

18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2024-091

Considered at Board of Managers Meeting: December 11, 2024

Received complete: November 25, 2024

Applicant: Highway 5 BC, LLC, Evan Mattson
Consultant: Rehder & Associates, Inc., Nick Adam
Project: Highway 5 Business Center – The applicant proposes construction of an office/warehouse building, parking, utilities, and an infiltration basin to provide volume control, water quality, and rate control.
Location: Southwest Quadrant of Venture Lane and Wallace Road, Eden Prairie, MN
Reviewer: Barr Engineering Co., Scott Sobiech P.E.

Board Action

Manager _____ moved and Manager _____ seconded adoption of the following resolution based on the permit report that follows and the presentation of the matter at the December 11, 2024 meeting of the managers:

Resolved that the application for Permit 2024-091 is approved, subject to the conditions and stipulations set forth in the Recommendations section of the attached report.

Resolved that on determination by the RPBCWD administrator that the conditions of approval have been affirmatively resolved, the RPBCWD president or administrator is authorized and directed to sign and deliver Permit 2024-091 to the applicant on behalf of RPBCWD.

Upon roll call vote, the resolutions were adopted, _____.

Applicable Rule Conformance Summary

Rule	Issue	Conforms to RBPCWD Rules?	Comments	
C	Erosion Control Plan	See comment	See rule-specific permit condition C1 related to name of individual responsible for on-site erosion control.	
J	Stormwater Management	Rate	Yes	
		Volume	See comments	See stipulation #5 related to verifying the infiltration capacity of the soils.
		Water Quality	Yes	
		Low Floor Elev.	Yes	
		Maintenance	See comment	See rule-specific permit condition J1 related to recordation of stormwater facility maintenance declaration.
		Chloride Management	See comment	See stipulation #6 related to providing an executed chloride management plan prior to permit close-out.
		Wetland Protection	Yes	
L	Permit Fee Deposit	Yes	\$3,000 deposit fee received November 21, 2024. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of December 3, 2024 the amount due is \$1,333.	
M	Financial Assurance	See Comment	The financial assurance is calculated at \$80,094.	

Background

The applicant proposes new development of the site in Eden Prairie, including construction of an office/warehouse building, parking and utilities, along with a stormwater infiltration basin to provide water quality treatment, rate control, and volume abstraction . Runoff from the property drains to an off-site, stormwater detention pond.

The project site information is summarized in Table 1.

Table 1. Project site information

Site Information	Project Area
Total Site Area (acres)	4.47
Existing Site Impervious Area (acres)	0.0
Post Construction Site Impervious (acres)	2.55
New (increase) in Site Impervious Area (acres)	2.55
Percent increase in Impervious Surface	100%
Disturbed Site Impervious Area (acres)	0.0
Percent Disturbance of Existing Impervious Surface	0%
Total Disturbed Area (acres)	4.47

The following materials were reviewed in support of the permit request:

1. Permit Application received November 21, 2024.
2. Stormwater Management Report dated November 21, 2024 (revised November 26, 2024)
3. Existing Conditions Site Survey dated August 19, 2024
4. Civil Plan Set (9 sheets) received November 21, 2024 (revised November 26, 2024)
5. Landscape Plan (1 sheet) received November 21, 2024
6. Electronic HydroCAD models received on November 21, 2024 (revised November 26, 2024)
7. Draft Preliminary Report of Geotechnical Exploration by American Engineering Testing (AET) dated November 19, 2024 (Final November 26, 2024)
8. Engineer's Preliminary Estimate of Construction Costs dated November 25, 2024

Rule Specific Permit Conditions

Rule C: Erosion Prevention and Sediment Control

Because the applicant proposes to alter 4.47 acres of land-surface area, the project must conform to the requirements in the RPBCWD Erosion Prevention and Sediment Control rule (Rule C, Subsection 2.1).

The erosion and sediment control plans prepared by Rehder & Associates, Inc. include installation of silt fence, rock construction entrance, erosion control blanket, placement of a minimum of 6 inches of topsoil with at least 5% organic matter, construction sequencing, decompaction of pervious areas compacted during construction, and retention of native topsoil onsite. To conform to RPBCWD Rule C requirements the following revisions are needed:

- C1. The Applicant must provide the name and contact information of the individual responsible for erosion control at the site. RPBCWD must be notified if the responsible individual changes during the permit term.

Rule J: Stormwater Management

Because the applicant proposes to disturb 4.47 acres of land-surface area, the project must meet the criteria of RPBCWD's Stormwater Management rule (Rule J, Subsection 2.1). The criteria listed in Subsection 3.1 apply to the entire site because the project is new development of an undeveloped site.

The applicant is proposing construction of an infiltration basin to provide the rate control, volume abstraction and water quality management for runoff from the impervious area. Pretreatment for runoff entering the infiltration basin is being provided by a proprietary sump manhole device with a skimmer (Preserver manhole).

Rate Control

In order to meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The Applicant used a HydroCAD hydrologic model to simulate runoff rates for pre- and post-development conditions for the 2-, 10-, and 100-year frequency storm events using a nested rainfall distribution, and a 100-year frequency, 10-day snowmelt event. The existing and proposed 2-, 10-, and 100-year frequency discharges from the site are summarized in the table below.

Modeled Discharge Location	2-Year Discharge (cfs)		10-Year Discharge (cfs)		100-Year Discharge (cfs)		10-Day Snowmelt (cfs)	
	Ex	Prop	Ex	Prop	Ex	Prop	Ex	Prop
Wallace road	4.1	4.0	8.4	4.6	19.1	6.0	4.7	3.9
Venture Lane	2.4	1.1	4.8	2.0	10.8	4.1	1.5	0.5
MNDOT ROW	0.5	0.5	1.0	0.8	2.3	1.8	0.3	0.2

The proposed stormwater management plan will provide rate control in compliance with the RPBCWD requirements for the 2-, 10-, and 100-year events. Thus, the proposed project meets the rate control requirements in Rule J, Subsection 3.1a.

Volume Abstraction

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from the new impervious surface of the parcel. An abstraction volume of 10,182 cubic feet is required from the 2.55 acres of regulated impervious area. Plans indicate pretreatment for runoff entering the infiltration basin is provided by a Preserver manhole, thus the proposed project conforms with RPBCWD Rule J, Subsection 3.1b.1.

Soil borings performed by AET show that soils in the project area contain fill material, silty sand, and clayey sands. Groundwater was observed in three of the nine borings. The subsurface investigation information summarized in the table below shows that groundwater is at least 3 feet below the bottom of the proposed infiltration basin (Rule J, Subsection 3.1.b.2.a).

Proposed BMP	Nearest Subsurface Investigation	Boring is within footprint?	Groundwater Elevation (feet)	BMP Bottom Elevation (feet)	Separation (feet)
Infiltration Basin	B-8	Yes	836.7	846.5	9.8

The engineer concurs with the applicant’s design infiltration rates of 0.3 inches per hour based on the guidelines provided in the Minnesota Stormwater Manual. Based on the design infiltration rate, the engineer concurs that the basin will draw down within 48 hours (Rule J, subsection 3.1b.3). Because of the proposed depth of the infiltration basin and the existing tree cover, infiltration testing was not

performed at the BMP location. Per Rule J, Subsection 3.1.b.2.c measured infiltration capacity of the soils at the bottom of the infiltration systems must be provided. The applicant must submit documentation verifying the infiltration capacity of the soils and that the volume control capacity is calculated using the measured infiltration rate. If infiltration capacity is less than needed to conform with the volume abstraction requirement in subsection 3.1b or there is inadequate separation to groundwater, design modifications to achieve compliance with RPBCWD requirements will need to be submitted (in the form of an application for a permit modification or new permit).

The table below summarizes the volume abstraction required and the volume abstraction achieved by the proposed stormwater management facilities on site. With the stipulation noted above regarding verification of soil infiltration rate, the engineer concurs with the submitted information and finds that the proposed project will conform with Rule J, Subsection 3.1.b.

Required Abstraction Depth (inches)	Required Abstraction Volume (cubic feet)	Provided Abstraction Depth (inches)	Provided Abstraction Volume (cubic feet)
1.1	10,182	1.2	11,107

Water Quality Management

Subsection 3.1.c of Rule J requires the Applicant to provide volume abstraction in accordance with 3.1b or least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff, and no net increase in TSS or TP loading leaving the site from existing conditions. Because the infiltration basin proposed by the applicant provides volume abstraction meeting the standard in 3.1b and the engineer concurs with the modeling, under paragraph 3.1c.i, the engineer finds that the proposed project provides the required stormwater-quality protection.

Low floor Elevation

All new buildings must be constructed such that the lowest floor is at least two feet above the 100-year high water elevation or one foot above the emergency overflow of a stormwater-management facility according to Rule J, Subsection 3.6a. In addition, a stormwater-management facility must be constructed at an elevation that ensures that no adjacent habitable building will be brought into noncompliance with this requirement according to Rule J, Subsection 3.6b.

The low floor elevation of the proposed building and the 100-year flood elevation in the infiltration basin are summarized below. Because the low floor elevation is more than 2 feet above the proposed 100-year high water level, the proposed project is in conformance with Rule J, Subsection 3.6.

Structure Address	Stormwater Facility	100-year Event Flood Elevation of Feature (feet)	Lowest Floor Elevation of Building (feet)	Freeboard Provided (feet)
Building	Infiltration Basin	851.44	869.5	18.06

Maintenance

Subsection 3.7 of Rule J requires the submission of a maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed. To conform to the RPBCWD Rule J the following revisions are needed:

- J1. Permit applicant must submit a draft maintenance and inspection declaration to incorporate the stormwater management facility proposed under this application, including the appropriate permit number and proprietary stormwater device (Preserver manhole). A draft declaration must be provided for District review and approval prior to recordation as a condition of issuance of the permit

Wetland Protection

Because runoff from this site is tributary to a downstream, off-site stormwater pond and is not tributary to any wetland, the proposed project does not trigger analysis under Rule J, subsection 3.10.

Chloride Management

Subsection 3.8 of Rule J requires the submission of chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan. To close out the permit and release the \$5,000 in financial assurance held for the purpose of chloride management, the permit applicant must provide a chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan at the site.

Rule L: Permit Fee Deposit:

The RPBCWD permit fee schedule adopted in February 2020 requires permit applicants to deposit \$3,000 to be held in escrow and applied to cover the \$10 permit-processing fee and reimburse RPBCWD for permit review and inspection-related costs and when a permit application is approved, the deposit must be replenished to the applicable deposit amount by the applicant before the permit will be issued to cover actual costs incurred to monitor compliance with permit conditions and the RPBCWD Rules. A permit fee deposit of \$3,000 was received on November 21, 2024. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. Subsequently, if the costs of review, administration, inspections and closeout-related or other regulatory activities exceed the fee deposit amount, the applicant will be required to replenish the deposit to the original amount or

such lesser amount as the RPBCWD administrator deems sufficient within 30 days of receiving notice that such deposit is due. The administrator will close out the relevant application or permit and revoke prior approvals, if any, if the permit-fee deposit is not timely replenished.

- L1. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of December 3, 2024 the amount due is \$1,333.

Rule M: Financial Assurance:

	Unit	Unit Cost	# of Units	Total
Rule C: Erosion Control				
Perimeter Control	LF	\$2.50	2,550	\$6,375
Inlet Protection	EA	\$100	22	\$2,200
Rock Entrance	EA	\$250	1	\$250
Restoration	Ac	\$2,500	4.47	\$11,175
Rule J: Chloride Management	LS	\$5,000	1	\$5,000
Rule J: Stormwater Management infiltration basin: 125% of engineer’s opinion of cost (\$38,250)	EA	125% OPC	1	\$47,813
Contingency (10%)		10%		\$7,781
Total Financial Assurance				\$80,094

Applicable General Requirements:

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.
2. Construction must be consistent with the plans, specifications, and models that were submitted by the applicant that were the basis of permit approval. The date(s) of the approved plans, specifications, and modeling are listed on the permit. The grant of the permit does not in any way relieve the permittee, its engineer, or other professional consultants of responsibility for the permitted work.
3. The grant of the permit does not relieve the permittee of any responsibility to obtain approval of any other regulatory body with authority.
4. The issuance of this permit does not convey any rights to either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
5. In all cases where the doing by the permittee of anything authorized by this permit involves the taking, using or damaging of any property, rights or interests of any other person or persons, or of any publicly owned lands or improvements or interests, the permittee, before proceeding therewith, must acquire all necessary property rights and interest.
6. RPBCWD’s determination to issue this permit was made in reliance on the information provided by the applicant. Any substantive change in the work affecting the nature and extent of

applicability of RPBCWD regulatory requirements or substantive changes in the methods or means of compliance with RPBCWD regulatory requirements must be the subject of an application for a permit modification to the RPBCWD.

7. If the conditions herein are met and the permit is issued by RPBCWD, the applicant, by accepting the permit, grants access to the site of the work at all reasonable times during and after construction to authorized representatives of the RPBCWD for inspection of the work.

Findings

1. The proposed project includes the information necessary, plan sheets, and erosion control plan for review.
2. The proposed project will conform to Rules C and J if the Rule Specific Permit Conditions listed above are met.

Recommendation:

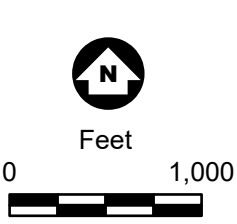
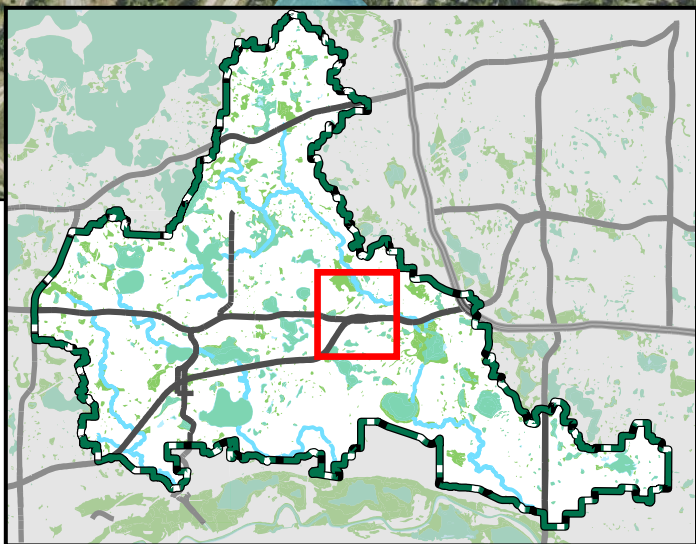
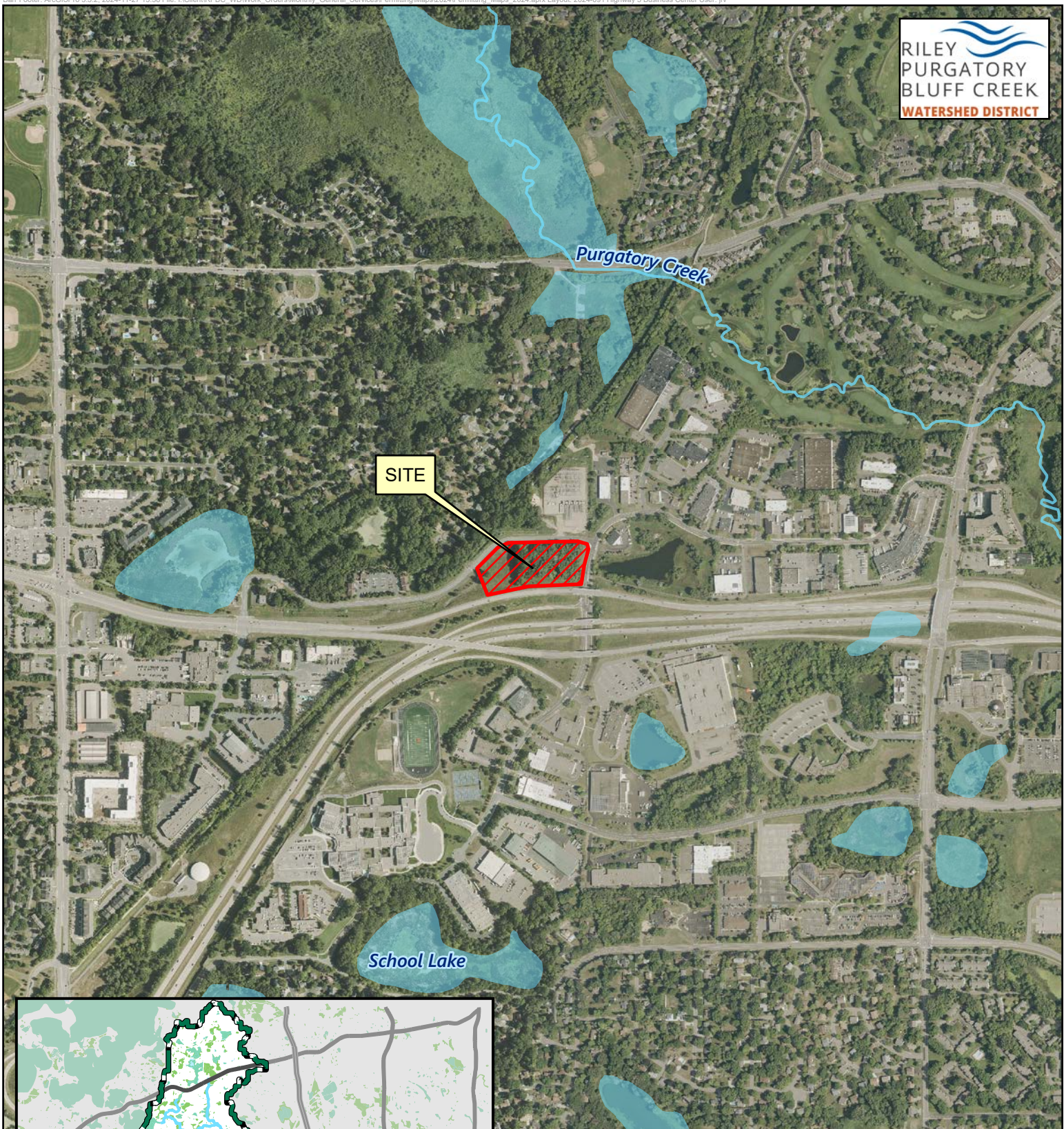
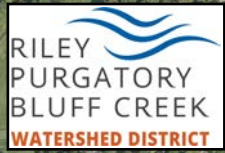
Approval, contingent upon:

1. Submission of a financial assurance in the amount of \$80,094.
2. Applicant providing the name and contact information of the individual responsible for erosion and sediment control at the site.
3. Receipt in recordation a maintenance declaration for the operation and maintenance all stormwater management facilities. Drafts of all documents to be recorded must be approved by the District prior to recordation and proof of recordation must be provided to RPBCWD.
4. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of December 3, 2024 the amount due is \$1,333.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Continued compliance with General Requirements
2. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, all the stormwater facilities conform to design specifications and function as intended and approved by the District. As-built/record drawings must be signed by a professional engineer licensed in Minnesota and include, but not limited to:
 - a. the surveyed bottom elevations, water levels, and general topography of all facilities;
 - b. the size, type, and surveyed invert elevations of all stormwater facility inlets and outlets;
 - c. the surveyed elevations of all emergency overflows including stormwater facility, street, and other;
3. Providing the following additional close-out materials:
 - a. Documentation that disturbed pervious areas remaining pervious have been decompacted per Rule C.2c criteria

- b. Documentation that constructed infiltration facilities perform as designed. This may include infiltration testing, flood testing, or other with prior approval from RPBCWD.
4. The work on the Highway 5 Business Center development under the terms of permit 2024-091, if issued, must have an impervious surface area and configuration materially consistent with the approved plans. Design that differs materially from the approved plans (e.g., in terms of total impervious area) will need to be the subject of a request for a permit modification or new permit, which will be subject to review for compliance with all applicable regulatory requirements.
5. Per Rule J, Subsection 3.1.b.ii measured infiltration capacity of the soils at the bottom of the infiltration system must be provided. The applicant must submit documentation verifying the infiltration capacity of the soils and that the volume control capacity is calculated using the measured infiltration rate. In addition, subsurface soil investigation is needed to verify adequate separation to groundwater (Rule J subsection 3.1.b.2). If infiltration capacity is less than needed to conform with the volume abstraction requirement in subsection 3.1b or there is inadequate separation to groundwater, design modifications to achieve compliance with RPBCWD requirements will need to be submitted (in the form of an application for a permit modification or new permit).
6. To close out the permit and release the \$5,000 in financial assurance held for the purpose of the chloride management, the permit applicant must provide a signed chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan at the site.
7. Replenish the permit fee deposit to the original amount or such lesser amount as the RPBCWD administrator determines sufficient within 45 days of receiving notice that such deposit is due in order to cover continued actual costs incurred to monitor compliance with permit conditions and the RPBCWD Rules.

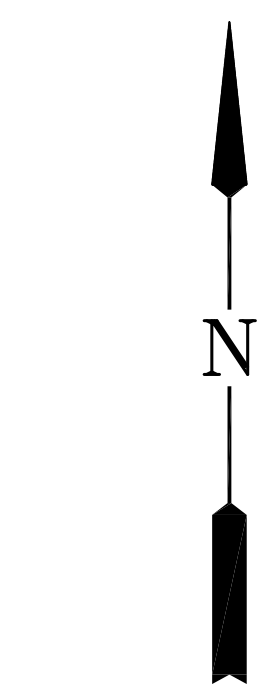
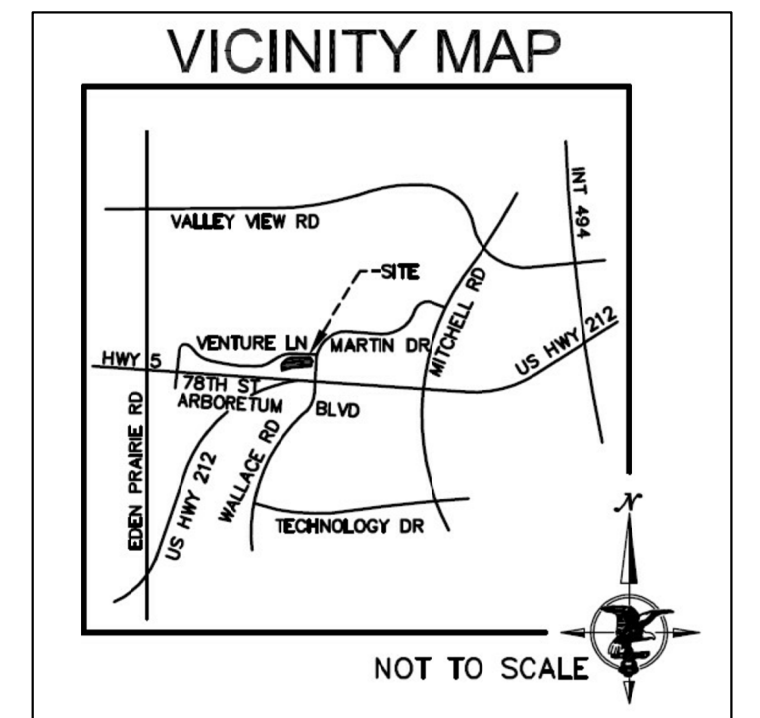
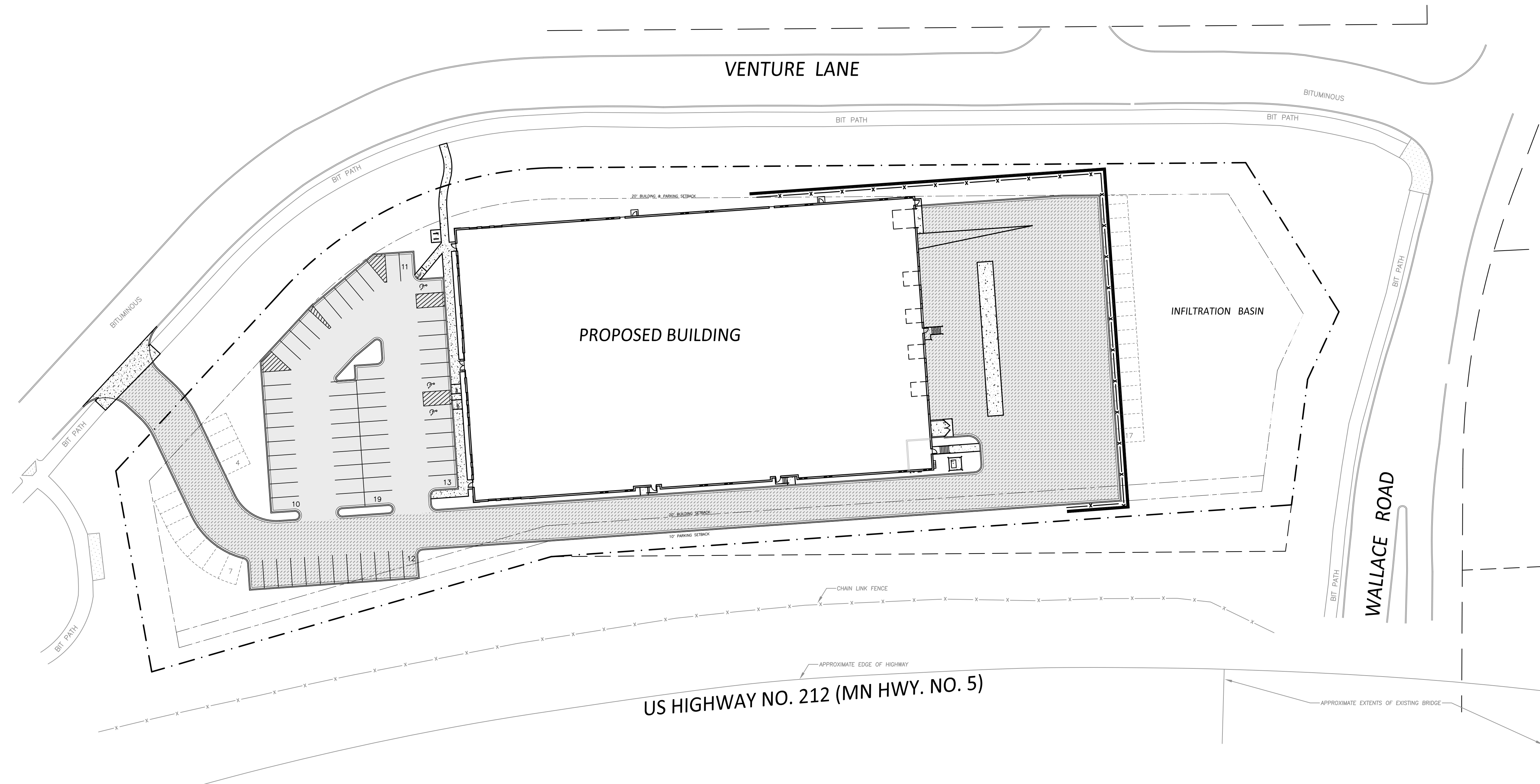


Permit Location Map

HIGHWAY 5 BUSINESS CENTER
Permit 2024-091
Riley Purgatory Bluff Creek
Watershed District

HIGHWAY 5 BUSINESS CENTER

EDEN PRAIRIE, MN



PROJECT CONTACTS:

Nick Adam, P.E.
Civil Engineer
651-337-6729
nadam@rehder.com

Evan Mattson
Developer - Endeavor Development
651-343-1118
evan@endeavorshield.com

CODE COMPLIANCE:

1. WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LAWS, CODES & REQUIREMENTS OF REGULATORY AGENCIES HAVING JURISDICTION.
2. NOTIFY THE OWNER'S ENGINEER OF DISCREPANCIES BETWEEN THE WORK AND APPLICABLE CODES. DO NOT WORK IN AN AFFECTED AREA UNTIL THE DISCREPANCY HAS BEEN RESOLVED.
3. VERIFY CODES IN EFFECT AT THE TIME OF THE NOTICE TO PROCEED AND STAY CURRENT WITH CODE CHANGES WHICH AFFECT THE WORK UNTIL SUBSTANTIAL COMPLETION.

TITLE	SHEET INDEX	SHEET NO.
COVER SHEET		C001
SITE DEMOLITION PLAN		C002
SITE DIMENSION PLAN		C003
GRADING, DRAINAGE & EROSION CONTROL PLAN		C004
UTILITY CONTROL PLAN		C005
DETAILS & SPECIFICATIONS		C006 - C007
TREE PRESERVATION PLAN		C008
SWPPP		C009



3440 Federal Drive, Suite 110
Eagan, MN 55122
Telephone: 651-452-5051
www.rehder.com

Issued

WATERSHED & CITY SUBMITTAL	11-21-24
ADDRESS RPBC WATERSHED COMMENTS	11-26-24

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Name _____ Date _____
Reg. No. _____

PRELIMINARY

COVER SHEET
HIGHWAY 5 BUSINESS CENTER
CITY OF EDEN PRAIRIE

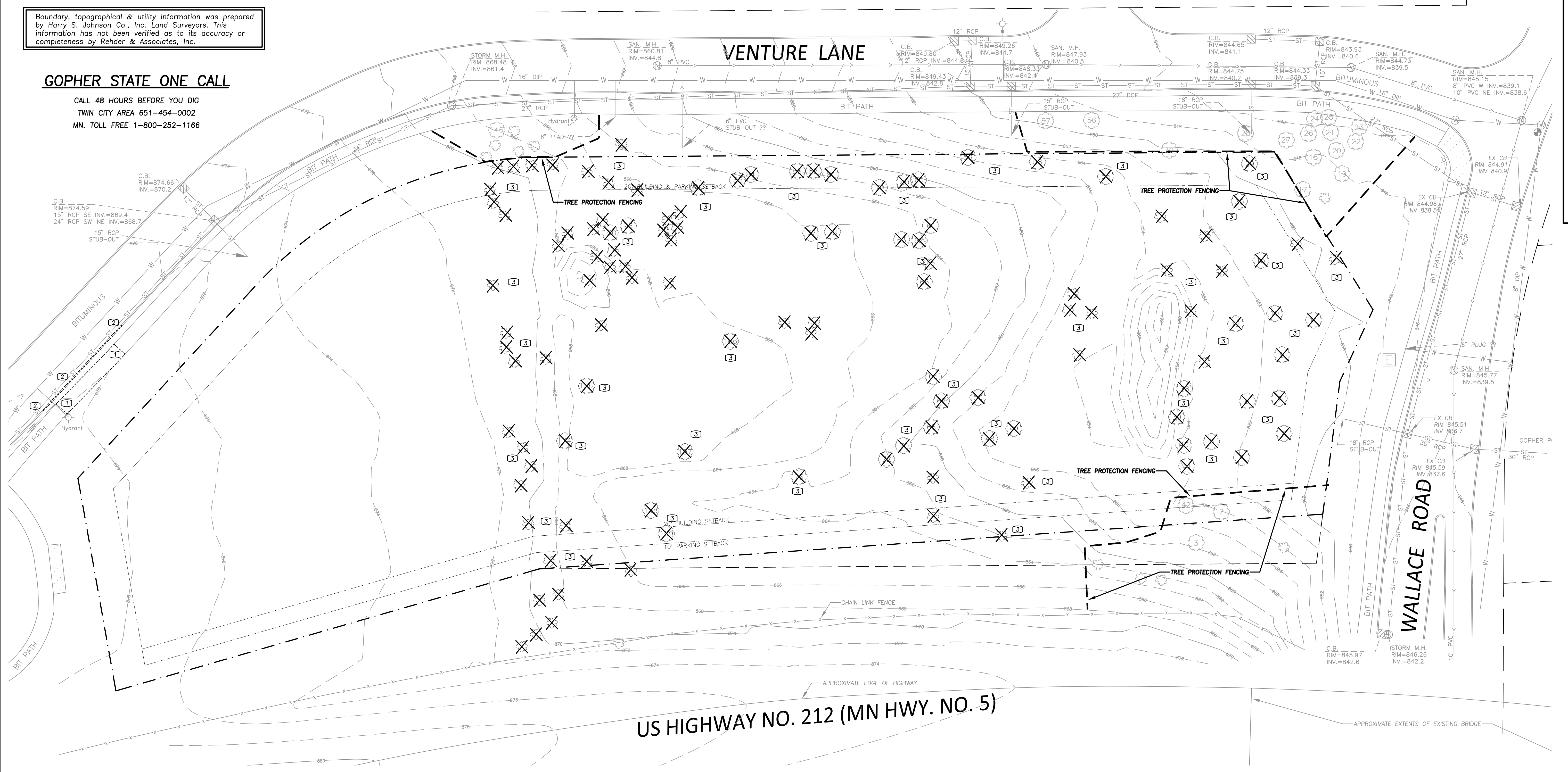
SHEET NUMBER

C001

Boundary, topographical & utility information was prepared by Harry S. Johnson Co., Inc. Land Surveyors. This information has not been verified as to its accuracy or completeness by Rehder & Associates, Inc.

GOPHER STATE ONE CALL

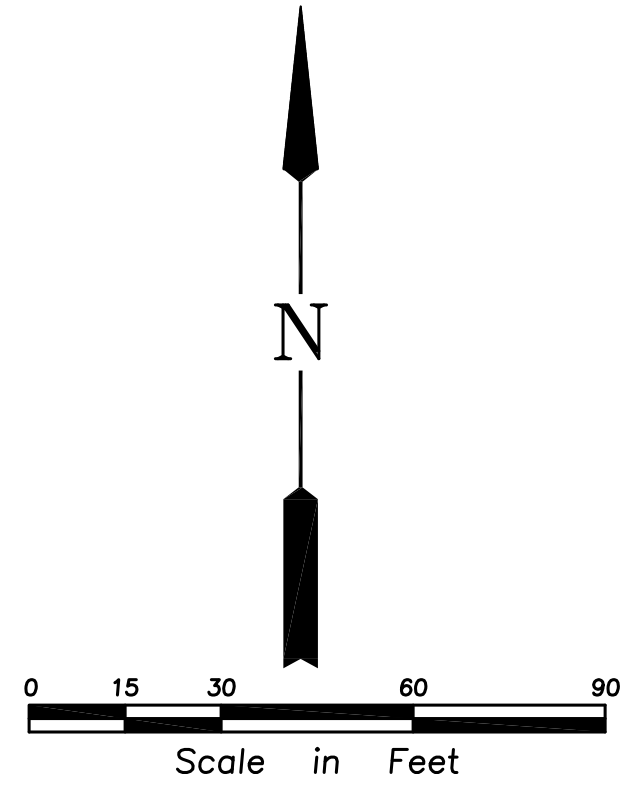
CALL 48 HOURS BEFORE YOU DIG
TWIN CITY AREA 651-454-0002
MN. TOLL FREE 1-800-252-1166



DEMOLITION NOTES
 ① - Remove bituminous pavement
 ② - Remove curb & gutter
 ③ - Remove tree(s)

LEGEND

- ② EXISTING TREE
- ⊗ EXISTING INSIGNIFICANT TREE
- ⊗ EXISTING TREE TO BE REMOVED
- ⊗ EXISTING BITUMINOUS TO BE REMOVED
- ⊗ EXISTING CONCRETE TO BE REMOVED
- BOUNDARY/ROW/BLOCK LINE
- - - EASEMENT
- - - BUILDING/PARKING SETBACK LINE
- W — EXISTING WATERMAIN
- S — EXISTING SANITARY SEWER
- ST — EXISTING STORM SEWER
- G — EXISTING BURIED GAS LINE
- E — EXISTING BURIED ELECTRIC LINE
- T — EXISTING BURIED TELEPHONE LINE
- TV — EXISTING BURIED TELEVISION LINE
- 980 — EXISTING CONTOUR
- x 995.50 EXISTING ELEVATION
- - - TREE PROTECTION FENCING



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Civil Engineers & Land Surveyors
3440 Federal Drive, Suite 110
Eden Prairie, MN 55122
Telephone: 651-452-5051
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Issued	
WATERSHED & CITY SUBMITTAL	11-21-24
ADDRESS RPBC WATERSHED COMMENTS	11-26-24

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
 Name _____ Date _____
 Reg. No. _____

PRELIMINARY

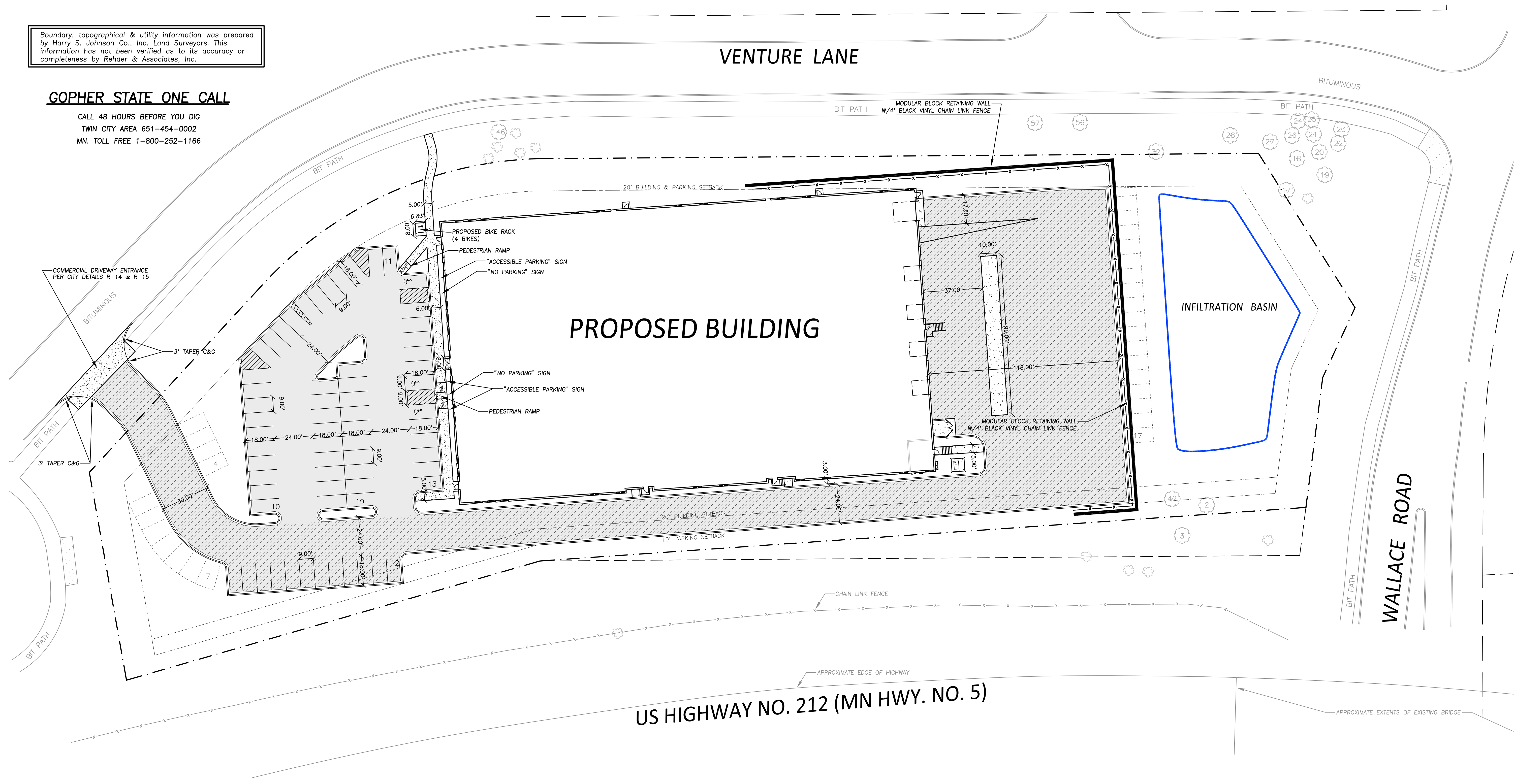
SITE DEMOLITION PLAN
HIGHWAY 5 BUSINESS CENTER
CITY OF EDEN PRAIRIE

SHEET NUMBER
C002

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SITE SUMMARY

SITE AREA = 3.98 ACRES
BUILDING = 51,712 SF (29.8% COVERAGE)
DISTURBED AREA = 4.47 ACRES
EXISTING IMPERVIOUS AREA = 0.00 ACRES
POST CONSTRUCTION IMPERVIOUS AREA = 2.55 ACRES (64.1%)

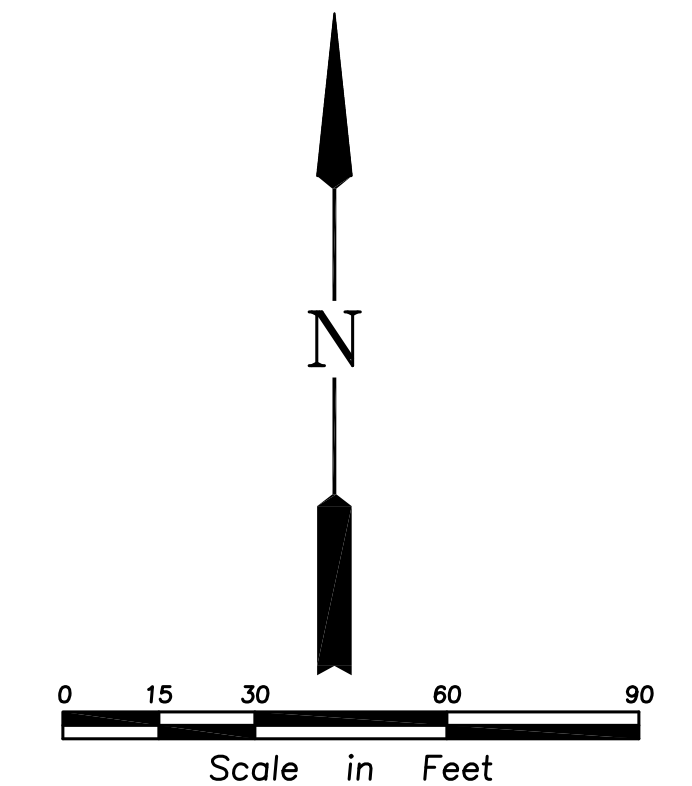
BICYCLE PARKING REQUIRED
COMMERCIAL = 52,000 @ 1/20,000 = 3
BICYCLE PARKING PROVIDED = 4

PARKING STALLS REQUIRED
OFFICE = 7,800 @ 5/1000 = 40
WAREHOUSE = 44,200 @ .5/1000 = 22
TOTAL = 62

PARKING STALLS PROVIDED
STANDARD STALLS = 62
ACCESSIBLE STALLS = 3
PROOF OF PARKING STALLS = 28
TOTAL = 93

LEGEND

- BOUNDARY/ROW/BLOCK LINE
- - - EASEMENT
- BUILDING/PARKING SETBACK LINE
- ▭ PROPOSED CONCRETE
- ▨ PROPOSED STANDARD DUTY BITUMINOUS
- ▩ PROPOSED HEAVY DUTY BITUMINOUS
- ⊙ EXISTING TREE
- ⊙ EXISTING INSIGNIFICANT TREE



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Issued	
WATERSHED & CITY SUBMITTAL	11-21-24
ADDRESS RPBC WATERSHED COMMENTS	11-26-24

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRELIMINARY

Name _____ Date _____
Reg. No. _____

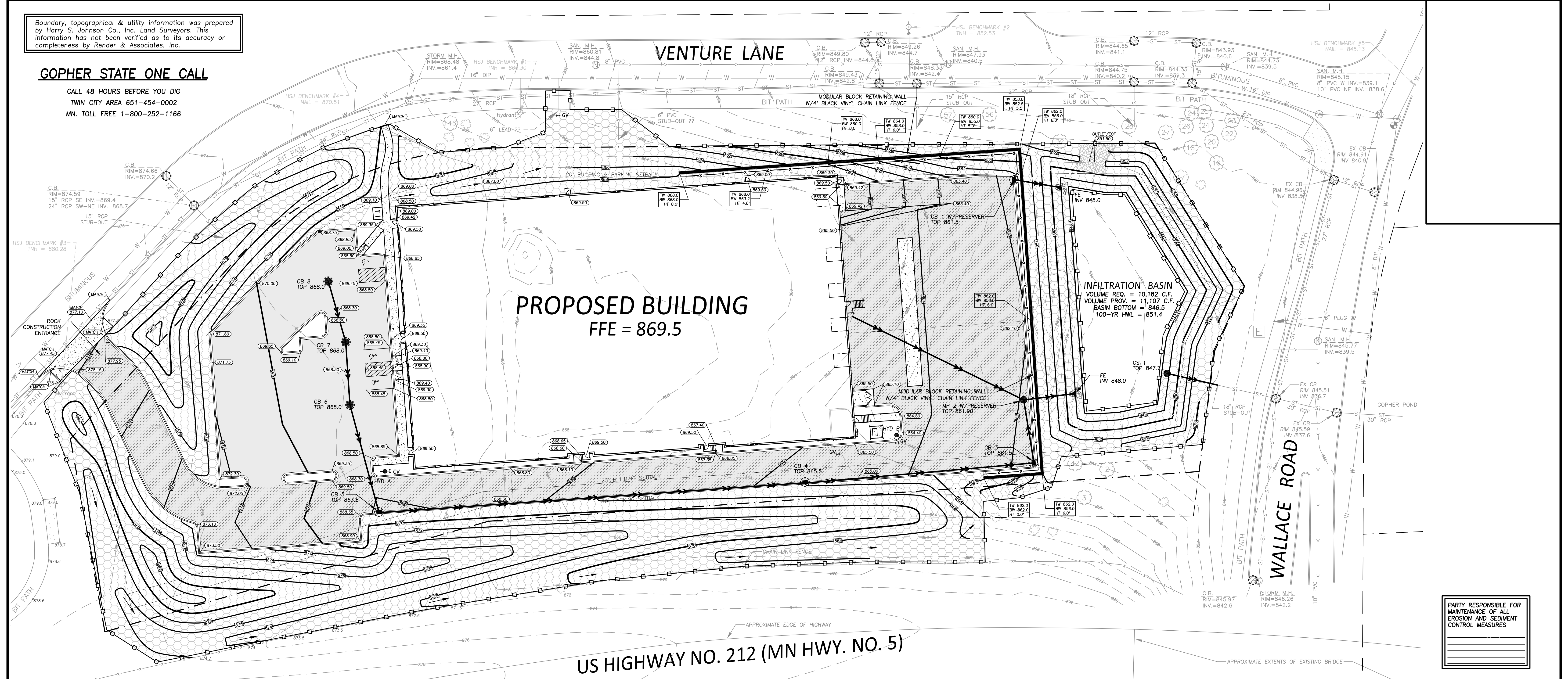
SITE DIMENSION PLAN
HIGHWAY 5 BUSINESS CENTER
CITY OF EDEN PRAIRIE

SHEET NUMBER
C003

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GOPHER STATE ONE CALL

CALL 48 HOURS BEFORE YOU DIG
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MN. TOLL FREE 1-800-252-1166



GRADING NOTES

- 1 - All elevations shown are to final surfaces.
- 2 - Contractor is responsible for obtaining a National Pollutant Discharge Elimination System (NPDES) General Storm Water Permit for Construction Activity before construction begins.
- 3 - Place 6-inches of topsoil over all areas to be re-established with turf or planting bed areas for final stabilization. Topsoil shall contain at least 5% organic content.
- 4 - See Landscape Plans for permanent vegetation.

EROSION CONTROL NOTES

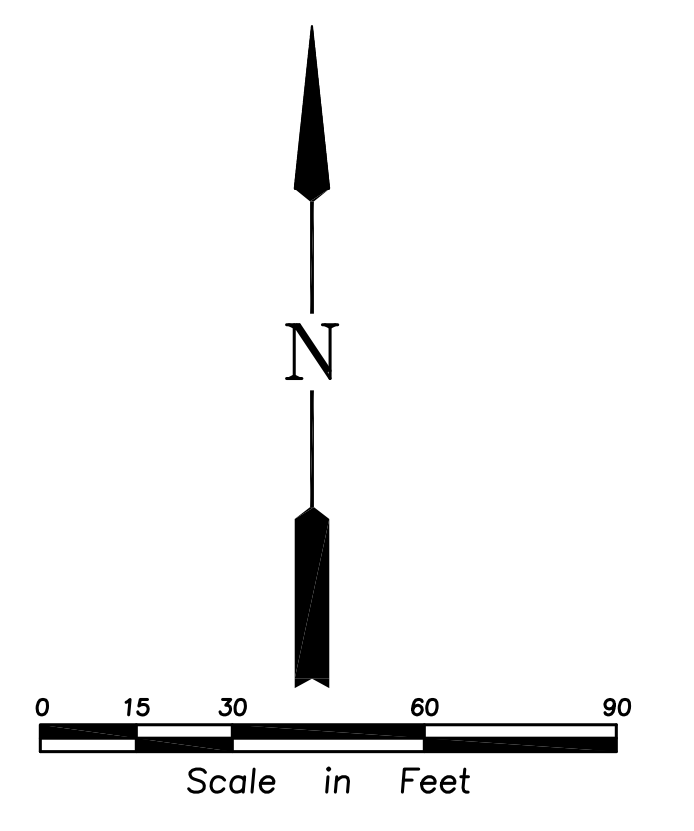
- 1 - Contractor is responsible for all notifications and inspections required by General Storm Water Permit.
- 2 - All erosion control measures shown shall be installed prior to grading operations and maintained until all areas disturbed have been restored.
- 3 - Sweep and vacuum paved public streets as necessary where construction sediment has been deposited.
- 4 - Each area disturbed by construction shall be restored per the specifications within 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.
- 5 - Temporary soil stockpiles must have silt fence around them and cannot be placed in surface waters, including storm water conveyances such as curb and gutter systems, or conduits and ditches.
- 6 - The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge into any surface water. Stabilization of the last 200 lineal feet must be completed within 24 hours after connecting to a surface water.
- 7 - All pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours of connection to a surface water.
- 8 - Excess concrete/water from concrete trucks shall be disposed of in portable washout concrete basin or disposed of in a contained area.
- 9 - Provide EC Blanket on all 3:1 slopes.

RPBCWD STANDARD EROSION CONTROL NOTES

- a. Natural topography and soil conditions must be protected, including retention onsite of native topsoil to the greatest extent possible.
- b. Additional measures, such as hydraulic mulching and other practices as specified by the District must be used on slopes of 3:1 (H:V) or steeper to provide adequate stabilization.
- c. Final site stabilization measures must specify that at least six inches of topsoil, with at least 5% organic matter, be spread and incorporated into the underlying soil during final site treatment wherever topsoil has been removed.
- d. Construction site waste such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste must be properly managed.
- e. All temporary erosion and sediment control BMPs must be maintained until completion of construction and vegetation is established sufficiently to ensure stability of the site, as determined by the District.
- f. All temporary erosion and sediment control BMPs must be removed upon final stabilization.
- g. Soil surfaces compacted during construction and remaining pervious upon completion of construction must be decompacted to achieve a soil compaction testing pressure of less than 1,400 kilopascals or 200 pounds per square inch in the upper 12 inches of the soil profile while taking care to protect utilities, tree roots, and other existing vegetation.
- h. All disturbed areas must be stabilized within 7 calendar days after land-disturbing work has temporarily or permanently ceased on a property that drains to an impaired water, within 14 days elsewhere.
- i. The permittee must, at a minimum, inspect, maintain and repair all disturbed surfaces and all erosion and sediment control facilities and soil stabilization measures every day work is performed on the site and at least weekly until land-disturbing activity has ceased. Thereafter, the permittee must perform these responsibilities at least weekly until vegetative cover is established. The permittee will maintain a log of activities under this section for inspection by the District on request.
- j. Activities must be conducted so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible.

LEGEND

- PROPOSED MANHOLE
- PROPOSED CATCH BASIN
- ◆ PROPOSED HYDRANT
- ◆ PROPOSED GATE VALVE
- ◀ PROPOSED FLARED END
- PROPOSED STORM SEWER
- ▭ PROPOSED CONCRETE
- ▭ PROPOSED STANDARD DUTY BITUMINOUS
- ▭ PROPOSED HEAVY DUTY BITUMINOUS
- PROPOSED CONTOUR
- PROPOSED ELEVATION
- SILT FENCE
- INLET PROTECTION DEVICE
- ▭ PROPOSED EC BLANKET CATEGORY 20 (MNDOT 3885)
- BOUNDARY/ROW/BLOCK LINE
- - - EASEMENT
- - - BUILDING/PARKING SETBACK LINE
- SOIL BORING
- DRAINAGE ARROW
- W EXISTING WATERMAIN
- S EXISTING SANITARY SEWER
- ST EXISTING STORM SEWER
- 980 EXISTING CONTOUR
- × 995.50 EXISTING ELEVATION
- EXISTING TREE
- EXISTING INSIGNIFICANT TREE



PARTY RESPONSIBLE FOR MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES

REHDER & ASSOCIATES, INC.
Civil Engineers & Land Surveyors
3440 Federal Drive, Suite 110
Eagan, MN 55122
Telephone: 651-452-5051
www.rehder.com

PROJECT NO.: 241-3427.011 DRAWING FILE: 3427011DWG

Issued	
WATERSHED & CITY SUBMITTAL	11-21-24
ADDRESS RPBC WATERSHED COMMENTS	11-26-24

I hereby certify that this plan was prepared by me or under my direct supervision and I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRELIMINARY

Name _____ Date _____
Reg. No. _____

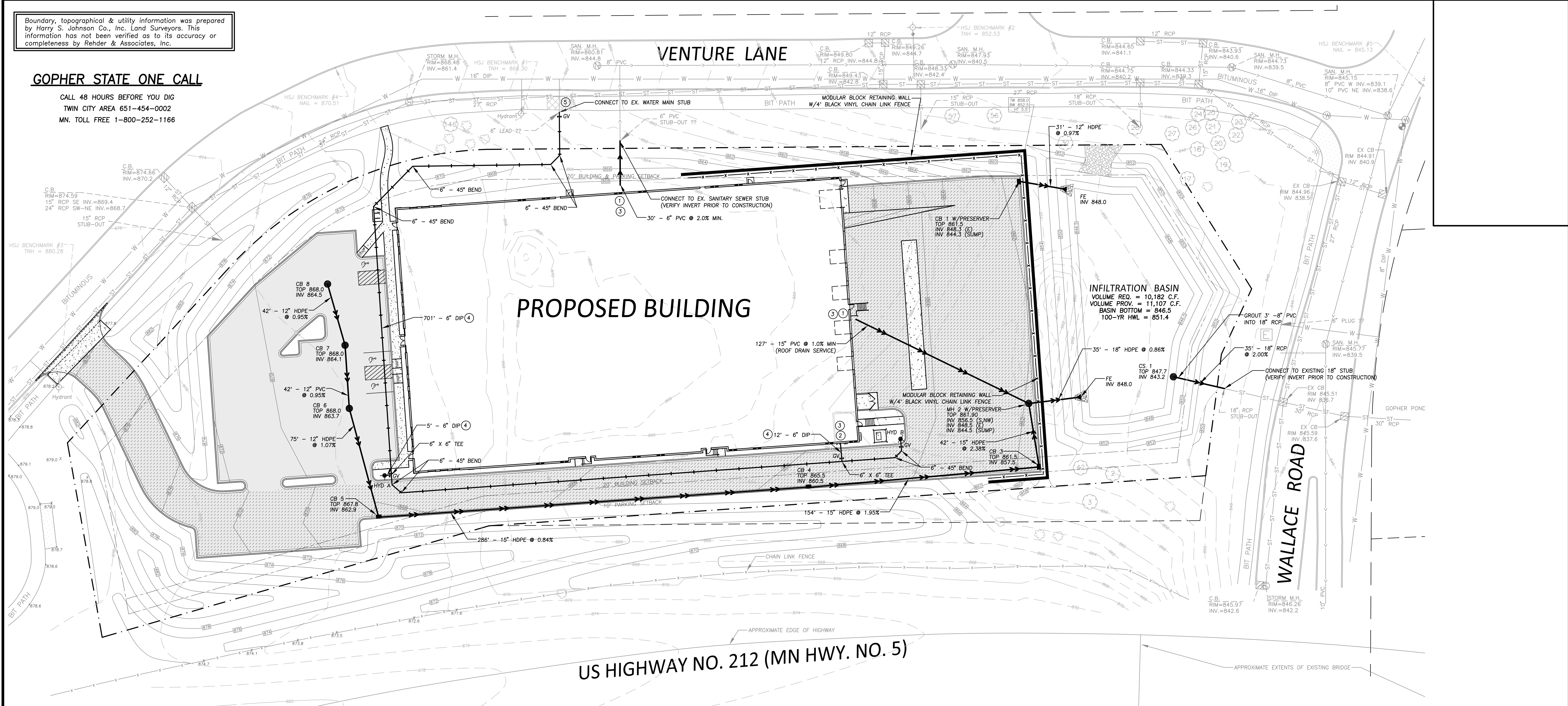
GRADING, DRAINAGE & EROSION CONTROL PLAN
HIGHWAY 5 BUSINESS CENTER
CITY OF EDEN PRAIRIE

SHEET NUMBER
C004

Boundary, topographical & utility information was prepared by Harry S. Johnson Co., Inc. Land Surveyors. This information has not been verified as to its accuracy or completeness by Rehder & Associates, Inc.

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MN. TOLL FREE 1-800-252-1166



UTILITY NOTES

- ① - All sewer services to extend to a point 5' from proposed building.
- ② - Bring water main into proposed building and cap at the floor.
- ③ - Verify all service locations and inverts with mechanical engineer before construction.
- ④ - All watermain to have a minimum of 7.5' of cover.
- ⑤ - Remove & replace bituminous pavement as required for watermain installation. Match existing pavement section.

CATCH BASIN/MANHOLE SCHEDULE

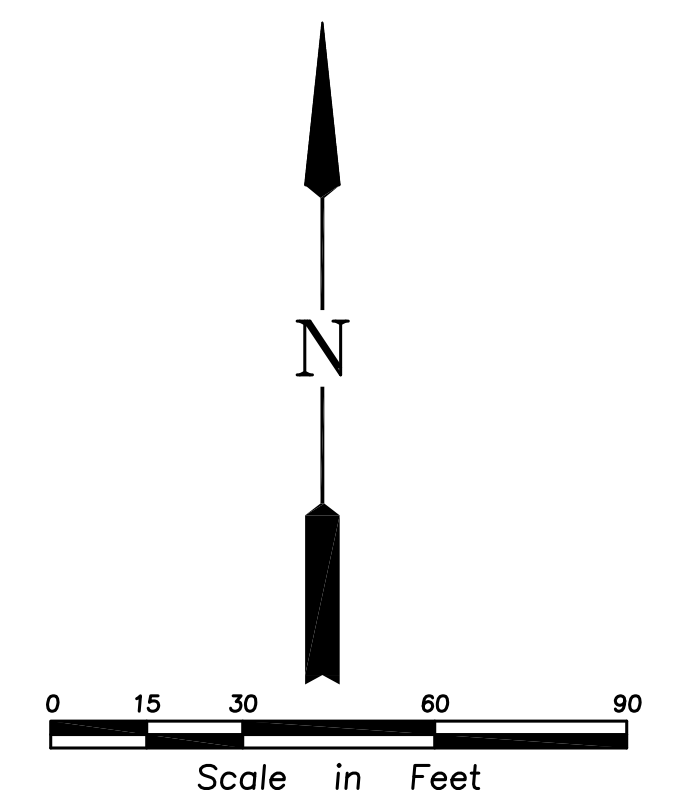
STRUCTURE NO.	BARREL SIZE	NEENAH CASTING NO.
CB 1	48"	R-3067V
MH 2	48"	R-1642B
CB 3	48"	R-3067V
CB 4	48"	R-3067V
CB 5	48"	R-3067V
CB 6	48"	R-2573-1C
CB 7	48"	R-2573-1C
CB 8	27"	R-2573-1C
CS 1	48"	SEE DETAIL 12/C5

HYDRANT SCHEDULE

HYDRANT NO.	BREAKOFF FLANGE
HYD A	869.1
HYD B	865.1

LEGEND

- PROPOSED MANHOLE
- PROPOSED CATCH BASIN
- ◆ PROPOSED HYDRANT
- ⋯ PROPOSED GATE VALVE
- ◀ PROPOSED FLARED END
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN
- ▨ PROPOSED CONCRETE
- ▩ PROPOSED STANDARD DUTY BITUMINOUS
- ▧ PROPOSED HEAVY DUTY BITUMINOUS
- BOUNDARY/ROW/BLOCK LINE
- - - EASEMENT
- - - BUILDING/PARKING SETBACK LINE
- ⊙ SOIL BORING
- DRAINAGE ARROW
- W EXISTING WATERMAIN
- S EXISTING SANITARY SEWER
- ST EXISTING STORM SEWER
- 980 EXISTING CONTOUR
- x 995.50 EXISTING ELEVATION
- ⊙ EXISTING TREE
- ⊙ EXISTING INSIGNIFICANT TREE



REHDER & ASSOCIATES, INC.
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Issued	
WATERSHED & CITY SUBMITTAL	11-21-24
ADDRESS RPBC WATERSHED COMMENTS	11-26-24

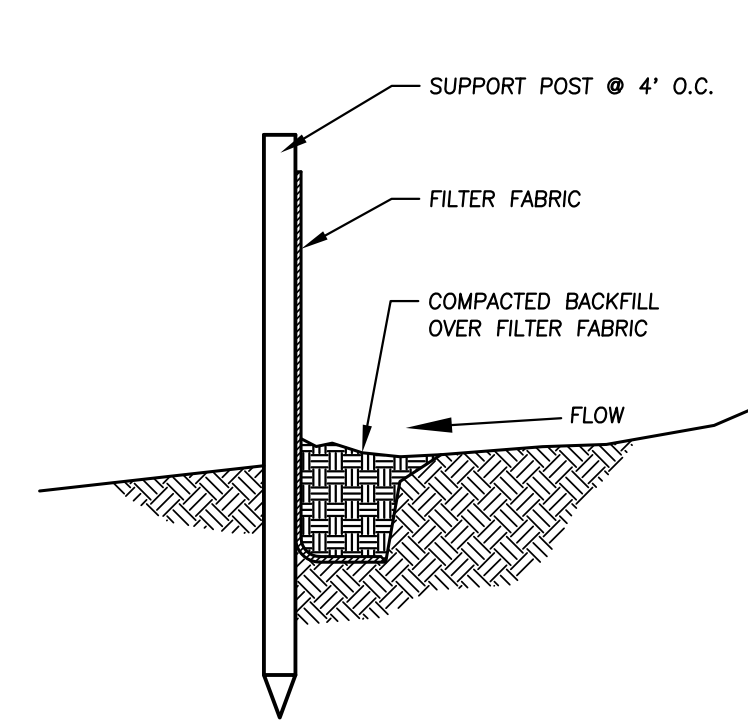
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRELIMINARY

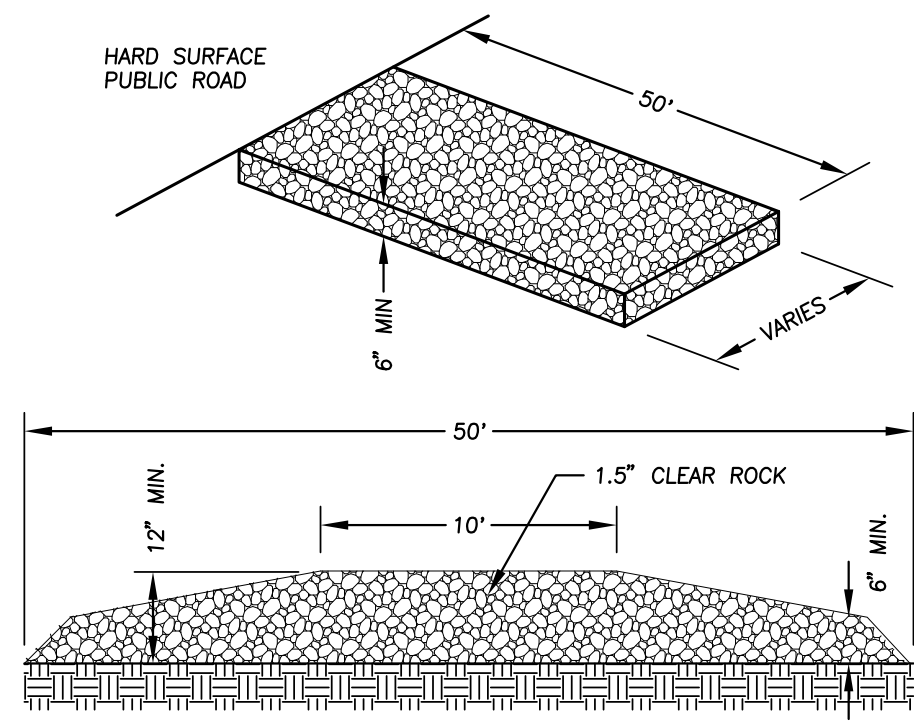
Date _____
Name _____ Reg. No. _____

UTILITY PLAN
HIGHWAY 5 BUSINESS CENTER
CITY OF EDEN PRAIRIE

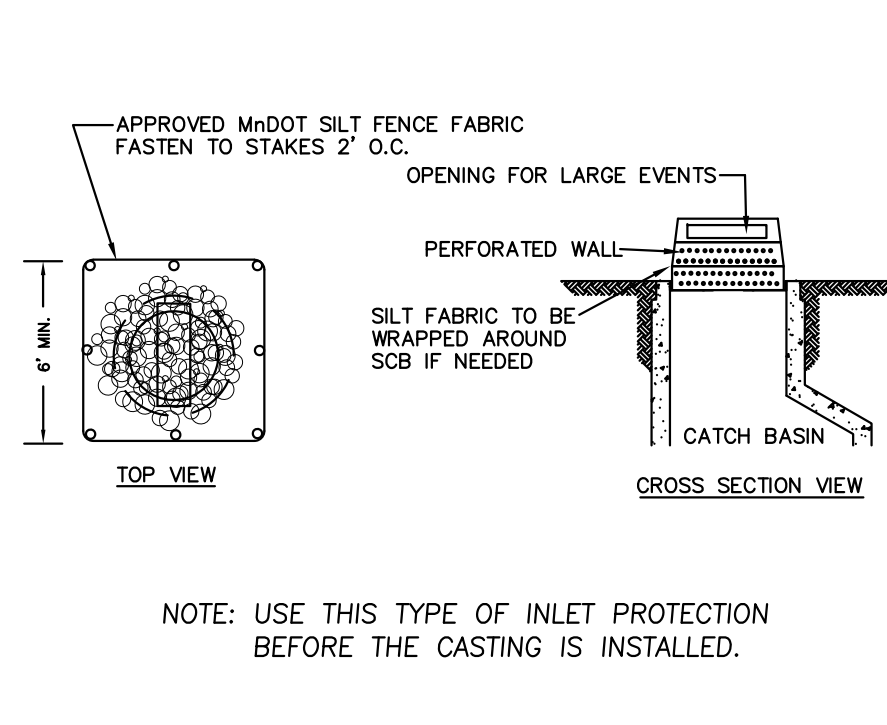
SHEET NUMBER
C005



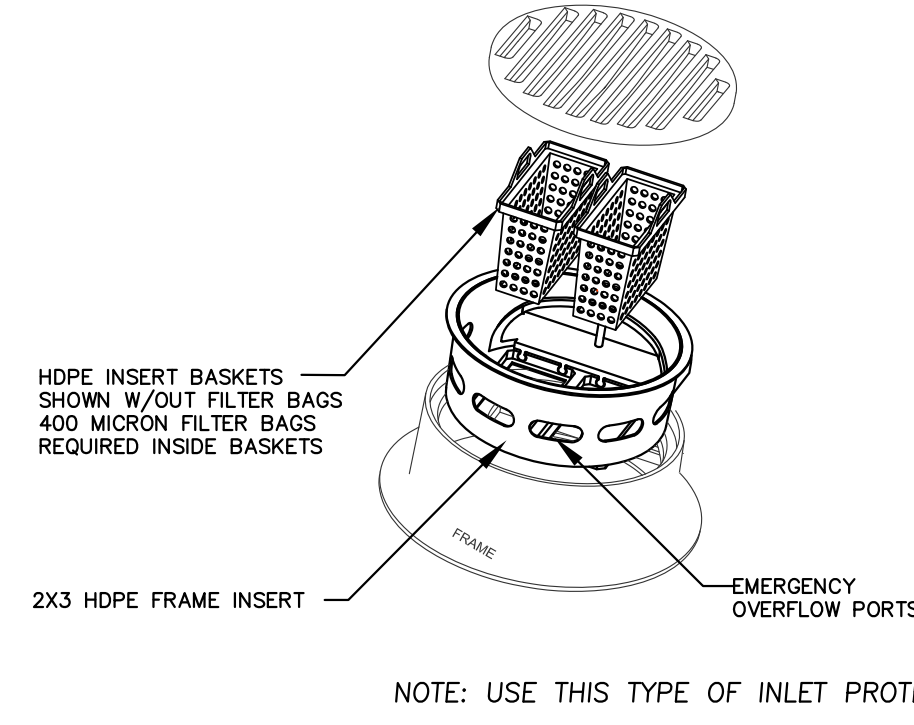
1
C5
SILT FENCE
NO SCALE



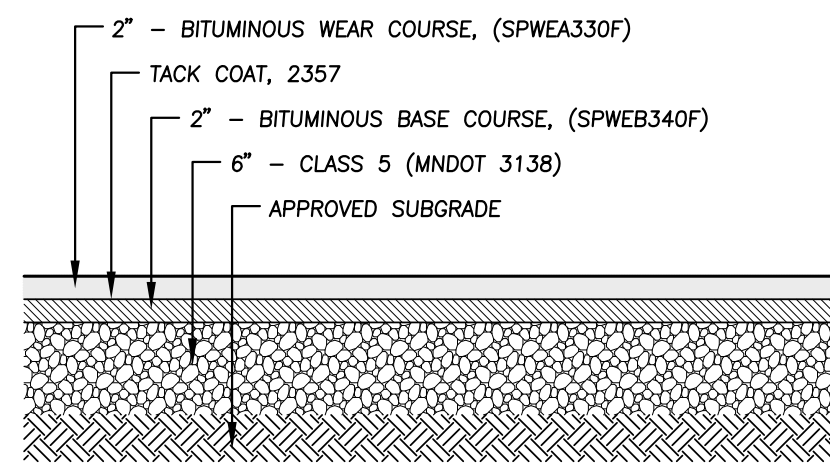
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C5
ROCK CONSTRUCTION ENTRANCE
NO SCALE



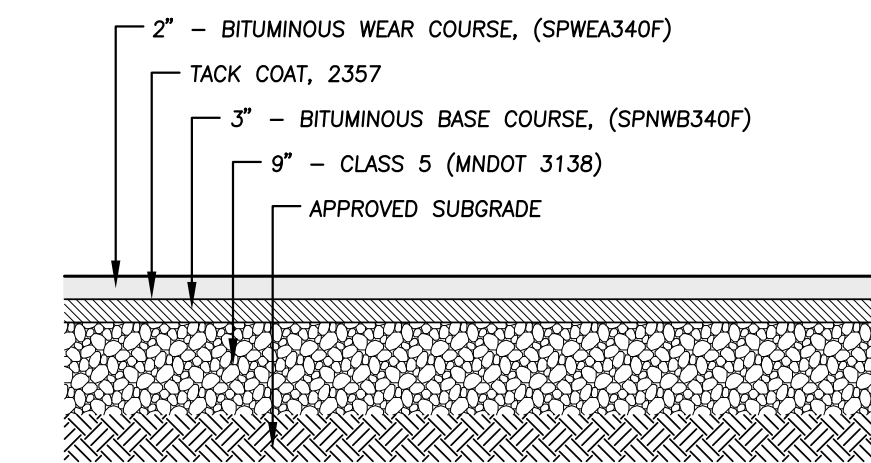
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C5
INLET PROTECTION
(INFRA SAFE OR EQUAL)
NO SCALE



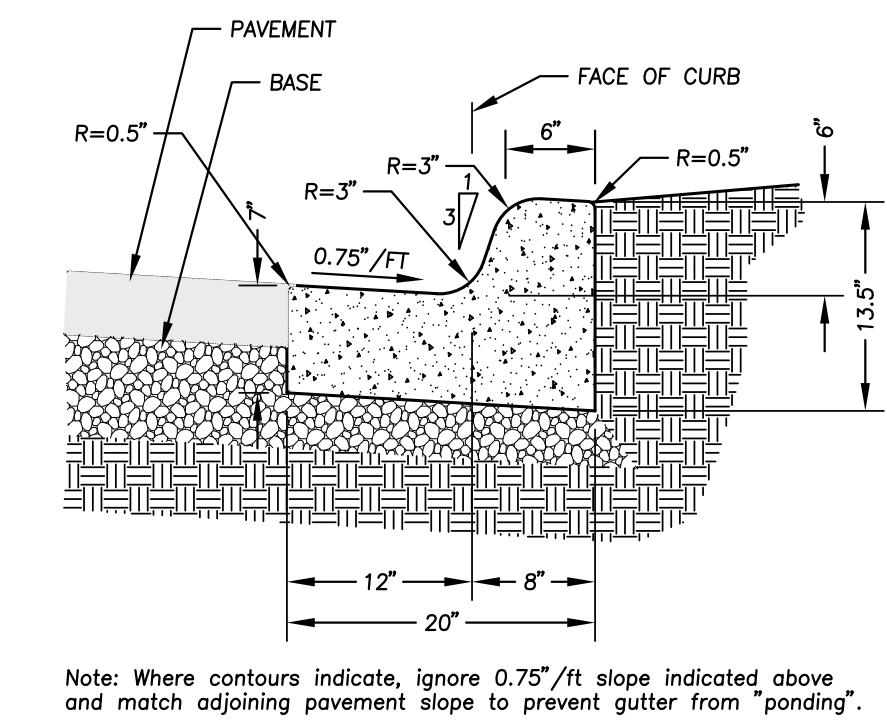
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C5
INLET PROTECTION
(INFRA SAFE OR EQUAL)
NO SCALE



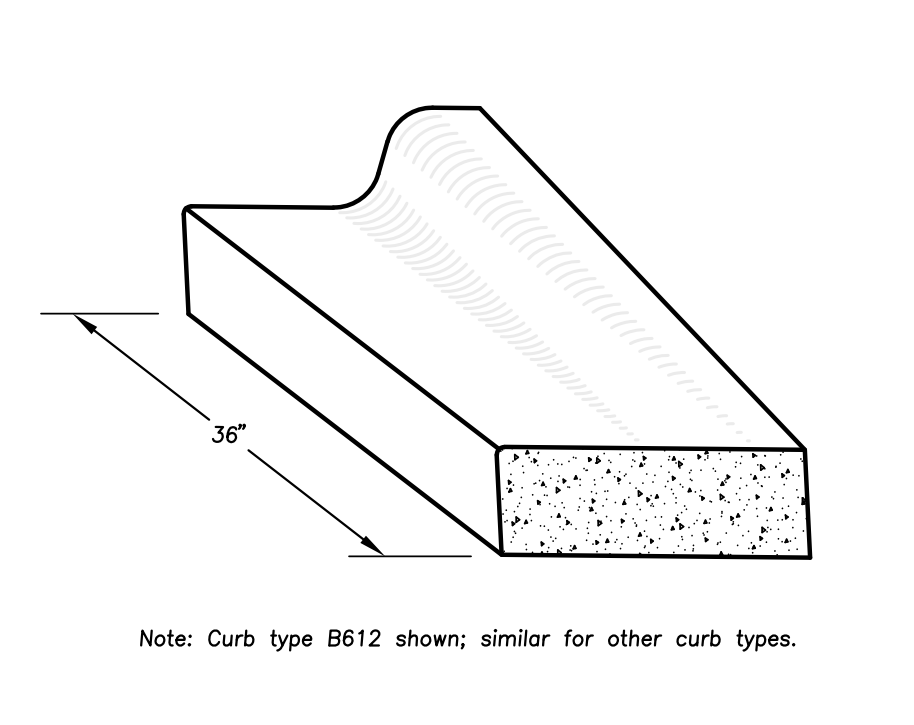
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STANDARD PAVEMENT SECTION
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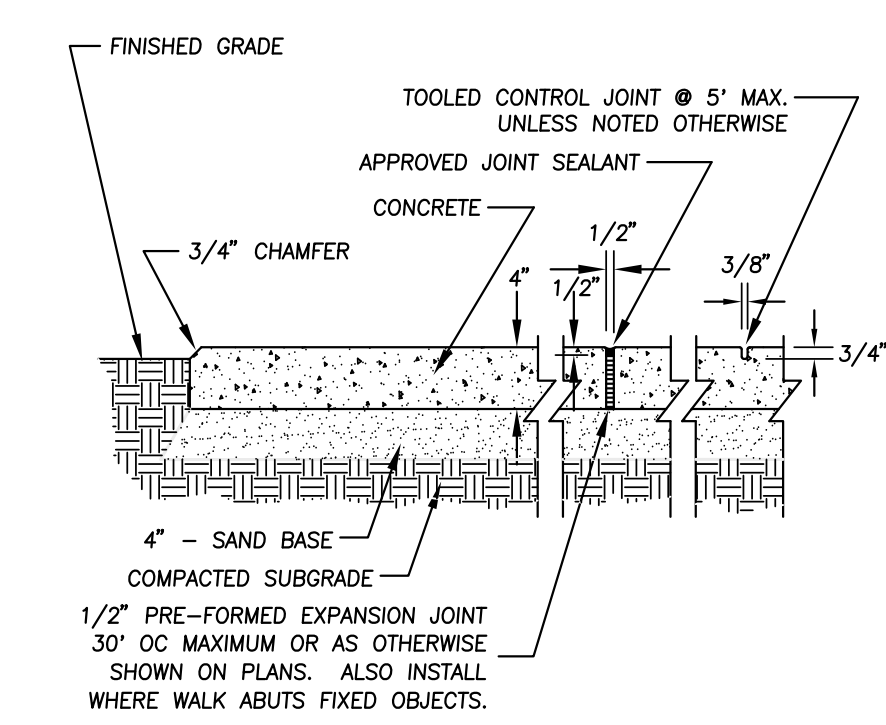
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C5
HEAVY DUTY PAVEMENT SECTION
NO SCALE



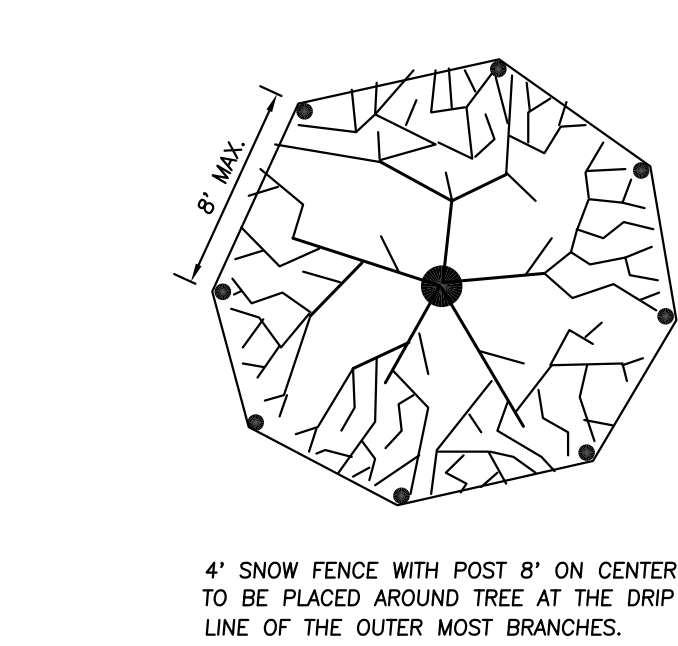
7
C5
B612 CONCRETE CURB & GUTTER
NO SCALE



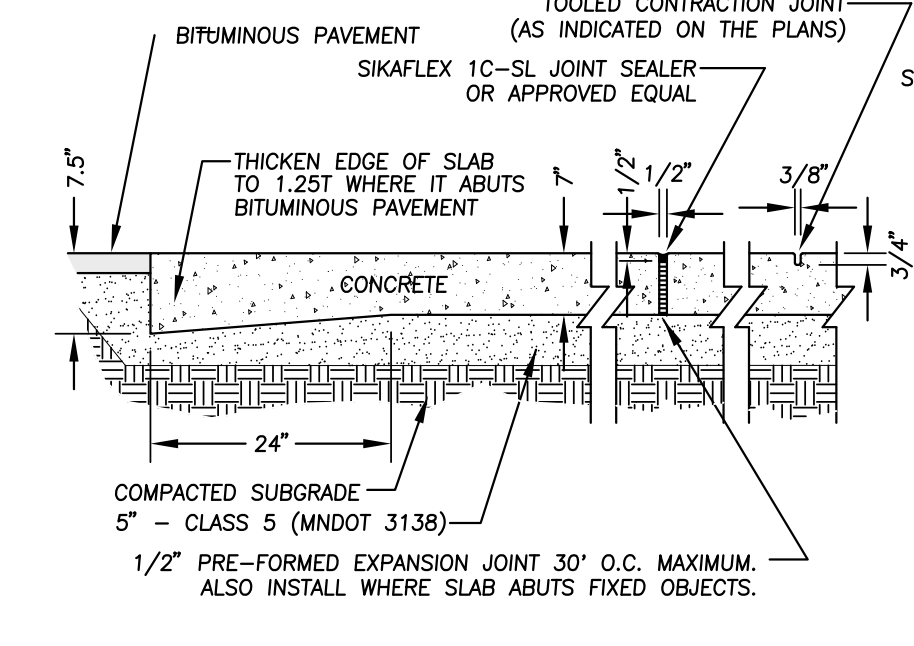
8
C5
CURB & GUTTER BEAVERTAIL
NO SCALE



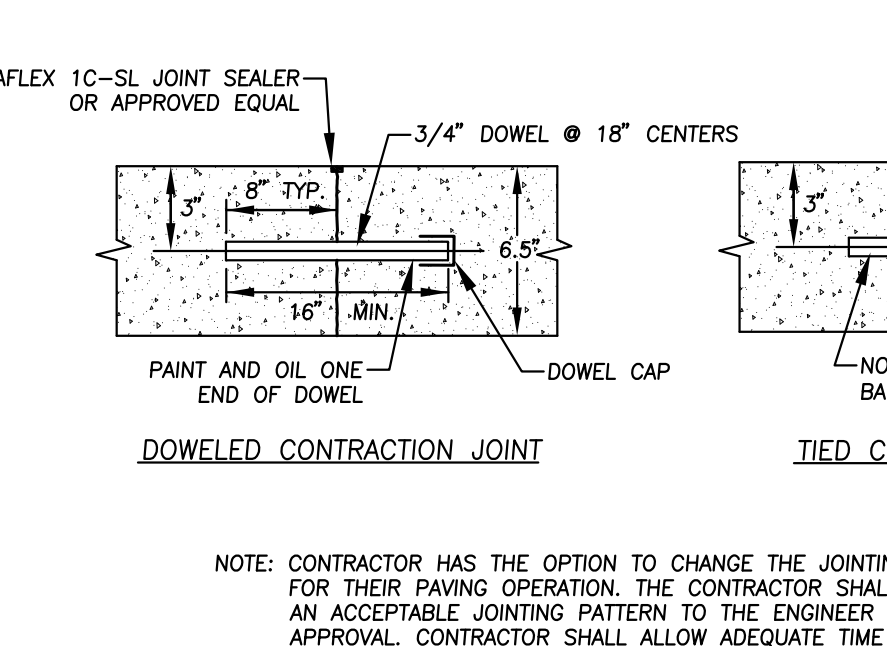
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C5
CONCRETE SIDEWALK (PRIVATE)
NO SCALE



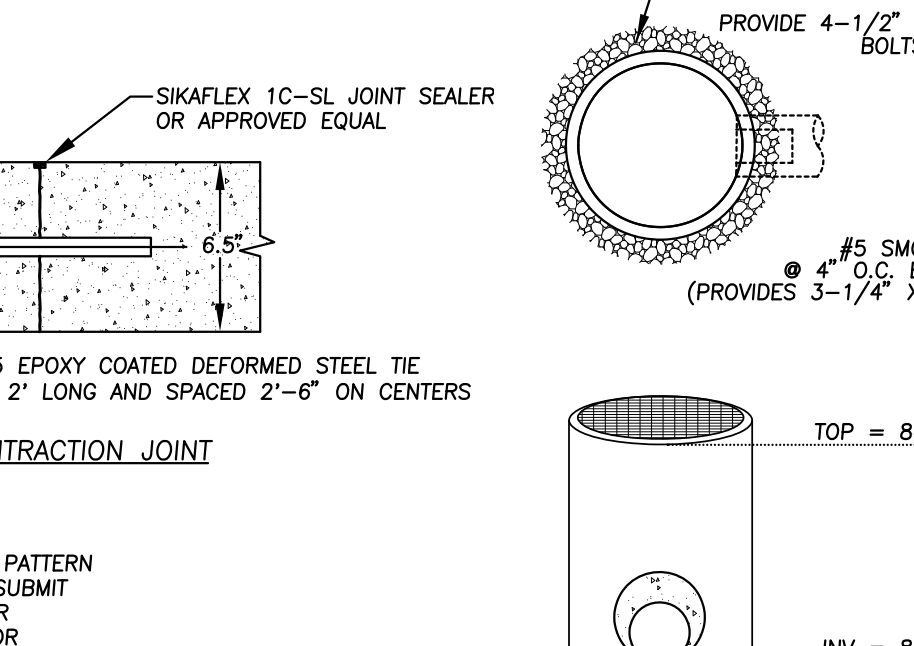
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TREE PROTECTION
NO SCALE



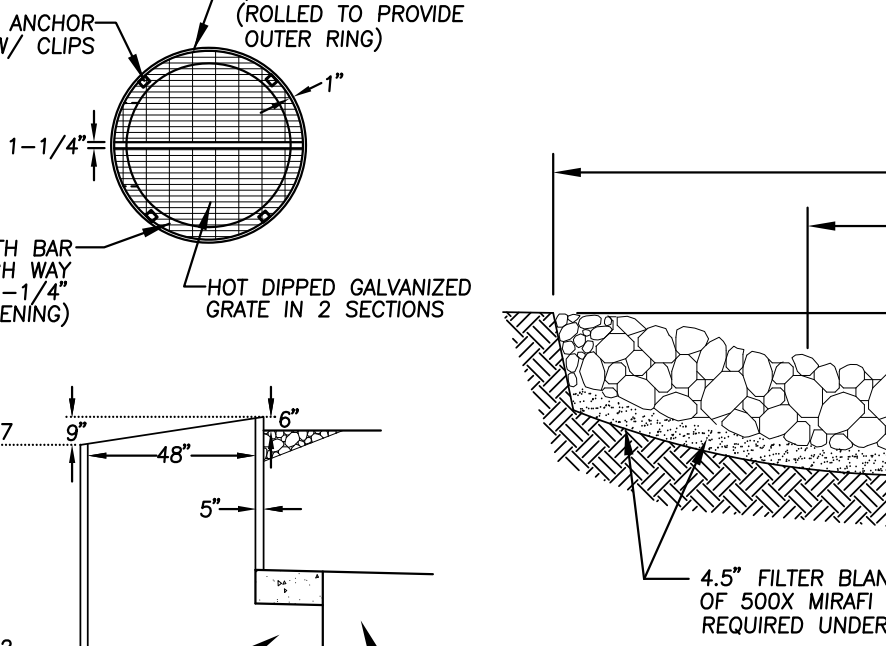
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C5
CONCRETE PAVEMENT SECTION (DOCK AREA)
NO SCALE



12
C5
CONTROL STRUCTURE
NO SCALE



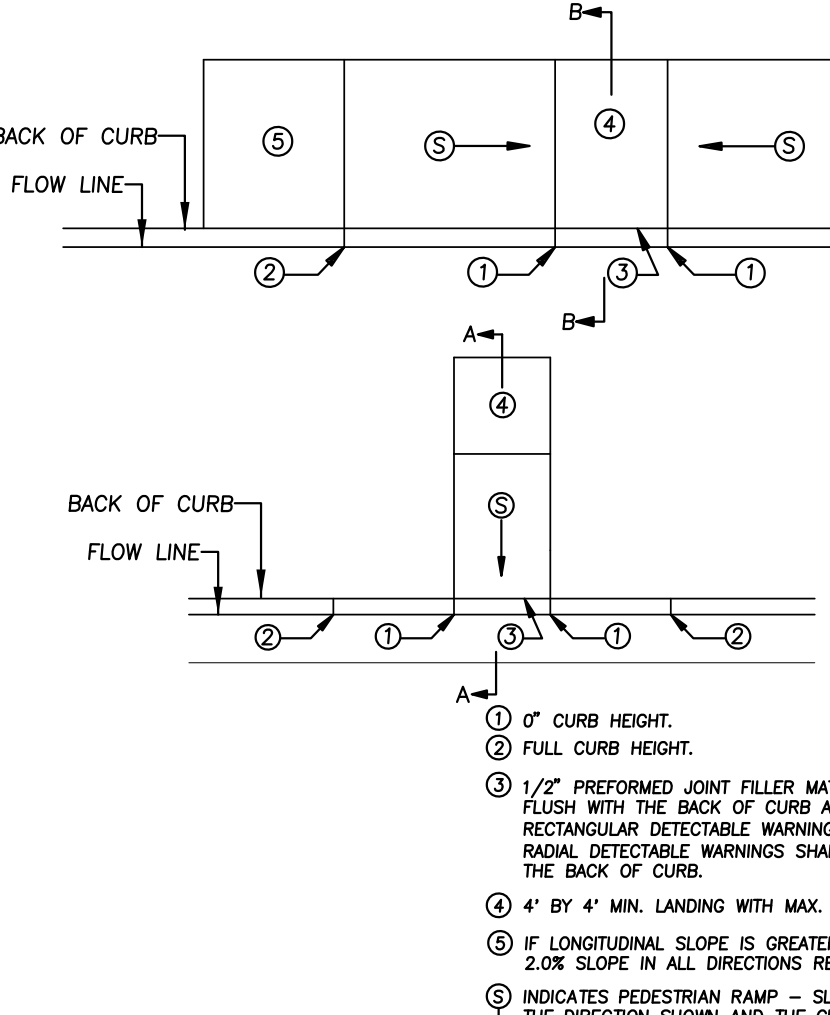
13
C5
POND OUTLET/EOF
NO SCALE



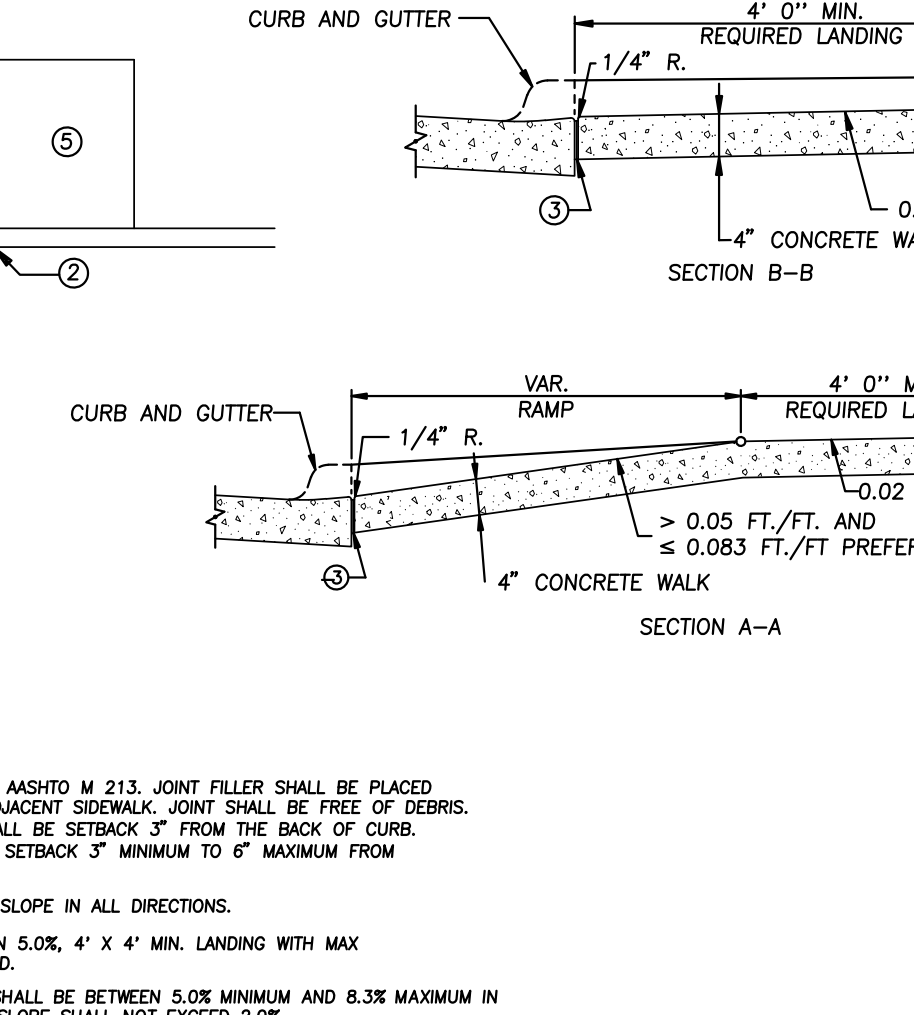
14
C5
RIPRAP DETAIL
NO SCALE

PIPE DIA. [IN]	L [FT]	FILTER [SY]	RIPRAP [CY]
12	8	16.9	3.0
15	8	18.0	3.2
18	10	22.4	4.3
21	10	24.1	4.7
24	12	29.7	6.2
27	12	31.4	6.6
30	14	37.4	8.2
36	16	45.9	10.6
42	18	52.8	12.5
48	20	61.1	14.8

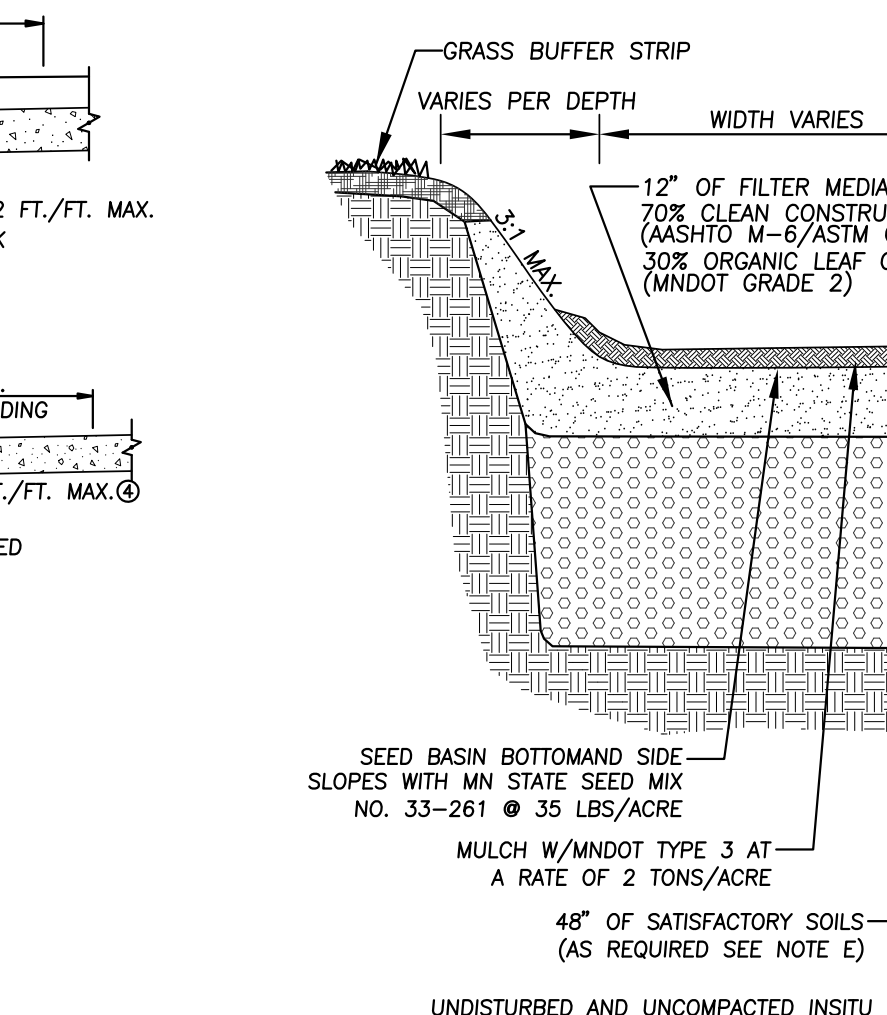
(ONE CUBIC YARD IS APPROXIMATELY 2,800 LBS.)



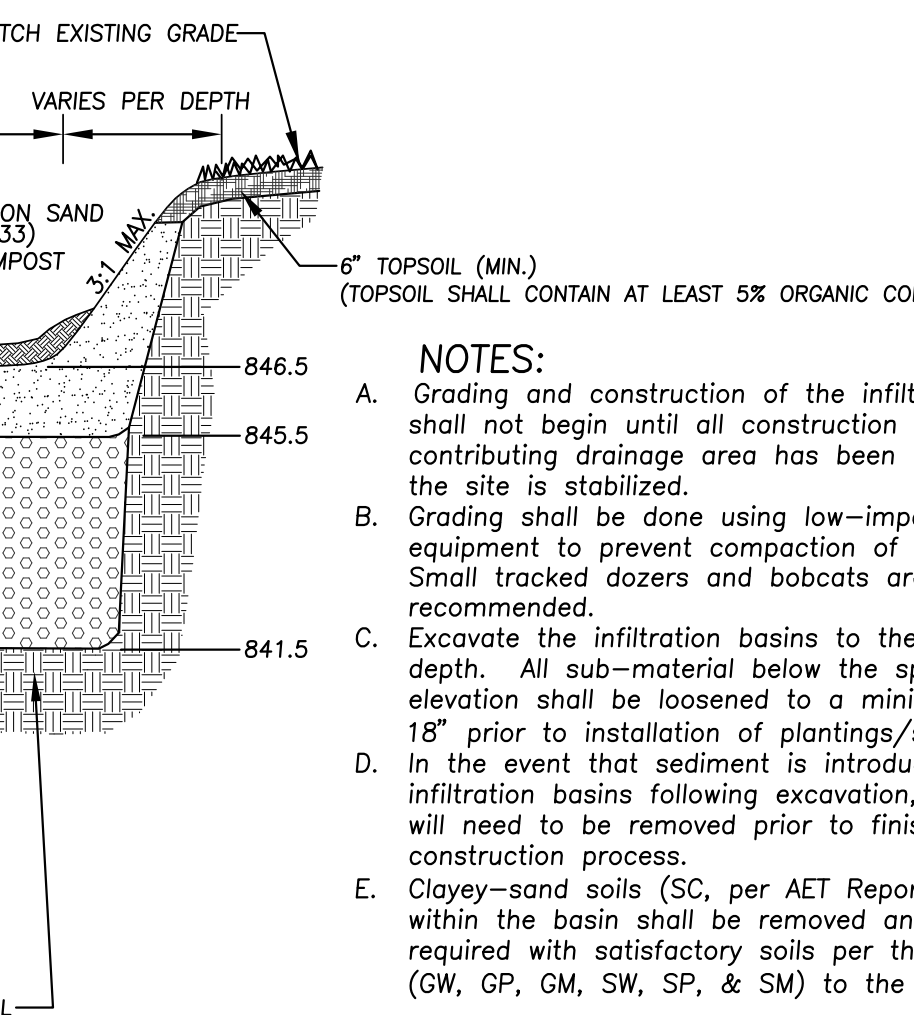
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C5
PEDESTRIAN RAMP
NO SCALE



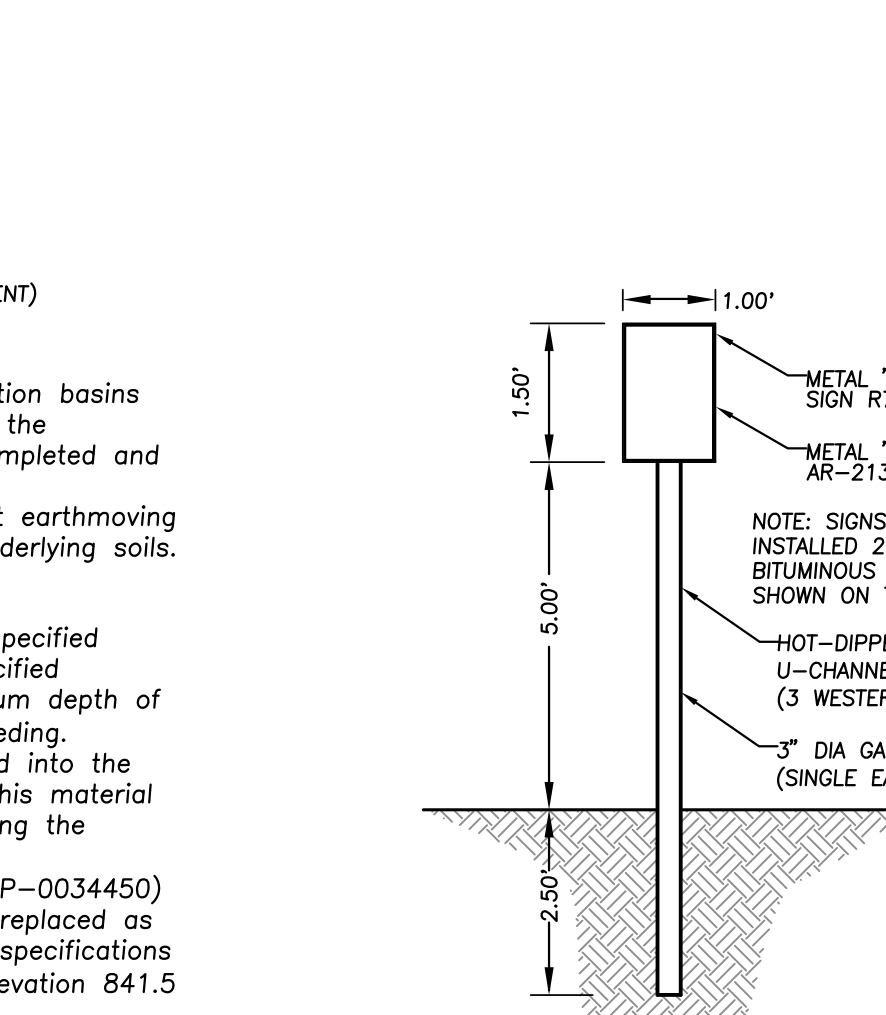
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C5
INFILTRATION BASIN X-SECTION
NO SCALE



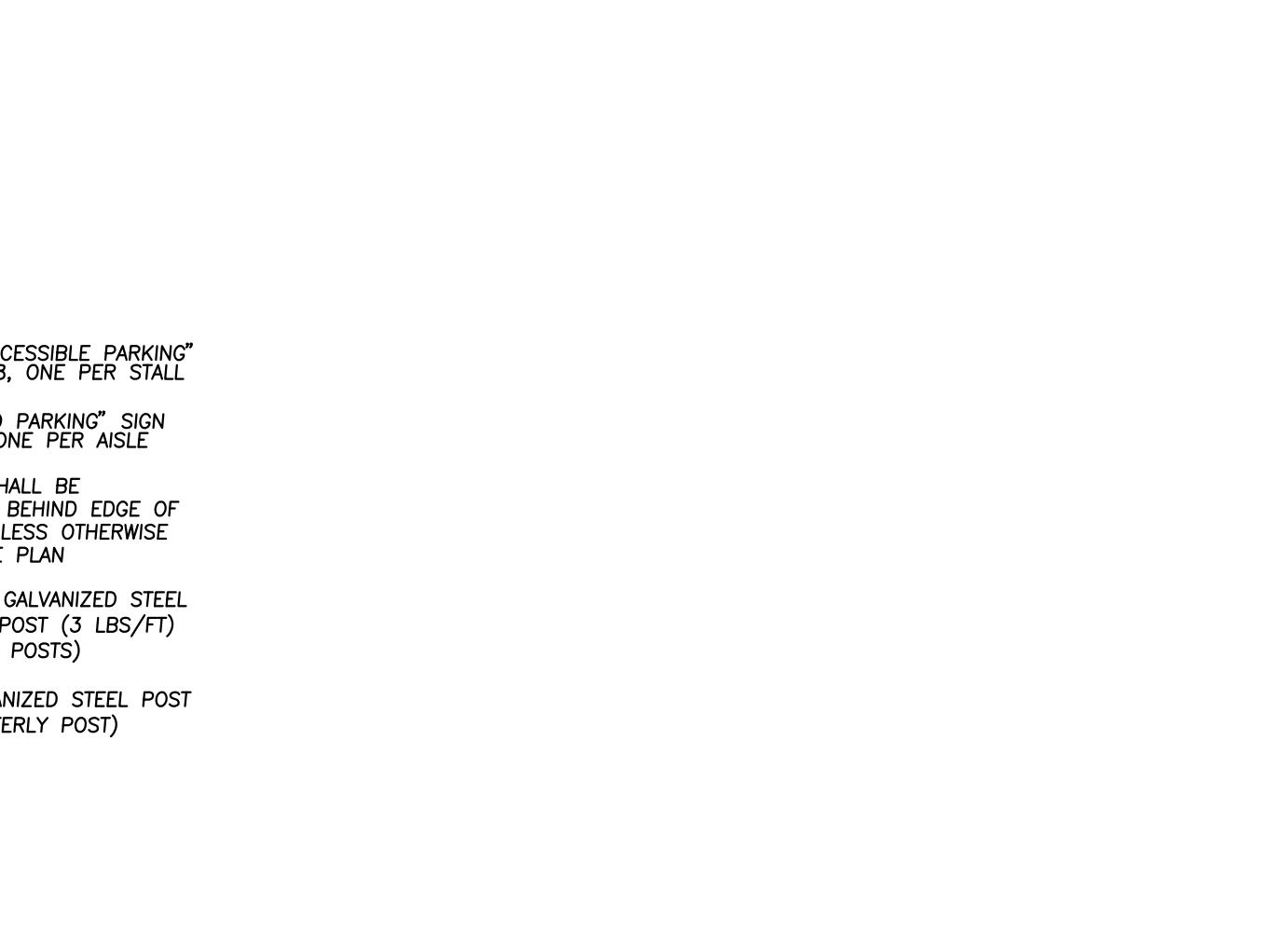
17
C5
ACCESSIBLE PARKING SIGN AND POST
NO SCALE



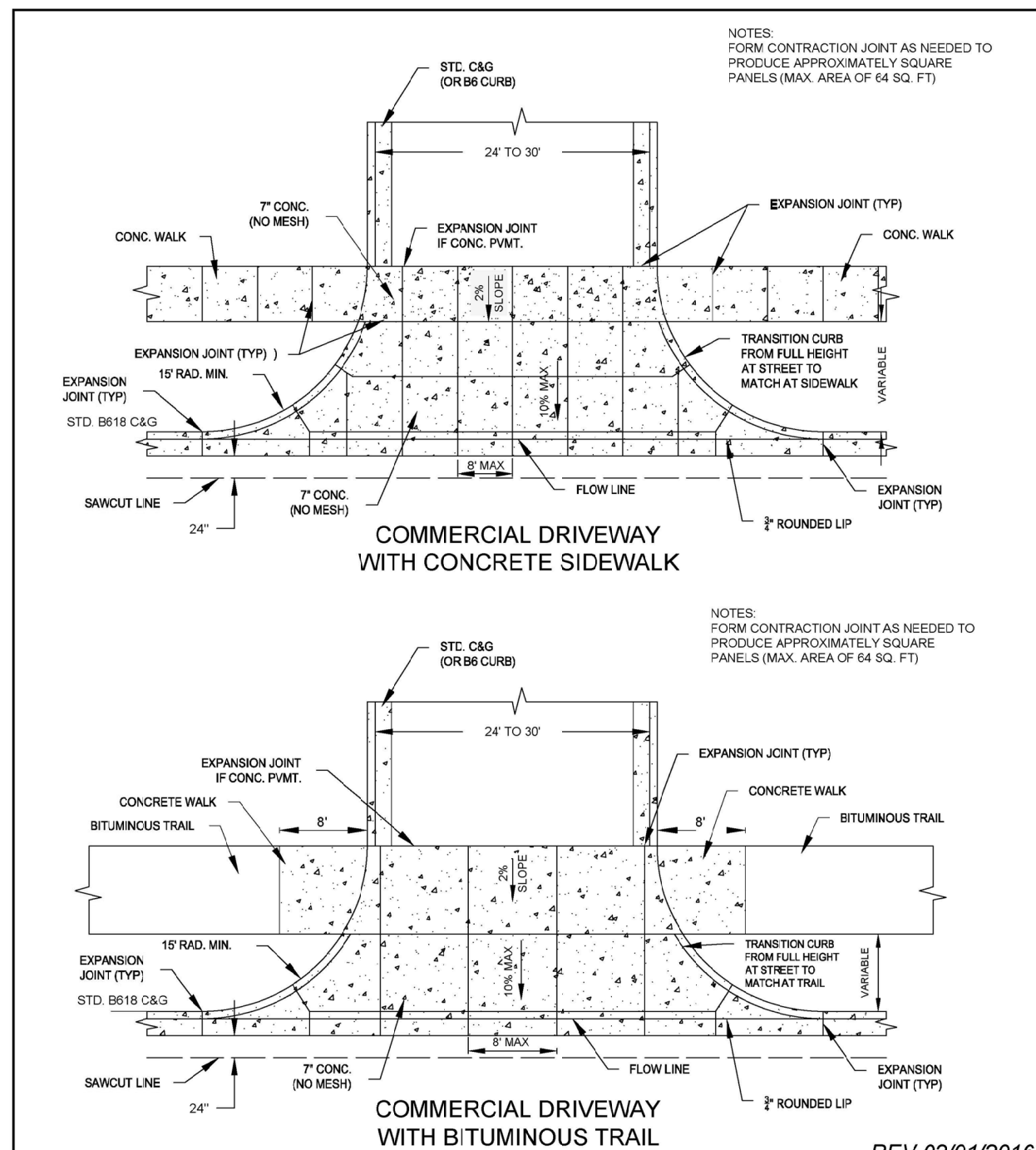
18
C5
PEDESTRIAN RAMP
NO SCALE



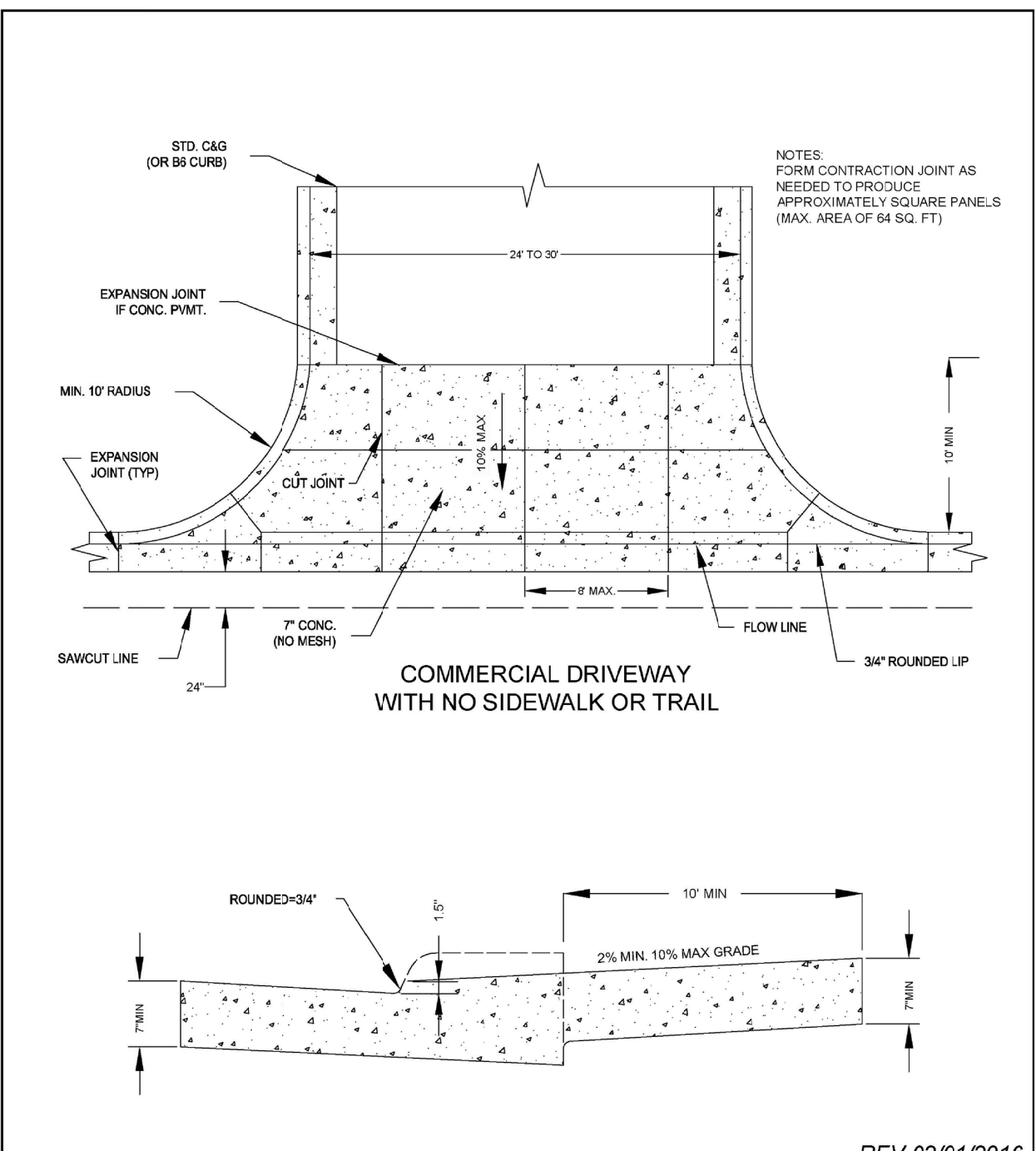
19
C5
INFILTRATION BASIN X-SECTION
NO SCALE



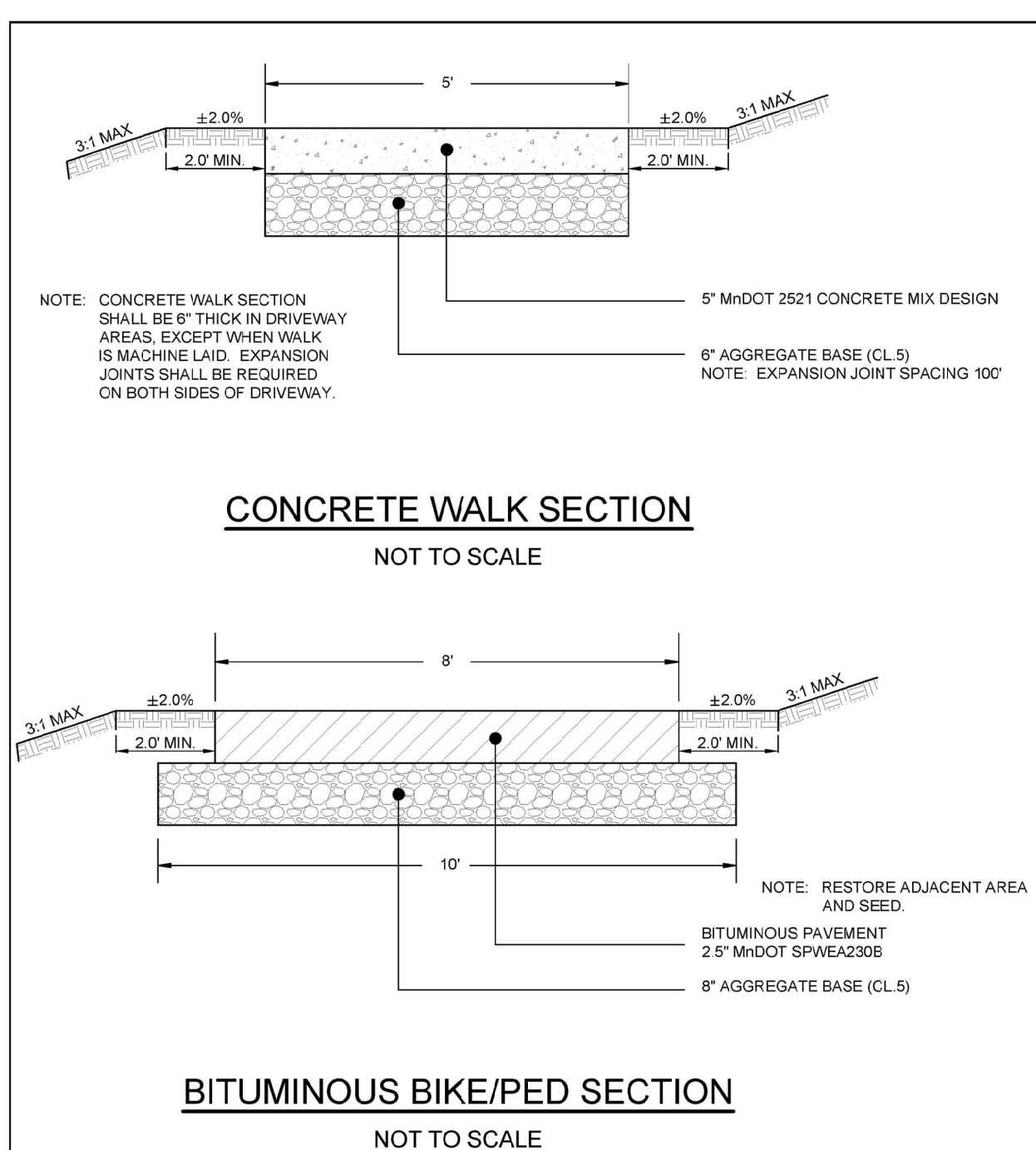
20
C5
ACCESSIBLE PARKING SIGN AND POST
NO SCALE



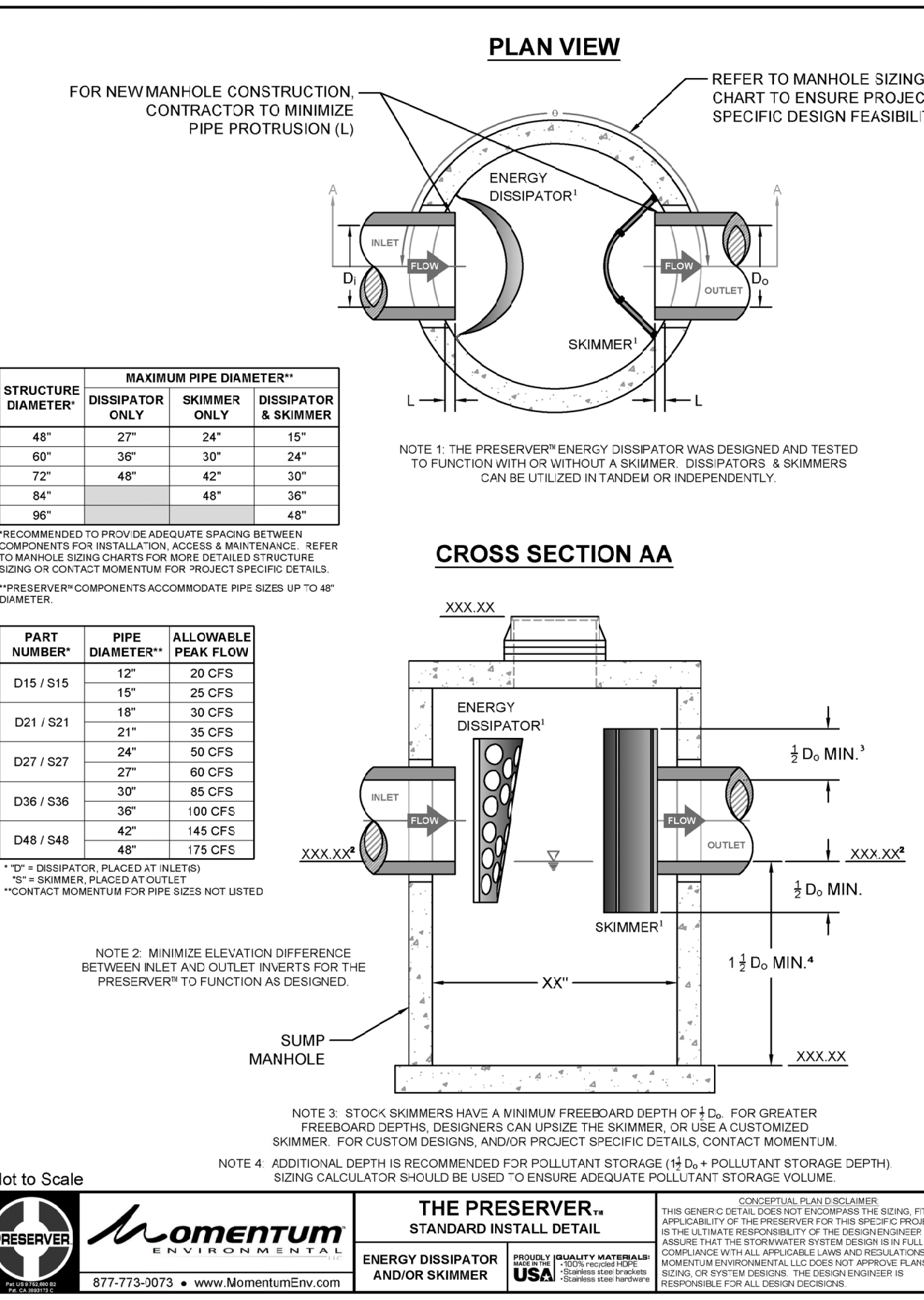
COMMERCIAL DRIVEWAY ENTRANCE (1 OF 2)
CITY OF EDEN PRAIRIE
DEPARTMENT OF ENGINEERING
DETAIL NO. **R-14**



COMMERCIAL DRIVEWAY ENTRANCE (2 OF 2)
CITY OF EDEN PRAIRIE
DEPARTMENT OF ENGINEERING
DETAIL NO. **R-15**



TYPICAL WALKWAY SECTION
CITY OF EDEN PRAIRIE
DEPARTMENT OF ENGINEERING
DETAIL NO. **R-16**



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SPECIFICATIONS GENERAL

- I. GENERAL
 - A. Before construction begins, the Contractor will contact all utility companies, both public and private and have them locate all utilities within the construction limits.
 - B. The Contractor shall be responsible for arranging all required inspections with the governing authority that has jurisdiction over the work that is to be performed.
 - C. The Contractor shall stay within the construction limits unless approved otherwise by the Owner and/or Engineer. Construction limits are defined by the property boundary unless shown different on the plan.
 - D. The Contractor shall be responsible for protecting all existing structures, utilities, trees, etc. from damage during construction.
 - E. The Contractor shall be responsible for correcting any damage (at Contractor's expense).
 - F. Any discrepancies found on the site that affect the proposed work shall be reported to the Owner and/or Engineer before the completion of any additional work.
 - G. Soils report and pavement recommendation provided by American Engineering Testing, AET Project No. P-0034450.
 - H. Existing boundary, topographical & utility information was prepared by Harry S. Johnson Co. Inc. Land Surveyors. This information has not been verified as to its accuracy or completeness by Rehder & Associates, Inc.

SITE CLEARING

- I. GENERAL
 - A. Remove trees, shrubs, grass, and other vegetation or obstructions, as required, to permit installation of improvements shown on the Plans.
- II. EXECUTION
 - A. Trees and stumps shall be hauled from the site. Burial on-site or burning of trees and stumps will not be allowed.
 - B. Where existing trees are indicated to remain, leave existing topsoil in place within drip lines to prevent damage to root system.
 - C. Topsoil shall be stripped from disturbed areas and stockpiled in piles not exceeding 8-feet in depth.
 - D. Remove all back dirt and unsuitable material from under drives and roadways within 3-feet of final pavement subgrade.
 - E. Remove all waste materials and unsuitable or excess topsoil from Owner's property.

GRADING, EROSION CONTROL, AND TURF ESTABLISHMENT

- I. GENERAL
 - A. All grading, erosion control and turf establishment shall be according to the materials, workmanship, and other applicable requirements of the Minnesota Department of Transportation "Standard Specifications for Construction", latest edition, unless otherwise specified.
 - B. All erosion control measures shown on the plans must be installed prior to commencement of grading operations and maintained until all areas altered on the site have been restored.
 - C. All areas disturbed by construction shall be restored with seed and disked mulch, sod, wood fiber blanket, or be hard surfaced within two weeks of substantial completion of construction.
 - D. Provide approved borrow soil materials from off-site when sufficient quantities of material are not available from excavations. Remove all excess and unsatisfactory material from the site.
 - E. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
 - F. Compaction shall not be less than the following percentages of maximum dry density according to ASTM D 698:
 - i. Under structures, building slabs, steps, and pavements, compact the top 12 inches below subgrade and each layer of backfill or fill material at 100 percent maximum dry density.
 - ii. Under walkways, compact the top 6 inches below subgrade and each layer of backfill or fill material at 100 percent maximum dry density.
 - iii. Under lean or unpaved areas, compact the top 6 inches below subgrade and each layer of backfill or fill material at 95 percent maximum dry density.
 - G. Grades as shown on the plan are to finished grade.
 - H. Backfill trenches involving utilities under building slabs to be designed by Others (per their requirements).
- II. PRODUCTS
 - A. Satisfactory soils include ASTM D 2487 soil classification groups GW, GP, GM, SW, SP, and SM; free of rock or gravel larger than 2-inches in any dimension, debris waste, frozen materials, vegetation and other deleterious matter.
 - B. Unsatisfactory soils include ASTM D 2487 soil classification groups GC, SC, ML, MH, CL, CH, OL, OH, and PT.
 - C. All backfill and fill materials must be satisfactory soil materials.
 - D. Topsoil shall be per ASTM D 5268, free of stones 1" or larger.
 - E. Subbase and base material must be a naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand meeting MNDOT Specifications for Class 5 gravel.
 - F. Spring/Summer temporary turf establishment: seed shall be MNDOT Mixture 110 @ 100 lbs/acre and mulch shall be MNDOT Type 1.
 - G. Winter temporary turf establishment: seed shall be MNDOT Mixture 100 @ 100 lbs/acre and mulch shall be MNDOT Type 1.
 - H. Commercial turf establishment: seed shall be MNDOT Mixture 25-131 @ 220 lbs/acre, fertilizer shall be 10-10-10 (NPK) commercial grade, and mulch shall be MNDOT Type 1.
- III. EXECUTION
 - A. Fill under buildings shall be compacted to meet Soil Engineer's recommendations.
 - B. Place 4-inches of topsoil over all areas to be re-established with turf.
 - C. Provide erosion control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
 - D. Place inlet protection devices in catch basins and maintain until all areas disturbed have been restored.
 - E. Wherever construction vehicle access routes intersect paved public roads, provisions must be made to minimize the transport of sediment (mud) by runoff or vehicles tracking onto the paved road surface. Where sediment is transported onto a public road surface, the roads shall be cleaned thoroughly at the end of each day. Sediment shall be removed by shoveling or sweeping and be transported to a sediment controlled disposal area. Street washing shall be allowed only after sediment is removed in this manner.

BITUMINOUS PAVEMENT

- I. GENERAL
 - A. Provide hot-mix asphalt pavement according to the materials, workmanship, and other applicable requirements of the Minnesota Department of Transportation "Standard Specifications for Construction", latest edition, unless otherwise specified.
 - B. Conform to applicable standards of authorities having jurisdiction for asphalt paving work on public property.
- II. PRODUCTS
 - A. Use coarse and fine aggregate materials and gradations that have performed satisfactorily in previous installations.
 - B. Provide a base and wear course as indicated on the plan unless otherwise specified.
 - C. Provide a tack coat as indicated on the plan unless otherwise specified.
- III. EXECUTION
 - A. Verify that the subgrade is dry and in suitable condition to support paving and imposed loads.
 - B. The Contractor shall furnish a tandem truck loaded with a minimum of 14-tons to check the completed subgrade and/or aggregate base for soft spots prior to placement.
 - C. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness, when compacted.
 - D. Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement.
 - E. Provide an average density of 96 percent of reference laboratory density according to ASTM D 1559, but not less than 94 percent nor greater than 100 percent.
 - F. Tolerances: Base course thickness shall be plus or minus 0.5-inches and surface course shall be plus or minus 0.25-inches.

PORTLAND CEMENT CONCRETE PAVEMENT

- I. GENERAL
 - A. Provide Portland cement concrete pavement for roads, curbs, walks and exterior slabs according to the materials, workmanship, and other applicable requirements of the Minnesota Department of Transportation "Standard Specifications for Construction", latest edition, unless otherwise specified.
- II. PRODUCTS
 - A. Portland cement concrete for curb and gutter and sidewalk shall be 4000 psi, 28-day compressive strength, 5.0% air entrainment, and 3-inch slump.
 - B. Curing compound shall be solvent-borne, liquid membrane-forming ASTM C309, Type I or approved equal.
- III. EXECUTION
 - A. The Contractor shall furnish a tandem truck loaded with a minimum of 14-tons to check the completed subgrade and/or aggregate base for soft spots prior to pavement placement.
 - B. Comply with requirements and with ACI 304R for measuring, mixing, transporting, and placing concrete.
 - C. Comply with the Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars" for placing and supporting reinforcement.
 - D. Prefabricated expansion joints using 0.5-inch thickness shall be placed at each end of curb radius, at intersections, and approximately every 200-feet.
 - E. Contraction joints shall be placed at minimum 10-foot intervals in the curb and gutter and at 5-foot for walks.
 - F. Provide a medium to fine broom finish perpendicular to traffic flow.
 - G. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures using moisture curing, moisture-retaining-cover curing, curing compound or a combination of these.

STORM SEWER

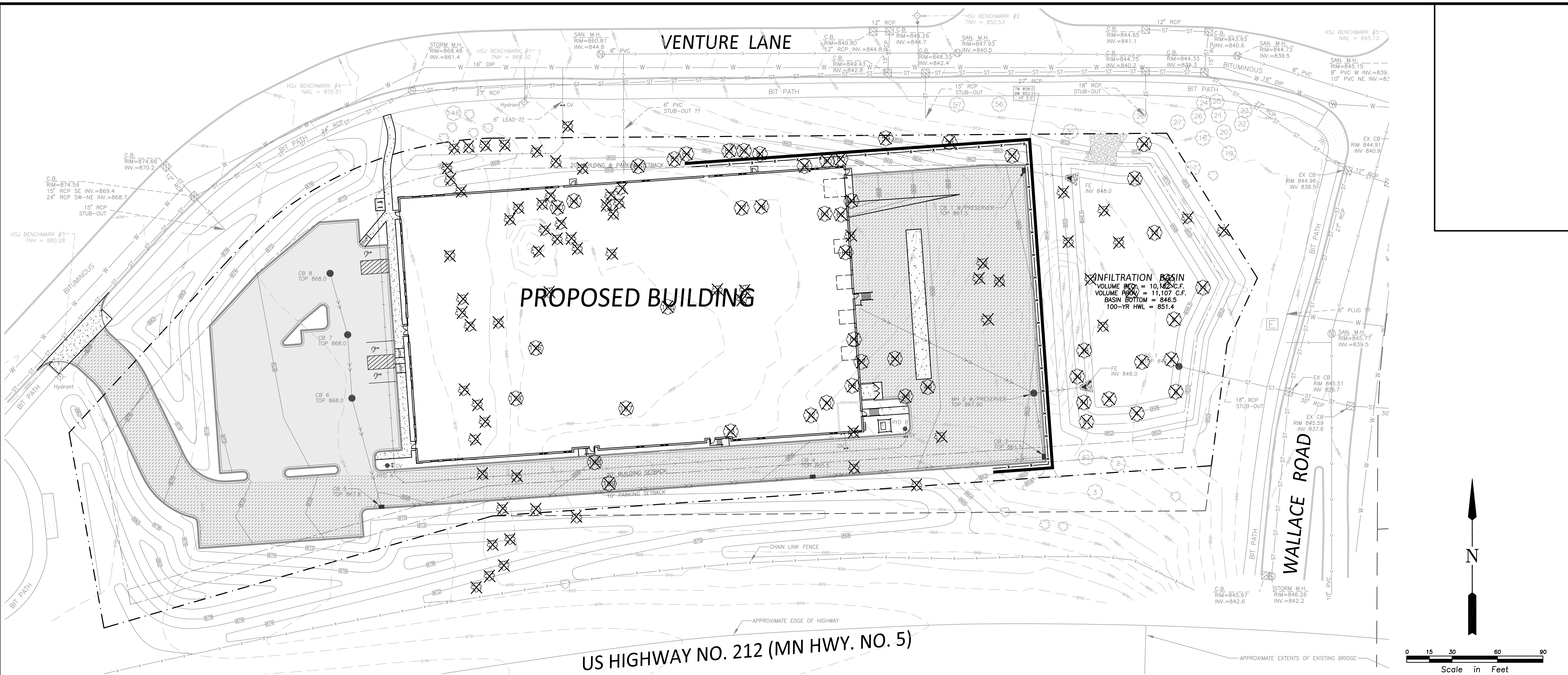
- I. GENERAL
 - A. Storm sewer shall comply with all local regulations pertaining to storm sewer systems including materials, installation, and testing. If no regulations exist, comply with "Standard Utilities Specifications" by the City Engineers Association of Minnesota, latest edition.
- II. PRODUCTS
 - A. Storm sewer pipe indicated on the plan as RCP shall be reinforced concrete pipe, ASTM C 76, R-4, Wall B, for gasket joints with the following classes: 12"-18" Class 5, 21"-33" Class 4, 24"-33" Class 3, 36" and larger, Class 2.
 - B. Storm sewer pipe indicated on the plan as PVC shall be polyvinyl chloride pipe, ASTM D 3034, SDR 35, for solvent-cemented or gasket joints.
 - C. Storm sewer indicated on the plan as HDPE shall be dual wall corrugated polyethylene pipe with soil tight fittings per the Corrugated Polyethylene Pipe Association (CPA) standard specification 100-97.
 - D. Storm sewer catch basins and manholes shall be precast structures with at least two and at the most five adjusting rings.
 - E. Storm sewer castings indicated on the plan shall be from the Neenah Foundry or approved equal.
 - F. All flared end sections shall have standard duty trashguards.
 - G. Filter fabric shall be Miffler 500K or approved equal.
 - H. Riprap shall be random and Class II hand placed to a depth of one foot.
- III. EXECUTION
 - A. The plans indicate the general location and arrangement of underground storm sewer systems. Location and arrangement of piping take into account many design considerations. Install piping as indicated on the plans, to the extent practical.
 - B. Flared ends and the last two sections of storm sewer pipe shall be tied with bolts.
 - C. Contractor should verify locations of utility connections at the building the architectural and mechanical plans.
 - D. PVC and HDPE sewer pipe shall be bedded in accordance with ASTM F 2306, "Standard Specification for 12 to 60 in. Annular Corrugated Profile-Wall Polyethylene (PE) Pipe and Fittings for Gravity-Flow Storm Sewer and Subsurface Drainage Applications".
 - E. Storm sewer services shall be extended to within 5-feet of the building. Plug ends and mark by installing a 2" x 2" wood board from the plugged end to 4-feet out of the ground.

SANITARY SEWER

- I. GENERAL
 - A. Sanitary sewer shall comply with all local regulations pertaining to sanitary sewer systems including materials, installation, and testing. If no regulations exist, comply with "Standard Utilities Specifications" by the City Engineers Association of Minnesota, latest edition.
- II. PRODUCTS
 - A. Sanitary sewer pipe indicated on the plan as PVC shall be polyvinyl chloride pipe, ASTM D 3034, SDR 35, for solvent-cemented or gasket joints.
- III. EXECUTION
 - A. The plans indicate the general location and arrangement of underground sanitary sewer systems. Location and arrangement of piping take into account many design considerations. Install piping as indicated on the plans, to the extent practical.
 - B. Contractor should verify locations of utility connections at the building the architectural and mechanical plans.
 - C. PVC sewer pipe shall be bedded in accordance with ASTM D 2321, "Recommended Practice for Underground Installation of Flexible Thermoplastic Sewer Pipe".
 - D. Sanitary sewer services shall be extended to within 5-feet of the building. Plug ends and mark by installing a 2" x 2" wood board from the plugged end to 4 feet out of the ground.

WATER MAIN

- I. GENERAL
 - A. Water main shall comply with all local regulations pertaining to water main systems including materials, installation, and testing. If no local regulations exist, comply with "Standard Utilities Specifications" by the City Engineers Association of Minnesota, latest edition.
- II. PRODUCTS
 - A. Water main, indicated on the plan as DIP, shall be ductile iron pipe, Class 52, with push on joints and shall provide electrical conductivity across each joint.
 - B. All fittings shall be mechanical joint fittings.
 - C. Hydrants and valves shall meet all local and municipality requirements.
 - D. PE encasement for DIP shall be AWWA C105, PE film, 0.008-inch minimum thickness, tube or sheet.
- III. EXECUTION
 - A. The plans indicate the general location and arrangement of underground water main systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated, to the extent practical.
 - B. Bury all water main with a depth of cover of at least 7.5-feet or with the top at least 12-inches below frost penetration, whichever ever is greater.
 - C. Water main shall be encased in PE film.
 - D. All bends, stubs, and hydrants shall be rodded to the water main using 0.75-inch tie rods.
 - E. Top water main with size and in location as indicated according to the requirements of the local water utility. The Contractor shall pay water utility fee.
 - F. Test all installed piping as required by the local water utility.



TAG	SIZE	SPECIES	CONDITION	REMOVE	REMAIN	SIGNIFICANT
1	38	BOX ELDER	MULTI STEM, FAIR		X	NO
2	21	COTTONWOOD	GOOD		X	YES
3	96	COTTONWOOD	4 STEM, GOOD		X	YES
4	26	COTTONWOOD	GOOD	X		YES
5	15	COTTONWOOD	GOOD	X		YES
6	20	COTTONWOOD	GOOD	X		YES
7	24	COTTONWOOD	GOOD	X		YES
8	16	COTTONWOOD	GOOD	X		YES
9	13	COTTONWOOD	FAIR	X		YES
10	16	COTTONWOOD	GOOD	X		YES
11	40	COTTONWOOD	CO-LEADER, GOOD	X		YES
12	25	COTTONWOOD	GOOD	X		YES
13	40	COTTONWOOD	CO-LEADER, GOOD	X		YES
14	18	BOX ELDER	UPROOTED, POOR	X		NO
15	14	WILLOW	POOR	X		NO
16	14	BOX ELDER	POOR		X	NO
17	75	COTTONWOOD	3 STEM, POOR		X	YES
18	17	COTTONWOOD	GOOD		X	YES
19	30	COTTONWOOD	GOOD		X	YES
20	18	COTTONWOOD	GOOD		X	YES
21	29	COTTONWOOD	GOOD		X	YES
22	29	COTTONWOOD	GOOD		X	YES
23	15	COTTONWOOD	GOOD		X	YES
24	18	COTTONWOOD	GOOD		X	YES
25	18	COTTONWOOD	GOOD		X	YES
26	14	COTTONWOOD	GOOD		X	YES
27	17	COTTONWOOD	GOOD		X	YES
28	26	COTTONWOOD	GOOD		X	YES
29	26	COTTONWOOD	GOOD		X	YES
30	24	COTTONWOOD	GOOD		X	YES

TAG	SIZE	SPECIES	CONDITION	REMOVE	REMAIN	SIGNIFICANT
31	30	BOX ELDER	MULTI STEM, POOR	X		NO
32	60	COTTONWOOD	GOOD		X	YES
33	75	BOX ELDER	POOR	X		NO
34	20	BOX ELDER	POOR	X		NO
35	32	BOX ELDER	FAIR	X		NO
36	13	BOX ELDER	POOR	X		NO
37	12	BOX ELDER	GOOD	X		NO
38	32	COTTONWOOD	GOOD	X		YES
39	25	COTTONWOOD	GOOD	X		YES
40	26	COTTONWOOD	GOOD	X		YES
41	33	COTTONWOOD	GOOD	X		YES
42	38	COTTONWOOD	GOOD		X	YES
43	50	BOX ELDER	3 STEM, POOR		X	NO
44	34	BOX ELDER	3 STEM, POOR		X	NO
45	35	BOX ELDER	2 STEM, FAIR		X	NO
46	25	BOX ELDER	2 STEM, GOOD	X		NO
47	20	BOX ELDER	FAIR	X		NO
48	12	COTTONWOOD	GOOD	X		YES
49	14	COTTONWOOD	GOOD	X		YES
50	13	COTTONWOOD	FAIR	X		YES
51	15	ASPEN	GOOD	X		NO
52	17	ASPEN	DEAD	X		NO
53	18	ASPEN	DEAD	X		NO
54	33	ASPEN	2 STEM, DEAD	X		NO
55	15	LOCUST	DEAD	X		YES
56	14	COTTONWOOD	GOOD		X	YES
57	12	COTTONWOOD	GOOD		X	YES
58	18	COTTONWOOD	FAIR	X		YES
59	16	COTTONWOOD	FAIR	X		YES
60	52	COTTONWOOD	4 STEM, FAIR	X		YES

TAG	SIZE	SPECIES	CONDITION	REMOVE	REMAIN	SIGNIFICANT
61	17	COTTONWOOD	FAIR	X		YES
62	13	COTTONWOOD	FAIR	X		YES
63	13	COTTONWOOD	FAIR	X		YES
64	17	ASPEN	FAIR	X		NO
65	14	COTTONWOOD	FAIR	X		YES
66	28	COTTONWOOD	GOOD	X		YES
67	18	COTTONWOOD	FAIR	X		YES
68	14	COTTONWOOD	FAIR	X		YES
69	22	ASPEN	FAIR	X		NO
70	18	COTTONWOOD	GOOD	X		YES
71	13	BOX ELDER	GOOD	X		NO
72	16	COTTONWOOD	FAIR	X		YES
73	65	COTTONWOOD	MULTI-STEM, GOOD	X		YES
74	34	ASPEN	2 STEM, FAIR	X		NO
75	17	ASPEN	FAIR	X		NO
76	17	ASPEN	FAIR	X		NO
77	18	COTTONWOOD	GOOD	X		YES
78	13	COTTONWOOD	GOOD	X		YES
79	13	COTTONWOOD	FAIR	X		YES
80	13	COTTONWOOD	FAIR	X		YES
81	25	COTTONWOOD	CO-LEADER, FAIR	X		YES
82	14	COTTONWOOD	GOOD	X		YES
83	14	COTTONWOOD	FAIR	X		NO
84	40	COTTONWOOD	3 STEM, FAIR	X		YES
85	15	COTTONWOOD	GOOD	X		YES
86	20	COTTONWOOD	CO-LEADER, FAIR	X		YES
87	14	ASPEN	POOR	X		NO
88	34	ASPEN	2 STEM, POOR	X		NO
89	15	ASPEN	GOOD	X		NO
90	29	ASPEN	2 STEM, FAIR	X		NO

TAG	SIZE	SPECIES	CONDITION	REMOVE	REMAIN	SIGNIFICANT
91	12	ASPEN	DEAD	X		NO
92	35	ASPEN	MULTI-STEM, FAIR	X		NO
93	15	COTTONWOOD	FAIR	X		YES
94	22	ASPEN	CO-LEADER, FAIR	X		NO
95	30	BOX ELDER	POOR	X		NO
96	15	BOX ELDER	GOOD	X		NO
97	27	ASPEN	FAIR	X		NO
98	14	COTTONWOOD	GOOD	X		NO
99	14	ASPEN	DEAD	X		NO
100	15	COTTONWOOD	GOOD	X		YES
101	12	ASPEN	DEAD	X		NO
102	12	ASPEN	DEAD	X		NO
103	12	ASPEN	FAIR	X		NO
104	17	ASPEN	DEAD	X		NO
105	12	ASPEN	FAIR	X		NO
106	15	COTTONWOOD	FAIR	X		YES
107	13	COTTONWOOD	FAIR	X		YES
108	19	COTTONWOOD	FAIR	X		YES
109	18	COTTONWOOD	GOOD	X		YES
110	22	BOX ELDER	FAIR	X		NO
111	16	BOX ELDER	FAIR	X		NO
112	22	BUCKTHORN	GOOD	X		NO
113	15	BOX ELDER	FAIR	X		NO
114	12	BOX ELDER	GOOD	X		NO
115	22	BOX ELDER	2 STEM, POOR	X		NO
116	20	BOX ELDER	GOOD	X		NO
117	30	BOX ELDER	MULTI-STEM, FAIR	X		NO
118	30	BOX ELDER	3 STEM, FAIR	X		NO
119	14	BOX ELDER	GOOD	X		NO
120	30	BOX ELDER	3 STEM, GOOD	X		NO

TAG	SIZE	SPECIES	CONDITION	REMOVE	REMAIN	SIGNIFICANT
121	12	BOX ELDER	GOOD	X		NO
122	14	BOX ELDER	GOOD	X		NO
123	13	BOX ELDER	GOOD	X		NO
124	19	COTTONWOOD	GOOD	X		YES
125	13	BOX ELDER	FAIR	X		NO
126	27	COTTONWOOD	GOOD	X		YES
127	12	BOX ELDER	FAIR	X		NO
128	36	BOX ELDER	3 STEM, GOOD	X		NO
129	36	BOX ELDER	MULTI-STEM, FAIR	X		NO
130	32	ELM	CO-LEADER	X		NO
131	55	ASPEN	MULTI-STEM, DEAD	X		NO
132	18	ASPEN	POOR	X		NO
133	18	BOX ELDER	POOR	X		NO
134	13	ASPEN	POOR	X		NO
135	27	ASPEN	POOR	X		NO
136	18	BOX ELDER	FAIR	X		NO
137	14	BOX ELDER	GOOD		X	NO
138	12	BOX ELDER	GOOD	X		NO
139	12	ELM	GOOD	X		NO
140	18	BOX ELDER	GOOD		X	NO
141	14	BOX ELDER	GOOD	X		NO
142	14	BOX ELDER	FAIR	X		NO
143	14	BOX ELDER	FAIR	X		NO
144	13	ELM	GOOD	X		NO
145	18	BOX ELDER	GOOD		X	NO
146	20	COTTONWOOD	GOOD		X	YES
147	14	BOX ELDER	POOR	X		NO
148	15	BOX ELDER	POOR	X		NO

TREE PRESERVATION CALCULATIONS
 TOTAL TREES INVENTORIED = 148 TREES
 TOTAL TREES ON SITE = 113 TREES
 TOTAL TREES REMOVED = 114 TREES
 SIGNIFICANT TREES INVENTORIED = 69 TREES
 SIGNIFICANT TREES ON SITE = 52 TREES
 SIGNIFICANT REMOVALS = 50 TREES
 HERITAGE TREES = 0 TREES
 TOTAL DIAMETER ON SITE (B) = 1127 IN
 TOTAL DIAMETER REMOVAL (A) = 1068 IN
 REPLACEMENT REQ. = ((A/B)x.5)xA = ((1068/1127)x0.5)x1068 = 506 INCHES

REHDER & ASSOCIATES, INC.
 Civil Engineers & Land Surveyors
 3440 Federal Drive, Suite 110
 Eden Prairie, MN 55327
 Telephone: 651-452-5051
 www.rehder.com

PROJECT NO.: 241-3427.011 DRAWING FILE: 3427011DWG

Issued

WATERSHED & CITY SUBMITTAL	11-21-24
ADDRESS RPBC WATERSHED COMMENTS	11-26-24

I hereby certify that this plan was prepared by me or under my direct supervision and I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRELIMINARY

Name _____ Date _____
 Reg. No. _____

TREE PRESERVATION PLAN
 HIGHWAY 5 BUSINESS CENTER
 CITY OF EDEN PRAIRIE

SHEET NUMBER
C008

SWPPP NOTES

- THE NATURE OF THIS PROJECT WILL CONSIST OF CONSTRUCTING A 52,000 SQUARE FOOT BUILDING, PARKING LOT, AND ASSOCIATED SITE IMPROVEMENTS ON AN UNDEVELOPED LOT.
- THE INTENDED SEQUENCING OF MAJOR CONSTRUCTION ACTIVITIES ARE AS FOLLOWS:
 - INSTALL VEHICLE TRACKING BMP.
 - INSTALL SILT FENCE & INLET PROTECTION AROUND SITE.
 - CLEAR AND GRUB SITE.
 - STRIP AND STOCKPILE TOPSOIL.
 - REMOVE PAVEMENTS AND UTILITIES.
 - ROUGH GRADE SITE.
 - IMPORT CLEAN FILL OR EXPORT CUT FOR SITE BALANCE.
 - INSTALL UTILITIES.
 - INSTALL BUILDING FOUNDATIONS (AS REQUIRED).
 - INSTALL CURB AND GUTTER (AS REQUIRED).
 - INSTALL PAVEMENTS AND WALKS (AS REQUIRED).
 - FINAL GRADE SITE.
 - SEED AND MULCH.
 - INSTALL BIO-ROLLS OR SILT FENCE AT BACK OF CURB OR PAVEMENT, AS NECESSARY THROUGH BUILDING CONSTRUCTION PROCESS.
 - WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE SILT FENCE AND RESEED ANY AREAS DISTURBED BY THE REMOVAL.
 - ENSURE FINAL STABILIZATION MEASURES ARE COMPLETE.
 - PROVIDE DIGITAL COPY OF ALL FIELD SWPPP DOCUMENTATION INCLUDING INSPECTION REPORTS AND SWPPP REVISIONS TO THE OWNER.
 - SUBMIT NOTICE OF TERMINATION TO MPCA. NOTE: THE NOTICE OF TERMINATION MUST BE SUBMITTED TO MPCA BEFORE FINAL STABILIZATION IS CONSIDERED COMPLETE.
3. SITE DATA:

3.1. SITE ADDRESS:	VACANT SITE LOCATED SOUTHWEST INTERSECTION OF VENTURE LN & WALLACE RD IN EDEN PRAIRIE, MN
3.2. SITE AREA:	3.98 ACRES
3.3. AREA OF DISTURBANCE:	4.47 ACRES
3.4. PRE-CONSTRUCTION IMPERVIOUS AREA:	0.00 ACRES
3.5. POST-CONSTRUCTION IMPERVIOUS AREA:	2.55 ACRES
3.6. PLANNED CONSTRUCTION START DATE:	xx/xx/xx
3.7. ESTIMATED CONSTRUCTION COMPLETION DATE:	xx/xx/xx

GENERAL SOIL TYPE: SILTY SANDS (SM), SAND (SP), AND CLAYEY SANDS (SC) PER BORINGS BY AET, P-0034450
- THE LOCATION OF AREAS NOT TO BE DISTURBED MUST BE IDENTIFIED WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC. BEFORE CONSTRUCTION BEGINS.
- NO DRAINAGE AREA TO BE MORE THAN FIVE (5) ACRES OF RUNOFF CAUSING THE NEED FOR A TEMPORARY SEDIMENT BASIN.
- THE LOCATION OF INFILTRATION SYSTEMS SHALL BE CLEARLY MARKED ON SITE AND COMPACTION OF UNDERLYING SOILS SHALL BE AVOIDED. HEAVY EQUIPMENT, CONSTRUCTION TRAFFIC, CONSTRUCTION STAGING, AND ANY OTHER ACTIVITY RESULTING IN COMPACTION SHALL BE KEPT OUT OF THE INFILTRATION PRACTICE. HEAVY EQUIPMENT SHALL NOT BE USED TO EXCAVATE INFILTRATION SYSTEMS UNLESS WORK IS COMPLETED FROM OUTSIDE OF THE INFILTRATION PRACTICE.
- ALL DISTURBED GROUND LEFT INACTIVE FOR SEVEN (7) OR MORE DAYS SHALL BE STABILIZED BY SEEDING OR SODDING (ONLY AVAILABLE PRIOR TO SEPTEMBER 15) OR BY MULCHING OR COVERING OR OTHER EQUIVALENT CONTROL MEASURE.
- ON SLOPES 3:1 OR GREATER, MAINTAIN SHEET FLOW AND MINIMIZE RILLS AND/OR GULLIES. SLOPE LENGTHS SHALL BE NO GREATER THAN 75 FEET.
- ALL STORM DRAINS AND INLETS MUST BE PROTECTED UNTIL ALL SOURCES OF POTENTIAL DISCHARGE ARE STABILIZED.
- TEMPORARY SOIL STOCKPILES MUST HAVE EFFECTIVE SEDIMENT CONTROL AND CAN NOT BE PLACED IN SURFACE WATERS OR STORM WATER CONVEYANCE SYSTEMS. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT AMOUNT OF SILT, CLAY, OR ORGANIC COMPOUNDS ARE EXEMPT EX: CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES.
- SEDIMENT LADEN WATER MUST BE DISCHARGED TO A SEDIMENTATION BASIN WHENEVER POSSIBLE. IF NOT POSSIBLE, IT MUST BE TREATED WITH THE APPROPRIATE BMP'S.
- SOLID WASTES MUST BE STORED, COLLECTED AND DISPOSED OF PROPERLY PER MPCA STANDARDS.
- EXTERNAL WASHING OF CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE PROPERLY CONTAINED.
- NO ENGINE DEGREASING IS ALLOWED ON SITE.
- IN THE EVENT OF ENCOUNTERING A WELL OR SPRING DURING CONSTRUCTION, CONTRACTOR TO CEASE CONSTRUCTION ACTIVITY AND NOTIFY ENGINEER.
- THE OWNER WHO SIGNS THE NPDES PERMIT APPLICATION IS A PERMITTEE AND IS RESPONSIBLE FOR COMPLIANCE WITH ALL TERMS AND CONDITIONS OF THE PERMIT. THE OPERATOR (CONTRACTOR) WHO SIGNS THE NPDES PERMIT APPLICATION IS A PERMITTEE FOR PARTS 2.B-2.F, PART 5, PART 6, AND APPLICABLE CONSTRUCTION ACTIVITY REQUIREMENTS FOUND IN APPENDIX A, PART C OF THE NPDES PERMIT AND IS JOINTLY RESPONSIBLE WITH THE OWNER FOR COMPLIANCE WITH THOSE PORTIONS OF THE PERMIT.
- DOCUMENT RETENTION: PERMITTEE(S) MUST MAKE THE SWPPP, INCLUDING ALL INSPECTION REPORTS, MAINTENANCE RECORDS, TRAINING RECORDS AND OTHER INFORMATION REQUIRED BY THIS PERMIT, AVAILABLE TO FEDERAL, STATE, AND LOCAL OFFICIALS WITHIN THREE (3) DAYS UPON REQUEST FOR THE DURATION OF THE PERMIT AND FOR THREE (3) YEARS FOLLOWING THE NOTICE OF TERMINATION.
- SWPPP AMENDMENTS AND SUBMITTALS:
 - CONTRACTOR MUST PREPARE AND SUBMIT TO THE ENGINEER A SWPPP AMENDMENT AS NECESSARY TO INCLUDE ADDITIONAL BEST MANAGEMENT PRACTICES (BMP'S) TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS THE FOLLOWING SITUATIONS:
 - UPDATE CONTRACT INFORMATION AND TRAINING DOCUMENTATION FOR CONSTRUCTION SWPPP MANAGER AND BMP INSTALLER.
 - THERE IS A CHANGE IN CONSTRUCTION METHOD OF PHASING, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS NOT ANTICIPATED DURING THE DESIGN OF THE SWPPP INCLUDING BUT NOT LIMITED TO:
 - TYPES AND/OR LOCATION OF BMP'S
 - MATERIAL STORAGE AND SPILL RESPONSE
 - FUELING PLANS
 - LOCATION FOR STOCKPILES, CONCRETE WASHOUT, AND SANITATION FACILITIES
 - PROJECT PHASING
 - IT IS DETERMINED THAT THE SWPPP IS NOT ACHIEVING OBJECTIVES OF MINIMIZING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
 - THE SWPPP IS NOT CONSISTENT WITH THE TERMS AND CONDITIONS OF THE PERMIT.
 - THERE IS A CHANGE IN DESIGN, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS THAT HAS A SIGNIFICANT EFFECT ON DISCHARGE.
 - THE CONTRACTOR MAY IMPLEMENT SWPPP AMENDMENTS IMMEDIATELY AND IS NOT REQUIRED TO WAIT FOR ENGINEER REVIEW OF THE SUBMITTAL. THE RESPONSIBILITY FOR COMPLIANCE WITH SWPPP AMENDMENTS AND COMPLIANCE WITH THE PERMIT LIES WITH THE CONTRACTOR. REVIEW, COMMENT, OR LACK OF COMMENT BY THE ENGINEER ON A SWPPP AMENDMENT SHALL NOT ASSOLVE THE RESPONSIBILITIES OF THE CONTRACTOR IN ANY WAY.
 - IF A CHANGE ORDER IS ISSUED FOR A DESIGN CHANGE THE SWPPP AMENDMENT WILL BE PREPARED BY THE ENGINEER AND INCLUDED IN THE CHANGE ORDER.
 - IN ADDITION TO SWPPP AMENDMENTS, THE CONTRACT SHALL SUBMIT TO THE ENGINEER WEEKLY EROSION AND SEDIMENT CONTROL SCHEDULE MEETING THE REQUIREMENTS OF MNDOT 1777.
 - THE CONTRACTOR SHALL KEEP COPIES OF ALL SWPPP AMENDMENTS, WEEKLY EROSION AND SEDIMENT CONTROL SCHEDULES, INSPECTION LOGS, AND MAINTENANCE LOGS WITH THE FILED COPY OF THE SWPPP. A PDF COP OF THESE DOCUMENTS WILL BE PROVIDED ALONG WITH A COPY OF THE FINAL FIELD COPY OF THE SWPPP TO THE ENGINEER ALONG WITH THE SIGNED NOTICE OF TERMINATION WHEN FINAL STABILIZATION IS COMPLETE.
- INSPECTION & MAINTENANCE
 - A TRAINED PERSON SHALL ROUTINELY INSPECT THE ENTIRE SITE AT THE TIME INTERVAL INDICATED ON THIS SHEET OF THE SWPPP DURING ACTIVE CONSTRUCTION AND WITHIN 24-HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.
 - ALL INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION MUST BE RECORDED ON THE DAY IT IS COMPLETED AND RETAINED WITH THE SWPPP. INSPECTION REPORT FORMS WILL BE PROVIDED BY THE CONTRACTOR BUT A TEMPLATE CAN BE PROVIDED BY THE ENGINEER UPON REQUEST.
 - THE CONTRACTOR MAY REQUEST A CHANGE IN INSPECTION SCHEDULE FOR THE FOLLOWING CONDITIONS:
 - INSPECTION OF AREAS WITH PERMANENT COVER TO BE REDUCED TO ONCE PER MONTH.
 - INSPECTION OF AREAS THAT HAVE PERMANENT COVER AND HAVE NO CONSTRUCTION ACTIVITY FOR 12 MONTHS TO BE SUSPENDED UNTIL CONSTRUCTION RESUMES.
 - INSPECTION OF AREAS WHERE CONSTRUCTION IS SUSPENDED DUE TO FROZEN GROUND CONDITIONS, INSPECTION TO BE SUSPENDED UNTIL THE EARLIER OF WITHIN 24 HOURS OF RUNOFF OCCURRING, OR UPON RESUMING CONSTRUCTION.
 - NO CHANGE IN INSPECTION SCHEDULE SHALL OCCUR UNTIL AUTHORIZED BY THE ENGINEER
 - INSPECTIONS MUST INCLUDE:
 - ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S AND POLLUTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS.
 - SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION.
 - CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURB AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR SEDIMENTATION FROM EROSION OR TRACKED SEDIMENT FROM VEHICLES.
 - INFILTRATION AREAS TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITY IS REACHING THE INFILTRATION AREA AND THAT EQUIPMENT IS NOT BEING DRIVEN ACROSS THE INFILTRATION AREA.
 - PERMITTEES MUST OBTAIN RAINFALL AMOUNTS BY EITHER A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ONSITE, A WEATHER STATION THAT IS WITHIN ONE (1) MILE OF THE SITE LOCATION, OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES.
 - ALL NON-FUNCTIONING BMP'S AND THOSE BMP'S WHERE SEDIMENT REACHES ONE-HALF (1/2) OF THE DEPTH OF THE BMP, OR IN THE CASE OF SEDIMENT BASINS ONE-HALF (1/2) OF THE STORAGE VOLUME, MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW.
 - PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL NONFUNCTIONAL BMP'S WITH FUNCTIONAL BMP'S BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW.
 - ANY SEDIMENT THAT ESCAPES THE SITE MUST BE REMOVED AND THE AREA STABILIZED WITHIN 7 CALENDAR DAYS OF DISCOVERY UNLESS PRELUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS IN WHICH CASE THE WORK SHALL BE COMPLETED WITHIN 7 CALENDAR DAYS OF AUTHORIZATION. PAVED SURFACES SUCH AS STREETS SHALL HAVE ANY ESCAPED OR TRACKED SEDIMENT REMOVED BY THE END OF THE DAY THAT IT IS DISCOVERED. SEDIMENT RELEASE, OTHER THAN PAVED SURFACES THAT CAN BE CLEANED UP WITH STREET SWEEPING SHALL BE REPORTED IMMEDIATELY UPON DISCOVERY TO THE ENGINEER.
 - SILT FENCE TO BE REPAIRED, REPLACED, SUPPLEMENTED WHEN NONFUNCTIONAL, OR 1/3 FULL, WITHIN 24 HOURS.

- CONCRETE WASHOUT AREA:
 - CONTRACTOR TO PROVIDE PORTABLE OR PREFABRICATED CONCRETE WASH-OUT CONTAINER WITH RAIN PROTECTION.
 - CONCRETE WASH-OUT TO BE IDENTIFIED WITH SIGNAGE STATING "CONCRETE WASHOUT AREA DO NOT OVERFILL".
 - CONCRETE WASH-OUT WATER NEEDS TO BE PUMPED WITHIN 24 HOURS OF STANDING WATER IN WASH-OUT AREA.
- POLLUTION PREVENTION AND OTHER BMP'S:
 - PESTICIDES, HERBICIDES, FERTILIZERS, TREATMENT CHEMICALS, ETC. MUST BE UNDER COVER.
 - HAZARDOUS MATERIALS (OIL, GAS, PAINT, ETC.) MUST BE PROPERLY STORED IN SEALED CONTAINERS AND MEET STATE SECONDARY CONTAINMENT REQUIREMENTS.
 - PORTABLE TOILETS MUST BE SECURED.
 - ADEQUATE SPILL RESPONSE KIT AND DISPOSAL PLAN ON-SITE. SPILLS MUST BE CLEANED UP IMMEDIATELY.
 - ALL MPCA LIQUID AND SOLID WASTE (CONCRETE, STUCCO, PAINT, CURES, ETC) WASHOUT REQUIREMENTS MUST BE MET ON SITE.
- EROSION PREVENTION PRACTICES:
 - STORM WATER CONVEYANCE CHANNELS SHALL BE ROUTED AROUND UNSTABILIZED AREAS, EROSION CONTROL AND VELOCITY DISSIPATION DEVICES SHALL BE USED AT OUTLETS WITHIN AND ALONG THE LENGTH OF ANY CONSTRUCTED CONVEYANCE CHANNEL.
 - THE NORMAL WETTED PERIMETER OF ALL DITCHES OR SWALES, INCLUDING STORM WATER MANAGEMENT POND SLOPES, THAT DRAIN WATERS FROM THE SITE MUST BE STABILIZED WITHIN 200' OF ANY PROPERTY EDGE OR DISCHARGE POINT, INCLUDING STORM SEWER INLETS, WITHIN 24 HOURS OF CONNECTION.
 - TEMPORARY OR PERMANENT DITCHES OR SWALES USED AS SEDIMENT CONTAINMENT DURING CONSTRUCTION DO NOT NEED TO BE STABILIZED DURING TEMPORARY PERIOD OF USE AND SHALL BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER USED AS SEDIMENT CONTAINMENT.
 - INLET BMP'S MAY BE REMOVED FOR SPECIFIC SAFETY CONCERNS. THE BMP'S SHALL BE REPLACED AS SOON AS THE SAFETY CONCERN IS RESOLVED. THE REMOVAL SHALL BE DOCUMENTED IN THE SWPPP AS A SWPPP AMENDMENT.
 - TEMPORARY STOCKPILES MUST HAVE SEDIMENT CONTROL BMP'S. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER A SWPPP AMENDMENT SHOWING THE LOCATION OF TEMPORARY STOCKPILES AND THE BMP'S FOR EACH STOCKPILE. THE SWPPP AMENDMENT MUST MEET THE MINIMUM REQUIREMENTS OF SECTION 9 OF THE PERMIT.
 - SOIL COMPACTION SHALL BE MINIMIZED AND TOPSOIL SHALL BE PRESERVED, UNLESS INFEASIBLE OR IF CONSTRUCTION ACTIVITIES DICTATE SOIL COMPACTION OR TOPSOIL STRIPPING.
 - THE USE OF POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS ARE NOT PROPOSED AS PART OF THIS SWPPP AS DESIGNED BY THE ENGINEER. IF METHODS OR PHASING OF CONSTRUCTION REQUIRE THE USE OF ANY OF THESE CHEMICALS, THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER A SWPPP AMENDMENT THAT MEETS THE MINIMUM REQUIREMENTS OF SECTION 09 OF THE PERMIT.
- TEMPORARY SEDIMENTATION BASIN:
 - A TEMPORARY SEDIMENTATION BASIN HAS NOT BEEN INCLUDED IN THIS SWPPP AS DESIGNED BY THE ENGINEER. IF A BASIN IS LATER DETERMINED TO BE DESIRABLE OR NECESSARY, THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER A SWPPP AMENDMENT. TEMPORARY SEDIMENTATION BASINS SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS OF SECTION 14 OF THE PERMIT AND SHALL INCLUDE A BASIN DRAINING PLAN MEETING OR EXCEEDING THE MINIMUM REQUIREMENTS OF SECTION 10 OF THE PERMIT. WHERE THE SITE DISCHARGES TO SPECIAL AND/OR IMPAIRED WATERS, THE SWPPP AMENDMENT SHALL ALSO MEET OR EXCEED THE MINIMUM REQUIREMENTS OF SECTION 23 OF THE PERMIT.
- DEWATERING:
 - A DEWATERING PLAN HAS NOT BEEN INCLUDED IN THIS SWPPP AS DESIGNED BY THE ENGINEER. IF DEWATERING IS REQUIRED FOR THIS PROJECT, THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER A SWPPP AMENDMENT. ALL DEWATERING SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS OF SECTION 10 OF THE PERMIT.
- FINAL STABILIZATION:
 - FINAL STABILIZATION IS NOT COMPLETE UNTIL ALL THE FOLLOWING REQUIREMENTS HAVE BEEN MET:
 - SUBSTANTIAL COMPLETION HAS BEEN REACHED AND NO GROUND DISTURBING ACTIVITIES ARE ANTICIPATED.
 - PERMANENT COVER HAS BEEN INSTALLED WITH AN ESTABLISHED MINIMUM UNIFORM PERENNIAL VEGETATION DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED IN AREAS WHERE NO VEGETATION IS PROPOSED BY THIS PROJECT SUCH AS IMPERVIOUS SURFACES OR THE BASE OF A SAND FILTER.
 - ACCUMULATED SEDIMENT HAS BEEN REMOVED FROM ALL PERMANENT STORM WATER TREATMENT SYSTEMS AS NECESSARY TO ENSURE THE SYSTEM IS OPERATING AS DESIGNED.
 - ALL SEDIMENT HAS BEEN REMOVED FROM CONVEYANCE SYSTEMS.
 - ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMP'S HAVE BEEN REMOVED. BMP'S DESIGNATED ON THE SWPPP TO REMAIN TO DECOMPOSE ON-SITE MAY REMAIN.
 - FOR RESIDENTIAL CONSTRUCTION ONLY, PERMIT COVERAGE TERMINATES ON INDIVIDUAL LOTS IF THE STRUCTURES ARE FINISHED AND TEMPORARY EROSION PREVENTION AND DOWNGRADING PERIMETER CONTROL IS COMPLETE, THE RESIDENCE SELLS TO THE HOMEOWNER, AND THE PERMITTEE DISTRIBUTES THE MPCA'S "HOMEOWNER FACT SHEET" TO THE HOMEOWNER.
 - FOR AGRICULTURAL LAND ONLY (E.G., PIPELINES ACROSS CROPLAND), THE DISTURBED LAND MUST BE RETURNED TO ITS PRE-CONSTRUCTION AGRICULTURAL USE PRIOR TO SUBMITTING THE NOTICE OF TERMINATION.
- TERMINATION OF COVERAGE:
 - PERMITTEE(S) WISHING TO TERMINATE COVERAGE MUST SUBMIT A NOTICE OF TERMINATION TO THE MPCA. ALL PERMITTEE(S) MUST SUBMIT A NOTICE OF TERMINATION WITHIN 30 DAYS AFTER ONE OR MORE OF THE FOLLOWING CONDITIONS HAVE BEEN MET:
 - FINAL STABILIZATION, PER SECTION 9 OF THE PERMIT HAS BEEN ACHIEVED ON ALL PORTIONS OF THE SITE FOR WHICH THE PERMITTEE IS RESPONSIBLE.
 - TRANSFER OF OWNERSHIP AS DESCRIBED IN THE PERMIT.

RESPONSIBLE PARTIES

THE CONTRACTOR AND OWNER WILL BE JOINT APPLICANTS UNDER THE MPCA'S GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY AS REQUIRED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PHASE 1 PROGRAM.

THE CONTRACTOR SHALL PROVIDE ONE OR MORE TRAINED CONSTRUCTION SWPPP MANAGER(S) KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMP'S THAT WILL OVERSEE THE IMPLEMENTATION OF THE SWPPP, AND THE INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMP'S.

A CONSTRUCTION SWPPP MANAGER MUST BE AVAILABLE FOR AN ON-SITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA.

THE SWPPP DESIGNER, CONSTRUCTION SWPPP MANAGER, AND BMP INSTALLER MUST HAVE APPROPRIATE TRAINING. DOCUMENTATION SHOWING TRAINING COMMENSURATE WITH THE JOB DUTIES AND RESPONSIBILITIES IS REQUIRED TO BE INCLUDED IN THE SWPPP PRIOR TO ANY WORK BEGINNING ON THE SITE. TRAINING DOCUMENTATION FOR THE SWPPP DESIGNER IS INCLUDED BELOW. THE CONTRACTOR SHALL ATTACH TRAINING DOCUMENTATION TO THIS SWPPP FOR THE CONSTRUCTION SWPPP MANAGER AND BMP INSTALLER PRIOR TO THE START OF CONSTRUCTION. THIS INFORMATION SHALL BE KEPT UP TO DATE UNTIL THE PROJECT NOTICE OF TERMINATION IS FILED.

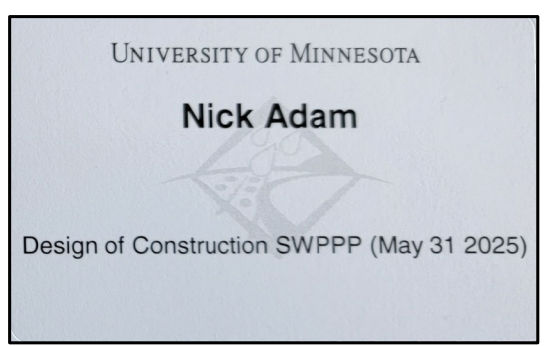
OWNER:
 BY: HIGHWAY 5 BC, LLC
 NAME: EVAN MATSSON
 TITLE: DEVELOPMENT MANAGER
 PHONE: 651-343-1118
 EMAIL: EVANBENDEAVORSHIELD.COM

SWPPP DESIGNER:
 REHDER & ASSOCIATES, INC.
 NAME: NICHOLAS ADAM, P.E.
 TITLE: PROJECT ENGINEER
 PHONE: 651-337-6729
 EMAIL: NADAM@REHDER.COM

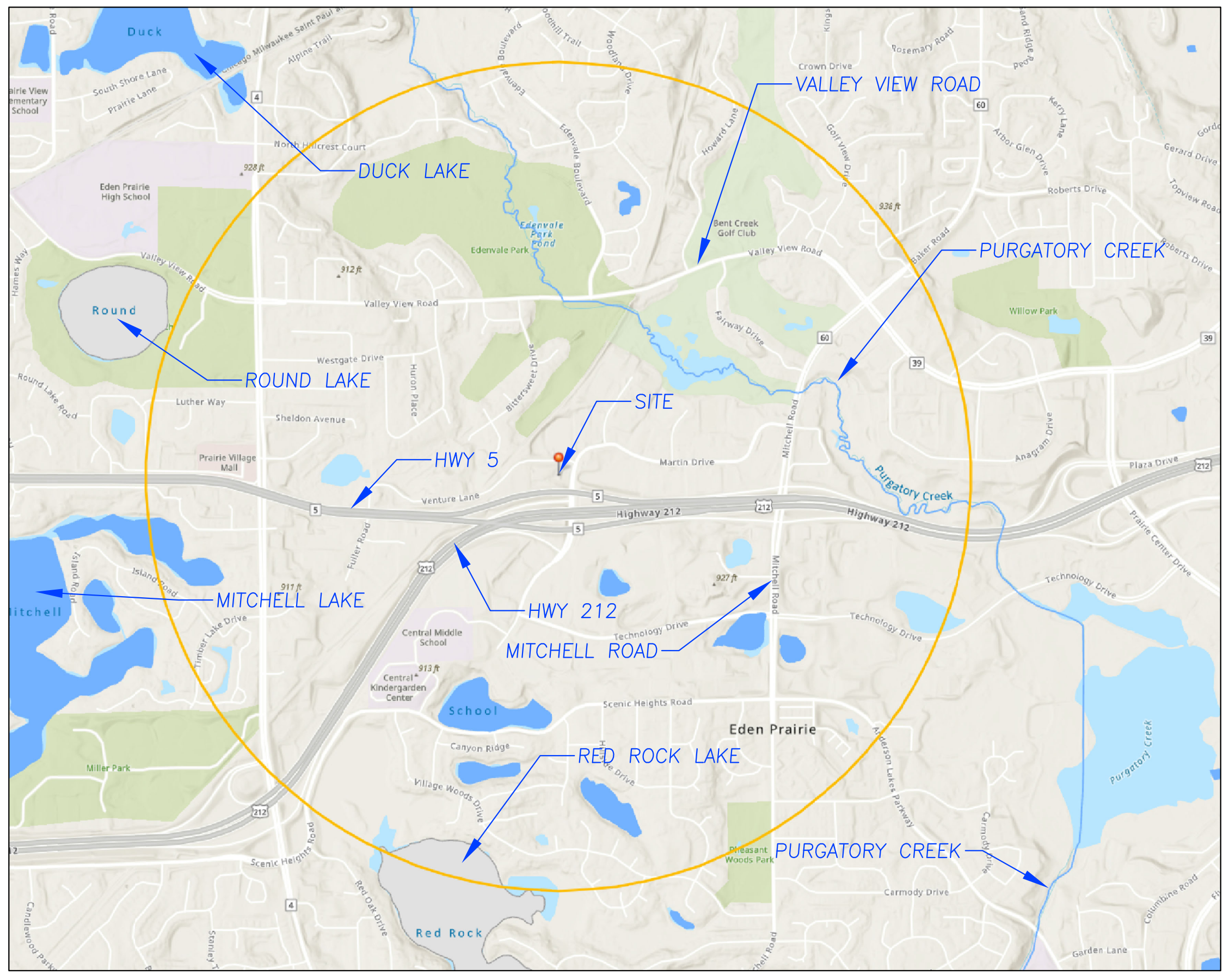
CONTRACTOR:
 BY: XXXXXXXXXXXX
 NAME: XXXXXXXXXXXX
 TITLE: XXXXXXXXXXXX
 PHONE: XXXXXXXXXXXX
 EMAIL: XXXXXXXXXXXX

CONSTRUCTION SWPPP MANAGER:
 BY: XXXXXXXXXXXX
 NAME: XXXXXXXXXXXX
 TITLE: XXXXXXXXXXXX
 PHONE: XXXXXXXXXXXX
 EMAIL: XXXXXXXXXXXX

LONG TERM O&M MANAGER:
 BY: XXXXXXXXXXXX
 NAME: XXXXXXXXXXXX
 TITLE: XXXXXXXXXXXX
 PHONE: XXXXXXXXXXXX
 EMAIL: XXXXXXXXXXXX



SURFACE WATERS WITHIN 1-MILE OF SITE



RECEIVING WATERS

NAME OF WATER BODY	TYPE OF WATER BODY	SPECIAL WATER	IMPAIRED WATER
RED ROCK LAKE	LAKE	NO	NO

MPCA COVERAGE LETTER

PERMANENT STORMWATER MANAGEMENT SYSTEM

X	INFILTRATION/FILTRATION
	WET SEDIMENTATION BASIN
	REGIONAL PONDING
X	PERMANENT STORMWATER MANAGEMENT NOT REQUIRED

ESTIMATED BMP QUANTITIES

DESCRIPTION	QUANTITY	UNIT
ROCK CONSTRUCTION ENTRANCE (1" - 2" WASHED ROCK)	50	TONS
SILT FENCE	2,550	L.F.
INLET PROTECTION (PRE-CASTING)	7	EACH
INLET PROTECTION (POST-CASTING)	22	EACH
EROSION CONTROL BLANKET (CATEGORY 20)	7690	S.Y.

SITE STABILIZATION COMPLETION:
 STABILIZATION OF EXPOSED SOILS SHALL BEGIN IMMEDIATELY AND SHALL BE COMPLETED AFTER THE CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED NO LATER THAN: 14 DAYS

SITE INSPECTION INTERVAL:
 A TRAINED PERSON SHALL ROUTINELY INSPECT THE ENTIRE CONSTRUCTION SITE DURING ACTIVE CONSTRUCTION AT AN INTERVAL OF NO MORE THAN: 7 DAYS

REHDER & ASSOCIATES, INC.
 Civil Engineers & Land Surveyors
 3440 Federal Drive, Suite 110
 Eagan, MN 55122
 Telephone: 651-452-5051
 www.rehder.com

PROJECT NO.: 241-3427.011 DRAWING FILE: 3427011DWG

Issued	
WATERSHED & CITY SUBMITTAL	DATE
ADDRESS RPBC WATERSHED COMMENTS	11-21-24
	11-26-24

I hereby certify that this plan was prepared by me or under my direct supervision and I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRELIMINARY

Name _____ Date _____
 Reg. No. _____

SWPPP
 HIGHWAY 5 BUSINESS CENTER
 CITY OF EDEN PRAIRIE

SHEET NUMBER
C009