Applicant:	Zuleyka Marquez; City of Edina
Consultant:	Clark Lohr; Stantec, Inc.
Project:	City of Edina Fire Station #2 Redevelopment
Location:	4401 West 76 th Street, Edina, MN
Applicable Rule(s):	2, 3, 4, and 5
Reviewer(s):	Gabrielle Campagnola and Louise Heffernan; Barr Engineering Co.

General Background & Comments

The applicant, the City of Edina (City), proposes the redevelopment of the City's Fire Station #2 property located at 4401 West 76th Street in Edina. The project proposes to construct a Community Health and Safety Center building with associated site improvements. The work for the demolition and removal of the existing site elements, including the existing building and foundation, and concrete and bituminous pavement was approved and issued under NMCWD Permit #2023-116. The proposed work under the current application includes the construction of the community building, construction of an access drive and surface parking, and site improvements including concrete sidewalks, landscaping, and utilities. The project proposes the construction of ten stormwater management facilities.

Review of the proposed project in conformance with the current NMCWD stormwater management requirements necessitate review with regard to the "last major use" of the site. The existing conditions, or "last major use" of the site, includes previous site elements (i.e. building and parking lot) prior to the recent demolition and removal of materials.

Relevant project site information, considered in aggregate with the demolition activities (Permit #2023-116) subject to Rule 4.2.5, result in the following:

- Total Site Area: 348,916 square feet (8.01 acres)
- Disturbed Area: 314,686 square feet (7.22 acres)
- Existing Site Impervious Area: 255,037 square feet (5.85 acres)
- Proposed Site Impervious Area: 110,071 square feet (2.53 acres)
- 56.9% decrease in the site impervious area: 144,966 square feet (3.33 acres)
- 100% disturbance of the existing impervious surface

Exhibits Reviewed:

1. Permit Application dated September 7, 2023, received September 19, 2023. Email correspondence dated October 11, 2023, identifying seventeen items required to complete the application. Email correspondence dated November 21, 2023, outlining four items required to complete the application.

- 2. Wetland Delineation report for 4401 West 76th Street dated November 2022, received September 19, 2023, prepared by Stantec, Inc.
- 3. Wetland MnRAM report dated September 15, 2023 (received September 19, 2023), prepared by Stantec, Inc.
- 4. Construction plans dated September 15, 2023 (received September 19, 2023), revised October 27, 2023, and December 6, 2023 (received December 7, 2023), prepared by Stantec, Inc.
- 5. Demolition plans dated October 6, 2023 (received October 27, 2023), prepared by Stantec, Inc.
- 6. Geotechnical Evaluation Report dated September 7, 2023, prepared by American Engineering Testing, Inc.
- 7. Stormwater Management Narrative dated September 8, 2023 (received September 19, 2023), revised October 27, 2023, and December 6, 2023 (received December 7, 2023), prepared by Stantec, Inc.
- 8. Electronic HydroCAD models received on September 19, 2023, revised October 27, 2023, and December 7, 2023, prepared by Stantec, Inc.
- 9. MIDS Calculator models received on September 19, 2023, revised October 27, 2023, and December 7, 2023, prepared by Stantec, Inc.

The application with the submittal items above is complete.

2.0 Floodplain Management and Drainage Alterations

The applicant proposes land-altering activities below the NMCWD Atlas 14 model 100-year frequency flood management elevation, 823.7 M.S.L., of the onsite wetland located along the southwestern boundary of the site. The proposed work below the 100-year flood elevation of the wetland includes pavement removal and construction of a 10-foot-wide trail. Because grading and land-altering activities are proposed below the 100-year flood management elevation, the project must conform to the requirements of the District's Floodplain Management and Drainage Alterations Rule 2.0.

Rule 2 criteria for floodplain and drainage alterations includes the following:

2.3.1: The low floor elevation of all new and reconstructed structures must be constructed in accordance with the NMCWD Stormwater Rule, subsection 4.3.3

The 100-year frequency flood elevation of the onsite wetland is 823.7 M.S.L. The project includes the construction of a building with a low floor elevation of 831.0 M.S.L. Compliance with Rule 2.3.1 criteria is addressed in the subsection 4.3.3 discourse within the Rule 4.0 Stormwater Management section of this report.

2.3.2: Placement of fill below the 100-year flood elevation is prohibited unless fully compensatory flood storage is provided within the floodplain and:

- a. at the same elevation +/- 1 foot for fill in the floodplain; or
- *b.* at or below the same elevation for fill in the floodplain of a water basin or constructed stormwater facility.

The project activities include the removal of existing bituminous pavement and construction of a path below the 100-year flood elevation of the wetland. The plans indicate the proposed restoration work following the removal of the bituminous pavement, and the proposed path, will match the existing topography of the site, resulting in no cut or fill in the 100-year floodplain. Because no placement of fill is proposed below the flood elevation, the project is in conformance with subsection 2.3.2.

2.3.3. The District will issue a permit to alter surface flows only if it finds that the alteration is not reasonably likely to have a significant adverse impact on any upstream or downstream landowner and is not reasonably likely to have a significant adverse effect on flood risk, basin or channel stability, groundwater hydrology, stream base-flow, water quality or aquatic or riparian habitat.

The applicant must demonstrate that the proposed work for the removal of the pavement and construction of the path are not reasonably likely to have a significant adverse impact on any upstream or downstream landowner(s), flood risk, basin or channel stability, groundwater hydrology, stream base-flow, water quality or aquatic or riparian habitat.

To demonstrate the project is not reasonably likely to have significant adverse offsite impacts, peak discharges leaving the site were evaluated for the 2-, 10- and 100-year, 24-hour events. The results of the modeling, as demonstrated in the Stormwater Management section of this report, indicate that peak discharges leaving the collection points from the site are reduced in proposed conditions. The project proposes a 56.9% decrease in the site impervious area (3.33 acres) and no fill is proposed below the 100-year flood elevation, thereby not increasing the 100-year flood elevation or flood risk associated with flood elevation changes. The applicant provided pre- and post-project water quality modeling to demonstrate the project is not reasonably likely to have an adverse impact to water quality, as demonstrated in the Stormwater Management section of this report.

The project is not likely to deter wildlife (such as waterfowl, amphibians, reptiles) from using the site area, if currently used. Revegetation plans provided by the applicant propose native vegetation at the lift station site to enhance ecological benefit. Because wildlife native to the area will be able to continue using the native vegetated area at the site, the NMCWD engineer concurs that the proposed project is in compliance with subsection 2.3.3 criteria.

Groundwater hydrology will not be changed and/or altered as a result of the project because the project does not propose water basin alterations (e.g. pumping, establishment of new normal water levels, or physical characteristic changes such as depth of water or bed permeability) that would result in surface water inflow to groundwater interaction changes or restriction of seepage out of the bottom of the waterbodies. The NMCWD engineer finds that the project is not reasonably likely to have significant adverse impacts in conformance with Rule 2.3.3 criteria.

Additionally, under existing conditions, the property east of the site (4175 West 76th Street) becomes inundated during the 100-year flood event, and the overflow along the property boundary conveys stormwater runoff toward the project site, as shown by the blue arrow in Figure 1 below. The 100-year flood elevation on the adjacent site is not managed by NMCWD, however, the applicant has submitted information to support compliance with subsection 2.3.3 criteria and the proposed project plans note the existing overflow will be

maintained and identify that the no obstruction or fill is allowed. Grading changes to the overflow and along the eastern border of the property will not result in surface overflow alterations, therefore, the project is not likely to adversely impact the conveyance capacity or direction of flow.



Figure 1. 100-year flood inundation extents at the site (highlighted in blue) and the adjacent 4175 West 76th Street property east of site.

2.3.4 No structure may be placed, constructed, or reconstructed and no surface may be paved within 50 feet of the centerline of any water course, except that this provision does not apply to:

a. Bridges, culverts, and other structures and associated impervious surface regulated under Rule 6.0;

b. Trails 10 feet wide or less, designed primarily for nonmotorized use.

There is no water course within 50 feet of the proposed land-disturbing activities.

3.0 Wetlands Management

The NMCWD's Wetland Management Rule 3.0 applies to the project because a wetland is located downgradient from the site land-disturbing activities and a district permit is required under Rule 4.0 (Rule 3.4). NMCWD is the Local Governing Unit (LGU) responsible for administering the requirements of the Wetland Conservation Act (WCA) in Edina. No wetland impacts are proposed by the project.

A wetland delineation report dated November 2022 was prepared by Stantec and submitted to NMCWD. A MnRAM assessment dated September 15, 2023, was completed for the onsite wetland downgradient of project activities. Based on the comparison of the function and values presented in Appendix 3b of the District's Rules, the wetland is classified as medium value,

requiring a 40-foot average, 20-foot minimum buffer width, Rule 3.4.1b. The NMCWD engineer agrees with the MnRAM results.

In accordance with Rule 3.4, a 40-foot average buffer of 20,640 square foot buffer is required on the edge of the wetland downgradient from land-disturbing activities. The plans dated December 6, 2023, include a 21,236 square foot buffer on the site upgradient of the wetland's edge. In addition, the required 20-foot minimum buffer with is provided for the wetland. The submittal demonstrates and the engineer finds the project in conformance with subsection 3.4.1b criteria.

In accordance with Rule 3.4.5, buffer markers at the edges of the buffer area are required. In accordance with the requirements of subsection 3.4.7 for the maintenance of the wetland buffer, a maintenance plan is required and must be recorded on the title to the property.

Rule 3.4.6 requires buffer areas planted with native vegetation and maintained to retain natural resources and ecological value, with buffer areas not to be cultivated, cropped, mowed or fertilized, except for periodic cutting to promote the health of the buffer. The applicant proposes to provide a native buffer composition and a pedestrian trail. In accordance with the requirements of subsection 3.4.7 for the maintenance of the wetland buffer, a plan is required to identify maintenance activities.

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. Because demolition work under Permit #2023-116 was approved since Rule 4.2.5 became effective in 2008, the proposed work under the current application (Permit #2023-117) is considered in aggregate with activities subject to Rule 4.2.5 Common Scheme of Development.

The project activities under the current application, considered in aggregate with the previous project permitted at the site, will decrease the total impervious surface of the site by 56.9% (144,966 square feet) and will disturb 100% of the existing site impervious area. Therefore, the district's stormwater management criteria will apply to the entire site, including the 105,558 square feet of regulated impervious surface (excludes exempt paths). The proposed walking path adjacent to the wetland is exempt from the stormwater requirements, because the path does not exceed 10-feet in width and is bordered downgradient by pervious surface at least half the width of the path.

Stormwater management for compliance with Rule 4.3.1 criteria will be provided by ten stormwater management facilities, including two underground stormwater management facilities (UGSWMFs) and eight permeable pavement systems to provide rate control, volume retention and water quality management for the site. The stormwater management facilities' locations, relative to the site, are shown in Figure 2 below. Generally, the majority of stormwater runoff generated by the site is captured by the permeable pavement systems and

routed to the UGSWMFs. The permeable pavement systems collect stormwater runoff from the proposed parking areas, building roof, and adjacent landscaping.

The Minnesota Stormwater Manual that states drainage area to permeable pavement area ratio should not exceed 2:1. The ratio may be increased to 5:1 if the permeable pavement is receiving roof runoff or has sufficient pre-treatment. The proposed permeable pavement systems were designed to meet the ratio guidance from the Minnesota Stormwater Manual. As mentioned, the UGSWMFs receive runoff from the permeable pavement systems, however, each UGSWMF receives runoff from parking lot areas that are not directed to the permeable pavement systems.

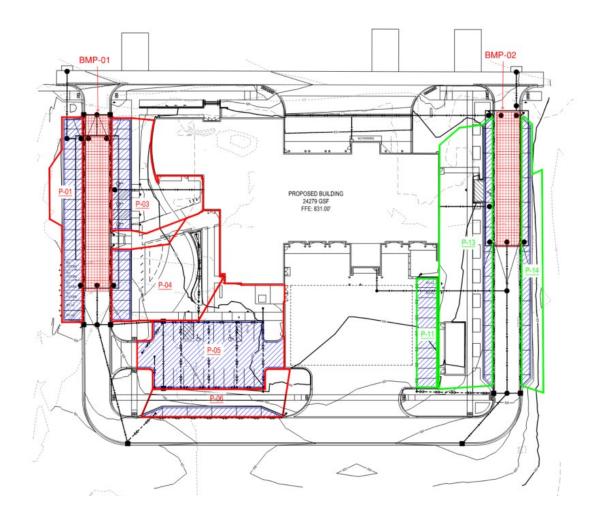


Figure 2. Stormwater Management Facility Locations. Areas hatched in blue represent permeable pavement systems and areas hatched in red represent the underground stormwater management facilities.

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 all collection points where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates at the two

collection points where stormwater discharge leaves the site. The existing and proposed 2-, 10- and 100-year frequency discharge rates from the site are summarized in the tables below.

Existing Conditions			
Location	2- year (c.f.s.)	10- year (c.f.s.)	100- year (c.f.s.)
To Wetland (to South)	19.3	29.9	53.4
To West 76 th Street (to North)	5.5	8.7	15.8
To 4175 West 76th Street (to East)	4.5	7.1	13.0
Total	29.3	45.7	82.2

Proposed Conditions			
Drainage Area	2- year (c.f.s.)	10- year (c.f.s.)	100- year (c.f.s.)
To Wetland (to South)	4.4	9.9	23.9
To West 76 th Street (to North)	<1.0	1.2	4.3
To 4175 West 76th Street (to East)	0	0	0
Total	5.1	11.1	28.2

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 9,676 cubic feet is required from the 105,558 square feet (2.42 acres) of regulated impervious surface, with a required area of 3,024 square feet. Boring B-1 and B-2 in the geotechnical report by American Engineering Testing, Inc identifies the soil within the area of the proposed UGSWMF and permeable pavement as primarily poorly graded sand (SP) from a depth of 2 feet below the surface to 40 feet below the surface. A design infiltration rate of 0.8 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 S	Summary
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Proposed Stormwater Management Facility	Required Volume Retention (cubic feet)	Provided Volume Retention (cubic feet)	Provided Infiltration Depth (feet)
BMP-01 (UGSWMF)	-	11,278	2.4
BMP-02 (UGSWMF)	-	10,419	1.5
PP-01	-	2,401	3.0
PP-03	-	1,235	3.0
PP-04	-	1,269	4.0
PP-05	-	7,696	3.0
PP-06	-	1,025	3.0

PP-11	-	1,981	3.0
PP-13	-	1,346	4.0
PP-14	-	1,037	3.0
Total	9,676	39,687	-

With the infiltration depths achieved for the stormwater management facilities, the systems draw down within the required 48-hours, complying with Rule 4.3.1a (ii).

Rule 4.5.4d (i) requires three feet of separation between the bottom of an infiltration facility and groundwater. Five soil borings were completed onsite by American Engineering Testing, Inc. The highest groundwater elevation encountered onsite was 818.4 M.S.L., identified within SB-3 documentation. The following table provides a comparison of the bottom elevation of the infiltration facilities relative to the highest elevation where groundwater was encountered onsite.

Proposed Stormwater Management Facility	Bottom Elevation of Facility M.S.L.	Groundwater Elevation M.S.L.	Separation Provided (feet)
BMP-01	822.0	818.4	3.6
BMP-02	823.0	818.4	4.6
PP-01	823.0	818.4	4.6
PP-03	823.0	818.4	4.6
PP-04	822.0	818.4	3.6
PP-05	824.3	818.4	5.9
PP-06	822.5	818.4	4.1
PP-11	825.0	818.4	6.6
PP-13	823.0	818.4	4.6
PP-14	824.0	818.4	5.6

The required three (3) feet of separation is provided between the bottom of the infiltration area and groundwater.

The district's water quality criterion requires 60% annual removal efficiency for total phosphorus (TP) and 90% annual removal efficiency for total suspended solids (TSS) from site runoff. A MIDS model was used to evaluate the annual removal efficiencies of TP and TSS provided by the proposed stormwater facilities. The results of this modeling are summarized in table below showing the annual TSS and TP removal requirements are achieved. The engineer agrees with the modeling results and the project is in conformance with Rule 4.3.1c criteria.

Pollutant of Interest	Regulated Site Loading (Ibs./year)	Required Load Removal (Ibs./year)	Provided Load Reduction (Ibs./year)
Total Suspended Solids (TSS)	1,169	1,052 (90%)	1,083 (93%)
Total Phosphorus (TP)	6.43	3.86 (60%)	4.98 (77%)

Annual TSS and TP Removal Summary

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 wetland and stormwater management facilities' 100-year high-water elevations are summarized in the table below.

Stormwater Management Facility or Water Body	Low Floor and Low Opening Elevation of Proposed Building (M.S.L.)	100-year Frequency Flood Elevation of Proposed Facility or Water Body (M.S.L.)	Low Floor and Low Opening Elevation Freeboard (feet)
BMP-01	831	824.7	6.3
BMP-02	831	825.9	5.1
PP-01	831	824.5	6.5
PP-03	831	826.3	4.7
PP-04	831	827.0	4.0
PP-05	831	825.2	5.8
PP-06	831	825.3	5.7
PP-11	831	825.6	5.4
PP-13	831	828.5	2.5
PP-14	831	827.1	3.9
Onsite Wetland	831	823.7	7.3

Low Floor Elevation Summary

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 for the UGSWMFs will be provided with sump manholes. Pretreatment of runoff will for the permeable pavement systems will primarily be provided by grass filter strips and sweeping and maintenance activities proposed to ensure the functionality of the system. The proposed project pretreatment methods comply with Rule 4.3.1a (i).

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 stormwater management facilities.

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 Stantec, Inc. includes installation of perimeter control (silt fence), stabilized rock construction entrances, and inlet protection.

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

Because the property owner is a public entity, no fees are charged.

Rules 2.0, 3.0, 4.0, and 5.0

12.0 Financial Assurances

Because the property owner is a public entity, the district's financial assurance requirements do not apply.

Sureties for the project are:

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 3.0, 4.0 and 5.0 with the fulfilment of the conditions identified below.
- 3. In accordance with NMCWD Rule 3.4.7, the wetland buffer must be documented by a declaration or other document approved by the district.
- 4. The proposed stormwater management facilities will provide volume retention, rate control, and water quality management in accordance with subsections 4.3.1a-c criteria.
- 5. 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.

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Recommendation

Approval, contingent upon:

Compliance with the General Provisions (attached).

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 3.4.7 and 4.3.5, submit a draft maintenance agreement for the operation and maintenance of the stormwater management facilities and wetland buffer. A draft of the agreement must be approved by the NMCWD.

The system invert elevation of BMP-2 identified on the utility plan does not appear to match the invert elevation identified on the utility plan table, HydroCAD modeling, and system detail. The utility plan callout for BMP-2 must be revised for consistency.

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 redevelopment of the site located at 4401 West 76th Street under the terms of Permit #2023-117 must have an impervious surface area and configuration materially consistent with the approved plans. 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.

In accordance with Rule 3.4.5, the buffer monumentations with the design and text approved by NMCWD are required at the limits of the wetland buffer on the site.

Per Rules 3.4.7 and 4.3.5, it is required to execute an agreement for the operation and maintenance of the proposed stormwater management facilities and wetland buffer. A public entity assuming the maintenance obligation may do so by filing with the district a document signed by an official with authority.

Per Rule 4.5.6, an as-built drawing of the stormwater management facilities conforming to the design specifications based on relevant surveyed information (e.g., system outlet, bottom of system, etc.) must be provided. A stage volume relationship in tabular form for the infiltration facilities, as approved by the district, must also be provided.

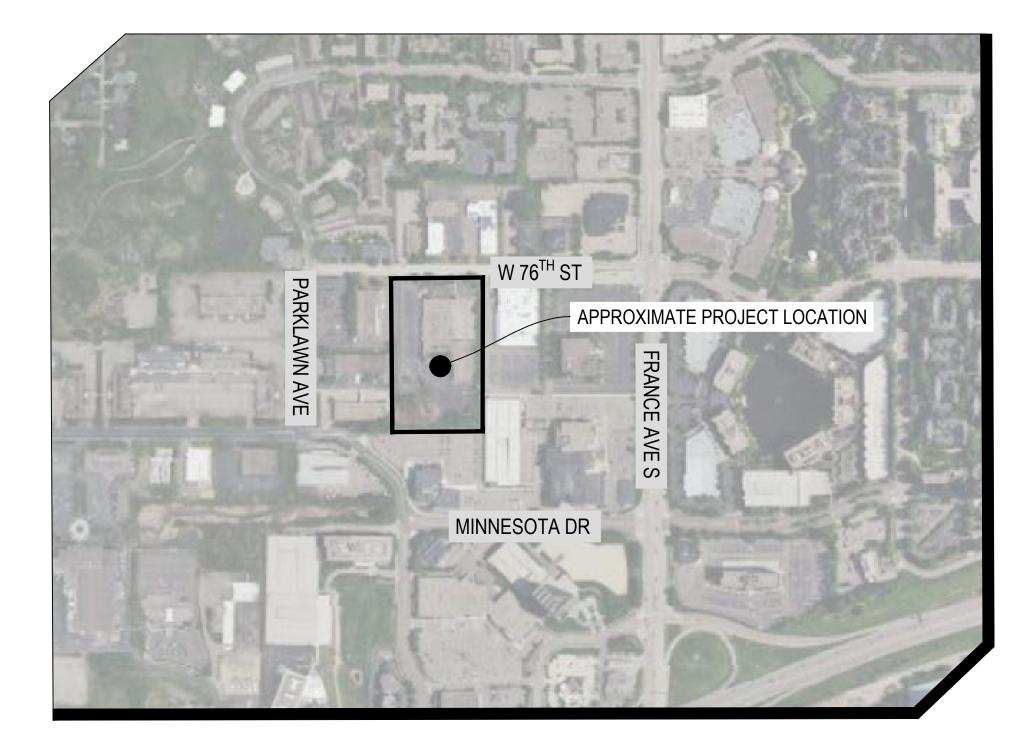
Per Rule 12.4.1b, demonstration and confirmation that the stormwater management facilities for volume retention have been constructed or installed and is functioning as designed and permitted. Verification, through daily observation logs and photographs, must be provided showing the stormwater management facilities used for volume retention have drawn down within 48 hours from the completion of two 1.0-inch (approximate) separate rainfall events for each of the stormwater management facilities.

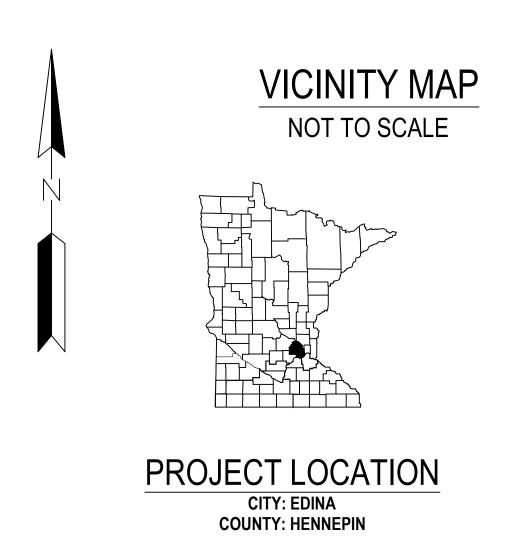


STANTEC CONSULTING SERVICES, INC. ENGINEER OF RECORD. JARED WARD, PE JARED.WARD@STANTEC.COM | 612-503-0797 PROJECT MANAGER. CLARK LOHR, CDT CLARK.LOHR@STANTEC.COM | 763-252-6839 PROJECT SURVEYOR. STEVEN HOUGH, PLS STEVE.HOUGH@STANTEC.COM | 763-479-4214

EDINA FIRE STATION 2 SITE CONSTRUCTION PLANS

HENNEPIN COUNTY, MINNESOTA 55435 DECEMBER 2023





THIS PLANSET CONTAINS 26 SHEETS

	SHEET INDEX
SHEET NUMBER	SHEET TITLE
G-001	COVER SHEET
G-002	GENERAL NOTES
C-001	EXISTING CONDITIONS
C-002	REMOVALS AND PRECONSTRUCTION EC PLAN
C-003	TREE PRESERVATION PLAN
C-004	TREE PRESERVATION PLAN
C-101	OVERALL SITE PLAN
C-102	SITE PLAN
C-201	OVERALL POST-CONSTRUCTION STABILIZATION PLAN
C-202	ENLARGED POST-CONSTRUCTION STABILIZATION PLAN
C-203	SWPPP
C-301	ENLARGED GRADING PLAN
C-302	OVERALL GRADING PLAN
C-401	UTILITY PLAN
C-501	STORM SEWER PLAN
C-801	DETAILS
C-802	DETAILS
C-803	DETAILS
C-804	DETAILS
C-805	DETAILS
C-806	DETAILS
C-807	DETAILS
C-808	DETAILS
C-809	DETAILS
C-810	DETAILS
C-811	DETAILS

WARNING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND/OR RELOCATION OF LINES.

THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

GOPHER STATE ONE CALL TWIN CITY AREA: 651-454-0002 TOLL FREE 1-800-252-1166



Architecture Interior Design Landscape Architecture Engineering

222 North Second Street Long & Kees Bldg Suite 101 Minneapolis, MN 55401 612.339.3752

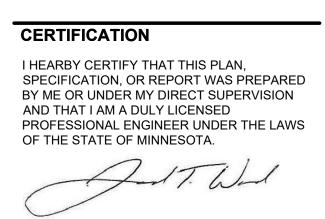
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CONSULTANTS





ISSUE #	DATE	DESCRIPTION
	11/16/2023	100% CD
	12/06/2023	WATERSHED RESUBMITTAL



NAME: JARED T. WARD, P.E. LICENSE NUMBER: <u>48677</u> <u>11/16/2023</u>

SHEET NUMBER

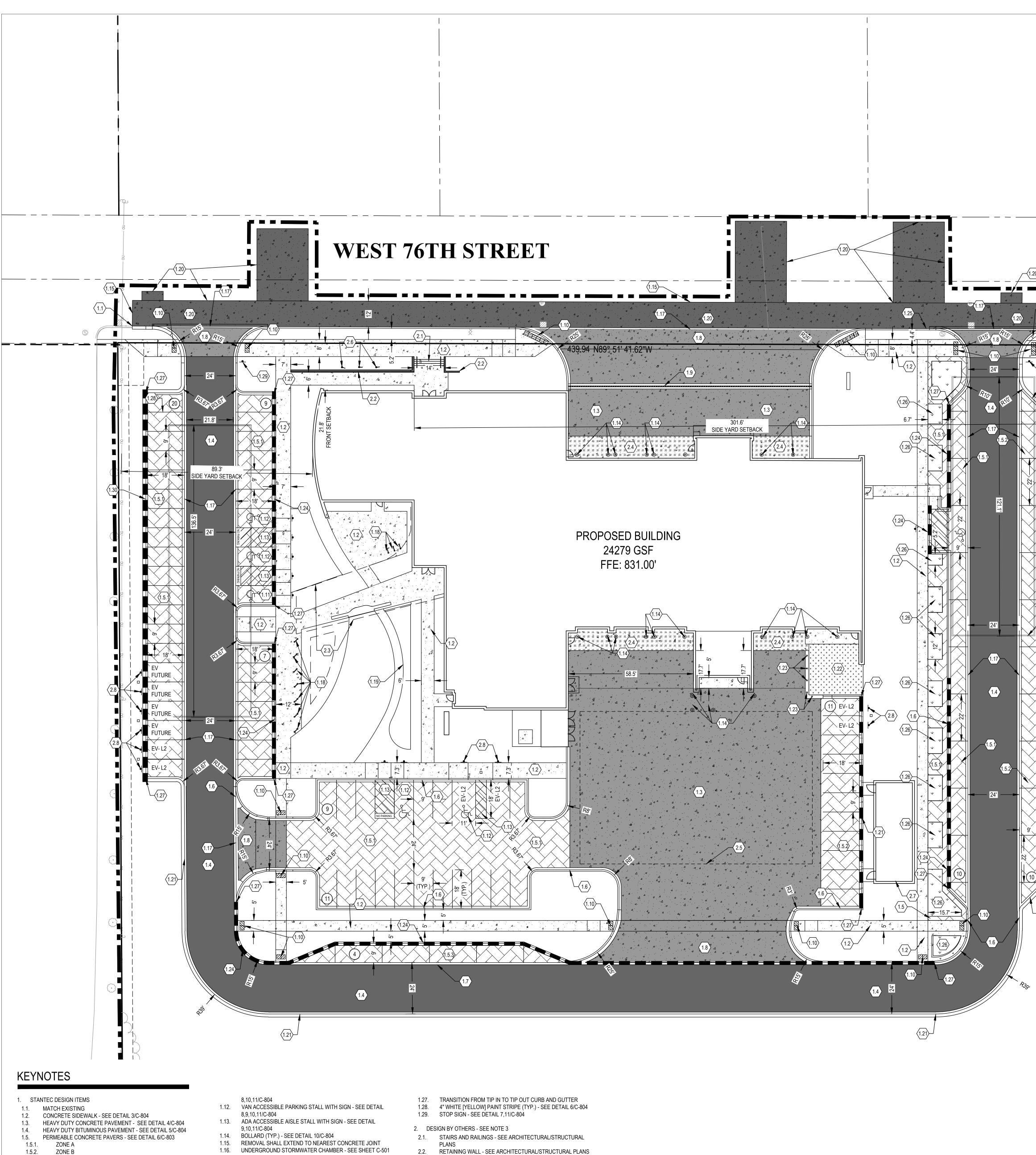
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DRAWN BYYMKCHECKED BYCDLCOMMISSION NUMBER193806025SHEET TITLE

COVER SHEET

G-001

HEY SHALL ES. DVANCE FOI ER BURIED



1.5.3.

1.7.

1.10.

ZONE C

415/C-801

5,6/C-810

1.6. B612 CURB AND GUTTER - SEE DETAIL 1/C-806

RIBBON CURB - SEE DETAIL 4/C-806

1.8. CONCRETE DRIVEWAY APRON - SEE STANDARD PLATE

1.9. SLOTTED DRAIN - SEE SLOTTED DRAIN STANDARD DETAILS

1.11. ADA ACCESSIBLE PARKING STALL WITH SIGN - SEE DETAILS

AND SLOTTED DRAIN BACKFILL DETAIL SHEET C-810

PEDESTRIAN CURB RAMP WITH DETECTABLE WARNING

STRIP- SEE STANDARD PLAN 5-297.250 SHEET 1-4/C-809;

2.3. BUILDING CANOPY - SEE ARCHITECTURAL/STRUCTURAL

2.4. HEATED CONCRETE - SEE MECHANICAL PLANS EXTENT OF GEOTHERMAL SYSTEM - SEE MECHANICAL PLANS

LEVEL 2 EV CHARGER - SEE MEP PLANS. OWNER TO PROVIDE

SIGNS. CONTRACTOR TO PROVIDE BOLLARD, POST AND HARDWARE PER 11/C-804

PLANS

FLAG POLE

GENERATOR

2.5.

2.6.

2.7.

2.8.

1.17. VALLEY GUTTER - SEE DETAIL 2/C-804

1.19. STORMWATER DEMONSTRATION AREA - SEE DETAIL 6/C-803

1.20. CONCRETE ROADWAY REPAIR - SEE STANDARD PLATE

1.24. TIP OUT B612 CURB AND GUTTER - SEE DETAIL 2/C-806

1.25. TIP OUT SURMOUNTABLE CURB - SEE DETAIL 6/C-806

1.18. BIKE HITCH - SEE LANDSCAPE PLAN

500/C-801 AND 545/C-806

1.21. SURMOUNTABLE CURB - SEE DETAIL 3/C-806

1.23. 6" REMOVABLE BOLLARD - SEE DETAIL 12/C-804

1.22. ARTIFICIAL TURF - SEE LANDSCAPE PLANS

1.26. PLANTER BEDS - SEE LANDSCAPE PLANS

GRAPH 20 0	IIC SCALE 20 40
1 inc	FEET) h = 20 ft.
	PROPERTY BOUNDARY
	LOT LINE
	EASEMENT LINE
	SETBACK LINE
	RIGHT OF WAY LINE
	SECTION LINE
	QUARTER LINE
	EXISTING EASEMENT LINE
	EXISTING PROPERTY LINE
	CURB AND GUTTER
	ROAD CENTERLINE
	EXTENT OF GEOTHERMAL SYSTEM
	HEAVY DUTY BITUMINOUS PAVEMENT
4	HEAVY DUTY CONCRETE PAVEMENT - PUBLIC ROAD
A	CONCRETE SIDEWALK
A	PRIVATE SITE HEAVY DUTY CONCRETE PAVEMENT
	PERMEABLE PAVING
4 Å ü ü ü ü ü ü ü ü ü ü ü ü ü ü ü ü	CONCRETE PAVEMENT WITH SNOW MELT SYSTEM
$\begin{array}{c} * & * & * & * & * & * & * & * & * & * $	ARTIFICIAL TURF
\frown	RETAINING WALL BY OTHERS
(#)	PROPOSED PARKING COUNT
	TIP OUT CURB AND GUTTER
ψ ψ ψ ψ	PLANTER BEDS

NOTES

- 1. SEE SHEET G-002 FOR ADDITIONAL PROJECT NOTES AND
- PROJECT MANUAL FOR ADDITIONAL SPECIFICATIONS
- 2. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED
- 3. DESIGN BY OTHERS ITEMS SHOWN FOR REFERENCE ONLY. FOR EXACT LOCATION, DETAIL, AND DESIGN BY OTHERS, COORDINATE WITH PROJECT PARTNERS TO OBTAIN RELATED CONSTRUCTION DOCUMENTS/DRAWINGS

	SITE ANALYS	IS TABLE				
ADDRESS	4401 7	4401 76TH STREET WEST, EDINAMN, 55435				
EXISTING ZONING	PIC)-PLANNED INDUST RIAL DIS	TRICT			
PROPOSED ZONING		PUD				
PROPOSED USE	CRITICAL FACILIT	CRITICAL FACILITIES - COMMUNITY HEALTH AND SAFETY CENTER				
	LOT AREA SU	MMARY				
LOT NUMBER	TOTAL AREA (AC.)	IMPERVIOUS AREA (AC.)	PERMOUS AREA (AC.			
EXISTING PARCEL SUMMARY	8.02	5.73	2.29			
PROPOSED USE (use)	8.02	2.47	5.55			
	BUILDING SU	MMARY				
LOT NUMBER	BUILDING FOOT PRINT (SF)	GROSS FLOOR AREA (SF)	#OF STORIES			
PROPOSED USE (use)	24,279	N/A	2			
	PARKING SUI	MMARY				
TOTAL PARKING	REQUIRED	PROPOSED				
TOTAL PARKING		87				
ACCESSIBLE PARKING		4				
STREET PARALLEL PARKING		22				

NOTES: *REFER TO ARCHITECTURAL PLAN FOR BUILDING AREA CALCULATIONS

TABLE 2

_ _ _ _ _ _ _ _ _

PERMEABLE	AGGREGATE
PAVEMENT SYSTEM	DEPTH BELOW
ZONE	UNDERDRAIN (FT)
A	3.0
В	2.0
С	2.5

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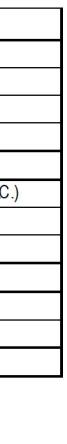
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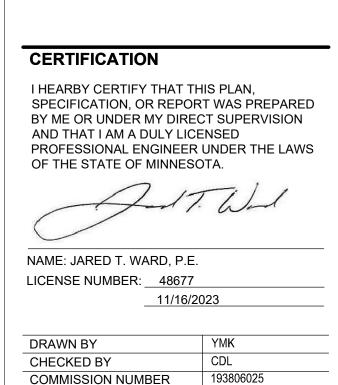
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ISSUE #	DATE	DESCRIPTION
	11/16/2023	100% CD
	12/06/2023	WATERSHED RESUBMITTAL

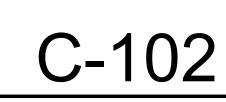


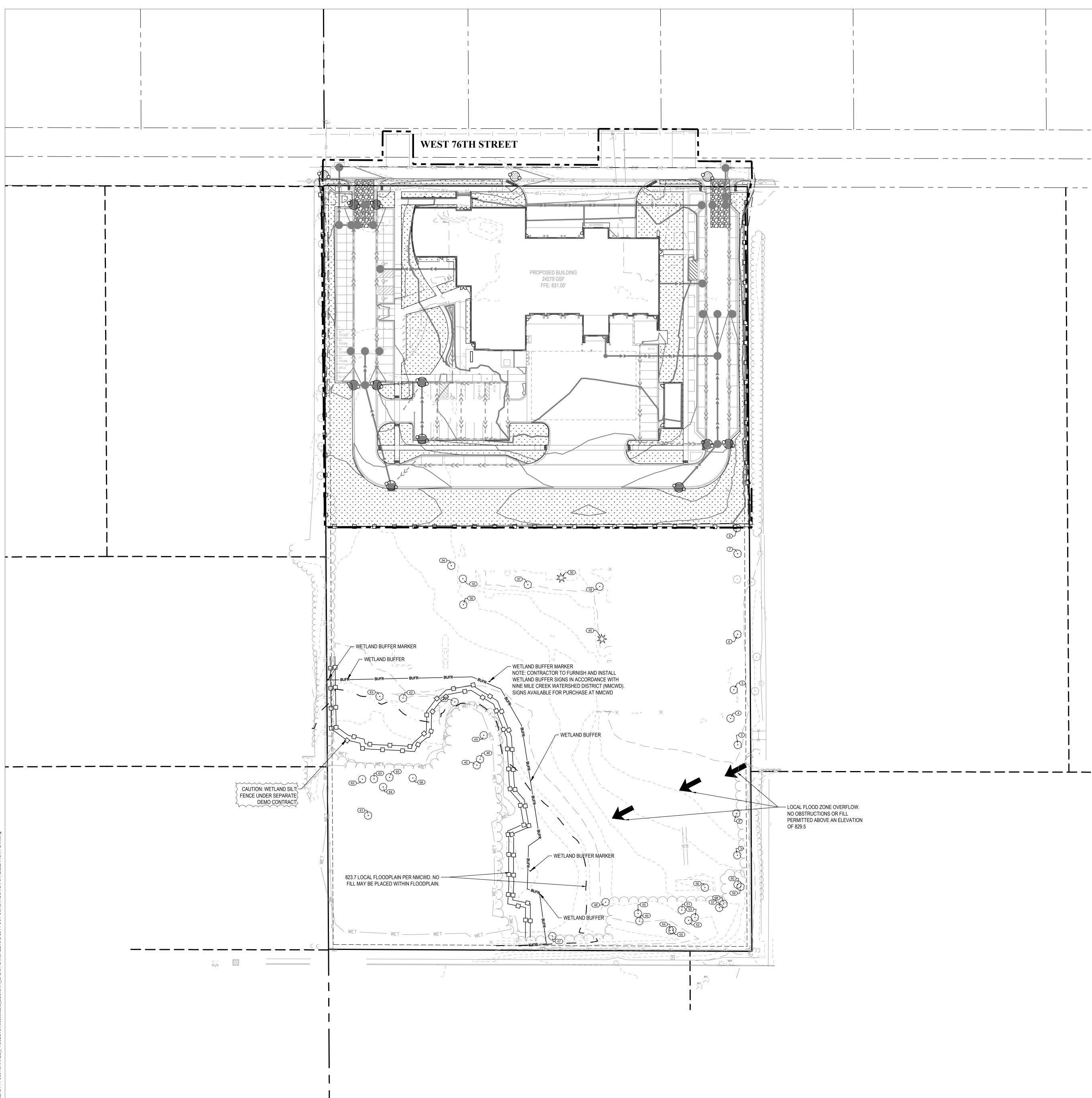


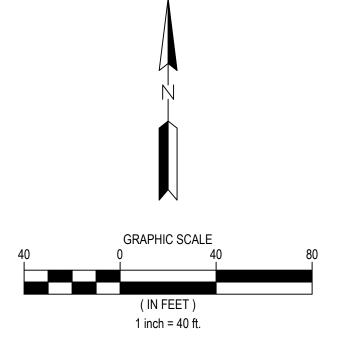
SHEET TITLE SITE PLAN

SHEET NUMBER

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	PROPERTY BOUNDARY
	LOT LINE
	EASEMENT LINE
	SETBACK LINE
	RIGHT OF WAY LINE
	SECTION LINE
	QUARTER LINE
	EXISTING EASEMENT LINE
	EXISTING PROPERTY LINE
901	EXISTING MINOR CONTOUR
<u> </u>	EXISTING MAJOR CONTOUR
901	PROPOSED MINOR CONTOUR
900	PROPOSED MAJOR CONTOU
· · ·	GRADING LIMITS
	CONSTRUCTION LIMITS
60606060606	ROCK CONSTRUCTION EXIT
	PERMANENT STABILIZATION
	RIPRAP
	SILT FENCE
	INLET PROTECTION
$\overline{\bigtriangledown}$	CULVERT PROTECTION
$\overline{(\overline{\bigcirc)}}$	TREE PROTECTION

ING EASEMENT LINE ING PROPERTY LINE ING MINOR CONTOUR

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NOTES

- 1. SEE SHEET G-002 FOR ADDITIONAL PROJECT NOTES AND PROJECT
- MANUAL FOR ADDITIONAL SPECIFICATIONS. 2. SEE EXISTING STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ISSUED WITH SITE DEMOLITION CONTRACT DOCUMENTS. CONTRACTOR SHALL ASSUME RESPONSIBILITY OF EXISTING SWPPP AND COORDINATE TRANSFER OF THE NPDES CONSTRUCTION
- STORMWATER PERMIT PRIOR TO COMMENCING WORK. 3. CONSTRUCTION SITE SHALL HAVE STABILIZED EXIT AT ALL TIME THROUGHOUT THE DURATION OF THE PROJECT. CONTRACTOR IS ULTIMATELY RESPONSIBLE TO PROTECT DOWNSTREAM WATERS
- FROM CONSTRUCTION RUNOFF. 4. CONSTRUCTION LIMITS AND SILT FENCE SHOWN OFF SET FROM
- PROPERTY LINE FOR CLARITY WHEN APPLICABLE. 5. SOD SHALL BE INSTALLED IN THE BOULEVARD ADJACENT TO CURB AND GUTTER - SEE LANDSCAPE ARCHITECT PLAN

KEYNOTES

- 1. INLET PROTECTION SEE DETAIL 4/C-803 2. SILT FENCE - SEE DETAIL 1/C-803
- 3. ROCK CONSTRUCTION ENTRANCE SEE DETAIL 3/C-803
- 4. EROSION CONTROL BLANKET SEE DETAIL 2/C-803
- 5. BIOROLL SEE DETAIL 5/C-803

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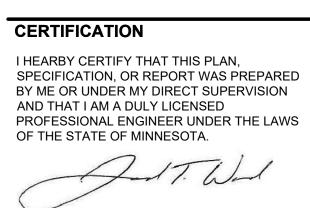
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ISSUE #	DATE	DESCRIPTION
	11/16/2023	100% CD
	12/06/2023	WATERSHED RESUBMITTAL



NAME: JARED T. WARD, P.E. LICENSE NUMBER: 48677 _____11/16/2023

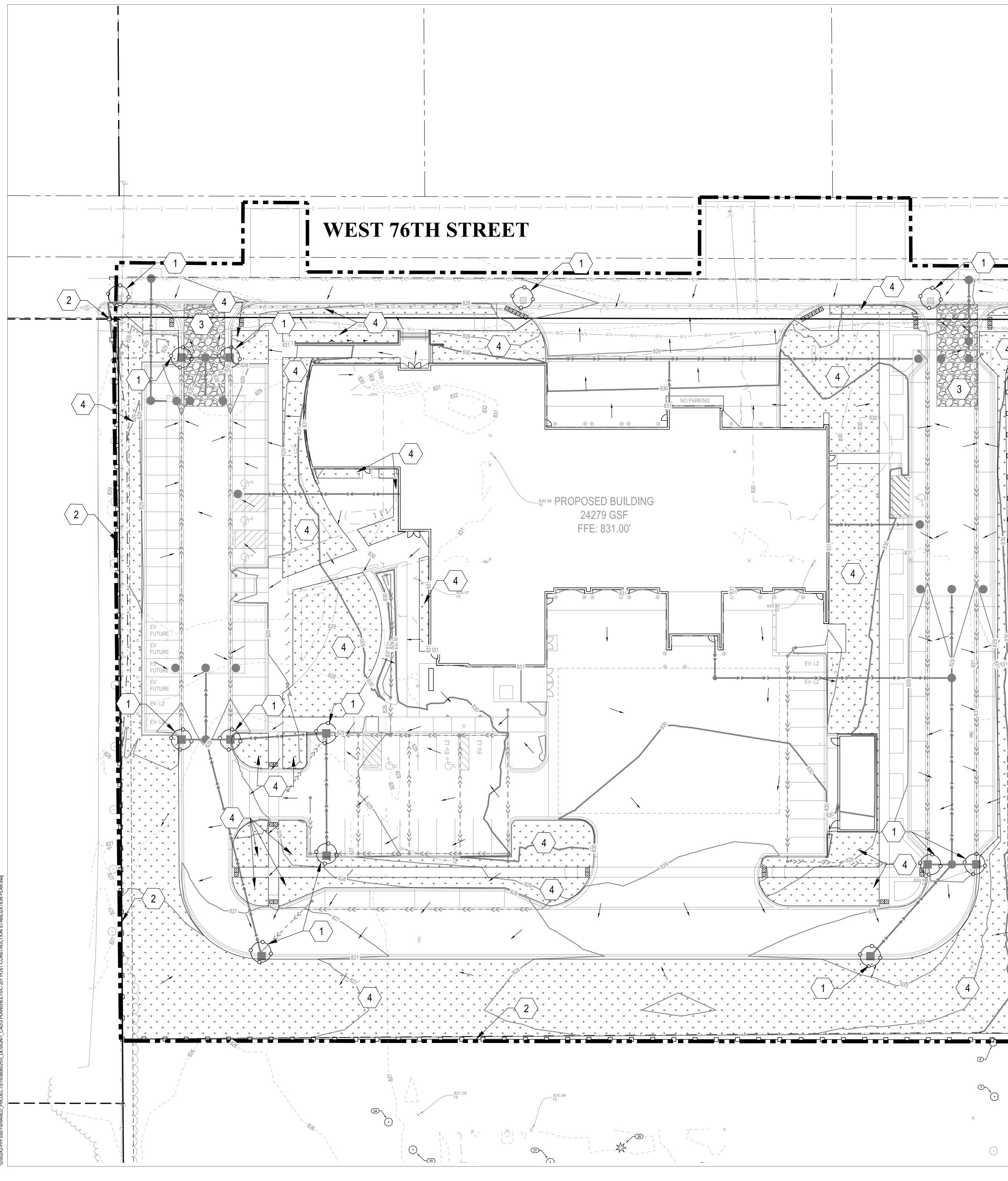
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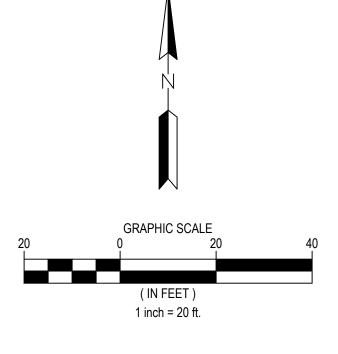
OVERALL POST-CONSTRUCTION STABILIZATION PLAN

C-201

SHEET NUMBER

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	PROPERTY BOUNDARY
	LOT LINE
	EASEMENT LINE
	SETBACK LINE
	RIGHT OF WAY LINE
	SECTION LINE
	QUARTER LINE
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<u> </u>	EXISTING MAJOR CONT
901	PROPOSED MINOR CON
900	PROPOSED MAJOR CON
· · ·	GRADING LIMITS
	CONSTRUCTION LIMITS
60606060606	ROCK CONSTRUCTION
	PERMANENT STABILIZA
	RIPRAP
	SILT FENCE
	INLET PROTECTION
)]	CULVERT PROTECTION

EASEMENT LINE SETBACK LINE **RIGHT OF WAY LINE** SECTION LINE QUARTER LINE EXISTING EASEMENT LINE EXISTING PROPERTY LINE EXISTING MINOR CONTOUR EXISTING MAJOR CONTOUR PROPOSED MINOR CONTOUR PROPOSED MAJOR CONTOUR GRADING LIMITS

CONSTRUCTION LIMITS ROCK CONSTRUCTION EXIT

> PERMANENT STABILIZATION RIPRAP

TREE PROTECTION

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- AND GUTTER SEE LANDSCAPE ARCHITECT PLAN

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KEYNOTES

- 1. INLET PROTECTION SEE DETAIL 4/C-803 2. SILT FENCE - SEE DETAIL 1/C-803
- 3. ROCK CONSTRUCTION EXIT SEE DETAIL 3/C-803
- 4. PERMANENT STABILIZATION

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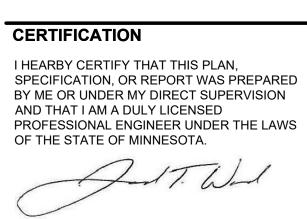
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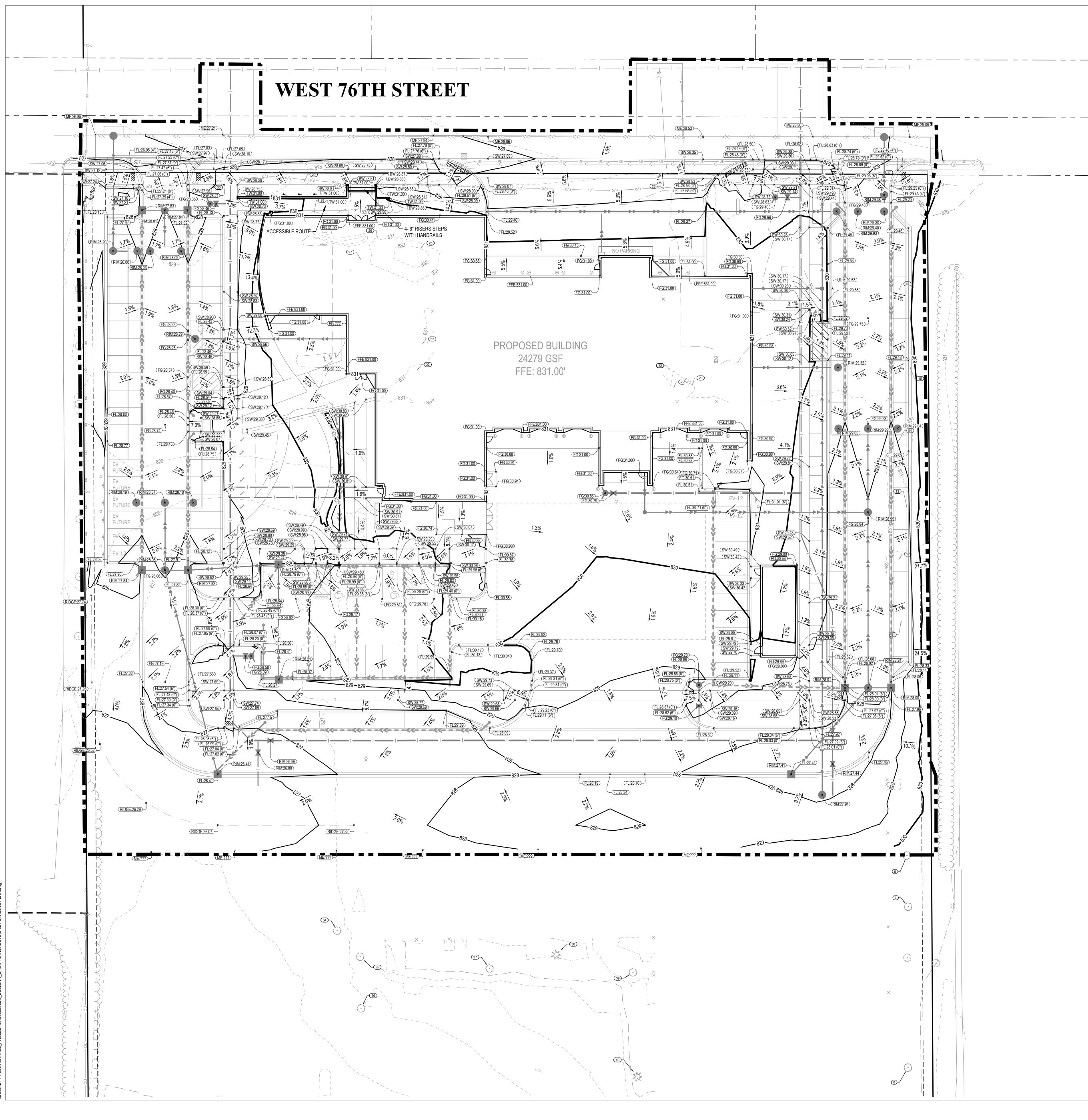
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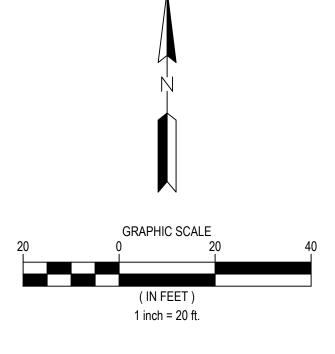
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ENLARGED POST-CONSTRUCTION STABILIZATION PLAN

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(ME=9XX.XX)×	MATCH
(<u>SW=9XX.XX</u>)—*	SIDEW
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PERTY BOUNDARY INE EMENT LINE BACK LINE T OF WAY LINE FION LINE RTER LINE TING EASEMENT LINE TING PROPERTY LINE TING STORM SEWER TING SANITARY SEWER TING WATERMAIN POSED MINOR CONTOUR POSED MAJOR CONTOUR DING LIMITS STRUCTION LIMITS V LINE ELEVATION HED GRADE ELEVATION CH EXISTING ELEVATION WALK ELEVATION WALK ELEVATION WALK ELEVATION D INCH CURB FLOWLINE ELEVATION D INCH CURB FLOWLINE ELEVATION FACE GRADE & FLOW DIRECTION FACE SLOPE (H:V) & FLOW DIRECTION RM SEWER TARY SEWER ERMAIN RM MANHOLE RM CATCH BASIN TARY MANHOLE HYDRANT

NOTES

1. SEE SHEET G-002 FOR ADDITIONAL PROJECT NOTES AND PROJECT MANUAL FOR ADDITIONAL SPECIFICATIONS.

GATE VALVE

- 2. CONTRACTOR MUST IMMEDIATELY NOTIFY THE OWNER AND ENGINEER IN WRITING OF DISCREPANCIES OR CONFLICTS IN THE CONTRACT DOCUMENTS BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS ARE TO BE MADE WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER. FAILURE TO NOTIFY OWNER AND ENGINEER OF AN IDENTIFIABLE CONFLICT BEFORE PROCEEDING WITH INSTALLATION RELIEVES OWNER AND ENGINEER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.
- 3. CONTRACTOR TO PROVIDE BUILDING WATERPROOFING AT ALL BUILDING SURFACES ADJACENT TO RAISED GRADE ABOVE FFE. COORDINATE WITH ARCHITECT PRIOR TO CONSTRUCTION.

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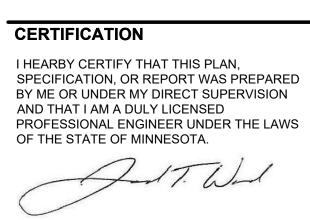
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	12/06/2023	WATERSHED RESUBMITTAL



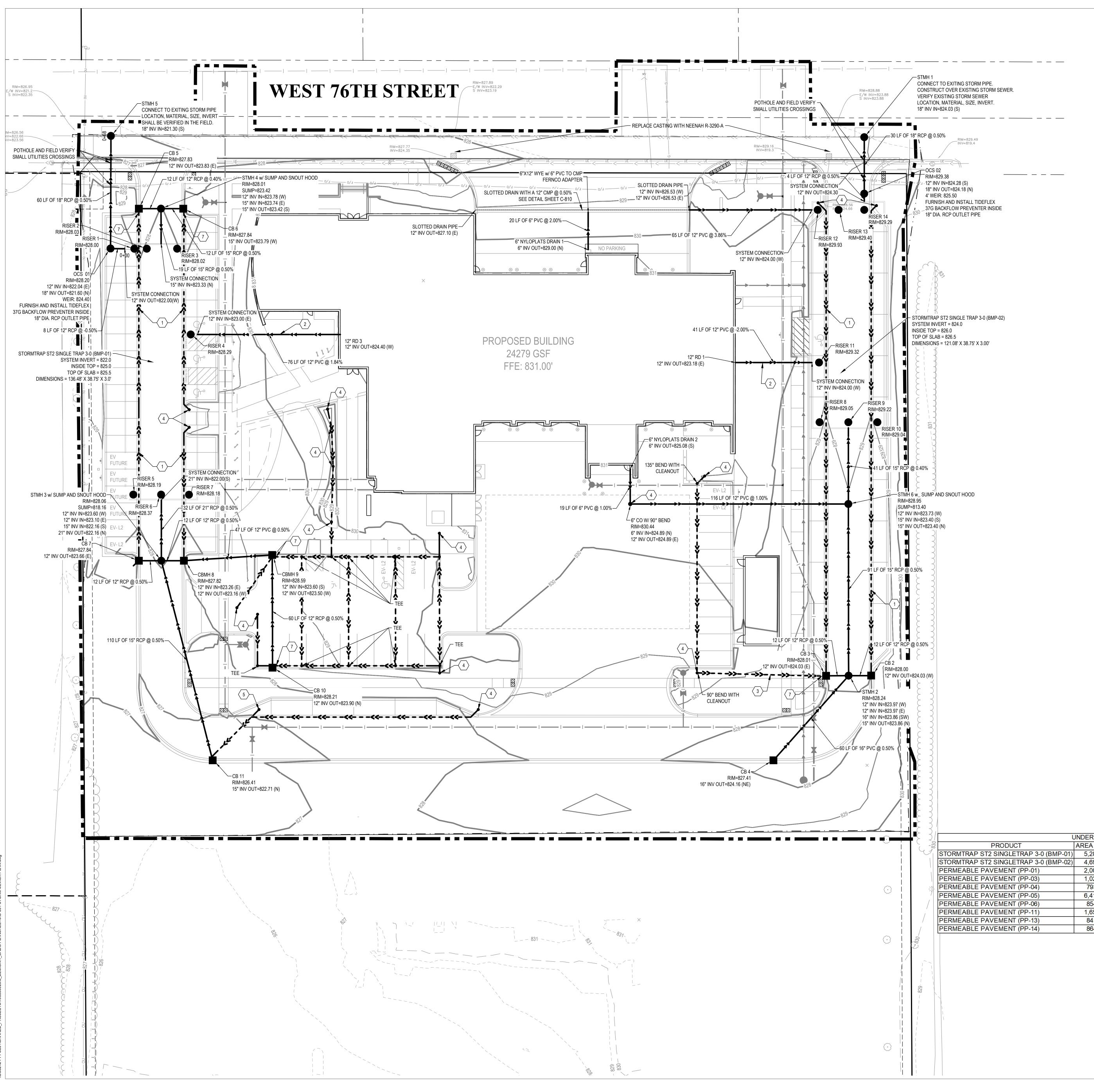
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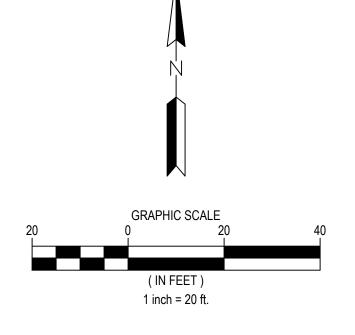
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ENLARGED **GRADING PLAN**

.......







	PROPERTY BOUNDARY
	LOT LINE
	EASEMENT LINE
	SETBACK LINE
	RIGHT OF WAY LINE
	EXISTING EASEMENT LINE
	EXISTING PROPERTY LINE
901	EXISTING MINOR CONTOUR
<u> </u>	EXISTING MAJOR CONTOUR
901	PROPOSED MINOR CONTOUR
900	PROPOSED MAJOR CONTOUR
· · ·	GRADING LIMITS
	STORM SEWER
\longrightarrow	SANITARY SEWER
S S	SANITARY SERVICE
	WATERMAIN
\bullet	STORM MANHOLE
	STORM CATCH BASIN
Y	FLARED END SECTION
•	STORM CLEANOUT

KEYNOTES

- 1. 4" PERFORATED PVC DRAINTILE TO MATCH SLOPE OF ROAD. BURY DEPTH 1.75' BELOW FINISHED GROUND - SEE DETAIL 8/C-803
- 2. ROOF DRAIN CONNECT DIRECTLY INTO STORMTRAP 3. 4" PERFORATED PVC - 0.5% MIN. SLOPE WHERE NOT FOLLOWING

<u></u>

- ROAD GRADE 4. 4" PVC CLEAN-OUT WITH CAP - SEE DETAIL STANDARD PLATE
- 305, SHEET C-801
- 5. 4" PVC CLEAN-OUT WITH CAP & R-7506 NEENAH CASTING OR FORD A-1 METER BOX AND COVER PER DETAIL STANDARD PLATE 305/C-801 IN PAVED AREAS
- 6. 6" PVC CLEAN-OUT WITH CAP SEE DETAIL STANDARD PLATE 305, SHEET C-801 7. CONNECT DRAINTILE TO STRUCTURE

STORM STRUCTURE SCHEDULE					
		DETAIL			
STRUCTURE ID	SIZE^	STRUCTURE	CASTING*		
STMH 1	48" Ø	DETAIL 7/C-803	R-1377		
STMH 2	84" Ø	DETAIL 1/C-804	R-1377		
STMH 3	60" Ø	DETAIL 1/C-804	R-1377		
STMH 4	60" Ø	DETAIL 1/C-804	R-1377		
STMH 5	48" Ø	DETAIL 7/C-803	R-1377		
OCS 01	48" Ø	DETAIL 2/C-805	R-1377		
OCS 02	48" Ø	DETAIL 2/C-805	R-1377		
CBMH 1	48" Ø	STANDARD PLATE 235/ C-805	R-3067-V		
CB 2	3' X 2'	STANDARD PLATE 220/ C-802	R-3501-TL		
CB 3	3' X 2'	STANDARD PLATE 220/ C-802	R-3067-V		
CB 4	3' X 2'	STANDARD PLATE 220/ C-802	R-3501		
CB 5	3' X 2'	STANDARD PLATE 220/ C-802	R-3501-TL		
CBMH 6	48" Ø	STANDARD PLATE 235/ C-805	R3067-V		
CB 7	3' X 2'	STANDARD PLATE 235/ C-805	R-3501-TR		
CBMH 8	48" Ø	STANDARD PLATE 230/ C-802	R-3067-V		
CBMH 9	48" Ø	STANDARD PLATE 235/ C-805	R-3067-VB		
CB 10	3' X 2'	STANDARD PLATE 220/ C-802	R-3067-VB		
CB 11	3' X 2'	STANDARD PLATE 220/ C-802	R-3501-TL		

^ STRUCTURE SIZES ARE APPROXIMATE. PRECAST MANUFACTURER TO CONFIRM SIZES AND ADJUST AS NECESSARY, PRIOR TO BID OPENING * NEENAH OR APPROVED EQUAL

21	UNDERGROUND INFILTRATION SYSTEM SUMMARY TABLE						
830	PRODUCT	AREA (SF)	WQV REQUIRED (CF)	WQV PROVIDED (CF)	TOTAL VOLUME (CF)	INVERT	100-YR
1	STORMTRAP ST2 SINGLETRAP 3-0 (BMP-01)	5,289	3,236	11,278	14,098	822.0	824
	STORMTRAP ST2 SINGLETRAP 3-0 (BMP-02)	4,692	3,298	10,419	12,503	823.0	825
	PERMEABLE PAVEMENT (PP-01)	2,001	309	2,401	3,932	823.0	824
	PERMEABLE PAVEMENT (PP-03)	1,029	307	1,235	2,063	823.0	826
北	PERMEABLE PAVEMENT (PP-04)	793	362	1,269	1,790	822.0	827
7	PERMEABLE PAVEMENT (PP-05)	6,413	748	7,696	11,114	824.25	825
/	PERMEABLE PAVEMENT (PP-06)	854	154	1,025	1,480	822.5	825
	PERMEABLE PAVEMENT (PP-11)	1,651	151	1,981	2,861	825.0	825
	PERMEABLE PAVEMENT (PP-13)	841	385	1,346	2,212	823.0	828
	PERMEABLE PAVEMENT (PP-14)	864	204	1,037	1,919	824.0	827

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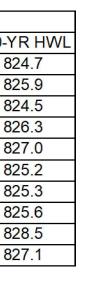
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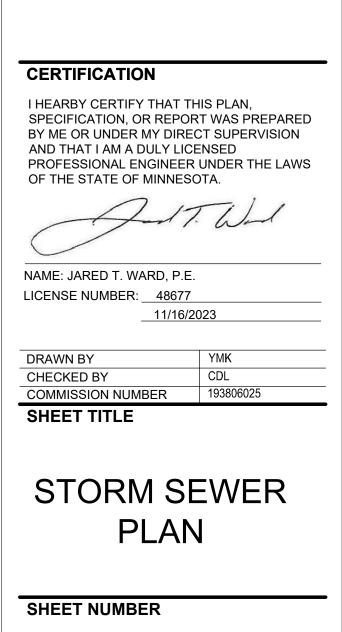
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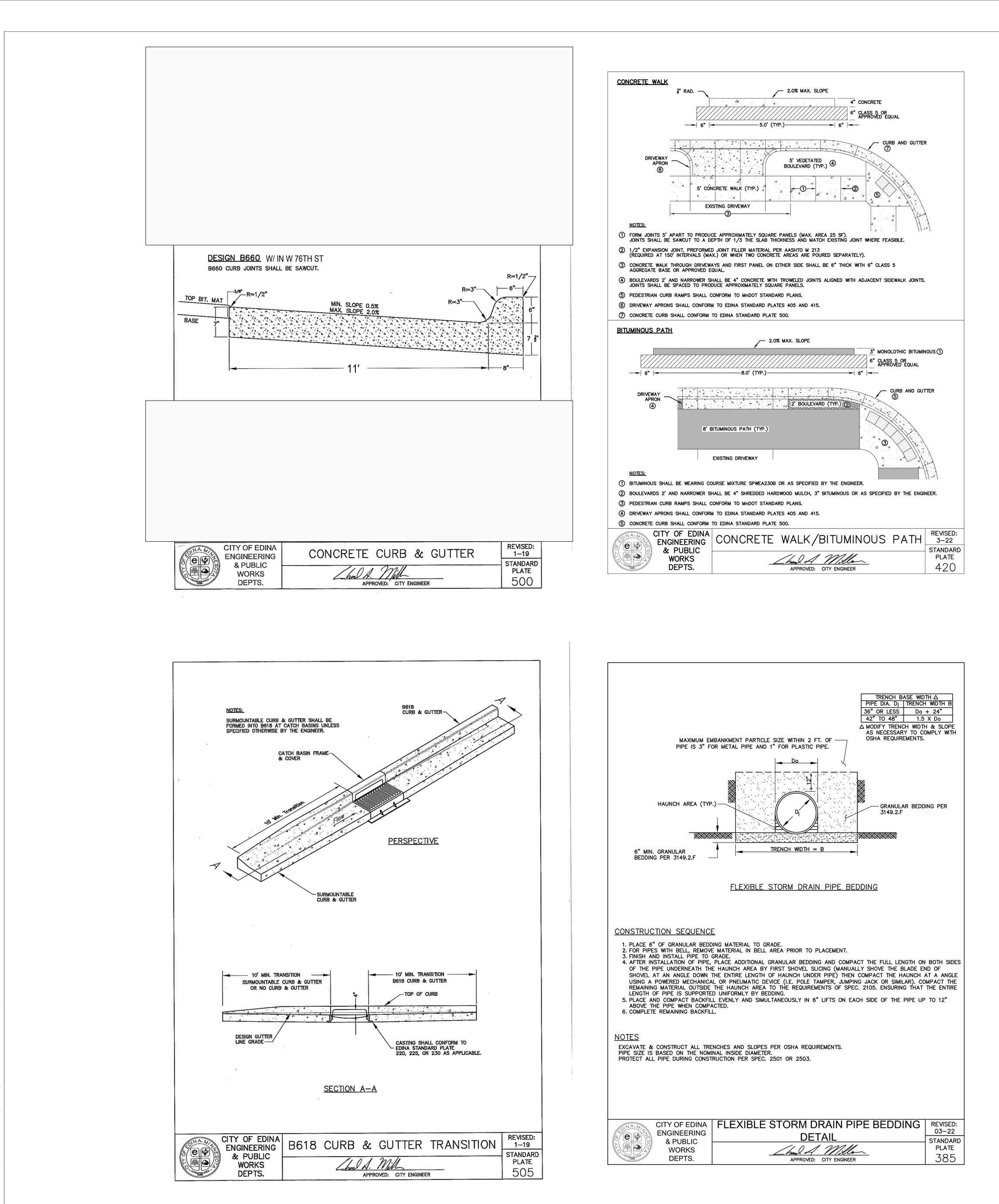
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	12/06/2023	WATERSHED RESUBMITTAL

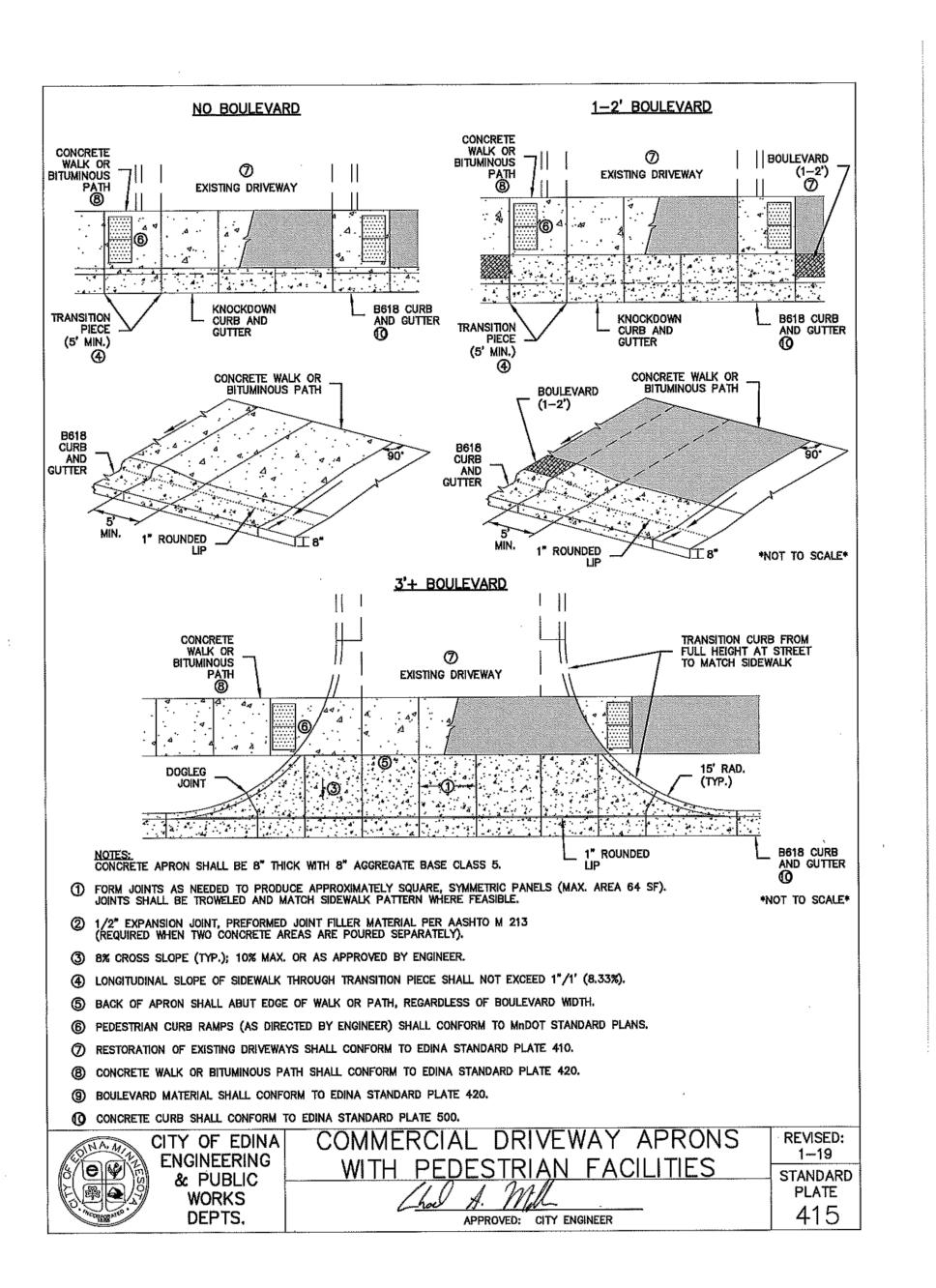


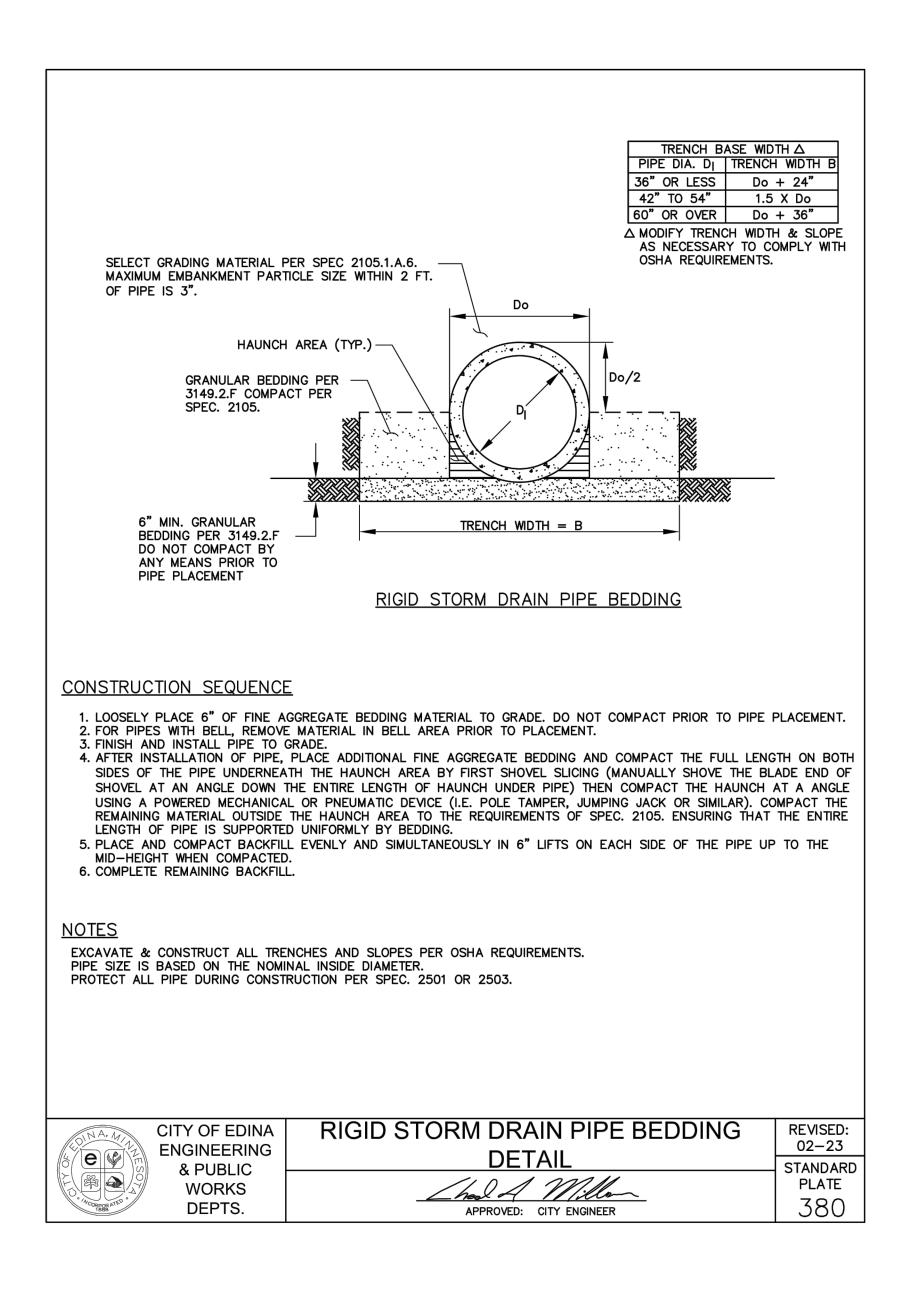


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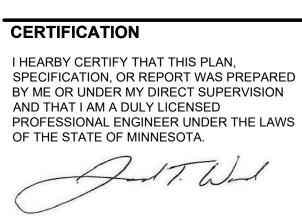
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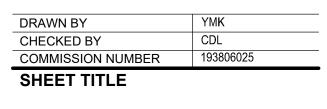




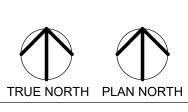
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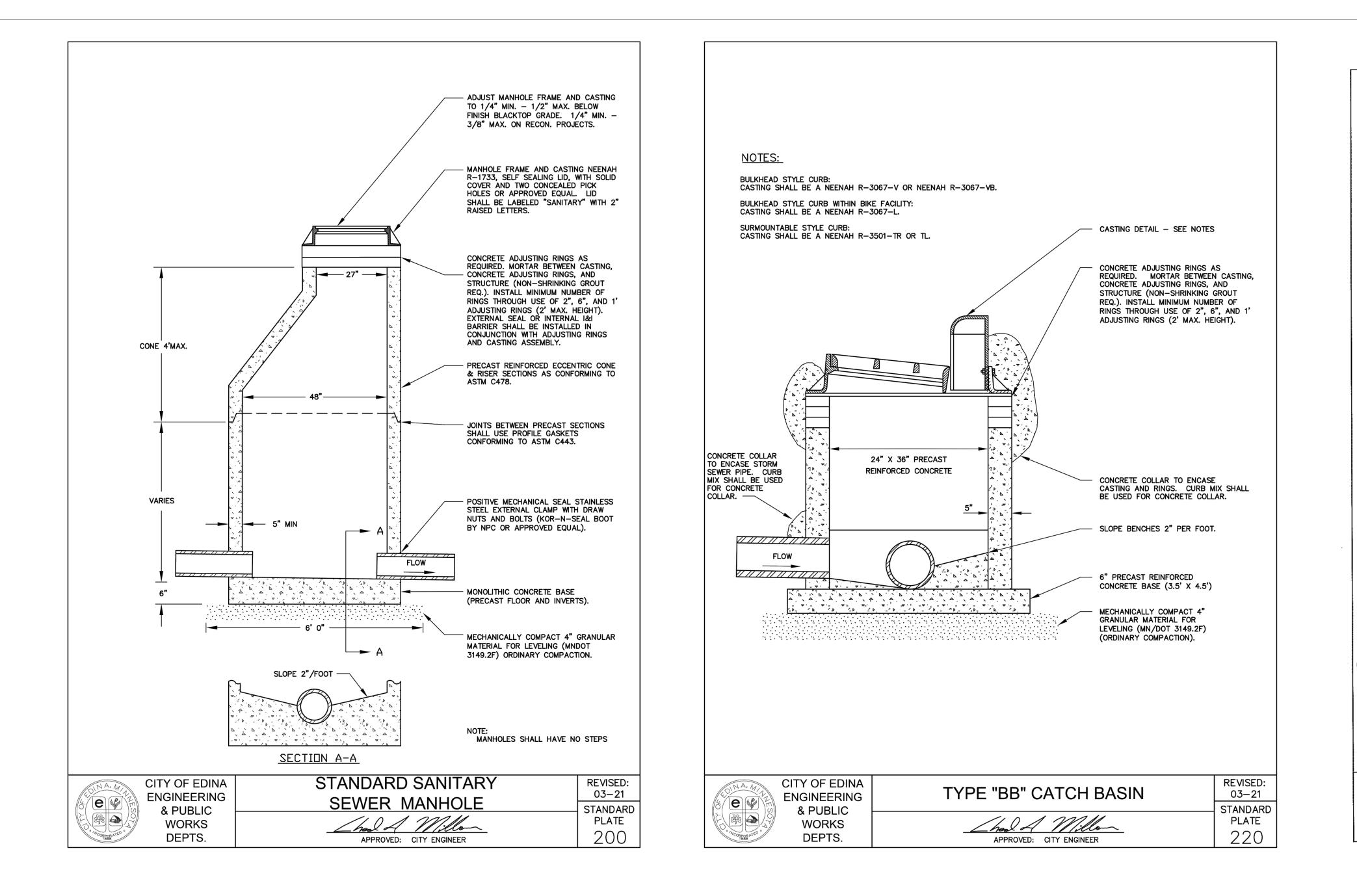


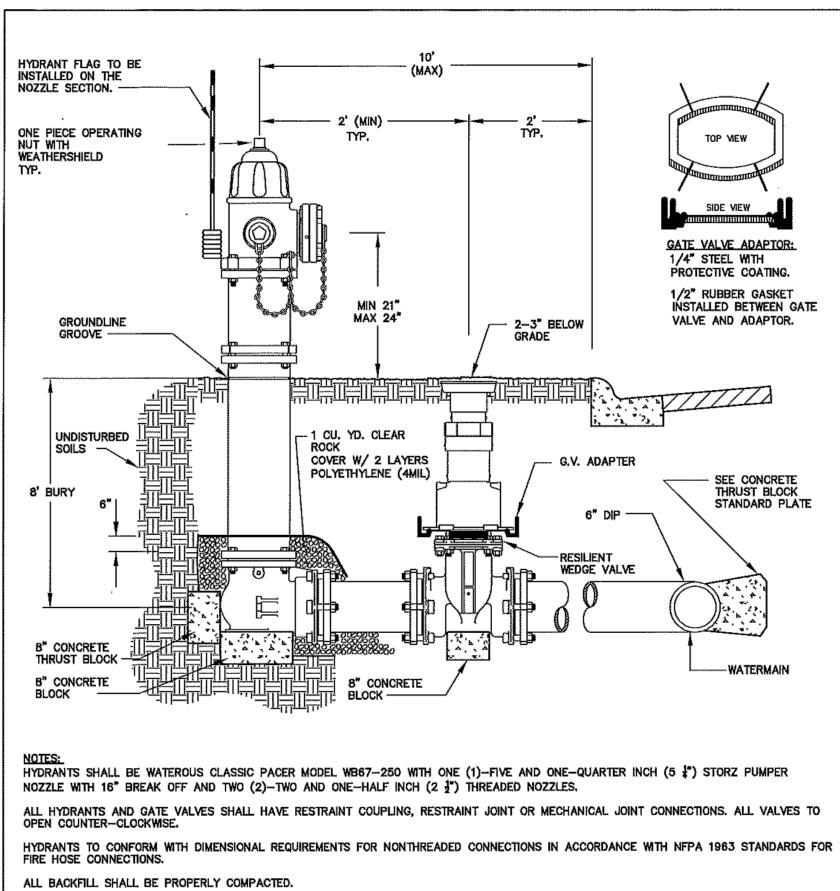
DETAILS





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2 CANDYCANE STYLE FLAGS PER HYDRANT (ONE INSTALLED, ONE TO EDINA PUBLIC WORKS).

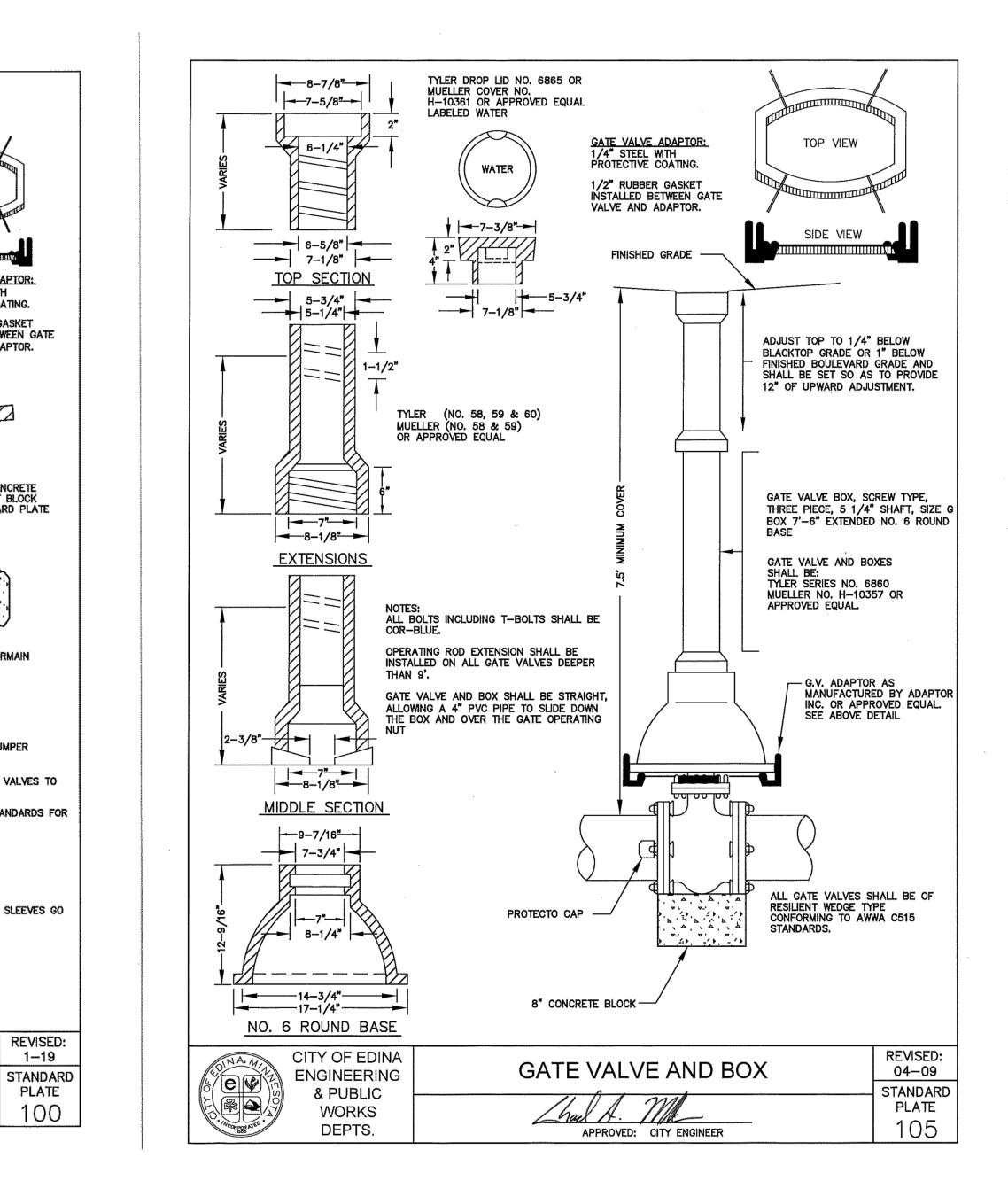
A ONE-PIECE HEAVY DUTY OPERATING VALVE ROD IS REQUIRED ON HYDRANTS THAT ARE EXTENDED 24" OR MORE. WHEN INSTALLING A HYDRANT ROD EXTENSION, THE NONBREAKABLE COUPLING SLEEVES GO ON THE BOTTOM AND THE BREAKABLE SLEEVES GO ON THE TOP OF THE EXTENSION ROD.

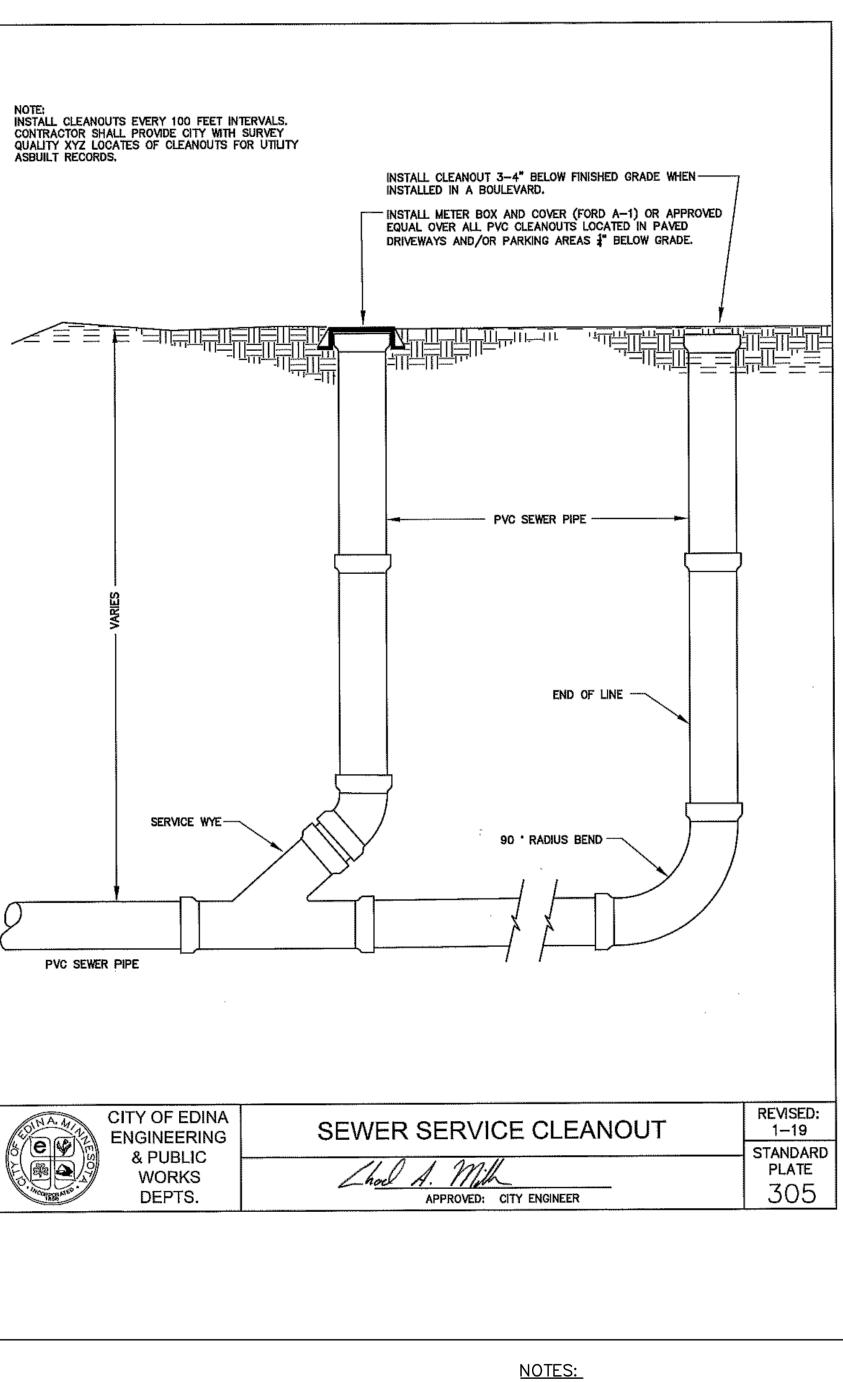
FIRE HYDRANTS SHALL BE PAINTED RED AT THE FACTORY.

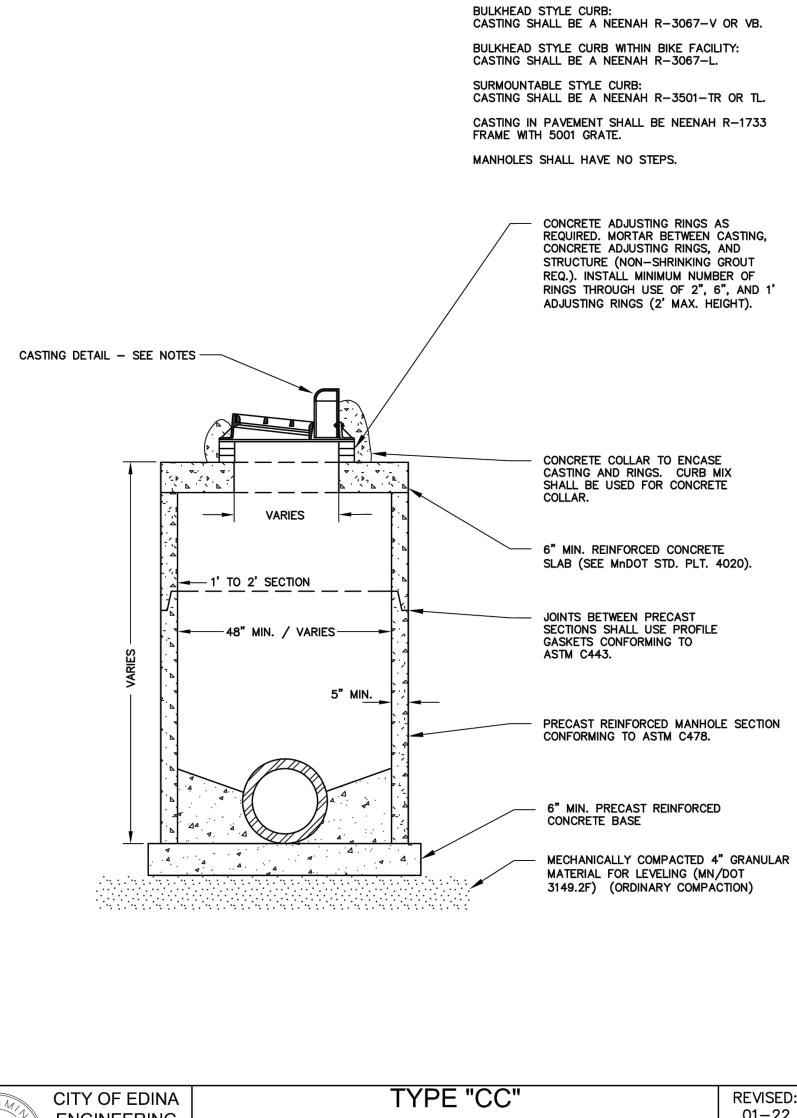
POLYWRAP ALL PIPE AND FITTINGS, MEGA LUG ALL FITTINGS, INCLUDE CORROSION PROTECTION AT EACH JOINT. ALL HYDRANTS SHALL BE INSTALLED WITH STORZ NOZZLE PERPENDICULAR TO ROADWAY.

WEEP HOLE TO REMAIN OPEN.

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		CATCH BASIN MANHOLE	STANDARD
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· /WCORPORATED ·	DEPTS.	APPROVED: CITY ENGINEER	230





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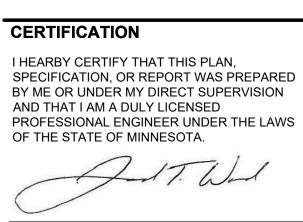
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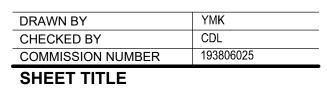




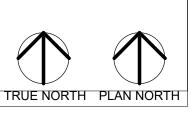
ISSUE #	DATE	DESCRIPTION
	11/16/2023	100% CD
	12/06/2023	WATERSHED RESUBMITTAL



NAME: JARED T. WARD, P.E. LICENSE NUMBER: 48677 11/16/2023

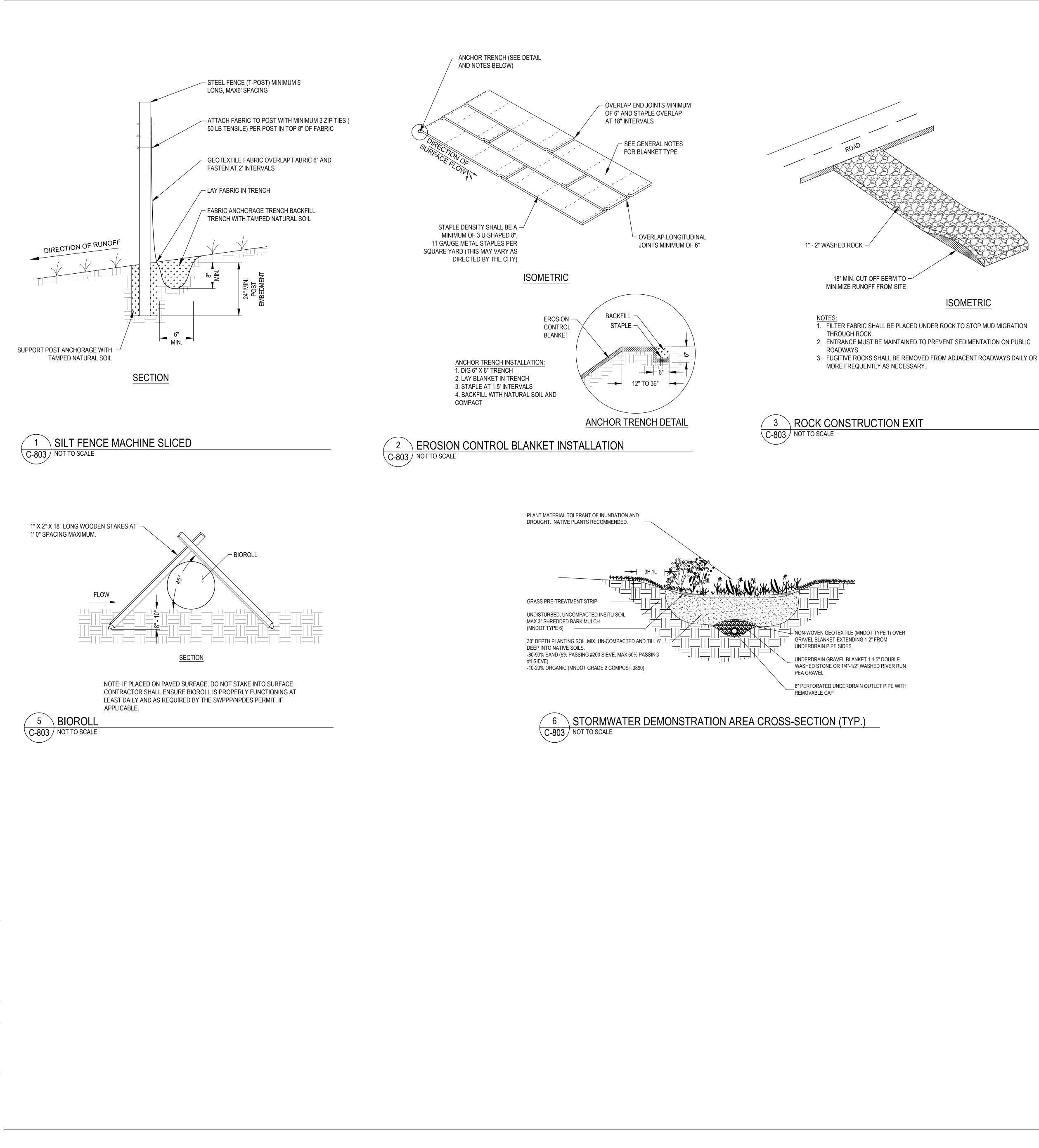


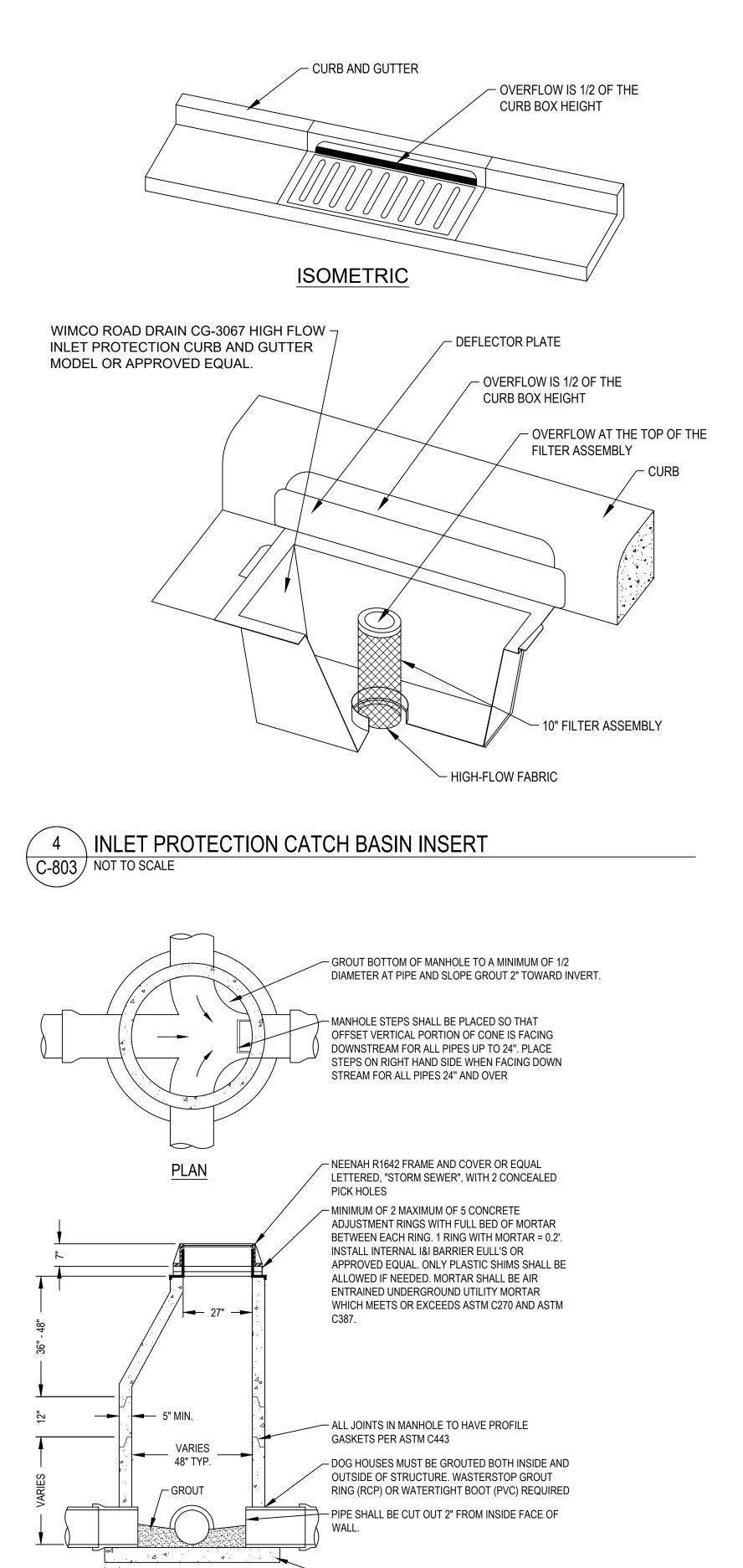
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- MINIMUM SLAB THICKNESS 6" FOR STRUCTURES 14'

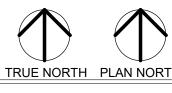
IN DEPTH OR LESS. INCREASE THICKNESS 1" FOR

EACH ADDITIONAL 4' OF DEPTH, AND REINFORCE IN ACCORDANCE OF MNDOT STANDARD PLATE 4011E.

STORM SEWER JUNCTION MANHOLE C-803 / NOT TO SCALE

SECTION

→ 3" **→**





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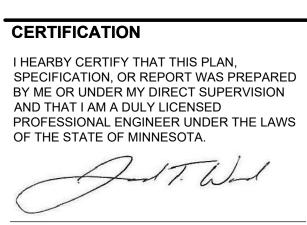
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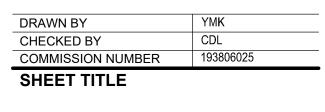




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NAME: JARED T. WARD, P.E. LICENSE NUMBER: 48677 _____11/16/2023______

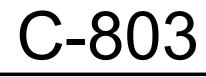


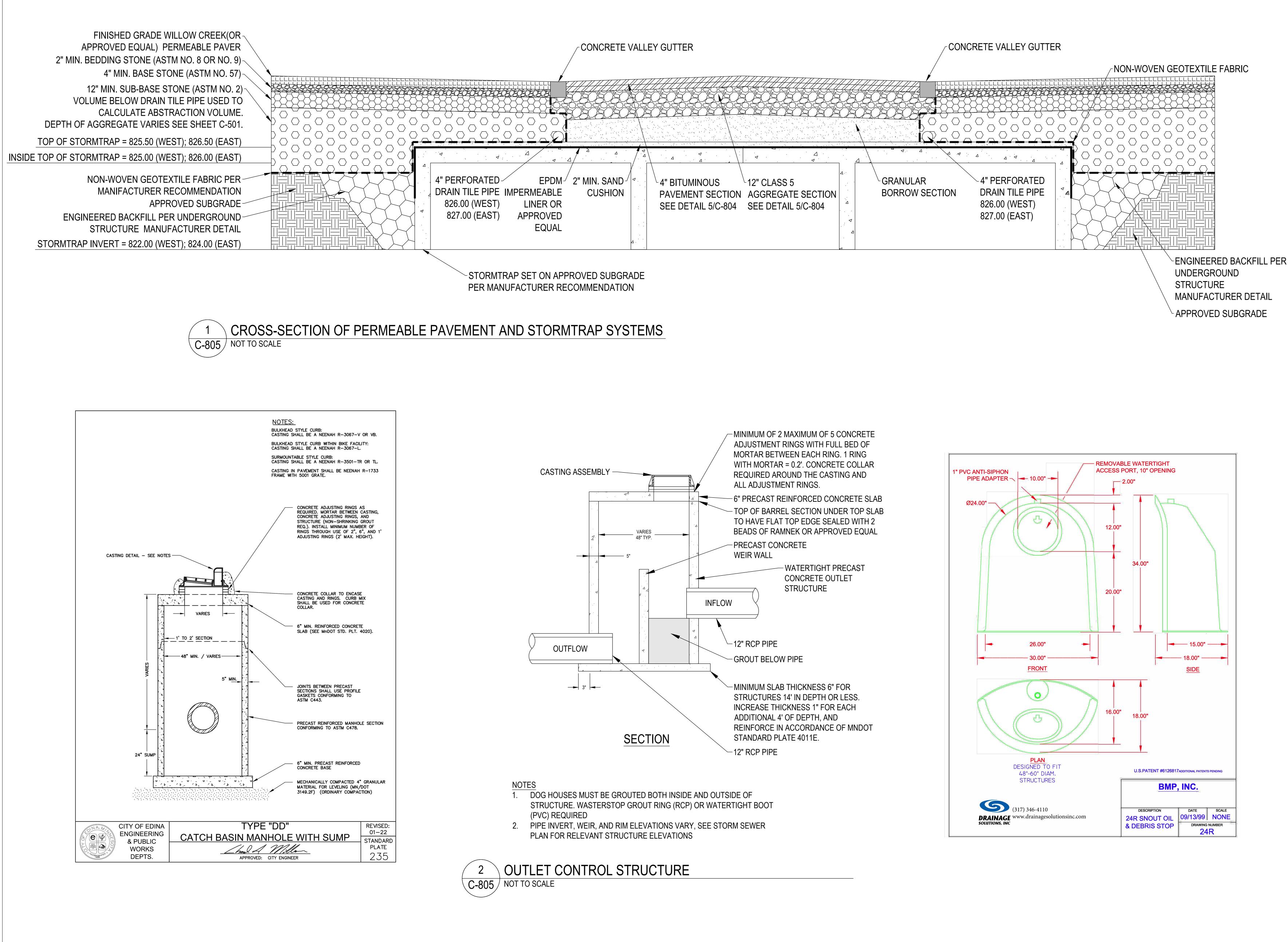
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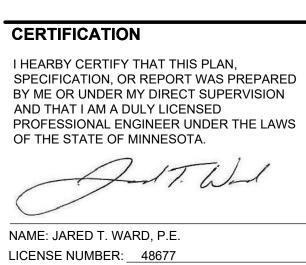
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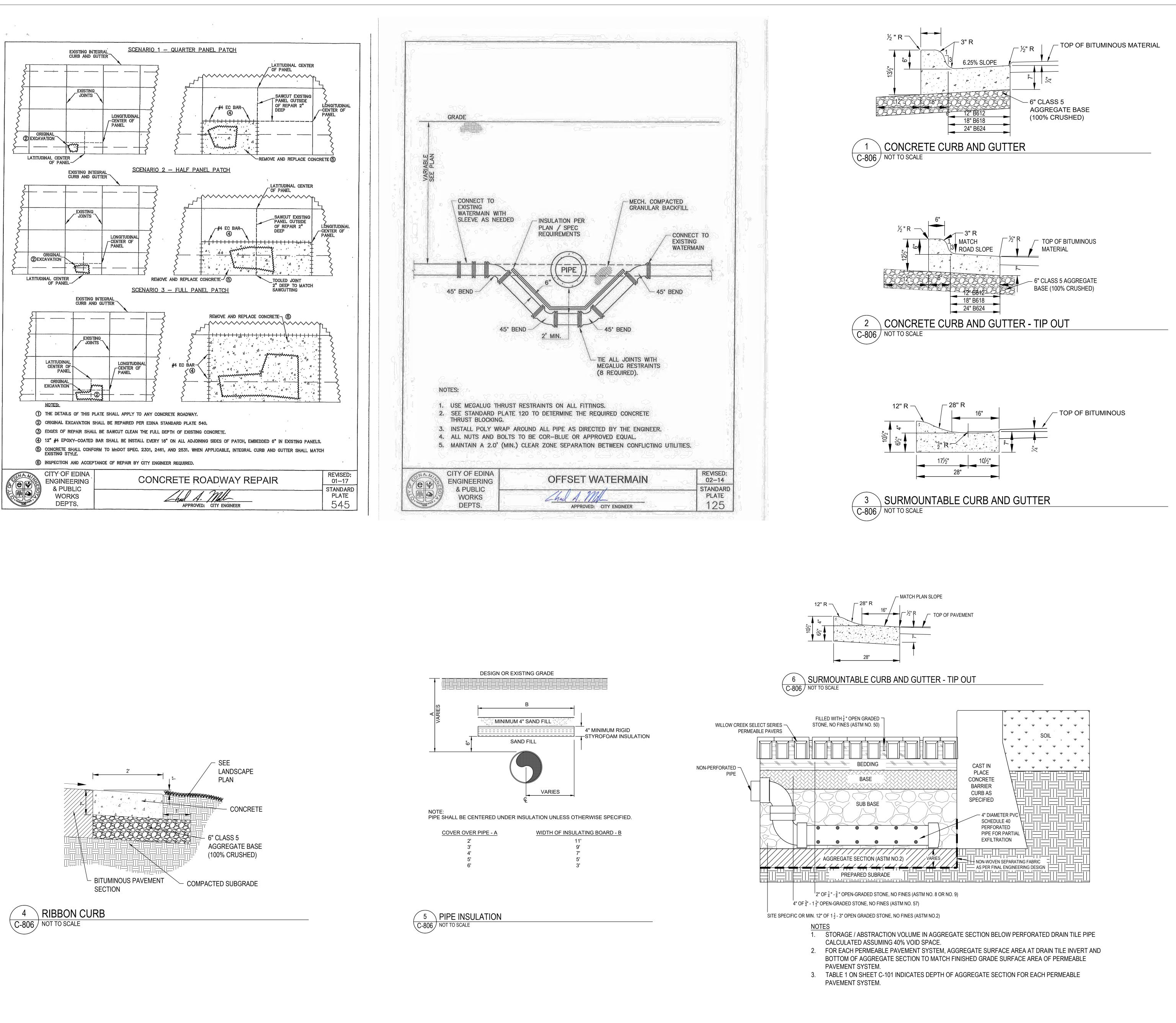
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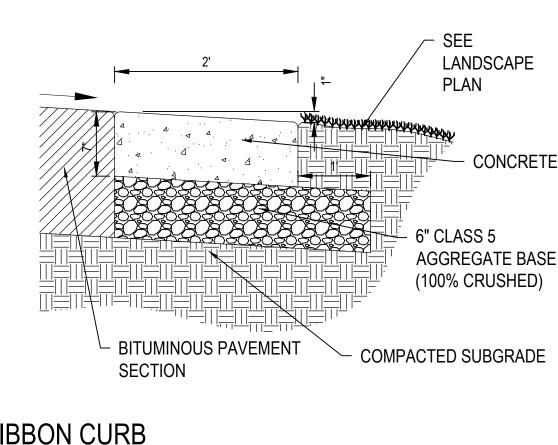


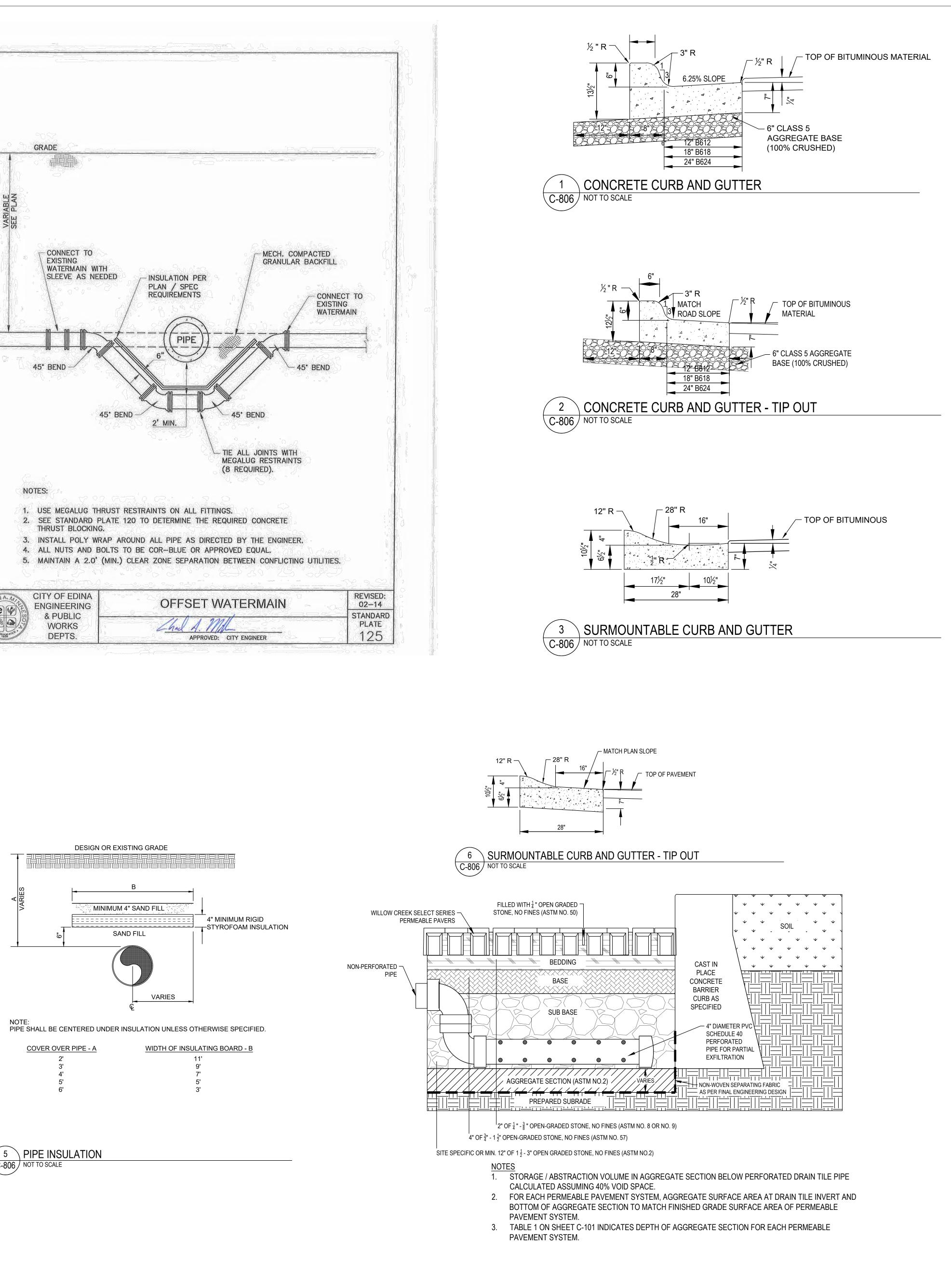
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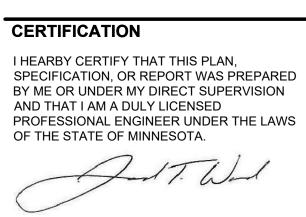
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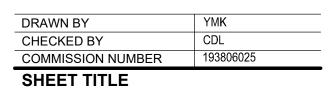




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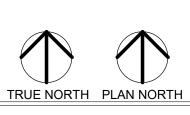


NAME: JARED T. WARD, P.E. LICENSE NUMBER: 48677 _____11/16/2023______



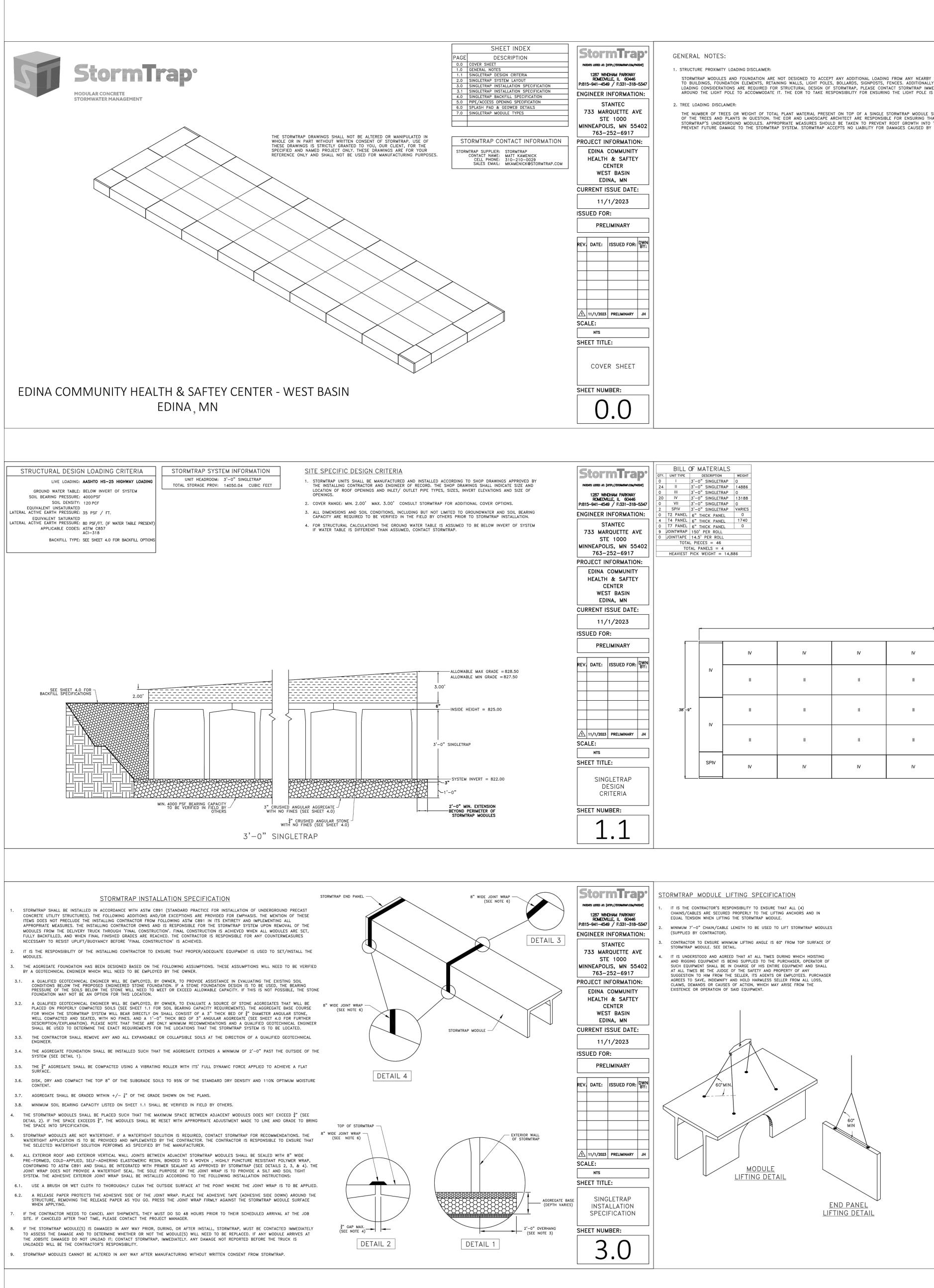
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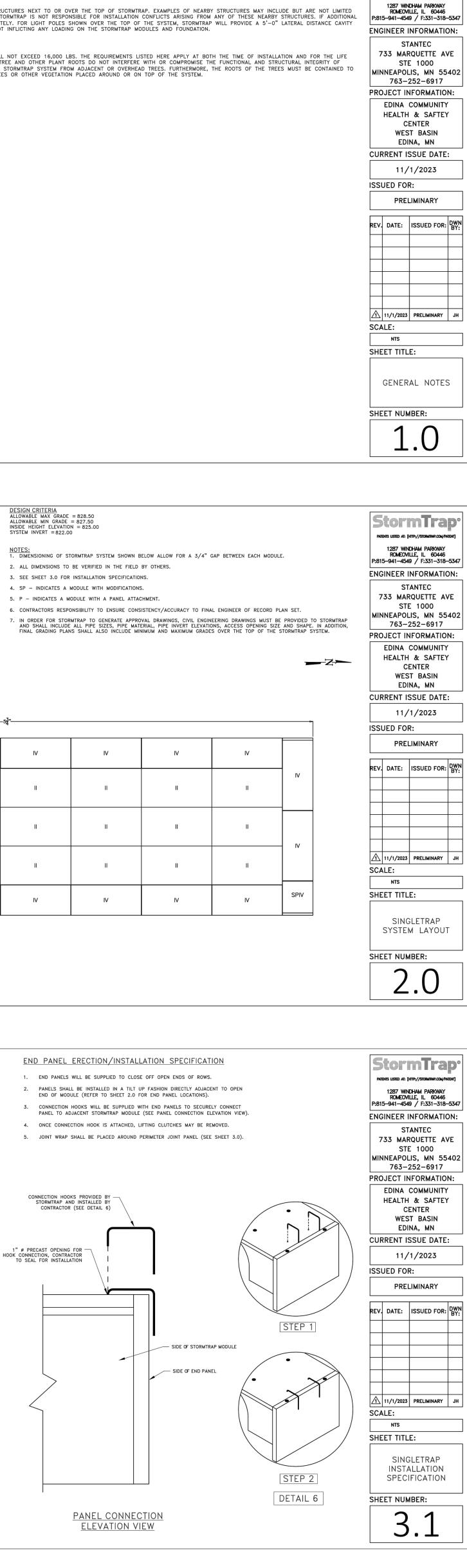


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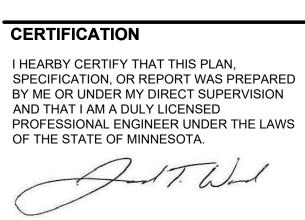
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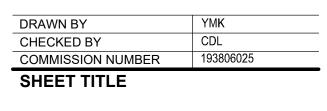




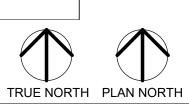
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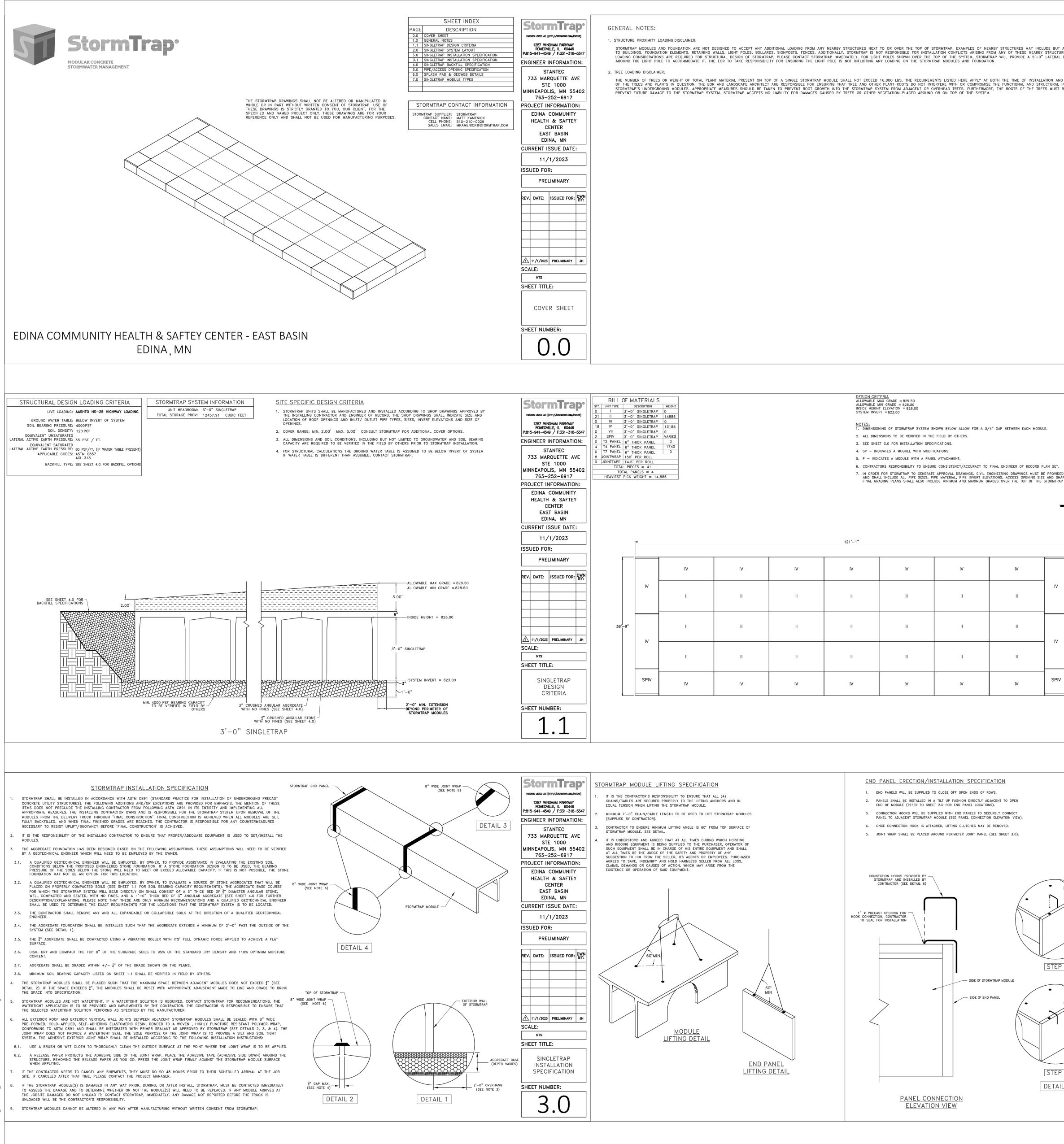
NAME: JARED T. WARD, P.E. LICENSE NUMBER: 48677 11/16/2023



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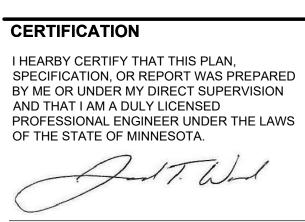
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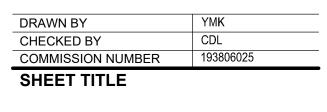




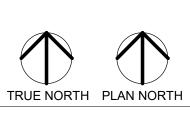
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