

AGENDA
CASCADE CHARTER TOWNSHIP PLANNING COMMISSION
MONDAY, September 22, 2025
6:00PM
WISNER CENTER
2870 JACKSMITH AVE SE

Public may access the meeting via video conference software Zoom
Webinar ID: 860 8654 9700
<https://us02web.zoom.us/j/86086549700>

- ARTICLE 1. **Call the meeting to order. Record the attendance.**
- ARTICLE 2. **Pledge of Allegiance to the Flag**
- ARTICLE 3. **Approve the current Agenda**
- ARTICLE 4. **Disclose any Conflict of Interest**
- ARTICLE 5. **Approve the Minutes of the August 18, 2025 meeting**
- ARTICLE 6. **Acknowledge visitors and those wishing to speak.**
(Comments are limited to five minutes per speaker)
- ARTICLE 7. **Case #25-3897 – Public Hearing**
Applicant: Speed Collection LLC
Address: 6250 28th St. SE
Parcel Number: 41-19-17-226-002
Requested Action: Request for a Special Use Permit to allow for a new or used automobile service center within an existing commercial strip mall.
- ARTICLE 8. **Case #25-3894**
Applicant: Live Space, Ben Cobb
Address: 4995 Starr St. SE
Parcel Number: 41-19-07-301-014
Requested Action: Site Plan Review for an expansion in the existing parking and access aisles on the southwest side of the property. The applicant is requesting a reduction in the bufferyard depth on the south side of the property.
- ARTICLE 9. **Case #24-3842**
Applicant: Trane Technologies
Address: 5824 Kraft Ave. SE & 5784 Kraft Ave SE
Parcel Number: 41-19-32-300-047 & 41-19-32-300-047
Requested Action: Amendment to previously approved Site Plan to combine two (2) industrial buildings and the associate parcels
- ARTICLE 10. **Acknowledge visitors and those wishing to speak.**
(Comments are limited to five minutes per speaker)
- ARTICLE 11. **Other Business**
- ARTICLE 12. **Adjourn**

CASCADE CHARTER TOWNSHIP

PLANNING COMMISSION

**MONDAY, September 22, 2025
6:00 PM**

ARTICLE 5.

Approve the Minutes of the August 18, 2025 Meeting

MINUTES
CASCADE CHARTER TOWNSHIP PLANNING COMMISSION
MONDAY, August 18, 2025
6:00PM
2865 THORNHILLS AVE SE

ARTICLE 1. Vice-Chairman Kraemer called the meeting to order at 6:00 pm.
Members Present: Korstange, Cribbs, Kraemer, Madiol
Members Absent: Rowland (Excused)
Others Present: Community Planning and Development Director Andrea Hendrick, Planning Consultant Chris Khorey of McKenna, Township Manager Jade Smith, Township Supervisor Grace Lesperance, Legal Counsel Michael Homier of Foster Swift, Planning Administrative Assistant Nick Govan and others listed on the sign-in sheet.

ARTICLE 2. Approve the current Agenda
Motion was made by Member Madiol to approve the Agenda.
Supported by Treasurer Korstange.
Motion carried unanimously.

ARTICLE 3. Disclose any Conflict of Interest
There were no conflicts of interest.

ARTICLE 4. Approve the Minutes of the August 4th, 2025, meeting
Motion was made by Treasurer Korstange to approve the August 4th, 2025 meeting minutes. Supported by Member Cribbs.
Motion carried unanimously.

ARTICLE 5. Acknowledge visitors and those wishing to speak.
There was no one wishing to speak on non-agenda items.

ARTICLE 6. Case #25-3892 – Public Hearing
Applicant: Cascade Charter Township
Requested Action: Recommendation of Comprehensive Zoning Ordinance Amendments.

Supervisor Grace Lesperance provided a brief introduction explaining how the Township arrived at this comprehensive zoning ordinance amendment. She outlined the completion of two initiatives over the past four years: the strategic plan in 2022 and the master plan in 2024. She emphasized that with West Michigan under tremendous growth pressure, the Township wants to proactively ensure growth complements Cascade's quality of life and character rather than eroding it.

Supervisor Lesperance explained that the previous Master Plan prioritized industrial development southeast of the airport, which would have required additional expressway ramps at potentially four different locations. She noted this direction was inconsistent with maintaining Cascade's character. The new Master Plan, adopted in 2024, changed this trajectory, and now the zoning ordinance must be updated to be consistent with the Master Plan.

She stressed that the ordinance focuses on new development and redevelopment only and does not force existing properties to change unless owners voluntarily choose to develop or redevelop.

Planning Consultant Chris Khorey of McKenna presented a comprehensive overview of the proposed zoning ordinance amendments. He explained that the August 7, 2025 draft being considered had been revised from the July 3 draft based on public input received at the August 7 Township Board workshop. Planning Consultant Khorey outlined the guiding philosophies of the ordinance: protect single family neighborhoods, preserve rural character of the eastern part of the Township, upgrading 28th Street to meet Cascade's character and expectations, enhance the village's unique style, make it easy to further Township goals while making it difficult to go against them, and demand quality development.

He detailed what is not changing in the ordinance, including the airport commerce district, airport overlays, and the recently adopted solar ordinance. He emphasized that most provisions in most zoning districts are not changing, and the boundaries of single-family districts remain unchanged.

For homeowners, Planning Consultant Khorey explained that most rules are not changing. He noted that an August 7 revision eliminated proposed increases to side setbacks for single family homes. Changes include eliminating the ability to request taller fences through special use permits; this would now require Zoning Board of Appeals approval instead. He also noted new waterfront regulations limiting key-hole arrangements for off-water properties.

Regarding accessory buildings, Planning Consultant Khorey explained the new system is based on lot size and zoning district, with increased allowances compared to the current 832 square foot threshold. Township Manager Jade Smith clarified that these numbers were not arbitrarily created but were based on data pulled from previous cases brought before the Planning Commission. He explained that the Township had no idea where the previous 832 square foot number came from, so staff analyzed previous cases to determine what made the most sense. He noted the new scale gives property owners more rights to their properties and allows them to do more with their property. Manager Smith noted that the Planning Commission has been hearing many cases for accessory buildings over 832 square feet, so the new system will help streamline the process and make accessory buildings permitted by right, rather than requiring special use permits. Planning Consultant Khorey further clarified that accessory dwelling units are not allowed under this ordinance.

For large lot and agricultural property owners, Planning Consultant Khorey detailed new animal regulations based on animal units per acre, emphasizing these are complaint-driven enforcement rules rather than permit requirements.

The ordinance introduces a purchase of development rights program to allow property owners to monetize land without selling to developers and establishes a private road ban, with limited exceptions, to prevent sprawl in the eastern part of the Township.

This philosophy promotes investment in existing businesses while demanding high design standards and limiting corporate architecture. Planning Consultant Khorey explained that the overlay districts along 28th Street are designed to create consistent rules and discourage planned unit developments.

He detailed the form-based code for the village area, which creates four new zoning districts with detailed architectural, site design, and road design standards. The form-based code interacts with existing planned unit developments by prohibiting new ones and requiring any amendments to comply with overlay standards.

For developers, the ordinance establishes a utility service boundary roughly at Buttrick Avenue, beyond which public water and sewer cannot be extended. New housing standards include minimum square footage requirements and restrictions on tiny homes and micro units.

The overlay districts allow limited housing development in select areas (Starr, Glenwood, and Centennial overlays) with density bonuses available for quality improvements such as green space preservation, owner-occupancy guarantees, mixed-use development, pathway construction, and stormwater management improvements.

The form-based code allows commercial development throughout the village with mixed-use development permitted anywhere and standalone housing restricted to specific areas, requiring special use permits.

Planning Consultant Khorey concluded by outlining three architectural styles required in the form-based code: Craftsman, Main Street Traditional, and Victorian, all intended to maintain village character while prohibiting corporate architecture.

**Motion was made by Treasurer Korstange to open public hearing. Supported by Member Cribbs.
Motion carried unanimously.**

Calvin Tran (Grandville, board member of Abundant Housing Michigan) spoke in favor of the amendments, supporting mixed-use development and growth where infrastructure exists. He challenged the commission to be more ambitious, suggesting elimination of minimum lot sizes, minimum dwelling sizes, and parking requirements to address the housing crisis.

Tedd O'Neill (6749 & 6747 Old 28th St.) expressed concerns about how the plans would affect existing automotive businesses on Old 28th Street, questioning whether businesses like his would be incentivized to relocate and raising concerns about traffic and parking for new residential development.

Joe Cucinella (6716 Old 28th St.) echoed concerns about existing businesses, referencing 50 years of operation and previous renovations. He expressed worry about current business owners being considered in future development plans and raised concerns about water drainage issues.

Durk Martin (7890 36th St.) addressed sidewalk maintenance issues on 36th Street and requested replacement of a missing traffic sign at Buttrick and Cascade.

Ken Lovell (8205 Shadybrook Dr.) questioned the definition of "quality" in development standards and expressed concern about affordability, wondering what quality requirements would add to housing costs.

Robert Camp (Quiggle Ave.) argued that extensive controls, particularly public road requirements, would make development prohibitively expensive and effectively end development in Cascade. He suggested allowing controlled private roads rather than requiring them to be public roads.

Nancy Eardley (1441 Sandy Point Ave.) opposed the form-based code approach, arguing it leaves zoning decisions open to subjective criteria. She questioned the viability of a walkable village concept and advocated for business-friendly zoning instead. She opposed residential development in Starr and Centennial overlays, preferring to maintain the business tax base.

Jordan Painter (2765 Orange Ave.) reiterated concerns about private road restrictions making development costs prohibitive, noting current build costs already approaching \$1.5 million in some areas.

Michelle Lauer (2992 Overlook Summit Dr.) raised concerns about potential conflicts with strategic plan designations for park/green space areas, requested objective data on traffic and environmental impacts, and warned about costs to existing residents from zero setback requirements and potential wildlife disruption.

David Prindiville (4994 Sequoia Dr.) expressed dissatisfaction with the proposed Victorian architectural style within the form-based code.

Jim Schumar (4790 Cascade Rd.) emphasized the importance of maintaining current community standards and expressed concerns about imposed quality standards, arguing that market forces already drive quality. He questioned parking requirements for buildings close to roads.

Trisha Hielkema (3130 Howlett Dr.) thanked the commission for avoiding Ada's development pattern but requested protections against historic home teardowns and asked about road infrastructure plans for increased density.

Dawn McDonald (6810 Old 28th St.) described traffic problems in Ada and expressed concerns about similar issues developing in Cascade due to walkability and mix-use.

JR Kotrč (6810 Old 28th St.) felt existing businesses were being left behind by new development standards and questioned the Victorian architecture style within the form-based code.

Dan Lauer (2992 Overlook Summit Dr.) emphasized infrastructure concerns with increased density, particularly refuse management, and requested consideration of vertical building trends in height restrictions.

Motion was made by Treasurer Korstange to close public hearing. Supported by Member Cribbs.

Motion carried unanimously.

Following the public hearing, Planning Consultant Khorey and staff addressed questions raised during public comment. Planning Consultant Khorey noted where building materials requirements can be found and that they apply only to commercial, mixed-use, and multifamily development in form-based code and

overlay districts, not to single-family homes or development outside those districts.

Regarding Tassell Park and its expansion, Supervisor Lesperance explained that the Township is acquiring the Verburg Automotive property to improve aesthetics and potentially create river access and connections, re-emphasizing that nothing in the ordinance forces existing businesses to change.

Planning Consultant Khorey noted the ordinance does not explicitly prohibit single-family home teardowns, but new construction would be governed by the same setback and scale requirements as current homes.

Community Planning and Development Director Hendrick addressed business owner concerns, explaining that repairs and maintenance improvements not involving footprint expansion would not trigger new requirements. She noted the DDA is implementing facade improvement grants to help existing businesses meet new standards.

Supervisor Lesperance addressed housing affordability concerns, arguing that government cannot solve housing prices through zoning and that the market determines affordability. She emphasized that Cascade is not a starter community and that developers calling projects "affordable" often means cutting corners on quality.

Planning Consultant Khorey clarified that the ordinance cannot restrict property owners from renting their properties but includes incentives for homeownership through density bonuses. He explained that hotels cannot be converted to apartments under the new ordinance because hotel rooms do not meet dwelling unit definitions.

Motion was made by Treasurer Korstange to RECOMMEND APPROVAL of Case Number 25-3892, amendment to the Cascade Charter Township Zoning Ordinance as presented in the draft zoning ordinance version dated August 7, 2025 with the following changes:

- 1. Remove the proposed side setback changes in the R1, R2, RC, Farmland Preservation, and Rural Conservation zoning districts to maintain the current side setback requirements.**
- 2. Add a new section 4.4.C.9 which states: Chickens in the R1 and R2 districts must be within a covered enclosure, a coop and a run, at all times. Chickens shall not be allowed to range freely on any other property. The entire enclosure must meet the setback requirements of section 4.4.C.5, while requirements of section 4.4.C.6 shall only apply to the coop itself.**
- 3. Remove the end of section 6.3.C.2 which reads "except when the yard is adjacent to a designated major thoroughfare, and in such instance, the side street yard shall also be considered."**

**Supported by Member Madiol.
Motion carried unanimously.**

ARTICLE 7. Acknowledge visitors and those wishing to speak.

David Prindiville (4994 Sequoia Dr.) questioned whether the ordinance had been accepted. Treasurer Korstange clarified that it would move on to the Township Board for deliberation, including a work session and first reading before being adopted.

Scot VanSolkema (2570 Orange Ct.) asked for clarification on accessory dwelling unit definitions, specifically what constitutes a kitchen and whether pool houses with bathrooms and cooking facilities would be allowed. Manager Smith and Planning Consultant Khorey clarified that kitchen definitions are in both the hotel and dwelling unit definitions sections, requiring a stove or cooking device and permanently installed sink.

ARTICLE 8. Other Business

There was no other business.

ARTICLE 9. Adjourn

Respectfully submitted,

Andrea Hendrick, Community Planning and Development Director, Recording Secretary

DRAFT

CASCADE CHARTER TOWNSHIP

PLANNING COMMISSION

**MONDAY, September 22, 2025
6:00 PM**

ARTICLE 7.

Case #25-3897 – Public Hearing

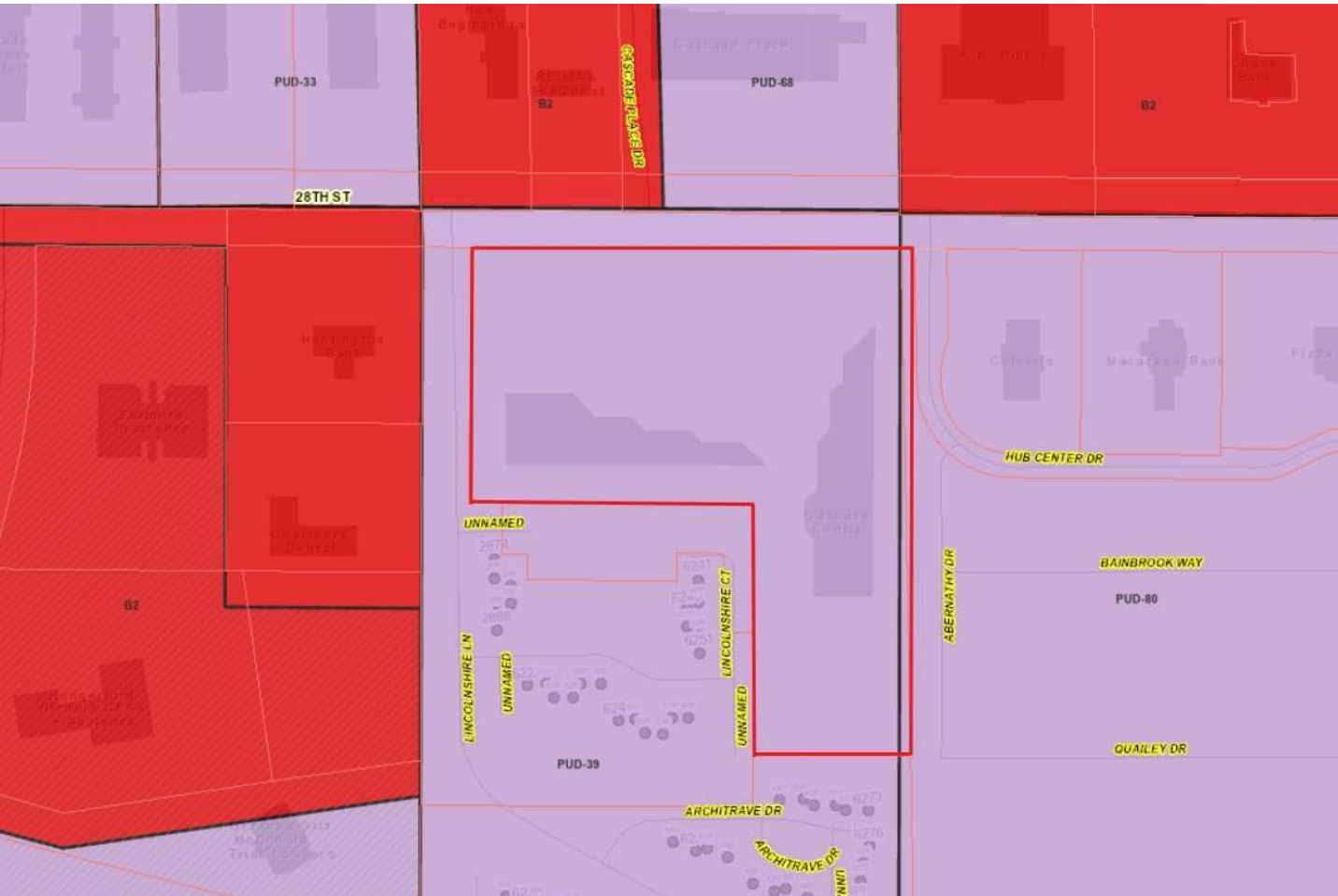
Applicant: Speed Collection LLC

Property Address: 6250 28th St. SE

Parcel Number: 41-19-17-226-002

Requested Action: Requesting a Special Use Permit to allow
for a new or used automobile service center
within an existing commercial strip mall.

Parcel & Zoning Map





CASCADE CHARTER TOWNSHIP

5920 Tahoe Drive SE • Grand Rapids, MI 49546

PLANNING DEPARTMENT STAFF REPORT

STAFF REPORT: Case # 25-3897
REPORT DATE: September 15, 2025
PREPARED FOR: Cascade Charter Township Planning Commission
MEETING DATE: September 22, 2025
PREPARED BY: Andrea Hendrick, Planning Director

APPLICATION SUMMARY:

APPLICANT: Applicant: The Speed Collection LLC
Property Owner: Cascade Center LLC

ADDRESS: 6250 28th St. SE, Grand Rapids, MI 49546

PARCEL NUMBER: 41-19-17-226-002

REQUESTED ACTION: Seeking a Special Use Permit to allow for a new or used automobile service center within an existing commercial strip mall.

REQUIREMENTS: Section 17.06 Special Use Approval Standards - General
Section 19.13 Access, Parking, And Loading
Section 21.03 Site Plan Procedure

EXISTING ZONING: PUD / B2 General Business

GENERAL LOCATION: The subject property is located on the southside of 28th St. SE, east of Lincolnshire. The business is to be located in the southernmost part of the eastern building of Cascade Center.

PARCEL SIZE: 6.45 acres

EXISTING LAND USE: Vacant portion of a commercial strip mall which currently have multiple operating businesses including fast food, a brewery, and physical fitness center.

ADJACENT PROPERTIES: N: B2 & PUD-68, Commercial strip mall
S: PUD-39, residential condominiums
E: PUD-80, residential condominiums
W: B2, Office Space

PROPERTY HISTORY

Case #83-251

- 1983-07-18 Planning Commission Preliminary Site Plan Review – Set Public Hearing for 1983-08-15.
- 1983-08-15 Planning Commission Hearing to rezone from B2 to PUD
RECOMMENDED
- 1983-08-24 Board of Trustees to rezone from B2 to PUD - Ord #2 of 1983 APPROVED

While the current zoning of the subject parcel is PUD, there are no specific standards associated with this property. At the time of adoption, PUDs were used as a means to decrease regulation on development. Staff assumes that the intent was to allow for two buildings on one site. In the absence of any specific use regulations, the requirements for this property are governed by the underlying zone district, which is B2- General Business.

PROPOSED USE

The applicant is proposing a change in use for a vacant suite within the existing commercial strip mall. The requested use is most consistent with a “new or used automobile sales and service station” property use, as described in the Zoning Ordinance. In determining permitted uses for the property, the standards for B2, General Business District apply. The B2 section of the Zoning Ordinance lists the requested use as permitted by Special Use Permit. Therefore, the standards of Section 17.06 Special Use Approval Standards apply. The building dimensions, and other exterior site elements will remain the same.

According to the applicant, the facility will focus exclusively on cosmetic vehicle care, including the installation of paint protection film (PPF), ceramic coatings, paint correction, and restorative interior and exterior detailing. PPF is a clear, adhesive film applied to a vehicle’s exterior to protect the paint from rock chips and environmental damage, and the application process is quiet and non-industrial. Paint Correction is the removal of scratches and swirl marks through the process of buffing and polishing of existing paint. There will be no performing of mechanical repairs, servicing, or paintwork at this facility. Work will take place in a clean, climate-controlled environment that will be specially remodeled for the business. Operations will have standard business hours, but all work will be scheduled by appointment, with only minimal pick-ups, drop-offs, and occasional prospective client visits throughout the day. This approach will minimize traffic to and from the site and ensure a quiet, controlled flow of activity. The floor plan allows for indoor accommodation of up to eleven vehicles at a time, with an additional six to eight spaces available for overnight parking of vehicles in process.

SECTION 17.06 SPECIAL USE STANDARDS – GENERAL

Standard	Determination
a. Be designed, constructed, operated and maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the area in which the use is proposed.	The original building was incorporated into a Planned Unit Development. The PUD has shared parking and signage. The landscaping and footprint of the building will not be changing. The main function of the proposed use is by appointment only, with indoor storage of vehicles being serviced. Therefore, the existing number of parking stalls will not need to be altered. Staff find that this standard

	<p>is met, given that the proposed use is consistent in intensity, character, and intent of the B2 District, as well as the 28th Street Corridor. The visual effects of the change in use will also be confined mainly to the interior of the building. However, the potential impact of vehicle pickup/drop off on the neighboring residents at Redwood Apartments to the east, and Thornapple Hills Condominiums to the south, should be considered.</p>
<p>b. Be adequately served by essential facilities and services such as highways, streets, police and fire protection, drainage, refuse disposal, water and sewer facilities and schools.</p>	<p>The site has two (2) existing access points on 28th and Lincolnshire. The current parking lot has adequate detention/retention on site. All utilities are available and exist on the site. The proposed use is likely serviced adequately by utilities and essential facilities. The applicant is also not proposing any significant changes to the site design or building exterior.</p>
<p>c. Not create excessive additional requirements at public cost for public facilities and services.</p>	<p>The proposed use is similar in nature to previous and surrounding uses. The proposed use will operate in an existing commercial corridor which already contains sufficient public facilities.</p>
<p>d. Not cause traffic congestion, conflict or movement in greater proportion to that normally prevailing for the use in the particular zoning district.</p>	<p>The proposed use is located off 28th Street (M-11), which is a State Road. This area of 28th street has an average annual daily traffic (AATD) count of 23,291 cars. Ingress/egress is appropriately placed on 28th St, and there is access off Lincolnshire as well. Given these conditions it is not anticipated that the proposed use will cause traffic congestion or conflicts. It is likely there will be a similar level of traffic for this use in comparison to the previous use (clothing store overflow storage), as the applicant anticipates very little daily traffic.</p>
<p>e. Not involve uses, activities, processes, materials, equipment or conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of noxious or offensive production of noise, smoke, fumes, glare, vibration, odor or traffic.</p>	<p>The primary focus of the facility will be on installation of paint protection film (PPF), which the applicant has noted includes a quiet and non-industrial application process for vehicles. No mechanical repairs, servicing, or paintwork will be done at the facility. The applicant has also clarified that the use of the space will generate minimal noise, odor, and traffic, and outdoor activity will be limited to vehicle drop-off, pick-up, and short-term parking. Therefore, it appears the proposed use will have minimal impact on the adjacent</p>

	properties, with no offensive production of noise, smoke, fumes, glare, vibration, odor or traffic.
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NEIGHBOR COMMENTS

A representative from the adjacent housing development to the south contacted the Planning Department to request the application documents. No comments have been received whether in support or opposition.

CONSIDERATIONS

Per the staff review above, the Planning Commission should deliberate and determine the following:

- Does the proposed use meet the Special Use standards of 17.06?
- Do the pick-ups, drop-offs, interior vehicle storage, and occasional prospective client visits associated with the proposed use have a detrimental effect on adjacent properties?

RECOMMENDATIONS

Motion to RECOMMEND APPROVAL of the Special Use Permit to allow for a new or used automobile service center within an existing commercial strip mall at 6250 28th St SE for the following reasons:

1. The change in property use satisfies the Special Use Permit approval standards outlined in Section 17.06 of the Cascade Township Zoning Ordinance.

And with the following condition:

1. The use is subject to the scale and operations outlined in this land use approval.

ATTACHMENTS

1. Application
2. Applicant Narrative
3. Site Plans 07-31-2025
4. 1995-03-16 | 95-1795 Staff Report explaining the previous PUD process
5. 1982 Zoning Map – 6250 28th Indicated as B2 – General Business



CASCADE CHARTER TOWNSHIP

5920 Tahoe Dr. SE, Grand Rapids, Michigan 49546-7140

PLANNING & ZONING APPLICATION

APPLICANT: Name: THE SPEED COLLECTION LLC

Address: 76 VETERANS DR, STE 500, HOLLAND, MI 49423

City & Zip Code HOLLAND, MI 49423

Telephone: (616) 344-6601

Email Address: COLE@THESPEEDCOLLECTION.COM

OWNER: * (If different from Applicant)

Name: Gunson Properties Cascade Center, LLC

Address: 161 Ottawa Ave NW STE 104

City & Zip Code: Grand Rapids, MI 49503

Telephone: 616-575-6051

Email Address: paul@edmarkdevelopment.com

NATURE OF THE REQUEST: (Please check the appropriate box or boxes)	
<input type="checkbox"/> Administrative Appeal	<input type="checkbox"/> Administrative Site Plan Review
<input type="checkbox"/> Deferred Parking	<input type="checkbox"/> P.U.D. – Rezoning *
<input type="checkbox"/> P.U.D. – Site Condominium *	<input type="checkbox"/> Rezoning
<input type="checkbox"/> Site Plan Review *	<input type="checkbox"/> Sign Variance Subdivision
<input checked="" type="checkbox"/> Special Use Permit	<input type="checkbox"/> Plat Review *
<input type="checkbox"/> Zoning Variance	<input type="checkbox"/> Other: _____*

*** Requires an initial submission of 5 copies of the completed site plan**

BRIEFLY DESCRIBE YOUR REQUEST:**

See attachment.

(**Use Attachments if Necessary)

-SEE OTHER SIDE-

LEGAL DESCRIPTION OF PROPERTY:**

N 750 FT OF W 1/2 NE 1/4 NE 1/4 * SEC 17 T6N R10W

7.03 A.

(**Use Attachments if Necessary)

PERMANENT PARCEL (TAX) NUMBER: 41-19-17-226-002

ADDRESS OF PROPERTY: 6250 28th Street SE., Grand Rapids, MI

PRESENT USE OF THE PROPERTY: Vacant. Prior lessee used the space as clothing store over ow storage.

NAME(S) & ADDRESS(ES) OF ALL OTHER PERSONS, CORPORATIONS, OR FIRMS HAVING A LEGAL OR EQUITABLE INTEREST IN THE PROPERTY:

Name(s)	Address(es)
_____	_____
_____	_____

SIGNATURES

I (we) the undersigned certify that the information contained on this application form and the required documents attached hereto are to the best of my (our) knowledge true and accurate. I (we) also agree to reimburse the Cascade Charter Township for all costs, including consultant costs, to review this request in a timely manner. I (we) understand that these costs may also include administrative reviews which may occur after the Township has taken action on my (our) request.

I (we) the undersigned also acknowledge that the proposed project does not violate any known property restrictions (i.e. plat restrictions, deed restrictions, covenants, etc.)

Paul Simons
Owner – Print or Type Name
(*If different from Applicant)

*  08-01-2025
Owner’s Signature & Date
(*If different from Applicant)

COLE MATTHEWS
Applicant – Print or Type Name

 08-01-2025
Applicant’s Signature & Date

PLEASE ATTACH ALL REQUIRED DOCUMENTS NOTED IN THE PROCESS REVIEW SHEET – THANK YOU

Rev. 7/27/21

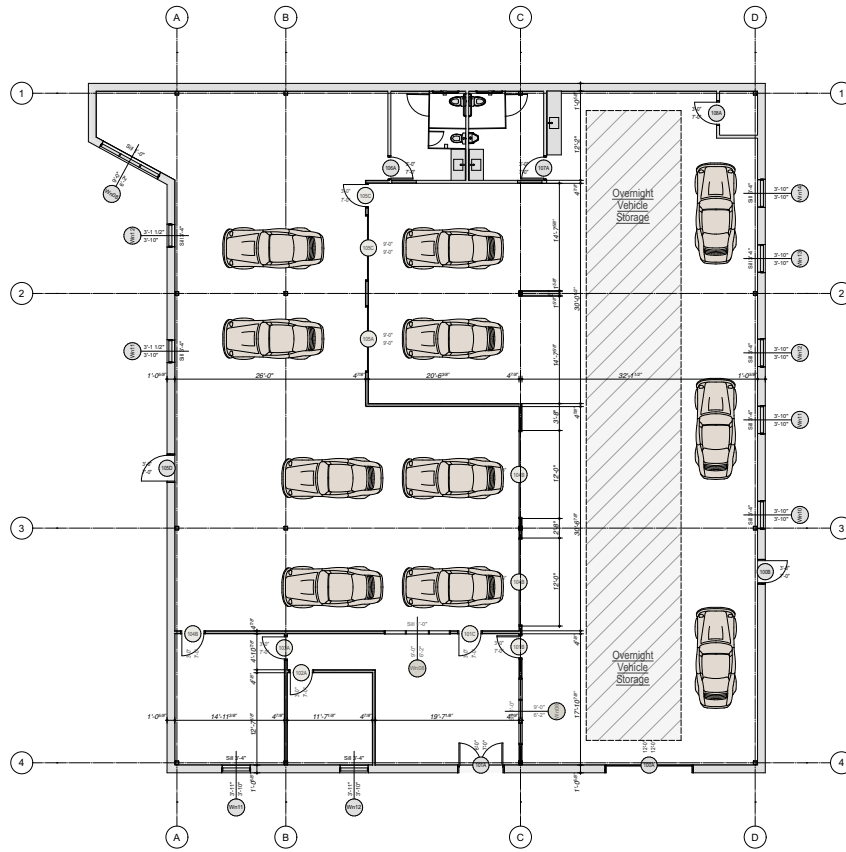
Special Use Permit – Business & Use Description

The proposed business will be a high-end automotive protection and detailing facility operating within an existing commercial strip mall in Cascade Township, Michigan. This facility will operate as an extension of The Speed Collection, our established exotic and sports car dealership based in Holland, Michigan, which specializes in sourcing and selling high-end sports cars. The new Cascade Township location will focus on providing premium protective and detailing services for these types of vehicles. This space, located at the rear of the property with no direct road frontage or visibility, is ideally suited for our operations, which do not require walk-in traffic or retail exposure. Because our business is service-focused, appointment-driven, and generates very little daily traffic, it is well suited for this unique location. Cascade Township and the surrounding area provide an ideal demographic for our services, as well as convenient proximity to several new car dealerships, aligning seamlessly with our clientele and operational needs.

The facility will focus exclusively on cosmetic vehicle care, including the installation of paint protection film (PPF), ceramic coatings, paint correction, and restorative interior and exterior detailing. PPF is a clear, adhesive film applied to a vehicle's exterior to protect the paint from rock chips and environmental damage, and the application process is quiet and non-industrial. Paint Correction is the removal of scratches and swirl marks through the process of buffing and polishing of existing paint. We will not perform any mechanical repairs, servicing, or paintwork at this facility. Work will take place in a clean, climate-controlled environment that will be specially remodeled for our business. Operations will have standard business hours, but all work will be scheduled by appointment, with only minimal pick-ups, drop-offs, and occasional prospective client visits throughout the day. This approach will minimize traffic to and from the site and ensure a quiet, controlled flow of activity. The floor plan allows for indoor accommodation of up to eleven vehicles at a time, with an additional six to eight spaces available for overnight parking of vehicles in process.

The facility will be designed and maintained to operate harmoniously with the existing character of the area. As the building is part of an existing strip mall, the exterior appearance will remain unchanged, preserving the current visual consistency of the property. Our use of the space will generate minimal noise, odor, and traffic, and outdoor activity will be limited to vehicle drop-off, pick-up, and short-term parking.

In addition to providing a low-impact use of the property, this business will bring economic benefits to the Township by creating six to ten well-paying, skilled jobs as the operation reaches full capacity. This facility will contribute to the professional character of Cascade Township while operating quietly and discreetly in a location that is ideally suited for its specialized purpose.



First Floor Plan

1/8" = 1'-0"



Location Plan

Not to Scale
6280 28th Street SE., Grand Rapids, MI



Key Plan

Legend

- Key Note Label
- Wall Section/Detail Reference
- Project Manual Reference #
- Building Section Reference
- Elevation Target

Not For Construction

Tenant Space Building
 The Speed Collection
 6280 28th Street SE., Grand Rapids, MI

NO.	DATE	DESCRIPTION
001	05.14.25	Preliminary Plans
002	07.31.25	Variance Submittal

COPYRIGHT: Gen1 Architectural Group, LLC © 2025

SHEET TITLE

First Floor Plan
A-001

Exhibit – A

6250 28th ST SE
Grand Rapids, MI 49546

County: KENT
Municipality: Cascade Township

Parcel # 41-19-17-226-002

Legal Description:

N 400 FT OF W 1/2 NE 1/4 NE 1/4 EX E 200 FT & EX W 66 FT ALSO
N 750 FT OF E 200 FT OF W 1/2 NE 1/4 NE 1/4 * SEC 17 T6N R10W
7.03 A.

STAFF REPORT

TO: Cascade Township Planning Commission
FROM: Darrel P. Schmalzel, Planning Director *D.P.S.*
REPORT DATE: March 16, 1995
MEETING DATE: March 20, 1995
CASE: #94-1795 / Pal's Diner

The applicant is requesting site plan approval to allow the construction of a diner in the Cascade East shopping center. The diner would be located near the east end of the site where the Goodwill Donation Center is located (the donation center was approved for a new site by the Zoning Board of Appeals last week). In addition to the diner, which will contain only the seating portion of the restaurant, new kitchen and bathroom facilities would be constructed in an approximate 1100 square foot building attached to the rear of the diner. The applicant is also proposing to have six parking spaces that would be used for "drive-in" service.

History of site

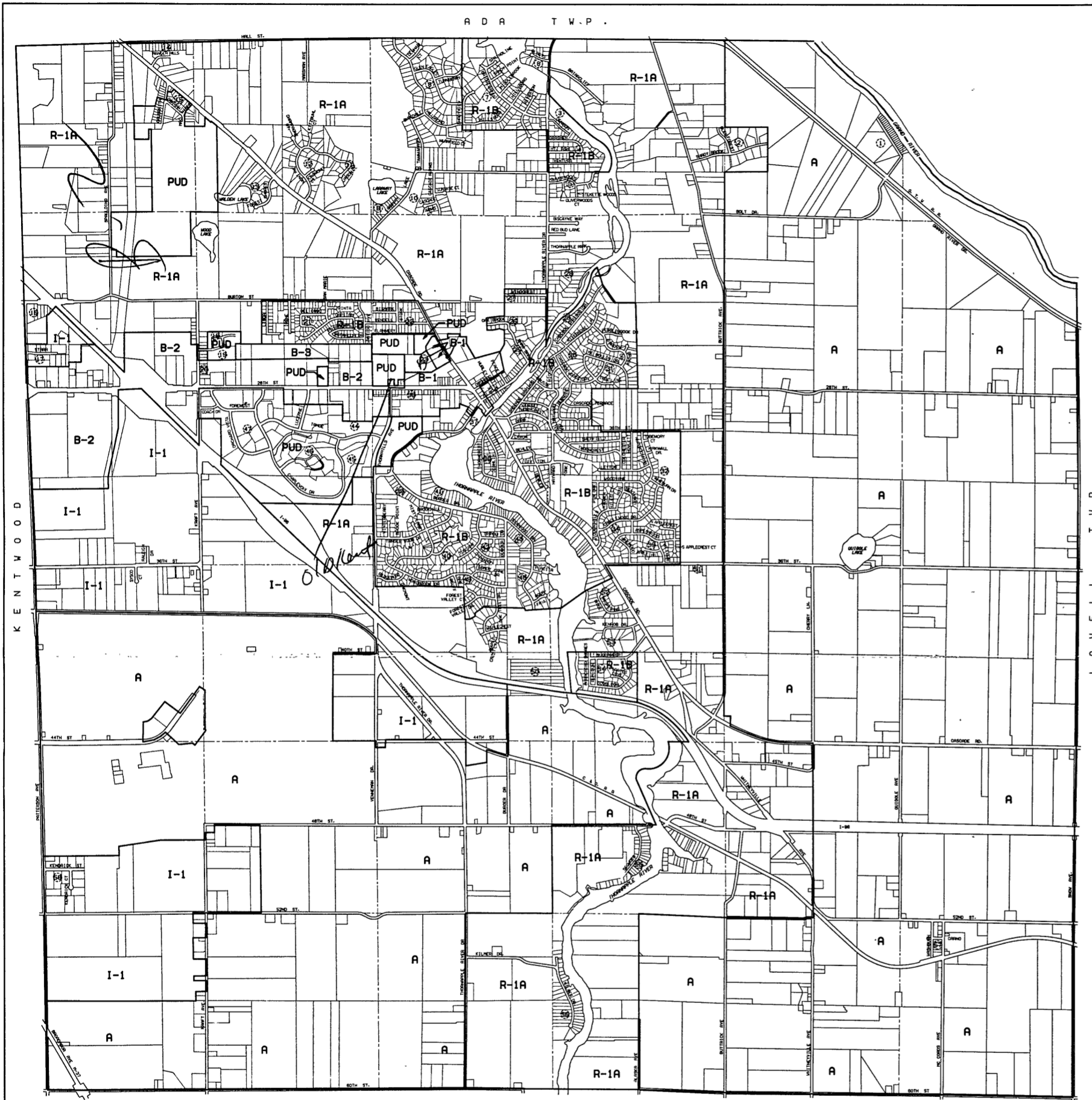
The property has been zoned as a Planned Unit Development since 1978. At that time, the township did not write specific PUD ordinances for projects. They applied the underlying zoning requirements as development standards. The B2, General Business standards have been applied to this property since the PUD was approved.

When the site plan was approved for the existing shopping center in 1978, approval was granted for phase 1 and 2, which is what has been constructed. The overall master plan for the site also showed a phase 3 addition to the east end of the building. This addition has never been constructed. It is in this general area that the diner is proposed to be located.

The site plan complies with all of the required setback and area regulations of the B2, General Business zoning district as much as possible given its location within the PUD boundaries. The site contains an adequate amount of parking to accommodate the proposed use. The applicant is not proposing any freestanding identification signs at this time. There would be a drive-in service sign and a sign on the diner above the entrance.

This site is required to be landscaped in accordance with Chapter XX of the Zoning Ordinance. A bufferyard is required around the perimeter of the property (entire PUD). Additional landscaping as a result of this project is only requested along the southern property line adjacent to Comerica Bank. The applicant has provided a landscape plan that meets this requirement.

The Chief of Fire Prevention and Township Engineer are in the process of reviewing the site plan. Their comments are not yet available.



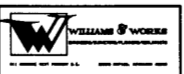
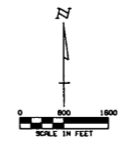
CALEDONIA TWP.

- "A" AGRICULTURAL
- "R-1A" RESIDENTIAL
- "R-1B" RESIDENTIAL
- "B-1" VILLAGE BUSINESS
- "B-2" GENERAL BUSINESS
- "B-3" BUSINESS & PROFESSIONAL OFFICES
- "I-1" INDUSTRIAL
- "PUD" PLANNED UNIT DEVELOPMENT

SUBDIVISION INDEX

1	BRANDU GRAND RIVER FARMS	30	CASCADE SPRINGS ESTATES
2	BUTTRICK ACRES	31	CASCADE WOODS NO. 1-3
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5	OLIVER WOODS PLAT	34	HIDDEN HILLS NO. 1-5
6	RIVERBEND HOMESTES	35	CASCADE TERRACE NO. 1-6
7	CASCADE ACRES NO. 1-6	36	CASCADE RIVERVIEW PARK
8	TOWNSHIPS	37	THORNAPPLE ESTATES
9	MAR-JON PLAT	38	ARDEN HILLS PLAT
10	CASCADE FARMS	39	SUNNER DOGMS
11	BEARD FARMS	40	WHISPERING BROOK NO. 1-4
12	CHAMPION 1-2	41	CASCADE RIVERVIEW PARK NO. 1
13	FOREST SHORES PLAT	42	CINARRON MEADOWS NO. 1-2
14	FLATERS CREEK PLAT	43	GOODWOOD PLAT
15	CASCADE GARDENS	44	FOREST HILLS CONDOS PLAN 50
16	CRITZELIC PLAT	45	HERONS CONDOS NO. 1-4
17	PATTERSON INDUSTRIAL PARK	46	CASTLE CENTENNIAL PARK
18	CHATHAM WOODS CONDO SUB. NO. 31	47	CARPO DEL RIO
19	DEPLAT NO. 1 CONDO SUB PLAN NO. 11 & 15	48	FOREST RIDGE ESTATES NO. 1-5
20	CHARTWICK HILLS CONDOS	49	THORNAPPLE SHORES
21	CASCADE BILTLINE PLAT	50	ONE APPLE VALLEY PLAT
22	CARVILLE VILLAGE NO. 1-5	51	THORNAPPLE WOODS
23	CASCADE CONDO-BROOK PLAT	52	THORNAPPLE WOODS
24	GREENLEAF CONDOS	53	THE ASPEN
25	G.F. RICHMONDS PLAT	54	THORNAPPLE SHORES
26	SHARD PARK PLAT	55	PINE POINT
27	ONE BROOK VALLEY	56	THORNAPPLE VALLEY
28	VANDEN BERG PLAT	57	MCCORD'S PLAT
29	GOEBEL PLAT	58	CASCADE INDUSTRIAL PARK
30	VILLAGE OF CASCADE SPRINGS		

ZONING MAP
CASCADE TOWNSHIP
KENT COUNTY, MICHIGAN
NOVEMBER, 1982



Coely-
West Side Deli paid
their fee for Board -
Appeals - receipt 03538
Nov 13th

- Cmeland -
Leo Hallenbeck -
West side Deli -
70# -
Drive thru - there
is one there now
B-1 or B-2

517-323-9500

Hallenbeck

1-517-337-1165

CASCADE CHARTER TOWNSHIP

PLANNING COMMISSION

**MONDAY, September 22, 2025
6:00 PM**

ARTICLE 8.

Case #25-3894

Applicant: Live Space, Ben Cobb

Property Address: 4995 Starr St. SE

Parcel Number: 41-19-07-301-014

Requested Action: Site Plan Review for an expansion in the existing parking and access aisles on the southwest side of the property. The applicant is requesting a reduction in the bufferyard depth on the south side of the property.

Parcel & Zoning Map





CASCADE CHARTER TOWNSHIP

5920 Tahoe Drive SE • Grand Rapids, MI 49546

PLANNING COMMISSION STAFF REPORT

STAFF REPORT: Case #25-3894
REPORT DATE: September 16, 2025
PREPARED FOR: Cascade Charter Township Planning Commission
MEETING DATE: September 22, 2025
PREPARED BY: Andrea Hendrick, Community Planning & Development Director

APPLICANT; Ben Cobb

ADDRESS: 4995 Starr Street SE

PARCEL NUMBERS: 41-19-07-301-014

REQUESTED ACTION: Site Plan Review for an expansion in the existing parking and access aisles on the southwest side of the property. The applicant is requesting a reduction in the bufferyard depth on the south side of the property.

REQUIREMENTS: Section 13 – Industrial Zone District
Section 18 – Zoning District Height, Area & Placement Standards
Section 19 – Access, Parking & Loading
Section 20 – Landscaping & Greenbelt Provisions
Section 21 – Site Plan Review

EXISTING ZONING: I – Industrial

GENERAL LOCATION: The subject property is located at the end of Starr Street SE, which is an approximately 1,725-foot-long private road located north of 28th Street, west of the I-96. The private street accesses the public street network on Patterson Avenue SE, where it runs east/west for approximately 1,175 feet before curving north for an additional 550 feet.

PARCEL SIZE: Approximately 3.15 acres

EXISTING LAND USE: Office, Warehouse

ADJACENT PROPERTIES: N: PUD 29 – Sunquest Office Park
W: I – Industrial – General Manufacturing
S: I – Industrial – General Manufacturing
E: PUD 29 – Sunquest Office Park

HISTORY

The exact age of the building is unclear, however from permitting records and visual elements of the building, it appears to have been built around the 1980s.

20-3612 Site Plan Review: [November 9th, 2020, Planning Commission](#)

The current operators received site plan review approval to add a 4,000 sf addition of warehouse space to the existing building. It does not appear that the number of parking spaces for the site was considered during this approval.

PROPOSED USE

The applicant is proposing the expansion of a parking lot and drive aisle for the live event production company operating at the site. The current building has office space for employees, and warehouse space used to store equipment that can be rented by individuals or used by staff while providing offsite services. Additionally, the company currently has seven (7) company vehicles used to transport equipment. When not in use, the vehicles are stored on site. The subject property is not used to hold events. The applicant attests that they currently have 22 employees and need additional space to accommodate both the employee's personal vehicles and the company box trucks.

SECTION 19

An expansion to the existing parking area is proposed on the southeast side of the site. The parking area is subject to the standards of Chapter 19 – Access, Parking, and Loading. The site plan provided meets all access and parking dimensional requirements. The table below shows the parking requirement by use. The current site is under parked, however the applicant's plans have attempted to bring the site closer to compliance while still balancing the landscaping and stormwater elements of the site. The Planning Commission may consider whether the excessive width of the drive aisle is appropriate given the request for a reduction in the required landscaping buffer.

Table 19-B: Minimum Parking Requirements

Use	Parking Requirement	Total square footage by use	Spaces Required	Spaces Proposed
Office	3 spaces / 1,000 sf	5,107	15.3	
Warehouse	.67 spaces / 1000 sf	18,551	12.4	
		Total	28	24

SECTION 20

The subject site is irregularly shaped. For the purpose of determining the bufferyard requirements of Section 20.04, the south arm of the property that is primarily located in the Starr Street SE right of way has been removed from the calculation.

The green chart below indicates the plant material required for each bufferyard on the existing site. The next chart indicates that total plant material provided by yard in the applicant's landscaping plan. **Red bold** text indicates plant material that is under the Zoning Ordinance requirements. **Highlighted** text indicates tree counts that exceed the number required by the Zoning Ordinance.

Table 20-A: Adjacent Land Use Buffer Requirements

Buffer Yard Requirement					
C	W	NW	NE	E	S
Distance	250	200	200	300	200
Canopy	5	4	4	6	4
Understory	10	8	8	12	8
Shrub	15	12	12	18	12
Conifer	0	0	0	0	0

Landscaping Plan: Provided Landscaping

Bufferyard C	W	NW	NE	E	S
Canopy	5	4	6	4	4
Understory	10	8	11	4	9
Shrub	18	12	12	18	26
Conifer	0	0	0	0	0

Section 20.07 Reduction and Substitution

The Planning Commission has the authority to approve modifications to the bufferyard requirements if a physical hardship exists. Staff finds that the applicant has made a clear attempt to meet the landscaping requirements despite the constraints of the current site. Staff recommends that the Planning Commission grant the reduction in the bufferyard requirements on the south and east portion of the site.

ENGINEERING DEPARTMENT REVIEW COMMENTS

The applicant submitted stormwater calculations to the Township Engineer dated 08/22/2025. Findings are included in the Township Engineer Memo dated 09/16/2025. He recommends approval.

FIRE DEPARTMENT REVIEW COMMENTS

The Cascade Township Fire Department has found the submitted site plan meets all requirements.

CONSIDERATIONS

The Planning Commission should deliberate and determine if the applicant has a physical hardship that prevents the applicant from meeting the bufferyard requirements of Section 20. If the Planning Commission finds that the application is sufficient, staff recommends approval.

RECOMMENDATION

Staff recommends that Case #25-3894, the Site Plan for 4995 Starr Street SE, be APPROVED with the following Provisions:

1. The bufferyard depth on the south side of the property be reduced to accommodate parking and access on the south side of the existing building.

Furthermore, the following conditions shall be placed on approval:

1. The applicant provides a landscaping bond for the value of the proposed trees.
2. The applicant modifies the 2020 Stormwater Maintenance Agreement and records the Agreement with the Kent County Register of Deeds.

ATTACHMENTS

1. Application
2. Narrative
3. Site Plan Set
4. Storm Water Plans
5. Township Engineer Review
6. November 9, 2020, Planning Commission Minutes



CASCADE CHARTER TOWNSHIP

5920 Tahoe Dr. SE, Grand Rapids,
Michigan 49546-7140

PLANNING & ZONING APPLICATION

APPLICANT: Name: Live Space (Ben Cobb)
 Address: 4995 Starr Street SE
 City & Zip Code: Grand Rapids, Michigan 49546
 Telephone: 616-901-4458
 Email Address: benc@livespace.com

OWNER: * (If different from Applicant) Richard Bacans
 Name: Richard Bacans
 Address: 8220 Wilderness Trail
 City & Zip Code: Ada 49301
 Telephone: 616-292-4884
 Email Address: Rich@LiveSpace.com

NATURE OF THE REQUEST: (Please check the appropriate box or boxes)

<input type="checkbox"/> Administrative Appeal	<input type="checkbox"/> Administrative Site Plan Review
<input type="checkbox"/> Deferred Parking	<input type="checkbox"/> P.U.D. – Rezoning *
<input type="checkbox"/> P.U.D. – Site Condominium *	<input type="checkbox"/> Rezoning
<input checked="" type="checkbox"/> Site Plan Review *	<input type="checkbox"/> Sign Variance Subdivision
<input type="checkbox"/> Special Use Permit	<input type="checkbox"/> Plat Review *
<input type="checkbox"/> Zoning Variance	<input type="checkbox"/> Other: _____ *

*** Requires an initial submission of 5 copies of the completed site plan**

BRIEFLY DESCRIBE YOUR REQUEST:**

Parking lot expansion

(**Use Attachments if Necessary)
-SEE OTHER SIDE-

LEGAL DESCRIPTION OF PROPERTY:**

PART SWFRL 1/4 COM AT A PT ON W LINE OF E 1/2 OF S 80 A. OF SWFRL 1/4 WHICH IS 1258.24 FT S 89D 59M E ALONG S SEC LINE & 1675.0 FT N 00D 05M 30S E ALONG W LINE OF E 1/2 OF S 80 A. OF SWFRL 1/4 FROM SW COR OF SEC TH N 89D 59M W 66.0 FT TH N 55D 10M W 200.0 FT TH S 34D 50M W 200.01 FT TH S 89D 59M E 55.11 FT TH S 00D 38M E 250.0 FT TO N LINE OF S 80 A. OF SWFRL 1/4 TH S 89D 59M E ALONG SD N LINE TO W LINE OF E 84 FT OF N 1/2 W 1/2 OF S 80 A. OF SWFRL 1/4 TH S 00D 38M E ALONG SD W LINE 281.57 FT TH N 89D 59M W TO E LINE OF PATTERSON INDUSTRIAL PARK TH SLY ALONG E LINE OF SD PLAT 33 FT TO N LINE OF S 373 FT OF N 1/2 W 1/2 S 80 A. OF SWFRL 1/4 TH FLY ALONG SD N LINE TO W LINE OF E 1/2 OF S 80 A. OF SWFRL 1/4 TH N ALONG SD W LINE TO BEG * SEC 7 T6N R10W 2.77 A.

(**Use Attachments if Necessary)

PERMANENT PARCEL (TAX) NUMBER: 41-19 07-301-014

ADDRESS OF PROPERTY: 4995 Starr Street LLC

PRESENT USE OF THE PROPERTY: Commercial Building

NAME(S) & ADDRESS(ES) OF ALL OTHER PERSONS, CORPORATIONS, OR FIRMS HAVING A LEGAL OR EQUITABLE INTEREST IN THE PROPERTY:

Name(s)	Address(es)
_____	_____
_____	_____

SIGNATURES

I (we) the undersigned certify that the information contained on this application form and the required documents attached hereto are to the best of my (our) knowledge true and accurate. I (we) also agree to reimburse the Cascade Charter Township for all costs, including consultant costs, to review this request in a timely manner. I (we) understand that these costs may also include administrative reviews which may occur after the Township has taken action on my (our) request.

I (we) the undersigned also acknowledge that the proposed project does not violate any known property restrictions (i.e. plat restrictions, deed restrictions, covenants, etc.)

RICHARDS BACANS
Owner – Print or Type Name
(*If different from Applicant)

* _____
Owner’s Signature & Date
(*If different from Applicant)

Ben Cobb / Live Space
Applicant – Print or Type Name

Applicant’s Signature & Date

PLEASE ATTACH ALL REQUIRED DOCUMENTS NOTED IN THE PROCESS REVIEW SHEET – THANK YOU

Rev. 7/27/21

NARRATIVE SUMMARY

The proposed project at 4995 Starr St SE in Cascade Township, includes a parking lot addition on the west end of the property and a replacement of the existing bituminous pavement with heavy duty concrete. The 3.14 acre parcel is located on the north end of Starr St SE.

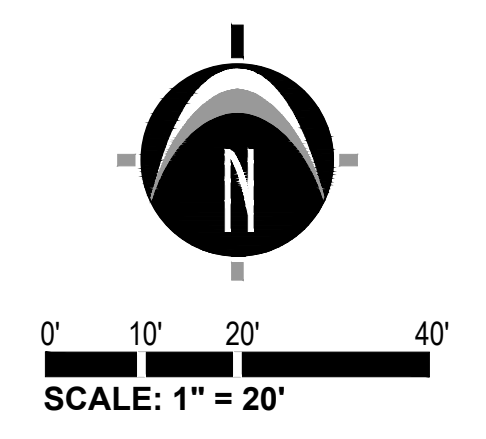
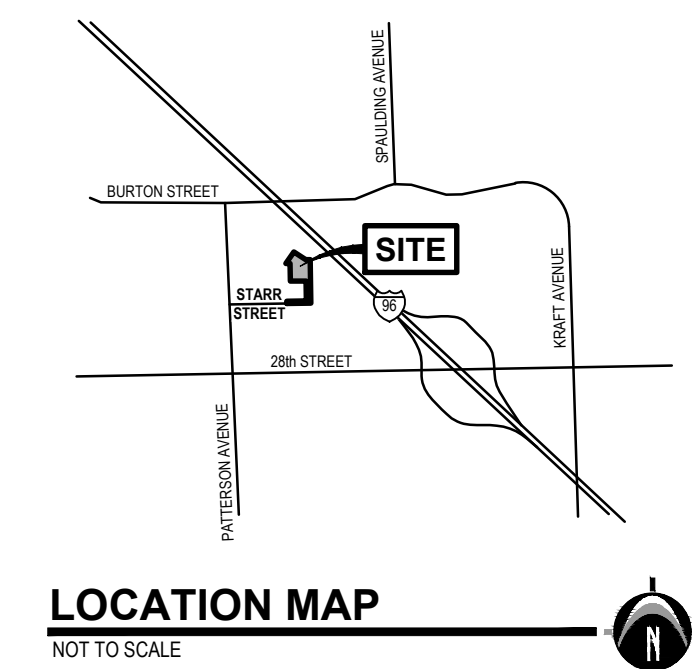
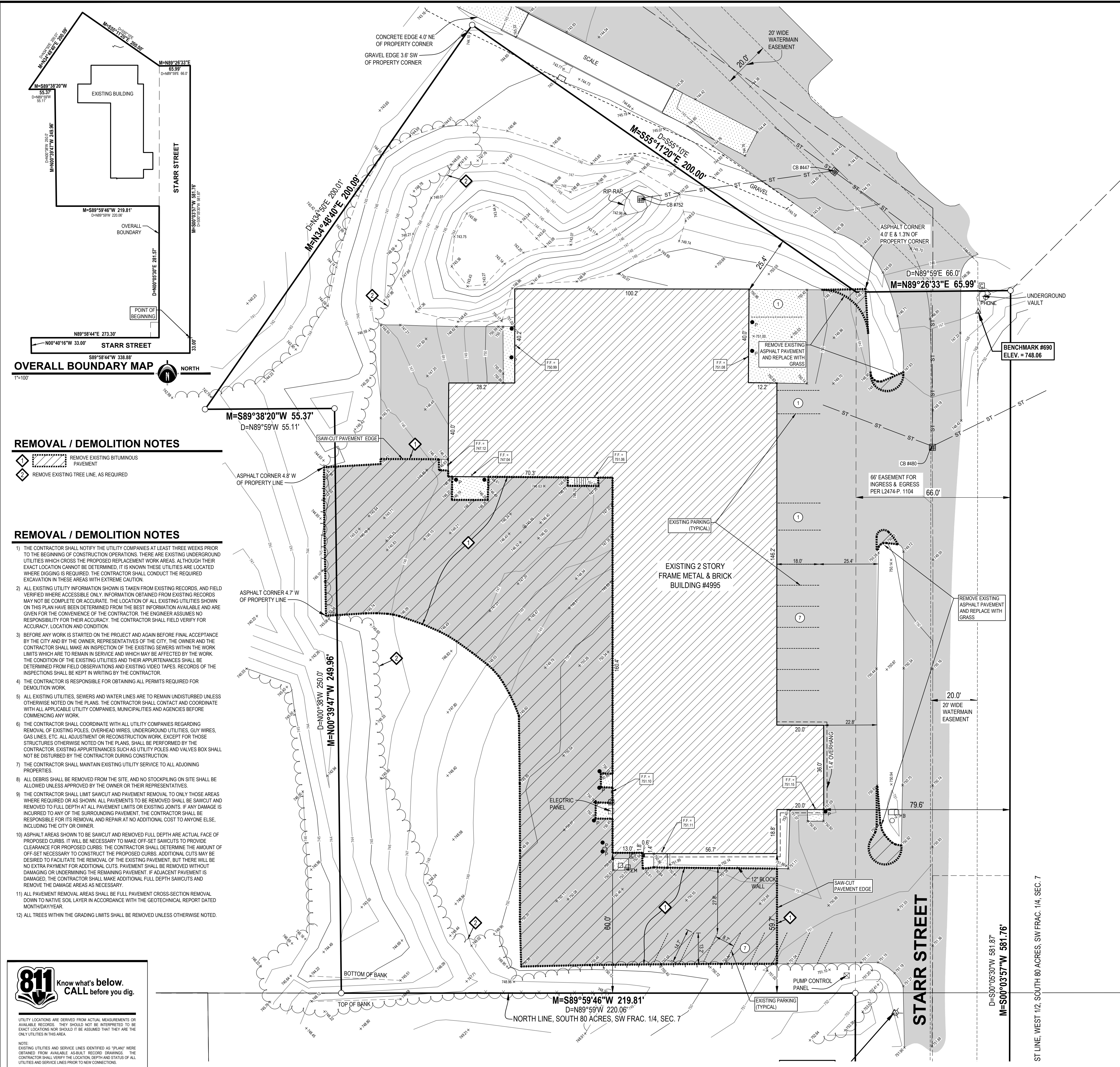
The existing site is mostly grass covered – fair. There is a natural drainage course running east/west that cuts across the middle of the site. An existing detention basin is located in the north corner of the site with an outlet at an elevation of 743.00.

The proposed stormwater management system will add 1,838 cft of storage to the existing detention basin. Stormwater from the proposed parking lot will be collected, conveyed, treated and detained. Pre-treatment will be provided in a SWQU using the Preserver model. Soils on site are loamy sand per NRCS web soil survey. No significant off-site areas drain to or across this property.

Below is a summary table of the design considerations for the detention basin addition:

SUMMARY TABLE

Basin	Volume (CF)	Elevations
Additional Storage		
Detention Basin Addition	1,838	(744-746)
Channel Protection Volume (LGROW)	1,351	
Flood Control Volume (LGROW)	1,826	
Top of Berm		746



LEGEND

	Catch Basin - Square		Sign
	Control Point/Benchmark		Transformer
	Cable Riser		Underground Phone Marker
	Electric Meter		Fence
	Hydrant		Storm Line
	Iron-Found		Tree Line
	Mailbox		Asphalt
	Post		Existing Building
	Phone Riser		Concrete

STRUCTURE INFORMATION

Storm Catchbasin #47 Rim Elev. = 744.29 12" RCP (NE) = 739.01 15" RCP (NW) = 739.88 12" RCP (SW) = 739.00 15" RCP (SE) = 738.89	Storm Catchbasin #480 Rim Elev. = 748.38 15" RCP (NW) = 741.82 12" RCP (NE) = 742.11 15" RCP (NE) = 741.90	Storm Catchbasin #752 Rim Elev. = 744.64 12" RCP (NE) = 741.06
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BENCHMARKS

BENCHMARK #690 ELEV. = 748.06 (NAVD88)
NE flange bolt of hydrant under "W", located on the East side of Starr Street 21.2' East of centerline of Starr Street and 4.5' South of SW corner of utility handle, near North property line.

BENCHMARK #2916 ELEV. = 733.38 (NAVD88)
NW flange bolt of hydrant under "W", located on the West side of Starr Street 16.2' West of centerline of Starr Street and 86.5' South of mailbox for #4988 Starr Street.

SURVEYOR'S NOTES

- Flood Zone Classification: An examination of the National Flood Insurance Program's Flood Insurance Rate Map for Community Number 26814, Panel Number 04410, Map Number 2681034110, with an Effective Date of February 23, 2023, shows this parcel to be located in Zone "X" (area of minimal flood hazard) (subject to map scale uncertainty).
- Source information from plans and markings has been combined with observed evidence of utilities to develop a view of the underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response. Where additional or more detailed information is required, the client is advised that excavation may be necessary.
- NOTE TO CONTRACTORS: 3 (THREE) WORKING DAYS BEFORE YOU DIG, CALL MISS DIG AT TOLL FREE 1-800-482-7171 FOR UTILITY LOCATIONS ON THE GROUND.

DEED DESCRIPTION

Land situated in the Township of Cascade, Kent County, Michigan:

That part of the Southwest fractional 1/4 of Section 7, Town 6 North, Range 10 West described as: Commencing at the Southwest corner of said Section; thence South 89 degrees 59 minutes East 1258.24 feet along the South line of said Section; thence North 00 degrees 05 minutes 30 seconds East 1083.43 feet along the East line of the West 1/2 of the South 80 acres of said Southwest fractional 1/4 to the place of beginning of the description; thence North 59 degrees 59 minutes West 66.0 feet; thence North 00 degrees 05 minutes 30 seconds East 281.57 feet; thence North 89 degrees 59 minutes West 220.00 feet along the North line of said South 80 acres; thence North 00 degrees 38 minutes West 250.0 feet; thence North 89 degrees 59 minutes East 55.11 feet; thence North 34 degrees 50 minutes East 200.01 feet; thence South 55 degrees 10 minutes East 200.00 feet; thence South 89 degrees 59 minutes East 66.0 feet; thence South 00 degrees 05 minutes 30 seconds West 581.57 feet to the place of beginning.

Also, Part of the Southwest fractional 1/4, Section 7, Town 6 North, Range 10 West, described as: Commencing at intersection of East line of lot 5, Patterson Industrial Park, according to the recorded plat thereof, as recorded in Liber 69, Page 49, extended South and the South line of the North 251.57 feet of the North 1/2 of the West 1/2 of the South 80 acres of the Southwest 1/4; thence East along the South line of said North 251.57 feet to the East line of the West 1/2 of the South 80 acres; thence South along said East line to the South line of the North 1/2 of the West 1/2 of the South 80 acres of the Southwest 1/4; thence West along said South line to the West line of the East 240 feet of the West 1/2 of the South 80 acres of the Southwest 1/4; thence North parallel with the West 1/8 line 373 feet to the South line of Starr Street (66 feet wide) extended East; thence West along the South line of said Starr Street to the East line of said Lot 5 extended South; thence North 33 feet to the place of beginning, EXCEPT the South 373 feet thereof.

(Warranty Deed, dated March 30, 2018, as recorded in Instrument No. 20180410-027381, Kent County Register of Deeds)

OVERALL BOUNDARY MAP



REMOVAL / DEMOLITION NOTES

- REMOVE EXISTING BITUMINOUS PAVEMENT
- REMOVE EXISTING TREE LINE, AS REQUIRED

REMOVAL / DEMOLITION NOTES

- THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES AT LEAST THREE WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION OPERATIONS. THERE ARE EXISTING UNDERGROUND UTILITIES WHICH CROSS THE PROPOSED REPLACEMENT WORK AREAS. ALTHOUGH THEIR EXACT LOCATION CANNOT BE DETERMINED, IT IS KNOWN THESE UTILITIES ARE LOCATED WHERE DIGGING IS REQUIRED. THE CONTRACTOR SHALL CONDUCT THE REQUIRED EXCAVATION IN THESE AREAS WITH EXTREME CAUTION.
- ALL EXISTING UTILITY INFORMATION SHOWN IS TAKEN FROM EXISTING RECORDS, AND FIELD VERIFIED WHERE ACCESSIBLE ONLY. INFORMATION OBTAINED FROM EXISTING RECORDS MAY NOT BE COMPLETE OR ACCURATE. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. THE CONTRACTOR SHALL FIELD VERIFY FOR ACCURACY, LOCATION AND CONDITION.
- BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY AND BY THE OWNER, REPRESENTATIVES OF THE CITY, THE OWNER AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE EXISTING SEWERS WITHIN THE WORK LIMITS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING UTILITIES AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS AND EXISTING VIDEO TAPES. RECORDS OF THE INSPECTIONS SHALL BE KEPT IN WRITING BY THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION WORK.
- ALL EXISTING UTILITIES, SEWERS AND WATER LINES ARE TO REMAIN UNDISTURBED UNLESS OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH ALL APPLICABLE UTILITY COMPANIES, MUNICIPALITIES AND AGENCIES BEFORE COMMENCING ANY WORK.
- THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES REGARDING REMOVAL OF EXISTING POLES, OVERHEAD WIRES, UNDERGROUND UTILITIES, GUY WIRES, GAS LINES, ETC. ALL ADJUSTMENT OR RECONSTRUCTION WORK, EXCEPT FOR THOSE STRUCTURES OTHERWISE NOTED ON THE PLANS, SHALL BE PERFORMED BY THE CONTRACTOR. EXISTING APPURTENANCES SUCH AS UTILITY POLES AND VALVES BOX SHALL NOT BE DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION.
- THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICE TO ALL ADJOINING PROPERTIES.
- ALL DEBRIS SHALL BE REMOVED FROM THE SITE, AND NO STOCKPIILING ON SITE SHALL BE ALLOWED UNLESS APPROVED BY THE OWNER OR THEIR REPRESENTATIVES.
- THE CONTRACTOR SHALL LIMIT SAWCUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE REQUIRED OR AS SHOWN. ALL PAVEMENTS TO BE REMOVED SHALL BE SAWCUT AND REMOVED TO FULL DEPTH AT ALL PAVEMENT LIMITS OR EXISTING JOINTS. IF ANY DAMAGE IS INCURRED TO ANY OF THE SURROUNDING PAVEMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR AT NO ADDITIONAL COST TO ANYONE ELSE, INCLUDING THE CITY OR OWNER.
- ASPHALT AREAS SHOWN TO BE SAWCUT AND REMOVED FULL DEPTH ARE ACTUAL FACE OF PROPOSED CURBS. IT WILL BE NECESSARY TO MAKE OFF-SET SAWCUTS TO PROVIDE CLEARANCE FOR PROPOSED CURBS. THE CONTRACTOR SHALL DETERMINE THE AMOUNT OF OFF-SET NECESSARY TO CONSTRUCT THE PROPOSED CURBS. ADDITIONAL CUTS MAY BE DESIRED TO FACILITATE THE REMOVAL OF THE EXISTING PAVEMENT, BUT THERE WILL BE NO EXTRA PAYMENT FOR ADDITIONAL CUTS. PAVEMENT SHALL BE REMOVED WITHOUT DAMAGING OR UNDERMINING THE REMAINING PAVEMENT. IF ADJACENT PAVEMENT IS DAMAGED, THE CONTRACTOR SHALL MAKE ADDITIONAL FULL DEPTH SAWCUTS AND REMOVE THE DAMAGE AREAS AS NECESSARY.
- ALL PAVEMENT REMOVAL AREAS SHALL BE FULL PAVEMENT CROSS-SECTION REMOVAL DOWN TO NATIVE SOIL LAYER IN ACCORDANCE WITH THE GEOTECHNICAL REPORT DATED MONTHLY YEAR.
- ALL TREES WITHIN THE GRADING LIMITS SHALL BE REMOVED UNLESS OTHERWISE NOTED.

811 Know what's below.
CALL before you dig.

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

NOTE: EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "PLANS" WERE OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL UTILITIES AND SERVICE LINES PRIOR TO NEW CONNECTIONS.

NEDERVELD
www.nederveld.com
800.222.1868

GRAND RAPIDS
217 Grandville Ave., Suite 302
Grand Rapids, MI 49503
Phone: 616.975.8190

ANN ARBOR
3037 Miller Rd.
Ann Arbor, MI 48103
Phone: 734.929.6963

HOLLAND
730 Chicago Dr.
Holland, MI 49423
Phone: 616.393.0449

PREPARED FOR:
Live Space
Ben Cobb

4995 Starr Street SE
Grand Rapids, MI 49546
Phone: 616.901.4458

REVISIONS:

Title: Township Site Plan Submitted	Checked: JB	Date: 07/03/25
Drawn: NJ	Checked: JB	Date: 08/22/25
Title: Township Site Plan Resubmittal	Checked: JB	Date: 08/22/25
Drawn: NJ	Checked: JB	Date: 08/22/25

Live Space Parking Lot Extension

Existing Site Conditions Plan

4995 Starr Street SE, Grand Rapids, MI 49546
PART OF THE SOUTHWEST FRAC. 1/4 OF SECTION 7, T6N, R10W, CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

SEAL:

STATE OF MICHIGAN
LICENSED PROFESSIONAL ENGINEER
ROGER JACK BARR II
License No. 6201041990

R. J. Barr

PROJECT NO:
25400410

SHEET NO:
C-201

NEDERVELD
 www.nederveld.com
 800.222.1868

GRAND RAPIDS
 217 Grandville Ave., Suite 302
 Grand Rapids, MI 49503
 Phone: 616.275.8190

ANN ARBOR
 3037 Miller Rd.
 Ann Arbor, MI 48103
 Phone: 734.929.6963

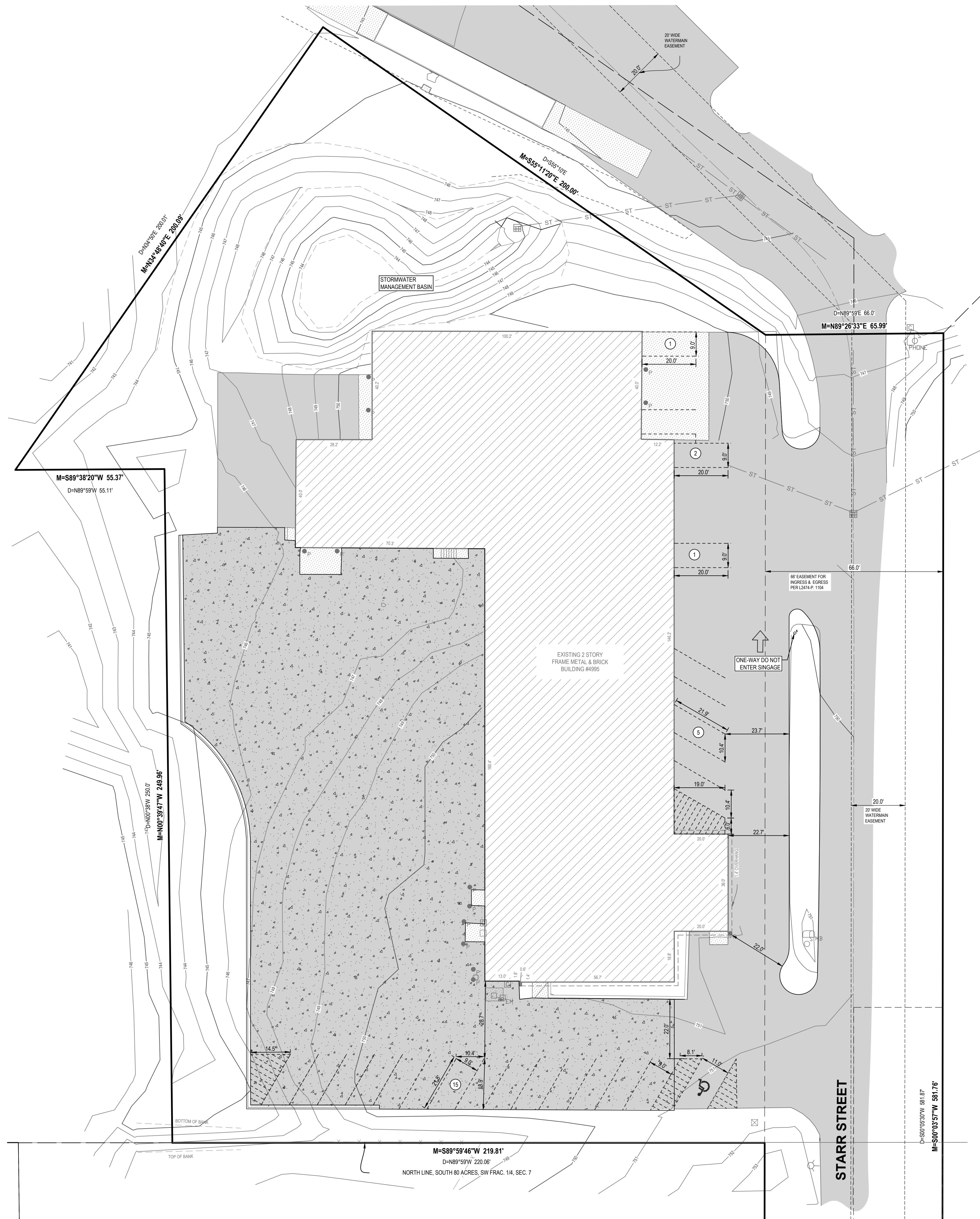
HOLLAND
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 Phone: 616.393.0449

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 Grand Rapids, MI 49546
 Phone: 616.901.4458

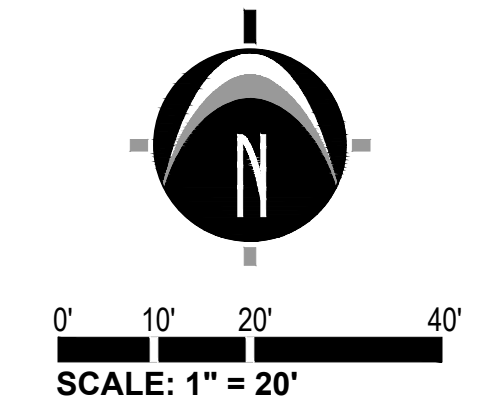
REVISIONS:

Title: Township Site Plan Submitted	Checked: JB	Date: 07/03/25
Drawn: NJ	Checked: JB	Date: 07/03/25
Title: Township Site Plan Resubmittal	Checked: JB	Date: 08/22/25
Drawn: NJ	Checked: JB	Date: 08/22/25



LEGEND

- EXISTING BITUMINOUS
- EXISTING CONCRETE
- PROPOSED BITUMINOUS (STANDARD DUTY)
- PROPOSED BITUMINOUS (HEAVY DUTY)
- PROPOSED CONCRETE (STANDARD DUTY)
- PROPOSED CONCRETE (HEAVY DUTY)



GENERAL NOTES

- 1) ZONING OF PROPERTY: I, INDUSTRIAL
 I ZONING REQUIREMENTS
 A) MINIMUM LOT AREA = 87,120 SQ.FT.
 B) MINIMUM LOT WIDTH = 200 FT.
 C) MAXIMUM BUILDING HEIGHT = 45 FT OR 2 STORIES
 SETBACKS
 A) FRONT YARD = 100 FT.
 B) SIDE YARD = 25 FT.
 C) REAR YARD = 50 FT.
- 2) SUMMARY OF LAND USE:
 A) TOTAL ACREAGE = 3.15 ACRES (137,214 SQ.FT.) (EXCLUDING R.O.W.)
 B) LOT COVERAGE = 15.8%
 C) GROSS PAVEMENT AREA = APPROX. 99,112 SQ.FT.
 D) ZONING OF PARCELS TO SOUTH AND WEST = I
 ZONING OF PARCELS TO NORTH AND EAST = I
- 3) PARKING REQUIREMENTS:
 A) MINIMUM REQUIRED SPACE PER TOWNSHIP = 9x18' (22' AISLE)
 B) TYPICAL PARKING SPACE PROVIDED = 9x18' (22' AISLE)
 C) MINIMUM VAN ACCESSIBLE PARKING SPACE = 11x18' WITH 5' AISLE
 D) MINIMUM CAR ACCESSIBLE PARKING SPACE = 8x18' WITH 5' AISLE
 E) NUMBER OF SPACES REQUIRED = 19 (BASED ON CITY REQUIREMENTS)
 1) GENERAL OFFICE USE (1 SPACE PER 500 SQ.FT.) = 10 SPACES (5,107 SQ.FT. / 500 SQ.FT.)
 2) WAREHOUSE USE (1 SPACE PER 2,000 SQ.FT.) = 8 SPACES (16,551 SQ.FT. / 2,000 SQ.FT.)
 F) NUMBER OF SPACES PROVIDED = 24 (INCLUDING 1 ADA SPACE)
- 4) THIS PROJECT IS NOT LOCATED IN THE 100 YEAR FLOOD PLAIN, BASED ON THE NATIONAL FLOOD INSURANCE PROGRAM RATE MAPS
- 5) BEST MANAGEMENT PRACTICES WILL BE UTILIZED DURING AND AFTER CONSTRUCTION OF THE PROJECT. MEASURES WILL INCLUDE THE USE OF SEEDING AND MULCHING, SEDIMENT INLET FILTERS, COMPACTION AND PAVING. THE OWNER OF THE SUBJECT PARCEL SHALL HAVE THE RESPONSIBILITY TO MAINTAIN THE PERMANENT SOIL EROSION PROTECTION MEASURES.
- 6) UTILITIES SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.
- 7) CONTRACTOR TO FIELD VERIFY ALL INVERTS.
- 8) ALL LIGHTING SHALL BE SHIELDED FROM ALL ADJACENT PROPERTIES. PROPOSED LIGHTING SHALL CONSIST OF WALL MOUNTED LIGHTS AND LIGHT POLES, BOTH FITTED WITH DOWN CAST TYPE FIXTURES TO BE SPECIFIED BY LIGHTING CONSULTANT.
- 9) THE PERMANENT PARCEL NUMBER FOR THE SITE IS 41-19-07-301-014. THE ADDRESS OF THE PROPERTY IS 4995 STARR STREET SE.
- 9) NO FENCES OR WALLS OTHER THAN WHAT IS SHOWN ON THE SITE PLAN ARE PROPOSED AT THIS TIME.

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NOTE:
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Live Space Parking Lot Extension
Site Layout Plan

4995 Starr Street SE, Grand Rapids, MI 49546
 PART OF THE SOUTHWEST FRAC. 1/4 OF SECTION 7, T6N. R10W, CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

SEAL:

R. J. Barr

PROJECT NO:
 25400410

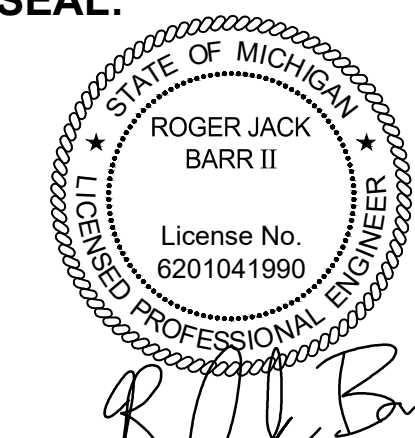
SHEET NO:
C-205

NEDERVELD
 www.nederveld.com
 800.222.1868
GRAND RAPIDS
 217 Grandville Ave., Suite 302
 Grand Rapids, MI 49503
 Phone: 616.975.8190
ANN ARBOR
 3037 Miller Rd.
 Ann Arbor, MI 48103
 Phone: 734.929.6963
HOLLAND
 730 Chicago Dr.
 Holland, MI 49423
 Phone: 616.953.0449

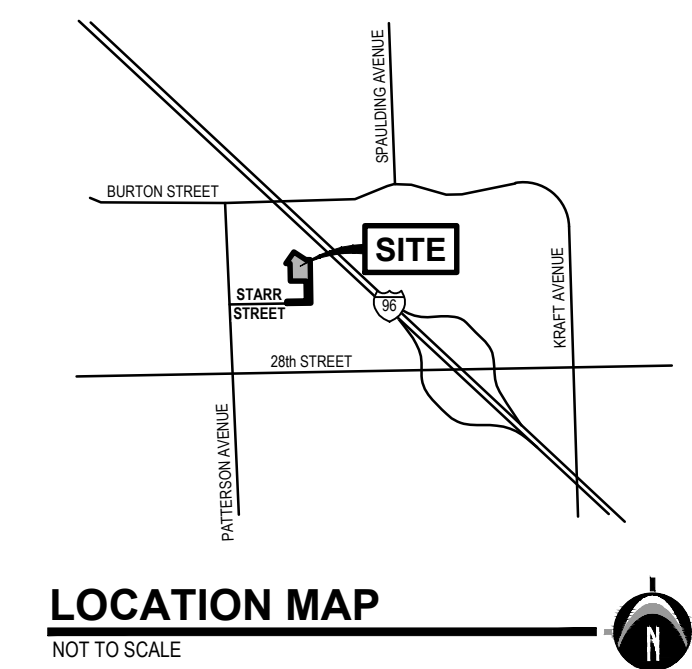
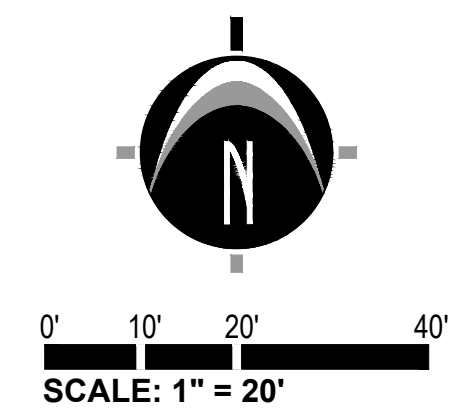
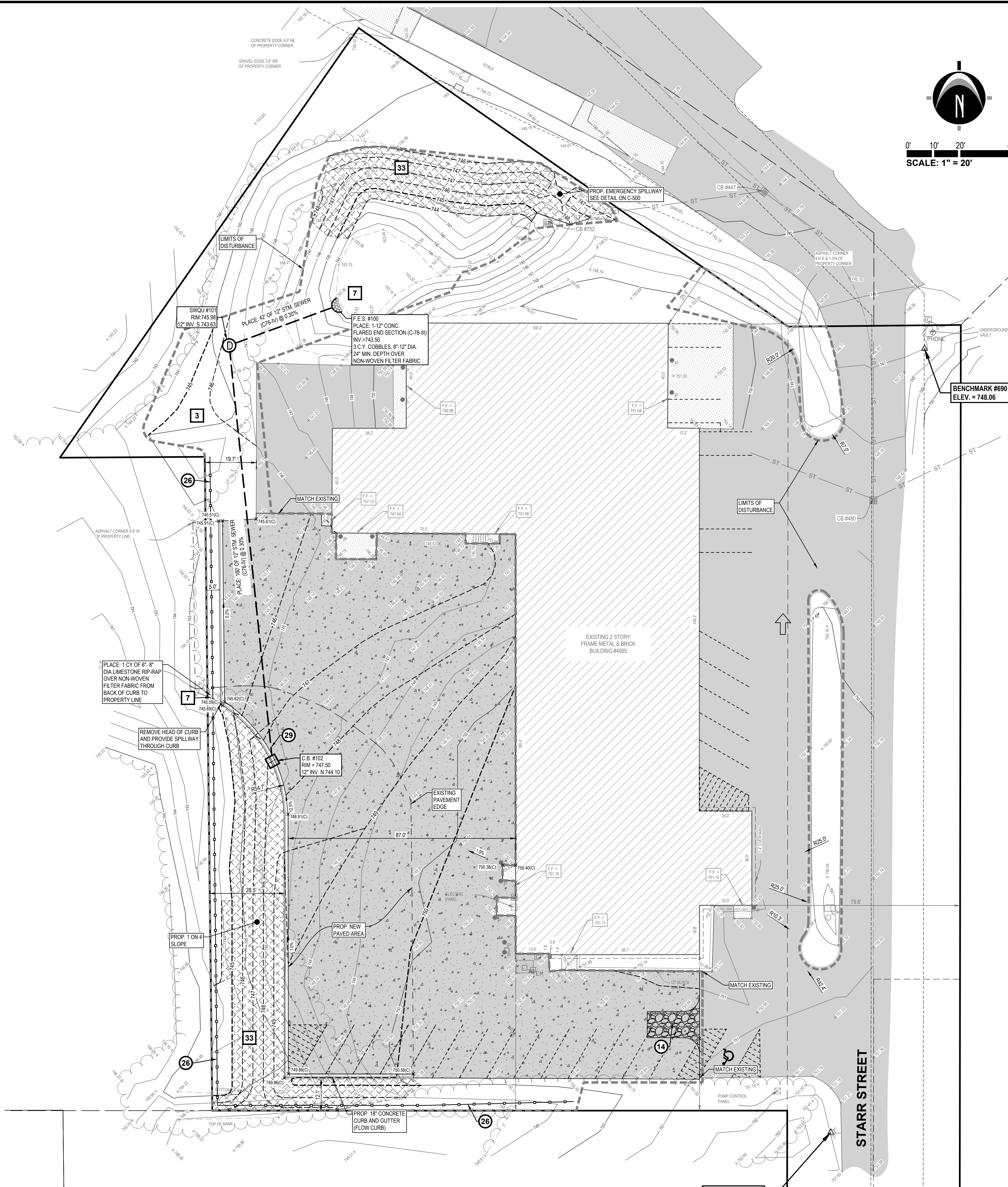
PREPARED FOR:
 Live Space
 Ben Cobb
 4995 Starr Street SE
 Grand Rapids, MI 49546
 Phone: 616.901.4458

REVISIONS:
 Title: Township Site Plan Submitted
 Drawn: NJ Checked: JB Date: 07/03/25
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Live Space Parking Lot Extension
S.E.S.C. & Grading Plan
 4995 Starr Street SE, Grand Rapids, MI 49546
 PART OF THE SOUTHWEST FRAC. 1/4 OF SECTION 7, T6N, R10W,
 CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

SEAL:

 License No. 6201041990
 ROGER JACK BARR II
 PROFESSIONAL ENGINEER

PROJECT NO:
 25400410
SHEET NO:
C-300



SITE DISTURBANCE
 0.93 ACRES OF SITE DISTURBANCE

LEGEND

- EX. GRADE CONTOUR
- PROP. GRADE CONTOUR
- EXISTING BITUMINOUS
- EXISTING CONCRETE
- PROPOSED CONCRETE (HEAVY DUTY)
- PROPOSED EROSION CONTROL MATTING
- LIMITS OF DISTURBANCE
- PROPOSED SILT FENCE

SOIL MATTING LEGEND

- PLACE 2,220 S.Y. (TOTAL) EROSION CONTROL REVEGETATION MAT (NORTH AMERICAN GREEN SS-150 OR APPROVED EQUAL) OVER 4" TOPSOIL ACROSS BOTH SIDES OF BANK. OVERLAP ROLL ENDS MIN. 3'. PLACE & STAKE MATTING PER MFG. RECOMMENDATIONS

SOIL EROSION CONTROL SCHEDULE 2025

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PLACE SILT FENCE												
STRIP & STOCKPILE TOPSOIL												
CONSTRUCT CONNECTION TO STORM SEWER												
ROUGH GRADE SITE												
FINISH GRADE SITE												
PAVE SITE												
RESPREAD TOPSOIL/COMPACTION												
SEED DISTURBED AREAS												
SITE RESTORATION/CLEAN UP												

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- CONTRACTOR SHALL POSSESS THE SOIL EROSION AND SEDIMENTATION CONTROL PERMIT PRIOR TO START OF ANY EARTH WORK.
- CONTRACTOR SHALL MODIFY THIS SOIL EROSION AND SEDIMENTATION CONTROL PLAN TO SHOW THE ADDITIONAL CONTROL MEASURES INTENDED TO BE USED DURING CONSTRUCTION. SUBMIT MODIFICATIONS TO THE CONTROLLING AGENCY, THE OWNER, AND THE ENGINEER.
- EROSION PROTECTION SHALL BE PROVIDED AT ALL STORM SEWER INLETS AND OUTLETS. ALL BARE EARTH SHALL BE STABILIZED WITH SEEDING.
- REFER TO THE M.D.O.T. "SOIL EROSION AND SEDIMENTATION CONTROL MANUAL" (MARCH 2021) FOR ADDITIONAL INFORMATION.
- THE ENTIRE STORM SEWER SYSTEM SHALL BE CLEANED AND FLUSHED FOLLOWING CONSTRUCTION AND PAID RECEIPT THEREOF PROVIDED TO THE ENGINEER AND COUNTY SESC AGENT PRIOR TO FINAL PAYMENT TO THE CONTRACTOR OR FINAL ACCEPTANCE OF THE CONSTRUCTION BY THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO INSPECT, TAKE CORRECTIVE ACTION AND MAINTAIN ALL TEMPORARY SESC MEASURES DAILY AND AFTER EACH RAIN EVENT UNTIL FINAL COMPLETION AND ACCEPTANCE OF THE PROJECT.

3 PERMANENT/TEMPORARY SEEDING
 7 STRIP
 14 GRAVEL ACCESS APPROACH
 26 GEOTEXTILE SILT FENCE
 29 INLET PROTECTION FABRIC CURB
 33 MATCH MANHOLE AND HIGH VELOCITY SLEIGH BASKETS
 * TEMPORARY MEASURE
 * PERMANENT MEASURE
 REFER TO MOST STANDARD PLAN R-96-0

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HOLLAND
730 Chicago Dr.
Holland, MI 49423
Phone: 616.393.0449



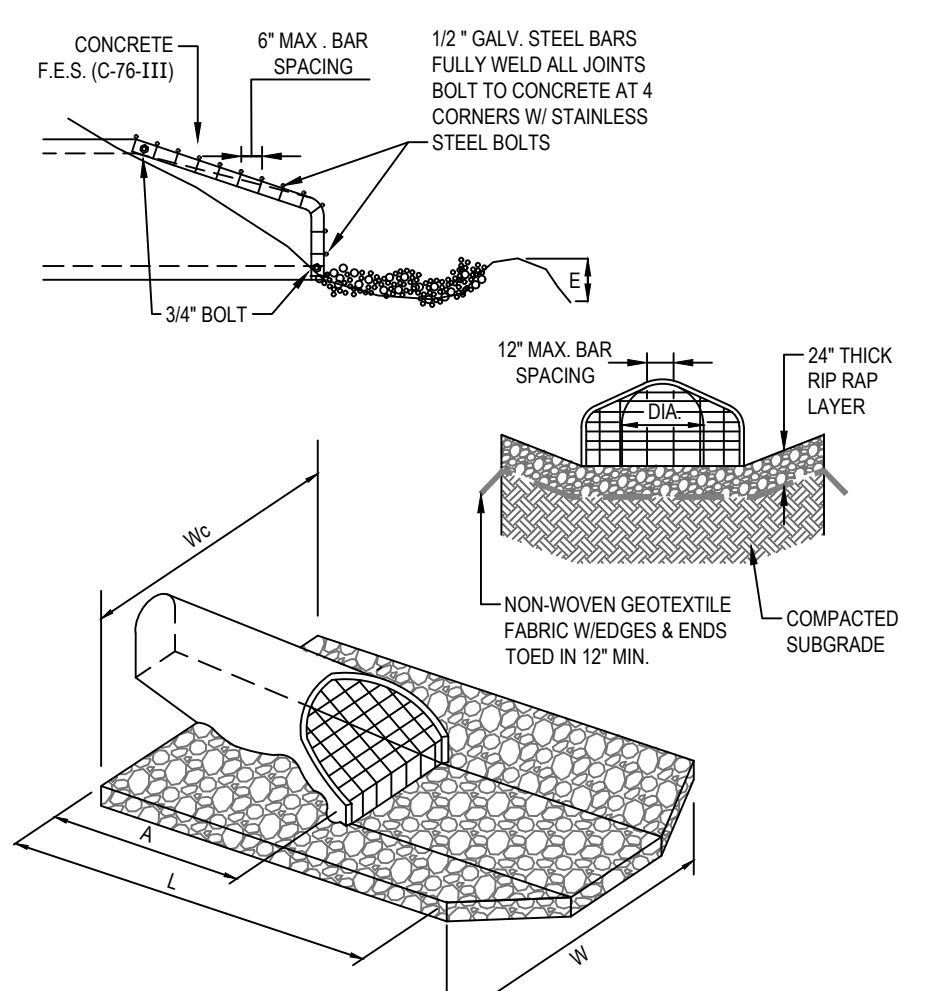
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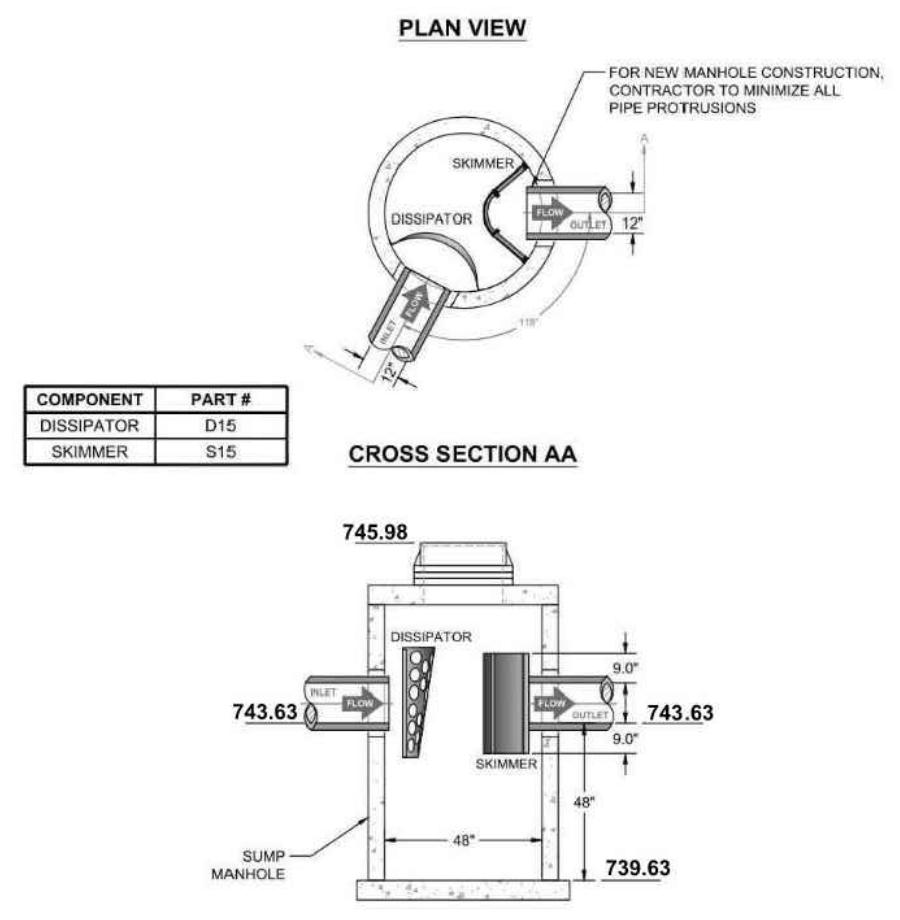
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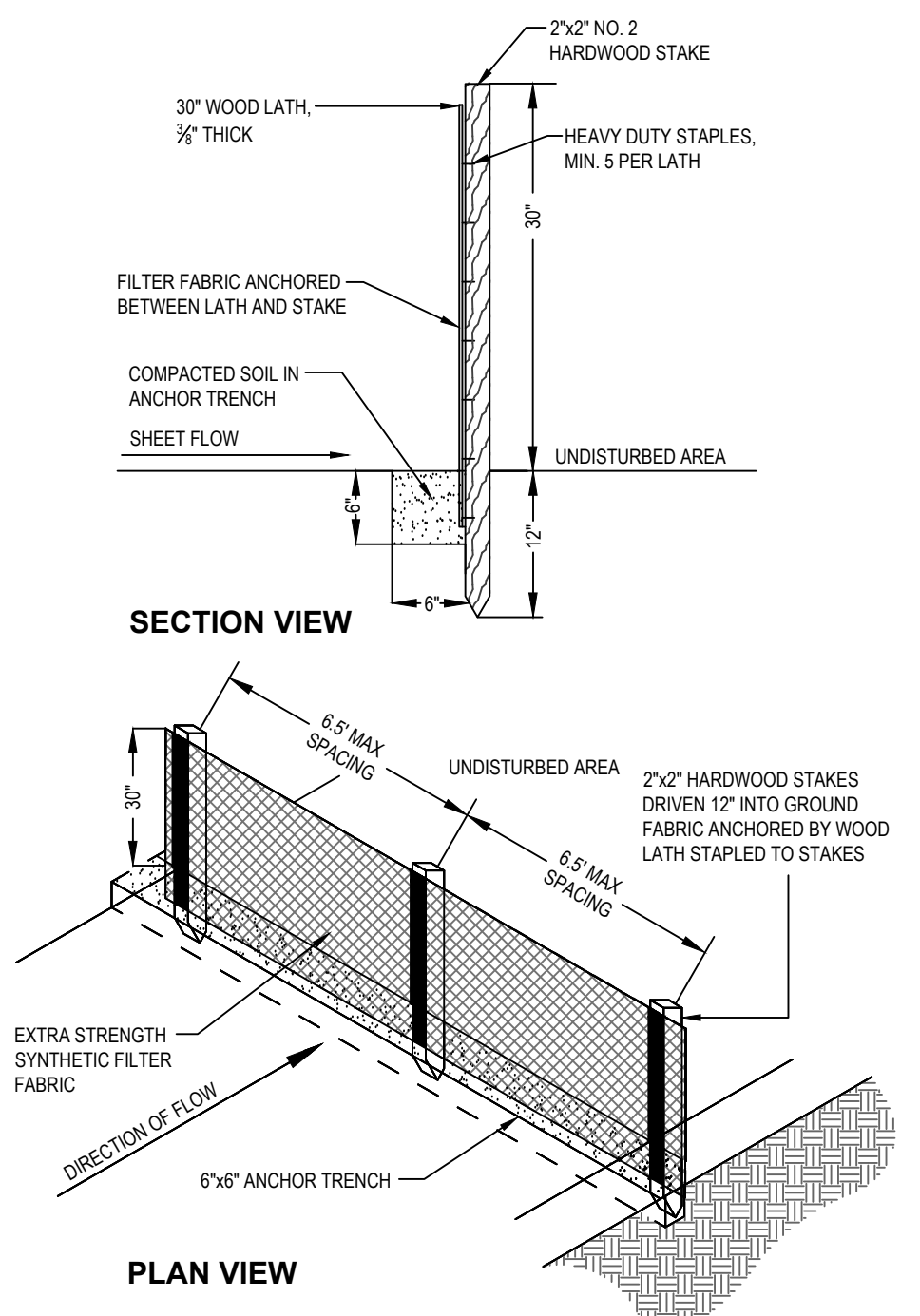
NOTES:
1. DEBRIS CAGES SHALL BE INCLUDED ON ALL INLET THAT ARE 24\"/>

DIA	A	L (INLET)	L (OUTLET)	E	W	Wc	MIN. RIP RAP VOL INLET / OUTLET
12"	2'	6'	8'	4"	6"	3'	3 / 3
15"	2'	8'	10'	4"	8"	4'	3 / 4
18"	2'-6"	9'	12'	6"	9"	4.5'	5 / 6
24"	3'-6"	13'	17'	10"	13'	6'	9 / 12
30"	4'-6"	17'	22'	12"	16'	7.5'	15 / 19
36"	5'	21'	27'	15"	20'	9'	23 / 29
42"	5'-6"	25'	33'	18"	24'	10.5'	32 / 42
48"	6'	30'	38'	21"	27'	12'	43 / 55

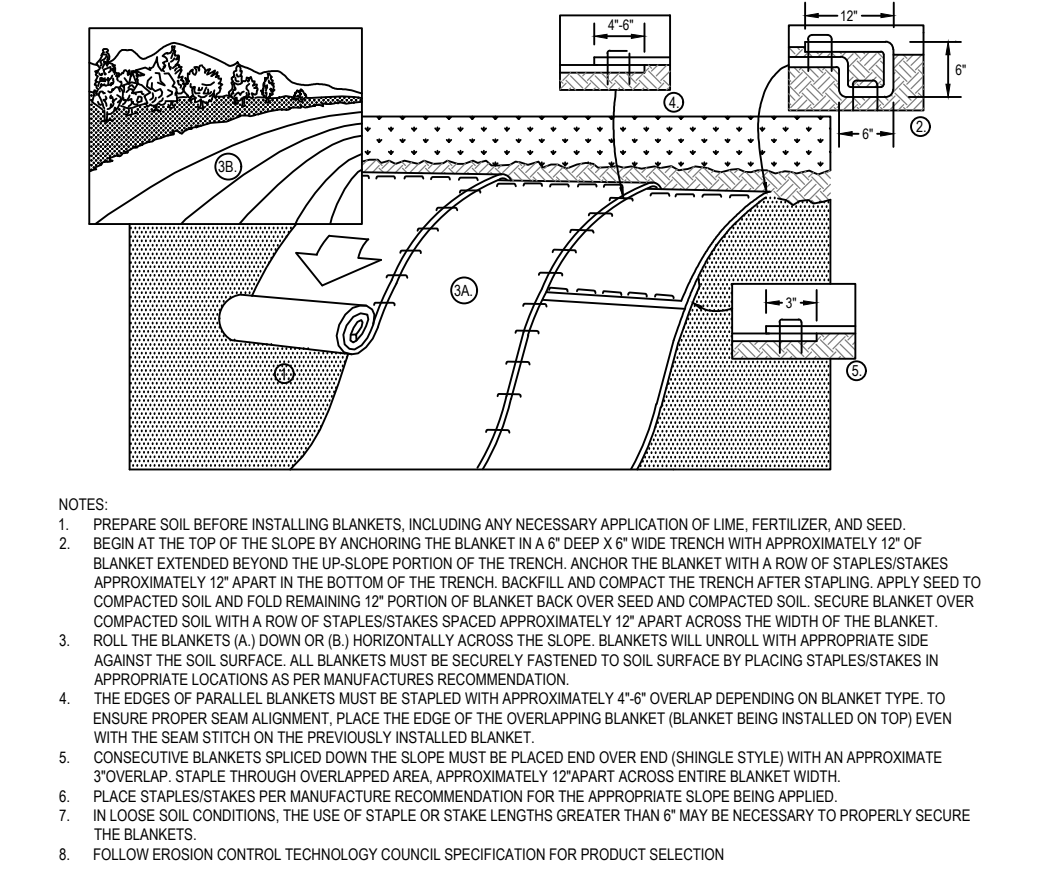
CONCRETE F.E.S. RIP RAP APRON AND DEBRIS CAGE DETAIL
N.T.S.



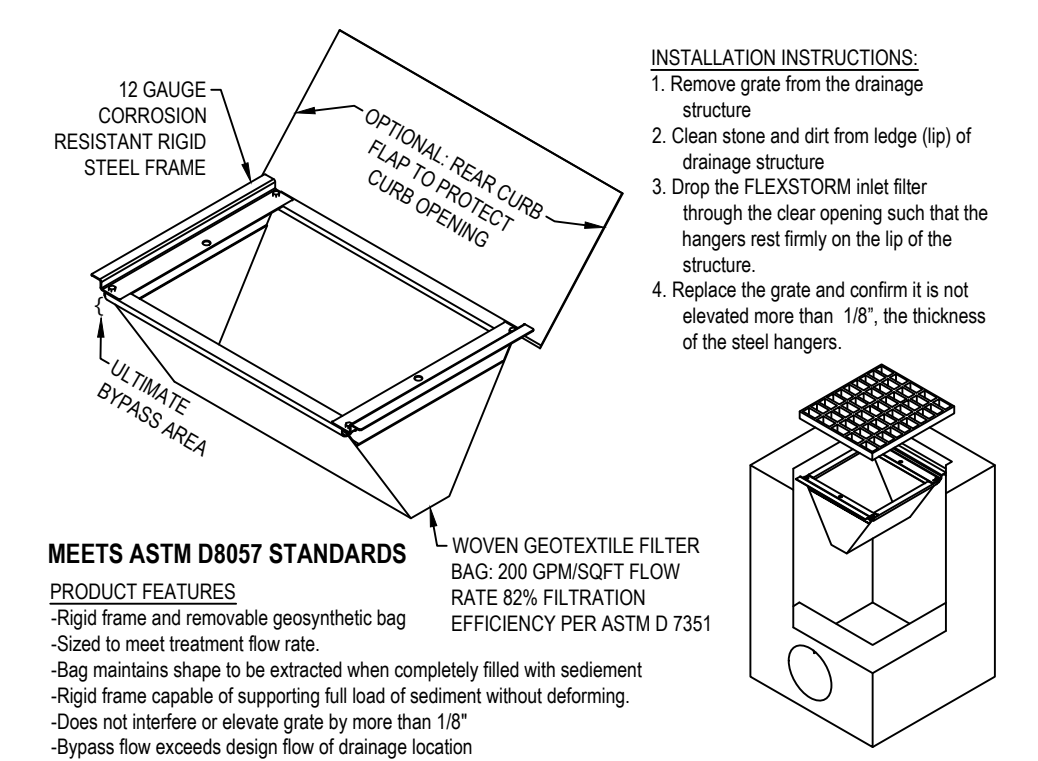
S.W.Q.U. #201 (THE PRESERVER)
N.T.S.



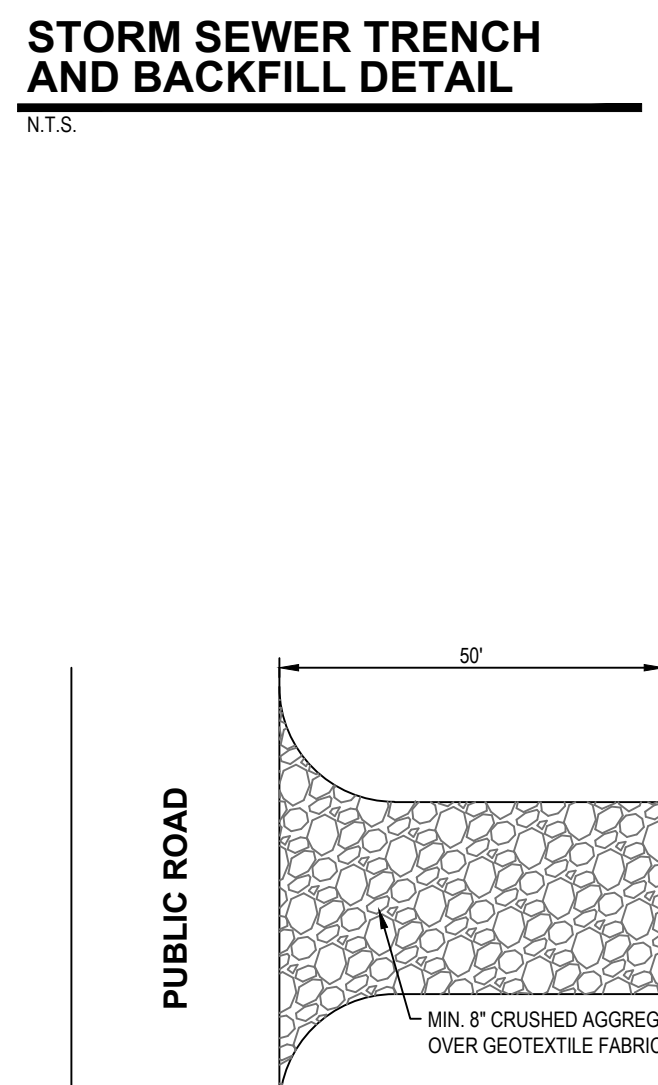
SILT FENCE DETAIL
N.T.S.



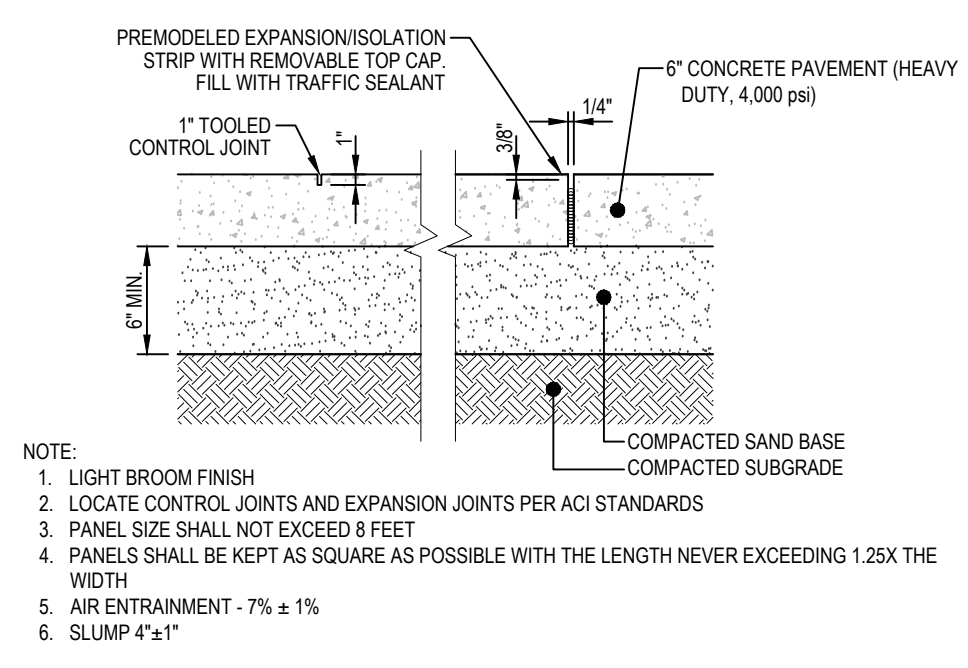
STORM SEWER TRENCH AND BACKFILL DETAIL
N.T.S.



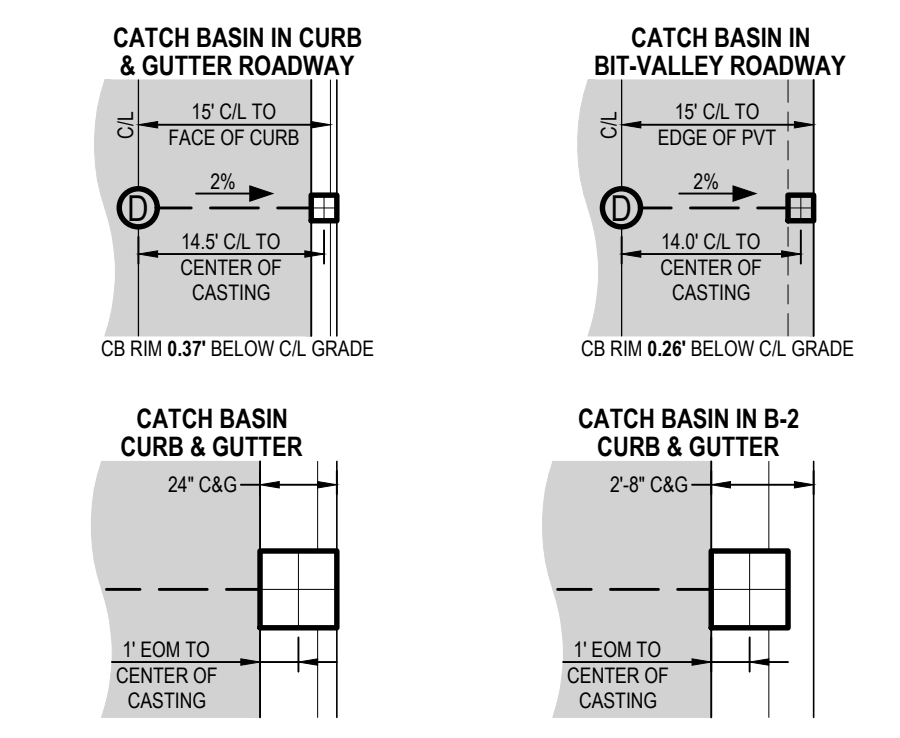
FLEXSTORM INLET FILTER LITE DETAIL
N.T.S.



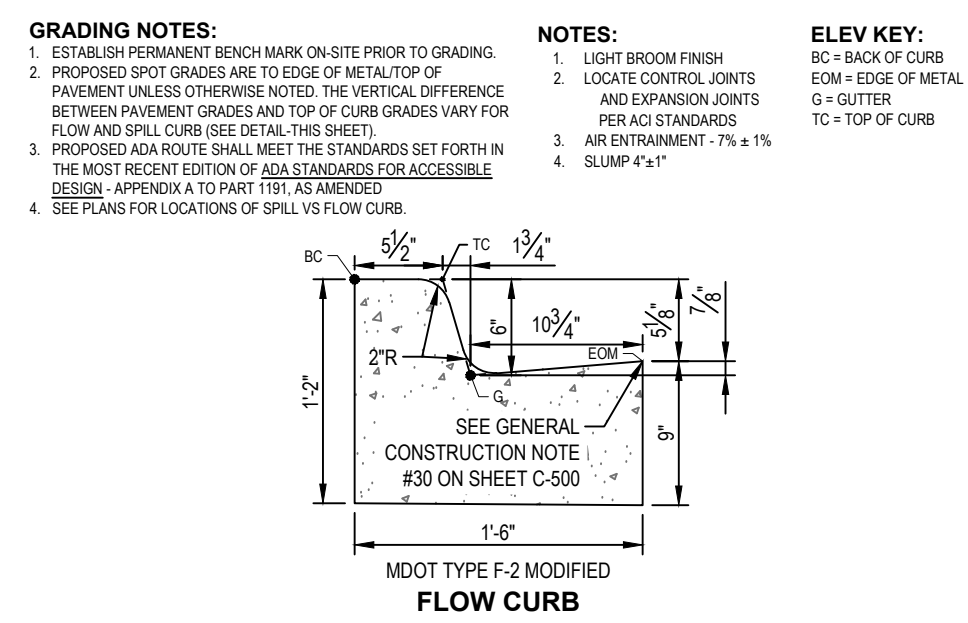
TEMPORARY CRUSHED ROCK TRACKING PAD
N.T.S.



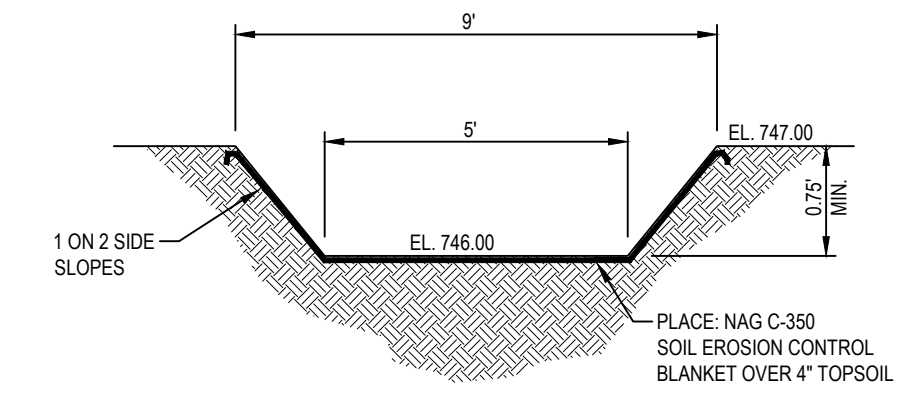
CONCRETE PAVEMENT DETAIL
N.T.S.



CATCH BASIN PLACEMENT DETAIL
N.T.S.



18\"/>



EMERGENCY SPILLWAY DETAIL
N.T.S.

CONSTRUCTION NOTES

- STORM SEWER**
- ALL CATCH-BASINS SHOULD BE PROVIDED WITH A MINIMUM 7\"/>
 - ALL STORM SEWER SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE PIPE (SLC/P) WITH WATERTIGHT JOINTS MEETING THE REQUIREMENTS OF THE MICHIGAN PLUMBING CODE, ASHTO M 252 AND M 254, ASTM F 2368, C 544, D 3312, F 4471, F 4487, C 538 AND F 4411. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND ASTM D 2321 OR CONCRETE PIPE MEETING THE REQUIREMENTS OF ASTM C 768 UNLESS OTHERWISE NOTED.
 - 8\"/>
 - ALL CATCH-BASINS AND MANHOLES SHALL BE CONCRETE, CONFORMING TO ASTM C 478 WITH BUTYL RUBBER GASKETED JOINTS WITH BOOT TYPE PIPE CONNECTIONS CONFORMING TO ASTM C 923 FOR ALL PIPE CONNECTIONS 24\"/>
 - ALL CATCH BASINS ARE DRAWN AND WILL BE STAKED AT CENTER OF CASTING.
- GENERAL**
- ALL CONSTRUCTION AND MATERIAL SPECIFICATIONS INCLUDED FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE MOST CONSTRUCTION AND MATERIALS SPECIFICATIONS (LATEST EDITION) AND THE ORDINANCES OF THE TOWNSHIP WHERE CONFLICTS OCCUR IN THE ABOVE, THE TOWNSHIP SHALL BE THE GOVERNING AUTHORITY.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO THE EXISTING WATER AND SEWAGE SYSTEM RESULTING FROM NON-COMFORMANCE WITH THE APPLICABLE STANDARDS OR THROUGH GENERAL NEGLIGENCE.
 - ALL WORK, INCLUDING INSPECTIONS AND TESTING COSTS REQUIRED FOR REMOVAL, RELOCATION OR NEW CONSTRUCTION FOR PRIVATE OR PUBLIC UTILITIES, WILL BE DONE BY AND AT THE EXPENSE OF THE CONTRACTOR AND INCLUDED IN THE BID PRICE FOR THE VARIOUS WORK ITEMS UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL NECESSARY PERMITS FROM THE TOWNSHIP AND COUNTY AND ANY OTHER AGENCY FOR ALL WORK DONE BY THE CONTRACTOR.
 - ANY DEFECTS IN THE CONSTRUCTION, INCLUDING MATERIALS OR WORKMANSHIP, SHALL BE REPLACED OR CORRECTED BY REMOVAL AND REPLACEMENT OR OTHER APPROVED METHODS PRIOR TO ACCEPTANCE BY THE TOWNSHIP OR OWNER WITHOUT ANY ADDITIONAL COST TO THE TOWNSHIP OR OWNER.
 - ALL LAWN AREAS REMOVED OR DISTURBED SHALL BE REPLACED WITH TOPSOIL AND SOO WHERE NEEDED AND SHALL BE RESEEDED AND MAINTAINED UNTIL THE FACTORY ESTABLISHMENT OF LAWN DOES NOT OCCUR.
 - ALL PUNCH LIST AND DEFICIENCY WORK SHALL BE COMPLETED WITHIN 1 MONTH OF THE END OF CONSTRUCTION.
 - THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION DRAWINGS ON SITE AT ALL TIMES. THESE PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC FIELD LAYOUT. DIMENSIONS SHOWN ARE FOR GRAPHIC PRESENTATION ONLY AND SHOULD NOT BE USED FOR LAYOUT. CONTACT THE ENGINEER IF ANY DISCREPANCIES BETWEEN THE PLAN AND ELECTRONIC DATA ARE DISCOVERED.
 - THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LIGHTS, BARRICADES, FLAGMEN, ETC. AS REQUIRED TO PERFORM THE REQUIRED WORK. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES AS REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE SUCH ADDITIONAL TRAFFIC CONTROL DEVICES LOCATED OUTSIDE THE LIMITS OF CONSTRUCTION AS ARE REQUIRED ON THOSE STREETS WHICH ARE USED AS DETOURS, INCLUDING ROAD CLOSED SIGNS AND BARRICADES AT THE POINT WHERE THE ROAD IS CLOSED TO THROUGH TRAFFIC.
 - THE CONTRACTOR SHALL PROTECT LOCATION OF ALL PROPERTY PINS AND BENCHMARKS.
 - ALL WORK CONTEMPLATED SHALL AT ALL TIMES BE SUBJECT TO THE DIRECT INSPECTION OF THE TOWNSHIP, OWNER AND THEIR REPRESENTATIVES. THE TOWNSHIP AND OWNER RESERVES THE RIGHT TO HALT ALL CONSTRUCTION ACTIVITY FOR NON-COMFORMANCE OF PLANS, SPECIFICATIONS AND OTHER APPLICABLE STANDARDS OR REGULATIONS.
 - PRICES BID PER FOOT FOR ALL PIPES IS COMPACTED IN PLACE REGARDLESS OF SOIL OR ROCK CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR ALL SIGNS, BARRICADES AND SAFETY FENCES TO DETER PEOPLE FROM ENTERING THE WORK AREA AND FOR MAINTAINING AND PROTECTING THE FLOW OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE JOB SITE. TRAFFIC CONTROLS SHALL BE COORDINATED WITH THE POLICE DEPARTMENT AND THE TOWNSHIP.

Live Space Parking Lot Extension
Details & Specifications
4995 Starr Street SE, Grand Rapids, MI 49546
PART OF THE SOUTHWEST FRAC. 1/4 OF SECTION 7, T6N. R10W, CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

SEAL:
STATE OF MICHIGAN
LICENSED PROFESSIONAL ENGINEER
ROGER JACK BARR II
License No. 6201041990
R. J. Barr

PROJECT NO:
25400410
SHEET NO:
C-500

STORM WATER MANAGEMENT CALCULATIONS

for

Live Space

4995 Starr Street SE

Cascade Township

Kent County, Michigan

August 22nd, 2025

Prepared By:



217 GRANDVILLE AVE. SW, SUITE 302
GRAND RAPIDS, MI 49503
P. 616.575.5190
F. 616.575.6644

TABLE OF CONTENTS

Narrative Summary

Summary Table

Stormwater Management Calculations

- LGROW Spreadsheets
- C-DEV Calculations
- Emergency Spillway Design
- Detention Storage Calculations

Exhibits

- Imperious Surface Outline
- NRCS Web Soil Survey

NARRATIVE SUMMARY

The proposed project at 4995 Starr St SE in Cascade Township, includes a parking lot addition on the west end of the property and a replacement of the existing bituminous pavement with heavy duty concrete. The 3.14-acre parcel is located on the north end of Starr St SE.

The existing site is mostly grass covered – fair. There is a natural drainage course running east/west that cuts across the middle of the site. An existing detention basin is located in the north corner of the site with an outlet at an elevation of 743.00.

The proposed stormwater management system will add 1,838 cft of storage to the existing detention basin. Stormwater from the proposed parking lot will be collected, conveyed, treated and detained. Pre-treatment will be provided in a SWQU using the Preserver model. An emergency spillway will be defined near the existing CB #752 to retrofit the additional storage. The total drainage area is assumed to be .91 acres for both the existing site and proposed site conditions. Soils on site are loamy sand per NRCS web soil survey. No significant off-site areas drain to or across this property.

Below is a summary table of the design considerations for the detention basin addition:

SUMMARY TABLE

Basin	Volume (CF)	Elevations
Existing Detention Basin	5,173	(743.00-746.00)
Proposed Detention Basin	7,415	(743.00-746.00)
Detention Basin Addition	2,242	(744.00-746.00)
Channel Protection Volume (LGROW)	1,352	
Flood Control Volume (LGROW)	1,833	
Top of Berm		747.00

STORMWATER MANAGEMENT CALCULATIONS



Project Description

Development Name	Live Spaces	Design Firm	Nederveld
Address/Location	4995 Starr St SE in Cascade Township	Engineer	Jack Barr
Developer/Owner	Ben Cobb	Date	8/22/2025
Run		Watershed	

Subcatchment Connectivity and Area Summary

Number of Subcatchments

Subcatchment			Existing			Developed		
Name	D/S	Description	Area [ac]	% Impervious	Average CN	Area [ac]	% Impervious	Average CN
Sub1	none	Additional Impervious	0.16	0%	49	0.16	100%	98
Total			0.16	0%	49	0.16	100%	98

Notes:

Subcatchment Discharge Summary - Developed

Rainfall

Source and Distribution	NOAA Atlas 14 at Grand Rapids Intl AP				
Rainfall Frequency	1-year	2-year	10-year	25-year	100-year
Rainfall Depth [in]	2.22	2.56	3.77	4.66	6.27

Runoff

Sub	Area [ac]	Tc [hr]	Weighted CN	Peak Discharge [cfs]				
				1-year	2-year	10-year	25-year	100-year
1	0.16	0.17	98	0.33	0.38	0.57	0.71	0.96

Notes:

Channel Protection Volume Summary

Development Name

Pre-development Definition
 BMP Volume Credited to Detention ← Community requires this be set to "Storage Volume"

Retention

Extended Detention

Subcatchment		2-year Runoff Volume [cft]		Credited BMP Volume [cft]	Excess CPV [cft]	Release Rate [cfs]	ED Volume Provided [cft]
Name	Description	Pre-dev.	Developed				
Sub1	Additional Impervious	12	1,364	0	-1,352		
Total		12	1,364	0	-1,352		0
Required Channel Protection Volume [cft]				1,352	Required Volume [cft]		1,352
Percent met by Retention				0	Required Volume met by ED?		No

Notes:

Water Quality Volume and TSS Removal Summary

Subcatchment		Water Quality Volume [cft]
Name	Description	
Sub1	Additional Impervious	568
Total		568

TSS			
Generated	Upstream	Total	Removed
568	0	568	488
568			488
TSS Removal Efficiency [%]			86
80% TSS removal met?			Yes

Notes:



Live Spaces **Sub1: Additional Impervious**

Runoff [Click here for documentation](#)

Existing Land Use	HSG	Area	Units	CN CN _{PRE}	Notes
Open spaces (grass cover) - fair	A	7,025	sqft	49 30	
		0.16	acre	49 30	

Developed Land Use	HSG	Area	Units	Curve Number	Notes
DIST: Impervious (paved parking lot, roof, driveway, etc.)	A	7,025	sqft	98	
		0.16	acre	98	

Notes:

Subcatchment Runoff Volume

Rainfall Frequency	1-year	2-year	10-year	25-year	100-year
Developed [cft]	1,166	1,364	2,070	2,590	3,531

Channel Protection Volume [Click here for documentation](#)

	Developed	Pre-developed
2-year Runoff Volume [cft]	1,364	12
2-year Runoff Volume from Upstream Subcatchments [cft]	0	Existing
2-year Runoff available for Retention [cft]	1,364	Channel Protection required? Yes
Required Channel Protection Volume for this Subcatchment [cft]	1,352	

Structural BMPs used to meet Channel Protection Volume

Structural BMP	A Infiltration Area [sqft]	V _s Storage Volume [cft]	i Design Infiltr. Rate [in/hr]	t _d Drain Time [hr]	Volume Provided [cft]
				N.A.	
				N.A.	
				N.A.	
				N.A.	
Totals					

Notes:

Credited BMP Volume [cft]	0
Volume Released [cft]	1,364

Water Quality Volume [Click here for documentation](#)

	Pitched Roofs/Paved [ac]	Flat Roofs [ac]	Unpaved [ac]
Sum of Directly Connected Disturbed Impervious Area [ac]	0.16	0.00	0.00
Sum of Directly Connected Disturbed Pervious Area [ac]	0.00		
Required Volume this Subcatchment [cft]	568	TSS this Subcatchment	568
Volume from Upstream Subcatchments [cft]	0	TSS Upstream Subcatchments	0
Water Quality Volume to be Treated [cft]	568	TSS to be Treated	568

TSS Accounting

BMPs Used in Treatment Train	Treated Water Volume [cft]	TSS Removal Efficiency			TSS Removed
		Tabulated	Third-Party	Effective	
PASS: Detention Basin (extended)	568	72		72	409
PASS: Water Quality Device	568	--	50	50	79
					0
					0
Released Water Volume [cft]	568	Total TSS Removed			488
		TSS Remaining			79
		TSS Removal Efficiency [%]			86

Notes:



Flood Control Volume

[Click here for documentation](#)

Development Name
 Location 1

Subcatchment

Detention - Routing Method

Retention - Summary of Volumes

Time-of-Concentration
 Existing [hr]
 Developed [hr]

Design Storm
 Contributing Area [ac]
 Developed Peak Discharge [cfs]

Allowable Discharge Worksheet Select
 Standard Discharge [cfs] - 0.13 [cfs/ac]
 Alternate Discharge [cfs]

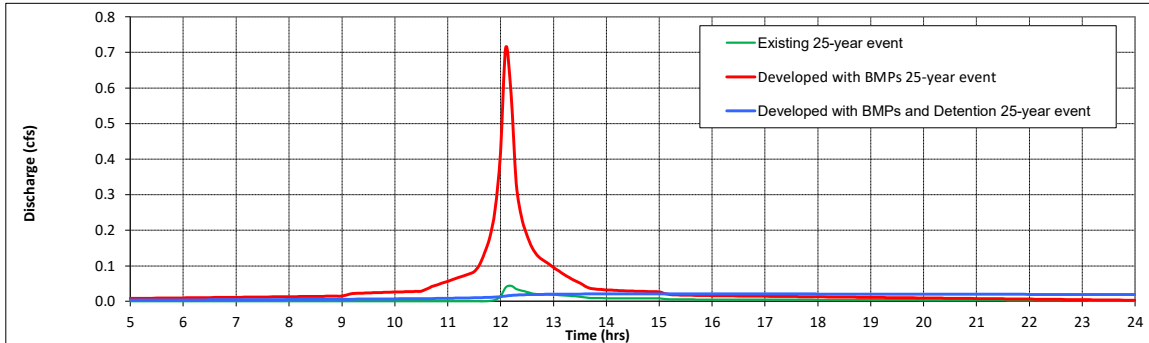
Detention Required?
Allowable Discharge [cfs]
Required Storage Volume [cft]
Time to Drain [hrs]

Design Storm
 Runoff Volume [cft]
 BMP Storage Volume [cft]
 BMP Infiltrating Volume [cft]
 Volume Provided by BMPs [cft]
 Runoff Volume Retained by BMPs [cft]
 Unretained Runoff Volume [cft]
Required Storage Volume [cft]

Runoff Volume

Notes:

Hydrograph



Plot Event

Flood Control Summary

Rainfall		Source and Distribution 24-hour, NOAA Atlas 14 at Grand Rapids Intl AP, NRCS MSE4				
		1-year	2-year	10-year	25-year	100-year
Rainfall Frequency						
Rainfall Depth [in]		2.22	2.56	3.77	4.66	6.27
Existing Land Use						
Peak Discharge [cfs]		0.00	0.00	0.01	0.04	0.17
Runoff Volume [cft]		1	12	138	300	704
Developed Land Use						
Peak Discharge [cfs]		0.33	0.38	0.57	0.71	0.96
Runoff Volume [cft]		1,166	1,364	2,070	2,590	3,531
Runoff Volume Retained by BMPs [cft]		0	0	0	0	0
BMP Volume Credited to Detention [cft]		0	0	0	0	0
Volume Released [cft]		1,166	1,364	2,070	2,590	3,531
Peak Discharge Released [cfs]		0.33	0.38	0.57	0.71	0.96
Developed with BMPs and Detention						
Peak Discharge Released [cfs]		0.01	0.01	0.02	0.02	0.32
Maximum Volume Detained [cft]		760	904	1,434	1,833	1,832

Nederveld Inc.

Project:	Live Space
Project #:	25400410
Date:	8/22/2025

Information For Determining Spillway Requirements

C-DEVELOPED, Overall

				Total Area		
A. Impervious Area (C=0.9)	Length (ft)	Width (ft)	Area (s.f.)	Quantity	(s.f.)	Area (Ac)
Impervious Area			31,229	1	31,229	0.72
Total						0.72
B. Detention Area (C=1.00)			0			0.00
C. 'Green' Area			C=	0.22		
Total site area						0.91
Total impervious area						0.72
Change in impervious area						0.72
Total 'Green' area						0.19
D. Calculate C-dev	=	(.9(area.9)+0.22(area0.22)+1.0(area1.0))/total area			C-dev =	0.76

Project:	Live Space
Project #:	25400410
Date:	8/22/2025

Allowable Release Rate:

K.C.D.C allows 0.13 cfs/acre
 Phase Area = 0.91 acres
 KCDC Release Rate = 0.13 cfs/acre
 Allowable Release = 0.12 cfs Total

Emergency Spillway Design:

I(10) = 4.56 Tc (Dev) = 10 minutes
 C(Dev) = 0.76 Area = 0.91 acres

Q(10-yr) = C(Dev) I(10) A = 3.13 CFS

Weir Equation:

$Q = K ((a+b)/2 - 0.2H) H^{1.5}$ **Sharp Crested Weir**

K (weir coef.) = 2.80
 H (height over wier) = 0.50 Ft.
 S (weir side slope) = 4.00 1V:sH
 L = (a+b)/2 = (ave. throat width) = 3.27 ft
 Spillway Design Flow = 6.83 cfs

Minimum Spillway Dimensions	
Weir Base=	1.27 Ft.
Top width=	5.27 Ft.
Spillway Design Dimensions	
Weir Base=	5.00 Ft.
Top width=	9.00 Ft.

Spillway crest elev. 746.00
 Top of flow 746.50
 Top of Berm 747.00
 Freeboard 0.50

Existing Detention Storage Calculations:

Detention Basin Contour Areas and Volumes

Min. Elev.	Elev.	Area (s.f.)	Vol. (c.f.)	Vol. (ac-ft)	Cum. Vol.	
	743.00	638			0.000	
	744.00	1,346	970	0.022	0.022	
	745.00	2,084	1,702	0.039	0.061	
	746.00	2,943	2,501	0.057	0.119	5173 cft

Required Volume Elevation Interpolation

Elev.	Vol. (ac-ft)	Area (s.f.)
745.0	0.061	2,672
> 745.99	0.118	5,158
746.0	0.119	5,173

Volume Provided Elevation Interpolation

Elev.	Vol. (ac-ft)	Area (s.f.)
745	0.061	2,672
745.99	0.118	5,140
746.0	0.119	5,173

Project:	Live Space
Project #:	25400410
Date:	8/22/2025

Proposed Detention Storage Calculations:

Detention Basin Contour Areas and Volumes

Min. Elev.	Elev.	Area (s.f.)	Vol. (c.f.)	Vol. (ac-ft)	Cum. Vol.	
	743.00	639			0.000	
	744.00	2,239	1,358	0.031	0.031	
	745.00	3,000	2,610	0.060	0.091	
	746.00	3,913	3,446	0.079	0.170	7415 cft

Required Volume Elevation Interpolation

Elev.	Vol. (ac-ft)	Area (s.f.)
745.0	0.091	3,968
> 745.99	0.170	7,388
746.0	0.170	7,415

Volume Provided Elevation Interpolation

Elev.	Vol. (ac-ft)	Area (s.f.)
745	0.091	3,968
745.99	0.170	7,388
746.0	0.170	7,415

EXHIBITS



www.nederveld.com
800.222.1868

GRAND RAPIDS
217 Grandville Ave., Suite 302
Grand Rapids, MI 49503
Phone: 616.975.8199

ANN ARBOR
3037 Miller Rd.
Ann Arbor, MI 48103
Phone: 734.929.6963

HOLLAND
730 Chicago Dr.
Holland, MI 49423
Phone: 616.393.0449

PREPARED FOR:

Live Space
Ben Cobb

4995 Starr Street SE
Grand Rapids, MI 49546
Phone: 616.901.4458

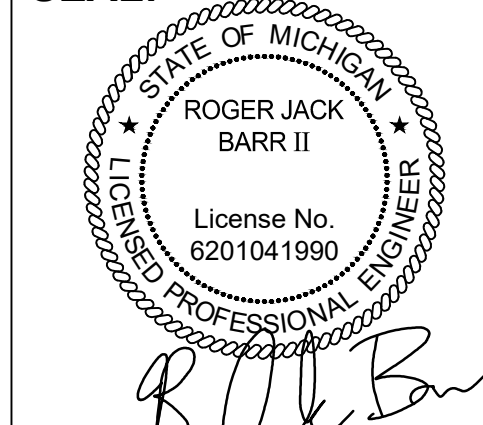
REVISIONS:

Title: Township Site Plan Submitted
Drawn: NJ Checked: JB Date: 07/03/25
Title: Township Site Plan Resubmittal
Drawn: NJ Checked: JB Date: 08/22/25

Live Space Parking Lot Extension

Existing Site Conditions Plan
4995 Starr Street SE, Grand Rapids, MI 49546
PART OF THE SOUTHWEST FRAC. 1/4 OF SECTION 7, T6N, R10W,
CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

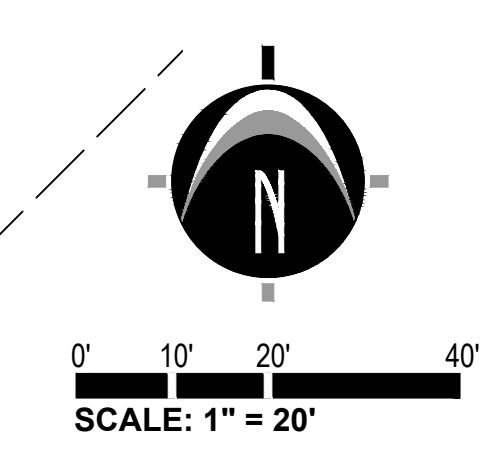
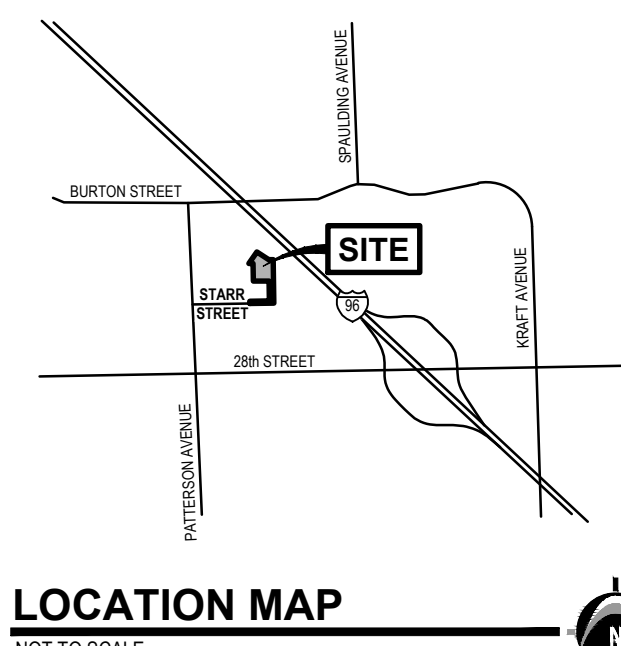
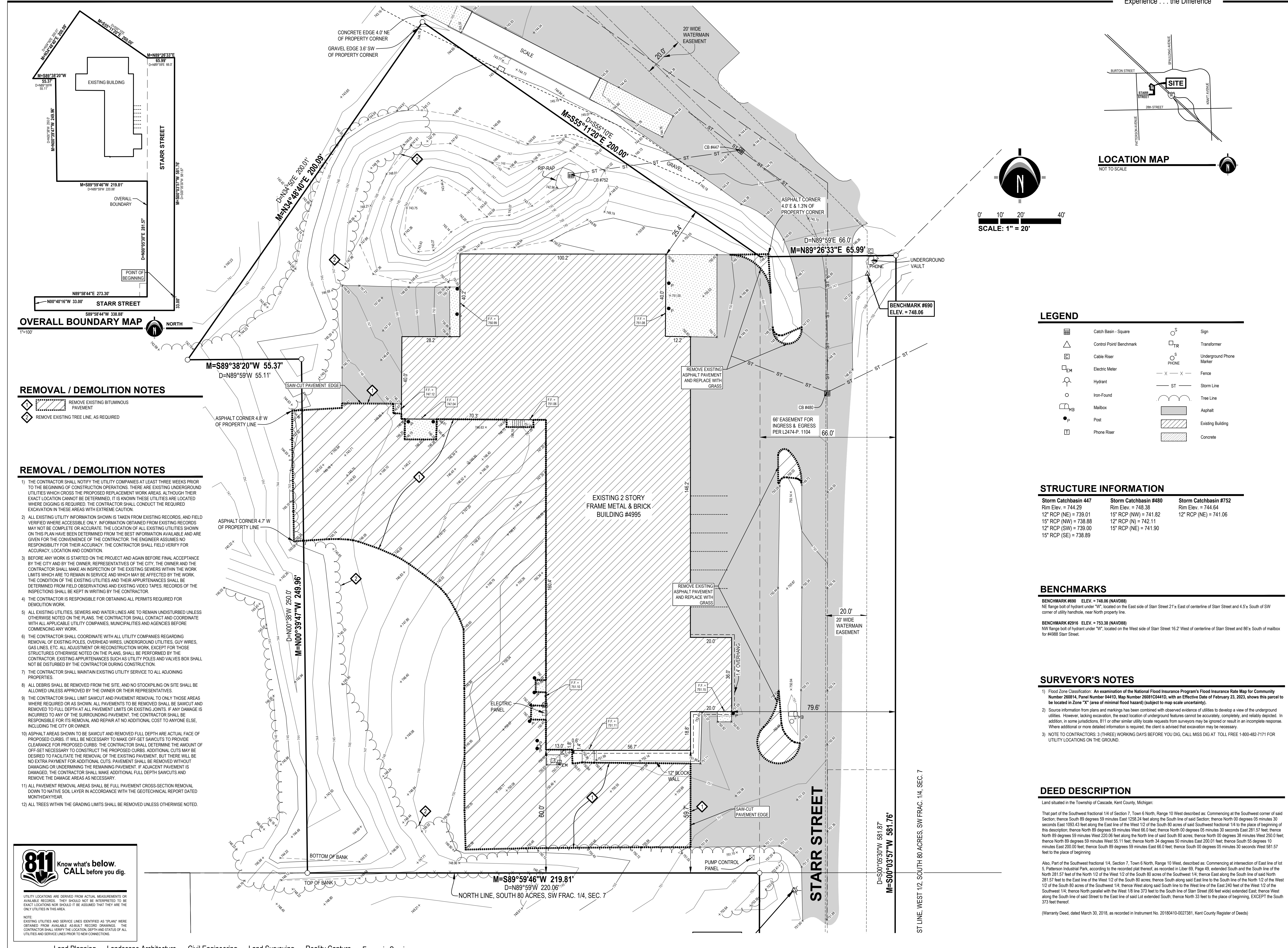
SEAL:



PROJECT NO:
25400410

SHEET NO:
C-201

25400410-CP1.dwg NJ 8/19/2025 10:02 AM Cascade Charter Township Packet September 22, 2025 Planning Commission Packet, Page 48 of 50



LEGEND

	Catch Basin - Square		Sign
	Control Point/Benchmark		Transformer
	Cable Riser		Underground Phone Marker
	Electric Meter		Fence
	Hydrant		Storm Line
	Iron-Found		Tree Line
	Mailbox		Asphalt
	Post		Existing Building
	Phone Riser		Concrete

STRUCTURE INFORMATION

Storm Catchbasin #	Rim Elev.	12" RCP (NE)	15" RCP (NW)	12" RCP (N)	15" RCP (SE)
447	744.29	739.01	739.88	742.11	738.89
480	748.38	741.82	742.11	741.90	738.89
752	744.64	741.06			

BENCHMARKS

BENCHMARK #690	ELEV. = 748.06 (NAVD83)
NE flange bolt of hydrant under "W", located on the East side of Starr Street 21.2' East of centerline of Starr Street and 4.5' South of SW corner of utility handle, near North property line.	
BENCHMARK #2916	ELEV. = 753.38 (NAVD83)
NW flange bolt of hydrant under "W", located on the West side of Starr Street 16.2' West of centerline of Starr Street and 86.5' South of mailbox for #4988 Starr Street.	

SURVEYOR'S NOTES

- Flood Zone Classification: An examination of the National Flood Insurance Program's Flood Insurance Rate Map for Community Number 26814, Panel Number 04410, Map Number 2681034410, with an Effective Date of February 23, 2023, shows this parcel to be located in Zone "X" (area of minimal flood hazard) (subject to map scale uncertainty).
- Source information from plans and markings has been combined with observed evidence of utilities to develop a view of the underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response. Where additional or more detailed information is required, the client is advised that excavation may be necessary.
- NOTE TO CONTRACTORS: 3 (THREE) WORKING DAYS BEFORE YOU DIG, CALL MISS DIG AT TOLL FREE 1-800-482-7171 FOR UTILITY LOCATIONS ON THE GROUND.

DEED DESCRIPTION

Land situated in the Township of Cascade, Kent County, Michigan:

That part of the Southwest fractional 1/4 of Section 7, Town 6 North, Range 10 West described as: Commencing at the Southwest corner of said Section; thence South 89 degrees 59 minutes East 1258.24 feet along the South line of said Section; thence North 00 degrees 05 minutes 30 seconds East 1083.43 feet along the East line of the West 1/2 of the South 80 acres of said Southwest fractional 1/4 to the place of beginning of the description; thence North 59 degrees 59 minutes West 66.0 feet; thence North 00 degrees 05 minutes 30 seconds East 281.57 feet; thence North 89 degrees 59 minutes West 220.04 feet along the North line of said South 80 acres; thence North 00 degrees 38 minutes West 250.0 feet; thence North 89 degrees 59 minutes West 55.11 feet; thence North 34 degrees 50 minutes East 200.01 feet; thence South 55 degrees 10 minutes East 200.00 feet; thence South 89 degrees 59 minutes East 66.0 feet; thence South 00 degrees 05 minutes 30 seconds West 581.57 feet to the place of beginning.

Also, Part of the Southwest fractional 1/4, Section 7, Town 6 North, Range 10 West, described as: Commencing at intersection of East line of lot 5, Patterson Industrial Park, according to the recorded plat thereof, as recorded in Liber 69, Page 49, extended South and the South line of the North 281.57 feet of the North 1/2 of the West 1/2 of the South 80 acres of the Southwest 1/4; thence East along the South line of said North 281.57 feet of the East line of the West 1/2 of the South 80 acres; thence South along said East line to the South line of the North 1/2 of the West 1/2 of the South 80 acres of the Southwest 1/4; thence West along said South line to the West line of the East 240 feet of the West 1/2 of the South 80 acres of the Southwest 1/4; thence North parallel with the West 1/8 line 373 feet to the South line of Starr Street (66 feet wide) extended East; thence West along the South line of said Starr Street to the East line of said Lot 5 extended South; thence North 33 feet to the place of beginning, EXCEPT the South 373 feet thereof.

(Warranty Deed, dated March 30, 2018, as recorded in Instrument No. 20180410-027381, Kent County Register of Deeds)

REMOVAL / DEMOLITION NOTES

- REMOVE EXISTING BITUMINOUS PAVEMENT
- REMOVE EXISTING TREE LINE, AS REQUIRED

REMOVAL / DEMOLITION NOTES

- THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES AT LEAST THREE WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION OPERATIONS. THERE ARE EXISTING UNDERGROUND UTILITIES WHICH CROSS THE PROPOSED REPLACEMENT WORK AREAS. ALTHOUGH THEIR EXACT LOCATION CANNOT BE DETERMINED, IT IS KNOWN THESE UTILITIES ARE LOCATED WHERE DIGGING IS REQUIRED. THE CONTRACTOR SHALL CONDUCT THE REQUIRED EXCAVATION IN THESE AREAS WITH EXTREME CAUTION.
- ALL EXISTING UTILITY INFORMATION SHOWN IS TAKEN FROM EXISTING RECORDS, AND FIELD VERIFIED WHERE ACCESSIBLE ONLY. INFORMATION OBTAINED FROM EXISTING RECORDS MAY NOT BE COMPLETE OR ACCURATE. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. THE CONTRACTOR SHALL FIELD VERIFY FOR ACCURACY, LOCATION AND CONDITION.
- BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY AND BY THE OWNER, REPRESENTATIVES OF THE CITY, THE OWNER AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE EXISTING SEWERS WITHIN THE WORK LIMITS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING UTILITIES AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS AND EXISTING VIDEO TAPES. RECORDS OF THE INSPECTIONS SHALL BE KEPT IN WRITING BY THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION WORK.
- ALL EXISTING UTILITIES, SEWERS AND WATER LINES ARE TO REMAIN UNDISTURBED UNLESS OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH ALL APPLICABLE UTILITY COMPANIES, MUNICIPALITIES AND AGENCIES BEFORE COMMENCING ANY WORK.
- THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES REGARDING REMOVAL OF EXISTING POLES, OVERHEAD WIRES, UNDERGROUND UTILITIES, GUY WIRES, GAS LINES, ETC. ALL ADJUSTMENT OR RECONSTRUCTION WORK, EXCEPT FOR THOSE STRUCTURES OTHERWISE NOTED ON THE PLANS, SHALL BE PERFORMED BY THE CONTRACTOR. EXISTING APPURTENANCES SUCH AS UTILITY POLES AND VALVES BOX SHALL NOT BE DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION.
- THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICE TO ALL ADJOINING PROPERTIES.
- ALL DEBRIS SHALL BE REMOVED FROM THE SITE, AND NO STOCKPIILING ON SITE SHALL BE ALLOWED UNLESS APPROVED BY THE OWNER OR THEIR REPRESENTATIVES.
- THE CONTRACTOR SHALL LIMIT SAWCUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE REQUIRED OR AS SHOWN. ALL PAVEMENTS TO BE REMOVED SHALL BE SAWCUT AND REMOVED TO FULL DEPTH AT ALL PAVEMENT LIMITS OR EXISTING JOINTS. IF ANY DAMAGE IS INCURRED TO ANY OF THE SURROUNDING PAVEMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR AT NO ADDITIONAL COST TO ANYONE ELSE, INCLUDING THE CITY OR OWNER.
- ASPHALT AREAS SHOWN TO BE SAWCUT AND REMOVED FULL DEPTH ARE ACTUAL FACE OF PROPOSED CURBS. IT WILL BE NECESSARY TO MAKE OFF-SET SAWCUTS TO PROVIDE CLEARANCE FOR PROPOSED CURBS. THE CONTRACTOR SHALL DETERMINE THE AMOUNT OF OFF-SET NECESSARY TO CONSTRUCT THE PROPOSED CURBS. ADDITIONAL CUTS MAY BE DESIRED TO FACILITATE THE REMOVAL OF THE EXISTING PAVEMENT, BUT THERE WILL BE NO EXTRA PAYMENT FOR ADDITIONAL CUTS. PAVEMENT SHALL BE REMOVED WITHOUT DAMAGING OR UNDERMINING THE REMAINING PAVEMENT. IF ADJACENT PAVEMENT IS DAMAGED, THE CONTRACTOR SHALL MAKE ADDITIONAL FULL DEPTH SAWCUTS AND REMOVE THE DAMAGE AREAS AS NECESSARY.
- ALL PAVEMENT REMOVAL AREAS SHALL BE FULL PAVEMENT CROSS-SECTION REMOVAL DOWN TO NATIVE SOIL LAYER IN ACCORDANCE WITH THE GEOTECHNICAL REPORT DATED MONTHLY YEAR.
- ALL TREES WITHIN THE GRADING LIMITS SHALL BE REMOVED UNLESS OTHERWISE NOTED.

811 Know what's below. CALL before you dig.

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

NOTE: EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "PLANS" WERE OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL UTILITIES AND SERVICE LINES PRIOR TO NEW CONNECTIONS.

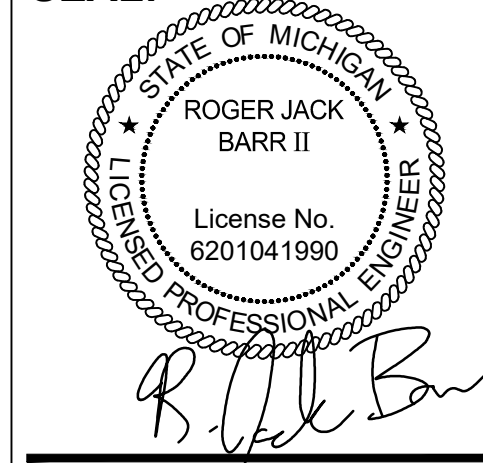
PREPARED FOR:
 Live Space
 Ben Cobb
 4995 Starr Street SE
 Grand Rapids, MI 49546
 Phone: 616.901.4458

REVISIONS:

Title: Township Site Plan Submitted
 Drawn: NJ Checked: JB Date: 07/03/25
 Title: Township Site Plan Resubmittal
 Drawn: NJ Checked: JB Date: 08/22/25

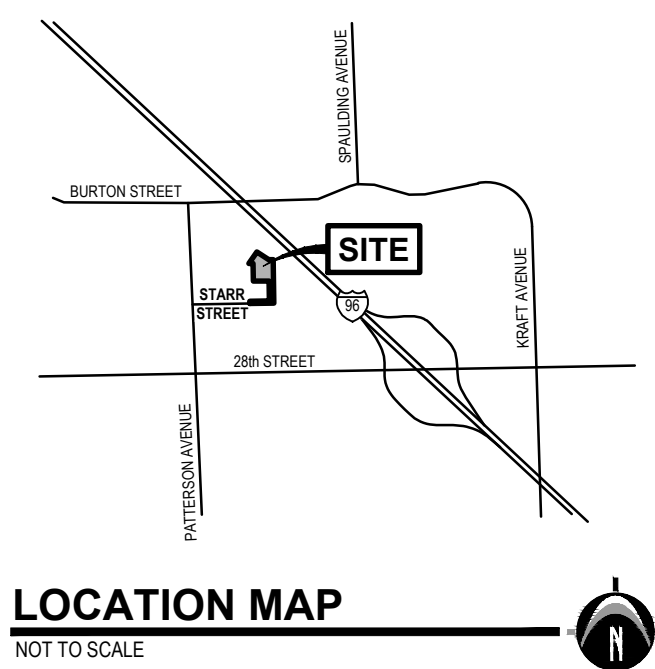
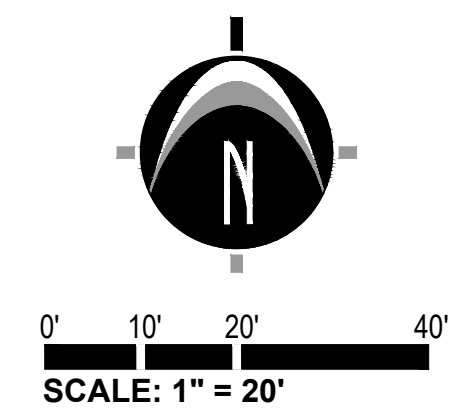
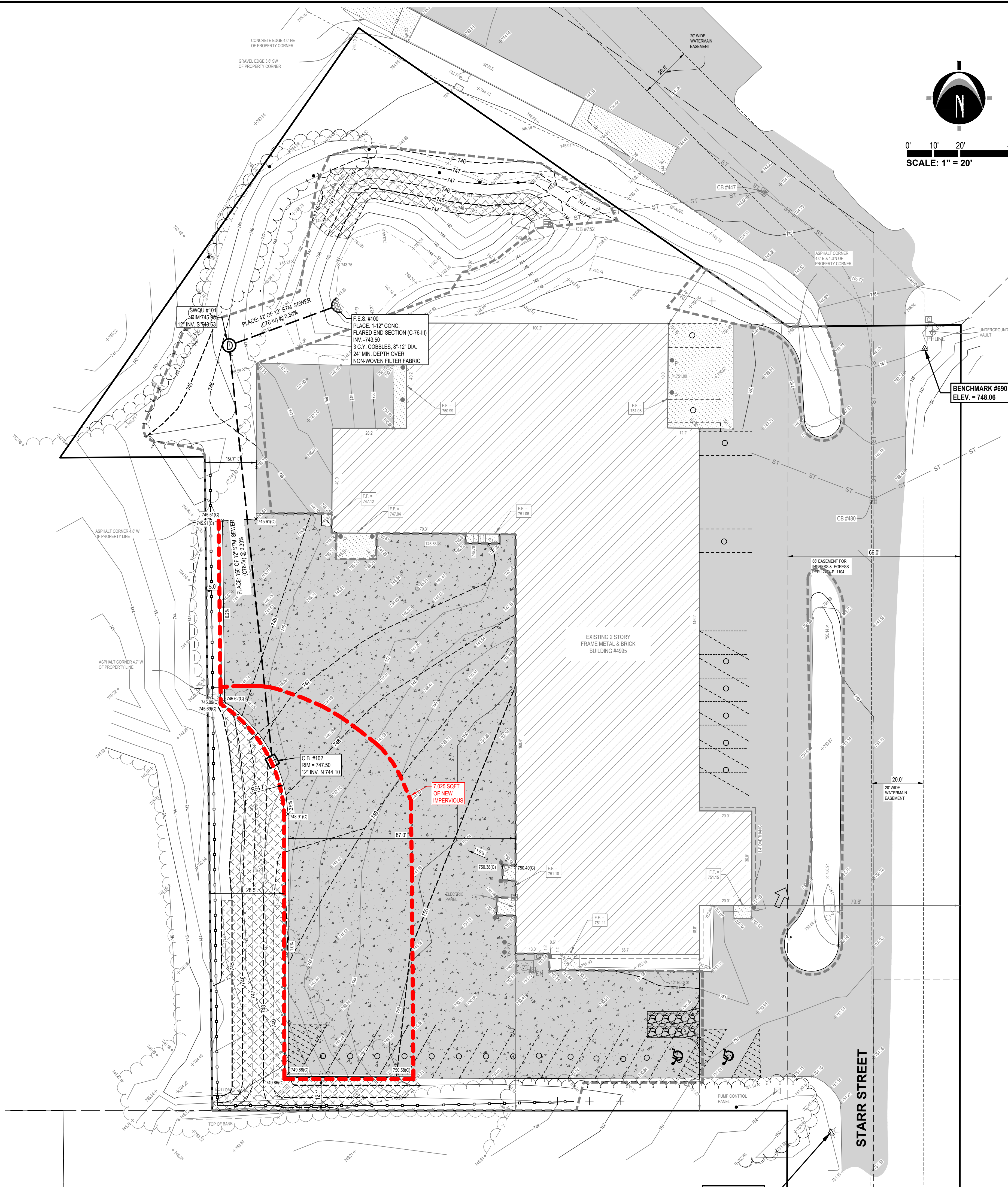
Live Space Parking Lot Extension
S.E.S.C. & Grading Plan
 4995 Starr Street SE, Grand Rapids, MI 49546
 PART OF THE SOUTHWEST FRAC. 1/4 OF SECTION 7, T6N. R10W,
 CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

SEAL:



PROJECT NO:
 25400410

SHEET NO:
C-900



SITE DISTURBANCE
 0.84 ACRES OF SITE DISTURBANCE

LEGEND

- EX. GRADE CONTOUR
- PROP. GRADE CONTOUR
- EXISTING BITUMINOUS
- EXISTING CONCRETE
- PROPOSED CONCRETE (HEAVY DUTY)
- PROPOSED EROSION CONTROL MATTING
- LIMITS OF DISTURBANCE
- PROPOSED SILT FENCE

GENERAL NOTES

- 1) ZONING OF PROPERTY IS INDUSTRIAL. ZONING REQUIREMENTS:
 - A) MINIMUM LOT AREA = 87,120 SQ. FT.
 - B) MINIMUM LOT WIDTH = 200 FT.
 - C) MAXIMUM BUILDING HEIGHT = 45 FT OR 2 STORIES
 - D) MAXIMUM LOT COVERAGE = 15.8%
- 2) SETBACKS:
 - A) FRONT YARD = 100 FT.
 - B) SIDE YARD = 144.5 FT.
 - C) REAR YARD = 117.5 FT.
- 3) SUMMARY OF LAND USE:
 - A) TOTAL ACREAGE = 3.15 ACRES (137,214 SQ. FT.) (EXCLUDING R.O.W.)
 - B) LOT COVERAGE = 15.8%
 - C) GROSS PAVEMENT AREA = APPROX. 99,112 SQ. FT.
 - D) ZONING OF PARCELS TO SOUTH AND WEST = I
 - E) ZONING OF PARCELS TO NORTH AND EAST = I
- 4) THIS PROJECT IS NOT LOCATED IN THE 100 YEAR FLOOD PLAIN, BASED ON THE NATIONAL FLOOD INSURANCE PROGRAM RATE MAPS.
- 5) BEST MANAGEMENT PRACTICES WILL BE UTILIZED DURING AND AFTER CONSTRUCTION OF THE PROJECT. MEASURES WILL INCLUDE THE USE OF SEEDING AND MULCHING, SEDIMENT INLET FILTERS, COMPACTION AND PAVING. THE OWNER OF THE SUBJECT PARCEL SHALL HAVE THE RESPONSIBILITY TO MAINTAIN THE PERMANENT SOIL EROSION PROTECTION MEASURES.
- 6) UTILITIES SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.
- 7) CONTRACTOR TO FIELD VERIFY ALL INVERTS.
- 8) ALL LIGHTING SHALL BE SHIELDED FROM ALL ADJACENT PROPERTIES.
- 9) THE PERMANENT PARCEL NUMBER FOR THE SITE IS 41-19-07-301-014. THE ADDRESS OF THE PROPERTY IS 4995 STARR STREET SE.
- 10) NO FENCES OR WALLS ARE PROPOSED.

SOIL MATTING LEGEND

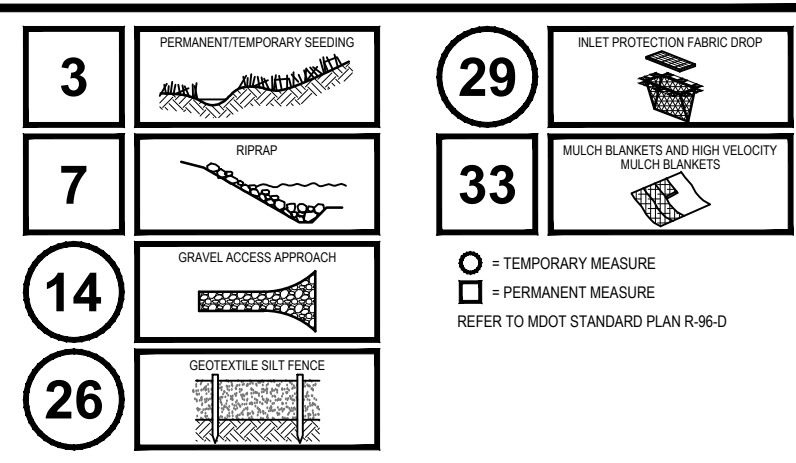
- PLACE: 508 S.Y. (TOTAL) EROSION CONTROL REVEGETATION MAT (NORTH AMERICAN GREEN SC-150 OR APPROVED EQUAL) OVER 4" TOPSOIL ACROSS BOTH SIDES OF BANK. OVERLAP ROLL ENDS MIN. 3' PLACE & STAKE MATTING PER MFG. RECOMMENDATIONS

SOIL EROSION CONTROL SCHEDULE

	2025											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PLACE SILT FENCE												
STRIP & STOCKPILE TOPSOIL												
CONSTRUCT CONNECTION TO STORM SEWER												
ROUGH GRADE SITE												
FINISH GRADE SITE												
PAVE SITE												
RESURF TOPSOIL/COMPACTION												
SEED DISTURBED AREAS												
SITE RESTORATION/CLEAN UP												

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- 1) CONTRACTOR SHALL POSSESS THE SOIL EROSION AND SEDIMENTATION CONTROL PERMIT PRIOR TO START OF ANY EARTH WORK.
- 2) CONTRACTOR SHALL MODIFY THIS SOIL EROSION AND SEDIMENTATION CONTROL PLAN TO SHOW THE ADDITIONAL CONTROL MEASURES INTENDED TO BE USED DURING CONSTRUCTION. SUBMIT MODIFICATIONS TO THE CONTROLLING AGENCY, THE OWNER, AND THE ENGINEER.
- 3) EROSION PROTECTION SHALL BE PROVIDED AT ALL STORM SEWER INLETS AND OUTLETS. ALL BARE EARTH SHALL BE STABILIZED WITH SEEDING.
- 4) REFER TO THE M.O.D.T. "SOIL EROSION AND SEDIMENTATION CONTROL MANUAL" (MARCH 2021) FOR ADDITIONAL INFORMATION.
- 5) THE ENTIRE STORM SEWER SYSTEM SHALL BE CLEANED AND FLUSHED FOLLOWING CONSTRUCTION AND PAID RECEIPT THEREOF PROVIDED TO THE ENGINEER AND COUNTY SESC AGENT PRIOR TO FINAL PAYMENT TO THE CONTRACTOR OR FINAL ACCEPTANCE OF THE CONSTRUCTION BY THE OWNER.
- 6) THE CONTRACTOR SHALL BE RESPONSIBLE TO INSPECT, TAKE CORRECTIVE ACTION AND MAINTAIN ALL TEMPORARY SESC MEASURES DAILY AND AFTER EACH RAIN EVENT UNTIL FINAL COMPLETION AND ACCEPTANCE OF THE PROJECT.

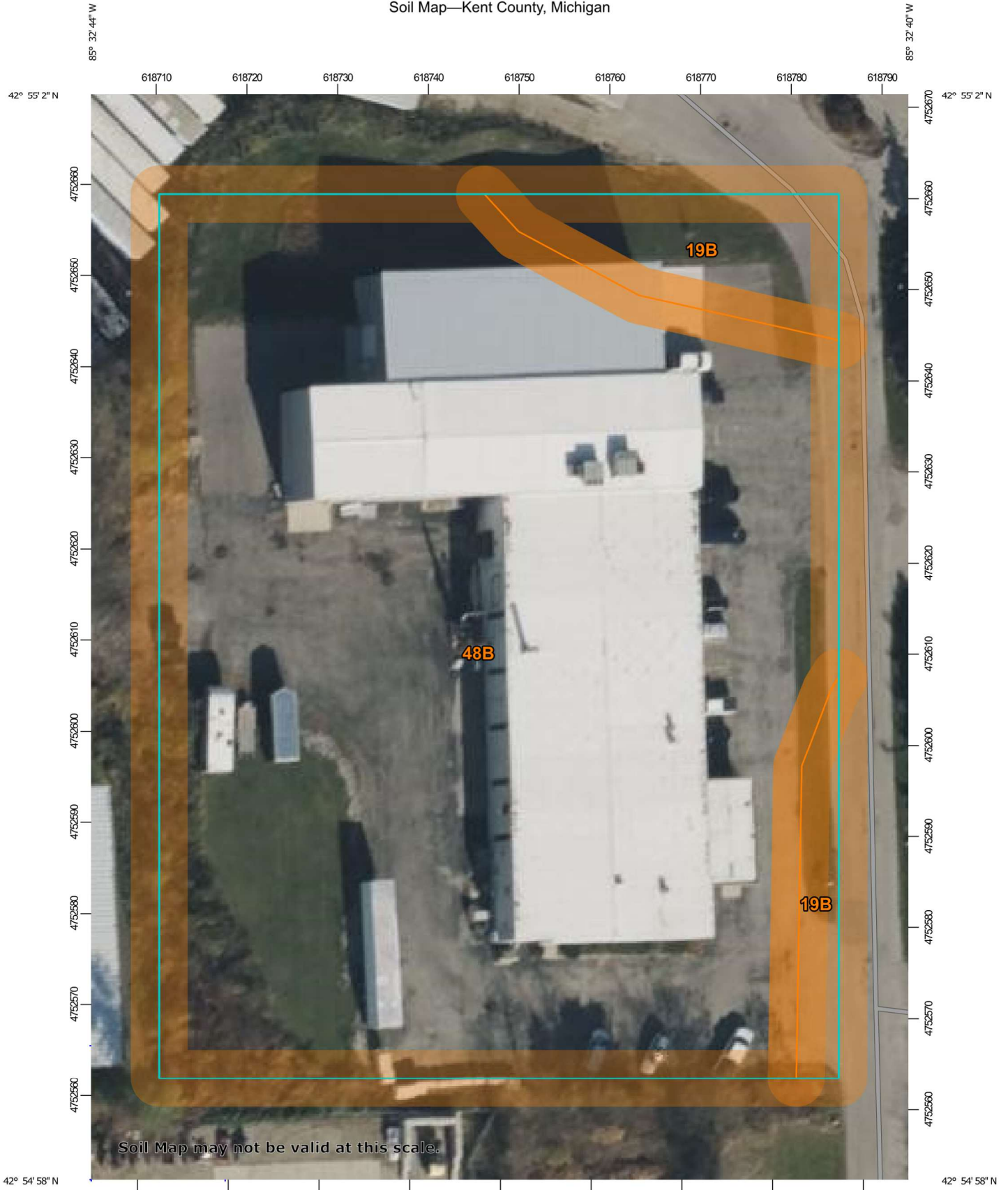


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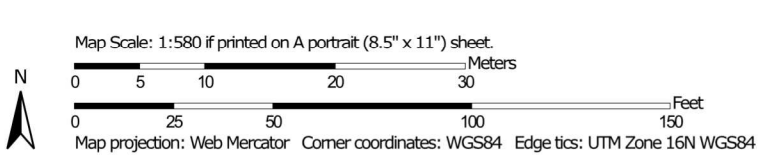
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Soil Map—Kent County, Michigan



Soil Map may not be valid at this scale.



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
19B	Blount loam, 2 to 6 percent slopes	0.1	8.0%
48B	Metea loamy sand, 2 to 6 percent slopes	1.7	92.0%
Totals for Area of Interest		1.8	100.0%



CASCADE CHARTER TOWNSHIP

5920 Tahoe Drive SE Grand Rapids, Michigan 49546-7140

Date September 16, 2025
To Andrea Hendrick
From Aric Thorne, PE
Subject Site Plan Review: LiveSpace, 4995 Starr St SE

I have reviewed the site plan for LiveSpace by Nederveld. The applicant is proposing the expansion of an existing asphalt pavement area. **The current site plan and basis of this review are dated August 28, 2025.**

Stormwater and Drainage

The proposed project is being reviewed under the 2022 Stormwater Ordinance and the criteria in the Stormwater Standards Manual revised March 2021.

An existing industrial building with asphalt parking lot and truck access is located on the 3.14-acre parcel. The project site is in Flood Control Zone 2, requiring detention for the 25-year storm with a maximum release rate of 0.13-cfs. There is an existing detention basin on the north side of the parcel that serves the site. The basin outlets to storm sewer on Starr Street which continues to the Martin and Beak drain maintained by the Kent County Drain Commissioner.

The applicant proposes asphalt paving a mostly grassy area (0.16-acres) on the southwest portion of the site. This includes site grading and the installation of curb and gutter along its boundary to capture storm runoff. The existing detention basin would be modified to add 1,838-cubic feet of volume, sufficient to treat the increased runoff volume. The detention basin, two catch basins, one with a water quality device, and approximately 160-feet of 12-inch diameter storm sewer comprise the proposed stormwater controls.

Flood Control

The applicant provides supporting calculations for the increased runoff and expanded detention basin design. The grading plan and proposed storm sewer system conveys storm runoff from the added impervious area to the detention basin. An emergency spillway is detailed on plan drawings.

Water Quality and Channel Protection

Water quality and channel protection are provided through the water quality device and expanded detention basin. Inlet and outlet both include a rip rap apron. The expanded basin design allows

for the increased runoff volume to accommodate for the 25-year storm event; for minimum 1-foot of freeboard above the calculated required storage volume; and includes the aforementioned emergency overflow route.

Drainage Plan

The applicant has submitted plans with existing topography; proposed grading for the detention basin; and drainage patterns for the proposed addition.

A maintenance agreement and a long-term maintenance plan are required before construction begins. The maintenance agreement and plan should include at a minimum the cleaning of pretreatment areas, the detention basin, and catch basin sumps, including sediment and debris removal from outlet structures; as well it should include the manufacturer instructions for maintenance of the water quality device.

Utilities and General Comments

No additional utility work is proposed. The Stormwater Standards Manual requires a setback for the detention basin of 30-feet from the building foundation. The existing detention basin currently does not conform. Its boundary as delineated by the top of berm at elevation 746 is 6- to 10-feet off the building footprint. As such, per the Manual there is also insufficient maintenance access (12-foot minimum width at the top of berm). The proposed modifications to the detention basin do not address these shortcomings, as doing so would require its relocation or complete redesign of the stormwater controls (e.g., via underground storage).

Soil Erosion and Sedimentation Control

The applicant indicates limits of disturbance and provides the following measures: erosion control matting and silt fence. Kent County Road Commission must review and approve plans and issue a soil erosion and sedimentation control permit before construction may begin.

Summary

The proposed stormwater management design meets the Township Stormwater Ordinance requirements for the site location with the exception of the detention basin proximity to the building foundation and for maintenance access. Given the site constraints and proposed functional improvement of storm water runoff on the site, I recommend approval from an engineering standpoint.

Let me know if you have any questions or concerns.

MINUTES

Cascade Charter Township
Planning Commission
Monday, November 9, 2020
7:00 P.M.
Virtual Meeting

ARTICLE 1. Chairman Rissi called the meeting to order at 7:00 P.M.
Members Present: Johnson, Katsma, Krieter, Slater, Noordyke, Rissi, Moxley, Deering, and Rapin
Members Absent: None
Others Present: Community Development Director, Steve Peterson, and Planner Brian Hilbrands.

ARTICLE 2. Pledge of Allegiance.

ARTICLE 3. Approve the current Agenda.

Motion was made by Member Krieter to approve the Agenda. Supported by Member Deering. Motion carried 9 to 0.

ARTICLE 4. Approve the Minutes of the September 21, 2020 meeting.

Motion was made by Member Katsma to approve the minutes of September 21, 2020 as written. Supported by Member Rapin. Motion carried 9 to 0.

ARTICLE 5. Acknowledge visitors and those wishing to speak to non-agenda items.

No visitors came forward.

ARTICLE 6. Case #20-3612/LiveSpace

Property Address: 4995 Starr St SE

Requested Action: Site Plan Review for a 4,000 sq ft addition.

Chairman Rissi stated that he wished to disclose that the company he co-owns does snow plowing at this location. He does not believe this to be a conflict in any way.

Planner Brian Hilbrands stated that the applicant is requesting to build a 4,000 sq ft addition to the existing 17,000 sq ft building. Mr. Hilbrands stated that anything over a 5% increase of the building is required to come before the Planning Commission. This will include an expansion of the existing retention basin in order to accommodate the slight increase, and will require a temporary grading easement for the property to the north as there is a small amount of grading that will go over the property line. Mr. Hilbrands states that this plan has been reviewed by both the Fire Department and Township Engineer.

Mr. Hilbrands states that Staff is recommending approval of the site plan for the 4,000 sq ft addition with the following conditions:

1. The applicant provide approval from the property owner to the north for grading on that property.
2. The applicant complies with the Township Engineers letter dated November 3, 2020 and all necessary permits are obtained before construction begins.
3. The stormwater maintenance agreement is recorded.

Member Moxley asked why the temporary grading easement is needed for the north side of the property. Mr. Hilbrands stated that it is needed in order to accommodate the expansion of the retention basin for silt fencing that may cross the property line.

Member Rapin asked if that easement has been requested. Mr. Hilbrands stated that he has not seen it yet, and that the applicant will need to turn it in before a building permit is approved.

Chairman Rissi invited the applicant to comment.

Mr. Alex Miedema (from Moore & Bruggink, Engineers for this project) stated that the temporary grading easement is to help smooth out the parking lot, and is just a couple of feet over the property line.

Member Slater asked what the business occupying the building is, Mr. Miedema stated that LiveSpace is audio equipment.

Member Moxley asked why the building projects into the retention basin on the NW corner, Mr. Miedema stated that is needed for the 4,000 sq ft addition as the NE corner of the building is almost touching the setback line already. Mr. Miedema stated that the retention basin is being dug out, and will have a greater volume than it had prior to the addition.

Motion was made by Member Johnson to approve the site plan review with the three conditions listed in the Staff report. Supported by Member Krieter. Motion carried 9 to 0.

ARTICLE 7. Any other business

Discussion was held about the continuance of virtual meetings.

ARTICLE 8. Adjournment

Motion was made by Member Johnson to adjourn. Supported by Member Slater. Motion carried 9 to 0. The meeting was adjourned at 7:13 p.m.

Respectfully submitted,
Brett Katsma, Secretary

CASCADE CHARTER TOWNSHIP

PLANNING COMMISSION

**MONDAY, September 22, 2025
6:00 PM**

ARTICLE 9.

Case #24-3842

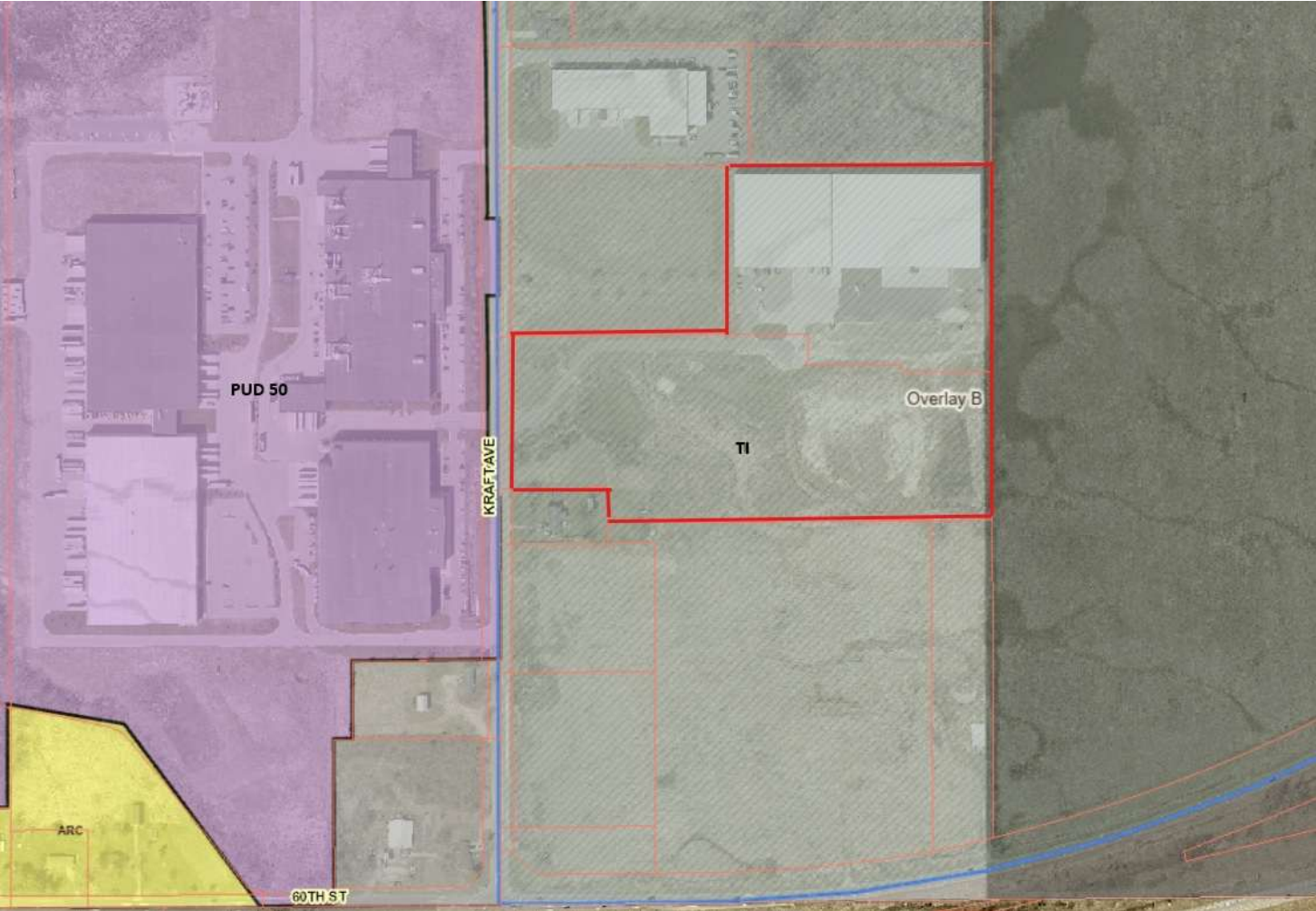
Applicant: Trane Technologies

Property Address: 5824 Kraft Ave. SE

Parcel Number: 41-19-32-300-047

Requested Action: Amendment to previously approved Site
Plan to combine two (2) industrial buildings
and the associate parcels

Parcel & Zoning Map





CASCADE CHARTER TOWNSHIP

5920 Tahoe Drive SE • Grand Rapids, MI 49546

PLANNING DEPARTMENT STAFF REPORT

STAFF REPORT: Case # 24-3842
REPORT DATE: September 17, 2025
PREPARED FOR: Cascade Charter Township Planning Commission
MEETING DATE: September 22, 2025
PREPARED BY: Andrea Hendrick, Community Planning & Development Director

APPLICATION SUMMARY:

APPLICANT: Applicant: Scott Geerling, Kraft Avenue Partners LLC
Property Owner: Kraft Avenue Partners LLC

ADDRESS: 5824 & 5784 Kraft Ave. SE

PARCEL NUMBER: 41-19-32-300-047 & 41-19-32-300-047

REQUESTED ACTION: Amendment to previously approved Site Plan to combine two (2) industrial buildings and the associate parcels.

REQUIREMENTS: Section 13a – Transitional Industrial Zone District
Section 14 – Overlay B
Section 18 – Zoning District Height, Area & Placement Standards
Section 19 – Access, Parking & Loading
Section 20 – Landscaping & Greenbelt Provisions

EXISTING ZONING: TI – Transitional Industrial District. Overlay B

GENERAL LOCATION: The subject properties are located on the east side of Kraft Avenue between 60th Street and Lacks Industrial Drive. Gerald R Ford Airport borders the property to the east.

PARCEL SIZE: 22.8 acres

EXISTING LAND USE: Industrial manufacturing

ADJACENT PROPERTIES: N: TI – Transitional Industrial, Overlay B
Warehouse/Manufacturing
W: PUD-50 – Warehouse/Manufacturing
S: TI – Transitional Industrial, Overlay B – Farmland
E: I – Industrial, Overlay B – Vacant Land

PROPERTY HISTORY

2003-2014 – Pole barn material storage

2014-2018 – Barn demolished; site cleared

2018 – Development of 5784 Kraft Ave (Also owned by Scott Geerling of Kraft Avenue Properties LLC).

2022 – Addition to 5784 Kraft Ave. SE

2024 – Site Plan approval for 5824 Kraft Ave. SE / Development of the southern building.

PROPOSED USE

The applicant is requesting an amendment to the previously approved Site Plan Review to add a tunnel that would make 5824 and 5784 Kraft Ave. connected and considered one building from a zoning perspective. Prior to bringing this to the Planning Commission, the Building Department, Fire Inspector, and Township Engineer had a meeting to ensure that this design can meet the regulations of all departments. All departments concluded that the design was possible.

The proposed changes from the original Site Plan Review include the following:

- The addition of a connector Tunnel
- Additional parking added to the south border of the development
- Proposed 2024 parking lot changes at 5784 Kraft Ave. SE are removed
- The lot combination of 5784 Kraft Ave. SE & 5824 Kraft Ave. SE
- Adjustment of the lot line between 5824 Kraft Ave. SE and 5737 60th St. SE

SECTION 19

Table 19-B: Minimum Parking Requirements

The proposed building is part of a phased development plan where Trane is signing a long-term lease with the property owner of both 5824 & 5784 Kraft Ave. SE Therefore, the combination of the two buildings and properties simplifies the project. Stormwater maintenance agreements, and access easements are in place between the properties, however with the new development, these documents should be updated to reflect the changes in the site.

Parking calculations were previously calculated using the square footage of both 5824 & 5784 Kraft Ave. SE The originally approved plan included 388 parking spaces, which was compliant with the required parking spaces for the site. The addition of the parking spaces on the south side of the site brings the total number of proposed parking spaces to 429.

Use	Parking Requirement	Total square footage allocated to use	Spaces Required	5824 Kraft Site	5784 Kraft Site
Office	3 spaces / 1,000 square feet	10,383 sf 4,040 sf	43	31	12
Other Industrial	1 space / Employee	330 Employees	330		
		Total Required	373		
Entire Site		Total Provided	429		

The proposed parking for the site meets the requirements of Chapter 19.

SECTION 20

Table 20-A: Adjacent Land Use Buffer Requirements

The proposed industrial is surrounded by Transitional Industrial, Industrial zoned properties, or PUDs that have the general underlying Zone District of Industrial. Therefore, the development would require the Type C Bufferyard standards. The chart below indicates the required plant material for the south buffer as required by the ordinance.

Bufferyard C	South
Distance	1306
Canopy	26
Understory	52
Shrub	78
Conifer	0

Landscaping Plan: Provided Plant Material

The applicant has provided a landscaping plan with adequate landscaping on the east and south side. The applicant received a departure from the buffer requirements of the north portion of the property because the proposed development is part of an integrated industrial campus type development during the original site approval. Considering that the new proposal combines the lots, the site is more compliant. Only the south property has changed in the amended application, therefore this review will only address the changed elements of the site.

Bufferyard C	South
Canopy	30
Understory	53
Shrub	89
Conifer	0

The proposed amendments to the bufferyard slightly increase the total proposed number of plants. The south bufferyard requirements are met.

ENGINEERING REVIEW COMMENTS

The applicant has provided all required documents to the Township Engineer. They have been reviewed and the Township Engineer recommends approval. The Engineering memo is attached for your review.

FIRE DEPARTMENT REVIEW COMMENTS

The Cascade Township Fire Department has found the submitted site plan meets all requirements.

CONSIDERATIONS

This application is deemed complete by Planning Staff with all elements of concern addressed by the applicant upon request. Planning Staff finds this application meets all requirements of the Zoning Ordinance. The applicant has submitted a land combination application that will be reviewed and approved upon Planning Commission approval. Below is a draft motion. Staff recommends approval.

RECOMMENDATION

Staff recommends that the amendment to Case #24-3842, the Site Plan approval for 5824 Kraft Avenue be APPROVED with the following conditions:

1. That the use shall operate according to this application and per the testimony of the applicant.
2. That the applicant modifies all site plan sheets to indicate the final location of the tunnel.
3. The Stormwater Maintenance Agreement be modified in accordance with the changes to the Plan.
4. The applicant finalizes the combination of the lots and records it with Kent County before the construction of the tunnel.

ATTACHMENTS

1. Application
2. Applicant Description of Plan Changes
3. 2025-08-29 Revised Site Plan
4. 2025-07-24 Township Engineer Review
5. 2024-07-01 [Planning Commission](#) Minutes



CASCADE CHARTER TOWNSHIP

5920 Tahoe Dr. SE, Grand Rapids, Michigan 49546-7140

PLANNING & ZONING APPLICATION

APPLICANT: Name: Kraft Avenue Properties LLC, Attn: Scott Geerlings

Address: 16 S Elm Street

City & Zip Code: Zeeland, Michigan 49464

Telephone: 616-772-6070

Email Address: sgeerlings@midwestbuilt.com

OWNER: * (If different from Applicant)

Name: same as applicant

Address: _____

City & Zip Code: _____

Telephone: _____

Email Address: _____

NATURE OF THE REQUEST: (Please check the appropriate box or boxes)			
<input type="checkbox"/>	Administrative Appeal	<input checked="" type="checkbox"/>	Administrative Site Plan Review
<input type="checkbox"/>	Deferred Parking	<input type="checkbox"/>	P.U.D. – Rezoning *
<input type="checkbox"/>	P.U.D. – Site Condominium *	<input type="checkbox"/>	Rezoning
<input type="checkbox"/>	Site Plan Review *	<input type="checkbox"/>	Sign Variance Subdivision
<input type="checkbox"/>	Special Use Permit	<input type="checkbox"/>	Plat Review *
<input type="checkbox"/>	Zoning Variance	<input type="checkbox"/>	Other: _____ *

*** Requires an initial submission of 5 copies of the completed site plan**

BRIEFLY DESCRIBE YOUR REQUEST:**

Site plan review for additional parking and lot line adjustment

(**Use Attachments if Necessary)

-SEE OTHER SIDE-

LEGAL DESCRIPTION OF PROPERTY:**

see attached

(**Use Attachments if Necessary)

PERMANENT PARCEL (TAX) NUMBER: 41-19 32-300-047

ADDRESS OF PROPERTY: 5824 Kraft Avenue SE

PRESENT USE OF THE PROPERTY: Commercial Building

**NAME(S) & ADDRESS(ES) OF ALL OTHER PERSONS, CORPORATIONS, OR FIRMS HAVING A LEGAL OR
EQUITABLE INTEREST IN THE PROPERTY:**

Name(s)

Address(es)

SIGNATURES

I (we) the undersigned certify that the information contained on this application form and the required documents attached hereto are to the best of my (our) knowledge true and accurate. I (we) also agree to reimburse the Cascade Charter Township for all costs, including consultant costs, to review this request in a timely manner. I (we) understand that these costs may also include administrative reviews which may occur after the Township has taken action on my (our) request.

I (we) the undersigned also acknowledge that the proposed project does not violate any known property restrictions (i.e. plat restrictions, deed restrictions, covenants, etc.)

Scott Geerlings
Owner – Print or Type Name
(*If different from Applicant)

Scott Geerlings
Applicant – Print or Type Name

*  7-1-25
Owner's Signature & Date
(*If different from Applicant)

 7-1-25
Applicant's Signature & Date

PLEASE ATTACH ALL REQUIRED DOCUMENTS NOTED IN THE PROCESS REVIEW SHEET – THANK YOU

Rev. 7/27/21



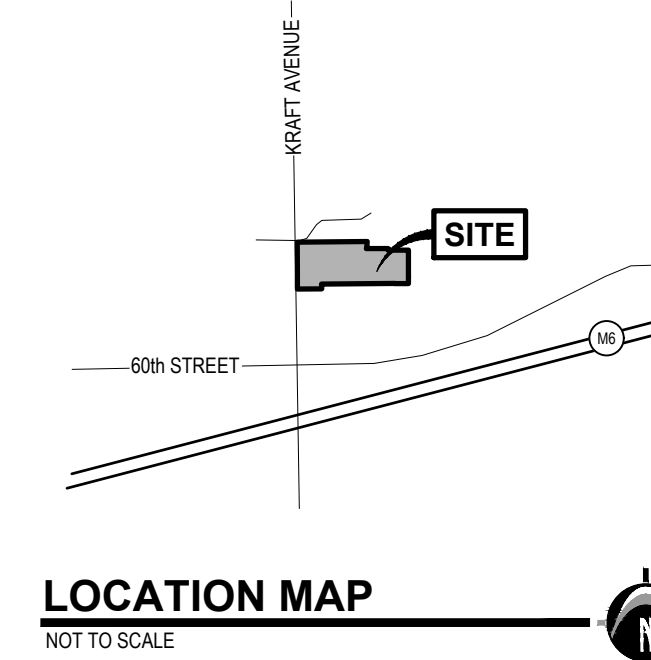
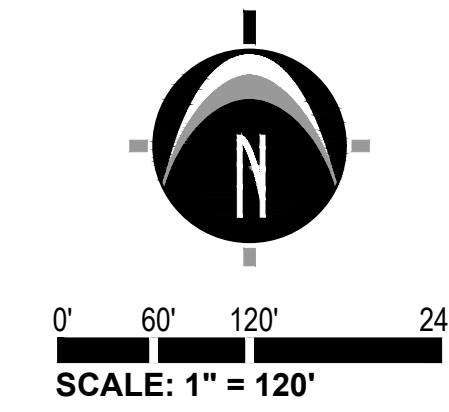
Description of Plan Changes

The plan has been revised as follows to provide additional parking and space for several outside storage tank pads that are needed for Trane's operation:

- The additional parking that was originally shown on the National Tire Wholesale portion of the site is removed. Changes to their pavement and parking are no longer proposed.
- The parking that was originally shown along the south truck service drive was removed.
- An above-ground building connector "tunnel" is no proposed to move product between the two buildings. This is shown on the revised site plan on the far west side of the property.
- Minor pavement/parking revisions to accommodate the new building connector.
- A test chamber pad was added between the outdoor storage area and the building. This concrete pad will be for storage of tanks that Trane uses for their product testing that occurs inside the building.
- A small (35' x 32') addition was added to the west side of the building.
- An outside LIN tank pad was added just to the west of the small building addition. This concrete pad will be for storage of tanks that Trane uses for their product testing.
- A shared driveway to the Lacks property to the south was added.
- Additional pavement/parking was added on the south side of the property.
- A new shared stormwater detention area to the south on the Lacks property was added.
- Either a property line adjustment or easement will be completed between the applicant and Lacks to accommodate the added parking, shared access drive and shared stormwater detention area.

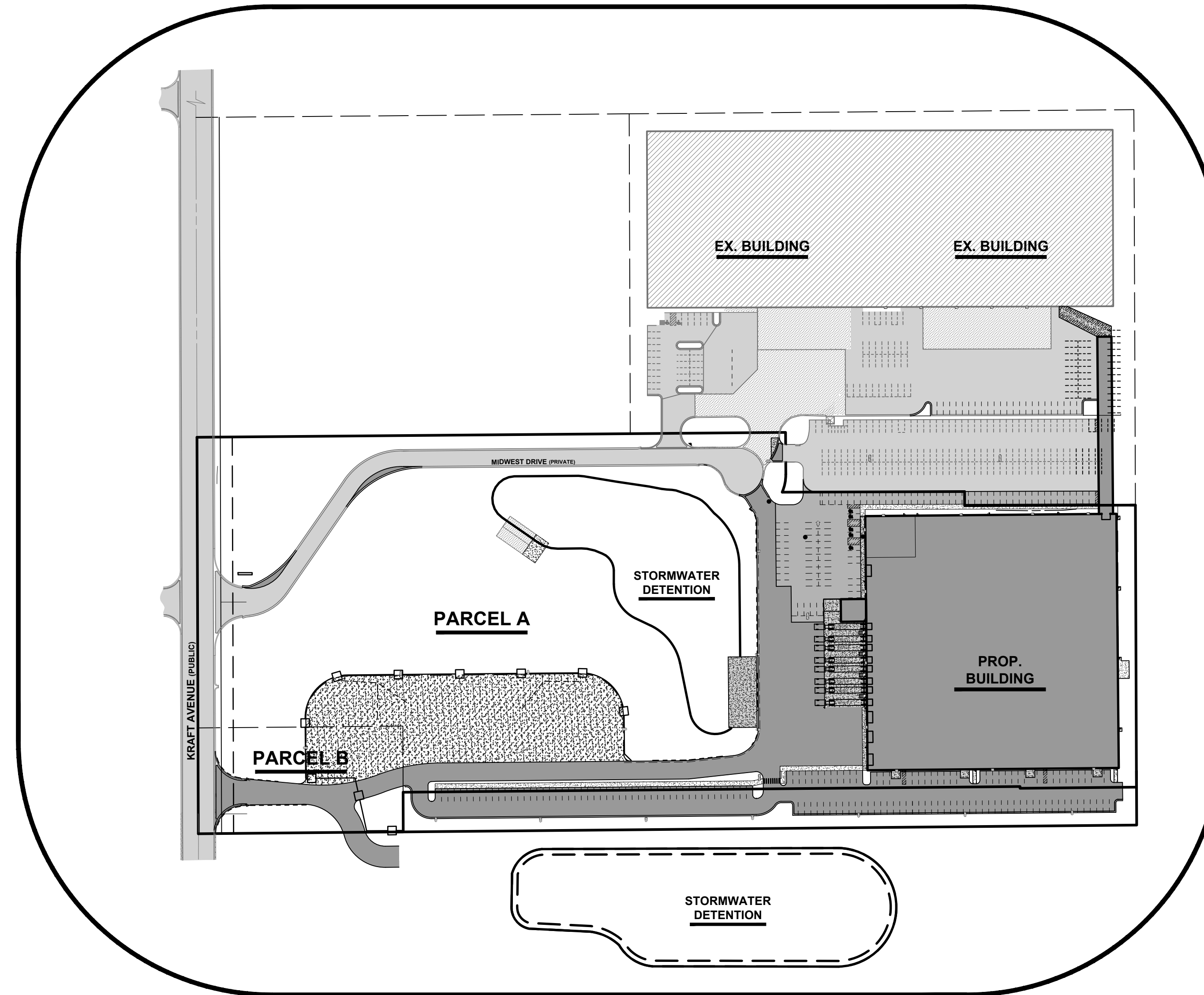
TRANE

CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN



NEDERVELD
 www.nederveld.com
 800.222.1868
GRAND RAPIDS
 217 Grandville Ave., Suite 302
 Grand Rapids, MI 49503
 Phone: 616.575.5190
ANN ARBOR
CHICAGO
COLUMBUS
HOLLAND
INDIANAPOLIS

SITE PLAN



SHEET INDEX

COVER SHEET	C-100
EXISTING SITE CONDITIONS PLAN	C-201
DEMOLITION PLAN	C-203
SITE LAYOUT PLAN	C-205
S.E.S.C. & GRADING PLAN	C-300
UTILITY PLAN	C-400
DETAILS AND SPECIFICATIONS	C-500
DETAILS AND SPECIFICATIONS	C-501
LANDSCAPE PLAN	L-100
PHOTOMETRIC PLAN	P-1
INTERSECTION DETAILS	C-700

PREPARED FOR:

Midwest Construction Group Inc
 Scott Geerlings
 8516 Homestead Ave., Suite 102
 Zeeland, MI 49464
 Phone: 616.772.6070

REVISIONS:

Title: Township Site Plan Submittal	Drawn: OOE/JVR	Checked: RJB	Date: 2024.05.17
Title: Per FAA Submittal	Drawn: OO	Checked: RJB	Date: 2024.05.31
Title: Revised per Township Comments	Drawn: OOMH	Checked: RJB	Date: 2024.06.11
Title: Internal Technical Review	Drawn: OOMH	Checked: RJB	Date: 2024.06.19
Title: Revised Water and Fire Service Lines	Drawn: OO	Checked: RJB	Date: 2024.08.06
Title: Underdrain & Pavement Section Revisions	Drawn: OO	Checked: RJB	Date: 2024.08.13
Title: Added Forebay Detail	Drawn: OOMH	Checked: RJB	Date: 2024.09.04
Title: Forebay Dimension Corrected	Drawn: OOMH	Checked: RJB	Date: 2024.09.10
Title: Building Permit Submittal	Drawn: OOMH	Checked: RJB	Date: 2024.10.02
Title: Construction Plan Revision	Drawn: OOMH	Checked: RJB	Date: 2024.10.09
Title: Construction Plan Revision	Drawn: OOMH	Checked: RJB	Date: 2024.10.18
Title: Construction Plan Revision	Drawn: OOMH	Checked: RJB	Date: 2024.10.28
Title: Construction Plan Revision	Drawn: OOMH	Checked: RJB	Date: 2024.10.31
Title: Township Site Plan Amendment Submittal	Drawn: OOMH	Checked: RJB	Date: 2025.07.03

TRANE

Cover Sheet

5824 Kraft Avenue SE
 PART OF THE SW 1/4 OF SECTION 32, T6N, R10W,
 CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

LEGAL DESCRIPTION - PARCEL A

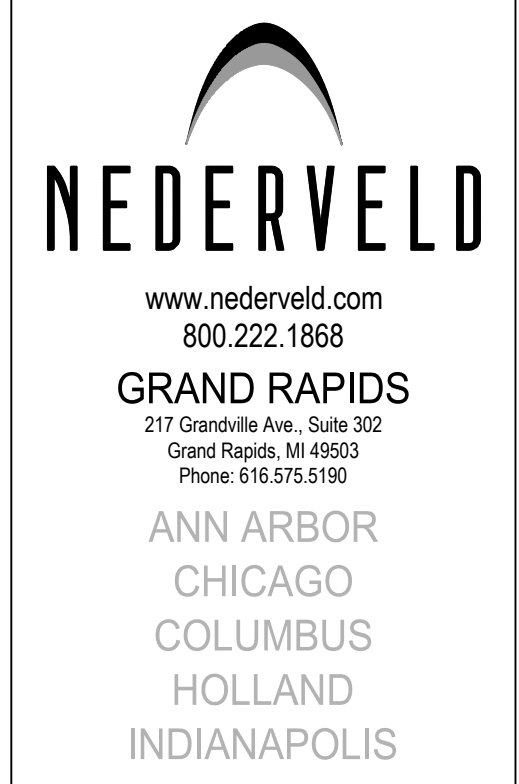
PART OF THE SOUTHWEST 1/4, SECTION 32, TOWN 6 NORTH, RANGE 10 WEST, CASCADE TOWNSHIP, KENT COUNTY MICHIGAN, DESCRIBED AS: COMMENCING AT THE WEST 1/4 CORNER OF SAID SECTION 32; THENCE S00°11'29"E 1115.73 FEET ALONG THE WEST LINE OF SAID SECTION 32 TO THE POINT OF BEGINNING; THENCE N89°31'35"E 834.00 FEET ALONG THE SOUTH LINE OF THE NORTH 4/3 FEET OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SAID SOUTHWEST 1/4; THENCE S00°28'25"E 59.50 FEET; THENCE SOUTHWESTERLY 25.83 FEET ALONG A 60.00 FOOT RADIUS CURVE TO THE RIGHT, SAID CURVE HAVING A CENTRAL ANGLE OF 24°40'13"; AND A CHORD BEARING S11°23'17"W 25.64 FEET; THENCE N89°48'31"E 258.31 FEET; THENCE S00°13'16"E 20.00 FEET; THENCE N89°48'31"E 242.00 FEET; THENCE S00°13'16"E 399.55 FEET ALONG THE EAST LINE OF THE WEST 1/2 OF SAID SOUTHWEST 1/4; THENCE S89°28'13"W 165.00 FEET; THENCE N00°13'16"W 2.46 FEET ALONG THE WEST LINE OF THE EAST 1/65 FEET OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION; THENCE S89°28'13"W 874.29 FEET; THENCE N00°11'29"W 93.73 FEET ALONG THE EAST LINE OF THE WEST 290.40 FEET OF SAID SECTION; THENCE S89°28'13"W 290.40 FEET ALONG THE NORTH LINE OF THE SOUTH 150 FEET OF THE NORTH 352 FEET OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION; THENCE N00°11'29"W 411.72 FEET ALONG THE WEST LINE OF SAID SECTION TO THE POINT OF BEGINNING. CONTAINS 13.70 ACRES. SUBJECT TO HIGHWAY RIGHT-OF-WAY OVER THE WEST 33 FEET THEREOF.

LEGAL DESCRIPTION - PARCEL B

THE SOUTH 150.0 FEET OF THE NORTH 352.0 FEET OF THE WEST 290.4 FEET OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 32, TOWNSHIP 6 NORTH, RANGE 10 WEST, CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN
 CONTAINS 1.0 ACRES PLUS OR MINUS EXCLUDING ROAD RIGHT-OF-WAY



UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.
 NOTE: EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "PLANS" WERE OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL UTILITIES AND SERVICE LINES PRIOR TO NEW CONNECTIONS.

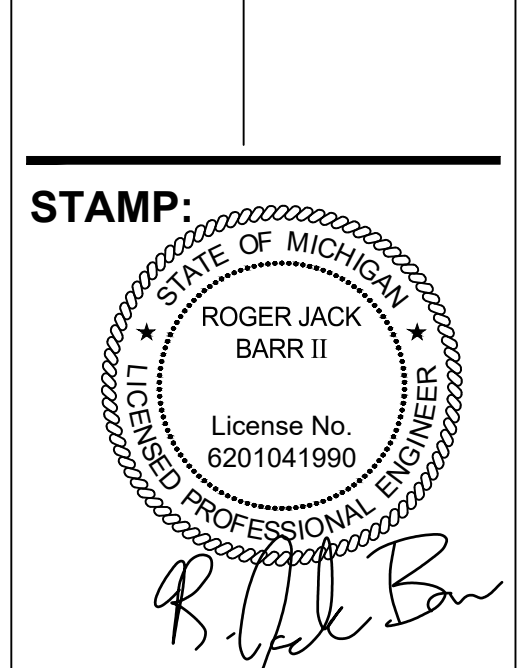


PREPARED FOR:
Midwest Construction Group Inc
Scott Geerings
8516 Homestead Ave., Suite 102
Zeeland, MI 49464
Phone: 616.772.6070

REVISIONS:

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TRANE
Existing Site Conditions Plan
5824 Kraft Avenue SE
PART OF THE SW 1/4 OF SECTION 32, T6N, R10W,
CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

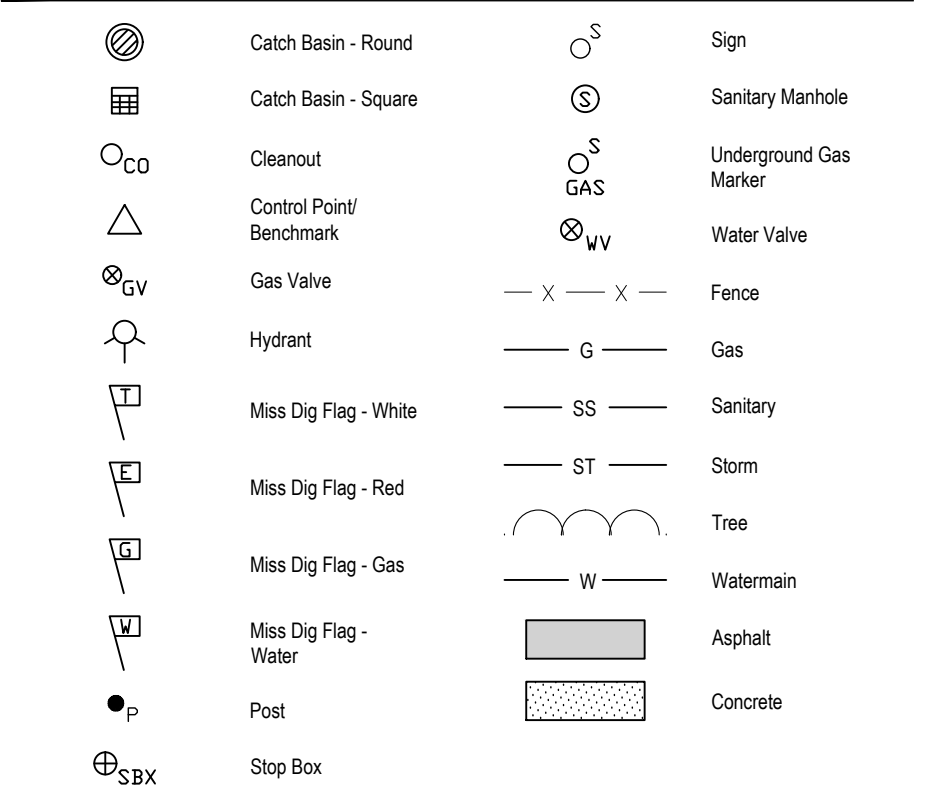


PROJECT NO:
23401001
SHEET NO:
C-201

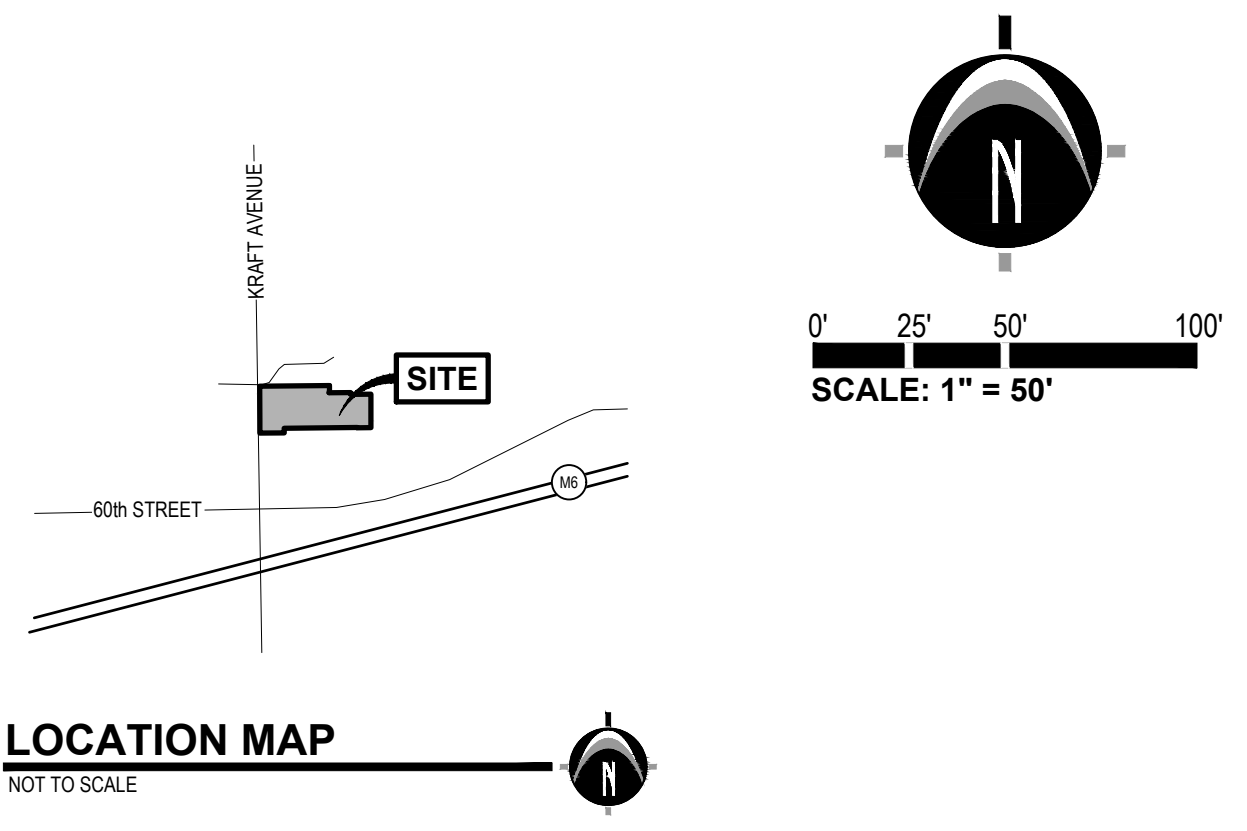
STRUCTURE INFORMATION

#	Structure Type	DIA.	Rim Elevation	Generic Notes	Size/Type/Direction	Invert Elevation
3002	Sanitary Sewer Manhole	4	794.51	-	12" PVC (W)	783.35
3012	Catch Basin	-	794.22	-	12" PVC (E)	783.50
3114	Catch Basin	-	791.45	No Access; Silt Sack "FULL"	24" CPP (NE)	786.41
3164	Catch Basin	-	792.44	-	24" CPP (W)	786.53
3174	Catch Basin	-	792.33	-	15" CPP (S)	786.39
3192	Catch Basin	-	791.96	-	24" CONC (W)	787.91
3224	Catch Basin	-	791.05	-	24" CONC (E)	787.91
4303	Sanitary Sewer Manhole	-	790.19	-	24" CONC (W)	788.01
4304	Sanitary Sewer Manhole	-	790.83	-	24" CONC (W)	788.05
					15" CONC (E)	788.20
					15" CONC (N)	788.15
					15" CONC (W)	788.73
					12" CPP (N)	788.83
					24" CPP (NNE)	786.60
					24" CPP (SW)	786.52
					12" PVC (E)	778.32
					12" PVC (S)	777.61
					12" PVC (W)	779.36

LEGEND



LOCATION MAP
NOT TO SCALE



LEGAL DESCRIPTION - PARCEL A

PART OF THE SOUTHWEST 1/4, SECTION 32, TOWN 6 NORTH, RANGE 10 WEST, CASCADE TOWNSHIP, KENT COUNTY MICHIGAN, DESCRIBED AS: COMMENCING AT THE WEST 1/4 CORNER OF SAID SECTION 32; THENCE S00°12'29"E 115.73 FEET ALONG THE WEST LINE OF SAID SECTION 32 TO THE POINT OF BEGINNING; THENCE N89°31'35"E 834.00 FEET ALONG THE SOUTH LINE OF THE NORTH 463 FEET OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 14; THENCE S00°28'25"E 59.50 FEET; THENCE SOUTHWESTERLY 25.93 FEET ALONG A 60.00 FOOT RADIUS CURVE TO THE RIGHT, SAID CURVE HAVING A CENTRAL ANGLE OF 24°40'15"; AND A CHORD BEARING S11°23'17"W 25.64 FEET; THENCE N89°48'31"E 258.31 FEET; THENCE S00°13'16"E 20.00 FEET; THENCE N89°48'31"E 242.00 FEET; THENCE S00°13'16"E 399.55 FEET ALONG THE EAST LINE OF THE WEST 1/2 OF SAID SECTION 14; THENCE S89°28'13"W 165.00 FEET; THENCE N00°13'16"W 2.46 FEET ALONG THE WEST LINE OF THE EAST 165 FEET OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION; THENCE S89°28'13"W 874.29 FEET; THENCE N00°12'29"W 93.73 FEET ALONG THE EAST LINE OF THE WEST 290.40 FEET OF SAID SECTION; THENCE S89°28'13"W 290.40 FEET ALONG THE NORTH LINE OF THE SOUTH 150 FEET OF THE NORTH 352 FEET OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION; THENCE N00°12'29"W 411.72 FEET ALONG THE WEST LINE OF SAID SECTION TO THE POINT OF BEGINNING. SUBJECT TO HIGHWAY RIGHT-OF-WAY OVER THE WEST 33 FEET THEREOF. CONTAINS ±13.70 ACRES (GROSS), ±13.39 ACRES (NET EXCLUDING R.O.W.)

LEGAL DESCRIPTION - PARCEL B

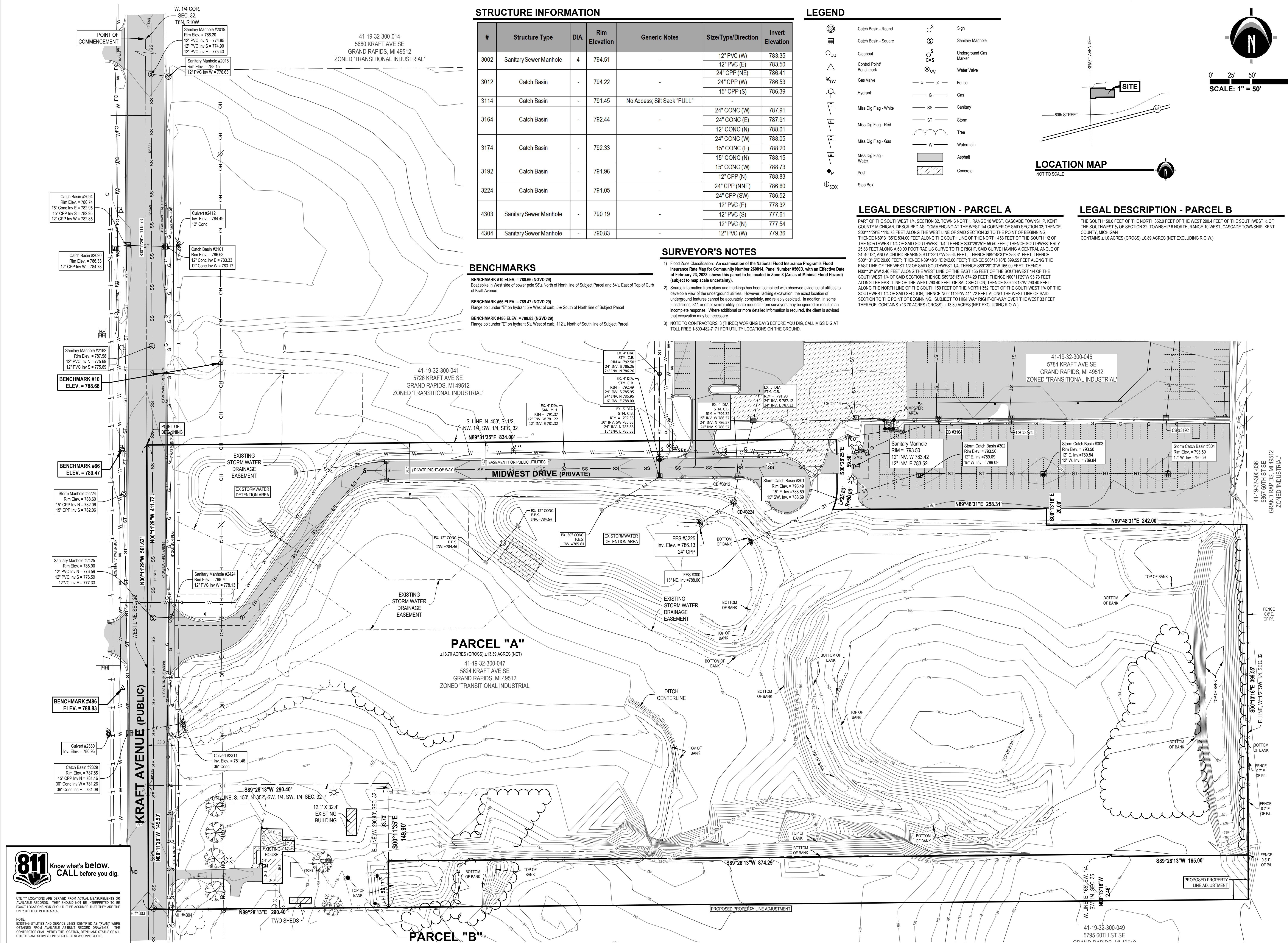
THE SOUTH 150.0 FEET OF THE NORTH 352.0 FEET OF THE WEST 290.4 FEET OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 32, TOWNSHIP 6 NORTH, RANGE 10 WEST, CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN CONTAINS ±1.0 ACRES (GROSS) ±0.89 ACRES (NET EXCLUDING R.O.W.)

SURVEYOR'S NOTES

- Flood Zone Classification: An examination of the National Flood Insurance Program's Flood Insurance Rate Map for Community Number 26814, Parcel Number 05600, with an Effective Date of February 23, 2023, shows this parcel to be located in Zone X (Areas of Minimal Flood Hazard) (subject to map scale uncertainty).
- Source information from plans and markings has been combined with observed evidence of utilities to develop a map of the underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be required or result in an incomplete response. Where additional or more detailed information is ignored, the client is advised that excavation may be necessary.
- NOTE TO CONTRACTORS: 3 (THREE) WORKING DAYS BEFORE YOU DIG, CALL MISS DIG AT TOLL FREE 1-800-482-7171 FOR UTILITY LOCATIONS ON THE GROUND.

BENCHMARKS

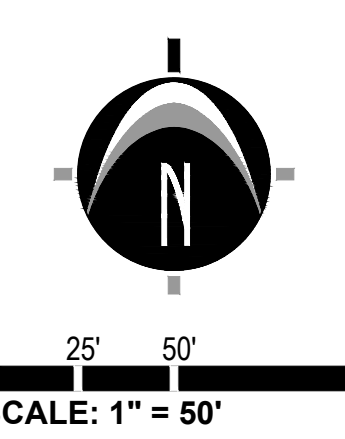
- BENCHMARK #10 ELEV. = 788.66 (NGVD 29)**
Bolt spike in West side of power pole 95' North of North line of Subject Parcel and 64' ± East of Top of Curb of Kraft Avenue
- BENCHMARK #66 ELEV. = 788.47 (NGVD 29)**
Flange bolt under "E" on hydrant 5' ± West of curb, 5' ± South of North line of Subject Parcel
- BENCHMARK #486 ELEV. = 788.83 (NGVD 29)**
Flange bolt under "E" on hydrant 5' ± West of curb, 112' ± North of South line of Subject Parcel



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 INDIANAPOLIS

PREPARED FOR:
 Midwest Construction Group Inc
 Scott Geertlings

8516 Homestead Ave., Suite 102
 Zeeland, MI 49464
 Phone: 616.772.6070

REVISIONS:

Title: Township Site Plan Submittal	Checked: RJB	Date: 2024.05.17
Drawn: OOE/AJR	Checked: RJB	Date: 2024.05.17
Title: Per FAA Submittal	Checked: RJB	Date: 2024.05.31
Drawn: OO	Checked: RJB	Date: 2024.05.31
Title: Revised per Township Comments	Checked: RJB	Date: 2024.06.11
Drawn: OO/MH	Checked: RJB	Date: 2024.06.11
Title: Internal Technical Review	Checked: RJB	Date: 2024.06.19
Drawn: OO/MH	Checked: RJB	Date: 2024.06.19
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Drawn: OO	Checked: RJB	Date: 2024.08.06
Title: Underdrain & Pavement Section Revisions	Checked: RJB	Date: 2024.08.13
Drawn: OO	Checked: RJB	Date: 2024.08.13
Title: Added Forebay Detail	Checked: RJB	Date: 2024.09.04
Drawn: OO/MH	Checked: RJB	Date: 2024.09.04
Title: Forebay Dimension Corrected	Checked: RJB	Date: 2024.09.10
Drawn: OO/MH	Checked: RJB	Date: 2024.09.10
Title: Building Permit Submittal	Checked: RJB	Date: 2024.10.02
Drawn: OO/MH	Checked: RJB	Date: 2024.10.02
Title: Construction Plan Revision	Checked: RJB	Date: 2024.10.09
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Title: Construction Plan Revision	Checked: RJB	Date: 2024.10.18
Drawn: OO/MH	Checked: RJB	Date: 2024.10.18
Title: Construction Plan Revision	Checked: RJB	Date: 2024.10.28
Drawn: OO/MH	Checked: RJB	Date: 2024.10.28
Title: Construction Plan Revision	Checked: RJB	Date: 2024.10.31
Drawn: OO/MH	Checked: RJB	Date: 2024.10.31
Title: Township Site Plan Amendment Submittal	Checked: RJB	Date: 2025.07.03
Drawn: OO/MH	Checked: RJB	Date: 2025.07.03

TRANE

Demolition Plan

5824 Kraft Avenue SE
 PART OF THE SW 1/4 OF SECTION 32, T6N, R10W,
 CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

STAMP:

STATE OF MICHIGAN
 ROGER JACK BARR II
 License No. 6201041990
 PROFESSIONAL ENGINEER

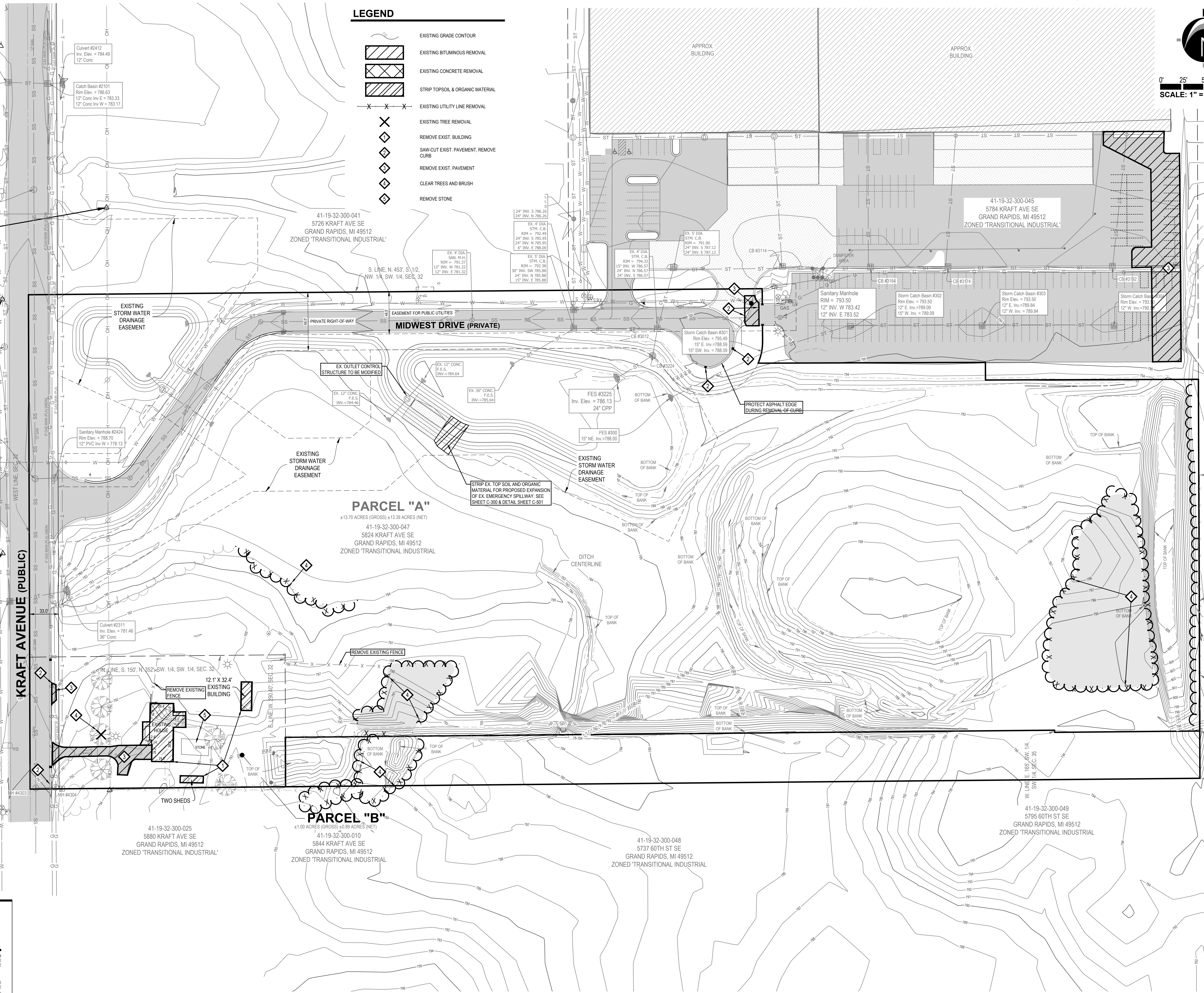
R. Jack Barr

PROJECT NO:
23401001

SHEET NO:
C-203

LEGEND

- EXISTING GRADE CONTOUR
- EXISTING BITUMINOUS REMOVAL
- EXISTING CONCRETE REMOVAL
- STRIP TOPSOIL & ORGANIC MATERIAL
- EXISTING UTILITY LINE REMOVAL
- EXISTING TREE REMOVAL
- REMOVE EXIST. BUILDING
- SAW-CUT EXIST. PAVEMENT, REMOVE CURB
- REMOVE EXIST. PAVEMENT
- CLEAR TREES AND BRUSH
- REMOVE STONE



Catch Basin #2094
 Rim Elev. = 786.74
 15" Conc Inv E = 782.95
 15" CPP Inv S = 782.56
 12" CPP Inv W = 782.85

Catch Basin #2090
 Rim Elev. = 786.33
 12" CPP Inv S = 784.78

Catch Basin #2101
 Rim Elev. = 786.63
 12" Conc Inv E = 783.33
 12" Conc Inv W = 783.17

Sanitary Manhole #2182
 Rim Elev. = 787.58
 12" PVC Inv N = 775.69
 12" PVC Inv S = 775.69

BENCHMARK #10
ELEV. = 788.66

BENCHMARK #66
ELEV. = 789.47

Storm Manhole #2224
 Rim Elev. = 789.80
 15" CPP Inv N = 782.06
 15" CPP Inv S = 782.06

Sanitary Manhole #2425
 Rim Elev. = 788.90
 12" PVC Inv N = 776.59
 12" PVC Inv S = 776.59
 12" VC Inv E = 777.33

BENCHMARK #486
ELEV. = 788.83

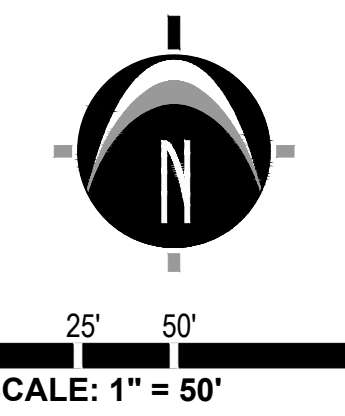
Culvert #2330
 Inv. Elev. = 780.96

Catch Basin #2329
 Rim Elev. = 787.85
 15" CPP Inv N = 781.16
 36" Conc Inv W = 781.26
 36" Conc Inv E = 781.08

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PREPARED FOR:
 Midwest Construction Group Inc
 Scott Geerlings

8516 Homestead Ave., Suite 102
 Zeeland, MI 49464
 Phone: 616.772.6070

REVISIONS:

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Title: Construction Plan Revision	Drawn: OO	Checked: RJB	Date: 2024.10.31
Title: Township Site Plan Amendment Submittal	Drawn: OO	Checked: RJB	Date: 2025.07.03
Title: Building Connection Amendment Draft - To Midwest	Drawn: OO	Checked: RJB	Date: 2025.08.27

TRANE

Site Layout Plan

5824 Kraft Avenue SE
 PART OF THE SW 1/4 OF SECTION 32, T8N, R10W,
 CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

STAMP:

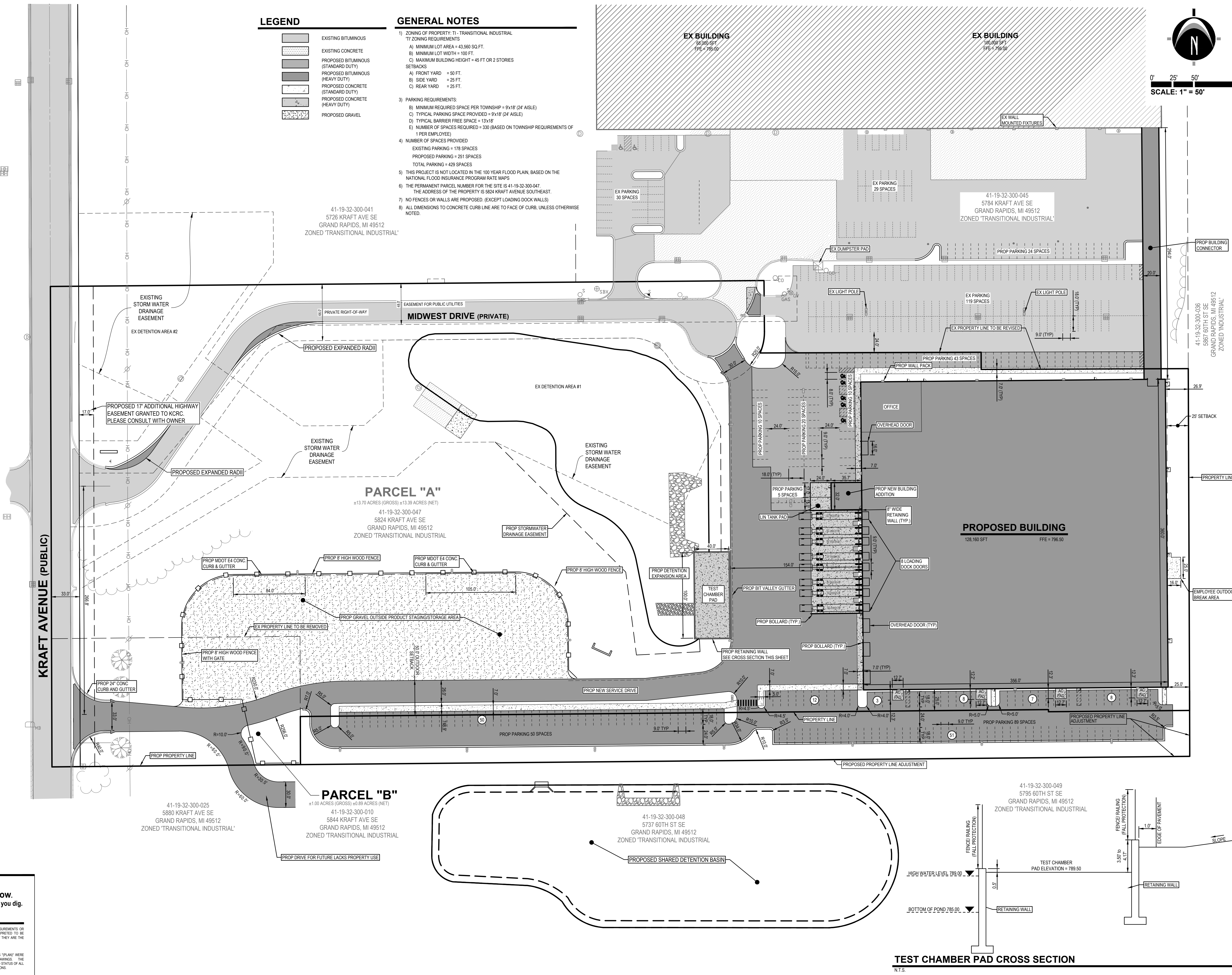
STATE OF MICHIGAN
 ROGER JACK BARR II
 License No. 6201041990
 PROFESSIONAL ENGINEER

R. Jack Barr

PROJECT NO:
23401001

SHEET NO:
C-205

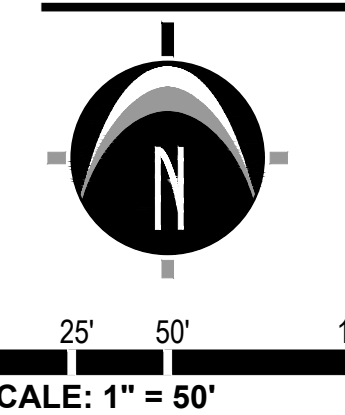
- LEGEND**
- [Symbol] EXISTING BITUMINOUS
 - [Symbol] EXISTING CONCRETE
 - [Symbol] PROPOSED BITUMINOUS (STANDARD DUTY)
 - [Symbol] PROPOSED BITUMINOUS (HEAVY DUTY)
 - [Symbol] PROPOSED CONCRETE (STANDARD DUTY)
 - [Symbol] PROPOSED CONCRETE (HEAVY DUTY)
 - [Symbol] PROPOSED GRAVEL
- GENERAL NOTES**
- ZONING OF PROPERTY: TI - TRANSITIONAL INDUSTRIAL
 TI ZONING REQUIREMENTS
 A) MINIMUM LOT AREA = 43,560 SQ. FT.
 B) MINIMUM LOT WIDTH = 100 FT.
 C) MAXIMUM BUILDING HEIGHT = 45 FT OR 2 STORIES
 SETBACKS
 A) FRONT YARD = 50 FT.
 B) SIDE YARD = 25 FT.
 C) REAR YARD = 25 FT.
 - PARKING REQUIREMENTS:
 B) MINIMUM REQUIRED SPACE PER TOWNSHIP = 9x18' (24' AISLE)
 C) TYPICAL PARKING SPACE PROVIDED = 9x18' (24' AISLE)
 D) TYPICAL BARRIER FREE SPACE = 13x18'
 E) NUMBER OF SPACES REQUIRED = 330 (BASED ON TOWNSHIP REQUIREMENTS OF 1 PER EMPLOYEE)
 - NUMBER OF SPACES PROVIDED:
 EXISTING PARKING = 178 SPACES
 PROPOSED PARKING = 251 SPACES
 TOTAL PARKING = 429 SPACES
 - THIS PROJECT IS NOT LOCATED IN THE 100 YEAR FLOOD PLAIN, BASED ON THE NATIONAL FLOOD INSURANCE PROGRAM RATE MAPS
 - THE PERMANENT PARCEL NUMBER FOR THE SITE IS 41-19-32-300-047
 THE ADDRESS OF THE PROPERTY IS 5824 KRAFT AVENUE SOUTHEAST
 - NO FENCES OR WALLS ARE PROPOSED (EXCEPT LOADING DOCK WALLS)
 - ALL DIMENSIONS TO CONCRETE CURB LINE ARE TO FACE OF CURB, UNLESS OTHERWISE NOTED.



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PREPARED FOR:
 Midwest Construction Group Inc
 Scott Geerlings

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 Zeeland, MI 49464
 Phone: 616.772.6070

REVISIONS:

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Title: Construction Plan Revision	Drawn: OOMH	Checked: RJB	Date: 2024.10.31
Title: Township Site Plan Amendment Submittal	Drawn: OOMH	Checked: RJB	Date: 2025.07.03

TRANE

S.E.S.C. & Grading Plan

5824 Kraft Avenue SE
 PART OF THE SW 1/4 OF SECTION 32, T6N, R10W,
 CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

STAMP:

ROGER JACK BARR II
 License No. 6201041990
 PROFESSIONAL ENGINEER

PROJECT NO:
23401001

SHEET NO:
C-300

LEGEND

- EX. GRADE CONTOUR
- PROP. GRADE CONTOUR
- EX. BITUMINOUS
- EX. CONCRETE
- PROPOSED BITUMINOUS (STANDARD DUTY)
- PROPOSED BITUMINOUS (HEAVY DUTY)
- PROPOSED CONCRETE (STANDARD DUTY)
- PROPOSED CONCRETE (HEAVY DUTY)
- PROP. STORM SEWER
- PROP. LIMITS OF GRADING (9.57 ACRES)
- SILT FENCE
- SLOPE ARROW %

SITE DISTURBANCE
±15.60 ACRES OF SITE DISTURBANCE

SOIL MATTING LEGEND

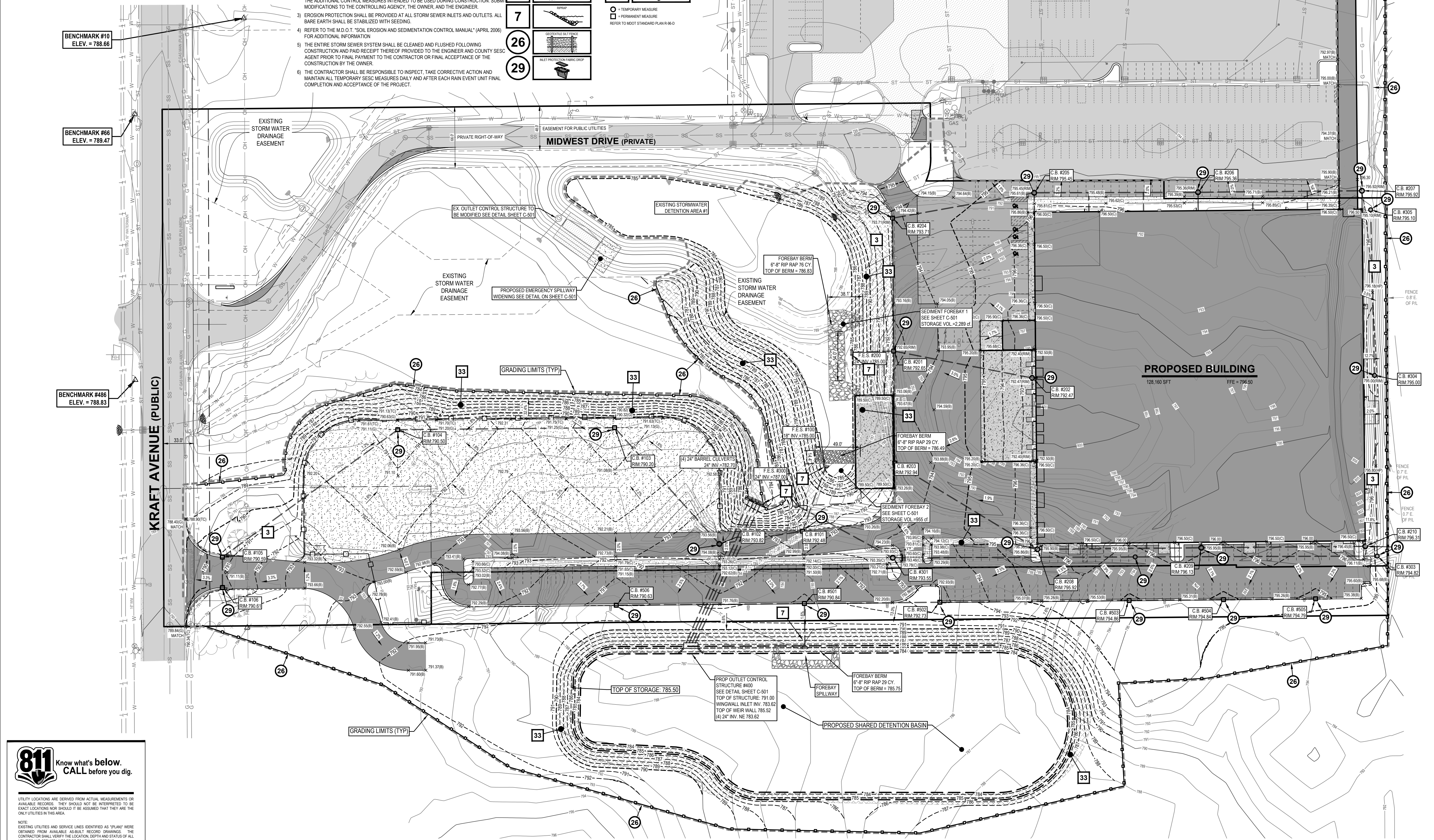
- PLACE 9.43Z S.Y. (TOTAL) EROSION CONTROL VEGETATION MAT (NORTH AMERICAN GREEN SC-150 OR APPROVED EQUAL) OVER 4" TOPSOIL ACROSS BOTH SIDES OF BANK, OVERLAP ROLL ENDS MIN. 3'. PLACE & STAKE MATTINGS PER MFG. RECOMMENDATIONS

SOIL EROSION CONTROL SCHEDULE

	2024	2025																							
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
PLACE SILT FENCE																									
STRIP & STOCKPILE TOPSOIL																									
CONSTRUCT CONNECTION TO STORM SEWER																									
ROUGH GRADE SITE																									
CONSTRUCT BUILDING FOUNDATION AND BUILDING																									
CONSTRUCT IMPROVEMENTS AROUND BUILDING																									
CONSTRUCT UTILITY LINES TO BUILDING																									
FINISH GRADE SITE																									
PAVE SITE																									
RESPREAD TOPSOIL/COMPACTION																									
SEED DISTURBED AREAS																									
SITE RESTORATION/CLEAN UP																									

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- CONTRACTOR SHALL POSSESS THE SOIL EROSION AND SEDIMENTATION CONTROL PERMIT PRIOR TO START OF ANY EARTH WORK.
- CONTRACTOR SHALL MODIFY THIS SOIL EROSION AND SEDIMENTATION CONTROL PLAN TO SHOW THE ADDITIONAL CONTROL MEASURES INTENDED TO BE USED DURING CONSTRUCTION. SUBMIT MODIFICATIONS TO THE CONTROLLING AGENCY, THE OWNER, AND THE ENGINEER.
- EROSION PROTECTION SHALL BE PROVIDED AT ALL STORM SEWER INLETS AND OUTLETS. ALL BARE EARTH SHALL BE STABILIZED WITH SEEDING.
- REFER TO THE M.D.O.T. "SOIL EROSION AND SEDIMENTATION CONTROL MANUAL" (APRIL 2006) FOR ADDITIONAL INFORMATION.
- THE ENTIRE STORM SEWER SYSTEM SHALL BE CLEANED AND FLUSHED FOLLOWING CONSTRUCTION AND PAID RECEIPT THEREOF PROVIDED TO THE ENGINEER AND COUNTY SECS AGENT PRIOR TO FINAL PAYMENT TO THE CONTRACTOR OR FINAL ACCEPTANCE OF THE CONSTRUCTION BY THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO INSPECT, TAKE CORRECTIVE ACTION AND MAINTAIN ALL TEMPORARY SECS MEASURES DAILY AND AFTER EACH RAIN EVENT UNTIL FINAL COMPLETION AND ACCEPTANCE OF THE PROJECT.



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STORM STRUCTURE TABLE

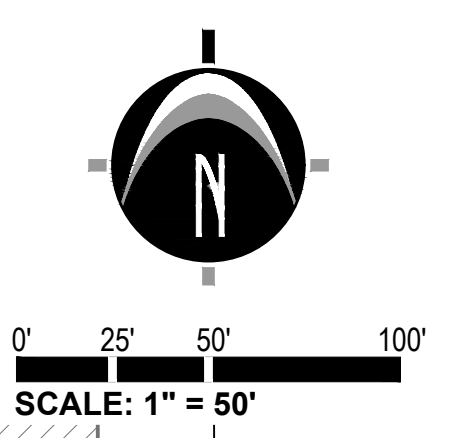
PROP.	RIM	INVERTS	CASTING TYPE	DIAMETER
100	786.55	18" S. INV.=785.00	END SECTION	24"
101	792.48	18" W. INV.=785.43 6" NW. INV.=788.48 18" N. INV.=785.43 6" NE. INV.=788.48	EJW 7045 TYPE M1	48"
102	793.82	18" E. INV.=785.97 18" NW. INV.=785.97	EJW 1040 TYPE B	48"
103	790.20	18" SE. INV.=786.31 18" W. INV.=786.31 6" E. INV.=786.81 6" SW. INV.=786.81	EJW 1040 TYPE M1	48"
104	790.50	18" E. INV.=786.62 12" SW. INV.=787.02 6" SE. INV.=787.52 6" S. INV.=787.52 6" W. INV.=787.52	EJW 1040 TYPE M1	48"
105	790.59	12" NE. INV.=787.54 12" S. INV.=787.54 6" NW. INV.=788.04 6" E. INV.=788.04	EJW 7085	48"
106	790.61	12" N. INV.=787.61 6" E. INV.=788.11 6" SW. INV.=788.11	EJW 7085	48"
201	792.65	15" S. INV.=785.74 12" E. INV.=785.94 12" E. INV.=785.94 24" W. INV.=785.14 6" S. INV.=788.65 6" N. INV.=788.65	EJW 7065	48"
202	792.47	6" N. INV.=789.50 12" W. INV.=786.30 6" S. INV.=789.50	EJW 1040 TYPE B	48"
203	792.94	15" N. INV.=786.67 15" SE. INV.=786.67 6" S. INV.=788.94 6" N. INV.=788.94	EJW 7065	48"
204	793.71	12" E. INV.=788.04 12" S. INV.=788.04 6" S. INV.=789.71 6" N. INV.=789.71	EJW 7065	48"
205	795.45	12" W. INV.=790.00 12" W. INV.=790.00 6" S. INV.=790.50	EJW 1040 TYPE B	48"
206	795.36	12" W. INV.=792.22 6" S. INV.=792.72 12" E. INV.=792.22	EJW 1040 TYPE B	48"
207	795.92	12" W. INV.=792.81 6" S. INV.=793.31	EJW 1040 TYPE O2	48"

PROP.	RIM	INVERTS	CASTING TYPE	DIAMETER
208	795.92	15" NW. INV.=787.63 6" N. INV.=788.13 15" E. INV.=787.63	EJW 1040 TYPE O2	48"
209	796.13	15" W. INV.=788.58 12" E. INV.=788.78 6" N. INV.=789.08	EJW 1040 TYPE B	48"
210	796.31	12" W. INV.=789.58 6" N. INV.=790.08	EJW 1040 TYPE B	48"
300	789.05	24" SE. INV.=787.00	END SECTION	24"
301	793.55	24" NW. INV.=787.29 24" E. INV.=787.29	EJW 1040 TYPE B	60"
302	795.78	24" W. INV.=787.95 24" E. INV.=787.95	EJW 1040 TYPE B	48"
303	794.82	24" W. INV.=788.61 24" N. INV.=788.61	EJW 1040 TYPE N	48"
304	795.00	24" S. INV.=789.10 24" N. INV.=789.10	EJW 1040 TYPE N	48"
305	795.10	24" S. INV.=789.55	EJW 1040 TYPE N	48"
400	784.75	24" SW. INV.=782.70 (4) 24" BARREL CULVERTS	24"	
401	786.46	24" NE. INV.=783.55 (4) 24" BARREL CULVERTS	24"	

⊙ INDICATES 18" MIN. CLEARANCE REQUIRED (UNLESS OTHERWISE NOTED)

LEGEND

- EX BITUMINOUS
- EX CONCRETE
- PROPOSED BITUMINOUS (HEAVY DUTY)
- PROPOSED BITUMINOUS (STANDARD DUTY)
- PROPOSED CONCRETE (STANDARD DUTY)
- PROPOSED CONCRETE (HEAVY DUTY)
- PROP. STORM SEWER



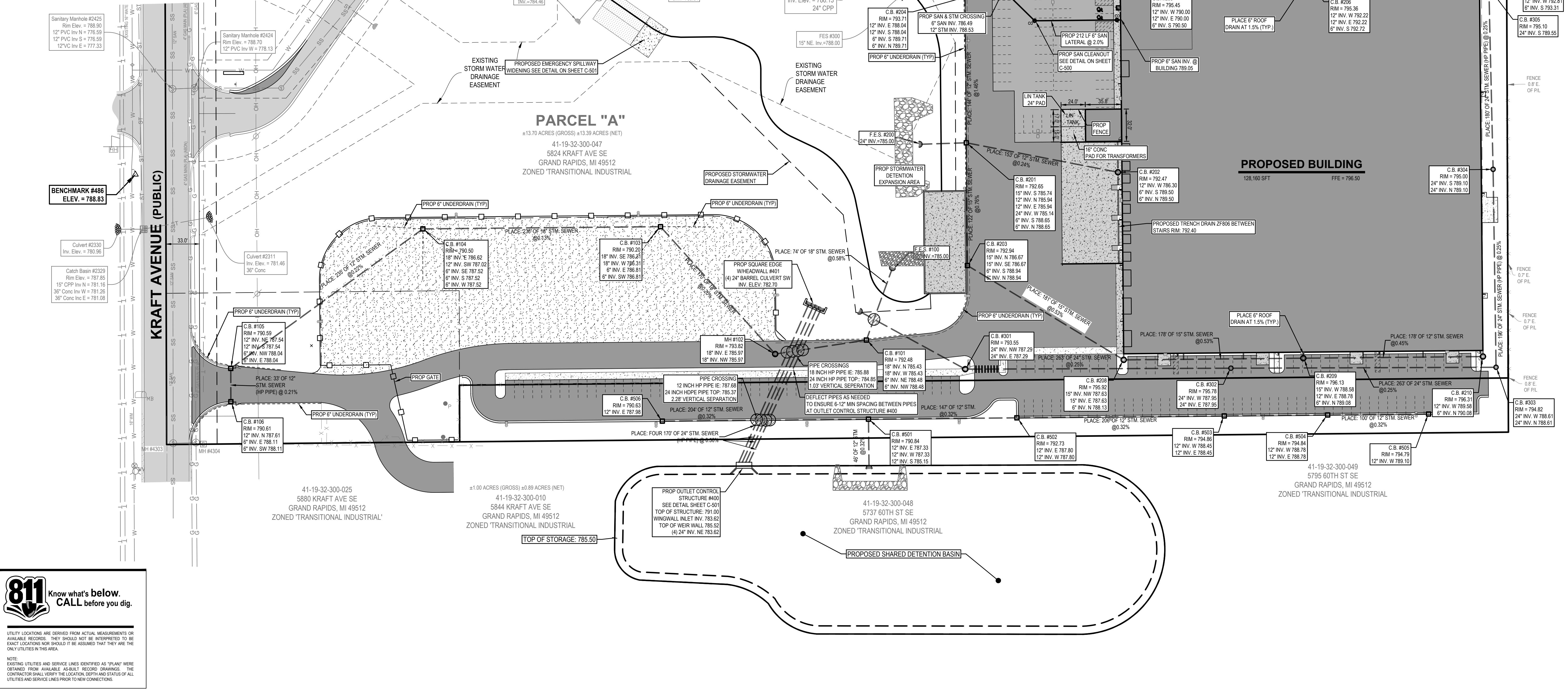
NEDERVELD
www.nederveld.com
800.222.1868
GRAND RAPIDS
217 Grandville Ave., Suite 302
Grand Rapids, MI 49503
Phone: 616.575.5190

ANN ARBOR
CHICAGO
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HOLLAND
INDIANAPOLIS

PREPARED FOR:
Midwest Construction Group Inc
Scott Geerings

8516 Homestead Ave., Suite 102
Zeeland, MI 49464
Phone: 616.772.6070

- REVISIONS:**
- Title: Township Site Plan Submittal
Drawn: COEA/JVR Checked: RJB Date: 2024.05.17
 - Title: Per FAA Submittal
Drawn: OO Checked: RJB Date: 2024.05.31
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TRANE
Utility Plan
5824 Kraft Avenue SE
PART OF THE SW 1/4 OF SECTION 32, T6N, R10W,
CASCADIA TOWNSHIP, KENT COUNTY, MICHIGAN

STAMP:

STATE OF MICHIGAN
ROGER JACK BARR II
License No. 6201041990
Professional Engineer

PROJECT NO:
23401001

SHEET NO:
C-400

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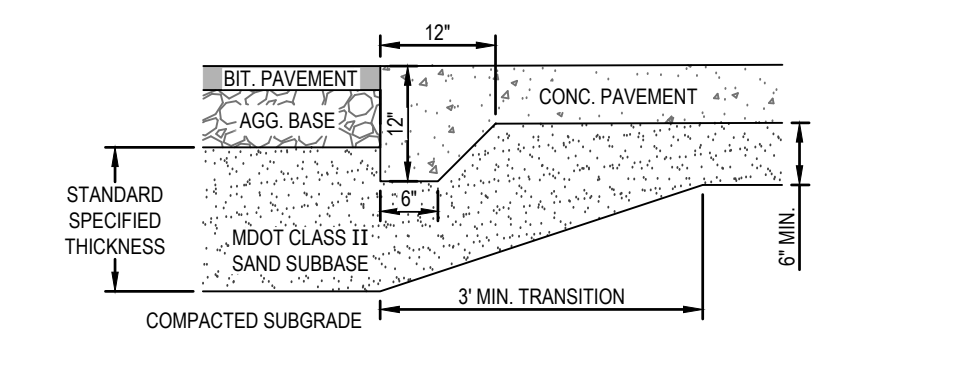
ANN ARBOR
CHICAGO
COLUMBUS
HOLLAND
INDIANAPOLIS

PREPARED FOR:
Midwest Construction Group Inc
Scott Geerings

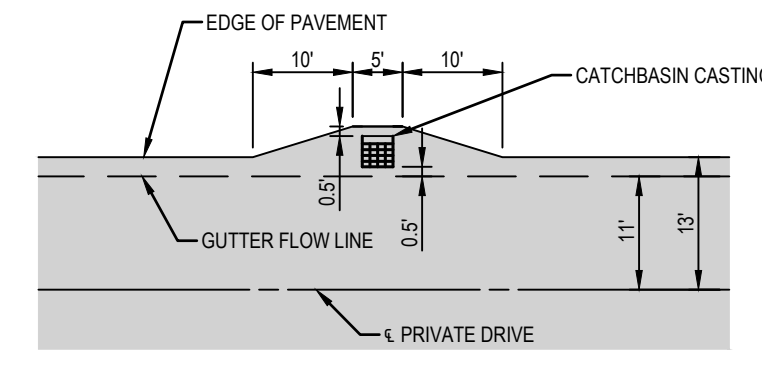
8516 Homestead Ave., Suite 102
Zeeland, MI 49464
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REVISIONS:

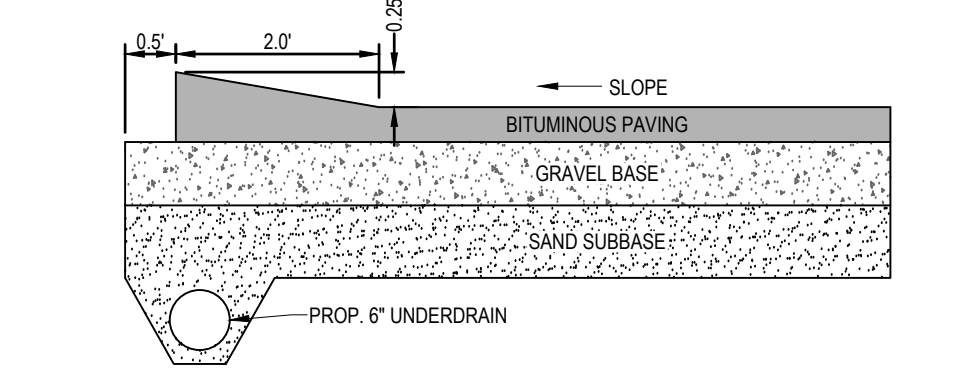
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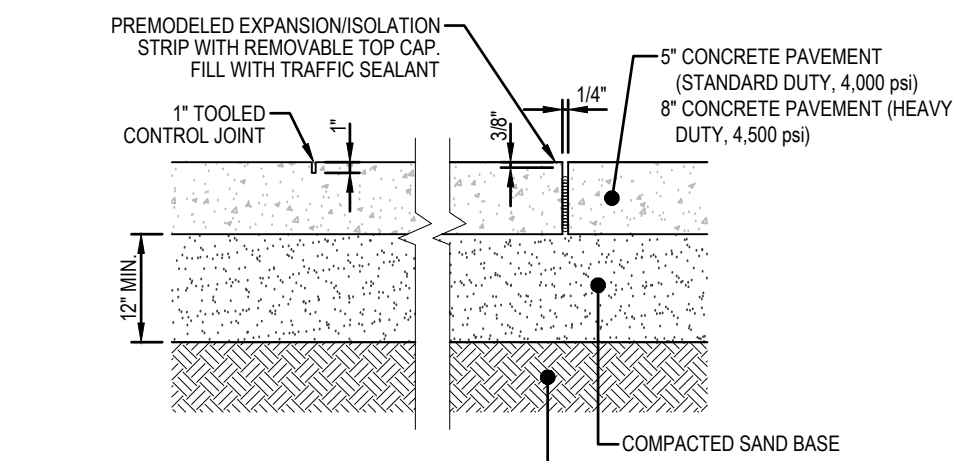
PAVEMENT SUBBASE TRANSITION DETAIL A
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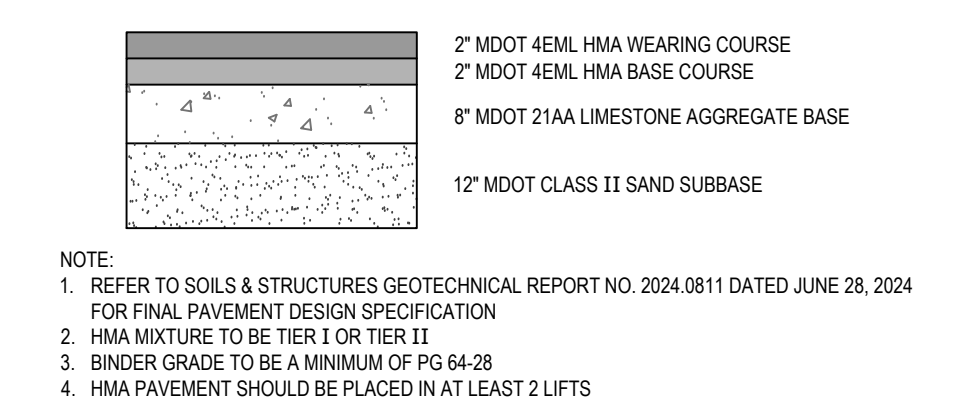
CATCHBASIN PLACEMENT IN BITUMINOUS VALLEY GUTTER
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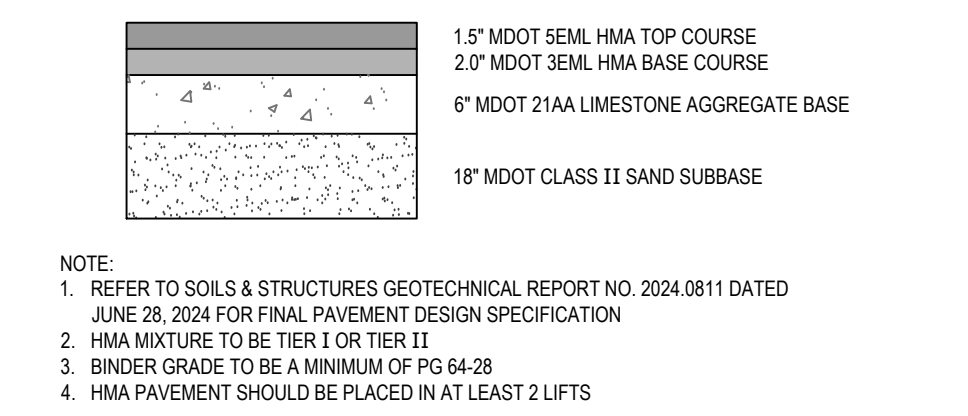
PRIVATE DRIVE & SITE BITUMINOUS VALLEY GUTTER DETAIL
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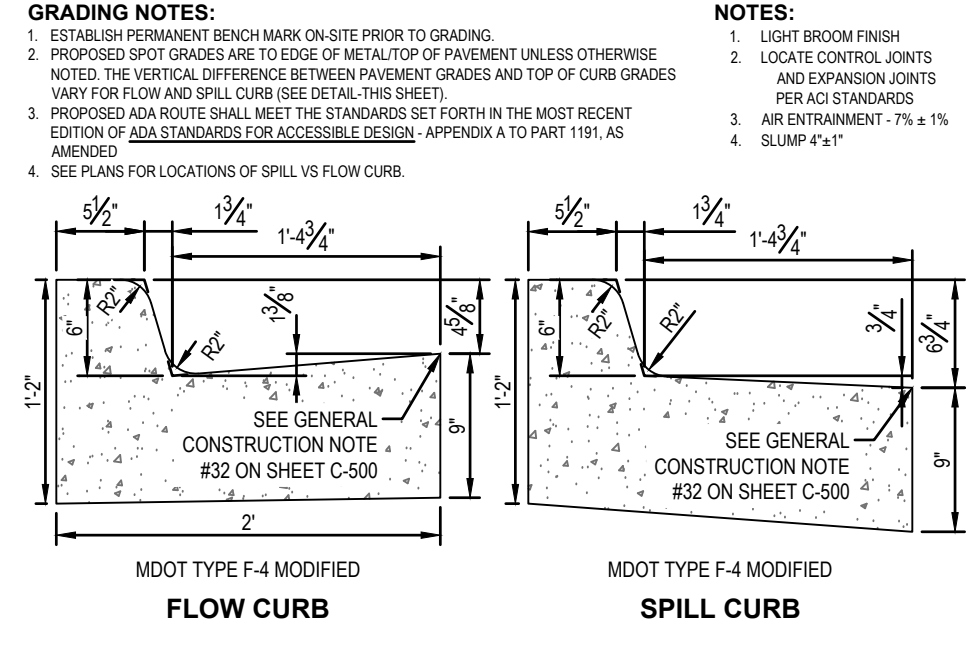
CONCRETE PAVEMENT DETAIL
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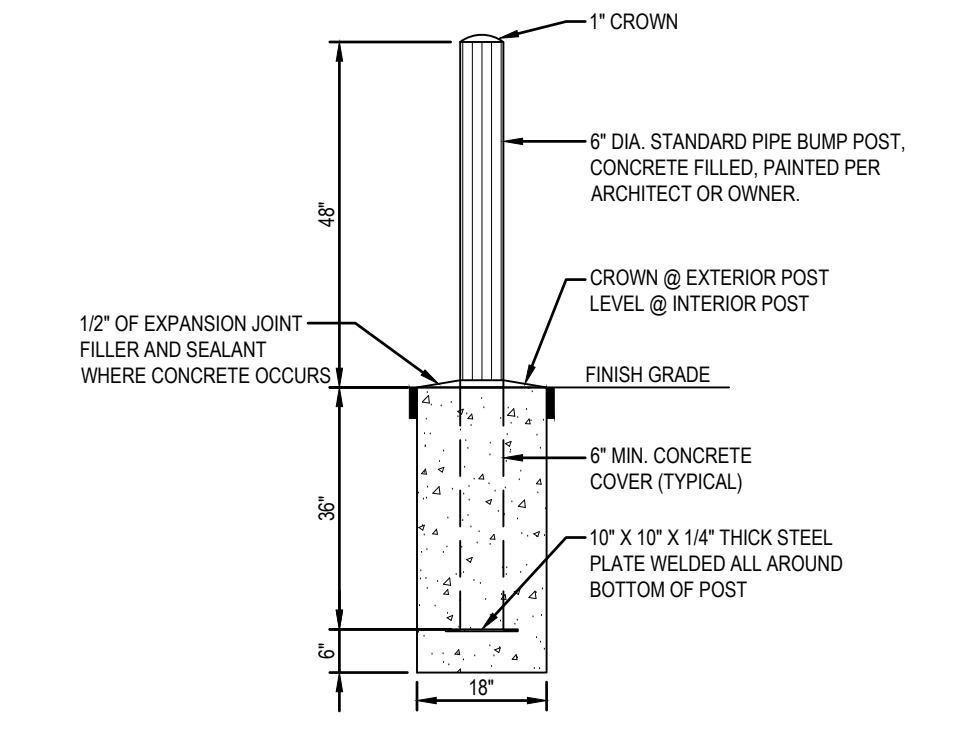
STANDARD DUTY BITUMINOUS PAVEMENT CROSS SECTION DETAIL
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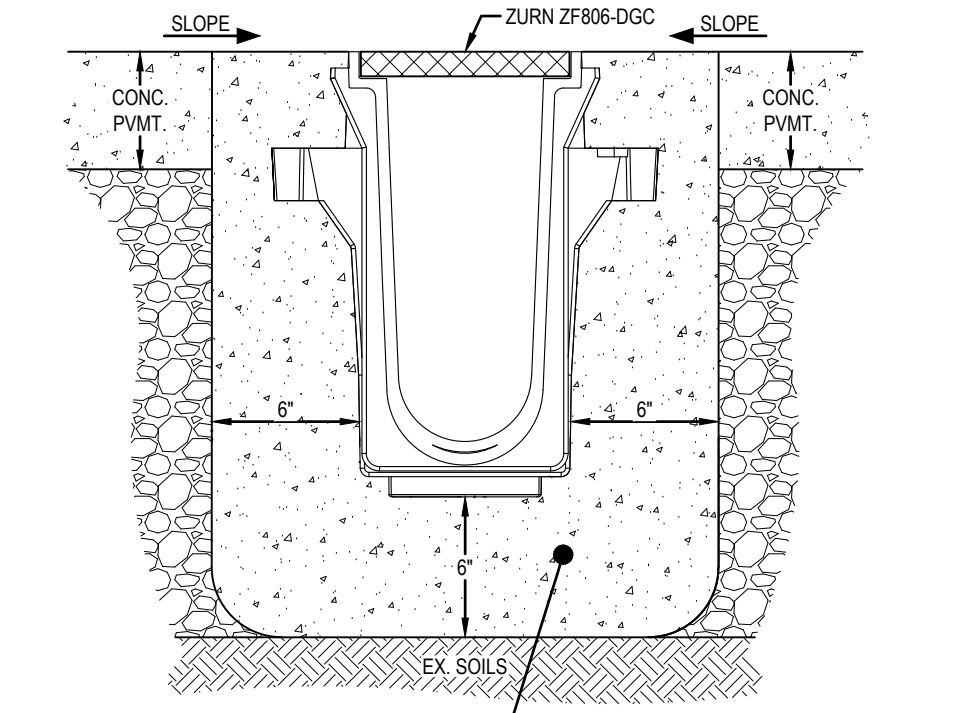
KRCR BITUMINOUS PAVEMENT CROSS SECTION DETAIL
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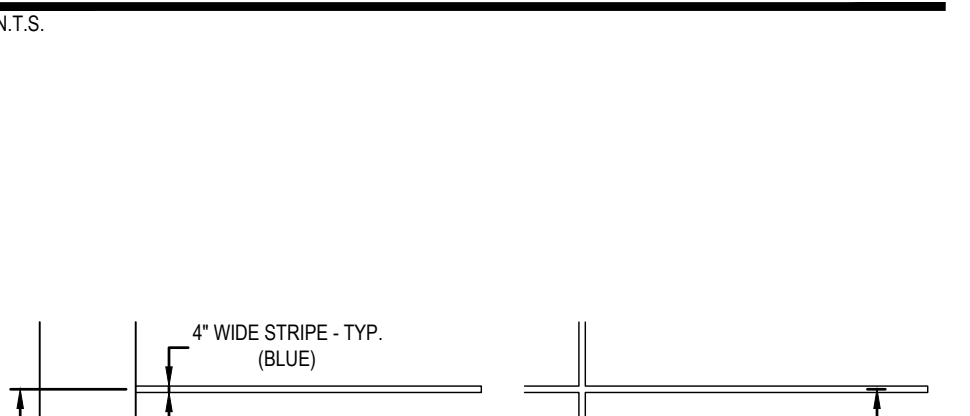
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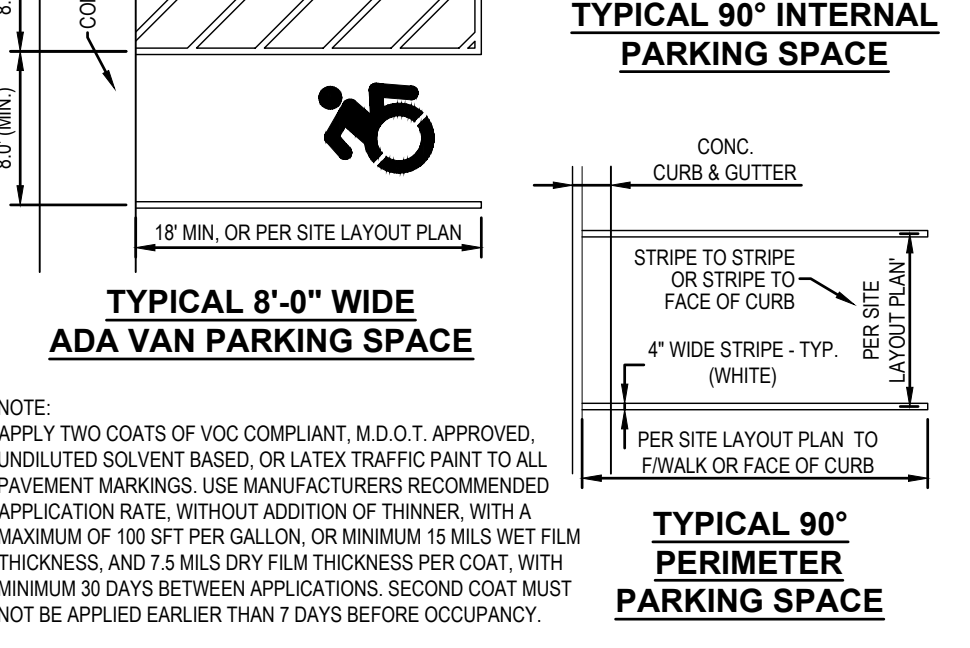
BOLLARD DETAIL
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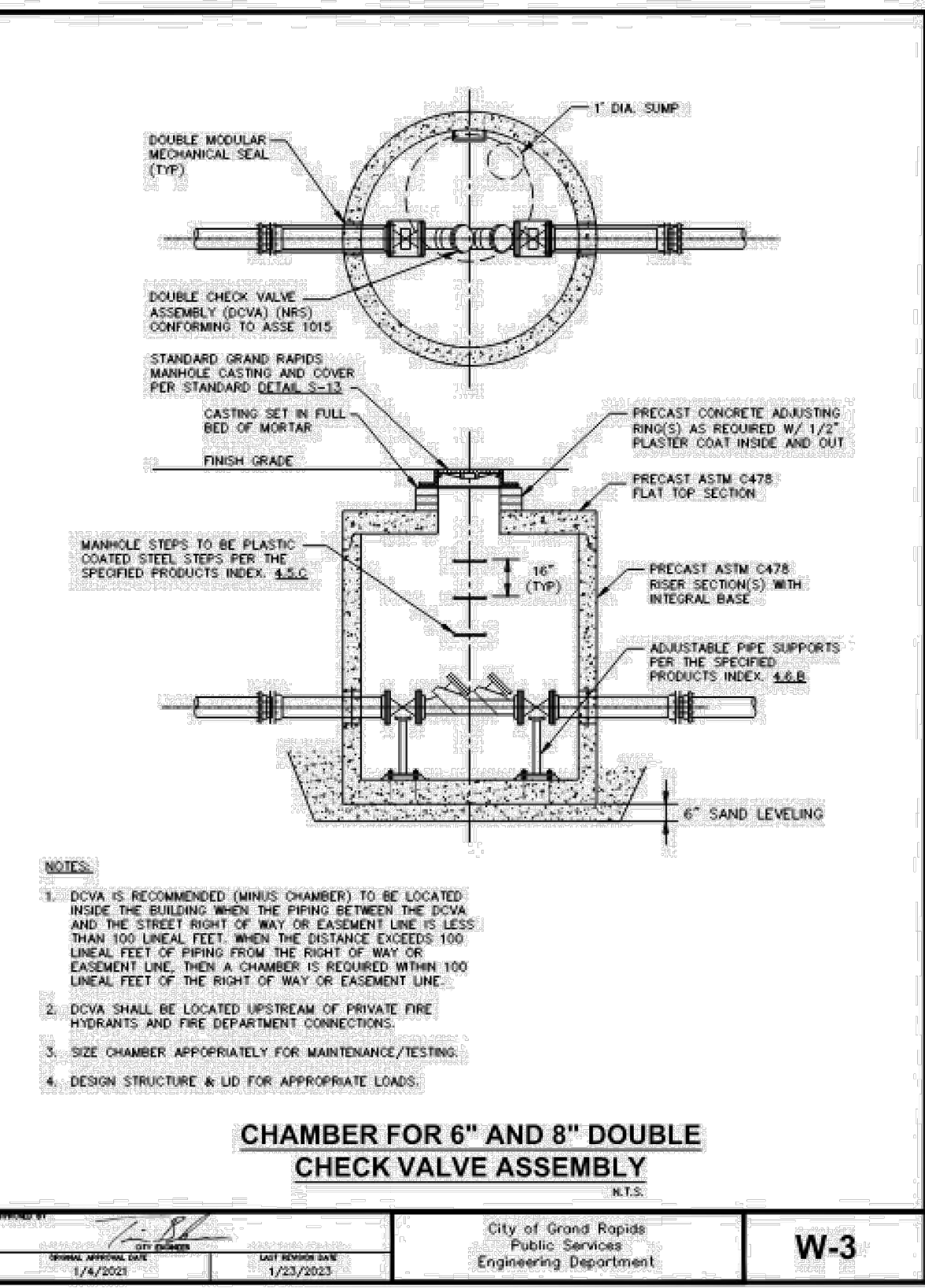
TRENCH DRAIN DETAIL
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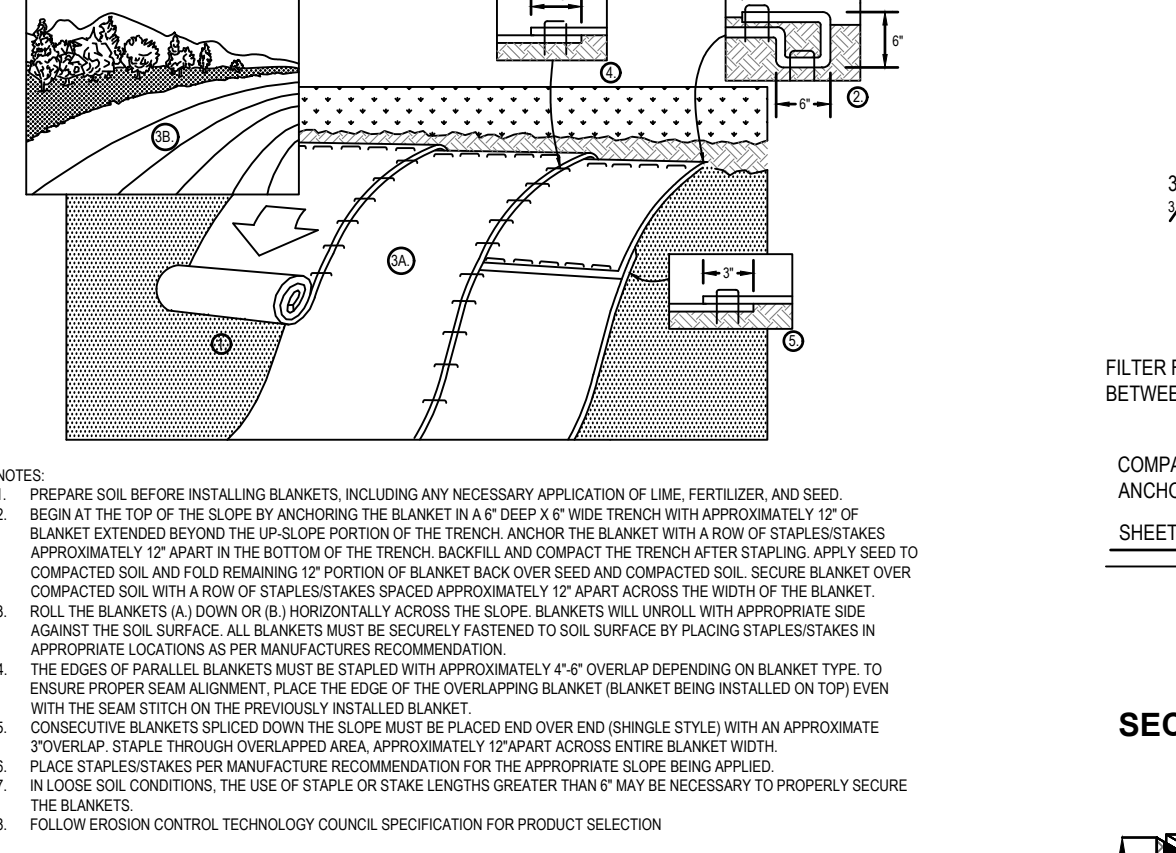
TYPICAL 90\"/>



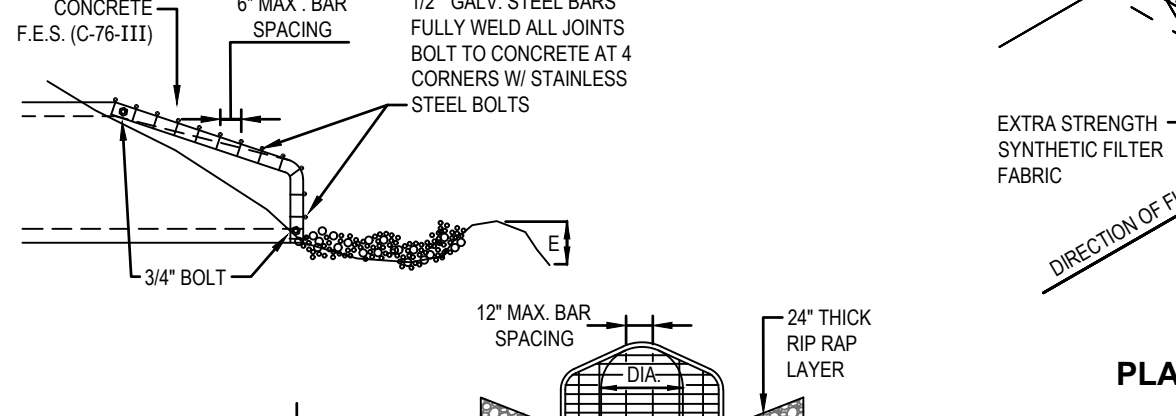
TYPICAL 8\"/>



CHAMBER FOR 6\"/>



EROSION CONTROL BLANKET DETAIL
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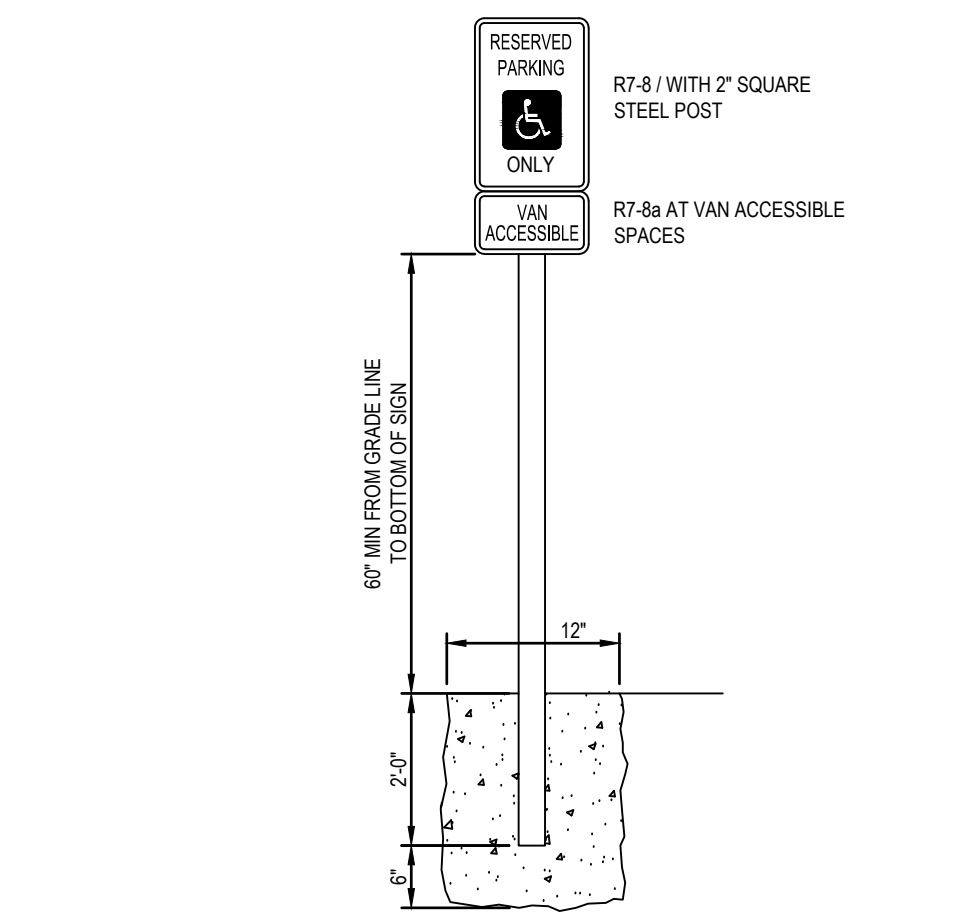
CONCRETE F.E.S. RIP RAP ANTRON AND DEBRIS CAGE DETAIL
N.T.S.

CONCRETE F.E.S. RIP RAP ANTRON AND DEBRIS CAGE DETAIL

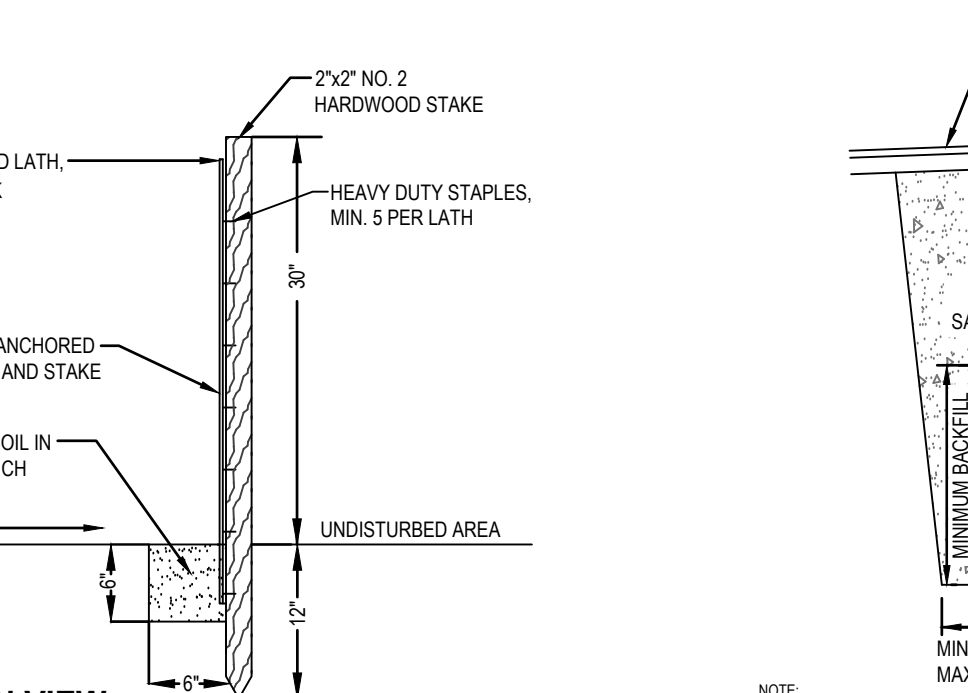
NOTES:
1. DEBRIS CAGES SHALL BE INCLUDED ON ALL INLET THAT ARE 24\"/>

DIA	A	L	OUTLET	E	W	Wc	MIN. RIP RAP VOL. INLET/OUTLET
12"	2'	6"	8"	4"	6"	3"	3/3
15"	2'	8"	10"	4"	8"	4"	3/4
18"	2'-4"	9"	12"	6"	9"	4.5"	5/6
24"	3'-4"	13"	17"	10"	13"	6"	9/12
30"	4'-4"	17"	22"	12"	16"	7.5"	15/19
36"	5'	21"	27"	15"	20"	9"	23/29
42"	5'-4"	25"	33"	18"	24"	10.5"	32/42
48"	6'	30"	38"	21"	27"	12"	43/55

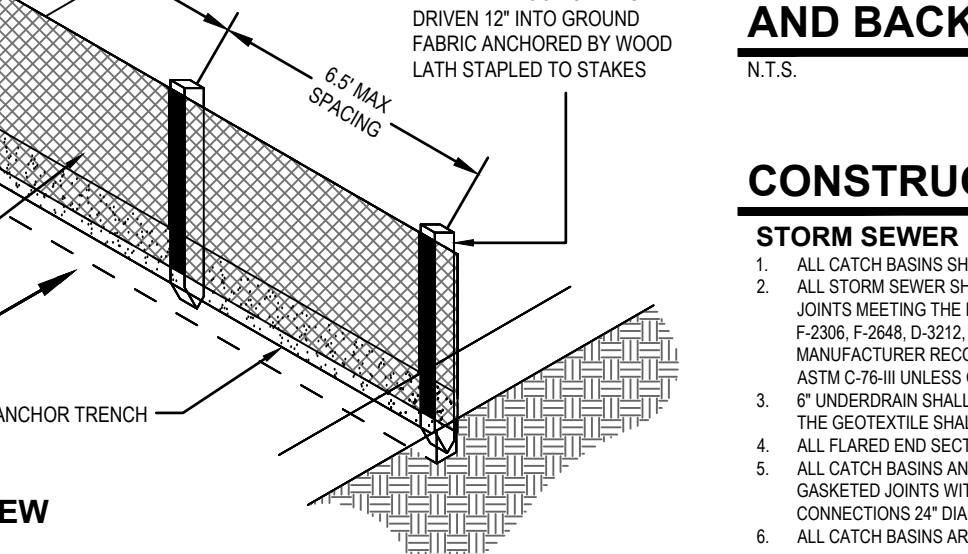
CONCRETE F.E.S. RIP RAP ANTRON AND DEBRIS CAGE DETAIL
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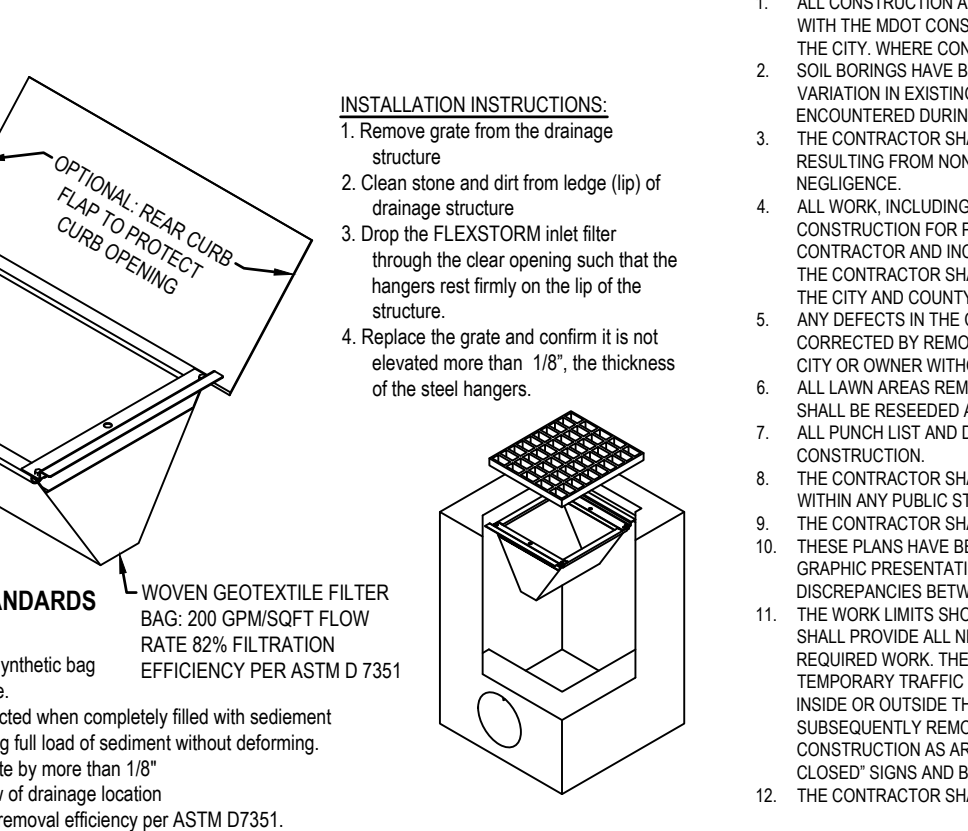
BARRIER FREE PARKING SIGN DETAIL
N.T.S.



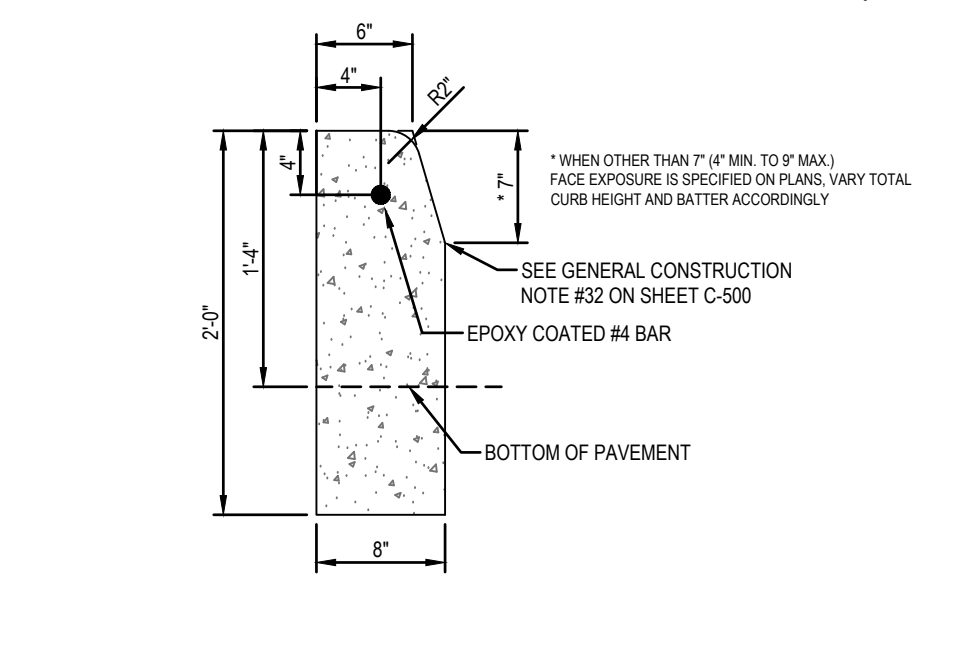
SANITARY SEWER TRENCH AND BACKFILL DETAIL
N.T.S.



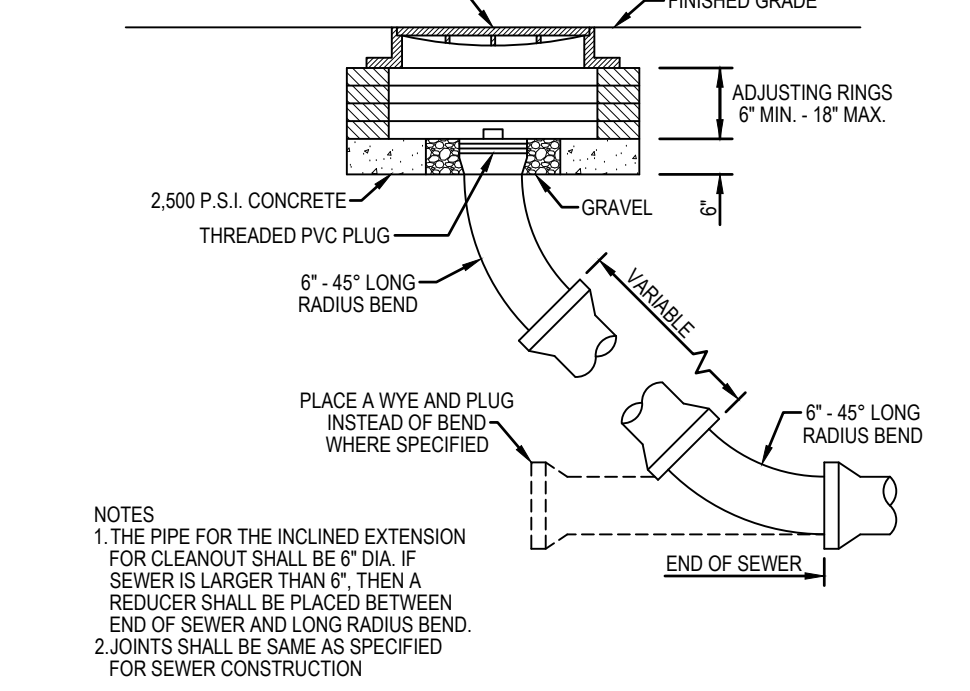
SANITARY SEWER TRENCH AND BACKFILL DETAIL
N.T.S.



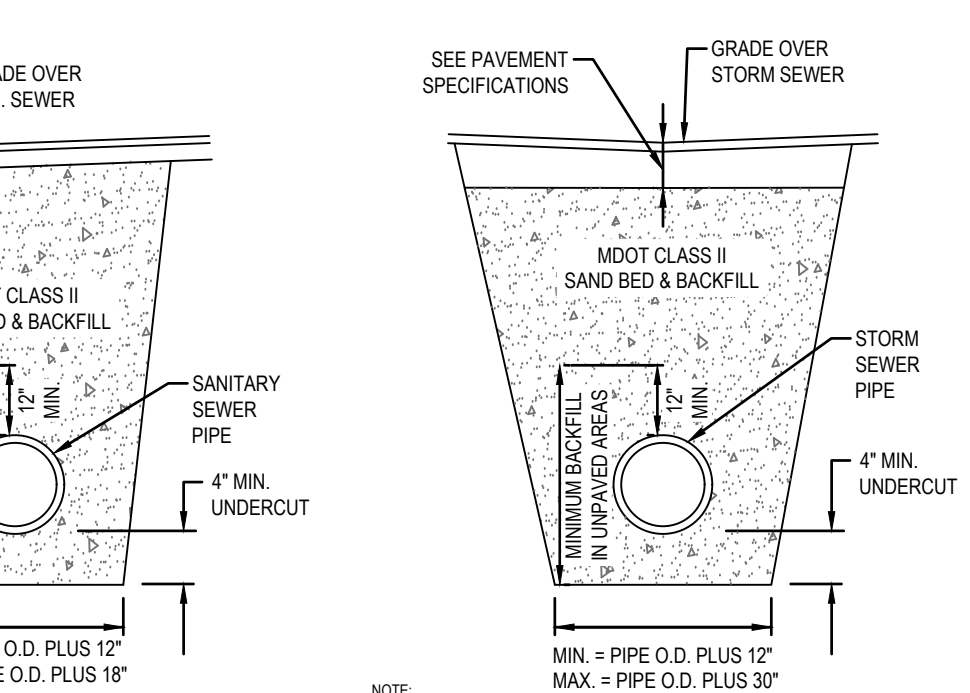
FLEXSTORM INLET FILTER LITE DETAIL
N.T.S.



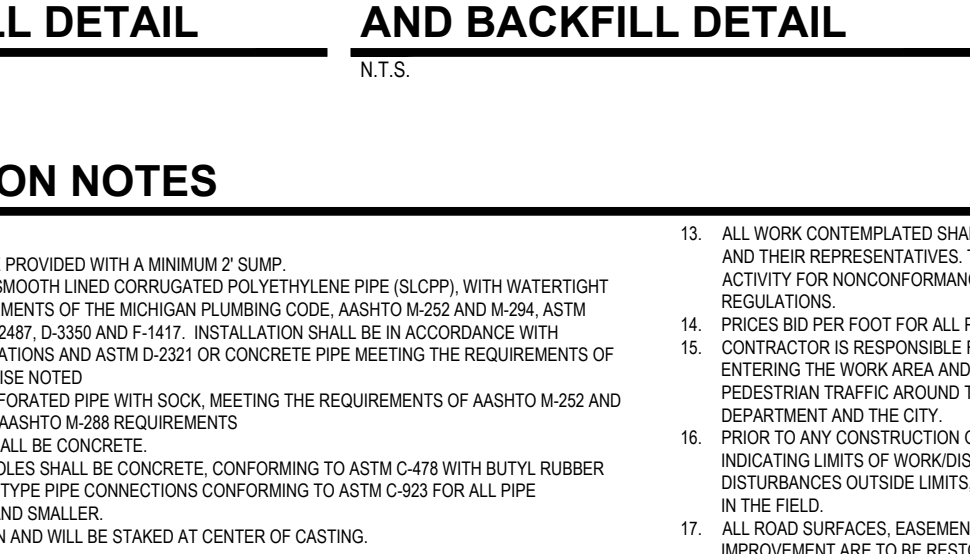
E4 MDOT CONCRETE CURB DETAIL
N.T.S.



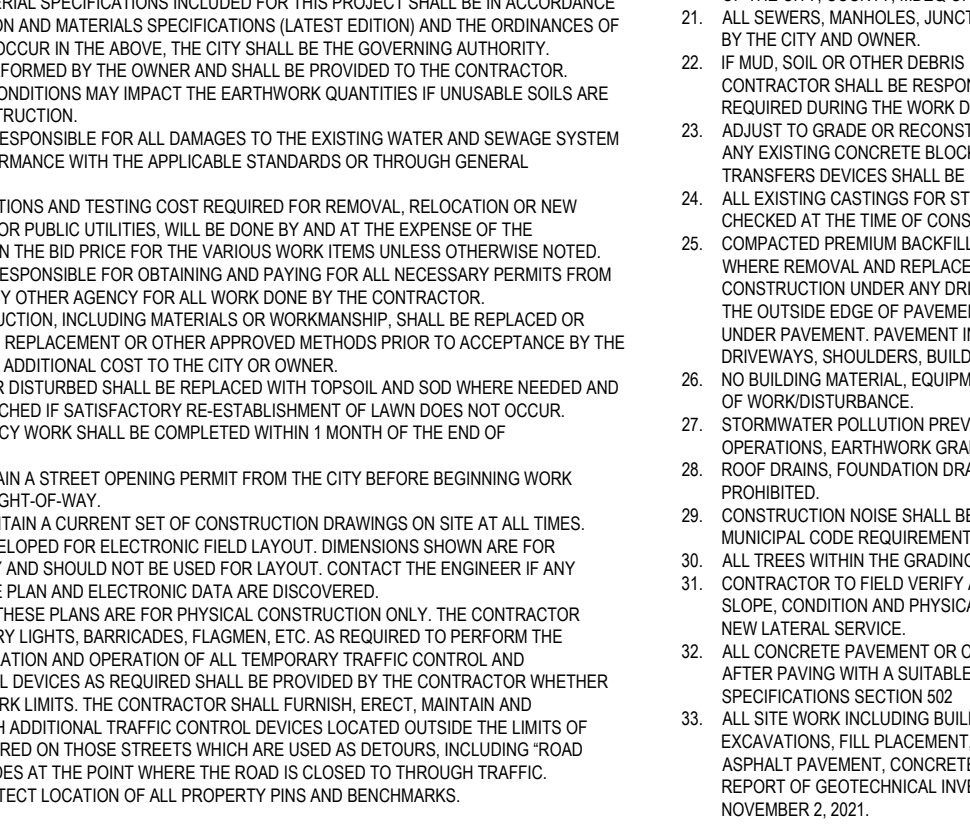
SEWER CLEANOUT IN PAVEMENT DETAIL
N.T.S.



STORM SEWER TRENCH AND BACKFILL DETAIL
N.T.S.



WATER MAIN TRENCH AND BACKFILL DETAIL
N.T.S.



TRANE

Details & Specifications

5824 Kraft Avenue SE
PART OF THE SW 1/4 OF SECTION 32, T6N, R10W,
CASCADIA TOWNSHIP, KENT COUNTY, MICHIGAN

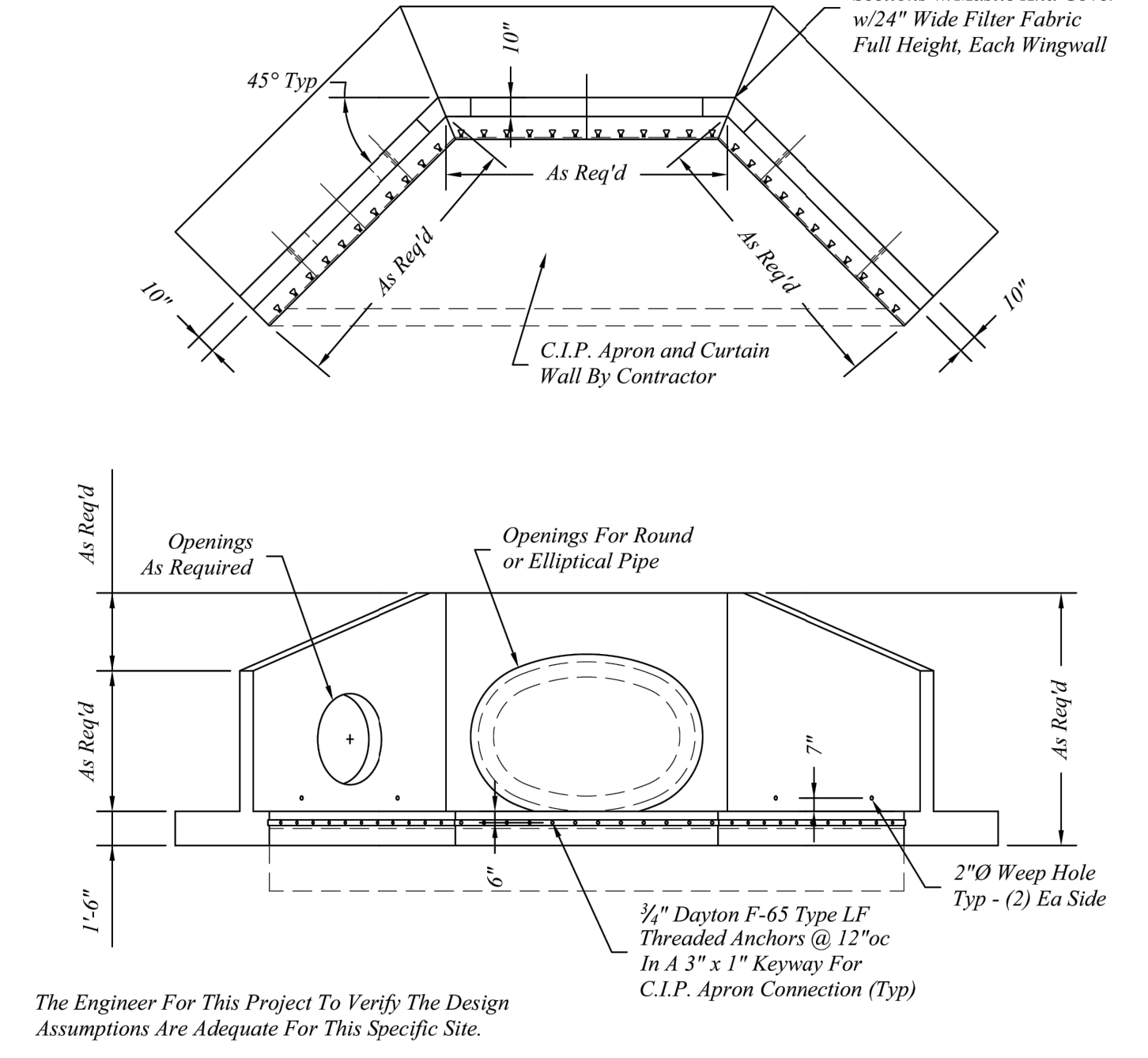
STAMP:

PROJECT NO:
23401001

SHEET NO:
C-500

23401001-CPI-16-19
Cascadia Charter Township Packet September 22, 2025 Planning Commission Packet, Page 71 of 80
© 2025 Nederveld, Inc.

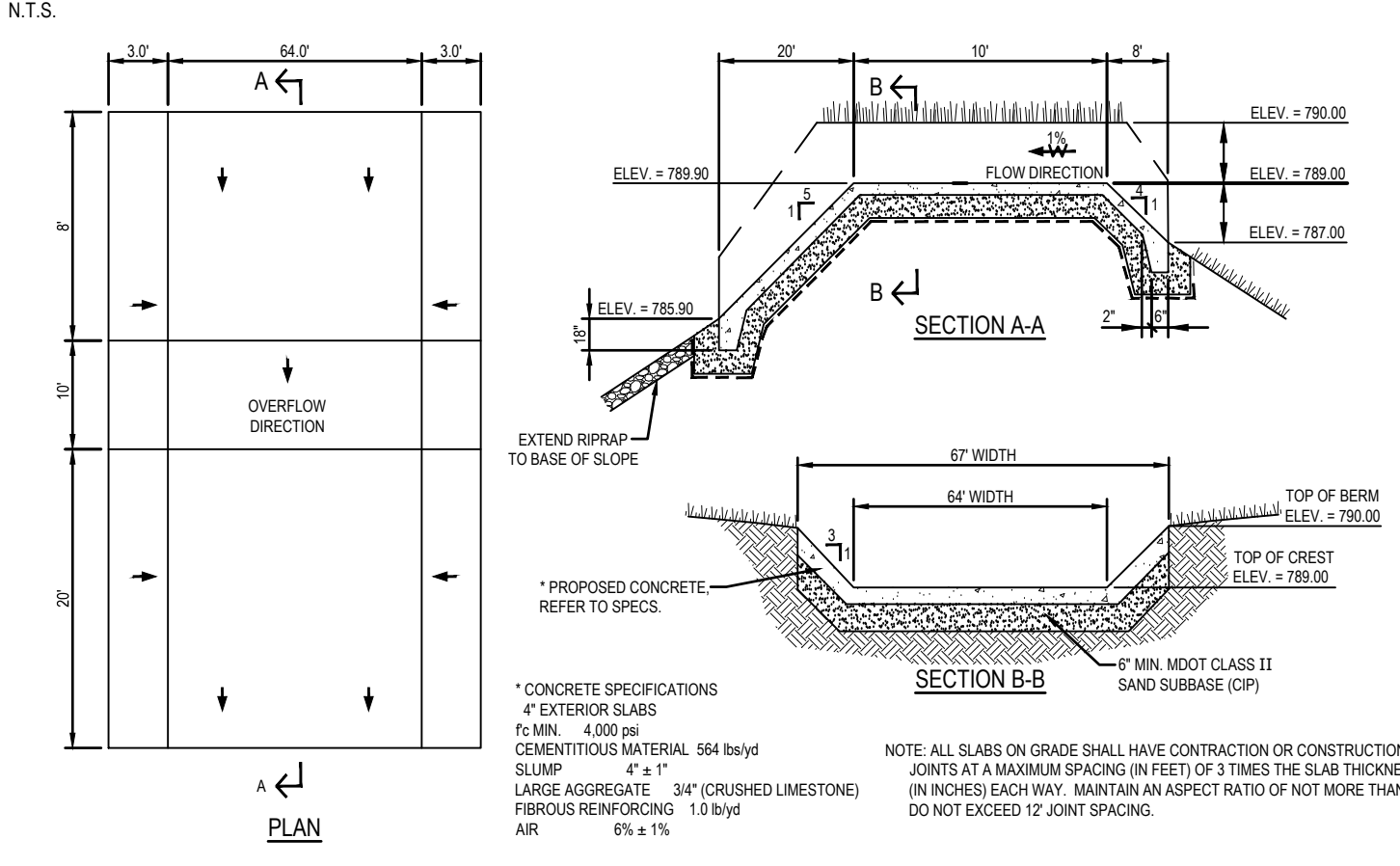
- Design Assumptions:**
1. Soil Friction Angle = 30°, Unit Weight = 120pcf
 2. Max Allowable Soil Bearing = 3000psf
 3. Bar Cover = 1 1/2" U.N.O.
 4. f_c @ 28 Days = 5000psi (min)
 5. Reinforcement = ASTM A-615, Grade 60
 6. Materials & Manufacturing In Accordance With ASTM C-913 Specifications.
 7. Safety Factors:
Sliding = 1.5 (min)
Overturning = 2.0 (min)



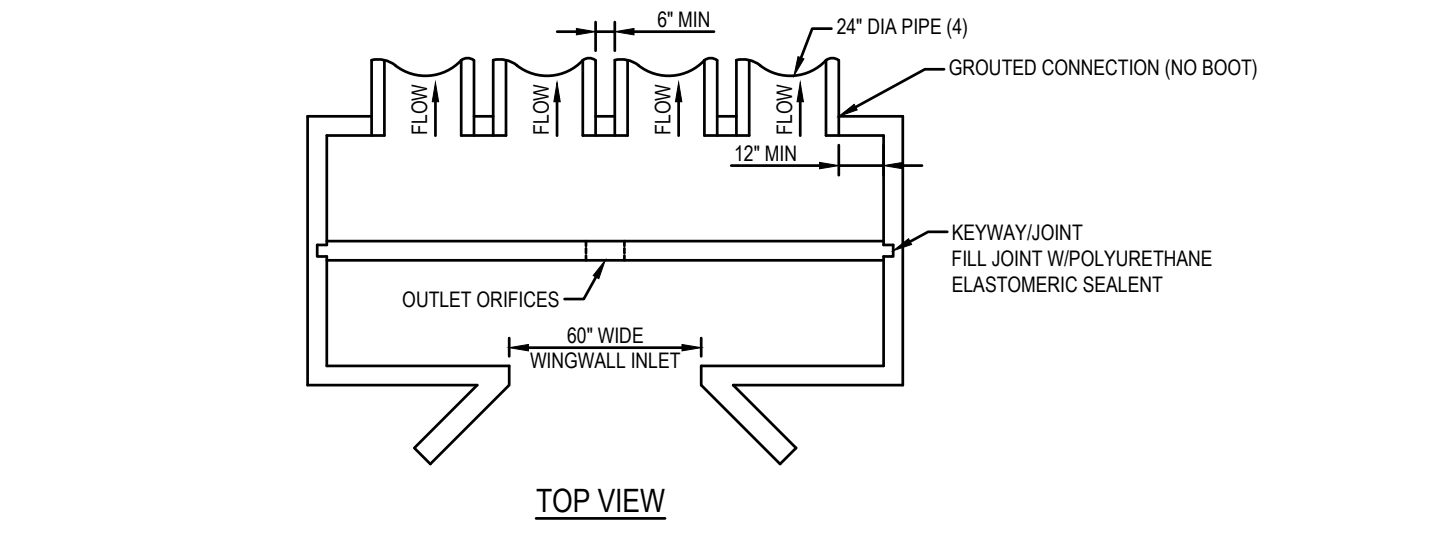
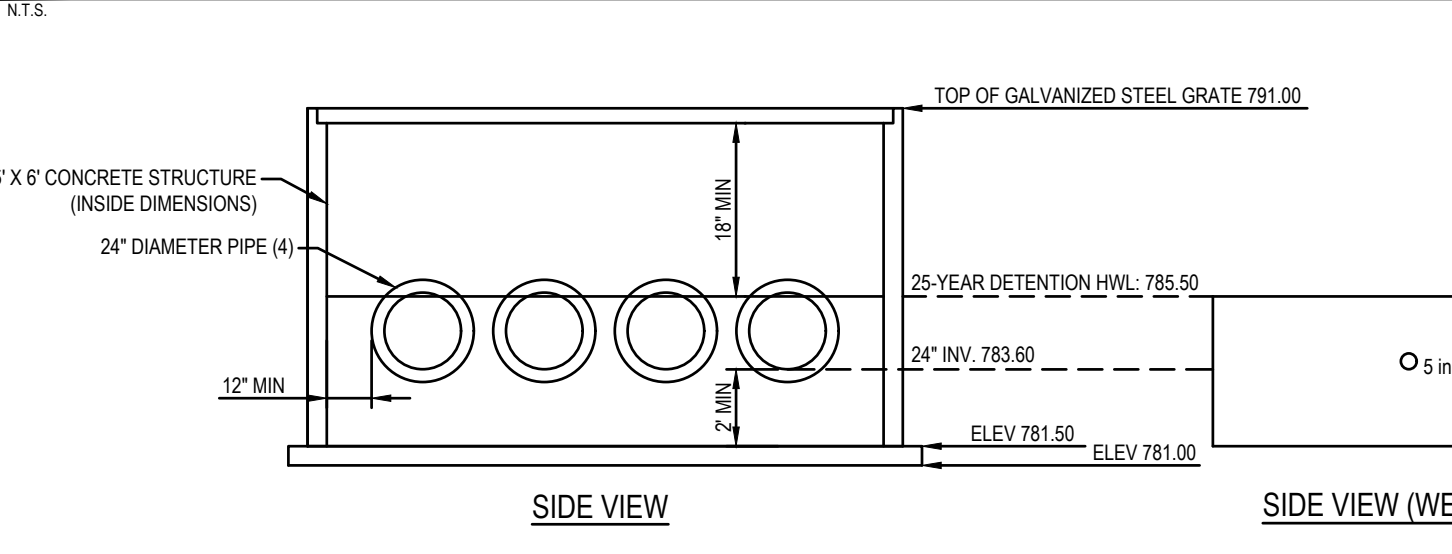
The Engineer For This Project To Verify The Design Assumptions Are Adequate For This Specific Site.

	401 Kelson St Bay City, MI 48706	Precast Concrete Headwall / Wingwalls
	5281 Lansing Rd Charlotte, MI 48813	2701 Chicago Dr SW Wyoming, MI 49519
	4950 White Lake Rd Clarkston, MI 48346	3756 Centennial Rd Sylvania, OH 43560
	11 May 16	Drawn By: BmG Scale: NTS Date: 01.14

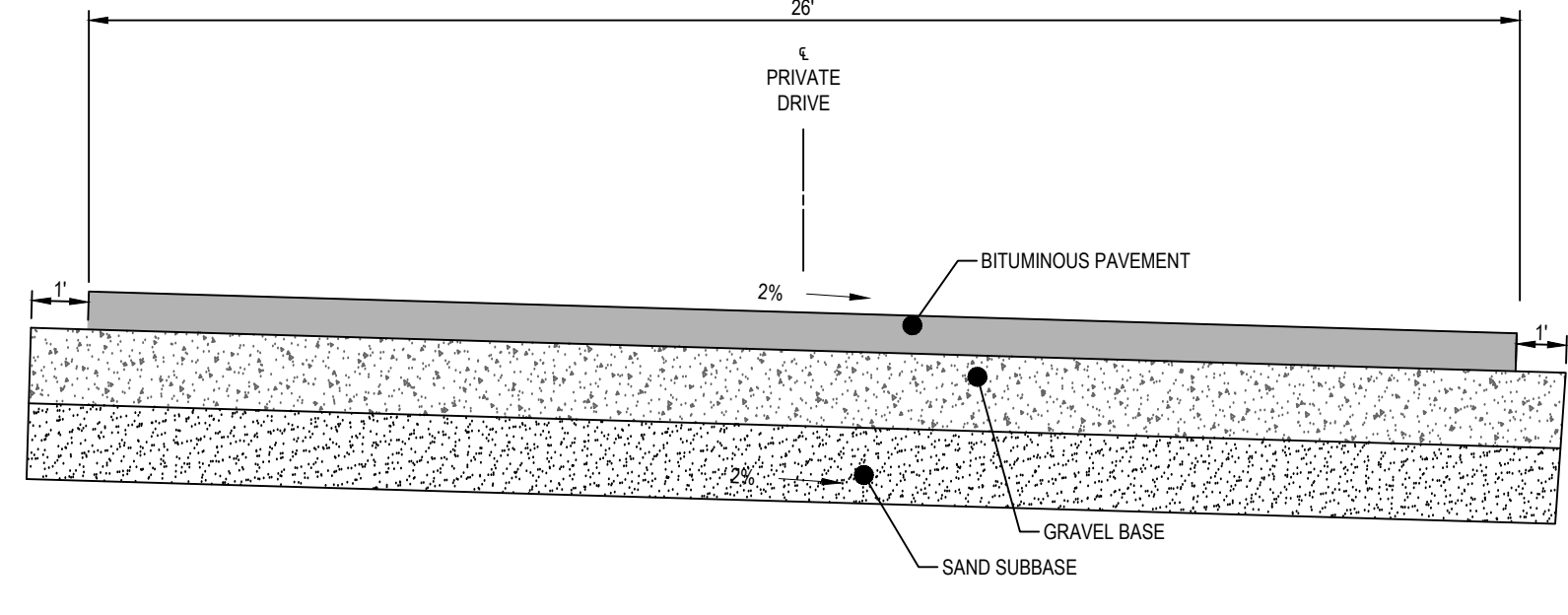
HEADWALL FOR CULVERT #401



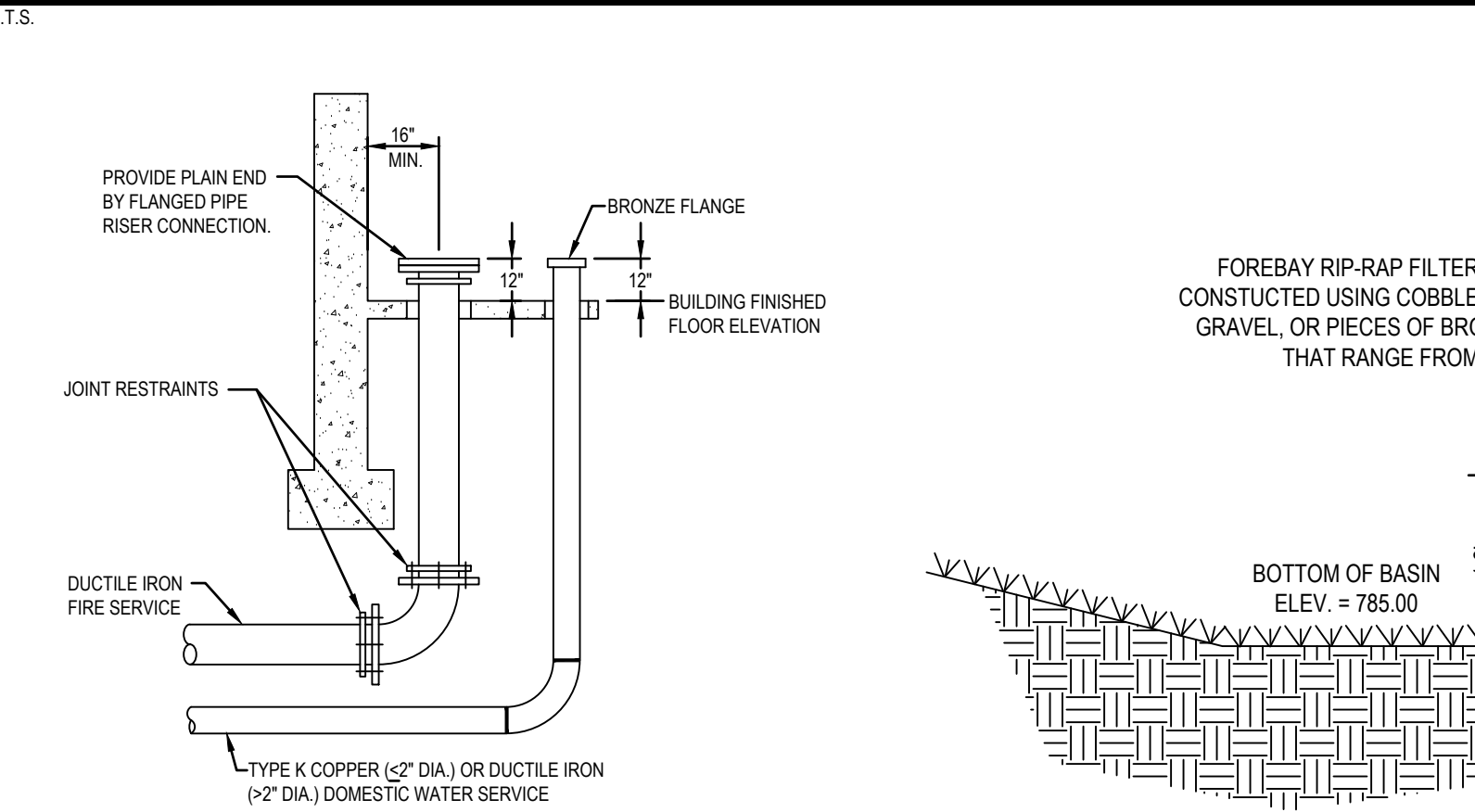
CONCRETE SPILLWAY DETAIL FOR DETENTION BASIN 1



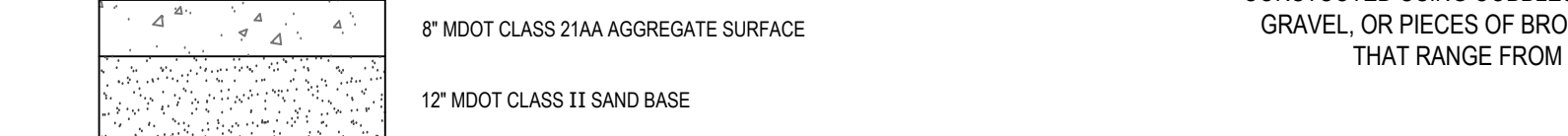
OUTLET CONTROLS STRUCTURE #400



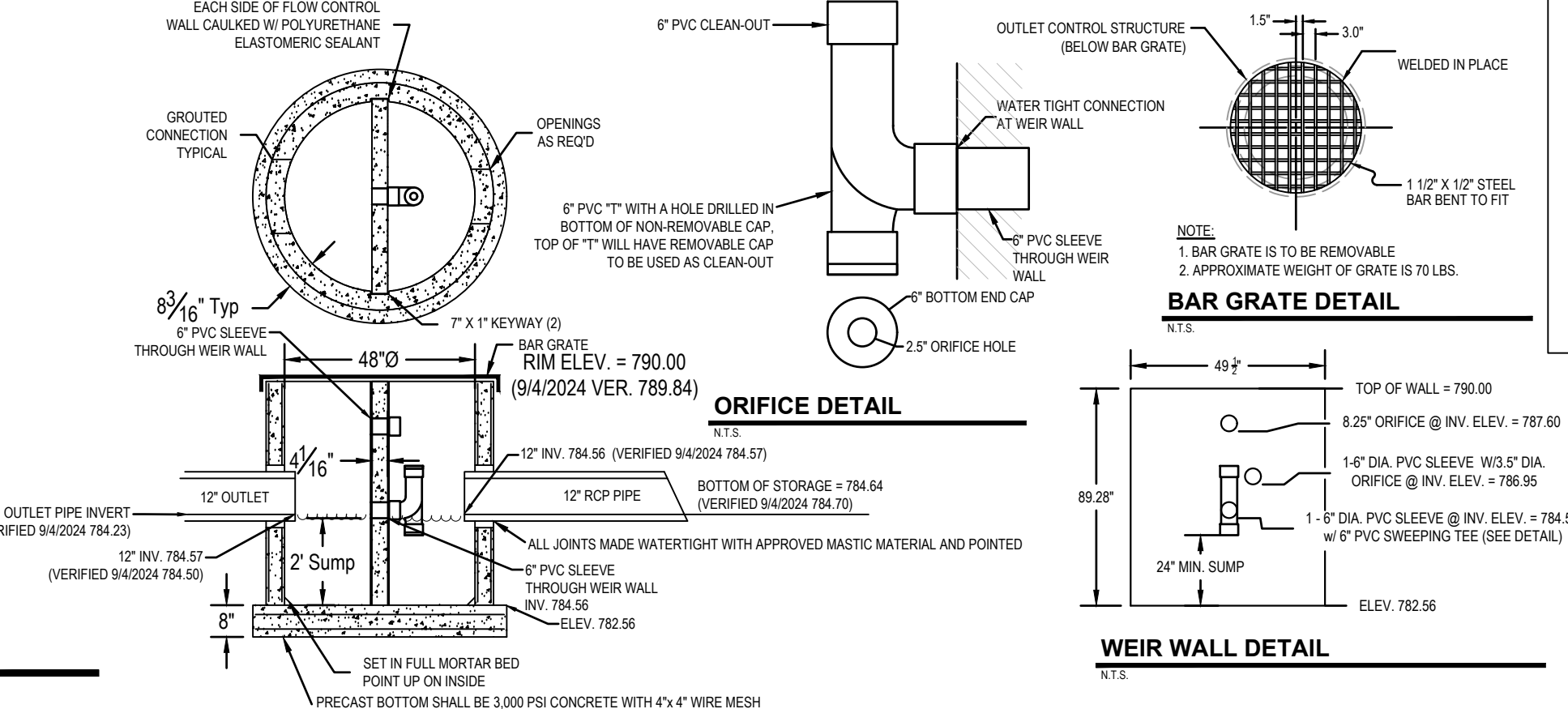
PRIVATE DRIVE CROSS-SECTION DETAIL



BUILDING FIRE SERVICE AND DOMESTIC SERVICE RISER DETAIL



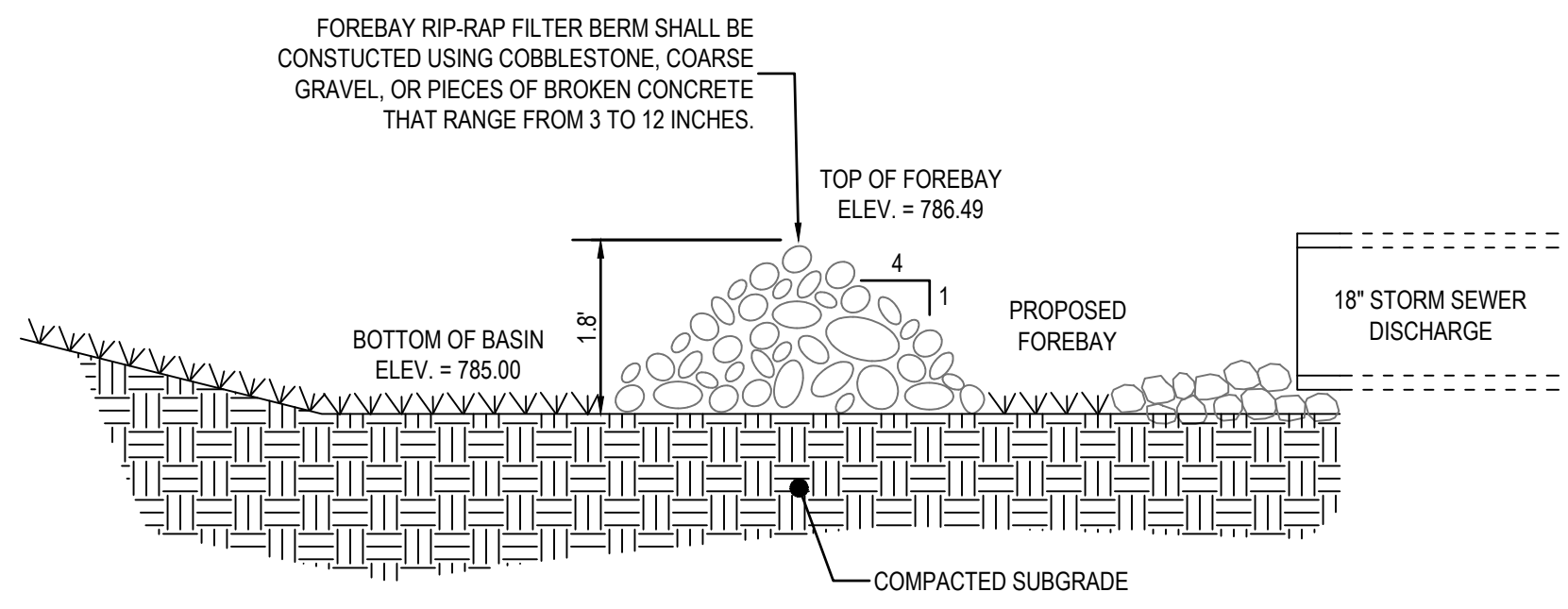
PRELIMINARY GRAVEL OUTSIDE STORAGE AREA DETAIL



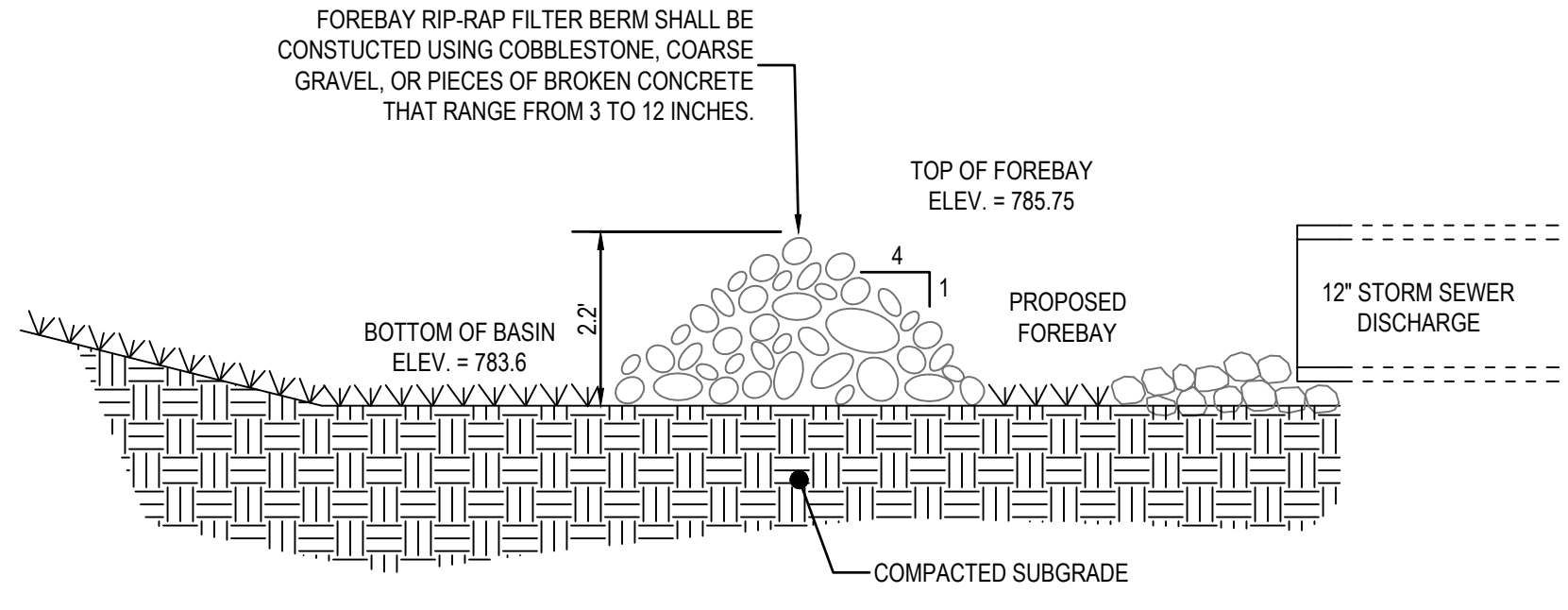
48" Ø PRECAST OUTLET CONTROL STRUCTURE #50 - BASIN



DETENTION BASIN FOREBAY 1 CROSS SECTION



DETENTION BASIN FOREBAY 2 CROSS SECTION



DETENTION BASIN FOREBAY 3 CROSS SECTION

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STAMP:

STATE OF MICHIGAN
ROGER JACK BARR II
License No. 6201041990
PROFESSIONAL ENGINEER

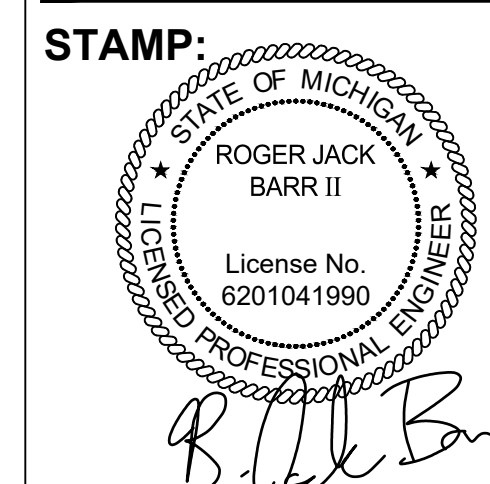
R. J. Barr

PROJECT NO:
23401001

SHEET NO:
C-501

REVISIONS:

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PROJECT NO:
23401001

SHEET NO:
L-100

LANDSCAPE NOTES

PLANTING NOTES:

- 1) ALL PLANT MATERIAL SHALL BE LOCALLY NURSERY GROWN NO. 1 GRADE AND INSTALLED ACCORDING TO ACCEPTED PLANTING PROCEDURES. ALL PLANT MATERIALS SHALL MEET CURRENT AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. DO NOT PLANT MATERIALS UNTIL DIRECTED BY OWNER, LANDSCAPE ARCHITECT, AND/OR CONSTRUCTION MANAGER. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL, FOR ANY REASON BEFORE OR AFTER IT IS INSTALLED.
- 2) SIZES SPECIFIED ARE MINIMUM SIZES TO WHICH THE PLANTS ARE TO BE INSTALLED.
- 3) ANY PLANT SUBSTITUTIONS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
- 4) MAINTENANCE OF LANDSCAPING ITEMS, TREES, AND PLANTS SHALL BE PERFORMED BY THE PROPERTY OWNER OR A QUALIFIED PROFESSIONAL. ALL LANDSCAPING SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE MUNICIPAL STANDARDS AND IN ACCORDANCE WITH CURRENT INDUSTRY STANDARDS IN A NEAT, HEALTHY AND WEED FREE CONDITION. ANY DEAD, DISEASED OR DAMAGED PLANT MATERIALS ARE TO BE REPLACED IMMEDIATELY AFTER NOTIFIED TO DO SO.
- 5) PLANT TREES AND SHRUBS IN ACCORDANCE WITH PLANTING DETAILS. DIG TREE PITS PER DETAILS. PLANT TREES AND SHRUBS AT THE SAME GRADE LEVEL AT WHICH THEY WERE GROWN AT THE NURSERY. IF HEAVY CLAY SOILS ARE EVIDENT, PLANT TREES AND SHRUBS HIGHER APPROX. 1/4 OF THE ROOT BALL ABOVE GRADE, AND BACKFILL TO TOP OF ROOT BALL.
- 6) REMOVE ALL TWINE, WIRE, NURSERY TREE GUARDS, TAGS AND INORGANIC MATERIAL FROM ROOT BALLS. REMOVE THE TOP 1/3 OF BURLAP FROM EARTH BALLS AND REMOVE BURLAP FROM AROUND TRUNK.
- 7) FINELY SHREDDED HARDWOOD BARK MULCH, NATURAL COLOR (NON-COLORED), IS REQUIRED FOR ALL PLANTINGS AND PLANTING BEDS. MULCH PER PLANTING DETAILS. MULCH IN PLANT BEDS SHALL BE 2" THICK AT TIME OF INSPECTION AND AFTER COMPACTED BY RAIN OR IRRIGATION. ALL PLANTING BEDS SHALL BE EDGED WITH 6" X 12 GAUGE STEEL LANDSCAPE EDGING.
- 8) LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL UNDERGROUND AND OVERHEAD UTILITIES. IF A CONFLICT WITH UTILITIES EXISTS, NOTIFY OWNER/CONSTRUCTION MANAGER PRIOR TO PLANTING.
- 9) PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR AFTER PLANTING AND ACCEPTANCE.

TOPSOIL AND TURF NOTES:

- 1) WHEREVER GROUND IN ITS NATURAL STATE HAS BEEN DISTURBED, APPROVED LANDSCAPING OR GRASS SHALL BE FULLY INSTALLED, AND ESTABLISHED WITHIN A REASONABLE PERIOD OF TIME, BUT NO LONGER THAN ONE GROWING SEASON (UNLESS OTHERWISE NOTED AND APPROVED).
- 2) DURING EXCAVATION, GRADING, AND INSTALLATION OF REQUIRED LANDSCAPING, ALL SOIL EROSION AND SEDIMENTATION CONTROL REGULATIONS SHALL BE STRICTLY FOLLOWED AND COMPLIED WITH.
- 3) ALL LAWN AREAS SHALL RECEIVE SOD OR HYDROSEED. TURF SHALL BE INSTALLED ON TOPSOIL UNLESS APPROVED OTHERWISE. DO NOT PLANT UNTIL ACCEPTANCE OF FINISH GRADE.
- 4) SOD SHALL BE GROWN ON TOPSOIL UNLESS APPROVED OTHERWISE. SOD SHALL BE 2 YEARS OLD AND STRONGLY ROOTED. PLACE SOD TIGHTLY WITH NO GAPS AND WITH GRASS IN SAME DIRECTION. SEAMS OF SOD SHALL BE STAGGERED IN A RUNNING BOND PATTERN. SOD SHALL BE WATERED IMMEDIATELY TO AVOID DRYING OUT. DO NOT INSTALL SOD UNTIL ACCEPTANCE OF FINISH GRADE AND IRRIGATION SYSTEM IS OPERATING PROPERLY UNLESS DIRECTED IN WRITING TO DO OTHERWISE. FINISH ROLL SOD WITH A WATER FILLED LAWN ROLLER. ROLL PERPENDICULAR TO LENGTH OF SOD.
- 5) TURF SHALL BE INSTALLED ON A MIN. OF 3" OF LIGHTLY COMPACTED APPROVED TOPSOIL. TOPSOIL SHALL BE FERTILE, SCREENED, FRIABLE TOPSOIL FREE OF STONES 1/2" IN DIA. AND LARGER, ROOTS, STICKS, OR OTHER EXTRANEOUS MATERIAL INCLUDING NOXIOUS PLANTS. PH BETWEEN 6.0 AND 6.5, SALTS 500 PARTS PPM, ORGANIC CONTENT 3% MIN. DO NOT INSTALL TOPSOIL UNTIL APPROVED BY OWNER/C.M. TOPSOIL SHALL BE FINE GRADED TO A SMOOTH FINISH, FREE OF LUMPS AND DEPRESSIONS.
- 6) ALL LANDSCAPE ISLANDS WITHIN PARKING LOTS SHALL BE BACK FILLED WITH TOPSOIL TO A DEPTH OF 18" MIN.

IRRIGATION NOTES:

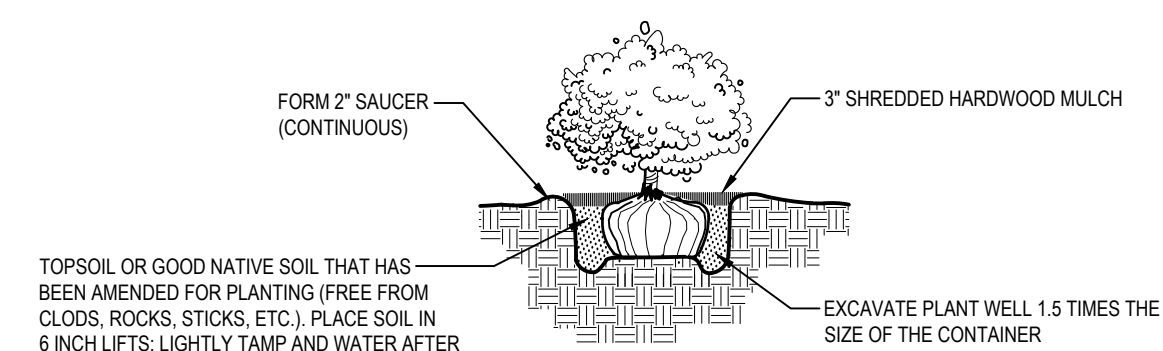
- 1) ALL PLANTING AREAS, LAWN AREAS AND LANDSCAPE ISLANDS SHOWN ARE TO HAVE A COMPLETE IRRIGATION SYSTEM. THE G.C. SHALL BE RESPONSIBLE FOR RETAINING A QUALIFIED FIRM FOR THE DESIGN OF THE IRRIGATION SYSTEM. THE DESIGN MUST SHOW HOW THE SYSTEM TIES INTO THE BUILDING AND MUST SHOW ALL OF THE NECESSARY EQUIPMENT FOR A COMPLETE SYSTEM. THE G.C. SHALL SUBMIT THE IRRIGATION SYSTEM DESIGN TO THE ARCHITECT/OWNER FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.

PLANT SCHEDULE

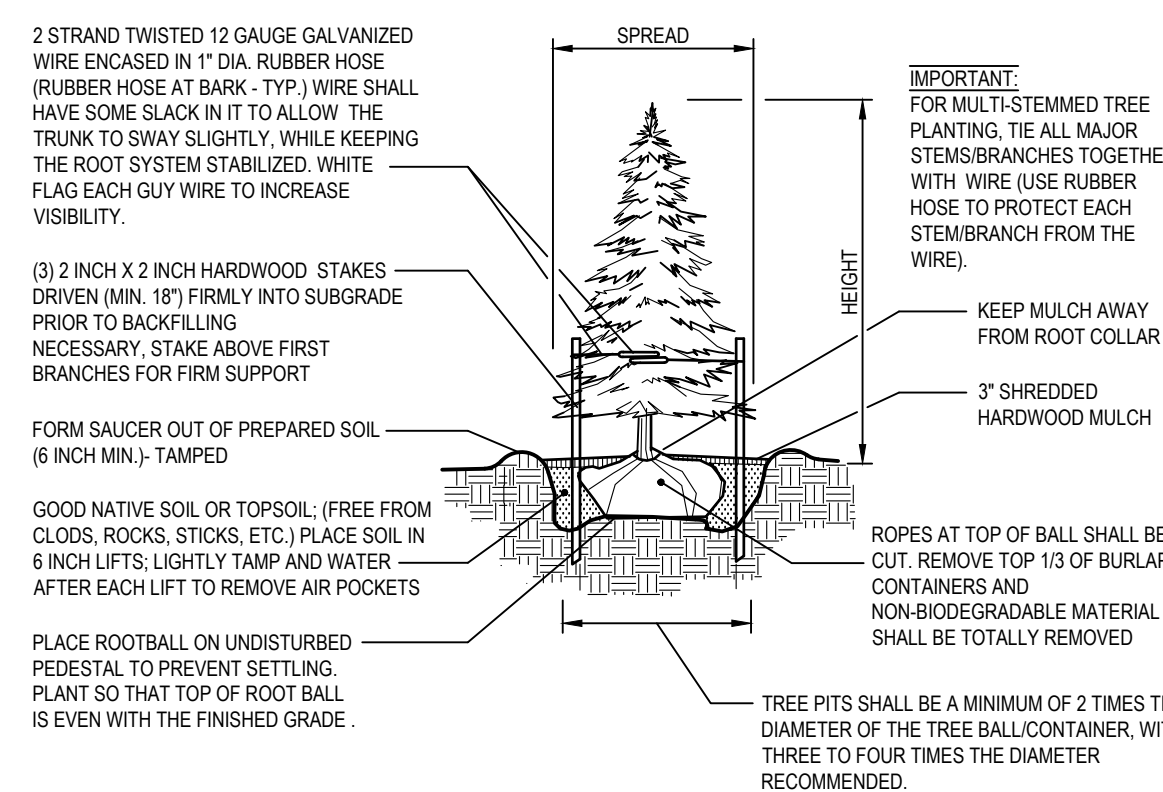
SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
TREES					
(Symbol)	Ac	5	<i>Abies concolor</i>	White Fir	5' hgt. min.
(Symbol)	Ft	3	<i>Aesculus x carnea</i> 'Fort McHair'	Fort McHair Red Horsechestnut	4' hgt. min.
(Symbol)	Al	15	<i>Amanchier laevis</i>	Allegheny Serviceberry	4' hgt. min.
(Symbol)	Cc	13	<i>Cercis canadensis</i>	Eastern Redbud	4' hgt. min.
(Symbol)	Ci	5	<i>Crataegus crus-galli</i> var. <i>nervis</i>	Thornless Cockspur Hawthorn	1.5' cal. min.
(Symbol)	Cv	6	<i>Chionanthus virginicus</i>	White Fringetree	4' hgt. min.
(Symbol)	Cv2	14	<i>Crataegus viridis</i> 'Winter King'	Winter King Hawthorn	4' hgt. min.
(Symbol)	Gk	3	<i>Gymnocladus dioica</i>	Kentucky Coffeetree	1.5' cal. min.
(Symbol)	Ls	6	<i>Liquidambar styraciflua</i>	Sweet Gum	1.5' cal. min.
(Symbol)	Lt	8	<i>Liriodendron tulipifera</i>	Tulip Poplar	1.5' cal. min.
(Symbol)	Lt2	5	<i>Liriodendron tulipifera</i>	Tulip Poplar	2.5' cal. min.
(Symbol)	Ms	12	<i>Malus sargentii</i>	Sargent Crabapple	4' hgt. min.
(Symbol)	Mv	9	<i>Malus x zumi</i> 'Calocarpa'	Redbud Zumi Crabapple	4' hgt. min.
(Symbol)	Ns	5	<i>Nyssa sylvatica</i>	Tupelo	1.5' cal. min.
(Symbol)	Pg	5	<i>Picea glauca</i>	White Spruce	5' hgt. min.
(Symbol)	Po	4	<i>Platanus occidentalis</i>	American Sycamore	2.5' cal. min.
(Symbol)	Ps	9	<i>Pinus strobus</i>	White Pine	5' hgt. min.
(Symbol)	Qm	8	<i>Quercus muhlenbergii</i>	Chinkapin Oak	1.5' cal. min.
(Symbol)	Ta	3	<i>Tilia americana</i>	American Linden	1.5' cal. min.
(Symbol)	Td	3	<i>Taxodium distichum</i>	Bald Cypress	1.5' cal. min.
SHRUBS					
(Symbol)	Ar	22	<i>Aronia arbutifolia</i> 'Brilliantissima'	Brilliant Red Chokeberry	18" min.
(Symbol)	Av	24	<i>Aronia melanocarpa</i> 'Wiking'	Wiking Black Chokeberry	18" min.
(Symbol)	Cg	10	<i>Cotinus x 'Grace'</i>	Grace Smoke Tree	18" min.
(Symbol)	Ck	24	<i>Cornus sericea</i> 'Kelsey'	Kelsey's Dwarf Red Twig Dogwood	18" min.
(Symbol)	Jo	36	<i>Juniperus virginiana</i> 'Grey Owl'	Grey Owl Eastern Redcedar	18" min.
(Symbol)	Jo2	48	<i>Juniperus virginiana</i> 'Grey Owl'	Grey Owl Eastern Redcedar	18" min.

LANDSCAPE CALCULATIONS

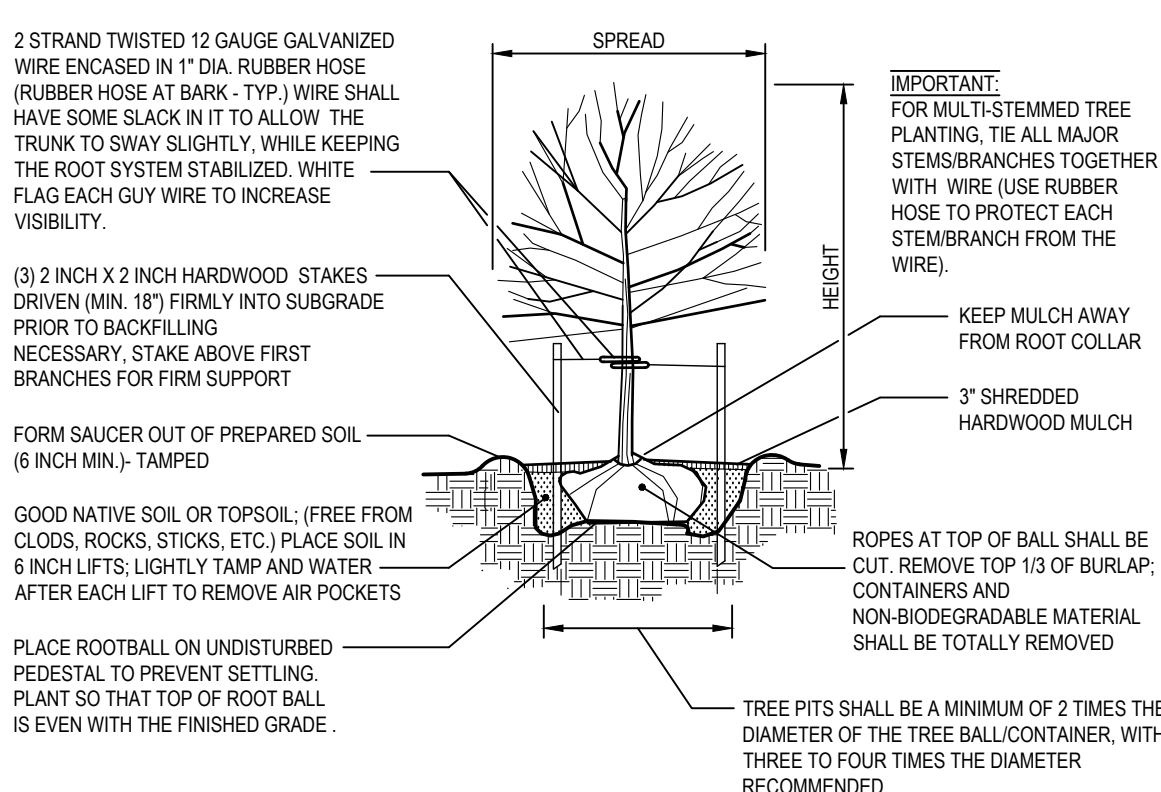
REQUIRED LANDSCAPING:	PROPOSED LANDSCAPING:
20.04 BUFFERYARD REQUIREMENTS	20.04 BUFFERYARD REQUIREMENTS
* A TYPE 'C' BUFFER IS REQUIRED ALONG THE SOUTH, WEST, AND EAST PROPERTY LINE WHICH INCLUDES: 2 CANOPY TREES, 4 UNDERSTORY TREES, AND 6 SHRUBS FOR EVERY 100 LINEAR FEET OF APPLICABLE BUFFER.	394' EAST PROPERTY LINE / 100 = 3.94 = 4 REQUIRED: 8 CANOPY TREES, 16 UNDERSTORY TREES, 24 SHRUBS PROPOSED: 8 CANOPY TREES, 16 UNDERSTORY TREES, 24 SHRUBS
* NORTH PROPERTY LINE ADJUTS EXISTING DEVELOPED SITE AND WILL BE COMBINED WITH PROPOSED DEVELOPMENT.	1,306' SOUTH PROPERTY LINE / 100 = 13.06 = 13 REQUIRED: 26 CANOPY TREES, 52 UNDERSTORY TREES, 78 SHRUBS PROPOSED: 26 CANOPY TREES, 52 UNDERSTORY TREES, 78 SHRUBS
	582' WEST PROPERTY LINE / 100 = 5.82 = 6 REQUIRED: 12 CANOPY TREES, 24 UNDERSTORY TREES, 36 SHRUBS PROPOSED: 9 CANOPY TREES + 3 EXISTING CANOPY TREES, 5 UNDERSTORY TREES, 19 EVERGREEN TREES, AND 36 EVERGREEN SHRUBS



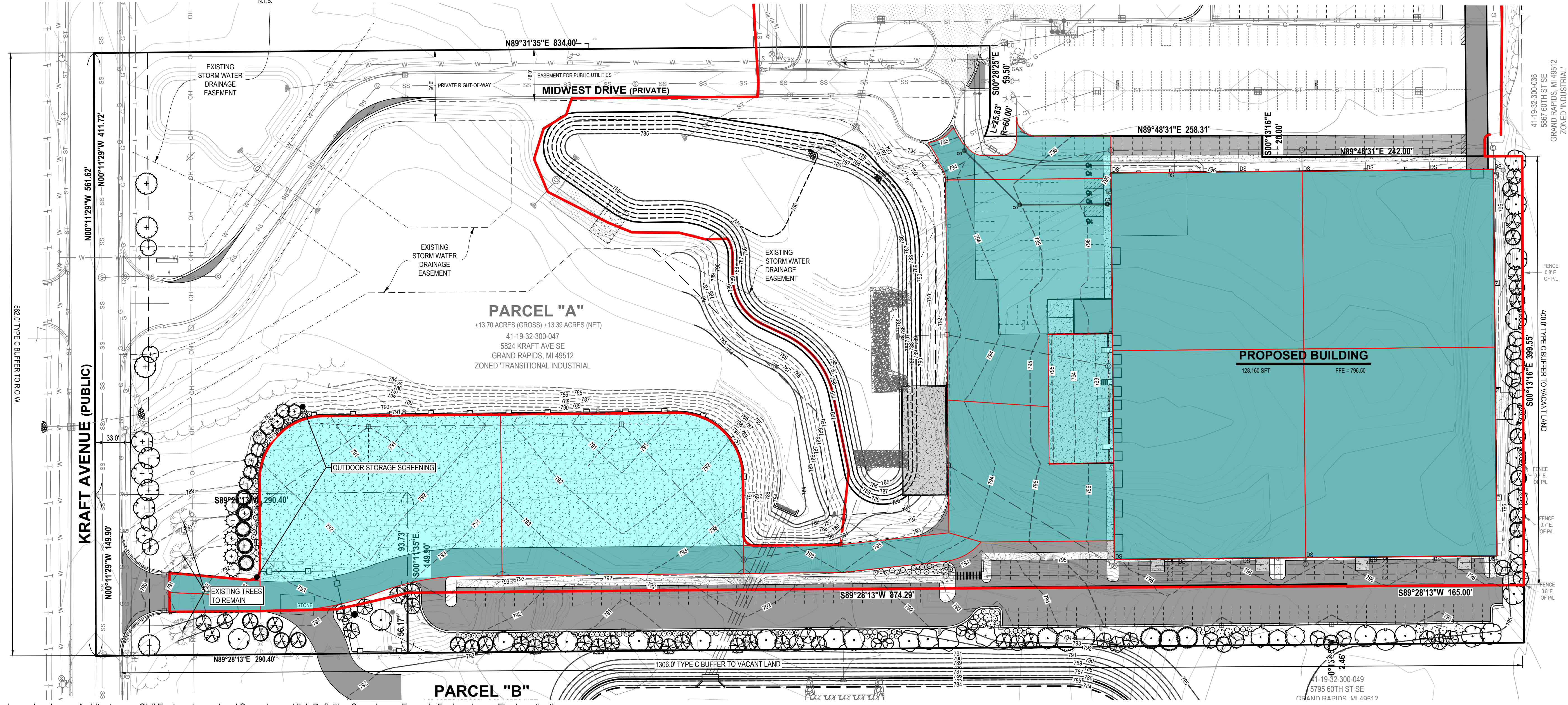
TYPICAL SHRUB / PERENNIAL / ORNAMENTAL GRASS PLANTING DETAIL
 N.T.S.



TYPICAL EVERGREEN TREE PLANTING DETAIL
 N.T.S.



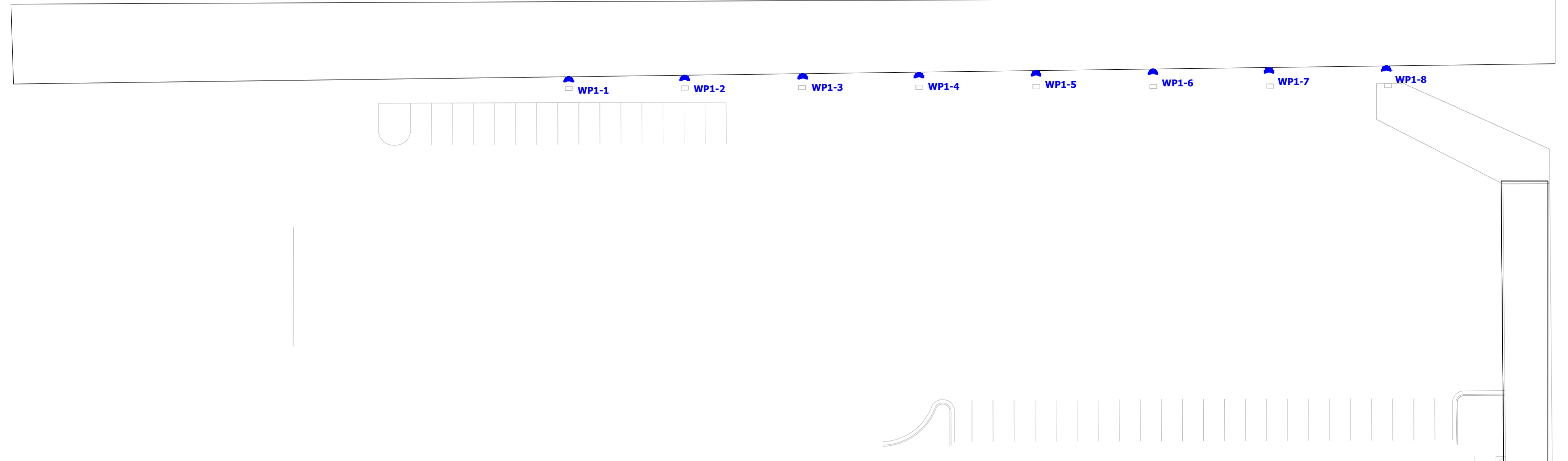
TYPICAL TREE PLANTING DETAIL
 N.T.S.





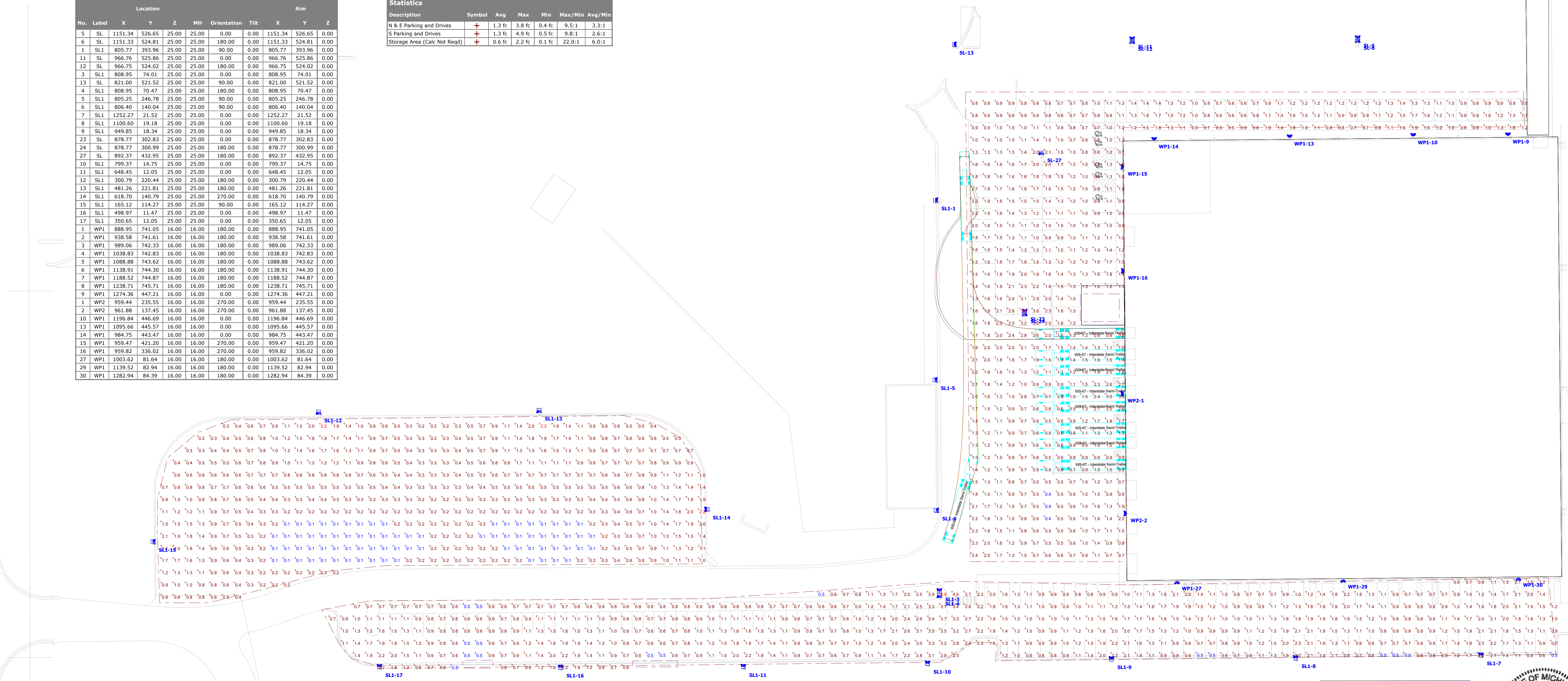
VISUAL

Symbol	Label	Image	Quantity	Manufacturer	Catalog Number	Filename	Lumens Per Lamp	Light Loss Factor	Wattage	Efficiency	Distribution
	SL		8	Lithonia Lighting	DSX0 LED P4 30K 70CRI T4M	DSX0_LED_P4_30K_70CRI_T4 M ies	10839	1	93.04	100%	TYPE IV, MEDIUM, BUG RATING: B2 - U0 - G3
	SL1		16	Lithonia Lighting	DSX1 LED P3 30K 70CRI T4M HS	DSX1_LED_P3_30K_70CRI_T4 M_HS ies	11530	1	102.1727	100%	TYPE IV, MEDIUM, BUG RATING: B1 - U0 - G3
	WP1		17	Lithonia Lighting	DSX0 LED P1 30K 80CRI T4M	DSX0_LED_P1_30K_80CRI_T4 M ies	4236	1	33.21	100%	TYPE IV, MEDIUM, BUG RATING: B1 - U0 - G2
	WP2		2	Lithonia Lighting	DSX0 LED P3 30K 70CRI T4M	DSX0_LED_P3_30K_70CRI_T4 M ies	8565	1	68.95	100%	TYPE IV, MEDIUM, BUG RATING: B2 - U0 - G3



No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z
5	SL	1151.34	526.65	25.00	25.00	0.00	0.00	1151.34	526.65	0.00
6	SL	1151.33	524.81	25.00	25.00	180.00	0.00	1151.33	524.81	0.00
1	SL1	805.77	393.96	25.00	25.00	90.00	0.00	805.77	393.96	0.00
11	SL1	966.76	525.86	25.00	25.00	0.00	0.00	966.76	525.86	0.00
12	SL	966.75	524.02	25.00	25.00	180.00	0.00	966.75	524.02	0.00
3	SL1	808.95	74.01	25.00	25.00	0.00	0.00	808.95	74.01	0.00
13	SL	821.00	521.52	25.00	25.00	90.00	0.00	821.00	521.52	0.00
4	SL1	808.95	70.47	25.00	25.00	180.00	0.00	808.95	70.47	0.00
5	SL1	805.25	246.78	25.00	25.00	90.00	0.00	805.25	246.78	0.00
6	SL1	806.40	140.04	25.00	25.00	90.00	0.00	806.40	140.04	0.00
7	SL1	1252.27	21.52	25.00	25.00	0.00	0.00	1252.27	21.52	0.00
8	SL1	1100.60	19.18	25.00	25.00	0.00	0.00	1100.60	19.18	0.00
9	SL1	949.85	18.34	25.00	25.00	0.00	0.00	949.85	18.34	0.00
23	SL	878.77	302.83	25.00	25.00	0.00	0.00	878.77	302.83	0.00
24	SL	878.77	300.99	25.00	25.00	180.00	0.00	878.77	300.99	0.00
27	SL	892.37	432.95	25.00	25.00	180.00	0.00	892.37	432.95	0.00
10	SL1	799.37	14.75	25.00	25.00	0.00	0.00	799.37	14.75	0.00
11	SL1	648.45	12.05	25.00	25.00	0.00	0.00	648.45	12.05	0.00
12	SL1	300.79	220.44	25.00	25.00	180.00	0.00	300.79	220.44	0.00
13	SL1	481.26	221.81	25.00	25.00	180.00	0.00	481.26	221.81	0.00
14	SL1	618.70	140.79	25.00	25.00	270.00	0.00	618.70	140.79	0.00
15	SL1	165.12	114.27	25.00	25.00	90.00	0.00	165.12	114.27	0.00
16	SL1	498.97	11.47	25.00	25.00	0.00	0.00	498.97	11.47	0.00
17	SL1	350.65	12.05	25.00	25.00	0.00	0.00	350.65	12.05	0.00
1	WP1	889.95	741.05	16.00	16.00	180.00	0.00	889.95	741.05	0.00
2	WP1	938.58	741.61	16.00	16.00	180.00	0.00	938.58	741.61	0.00
3	WP1	989.06	742.33	16.00	16.00	180.00	0.00	989.06	742.33	0.00
4	WP1	1038.83	742.83	16.00	16.00	180.00	0.00	1038.83	742.83	0.00
5	WP1	1088.88	743.62	16.00	16.00	180.00	0.00	1088.88	743.62	0.00
6	WP1	1138.91	744.30	16.00	16.00	180.00	0.00	1138.91	744.30	0.00
7	WP1	1188.52	744.87	16.00	16.00	180.00	0.00	1188.52	744.87	0.00
8	WP1	1238.71	745.71	16.00	16.00	180.00	0.00	1238.71	745.71	0.00
9	WP1	1274.36	447.21	16.00	16.00	0.00	0.00	1274.36	447.21	0.00
1	WP2	959.44	235.55	16.00	16.00	270.00	0.00	959.44	235.55	0.00
2	WP2	961.88	137.45	16.00	16.00	270.00	0.00	961.88	137.45	0.00
10	WP1	1196.84	446.69	16.00	16.00	0.00	0.00	1196.84	446.69	0.00
13	WP1	1095.66	445.57	16.00	16.00	0.00	0.00	1095.66	445.57	0.00
14	WP1	984.75	443.47	16.00	16.00	0.00	0.00	984.75	443.47	0.00
15	WP1	959.47	421.20	16.00	16.00	270.00	0.00	959.47	421.20	0.00
16	WP1	959.82	336.02	16.00	16.00	270.00	0.00	959.82	336.02	0.00
27	WP1	1003.62	81.64	16.00	16.00	0.00	0.00	1003.62	81.64	0.00
29	WP1	1139.52	82.94	16.00	16.00	180.00	0.00	1139.52	82.94	0.00
30	WP1	1282.94	84.39	16.00	16.00	180.00	0.00	1282.94	84.39	0.00

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
N & E Parking and Drives	+	1.3 fc	3.8 fc	0.4 fc	9.5:1	3.3:1
S Parking and Drives	+	1.3 fc	4.9 fc	0.5 fc	9.8:1	2.6:1
Storage Area (Calc Not Req'd)	+	0.6 fc	2.2 fc	0.1 fc	22.0:1	6.0:1



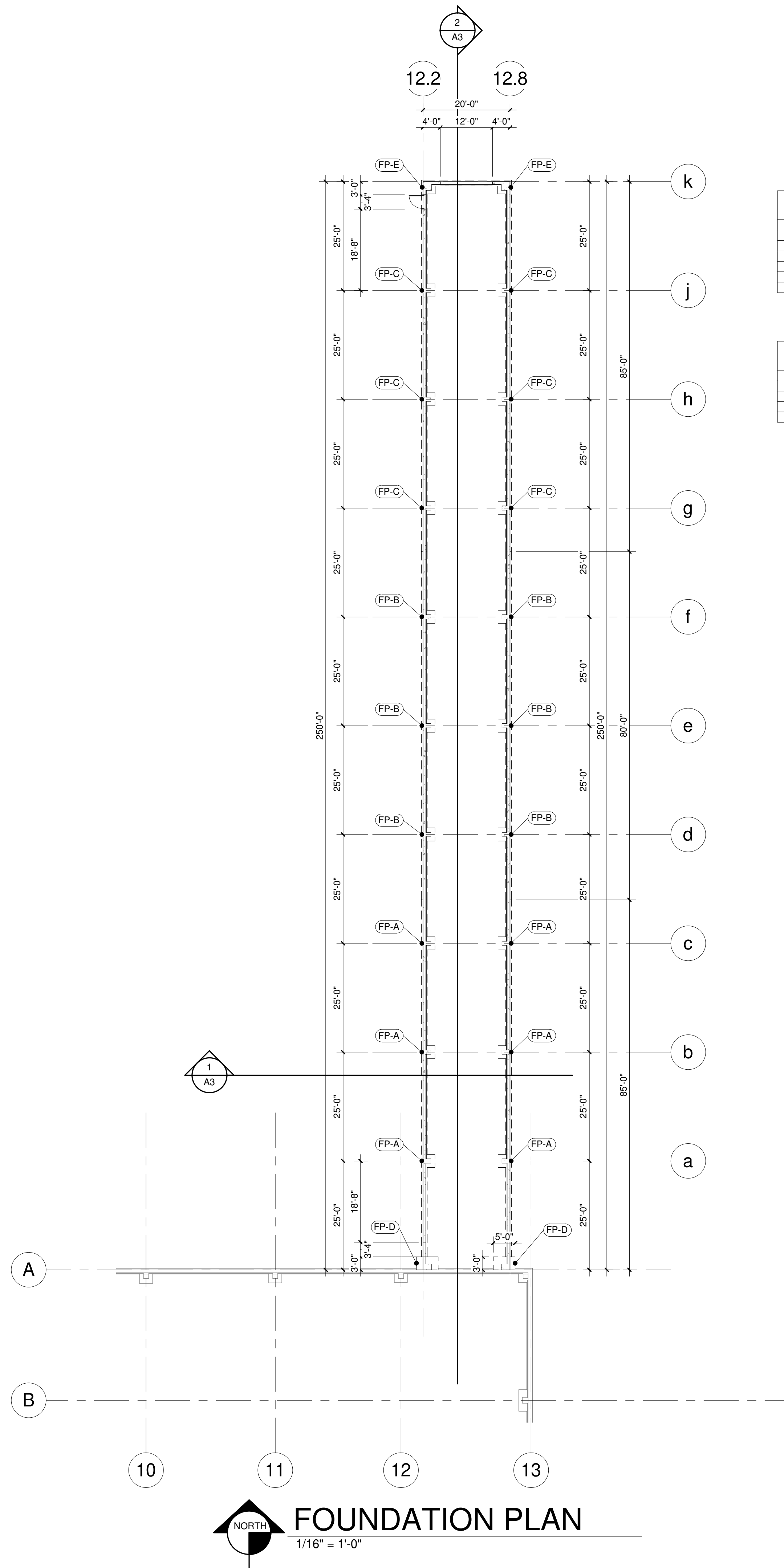
Site Lighting Calculations for:
New Building
5824 Kraft SE

2054 Brandon Drive NW, Grand Rapids, Michigan 49504
 phone 616-890-9321
 morgan@mrlandon.com

07-03-2025

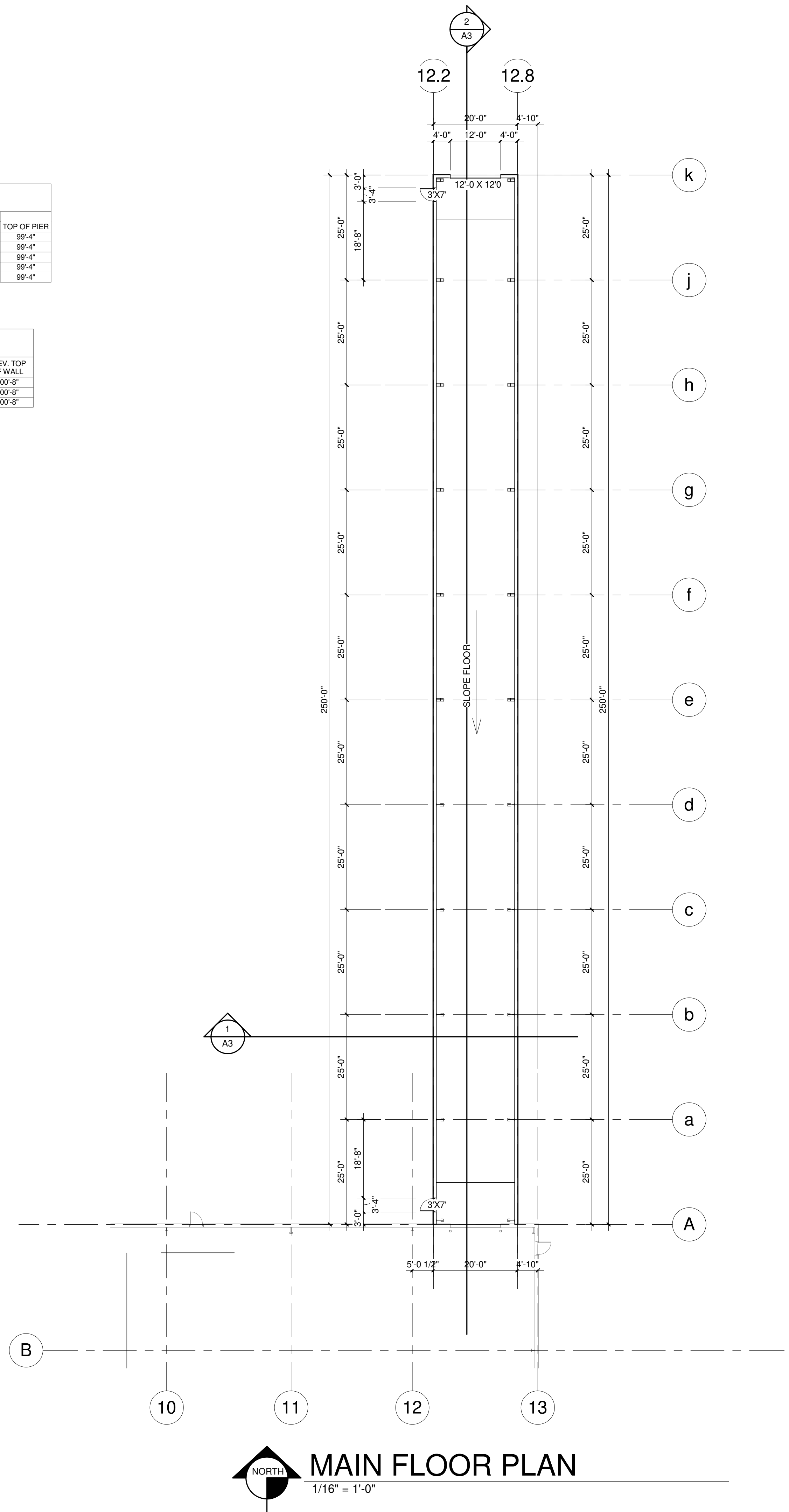
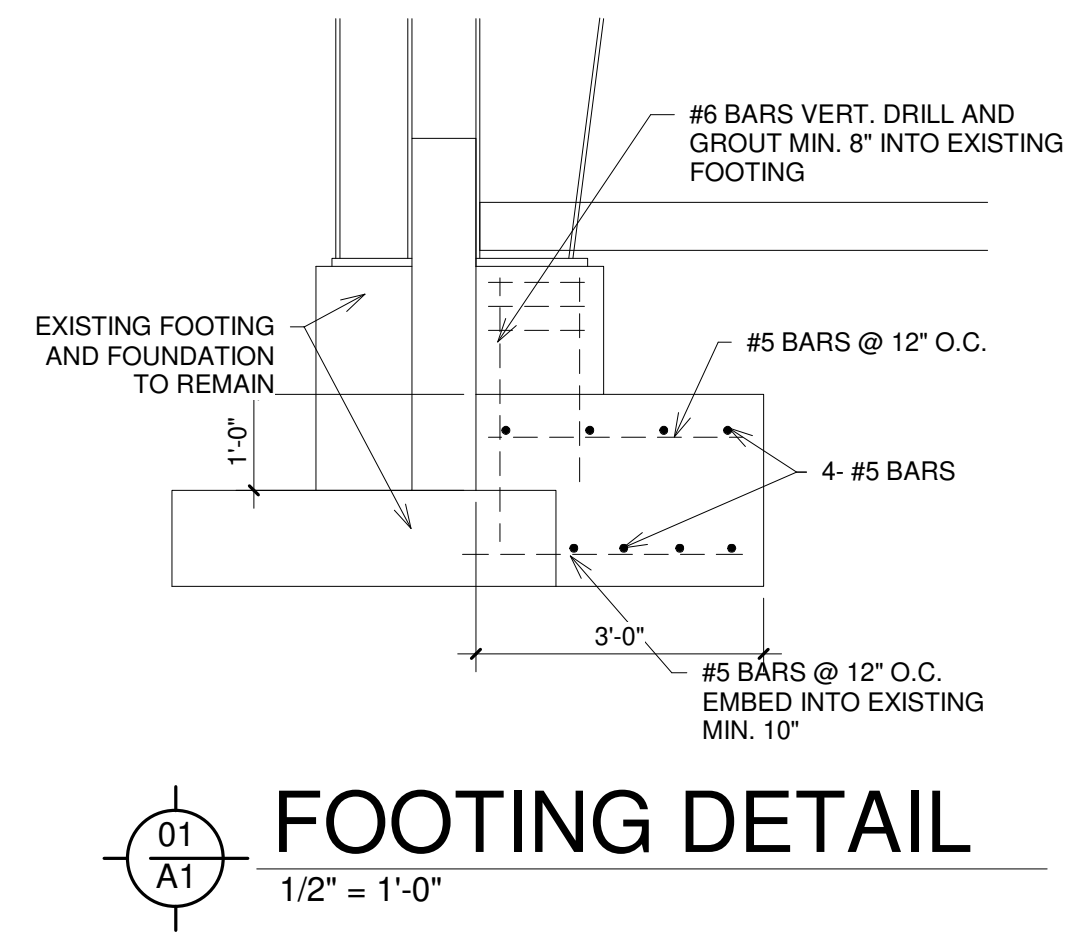
Designer
 MML
 Date
 06-18-2024
 Scale
 1" = 40' - 0"
 Drawing No.
 Summary

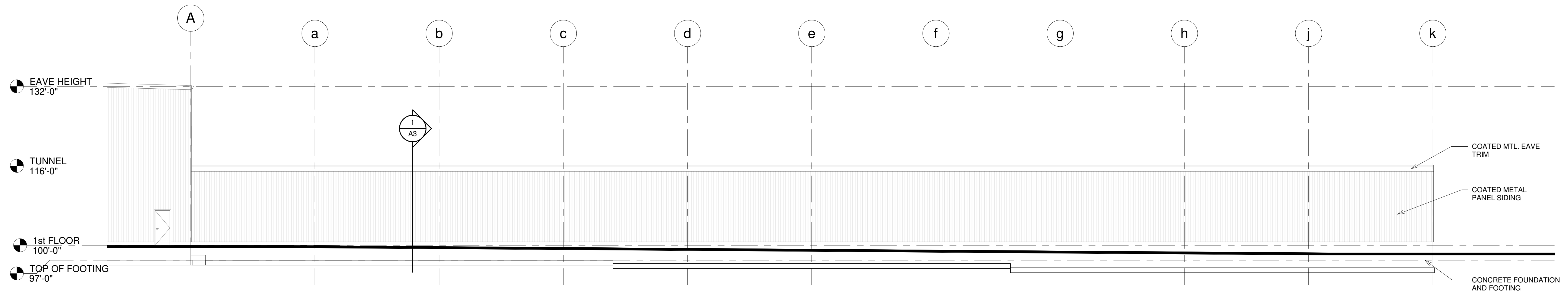
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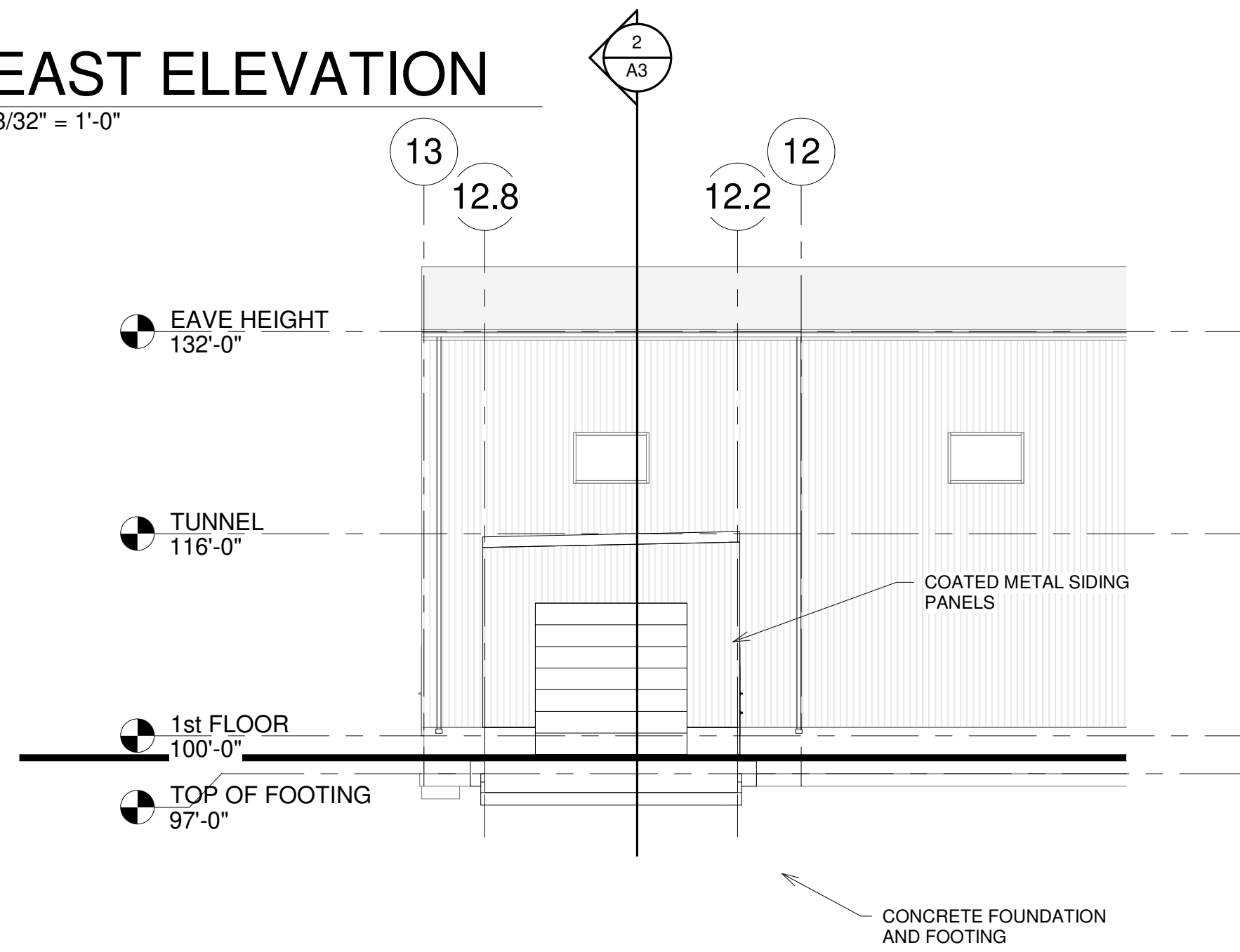
COLUMN FOOTINGS					COLUMN PIERS					
MARK	FOOTING SIZE			REINFORCING EACH WAY	ELEV. T.O. FTG.	PIER SIZE	REINFORCING			
	WIDTH	LENGTH	THICKNESS				VERT REINFG	TIES @ TOP	REMAINING TIES	TOP OF PIER
FP-A	3'-0"	3'-0"	1'-0"	4-#5 BARS	97'-0"	12' X 16"	6-#6 BARS	(3)#3 @ 3"	#3 @ 12"	99'-4"
FP-B	3'-0"	3'-0"	1'-0"	4-#5 BARS	96'-4"	12' X 16"	6-#6 BARS	(3)#3 @ 3"	#3 @ 12"	99'-4"
FP-C	3'-0"	3'-0"	1'-0"	4-#5 BARS	95'-6"	12' X 16"	6-#6 BARS	(3)#3 @ 3"	#3 @ 12"	99'-4"
FP-D	3'-0"	5'-0"	2'-0"	4-#5 BARS	12" ABOVE EXISTING	12' X 16"	6-#6 BARS	(3)#3 @ 3"	#3 @ 12"	99'-4"
FP-E	3'-0"	3'-0"	1'-0"	4-#5 BARS	95'-6"	12' X 16"	6-#6 BARS	(3)#3 @ 3"	#3 @ 12"	99'-4"

RIBBON FOOTINGS				FOUNDATION WALLS				
MARK	FOOTING SIZE		CONTINUOUS REINFORCING	ELEV. T.O. FTG.	THK.	REINFORCING		ELEV. TOP OF WALL
	WIDTH	THICKNESS				VERTICAL	HORIZONTAL	
RF-A	2'-0"	1'-0"	2-#5 BARS	97'-0"	8"	#5 X 24" @ 32" O.C.	#5 T & B	100'-8"
RF-B	1'-4"	1'-0"	2-#5 BARS	96'-4"	8"	#5 X 24" @ 32" O.C.	#5 T & B	100'-8"
RF-C	1'-4"	1'-0"	2-#5 BARS	95'-6"	8"	#5 X 24" @ 32" O.C.	#5 T & B	100'-8"

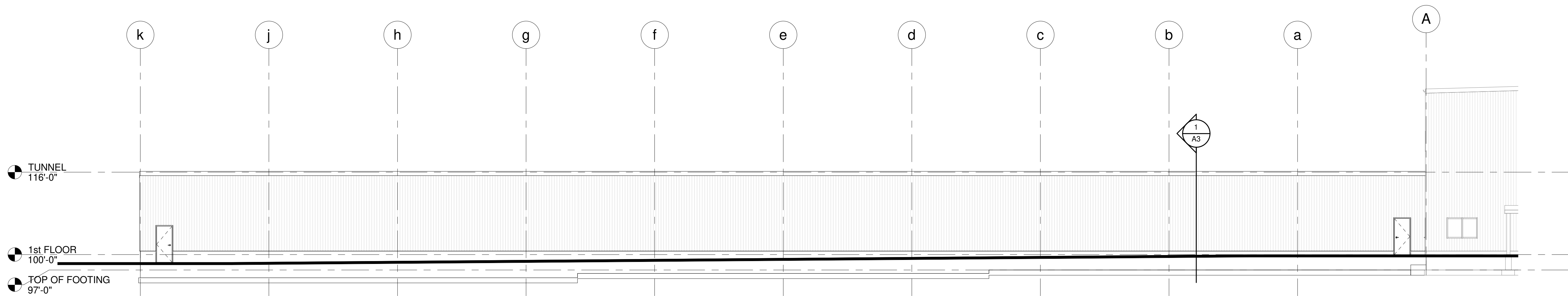




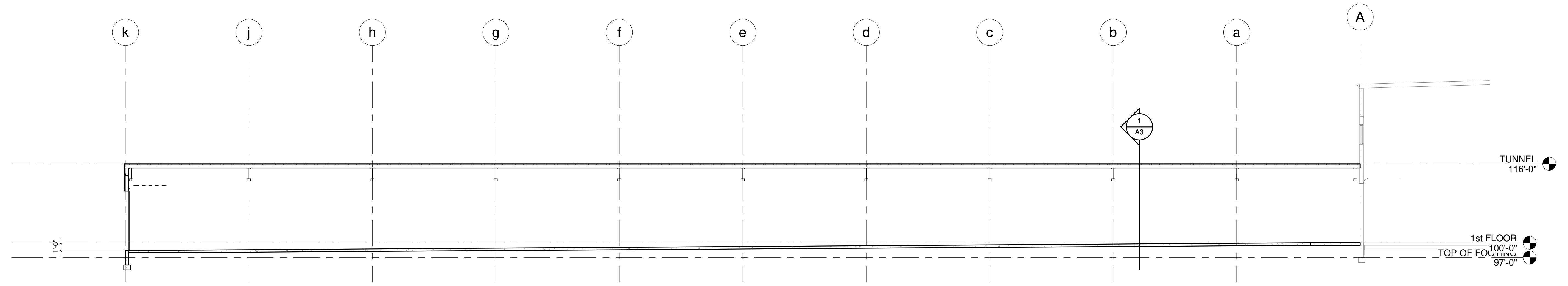
EAST ELEVATION
3/32" = 1'-0"



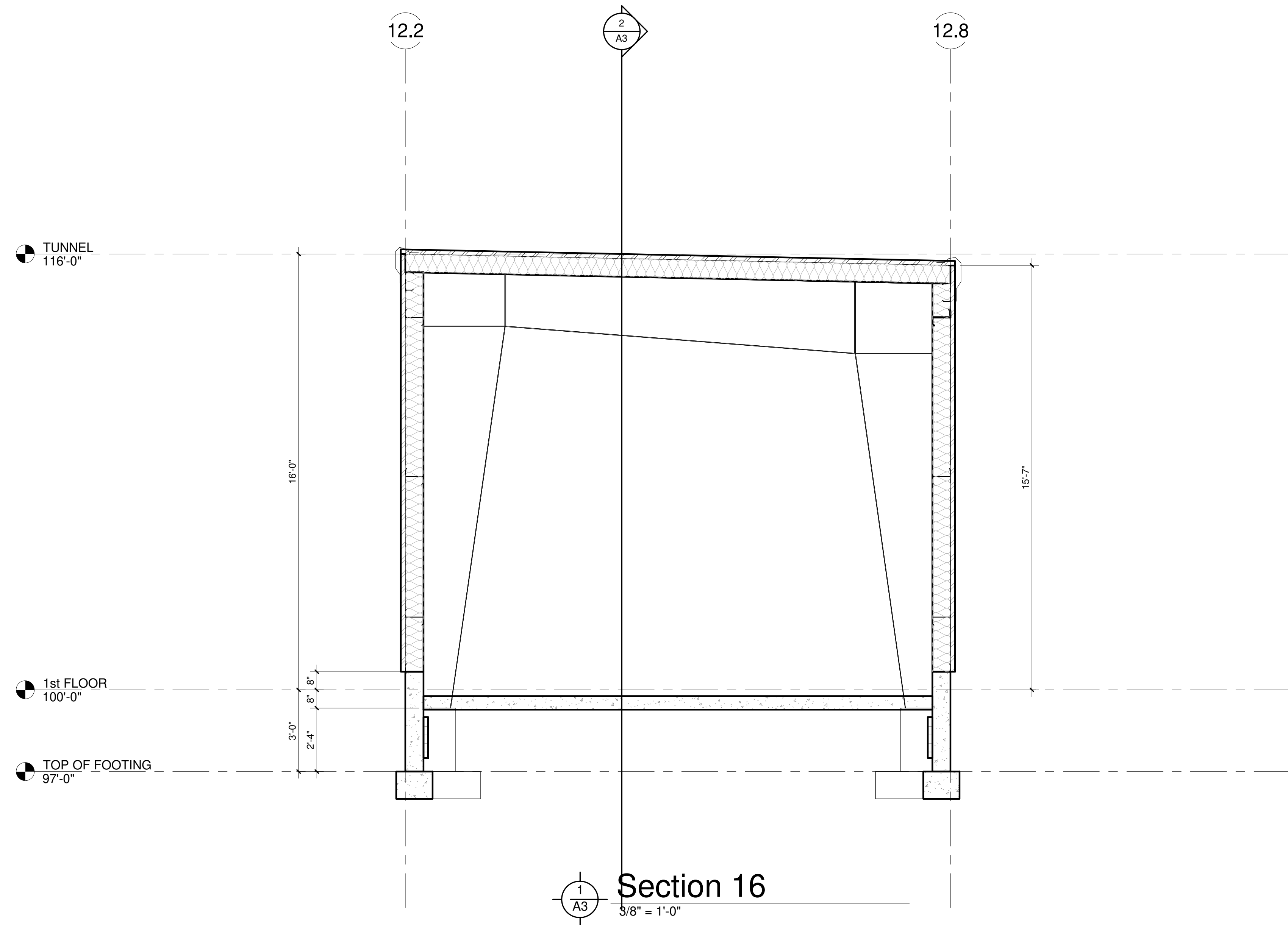
NORTH ELEVATION
3/32" = 1'-0"



WEST ELEVATION
3/32" = 1'-0"



Section 17
 3/32" = 1'-0"



Section 16
 3/8" = 1'-0"

ARTICLE 6. Acknowledge visitors and those wishing to speak.

John McGovern, owner of 5505 36th Street, regarding Case #24-3827 involving the adjacent property at 5441 36th Street.

Mr. McGovern explained he shared a driveway with the neighboring property. He detailed issues with the new property owner, including land encroachment during construction and concerns about a new wall interfering with his driveway access. Mr. McGovern also expressed worries about potential drainage problems and revealed that construction had already begun despite instructions to stop.

Secretary Noordyke sought confirmation that work had already started on the project, which McGovern affirmed.

Vice Chair Rissi asked for clarification on the easement, confirming that it was a shared arrangement allowing both parties access to either side. McGovern agreed, emphasizing that the proposed wall would render his side of the drive useless.

Member Rowland inquired about the duration of these issues, which McGovern estimated at about six months.

Member Bruneau sought clarification on the nature of the easement, asking if there was an actual recorded easement. McGovern explained that he had searched for a deeded easement in plat records but didn't find one.

ARTICLE 7. Case #24-3842 Public Hearing

Applicant: Trane Technologies, Scott Geerlings

Property Address: 5824 Kraft Ave SE

Parcel Number: 41-19-32-300-047

Requested Action: Special Use Permit and Site Plan Review for outdoor storage.

Planning Director Andrea Hendrick presented the application, explaining the current ordinance requirement for an 8-foot fence around outdoor storage areas. She noted that this requirement seemed somewhat inappropriate for the industrial context of this application. She stated she didn't think that trespassing would be an issue. She suggested that the 8-foot fence requirement might be more suitable for screening industrial uses from residential areas, rather than between industrial properties. She explained that the applicant was requesting a second driveway 267 feet from the existing one, falling short of the 300-foot requirement. The applicant would need a variance from the Zoning Board of Appeals. The applicant had already applied. She also noted buffer yard planting deficiencies on the west and north sides of the property.

Member Bruneau stated that an 8-foot fence seemed appropriate between industrial properties. He mentioned Trane Technologies' current 5005 Corporate Exchange property and how it was an eye sore in that zone. Planning Director Hendrick responded by explaining that the 5005 Corporate Exchange property was in a PUD and had some historically non-compliant features due to this. She noted that as new applications come up, they request applicants to come into compliance.

Member Richardson also found an 8-foot fence to be appropriate in industrial areas. He believed industrial settings should be aesthetically pleasing.

Vice Chair Rissi raised concerns about the absence of dumpster corrals on the plans that were included in the packet. Planning Director Hendrick responded that

the applicant proposed using an existing dumpster at 5784 Kraft Drive, suggesting this be included in the shared parking agreement.

Member Bruneau asked for clarification on the deferred parking that looked to be on the northern property (5784 Kraft Avenue) where the current semi loading bays are. Planning Director Hendrick confirmed what he saw and mentioned that Trane would be using the northern property for office space sort of a unified campus.

Member Rowland asked if the storage area could be moved back to meet the 50-foot setback. Mr. Barr responded that they could accommodate that somehow with adjustments to plans.

Vice Chair Rissi then asked about recalculating parking for the north building if they're using it for office space. Planning Director Hendrick confirmed that the parking calculation provided included both properties.

Jack Barr with Nederveld, architect for applicant, provided context for the need for the second driveway. He explained that it was crucial for Trane's operations, specifically truck access. Chris Doyle from Trane Technologies further elaborated on the operational needs, explaining that the facility would be producing large rooftop units, with some measuring up to 33 feet long. The second driveway would facilitate the movement of these large units and improve overall site logistics.

Mr. *Barr* clarified that there are shared agreements with the subject property (5824 Kraft Avenue) and the property to the north (5784 Kraft Avenue). These agreements include shared use of the drive, stormwater, dumpster and parking. The current tenant, a tire warehouse company, would be leaving, and Trane would be taking over both properties entirely, creating a kind of unified campus.

Mr. *Barr* explained that *Trane* planned to use the existing double dumpster enclosure located at 5784 Kraft Drive for both facilities showing where it was location on the stormwater plans.

Member Bruneau voiced a concern with relations to the refrigerants and PFAS, asking if they were stored at the site. Mr. Doyle addressed concerns about refrigerants, explaining that units are only partially charged for testing before shipping.

Scott Geerlings, the applicant clarified the reason for the keeping the drive instead of creating a new drive, which would eliminate the need for a curb cut. He stated Trane would be working directly with the tenant of 5784 Kraft Drive and have all the shared agreements with them that were discussed earlier in the meeting.

Motion was made by Vice Chair Rissi, seconded by Secretary Noordyke to open the public hearing. Motion carried unanimously.

No one wished to comment.

Motion was made by Secretary Noordyke, seconded by Vice Chair Rissi, to close the public hearing. Motion carried unanimously.

Member Rowland expressed a willingness to support the application with specific conditions, including maintaining the driveway at 267 feet, accepting the current planting plan, adding 51 parking spaces once the existing company moves out, and moving the storage area to 50 feet from the property line.

Member Bruneau agreed with these conditions, noting that the 51 spaces were already paved as part of the existing loading dock area, so it made sense to stripe these for parking and keep the other spaces truly deferred.

Vice Chair Rissi sought clarification on including the revised photometrics plan in the motion, which Planning Director Hendrick confirmed would be appropriate. Member Bruneau also reminded the commission about including requirements for updated stormwater maintenance agreements, access easements, and shared parking agreements.

Member Richardson brought up the unsightliness of outdoor storage at 5005 Corporate Exchange property, asking if this was going to happen at the site being discussed for the case. Mr. Doyle responded that he had now moved into overseeing the operations in the area that they are currently addressing those concerns and that progress should be seen in the near future and that it would not be happening at this site.

Motion was made by Member Rowland, seconded by Secretary Noordyke to APPROVE Case Number 24-3842, with the following provisions including staff recommendations:

- 1. The second drive located off Kraft is permitted per Section 19.03(3)**
- 2. The required buffer yard plantings on the north side of the subject property are reduced to accommodate shared parking and access with 5726 Kraft Avenue.**
- 3. The deferred parking plan is acceptable, with the requirement that the applicant constructs the 51 spaces, on 5784 Kraft Avenue and parking on the south side of the outdoor storage area.**
- 4. The replacement of the photometric plan for the plan dated 06/27/2024 is included as part of the approved plan.**

Furthermore, the following conditions shall be placed on the approval:

- 1. The application and plans submitted by the applicant and signed, dated, and stamped by the Planning Director, shall constitute the approved plans, except if plan elements are amended in this resolution, or do not meet the requirements of the Zoning Ordinance.**
- 2. That the use shall operate according to this application and per the testimony of the applicant.**
- 3. Any proposed signage must be reviewed and approved in accordance with CCT Sign Ordinance Standards.**
- 4. All permits are obtained by the Kent County Road Commission for the Driveway openings to Kraft.**
- 5. All Soil Erosion & Sediment Control plans are approved by the Kent County Road Commission.**
- 6. Approval from the Zoning Board of Appeals to place the second driveway closer than 300 feet from one another.**
- 7. Applicant provides the access easement agreement, a shared parking agreement including the use of the dumpster enclosure on 5784 Kraft Avenue SE and revised stormwater plan. All documents must be recorded with the County.**
- 8. The adjustment of the outdoor storage area to meet the 50-foot required distance from the property line.**
- 9. Compliance with the photometric standards of the township.**

Motion carried unanimously.

ARTICLE 8.

Case #24-3827

Applicant: Josh Baker

Property Address: 5441 36th Street