

Applicant: Bernie McBain; Invicta Group, LLC
Consultant: Griffin Dempsey; BKBM Engineers
Project: Invicta Hockey Training Facility Redevelopment
Location: 7300 Bush Lake Road, Bloomington, MN
Applicable Rule(s): 4, 5, 11 and 12
Reviewer(s): Gabrielle Campagnola and Louise Heffernan; Barr Engineering Co.

General Background & Comment

The applicant proposes to construct a new hockey training facility on the 5.5-acre parcel located at 7300 Bush Lake Road in Bloomington. Currently, the property includes an existing ice center facility, outdoor hockey rink, surface parking areas, and site amenities. In addition to the proposed facility, the project proposes site improvements including parking lot improvements, utility improvements, landscaping, and construction of two stormwater management facilities.

The project site information includes the following:

- Total Site Area: 239,580 square feet (5.50 acres)
- Disturbed Area: 57,500 square feet (1.32 acres)
- Existing Site Impervious Area: 161,608 square feet (3.71 acres)
- Proposed Site Impervious Area: 187,744 square feet (4.31 acres)
- 16% increase in the site impervious area: 26,137 square feet (0.60 acres)
- 3.8% disturbance of the existing impervious surface: 6,098 square feet (0.14 acres)

Exhibits Reviewed:

1. Permit Application dated August 31, 2023. Email correspondence dated September 12, 2023, and October 16, 2023, identifying items required to complete the application.
2. Plans dated August 21, 2023 (received August 31, 2023), revised September 29, 2023, prepared by BKBM Engineers.
3. Grading, Drainage, and Erosion Control Plan dated October 6, 2023 (received October 18, 2023), prepared by BKBM Engineers.
4. Stormwater Management Report dated August 24, 2023 (received August 31, 2023), revised September 29, 2023, revised October 18, 2023, prepared by BKBM Engineers.
5. Geotechnical Evaluation dated July 23, 2002, prepared by Braun Intertec.
6. Electronic HydroCAD modeling received on September 1, 2023, revised September 29, 2023, prepared by BKBM Engineers.

7. Electronic MIDS modeling received on September 1, 2023, revised September 29, 2023, revised October 18, 2023, prepared by BKBM Engineers.

The application with the submittal items above is complete.

4.0 Stormwater Management

NMCWD's requirements for stormwater management apply to the project because more than 50 cubic yards of material will be disturbed and 5,000 square feet or more of surface area is altered, Rules 4.2.1a and b.

The NMCWD's Rule for Redevelopment, Rule 4.2.3, states, if the proposed activity will increase total impervious surface by 50 percent or more or will disturb 50 percent or more of the existing impervious surface on the site, the stormwater criteria will apply to the entire site. Otherwise, the criteria of section 4.3 will apply only to the disturbed areas, replaced, and net additional impervious surface on the project site. Since the proposed activities will increase the total impervious surface of the site by 16% (26,137 square feet) and will disturb 3.8% (6,098 square feet) of the existing site impervious area, the district's stormwater management criteria will apply to the disturbed areas, replaced, and net additional impervious surface on the project site, including the 32,234 square feet of regulated impervious surface.

Stormwater management for compliance with subsection 4.3.1 will be provided by a rain garden and an infiltration basin to provide rate control, volume retention and water quality management for the regulated areas.

Rule 4.3.1b requires the 2-, 10-, and 100-year post development peak runoff rates be equal to or less than the existing discharge rates for the collection points where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates for the project area. The existing and proposed 2-, 10- and 100-year frequency discharge rates are summarized in the tables below.

Peak Discharge Rates (Existing)

Location	Existing 2-Year 24-hr (c.f.s.)	Existing 10-Year 24-hr (c.f.s.)	Existing 100-Year 24-hr (c.f.s.)
Overland Flow to Bush Lake Road Right of Way	1.1	2.0	4.1
To City Storm Sewer along Bush Lake Road	2.9	4.1	9.3

Peak Discharge Rates (Proposed)

Location	Proposed 2-Year 24-hr (c.f.s.)	Proposed 10-Year 24-hr (c.f.s.)	Proposed 100-Year 24-hr (c.f.s.)
Overland Flow to Bush Lake Road Right of Way	<1.0	1.4	2.9
To City Storm Sewer along Bush Lake Road	1.7	3.1	7.9

The proposed stormwater management plan provides rate control in compliance with the NMCWD requirements for the 2-, 10-, and 100-year events. Rule 4.3.1b is met.

A retention volume of 2,955 cubic feet is required from the 32,234 square feet (0.74 acres) of new and disturbed impervious surface, with a required area of 1,642 square feet. Boring ST-2 in the geotechnical report by Braun Intertec identifies the soil within the area of the proposed rain garden as primarily poorly graded sand with silt (SP-SM). Boring ST-4 in the geotechnical report by Braun Intertec identifies the soil within the area of the proposed infiltration basin as primarily poorly graded sand with silt (SP-SM). Boring ST-4 also indicate that soils with low permeability in area of the proposed infiltration basin are expected at elevations from approximately of 827.3 M.S.L. to 824.3 M.S.L. The plans indicate that soils unsuitable for infiltration at an approximate elevation of 824 M.S.L. to 827 M.S.L. will be removed and replaced with soils aligning with SM and SP material. A design infiltration rate of 0.45 inches per hour has been used for the rain garden and infiltration basin, conforming with infiltration rates identified in the Minnesota Stormwater Manual.

The table below summarizes the volume retention required and volume retention achieved. The proposed project is in conformance with subsection 4.3.1a.

Volume Retention Summary

Stormwater Management Facility	Required Volume Retention (cubic feet)	Provided Volume Retention (cubic feet)	Maximum Infiltration Depth Allowable (feet)	Provided Infiltration Depth (feet)
Rain Garden	-	1,304	1.8	1.2
Infiltration Basin	-	1,991	1.8	1.2
Total	2,955	3,295	-	-

With an infiltration depth of 1.2 feet for the two proposed facilities, the stormwater practices will draw down within the required 48-hours, complying with Rule 4.3.1a (ii).

Rule 4.5.4d (i) requires at least three feet of separation between the bottom of a stormwater management facility and groundwater. Per the geotechnical report by Braun Intertec, groundwater was encountered at elevation 820.4 M.S.L. in the boring completed near the proposed rain garden (Boring ST-2) and at elevation 819.3 M.S.L. in the boring completed near the proposed infiltration basin (Boring ST-4). The following table provides a comparison of the bottom elevation of the stormwater management facilities in relation to the elevation of groundwater. The proposed project complies with Rule 4.5.4d (i).

Stormwater Management Facility	Bottom Elevation of Facility M.S.L.	Groundwater Elevation of Facility M.S.L.	Separation Provided (feet)
Rain Garden	834.0	820.4	13.6
Infiltration Basin	829.0	819.3	9.7

NMCWD's water quality criterion requires 60% annual removal efficiency for total phosphorus (TP) and 90% annual removal efficiency for total suspended solids (TSS) from the regulated site runoff. A MIDS model was used to evaluate the proposed rain garden's and infiltration basin's annual removal efficiencies. The results of the MIDS modeling are summarized in the

table below. The NMCWD engineer agrees with the modeling results and the project is in conformance with Rule 4.3.1c criteria.

Annual TSS and TP Removal Summary

Pollutant of Interest	Regulated Site Loading (lbs./year)	Required Load Removal (lbs./year)	Provided Load Reduction (lbs./year)
Total Suspended Solids (TSS)	284.1	255.7 (90%)	263.8 (93%)
Total Phosphorus (TP)	1.6	0.9 (60%)	1.4 (91%)

Rule 4.3.3 states that all new and reconstructed buildings must be constructed such that the low floor is at least two feet above the 100-year high-water elevation or one foot above the emergency overflow of a constructed facility. Additionally, Rule 4.3.3 states that all new and reconstructed buildings must be constructed such that no opening where surface flow can enter the structure is less than two feet above the 100-year high-water elevation of an adjacent facility. Rule 4.3.3 also states that a stormwater management facility must be constructed at an elevation that ensures no adjacent habitable building will be brought into noncompliance with a standard in subsection 4.3.3.

The low floor and low opening elevation of the proposed building in relation to the stormwater management facilities' 100-year high-water elevations are summarized in the table below. The project is in compliance with Rule 4.3.3 with regard to the proposed structure. The low floor and low opening elevation of the existing structure north of the project area is required to be provided, and compliance with subsection 4.3.3 is required.

Low Floor Elevation Summary

Stormwater Management Facility	Low Floor and Low Opening Elevation of Proposed Building (M.S.L.)	100-year Frequency Flood Elevation of Proposed Facility (M.S.L.)	Low Floor and Low Opening Elevation Freeboard (feet)
Rain Garden	837.5	835.5	2.0
Infiltration Basin	837.5	831.8	5.7

In accordance with Rule 4.3.4, a post-project chloride management plan must be provided that will, 1) designate an individual authorized to implement the chloride-use plan and 2) designate a MPCA certified salt applicator engaged in the implementation of the chloride-use plan for the site.

Subsection 4.3.5 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. The applicant must provide a receipt showing recordation of a maintenance declaration for the operation and maintenance of the onsite stormwater management facilities.

In accordance with Rule 4.3.1a (i), where infiltration or filtration facilities, practices or systems are proposed, pre-treatment of runoff must be provided. Pretreatment will be provided with riprap sedimentation depressions for the rain garden and sumps for the infiltration basin, complying with Rule 4.3.1a (i).

5.0 Erosion and Sediment Control

The district's requirements for erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and 5,000 square feet or more of surface area is altered, Rules 5.2.1a and b.

The erosion control plan prepared by BKBM Engineers includes installation of perimeter erosion control (silt fence), inlet protection, and a rock construction entrance.

The contractor for the project will need to designate a contact who will remain liable to the district for performance under the District's Erosion and Sediment Control Rule 5.0 from the time the permitted activities commence until vegetative cover is established, in accordance with subsection 5.4.1e. NMCWD must be notified if the responsible individual changes during the permit term.

11.0 Fees

Fees for the project are:

Rule 4:	\$1,000
Rule 5:	\$1,000
Total Fees:	\$2,000

12.0 Financial Assurances

Financial Assurances for the project are:

Rule 4: Stormwater Management Facility: 1,642 S.F x \$12/S.F.=	\$19,704
Rule 5: Perimeter Control: 1,164 L.F. x \$2.50/L.F. =.....	\$2,910
Inlet Protection: 15 x \$100 =.....	\$1,500
Site Restoration: 1.3 acres x \$2,500/acre =.....	\$3,250
Chloride Management	\$5,000
Contingency and Administration	\$11,736

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 4 and 5 with the fulfilment of the conditions identified below.
3. The proposed stormwater management facilities will provide volume retention, rate control, and water quality management in accordance with subsections 4.3.1a-c criteria.
4. In accordance with NMCWD Rule 4.3.5, the applicant must provide a maintenance and inspection plan that identifies and protects the design, capacity, and functionality of the stormwater management facilities, and record the plan in a declaration on the property title.

Recommendation

Approval, contingent upon:

Compliance with the General Provisions (attached).

Financial Assurance in the amount of \$44,100; \$39,100 for stormwater management, erosion control and site restoration, \$5,000 for compliance with the chloride management requirements.

Rule 4.3.3 states that a stormwater management facility must be constructed at an elevation that ensures no adjacent habitable building will be brought into noncompliance with a standard in subsection 4.3.3. To fully demonstrate compliance with subsection 4.3.3 criteria, the low floor and low opening elevation of the existing building located north of the project area must be identified on the plans, and compliance with subsection 4.3.3 criteria must be evaluated.

The applicant providing a name and contact information for the individual responsible for the erosion and sediment control at the site. NMCWD must be notified if the responsible individual changes during the permit term.

Per Rule 4.3.5, a receipt showing recordation of a maintenance declaration for the operation and maintenance of the stormwater management facilities is required. A draft of the declaration must be approved by the district prior to recordation.

By accepting the permit, when issued, the applicant agrees to the following stipulations for closeout of the permit and release of the financial assurance after the project:

The work associated with the building construction, parking lot improvements, and site improvements at 7300 Bush Lake Road under the terms of Permit #2023-108 must have an impervious surface area and configuration materially consistent with the approved plans. A design that differs materially from the approved plans 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.

Per Rule 4.5.6, an as-built drawing of the stormwater management facilities conforming to the design specifications, including a stage volume relationship in tabular form for the rain garden and infiltration basin, as approved by the district, must be provided. The as-built drawing and stage storage relationships must be based on relevant survey information (bottom of system, outlet, etc.).

Submission of a plan for post-project management of Chloride use on the site. The plan must include 1) the designation of an individual authorized to implement the chloride use plan and 2) the designation of a Minnesota Pollution Control Agency certified salt applicator engaged in the implementation of the chloride-use plan for the site. The release of the \$5,000 of the financial assurance required for the chloride-management plan requires that the chloride-management plan has been provided to and approved by the District's Administrator.

Per Rule 12.4.1b, demonstration and confirmation that the stormwater management facilities have been constructed or installed and are functioning as designed and permitted. Verification, through daily observation logs and photographs, must be provided showing the stormwater management facilities used for volume retention have drawn down within 48 hours from the completion of two 1-inch (approximate) separate rainfall events.

Invicta Training Center

7300 BUSH LAKE ROAD
EDINA, MN 55339

SELECTIVE SITE
DEMOLITION AND
EROSION CONTROL
PLAN

PROJECT NO. 933485
DRAWN BY: WH
CHECKED BY: GKD & KAM

C100

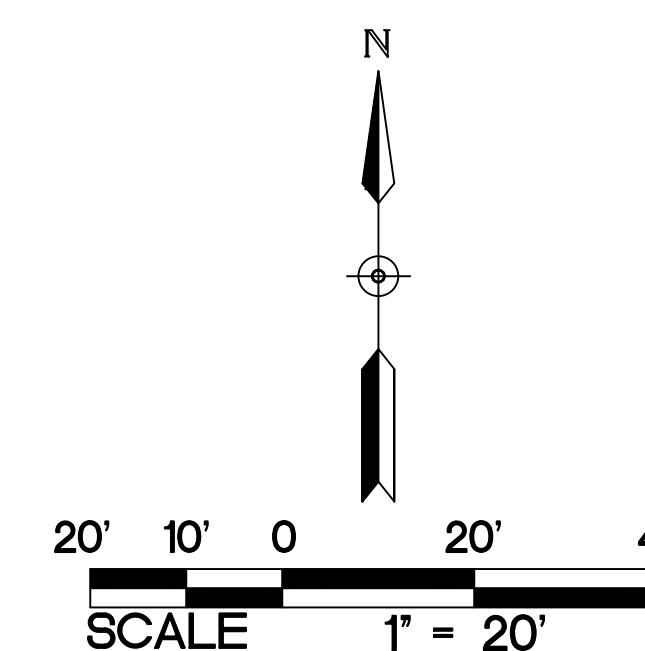


PROPOSED PLAN SYMBOLS	
CONSTRUCTION LIMITS	- - -
SILTATION FENCE	X
SEDIMENT CONTROL LOG	
TREE PROTECTION	X
PROPERTY LINE	- - -
SAWCUT LINE (APPROX.)	- - -
CONSTRUCTION ENTRANCE	[Hatched]
BITUMINOUS REMOVAL	[Hatched]
CONCRETE REMOVAL	[Hatched]
CURB REMOVAL	[Hatched]
PIPE REMOVAL	[Hatched]
FENCE REMOVAL	[Hatched]
UTILITY REMOVAL	[Hatched]
TREE REMOVAL	X

ABBREVIATIONS	
BLOC	Block
BM	Benchmark
CB	Catch Basin
CBX	Communication Box
CMP	Concrete Metal Pipe
DIP	Ductile Iron Pipe
ELEV	Elevation
EX	Existing
GP	Ground Point
HHC	Communication Handhole
INV	Intersection
LP	Light Pole
MH	Manhole
OHE	Overhead Electric Line
(P)	Per Plan
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe
STRM	Storm Sewer Structure
TC	Top of Curb
VCP	Vitrified Clay Pipe

NOTE: STORM SEWER INLETS NOT SHOWN ON PLAN MAY RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INSTALL NEW STORM SEWER INLET DETAILED ON ALL STORM INLETS THAT MAY RECEIVE RUNOFF.

NOTE: CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING AND REVIEW FOR UNDERSTANDING OF THE FULL SCOPE OF TREE, UNDER BRUSH, AND OTHER VEGETATION CLEARING THAT NEEDS TO OCCUR.



6449 CITY WEST PARKWAY
SUITE 300
EDINA, MN 55344
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or copied without written consent.
BKBM Job No. 23348-30

I HEREBY CERTIFY THAT THIS PLAN,
SPECIFICATION OR REQUIREMENT WAS PREPARED BY
ME ON BEHALF OF THE CITY OF EDINA AND NINE MILE CREEK
WATERSHED DISTRICT. PERMITTER SEDIMENT PROTECTION SHALL BE INSTALLED ALONG THE CONTOUR.
IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE LOCATION OF ALL EXISTING UTILITIES. THE
CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATION AND MARK ALL EXISTING UTILITIES 48 HOURS BEFORE
UTILITIES ARE MAPPED OR LINED UP. IF ANY UTILITIES ARE SHOWN CORRECTLY, CONTACT COOPER STATE ONE CALL AT
651-454-0002 FOR FIELD LOCATING EXISTING UTILITIES. CONTACT UTILITY OWNER IF DAMAGE OCCURS DUE
TO CONSTRUCTION.
PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR IS TO CLEARLY IDENTIFY IN THE FIELD THE WETLAND
PERIMETERS WHICH ARE NOT TO BE IMPACTED SO THAT NO ENCROACHMENT OCCURS. AFTER THE PERIMITERS
ARE CLEARLY MARKED IN THE FIELD, THE CONTRACTOR SHALL CONTACT NINE MILE CREEK WATERSHED
DISTRICT TO CONFIRM AND APPROVE NO ENCROACHMENT LIMITS.
THERE MAY BE MISCELLANEOUS ITEMS TO BE REMOVED THAT ARE NOT IDENTIFIED ON THESE PLANS. THE
CONTRACTOR SHALL VISIT THE SITE AND REVIEW THE DOCUMENTS TO OBTAIN A CLEAR UNDERSTANDING OF THE
INTENDED SCOPE OF WORK.
REMOVE ALL GAS AND ELECTRIC LINES UNDER PROPOSED BUILDING FOOTPRINT. COORDINATE DISCONNECTION
OF EACH UTILITY WITH THE UTILITY OWNER.
ANY UTILITIES NOT INDICATED FOR REMOVAL OR ABANDONMENT ARE TO BE PROTECTED AT ALL TIMES.
EXISTING CONCRETE PAVEMENT AND CURB AND GUTTER SHOWN TO BE REMOVED WITHIN THE SCOPE
OF THE PROJECT SHALL BE REMOVED FROM THE SAW CUT LINES TO THE NEAREST JOINT.
THE BACKGROUND INFORMATION WAS PREPARED BY SUNDE LAND SURVEYING, (952) 881-2455.
ALL WORK IN THE PUBLIC RIGHT OF WAY IS TO BE COORDINATED WITH THE CITY OF EDINA. ROADWAY
REPAIRS, SIDEWALK REPAIRS, AND TRAFFIC CONTROL ARE TO BE PER CITY OF EDINA STANDARDS AND
SPECIFICATIONS.

KEYED NOTES

KEYED NOTES ARE DENOTED BY **N** ON PLAN.

1. INSTALL CONSTRUCTION ENTRANCE. REFER TO DETAIL 1/C500.
2. INSTALL PERIMETER EROSION CONTROL. REFER TO DETAILS 3/C500 AND 4/C500.
3. INSTALL INLET SEDIMENT PROTECTION. REFER TO DETAIL 2/C500.
4. REMOVE CURB AND GUTTER IN ITS ENTIRETY TO THE APPROXIMATE EXTENTS SHOWN.
5. SANCTUAR AND REMOVE BITUMINOUS PAVEMENT IN ITS ENTIRETY TO THE APPROXIMATE EXTENTS SHOWN.
6. REMOVE CONCRETE PAVEMENT IN ITS ENTIRETY TO THE APPROXIMATE EXTENTS SHOWN.
7. REMOVE STORM SEWER IN ITS ENTIRETY TO THE APPROXIMATE EXTENTS SHOWN. OPENING IN CATCH BASIN FROM REMOVED PIPE SHALL BE FILLED AND SEALED WITH BRICK AND MORTAR.
8. REMOVE BUILDING IN ITS ENTIRETY, INCLUDING FOOTINGS.
9. REMOVE LIGHT POLE IN ITS ENTIRETY, INCLUDING FOOTINGS. CONTRACT SHALL LOCATE AND REMOVE ELECTRICAL LINES AND CONDUIT IN ITS ENTIRETY, NOT LOCATED ON SURVEY.
10. REMOVE GUARD POST IN ITS ENTIRETY, INCLUDING FOOTING.
11. REMOVE FENCE POST IN ITS ENTIRETY, INCLUDING FOOTING.
12. REMOVE AND SALVAGE NO PARKING SIGN, OR LOADING ZONE SIGN, IN ITS ENTIRETY, INCLUDING FOOTING.
13. CONTRACTOR SHALL REMOVE ALL FOOTINGS FOUND IN THIS AREA THAT MAY REMAIN FROM PREVIOUSLY REMOVED OUTDOOR ICE RINK.
14. EXISTING TREE TO REMAIN. PROTECT AT ALL TIMES.
15. EXISTING CURB AND GUTTER TO REMAIN. PROTECT AT ALL TIMES.
16. EXISTING BITUMINOUS PAVEMENT TO REMAIN. PROTECT AT ALL TIMES.
17. EXISTING CONCRETE PAVEMENT TO REMAIN. PROTECT AT ALL TIMES.
18. EXISTING POWER POLES AND OVERHEAD ELECTRIC LINES TO REMAIN. PROTECT AT ALL TIMES.
19. EXISTING BUILDING TO REMAIN. PROTECT AT ALL TIMES.
20. EXISTING COMMUNICATION HANDHOLE TO REMAIN. PROTECT AT ALL TIMES.

DEMOLITION AND REMOVAL NOTES:

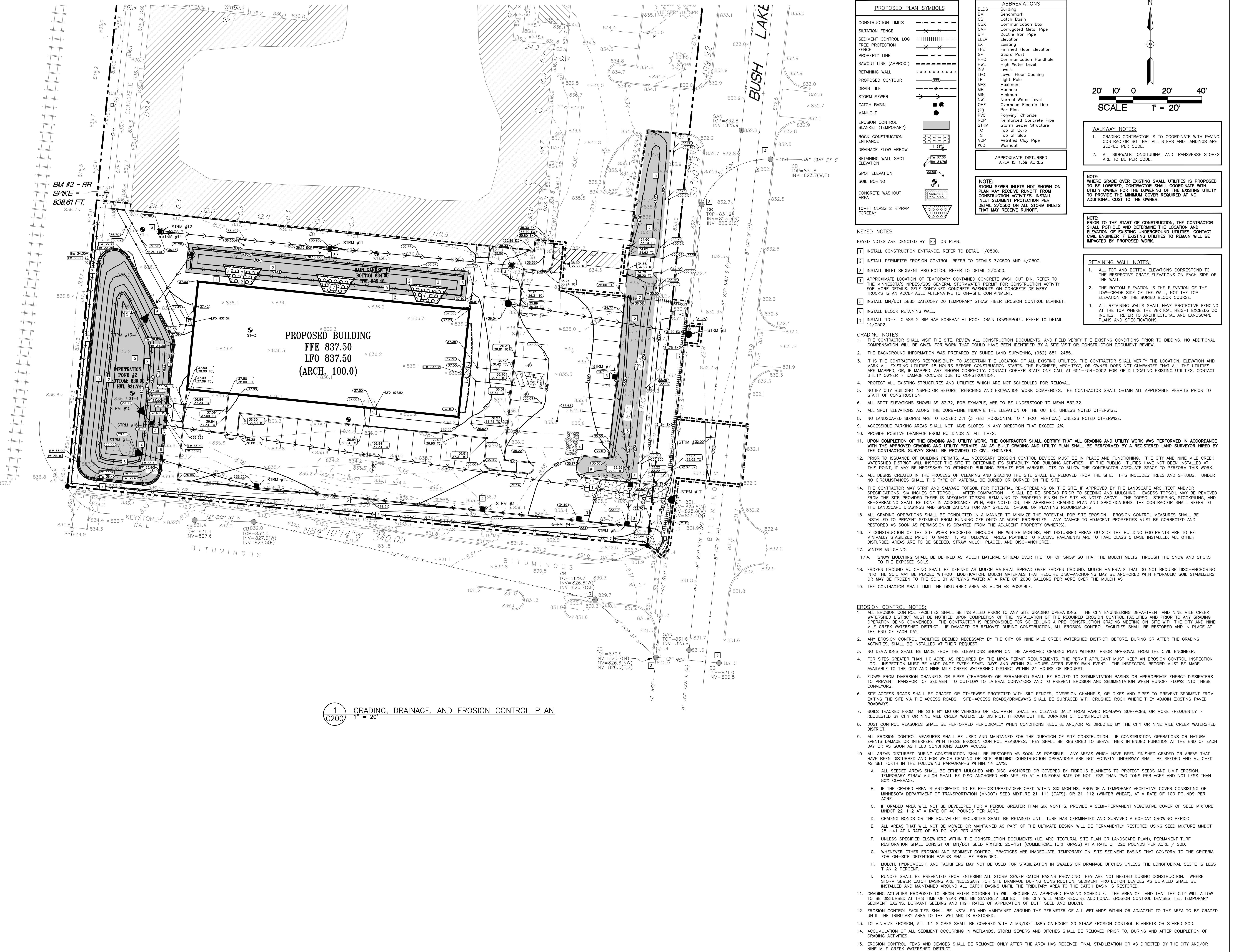
1. CONTRACTOR SHALL FOLLOW ALL CITY OF EDINA STANDARDS AND SPECIFICATIONS.
2. PRIOR TO START OF ANY CONSTRUCTION ACTIVITY, ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED. CONSTRUCTION AND DEMOLITION ARE TO BE COORDINATED AND REPORTED BY THE CITY OF EDINA AND NINE MILE CREEK WATERSHED DISTRICT. PERMITTER SEDIMENT PROTECTION SHALL BE INSTALLED ALONG THE CONTOUR.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATION AND MARK ALL EXISTING UTILITIES 48 HOURS BEFORE UTILITIES ARE MAPPED OR LINED UP. IF ANY UTILITIES ARE SHOWN CORRECTLY, CONTACT COOPER STATE ONE CALL AT 651-454-0002 FOR FIELD LOCATING EXISTING UTILITIES. CONTACT UTILITY OWNER IF DAMAGE OCCURS DUE TO CONSTRUCTION.
4. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR IS TO CLEARLY IDENTIFY IN THE FIELD THE WETLAND PERIMITERS WHICH ARE NOT TO BE IMPACTED SO THAT NO ENCROACHMENT OCCURS. AFTER THE PERIMITERS ARE CLEARLY MARKED IN THE FIELD, THE CONTRACTOR SHALL CONTACT NINE MILE CREEK WATERSHED DISTRICT TO CONFIRM AND APPROVE NO ENCROACHMENT LIMITS.
5. THERE MAY BE MISCELLANEOUS ITEMS TO BE REMOVED THAT ARE NOT IDENTIFIED ON THESE PLANS. THE CONTRACTOR SHALL VISIT THE SITE AND REVIEW THE DOCUMENTS TO OBTAIN A CLEAR UNDERSTANDING OF THE INTENDED SCOPE OF WORK.
6. REMOVE ALL GAS AND ELECTRIC LINES UNDER PROPOSED BUILDING FOOTPRINT. COORDINATE DISCONNECTION OF EACH UTILITY WITH THE UTILITY OWNER.
7. ANY UTILITIES NOT INDICATED FOR REMOVAL OR ABANDONMENT ARE TO BE PROTECTED AT ALL TIMES.
8. EXISTING CONCRETE PAVEMENT AND CURB AND GUTTER SHOWN TO BE REMOVED WITHIN THE SCOPE OF THE PROJECT SHALL BE REMOVED FROM THE SAW CUT LINES TO THE NEAREST JOINT.
9. THE BACKGROUND INFORMATION WAS PREPARED BY SUNDE LAND SURVEYING, (952) 881-2455.
10. ALL WORK IN THE PUBLIC RIGHT OF WAY IS TO BE COORDINATED WITH THE CITY OF EDINA. ROADWAY REPAIRS, SIDEWALK REPAIRS, AND TRAFFIC CONTROL ARE TO BE PER CITY OF EDINA STANDARDS AND SPECIFICATIONS.

GENERAL NOTES:

1. CONCRETE CURB AND GUTTER REMOVAL, PAVEMENT REMOVAL, AND UTILITY REMOVAL LIMITS ARE TO BE COORDINATED WITH THE CITY OF EDINA AND UTILITY OWNER.
2. THE CONTRACTOR SHALL DEVELOP AND IMPLEMENT A TRAFFIC CONTROL PLAN WHILE WORKING WITHIN THE RIGHT-OF-WAY. THE TRAFFIC CONTROL PLAN SHALL BE APPROVED BY THE CITY ENGINEERING DEPARTMENT PRIOR TO STREET ENCROACHMENT.
3. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING AND REVIEW ALL CONSTRUCTION DOCUMENTS AND DECISIONS MADE. ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ITEMS THAT SHOULD HAVE BEEN ANTICIPATED BY PERFORMING THE ABOVE.
4. THE CONSTRUCTION ENTRANCE INDICATED ON THE PLAN IS SHOWN IN AN APPROXIMATE LOCATION. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR IS TO COORDINATE WITH THE CITY OF EDINA FOR THE EXACT CONSTRUCTION ENTRANCE LOCATION.

ISSUE RECORD
ISSUE # 3003-08-11 CITY SUBMITAL
REG. NO. 6163
SIGNATURE: GRETCHEN KENDRICK
DATE: SEPTEMBER 29, 2023
REG. NO. 6163

PERMIT SET
NOT FOR
CONSTRUCTION



6449 CITY WEST PARKWAY
SUITE 300
Minneapolis, MN 55429-5119
Phone: (612) 843-0420
Fax: (612) 952-9062
www.ska-mn.com

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or copied without written consent.
BKBM Job No. 23348-39

I HEREBY CERTIFY THAT THIS PLAN
WAS PREPARED BY
ME ON BEHALF OF SPARKS REINHOLD ARCHITECTS AND
ENGINEER UNDER THE LAWS OF THE STATE
OF MINNESOTA.

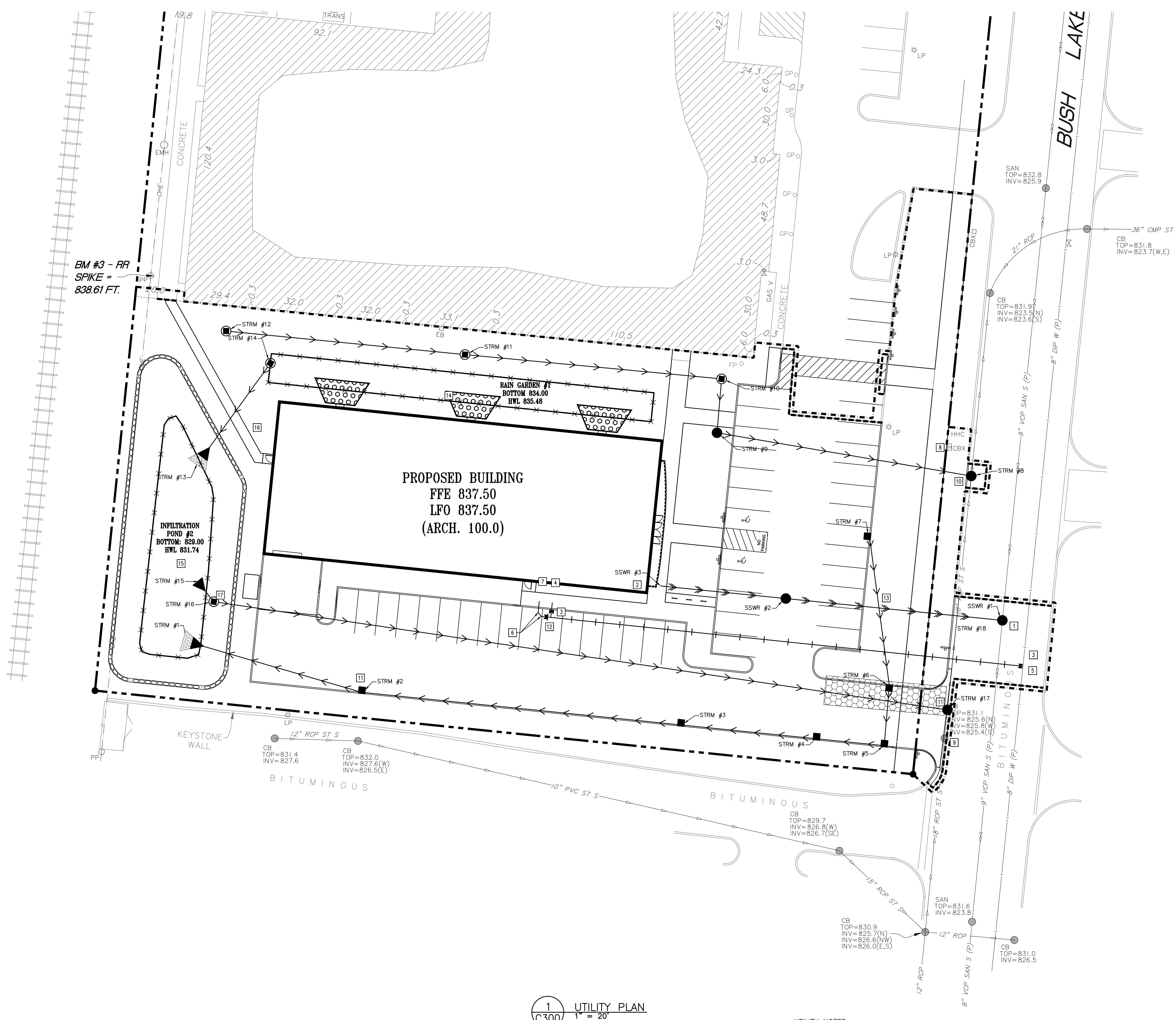
GARTH KENDRICK
SEPT 29, 2023
REG. NO. 6163

ISSUE RECORD
ISSUE # 3003-08-11 CITY SUBMITAL
ISSUE # 3003-08-11

PERMIT SET
NOT FOR
CONSTRUCTION

PROJECT NO. 933485
DRAWN BY: WH
CHECKED BY: GKD & KAM

C200



<u>PROPOSED PLAN SYMBOLS</u>		<u>ABBREVIATIONS</u>
CONSTRUCTION LIMITS		BLDG Building
PROPERTY LINE		BM Benchmark
SAWCUT LINE (APPROX.)		CB Catch Basin
SANITARY SEWER		CBX Communication Box
WATER PIPE		CMP Corrugated Metal Pipe
STORM SEWER		DIP Ductile Iron Pipe
GATE VALVE		ELEV Elevation
CLEANOUT		EX Existing
CATCH BASIN		FFE Finished Floor Elevation
MANHOLE		GP Guard Post
PIPE INSULATION		HHC Communication Handhole
		INV Invert
		LP Light Pole
		MAX Maximum
		MH Manhole
		MIN Minimum
		OHE Overhead Electric Line
		(P) Per Plan
		PVC Polyvinyl Chloride
		RCP Reinforced Concrete Pipe
		STRM Storm Sewer Structure
		VCP Vetrified Clay Pipe

UTILITY NOTES FOR WORK IN PUBLIC RIGHT-OF-WAY:

1. FOLLOW ALL CITY OF EDINA STANDARDS AND SPECIFICATIONS.
 2. PRIOR TO CONSTRUCTION, CONTRACTORS ARE TO COORDINATE ALL WORK WITHIN RIGHT-OF-WAY AND OBTAIN ALL APPLICABLE PERMITS.

KEYED NOTES

KEYED NOTES ARE DENOTED BY **NO** ON PLAN.

- [1] CONTRACTOR SHALL INSTALL MANHOLE IN LINE WITH EXISTING 9-INCH VCP PIPE. REFER TO SANITARY SEWER TABLE FOR APPROXIMATE INVERT OF EXISTING PIPE. TWO WEEKS PRIOR TO SOLICITING SHOP DRAWINGS FOR SEWER, CONTRACTOR SHALL VERIFY SEWER INVERT AND CONTACT CIVIL ENGINEER WITH INVERT ELEVATION.**
 - [2] LOCATION OF PROPOSED SANITARY SEWER SERVICE. REFER TO SANITARY SEWER TABLE FOR INVERT ELEVATIONS AND PIPE SIZES. COORDINATE EXACT LOCATION AND INVERT ELEVATION WITH MECHANICAL CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.**
 - [3] CONTRACTOR SHALL INSTALL 1.5-INCH CORPORATION STOP AND 1.5-INCH CURB BOX. REFER TO DETAIL 1/C501.**
 - [4] STUB 1.5-INCH TYPE K COPPER WATER SERVICE TO BUILDING. COORDINATE EXACT LOCATION AND INVERT ELEVATION WITH MECHANICAL CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.**
 - [5] INSTALL 6-INCH WET TAP. REFER TO DETAIL 7/C500 FOR WET TAP AND 8/C500 FOR VALVE BOX.**
 - [6] INSTALL 6-INCH 45-DEGREE BEND WITH THRUST BLOCKING.**
 - [7] STUB 6-INCH FIRE PROTECTION LINE TO WITHIN 5-FEET OF THE PROPOSED BUILDING. TOP OF WATER SERVICE SHALL BE 7.5 FEET BELOW FINISHED GRADE AT THE PROPOSED CONNECTION POINT. COORDINATE EXACT LOCATION WITH MECHANICAL AND STRUCTURAL PLANS PRIOR TO THE START OF CONSTRUCTION.**
 - [8] CONTRACTOR SHALL LOCATE COMMUNICATION UTILITY DEPTH AND CONTACT CIVIL ENIGINEER TWO WEEKS PRIOR TO SOLICITING SEWER SHOP DRAWINGS.**
 - [9] ADJUST EXISTING MANHOLE TO MATCH PROPOSED GRADE. REFER TO GRADING PLAN C200. CONTRACTOR SHALL REPLACE CASTING AND GRATE WITH NEENAH R-3067-C.**
 - [10] CONTRACTOR SHALL INSTALL MANHOLE IN LINE WITH EXISTING 18-INCH RCP PIPE. REFER TO STORM SEWER TABLE FOR APPROXIMATE INVERT OF EXISTING PIPE. TWO WEEKS PRIOR TO SOLICITING SHOP DRAWINGS FOR SEWER, CONTRACTOR SHALL VERIFY SEWER INVERT AND CONTACT CIVIL ENGINEER WITH INVERT ELEVATION.**

- [11] SUMP MANHOLE.
- [12] INSTALL 6-INCH GATE VALVE REFER TO DETAIL 8/C500.
- [13] PROVIDE WATER OFFSET FROM STORM SEWER. REFER TO DETAIL 11/C501.
- [14] INSTALL RAIN GARDEN SYSTEM PER DETAIL 3/C501. RAIN GARDEN SYSTEM SHALL HAVE AN INFILTRATION VOLUME OF 1,304 CUBIC FEET. A TOTAL VOLUME OF 3,000 CUBIC

DURING CONSTRUCTION, CONTRACTOR SHALL EXCAVATE AND REMOVE UNSUITABLE SOILS FOR INFILTRATION AND REPLACE WITH IMPORTED SM AND SP MATERIAL FROM AN APPROXIMATE ELEVATION OF 832' TO 827'. REFER TO GEOTECHNICAL REPORTS.

AFTER SOILS CORRECTIONS, CONTRACTOR SHALL CONTACT GEOTECHNICAL ENGINEER TO PERFORM A DOUBLE RING INFILTROMETER TEST ON THE SUBGRADE BELOW THE INFILTRATION SYSTEM TO VERIFY AN INFILTRATION RATE OF 0.45 IN/HR. IF INFILTRATION RATE IS LESS THAN 0.45 IN/HR, CONTRACTOR MAY BE REQUIRED TO OVER EXCAVATE SUBGRADE MATERIAL BEFATH THE SYSTEM, AND REPLACE WITH SUITABLE MATERIAL AT

SUBGRADE MATERIAL BENEATH THE SYSTEM, AND REPLACE WITH SUITABLE MATERIAL AT COST TO THE CONTRACTOR.

DURING SOILS CORRECTIONS, GEOTECHNICAL ENGINEER SHALL ALSO VERIFY THAT NO GROUNDWATER IS PRESENT WITHIN 3' OF THE BOTTOM OF THE SYSTEM. DOCUMENTATION TO WATERSHED DISTRICT FOR APPROVAL PRIOR TO BACKFILLING THE EXCAVATION.

[15] INSTALL INFILTRATION SYSTEM PER DETAIL 6/C501. INFILTRATION SYSTEM SHALL HAVE

- [15] INSTALL INFILTRATION SYSTEM PER DETAIL 6/C501. INFILTRATION SYSTEM SHALL HAVE AN INFILTRATION VOLUME OF 1,657 CUBIC FEET, A TOTAL VOLUME OF 8,472 CUBIC FEET, AND MEET THE RATE CONTROL REQUIREMENTS INDICATED ON SHEET C600.

DURING CONSTRUCTION, CONTRACTOR SHALL EXCAVATE AND REMOVE UNSUITABLE SOILS FOR INFILTRATION AND REPLACE WITH IMPORTED SM AND SP MATERIAL FROM AN APPROXIMATE ELEVATION OF 827' TO 824'. REFER TO GEOTECHNICAL REPORTS.

AFTER SOILS CORRECTIONS, CONTRACTOR SHALL CONTACT GEOTECHNICAL ENGINEER TO PERFORM A DOUBLE RING INFILTROMETER TEST ON THE SUBGRADE BELOW THE INFILTRATION SYSTEM TO VERIFY AN INFILTRATION RATE OF 0.45 IN/HR. IF INFILTRATION RATE IS LESS THAN 0.45 IN/HR, CONTRACTOR MAY BE REQUIRED TO OVER EXCAVATE SUBGRADE MATERIAL BENEATH THE SYSTEM, AND REPLACE WITH SUITABLE MATERIAL AT COST TO THE CONTRACTOR.

DURING SOILS CORRECTIONS, GEOTECHNICAL ENGINEER SHALL ALSO VERIFY THAT NO GROUNDWATER IS PRESENT WITHIN 3' OF THE BOTTOM OF THE SYSTEM. DOCUMENTATION TO WATERSHED DISTRICT FOR APPROVAL PRIOR TO BACKFILLING THE EXCAVATION.

[16] TRANSFORMER. REFER TO MECHANICAL AND ELECTRICAL PLANS.

SANITARY SEWER TABLE					
STRUCTURE ID	STRUCTURE DIMENSION (INCHES)	NEENAH CASTING TYPE	RIM ELEVATION	INVERT ELEVATION(S)	PIPE LENGTH, DIAMETER, SLOPE & NEXT UPSTREAM STRUCTURE
SSWR #1	48" MH	R-1733	832.07	S = 824.66 W = 827.20	----- 90 L.F. OF 6" PVC @ 2.00%, SSWR #2
SSWR #2	48" MH	R-1733	833.41	E = 829.00 W = 830.06	----- 52 L.F. OF 6" PVC @ 2.00%, SSWR #3
SSWR #3	Sanitary Sewer Service Connection	NA		E = 831.10	-----

UTILITY NOT

- GENERAL NOTES:**

 1. CONTRACTOR SHALL FOLLOW ALL CITY OF EDINA STANDARDS AND SPECIFICATIONS.
 2. COORDINATE SERVICE CONNECTION LOCATIONS AT THE BUILDING WITH THE MECHANICAL CONTRACTOR PRIOR TO CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR UNCOORDINATED WORK.
 3. COORDINATE UTILITY INSTALLATION WITH STRUCTURAL PRIOR TO START OF CONSTRUCTION. UTILITIES SHALL NOT BE INSTALLED WITHIN THE ZONE OF INFLUENCE OF ANY STRUCTURAL ELEMENTS. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR UNCOORDINATED WORK.
 4. ALL SEWER SERVICE CONNECTIONS WITH LESS THAN 5 FEET OF COVER OVER THE TOP OF PIPE SHALL BE INSULATED. INSULATION SHALL BE INSTALLED FROM THE CONNECTION OF THE SERVICE AT THE BUILDING TO THE POINT WHICH THE SERVICE ATTAINS 5 FEET OF COVER. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION FROM ARCHITECT OR ENGINEER PRIOR TO INSTALLATION OF INSULATION.
 5. PROTECT ALL EXISTING STRUCTURES AND UTILITIES WHICH ARE NOT SCHEDULED TO BE REMOVED.
 6. ALL SEWER AND WATER CROSSINGS SHALL HAVE A MINIMUM VERTICAL SEPARATION OF 1.5 FEET AND HORIZONTAL SEPARATION OF 10 FEET. FOLLOW ALL HEALTH DEPARTMENT AND CITY OF EDINA STANDARDS.
 7. THE FIRE PROTECTION LINE SHALL BE DUCTILE IRON PIPE, CLASS 52, UNLESS NOTED OTHERWISE. THE DOMESTIC WATER LINE SHALL BE COPPER.
 8. ALL WATER MAIN SHALL HAVE A MINIMUM DEPTH OF COVER OF 7.5 FEET OVER TOP OF WATER MAIN.
 9. PROVIDE THRUST BLOCKING ON ALL WATER MAIN PER CITY OF EDINA. PROVIDE MECHANICAL JOINT RESTRAINTS ON ALL BENDS, VALVES, TEES, PLUGS, AND HYDRANT LEADS.
 10. SANITARY SEWER PIPING SHALL BE SDR 35 PVC UNLESS NOTED OTHERWISE.
 11. STORM SEWER PIPING MATERIAL SHALL BE AS INDICATED IN THE STORM SEWER TABLE. REINFORCED CONCRETE PIPE (RCP) SHALL BE CLASS V WHEN 12-INCH TO 18-INCH. ALL STORM SEWER INDICATED AS PVC SHALL BE SDR 26 POLY VINYL CHLORIDE.
 12. ALL FLARED END SECTIONS SHALL HAVE TRASH GUARDS. ALL DOWNSTREAM FLARED END SECTIONS SHALL HAVE GEOTEXTILE FABRIC AND RIPRAP PER MNDOT STANDARDS, AS DETAILED.
 13. CONTRACTORS SHALL COORDINATE ALL WORK WITH GAS, ELECTRIC, TELEVISION AND TELEPHONE COMPANIES PRIOR TO START OF CONSTRUCTION.
 14. WHERE PROPOSED GRADE OVER EXISTING SMALL UTILITIES IS PROPOSED TO BE LOWERED, CONTRACTOR SHALL COORDINATE WITH UTILITY OWNER FOR THE LOWERING OF THE EXISTING UTILITY TO PROVIDE THE MINIMUM COVER REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
 15. ALL PORTIONS OF THE STORM SEWER SYSTEM LOCATED WITHIN 10-FEET OF THE BUILDING OR WATER SERVICE LINE SHALL BE TESTED IN ACCORDANCE WITH MN PLUMBING CODE. PIPING MATERIAL SHALL BE SCHEDULE 40 PVC.
 16. ALL JOINTS AND CONNECTIONS IN THE STORM SEWER SYSTEM SHALL BE GAS TIGHT OR WATER TIGHT IN ACCORDANCE TO MN PLUMBING CODE. APPROVED RESILIENT RUBBER JOINTS MUST BE USED TO MAKE WATER TIGHT CONNECTIONS TO MANHOLES, CATCH BASINS, AND OTHER STRUCTURES. RESILIENT WATER-STOP GROUTING RINGS ARE AN ACCEPTABLE ALTERNATIVE. CEMENT MORTAR JOINTS ARE PERMITTED ONLY FOR REPAIRS AND CONNECTIONS OF EXISTING LINES CONSTRUCTED WITH SUCH JOINTS.

STORM SEWER TABLE					
STRUCTURE ID	STRUCTURE DIMENSION (INCHES)	NEENAH CASTING TYPE	RIM ELEVATION	INVERT ELEVATION(S)	PIPE LENGTH, DIAMETER, SLOPE & NEXT UPSTREAM STRUCTURE
STRM #1	12" FES	NA		E = 829.10	73 L.F. OF 18" RCP @ 1.01%, STRM #2
STRM #2	48" SUMP CB MH	R-3067	835.72	W = 829.84 E = 829.84	----- 133 L.F. OF 15" RCP @ 0.30%, STRM #3
STRM #3	48" CB MH	R-3067	835.72	W = 830.24 E = 830.24	----- 56 L.F. OF 15" RCP @ 0.50%, STRM #4
STRM #4	48" SUMP CB MH	R-3067	834.19	W = 830.52 E = 830.52	----- 28 L.F. OF 15" RCP @ 0.56%, STRM #5
STRM #5	48" CB MH	R-3067	833.19	W = 830.68 N = 830.68	----- 25 L.F. OF 12" RCP @ 0.48%, STRM #6
STRM #6	48" CB MH	R-3067	833.39	S = 830.80 N = 830.80	----- 62 L.F. OF 12" PVC @ 0.80%, STRM #7
STRM #7	24"x36" CB	R-3067	834.30	S = 831.30	-----
STRM #8	48" MH	R-1733	831.75	S = 824.28 N = 824.28 W = 826.00	----- ----- 107 L.F. OF 15" RCP @ 2.94%, STRM #9
STRM #9	48" MH	R-1733	836.54	E = 829.13 N = 829.18	----- 22 L.F. OF 12" RCP @ 2.00%, STRM #10
STRM #10	48" CB MH	R-2390	835.50	S = 829.63 W = 829.69	----- 107 L.F. OF 12" RCP @ 2.00%, STRM #11
STRM #11	48" CB MH	R-2390	835.90	E = 831.82 W = 831.88	----- 99 L.F. OF 12" RCP @ 1.80%, STRM #12
STRM #12	27" CB	R-2390	835.90	E = 833.67	-----
STRM #13	12" FES	NA		NE = 831.04	48 L.F. OF 15" RCP @ 2.00%, STRM #14
STRM #14	48" CB MH	R-2535	835.20	SW = 832.00	-----
STRM #15	18" FES	NA		SE = 829.00	-----
STRM #16	48" CB MH	R-2535	831.50	E = 828.00 NW = 828.90	----- 11 L.F. OF 18" RCP @ 0.97%, STRM #15
STRM #17	48" MH	R-1733	831.37	S = 825.46 N = 825.46	----- -----

Invicta Training Center

7300 BUSH LAKE ROAD PLAN

PROJECT NO: 23348.5
DRAWN BY: WH
CHECKED BY: GKD & KAM

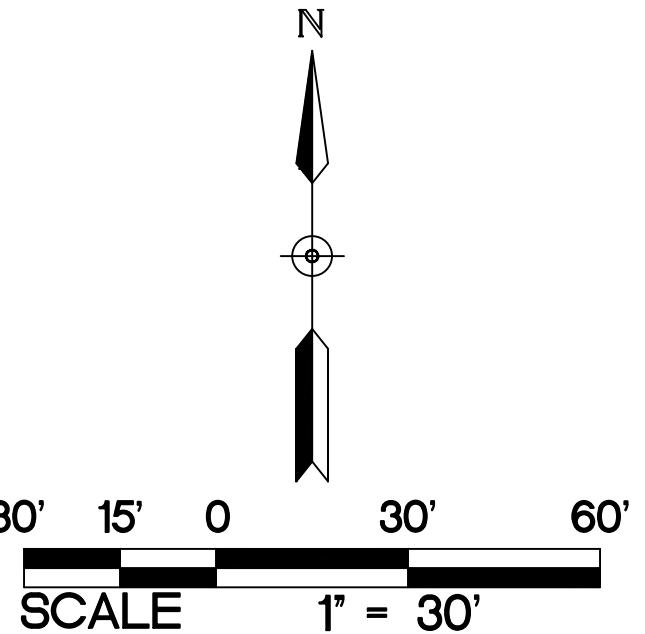
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Invicta Training Center

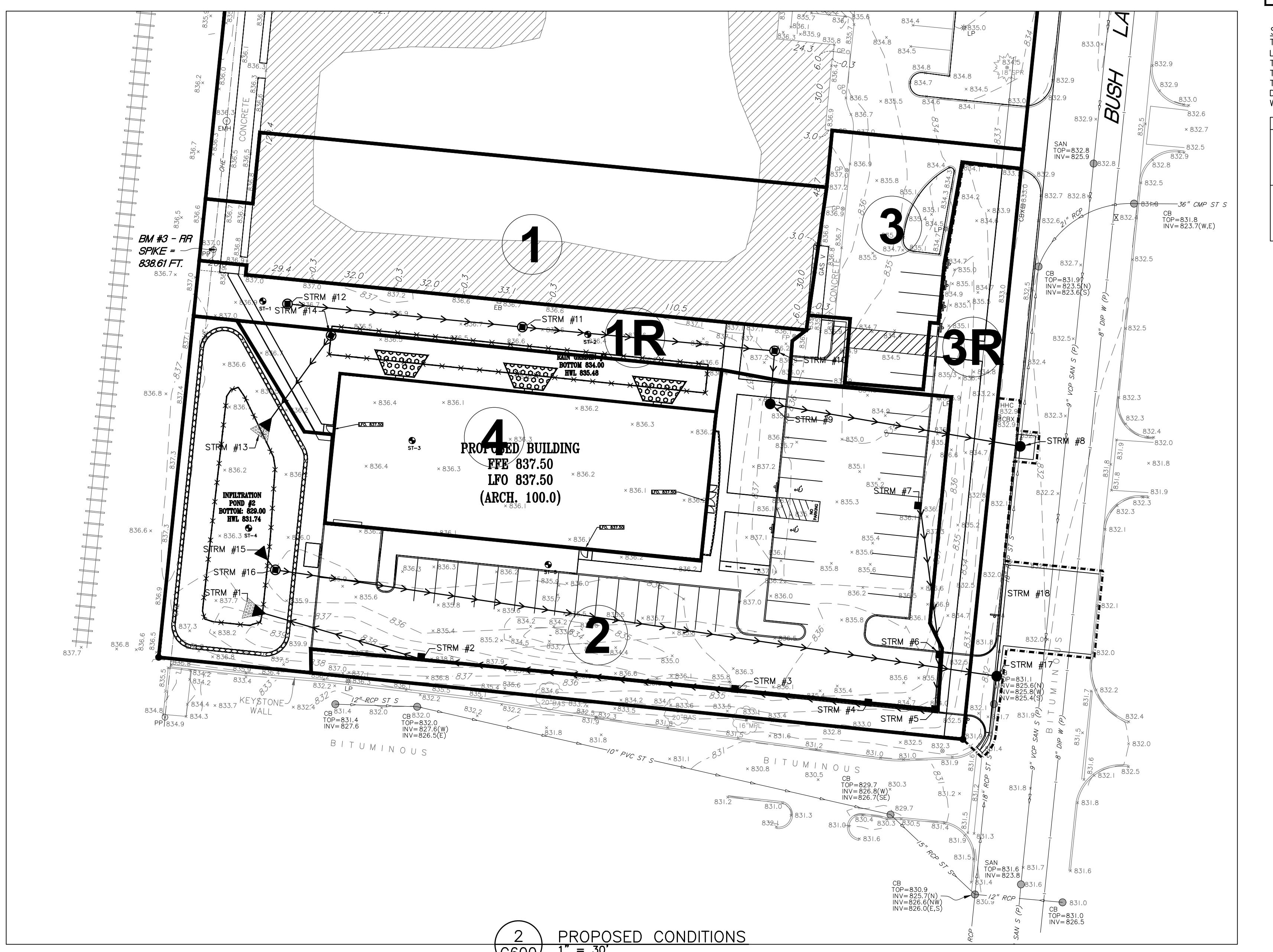
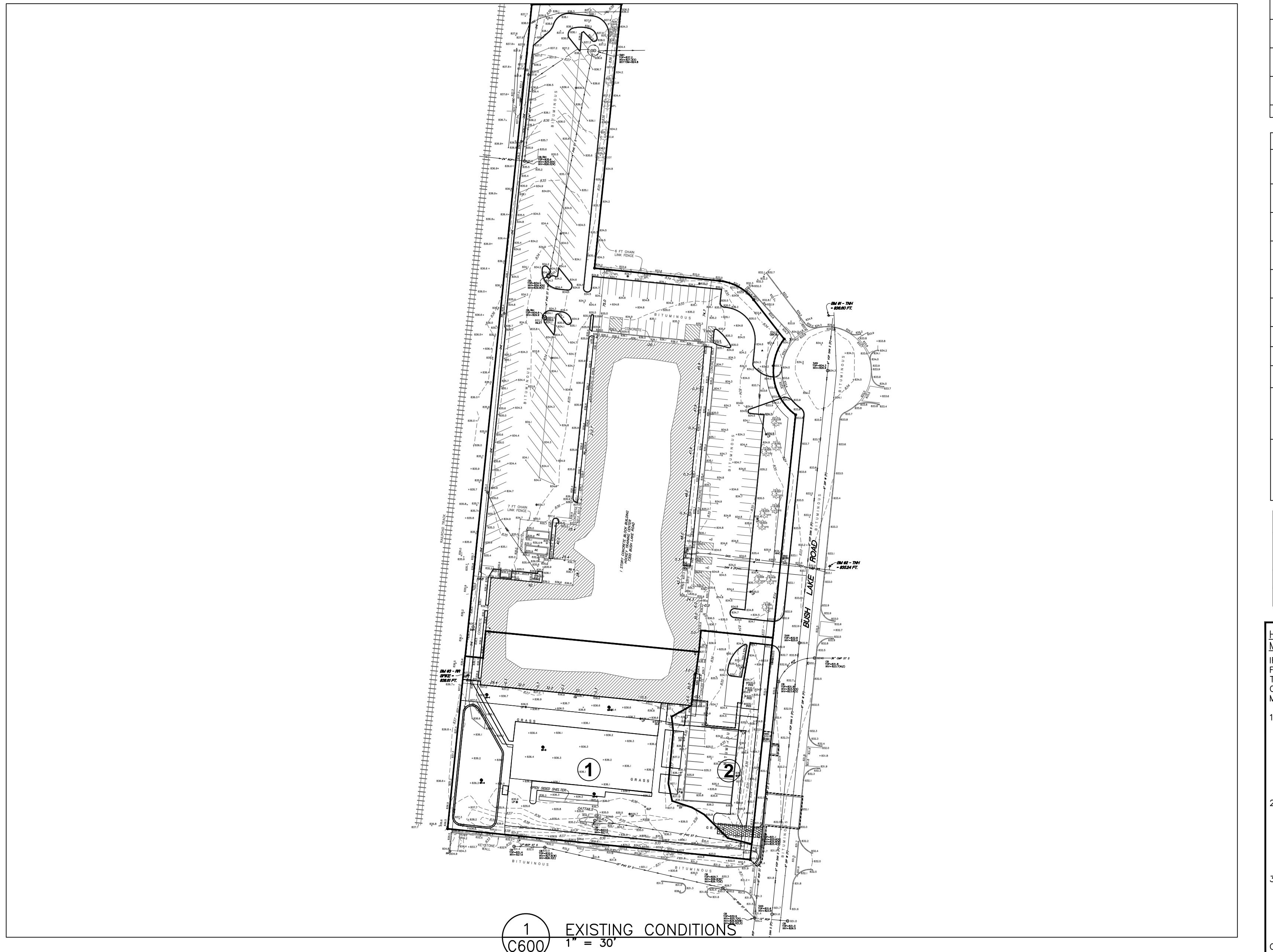
7300 BUSH LAKE ROAD
EDINA, MN 55339

STORM WATER
POLLUTION
PREVENTION PLAN
PROJECT NO. 933485
DRAWN BY: WH
CHECKED BY: GKD & KAM

6449 CITY WEST PARKWAY
SUITE 300
EDINA, MN 55344
PH: 952-990-5662
WWW.SKA-MN.COM



SITE IMPERVIOUS AREAS	
DESCRIPTION	ESTIMATED QUANTITY
TOTAL EXISTING SITE IMPERVIOUS AREA	3.65 ACRE
TOTAL PROPOSED SITE IMPERVIOUS AREA	4.29 ACRE
TOTAL NEW IMPERVIOUS AREA PROPOSED TO BE DISTURBED	0.26 ACRE
TOTAL NET NEW OR ADDITIONAL IMPERVIOUS SURFACE AREA	0.71 ACRE



DRAINAGE AREA	IMPERVIOUS AREA (ACRES)	PERVERIOUS AREA (ACRES)	TOTAL AREA (ACRES)	EXISTING DRAINAGE AREAS		
				2-YEAR (2.85")	10-YEAR (4.27")	100-YEAR (7.49")
1	0.36	0.98	1.34	—	—	—
EXISTING DEPRESSION	—	—	—	1.91	4.06	9.26
2	0.20	0.25	0.45	1.10	1.91	3.99
TOTAL	0.56	1.23	1.79	3.01	5.97	13.25

DRAINAGE AREA	IMPERVIOUS AREA (ACRES)	PERVERIOUS AREA (ACRES)	TOTAL AREA (ACRES)	PROPOSED DRAINAGE AREAS		
				2-YEAR (2.85")	10-YEAR (4.27")	100-YEAR (7.49")
1	0.34	0.01	0.35	1.46	2.22	3.94
1R	0.01	0.11	0.12	0.07	0.24	0.74
2	0.43	0.25	0.68	—	—	—
3	0.11	0.01	0.12	0.48	0.74	1.34
3R	0.07	0.13	0.20	0.35	0.68	1.59
4	0.24	0.09	0.33	—	—	—
RAIN GARDEN #1	—	—	—	—	—	—
INFILTRATION POND #2	—	—	—	0.15	0.64	3.19
TOTAL FOR ALL AREAS DRAINING THROUGH SITE (CONSTRUCTION LIMITS)	1.19	0.60	1.79	2.51	4.52	10.80
TOTALS FOR SITE (DISTURBANCE AREA WITHIN CONST. LIMITS)	0.74	0.58	1.32	—	—	—

STORMWATER RUNOFF SUMMARY		
	2-YR STORM (2.85") RUNOFF (CFS)	10-YR STORM (4.27") RUNOFF (CFS)
EXISTING FROM SITE	3.01	5.97
PROPOSED FROM SITE	2.51	4.52

	2-YR STORM (2.85") RUNOFF (CFS)	10-YR STORM (4.27") RUNOFF (CFS)	100-YR STORM (7.49") RUNOFF (CFS)
EXISTING FROM RIGHT OF WAY	—	—	—
EXISTING TO CITY STORM	—	—	—

STORMWATER RUNOFF SUMMARY — BY DISCHARGE POINT		
	2-YR STORM (2.85") RUNOFF (CFS)	10-YR STORM (4.27") RUNOFF (CFS)
EXISTING TO RIGHT OF WAY	1.10	1.91
EXISTING TO CITY STORM	1.91	4.06
PROPOSED TO RIGHT OF WAY	0.83	1.42
PROPOSED TO CITY STORM	1.68	3.10

HANDLING AND STORAGE OF HAZARDOUS MATERIALS:
IF THE CONTRACTOR INTENDS TO USE POLYMERS, FLUIDS, OILS, OR OTHER CHEMICALS AS TREATMENT CHEMICALS ON THE PROJECT SITE, THE CONTRACTOR MUST COMPLY WITH THE FOLLOWING MINIMUM REQUIREMENTS:

1. THE CONTRACTOR MUST USE CONVENTIONAL EQUIPMENT AND PROCESSES TO ADD CHEMICALS TO THE WASTEWATER TREATMENT. CHEMICALS MAY ONLY BE APPLIED WHERE APPROPRIATE STORMWATER DIRECTED TO A SEDIMENT CONTROL STRUCTURE WHICH ALLOWS FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE.
2. CHEMICALS MUST BE SELECTED THAT ARE APPROPRIATE FOR THE TYPE OF SOILS LIKELY TO BE EXPOSED DURING CONSTRUCTION, AND TO THE EXPECTED PH AND FLOW RATE OF THE STORMWATER FLOWING INTO THE CHEMICAL TREATMENT SYSTEM OR AREA.
3. CHEMICALS MUST BE USED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, AND WITH APPROPRIATE DESIGN, AND REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR PROVIDER/SUPPLIER OF THE APPLICABLE CHEMICALS.

ON-SITE FUEL TANKS REQUIRE SECONDARY CONTAINMENT AS REQUIRED BY THE STATE. PORTABLE FUEL TANKS SHALL HAVE THE SPILL KITS AVAILABLE DURING FUELING. SPILLS GREATER THAN 5 GALLONS MUST BE REPORTED TO THE PROPER AUTHORITIES.

SPECIAL AND IMPAIRED WATERS:
THESE SPECIAL AND IMPAIRED WATERS ARE LOCATED WITHIN ONE MILE (AERIAL RADIUS) OF THE PROJECT SITE. DUE TO THE PROXIMITY OF THESE SPECIAL AND IMPAIRED WATERS, THE BMP'S DESCRIBED IN SECTION 23 OF THE NPDES PERMIT WILL APPLY TO ALL AREAS OF THE SITE.

FINAL STABILIZATION:
STABILIZATION BY UNIFORM PERENNIAL VEGETATIVE COVER (70% DENSITY)
DRAGGLES STABILIZED.
TEMPORARY SYNTHETIC AND STRUCTURAL BMP'S REMOVED.
CLEAN OUT SEDIMENT FROM CONVEYANCES AND SEDIMENTATION BASINS (RETURN TO DESIGN CAPACITY).

SEDIMENT AND EROSION CONTROL MAINTENANCE:
PERIMETER EROSION CONTROL PRACTICES, WHEN SEDIMENT REACHES A HEIGHT OF THE BMP, THE SEDIMENT MUST BE REMOVED WITHIN 24 HOURS. IF PERIMETER SEDIMENT CONTROL HAS BEEN REMOVED, THE CONTRACTOR MUST REPAIR IT PROPERLY, IT MUST BE REPAVED AND/OR REPLACED WITHIN 24 HOURS. PERIMETER BMP MEASURES MAY INCLUDE SILT FENCING.

CONSTRUCTIVE SITE VEHICLE EXIT OPERATIONS: ALL CONSTRUCTIVE VEHICLE EXIT SURFACES MUST BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR MORE FREQUENTLY IF REQUIRED BY CITY OR STATE.

CONSTRUCTION SITE DEWATERING:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL DEWATERING PERMITS. DISCHARGE FROM DEWATERING ACTIVITIES SHALL BE DIRECTED TO ON-SITE DEPRESSIONS. NO DISCHARGE FROM DEWATERING OPERATIONS SHALL BE DIRECTED OFF-SITE TOWARDS A WATER OF THE STATE.

REFERR TO THE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.

POLLUTION PREVENTION MANAGEMENT MEASURES:
SOLID WASTE DISPOSED PROPERLY; COMPLY WITH MPCA REQUIREMENTS.

HAZARDOUS WASTE STORED (SECONDARY CONTAINMENT, LIMITED ACCESS) AND DISPOSED IN COMPLIANCE WITH MPCA REQUIREMENTS.

NO EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION ALLOWED ON-SITE.

CONCRETE WASHOUT ON-SITE: ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS SHALL BE COLLECTED IN CONCRETE DRUMS.

LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER: A COMPACTED CLAY LINER IS REQUIRED TO ENCLOSE GROUND WATER IF CONCRETE WASHOUTS ARE PLACED ON THE GROUND. THE LIQUID AND SOLID WASTES NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE WASHOUTS INTO CONSTRUCTION OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN CONFORMITY WITH MPCA REQUIREMENTS.

SECURE TOILETS: SECURE THE TOILET TO THE GROUND WITH STAKES OR CABLES. TOILET SHOULDN'T BE PLACED ON THE GROUND. LIQUID AND SOLIDS FROM CLEANING ACTIVITIES SHALL NOT BE DISPOSED ON THE GROUND.

REGULARLY CHECK TOILETS FOR DAMAGE, LEAKS AND SMELLS AS PART OF THE WEEKLY STORMWATER INSPECTION.

OWNER IDENTIFICATION AND CONTACT INFORMATION SHALL BE DISPLAYED IN A PROMINENT LOCATION ON EACH UNIT.

STORAGE HANDLING AND DISPOSAL OF CONSTRUCTION PRODUCTS, MATERIALS, AND WASTES:
BUILDING PRODUCTS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS MUST BE UNDER COVER.

PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TOXIC CHEMICALS, AND LANDSCAPE MATERIALS MUST BE STORED IN SEALED CONTAINERS.

WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS MUST BE PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS, OR OTHER DISCHARGES.

SWPPP IMPLEMENTATION, INSTALLATION, INSPECTION, AND BMP MAINTENANCE SHALL BE PERFORMED BY THE CONTRACTOR.

NAME: _____

CERTIFICATION #: _____

DATE: _____

NOTE:
AN AS-BUILT SURVEY OF ALL STORMWATER BMP'S INFILTRATION BASINS, OUTLET STRUCTURES, AND SEDIMENTATION BASINS SHALL BE SUBMITTED TO NINE MILE CREEK WATERSHED DISTRICT PRIOR TO PROJECT CLOSEOUT. THE AS-BUILT SURVEY SHALL INCLUDE THE INFILTRATION BASINS LAYOUT FOR THE SITE, THE DRAINAGE SYSTEM AND THE BMP'S AS INSTALLED PROPERLY.

VICINITY MAP
EDINA, MINNESOTA

C600

2 PROPOSED CONDITIONS
C600

1" = 30'

2 EXISTING CONDITIONS
C600

1" = 30'

30' 15' 0 30' 60'

SCALE 1' = 30'

N

30' 15' 0 30' 60'

30' 15' 0 30' 60'

30' 15' 0 30' 60'

30' 15' 0 30' 60'

30' 15' 0 30' 60'

30' 15' 0 30' 60'

30' 15' 0 30' 60'

30' 15' 0 30' 60'

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