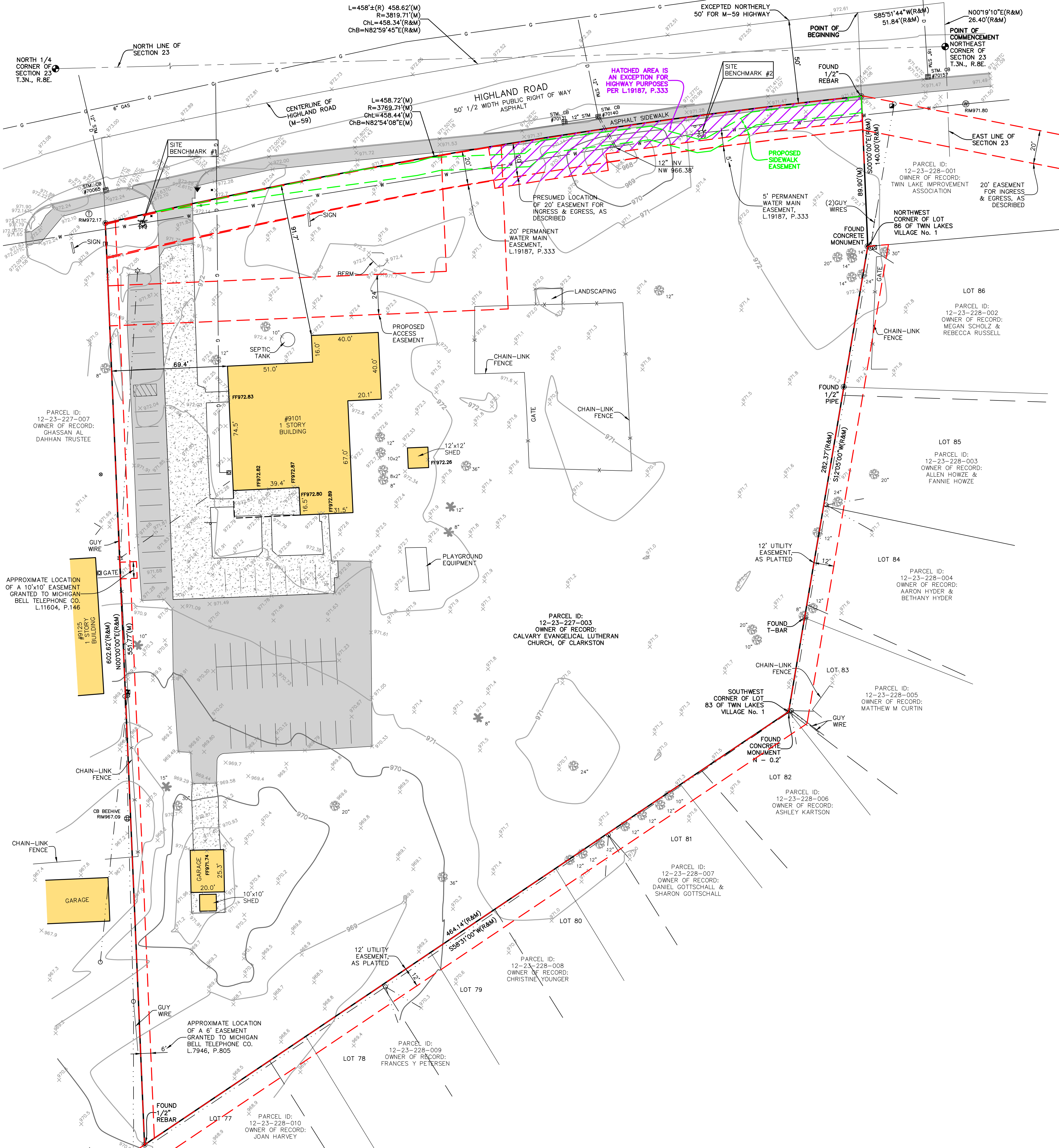
SITE BENCHMARK #2
ARROW ON HYDRANT, S. SIDE OF HIGHLAND RD, EAST SIDE OF PROPERTY.
ELEVATION = 974.20' (NAVD 88)

SURVEYOR'S NOTE

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

LEGEND

●	FOUND MONUMENT (AS NOTED)
○	FOUND SECTION CORNER (AS NOTED)
(R&M)	RECORD AND MEASURED DIMENSION
(R)	RECORD DIMENSION
(M)	MEASURED DIMENSION
X 0.00	GROUND ELEVATION
⊠	ELECTRIC METER
⊠	ELECTRIC RISER
⊠	UTILITY POLE
⊠	TELEPHONE MANHOLE
⊠	TELEPHONE RISER
⊠	CABLE TV RISER
⊠	CLEANOUT
⊠	ROUND CATCH BASIN
⊠	SQUARE CATCH BASIN
⊠	FIRE HYDRANT
⊠	WATER GATE MANHOLE
⊠	WATER VALVE
⊠	FENCE POST
⊠	FLOOD LIGHT
⊠	SINGLE POST SIGN
⊠	DOUBLE POST SIGN
⊠	HANDICAP PARKING
⊠	DECIDUOUS TREE (AS NOTED)
⊠	CONIFEROUS TREE (AS NOTED)
---	PARCEL BOUNDARY LINE
---	PLATTED LOT LINE
---	ADJOINER PARCEL LINE
---	SECTION LINE
---	EASEMENT (AS NOTED)
---	BUILDING
---	BUILDING OVERHANG
---	CONCRETE CURB
---	RAISED CONCRETE
---	PARKING
---	EDGE OF CONCRETE (CONC.)
---	EDGE OF ASPHALT (ASPH.)
---	FENCE (AS NOTED)
---	OVERHEAD UTILITY LINE
---	GAS LINE
---	STORM LINE
---	WATER LINE
---	MINOR CONTOUR LINE
---	MAJOR CONTOUR LINE
---	BUILDING AREA
---	ASPHALT
---	CONCRETE



PROPERTY DESCRIPTION

THE LAND SITUATED IN THE TOWNSHIP OF WHITE LAKE, COUNTY OF OAKLAND, STATE OF MICHIGAN, IS DESCRIBED AS FOLLOWS:

PART OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 14, AND EAST 1/2 OF THE NORTHEAST 1/4 OF SECTION 23, TOWN 3 NORTH, RANGE 8 EAST, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SECTION 23, WHICH IS ALSO A COMMON CORNER TO SECTIONS 13, 14 AND 24, TOWN 3 NORTH, RANGE 8 EAST, AND RUNNING THENCE NORTH 00 DEGREES 19 MINUTES 10 SECONDS EAST 26.40 FEET TO THE CENTERLINE OF HIGHLAND ROAD (M-59), THENCE SOUTH 85 DEGREES 51 MINUTES 44 SECONDS WEST 51.84 FEET ALONG SAID CENTERLINE TO THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE SOUTH 140.00 FEET TO A MONUMENT, WHICH IS THE NORTHWEST CORNER OF LOT 86 OF TWIN LAKES VILLAGE NO. 1; THENCE SOUTH 12 DEGREES 05 MINUTES 00 SECONDS WEST 282.37 FEET TO A MONUMENT WHICH IS THE SOUTHWEST CORNER OF LOT 83 OF SAID TWIN LAKES VILLAGE NO. 1; THENCE SOUTH 58 DEGREES 31 MINUTES 00 SECONDS WEST 464.14 FEET; THENCE NORTH 602.62 FEET TO THE CENTERLINE OF HIGHLAND ROAD (M-59), THENCE EASTERLY ALONG SAID CENTERLINE WHICH IS ON A CURVE TO THE RIGHT, WHOSE CHORD BEARS NORTH 82 DEGREES 59 MINUTES 45 SECONDS EAST 458.34 FEET, A DISTANCE ALONG THE CURVE OF 458.00 FEET MORE OR LESS TO THE POINT OF BEGINNING OF THIS DESCRIPTION, EXCEPTING THE NORTHERLY 50 FEET THEREOF SITUATED WITHIN M-59 HIGHWAY.

TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS OVER A 20 FOOT PRIVATE ROAD WHOSE CENTERLINE IS DESCRIBED AS FOLLOWS: COMMENCING AT A POINT AT THE INTERSECTION OF THE CENTERLINE OF HIGHLAND ROAD (M-59) AND THE WEST RIGHT OF WAY LINE OF SUNNYBEACH BOULEVARD IN SECTION 13, TOWN 3 NORTH, RANGE 8 EAST, AND RUNNING THENCE SOUTH 00 DEGREES 00 MINUTES 54 SECONDS EAST 29.01 FEET TO THE SOUTH LINE OF SAID SECTION 13; SAID SECTION 13 CONTINUING SOUTH 00 DEGREES 54 SECONDS EAST 73.99 FEET OVER AND ACROSS SAID SOUTH SECTION LINE TO A POINT LOCATED IN SECTION 24 WHERE THE CENTERLINE OF THE PRIVATE ROAD RIGHT OF WAY INTERSECTS THE WEST RIGHT OF WAY LINE OF SUNNYBEACH BOULEVARD, WHICH IS THE POINT OF BEGINNING OF SAID PRIVATE ROAD RIGHT OF WAY; THENCE NORTH 76 DEGREES 27 MINUTES 33 SECONDS WEST 154.31 FEET TO THE EAST LINE OF SAID 5 ACRES DESCRIBED AS THE CAPTIONED LAND ABOVE.

SUBJECT TO A 20 FEET EASEMENT FOR INGRESS AND EGRESS OVER THAT PART OF SAID DESCRIBED 5 ACRES OF LAND, THE CENTERLINE OF SAID EASEMENT IS DESCRIBED AS FOLLOWS: COMMENCING AT A POINT ON THE EAST LINE OF SAID 5 ACRE PARCEL OF LAND DISTANT SOUTH 60.00 FEET FROM THE NORTHEAST CORNER THEREOF, THENCE RUNNING ALONG A CURVE TO THE LEFT PARALLEL TO THE STATE HIGHWAY M-59 RIGHT OF WAY TO THE WEST LINE OF SAID 5 ACRES DESCRIBED AS THE CAPTIONED LAND ABOVE.

TITLE REPORT NOTE

ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY FILE NO. 63-18598786-SOM, REVISION 3, DATED AUGUST 21, 2023, AND RELISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.

8. RIGHT OF WAY GRANTED TO MICHIGAN BELL TELEPHONE COMPANY FOR CONSTRUCTION, OPERATION AND MAINTENANCE OF LINES OF COMMUNICATION RECORDED IN LIBER 7946, PAGE 805, OAKLAND COUNTY RECORDS. (AS SHOWN)

9. EASEMENT GRANTED TO MICHIGAN BELL TELEPHONE COMPANY FOR CONSTRUCTION, OPERATION AND MAINTENANCE OF COMMUNICATION FACILITIES RECORDED IN LIBER 11604, PAGE 146, OAKLAND COUNTY RECORDS. (AS SHOWN)

10. EASEMENT GRANTED TO THE CHARTER TOWNSHIP OF WHITE LAKE FOR CONSTRUCTION, OPERATION AND MAINTENANCE OF WATER MAIN RECORDED IN LIBER 19187, PAGE 333, OAKLAND COUNTY RECORDS. (AS SHOWN)

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

SURVEYOR'S CERTIFICATION

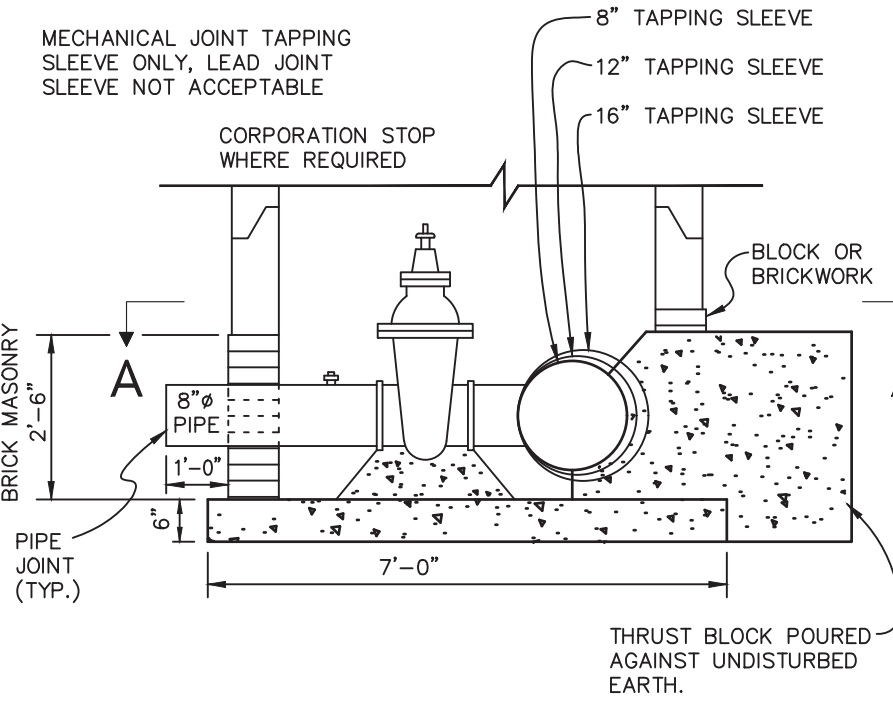
TO AFFINITY 10 INVESTMENTS, LLC, A MICHIGAN LIMITED LIABILITY COMPANY; OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY; A NATIONAL TITLE GROUP, LLC; AND STONEFIELD ENGINEERING AND DESIGN:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 4, 5, 7A, 8, 9, 11A, AND 11B OF TABLE A, THEREOF. THE FIELD WORK WAS COMPLETED ON 09/14/23.

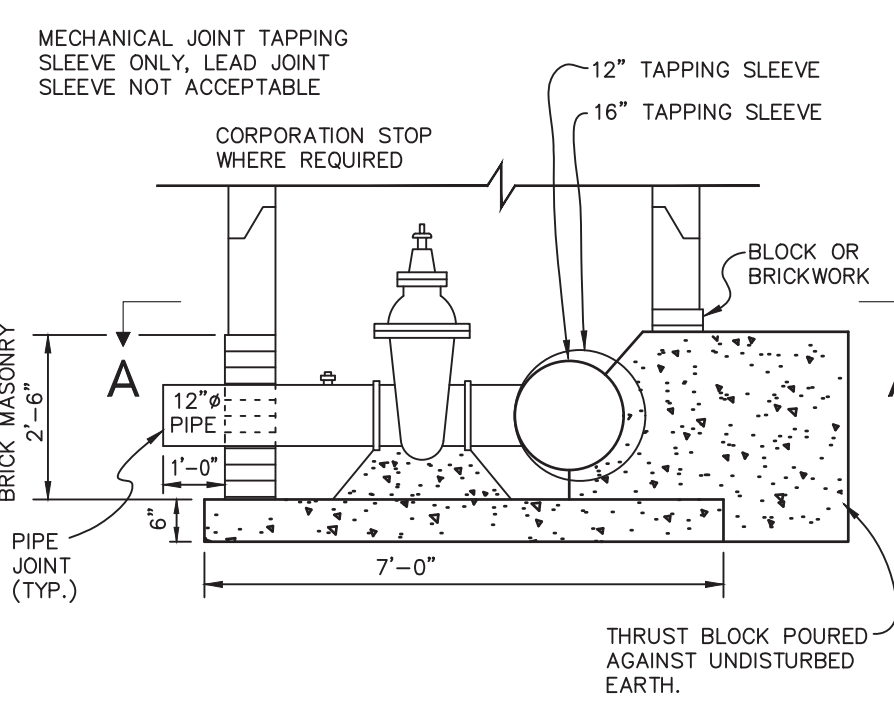
DATE OF PLAT OR MAP: 09/28/23

ANTHONY T. SYCKO, JR., P.S.
PROFESSIONAL SURVEYOR
MICHIGAN LICENSE NO. 47976
22556 GRATIOT AVE., EASTPOINTE, MI 48021
TSycko@kemtec-survey.com

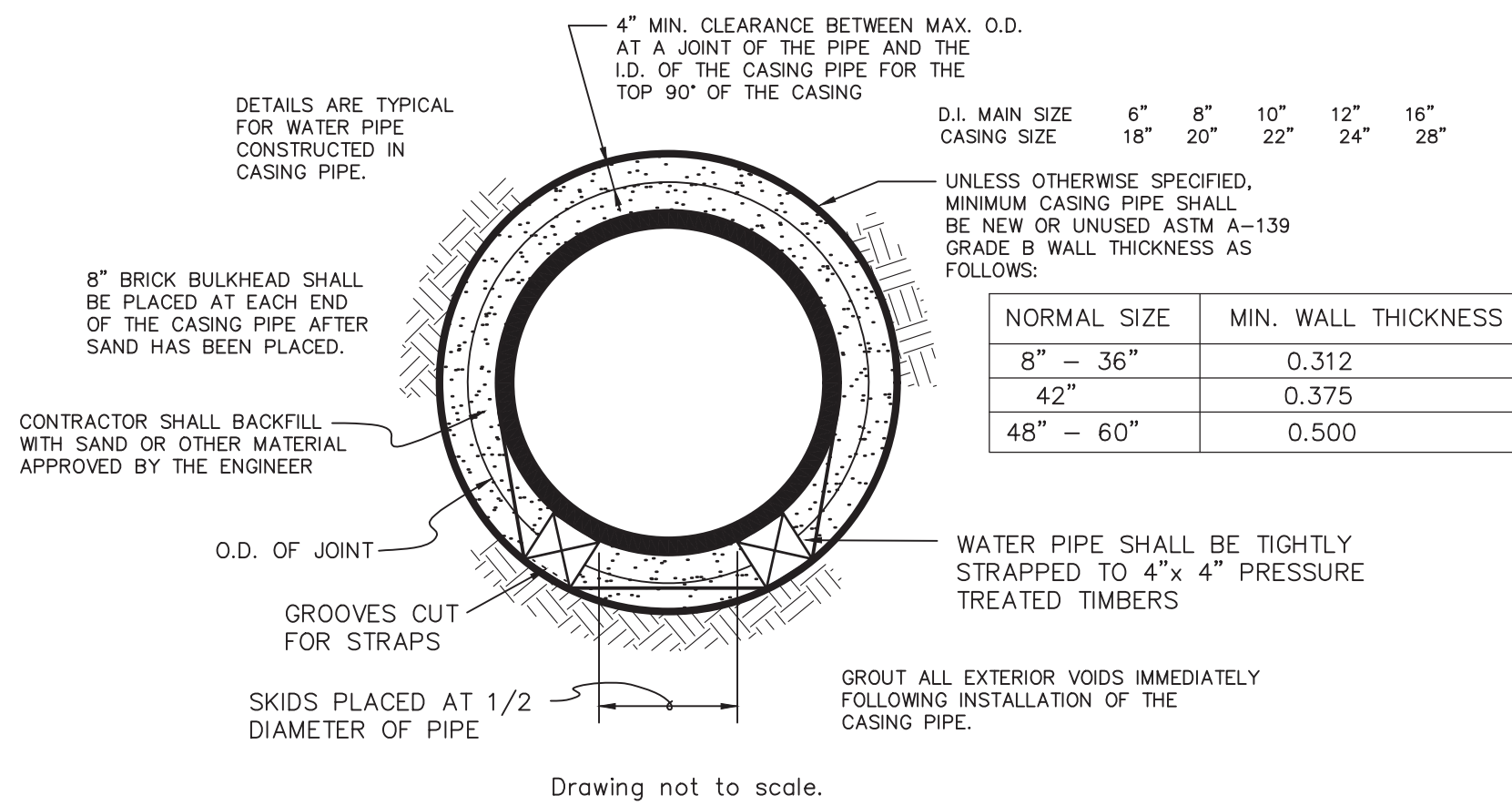




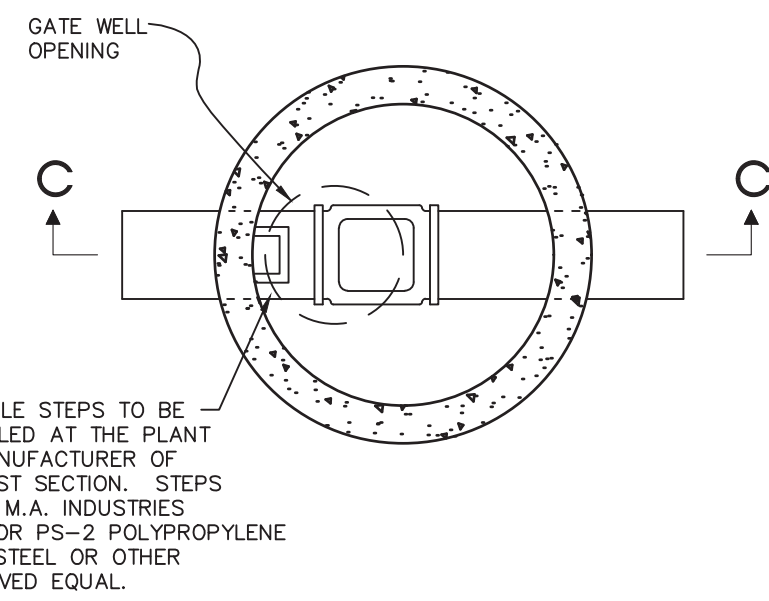
16" X 8", 12" X 8", 8" X 8"
TAPPING SLEEVE, VALVE & WELL
(B-B)



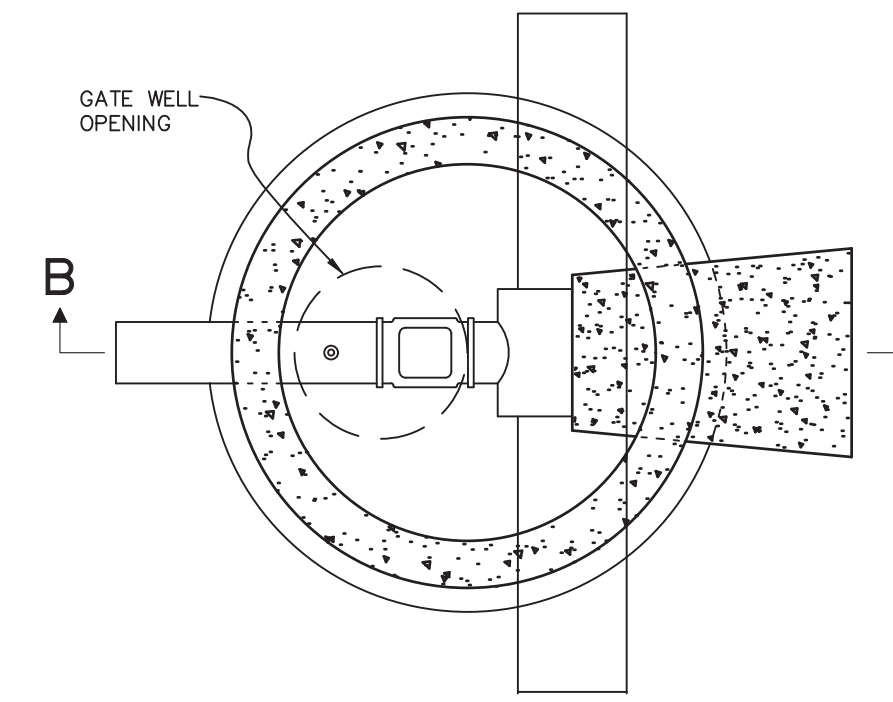
16" X 12", 12" X 12"
TAPPING SLEEVE, VALVE & WELL
(B-B)



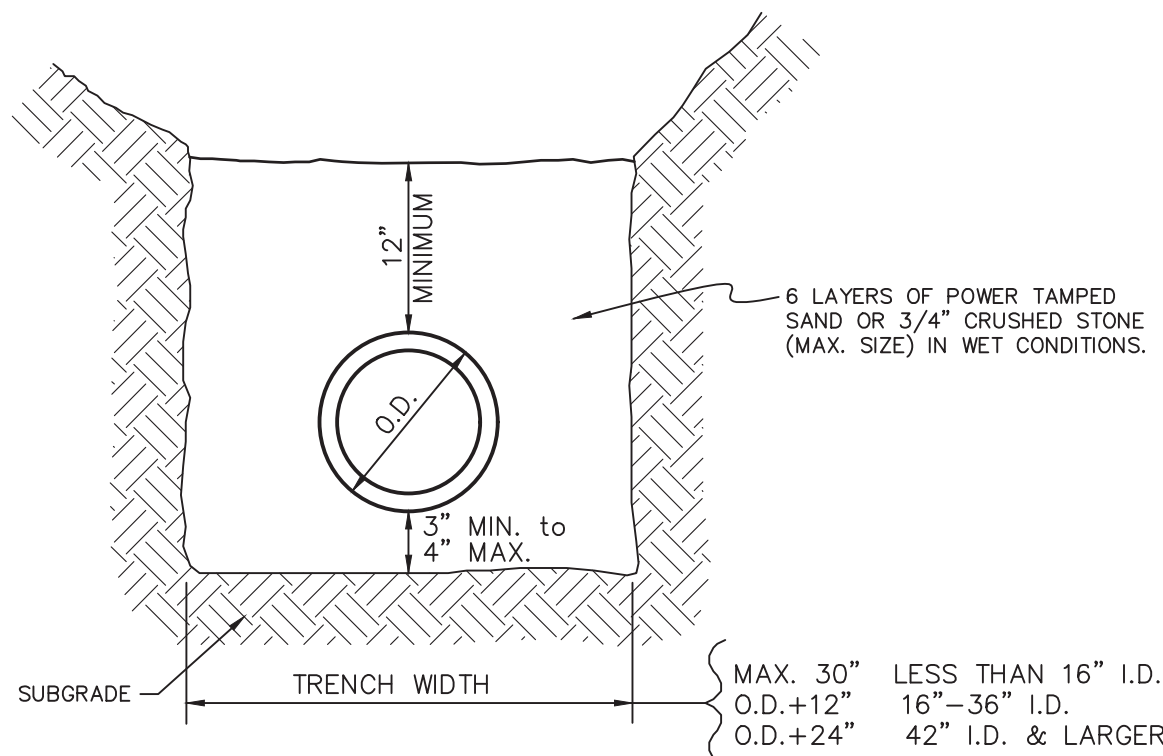
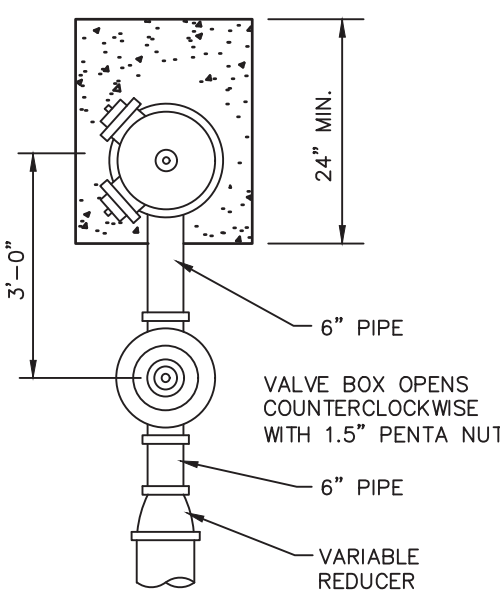
PIPE BARREL SUPPORT FOR WATER MAIN
CONSTRUCTED IN CASING



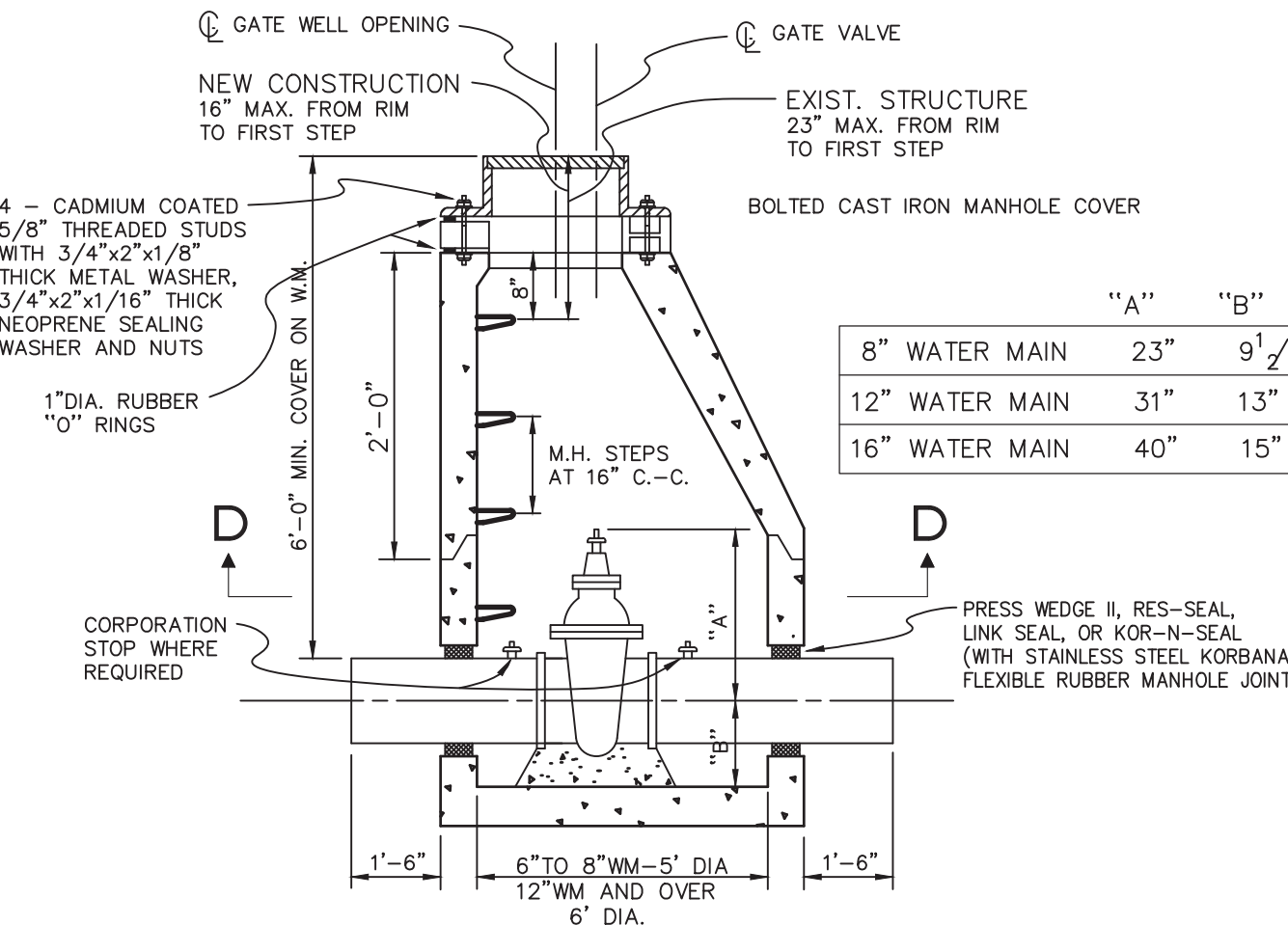
PLAN GATE WELL - TYPICAL
(D-D)



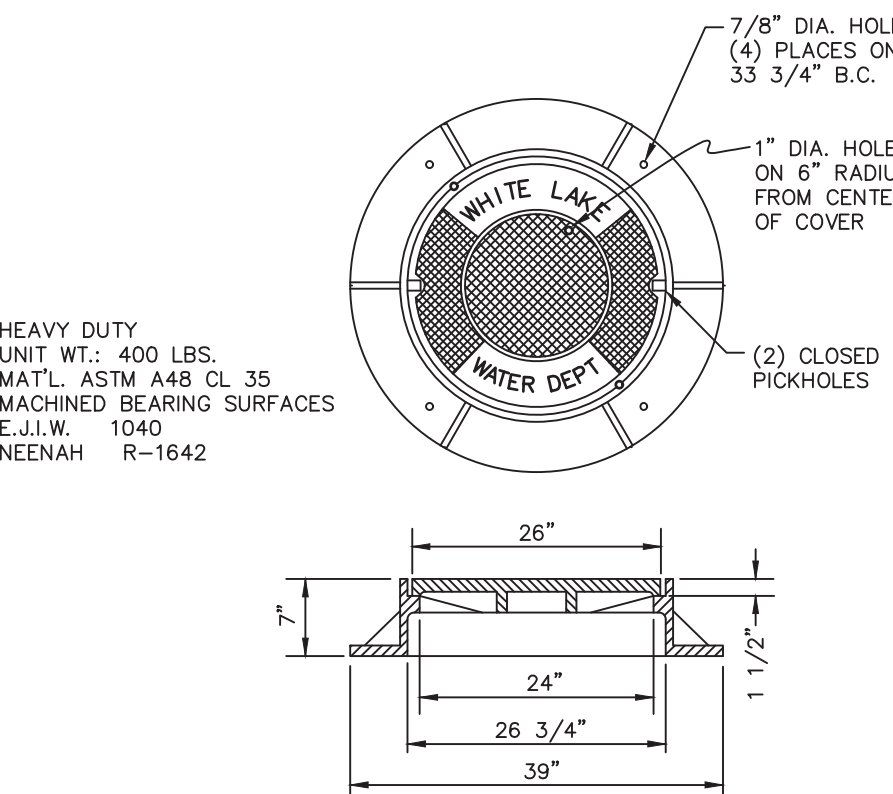
PLAN TAPPING SLEEVE, VALVE & WELL - TYPICAL
(A-A)



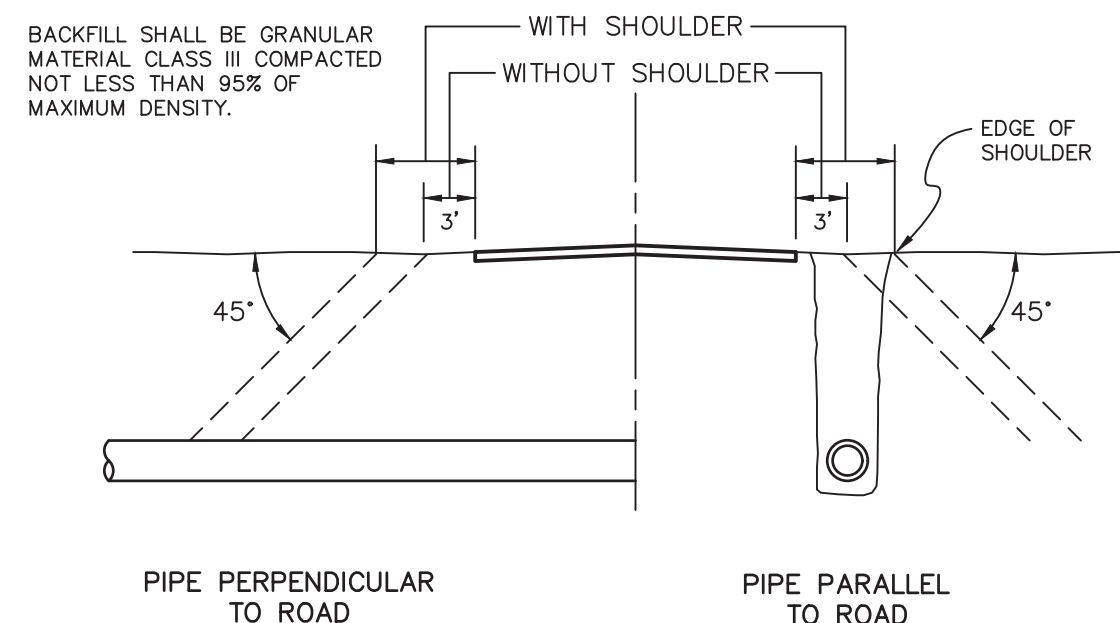
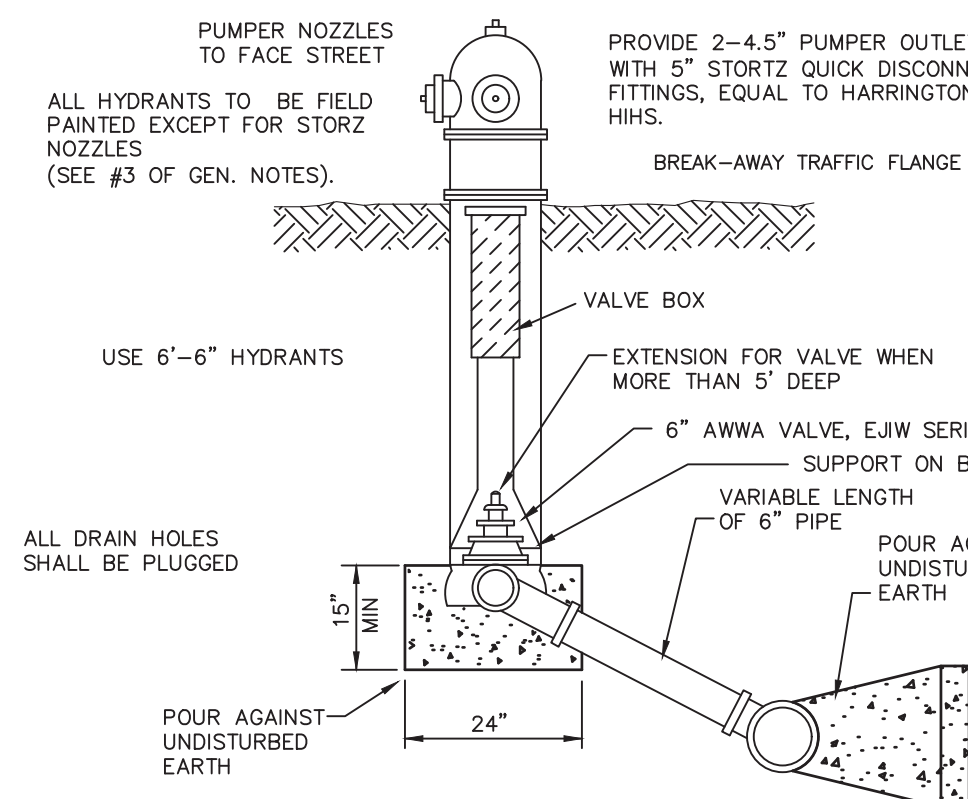
STANDARD BEDDING
FOR WATER PIPE



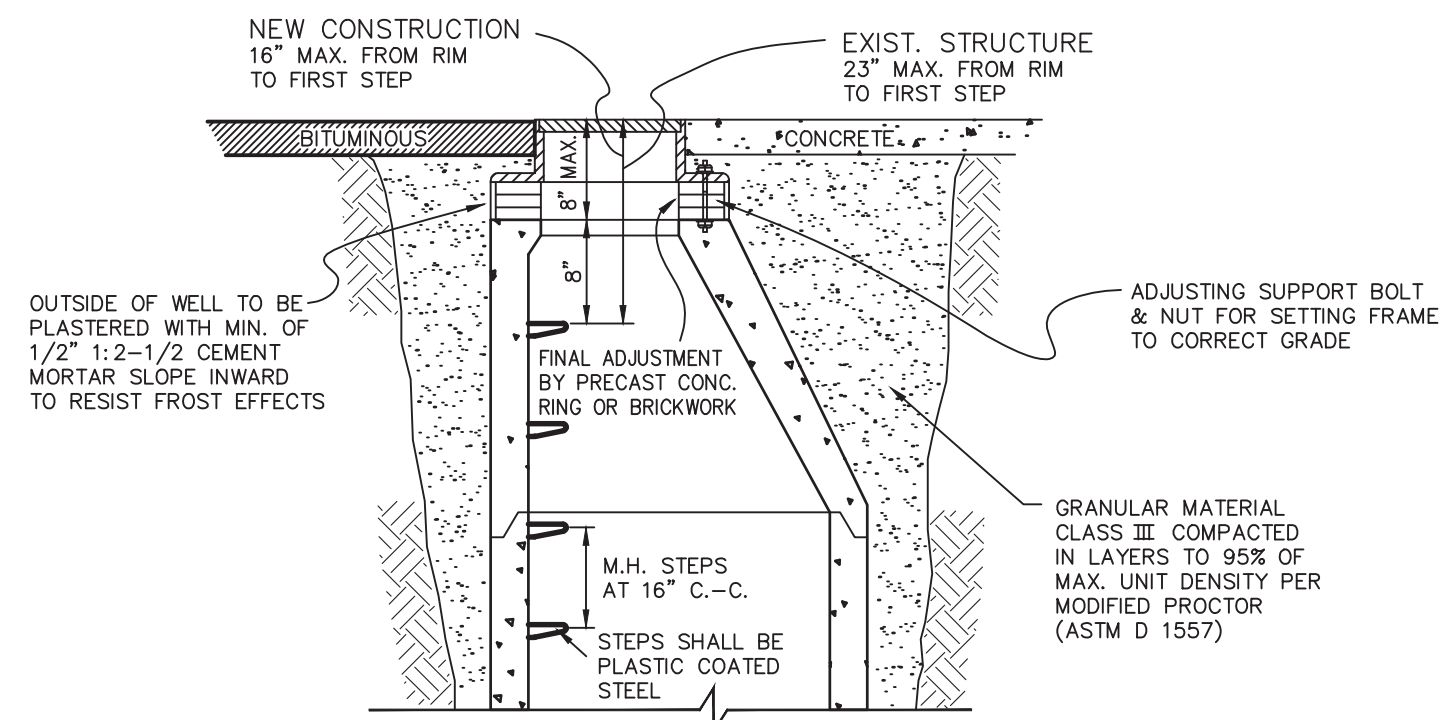
GATE WELL
(C-C)



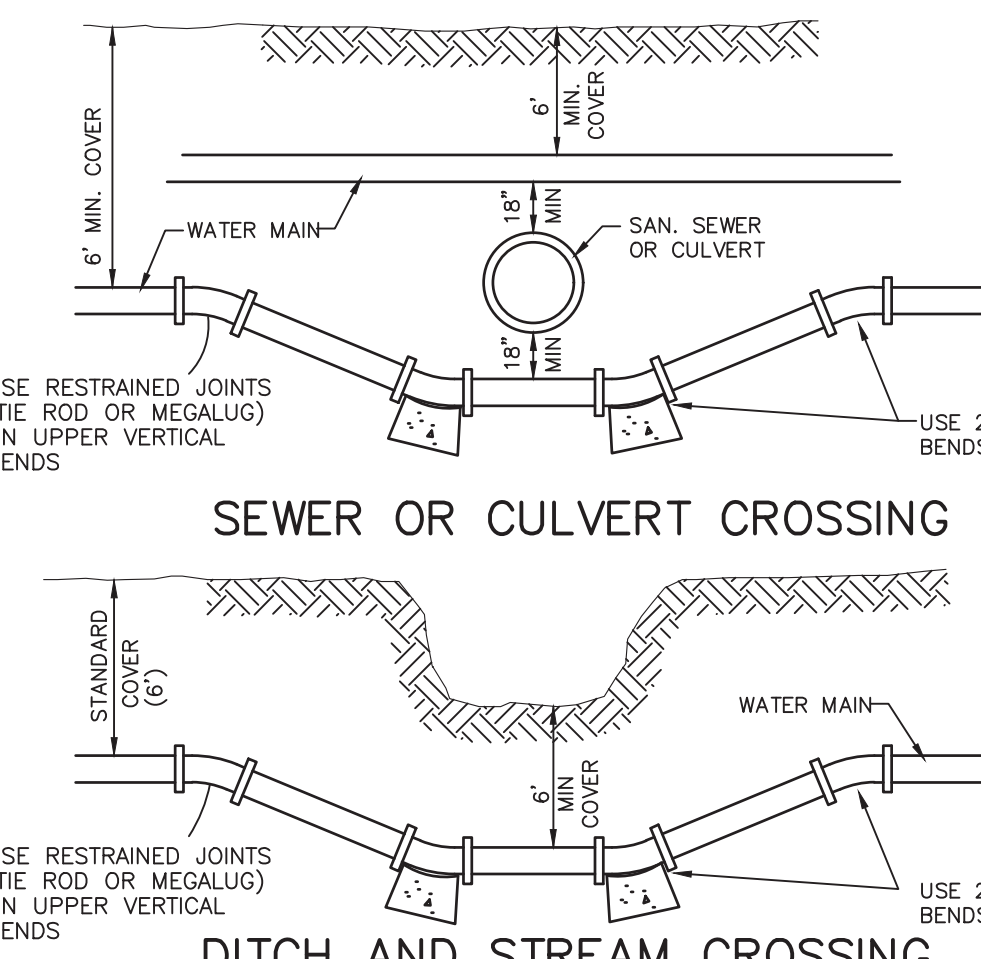
GATE WELL COVER & FRAME



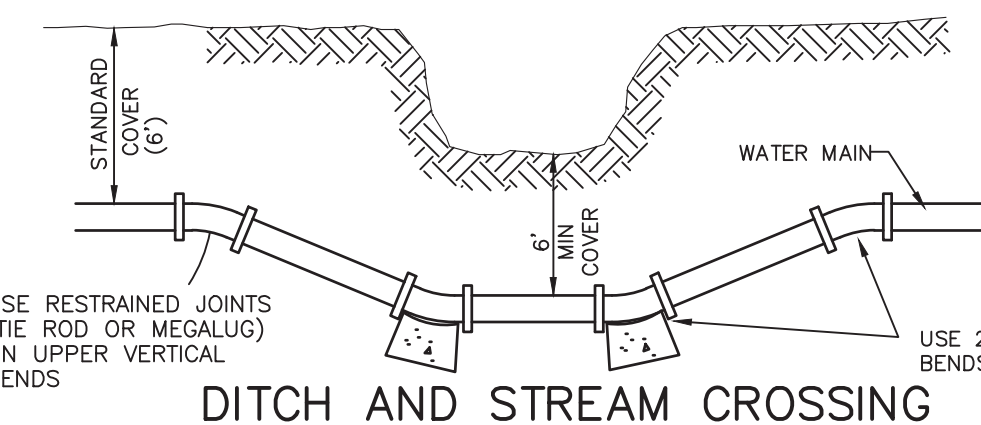
BACKFILL IN THE AREA OF STREETS,
ALLEYS, SIDEWALKS, DRIVES & PARKING AREAS



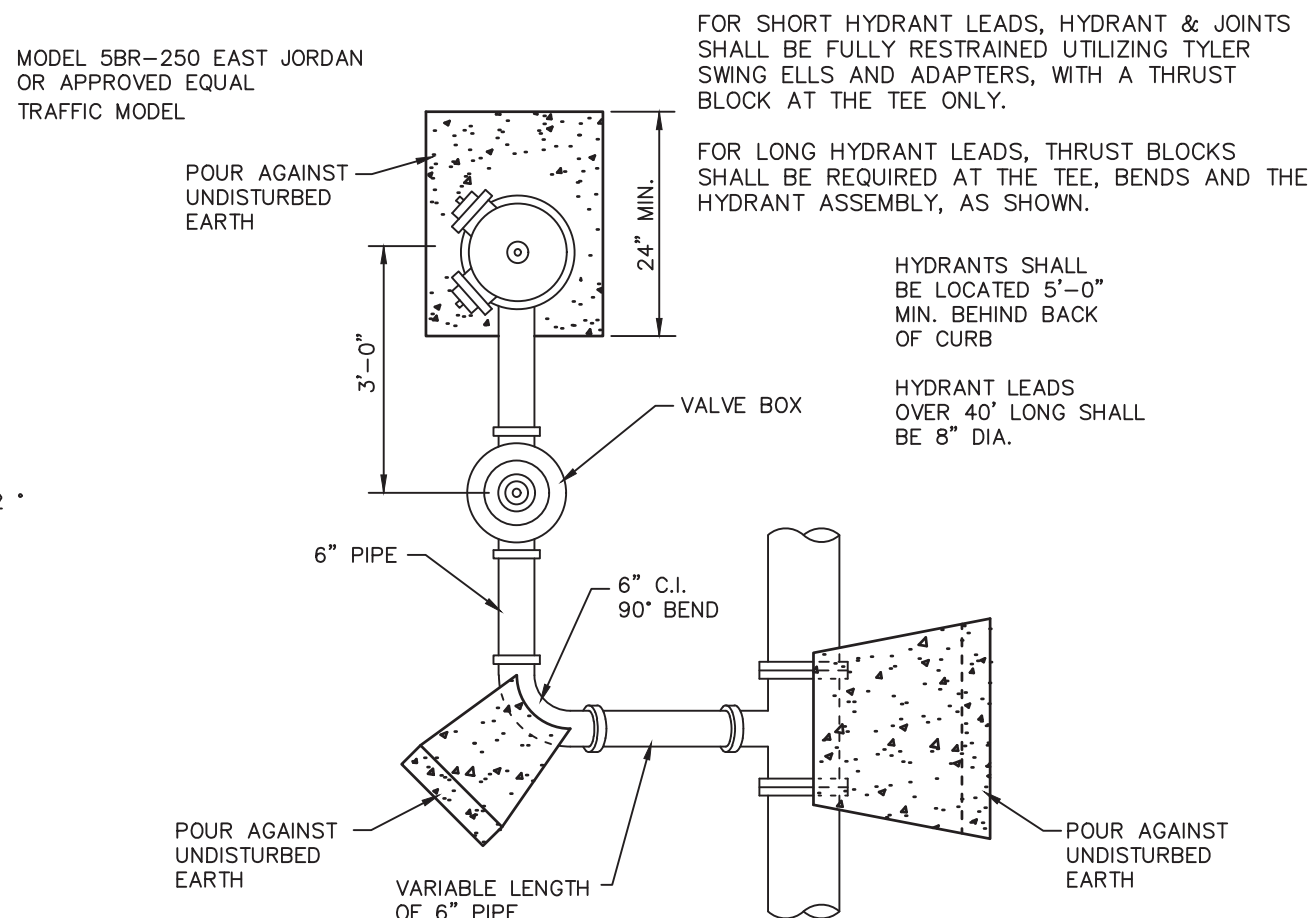
GATE WELL TOPS WITHIN PAVEMENT AREAS



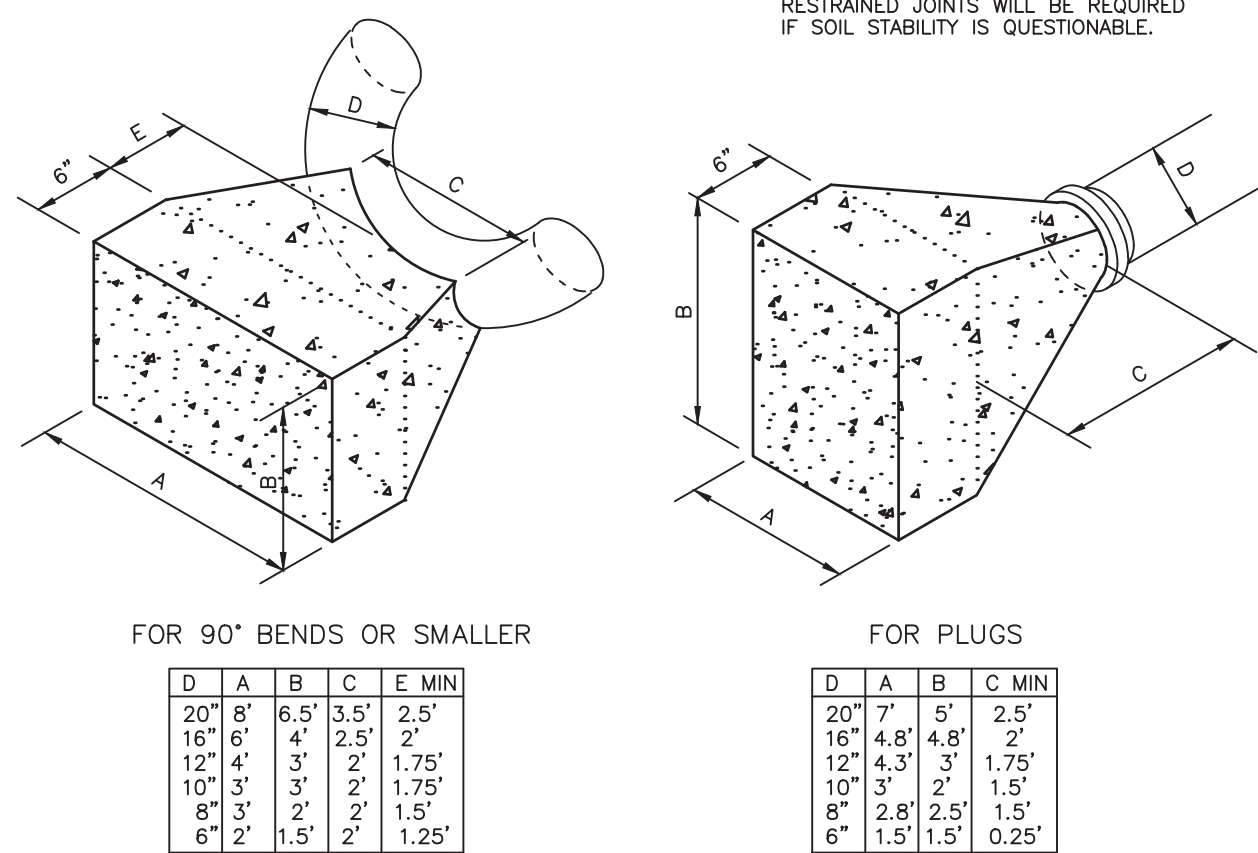
SEWER OR CULVERT CROSSING



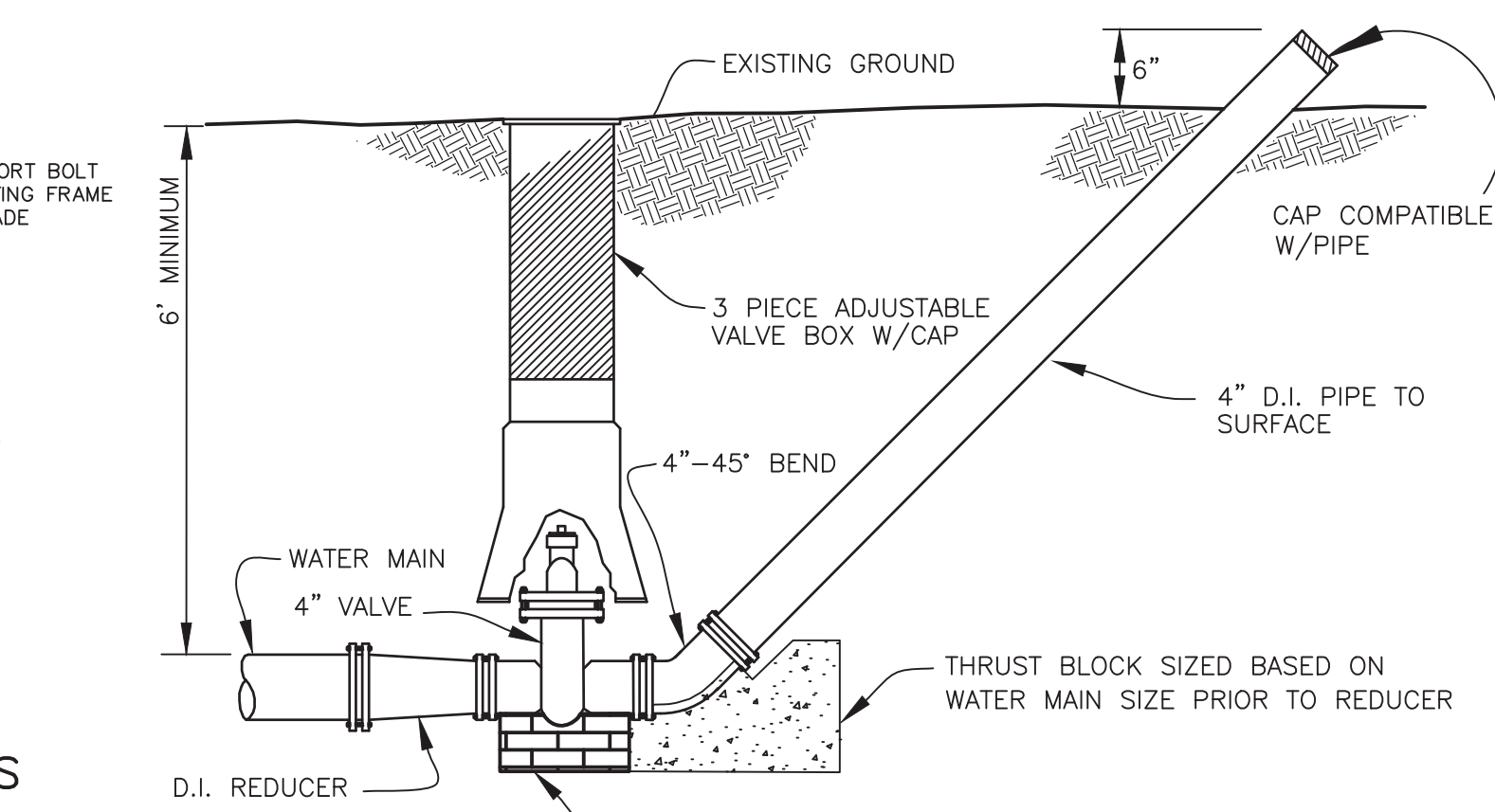
DITCH AND STREAM CROSSING



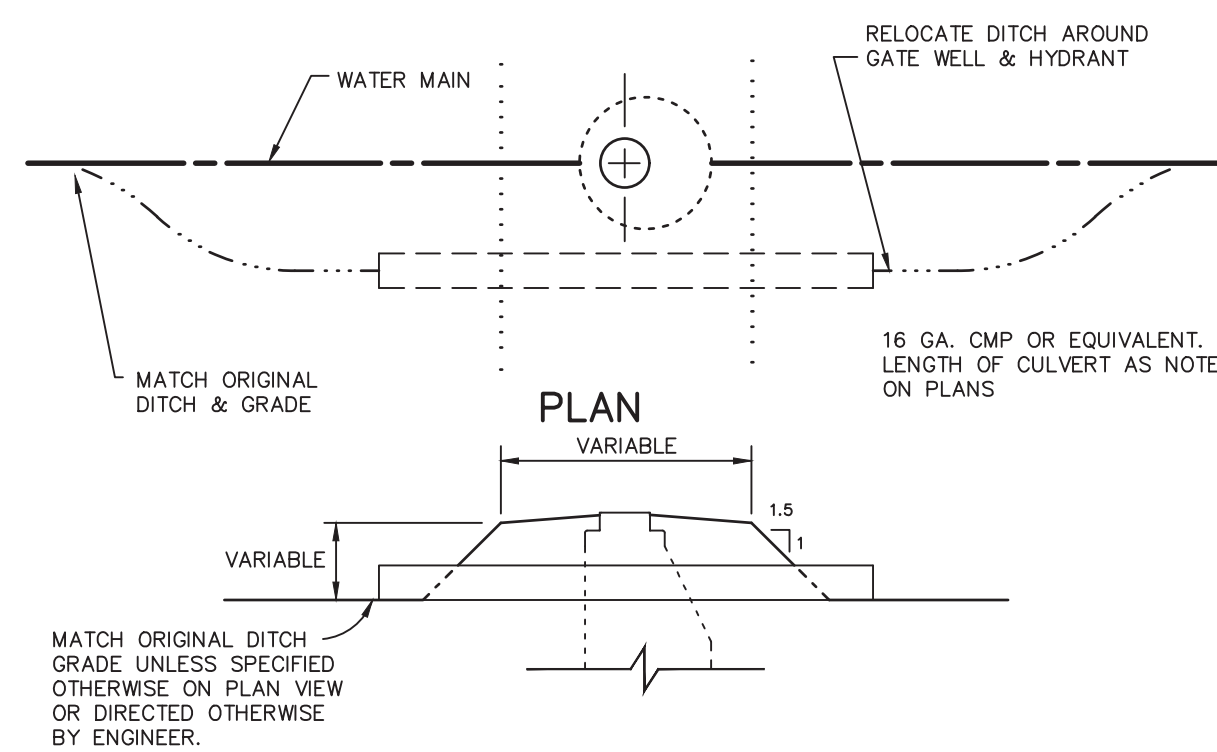
DETAIL OF HYDRANT SETTINGS



THRUST BLOCK DETAILS



TEMPORARY BLOWOFF ASS'Y



PROFILE
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" pumper outlets with 5" Storz quick connect nozzles (Harrington Integral Hydrant Storz, Model HH5) 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 D2237-03 (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-901 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 air discharge shall be extended to within 12" of the top of the structure. A gooseneck trap shall be installed at the top of the riser to prevent debris & water from entering the valve.

DRAWN: CAD
DESIGN: OA
CHECKED: --

REVISIONS	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE
		GENERAL REVISION TO CAD	12/29/95		GW & NUT SIZE	07/23/98		CLARIFY HYD. SPEC	02/07/01		REV. HYD, THRUST, AIR REL	03/29/04
		ADD NOTE 17	11/04/97		PIPE COVER & FLANGE TAPE	05/12/99		5-BR HYD, WS STAKE	02/27/02		HDPE, HYD, VALVES	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

Johnson&Anderson

4494 Elizabeth Lake Road
Waterford, Michigan 48328
tel (248) 681-7800 fax (248) 681-2660

1060 W. Norton Avenue, Suite 7
Muskegon, Michigan 49441
tel (231) 780-3100 fax (231) 780-3115

2291 Water Street, Suite 6
Port Huron, Michigan 48060
tel (810) 987-7620 fax (810) 987-7895

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



**WATER MAIN
STANDARD DETAILS**

VERT. -
SCALE: HORIZ. AS NOTED

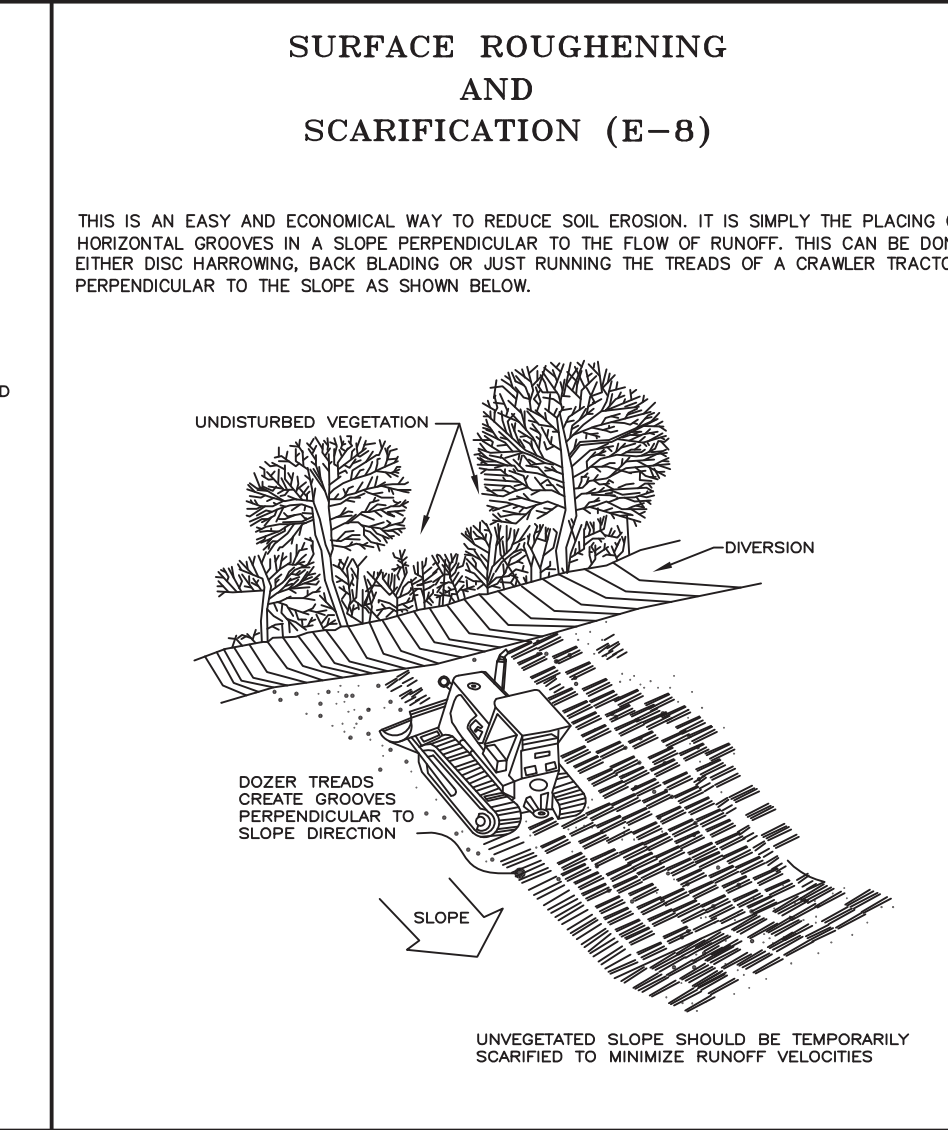
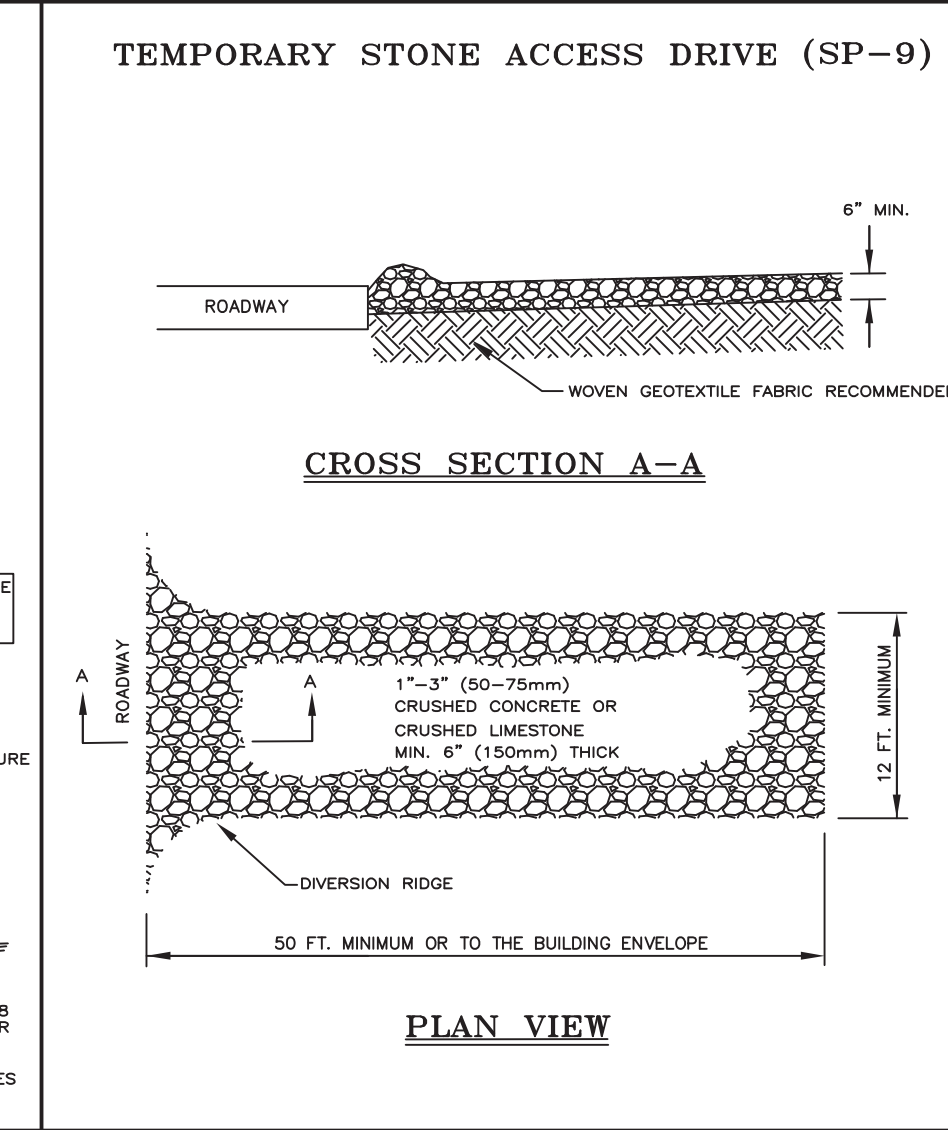
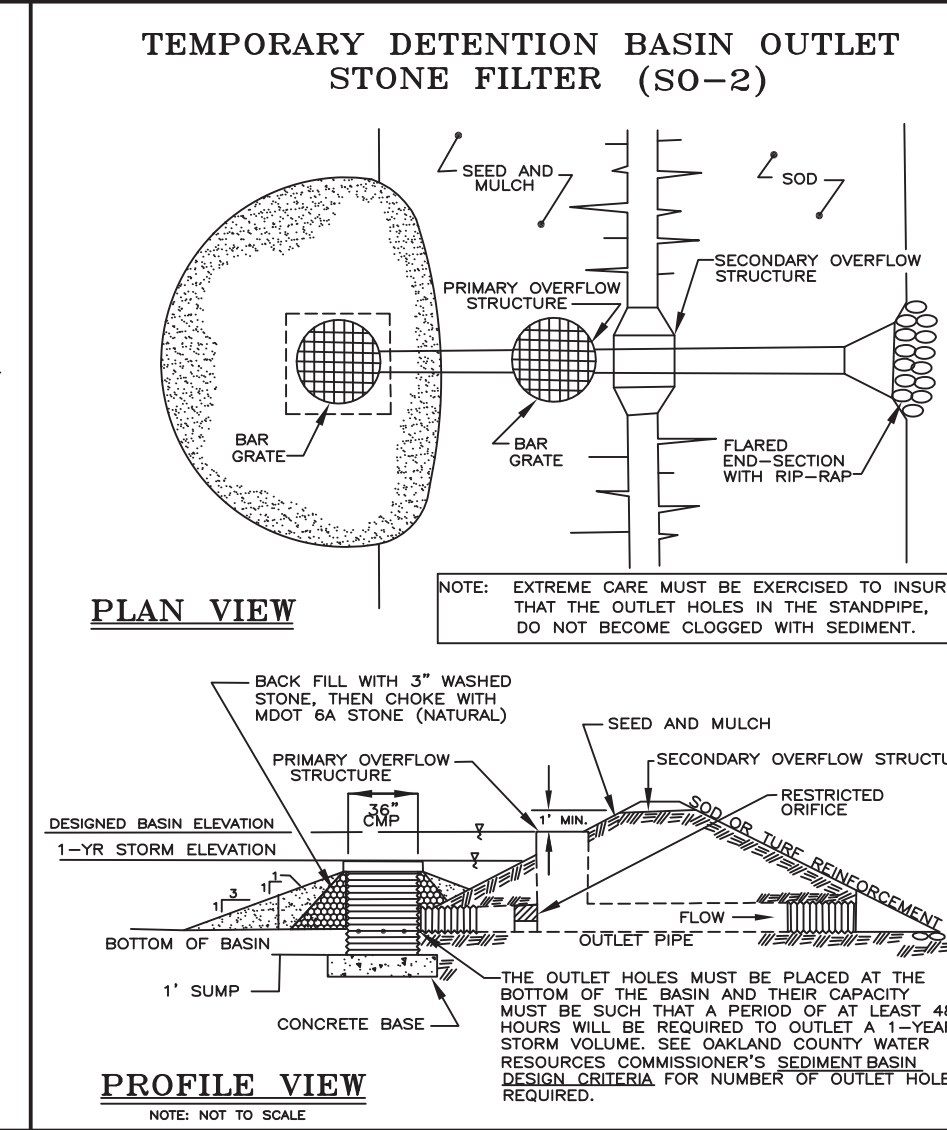
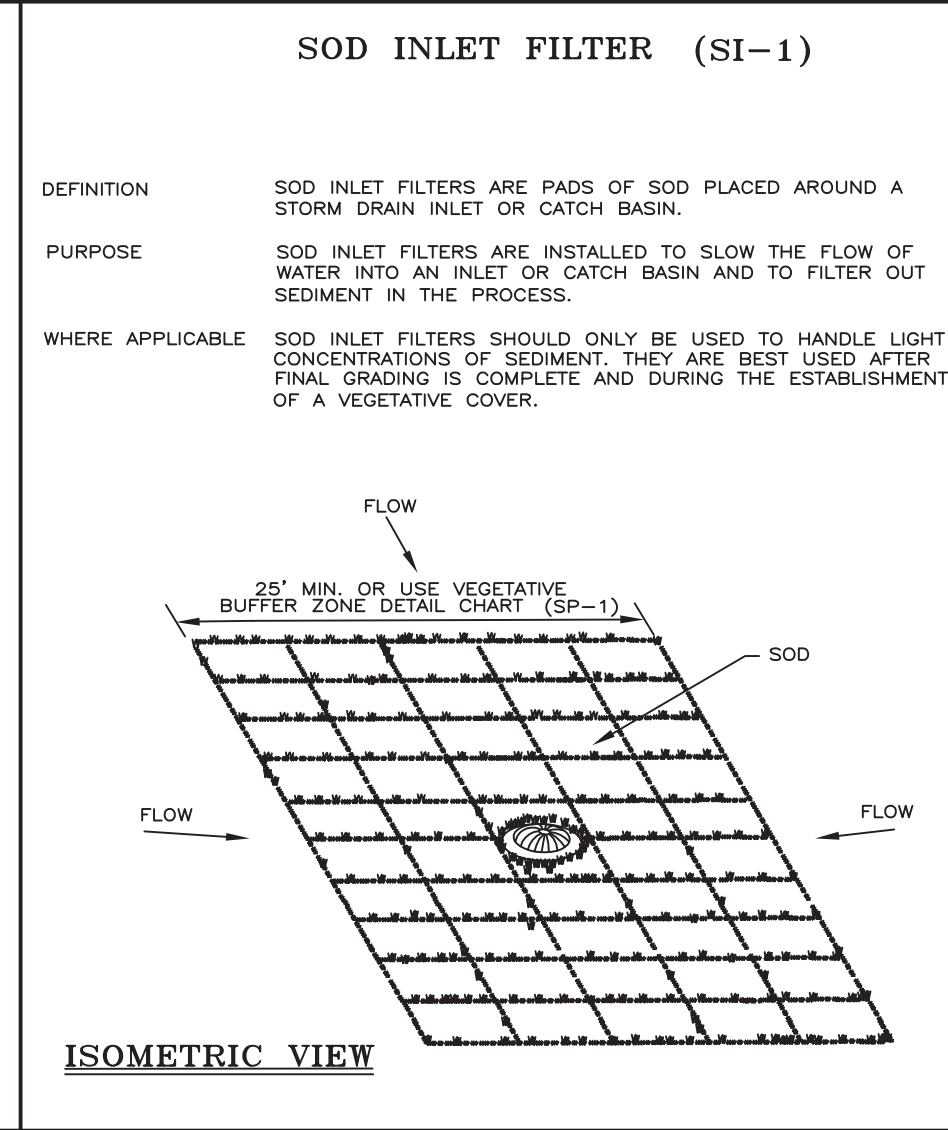
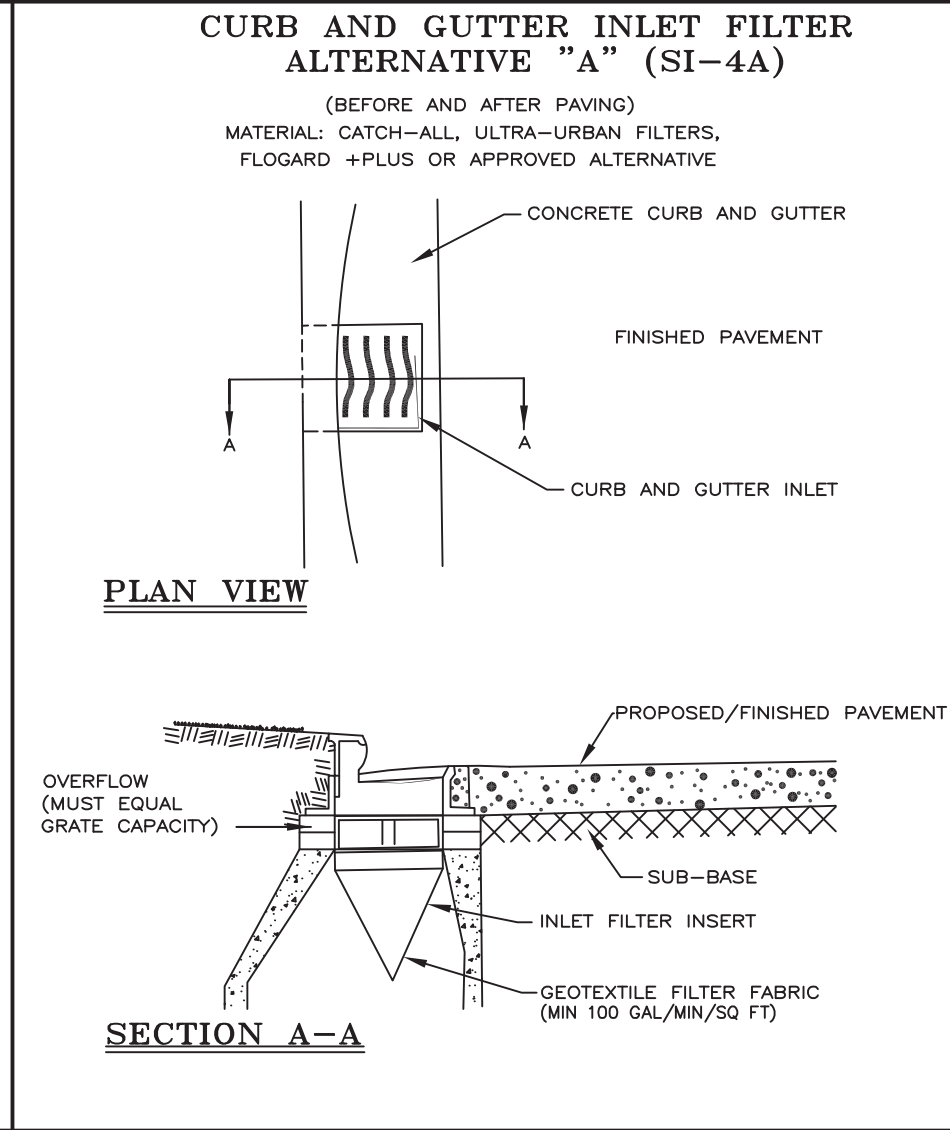
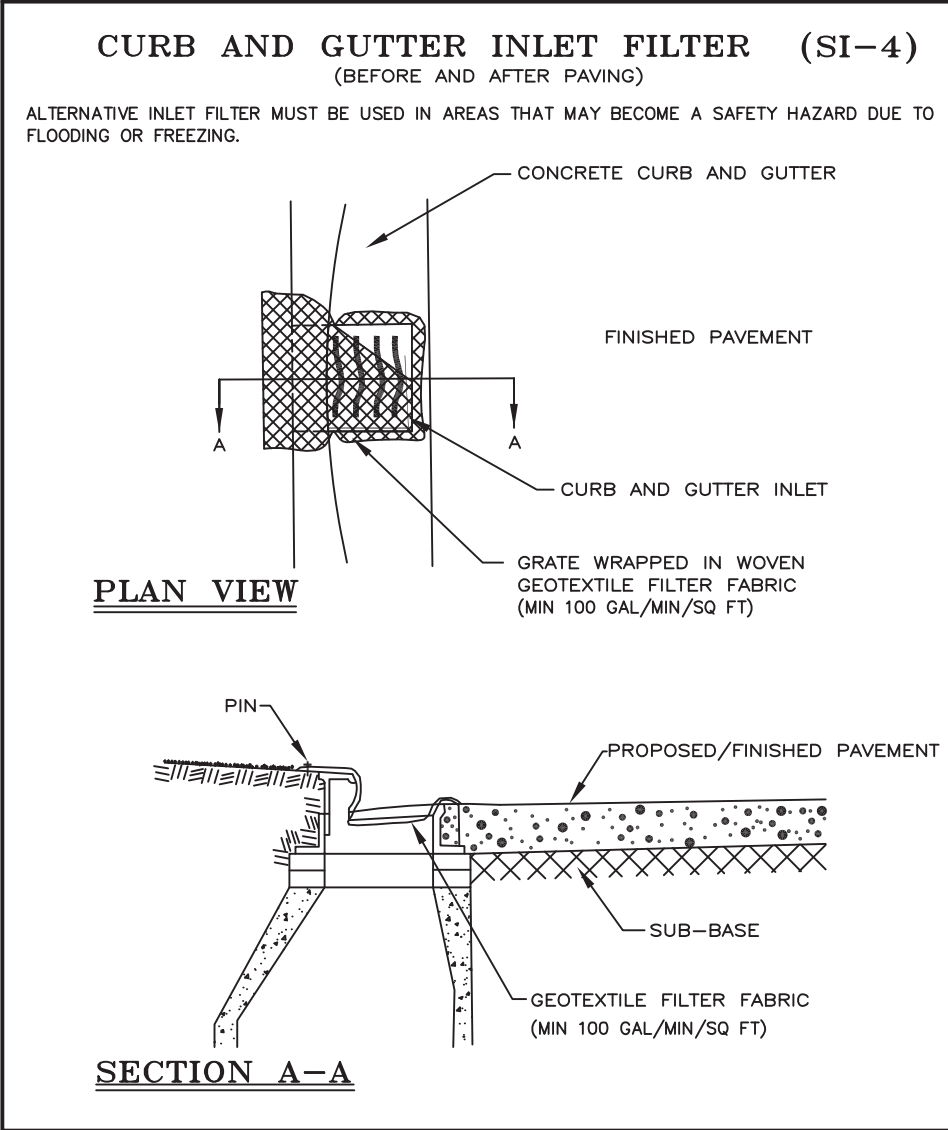
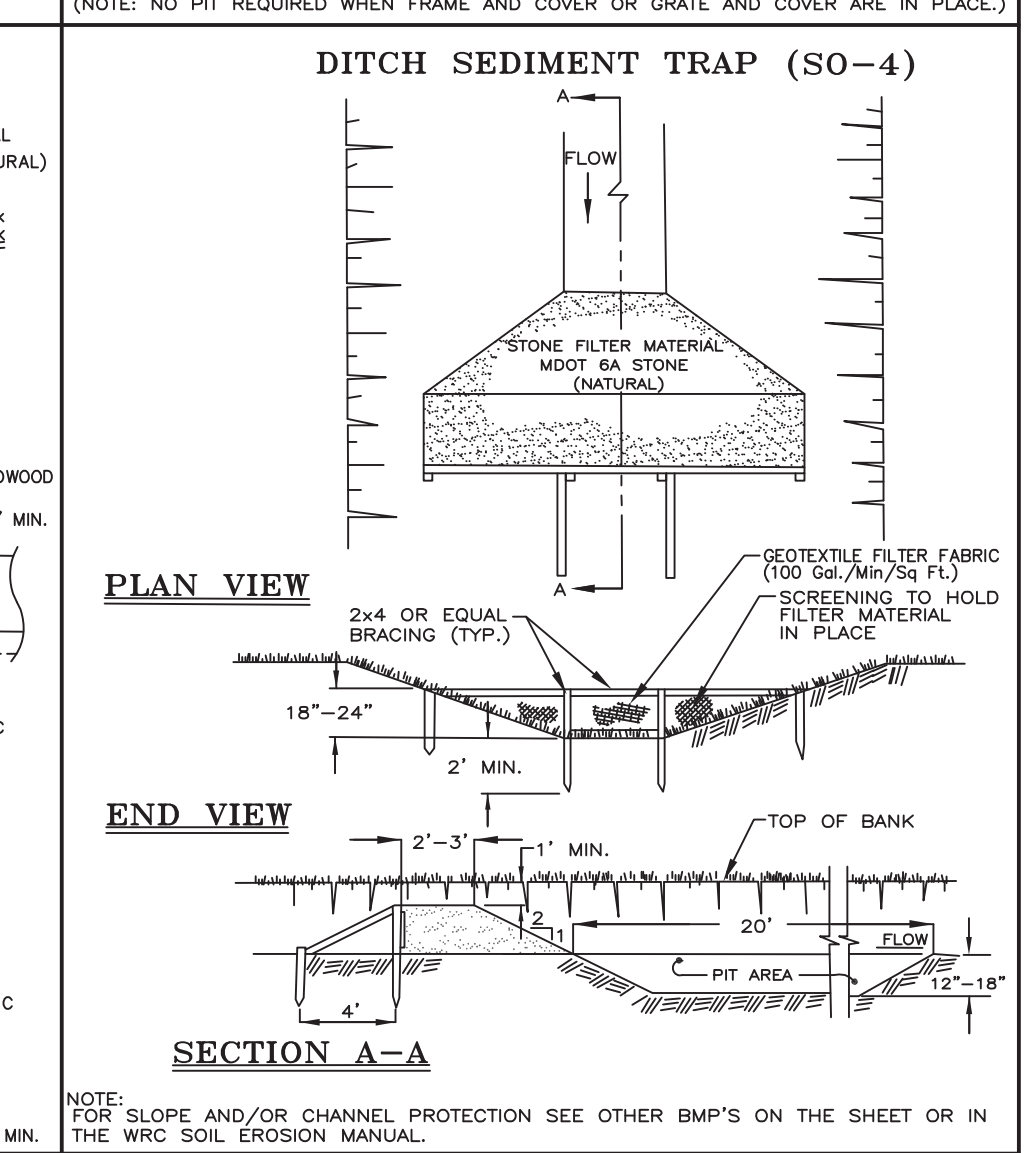
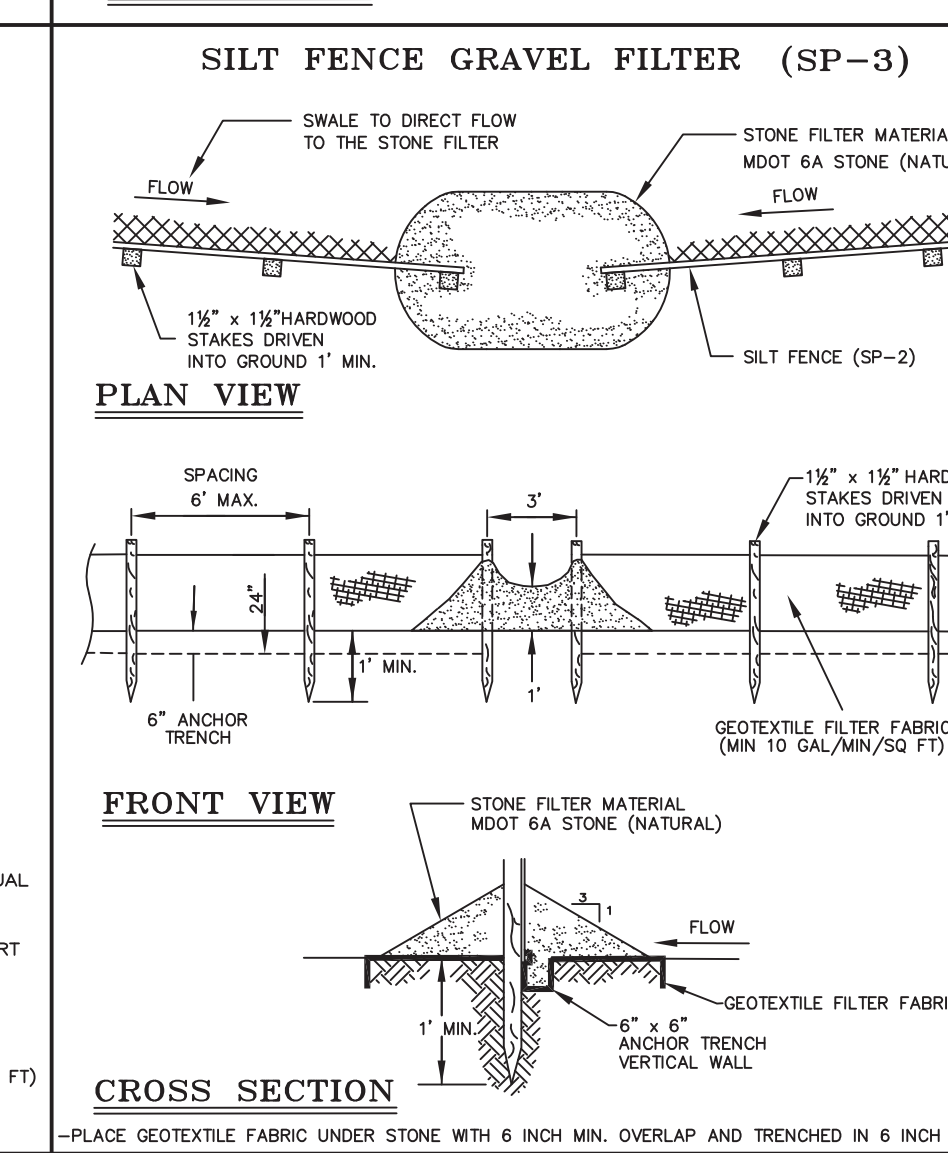
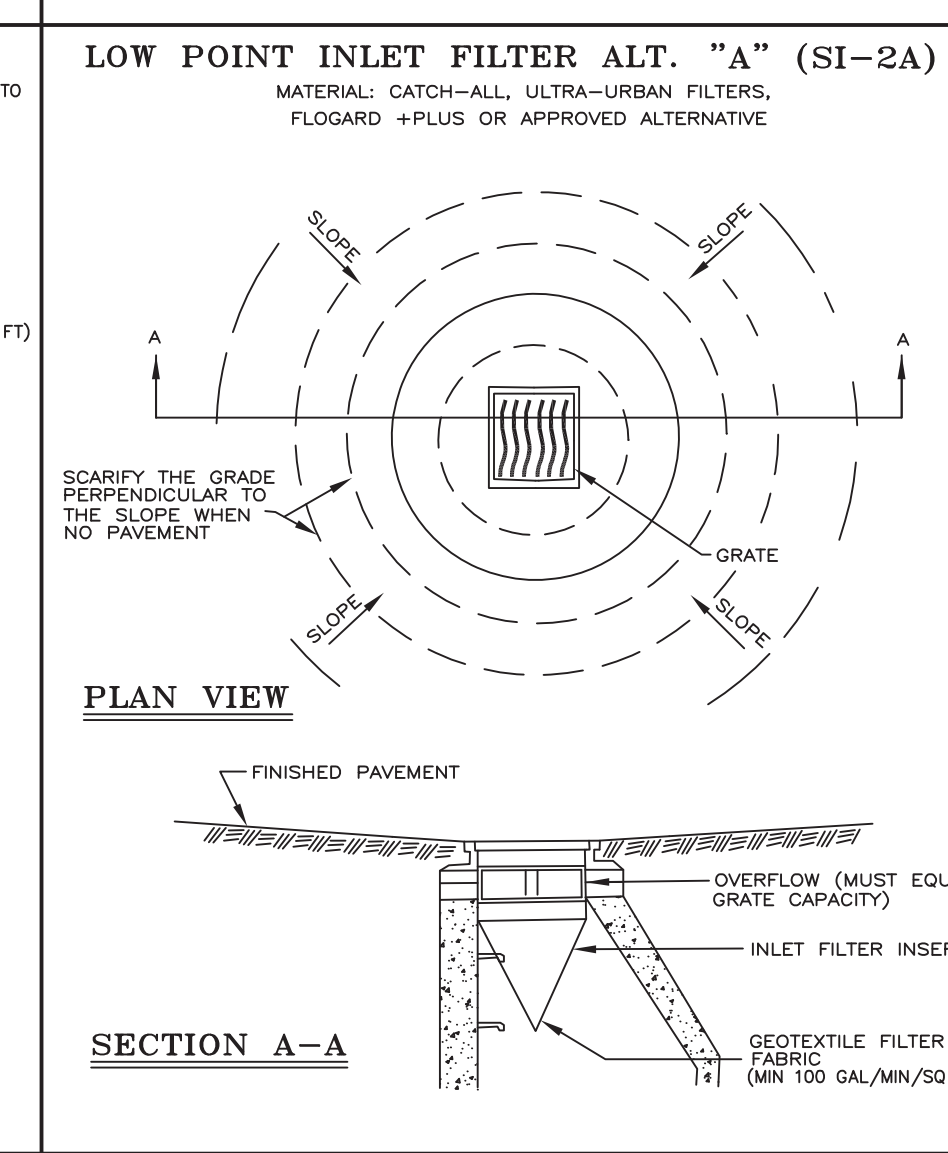
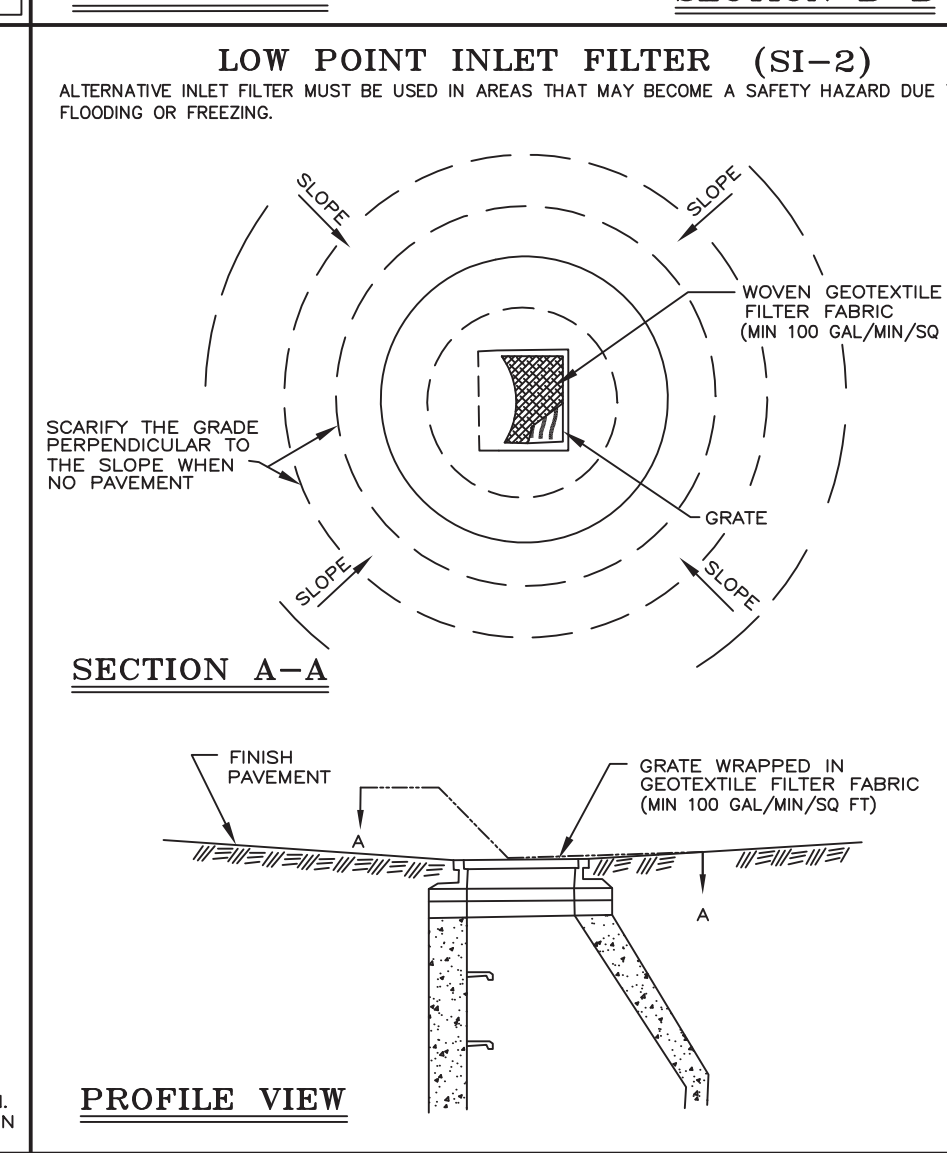
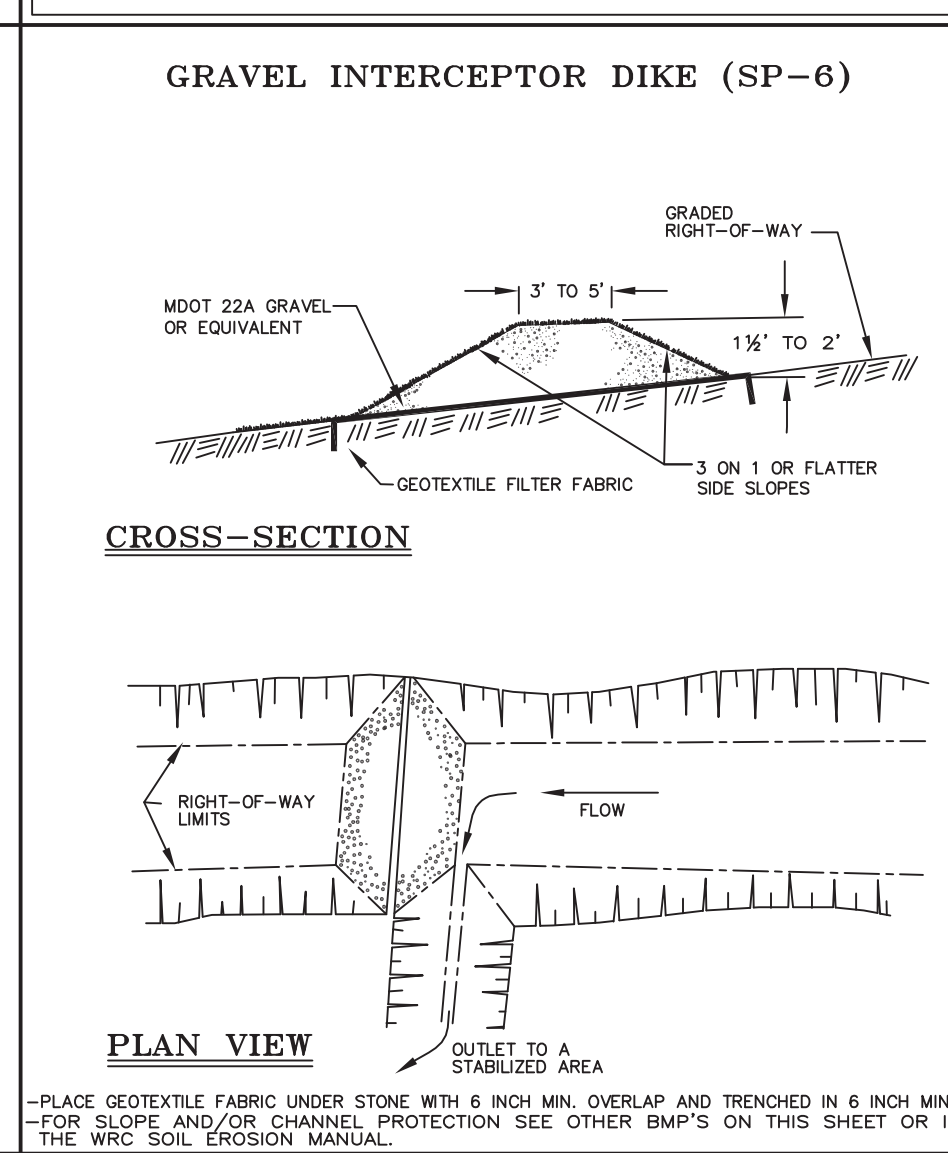
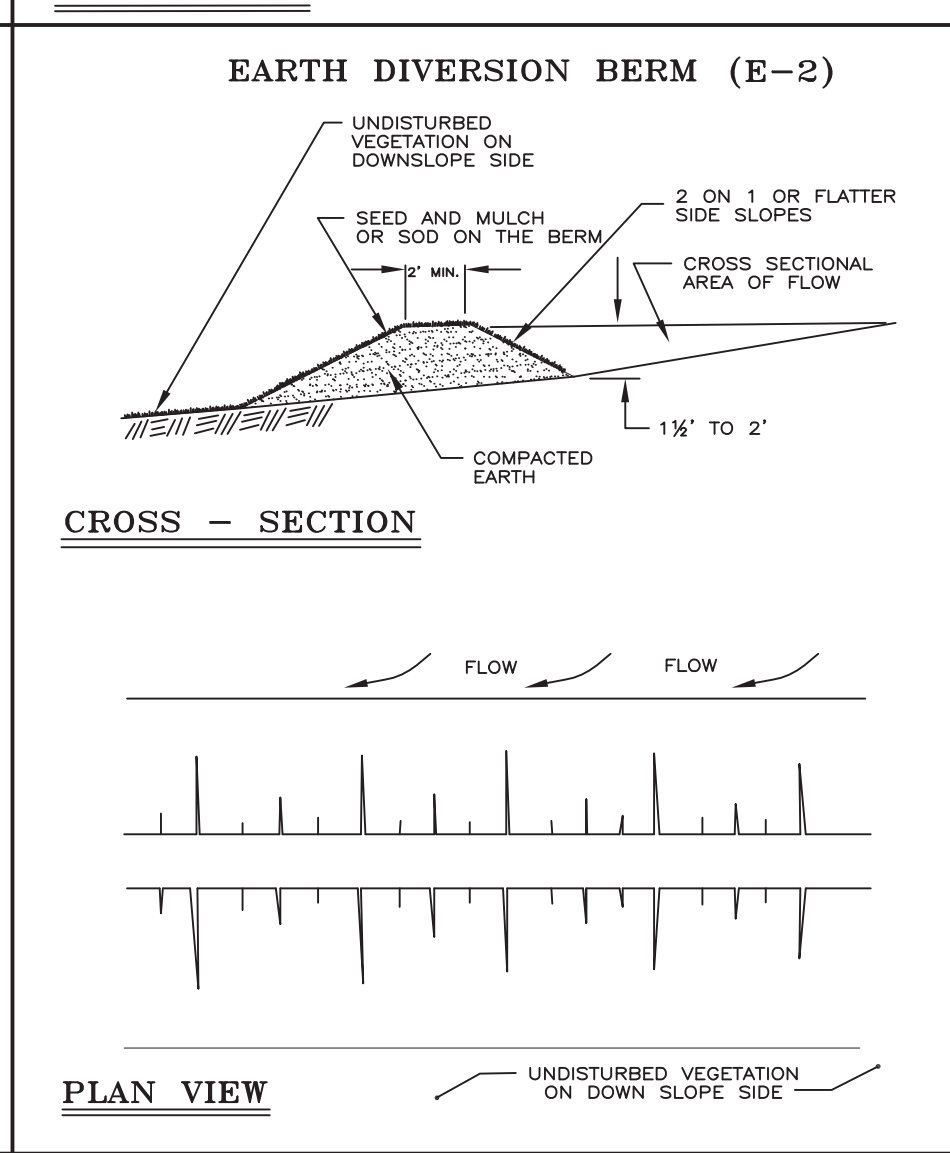
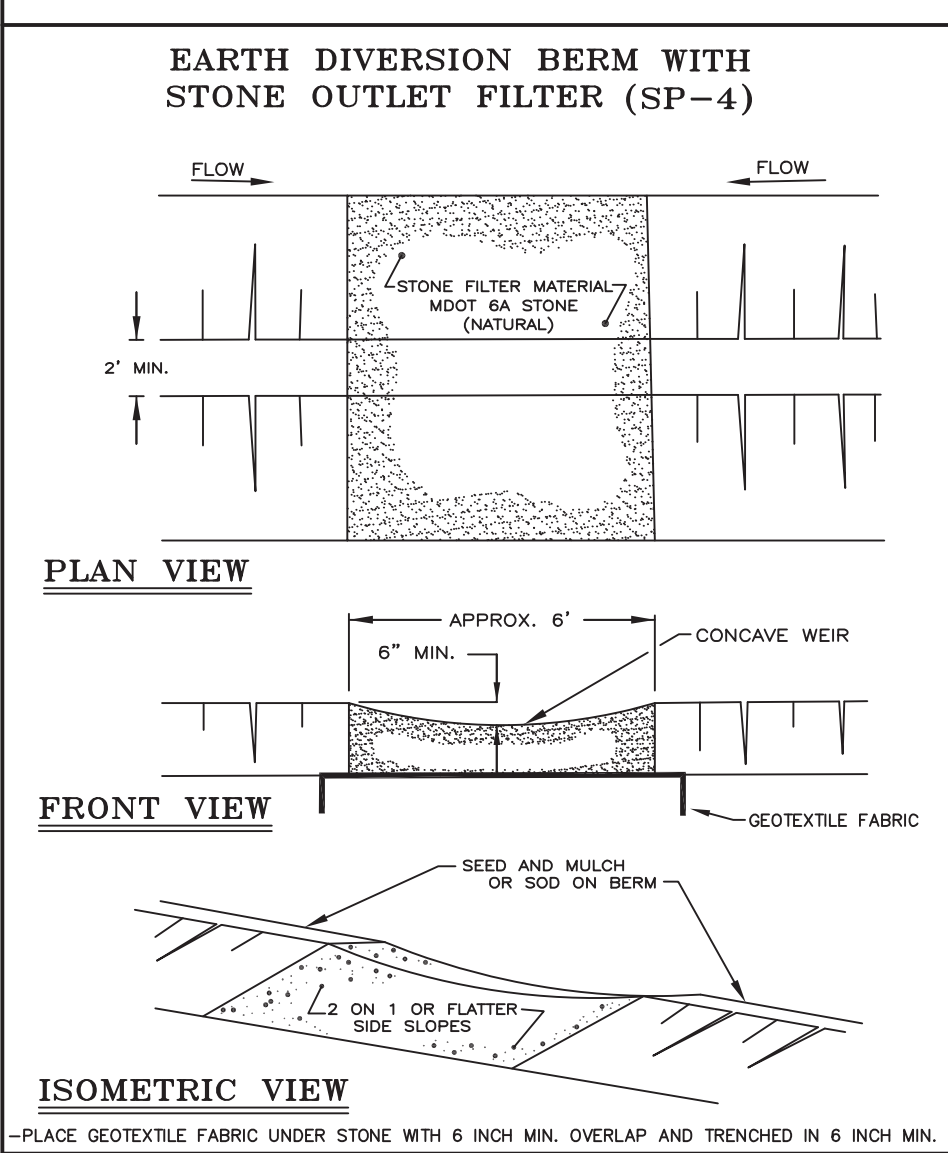
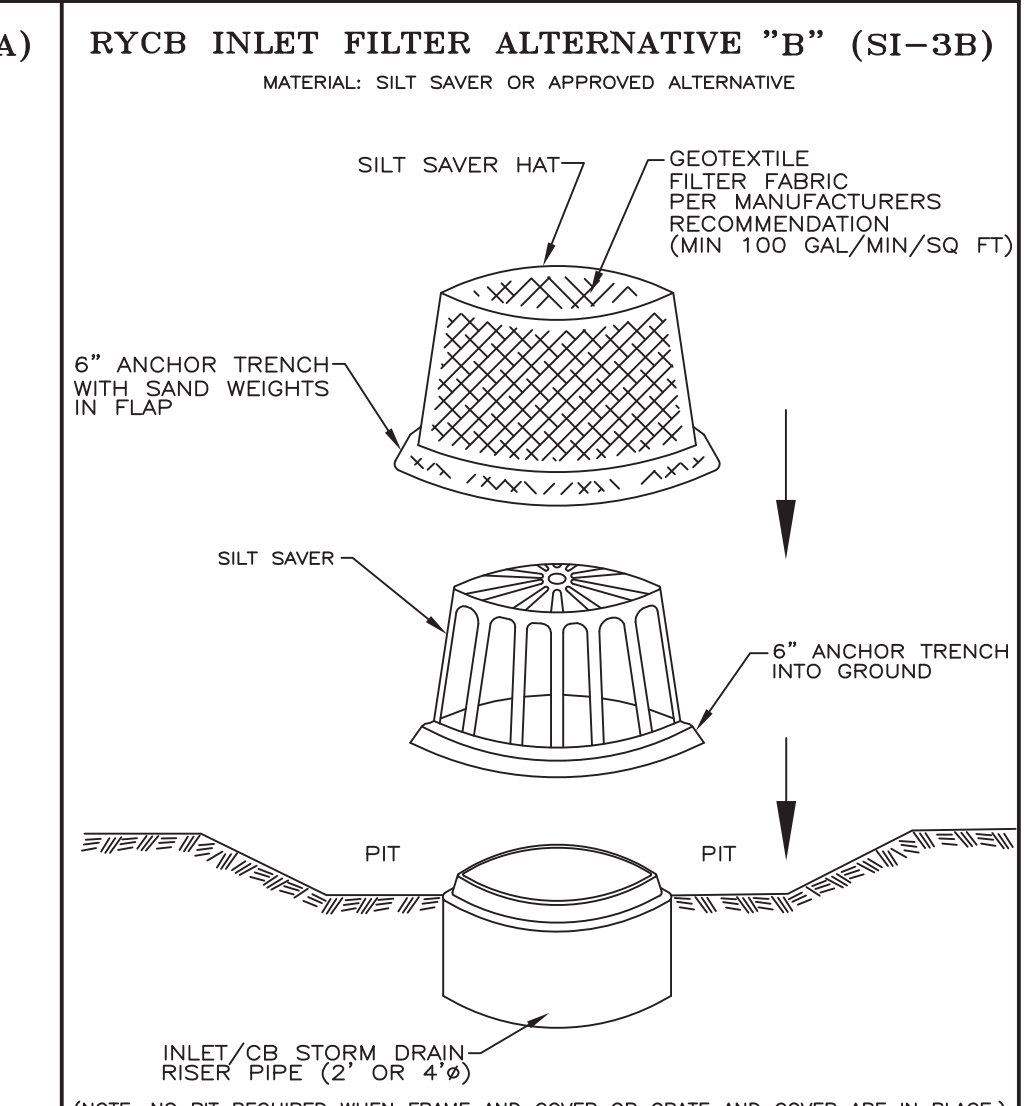
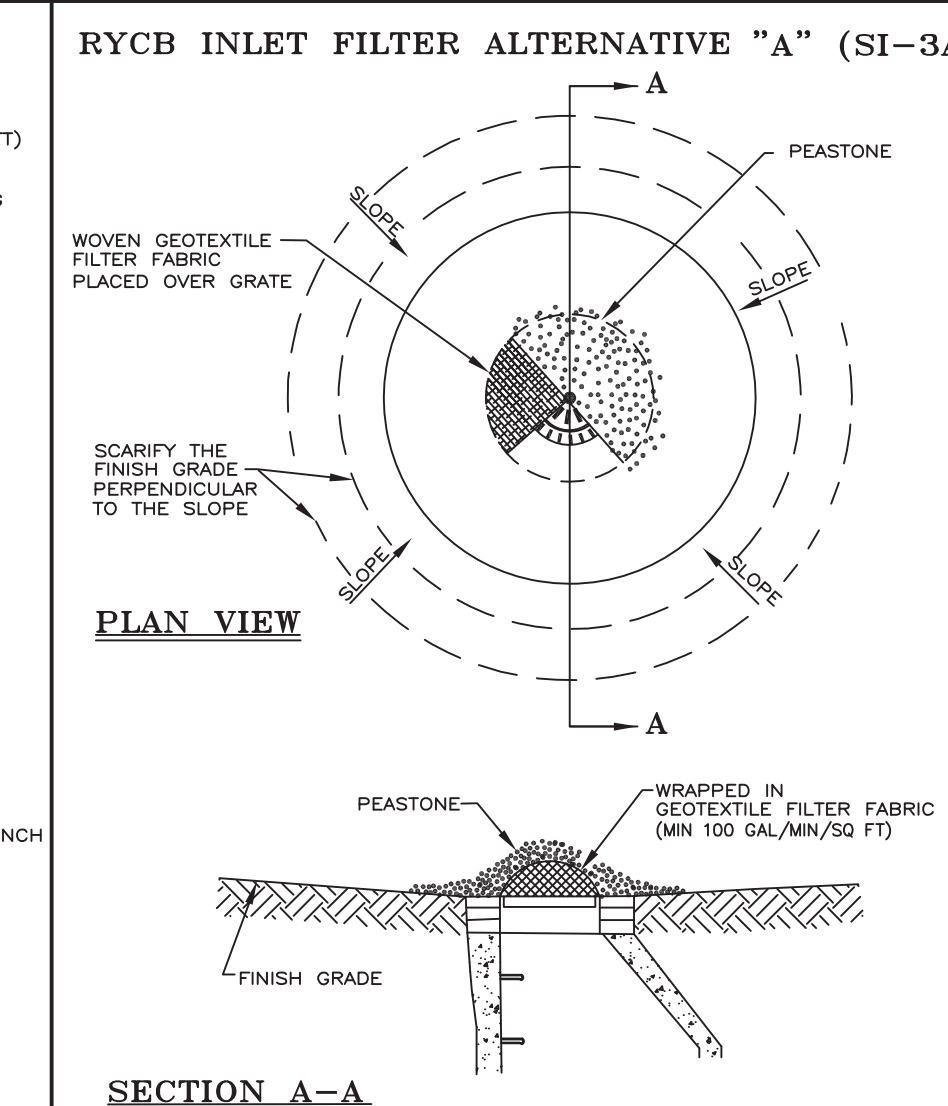
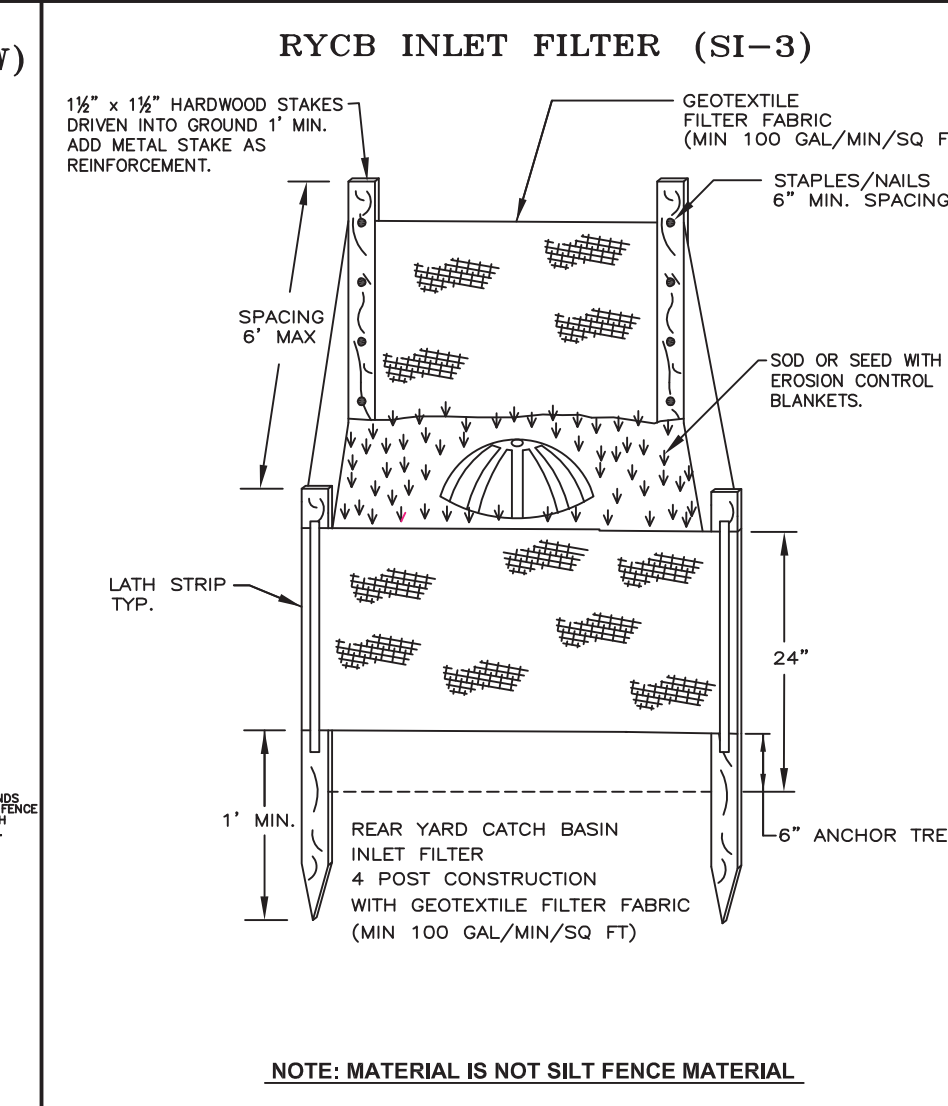
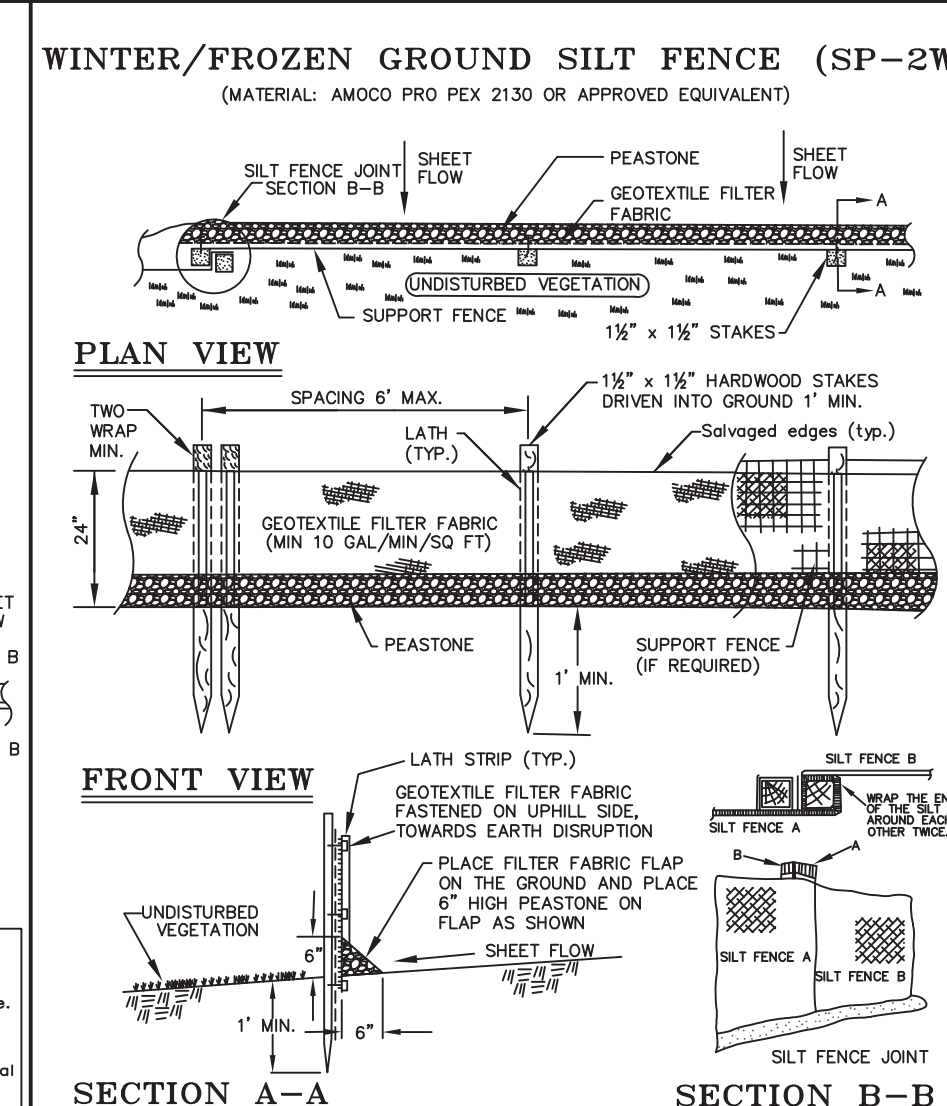
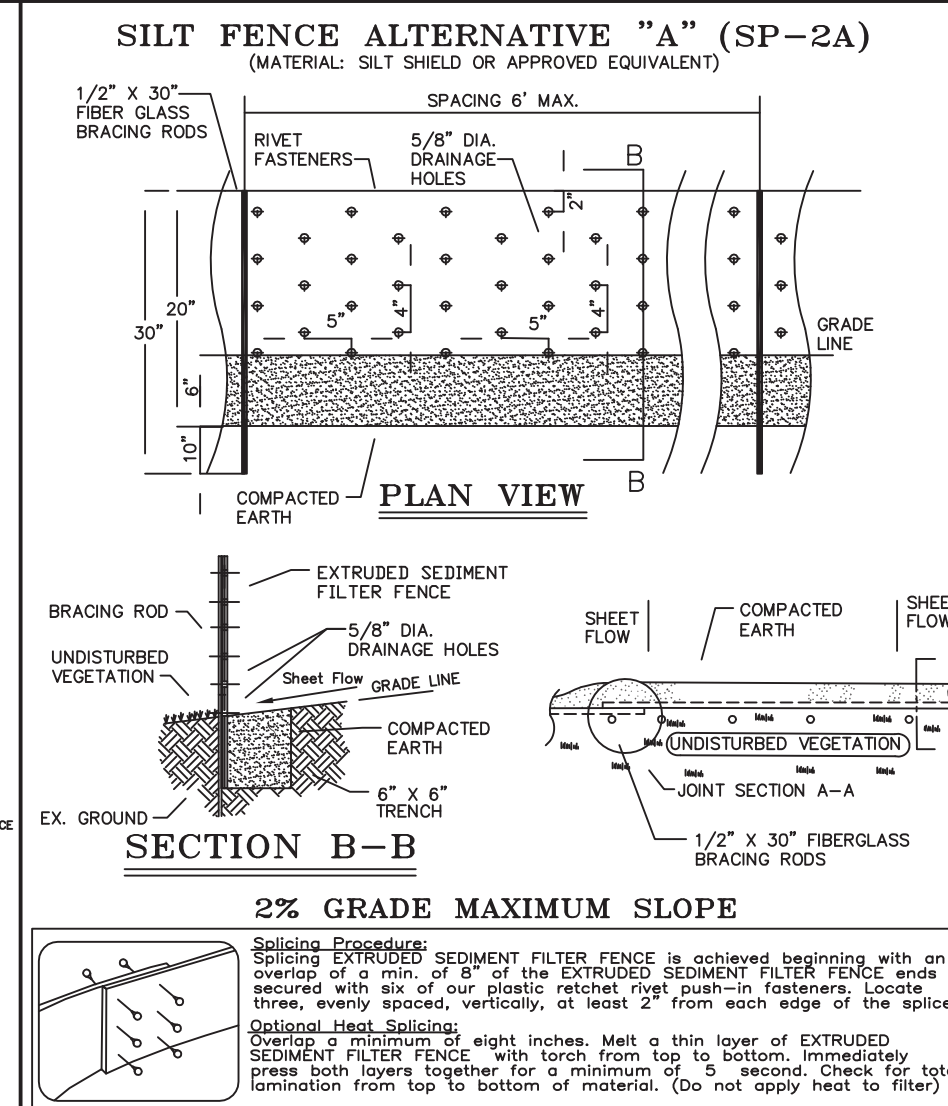
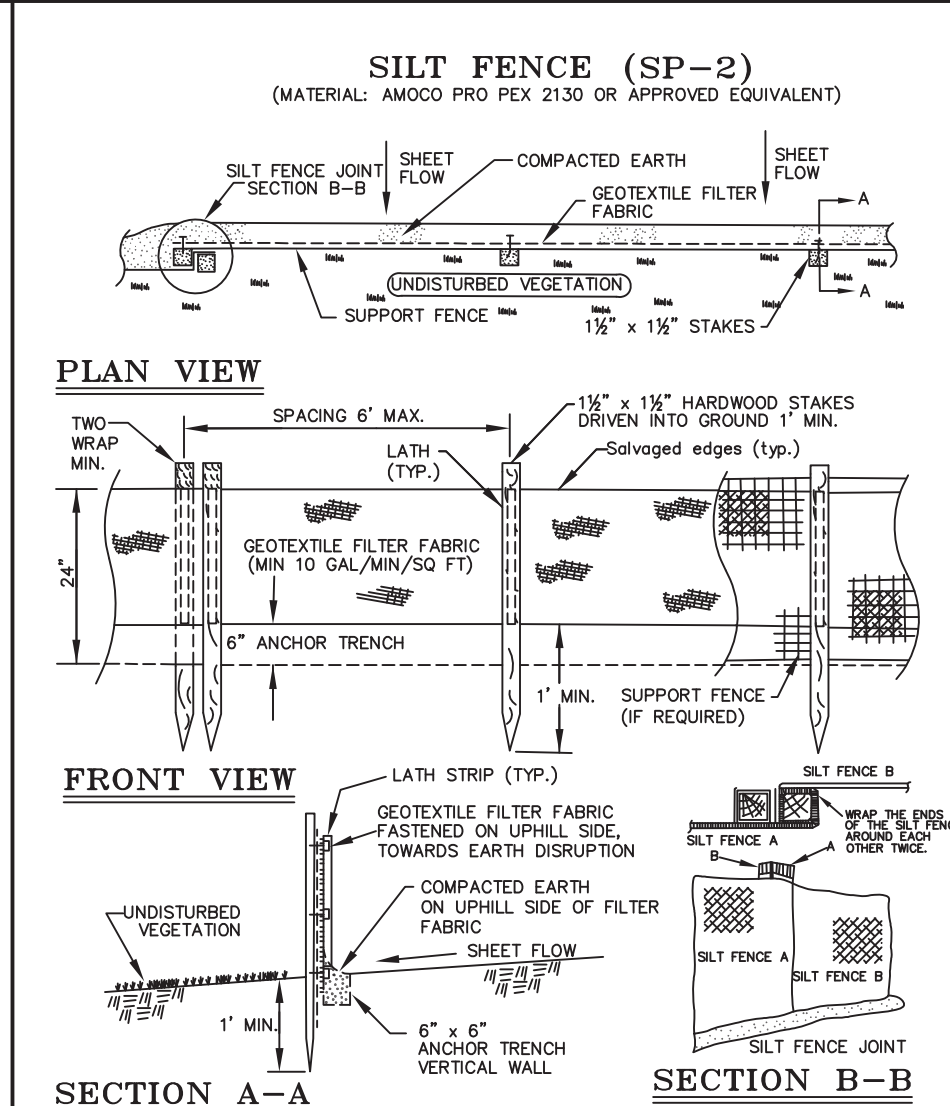
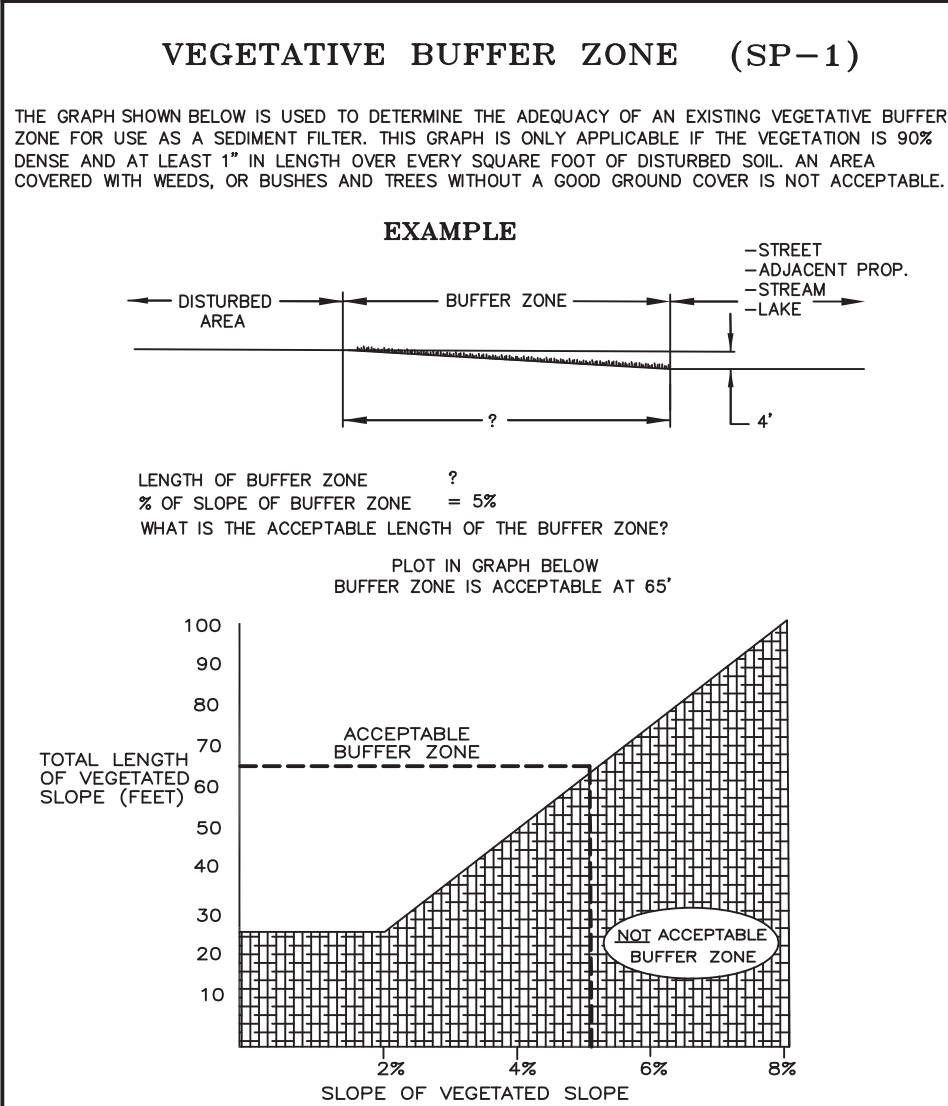
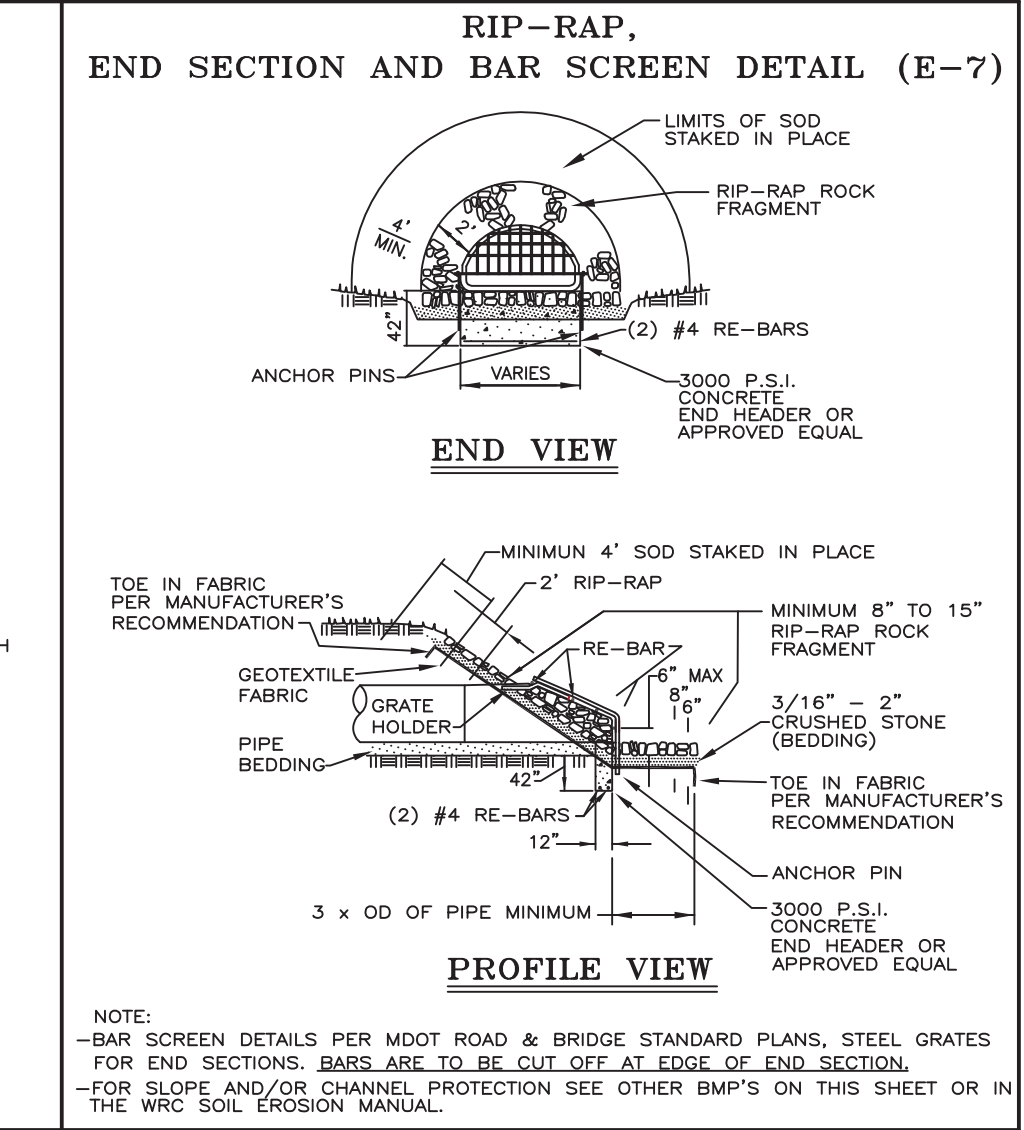
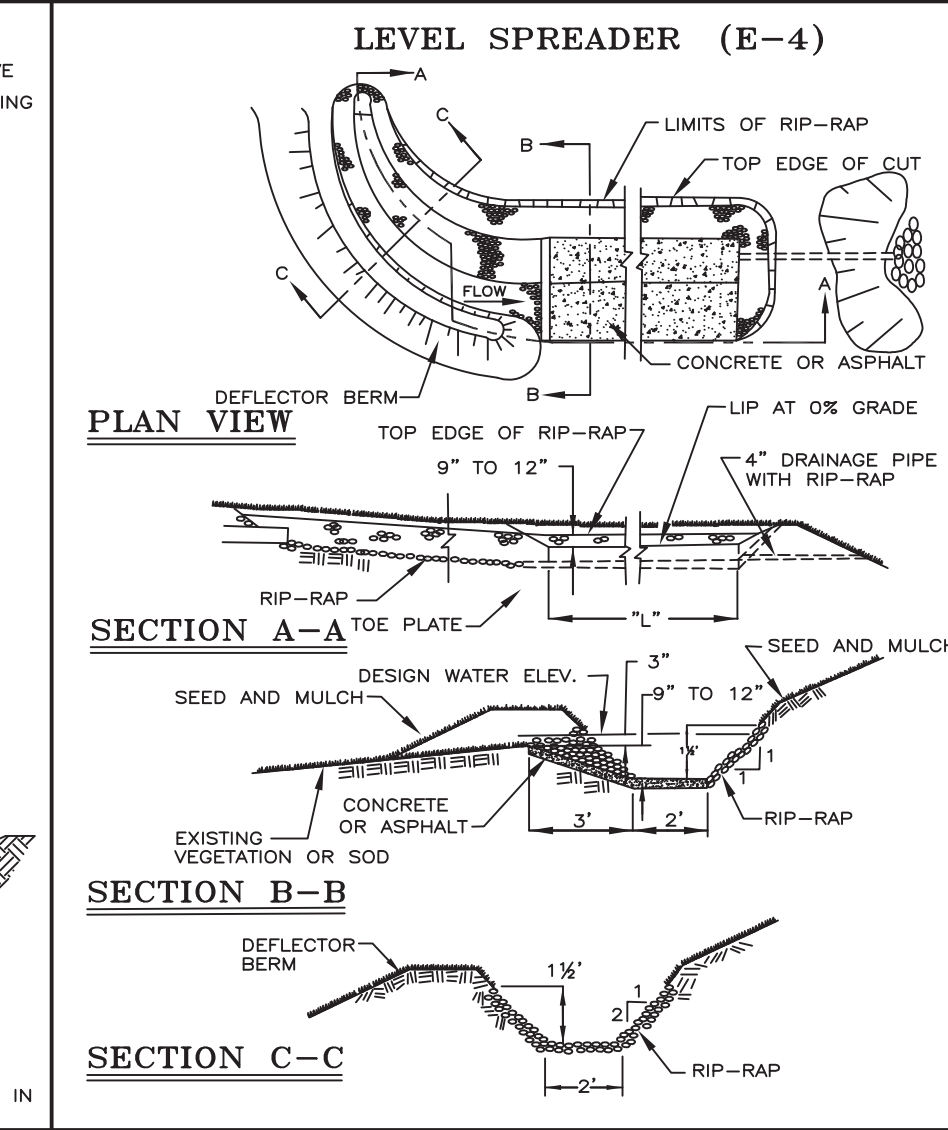
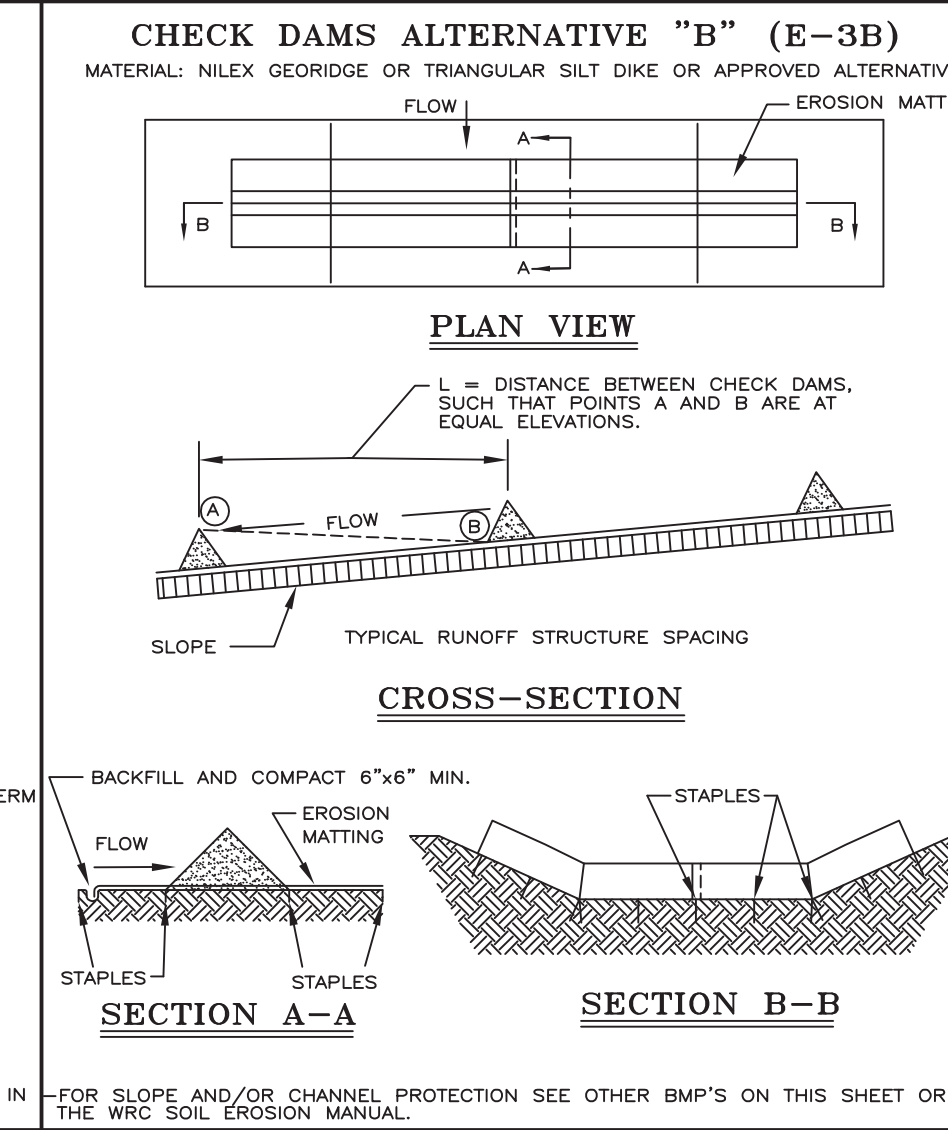
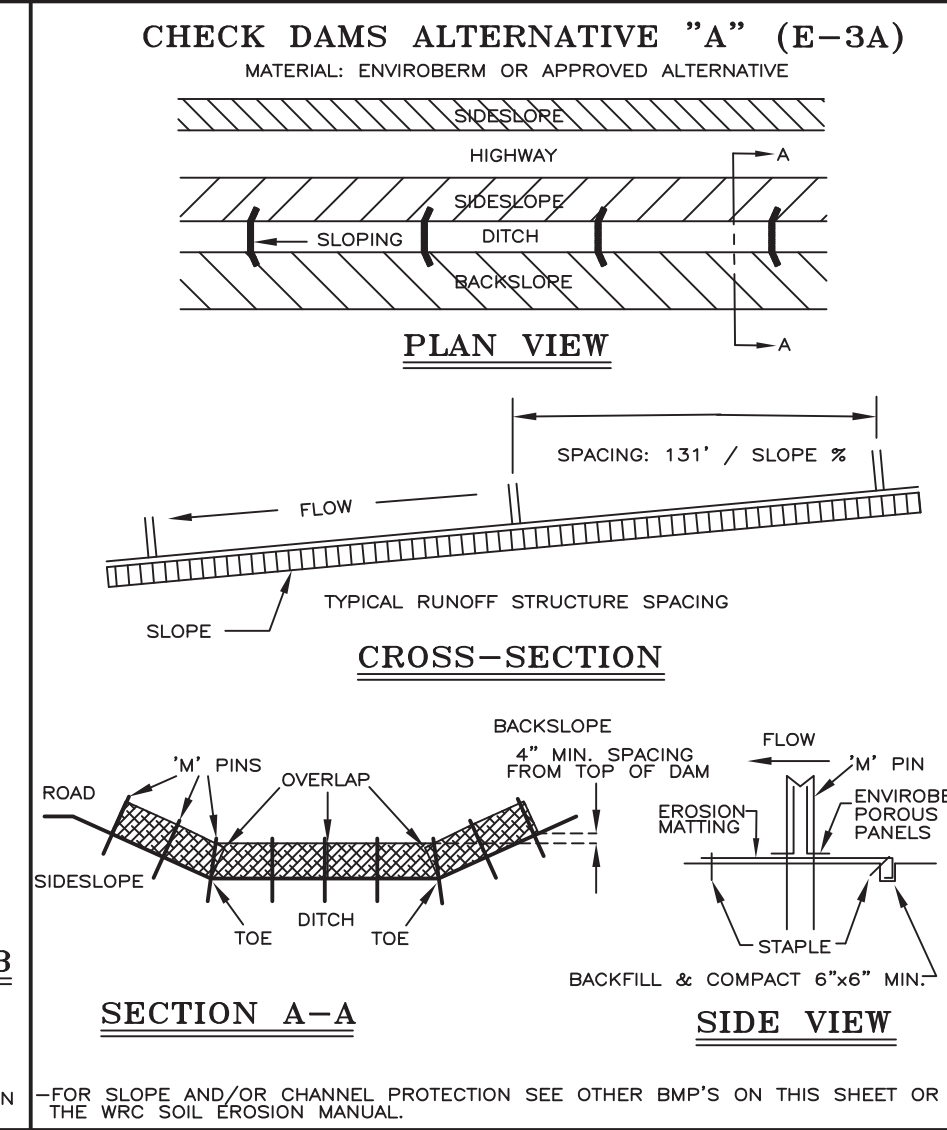
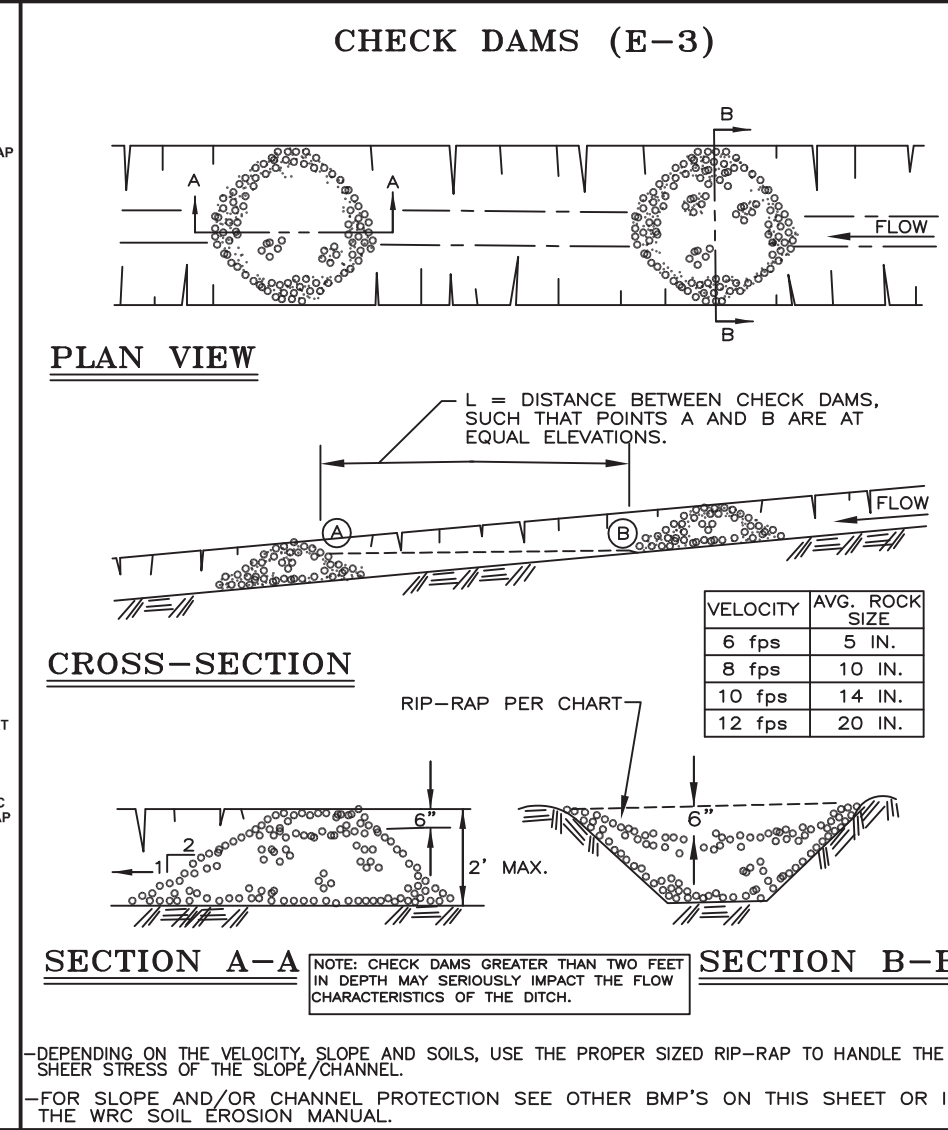
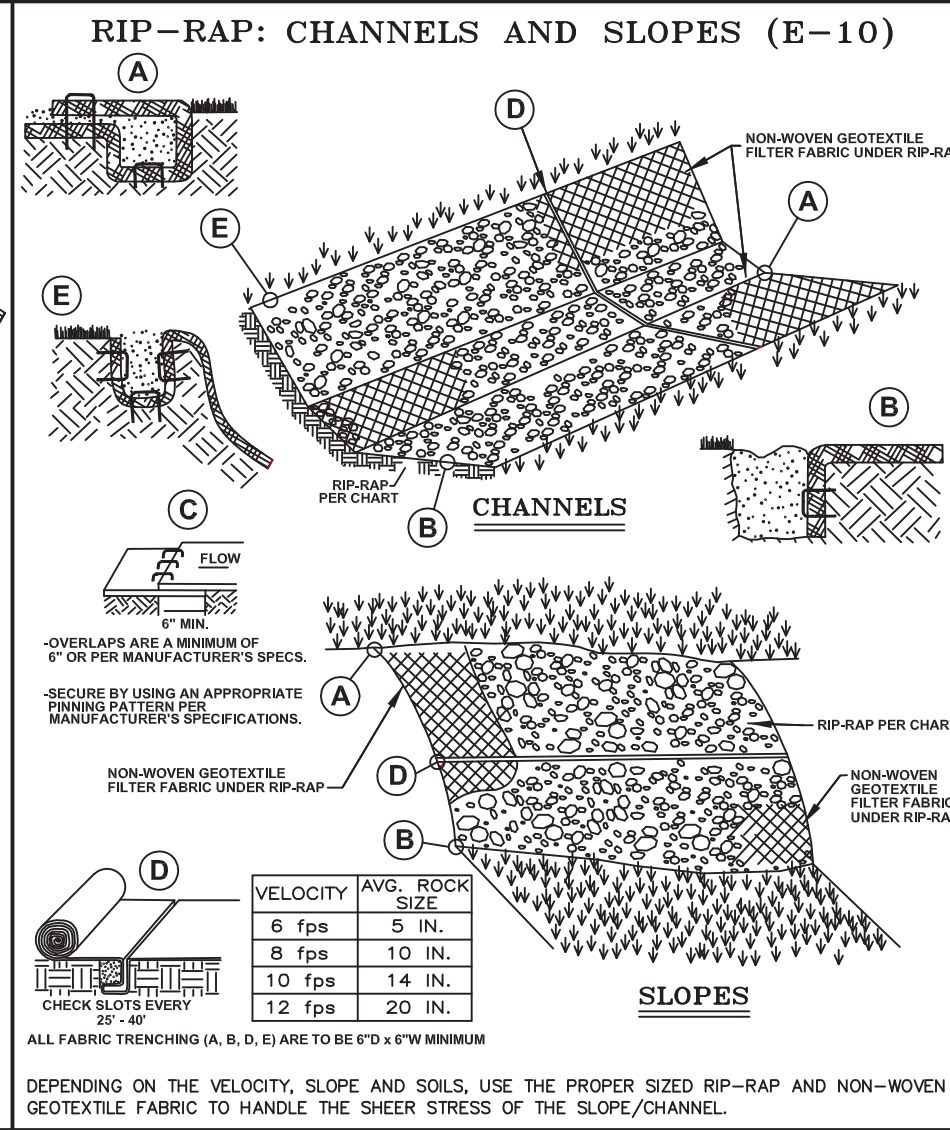
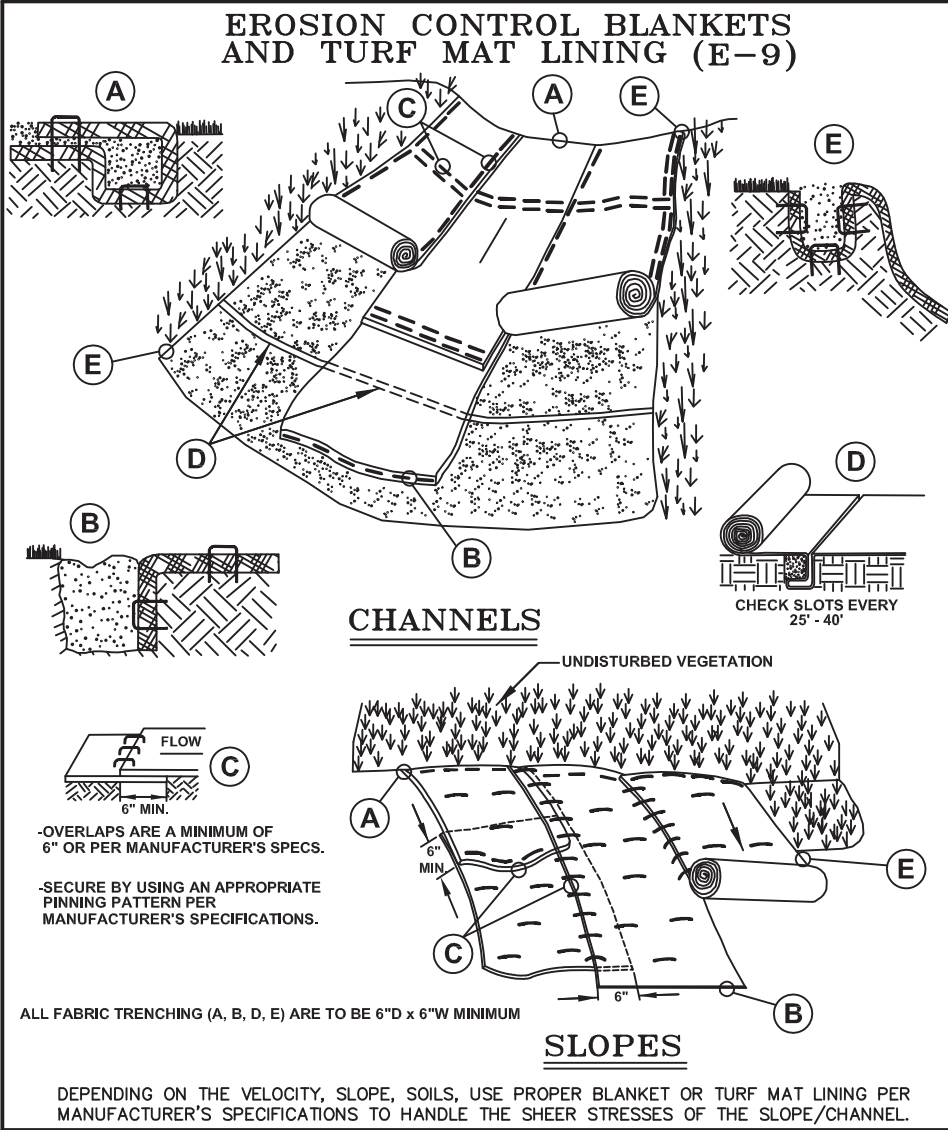
JOB NO.
DATE ISSUED
SHEET NO.

- 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.
2. 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 it's consultant in advance with 24 hour notice at 248-858-1110.
3. 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.
4. 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 fillet provided for the flow channel. A watertight bulkhead shall be provided on the downstream of the sump manhole.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.
11. No ground water, storm water, construction water, downspout drainage or weep tile drainage shall be allowed to enter any sanitary sewer installation.
12. 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.
13. 18" minimum vertical separation and 10' minimum horizontal separation must be maintained between sanitary sewer and water main.
14. 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."



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

VERT. —	
HORZ. AS NOTED	
JOB NO.	
DATE ISSUED	
09/11/97	
SHEET NO.	



NOTE:

WHILE PERFORMING WORK INVOLVING GROUNDS MAINTENANCE AND/OR THE CONSTRUCTION/MAINTENANCE OF ANY INFRASTRUCTURE, INCLUDING ROADS, WATER MAINS, SANITARY SEWERS, STORM DRAINS AND STORM WATER BEST MANAGEMENT PRACTICES (BMPs), CONTRACTORS SHALL MINIMIZE POLLUTION FROM STORM WATER RUNOFF THAT CAN AFFECT WATER QUALITY RELATED TO WORK ACTIVITIES. POLLUTANTS THAT COULD IMPAIR WATER QUALITY MAY INCLUDE FUEL, GREASE AND OIL, NUTRIENTS, BACTERIA AND PATHOGENS, LITTER AND DEBRIS, AND SOIL EROSION AND SEDIMENTATION. APPLICABLE BMPs SHALL BE IMPLEMENTED BY THE CONTRACTOR TO THE MAXIMUM EXTENT PRACTICABLE TO PROTECT WATER QUALITY AND WILDLIFE HABITAT.

SOIL EROSION AND SEDIMENTATION CONTROL DETAILS

REVISION BLOCK

Rev.	By	Desc.
1	WRC	DESIGNED
2	WRC	FOR CONSTRUCTION APPROVAL / NAME CHANGES
3	WRC	FOR CONSTRUCTION APPROVAL / NAME CHANGES
4	WRC	FOR CONSTRUCTION APPROVAL / NAME CHANGES

ORIG. DATE: 01/01/01

SCALE: NONE

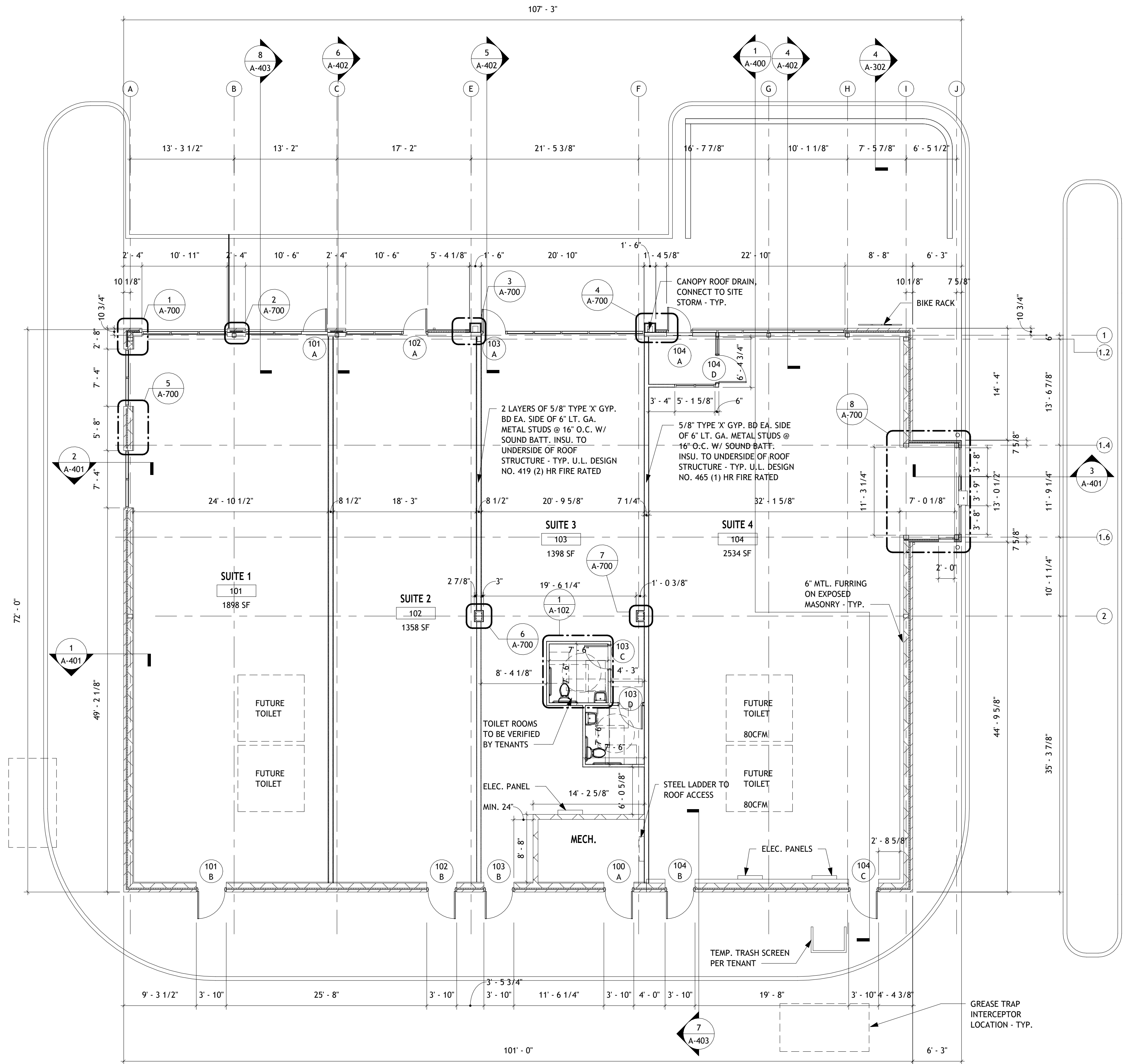
DESIGNED BY: WRC

DRAWN BY: Mapping

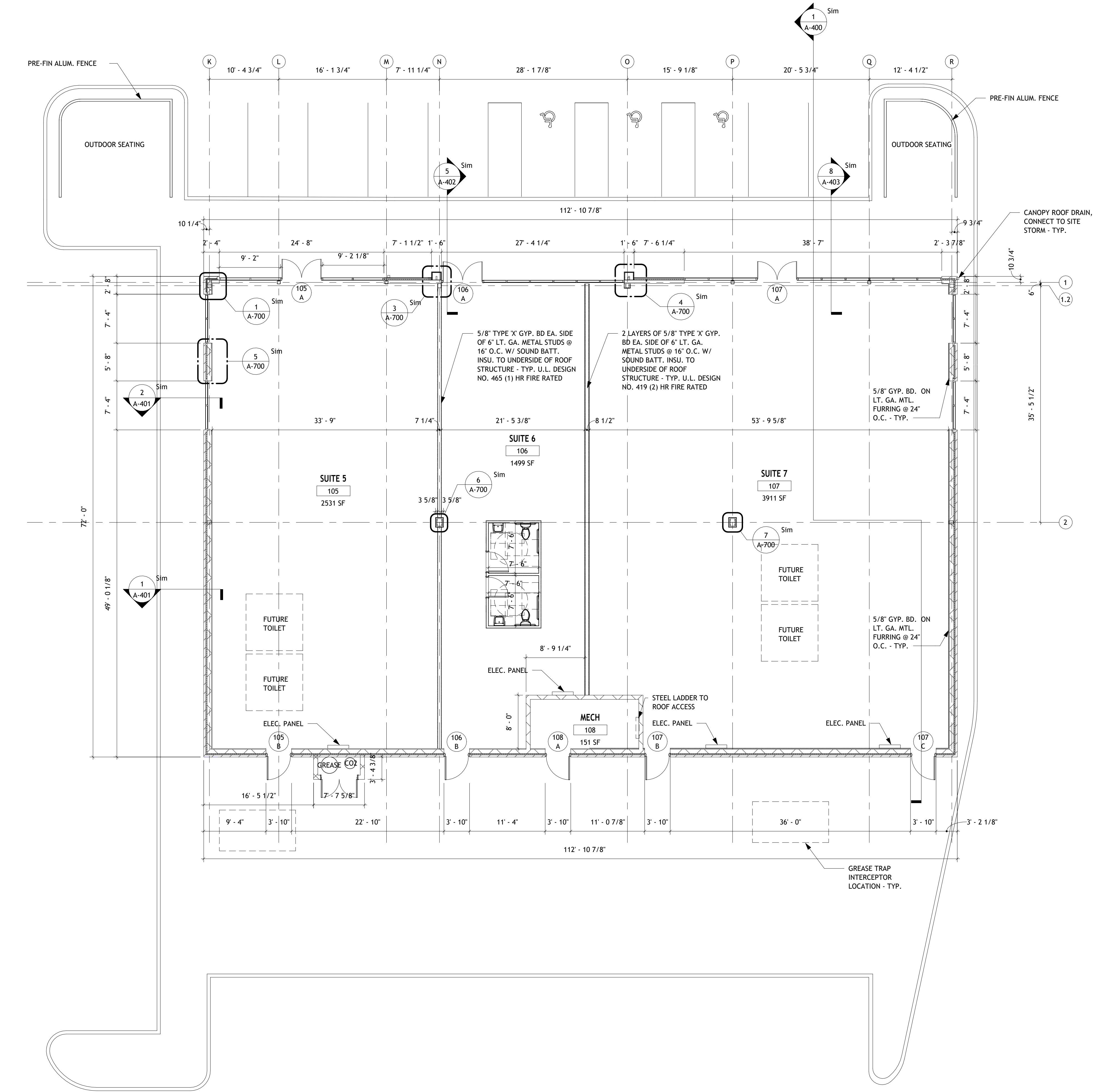
WRC WATER RESOURCES COMMISSIONER

ONE PUBLIC WORKS DRIVE, BLDG 95 WEST WATERFORD, MICHIGAN 48320-1907

SHEET NO.: 1 of 1



FLOOR PLAN - WEST BUILDING
SCALE: 1/8" = 1'-0"



FLOOR PLAN - EAST BUILDING
SCALE: 1/8" = 1'-0"



2 SOUTH ELEVATION - WEST BUILDING

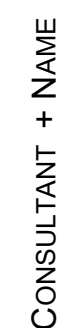
SCALE: 1/8" = 1'-0"

Dimensions and Levels:

- T.O. PARAPET: 120'-0"
- DECK BRG.: 116'-8"
- T.O. BRICK MASONRY: 112'-0"
- T.O. OPEN: 107'-4"
- FIN. FLOOR: 100'-0"
- BOT. OF FTG.: 96'-6" (MIN.)

Labels and Notes:

- A4
- CJ
- A3
- CJ
- CJ
- MECH. UNITS SCREEN PER TWP. REQUIREMENTS - TYP.
- EXTERIOR WALL MOUNT CUT-OFF LIGHT FIXTURE LITHONIA WEDGE-1' - TYP.
- PRE-ENG. CANOPY
- A7
- CONC. BOLLARD - TYP.
- A2
- CANOPY ROOF DRAIN, CONNECT TO SITE STORM - TYP.
- GRADE VARIES SEE CIVIL DWGS. - TYP.
- REINF. CONC. FOOTINGS, SEE STRUCT. DWGS.
- GRADE VARIES SEE CIVIL DWGS. - TYP.
- A5



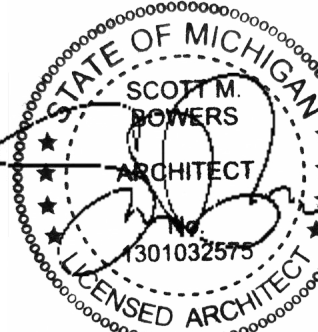
PROJECT + INFORMATION
WHITE LAKE
RETAIL
9109 HIGHLAND RD

PROJECT + NUMBER

23-306

ISSUE + DATE

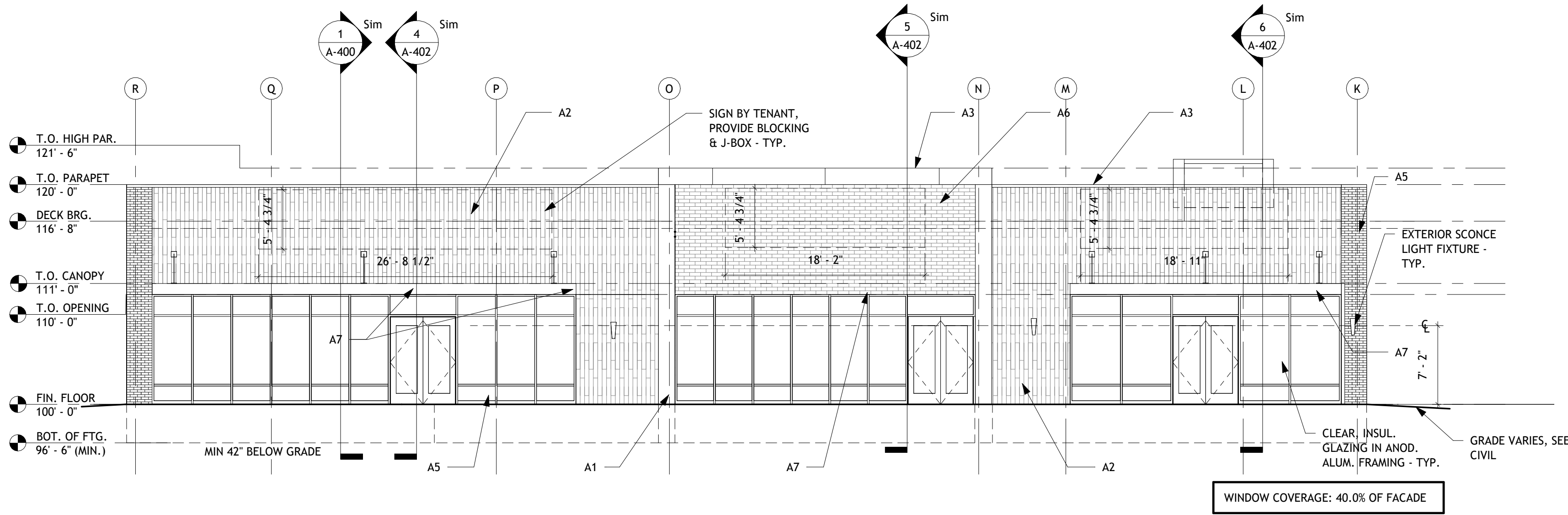
24 JULY 2024	REV
21 AUG 2024	REV
17 OCT 2024	SPLAN
14 NOV 2024	BID
19 DEC 2024	SPLAN
13 MAR 2025	SPLAN
29 MAY 2025	SPLAN



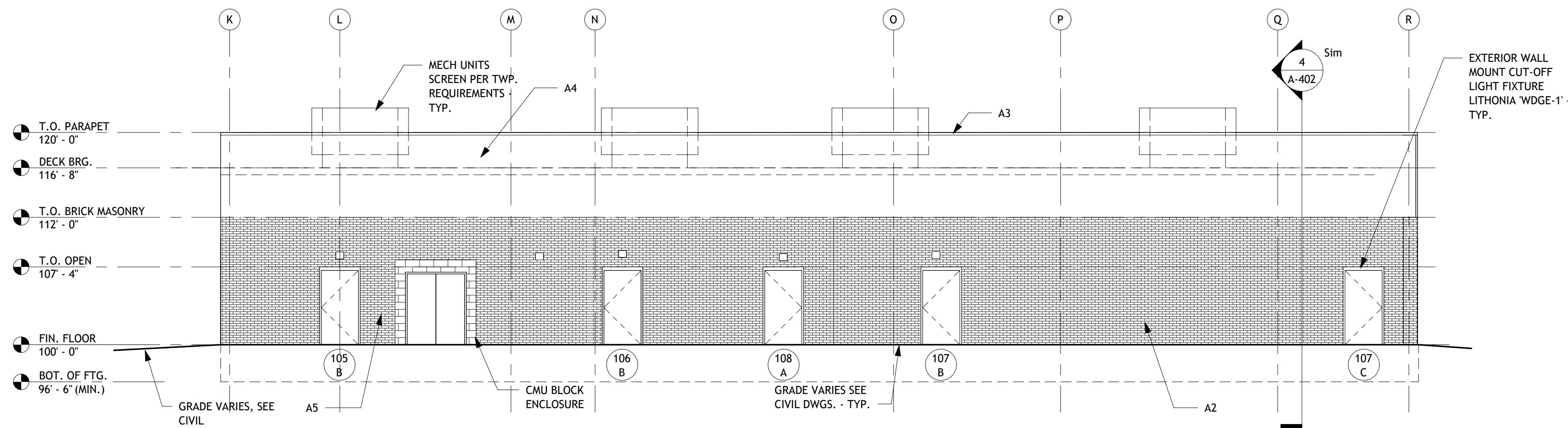
SHEET + TITLE
ELEVATIONS - WEST
BUILDING

SHEET + NUMBER

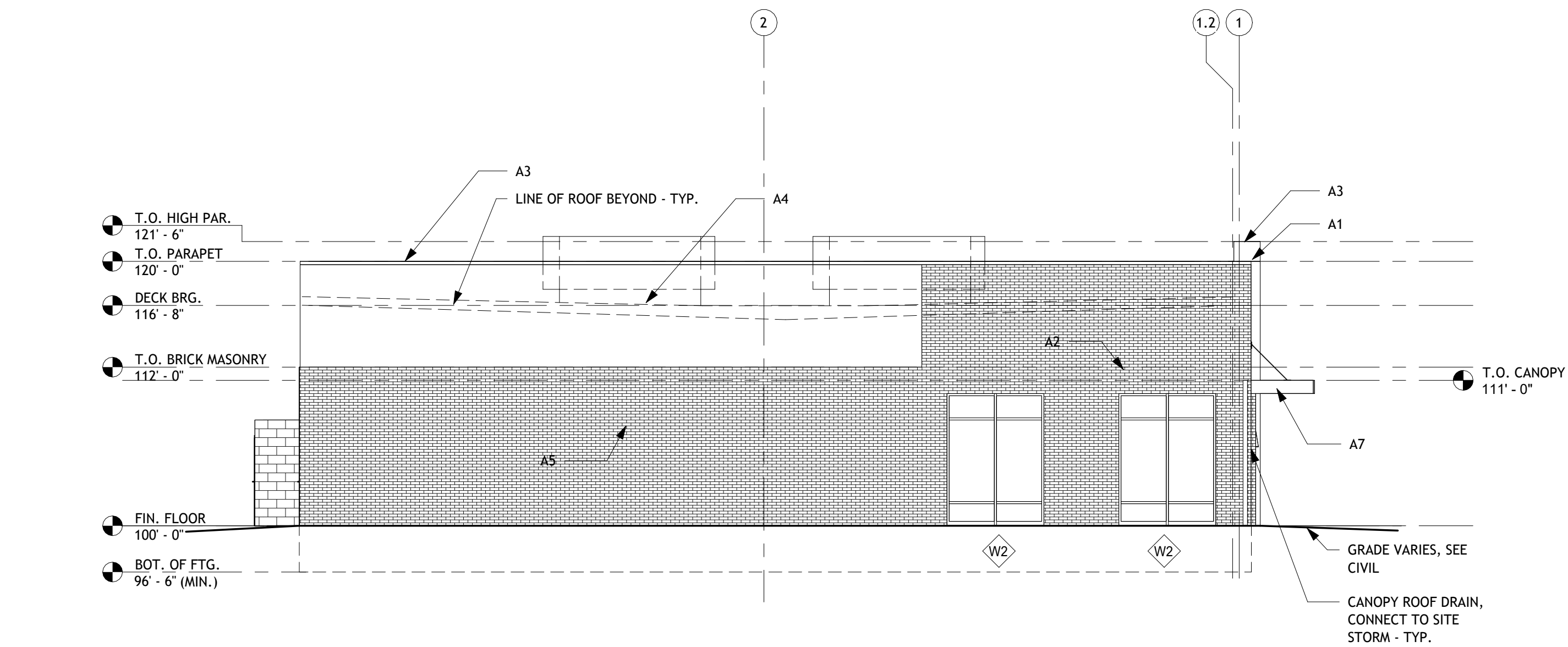
A-300



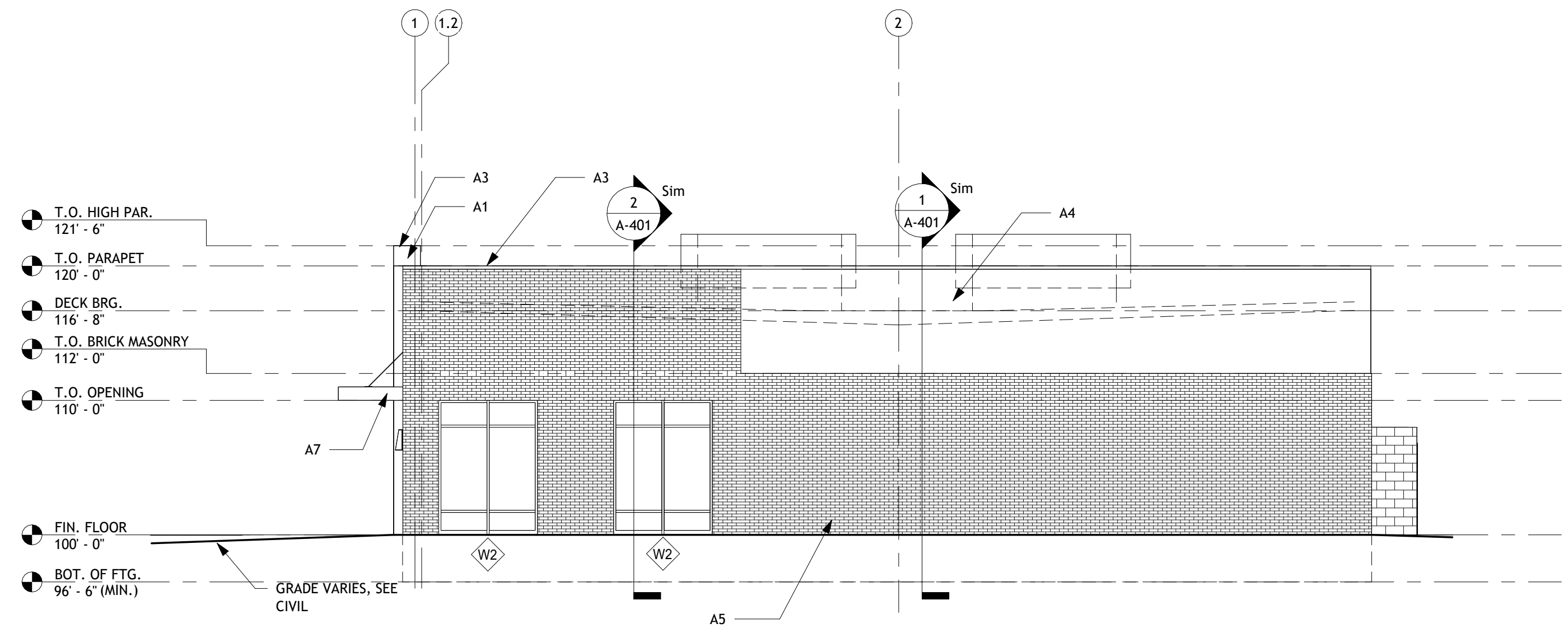
1 NORTH ELEVATION - EAST BUILDING
A-301 SCALE: 1/8" = 1'-0"



2 SOUTH ELEVATION - EAST BUILDING
A-301 SCALE: 1/8" = 1'-0"

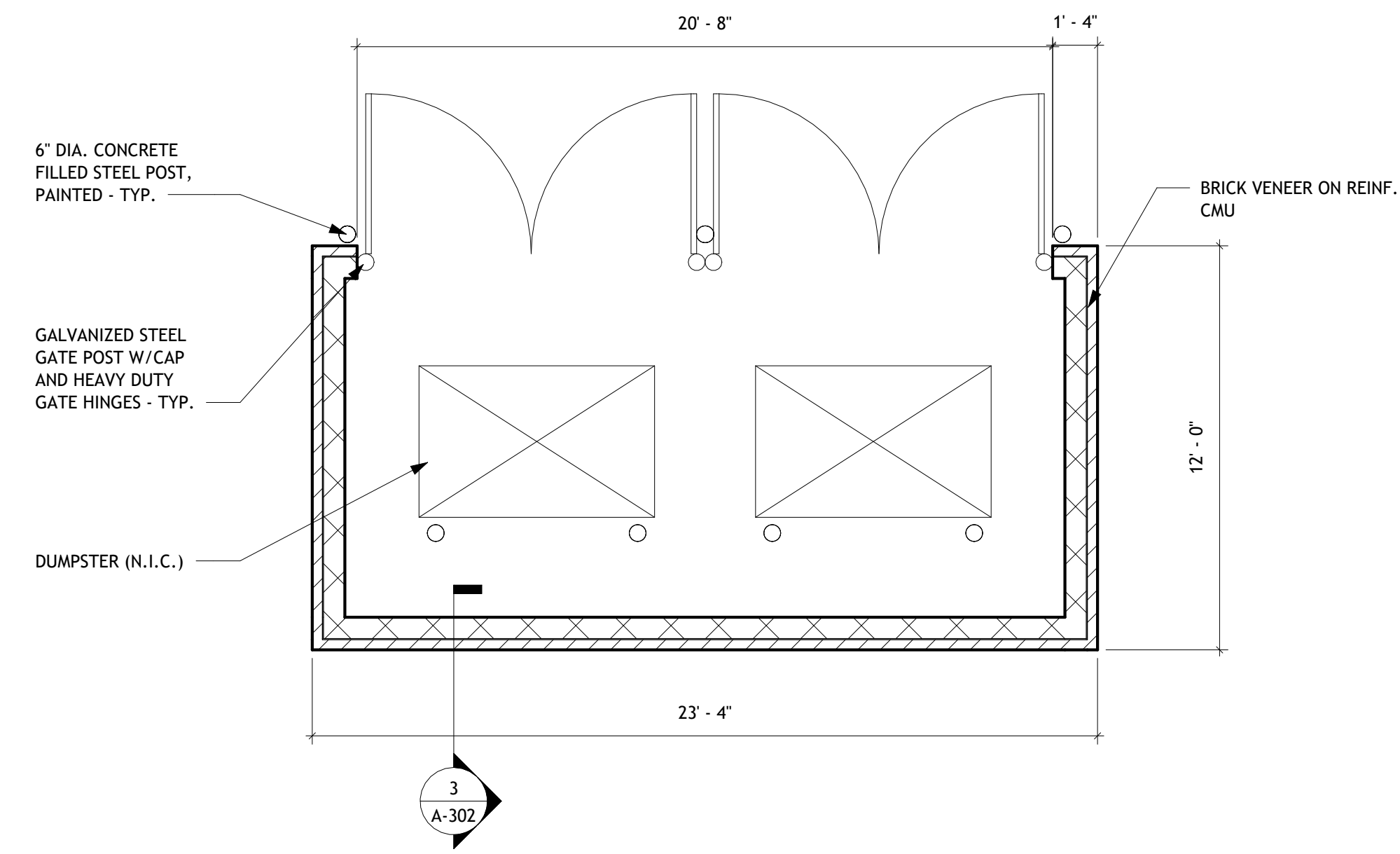


3 EAST ELEVATION - EAST BUILDING
A-301 SCALE: 1/8" = 1'-0"

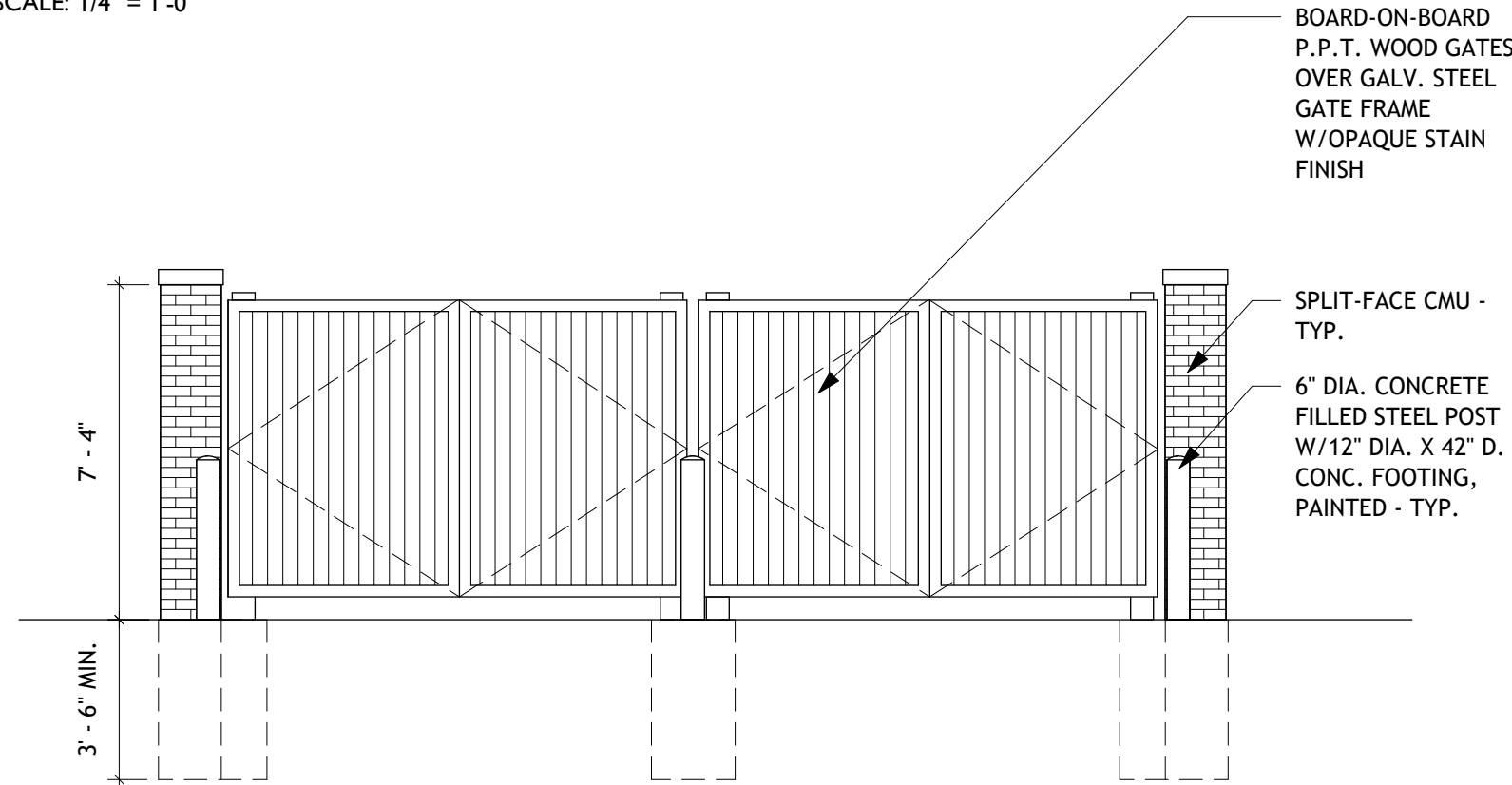


4 WEST ELEVATION - EAST BUILDING
A-301 SCALE: 1/8" = 1'-0"

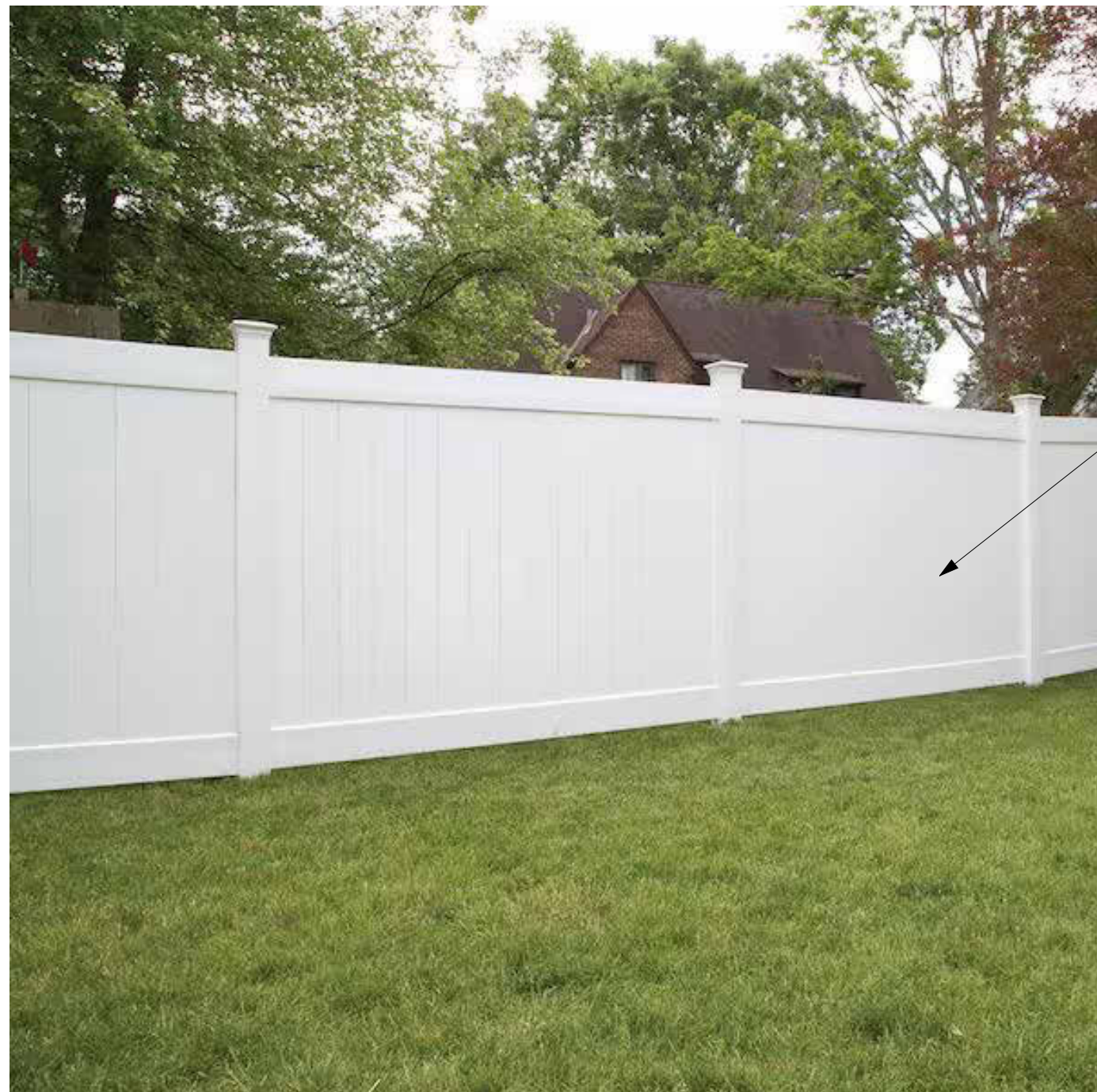
EXTERIOR FINISHES LEGEND					
TAG	MATERIAL	MANUF/STYLE	COLOR	FINISH / STYLE	FASTENER TYPE
A1	FIBER CEMENT PANELS	NICHIHA	DARK METAL		
A2	FIBER CEMENT PANELS	NICHIHA			
A3	PREFIN. METAL COPING	PAC-CLAD OR EQUAL TO MATCH	TO MATCH RAL #7021 MATTE BLACK STEEL - MT0028 - FLAT ROCK	ANODIZED	
A4	EXTERIOR INSULAION 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 CANOPY	TBD	TO MATCH RAL #7021	PRE-FINISHED	
A8	PREFIN. ALUM	TBD	TO MATCH RAL #7021	PRE-FINISHED	



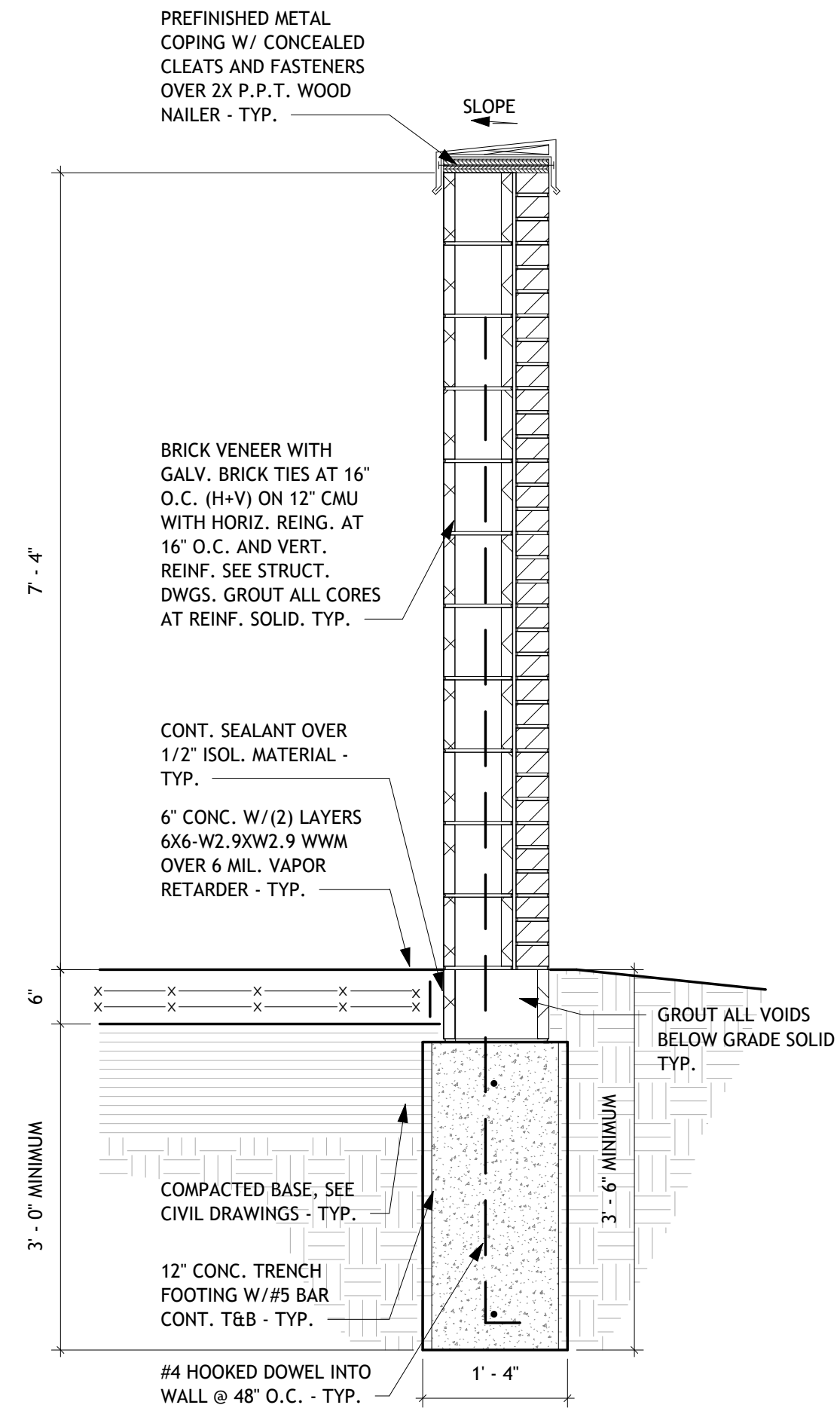
1 DUMPSTER ENCLOSURE PLAN
A-302 A-300 SCALE: 1/4" = 1'-0"



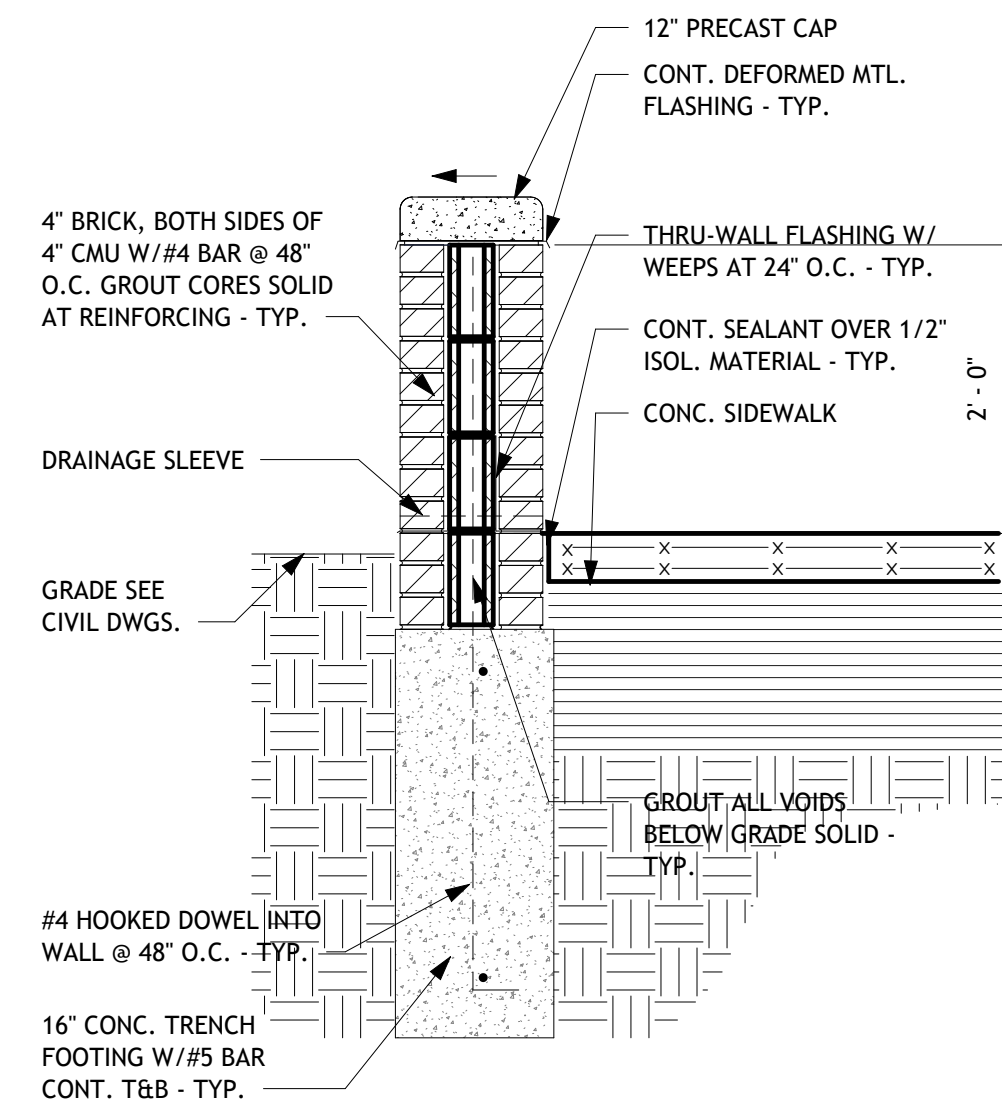
2 DUMPSTER ENCLOSURE ELEV
A-302 A-300 SCALE: 1/4" = 1'-0"



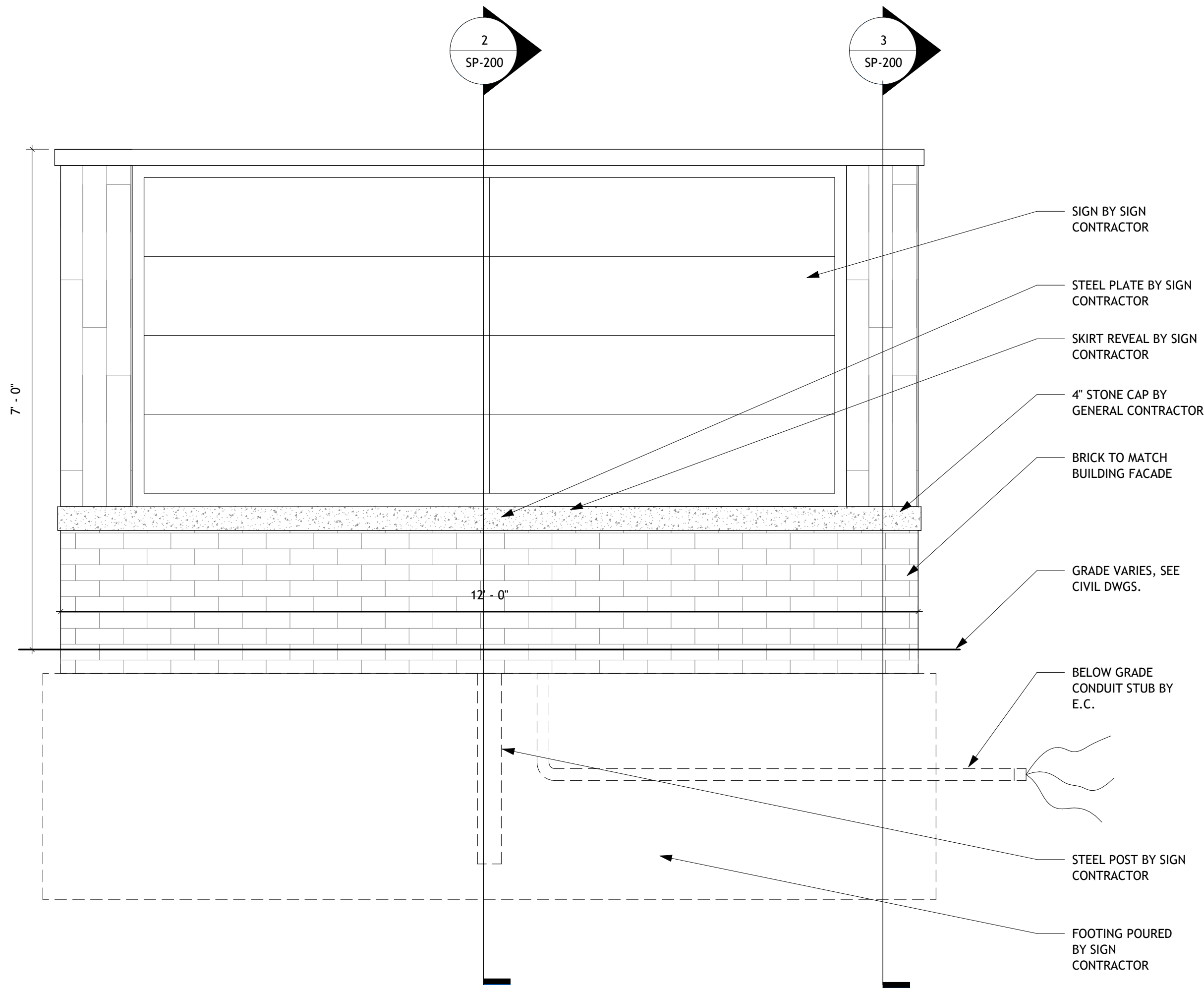
5 OBSCURING FENCE
A-302



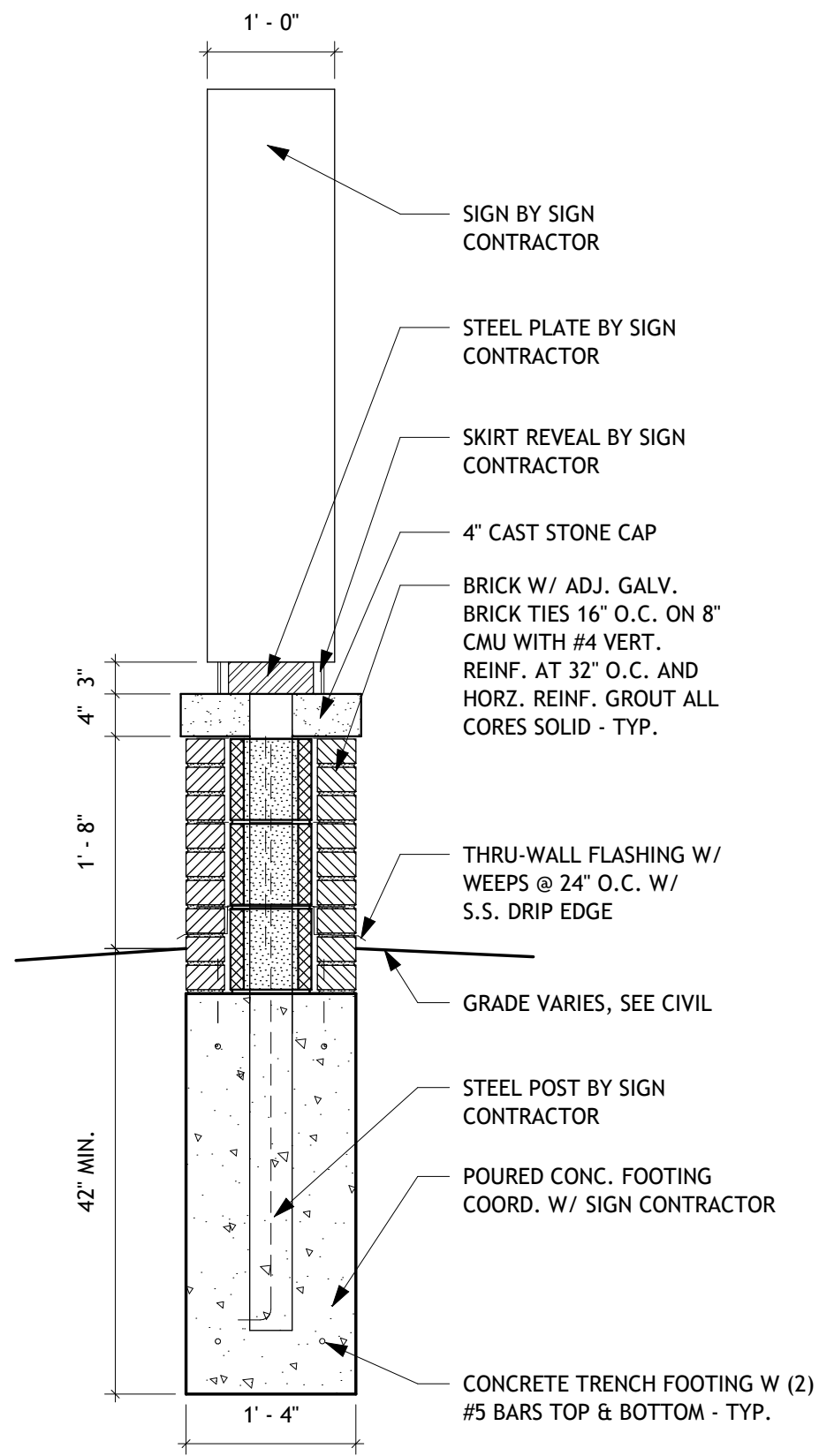
3 TYPICAL DUMPSTER SCREEN WALL DETAIL
A-302 A-302 SCALE: 3/4" = 1'-0"



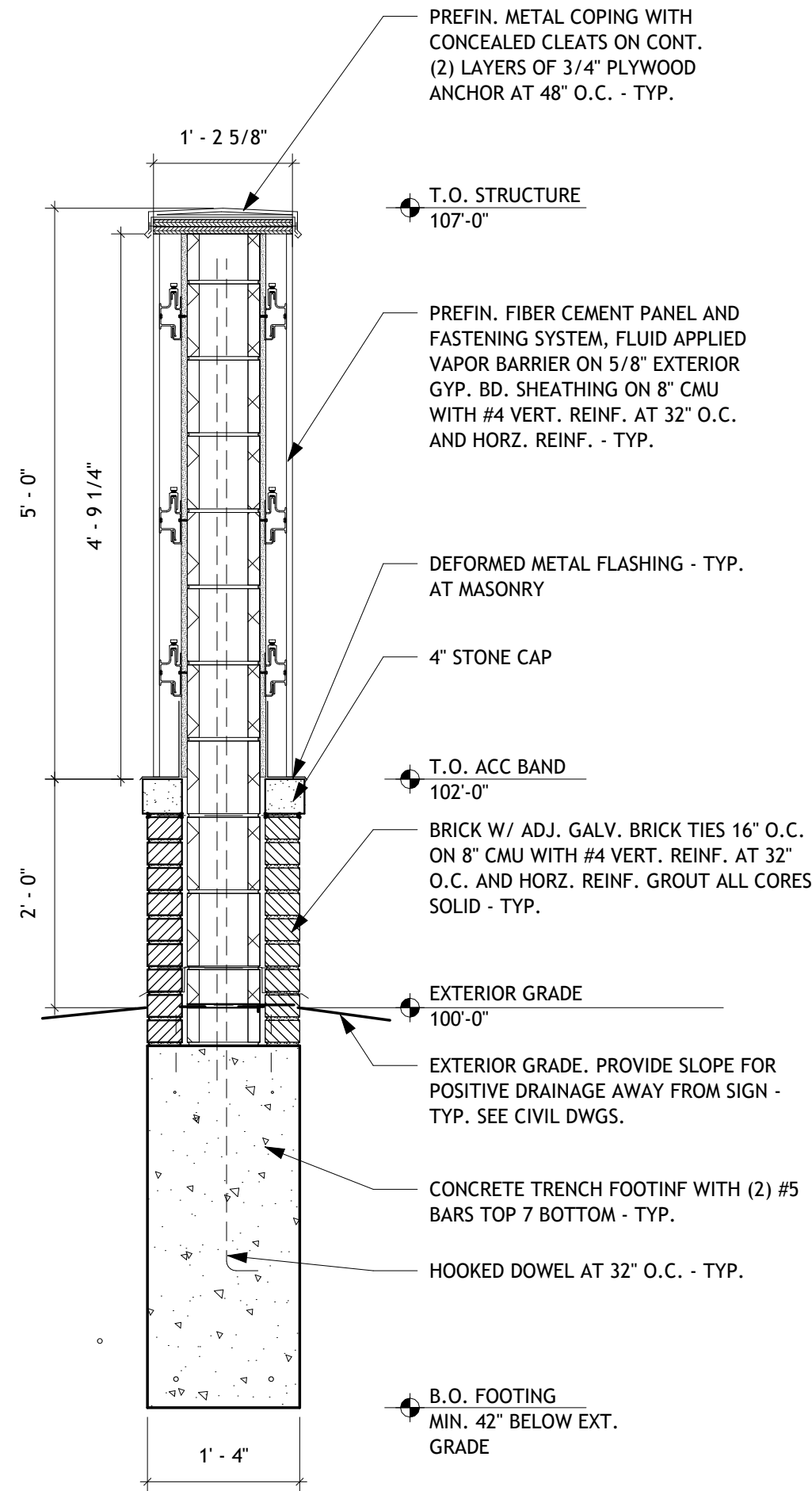
4 KNEE WALL DETAIL
A-302 A-100 SCALE: 3/4" = 1'-0"



1
SP-200
GROUND SIGN DETAIL
SCALE: 3/4" = 1'-0"



2
SP-200
SIGN SECTION
SCALE: 3/4" = 1'-0"



3
SP-200
SIGN SECTION
SCALE: 3/4" = 1'-0"



WHITE LAKE RETAIL
WHITE LAKE TWP, MICHIGAN



WHITE LAKE RETAIL
WHITE LAKE TWP, MICHIGAN

WHITE LAKE TOWNSHIP NOTICE OF PUBLIC HEARING

Notice is hereby given that the Planning Commission of the Charter Township of White Lake will hold a public hearing on **Thursday, September 18, 2025, 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 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 three restaurants with three total outdoor dining areas.**

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 the summer business hours of 8:00 a.m. to 5:00 p.m., Monday through Thursday, and 8:00 a.m. to 12:00 p.m. on Friday (excluding holidays). Persons interested may visit the White Lake Community Development Department, contact the White Lake 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.

Sean O'Neil, AICP
Community Development Director