



PLANNING COMMISSION MEETING

LOCATION: TOWNSHIP ANNEX, 7527 HIGHLAND ROAD, WHITE LAKE, MI 48383
THURSDAY, MARCH 19, 2026 – 6:30 PM

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

AGENDA

1. CALL TO ORDER
2. ROLL CALL
3. PLEDGE OF ALLEGIANCE
4. APPROVAL OF MINUTES
 - A. [February 5, 2026](#)
5. APPROVAL OF AGENDA
6. CALL TO THE PUBLIC (FOR ITEMS NOT ON THE AGENDA)
7. PUBLIC HEARING
8. CONTINUING BUSINESS
9. NEW BUSINESS
 - A. [Lasting Impressions Landscape](#)
[Property described as parcel number 12-01-127-002, located on the north side of White Lake Road, west of Old White Lake Road, consisting of approximately 2 acres.](#)
[Request: Final site plan approval](#)
[Applicant: Leach Engineering](#)
10. OTHER BUSINESS
 - A. [Walmart 2026-2028 Temporary Use Permit Outdoor Seasonal Sales](#)
11. DIRECTOR'S REPORT
12. LIAISON'S REPORT
13. NEXT MEETING DATE: April 2, 2026
14. ADJOURNMENT

Procedures for accommodations for persons with disabilities: The Township will follow its normal procedures for individuals with disabilities needing accommodations for effective participation in this meeting. **Please contact the Township Clerk's office at (248) 698-3300 X-7 at least five days in advance of the meeting.** An attempt will be made to provide reasonable accommodations.

**WHITE LAKE TOWNSHIP
PLANNING COMMISSION
FEBRUARY 5, 2026**

CALL TO ORDER

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

ROLL CALL

Present:

Mona Sevic
Scott Ruggles, Township Board Liaison
T. Joseph Seward
Debby Dehart
Merrie Carlock, Chairperson

Absent:

Pete Meagher
Robert Seeley, Vice Chair

Others:

Sean O'Neil, Community Development Director
David Waligora, Senior Planner
Hannah Kennedy-Galley, Recording Secretary

APPROVAL OF AGENDA

It was MOVED by Commissioner Seward, seconded by Commissioner Sevic to approve the agenda as presented. The motion carried with a voice vote: (5 yes votes).

APPROVAL OF MINUTES

A. January 15, 2026

It was MOVED by Seward, seconded by Sevic to approve the minutes of January 15, 2026, as corrected. The motion carried with a voice vote: (5 yes votes)

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

None.

PUBLIC HEARING

None.

CONTINUING BUSINESS

None.

NEW BUSINESS

A. Edendale Crossing

located on the northwest corner of Bogie Lake Road and Cedar Island Road. Identified as parcel IDs: 12-29-476-016 through 12-29-476-024 (nine adjacent parcels total)
Consisting of approximately 45.7 acres. Currently zoned R1-A (Single Family

Residential) and AG (Agricultural).

Requests:

1) Reconsideration of preliminary site plan approval recommendation

Applicant: PH Communities, LLC

It was MOVED by Commissioner Seward, seconded by Commissioner Sevic to reconsider the denial of the preliminary site plan of Edendale Crossing. The motion carried with a voice vote: (5 yes votes).

Director O'Neil shared the revisions to the preliminary site plan; the plan was presented at the January 2026 Township Board meeting. Setbacks, reducing lots on Cedar Island Road, and the internal park pathway was configured and was now proposed to extend all the way through Cedar Island Road. The percentage of open space was improved, and the density per acre was Reduced marginally.

Commissioner Ruggles stated there were some Board members who wanted to see a reduction in lots, and the current proposed plan was a compromise. He added that there were varying opinions from the Board regarding the sewer extension being considered a community benefit.

Jim Eppink, on behalf of PH Homes, was present to answer questions. He stated that the Master Plan depicts a real issue of the housing market is not looking for larger lot homes. Housing products within the Township are not keeping up with the demand of diverse homebuyers. He reiterated that the sewer is a public benefit in the sense that it provides an environmental benefit to the Township.

Deborah Falzon, 1909 Reidsview Drive, asked how the sewer benefits the community outside of the development. She had concerns about the square footage and base prices of the houses.

Annette LaBaron, Senator Runestad's representative, was present to speak on behalf of the Senator. She read a statement from the Senator into the record, sharing his concerns regarding the project.

Brian Hughes, 2083 Sandlewood Drive, wanted to know if there will be road improvements to the Cedar Island and Bogie Lake Road intersection.

Deanna Mason- Pena, 1861 Carla Hills Drive, had questions about the dimensions of the driveways to the house, as well as fencing and shed standards. She had concerns about the traffic congestion in the area.

Gene Kula, 1203 Cedar Meadows Drive, shared concerns about the proposed plan and its compatibility with the surrounding character, specifically regarding land use and density.

Tim Rice, 1377 Scottwood Court, shared concerns about sheds, traffic congestion, and the lack of compatibility with the existing surrounding developments.

Mike Morcelli, 2229 Mayfair Drive, stated he bought his house for White Lake's character. He shared concerns about increased traffic load.

WHITE LAKE TOWNSHIP
PLANNING COMMISSION MEETING
FEBRUARY 05, 2026

Rob Paciotti, 6289 Caya Way, stated he has a petition with 180 signatures opposed to the project. He reiterated the development is out of character and place.

Mr. Eppink reiterated that the sewer will be extended from the southern portion of the property up to the school campus. RCOC has completed a traffic study for the development and had determined the proposed plans were more than satisfactory traffic wise. Mr. Eppink said the infrastructure will be improved beyond the development's needs. Fences and sheds will most than likely be prohibited. He mentioned the pathway extension from the development to the school campus.

Commissioner Seward stated he did not consider sewer being a public benefit. He stated he was troubled by the lack of water utility extension provided.

It was MOVED by Commissioner Seward, seconded by Commissioner Sevic, to recommend the Township Board deny the preliminary site plan for Edendale Crossing concerns regarding traffic, sewer not being a public benefit, lack of water extension, and density. The motion carried with a roll call vote: (3 yes votes).

(Sevic/yes, Ruggles/no, Seward/yes, Carlock/no, Dehart/yes)

OTHER BUSINESS

None.

LIAISON'S REPORT

Commissioner Ruggles said the Township Board met last month; Edendale was discussed as well as a development concept for the Pontiac Lake Gateway District.

Commissioner Dehart said the ZBA met last month; two cases were heard and approved.

DIRECTOR'S REPORT

Director O'Neil gave a summary of the current projects ongoing in the Township.

COMMUNICATIONS

None.

NEXT MEETING DATE: February 19, 2026

ADJOURNMENT

It was MOVED by Commissioner Carlock, seconded by Commissioner Sevic, to adjourn at 8:03 P.M. The motion carried with a voice vote: (5 yes votes).

Director's Report

Project Name: Lasting Impressions Landscape

Description: Final site plan approval

Date on Agenda this packet pertains to: March 19, 2026

- 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	CDD Director	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Subject to all staff and consultant review comments being addressed.
DLZ	Engineering Consultant	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 02/19/26.
Matteo Passalacqua	Carlisle Wortman Associates, Inc	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 02/23/26.
Jason Hanifen	WLT Fire Marshal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See letter dated 02/25/26.



contamination site. Thus, a monitoring well would have been needed; there is no indication that the well(s) has been monitored for several years now. **Comment remains as a notation.**

4. The plan proposes two (2) 500 gallon fuel storage tanks in the gravel area toward the rear of the site. We note that while this development is within White Lake Township, the site is within the Waterford Township 10 year wellhead protection area. As a courtesy, notification and plans shall be provided to Waterford Township DPW Engineer with the intent to provide the two fuel tanks. Waterford Township may require specific containment (other than those noted on plan) items be provided including the use of triple wall containment that will need to be incorporated into the plans. We also note that other Federal (EPA), State, and Local regulations may apply, and that the applicant or applicant's engineer will have to assure those requirements are met. **Design plans have been sent to Waterford Township, no comments were received. We continue to defer to the Township Fire Department regarding acceptability of tank types and locations shown.**

We note that Article IX, Item k. of the Master Deed for Prospector's Square notes that compliance requirements of Michigan Water Resources Commission, for the storage of gasoline and diesel fuel on site, will be required to be met. We defer the portion of this comment that relates to Michigan Water Resources Commission to the Township, as to the defined business use as the State requirements are for industrial users. **Comment remains.**

Grading/Paving

1. We note that this plan is dependent on the adjacent Oakland Harvesters construction going forward as the Oakland Harvesters plan shows full construction of the shared access drive which is the only point of access for Lasting Impressions. **Comment remains as a notation. We note that construction of Oakland Harvesters is currently underway.**
2. The plan proposes gravel as the surface material for the landscape materials and landscape equipment storage areas in lieu of pavement material such as concrete or asphalt. Per White Lake Township Zoning Ordinance 5.11 Q. xi., all parking areas are required to be paved unless a variance is obtained. Should a variance not be approved, and the applicant required to pave the areas in question, would result in an increased area and volume required for the detention basin. **We defer further comment to the Township Planning Department. To our knowledge there was no variance granted, however we understand the PC approved the site plan as shown on 9/5/24.**
3. Sheet V1.01- It is not clear what the intent was for the existing grading easement on this property- whether it was intended as an area for grading relative to a potential future shared ingress/egress drive. If the easement is not needed, will it be vacated? Comment remains. It is our understanding that the grading easement was for construction of the shared drive. Per the design engineer, the existing easement will be vacated, and a new easement and agreement will be executed that reflects the actual post-development location of the drive for the two projects. The easement agreement is to be provided at the time of FSP/FEP submittal. **Easement info provided, comments will be provided under separate cover.**



4. *Sheet V1.01- The existing recorded Mutual Ingress & Egress Easement Over Units 1 & 2 (which extends the full depth of both Units 1 & 2 of Prospector's Square) may need to be amended to not include the portion of the easement outside of the planned shared access driveway. The current plan proposes landscaping and parking to the north of the proposed shared driveway and within the existing access easement and may present an issue regarding shared maintenance responsibilities of anything within the existing easement. We defer to the Township Attorney regarding this item. Comment remains. Per the design engineer, the existing easement will be shortened, and a new easement will be executed that reflects the actual post-development location of the drive for the two projects. The revised easement is to be provided at the time of FSP/FEP submittal. **Easement info provided, comments will be provided under separate cover.***

Watermain

1. *We refer to the Township Fire Department regarding fire suppression and access requirements. **Comment remains.***
2. *A well is proposed as the source of water for this site. Per our files, there exists a Water Supply Agreement that states that wells are to be abandoned if water main becomes available for use. We defer to the Township as to whether this agreement was ever signed. Please note that our files indicate that this agreement was received by the Township on December 18, 2000. **No further Comment.***

Stormwater Management

1. *The detention basin discharges to the existing wetlands at the rear of the site. Delineation and determination shall be required. In addition, a permit from EGLE shall be required as per WLT Municipal Code Section 14-133. The submittal to EGLE shall also note the proximity of the proposed fuel tanks to the proposed detention basin and wetlands. Comment addressed. The outlet for the detention basin has been moved further upland away from the edge of the water/pond such that basin will not discharge directly to the open water. Per a May 15, 2024 in person meeting at our office with the design engineer, the wetland delineation and permit would not be required. **Comment remains as a notation.***

FSP/FEP Comments-

General

1. *Cover Sheet G0.01-Sheet C1.31 Utility Plan is missing from the Sheet Index. **Comment addressed. Utility plans added.***
2. *Sheet C1.02- Building Information- Update Gross area to 7,500 SF. **Comment addressed. Area updated.***



Sanitary Sewer

3. Sheet C1.31- 25' lead at 1.00% (from trench drains IE 1028.50 to OI 1 IE 1027.75) we calculate pipe slope to be 3.00%. Please verify. **Comment addressed. Slope updated to 3.00%.**
4. Sheet C1.31- Provide/specify cleanouts at changes in direction of sanitary lead. **Comment addressed, Applicant provided description of proposed grease interceptor which provides cleanout access.**

Grading/Paving

5. Sheet C0.01- Sequence of Soil Erosion & Sedimentation Control Operations- Add the following language within this section: 'Topsoil in a quantity to cover disturbed areas to a depth of 3" must be retained on site per White Lake Township Engineering Design Standards Section B.4.' **Comment addressed. The language requested was added.**
6. Sheet C1.01- Provide van space and loading space dimensions; it appears these dimensions may be on the plan, but the dimensions are located to the east, likely due to relocation of the ADA space from the location previously shown on the Preliminary Site Plan. **Comment addressed. Dimensions appropriately displayed.**
7. Sheet C1.21-South side of building-northwest corner of island- Proposed grades (30.9 T/C&S, 30.4G) do not match grades in the same area on the Enlarged Accessible Parking Grading Plan (31.2 T/C&S, 30.7G). **Comment addressed. Grades were corrected.**
8. Sheet L5.01-Upper proposed retaining wall- Both ends: 34.0T/W and 34.9B/W grades seem reversed. Please clarify. **Comment addressed. Grades have been updated.**

Stormwater Management

9. Sheet C1.21- Note regarding Secondary Overflow Spillway- Line 7-'Begin in basin at 1025.00' should be 1025.50 (otherwise primary overflow would not be needed); Line 8- 1026.00 should be approximately 1019.00. Please revise all relevant sheets. **Comment addressed. Comment regarding line 8 to be withdrawn.**
10. Sheet C3.31-Storm Sewer Calculations- 1) CB4 to CB3- Revise 'Rim or Grade' to 1029.50; 2) CB3 to CB2- Revise 'Rim or Grade' to 1029.10. **Comment addressed. Rim elevations fixed.**
11. Sheet C3.31- Show HGL on profiles or provide in Storm Sewer Calculations table. **Comment addressed. HGL displayed.**
12. Sheet C3.31-1) Profile ES1-MH1- Footage of pipe (27') does not match Sheet C1.31 (33'); 2) Profile ES2-MH2- Footage of pipe (38') does not match Sheet C1.31 (44'). **Comment addressed. Pipe footage changed.**
13. Sheet C5.31- Secondary Overflow Spillway-100-year spillway water surface elevation of 1025.00 appears in error. Should it be 1025.50? Please revise. **Comment addressed. Correction made.**



Landscape Plan

14. Sheet L1.01- There are a few areas where proposed trees shall be shifted to maintain horizontal separation between trees and proposed storm sewer and sanitary lead. Please see attached marked up plan sheet for locations. **Comment addressed, plans have been updated to address markups.**

Required Permits and Approvals

The following permits and approvals will be required:

1. Permit from the Road Commission for all work within the White Lake Road right of way.
2. SESC permit from OCWRC
3. Executed Stormwater Maintenance Agreement and exhibit. Agreement shall include language regarding the Envirohoods and sump maintenance.
4. Well permit from OCWRC.
5. Septic permit from OCWRC.

Recommendation

Our previous comments have been addressed and we are now recommending approval subject to concurrence from Township Planning and Fire Departments per above referenced comments. Review comments related to the Stormwater Maintenance Agreement and ingress/egress easements will be provided under separate cover. There are a few permit items identified that should be provided prior to scheduling a preconstruction meeting. Please contact our office should you have any questions.

Sincerely,

DLZ Michigan

Michael Leuffgen, P.E.
Department Manager

Victoria Loemker, P.E.
Senior Engineer

Cc: 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*



Carlisle | Wortman ASSOCIATES, INC.

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

TO: Sean O’Neil, Community Development Director

FROM: Matteo Passalacqua, Senior Associate

DATE: February 23, 2026

RE: Lasting Impressions FSP Review

Mr. O’ Neil,

We have conducted a review of the final site plan dated February 6th, 2026 for the Lasting Impressions development. Our review of the preliminary site plan was conducted while the project was already engaged in the Township’s revise and resubmit process prior to our services being contracted for site plan review. For that reason, a full preliminary site plan report was not generated.

This memo will review the proposed changes from the approved preliminary site plan and assess the plan’s conformity to final site plan requirements including landscaping and performance standards.

REVIEW COMMENTS

Final Site Plan Modifications

Below is a list of modifications from the approved preliminary site plan:

- The building has increased in size from 5,000 sqft to 7,500 sqft. This change is reflected in the building being 25 feet longer. The expansion is off the building’s east elevation. This modification is meant to accommodate a fourth tenant in the facility. One additional doorway and one additional overhead door have been added to the building elevations.
- The seven foot wide concrete walk is no longer extended along the eastern elevation of the building.
- The drive aisle to the rear of the property has decreased in width from 30 feet to 24.5 feet.
- Three parking spaces have been removed. The parking and loading requirements for the site comply with standards.

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, *Principal*
 Richard K. Carlisle, *Past President/Senior Principal*

Access

Access easements have been submitted with the final site plan and should be reviewed by the Township Attorney and Engineer to determine if the proposed document is appropriate and that the legal description of the easement is correct.

Structures

We note the proposed concrete block storage area in the rear yard identifies a hoop roof over the area. An outdoor storage special land use permit was granted by the Planning Commission. However, no architectural or structural information regarding the structure is provided. To ensure compliance with accessory structure requirements as well as dimensional standards, elevations and structural specifications should be provided for the concrete block hoop roof structure.

Building materials remain metal panel siding and CMU block.

Items to be Addressed: *Specifications for the hooped structure should be provided to ensure screening and accessory structure compliance.*

Landscaping

The applicant has provided a detailed landscape plan on Sheets L-1.01 and L-5.01.

Section 5.19.B outlines general provisions for site landscaping. No trees may be planted closer than four (4) feet from any property line. While distance dimensions were not provided, a note should be added to Sheet L-1.01 indicating this requirement will be met.

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

Greenbelts

Property Line	Required	Provided	Complaint
North (M1 - Springfield Township)	None	None / Existing Vegetation	N/A
East (LM)	None	N/A	N/A
West (LM)	None	N/A	N/A
South (ROW)	Extensive Land Form Buffer 11 Deciduous trees 11 Evergreen tress 43 Shrubs	5.5 foot terraced landscaped walls. 13 Deciduous trees 9 Evergreen trees 43 Shrubs	No / Waiver Requested

Per Section 5.19.D.iii, the Planning Commission may consider alternate screening proposals.

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	13,068 sqft (15% total lot area)	17,325 sqft	Yes
Deciduous Trees	44 trees	76 trees	Yes
Shrubs	218 shrubs	95 shrubs	No

Sheet L-1.01 provides interior landscaping calculations. The shrub counts are short of requirements. 123 shrubs will be required to meet standards or a waiver will be required.

Parking Lot Landscaping

Industrial Use	Required	Provided	Complaint
Lot Area	190 sqft	361 sqft	Yes
Deciduous or Ornamental Trees	2 trees	3 trees	Yes
Shrubs	6 shrubs	8 shrubs	Yes
Curbs	6 inch concrete	6 inch concrete	Yes
Lot Islands	N/A	N/A	N/A

Minimum Plant Size and Species

All tree species meet requirements. Shrubs must be 30 inches in height or spread.

Trash Receptacles

The trash enclosure is located in the rear yard of the site. It will be constructed of CMU block to match the building. The CMU will need to be painted as plain CMU is not allowed. A treated wood gate will screen the front of the dumpster when closed. Surface concrete and protective bollards meet standards.

Mechanical Equipment Screening

No rooftop mechanical equipment is shown on the site plan. One air conditioning unit as well as electric and gas service equipment is located along the east side of the building and are screened from view of the road and adjacent property via evergreen plantings.

Fences / Screening

Section 4.39 outlines requirements for screening materials stored outside. An eight foot black vinyl privacy fence is proposed along the side lot lines and between the storage yard and detention pond. It does not extend around the proposed hooped storage area in the northwest corner of the storage yard. Specifications for the hooped structure should be provided to ensure screening and accessory structure compliance.

A powered gate will control access between the parking lot and rear yard. The specifications of the gate should be reviewed and approved by public safety. It is unclear if the gate will obscure view into the rear yard. This should be clarified to ensure views into the storage area are screened. Due to the possibility of fading a warping, we recommend an alternate color be proposed for the vinyl fence.

Items to be Addressed:

- 1. A note should be added to Sheet L-1.01 indicating no trees shall be planted within four (4) feet of any property line.*
- 2. Planning Commission to consider wavier for ROW greenbelt consisting of a terraced landscape wall.*
- 3. Planning Commission to consider waiver to allow 95 interior shrubs instead of the required 218 shrubs.*
- 4. Public Safety should review and approve the proposed access via the powered gate to the rear yard.*
- 5. It is unclear if the gate will obscure view into the rear yard. This should be clarified to ensure views into the storage area are screened.*

6. *Due to the possibility of fading a warping, we recommend an alternate color be proposed for the black vinyl fence.*
7. *The trash enclosure CMU will need to be painted as plain CMU is not allowed.*
8. *Shrubs must be 30 inches in height or spread.*

Performance Standards

The applicant should be aware of the performance standards in Section 5.18 of the zoning ordinance. Standards relating to noise, odor, vibration, and outdoor storage should be reviewed to ensure compliance per the nature of operations.

Lighting

Pole lighting shall not be closer than five feet to a property line. The distance between the light poles and adjacent property lines should be added to the lighting plan. All other standards have been met.

Items to be Addressed: *The distance between the light poles and adjacent property lines should be added to the lighting plan.*

SUMMARY

The final site plan is substantially complete however specifications are needed for review by the Planning Commission to ensure the hooped storage structure meets standards and effectively screens materials.

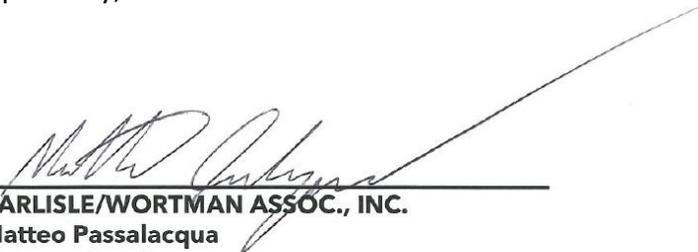
Based on the proposed modification to the building and site's location, we do not feel a modified special land use permit is necessary as those activities do not appear to be expanded.

We recommend the applicant revise the final site plan to address the items listed below.

1. *The distance between the light poles and adjacent property lines should be added to the lighting plan.*
2. *Specifications for the hooped structure should be provided to ensure screening and accessory structure compliance.*
3. *A note should be added to Sheet L-1.01 indicating no trees shall be planted within four (4) feet of any property line.*
4. *Planning Commission to consider waiver for ROW greenbelt consisting of a terraced landscape wall.*
5. *Planning Commission to consider waiver to allow 95 interior shrubs instead of the required 218 shrubs.*

6. *Public Safety should review and approve the proposed access via the powered gate to the rear yard.*
7. *It is unclear if the gate will obscure view into the rear yard. This should be clarified to ensure views into the storage area are screened.*
8. *Due to the possibility of fading or warping, we recommend an alternate color be proposed for the black vinyl fence.*
9. *The trash enclosure CMU will need to be painted as plain CMU is not allowed.*
10. *Shrubs must be 30 inches in height or spread.*

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: 02/25/2026

Project: Lasting Impressions

Job #: 2023.104 / Rev #: 24004

Date on Plans: 02/06/2026

The Fire Department has the following comments with regards to the 3rd review of preliminary/Revised site plans for the project known as Lasting Impressions

1. The access drive and parking lot shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all weather driving capabilities.
2. The required turning radius shall accommodate the largest Fire Department apparatus (40') and provide a turn radius profile showing apparatus movement on future plans.
3. The angle of approach/Departure to and from White Lake roads shall not exceed 8 degrees.
4. Plans for the single sliding power gate must be submitted for review.
5. Provide detailed plans for fuel storage tanks
 - Vehicle Impact guards (4" Steel Posts, 3' embed, -3' above grade, spaced $\leq 4'$)
 - Installed per manufacturer
 - Must be listed and labeled
 - Interstice monitoring must be provided
 - Overfill protection is required
6. Fuel tank requirements pending 3rd party review (Michigan Tank Division)
7. Fire Dept. refers to building dept. for the required fire wall rating 1 hour vs. 2 hour
8. KNOX required and placement confirmed by the Fire Marshal prior to installation

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.



Carlisle | Wortman
ASSOCIATES, INC.

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

TO: Sean O’Neil, Community Development Director
FROM: Matteo Passalacqua, Senior Associate
DATE: February 23, 2026
RE: Lasting Impressions FSP Review

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East (LM)	None	N/A	N/A
West (LM)	None	N/A	N/A
South (ROW)	Extensive Land Form Buffer 11 Deciduous trees 11 Evergreen tress 43 Shrubs	5.5 foot terraced landscaped walls. 13 Deciduous trees 9 Evergreen trees 43 Shrubs	No / Waiver Requested

Per Section 5.19.D.iii, the Planning Commission may consider alternate screening proposals.

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	13,068 sqft (15% total lot area)	17,325 sqft	Yes
Deciduous Trees	44 trees	76 trees	Yes
Shrubs	218 shrubs	95 shrubs	No

Sheet L-1.01 provides interior landscaping calculations. The shrub counts are short of requirements. 123 shrubs will be required to meet standards or a waiver will be required.

Parking Lot Landscaping

Industrial Use	Required	Provided	Complaint
Lot Area	190 sqft	361 sqft	Yes
Deciduous or Ornamental Trees	2 trees	3 trees	Yes
Shrubs	6 shrubs	8 shrubs	Yes
Curbs	6 inch concrete	6 inch concrete	Yes
Lot Islands	N/A	N/A	N/A

Minimum Plant Size and Species

All tree species meet requirements. Shrubs must be 30 inches in height or spread.

Trash Receptacles

The trash enclosure is located in the rear yard of the site. It will be constructed of CMU block to match the building. The CMU will need to be painted as plain CMU is not allowed. A treated wood gate will screen the front of the dumpster when closed. Surface concrete and protective bollards meet standards.

Mechanical Equipment Screening

No rooftop mechanical equipment is shown on the site plan. One air conditioning unit as well as electric and gas service equipment is located along the east side of the building and are screened from view of the road and adjacent property via evergreen plantings.

Fences / Screening

Section 4.39 outlines requirements for screening materials stored outside. An eight foot black vinyl privacy fence is proposed along the side lot lines and between the storage yard and detention pond. It does not extend around the proposed hooped storage area in the northwest corner of the storage yard. Specifications for the hooped structure should be provided to ensure screening and accessory structure compliance.

A powered gate will control access between the parking lot and rear yard. The specifications of the gate should be reviewed and approved by public safety. It is unclear if the gate will obscure view into the rear yard. This should be clarified to ensure views into the storage area are screened. Due to the possibility of fading a warping, we recommend an alternate color be proposed for the vinyl fence.

Items to be Addressed:

- 1. A note should be added to Sheet L-1.01 indicating no trees shall be planted within four (4) feet of any property line.*
- 2. Planning Commission to consider wavier for ROW greenbelt consisting of a terraced landscape wall.*
- 3. Planning Commission to consider waiver to allow 95 interior shrubs instead of the required 218 shrubs.*
- 4. Public Safety should review and approve the proposed access via the powered gate to the rear yard.*
- 5. It is unclear if the gate will obscure view into the rear yard. This should be clarified to ensure views into the storage area are screened.*

6. *Due to the possibility of fading a warping, we recommend an alternate color be proposed for the black vinyl fence.*
7. *The trash enclosure CMU will need to be painted as plain CMU is not allowed.*
8. *Shrubs must be 30 inches in height or spread.*

Performance Standards

The applicant should be aware of the performance standards in Section 5.18 of the zoning ordinance. Standards relating to noise, odor, vibration, and outdoor storage should be reviewed to ensure compliance per the nature of operations.

Lighting

Pole lighting shall not be closer than five feet to a property line. The distance between the light poles and adjacent property lines should be added to the lighting plan. All other standards have been met.

Items to be Addressed: *The distance between the light poles and adjacent property lines should be added to the lighting plan.*

SUMMARY

The final site plan is substantially complete however specifications are needed for review by the Planning Commission to ensure the hooped storage structure meets standards and effectively screens materials.

Based on the proposed modification to the building and site's location, we do not feel a modified special land use permit is necessary as those activities do not appear to be expanded.

We recommend the applicant revise the final site plan to address the items listed below.

1. *The distance between the light poles and adjacent property lines should be added to the lighting plan.*
2. *Specifications for the hooped structure should be provided to ensure screening and accessory structure compliance.*
3. *A note should be added to Sheet L-1.01 indicating no trees shall be planted within four (4) feet of any property line.*
4. *Planning Commission to consider waiver for ROW greenbelt consisting of a terraced landscape wall.*
5. *Planning Commission to consider waiver to allow 95 interior shrubs instead of the required 218 shrubs.*

6. *Public Safety should review and approve the proposed access via the powered gate to the rear yard.*
7. *It is unclear if the gate will obscure view into the rear yard. This should be clarified to ensure views into the storage area are screened.*
8. *Due to the possibility of fading or warping, we recommend an alternate color be proposed for the black vinyl fence.*
9. *The trash enclosure CMU will need to be painted as plain CMU is not allowed.*
10. *Shrubs must be 30 inches in height or spread.*

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: 02/25/2026

Project: Lasting Impressions

Job #: 2023.104 / Rev #: 24004

Date on Plans: 02/06/2026

The Fire Department has the following comments with regards to the 3rd review of preliminary/Revised site plans for the project known as Lasting Impressions

1. The access drive and parking lot shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all weather driving capabilities.
2. The required turning radius shall accommodate the largest Fire Department apparatus (40') and provide a turn radius profile showing apparatus movement on future plans.
3. The angle of approach/Departure to and from White Lake roads shall not exceed 8 degrees.
4. Plans for the single sliding power gate must be submitted for review.
5. Provide detailed plans for fuel storage tanks
 - Vehicle Impact guards (4" Steel Posts, 3' embed, -3' above grade, spaced $\leq 4'$)
 - Installed per manufacturer
 - Must be listed and labeled
 - Interstice monitoring must be provided
 - Overfill protection is required
6. Fuel tank requirements pending 3rd party review (Michigan Tank Division)
7. Fire Dept. refers to building dept. for the required fire wall rating 1 hour vs. 2 hour
8. KNOX required and placement confirmed by the Fire Marshal prior to installation

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.

LASTING IMPRESSIONS NEW FACILITY

FINAL SITE PLAN / FINAL ENGINEERING PLAN



WHITE LAKE TOWNSHIP STANDARD SITE CONSTRUCTION NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF WHITE LAKE CHARTER TOWNSHIP.
2. THE DEVELOPER SHALL CONTACT THE TOWNSHIP PLANNING DEPARTMENT, AT (248) 698-3300, TO SCHEDULE A PRE-CONSTRUCTION MEETING. THE DEVELOPER'S PRIME SITE CONTRACTOR SHALL ATTEND. A COPY OF ALL PERMITS MUST BE SUBMITTED TO THE PLANNING DEPARTMENT PRIOR TO SCHEDULING THE MEETING.
3. THE CONTRACTOR SHALL CONTACT THE TOWNSHIP ENGINEER, AT (248) 681-7800, 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION. THE CONTRACTOR SHALL KEEP THE INSPECTOR APPRAISED OF THE NEED FOR INSPECTION ON A DAY BY DAY BASIS. LACKING SPECIFIC SCHEDULING WITH THE INSPECTOR, THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE TO THE TOWNSHIP ENGINEER PRIOR TO RE-COMMENCING WORK REQUIRING INSPECTION. FAILURE TO INFORM THE INSPECTOR OR THE TOWNSHIP ENGINEER OF A WORK CANCELLATION MAY RESULT IN A ONE HALF DAY INSPECTION CHARGE TO THE DEVELOPER. THE CONTRACTOR SHALL CALL (248) 844-5400 TO SCHEDULE SANITARY SEWER MAIN LINE INSPECTION.
4. ALL WATER MAIN OR SANITARY SEWER WORK WILL REQUIRE FULL TIME INSPECTION. FULL TIME INSPECTION WILL GENERALLY BE REQUIRED FOR UNDERGROUND STORM SEWER CONSTRUCTION, CONCRETE CURBING, AND PAVING OPERATIONS. SITE GRADING AND DETENTION BASIN CONSTRUCTION WILL GENERALLY BE INSPECTED ON AN INTERMITTENT BASIS.
5. THE CONTRACTOR SHALL CONTACT MISS DIG, AT (800) 482-7171, 72 HOURS IN ADVANCE OF CONSTRUCTION TO HAVE EXISTING UNDERGROUND FACILITIES LOCATED. CONTRACTOR SHALL CONTACT THE WHITE LAKE TOWNSHIP WATER DEPARTMENT, AT (248) 698-3300 EXT 165, SEPARATELY 72 HOURS IN ADVANCE OF CONSTRUCTION TO HAVE WATER UTILITIES LOCATED.
6. ALL OFF-SITE IMPROVEMENTS WILL BECOME PUBLIC PROPERTY.

PROJECT PARTNERS

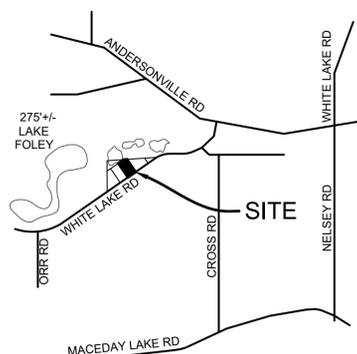
J&A ARCHITECTURAL ENGINEERING
 ARCHITECT
 J&A ARCHITECTURAL ENGINEERING
 3250 W. BIG BEAVER RD., STE. 510
 TROY, MI 48064J
 PH: 248.282.6475
 CONTACT: AZHER MATTY
 AZHERMATTY@JAARCHENG.COM

KE KIEFT ENGINEERING
 LAND SURVEYOR
 KIEFT ENGINEERING
 5852 S. MAIN ST., STE. 1
 CLARKSTON, MI 48346
 PH: 248.625.5251 x
 CONTACT: WILLIAM (BILL) NORMAN, P.S.
 WVNORMAN@KIEFTENG.COM

GBA GASSER BUSH ASSOCIATES
 SITE LIGHTING
 GASSER BUSH ASSOCIATES
 30984 INDUSTRIAL RD.
 LIVONIA, MI 48150
 PH: 734.266.6705
 CONTACT: DAVID PAUWELS
 DPAUWELS@GASSERBUSH.COM

CIVIL PERMITS/APPROVALS REQUIRED		PERMIT NUMBER	ISSUED DATE	EXPIRATION DATE
AGENCY	DESCRIPTION			
WHITE LAKE TWP. - PLANNING & ENGINEERING	PRE-APPLICATION MEETING	REVIEW ONLY	11/29/2023	
WHITE LAKE TWP. - PLANNING COMMISSION	PRELIMINARY SITE PLAN APPROVAL & SPECIAL LAND USE	BY VOTE	09/05/2024	
WHITE LAKE TWP. - TOWNSHIP BOARD	PRELIMINARY SITE PLAN APPROVAL	BY VOTE	09/17/2024	
WHITE LAKE TWP. - ZONING BOARD OF APPEALS	VARIANCE REQUEST - SURFACING MATERIALS	BY VOTE	10/24/2024	
WHITE LAKE TWP. - DLZ	FINAL ENGINEERING APPROVAL			
WHITE LAKE TWP. - PLANNING COMMISSION	FINAL SITE PLAN APPROVAL			
WHITE LAKE TWP. - BUILDING DEPARTMENT	FENCE PERMIT			
WHITE LAKE TWP. - COMMUNITY DEVELOPMENT DIRECTOR	SIGN PERMIT			
OAKLAND COUNTY - WATER RESOURCE COMMISSIONER (OCWRC)	PART 91 SOIL EROSION & SEDIMENTATION CONTROL PERMIT			
OAKLAND COUNTY - ROAD COMMISSION (RCOC)	SIDEWALK IN ROW PERMIT			
OAKLAND COUNTY - HEALTH DIVISION (OCHD)	TYPE III DRINKING WATER WELL PERMIT			
OAKLAND COUNTY - HEALTH DIVISION (OCHD)	ONSITE SEWAGE DISPOSAL SYSTEM (SEPTIC) PERMIT			
STATE OF MICHIGAN - ENERGY, GREAT LAKES, & ENVIRONMENT (EGLE)	NPDES NOTICE OF COVER			

ALL REQUIRED & APPLICABLE PERMITS & APPROVALS SHALL BE OBTAINED PRIOR TO STARTING CONSTRUCTION.



PROJECT LOCATION
 PARCEL 12-01-127-002
 PART OF SECTION 01, T3N, R8E,
 WHITE LAKE TWP.,
 OAKLAND COUNTY, MICHIGAN
 ZONED: LM, LIGHT MANUFACTURING

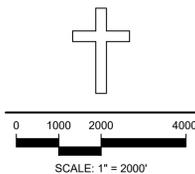
LOCATION MAP
 SCALE: 1" = 2000'

SHEET INDEX	
NO.	SHEET TITLE
G0.01	COVER SHEET
V1.01	TOPOGRAPHIC & BOUNDARY SURVEY (BY KIEFT ENGINEERING)
C0.01	CIVIL GENERAL NOTES & LEGENDS
C1.01	GENERAL SITE PLAN
C1.02	FIRE SAFETY SITE PLAN
C1.21	GRADING & JOINTING PLAN
C1.31	UTILITY PLAN
C1.41	SOIL EROSION CONTROL PLAN
C3.31	STORM SEWER PROFILES & CALCULATIONS
C5.01	DETAILS - PAVING, SIGNS, & WALK
C5.02	DETAILS - DUMPSTER ENCLOSURE & FENCING
C5.31	DETAILS - UTILITIES
C5.32	DETAILS - STORM WATER TREATMENT UNIT
N/A	WHITE LAKE TWP. - STORM SEWER STANDARD DETAILS
1 OF 1	OCWRC SOIL EROSION & SEDIMENTATION CONTROL DETAILS
L1.01	LANDSCAPE PLAN
L5.01	DETAILS - LANDSCAPE
1 OF 1	PHOTOMETRIC PLAN (BY GASSER BUSH ASSOCIATES)
A2.0	NEW FIRST FLOOR PLAN (BY J&A ARCHITECTURAL ENGINEERING)
A3.0	NEW ELEVATIONS (BY J&A ARCHITECTURAL ENGINEERING)
A3.1	NEW ELEVATIONS (BY J&A ARCHITECTURAL ENGINEERING)

REVISION INDEX*			SHEET NO.	G0.01	C0.01	C1.01	C1.02	C1.21	C1.31	C1.41	C3.31	C5.01	C5.02	C5.31	C5.32	L1.01	L5.01
NO.	DATE	DESCRIPTION															
0	04/01/2025	OWNER REVIEW FOR LARGER BUILDING															
1	10/03/2025	FINAL SITE PLAN - FINAL ENGINEERING PLAN		●	●	●	●	●	●	●	●	●	●	●	●	●	●
2	02/06/2026	FINAL SITE PLAN - FINAL ENGINEERING PLAN REVISION 1		●	●	●	●	●	●	●	●	●	●	●	●	●	●

* REVISION INDEX TRACKS LEACH ENGINEERING, PLLC DRAWINGS ONLY. SEE DRAWINGS BY OTHERS FOR PROJECT PARTNERS REVISION TRACKING.

LEACH ENGINEERING
 A PROFESSIONAL SERVICE COMPANY
 PROJECT MANAGEMENT
 CIVIL ENGINEERING
 CONSULTING
 11904 JERSEY COURT
 DAVISBURG, MI 48350
 248.884.8224
 leachpsc.com



SOLE PROVIDER FOR CONFORMANCE ONLY. ACTUAL WORK SHALL BE CONFORMED TO THE DESIGNER'S PROCEEDINGS AND NOTED IN THE FIELD BY A PROFESSIONAL SUPERVISOR.



Know what's below.
 Call before you dig.
 EXISTING UNDERGROUND UTILITY LOCATION AND ELEVATION INFORMATION SHOWN ON THIS DRAWING AND APPROVED ONLY AS TO THE ACCURACY OR COMPLETENESS THEREOF. PARTIES UTILIZING THIS INFORMATION SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OR COMPLETENESS OF EXISTING UNDERGROUND OR OVERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE OF ALL UTILITIES AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT:
 LASTING IMPRESSIONS

2255 PORTER ROAD
 WHITE LAKE, MI 48386
 CONTACT: NICHOLAS HOPSON
 PHONE: (248) 830-2828



PROJECT:
 NEW FACILITY

PARCEL 12-01-127-002

ISSUES / REVISIONS:
 FSP - FEP 10/03/25
 FSP - FEP REV. 1 02/06/26

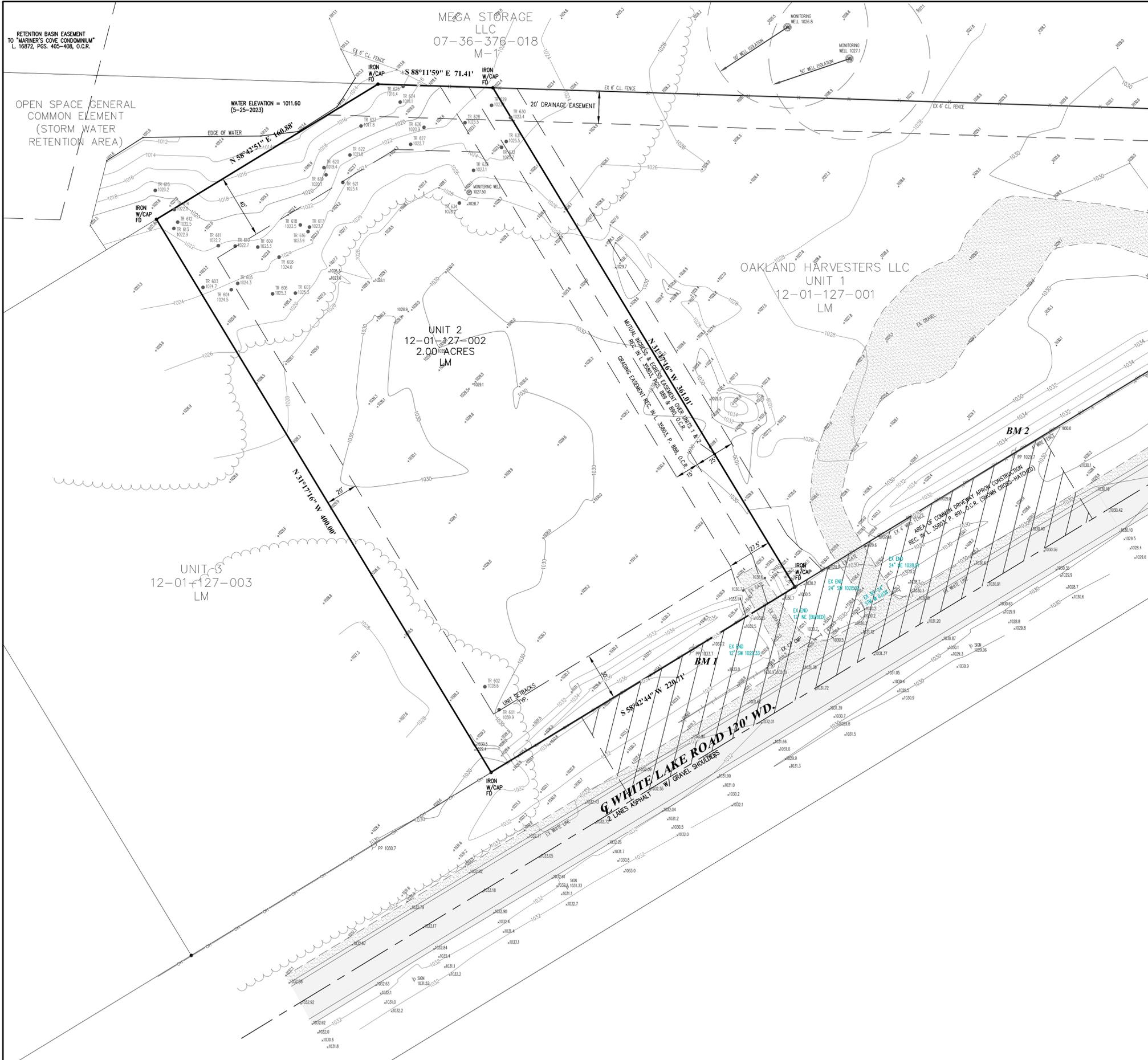
MANAGED CL
 DESIGNED CL
 DRAWN CL

SHEET NAME:
 COVER SHEET

PROJECT NUMBER: 24004

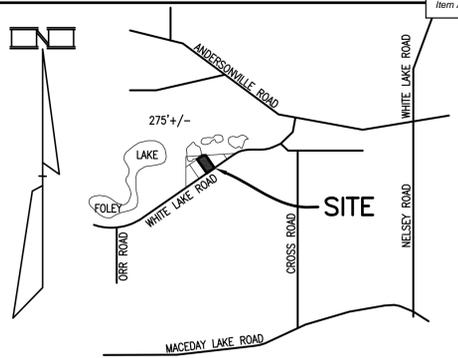
SHEET NUMBER: G0.01

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LEGEND

EXISTING	STORM SEWER
GAS	GAS MAIN
ELEC. TELE. CABLE	ELEC. TELE. CABLE
OVERHEAD WIRES	OVERHEAD WIRES
STORM MANHOLE	STORM MANHOLE
CATCH BASIN	CATCH BASIN
INLET	INLET
REARYARD CATCH BASIN	REARYARD CATCH BASIN
END SECTION	END SECTION
CONTOURS	CONTOURS
GRADE	GRADE



TREE LIST:

601	20	"	Elm
602	Tw 18	"	Poplar
603	26	"	Poplar
604	Tw 6	"	Box Elder
605	6	"	Box Elder
606	7	"	Box Elder
607	8	"	Box Elder
608	6	"	Box Elder
609	8	"	Tree of Heaven
610	26	"	Poplar
611	6	"	Tree of Heaven
612	22	"	Poplar
613	30	"	Poplar
614	Tw 30	"	Poplar
615	36	"	Tree of Heaven
616	36	"	Poplar
617	36	"	Poplar
618	Quad 14-30	"	Poplar
619	36	"	Poplar
620	12	"	Poplar
621	Tw 20	"	Box Elder
622	36	"	Poplar
623	12	"	Box Elder
624	12	"	Box Elder
625	36	"	Willow
626	30	"	Poplar
627	12	"	Tree of Heaven
628	24	"	Poplar
629	Tw 8-12	"	Box Elder
630	8	"	Tree of Heaven
631	10	"	Locust
632	10	"	Locust
633	Tw 8	"	Tree of Heaven
634	7	"	Box Elder

SITE INFORMATION:
LOT GROSS AREA: 2.00 ACRES

ZONING INFORMATION:
ZONING DISTRICT: LM LIGHT MANUFACTURING
MINIMUM LOT SIZE: 43,560 SF (1.00 AC), CONFORMS
MINIMUM LOT WIDTH: 175 FT, CONFORMS
MAXIMUM BUILDING HEIGHT: 2 STORIES OR 40 FT

SETBACKS: PER "PROSPECTORS SQUARE" O.C.C.P. NO. 1315

FRONT	REAR	SIDES	PARKING
30 FT	40 FT	20 FT LEAST, 40 FT TOTAL	10 FT

MAXIMUM LOT COVERAGE: 30%

BENCHMARKS:
BM 1: MAG NAIL IN EAST FACE OF POWER POLE
EL. = 1034.67 NAVD 88

BM 2: BOLT SPIKE ON NORTH FACE PF POWER POLE
EL. = 1030.06 NAVD 88

GENERAL NOTES:

- EXISTING UTILITIES SHOWN HAVE BEEN TAKEN FROM VISUAL OBSERVATION & RECORD MAPPING. WHERE AVAILABLE, NO GUARANTEE IS MADE, OR SHOULD BE ASSUMED, AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY & COMPLETENESS OF OVERHEAD & UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES.
- BUILDER/DEVELOPER IS RESPONSIBLE FOR CONFIRMING BUILDING SETBACKS.

WETLAND NOTE:
PART 303 WETLANDS, AS IDENTIFIED ON NW1 & MRS MAPS AS SHOWN ON THE EGLE WETLANDS MAP VIEWER APPEAR NEAR THE NORTH PROPERTY LINE OF THE PARCEL. THE EDGE OF WATER WAS FIELD LOCATED. A WETLAND DETERMINATION & DELINEATION HAS NOT BEEN PERFORMED.

FLOOD HAZARD NOTE:
THE PROPERTY DESCRIBED ON THIS PLAN DOES NOT APPEAR TO LIE WITHIN A SPECIAL FLOOD HAZARD AREA AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) BASED ON FLOOD INSURANCE RATE MAP (FIRM) NO. 26125C0329P BARING AN EFFECTIVE DATE OF 9/28/2006.

THIS IS TO CERTIFY THAT I, William J. Norman II, A PROFESSIONAL LAND SURVEYOR, HAVE THIS DATE MADE A SURVEY OF A PARCEL OF LAND DESCRIBED AS FOLLOWS:

LEGAL DESCRIPTION:
UNIT 2, "PROSPECTORS SQUARE" O.C.C.P. NO. 1315, WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN.
PARCEL#: 12-01-127-002
ADDRESS: NOT ASSIGNED



DATE	ISSUE
07/19/23	SURVEY ISSUED
06/21/24	PSP REV. 1

PROPRIETOR:
HOPSON HOLDINGS, LLC
2255 PORTER ROAD
WHITE LAKE, MICHIGAN 48383
(248) 830-2828

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KIEFT ENGINEERING, INC.
PROFESSIONAL ENGINEERS AND PROFESSIONAL SURVEYORS
5852 SOUTH MAIN STREET, SUITE 1, CLARKSTON, MICHIGAN 48346
PHONE (248) 625-5251 www.kiefteng.com FAX (248) 625-7110

DATE: 06/30/23	CKD. BY: WJN	DATE: 06/30/23
DRAWN: GF	DESIGN: CL	SECTION: 1



BOUNDARY & TOPOGRAPHIC SURVEY
LASTING IMPRESSIONS
PART OF THE NORTH 1/2 OF SECTION 1, T3N, R8E,
WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE: 1" = 30'
SHEET NO: V1.01
KE 2023.104

PRINTING IMPRESSIONS

GENERAL

- 1. PRIOR TO SUBMITTING PROPOSAL, VERIFY ALL CONDITIONS GOVERNING OR AFFECTING THE WORK; OBTAIN & VERIFY ALL DIMENSIONS TO ENSURE THE PROPER FIT & LOCATION OF THE WORK. TAKE ADDITIONAL DIMENSIONS AS REQUIRED; REPORT TO THE ENGINEER ANY & ALL CONDITIONS WHICH MAY INTERFERE WITH OR OTHERWISE AFFECT OR PREVENT THE PROPER EXECUTION & COMPLETION OF THE WORK...

CLEARING, GRUBBING, & EARTHWORK

- 1. AT THE START OF EARTHWORK OPERATIONS, ALL SURFACE VEGETATION SHALL BE CLEARED & THE EXISTING TOPSOIL & ANY OTHER ORGANIC SOILS SHALL BE REMOVED IN THEIR ENTIRETY FROM BELOW THE PROPOSED BUILDING & PAVEMENT AREAS. EXISTING RANDOM CONCRETE & OTHER DEBRIS SHALL BE REMOVED FROM WITHIN THE BUILDING AREA...

GENERAL PAVING & CURBING NOTES

- 1. ALL HOT MIX ASPHALT & CONCRETE PAVEMENT SHALL CONFORM TO THE 2020 MDOT SPECIFICATIONS FOR CONSTRUCTION.
2. SURFACE RESTORATION: RESTORE PAVEMENT & OTHER SURFACES DISTURBED BY CONTRACT OPERATIONS TO THEIR ORIGINAL CONDITION OR BETTER.

ASPHALT

- 1. AFTER FINAL ROLLING, PROTECT PAVEMENT FROM VEHICULAR TRAFFIC UNTIL THE SURFACE HAS COOLED SUFFICIENTLY TO ELIMINATE SURFACE ABRASION.

PAVEMENT SEALER

- A. PAVEMENT SEALER SHALL BE TARCONITE BY NEYRA INDUSTRIES, INC. OR APPROVED SUBSTITUTE. SEALER SHALL MEET FS R-P-3556 PITCH, COAL TAR EMULSION (COATING FOR BITUMINOUS PAVEMENTS).

CAST-IN-PLACE CONCRETE & CONCRETE PAVING

- 1. ALL CAST IN PLACE CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301- LATEST REVISION. "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING", EXCEPT AS NOTED ON THE DRAWINGS.
2. ALL CONCRETE PAVEMENT WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 330- LATEST REVISION "GUIDE FOR THE DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS", EXCEPT AS NOTED ON THE DRAWINGS.

CONTROL

- 1. TOPOGRAPHIC INFORMATION: EXISTING INFORMATION IS BASED ON A TOPOGRAPHIC SURVEY BY KIEFT ENGINEERING, INC. DATED JULY 19, 2023. SUPPLEMENTED BY RECORD DRAWINGS & FIELD OBSERVATIONS.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD 88 DATUM. THE BENCH MARKS USED ARE SHOWN ON THE TOPOGRAPHIC SURVEY.

UTILITIES

- 1. MINIMUM COVER OF UNDERGROUND UTILITIES:
WATER 6.0 FT
NATURAL GAS 2.5 FT
SANITARY SEWERS 4.0 FT
ALL OTHERS 3.5 FT
PRESSURE UTILITIES MAY BE LAID APPROXIMATELY PARALLEL TO FINISH GRADE WITH NO HIGH POINTS, EXCEPT AS INDICATED...

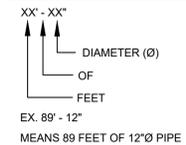
SOIL EROSION & SEDIMENTATION CONTROL

- 1. COMPLY WITH THE REQUIREMENTS OF THE OAKLAND COUNTY WATER RESOURCE COMMISSIONER EROSION & SEDIMENTATION CONTROL PERMIT ALONG WITH ALL APPLICABLE FEDERAL, STATE, COUNTY, & CITY LAWS, CODES, & REGULATIONS PERTAINING TO THE IMPLEMENTATION, MAINTENANCE, & DOCUMENTATION OF SEDIMENTATION & EROSION CONTROL PRACTICES.

SEQUENCE OF EROSION & SEDIMENTATION CONTROL OPERATIONS:

- 1. A PERIMETER DEFENSE WILL BE INSTALLED PRIOR TO CONSTRUCTION TO CONTAIN RUNOFF FROM ALL PROPOSED DISTURBED AREAS. SEDIMENT CONTROL WILL BE INITIATED WHICH WILL CONSIST OF MAINTAINING ALL EXISTING VEGETATION & DIRECTING ALL RUNOFF ON SITE.

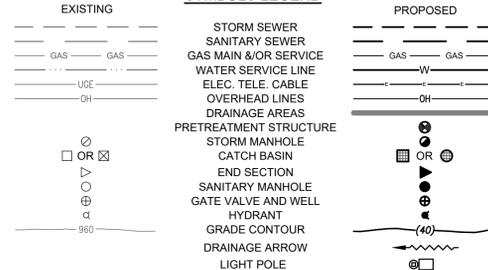
PIPE SIZE DESIGNATION



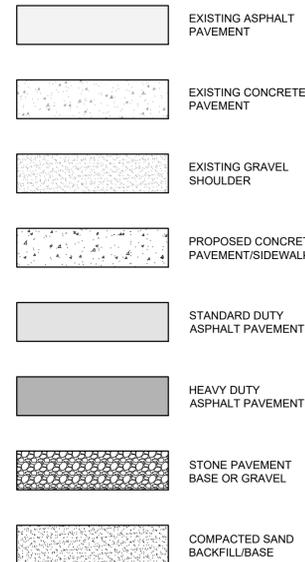
LEGEND OF ABBREVIATIONS

Table with 2 columns: Abbreviation and Description. Includes symbols like @, ASPH, B/B, B/R, B/W, B.O.C, B.O.P, CB, CL, CMP, C.O, CONC, C.A, C.P.P.P, DEMO, D.I, DS, E, EL, ELE, EQ, ES, E.W, EX, EXIST, F, FF, FG, F.O.C, G, GV&W, H.P, HYD, IN, I.E, LOC, L.P, M, MAX, MH, MIN, N, O.C, O.H, P.C, P.T, PR, PROP, R.C.P, R, ROW, RR, S, s, SAN, S.D, SESC, SP, STN, STM, T/W, T/C, T/P, T/R, T/S, TD, T.O.P, TYP, U.G, U.N.O, W, WM, WS, Ø.

SYMBOLS LEGEND



MATERIAL POCHHE LEGEND



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SCALE: NONE

SCALE: NONE



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CLIENT:

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2255 PORTER ROAD
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CONTACT: NICHOLAS HOPSON
PHONE: (248) 830-2828

SEAL:



PROJECT:
NEW FACILITY

PARCEL 12-01-127-002

ISSUES / REVISIONS:

Table with 2 columns: Revision Number and Date. Row 1: FSP - FEP 10/03/25. Row 2: FSP - FEP REV. 1 02/06/26.

Table with 2 columns: Action and Status. Row 1: MANAGED CL. Row 2: DESIGNED CL. Row 3: DRAWN CL.

SHEET NAME:

CIVIL GENERAL
NOTES & LEGENDS

PROJECT NUMBER: 24004

SHEET NUMBER: C0.01

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PROJECT:
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PARCEL 12-01-127-002

ISSUES / REVISIONS:
FSP - FEP 10/03/25
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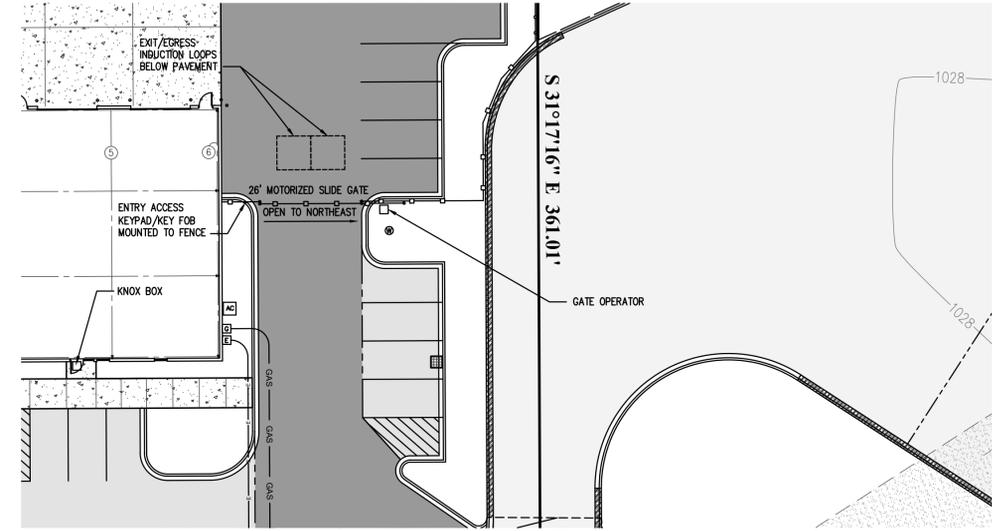
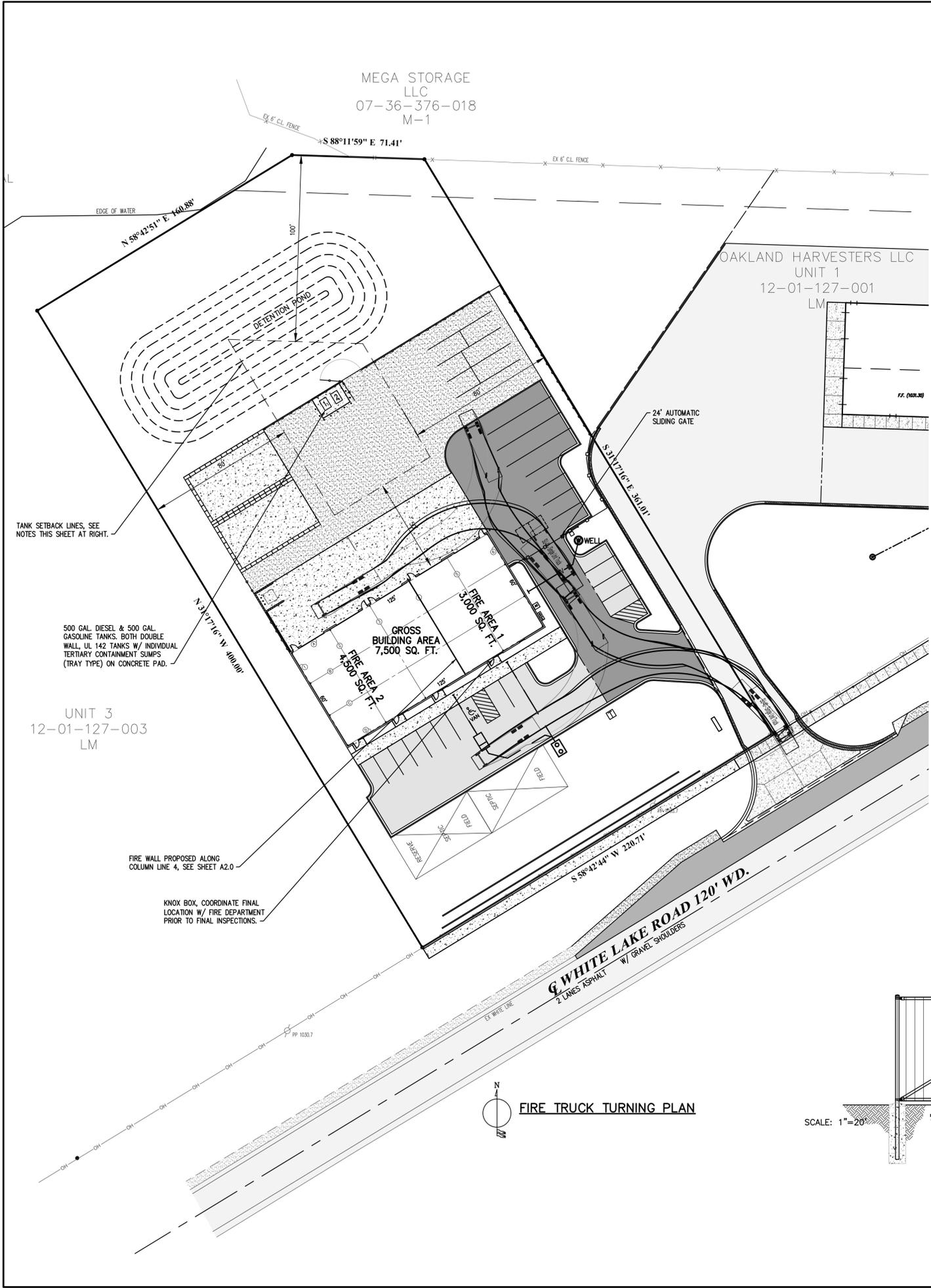
MANAGED CL
DESIGNED CL
DRAWN CL

SHEET NAME:
FIRE SAFETY SITE PLAN

PROJECT NUMBER: 24004

SHEET NUMBER: **C1.02**

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DRIVEWAY & PLAN CLARITY NOTE:
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SINGLE SLIDING POWER GATE ENLARGED PLAN
SCALE: 1"=10'

SITE INFORMATION:
LOT GROSS AREA: 2.00 ACRES

BUILDING INFORMATION:
BUILDING SHALL BE PRE-ENGINEERED METAL BUILDING, NON-SPRINKLED

GROSS AREA = 7,500 SF
A FIRE WALL WILL BE CONSTRUCTED ALONG COLUMN LINE 4 SEPARATING THE FIRE AREAS
LARGEST FIRE AREA = 3,000 SF
BUILDING HEIGHT = 20 FT TO EAVE, 25 FT TO PEAK

FUEL TANK NOTES:

FUEL TANK 1 - GASOLINE - 500 GALLON HORIZONTAL, UL-142
FUEL TANK 2 - DIESEL - 500 GALLON HORIZONTAL, UL-142

ISOLATION DISTANCES FOR UL-142 FUEL TANKS PER NFPA 30 & 30A:

STRUCTURE/BUILDING: 50 FT
PROPERTY LINE THAT CAN BE BUILT UPON: 100 FT
NOTE: PROPERTY LINE SETBACK SHOWN AS 80 FT DUE TO 20 FT SETBACK ON ADJACENT PARCEL.

UL-142 TANKS ARE DUAL WALL PROVIDING SECONDARY CONTAINMENT.
ADDITIONAL SUMPERS ARE PROPOSED THAT WILL PROVIDE TERTIARY CONTAINMENT.

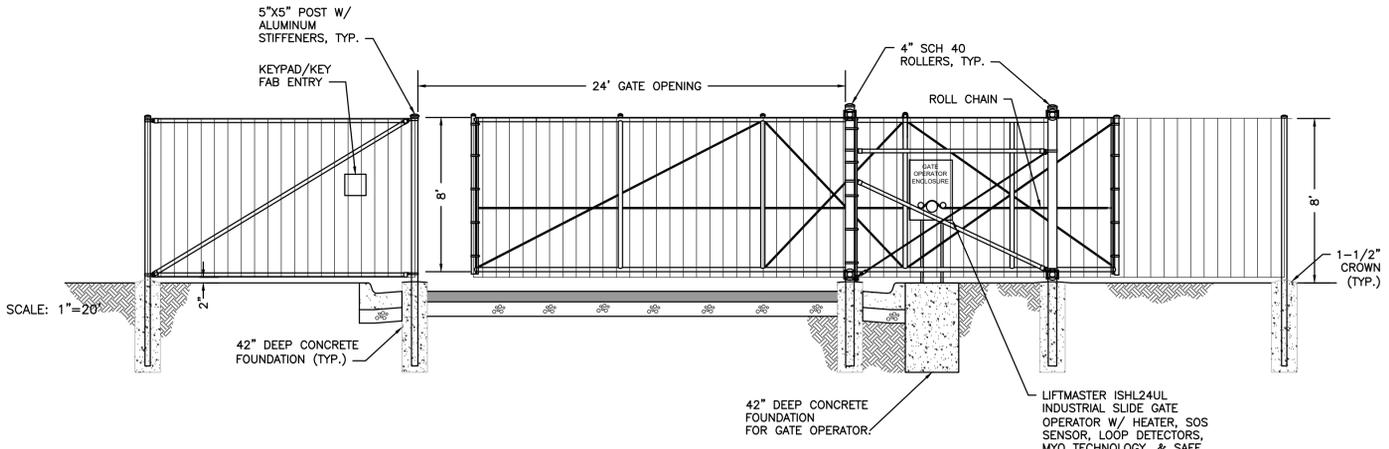
FIRE SAFETY NOTES:

- 1. FIRE TRUCK TURNING BASED ON AASHTO SU-40 SINGLE UNIT TRUCK.
- 2. A KNOX BOX SHALL BE PLACED ON THE FRONT OF THE BUILDING. FINAL LOCATION TO BE DETERMINED AND APPROVED BY FIRE INSPECTOR AT A LATER TIME.

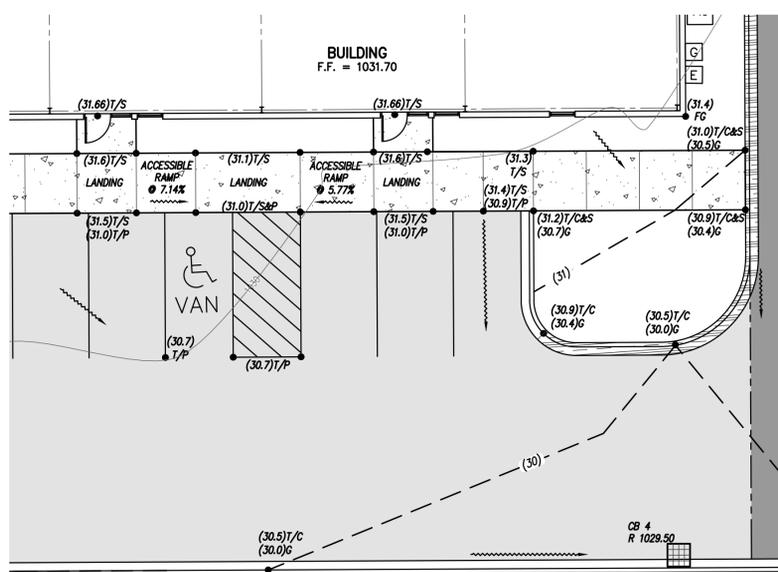
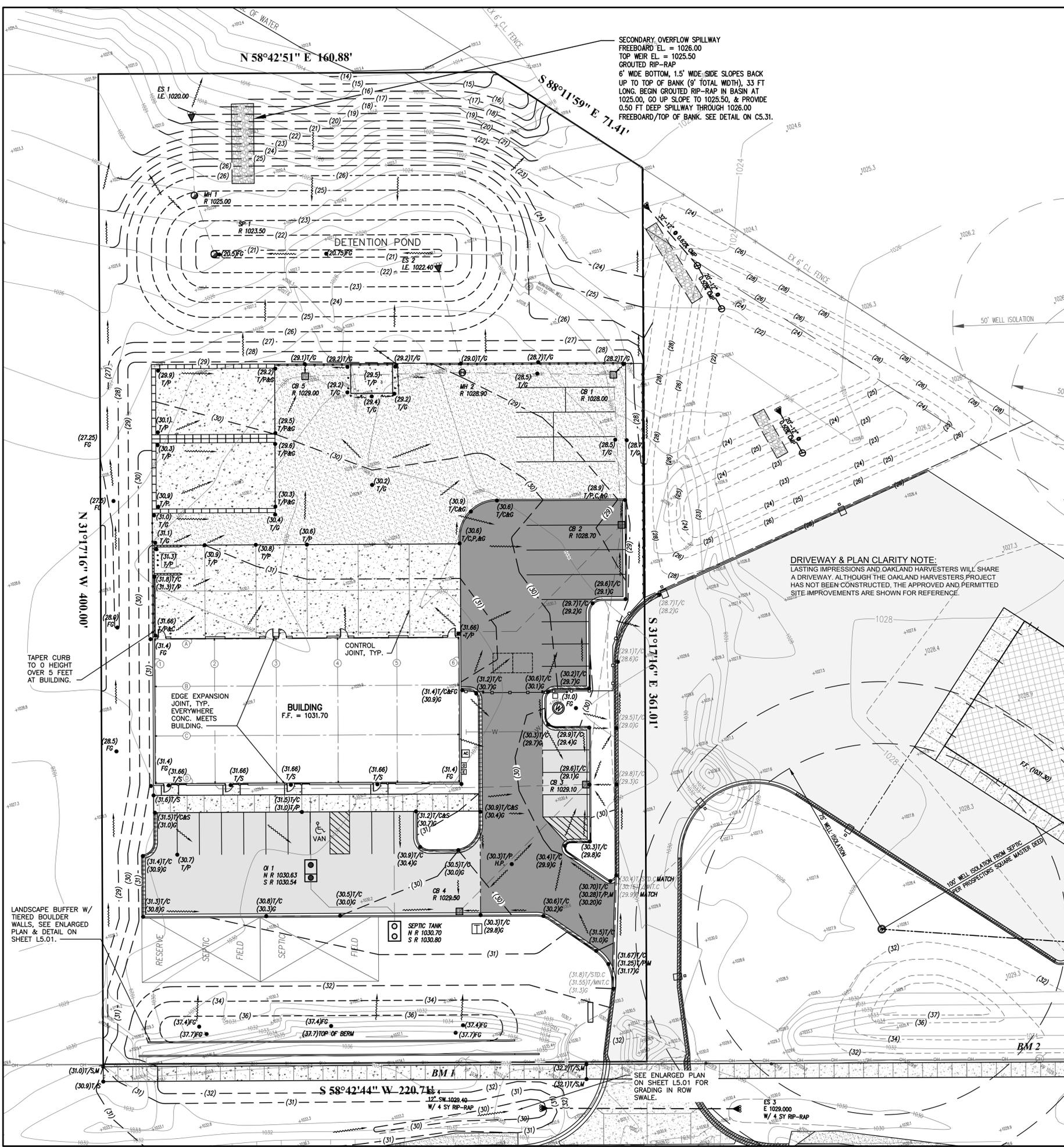
AUTOMATIC SLIDING GATE ACCESS NOTES:

- 1. ACCESS FOR EMPLOYEES SHALL BE REMOTE (E.G. GARAGE DOOR CLICKER) OR PHONE APP WHICH SHALL NOT REQUIRE THE USE OF THE KEYPAD OR KEY FOB STATION.
- 2. ACCESS SHALL BE PROVIDED TO THE FIRE DEPARTMENT VIA ALL OF THE FOLLOWING:
 - 2.1. KEYPAD USING UNIVERSAL FIRE DEPARTMENT CODE.
 - 2.2. KEY FIB (SAME AS BUILDING FAB) LOCATED IN KNOX BOX AT FRONT DOOR.
 - 2.3. SOS (SIREN) SENSOR.
- 3. IN THE CASE OF A POWER OUTAGE THE GATE CAN BE OPENED IN THE FOLLOWING WAYS:
 - 3.1. BATTERY BACKUP OPERATION ALLOWS 20 CYCLES AND HAS A STANDBY TIME OF 105 DAYS.
 - 3.2. THE LOCKABLE GATE OPERATOR SHALL HAVE A KEY LOCATED IN THE KNOX BOX. A LEVER DISCONNECT CAN BE PULLED TO DISENGAGE THE DRIVE.

FIRE TRUCK TURNING PLAN



SINGLE SLIDING POWER GATE SOUTH ELEVATION (FROM DRIVE IN SIDE)
N.T.S.



ENLARGED ACCESSIBLE PARKING GRADING PLAN
 SCALE: 1" = 10'

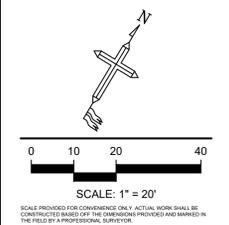
CURBING & JOINTING LEGEND

	PROPOSED	EXISTING
STANDARD CURB		
REVERSE CURB		NOT DESIGNATED
PAVEMENT JOINT		NOT DESIGNATED

BENCHMARKS:
 BM 1: MAG NAIL IN EAST FACE OF POWER POLE
 EL. = 1034.67 NAVD 88
 BM 2: BOLT SPIKE ON NORTH FACE PF POWER POLE
 EL. = 1030.06 NAVD 88

- GENERAL NOTES:**
- SEE SHEET C0.01 FOR GENERAL NOTES & LEGENDS.
 - SEE SHEET C1.41 FOR CLEARING SESC PLAN & CLEARING LIMITS.
 - SEE SHEET C5.01 FOR PAVING & JOINTING DETAILS.

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 SEAL:



PROJECT:
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PARCEL 12-01-127-002
 ISSUES / REVISIONS:

FSP - FEP	10/03/25
FSP - FEP REV. 1	02/06/26

MANAGED: CL
 DESIGNED: CL
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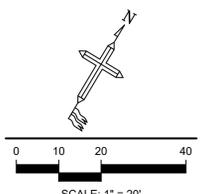
SHEET NAME:
GRADING & JOINTING PLAN

PROJECT NUMBER: 24004
 SHEET NUMBER: **C1.21**



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PHONE: (248) 830-2828
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PROJECT:
NEW FACILITY

PARCEL 12-01-127-002

ISSUES / REVISIONS:

FSP - FEP	10/03/25
FSP - FEP REV. 1	02/06/26

MANAGED	CL
DESIGNED	CL
DRAWN	CL

SHEET NAME:
UTILITY PLAN

PROJECT NUMBER: 24004

SHEET NUMBER: C1.31

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UTILITY LEGEND

	PROPOSED	EXISTING
STORM SEWER	---	---
SANITARY SEWER	---	---
WATER MAIN	---	---
GAS PIPING	---	---
UG FIBER	---	---
UG ELECTRIC	---	---
OVERHEAD LINES	---	---
DRAINAGE AREAS	---	---
DRAINAGE AREA INFO	0.16 AC C=0.95	NOT DESIGNATED
UG FIBER	---	---
PIPE FLOW DIRECTION	<	NOT DESIGNATED

UTILITY STRUCTURE LEGEND

	PROPOSED	EXISTING
TREATMENT STRUCTURE	⊙	NOT DESIGNATED
STORM MANHOLE	⊙	⊙
CATCH BASIN	⊙	⊙
END SECTION	⊙	⊙
SANITARY MANHOLE	⊙	⊙
CLEAN OUT	⊙	⊙
GATE VALVE	⊙	⊙
FIRE HYDRANT	⊙	⊙
LIGHT POLE	⊙	⊙

SITE INFORMATION:
LOT GROSS AREA: 2.00 ACRES

WATER SUPPLY:
TYPE III WELL PROPOSED MEETING 201 SPECIFICATION DUE TO 201 SITE TO NORTH, & ISOLATION DISTANCES FROM STORM SEWER.
WELL SHALL INCLUDE STEEL CASING, NEAT CEMENT FILL, & TYPE K COPPER SERVICE.

OIL SEPARATOR (O 1) PER 2021 PLUMBING CODE 1003.4.2.2:
6 CF FOR FIRST 100 SF + 1 CF PER ADDITIONAL 100 SF
ASSUME WAREHOUSE/GARAGE = 70% OF TOTAL BUILDING
7,500 SF (0.70) = 5,250 SF TO BE DRAINED
6 CF + 1 CF (5,150 SF/100SF) = 57.5 CF = 424.6 GALLONS REQUIRED
700 GALLON TANK PROVIDED

ONSITE WASTEWATER TREATMENT SYSTEM (SEPTIC):
PER OCHD SANITARY CODE, ARTICLE III - STANDARD SYSTEM (NOT ENGINEERED)
BED APPLICATION RATE FOR (ASSUMED) LOAM, SANDY CLAY LOAM: 0.3 GAL/SF/D

DEMAND FOR USE BASED ON 2018 UNIT FACTORS

**OFFICE, ASSUME 30%
(7,500 SF)(30%)(0.4 REU/1,000 SF)(270 GPD/REU) = 243.0 GPD FOR OFFICE**

**WAREHOUSE, ASSUME 70%
(7,500)(70%)(0.1 REU/1,000 SF)(270 GPD/REU)(110%) = 155.9 GPD
NOTE: WAREHOUSE AREA WAS INCREASED 10% OVER THE 2017 VALUE DUE TO THE NEW UNIT FACTOR CHART HAS WAREHOUSE ON A FIXTURE UNIT BASIS, WHICH DOES NOT LEND ITSELF TO SEPTIC DESIGN.**

243.0 + 155.9 = 398.9 GPD REQUIRED

**APPLICATION BED SIZE: 398.9 GPD/0.3G/SF/D = 1,329.8 SF BED REQUIRED
48 FT X 28 FT = 1,344 SF BED PROPOSED**

TANK SIZE: 1,500 GALLON DUAL COMPARTMENT

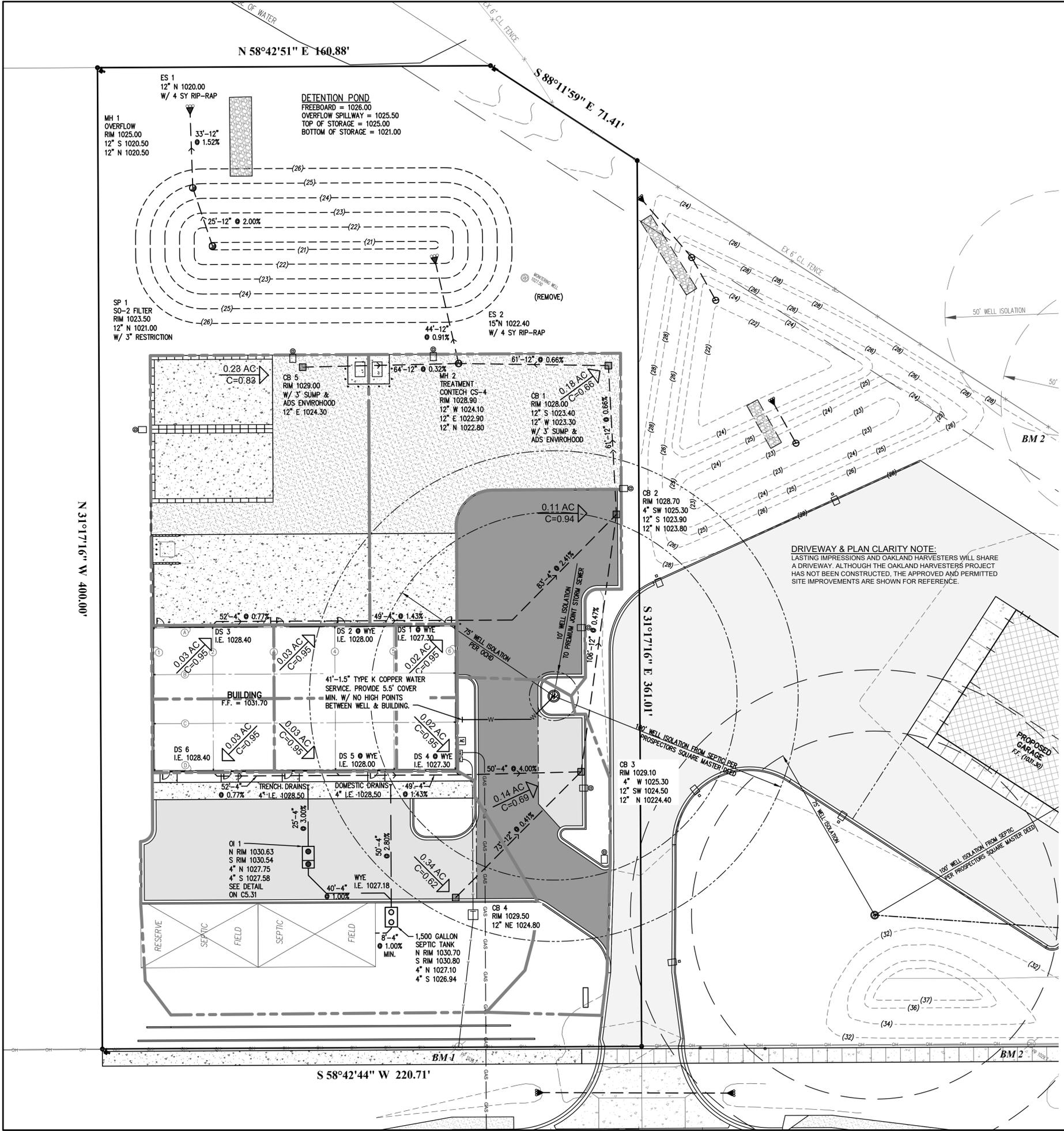
ISOLATION DISTANCES PER SANITARY CODE ARTICLE III:

WELL:	75 FT	PROPERTY LINE:	10 FT
WATER LINE:	10 FT	OPEN WATER:	50 FT (100 FT PER TWP. ZO)
BUILDING:	10 FT	DETENTION POND:	50 FT
STORM SEWER:	50 FT		

- UTILITY NOTES:**
- SEE SHEET C0.01 FOR GENERAL NOTES & LEGENDS.
 - SEE SHEET C3.31 FOR STORM SEWER PROFILES AND CALCULATIONS
 - SEE SHEET C5.31 FOR UTILITY DETAILS
 - ALL STORM AND SANITARY PIPE SMALLER THAN 12" SHALL BE PVC SCH 40 W/ SOLVENT WELDED JOINTS.

BENCHMARKS:
BM 1: MAG NAIL IN EAST FACE OF POWER POLE
EL. = 1034.67 NAVD 88
BM 2: BOLT SPIKE ON NORTH FACE PF POWER POLE
EL. = 1030.06 NAVD 88

DRIVEWAY & PLAN CLARITY NOTE:
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N 31°17'16" W 400.00'

N 58°42'51" E 160.88'

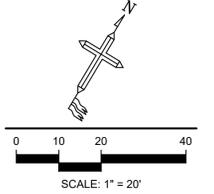
S 88°11'59" E 71.41'

S 58°42'44" W 220.71'



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SCALE: 1" = 20'



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PROJECT:
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PARCEL 12-01-127-002

ISSUES / REVISIONS:

FSP - FEP	10/03/25
FSP - FEP REV. 1	02/06/26

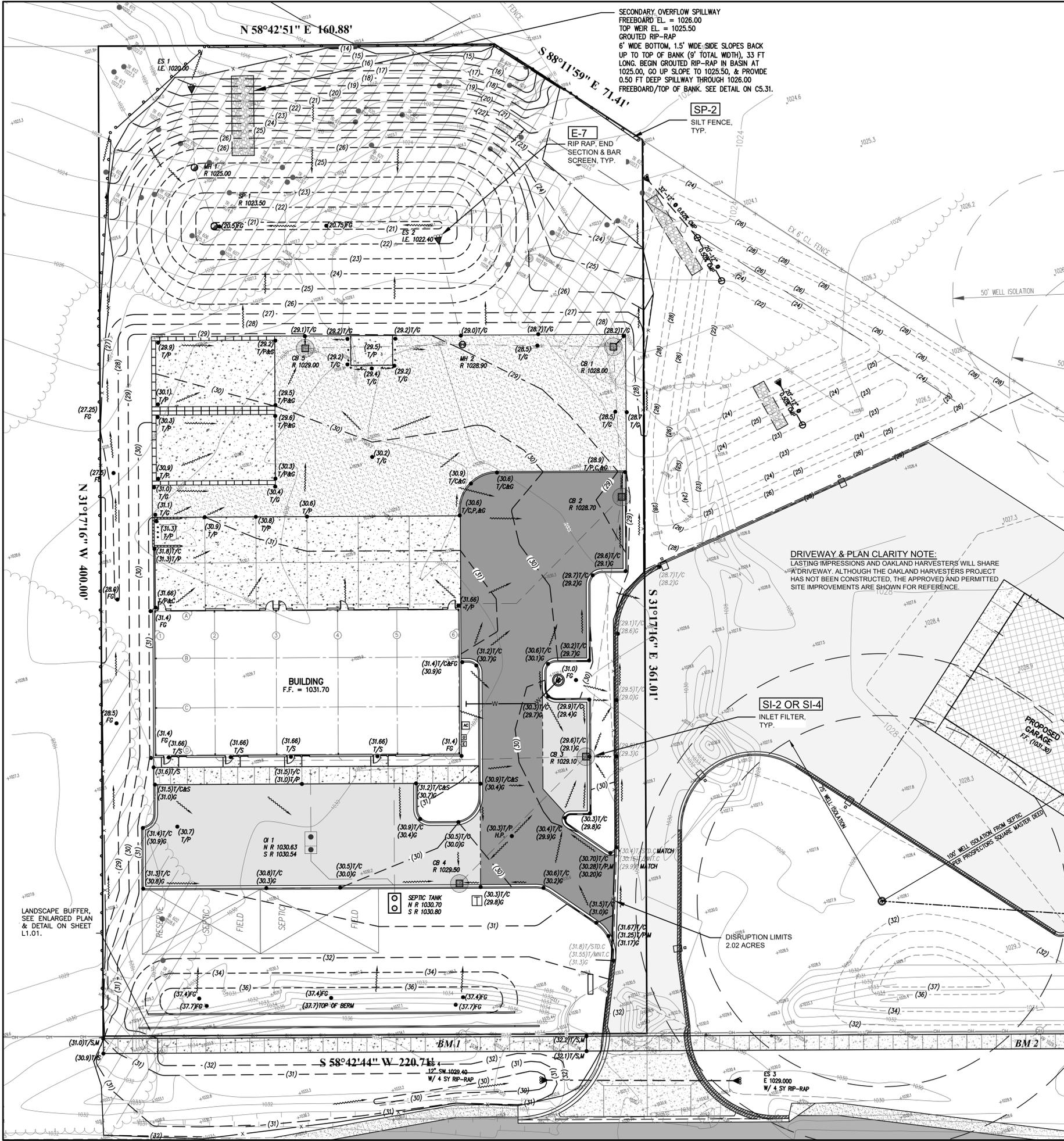
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DESIGNED	CL
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SHEET NAME:
SOIL EROSION & SEDIMENTATION CONTROL PLAN

PROJECT NUMBER: 24004

SHEET NUMBER: C1.41

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SECONDARY OVERFLOW SPILLWAY
FREEBOARD EL. = 1026.00
TOP WEIR EL. = 1025.50
GROUTED RIP-RAP
6' WIDE BOTTOM, 1.5' WIDE SIDE SLOPES BACK UP TO TOP OF BANK (9' TOTAL WIDTH), 33 FT LONG. BEGIN GROUTED RIP-RAP IN BASIN AT 1025.00, GO UP SLOPE TO 1025.50, & PROVIDE 0.50 FT DEEP SPILLWAY THROUGH 1026.00 FREEBOARD/TOP OF BANK. SEE DETAIL ON C5.31.

SESC LEGEND

- OCWRC BMP DESIGNATION (SEE STANDARD DETAIL SHEET)
- SILT FENCE (SP-2)
- INLET FILTER
USE SI-2 IN YARD
USE SI-4 AT CURB & GUTTER
- DISRUPTION LIMITS
- RIP RAP
- CLEARING LIMITS

GRADING LEGEND

- PROPOSED
SPOT GRADE: (22.51)/C (22.01)/P
- EXISTING: + 915.87
- CONTOUR LINE: (16)
- DRAINAGE FLOW ARROW
- NOT DESIGNATED

SESC SO-2 TEMPORARY OUTLET FILTER

C = 0.51
A = 2.00 ACRES
Vr = 4,320 CA = 4379 CF REQ'D

EL (FT)	AREA (SF)	VOLUME (CF)	ΣVOLUME (CF)
1023.50	3,958	1,762	4,906
1023	3,109	2,302	3,143
1022	1,580	842	842
1021	280		

OUTFLOW CALCULATIONS

H = DEPTH OF BASIN ABOVE CL OUTLET PIPE = 1023.50 - [1021 + 1' / 2] = 2.46 FT

$A_m = \frac{V_r}{H} = \frac{4379}{2.46} = 1,781$ SF 1" HOLE

$L = \sqrt{A_m} = \sqrt{1,781} = 42.20$ FT LENGTH OF BASIN BOTTOM IS 93 FT

$a = \frac{0.3988 A_m H^{0.5}}{172,800} = \frac{0.3988 (1,781) (2.46)^{0.5}}{172,800} = 0.006445$ SF = 0.928 IN²

$A_{r1} = \frac{\pi D^2}{4} = \frac{\pi (1)^2}{4} = 0.785398$ IN²

$a/A_{r1} = \frac{0.928}{0.785398} = 1.18 \rightarrow 2$ 1" HOLE

USE (2) 1" HOLES EQ. SP. AROUND STANDPIPE TO OFFSET FOR CLOGGING
SP 1 (SO-2 DETENTION BASING OUTLET FILTER) CALCULATIONS

NOTES:

- SEE OCWRC SESC DETAIL SHEET &/OR WHITE LAKE TOWNSHIP STORM SEWER STANDARD DETAILS FOR SO-2 FILTER.
- SEE SHEET C1.31 UTILITY PLAN SHOWING RIM & INVERT ELEVATIONS FOR THE SO-2 FILTER.
- SEE SHEET C3.31 STORM SEWER PROFILES SHOWING RIM & INVERT ELEVATIONS FOR THE SO-2 FILTER.
- AT THE END OF CONSTRUCTION THE SEDIMENT ACCUMULATED IN THE SO-2 FILTER SUMP & THE SETTLING POND IN THE DETENTION BASIN SHALL BE REMOVED. THE SO-2 FILTER SHALL BECOME A PERMANENT OUTLET CONTROL FOR THE DETENTION POND.

SITE INFORMATION:

LOT GROSS AREA: 2.00 ACRES
AREA OF DISRUPTION: 1.92 ACRES (INCLUDES OFFSITE ROW AREA)

SOIL CHARACTERISTICS:

THE USDA WEB SOIL SURVEY INDICATES THE FOLLOWING SOIL TYPES:
50B - UDIPSAMMENTS, UNULATING - HYDROLOGIC SOIL GROUP A (0.1%)
50D - UDIPSAMMENTS, ROLLING TO STEEP - HYDROLOGIC SOIL GROUP A (99.5%)
WATER - (0.4%)

A GEOTECHNICAL INVESTIGATION HAS NOT BEEN PERFORMED AT THIS TIME.

GENERAL NOTES:

- SEE SHEET C0-01 FOR GENERAL NOTES & LEGENDS. SEQUENCE OF SOIL EROSION & SESC NOTES ON THIS SHEET.
- SEE OAKLAND COUNTY WATER RESOURCE COMMISSIONER (OCWRC) SOIL EROSION & SEDIMENTATION CONTROL STANDARD DETAIL SHEET 1 OF 1.
- OBTAIN A SOIL EROSION PERMIT FROM OCWRC PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION, MAINTENANCE, AND REPAIRS TO SESC MEASURES DURING CONSTRUCTION.
- ANY CORRECTIVE ACTIONS OR FINES ASSOCIATED WITH THE SESC PERMIT SHALL BE PAID BY THE CONTRACTOR.
- THIS PROJECT WILL BE CONSTRUCTED CONCURRENTLY WITH OAKLAND HARVESTERS PARCEL 12-01-127-001. SOIL EROSION PERMIT 000515-2024-CO WHICH INCLUDES A TEMPORARY STONE CONSTRUCTION ENTRANCE FOR THE SHARED DRIVEWAY.

BENCHMARKS:

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EL. = 1034.67 NAVD 88
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SI-2 OR SI-4
INLET FILTER,
TYP.

PROPOSED
GARAGE
17' (104.30)

LANDSCAPE BUFFER,
SEE ENLARGED PLAN
& DETAIL ON SHEET
L1.01.



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PARCEL 12-01-127-002

ISSUES / REVISIONS:

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FSP - FEP REV. 1	02/06/26

MANAGED **CL**
DESIGNED **CL**
DRAWN **CL**

SHEET NAME:
STORM SEWER PROFILES & CALCULATIONS

PROJECT NUMBER: 24004

SHEET NUMBER: **C3.31**

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100 YEAR DETENTION BASIN CALCULATION (I.E. WITH OUTLET)

ONSITE CONTRIBUTING AREA	=	2.00	
OFFSITE CONTRIBUTING AREA	=	0.00	
TOTAL CONTRIBUTING AREA	A	=	2.00
RUNOFF AREAS			
PAVEMENT @	0.95	20,585 SF	= 0.47 AC
BUILDING @	0.95	7,500 SF	= 0.17 AC
GRAVEL @	0.6	7,185 SF	= 0.16 AC
LAWN @	0.25	45,005 SF	= 1.03 AC
POND @	1.0	6,845 SF	= 0.16 AC
TOTAL		87,120 SF	= 2.00 AC
WEIGHTED C	=	0.51	
Q _A =	0.20 CFS/ACRE	2.00 ACRES	= 0.40 CFS
Q _O =	Q _A / (A)(C)	0.40 / (2.00)(0.51)	= 0.39 CFS
100-YEAR DETENTION BASIN			
T ₁₀₀ =	-25 + √(10,312.5 / Q _O)		= 137.79 MINUTES
V _{S100} =	16,500 T	40 Q _O T	= 11821.3 CF
ACRE			
V _{T100} REQ'D =	V _S CA		= 12,152 CF REQ'D

EL (FT)	AREA (SF)	VOLUME (CF)	ΣVOLUME (CF)
1025	6,845	5,826	12,924
1024	4,864	3,954	7,097
1023	3,109	2,302	3,143
1022	1,580	842	842
1021	280		

TOTAL VOLUME PROVIDED = 12,924 CF OK

OUTFLOW CALCULATIONS

ORIFICE FORMULA

Q _A =	0.62 (AO)(2gh) ^{1/2}
A _O =	AREA ORIFICE PIPE
g =	32.2 FT/SEC ²
H =	DEPTH OF BASIN ABOVE CL OUTLET PIPE
	TOP CL OUTLET
	1025 - [1021 + 3" / 2] = 3.88 FT
A _O =	Q _A / (0.62 (2gh) ^{1/2}) = 0.04 SF
D _O =	DIAMETER OF ORIFICE
D _O =	√(4A _O) = 0.23 FT = 2.74 INCH → USE 3" RESTRICTION IN STANDPIPE SP 1 OUTLET PIPE TO PREVENT CLOGGING

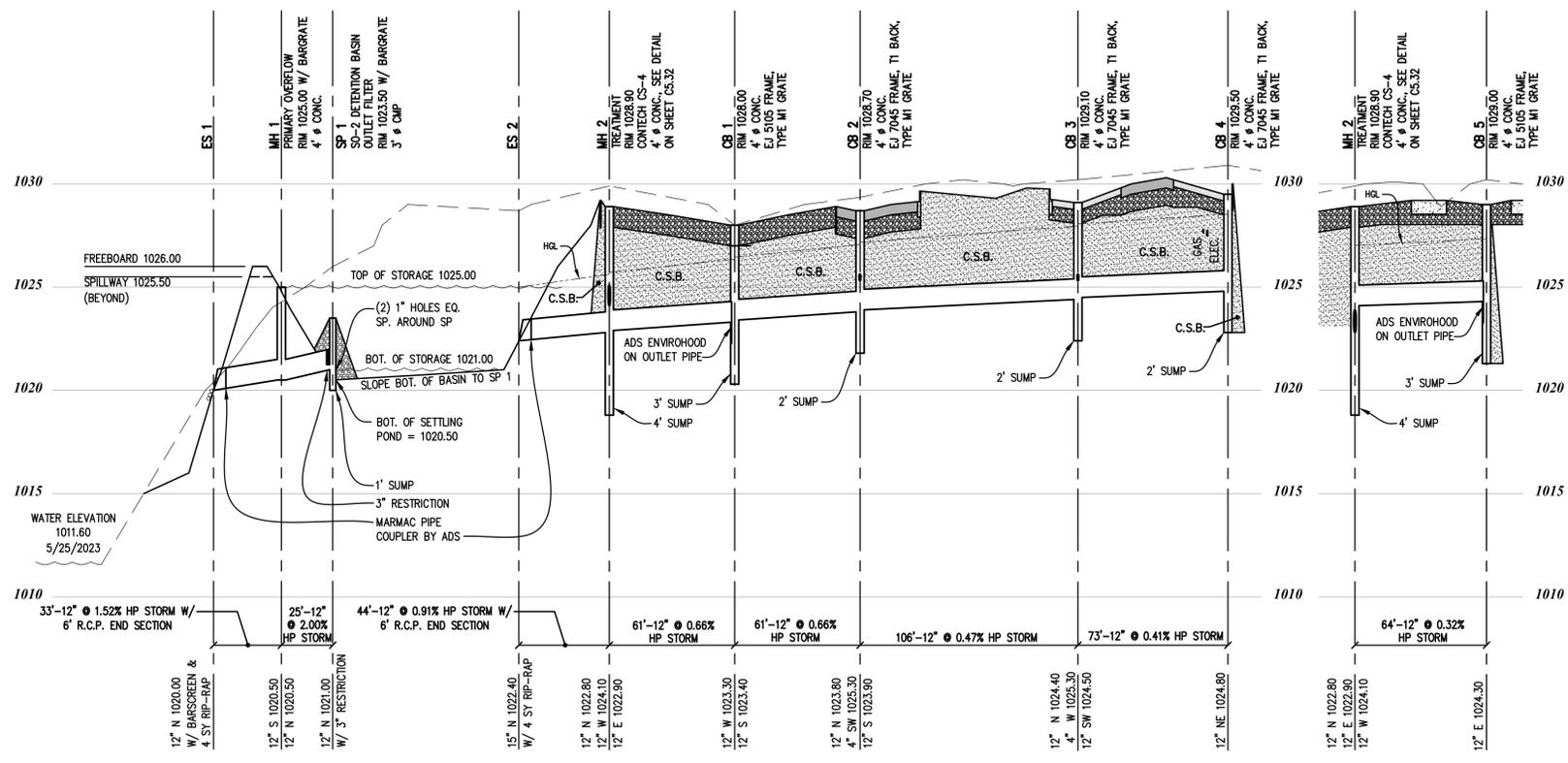
10 YEAR OUTLET PIPE SIZING

Q ₁₀ =	C ₁₀ A
I ₁₀ =	175 = 4.38 IN/HR
	T _C + 25
Q ₁₀ =	4.50 CFS

A 12" PIPE @ 1.52% W/ n = 0.012 CAN PASS 4.77 CFS

100-YEAR SECONDARY OVERFLOW SPILLWAY

Q ₁₀₀ =	C ₁₀₀ A
I ₁₀₀ =	275 = 6.88 IN/HR
	T _C + 25
Q ₁₀₀ =	7.07 CFS
H _{WEIR} =	0.50 FT
Q ₁₀₀ =	Q _{WEIR} = (3.33)L _{WEIR} H _{WEIR} ^{3/2}
L _{WEIR} =	6.00 FT → USE 6 FT WEIR



STORM SEWER PROFILE - ES 1 THRU BASIN TO CB 4

SCALE: V: 1" = 4'
H: 1" = 40'

STORM SEWER PROFILE MH 2 TO CB 5

SCALE: V: 1" = 4'
H: 1" = 40'

C.S.B. SHALL INDICATE COMPACTED SAND BACKFILL. PLACE C.S.B. IN ALL AREAS UNDER THE INFLUENCE OF PAVEMENT LOADING.

STORM SEWER CALCULATIONS

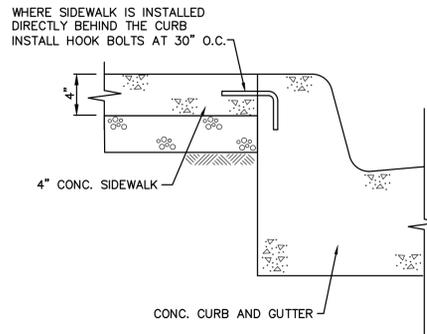
BASED ON RATIONAL FORMULA & MANNING'S EQUATIONS FOR OPEN CHANNEL FLOW

LE PROJECT NO:	24004
PROJECT NAME:	LASTING IMPRESSIONS
CLIENT:	LASTING IMPRESSIONS
DATE:	1/22/2026
TIME:	12:32 PM

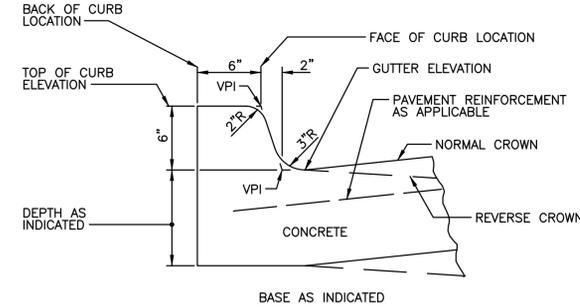
STORM SEWER DESIGN	
LOCATION:	WHITE LAKE TOWNSHIP, MICHIGAN
STARTING TIME:	15.00
MANNING'S "n":	0.012
10-YR STM "I":	175
T+25.00	

Upst Str. #	Dnst Str. #	Pipe Len (L) Ft	Added Area			Time of Conc. (T) Min	Intensity (i) In/HR	Pipe Dia (D) Inches	Pipe SLP (S) %	V Full (V) Fps	FI Time Min	INVERT ELEV.		Q (capacity) Cfs	RIM OR GRADE	STR NO.		
			Acres	C	AC							SUM AC	Upst #				Dnst #	
DS 6	DS 5	52	0.03	0.95	0.033	0.03	15.00	4.38	0.14	4	0.77	2.5	0.35	1028.40	1028.00	0.22	1031.66	DS 6
DS 5	DS 4	49	0.03	0.95	0.033	0.07	15.35	4.34	0.28	4	1.43	3.4	0.24	1028.00	1027.30	0.30	1031.66	DS 5
DS 4	CB 3	50	0.02	0.95	0.016	0.08	15.59	4.31	0.35	4	4.00	5.7	0.15	1027.30	1025.30	0.50	1031.66	DS 4
DS 3	DS 2	52	0.03	0.95	0.033	0.03	15.00	4.38	0.14	4	0.77	2.5	0.35	1028.40	1028.00	0.22	1031.66	DS 3
DS 2	DS 1	49	0.03	0.95	0.033	0.07	15.35	4.34	0.28	4	1.43	3.4	0.24	1028.00	1027.30	0.30	1031.66	DS 2
DS 1	CB 2	83	0.02	0.95	0.016	0.08	15.59	4.31	0.35	4	2.41	4.4	0.31	1027.30	1025.30	0.39	1031.66	DS 1
CB 5	MH 2	64	0.23	0.83	0.187	0.19	15.00	4.38	0.82	12	0.32	2.8	0.38	1024.30	1024.10	2.19	1029.00	CB 5
CB 4	CB 3	73	0.34	0.62	0.208	0.21	15.00	4.38	0.91	12	0.41	3.2	0.39	1024.80	1024.50	2.48	1029.50	CB 4
CB 3	CB 2	106	0.14	0.69	0.094	0.38	15.39	4.33	1.66	12	0.47	3.4	0.52	1024.40	1023.90	2.65	1029.10	CB 3
CB 2	CB 1	61	0.11	0.94	0.102	0.57	15.91	4.28	2.43	12	0.66	4.0	0.25	1023.80	1023.40	3.14	1028.70	CB 2
CB 1	MH 2	61	0.18	0.66	0.118	0.69	16.16	4.25	2.91	12	0.66	4.0	0.25	1023.30	1022.90	3.14	1028.00	CB 1
MH 2	ES 2	44	0.00	0.00	0.000	0.87	16.42	4.23	3.69	12	0.91	4.7	0.16	1022.80	1022.40	3.69	1028.90	MH 2

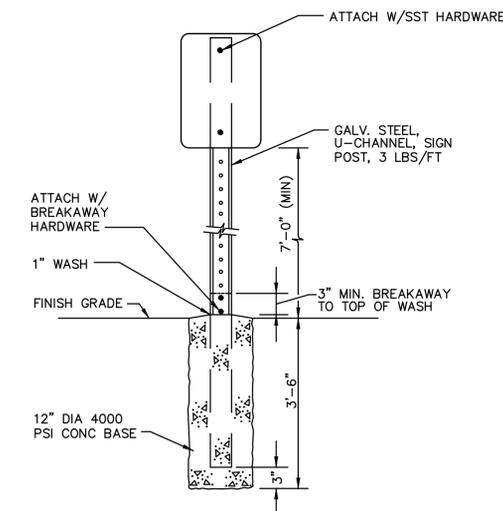




CURB & GUTTER W/ SIDEWALK
N.T.S.



INTEGRAL CONCRETE CURB
N.T.S.

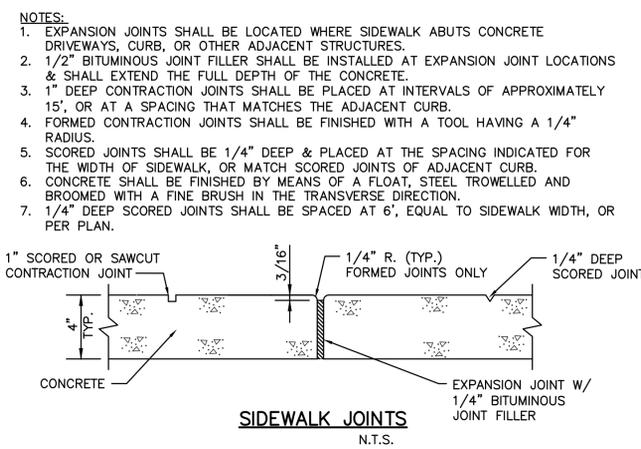


TYPICAL SIGN MOUNTING
N.T.S.

SIGNAGE NOTES:
 1. ALL SIGNS SHALL CONFORM TO THE CURRENT EDITION OF THE MUTCD.
 2. MOUNT SIGNS TO BUILDING USING STAINLESS STEEL HARDWARE OR PER SIGN MOUNTING DETAIL THIS SHEET. MIN. HGT. 72" ABOVE FINISHED GRADE.

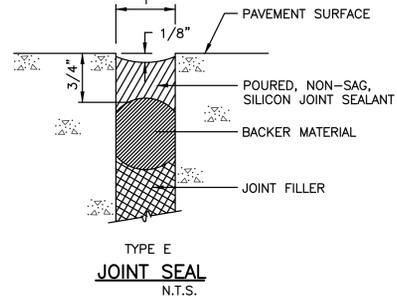


SIGNS
N.T.S.

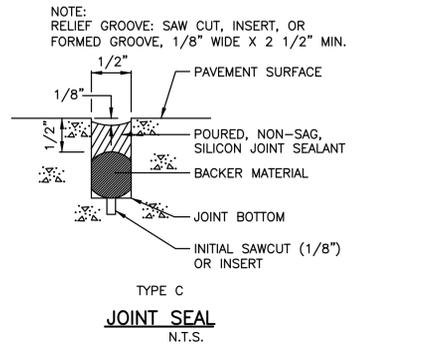


SIDEWALK JOINTS
N.T.S.

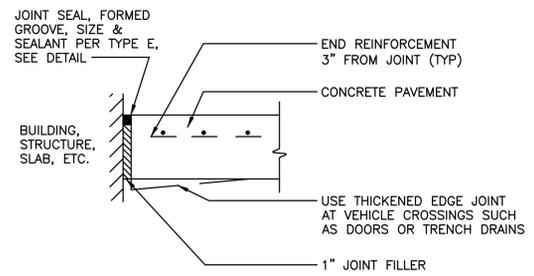
NOTE:
 RELIEF GROOVE: SAW CUT, INSERT, OR FORMED GROOVE, 1/8" MAX X 2 1/2" MIN. SAW CUT 1/2" MIN INTO JOINT FILLER.



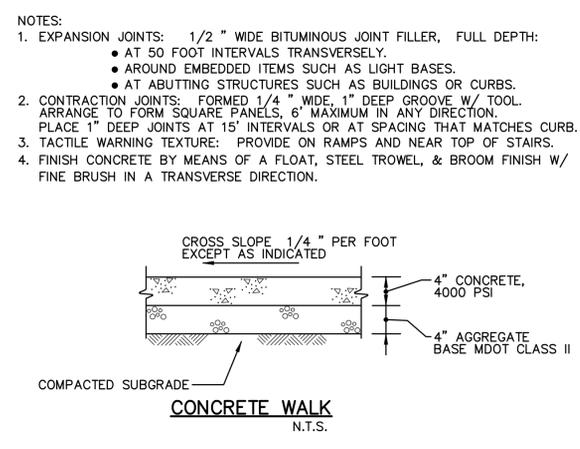
TYPE E JOINT SEAL
N.T.S.



TYPE C JOINT SEAL
N.T.S.

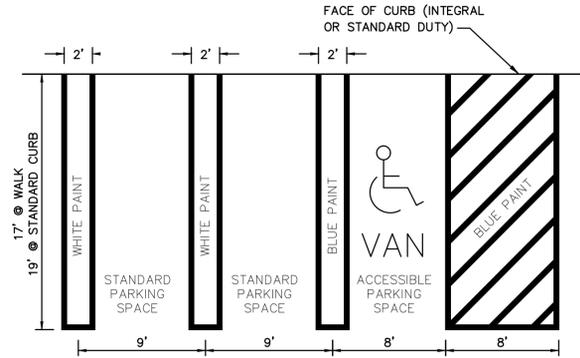


EDGE EXPANSION JOINT
N.T.S.

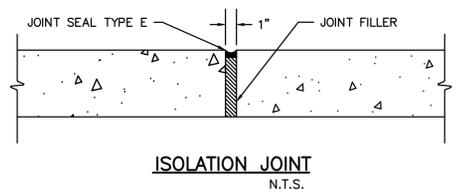


CONCRETE WALK
N.T.S.

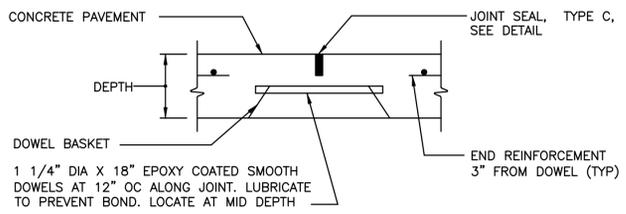
NOTES:
 1. PARKING STRIPING FOR STANDARD PARKING SPACES SHALL BE DELINEATED BY FOUR INCH WIDE DUEL STRIPES, TWO FEET APART, CENTERED ON THE DIVIDING LINES, & PAINTED WHITE.
 2. ACCESSIBLE SPACES SHALL BE DELINEATED WITH FOUR INCH WIDE LINES, PAINTED HANDICAP BLUE.



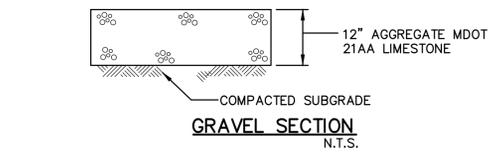
WHITE LAKE TWP. PARKING STRIPING
SCALE: 1"=6'



ISOLATION JOINT
N.T.S.

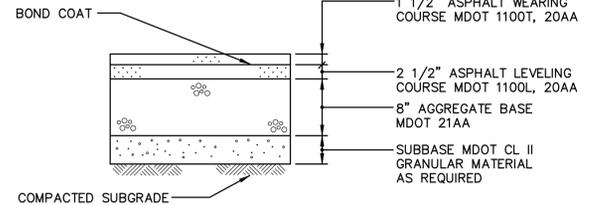


CONTRACTION JOINT
N.T.S.

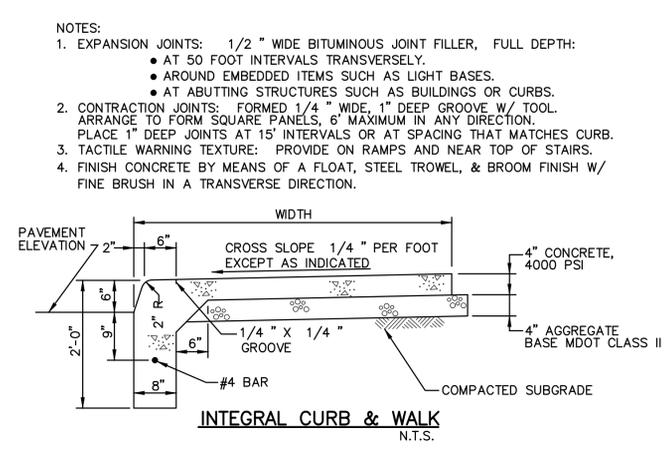


GRAVEL SECTION
N.T.S.

NOTE:
 PROVIDE 2" EXTRA THICKNESS OF ASPHALT AT MANHOLES, CATCH BASINS, ETC. TAPER TO NORMAL THICKNESS IN 3'-0".

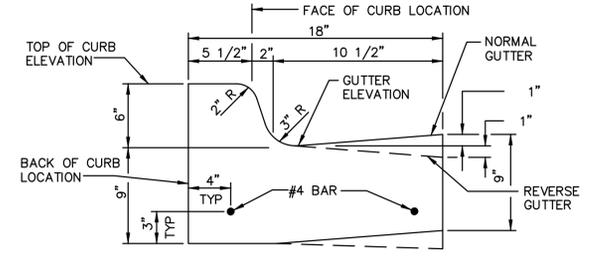


STANDARD DUTY ASPHALT PAVEMENT
N.T.S.

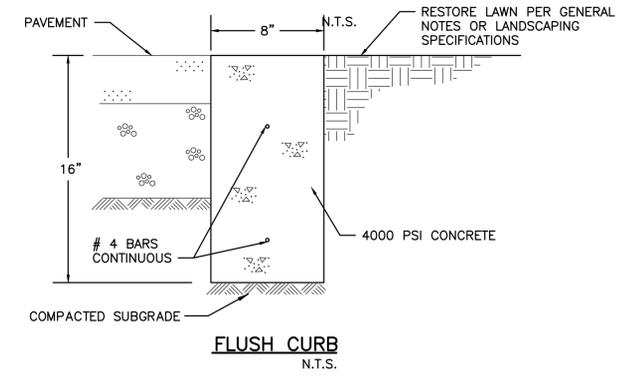


INTEGRAL CURB & WALK
N.T.S.

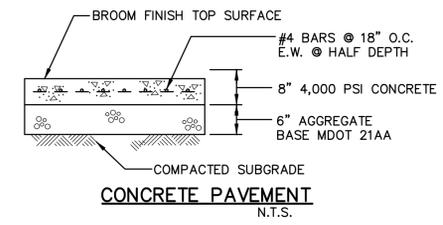
NOTES:
 1. USE NORMAL OR REVERSE GUTTER TO EXTEND THE SLOPE OF THE ADJACENT PAVEMENT EXCEPT AS INDICATED.
 2. CONCRETE: 4000 PSI
 3. PROVIDE CONTROL JOINTS IN CURB AT 10' O.C. & AT ALL RADIUS RETURNS.
 4. PROVIDE EXPANSIVE JOINTS EVERY 30'.



18"X6" STANDARD DUTY CURB & GUTTER
N.T.S.

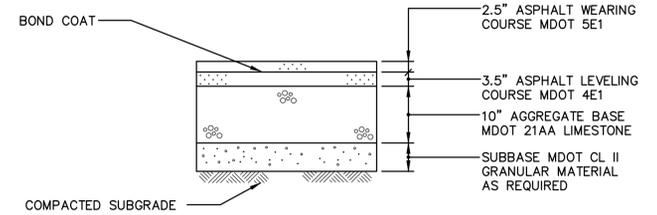


FLUSH CURB
N.T.S.



CONCRETE PAVEMENT
N.T.S.

NOTE:
 PROVIDE 2" EXTRA THICKNESS OF ASPHALT AT MANHOLES, CATCH BASINS, ETC. TAPER TO NORMAL THICKNESS IN 3'-0".



HEAVY DUTY ASPHALT PAVEMENT
N.T.S.



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 CONSULTING
 11904 JERSEY COURT
 DAVISBURG, MI 48350
 248.884.8224
 leachpsc.com



SCALE: AS SHOWN

SHALL PROVIDE FOR CONFORMANCE ONLY. ACTUAL WORK SHALL BE CONTROLLED BY THE SUPERVISOR. PROVIDED AND REVIEWED IN THE FIELD BY A PROFESSIONAL SUPERVISOR.



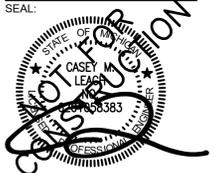
Know what's below.
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EXISTING UNDERGROUND UTILITY LOCATION AND ELEVATION INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM ONLY ONE SOURCE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF THIS INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF THIS INFORMATION BY CONDUCTING A FIELD SURVEY OF EXISTING UNDERGROUND UTILITIES. UNLESS THE CONTRACTOR SHALL BE EXPLICITLY RESPONSIBLE FOR OBTAINING THE FULL UTILITY LOCATION AND ELEVATION PRIOR TO THE START OF CONSTRUCTION.

CLIENT:

LASTING IMPRESSIONS

2255 PORTER ROAD
 WHITE LAKE, MI 48386
 CONTACT: NICHOLAS HOPSON
 PHONE: (248) 830-2828



PROJECT:
 NEW FACILITY

PARCEL 12-01-127-002

ISSUES / REVISIONS:

FSP - FEP	10/03/25
FSP - FEP REV. 1	02/06/26

MANAGED	CL
DESIGNED	CL
DRAWN	CL

SHEET NAME:
 DETAILS - PAVING,
 SIGNS, & WALK

PROJECT NUMBER: 24004

SHEET NUMBER: C5.01

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CLIENT:
LASTING IMPRESSIONS

2255 PORTER ROAD
WHITE LAKE, MI 48386
CONTACT: NICHOLAS HOPSON
PHONE: (248) 830-2828
SEAL:



PROJECT:
NEW FACILITY

PARCEL 12-01-127-002

ISSUES / REVISIONS:
FSP - FEP 10/03/25
FSP - FEP REV. 1 02/06/26

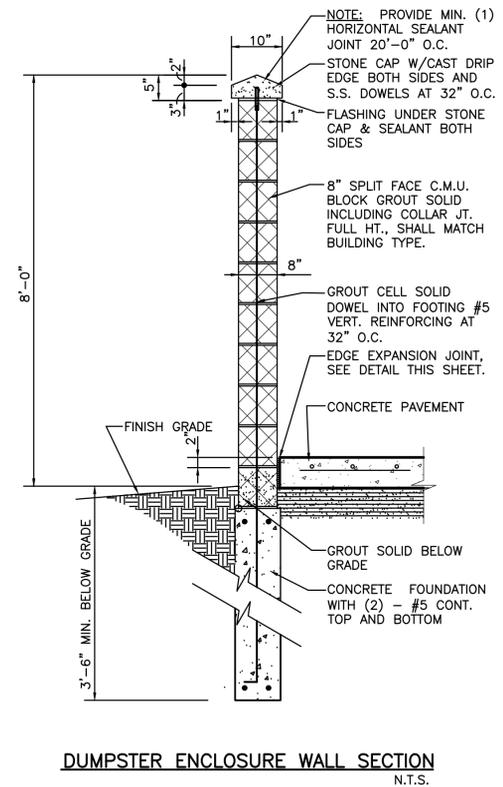
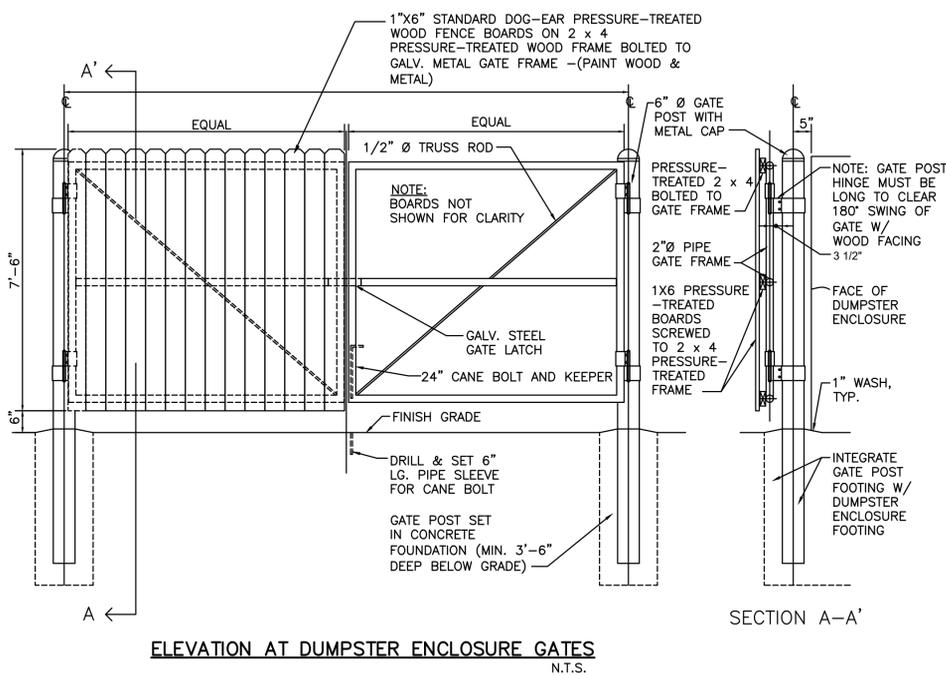
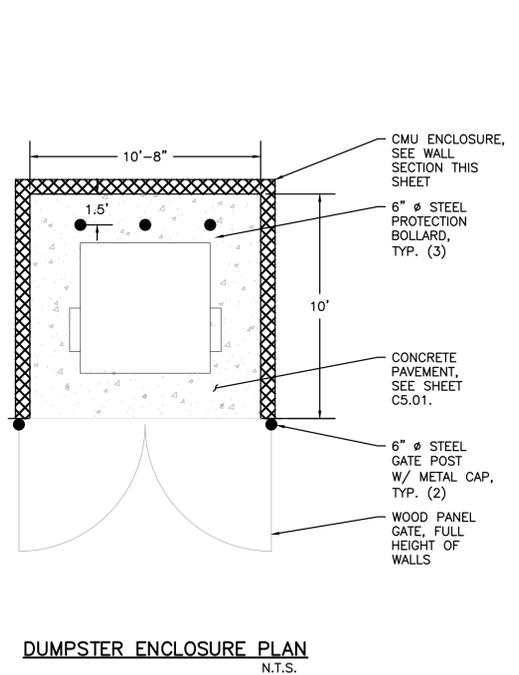
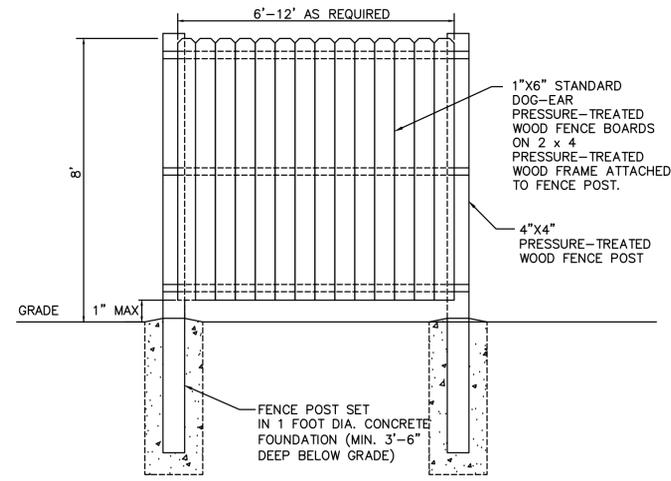
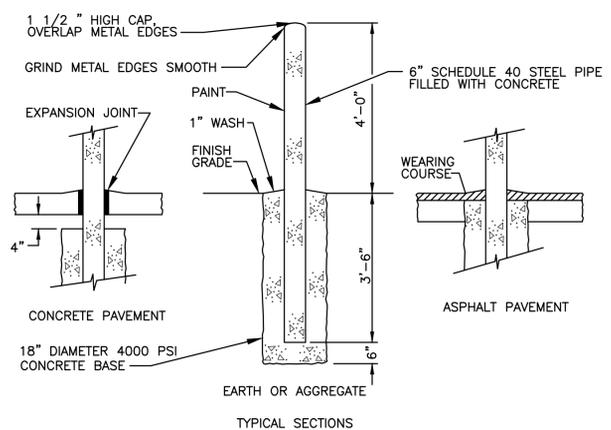
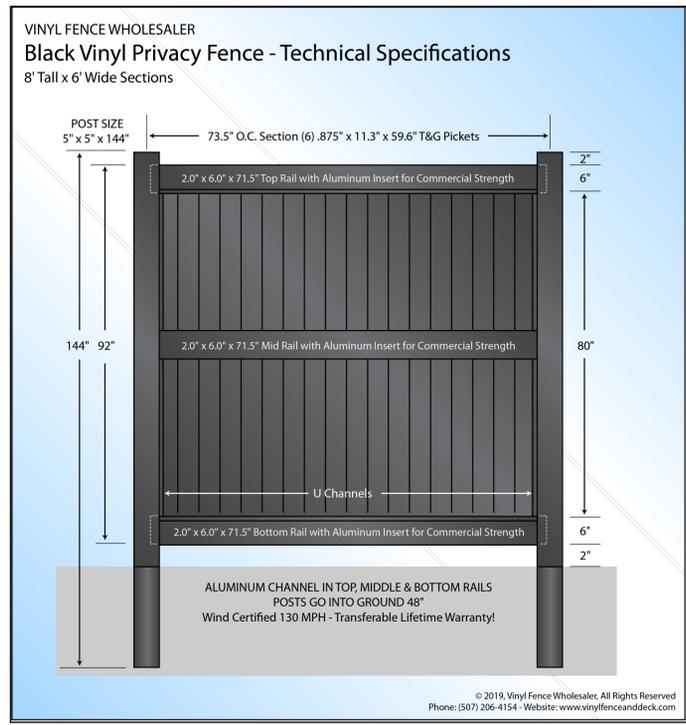
MANAGED CL
DESIGNED CL
DRAWN CL

SHEET NAME:
DETAILS - DUMPSTER ENCLOSURE & FENCING

PROJECT NUMBER: 24004

SHEET NUMBER: **C5.02**

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CLIENT:

LASTING IMPRESSIONS

2255 PORTER ROAD
WHITE LAKE, MI 48386
CONTACT: NICHOLAS HOPSON
PHONE: (248) 830-2828
SEAL:



PROJECT:

NEW FACILITY

PARCEL 12-01-127-002

ISSUES / REVISIONS:

FSP - FEP	10/03/25
FSP - FEP REV. 1	02/06/26

MANAGED	CL
DESIGNED	CL
DRAWN	CL

SHEET NAME:

DETAILS - UTILITIES

PROJECT NUMBER: 24004

SHEET NUMBER: C5.31

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700 Gallon Interceptor - 8' x 4' x 4'

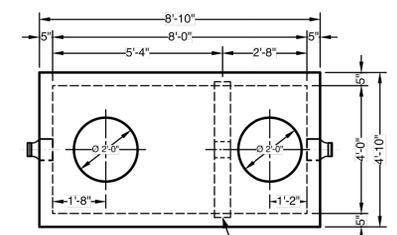
Advance Concrete Products Company

(800) 824-8351 (248) 887-4173 Fax: (248) 887-2755

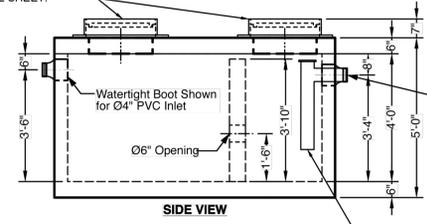


All Concrete Shall Have A 28 Day Compressive Strength Of 4500 PSI. Formula 5
Reinforcing Steel Shall Comply With ASTM A706 Grade 60 Rebar. Bar Bending And Placement Shall Comply With The Latest ACI Standards.
Standard Structural Design Based On AASHTO HS 20 Wheel Loading.
Grout for Divider Wall Keyways Supplied & Installed by Others.
1" Ø Butyl Rope Mastic Is Provided For Placement Between Top And Bottom Sections Of Vault.
(Fuel Resistant Rope Mastic is provided for Oil Interceptors)

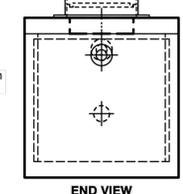
Approximate Weight Total: ± 13,700 Lbs.
Bottom Section: ± 9,800 Lbs. Top Slab: ± 2,750 Lbs.
Divider Wall: ± 1,150 Lbs.



PROVIDE PRECAST CONCRETE GRADE RINGS AS RISERS (W/ BRICK ADJUSTMENT AS NECESSARY) W/ REDUCER AT TOP (MATERIALS BY ADVANCED CONCRETE PRODUCTS COMPANY). SET EJ 1040 CASTING W/ TYPE B COVER IN MORTAR BED SIMILAR TO OCWRC STANDARD MANHOLE. SEE DETAIL SHEET.

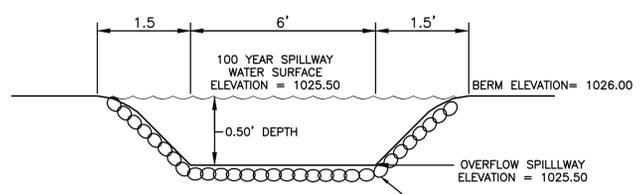


EJ Group #1045 HD Frame & Bolt-Down, Gasketed PT 024" #1040 Cover (typ. 2)

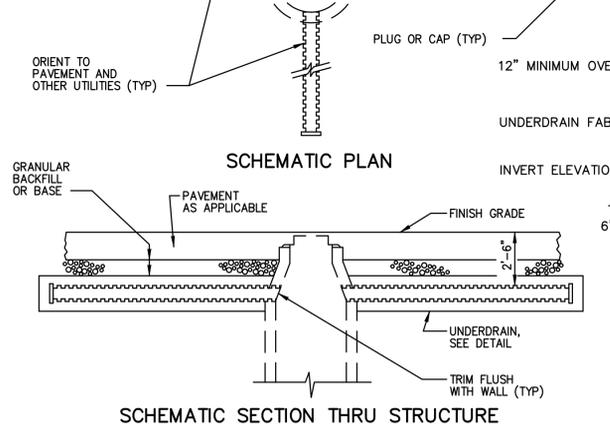
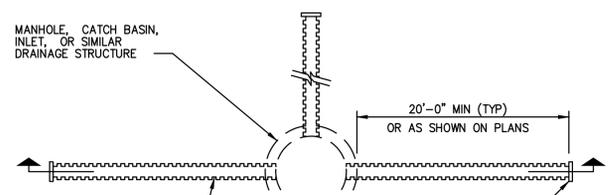


SCH 40 PVC TEE W/ WAFFLE PIPE DOWN TO 1' +/- ABOVE TANK FLOOR W/ REMOVABLE CAP AT TOP TO PROVIDE 18" MIN. WATER SEAL/TRAP. (NOT INCLUDED BY TANK MANUFACTURER)

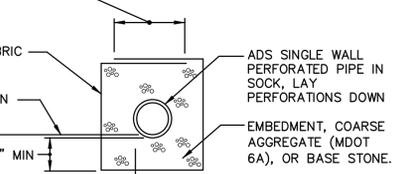
OIL INTERCEPTOR (OI 1)
N.T.S.



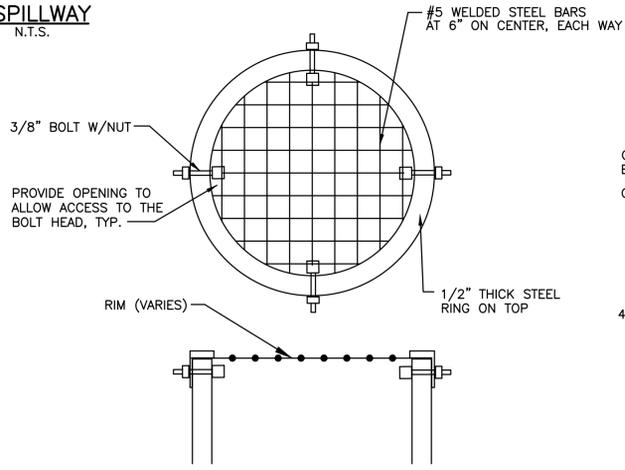
SECONDARY OVERFLOW SPILLWAY
N.T.S.



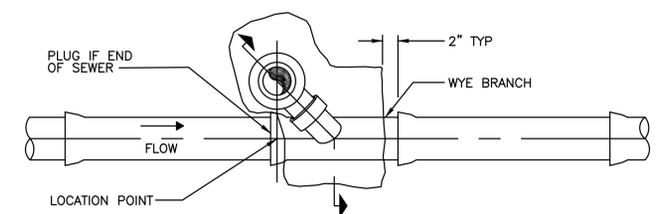
UNDERDRAIN @ CATCHBASINS
N.T.S.



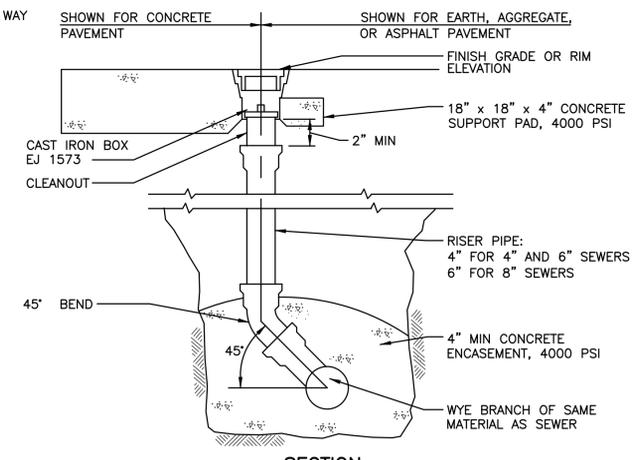
SECTION THRU PIPE



BAR GRATE FOR OVERFLOW STRUCTURES
N.T.S.



PLAN
(BELOW CLEANOUT)



SECTION CLEANOUT ASSEMBLY
N.T.S.

**Estimated Net Annual Solids Load Reduction
Based on the Rational Rainfall Method**




**Lasting Impressions
White Lake TWP., MI
MH 2**

AREA	1.10 acres	CASCADE MODEL	C5-4
WEIGHTED C	0.76	PARTICLE SIZE	110 microns
TC	16.37 minutes	RAINFALL STATION	78

Rainfall Intensity ¹ (in/hr)	Percent Rainfall Volume ¹	Hydraulic Loading Rate (gpm/ft ²)	Removal Efficiency (%)	Incremental Removal (%)
0.08	34.4%	2.39	100.0	34.4
0.16	18.2%	4.78	100.0	18.2
0.24	9.4%	7.17	100.0	9.4
0.32	5.7%	9.55	100.0	5.7
0.40	3.3%	11.94	100.0	3.3
0.48	3.1%	14.33	98.4	3.1
0.56	2.2%	16.72	96.2	2.1
0.64	3.1%	19.11	93.9	3.0
0.72	2.1%	21.50	91.7	1.9
0.80	1.6%	23.89	89.4	1.4
0.88	2.0%	26.28	87.2	1.8
0.96	1.0%	28.66	85.0	0.9
1.04	1.5%	31.05	82.7	1.2
1.12	1.2%	33.44	80.5	1.0
1.20	1.3%	35.83	78.2	1.0
1.28	1.1%	38.22	76.0	0.9
1.36	1.0%	40.61	73.7	0.7
1.44	0.8%	43.00	71.5	0.6
1.52	0.8%	45.39	69.2	0.6
1.60	0.3%	47.77	67.0	0.2
2.00	2.7%	59.72	55.8	1.5
2.40	1.2%	71.66	44.5	0.5
2.80	0.4%	76.08	36.8	0.2
3.20	0.0%	76.08	32.2	0.0
				93.2

Removal Efficiency Adjustment² = 0.0%

Predicted % Annual Rainfall Treated = 98.3%

Predicted Net Annual Load Removal Efficiency = 93.2%

1 - Based on 5.5 years of 15 minute precipitation data from NCDC station 2102 at Detroit City Airport in Detroit, MI
2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

Project: Lasting Impressions
Location: White Lake, MI



Purpose: To calculate the first flush runoff flow rate (WQF) over a given site area. In this situation the WQV to be analyzed is the runoff produced by the first 0.75" of rainfall.

Reference: United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual.

Given:

Structure Name	A (acres)	A (miles ²)	Runoff Coefficient	Percent Imp. (%) [*]	t _c (min)	t _c (hr)
MH 2	1.10	0.00172	0.76	76.67	16.4	0.273

* Assumes runoff coefficient of 0.3 for pervious areas and 0.9 for impervious areas.

Procedure: The Water Quality Flow (WQF) is calculated using the Water Quality Volume (WQV). This WQV, converted to watershed inches, is substituted for the runoff depth (Q) in the Natural Resources Conservation Service (formerly Soil Conservation Service), TR-55 Graphical Peak Discharge Method.

- Compute WQV in watershed inches using the following equation:
 $WQV = P \cdot R$
where: WQV = water quality volume (watershed inches)
P = design precipitation (inches)
R = volumetric runoff coefficient = 0.05 + 0.009(I)
I = percent impervious cover

Structure Name	Percent Imp. (%)	R	P (in)	WQV (in)	WQV (cf)
MH 2	76.67	0.740	0.75	0.555	2216

- Compute the NRCS Runoff Curve Number (CN) using the following equation, or graphically using Figure 2-1 from TR-55 (USDA, 1986):
 $CN = 1000 / [10 + 5P + 10Q - 10(Q^2 + 1.25QP)^{1/2}]$
where: CN = Runoff Curve Number
P = design precipitation (inches)
Q = runoff depth (watershed inches)

Structure Name	Q (in)	CN
MH 2	0.555	98.05

First Flush Calculation (Page 1 of 2)
9/25/2025

Project: Lasting Impressions
Location: White Lake, MI



- Using computed CN, read initial abstraction (I_a) from Table 4-1 in Chapter 4 of TR-55; compute I_a/P, interpolating when appropriate.

Structure Name	I _a (in)	I _a /P
MH 2	0.041	0.054666667

- Compute the time of concentration (t_c) in hours and the drainage area in square miles. A minimum t_c of 0.167 hours (10 minutes) should be used.

Structure Name	t _c (hr)	A (miles ²)
MH 2	0.273	0.00172

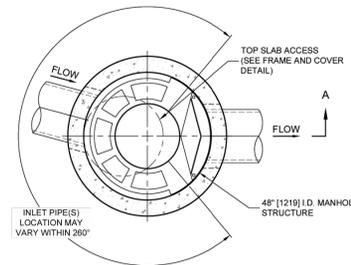
- Read the unit peak discharge (q_u) from Exhibit 4-II in Chapter 4 of TR-55 for appropriate t_c for type II rainfall distribution.

Structure Name	t _c (hr)	I _a /P	q _u (csm/in)
MH 2	0.273	0.054666667	705

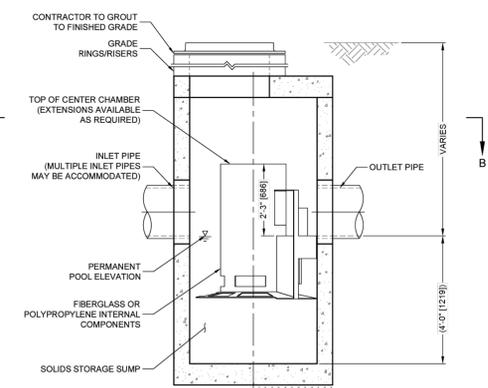
- Substituting WQV (watershed inches) for runoff depth (Q), compute the water quality flow (WQF) from the following equation:
 $WQF = (q_u)(A)(Q)$
where: WQF = water quality flow (cfs)
q_u = unit peak discharge (cfs/m²/inch)
A = drainage area (mi²)
Q = runoff depth (watershed inches)

Structure Name	q _u (csm/in)	A (miles ²)	Q (in)	WQF (cfs)
MH 2	705	0.00172	0.555	0.67

First Flush Calculation (Page 2 of 2)
9/25/2025



**PLAN VIEW B-B
NOT TO SCALE**



**ELEVATION A-A
NOT TO SCALE**

CASCADE separator™

CASCADE SEPARATOR DESIGN NOTES

THE STANDARD CS-4 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION

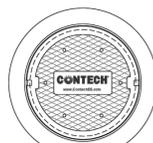
GRATED INLET ONLY (NO INLET PIPE)

GRATED INLET WITH INLET PIPE OR PIPES

CURB INLET ONLY (NO INLET PIPE)

CURB INLET WITH INLET PIPE OR PIPES

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE



SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	MH 2
WATER QUALITY FLOW RATE (cfs [L/s])	0.67 CFS
PEAK FLOW RATE (cfs [L/s])	3.54 CFS
RETURN PERIOD OF PEAK FLOW (yrs)	10-YEAR
RIM ELEVATION	1028.90

PIPE DATA	INVERT	MATERIAL	DIAMETER
INLET PIPE 1	1024.10	PP	12"
INLET PIPE 2	1022.90	PP	12"
OUTLET PIPE	1022.80	PP	12"

NOTES / SPECIAL REQUIREMENTS:

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC 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.
- CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO H2010 LOAD RATING, ASSUMING EARTH COVER OF 0'-2" (610) AND GROUNDWATER ELEVATION AT OR BELOW THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M206 AND BE CAST WITH THE CONTECH LOGO.
- CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
- ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES

- ANY SUB-BASE BACKFILL DEPTH, AND/OR ANTI-FLOTATION 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 INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



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PROJECT MANAGEMENT
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CONSULTING
11904 JERSEY COURT
DAVISBURG, MI 48350
248.884.8224
leachpsc.com



SCALE: AS SHOWN
SCALE PROVIDED FOR CONSTRUCTION ONLY. ACTUAL WORK SHALL BE CONDUCTED BASED ON THE DIMENSIONS PROVIDED AND MARKED IN THE FIELD BY A PROFESSIONAL SURVEYOR.

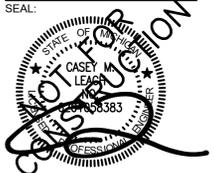


Know what's below.
Call before you dig.

EXISTING UNDERGROUND UTILITY LOCATION AND ELEVATION INFORMATION SHOWN ON THIS DRAWING AND APPROVED ONLY AND IS FOR INFORMATION ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF EXISTING UNDERGROUND OR OUTSIDE UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF EXISTING UNDERGROUND OR OUTSIDE UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTING UTILITY LOCATION AND ELEVATION PRIOR TO THE START OF CONSTRUCTION.

CLIENT:
LASTING IMPRESSIONS

2255 PORTER ROAD
WHITE LAKE, MI 48386
CONTACT: NICHOLAS HOPSON
PHONE: (248) 830-2828
SEAL:



PROJECT:
NEW FACILITY

PARCEL 12-01-127-002

ISSUES / REVISIONS:

FSP - FEP	10/03/25
FSP - FEP REV. 1	02/06/26

MANAGED **CL**
DESIGNED **CL**
DRAWN **CL**

SHEET NAME:
DETAILS - STORM WATER TREATMENT UNIT

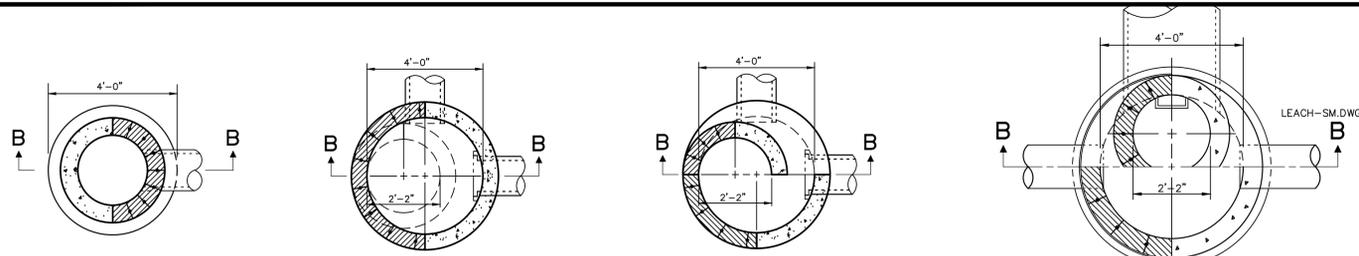
PROJECT NUMBER: 24004

SHEET NUMBER: **C5.32**

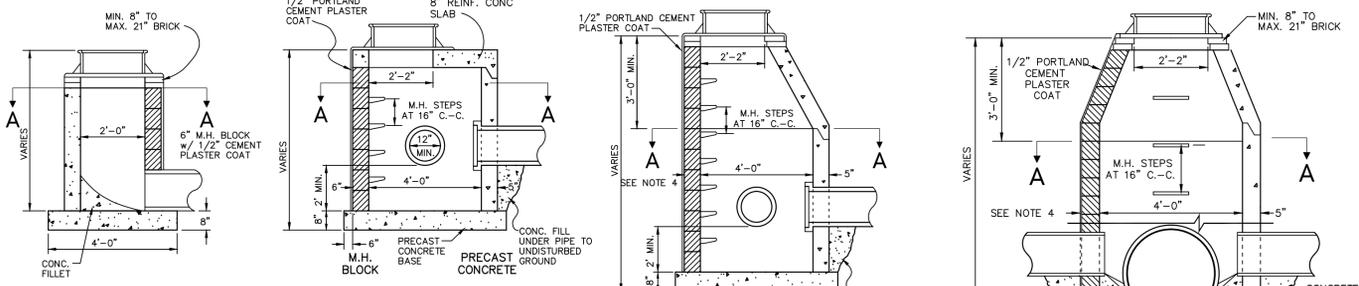
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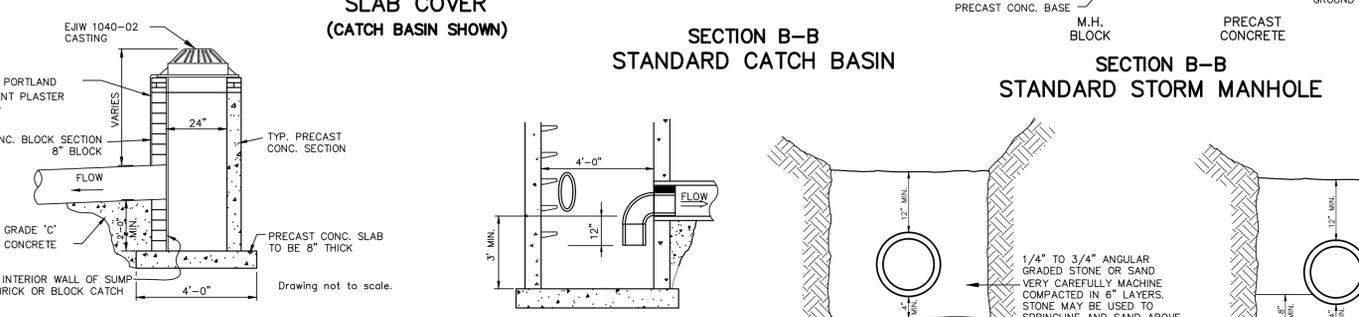
CS-4
CASCADE SEPARATOR
STANDARD DETAIL



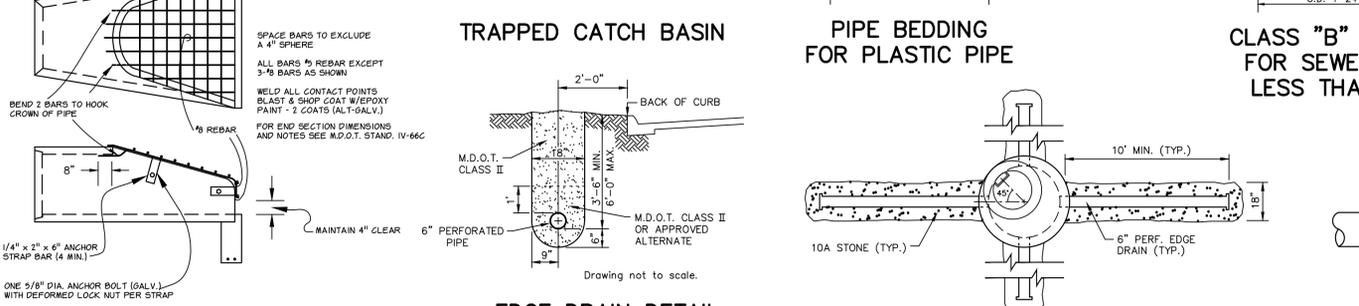
SECTION A-A SECTION A-A SECTION A-A SECTION A-A
M.H. BLOCK PRECAST CONCRETE



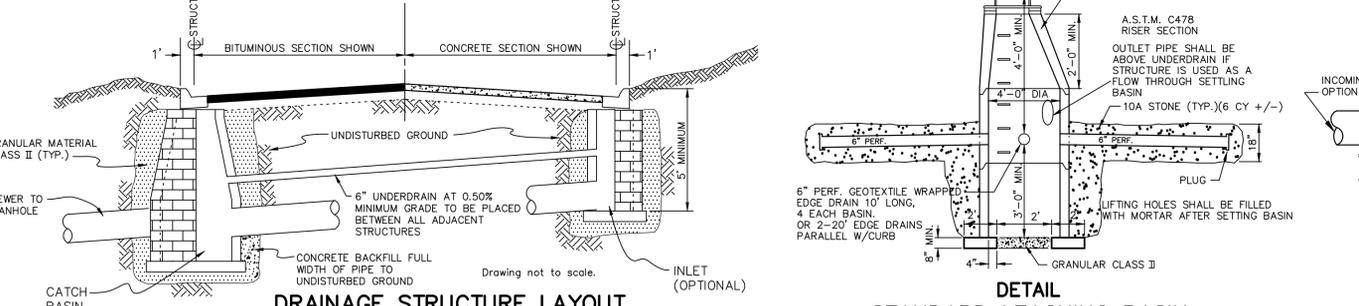
SECTION B-B SECTION B-B SECTION B-B SECTION B-B
24" INLET STRUCTURE WITH SLAB COVER (CATCH BASIN SHOWN) STANDARD CATCH BASIN STANDARD STORM MANHOLE



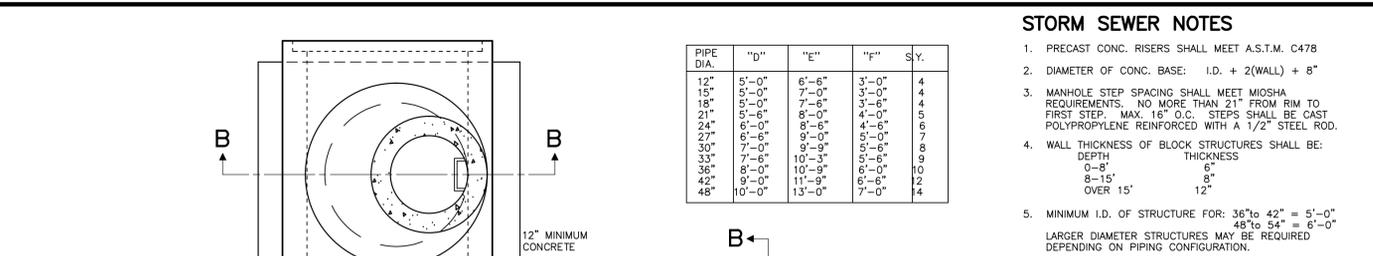
SECTION B-B SECTION B-B
STANDARD REAR YARD CATCH BASIN STANDARD PRECAST CONCRETE MANHOLE TEE



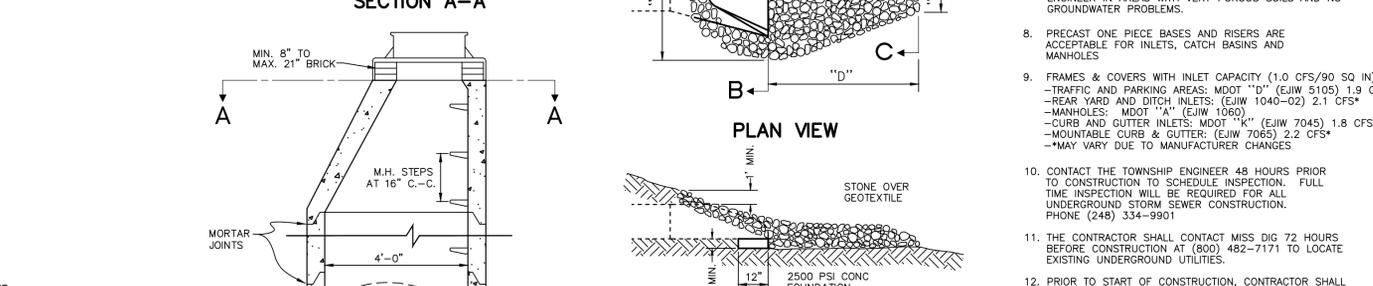
TRAPPED CATCH BASIN PIPE BEDDING FOR PLASTIC PIPE CLASS "B" BEDDING FOR SEWER PIPE LESS THAN 48"



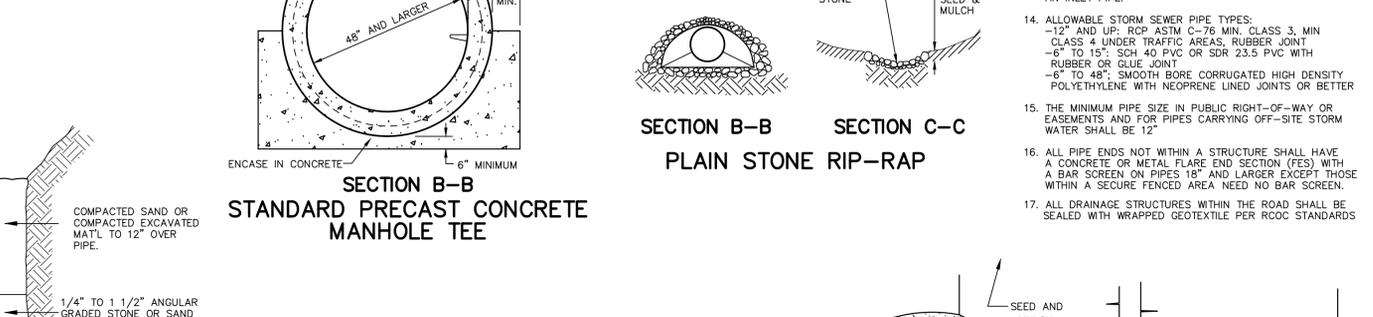
BAR SCREEN DETAIL EDGE DRAIN DETAIL DRAINAGE STRUCTURE LAYOUT



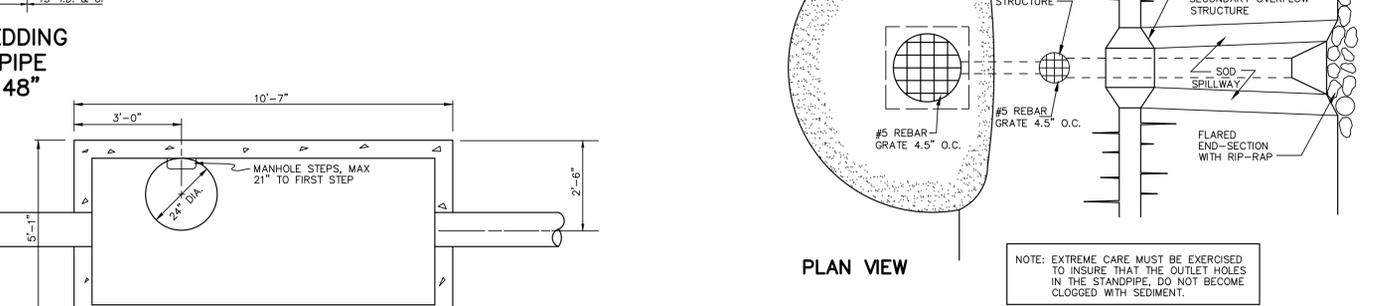
SECTION A-A
1000 GALLON LEACHING/SETTLING BASIN



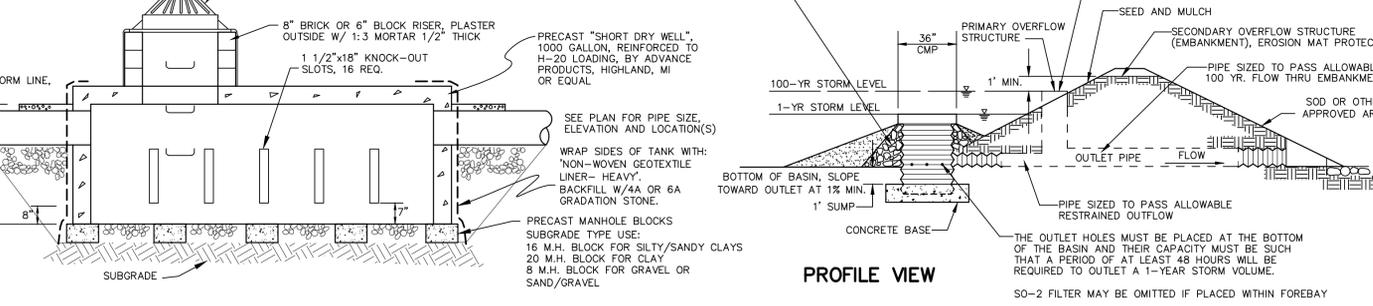
SECTION B-B
1000 GALLON LEACHING/SETTLING BASIN



SO-2 DETENTION BASIN OUTLET FILTER (CMP)



STANDARD LEACHING BASIN



1000 GALLON LEACHING/SETTLING BASIN

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

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

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

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

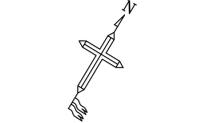
White Lake Township
 7525 Highland Road (M-59)
 White Lake, Michigan 48383
 248-698-3300

STORM SEWER STANDARD DETAILS
 DATE ISSUED: 08/16/95
 SHEET NO. _____



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PROJECT MANAGEMENT
CIVIL ENGINEERING
CONSULTING
11904 JERSEY COURT
DAVISBURG, MI 48350
248.884.8224
leachpsc.com



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CLIENT:

LASTING IMPRESSIONS

2255 PORTER ROAD
WHITE LAKE, MI 48386
CONTACT: NICHOLAS HOPSON
PHONE: (248) 830-2828
SEAL:



PROJECT:
NEW FACILITY

PARCEL 12-01-127-002

ISSUES / REVISIONS:

FSP - FEP	10/03/25
FSP - FEP REV. 1	02/06/26

MANAGED: CL
DESIGNED: CL
DRAWN: CL

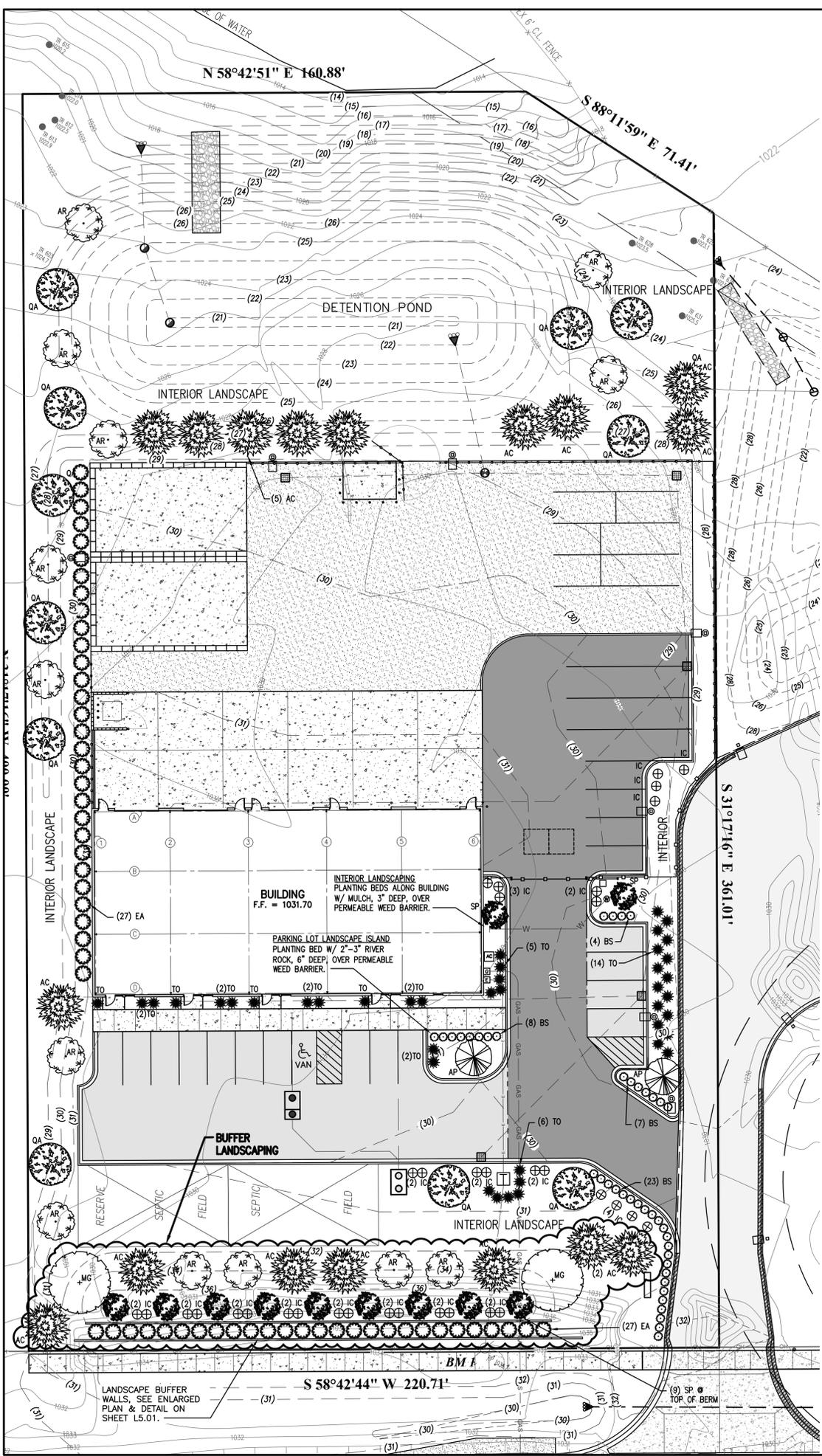
SHEET NAME:

LANDSCAPE PLAN

PROJECT NUMBER: 24004

SHEET NUMBER: L1.01

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CALL	QUANTITY	COMMON NAME	SPECIES	INSTALL SIZE	SYMBOL
BS	42 EA	AMERICAN BOXWOOD HEDGE	<i>BUXUS SEMPERVIRENS</i>	24" HT.	⊙
IC	35 EA	SKY PENCIL HOLLY	<i>ILEX CRENATA 'SKY PENCIL'</i>	24" HT.	⊕
EA	57 EA	DWARF BURNING BUSH	<i>EUONYMUS ALATUS 'COMPACTA'</i>	24" HT.	⊗
SP	11 EA	MISS KIM LILAC TREE	<i>SYRINGA PATULA 'MISS KIM'</i>	1.5" CAL. @ 6' B&B	⊗
AP	2 EA	JAPANESE MAPLE 'EMPEROR ONE'	<i>ACER PALMATUM 'EMPEROR ONE'</i>	1.5" CAL. @ 6' B&B	⊗
AR	13 EA	RED MAPLE	<i>ACER RUBRUM</i>	2.5" CAL. DBH B&B	⊗
QA	11 EA	WHITE OAK	<i>QUERCUS ALBA</i>	2.5" CAL. DBH B&B	⊗
TO	41 EA	EMERALD GREEN ARBORVITAE	<i>THUJA OCCIDENTALIS 'EMERALD GREEN'</i>	7' HT. B&B	⊗
MG	2 EA	DAWN REDWOOD TREE	<i>METASEQUOIA GLYPTOSTROBODES</i>	7' HT. B&B	⊗
AC	17 EA	WHITE FIR	<i>ABIES CONCOLOR</i>	7' HT. B&B	⊗

LANDSCAPE SCHEDULE

SITE INFORMATION:
LOT GROSS AREA: 2.00 ACRES

ZONING INFORMATION:
ZONING DISTRICT: LM LIGHT MANUFACTURING

REQUIRED MINIMUM SCREENING PER ZO SECTION 5.19D:
A-1 EXTENSIVE LANDFORM BUFFER REQUIRED BETWEEN LM & ROAD ROW PURSUANT TO ZO SECTION 5.19D.iii & v. SITE PLAN REQUESTS THE PLANNING COMMISSION TO PERMIT AN ALTERNATE SCREENING METHOD THAT WILL CONSIST OF TERRACED LANDSCAPE WALLS WITH PLANTINGS.

162 LINEAL FEET OF BOTTOM WALL 162/15 = 10.8
11 DECIDUOUS TREES REQUIRED 13 DECIDUOUS TREES PROVIDED
11 EVERGREEN TREES REQUIRED 9 EVERGREEN TREES PROVIDED
A PLANNING COMMISSION WAIVER REQUESTED FOR ALTERNATE TREE COUNT (162/15)^4 = 43.2
43 SHRUBS REQUIRED 43 SHRUBS PROVIDED

REQUIRED INTERIOR LANDSCAPING PER ZO SECTION 5.19E:
REQUIREMENT: 15% OF TOTAL LOT AREA SHALL BE INTERNALLY LANDSCAPED, & 1 TREE + 5 SHRUBS SHALL BE PROVIDED FOR EVERY 300 SF OF REQUIRED INTERIOR LANDSCAPING.
(2.00 ACRES)(43,560 SF/ACRE)(15%) = 13,068 SF INTERIOR LANDSCAPING REQUIRED
43.56 TREES & 217.8 SHRUBS REQUIRED
LANDSCAPING ALONG BUILDING & W SIDE OF GATE = 677 SF
LANDSCAPING AT E SIDE OF GATE & BETWEEN SHARED DRIVE & PARKING = 2,092 SF
LANDSCAPING ALONG WEST PROPERTY LINE & BETWEEN BASIN AND GRAVEL LOT = 10,196 SF
LANDSCAPING BETWEEN ROW BUFFER AND FRONT PARKING LOT = 4,360 SF
677 SF + 2,092 SF + 10,196 SF + 4,360 SF = 17,325 SF (20%) PROVIDED > 13,068 SF (15%) REQUIRED
44 TREES & 218 SHRUBS REQUIRED
76 TREES & 95 SHRUBS PROVIDED
IF 1 TREE = 5 SHRUBS THAN; AN EXCESS OF 32 TREES = 160 SHRUBS
A PLANNING COMMISSION WAIVER REQUESTED FOR ALTERNATE PLANTING COUNT

REQUIRED PARKING LOT LANDSCAPING PER ZO SECTION 5.19G:
REQUIREMENT: INDUSTRIAL 10 SF/ PARKING SPACE
REQUIREMENT: 1 TREE & 3 SHRUBS PER 100 SF OF REQUIRED PARKING LOT LANDSCAPING (19 SPACES)(10 SF/SPACE) = 190 SF PARKING LOT LANDSCAPING REQUIRED
1.9 TREES & 5.7 SHRUBS REQUIRED
361 SF, 3 TREES, & 8 SHRUBS PROVIDED AT SIDEWALK CORNER ISLAND

LANDSCAPING TOTALS

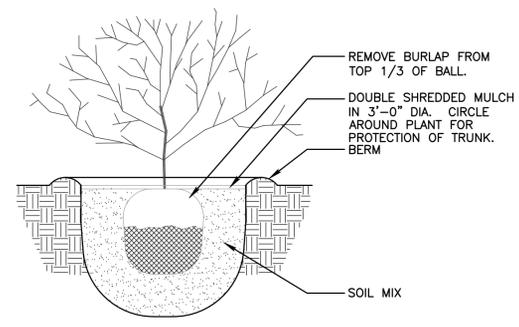
	REQUIRED	PROVIDED
INTERIOR	13,068 SF	17,231 SF
PARKING LOT	190 SF	361 SF
TOTAL	13,258 SF	17,592 SF (32.6% MORE LANDSCAPING IS PROVIDED THAN IS REQUIRED, NOT COUNTING NORTH WOODY AREA)

IRRIGATION NOTES:
1. PROVIDE AUTOMATIC IRRIGATION TO ALL LAWN AND LANDSCAPED AREAS.
1.1. ALL IRRIGATION COMPONENTS SHALL BE LOCATED COMPLETELY WITHIN THE PROPERTY BOUNDARY.
1.2. IRRIGATION COVERAGE SHALL EXTEND TO COVER LAWN WITHIN THE RIGHT-OF-WAY.
2. IRRIGATION SYSTEM SHALL INCLUDE A RAIN SENSOR OR SIMILAR MEASURE TO ENSURE THAT IRRIGATION DOES NOT OCCUR DURING OR SHORTLY AFTER PRECIPITATION EVENTS.

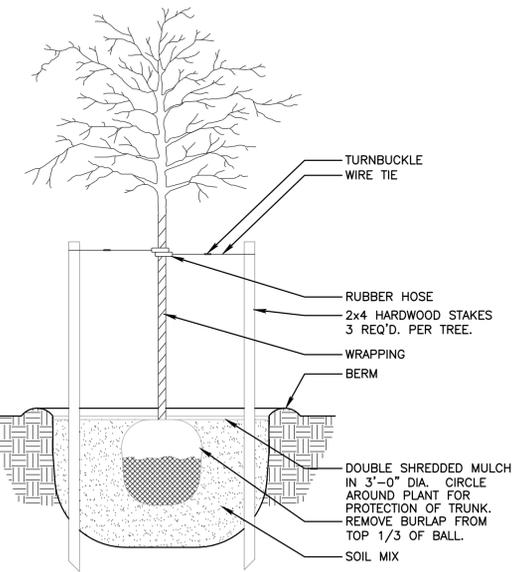
FENCING NOTES:
1. REAR AND SIDE FENCING SHALL BE 8' TALL, DOG-EAR, PRIVACY FENCE PER DETAIL ON SHEET C5.02.
2. FRONT FENCING AND GATE ACROSS DRIVEWAY SHALL BE 8 FT TALL, VINYL (COLOR TBD), PRIVACY FENCE PER DETAIL ON SHEET C5.02.

BENCHMARKS:
BM 1: MAG NAIL IN EAST FACE OF POWER POLE
EL. = 1034.67 NAVD 88
BM 2: BOLT SPIKE ON NORTH FACE PF POWER POLE
EL. = 1030.06 NAVD 88

GENERAL NOTES:
1. SEE SHEET C0.01 FOR CIVIL GENERAL NOTES & LEGENDS.
2. SEE SHEET L5.01 FOR ENLARGED BUFFER PLAN & LANDSCAPE SPECIFICATIONS



SINGLE SHRUB PLANTING
N.T.S.

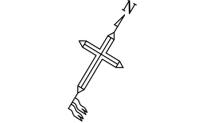


TREE PLANTING
N.T.S.



ENGINEERING
A PROFESSIONAL SERVICE COMPANY

PROJECT MANAGEMENT
CIVIL ENGINEERING
CONSULTING
11904 JERSEY COURT
DAVISBURG, MI 48350
248.884.8224
leachpsc.com



SCALE: AS SHOWN

SCALE PROVIDED FOR CONFORMANCE ONLY. ACTUAL WORK SHALL BE CONSTRUCTED BASED ON THE DIMENSIONS PROVIDED AND SHOWN ON THE FIELD BY A PROFESSIONAL SURVEYOR.



Know what's below.
Call before you dig.

EXISTING UNDERGROUND UTILITY LOCATION AND ELEVATION INFORMATION SHOWN ON THIS DRAWING WAS APPROVED ONLY AND GUARANTEED BY THE UTILITY PROVIDER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF THIS INFORMATION ON THE DATE OF CONSTRUCTION. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR OBTAINING THE FINAL UTILITY LOCATION AND ELEVATION PRIOR TO THE START OF CONSTRUCTION.

CLIENT:

LASTING IMPRESSIONS

2255 PORTER ROAD
WHITE LAKE, MI 48386
CONTACT: NICHOLAS HOPSON
PHONE: (248) 830-2828
SEAL:



PROJECT:
NEW FACILITY

PARCEL 12-01-127-002

ISSUES / REVISIONS:

FSP - FEP	10/03/25
FSP - FEP REV. 1	02/06/26

MANAGED: CL
DESIGNED: CL
DRAWN: CL

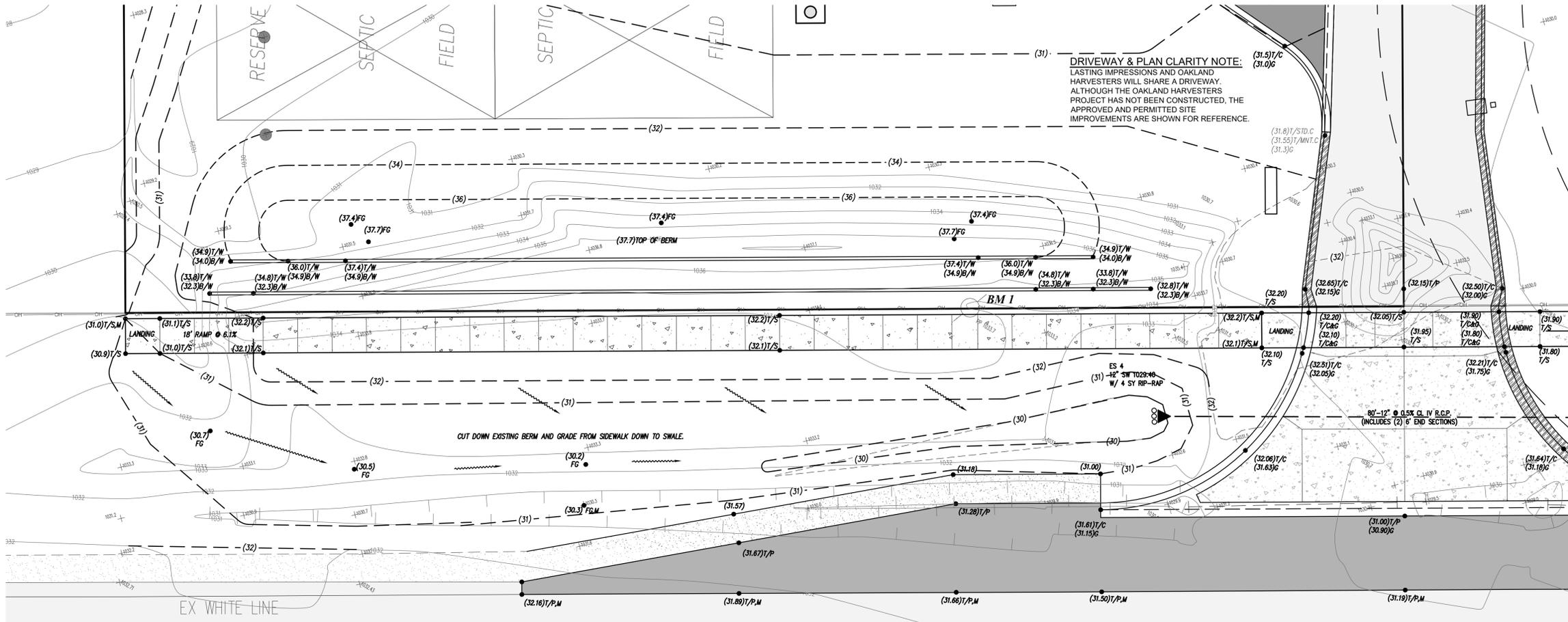
SHEET NAME:

DETAILS - BUFFER & SPECIFICATIONS

PROJECT NUMBER: 24004

SHEET NUMBER: L5.01

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ENLARGED LANDSCAPE BUFFER GRADING PLAN
SCALE: 1" = 10'

LANDSCAPE NOTES & SPECIFICATIONS:

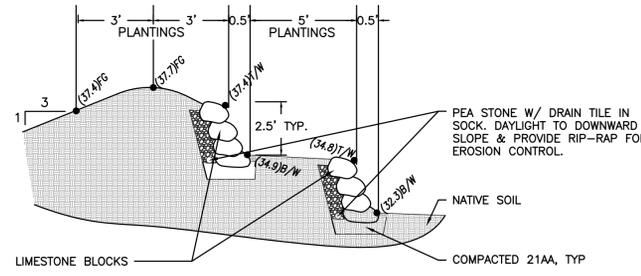
- IMPLEMENT THESE NOTES IN CONJUNCTION WITH THE GENERAL NOTES, & LEGENDS IN THE SITE ENGINEERING PLANS - SEE SHEET C0.01.
- THE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING CONDITIONS & REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN & PLANT LIST, THE PLAN SHALL GOVERN QUANTITIES. CONTACT THE ENGINEER W/ ANY CONCERNS.
- THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON-SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES, & SHALL REPORT ANY UNACCEPTABLE SITE CONDITIONS TO THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT.
- PLANTS SHALL BE FULL, WELL-BRANCHED, & IN HEALTHY VIGOROUS GROWING CONDITION.
- PLANTS SHALL BE WATERED BEFORE & AFTER PLANTING IS COMPLETE.
- ALL TREES MUST BE STAKED, FERTILIZED & MULCHED & SHALL BE GUARANTEED TO EXHIBIT A NORMAL GROWTH CYCLE FOR AT LEAST ONE (1) YEAR FOLLOWING PLANTING.
- ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST RECENT EDITION OF THE "AMERICAN STANDARDS FOR NURSERY STOCK".
- CONTRACTOR WILL SUPPLY FINISHED GRADE & EXCAVATE AS NECESSARY TO SUPPLY PLANT MIX DEPTH IN ALL PLANTING BEDS AS INDICATED IN PLANT DETAILS & A DEPTH OF 4" IN ALL LAWN AREAS.
- PROVIDE CLEAN BACKFILL SOIL, USING MATERIAL STOCKPILED ON-SITE. SOIL SHALL BE SCREENED & FREE OF DEBRIS, FOREIGN MATERIAL, & STONE.
- SLOW-RELEASE FERTILIZER SHALL BE ADDED TO THE PLANT PITS BEFORE BEING BACKFILLED. APPLICATION SHALL BE AT THE MANUFACTURERS RECOMMENDED RATES.
- PROVIDE 4 INCHES OF PREPARED TOPSOIL (REUSE EXISTING WHEN POSSIBLE), SEED, FERTILIZE, & STRAW MULCH /W NETTING AT DISTURBED LAWN AREAS, EXCEPT AS NOTED OTHERWISE. SECURE MULCH NETTING BY USING AN APPROPRIATE PINNING PATTERN PER MANUFACTURERS SPECIFICATIONS. PROVIDE IRRIGATION & MAINTENANCE (MOWING, TRIMMING, ETC.) UNTIL 80% OF LAWN IS ESTABLISHED AS DETERMINED BY THE ENGINEER OR OWNER. SEE LANDSCAPING PLANS & SPECIFICATIONS IF AVAILABLE.
- PREPARED TOPSOIL SHALL CONSIST OF 1/3 SCREENED TOPSOIL, 1/3 SAND, & 1/3 "DAIRY DOO" COMPOST, MIXED WELL & SPREAD TO A DEPTH AS INDICATED IN PLANTING DETAILS.

- LAWN IN THE HIGHLAND ROAD FRONT YARD SHALL BE SOD. ALL OTHER LAWN SHALL BE HYDROSEED.
- LAWN SEED MIXTURE SHALL BE COMPRISED OF THE FOLLOWING VARIETIES, MIXED TO THE SPECIFIED PROPORTIONS BY WEIGHT AND TESTED TO MINIMUM PERCENTAGES OF PURITY AND GERMINATION.

IRRIGATED SEED MIXTURE

SEED TYPE	PROPORTION	PURITY	GERMINATION
KENTUCKY BLUEGRASS	50%	90%	75%
PENN LAWN FESCUE	30%	95%	80%
ANNUAL RYEGRASS	20%	95%	80%

- ALL PLANTINGS SHALL BE MULCHED WITH DOUBLE SHREDDED HARDWOOD BARK, SPREAD TO A DEPTH OF 3" FOR TREES & SHRUBS, & 2" ON ANNUALS, PERENNIALS, & GROUNDCOVER PLANTINGS. MULCH SHALL BE DOUBLE SHREDDED QUALITY, FREE FROM DEBRIS & FOREIGN MATERIAL, & PIECES OF INCONSISTENT SIZE.
- NO SUBSTITUTIONS OR CHANGES OF LOCATION, OR PLANT TYPE SHALL BE MADE WITHOUT THE APPROVAL OF THE ENGINEER OR OWNER'S REPRESENTATIVE.
- THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN THE PLANS & FIELD CONDITIONS PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN A VERTICAL CONDITION THROUGHOUT THE GUARANTEED PERIOD.
- TREES: TREES NOT INDICATED TO BE REMOVED OR TRANSPLANTED SHALL BE FENCED OFF WITH 4' HIGH ORANGE CONSTRUCTION FENCE 10' FROM THE DRIP LINE OF THE TREE. TREES INDICATED TO BE REMOVED, SHALL BE TRANSPLANTED WHERE SHOWN ON THE PLANS & AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- GREAT CARE SHALL BE TAKEN BY CONTRACTORS TO AVOID DAMAGE TO VEGETATION OUTSIDE THE LIMITS OF CONSTRUCTION & TO KEEP THE CONSTRUCTION AREAS TO A MINIMUM. DRIVING SHALL NOT BE PERMITTED OUTSIDE THE LIMITS OF CONSTRUCTION.
- AS A CONDITION OF SITE PLAN APPROVAL THE PROPRIETOR AGREES TO REMOVE & REPLACE ALL DISEASED, DAMAGED, OR DEAD MATERIALS FOR A PERIOD OF TWO (2) YEARS IN ACCORDANCE WITH THE WHITE LAKE TOWNSHIP ZONING ORDINANCE.
- TREE STAKES, GUY WIRES, & TREE WRAP SHALL BE REMOVED AFTER 1 YEAR.



TYPICAL LANDSCAPE BUFFER SECTION
N.T.S.

SITE BENCHMARK:
BM 1-MAG NAIL IN EAST FACE OF POWER POLE
EL. = 1034.67 NAVD 88

GENERAL NOTES:
1. SEE SHEET C0.01 FOR GENERAL NOTES & LEGENDS.



Schedule								
Symbol	Label	QTY	Manufacturer	Catalog	Description	Lamp Output	LLF	Input Power
	P1	1	Lithonia Lighting	DSX0 LED P1 40K 80CRI LCCO EGS	D-Series Size 0 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Left Corner Cutoff Extreme Backlight Control External Glare Shield	3199	0.9	33.21
	P2	4	Lithonia Lighting	DSX0 LED P1 40K 80CRI TFTM HS	D-Series Size 0 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Forward Throw Houseside Shield	3768	0.9	33.21
	P3	2	Lithonia Lighting	DSX0 LED P1 40K 80CRI BLC3 EGS	D-Series Size 0 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Type 3 Extreme Backlight Control External Glare Shield	2963	0.9	33.21
	W1	4	Lithonia Lighting	WDGE2 LED P3 40K 80CRI TFTM	WDGE2 LED WITH P3 - PERFORMANCE PACKAGE, 4000K, 80CRI, TYPE FORWARD THROW MEDIUM OPTIC	3166	0.9	32.1375
	W2	2	Lithonia Lighting	WDGE2 LED P1 40K 80CRI T1S	WDGE2 LED WITH P1 - PERFORMANCE PACKAGE, 4000K, 80CRI, TYPE 1 SHORT OPTIC	1215	0.9	11.1658

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Overall/Grade	+	0.4 fc	2.8 fc	0.0 fc	N/A	N/A
Parking & Drive Lanes	X	0.9 fc	2.8 fc	0.2 fc	14.0:1	4.5:1
Property Line	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A
Rear Lot	X	0.6 fc	1.7 fc	0.1 fc	17.0:1	6.0:1
Sidewalk	X	0.8 fc	1.3 fc	0.5 fc	2.6:1	1.6:1

General Note
 1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
 2. SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.
 3. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: GRADE

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

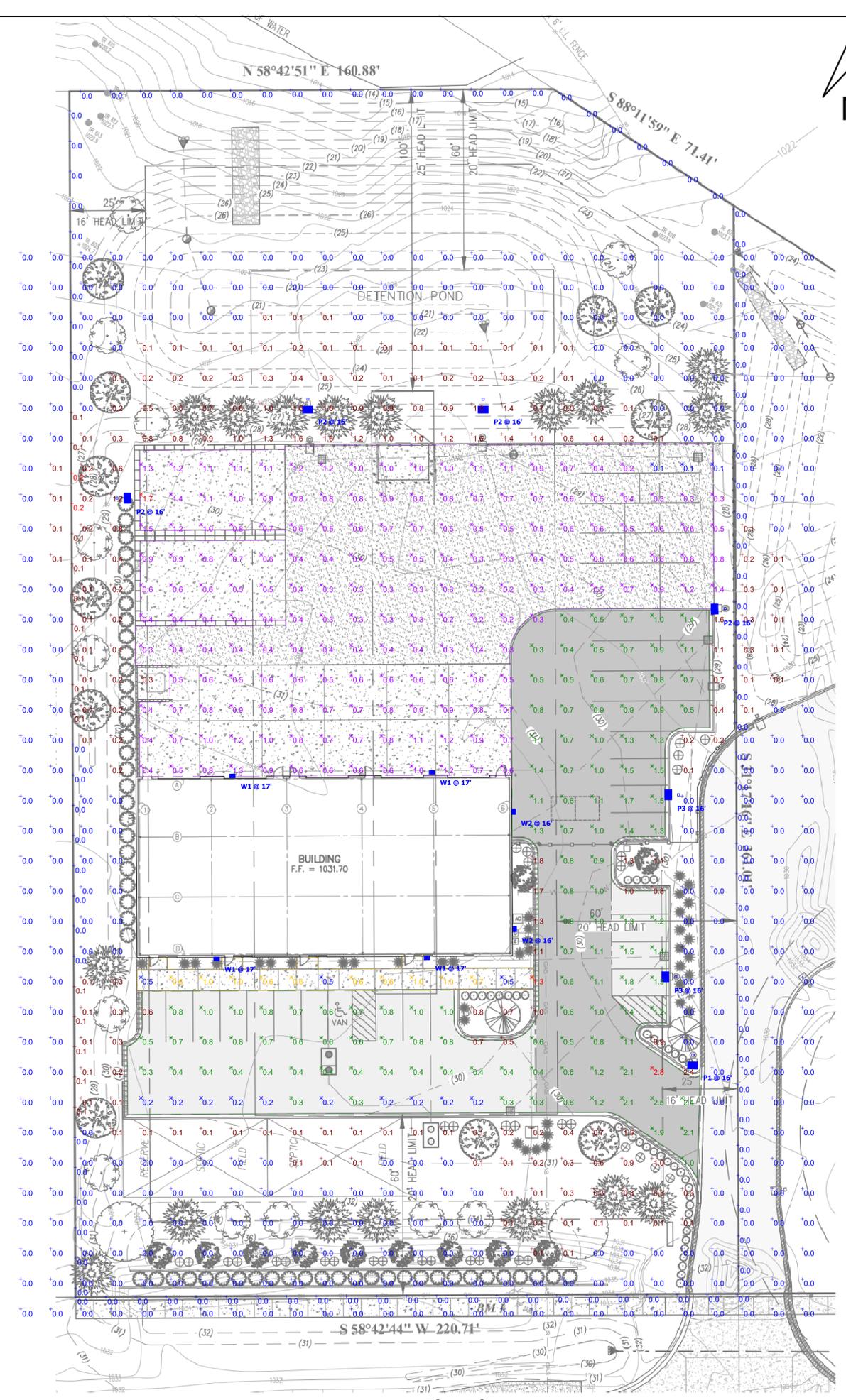
UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIREMENTS DEFINED IN ASHRAE 90.1 2019. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT CONTROLS@GASSERBUSH.COM OR 734-266-6705.

Alternates Note
 THE USE OF FIXTURE ALTERNATES MUST BE RESUBMITTED TO THE CITY FOR APPROVAL.

Ordering Note
 FOR INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-6705.

Drawing Note
 THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

Mounting Height Note
 MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.



Plan View
 Scale - 1" = 20ft

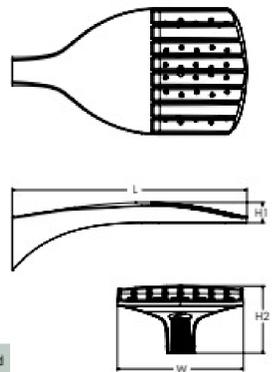


D-Series Size 0 LED Area Luminaire



Specifications

EPA:	0.44 ft ² (0.04 m ²)
Length:	26.18" (66.5 cm)
Width:	14.06" (35.7 cm)
Height H1:	2.26" (5.7 cm)
Height H2:	7.46" (18.9 cm)
Weight:	23 lbs (10.4 kg)



Design Select options indicated by this color background.

Catalog Number _____

Notes _____

Type _____

Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications, with typical energy savings of 70% and expected service life of over 100,000 hours.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. *See ordering tree for details.

Ordering Information

EXAMPLE: DSX0 LED P6 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

Series	LEDs	Color temperature ¹	Color Rendering Index ²	Distribution	Voltage	Mounting
DSX0 LED	Forward optics	(this section 70CRI only)		AFR Automotive front row	TSM Type V medium	MVOLT (120V-277V) ⁴
	P1 P5	30K 3000K	70CRI	T15 Type I short	TSLG Type V low glare	HVOLT (347V-480V) ¹⁵
	P2 P6	40K 4000K	70CRI	T2M Type II medium	TSW Type V wide	XVOLT (277V-480V) ¹²
	P3 P7	50K 5000K	70CRI	T3M Type III medium	BLC3 Type II backlight control ¹	120 ^{16,24}
	P4			T3LG Type III low glare ¹	BLC4 Type IV backlight control ¹	208 ^{16,24}
	Rotated optics	27K 2700K	80CRI	T4M Type IV medium	LCCO Left corner cutoff ¹	240 ^{16,24}
	P10 ¹ P12 ¹	30K 3000K	80CRI	T4LG Type IV low glare ¹	RCCO Right corner cutoff ¹	277 ^{16,24}
	P11 ¹ P13 ¹	35K 3500K	80CRI	TFTM Forward throw medium		347 ^{16,24}
		40K 4000K	80CRI			480 ^{16,24}
		50K 5000K	80CRI			
				WBA Wall bracket ¹⁰		
				MA Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)		

Control options	Other options	Finish (required)
<p>Shipped installed</p> <p>NLTAIR2 PIRHN nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8-40" mounting height, ambient sensor enabled at 2K.^{11, 12, 13, 14}</p> <p>PIR High/low, motion/ambient sensor, 8-40" mounting height, ambient sensor enabled at 2K.^{11, 12, 13, 14}</p> <p>PER NEMA twist-lock receptacle only (controls ordered separately)¹⁴</p> <p>PERS Five-pin receptacle only (controls ordered separately)^{14, 15}</p> <p>PER7 Seven-pin receptacle only (controls ordered separately)^{14, 15}</p> <p>FAO Field adjustable output.^{15, 19}</p> <p>BL30 Bi-level switched dimming, 30%^{16, 19}</p> <p>BL50 Bi-level switched dimming, 50%^{16, 19}</p> <p>DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)¹⁷</p>	<p>Shipped installed</p> <p>HS Houseside shield (black finish standard)²⁰</p> <p>L90 Left rotated optics¹</p> <p>R90 Right rotated optics¹</p> <p>CCE Coastal Construction²¹</p> <p>HA 50°C ambient operation²²</p> <p>BAA Buy America(n) Act and/or Build America Buy America Qualified</p> <p>SF Single fuse (120, 277, 347V)²⁴</p> <p>DF Double fuse (208, 240, 480V)²⁴</p> <p>Shipped separately</p> <p>EGSR External Glare Shield (reversible, field install required, matches housing finish)</p> <p>BSDB Bird Spikes (field install required)</p>	<p>DDBXD Dark Bronze</p> <p>DBLXD Black</p> <p>DNAXD Natural Aluminum</p> <p>DWHXD White</p> <p>DOBTDX Textured dark bronze</p> <p>DBLBDX Textured black</p> <p>DNATXD Textured natural aluminum</p> <p>DWHGXD Textured white</p>



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DSX0-LED Rev. 08/28/25 Page 1 of 9

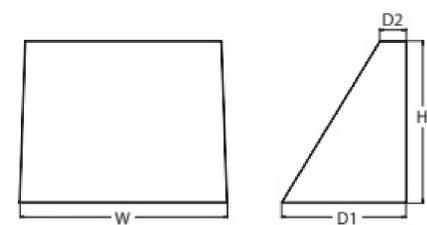


WDGE2 LED Architectural Wall Sconce Precision Refractive Optic



Specifications

Depth (D1):	7"
Depth (D2):	1.5"
Height:	9"
Width:	11.5"
Weight: (without options)	13.5 lbs



Catalog Number _____

Notes _____

Type _____

Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-wide solution. Embedded with nLight® AIR wireless controls, the WDGE family provides additional energy savings and code compliance.

WDGE2 with industry leading precision refractive optics provides great uniform distribution and optical control. When combined with multiple integrated emergency battery backup options, including an 18W cold temperature option, the WDGE2 becomes the ideal wall-mounted lighting solution for pedestrian scale applications in any environment.

design select Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. *See ordering tree for details.

WDGE LED Family Overview

Luminaire	Optics	Standard EM, 0°C	Cold EM, -20°C	Sensor	Approximate Lumens (4000K, 80CRI)						
					P0	P1	P2	P3	P4	P5	P6
WDGE1 LED	Visual Comfort	4W		—	750	1,200	2,000	—	—	—	—
WDGE2 LED	Visual Comfort	10W	18W	Standalone / nLight	—	1,200	2,000	3,000	4,500	6,000	—
WDGE2 LED	Precision Refractive	10W	18W	Standalone / nLight	700	1,200	2,000	3,200	4,200	—	—
WDGE3 LED	Precision Refractive	15W	18W	Standalone / nLight	—	7,500	8,500	10,000	12,000	—	—
WDGE4 LED	Precision Refractive			Standalone / nLight	—	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information

EXAMPLE: WDGE2 LED P3 40K 80CRI T3M MVOLT SRM DDBXD

Series	Package	Color Temperature	CRI	Distribution	Voltage	Mounting
WDGE2 LED	P0 ¹	27K 2700K	40K 4000K	70CRI ²	T1S Type I Short	MVOLT
	P1 ²	30K 3000K	50K 5000K	80CRI	T2M Type II Medium	347 ³
	P2 ²	35K 3500K	AMB ³ Amber	LW ³ Limited Wavelength	T3M Type III Medium	480 ³
	P3 ²				T4M Type IV Medium	
	P4 ²			TFTM Forward Throw Medium		

Options	Finish
<p>E10WH Emergency battery backup, Certified in CA Title 20 MAEDBS (10W, 5°C min)</p> <p>E20WC Emergency battery backup, Certified in CA Title 20 MAEDBS (18W, -20°C min)</p> <p>PE Photocell, Button Type⁸</p> <p>DMG 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)⁹</p> <p>BCE Bottom conduit entry for back box (PBBW), Total of 4 entry points.</p> <p>CCE Coastal Construction⁷</p> <p>Standalone Sensors/Controls</p> <p>PIR Bi-level (100/35%) motion sensor for 8-15" mounting heights. Intended for use on switched circuits with external dusk to dawn switching.</p> <p>PIRH Bi-level (100/35%) motion sensor for 15-30" mounting heights. Intended for use on switched circuits with external dusk to dawn switching.</p> <p>PIR1FC3V Bi-level (100/35%) motion sensor for 8-15" mounting heights with photocell pre-programmed for dusk to dawn operation.</p> <p>PIRH1FC3V Bi-level (100/35%) motion sensor for 15-30" mounting heights with photocell pre-programmed for dusk to dawn operation.</p> <p>Networked Sensors/Controls</p> <p>NLTAIR2 PIR Embedded wireless controls by nLight with Passive Infrared Occ sensor and on/off photocell for 8-15" mounting heights.</p> <p>NLTAIR2 PIRH Embedded wireless controls by nLight with Passive Infrared Occ sensor and on/off photocell for 15-30" mounting heights.</p> <p>NLTAIREM2 PIR Embedded wireless controls by nLight with UL 924 listed emergency operation, Passive Infrared Occ sensor and on/off photocell for 8-15" mounting heights.</p> <p>NLTAIREM2 PIRH Embedded wireless controls by nLight with UL 924 listed emergency operation, Passive Infrared Occ sensor and on/off photocell for 15-30" mounting heights.</p> <p>See page 4 for out of box functionality</p>	<p>DDBXD Dark bronze</p> <p>DBLXD Black</p> <p>DNAXD Natural aluminum</p> <p>DWHXD White</p> <p>DSSXD Sandstone</p> <p>DOBTDX Textured dark bronze</p> <p>DBLBDX Textured black</p> <p>DNATXD Textured natural aluminum</p> <p>DWHGXD Textured white</p> <p>DSSTXD Textured sandstone</p>



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WDGE2 LED Rev. 07/07/25

**REPORT OF THE
COMMUNITY DEVELOPMENT DEPARTMENT**

TO: Planning Commission

FROM: David Waligora, AICP

DATE: March 13, 2026

RE: Walmart 2026-2028 Temporary Use Permit Outdoor Seasonal Sales

Overview

Walmart submitted a temporary use permit application dated February 27, 2026, requesting approval to place a garden center corral (for mulch and other large garden items) in the parking lot between April 5 and September 8 of 2026 and 2027.

A similar request was previously approved by the Planning Commission on April 4, 2024. Since that approval, there have been no recorded complaints or issues associated with the outdoor storage and sales activity.

Planning Commission Options / Recommendation

The Planning Commission has the option to approve, approve with conditions, or deny the request to place a garden center corral in the parking lot.

Staff recommends approval of the request subject to the following conditions:

- Walmart shall obtain a temporary use permit from the Building Division for each sales year.
- The outdoor seasonal sales area shall be subject to inspection and approval by the Fire Marshal.
- Activity associated with the outdoor seasonal sales shall be limited to April 5 through September 8 with site cleanup completed by September 15 of the sale year.
- No additional signage associated with the outdoor seasonal sales shall be permitted, other than directional signage located within the parking lot.
- The outdoor seasonal sales area shall be used for the display and sale of seasonal merchandise and shall not be used for general overstock storage.
- This approval shall expire on April 4, 2028.

Attachments:

1. Temporary use permit application dated February 27, 2026.
2. Notice of PBD Agreement Amendment, recorded August 7, 2009.
3. PBD Agreement Amendment, dated July 10, 2009.
4. Minutes of March 15, 2018, Planning Commission meeting.

Background Information

Walmart is located on a 13.11-acre parcel at 9190 Highland Road (north side of Highland Road, east of Fisk Road) and is zoned PB (Planned Business).

Paragraph 2(q) of the White Lake Marketplace Planned Business District Development (PBD) Agreement allows Walmart to petition the Planning Commission for permission to conduct outdoor seasonal sales, including the display of merchandise outdoors.

In determining the size and location of such areas, the PBD Agreement requires the Planning Commission to ensure that the parking ratio for the overall shopping center does not fall below 4.5 parking spaces per 1,000 square feet of gross leasable area, not including parking spaces located within the outdoor seasonal sales area.

The plan provided by the applicant shows the garden center corral located in the west portion of the parking lot along Fisk Road. The proposed area appears slightly larger than in previous years but remains within a portion of the parking lot that has historically accommodated this activity without apparent impacts to circulation or access.

When the PBD Agreement was amended in 2009, the Township's planning consultant, Birchler Arroyo, provided a review letter dated October 8, 2008 stating that the Planning Commission may establish conditions for seasonal outdoor sales areas, including their location, duration, and potentially the types of merchandise permitted. The consultant further noted that overstock storage of materials such as mulch, stone, topsoil, fertilizer, and similar items should not be stored within a designated seasonal sales area.

Based on the history of this use at the site, including Planning Commission approvals in 2018 and 2024, staff is not aware of conflicts with parking availability, barrier-free parking, or vehicular circulation associated with the seasonal outdoor sales area.



Charter Township of White Lake
7525 Highland Road
White Lake, MI 48383
(248) 698-3300 ext. 2
Whitelaketwp.com

RECEIVED
FEB 27 2026
BUILDING DEPARTMENT

TEMPORARY USE PERMIT APPLICATION

REQUIRED DOCUMENTS:

1. Copy of photo ID
2. A site plan/plot plan showing parking, tent size/location, portable restroom, etc. (an aerial photo with proposed uses depicted is acceptable)
3. Written authorization from the property owner (where applicable)
4. **Food Trucks only:** documentation of current annual inspection from West Oakland County Mutual Aid Association (WOMAA)

Applicants may be subject to inspection by the Fire Marshal before operation/use.

A temporary use permit is valid for 90 calendar days per Article 7, Section 20 of the White Lake Township Clearzoning Ordinance.

TEMPORARY USE INFORMATION:		
Temporary Use Location:	Walmart Parking Lot	
Type of temporary use requested:	<input type="checkbox"/> EVENT <input checked="" type="checkbox"/> SALES <input type="checkbox"/> SIGNS <input type="checkbox"/> FOOD TRUCK Garden Center	
Start Date:	End Date:	License Plate Number (Food trucks only):
April 5	Sept. 8	
APPLICANT & PROPERTY OWNER INFORMATION		
Applicant Name:	Applicant Phone: Walmart mona	
Walmart - Mona Sevic	248-698-9680 517-899-4247	
Applicant Email:	MJKSevic@gmail.com	
Property Owner:	Property Owner Phone:	
Walmart	248-698-9680	
Property Owner Email:		
Property Owner Signature:		Date:
Applicant Signature:	Mona Sevic	Date: 2-27-26
Township Approval:		Date:

Store Manager Ray Vaun



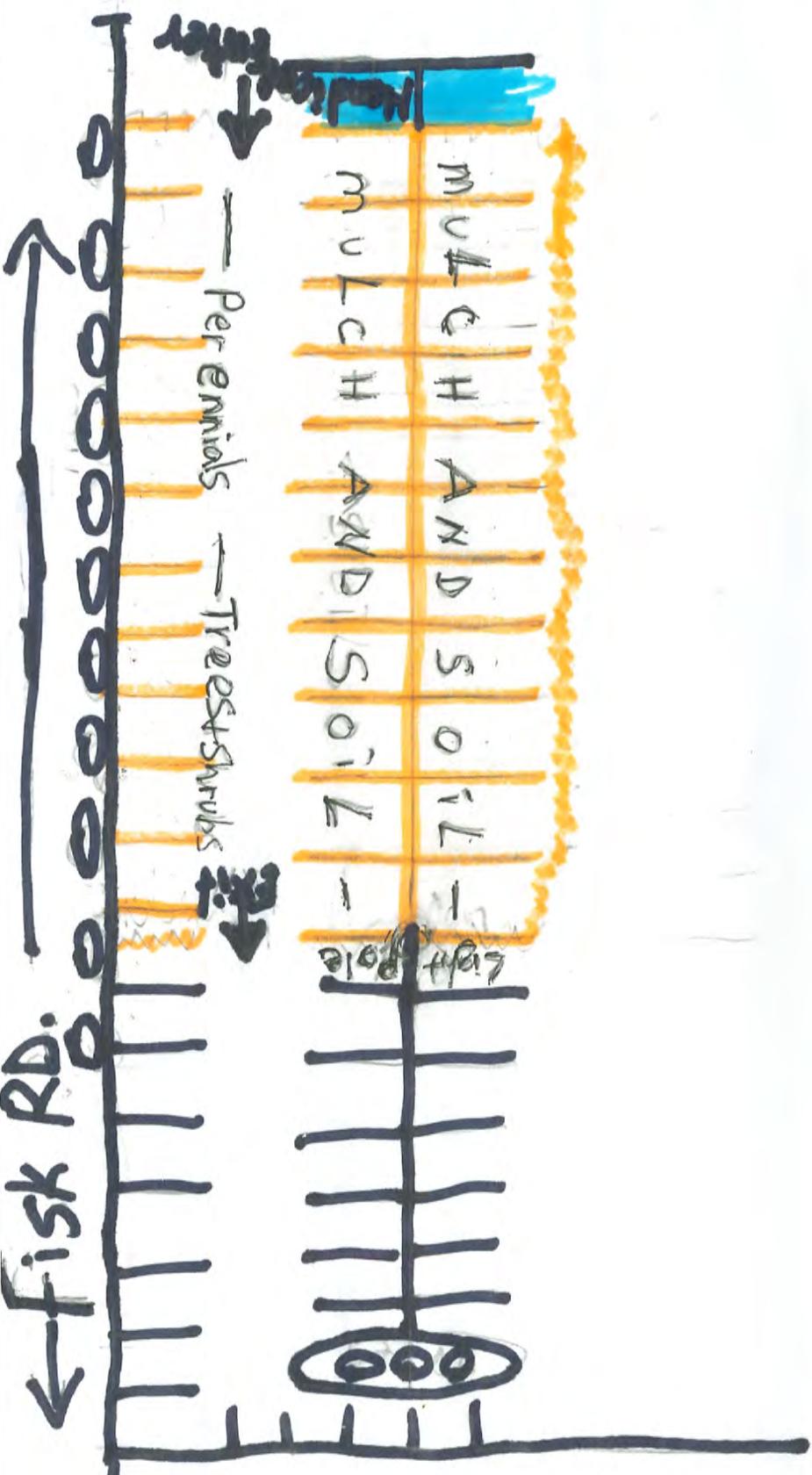
Walmart



Fisk Road

Fisk Farm Property

Brooklyn
DOORS
WAL MART
16m Doors
Gardens
DOORS



175
176 Mr. Seward questioned how they would designate or mark out access to the lake between lots 60-61. Mr.
177 Pisaki stated this could be done with signs. Mr. Seward noted that he had the same set up and over time
178 those two lots became their property. It was a great set up, but created arguments. They could put
179 posts or a fence down those property lines so it can easily be delineated. Also he feels the southern lots
180 will feel separated from the pond/lake and it might discourage them from using the lake, which is
181 gorgeous. A gazebo or gathering place would be awesome.

182
183 Mr. O'Neil stated this developer came before the commission this evening with a concept looking for
184 feedback. Accessibility to the lake is a common theme and they could perhaps eliminate a few lots to
185 access the lake. They want to make this workable.

186
187 Additional Commissioner Comments:

188
189 Mr. Ruggles feels this is a decent plan in general and he doesn't have issues. He suggested maybe
190 making the park on the west bigger and lose a few lots.

191
192 Ms. Grubb would like to see more frontage on the pond on lot 60.

193
194 Mr. Fine encouraged the applicant to move forward with this development.

195
196 Mr. Seward suggested having access for the northern lots on the north end of the road and creating a
197 gathering space. The area should be accessible and more open for a visual aspect.

198
199 Mr. O'Neil indicated he would meet with the applicant again to see what they can do to address these
200 issues.

201
202 **b. Walmart, Temporary Use Permit for outdoor seasonal sales**

203
204 Mr. O'Neil indicated that per the approved Planned Business Development Agreement, Walmart has the
205 right to petition the Planning Commission for approval of a Temporary Use Permit for outdoor seasonal
206 sales from April-October each year. The administrative denial was issued due to the fact that only the
207 Planning Commission can approve this request.

208
209 Mr. O'Neil continued that they are proposing to keep all materials on the westerly property line near the
210 Garden Center. There is thick vegetation along the sidewalk and what they would store would not be
211 obtrusive to the neighbors across the street. He would recommend that the first few spaces remain open
212 and product not to exceed past the parking spots, as the fire lane must remain open. He appreciates
213 them moving it to this area and feels it is a better location. One possible condition would be to limit the
214 height of the pallets to 5 ft.

215
216 Sean Bolen of Walmart stated that the main reason for requesting outdoor storage in this area is that
217 customers are asking for more variety and convenience when it comes to mulch. The new store manager
218 agreed to give this a try. He agrees with the suggestion of leaving a few parking spaces open to allow for
219 loading. This is a low traffic area, both lanes will be open and they will only occupy the space designated.
220 There is an access gate where customers can go out without having to go all the way around.

221
222 The new Store Manager, Nicole, stated they have not done this in previous years and it would be a nice
223 benefit for the customers.

224
225 Mr. O'Neil asked how far back would they need to go in order to provide this convenience. Mr. Bolen
226 stated there are emergency exits and trucks unload in the back. They will need 10-12 spaces maximum
227 and anticipate 6 spaces for pallets of dirt and mulch with a few spaces for trees and shrubs. Racks of
228 flowers will be against the building and will not intrude into the fire lane. There are two roll-up doors for
229 ventilation purposes only.

230
231 Mr. Ruggles stated that this is straight forward and Home Depot does this as well. Home Depot was one
232 of the first PB's in the township and these stipulations were not put into their development, but we want to
233 continue this in the future.

234
235 Ms. Grubb thinks this is a good idea and maybe they can discourage parking in that area. Mr. Bolen
236 stated it would be the place where cars can stop and load.

237
238 Mr. Anderson did not like all the front outdoor storage in previous years. It was an eyesore and created
239 traffic problems. With regard to loading and unloading, he feels someone will have to park in the
240 ingress/egress to do that. This may create a problem with flow and traffic. He suggested the 5 empty
241 spaces be designated for loading and unloading. Nicole and Mr. Bolen felt this was a good idea.

242
243 Mr. Anderson questioned how many bags of mulch each pallet would hold. Mr. Bolen responded that
244 each pallet is 4x5 ft. and would hold roughly 50 bags of mulch, and be less than 5 ft. high. There will still
245 be mulch available in the store, but this request is for bulk purchase as a convenience for the customer.
246 Mr. Anderson asked how they would secure this area at night. Mr. Bolen stated there is an overnight
247 team who will monitor the area.

248
249 Mr. Fine thinks this is a great idea and will be good for their business. He would like to see signage in
250 that area for safety purposes.

251
252 Ms. Grubb asked if Christmas trees would be included in this and Mr. Bolen responded that they would
253 not.

254
255 Parking directly west of the westerly fencing – MOTION – one pallet 5ft. max.

256
257 **Mr. Fine moved to approve the Walmart Temporary Use Permit for Outdoor Seasonal Sales of**
258 **mulch and other items in the westerly area, and having space where they can see from the Garden**
259 **Center gates, from April 1-September 30 for a 2-year period and storage is restricted to**
260 **immediately west of the Garden Center. Ms. Carlock supported and the MOTION CARRIED with a**
261 **roll call vote: Ruggles – yes; Grubb – yes; Anderson – yes; Fine – yes; Carlock – yes; Seward –**
262 **yes. (6 yes votes)**

263
264 **Liaison's Report:**

265
266 Mr. Ruggles reported that Officer Jessica Snow was presented with her third life-saving award; the
267 Township has applied for the Michigan Natural Resources Grant to acquire property at the Brendel Lake
268 camp ground. If the township is successful, the state will fund 74%. They are working on a purchase
269 price and we'll know by December if it's awarded, with the funding coming next year. There was a large
270 turnout and residents asked if the township would allow docks/boats. Mr. Kowall assured them there
271 would not be any motorized vehicles allowed; regarding the Preliminary Site Plan for Aspen Meadows,
272 the Planning Commission wanted a community impact statement, but the Township Board decided they
273 didn't need it; 4 Corners requested a designation as a Brownfield development. There is more
274 contamination on site, not in the corner, but in middle of property where all the utilities are. The
275 development is at a standstill right now and the developer is also looking for tax abatement.

276
277 Ms. Grubb reported that the Parks & Rec has not met since the last meeting. Also, there will be a
278 millage in November to vote for.

279
280 Ms. Dehart was not present to give a report. The next ZBA meeting March 22.

281
282 **Director's Report:**

283
284 Mr. O'Neil added to Mr. Ruggles report that two rezonings were finalized with a second reading. He
285 expects projects coming in. And lastly, there will not be a meeting on April 5.

286
287 **Communications:**

288
289 **Next meeting dates:**

- 290
291
292
- Regular Meeting – April 5, 2018 (cancelled)
 - Regular Meeting – April 19, 2018 (public hearing, Anderson cannot attend)

White Lake, MI
Store No. 2700-02

**AMENDMENT TO WHITE LAKE MARKETPLACE
PLANNED BUSINESS DISTRICT DEVELOPMENT AGREEMENT**

This Amendment to White Lake Marketplace Planned Business District Development Agreement (this "Amendment") is made this 10th day of July, 2009, by and among the **CHARTER TOWNSHIP OF WHITE LAKE**, whose address is 7525 Highland Road, White Lake Township, Michigan 48383 ("Township"), **PONTIAC MALL LIMITED PARTNERSHIP**, a Michigan limited partnership as successor-in-interest to **RAMCO-GERSHENSON PROPERTIES, L.P.**, a Delaware limited partnership, with a mailing address of 31500 Northwestern Highway, Suite 100, Farmington Hills, Michigan 48334 ("Developer") and **WAL-MART REAL ESTATE BUSINESS TRUST**, a Delaware statutory trust, whose address is 2001 S.E. 10th Street, Bentonville, Arkansas 72716-0550 ("Wal-Mart").

RECITALS

A. Developer and the Township entered into that certain White Lake Marketplace Planned Business District Development Agreement dated June 26, 1998 (the "Agreement").

B. Wal-Mart intends to expand its current building located on property owned by Wal-Mart as described in **Exhibit A** attached hereto and made a part hereof (the "Wal-Mart Parcel") and within the White Lake Marketplace Shopping Center pursuant to those certain Final Site Plans and construction related plans, prepared by CESO, Inc., dated August 13, 2008 and final Elevations prepared by Raymond Harris Architects ("RHA"), dated July 14, 2008 and final Sign Plan prepared by RHA, dated July 17, 2008 and last revised May 29, 2009 as all of such plans were approved by the Township in connection with Wal-Mart's expansion.

C. The Township desires to ensure that the Wal-Mart expansion that is the subject of this Amendment is developed and used in accordance with Township approved development plans and applicable laws and regulations.

NOW THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the parties agree as follows:

1. **Paragraph 2(q)** of the Agreement is hereby deleted in its entirety and replaced with the following:

Although the approved Site Plan does not provide an area where Wal-Mart will have the right to conduct outdoor seasonal sales, Wal-Mart shall have the absolute right to petition the Township (through its Planning Commission) for the right to conduct such sales in a specified area within the Wal-Mart Parcel, and the Township (through its Planning Commission) shall reasonably consider any such request in accordance with the Township Zoning Ordinance, provided that, in determining the size and location of such area, Wal-Mart takes into account that the parking ratio for the overall shopping center must not fall below 4.5 cars for each 1,000 square feet of gross leasable area of the shopping center, not including parking spaces which may be within any such outdoor seasonal sales area. Wal-Mart shall be required to utilize the same application and approval process set out above in the event that Wal-Mart desires to lease or license any portion of its parking lot for a kiosk or other similar use.

2. Paragraph 2(u) is hereby amended to add the following language:

Other than as provided for herein, except for a four week period of time surrounding the national holidays of Christmas and Thanksgiving (i.e. two weeks before the date and two weeks after), and except for a two week period of time surrounding certain other national holidays which shall include Easter, Memorial Day, the 4th of July and Labor Day (i.e. one week before the date and one week after), Wal-Mart shall not permit the storage of roll-off shipping containers or other storage containers or trailers behind the Wal-Mart building outside of the loading dock areas for longer than twenty-four (24) consecutive hours. Said limitation does not apply to containers or trailers within the loading dock areas. No more than four (4) roll-off shipping containers or other storage containers or trailers (in addition to any such containers or trailers within the loading dock areas) shall be permitted behind the Wal-Mart building at any one time, and such roll-off shipping containers or other storage containers or trailers not within the loading dock areas shall be limited to the designated areas as depicted on the attached **Exhibit B**. Wal-Mart shall not permit running refrigeration containers or running refrigeration trailers to be stored behind the Wal-Mart building at any time (except within the loading dock areas). Said containers shall not block the access/truck drive located behind the Wal-Mart building, and in the event said containers damage any common area within the White Lake Marketplace Shopping Center, Wal-Mart shall promptly repair and/or restore (at its sole cost) such area to the same or better condition as which existed immediately prior to such damage.

3. The following Paragraph 2(x) is hereby added to the Agreement:

If requested to do so by the Township, Wal-Mart shall install signs within the parking area on the Wal-Mart Parcel stating that the parking of recreational vehicles and buses on the Wal-Mart Parcel on an overnight basis is prohibited. Wal-Mart store representatives shall also reference such prohibition to any parties inquiring regarding overnight parking of recreational vehicles and buses.