CITY OF
MOORHEAD
MINNESOTA

PLANS AND SPECIFICATIONS

For

9th Ave S, 10th Ave S, and 16th St S Area Street Improvements

ENG. NO. 25-A2-01

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

Signature: _____ Printed Name: James A. Schulz

Date: March 6, 2025 Reg. No.: 26225

INDEX SHEET

Eng. No. 25-A2-01

ADVERTISEMENT FOR BIDS

Sealed Bids will be received by the City of Moorhead, Minnesota, electronically through QuestCDN vBid Online Bidding, until **10 A.M. CDT, Wednesday, March 19, 2025**, at which time they will be publicly opened and read aloud in City Hall via a live stream video link to the bid opening so that Contractors and the public may view the bid opening in real time for the furnishing of all labor, materials, and all else necessary for the following:

9th Ave S, 10th Ave S, and 16th St S Area Street Improvements
Eng. No. 25-A2-01

Major items include, but are not limited to, the following:

Qty.	Unit	Item
2,552	CY	Common Excavation
13,500	SY	Remove Bituminous Pavement
2,235	CY	Crushed Concrete Base
68	EA	Pedestrian Curb Ramp
6,600	TON	Bituminous Paving
12,578	SF	4" Concrete Walk
2,100	LF	6" & 8" PVC Watermain
6,300	LF	4" Perf PVC Pipe Drain

Bids will be accepted electronically through QuestCDN vBid Online Bidding ONLY -- the online bid portal will be open for vBid by February 24, 2025. No paper bids will be accepted.

Complete digital Bidding Documents are available at either **www.questcdn.com** or at the City's website at **http://www.ci.moorhead.mn.us/departments/engineering/bid-documents-results**. You may view the digital plan documents at no charge through the City's website or download the digital plan documents for $22.00 by inputting **Quest project #9567563** on the website's Project Search page. Please contact QuestCDN.com at 952-233-1632 or info@questcdn.com for assistance in free membership registration, downloading, working with this digital project information for assistance and vBid Online Bid Submittal. The City will only receive bids from bidders who are on the approved Plan Holder's List. To be on the approved Plan Holder's List, bidders must download plans through the above websites. **Direct inquiries to Engineer's Project Manager: Jim Schulz – (218) 299-5379.**

There will be an additional $20.00 charge to submit your bid through QuestCDN vBid Online Bidding. Each bidder must electronically submit with his bid a certified or a cashier's check upon some reputable bank of the State of Minnesota, payable to the City of Moorhead, for at least 5 (five) percent of the total amount of such bid, which check and the amount thereof, shall be forfeited to the City of Moorhead, as liquidated damages if the bidder upon the letting of the contract to him, shall fail to enter into the contract so let. The bidder may electronically submit a bidder's bond written through an insurance agency or cash in the same amount in lieu of a certified check. The successful bidder will be required to furnish contract performance and payment bonds, each in the full amount of the contract.

The Owner reserves the right to retain the deposits of the 3 lowest Bidders for a period not to exceed 30 days after the date and time set for the Opening of Bids. No Bids may be withdrawn for a period of 30 days after the date and time set for the Opening of Bids. The Owner reserves the right to reject any and all Bids, to waive irregularities and informalities therein, and further reserves the right to award the Contract in the best interests of the Owner.

All bidders must be able to submit to the City a sworn statement demonstrating that it is a responsible contractor as defined by Minnesota Statutes, § 16C.285 and the failure to provide such a statement will render any proposal non-responsive.

Christina Rust – City Clerk
City of Moorhead, Minnesota

INSTRUCTIONS TO BIDDERS

Submitting Proposals

Bid Date: **10:00 A.M. on March 19, 2025**
Bid Opening Location: **Virtual via WebEx**
Deliver Bids To: Quest Construction Data Network's virtual bidding platform

All bidders must be on the official plan holders list to be able to submit a bid. The official plan holders list consists of responsible contractors who have obtained the plans through the City of Moorhead or QuestCDN websites, or have ordered the plans through Docunet. All bids must be submitted through the QuestCDN virtual bidding platform. Bids submitted in any other manner will be considered non-responsive.

All bids must be entered into the QuestCDN virtual bidding platform. In case of discrepancy between a unit bid price and the extension, the unit price shall govern. The proposal must be signed by the bidder. **All documents to be submitted on the virtual bidding platform are a necessary part of the proposal, including the Form of Proposal, the Certification of Compliance of Responsible Contractors, List of Materials Suppliers, Non-Collusion Affidavit, and Certification of Compliance with MN Worker's Compensation Law.** The blank spaces in the proposal form must be correctly filled in where indicated for each and every item, with totals and grand totals. Any proposal, which is incomplete, obscure, or irregular, may be rejected.

Each bidder, when requested by the City, shall submit the following information and data upon 48 hours notice:

1. Original, signed/authorized versions of the Bid Bond and Proposal Form.
2. The location of bidders' permanent place of business.
3. A statement of equipment, which the bidder proposes to use on the project.
4. A financial statement showing assets and liabilities as of a time longer than six months previous to the time of bidding, and financial references.
5. A statement listing projects of a similar nature, which the bidder has actually constructed.
6. A list of the remaining proposed contractors and suppliers not listed in Forms 00325 & 00330, along with proposed materials to be used on the project.

Bidder's Responsibility for Conditions of Work and Site:

Bidders shall make all necessary investigations to satisfy themselves as to the conditions and nature of the soil and other characteristics of the proposed site or sites of the project, and otherwise inform themselves of all facilities or difficulties that may be encountered in the complete execution of all the work included in or implied by the contract, in accordance with the plans and specifications. Bidders are required to examine all drawings and data mentioned in the specifications, contract and proposal as being on file in the office of the City Clerk of Moorhead for examination by bidders. No plea of ignorance of conditions that exist, or of conditions or difficulties that may be encountered in the execution of the work under investigations will be accepted as an excuse for failure or omission on the part of the contract, specifications and plans, or will be accepted as a basis for any claims whatsoever for added compensation. Upon application, all available information in the possession of the City Engineer will be shown to the bidders but the correctness of any such information is not guaranteed.

Unit Quantities:

The schedule of unit quantities contained in the Form of Proposal, although estimated with as much accuracy as possible in advance, is approximate only and is assumed only for the purpose of comparing bids and forming a basic contract price for the work contemplated. The quantities on which payments will be made to the contractor are to be determined by measurements of the work actually performed by the contractor as specified by the contract, plans and specifications. Bidders shall not at any time after the submission of their bids dispute or complain of the aforementioned schedule of quantities or the character of the work to be done, and shall not make any claims for damage for loss of profits because of a difference between the quantities assumed in the Form of Proposal and the quantities of work actually performed.

-END OF SECTION-

FORM OF PROPOSAL

(Unit Price Contract)

TO: The Mayor & City Council of Moorhead, Minnesota

The undersigned, being familiar with local conditions which may affect the cost of the work, and with the provisions of the contract documents including the Advertisement for Bids, Form of Contract, General Conditions, Plans and Specifications and Special Provisions all on file in the office of the City Clerk of Moorhead, Minnesota hereby proposes to furnish all labor, material, equipment and services necessary for the **"9th Ave S, 10th Ave S, and 16th St S Area Street Improvements (Eng. No. 25-A2-01)"** in the City of Moorhead.

In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that BIDDER has examined and carefully studied the Bidding Documents and the following Addenda, receipt of all which is hereby acknowledged:

Acknowledgement of Addenda

Date	Number
_____	_____
_____	_____
_____	_____
_____	_____

BID FORM FOR ENG. NO. 25-A2-01 (Addendum 1)
9th Ave S, 10th Ave S, and 16th St S Area Street Improvements

Bid Form

SECTION I - STREET IMPROVEMENTS

No.	Spec. No.	Item	Units	Qty	Unit Price	Total Price
1	2021.501	MOBILIZATION	LS	1		$ -
2	2104.502	REMOVE SIGN TYPE C	EA	112		$ -
3	2104.502	REMOVE SIGN TYPE D	EA	24		$ -
4	2104.503	REMOVE CURB AND GUTTER	LF	1,700		$ -
5	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LF	83		$ -
6	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	261		$ -
7	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	295		$ -
8	2104.504	REMOVE BITUMINOUS PAVEMENT	SY	10,598		$ -
9	2104.504	REMOVE CONCRETE PAVEMENT	SY	12		$ -
10	2104.518	REMOVE CONCRETE SIDEWALK	SF	5,135		$ -
11	2106.507	EXCAVATION - COMMON (EV) (P)	CY	2,171		$ -
12	2108.504	GEOTEXTILE FABRIC TYPE V - MODIFIED	SY	13,390		$ -
13	2112.604	SUBGRADE PREPARATION	SY	10,598		$ -
14	2123.610	MACHINE TIME	HR	15		$ -
15	2211.507	AGGREGATE BASE (CV) CRUSHED CONCRETE (P)	CY	1,766		$ -
16	2232.504	MILL BITUMINOUS SURFACE 3"	SY	60		$ -
17	2360.509	TYPE SP 12.5 WEARING COURSE MIX (3,B)	TON	1,656		$ -
18	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (3,B)	TON	2,318		$ -
19	2521.518	4" CONCRETE WALK	SF	3,729		$ -
20	2531.504	7" CONCRETE DRIVEWAY PAVEMENT	SY	294		$ -
21	2531.602	PEDESTRIAN CURB RAMP - 5' WIDE	EA	10		$ -
22	2531.602	PEDESTRIAN CURB RAMP - 6' WIDE (COLORED CONC.)	EA	8		$ -
23	2531.603	CONCRETE CURB AND GUTTER DESIGN B624	LF	1,700		$ -
24	2563.601	TRAFFIC CONTROL	LS	1		$ -
25	2564.602	FURNISH AND INSTALL SIGN TYPE C	SF	196		$ -
26	2564.602	FURNISH AND INSTALL SIGN TYPE D	SF	45		$ -
27	2573.501	STABILIZED CONSTRUCTION EXIT	LS	1		$ -
28	2573.502	STORM DRAIN INLET PROTECTION	EA	24		$ -
29	2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LF	1,700		$ -
30	2574.507	SELECT TOPSOIL BORROW (LV)	CY	185		$ -
31	2575.505	TURF ESTABLISHMENT - GRASS SEEDING WITH TYPE 5 HYDROMULCH	SY	2,221		$ -
32	2575.523	WATER FOR TURF ESTABLISHMENT	M GAL	140		$ -
33	SPEC PROV	CRUSHED CONC. BASE FOR SUBGRADE REPAIR(CV)	CY	150		$ -
34	SPEC PROV	MUD JACKING CURB & GUTTER	LF	314		$ -
35	SPEC PROV	MUD JACKING FLATWORK	SF	634		$ -
				SECTION I - TOTAL	**$**	**-**

SECTION II - SANITARY SEWER

No.	Spec. No.	Item	Units	Qty	Unit Price	Total Price
36	SPEC PROV	FURNISH AND INSTALL NEW CASTING - TYPE A	EA	6		$ -
				SECTION II - TOTAL	**$**	**-**

SECTION III - WATERMAIN

No.	Spec. No.	Item	Units	Qty	Unit Price	Total Price
37	2504.602	ADJUST GATE VALVE AND BOX	EA	8		$ -
				SECTION III - TOTAL	**$**	**-**

SECTION IV - STORM SEWER

No.	Spec. No.	Item	Units	Qty	Unit Price	Total Price
38	2104.502	REMOVE CATCH BASIN	EA	1		$ -
39	2104.503	REMOVE SEWER PIPE (STORM) 12" RCP	LF	25		$ -
40	2502.503	4" PERF PVC PIPE DRAIN	LF	5,584		$ -
41	2503.503	12" RC PIPE SEWER DESIGN 3006 CL III	LF	22		$ -
42	2503.602	4" DRAINTILE CLEAN-OUT ASSEMBLY	EA	5		$ -
43	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN G OR H	EA	1		$ -
44	2506.602	CONNECT INTO EXISTING DRAINAGE STRUCTURE	EA	21		$ -
45	SPEC PROV	INSTALL SALVAGED CASTING	EA	3		$ -
46	SPEC PROV	FURNISH AND INSTALL NEW CASTING - TYPE A	EA	6		$ -
47	SPEC PROV	FURNISH AND INSTALL NEW CASTING - TYPE D	EA	15		$ -
48	SPEC PROV	RECONSTRUCT DRAINAGE STRUCTURE/BRICK MANHOLE	EA	1		$ -
49	SPEC PROV	CLEAN AND TELEVISE PIPE SEWER MAIN	LF	22		$ -
				SECTION IV - TOTAL	**$**	**-**
				BID TOTAL	**$**	**-**

BID FORM FOR ENG. NO. 25-A2-01
9th Ave S, 10th Ave S, and 16th St S Area Street Improvements

					Bid Form	
SECTION I - STREET IMPROVEMENTS						
No.	**Spec. No.**	**Item**	**Units**	**Qty**	**Unit Price**	**Total Price**
1	2021.501	MOBILIZATION	LS	1		$ -
2	2104.502	REMOVE SIGN TYPE C	EA	112		$ -
3	2104.502	REMOVE SIGN TYPE D	EA	24		$ -
4	2104.503	REMOVE CURB AND GUTTER	LF	1,700		$ -
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	261		$ -
6	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	288		$ -
7	2104.504	REMOVE BITUMINOUS PAVEMENT	SY	10,598		$ -
8	2104.504	REMOVE CONCRETE PAVEMENT	SY	12		$ -
9	2104.518	REMOVE CONCRETE SIDEWALK	SF	5,221		$ -
10	2106.507	EXCAVATION - COMMON (EV) (P)	CY	2,171		$ -
11	2108.504	GEOTEXTILE FABRIC TYPE V - MODIFIED	SY	13,390		$ -
12	2112.604	SUBGRADE PREPARATION	SY	10,598		$ -
13	2123.610	MACHINE TIME	HR	15		$ -
14	2211.507	AGGREGATE BASE (CV) CRUSHED CONCRETE (P)	CY	1,766		$ -
15	2232.504	MILL BITUMINOUS SURFACE 3"	SY	60		$ -
16	2360.509	TYPE SP 12.5 WEARING COURSE MIX (3,B)	TON	1,656		$ -
17	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (3,B)	TON	2,318		$ -
18	2521.518	4" CONCRETE WALK	SF	5,770		$ -
19	2531.504	7" CONCRETE DRIVEWAY PAVEMENT	SY	294		$ -
20	2531.602	PEDESTRIAN CURB RAMP - 5' WIDE	EA	5		$ -
21	2531.602	PEDESTRIAN CURB RAMP - 6' WIDE (COLORED CONC.)	EA	8		$ -
22	2531.603	CONCRETE CURB AND GUTTER DESIGN B624	LF	1,700		$ -
23	2563.601	TRAFFIC CONTROL	LS	1		$ -
24	2564.602	FURNISH AND INSTALL SIGN TYPE C	SF	196		$ -
25	2564.602	FURNISH AND INSTALL SIGN TYPE D	SF	45		$ -
26	2573.501	STABILIZED CONSTRUCTION EXIT	LS	1		$ -
27	2573.502	STORM DRAIN INLET PROTECTION	EA	24		$ -
28	2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LF	1,700		$ -
29	2574.507	SELECT TOPSOIL BORROW (LV)	CY	185		$ -
30	2575.505	TURF ESTABLISHMENT - GRASS SEEDING WITH TYPE 5 HYDROMULCH	SY	2,221		$ -
31	2575.523	WATER FOR TURF ESTABLISHMENT	M GAL	140		$ -
32	SPEC PROV	CRUSHED CONC. BASE FOR SUBGRADE REPAIR(CV)	CY	150		$ -
33	SPEC PROV	MUD JACKING CURB & GUTTER	LF	334		$ -
34	SPEC PROV	MUD JACKING FLATWORK	SF	634		$ -
				SECTION I - TOTAL	**$**	**-**
SECTION II - SANITARY SEWER						
No.	**Spec. No.**	**Item**	**Units**	**Qty**	**Unit Price**	**Total Price**
35	SPEC PROV	FURNISH AND INSTALL NEW CASTING - TYPE A	EA	6		$ -
				SECTION II - TOTAL	**$**	**-**
SECTION III - WATERMAIN						
No.	**Spec. No.**	**Item**	**Units**	**Qty**	**Unit Price**	**Total Price**
36	2504.602	ADJUST GATE VALVE AND BOX	EA	8		$ -
				SECTION III - TOTAL	**$**	**-**
SECTION IV - STORM SEWER						
No.	**Spec. No.**	**Item**	**Units**	**Qty**	**Unit Price**	**Total Price**
37	2104.502	REMOVE CATCH BASIN	EA	1		$ -
38	2104.503	REMOVE SEWER PIPE (STORM) 12" RCP	LF	25		$ -
39	2502.503	4" PERF PVC PIPE DRAIN	LF	5,584		$ -
40	2503.503	12" RC PIPE SEWER DESIGN 3006 CL III	LF	22		$ -
41	2503.602	4" DRAINTILE CLEAN-OUT ASSEMBLY	EA	5		$ -
42	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN G OR H	EA	1		$ -
43	2506.602	CONNECT INTO EXISTING DRAINAGE STRUCTURE	EA	21		$ -
44	SPEC PROV	INSTALL SALVAGED CASTING	EA	3		$ -
45	SPEC PROV	FURNISH AND INSTALL NEW CASTING - TYPE A	EA	6		$ -
46	SPEC PROV	FURNISH AND INSTALL NEW CASTING - TYPE D	EA	15		$ -
46	SPEC PROV	RECONSTRUCT DRAINAGE STRUCTURE/BRICK MANHOLE	EA	1		$ -
47	SPEC PROV	CLEAN AND TELEVISE PIPE SEWER MAIN	LF	22		$ -
				SECTION IV - TOTAL	**$**	**-**
				BID TOTAL	**$**	**-**

FORM OF PROPOSAL SIGNATURE SHEET

Accompanying this proposal is a certified check, cash or bidder's bond in the amount of 5% of the bid which shall serve as a guaranty that, should this proposal be accepted by the City, the undersigned will enter into a Contract with the City for the performance of the work at the unit prices stipulated herein.

The undersigned further agrees that within ten (10) days from the date of "Notice of Award" of this bid, he or they will execute the Contract and furnish to the City of Moorhead, Minnesota, satisfactory Contract Bonds, in conformance with MSA 574.26 for the full amount of the proposal, guaranteeing the faithful performance of the work and the payment of bills; and that, within said ten (10) days, he or they shall furnish evidence or certification of all necessary or required approval of the City Attorney.

The undersigned further agrees that he or they will begin work on this project within fifteen (15) days of the issuance of the Notice to Proceed and shall complete the work as set forth in the Special Provisions.

In submitting this bid, it is understood that the right is reserved by the City to reject any or all bids and to waive informalities. It is further understood that this bid may not be withdrawn for a period of at least **30 days** from the date of the opening of the bids, unless otherwise determined by the City Council.

The Undersigned hereby acknowledges receipt of all addenda:

DATE: _____

FIRM NAME: _____

ADDRESS: _____

CITY/STATE/ZIP: _____

BY: _____

TITLE: _____

SECTION 00325 – CERTIFICATION OF COMPLIANCE OF RESPONSIBLE CONTRACTORS

PART 1 – GENERAL

1.1 A contractor responding to this solicitation document shall submit to the City a signed statement under oath by an owner or officer verifying compliance with each of the minimum criteria in Minnesota Statutes, section 16C.285, subdivision 3. The term 'responsible contractor' as used in this solicitation document means a contractor, subcontractor or motor carrier as defined in Minnesota Statutes, section 16C.285, subdivision 1 that meets the minimum criteria established in Minnesota Statutes, section 16C.285, subdivision 3. Any prime contractor or subcontractor that does not meet the minimum criteria in Minnesota Statutes, section 16C.285, subdivision 3 or fails to verify that it meets those criteria is not a responsible contractor and is not eligible to be awarded the construction contract for the project or to perform work on the project. A false statement under oath verifying compliance with any of the minimum criteria shall render the prime contractor or subcontractor that makes the false statement ineligible to be awarded a construction contract on the project and may result in termination of a contract awarded to a prime contractor or subcontractor that submits a false statement. A prime contractor shall submit to the City upon request copies of the signed verifications of compliance from all subcontractors of any tier pursuant to Minnesota Statutes, section 16C.285, subdivision 3, clause 7. Changes to the information listed in the subsequent sections may only be made with the approval of the Engineer.

PART 2 – PRIME CONTRACTOR

2.1 In submitting this bid, the bidder certifies that they intend to act as the prime contractor in the construction of this project, and that at the time of the submission of the proposal they intend to complete all work with their own forces with the exception of the contract items identified to be completed by subcontractors as identified in Part 3 of this form below. The bidder further certifies that they meet the definition of a 'responsible contractor' as defined in Minnesota Statutes, section 16C.285, subdivision 3.

PART 3 – SUBCONTRACTORS

3.1 The undersigned bidder hereby certifies that the following is a complete and accurate listing of subcontractors and motor carriers proposed to be used in the construction of this project at the time this proposal was submitted, and that the bidder will require signed verifications of compliance with Minnesota Statutes, section 16C.285, subdivision 3 from each of the proposed subcontractors prior to executing the contract. Bidder further certifies that should any additional subcontractors be proposed for this project subsequent to execution of the contract, that bidder shall obtain the required certification of compliance as a responsible contractor from the proposed subcontractor or motor carrier and shall submit a revised certification of compliance form to the City within 14 days of retaining the additional subcontractor or motor carrier, and that said subcontractor or motor carrier shall not be allowed to perform any work under this contract until the revised certification of compliance form has been submitted to the City Engineer. Bidder shall keep a copy of all responsible contractor certification forms on file in said bidder's office until final payment has been made, and shall supply copies of the certification forms to the Engineer upon request.

Name of First-Tier Subcontractor

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

I hereby certify that I am an officer or owner of _____, hereinafter referred to as CONTRACTOR, and that as of the date this bid was submitted, CONTRACTOR is in compliance with each of the minimum criteria in Minnesota Statutes, section 16C.285, subdivision 3, with the exception of Clause 7.

BY: _____DATE:

TITLE: _____

-END OF SECTION-

SECTION 00330 – LIST OF MATERIALS SUPPLIERS

PART 1 – GENERAL

1.1 The following information must be completed and submitted with the bid. Failure to complete and submit this form with the bidding documents may result in rejection of the bid. Changes to the information listed in the subsequent sections may only be made with the approval of the Engineer.

PART 2 – SUPPLIERS

2.1 The undersigned bidder hereby certifies that the materials suppliers identified below are the suppliers whose quotes were relied upon in the preparation of this bid proposal for the material items requested below. Bidder further certifies that no changes will be made to the proposed materials suppliers identified below without the express, written approval of the Engineer. Bidder shall keep a copy of all of the materials suppliers' quotes on which this proposal was made on file in said bidder's office until final payment has been made, and may be required to show this information to the Engineer in the event that they propose to change suppliers after the bidding date. Bidder shall require their first-tier subcontractors to do the same.

Material	**Name of Material Supplier**

I hereby certify that I am an officer or owner of _____, hereinafter referred to as CONTRACTOR, and that as of the time this bid was submitted, the materials suppliers identified above were the suppliers whose quotes this BID PROPOSAL was based upon.

BY: _____DATE:

TITLE: _____

-END OF SECTION-

FORM OF CONTRACT
CITY OF MOORHEAD, MINNESOTA

CONTRACT NO. 25-A2-01

THIS AGREEMENT made and entered into this ___ day of _____, 2025, by and between the City of Moorhead, Minnesota, hereinafter called the "City" and _____, hereinafter called the "Contractor".

WITNESS that the City and the Contractor, for the consideration hereinafter stated agrees as follows:

ARTICLE I. The Contractor agrees to provide all the materials, equipment, labor, and services necessary for the complete construction of all work shown on the drawings and described in the specifications prepared by the City Engineer of Moorhead for the following:

9th Ave S, 10th Ave S, and 16th St S Area Street Improvements (Eng. No. 25-A2-01) and to do everything required by this agreement and the Contract Documents.

ARTICLE II. The Contractor agrees that the work contemplated by this Contract shall be completed by the dates as listed in the Special Provisions, both substantial and final.

ARTICLE III. The Contractor agrees that it will comply with all requirements of the Responsible Contractor Law (Minnesota Statutes, Chapter 16C.285), and that it has obtained from each and every subcontractor or motor carrier that it intends to use in the completion of work contemplated under this contract signed statements under oath by an owner or officer of that subcontractor or motor carrier, and that the list below is a complete listing of subcontractors and motor carriers intended to be used on this contract at the present time, and that should any additional subcontractors or motor carriers be retained subsequent to the execution of this agreement, that the Contractor shall submit a supplemental verification of compliance within 14 days of retaining such additional subcontractors or motor carriers.

1._____
2._____
3._____
4._____
5._____
6._____
7._____

(If more than 7 subcontractors and motor carriers are proposed, a separate list may be attached so long as it is signed by an Owner or Officer and referenced here)

ARTICLE IV. The City agrees to pay and the Contractor agrees to receive and accept the prices bid for the unit or lump sum items as set forth in the conformed copy of the Form of Proposal hereto attached, which prices shall conform to those in the accepted Contractor's proposal on file in the office of the City Clerk of Moorhead, the aggregate of which prices, based on the approximate schedule of quantities is estimated to be $_____.

ARTICLE V. The Contract Documents shall consist of the following component parts:

1. Advertisement for Bids
2. Instruction to Bidders
3. Form of Proposal / Bid Packet
4. General Specifications
5. Special Provisions
6. Specifications
7. Plans, Drawings and Reports which are attached to the specifications.
8. This instrument and the Payment & Performance Bonds

THIS INSTRUMENT, together with the documents hereinabove mentioned, for the Contract, and all documents are as fully a part of the Contracts as is attached hereto or herein repeated.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed as of the day and year first above written

_____
Company Name

By: _____
Name

_____
Title

Date: _____

In the Presence of:

_____
Name

_____
Title

The City of Moorhead, Minnesota

_____
Michelle (Shelly) A. Carlson, Mayor

_____
Dan Mahli, City Manager

Attest:

_____
Christina Rust, City Clerk

Approved by City Council on: _____

The Contractor is required to complete the work schedule form below before final approval of the contract bid will be accepted.

The dates on the work schedule can be changed after the start of the project only because of adverse weather conditions, unavoidable delays in materials delivery, design changes in the project, or other justifiable reason subject to the approval of the City Engineer.

Major Work Item	**Starting Date**	**Estimated Completion Date**

A more detailed Proposed Schedule will be submitted to the City of Moorhead Engineering Department 3 days prior to the pre-construction meeting.

If a section contains more than one work area, a starting date and an estimated completion date should be provided for each area within the section.

The above schedule does not in any way alleviate the Contractor's responsibility to complete the project section by the date specified in the Special Provisions.

_____
Contractor's Signature

_____
Title

Performance Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

CONTRACT
Date:
Amount:
Description (Name and Location):

BOND
Date (Not earlier than Contract Date):
Amount:
Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent or representative.

CONTRACTOR AS PRINCIPAL
Company: (Corp. Seal)

Signature: _____
Name and Title:

SURETY
Company: (Corp. Seal)

Signature: _____
Name and Title:
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL
Company: (Corp. Seal)

Signature: _____
Name and Title:

SURETY
Company: (Corp. Seal)

Signature: _____
Name and Title:

EJCDC No. 1910-28-A (1996 Edition)
Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, and the American Institute of Architects.

1. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Contract, which is incorporated herein by reference.

2. If the CONTRACTOR performs the Contract, the Surety and the CONTRACTOR have no obligation under this Bond, except to participate in conferences as provided in paragraph 3.1.

3. If there is no OWNER Default, the Surety's obligation under this Bond shall arise after:

3.1. The OWNER has notified the CONTRACTOR and the Surety at the addresses described in paragraph 10 below, that the OWNER is considering declaring a CONTRACTOR Default and has requested and attempted to arrange a conference with the CONTRACTOR and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Contract. If the OWNER, the CONTRACTOR and the Surety agree, the CONTRACTOR shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the OWNER's right, if any, subsequently to declare a CONTRACTOR Default; and

3.2. The OWNER has declared a CONTRACTOR Default and formally terminated the CONTRACTOR's right to complete the Contract. Such CONTRACTOR Default shall not be declared earlier than twenty days after the CONTRACTOR and the Surety have received notice as provided in paragraph 3.1; and

3.3. The OWNER has agreed to pay the Balance of the Contract Price to:

3.3.1. The Surety in accordance with the terms of the Contract;

3.3.2 Another contractor selected pursuant to paragraph 4.3 to perform the Contract.

4. When the OWNER has satisfied the conditions of paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

4.1. Arrange for the CONTRACTOR, with consent of the OWNER, to perform and complete the Contract; or

4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or

4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the OWNER for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the OWNER and the contractor selected with the OWNER's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the OWNER the amount of damages as described in paragraph 6 in excess of the Balance of the Contract Price incurred by the OWNER resulting from the CONTRACTOR Default; or

4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances;

4.4.1 After investigation, determine the amount for which it may be liable to the OWNER and, as soon as practicable after the amount is determined, tender payment therefor to the OWNER; or

4.4.2 Deny liability in whole or in part and notify the OWNER citing reasons therefor.

5. If the Surety does not proceed as provided in paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the OWNER to the Surety demanding that the Surety perform its obligations under this Bond, and the OWNER shall be entitled to enforce any remedy available to the OWNER. If the Surety proceeds as provided in paragraph 4.4, and the OWNER refuses the payment tendered or the Surety has denied pliability, in whole or in part, without further notice the OWNER shall be entitled to enforce any remedy available to the OWNER.

6. After the OWNER has terminated the CONTRACTOR's right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the OWNER shall not be greater than those of the CONTRACTOR under the Contract, and the responsibilities of the OWNER to the Surety shall not be greater than those of the OWNER under the Contract. To a limit of the amount of this Bond, but subject to commitment by the OWNER of the Balance of the Contract Price to mitigation of costs and damages on the Contract, the Surety is obligated without duplication for:

6.1. The responsibilities of the CONTRACTOR for correction of defective Work and completion of the Contract;

6.2. Additional legal, design professional and delay costs resulting from the CONTRACTOR's Default, and resulting from the actions or failure to act of the Surety under paragraph 4; and

6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the CONTRACTOR.

7. The Surety shall not be liable to the OWNER or others for obligations of the CONTRACTOR that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the OWNER or its heirs, executors, administrators, or successors.

8. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations.

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after CONTRACTOR Default or within two years after the CONTRACTOR ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the address shown on the signature page.

11. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

12.1 Balance of the Contract Price: The total amount payable by the OWNER to the CONTRACTOR under the Contract after all proper adjustments have been made, including allowance to the CONTRACTOR of any amounts received or to be received by the OWNER in settlement of insurance or other Claims for damages to which the CONTRACTOR is entitled, reduced by all valid and proper payments made to or on behalf of the CONTRACTOR under the Contract.

12.2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.

12.3. CONTRACTOR Default: Failure of the CONTRACTOR, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.

12.4. OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof.

(FOR INFORMATION ONLY--Name, Address and Telephone)
AGENT or BROKER: OWNER'S REPRESENTATIVE (Engineer or other party):

Payment Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

CONTRACT
Date:
Amount:
Description (Name and Location):

BOND
Date (Not earlier than Contract Date):
Amount:
Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL
Company: (Corp. Seal)

Signature: _____
Name and Title:

SURETY
Company: (Corp. Seal)

Signature: _____
Name and Title:
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL
Company: (Corp. Seal)

Signature: _____
Name and Title:

SURETY
Company: (Corp. Seal)

Signature: _____
Name and Title:

EJCDC No. 1910-28-B (1996 Edition)
Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, the American Institute of Architects, the American Subcontractors Association, and the Associated Specialty Contractors.

1. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the OWNER to pay for labor, materials and equipment furnished for use in the performance of the Contract, which is incorporated herein by reference.

2. With respect to the OWNER, this obligation shall be null and void if the CONTRACTOR:

2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2. Defends, indemnifies and holds harmless the OWNER from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Contract, provided the OWNER has promptly notified the CONTRACTOR and the Surety (at the addresses described in paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the CONTRACTOR and the Surety, and provided there is no OWNER Default.

3. With respect to Claimants, this obligation shall be null and void if the CONTRACTOR promptly makes payment, directly or indirectly, for all sums due.

4. The Surety shall have no obligation to Claimants under this Bond until:

4.1. Claimants who are employed by or have a direct contract with the CONTRACTOR have given notice to the Surety (at the addresses described in paragraph 12) and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2. Claimants who do not have a direct contract with the CONTRACTOR:

1. Have furnished written notice to the CONTRACTOR and sent a copy, or notice thereof, to the OWNER, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and

2. Have either received a rejection in whole or in part from the CONTRACTOR, or not received within 30 days of furnishing the above notice any communication from the CONTRACTOR by which the CONTRACTOR had indicated the claim will be paid directly or indirectly; and

3. Not having been paid within the above 30 days, have sent a written notice to the Surety and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the CONTRACTOR.

5. If a notice required by paragraph 4 is given by the OWNER to the CONTRACTOR or to the Surety, that is sufficient compliance.

6. When the Claimant has satisfied the conditions of paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:

6.1. Send an answer to the Claimant, with a copy to the OWNER, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

6.2. Pay or arrange for payment of any undisputed amounts.

7. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

8. Amounts owed by the OWNER to the CONTRACTOR under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any Performance Bond. By the CONTRACTOR furnishing and the OWNER accepting this Bond, they agree that all funds earned by the CONTRACTOR in the performance of the Contract are dedicated to satisfy obligations of the CONTRACTOR and the Surety under this Bond, subject to the OWNER's priority to use the funds for the completion of the Work.

9. The Surety shall not be liable to the OWNER, Claimants or others for obligations of the CONTRACTOR that are unrelated to the Contract. The OWNER shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by paragraph 4.1 or paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, the OWNER or the CONTRACTOR, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is, that this Bond shall be construed as a statutory Bond and not as a common law bond.

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, the CONTRACTOR shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. DEFINITIONS

15.1. Claimant: An individual or entity having a direct contract with the CONTRACTOR or with a Subcontractor of the CONTRACTOR to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of the CONTRACTOR and the CONTRACTOR's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

15.2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes pthereto.

15.3. OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof.

(FOR INFORMATION ONLY--Name, Address and Telephone)
AGENCY or BROKER: OWNER'S REPRESENTATIVE (Engineer or other party):

NON-COLLUSION AFFIDAVIT

The following Non-Collusion Affidavit shall be executed by the bidder:

State Project No:_____

Federal Project No:_____

City Project No:_____

STATE OF MINNESOTA)
) ss
COUNTY OF CLAY)

I, _____, being first duly sworn, do depose
(Name of Person Signing this Affidavit)

and say:

(1) that I am the authorized representative of:

_____
(Individual name, partnership or corporation submitting this proposal)

and that I have the authority to make this affidavit for and on behalf of said bidder;

(2) that, in connection with this proposal, the said bidder has not either directly or indirectly entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding;

(3) that, to the best of my knowledge and belief, the contents of this proposal have not been communicated by the bidder or by any of his employees or agents to any person who is not an employee or agent of the bidder or of the surety on any bond furnished with the proposal, and will not be communicated to any person who is not an employee or agent of the bidder or of the said surety prior to the official opening of the proposal, and

(4) that I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Signed: _____
Bidder or his authorized representative

Certification of Compliance with the Minnesota Worker's Compensation Law

Name: _____ Doing Business As: _____
Print your full name — Business name, if different than yours

Address: _____ _____ _____ _____
Mailing Address — City — State — Zip

Telephone Number: _____ Type of business: _____
(Example: bldg construction; trucking)

Worker's Compensation Insurance Company Name:

_____
Print full name of Insurance Company (Not your Agent)

Policy Number: _____
Full number

Dates of Coverage: _____ through _____
Starting date — Ending date

-OR-

I certify that I am not required to carry worker's compensation insurance because:

(check one)

_____ I am a sole proprietor or partner and I have no employees.

_____ I have no employees who are covered by the worker's compensation law. (Only employees specifically exempted by statute are not covered by the worker's compensation law. These included: Spouse; Parent; Children, regardless of age; and farm labor employees of a family farm that spent less than $8,000 for labor in the previous calendar year. All other workers whose work activity is controlled by the employer must be covered.)

I understand that the information provided about will be verified by the Minnesota Department of Labor and Industry, and that I am subject to a $1,000 penalty if the information provided is false. I certify that the information proved is accurate and complete.

Signed by: _____ Date: _____

This Form must Be Completed and Submitted with Your Proposal

MINNESOTA Department of Revenue

Withholding Affidavit for Contractors

IC-134

This affidavit must be approved by the Minnesota Department of Revenue before the state of Minnesota or any of its subdivisions can make final payment to contractors.

Type or print

Please type or print clearly. This will be your mailing label for returning the completed form.

Company name

Address

City State Zip Code

Daytime phone ( )

Minnesota tax ID number

Total contract amount $

Month/year work began

Amount still due $

Month/year work ended

Project information

Project number

Project location

Project owner Address City State Zip code

Did you have employees work on this project? ☐ Yes ☐ No If no, who did the work?

Contractor type

Check the box that describes your involvement in the project and fill in all information requested.

☐ **Sole contractor**

☐ **Subcontractor**

Name of contractor who hired you

Address

☐ **Prime contractor—**If you subcontracted out any work on this project, all of your subcontractors must file their own IC-134 affidavits and have them certified by the Department of Revenue *before* you can file your affidavit. For each subcontractor you had, fill in the information below and attach a copy of each subcontractor's certified IC-134. If you need more space, attach a separate sheet.

Business name Address Owner/Officer

Sign here

I declare that all information I have filled in on this form is true and complete to the best of my knowledge and belief. I authorize the Department of Revenue to disclose pertinent information relating to this project, including sending copies of this form, to the prime contractor if I am a subcontractor, and to any subcontractors if I am a prime contractor, and to the contracting agency.

Contractor's signature Title Date

Mail to: MN Dept. of Revenue, Withholding Division, Mail Station 6610, St. Paul, MN 55146-6610

Certificate of Compliance

Based on records of the Minnesota Department of Revenue, I certify that the contractor who has signed this certificate has fulfilled all the requirements of Minnesota Statutes 290.92 and 290.97 concerning the withholding of Minnesota income tax from wages paid to employees relating to contract services with the state of Minnesota and/or its subdivisions.

Department of Revenue approval *Date*

Stock No. 5000134
(Rev. 11/99)

Printed on recycled paper with 10% post-consumer waste using soy-based ink.

Instructions for Form IC-134

Who must file

If you are a prime contractor, a contractor or a subcontractor who did work on a project for the state of Minnesota or any of its local government subdivisions — such as a county, city or school district — you must file Form IC-134 with the Minnesota Department of Revenue.

This affidavit must be certified and returned before the state or any of its subdivisions can make final payment for your work.

If you're a prime contractor and a subcontractor on the same project

If you were hired as a subcontractor to do work on a project, and you subcontracted all or a part of your portion of the project to another contractor, you are a prime contractor as well. Fill out both the subcontractor and prime contractor areas on a single form.

When to file

The IC-134 cannot be processed until you finish the work. If you submit the form before the project is completed, it will be returned to you unprocessed.

If you are a subcontractor or sole contractor, send in the form when you have completed your part of the project.

If you are a prime contractor, send in the form when the entire project is completed and you have received certified affidavits from all of your subcontractors.

How to file

If you have fulfilled the requirements of Minnesota withholding tax laws, the Department of Revenue will sign your affidavit and return it to you.

If any withholding payments are due to the state, Minnesota law requires certified payments before we approve the IC-134.

Submit the certified affidavit to the government unit for which the work was done to receive your final payment. If you are a subcontractor, submit the certified affidavit to your prime contractor to receive your final payment.

Where to file

Mail to:

MN Dept. of Revenue
Withholding Tax Division
Mail Station 6610
St. Paul, MN 55146-6610

Minnesota tax ID number

You must fill in your Minnesota tax ID number on the form. You must have a Minnesota tax ID number if you have employees who work in Minnesota.

If you don't have a Minnesota ID number, you must apply for one. Call (651) 282-5225 or 1-800-657-3605.

If you prefer, you can get an application (Form ABR) from our web site, or by calling or writing us.

If you have no employees and did all the work yourself, you do not need a Minnesota tax ID number. If this is the case, fill in your Social Security number in the space for Minnesota tax ID number and explain who did the work.

Use of information

The Department of Revenue needs all the information to determine if you have met all state income tax withholding requirements. If all required information is not provided, the IC-134 will be returned to you for completion.

All information on this affidavit is private by state law. It cannot be given to others without your permission, except to the Internal Revenue Service, other states that guarantee the same privacy and certain government agencies as provided by law.

Information and assistance

If you need help or more information to complete this form, call (651) 282-9999 or 1-800-657-3594.

Additional forms are available on our website at **www.taxes.state.mn.us** or by calling (651) 296-4444 or 1-800-657-3676. You can also write for forms at the following address:

Minnesota Tax Forms
Mail Station 1421
St. Paul, MN 55146-1421

TTY users may contact the department through the Minnesota Relay Service at 1-800-627-3529.

We'll provide information in an alternative format upon request to persons with disabilities.

MINNESOTA Department of Revenue

Exemption from Surety Deposits for Non-Minnesota Contractors

SD-E

Please type or print clearly. This will be your mailing label for returning the form to you.

Contractor information

Contractor

Address

City State Zip Code

Total contract amount
$

Minnesota ID number

Contact person

Daytime phone
( )

Contract starting date

Projected completion date

Business type *(check one)*: ☐ Corporation ☐ S corporation ☐ Partnership ☐ Sole proprietor

Project information

Name of business or government agency

Contact person

Daytime phone
( )

Contract owner's address City State Zip Code

Project number

Project location address City State Zip code

Reason for exemption

I request exemption from surety deposits under Minnesota law *(MS 290.9705)* for the following reason (*check one and complete the information requested)*:

☐ I have a cash surety or a bond secured by an insurance company licensed in Minnesota. The bond must be 8 percent of the total contract amount. **Attach a copy of the bonding agreement.**

Bonding company

Bonding agent

Address

Daytime phone
( )

City State Zip code

Period of bond *(month/day/year)*
From / / To / /

☐ I have done construction work in Minnesota during the past three calendar years and have fully complied with Minnesota law regarding Minnesota income, sales and withholding taxes.

☐ I am performing work for a government agency and have a payment and performance bond.

☐ I am performing work for a government agency and have a cash surety issued by a state bank, national bank, or savings and loan association doing business in Minnesota.

Sign here

I declare this information is true and complete to the best of my knowledge and belief. I authorize the Department of Revenue to send a copy of this form to the contract owner and discuss this case and related taxes with the bonding company.

Contractor's signature Title Date

Mail to: MN Dept. of Revenue, Mail Station 6501, St. Paul, MN 55146-6501

Department of Revenue Approval

The above-named out-of-state contractor is exempt from the surety requirements of Minnesota Statute 290.9705 for this project.

Department of Revenue approval *Date*

Stock No. 5002050
(Rev. 1/01)

Instructions for Form SD-E

Before you start

You must have a Minnesota tax ID number from the Department of Revenue to request this exemption.

If you don't have one, apply for one by calling (651) 282-5225 or 1-800-657-3605. An application form (Form ABR) is also available on our website at **www.taxes.state.mn.us**.

How to apply

To apply for an exemption from Minnesota surety deposits, file Form SD-E before the project is started. You must file a separate application for each project that is over, or expected to go over, $100,000.

Mail this form and any required attachments to the address on the front.

If you're approved

If we approve the exemption, we'll sign the bottom of this form and return it to you. Make a copy for your records and give the original to the business for whom you are doing the work.

If you're not approved

If we determine you're not eligible for exemption, 8 percent of each payment made to you must be withheld by the business for whom you are doing the work and deposited with the Department of Revenue.

To apply for a refund, complete Form SD-R, *Refund of Surety Deposits for Non-Minnesota Contractors.* When the project is complete, and we determine that you have complied with Minnesota income, withholding and sales tax laws, you'll receive a refund plus interest at the current rate required by law.

Use of information

All information on this form is required except for your phone number.

All information is private by state law. It cannot be given to others without your permission, except to the Internal Revenue Service, other states that guarantee the same privacy, the contract owner or bonding company, and certain government agencies as provided by law.

Information and assistance

If you need help or additional information to fill out this form, call (651) 282-9999 or 1-800-657-3594. A fact sheet on surety deposit requirements (Fact Sheet #12) is also available upon request.

TTY users may contact the department through the Minnesota Relay Service. Call 1-800-627-3529; ask for 1-800-657-3594.

We'll provide information in an alternative format upon request to persons with disabilities.

CITY OF MOORHEAD
GENERAL CONDITIONS

SECTION I
BIDDING REQUIREMENTS AND CONDITIONS

1-1 Contents of Proposal Form:
The proposal form will state the location and description of the contemplated construction, the time in which the work must be completed, and the date, time and place of the opening of Proposals, and will include a schedule of items showing the estimated quantities of the various kinds and classes of work for which bid prices are invited.

Bound within the proposal form will be any Special Provisions and other supplementary requirements. **All papers bound with or attached to the Proposal Form are essential parts of the Proposal and shall not be detached there from or altered without specific authorization.** For Federal Aid projects, the entire specification booklet shall be submitted with the proposal form. For other projects, the proposal form submittal shall include the Responsible Contractor Certification Form (Section 00325), the List of Materials Suppliers (Section 00330), the Non-Collusion Affidavit (Section 00630) and the Certification of Compliance with Minnesota Worker's Compensation Law (Section 00640). Plans, specifications, addenda, and other documents designated in the Proposal are also a part thereof, whether attached or not, and whether or not they are required to be submitted with the bid proposal.

1-2 Unit Quantities:
The schedule of unit quantities contained in the Proposal Form, although estimated with as much accuracy as possible in advance, is approximate only and is assumed only for the purpose of comparing bids and forming a basic contract price for the work contemplated. The quantities on which payments will be made to the contractor are to be determined by measurements of the work actually performed by the contractor as specified by the contract, plans and specifications. Bidders shall not at any time after the submission of their bids dispute or complain of the aforementioned schedule of quantities or the character of the work to be done, and shall not make any claims for damage for loss of profits because of a difference between the quantities assumed in the Proposal Form and the quantities of work actually performed. There shall be no price adjustments to the contract unit prices on the basis of increased or decreased quantities.

1-3 Examination of Proposed Work:
Bidders shall make all necessary investigations to satisfy themselves as to the conditions and nature of the soil and other characteristics of the proposed site or sites of the project, and otherwise inform themselves of all facilities or difficulties that may be encountered in the complete execution of all the work included in or implied by the contract, in accordance with the plans and specifications.

Bidders are required to examine all drawings and data mentioned in the specifications, contract and proposal as being on file in the office of the City Engineer of Moorhead for examination by bidders. No plea of ignorance of conditions that exist, or of conditions or difficulties that may be encountered in the execution of the work under any contract, as a result of failure to make necessary examinations and investigations or omission on the part of the contract, specifications and plans, will be accepted as an excuse for failure or as a basis for any claims whatsoever for added compensation. Upon application, all available information in the possession of the City Engineer will be shown to the bidders but the correctness of any such information is not guaranteed.

1-4 Submitting Proposals:
All bids must be made upon blank forms of proposal attached hereto and the prices of the work proposed shall be given in plain or typed figures. The Contractor may substitute computer generated proposals in accordance with MnDOT 1206.3. The proposal must be signed in ink by the bidder. **All papers bound with or attached to the proposal form (as defined in 1-1 above) are a necessary part thereof and must not be detached.** The blank spaces in the proposal form must be correctly filled in where indicated for each and every item, with totals and grand totals. Any proposal that is incomplete, obscure, or irregular may be rejected. A bid shall be rejected if it contains any alterations or erasures which are not corrected as follows: 1) The alteration or erasure must be crossed out and the correction thereof printed in ink or typewritten adjacent thereto; and 2) The correction must be initialed in ink by the person signing the bid proposal. All bids, when properly made and signed, shall be

placed in a sealed envelope which envelope shall be plainly marked with the project name and Eng. No. and addressed to: the Office of the City Engineer, City of Moorhead; PO Box 779; Moorhead, MN 56561.

1-5 Contractor Resume:

Each bidder, when requested by the City, shall submit the following information and data upon 48 hours notice:

A) The location of bidder's permanent place of business.
B) A statement of equipment, which the bidder proposes to use on the project
C) A financial statement showing assets and liabilities as of a time longer than 6 months previous to the time of bidding, and financial references.
D) A statement listing projects of a similar nature, which the bidder has actually constructed.
E) A list of subcontractors, materials, and suppliers to be used on the project.

1-6 Substitute Materials:

Wherever in the specifications any material, device or equipment is referred to by trade name, catalog reference or a combination of both is followed by the words "or approved equal", that material, device or equipment shall refer to the grade or quality required and shall in no way eliminate materials or products of equally desirable characteristics which will meet the requirements of the specifications. The words "approved equal" shall mean suitable, acceptable, proper or satisfactory in the judgment of the Owner and the Engineer.

SECTION II
AWARD AND EXECUTION OF CONTRACT

2-1 Award of Contract:

The award of contract, if it be awarded, will be made within 30 calendar days after the opening of proposals to the lowest responsible bidder who complies with all prescribed requirements. The successful bidder will be notified by letter, mailed to the address shown on his proposal that his bid has been accepted subject to execution and approval of the contract as required by law.

2-2 Assignment of Contract:

The contract covered by these specifications shall not be assigned or transferred in any manner, and any assignment or transfer thereof, except by operation of law and except by the consent of the City council expressed by resolution, shall fully end and terminate such contract and shall make the same null and void as to any other or further performance thereof by the contractor or his assigns without any other act on the part of the City, and the City, through its proper authorities, may at once proceed to relet such contract, or may, at its discretion, proceed to complete the same as the agent and at the expense of such contractor and his sureties.

2-3 Requirement of Contract Bond:

Upon entering into a contract with the City for the performance of any work, the Contractor shall furnish a contractor's bond in conformance with MSA 574.26 satisfactory to the City as security for the faithful performance of this contract, and for the payment of all persons or firms performing labor or furnishing material in connection with this contract, each in the sum of 100% of the contract price.

SECTION III
SCOPE OF WORK

3-1 Intent of Contract:

The intent of the Contract is to provide for construction and completion of the Project in every detail as described in the Plans and Specifications. It is also intended and will be expected that the work be prosecuted diligently and pressed vigorously to early completion, with due regard being given to public interests, as well as to the obligations and right of all other parties concerned. By the terms of the Contract, the Contractor assumes full

responsibility for performance of the work and agrees to furnish all labor, materials, equipment, tools, supplies, transportation, and other incidentals necessary or convenient to successful completion of the project.

Realizing that it would not be practical to fully describe every detail or to make specific allowances for all probable exceptions and contingencies, it is intended that the Engineer have sufficient executive authority to administer the Contract with discretion, within its general scope, so as to rule out apparent discrepancies, fulfill intentions, and allow for the exigencies of construction, on the basis of engineering judgment, giving careful consideration to all matters encumbering successful performance and completion of the project.

3-2 Extra Work and Alterations:

The Contractor shall notify the Engineer of any potential claims for additional compensation on the basis of extra work or proposed alternatives or substitutions and request authorization prior to beginning work on such items. Extra work items will not be authorized until a change order, extra work order or supplemental agreement has been executed. The Engineer may authorize minor extra work items prior to execution of the change order or extra work order, but only if unit prices for the extra work have been agreed upon in advance of the extra work taking place. Work performed on a Force Account basis will not be permitted except as authorized in writing by the Engineer in advance of the extra work taking place.

Any work completed without written authorization from the Engineer shall be considered unauthorized work. No unauthorized changes or deviations from the plans and specifications or special provisions will be permitted; and any such changes or deviations must be rectified by the Contractor on detection of such change or changes at his own expense no matter how far the work may have progressed beyond that point. If, however, the City may deem it expedient to accept work so changed or incorrectly performed, an equitable adjustment will be made with a proper deduction from the contract price for such unsatisfactory work.

Errors or omissions in the plans and specifications covering the work shall not constitute a cause or reason for claiming additional compensation unless agreed to in writing by the Engineer. In all cases of discrepancies in the plans and specifications, the matter shall be submitted to the Engineer at once for his decision. The Engineer, without invalidating the contract, may order necessary changes made or extra work performed. The Engineer shall order all changes, deductions, or additions in writing and he shall be the sole judge of the value of such changes and the adjustments to be made by adding to or deducting from the contract price.

3-3 Clean Up:

The Contractor shall at all times keep the site of the project free from accumulation of waste materials or rubbish caused by his employees or work and at the completion of the work, he shall remove all his rubbish from and about the project as well as his tools, equipment, scaffolding, and surplus materials and shall leave his work clean and ready for use. In case of dispute, the City may remove the rubbish and surplus materials and charge the cost to the Contractor in such amount as the Engineer shall determine to be just. Maintaining a clean and well kept site shall be considered one of the requirements of the MPCA General Stormwater Permit.

3-4 Maintenance of Traffic:

Unless otherwise provided, the road while undergoing improvement shall be kept open to all traffic, at the expense of and by the Contractor as outlined below.

The Contractor shall provide adequate signs and barricades for traffic control as specified in the most current version of the "Manual on Uniform Traffic Control Devices" and Temporary Traffic Control Zone Layouts Field Manual. Access for residents along the area under construction shall be kept open whenever possible. Residents shall be notified before their access is shut off so that they may make other parking arrangements for their vehicles and thus provide themselves a limited access to the area.

The traffic flow shall be maintained and controlled to the satisfaction of the Engineer throughout the length of the job. The contractor shall cooperate in good faith with the City in attempting to maintain a somewhat regular flow of traffic around and through the construction area. A single lane for local traffic only shall be maintained in the construction area whenever possible to allow access to driveways.

SECTION IV
CONTROL OF WORK

4-1 Engineer's Authority:
The City Engineer of Moorhead shall be and act as Engineer for the City in the performance of this contract. He shall be the sole judge and arbitrator as to the quantity and quality of all materials and workmanship used or required under this contract, and in all matters of doubt or dispute as to the requirements or meaning of the plans or details prepared or to be prepared from time to time as the work progresses, or as to the meaning of any of the clauses, terms or words used in the specifications, and his decision shall be final and binding on all parties concerned. The Contractor and his agents must conform to the Engineer's requirements in all matters pertaining to the work, and shall obey all reasonable legal orders, demands, or requests. Should the Contractor or any of his agents fail to do so, the Engineer may stop or suspend the work, or he may, for any cause which he may deem sufficient, dismiss any workman, foreman, or superintendent from the project, and no person so dismissed shall be again employed upon the work without the sanction of the Engineer. The decision of the Engineer shall be final and conclusive in all matters of estimate or other questions which may arise and shall be a condition to the right of the Contractor to receive any money under this agreement.

4-2 Coordination of Plans and Specifications:
The specifications, plans, general and special conditions, special provisions, and all supplementary documents herein are essential parts of the contract and a requirement occurring in one is as binding as though occurring in all. In case of discrepancies, the Special Provisions shall govern over the plans, the plans shall govern over the City General Specifications, and the City General Specifications shall govern over specifications incorporated by reference, including the MnDOT Standard Specifications for Construction.

4-3 Cooperation By Contractors:
The Contractor shall cooperate with the Engineer, utility owners, and other contractors, to the mutual interest of all parties doing work on the project and as may be in the public interest to have the work of certain contracts and agencies performed concurrently rather than consecutively.

The Contractor shall coordinate his work with that of utility owners so that removal and rearrangement operations may progress in a reasonable manner, that duplication of work may be reduced to a minimum, and that services rendered by those parties will not be unnecessarily interrupted.

When separate contracts are let within the limits of any one project, each contractor shall conduct his work so as not to interfere with or hinder the progress or completion of the work being performed by other contractors. Contractors working on the same project shall cooperate with each other as directed. Each contractor shall assume all liability, financial or otherwise, in connection with his contract and shall save the city harmless from all damages and claims arising from any delay, inconvenience, or loss experienced by him because of the presence and operations of other contractors working within the limits of the same project.

Should a dispute arise between contractors or other agencies doing work on the project as to their mutual rights or obligations, the Engineer will act as referee, when requested to do so or upon his own motion, and his decision as to the rights and obligations of the interested parties shall be final.

4-4 Supervision by Contractor:
The Contractor or Contractor’s designated representative shall possess plans and specifications onsite at all times. The Contractor shall give his personal superintendence to the work or have at the site of the work at all times a competent foreman, superintendent or other representative satisfactory to the City and having authority to act for the Contractor in receiving and executing orders and instructions from the City or its authorized representatives.

4-5 Existing Utility Lines:
During construction it shall be the sole responsibility of the contractor to investigate the location (both horizontally and vertically) of all existing public and private utility lines including telephone conduits, gas, water and sewer mains, power and heating conduits, Cable TV, the house or building services to all such utilities, which may be in place at the site of or along the line of his operations. No existing public utility lines, including house or building services shall be disturbed by the operations of the contractor except those which are specifically designated in the plans and special provisions, without the express permission of the Engineer. In case any of the aforementioned public or private utilities are broken or injured in any way by the contractor's operations, the owner of the utility shall be notified immediately and the damage repaired at the expense of the contractor. Existing utility lines may or may not be shown on the construction plans, but whether they are shown or not will in no way relieve the contractor from his responsibility to take whatever precautions are necessary for their protection. Any delays or inconveniences caused by the existing utilities shall not be considered as a basis for extra compensation by the Contractor. The Contractor shall utilize the Gopher OneCall notification system in addition to contacting adjacent private property owners in advance of beginning underground utility work or excavation operations.

4-6 Survey and Stakes:
All survey and stakes for alignment and grade will be made and set by the City Engineer or his delegated representative unless otherwise specifically provided in the technical specifications or special provisions.

The Contractor shall give the Engineer or the Engineer's representative at least two 2 working days (Monday-Friday) notice before requiring the survey crew to be on a project site to commence construction staking. This minimum notice is required whenever the Contractor prepares to commence work on any portion of the contract, or at any new place, as well as at any place where work has been relinquished or stopped for any cause.

If there is no portion of the contract with the initial construction staking complete so that the Contractor is unable to proceed with construction, then at the discretion of the Engineer, the Contractor may be granted a temporary suspension of the working days or an extension of the completion date of the contract. No other compensation will be granted. The working days count will be started as soon as the staking is complete on any portion of the contract.

All work done under this contract shall be built in accordance with the line and grade shown on the plans or as given by the Engineer.

The Contractor is responsible for the preservation of all stakes and marks in their proper positions, and in case any of them are lost, destroyed or obliterated after once having been given, he shall at once notify the Engineer, and all expense incurred by the City in replacing the same may be charged against the Contractor and deducted from the estimates solely according to the judgment of the Engineer. Any delays in construction due to the time it takes to replace stakes shall not be considered as a justifiable delay and thus no allowance will be made in either working day or completion date schedules.

The Contractor is responsible for the preservation of all survey monuments (block corners, property pins, PC's, PT's, etc.) existing on the project site during construction. If the Contractor should remove any survey monuments, whose removal was not required by the plans, then the City shall withhold from the contract estimates all expenses incurred from having the survey monuments replaced by a registered land surveyor as required by law.

4-7 Inspection of Work:
The City and its representative shall at all times have access to the work wherever it is in preparation or progress and the contractor shall provide proper facilities for such access and inspection.

The City shall have the right to reject materials or workmanship which does not conform to the plans and specifications and all defective work shall be satisfactorily corrected, and rejected materials shall be removed from the premises without charge to the City. If the contractor does not correct such condemned work and

remove rejected materials within a reasonable time, as fixed by written notice; the City may remove them and charge the expense to the Contractor.

The work will be conducted under the general direction of the City Engineer and is subject to inspection by his authorized inspectors to ensure strict compliance with the terms of these Contract Documents. No inspector is authorized to change any provisions of the plans or specifications without written authorization of the Engineer, nor shall the presence or absence of an inspector relieve the contractor from any requirement of the contract.

4-8 Materials: Specifications, Samples, Tests and Acceptance

Shop Drawings shall be submitted prior to either manufacture or delivery of materials to the construction site. If the Contractor proposes to substitute materials on an "or equal" basis, the request shall be made in writing, and the proposed substitution items shall be clearly identified as such in the shop drawing submittal, which shall contain all appropriate specification documentation needed to evaluate the substitution. The determination of whether or not the product meets the specifications as an "or equal" product shall be at the sole discretion of the Engineer. If evaluated and found to be an "or equal product" a written approval letter from the Engineer will be issued for the substitution of materials as per the request.

All materials shall be tested as detailed in the Special Provisions and the most current version of the MNDOT Standard Specifications for Construction and MNDOT Schedule for Materials Control. The testing of construction materials will be the responsibility of the Owner unless otherwise specified in the specifications. The Owner shall have the authority to stop work in order to correct or replace such items that have failing test results.

The contractor shall be responsible for all costs associated with the failing tests, including but not limited to labor, equipment, and materials required for correction or replacement of failing work, additional testing required to determine the extent of failing work, or repeated testing of failing work.

4-9 Acceptance of Work:

Upon written notice from the Contractor that all work has been completed, the Engineer will make an inspection of the entire project. If any work is found unsatisfactory or incomplete, a list of discrepancies (punchlist) will be issued in writing and another inspection will be made after receiving notice that the discrepancies have been corrected.

Neither acceptance by the City, the final payment, or any provisions in the Contract Documents shall relieve the Contractor of the responsibility for negligence or faulty materials or workmanship within the extent and period required by law and upon written notice, he shall remove any defects due thereto and pay for any damage to other work resulting there from which shall appear within twelve (12) months after the date of completion and acceptance. The City Council of Moorhead shall interpret the day of completion and acceptance as being the day on which the work is accepted and final payment approved.

4-9.1 Correction Period:

If within one year after the date of final completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents or any subsequent agreement, any Work is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions: (i) correct such defective work, or, if it has been rejected by Owner, remove it from the site and replace it with work that is not defective, and (ii) satisfactorily correct or remove and replace any damage to other work or the work of others resulting there from. If Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective work corrected or the rejected work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

In special circumstances where a particular item of equipment is placed in continuous service before final completion of all the work, the correction period for that item may start to run from an earlier date if so provided

in the specifications or by written amendment.

Where defective work (and damage to other work resulting there from) has been corrected, removed or replaced under this paragraph 4-8, the correction period hereunder with respect to such work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

SECTION V
LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

5-1 Laws to be Observed:
The Contractor shall keep fully informed of all Federal and State Laws; all local laws, ordinances and regulations, and all orders and decrees of bodies and tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. He shall at all times observe and comply with all applicable laws, ordinances, regulations, orders and decrees; and shall protect and indemnify the City and its representatives against all claims and liabilities arising from or based on violations committed by himself or his employees.

5-2 Permits and Public Utilities:
The City shall apply for and pay all application and licensing fees for the permits as listed in the Special Provisions. The Contractor shall take out and pay for all other permits, licenses or fees and shall give all notices necessary for the prosecution of the work in accordance with the provisions of all laws and ordinances. He shall make the necessary arrangements for the use of, and shall pay for any and all utilities service which may be necessary to the prosecution of the work or as may be specified in the special provisions. In case it is necessary to use City water, the Contractor must obtain a written permit (prior to commencing work) from the General Manager of Moorhead Public Service which will specifically set forth the locations of the hydrants or mains to be used or tapped. In lieu of such permit, it shall be incumbent upon the Contractor to install and pay for private service or services adjacent to the work. In no case, however, shall the Contractor make use of any private service without the consent of the owner thereof.

5-3 Patent Fees and Royalties:
Contractor shall pay all license fees and royalties and assume all costs incident to use in the performance of the work or the incorporation in the work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the work and if to the actual knowledge of Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner, Engineer, Engineer's Consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the work of any invention, design, process, product or device not specified in the Contract Documents.

5-4 Indemnification:

5-4.1: To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner, Engineer, Engineer Consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from the performance of the work, provided that any such claim, cost, loss or damage: (i) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself), including the loss of use resulting there from, and

(ii) is caused in whole or in part by any negligent act or omission of Contractor, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable. Only to the extent caused by Contractor.

5-4.2: In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors or employees by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 5-4.1 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any such Subcontractor, Supplier or other person or organization under worker's compensation acts, disability benefit acts or other employee benefit acts.

5-4.3: The indemnification obligations of Contractor under paragraph 5-4.1 shall not extend to the liability of Engineer and Engineer's Consultants, officers, directors, employees or agents caused by the professional negligence, errors, or omissions of any of them.

5-5 Contractor's Responsibility:

The whole of the work and everything pertaining thereto, which is specified or reasonably implied in these contract documents, shall be at the sole cost and risk of the Contractor from its commencement until its final acceptance by the City. The Contractor shall cause the least possible inconvenience to the public and to private individuals and residents in the vicinity of the work, and shall render them all reasonable assistance, whenever so required on account of his operations. He shall not permit any materials, stones, or rubbish to be deposited, thrown, or scattered upon or to remain upon any private or adjoining grounds without the owner's consent, nor cause or suffer to exist any unnecessary obstructions anywhere, and he shall provide watch guards whenever needed, and shall also provide all requisite signal lights, fences, temporary barricades, guards, and crosswalks, for the safety and convenience of the public and the residents or others in the vicinity of the work. The contractor shall refer to the Manual on Uniform Traffic Control Devices for streets and highways. He shall devote his special attention to keep all hydrants and water valves clear and easy to access, and all crossings as free, open, safe, and unobstructed as possible.

5-6 Use of Premises:

Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, right-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding. Contractor shall to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner, Engineer, Engineer's Consultant and anyone directly or indirectly employed by any of them from and against all claims, costs, losses and damages arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

During the progress of the Work, Contractor shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, the Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials. Contractor shall leave the site clean and ready for occupancy by Owner at Substantial Completion of the Work. Contractor shall restore to original condition all property not designated for alteration by the Contract Documents.

Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

5-7 Withholding of State Income Tax:
Before final payment is made for the work on this project, the contractor must make a satisfactory showing that he has complied with the provisions of Minnesota Statutes Annotated 290.92 requiring the withholding of State Income Tax for wages paid employees on this project. Receipt by the Moorhead City Clerk of a Certificate of Compliance from the Commissioner of Taxation will satisfy the requirement. The contractor is advised that before such certificate can be issued, he must first place on file with the Commissioner of Taxation an affidavit that he has complied with the provisions of M.S.A. 290.92.

The Commissioner of Taxation, Centennial Building, St. Paul, Minnesota, will supply the required affidavit form on request.

5-8 Exemption from Surety Deposits for Out-of-State Contractors:
The Contractor shall provide to the city a completed form SD-E, Exemption from Surety Deposit for Out-of-State Contractor. Upon receipt of this form, the City will forward to the Department of Revenue for Certification. **FAILURE BY THE OUT-OF-STATE CONTRACTOR TO PROVIDE THIS COMPLETED FORM WILL RESULT IN AN 8% RETAINAGE ON ALL PAY VOUCHERS UNTIL COMPLETION OF THE PROJECT.**

5-9 Insurance:
The Contractor shall take out and maintain during the life of this contract, Worker's Compensation Insurance covering all persons employed by him at the site of the project and, in case any of the work is sublet, the Contractor shall require the subcontractor similarly to provide Worker's Compensation Insurance unless the latter's employees are covered by the protection offered by the Contractor.

The Contractor shall maintain, during the life of this contract, a public liability insurance policy with liability limits as stated in Section 00800 of the specifications.

Before any work is started or before any equipment, including trucks and automobiles, is used in the performance of this contract, the Contractor shall furnish the City with satisfactory evidence that all operations to be performed are properly covered by appropriate insurance outlined in this paragraph.

5-10 Safety and Accident Prevention:
In the performance of this contract, the contractor shall comply with all applicable Federal, State, and Local laws governing safety, health, and sanitation. The contractor shall provide all safeguards, safety devices, and protective equipment and take any other needed actions, on his own responsibility necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

The Contractor and all subcontractors shall give special attention to MS 182 and Minnesota Department of Labor and Industry's MN/OSHA Standards 5205 and 5207. The contractor is responsible for compliance with this Act except that the Engineer shall be responsible for personal safety equipment of his employees and for specifications that conflict with safety standards. The Contractor will immediately inform the Engineer of any such specifications to minimize delays in correcting.

SECTION VI
PROSECUTION AND PROGRESS

6-1 Subletting of Contract:
The Contractor shall notify the Engineer in writing of the names of the subcontractors proposed for the principal parts of the work, and shall not employ any subcontractor that the City objects to as incompetent or unfit. All agreements for subletting of work shall be bonafide subcontracts for component portions of the work and not in any way for the purpose of evading or circumventing the requirement and provisions of the Contract Documents. In no case shall the total of all subcontracts exceed 60% of the total contract price for the work without written consent from the engineer.

Projects in excess of $50,000, the Contractor may sublet work only to subcontractors that meet the definition of "responsible contractor" in Minnesota Statutes §16C.285, subdivision 3. The Contractor is responsible for obtaining verifications of compliance with §16C.285 from subcontractors using a form provided by the City. The Contractor must provide such verifications to the City upon the City's request.

The Contractor agrees to be fully responsible to the City for all acts or omissions of his subcontractors and of anyone employed directly or indirectly by him or them and this contract obligation shall be in addition to the liability imposed by law upon the Contractor.

The Contractor shall bind every subcontractor, and every subcontractor must agree to be bound, by the terms of the plans and specifications, general conditions and special provisions as far as applicable to his work, unless otherwise specifically noted in writing and approved by the Engineer.

6-2: Preconstruction Conference:
The Contractor and the Engineer shall arrange a preconstruction conference involving all interested parties to this project. This conference will include discussion of the proposed method of construction, construction schedule, coordination between Contractors, traffic signing and routing, existing and proposed utilities, effect of construction on residents, and other problems that may be encountered or anticipated. This conference is anticipated to take place within seven (7) days of the award of the contract.

6-3: Hours of Operation:
The Contractor shall not begin work prior to 7:00 a.m., nor work later than 7:00 p.m. without the express written consent of the Engineer. When so authorized to work outside the normal hours of operation, the Contractor shall make every reasonable effort to minimize impacts of construction activity such as noise, dust, heavy traffic, etc. Saturday work shall not commence before 8am. Engineer shall be notified of Saturday work at least two days in advance.

6-4: Sunday and Holiday Work:
The Contractor shall not do any construction work on Sundays or legal holidays on this project except by approval of the Engineer. The contractor shall make such request of the Engineer at least two (2) working days (Monday-Friday) in advance of proposed Sunday or Holiday work.

6-5: Failure to Complete the Work on Time:
Time being an essential element of the Contract, it is hereby agreed that the Contractor shall insure that the work is done in an expeditious manner. The City will not reduce the progress payment **retainage below 5% until final completion on any contract where it is deemed that the Contractor did not make satisfactory progress.**

SECTION VII
MEASUREMENT AND PAYMENT

7-1 Measurement of Quantities:
Measurement of quantities shall be done in conformance with Specification 1901 of the MnDOT Standard Specifications for Construction.

7-2 Compensation for Increased or Decreased Quantities:
There shall be no adjustment in unit price for increased or decreased quantities under this contract.

7-3 Partial Payments:
Partial payment requests shall be submitted to the Engineer on a monthly basis for review and approval on the last Friday of the month, or some other date as agreed upon at the Preconstruction Conference. Partial payments will not be processed until the MPCA General Storm Water Permit inspection and maintenance forms for the time period covered in the estimate have been submitted. The City will make payment at the rate of 100% of the value of undisputed work actually completed and materials in place, less all legal forfeitures and deductions including, but not limited to a 5% retainage. The City will withhold a retainage in the amount of 5% of the total work completed and materials on hand until the project is fully complete. However, the City may reduce the amount retained upon substantial completion at the discretion of the City Engineer. Payments may also be made for acceptable materials stored on the site of the project for incorporation into the finished work on the basis of 100% of the invoice of such materials, but likewise subject to legal forfeitures and deductions. The estimates upon which these payments are to be made will be prepared by the Engineer either by measurements or by estimation as he may find most convenient or practicable. They must be considered as only approximate and are not to be taken or construed as an acceptance of the work so estimated. Before receiving such estimates, however, the contractor or his authorized representative shall certify that the estimate represents a just and correct claim, and that no part of it has been paid. The contractor or his authorized representative shall further certify that all prior payments received for work and labor to date have been fully paid to the applicable subcontractors and suppliers.

Upon receipt of any partial payment from the City, the contractor shall pay any subcontractors and suppliers within ten days of the contractor's receipt of payment from the City for undisputed services provided by the subcontractors and suppliers. If the contractor fails to make the payment for undisputed services to the subcontractor or supplier within the above described 10 days of receipt of payment from the City, the Contractor shall also pay interest of 1-1/2 percent per month or any part of a month to the subcontractor or supplier on any undisputed amount not paid on time to the subcontractor. The minimum monthly interest penalty payment for an unpaid balance of $100 or more is $10. For an unpaid balance of less than $100, the contractor shall pay the actual penalty due to the subcontractor or supplier. A subcontractor or supplier who prevails in a civil action to collect interest penalties from a contractor must be awarded its costs and disbursements, including attorney's fees, incurred in bringing the action.

7-4 Acceptance and Final Payment:
After the entire work, including all punchlist items, shall have been completed in strict accordance with the provisions of the plans and the contract documents, the Contractor shall make a written request to the Engineer to conduct the Final Inspection. Upon such request, the Engineer shall make a final inspection of the entire project and, if found acceptable, shall within 30 days thereafter prepare a final estimate which shall be based on accurate measurements of all work performed and shall then submit such estimate together with his recommendations to the City Council for their approval, and full payment shall then be made, less any partial estimates already paid and legal deductions or forfeitures for the satisfaction of liens or similar claims. Before receiving such final estimate, the Contractor shall nevertheless make and file with the City Clerk an affidavit that all claims for all work and labor performed and materials furnished to this contract have been fully paid.

Final contract payment will not be processed until the City of Moorhead has received the State-Certified IC-134 Forms for all sub-Contractors and the primary Contractor and all required payroll and trucking reports have been received.

-END OF SECTION-

CITY OF MOORHEAD
INSURANCE REQUIREMENTS

Contractor's Liability Insurance

The Contractor shall purchase and maintain such liability and other insurance as is appropriate for the work being performed and furnished and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance and furnishing of the work and Contractor's other obligations under the Contract Documents, whether it is to be performed or furnished by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform or furnish any of the work, or by anyone for whose acts any of them may be liable:

1.1 claims under workers' compensation, disability benefits and other similar employee benefit acts;

1.2 claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

1.3 claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

1.4 claims for damages insured by customary personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or (ii) by any other person for any other reason;

1.5 claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting there from; and

1.6 claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The policies of insurance so required by this Section 00800 to be purchased and maintained shall:

1.7 with respect to insurance required by paragraphs 1.3 through 1.6 inclusive, include as additional insured's (subject to any customary exclusion in respect of professional liability) Owner, Engineer, Engineer's Consultants, and any other persons or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insured's, and include coverage for the respective officers and employees of all such additional insured's;

1.8 include the specific coverage and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

1.9 include completed operations insurance;

1.10 include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 5-3, 5-5 and 5-4.1 through 5-4.3 of Section 00700, General Conditions;

1.11 contain a provision or endorsement that the coverage afforded will not be cancelled, materially changed or renewal refused until at least thirty days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to paragraph 1.14 will so provide);

1.12 remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective work in accordance with Paragraph 4-8 of Section 00700, General Conditions;

1.13 with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter).

1.14 Contractor shall deliver to Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain in accordance with Section 00800.

Bonds and Insurance

The following are your instructions with respect to the requirements for Bonds and insurance to be included in the Contract Documents for the project:

Bonds:

A. Bid Security is to be provided by each Contractor in the amount of five percent (5%) of the maximum Bid price and will be in the form of Certified or bank cashier's check drawn to the order of "City of Moorhead". The bidder may submit a Bidder's Bond written through an insurance agency or cash in the same in lieu of a certified check.

B. Construction Performance Bond and Construction Payment Bond each in an amount equal to the Contract Price are required.

Liability Insurance

The limits of liability for the liability insurance required by Section 00800, Insurance Requirements, shall provide coverage for not less than the following amounts or greater where required by law or regulations and the coverage under Section 00800 shall be as follows:

A. Workers' Compensation, etc. under Paragraphs 1.1 and 1.2 of Section 00800, Insurance Requirements:

i. State:	Statutory
ii. Applicable Federal (e.g. Longshoreman's)	Statutory
iii. Employer's Liability:	$2,000,000

B. Comprehensive or Commercial General Liability under Paragraphs 1.3 through 1.5, Section 00800, Insurance Requirements, (including Premises-Operations; Independent Contractor's Protection; Products Liability and Completed Operations; Broad Form Property Damage):

i. General Aggregate (except Products-Completed Operations)	$4,000,000
ii. Products-Completed Operations Aggregate	$4,000,000
iii. Personal/Advertising Injury (per Person/Organization)	$2,000,000
iv. Each Occurrence (Bodily Injury/Property Damage)	$2,000,000
v. Limit per Person Medical Expense	$5,000

vi. Personal Injury Liability Coverage will include Claims arising out of Employment.
vii. Exclusions of property in Contractor's care, custody or control will not be eliminated.
viii. Property Damage Liability Insurance will provide coverage for explosion, collapse and underground damage.

C. Contractual Liability under Paragraph 1.10 of Section 00800:

i. General Aggregate	$4,000,000
ii. Each Occurrence (Bodily Injury/Property Damage)	$2,000,000

D. Automobile Liability under Paragraph 1.6 of Section 00800, Insurance Requirements: Combined single limit of $1,000,000 for bodily injury and property damage. If the Contractor uses a drone for any reason on this project, their insurance shall include Aircraft Liability under 1.6 of Section 00800, Insurance Requirements for a combined single limit of $250,000 for bodily injury and property damage.

E. Liability coverage for Owner, Engineer, Engineer's Consultants and others listed in the Supplementary Conditions will be provided (subject to customary exclusions for professional liability) by endorsement as additional insured's on Contractor's Liability Policy

-END OF SECTION-

CITY OF MOORHEAD SPECIFICATIONS
AIR & WATER POLLUTION

GENERAL REQUIREMENTS

(1717) Air and Water Pollution: Pollution of natural resources of air, land and water by operations under this contract shall be prevented, controlled, and abated in accordance with the rules, regulations and standards adopted and established by the Minnesota Pollution Control Agency, and in accordance with the MPCA Construction Stormwater General Permit and the provisions of MnDOT 1717 and 1803.5 as modified below:

By signing the Proposal, the Contractor is a co-permitee with the City to ensure compliance with the terms and conditions of the Construction Stormwater General Permit (MN R100001) and is responsible for those portions of the permit where the Contractor is referenced. This Permit establishes conditions for discharging stormwater to "waters of the State" from construction activities that disturb one or more acres of total land area. A copy of the "General Permit Authorization to Discharge Stormwater Associated with a Construction Activity under the National Pollutant Discharge Elimination System (NPDES)/State Disposal System Permit Program" may be obtained from the MPCA website.

Training Requirements: The Contractor shall comply with the requirements of Section 21.1 (Training Requirements) of the Construction Stormwater General Permit for individual(s) overseeing implementation of, revising, and amending the SWPPP and individual(s) performing inspections as required in Section 11.1, individual(s) performing or supervising the installation, maintenance and repair or BMPs. At least one individual on a project must be trained in these job duties.

The Contractors Erosion Control Supervisor shall provide training documentation to the City before the start of construction. The training must be given by state, federal agencies, professional organizations, or other entities with expertise in erosion prevention, sediment control, permanent stormwater management and the Minnesota NPDES/SDS Construction Stormwater General Permit. An update refresher-training must be attended every three (3) years.

Construction Activity Requirements: The Contractor shall be solely responsible for complying with the requirements of (construction activity requirements) the Construction Stormwater General Permit where "Permittee", "Owner" or "Operator" is referenced until a Notice of Termination has been completed and approved.

The Contractor shall be responsible for providing all inspections, documentation, record keeping, maintenance, remedial actions, and repairs required by the permit. All inspections, maintenance, and records required in the General Permit Section 11.1, shall be the sole responsibility of the Contractor. The words "Permitee", "Owner" or "Operator" in these referenced paragraphs shall mean "Contractor". Standard forms for logging all required inspection and maintenance activities have been included in the Contract and shall be used by the Contractor. Copies of all inspection and maintenance forms used on this Project shall be turned over to the Engineer every two weeks. Pay requests will not be processed until the inspection and maintenance forms for the time period covered in the estimate have been submitted.

The Contractor shall have all logs, documentation and inspection reports on site or within a vehicle during normal working hours for Engineer's review. The Contractor shall immediately rectify any shortcomings noted by the Engineer. All meetings with the MPCA, Watershed District, WMO, or any local authority shall be attended by both the Engineer and the Contractor or their representatives. No work required by said entities, and for which the Contractor would request additional compensation from the city, shall be started without approval from the Engineer. No work required by said entities and for which the changes will impact the design or requirements of the Contract documents or impact traffic shall be started without approval from the Engineer.
The Contractor shall immediately notify the Engineer of any site visits by Local Permitting Authorities.

If the Contractor fails to perform the requirements as listed herein, the Engineer will issue a Work Order detailing the required action. The Contractor shall start the required action within twenty-four (24) hours of receipt of the Work Order and continue the required action until the Project is brought into compliance with the permit. Failure to perform the required action as specified, shall subject the Contractor to a $1000/calendar day deduction.

The Contractor shall review and abide by the instruction contained in the permit package. The Contractor shall hold the city harmless for any fines or sanctions caused by the Contractor's actions or inactions regarding compliance with the permit or erosion control provisions of the Contract Documents.

The Engineer shall have authority to limit the surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow and fill operations and to direct the Contractors to provide immediate permanent or temporary control measures to prevent contamination of adjacent streams and other water courses, lakes, ponds, and areas of water impoundment. Cut slopes shall be seeded and mulched as the excavation proceeds to the extent considered desirable and practicable and as required by the Construction Stormwater General Permit.

The Contractor will be required to incorporate all permanent erosion control features into the project at the earliest practicable time as outlined in his accepted schedules. Temporary pollution control measures will be used to correct conditions that develop during construction that were not foreseen during the design state; that are needed prior to installation of permanent erosion control features; or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with the permanent control features on the project.

The Engineer will limit the area of excavation, borrow and embankment operations in progress commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent erosion control measures current in accordance with the accepted schedules. Should seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately to the extent feasible and justified.

In the event of conflict between these requirements and any pollution control laws, rules or regulations of other Federal and State or local agencies, the more restrictive requirements shall apply.

Temporary Pollution Control: The Contractor shall furnish material, labor and equipment for temporary control measures as shown in the plans or ordered by the Engineer and shall provide for the acceptable maintenance thereof during the life of the contract, to effectively prevent water pollution through the use of berms, dikes, dams, sediment basins, fiber mats, netting, gravel, mulches, grasses, slope drains, and other erosion control devices or methods.

Temporary pollution control may include construction work outside the right of way where such work is necessary as a result of borrow pit operations, haul road construction, equipment storage, and plant or waste disposal sites.

The temporary pollution control provisions contained herein shall be coordinated with the permanent erosion control features specified elsewhere in the contract to the extent practical to assure economical, effective, and continuous erosion control throughout the construction and post-construction period.

At the preconstruction conference, or prior to the start of the applicable construction, the Contractor shall submit for acceptance his proposed schedules for accomplishment of temporary and permanent erosion control work, as are applicable for clearing and grubbing; grading, construction of bridges and other structures at watercourses; paving, and miscellaneous construction. He shall also submit for acceptance his proposed method of erosion control on haul roads and at borrow pits and his plans for disposal of waste material. No work shall be started until the applicable erosion control schedules and the Engineer has accepted methods of operation.

Temporary Seeding Requirements: Turf Establishment

The following schedule shall be used for final stabilization:

*Maximum time an area can remain open when the area is not actively being worked.

Location	Time*
Within 1 mile of an impaired water	7 Days
Outside 1 mile of an impaired water	14 Days

Areas receiving mulch or erosion control mats shall be maintained and watered until the area is 70 percent established in turf. Areas not achieving 70 percent turf establishment (4) weeks after seeding shall be tilled, reseeded and mulch or erosion control mats reinstalled at Contractor's expense. This process shall be repeated at Contractor's expense until the 70 percent coverage requirement is met.

Areas not receiving mulch or erosion control mats shall be seeded in accordance with the seeding specifications.

Bare soil areas awaiting seeding shall have temporary erosion and sedimentation controls in place to meet terms of the MPCA Construction Stormwater General Permit.

This provision shall be in effect for the duration of the Contractor's responsibility to comply with terms of this project's MPCA Construction Stormwater General Permit (i.e. until an approved Application for Permit Transfer/Modification or Notice of Termination releases the Contractor from further responsibility.

Measurement and Payment: All temporary and permanent erosion and pollution control measures necessitated by the Contractor's operations outside the right of way, and all temporary erosion and pollution control measures necessitated by the Contractor's negligence, carelessness, or failure to properly coordinate the installation of permanent controls as part of the work scheduled within the right of way, shall be performed as ordered by the Engineer at the Contractor's own expense.

In case of failure on the part of the Contractor to control erosion, pollution, and siltation as ordered, the City reserves the right to employ outside assistance or to use its own forces to provide the necessary corrective measures. All expenses so incurred by the City, including its engineering costs, that are chargeable to the Contractor as his obligation and expense, will be deducted from any monies due or coming due the Contractor.

Where the Engineer orders installation of either temporary or additional permanent erosion or pollution control measures, in the absence of any negligence, carelessness, or failure on the Contractor's part to properly schedule and carry out the measures provided for in the contract, and except for such work which is necessitated by the Contractor's operations outside the right of way, the work shall be performed at the City's expense and payment will be made therefore at appropriate contract bid prices for like work, or as Extra Work if there is no comparable item of work in the contract.

Implementation of Clean Air Act and Federal Water Pollution Control Act: By signing this bid, the bidder will be deemed to have stipulated as follows:

(a) That any facility to be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et. seq., as amended by Pub. L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et. seq., as amended by Pub. L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR, Part 15), is not listed on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

(b) That the City shall be promptly notified prior to contract award of the receipt by the bidder of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility to be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

Complete your application online!

Minnesota Pollution Control Agency

Application for General Stormwater Permit for Construction Activity (MN R100001)

National Pollutant Discharge Elimination System / State Disposal System (NPDES/SDS)

Please submit to: Minnesota Pollution Control Agency
Construction Stormwater Permit Program
520 Lafayette Road North, St. Paul, MN 55155-4194

PLEASE READ: This form is for new permit applications only. Use the Notice of Termination/Permit Modification form to transfer permit coverage for a project or a portion of a project to a new owner/contractor. Forms are available at the MPCA's Construction Stormwater Web site: www.pca.state.mn.us/water/stormwater/stormwater-c.html. Complete your application online!

Please refer to the application instructions and the NPDES/SDS General Stormwater Permit for Construction Activity (MN R100001) as you complete this form. Brackets '[ ]' refer to specific parts of the permit. For assistance, call the Stormwater Program at 651-757-2119 or toll-free at 800-657-3804.

Are you ready to apply?

1. Stormwater Pollution Prevention Plan (SWPPP)

a. Has a Stormwater Pollution Prevention Plan been developed for this project and incorporated into the project's plans and specifications [Part III.A] ☐ Yes ☐ No

b. If an environmental review was required for this project or a common plan of development or sale that includes this project, has the environmental review been completed and all stormwater mitigative requirements been incorporated in the SWPPP as required in Part III.A.6 of the permit? ☐ Yes ☐ No ☐ NA

2. Discharges to Special or Impaired Waters

a. If any portion of the project has a discharge point within 1 mile of a special water or a water that is impaired for sediment or a sediment related parameter (see Appendix A.B), does the SWPPP contain the additional requirements found in Appendix A, Part A-C? If the project does not have a discharge point within 1 mile of a special water or a water that is impaired for sediment or a sediment related parameter of the permit indicate "NA" ☐ Yes ☐ No ☐ NA

b. If this project is discharging to a Calcareous fen, has an approval letter been obtained from the DNR as required in Part III.A.8 of the permit? ☐ Yes ☐ No ☐ NA

STOP if you responded 'No' to any question above. A SWPPP must be developed prior to submitting a permit application. Complete the above requirements and check 'Yes' before submitting this application. Continue if you responded 'Yes' or 'NA' to all questions above.

3. Additional Application Review:

a. Will the project include alternative treatment methods? [Part III.C.5] If yes, this application and the alternative treatment plans must be submitted a minimum of 90 days before construction starts. ☐ Yes ☐ No

b. If yes, are the plans attached? ☐ Yes ☐ No

c. Will the project disturb 50 acres? AND Is there a discharge point within one mile of an impaired or special water whose discharge may reach an impaired or special water listed in Appendix A of the permit? [Part II.B.1.b] If yes, this application and the SWPPP must be submitted a minimum of 30 days before construction starts. ☐ Yes ☐ No

d. If 'Yes,' is the SWPPP attached? ☐ Yes ☐ No

4. Application Fee:

Is the required $400 Application Fee (payable to the MPCA) enclosed? ☐ Yes

Construction Activity Information

5. Project name: _____

6. Project location:

a. Briefly describe where the construction activity occurs (For example: "Intersection of 45th St. and Irving Ave.") Include address if available: _____

b. All cities where project will occur: _____

c. All counties where project will occur: _____

d. All townships where project will occur: _____

e. Project ZIP Code: _____

f. Latitude and longitude of approximate centroid of project:

Latitude: __.____ ° N (decimal) *Preferred* *Longitude:* __.____ ° W (decimal) *Preferred*

__ ° __ ' __ N (degrees, minutes, seconds) __ ° __ ' __ W (degrees, minutes, seconds)

g. Method used to collect latitude and longitude:

☐ GPS

☐ USGS Topographic map — Map scale: _____

☐ Other

7. Project size:

Number of acres to be disturbed to the nearest quarter acre: _____

8. Project map:

A map must be included with the application for all projects disturbing 50 acres or more. Is a project map included? ☐ Yes ☐ No

9. Project type:

☐ Residential ☐ Residential / Road construction ☐ Other: ☐

☐ Commercial / Industrial ☐ Commercial / Road construction

☐ Road construction ☐ Commercial / Residential / Road construction

10. Cumulative impervious surface:

a. Existing area of impervious surface in acres: _____

b. Post-construction area of impervious surface in acres (If additional new impervious surface created by the project is less than one acre, skip to Question 12): _____

11. Permanent stormwater management:

- ☐ Wet sedimentation basin
- ☐ Infiltration / filtration
- ☐ Regional ponding
- ☐ Other (Use only if there is no feasible way of installing the treatment systems listed above for reasons such as lack of right-of-way or proximity to bedrock)
- ☐ Alternative methods (If using alternative methods, construction cannot commence until receiving approval from the MPCA.)

12. Receiving waters:

Identify surface waters within one mile of project boundary that will receive storm water from the site or discharge from permanent Stormwater management system. Include waters shown on USGS 7.5 minute quad or equivalent, all Special Waters and Impaired waters identified in Appendix A of the permit (To find Special or Impaired Waters, use the Special and Impaired Waters Search tool at www.pca.state.mn.us/water/stormwater/stormwater-c.html.

The Impaired Waters* list, also known as the Section 303(d) list can be found at http://www.pca.state.mn.us/water/tmdl/index.html Use additional paper if necessary.

* Impaired waters for the purpose of this permit are those identified as impaired for the following pollutant(s) or stressor(s): phosphorus, turbidity, dissolved oxygen, or biotic impairment

Name of water body	**Type of water body** (Ditch, pond, wetland, stream, river)	**Special Water?** See Stormwater Permit, Appendix A	**Impaired Water?** See Stormwater Permit, Appendix A
		☐ Yes ☐ No	☐ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No

13. Dates of construction

a. Start date: / /

b. Estimated Completion date: / /

STOP This form will not be accepted if the Owner and Contractor contact information sections, below, are BOTH not completed and signed. If the owner is also the contractor, or a contractor hasn't yet been selected, the owner must also fill out the contractor information section and sign again.

Responsible parties — BOTH PARTIES MUST SIGN

Owner

Business or firm name

Last name | First name | Title

E-mail | Phone (include area code)

Mailing address | City | State | ZIP Code

Alternate contact name | E-mail | Phone (include area code)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or the persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the NPDES/SDS General Stormwater Permit Construction Activity (MN R100001) that authorizes stormwater discharges associated with the construction site identified on this form.

X Authorized signature: _____ Date: _____

This Application must be signed by:

- ***Corporation:*** *a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.*
- ***Partnership or Sole Proprietorship:*** *a general partner or the proprietor.*
- ***Municipality, State, Federal or Other Public Agency:*** *principal executive officer or ranking elected official.*

Contractor

Business or firm name

Last name | First name | Title

E-mail | Phone (include area code)

Mailing address | City | State | ZIP Code

Alternate contact name | E-mail | Phone (include area code)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or the persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the NPDES/SDS General Stormwater Permit Construction Activity (MN R100001) that authorizes stormwater discharges associated with the construction site identified on this form.

X Authorized signature: _____ Date: _____

This Application must be signed by:

- ***Corporation:*** *a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.*
- ***Partnership or Sole Proprietorship:*** *a general partner or the proprietor.*
- ***Municipality, State, Federal or Other Public Agency:*** *principal executive officer or ranking elected official.*

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Notice of Termination/ Permit Modification Form

NPDES Construction Stormwater Permit Program

Transfer or terminate your National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit. Allowable changes are permit termination and permit transfer for all or a portion of the site. This form replaces the Notice of Termination (NOT), Permit Transfer, Permit Modification, and Subdivision Registration forms used under the former permit.

Instructions for this form are located on the Internet at http://www.pca.state.mn.us/publications/wq-strm2-60i.pdf.

Form will be invalid and returned to sender unless the checkbox associated with the applicable actions is checked and the corresponding signature is provided in section A-1, A-2, A-3, and or A-4.

Please submit to: **Construction Stormwater Permit Program**
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Existing Permit Identification

a. Current permit ID: C000 _ _ _ _ _ or SUB00 _ _ _ _ _

b. Project name: _____

Project location: _____

_____

Briefly describe where the construction activity occurs (for example: Intersection of 45th St. and Irving Ave.). Include address if available.

Select Option 1, 2, or 3

1. Notice of Termination (NOT) for entire site by existing owner

Select this option when a project has achieved final stabilization with existing owner / contractor and no part of the site is being transferred to a new owner and all construction activity is complete.

c. ☐ Notice of Termination for entire existing permitted site or a subdivided site. (Current owner and contractor must sign under the "Current" Owner and "Current" Contractor sections respectively).

Check above box and sign section A-1 and A-2 on page 2.

2. Transfer of entire site to new owner or contractor (Transfer/Modification)

Select this option if the ***entire*** site (represented by the ID above) has either a new owner and/or new general contractor. Check all the boxes below that apply.

d ☐ New Owner for entire existing permitted site.
e. ☐ New Contractor for entire existing permitted site.
f. ☐ Current Owner for entire existing permitted site.
g. ☐ Current Contractor for entire existing permitted site.

Check above box(es) and sign section A-3 and A-4 page 3 and or check above box(es) and sign section A-1 and A-2 page 2
Both "Current" and "New" Parties must sign this form (preferred), however, separate forms are acceptable.

3. Transfer of a portion of a site to a new owner or contractor (Subdivision)

Select this option if *a **portion*** of a site (permitted under the ID above) has either a new owner and/or new general contractor. Check the boxes below that apply.

h. Describe the portion of the site being transferred: Lot _____ Block _____

Project location/address: _____

City, State, and Zip: _____

Example: SW quadrant of 45th Street and Irving Avenue or Lots 1-17 of block 20. Include list of addresses if available or include a map

i. ☐ New Owner for portion of existing site.
j. ☐ New Contractor for portion of existing site.
k. ☐ Current Owner of the portion to be transferred.
l. ☐ Current Contractor of the portion to be transferred.

Check above box(es) and sign section A-3 and A-4 page 3 and or check above box(es) and sign section A-1 and A-2 page 2
Both "Current" and "New" Parties must sign this form (preferred), however, separate forms are acceptable.

Current Owner Authorized Signature (A-1)

Business/Firm name: _____

Last name: _____ First name: _____ Title: _____

E-mail address: _____ Telephone: (___) _____ Ext. _____

Mailing address: _____

City: _____ State: _____ Zip code: _____

Alternate contact:

Last name: _____ First name: _____ Title: _____

E-mail address: _____ Telephone: (___) _____ Ext. _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or the persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) General Stormwater Permit Construction Activity (MN R100001) that authorizes stormwater discharges associated with the construction site identified on this form.

Authorized signature: _____ Date: _____

This Application must be signed by: ***Corporation:*** *a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.* ***Partnership or Sole Proprietorship****: a general partner or the proprietor.* ***Municipality, State, Federal or Other Public Agency:*** *principal executive officer or ranking elected official.*

Current Contractor Authorized Signature (A-2)

Business/Firm name: _____

Last name: _____ First name: _____ Title: _____

E-mail address: _____ Telephone: (___) _____ Ext. _____

Mailing address: _____

City: _____ State: _____ Zip code: _____

Alternate contact:

Last name: _____ First name: _____ Title: _____

E-mail address: _____ Telephone: (___) _____ Ext. _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or the persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) General Stormwater Permit Construction Activity (MN R100001) that authorizes stormwater discharges associated with the construction site identified on this form.

Authorized signature: _____ Date: _____

This Application must be signed by: ***Corporation:*** *a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.* ***Partnership or Sole Proprietorship****: a general partner or the proprietor.* ***Municipality, State, Federal or Other Public Agency:*** *principal executive officer or ranking elected official.*

"New" Owner Authorized Signature (A-3)

Business/Firm name: _____

Last name: _____ First name: _____ Title: _____

E-mail address: _____ Telephone: (____) _____ Ext. _____

Mailing address: _____

City: _____ State: _____ Zip code: _____

Alternate contact:

Last name: _____ First name: _____ Title: _____

E-mail address: _____ Telephone: (____) _____ Ext. _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or the persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) General Stormwater Permit Construction Activity (MN R100001) that authorizes stormwater discharges associated with the construction site identified on this form.

Authorized signature: _____ Date: _____

This Application must be signed by: ***Corporation:*** *a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.* ***Partnership or Sole Proprietorship****: a general partner or the proprietor.* ***Municipality, State, Federal or Other Public Agency:*** *principal executive officer or ranking elected official.*

"New" Contractor Authorized Signature (A-4)

Business/Firm name: _____

Last name: _____ First name: _____ Title: _____

E-mail address: _____ Telephone: (____) _____ Ext. _____

Mailing address: _____

City: _____ State: _____ Zip code: _____

Alternate contact:

Last name: _____ First name: _____ Title: _____

E-mail address: _____ Telephone: (____) _____ Ext. _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or the persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) General Stormwater Permit Construction Activity (MN R100001) that authorizes stormwater discharges associated with the construction site identified on this form.

Authorized signature: _____ Date: _____

This Application must be signed by: ***Corporation:*** *a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.* ***Partnership or Sole Proprietorship****: a general partner or the proprietor.* ***Municipality, State, Federal or Other Public Agency:*** *principal executive officer or ranking elected official.*

If you have questions about the administrative details of the permit process go to: http://www.pca.state.mn.us/publications/wq-strm2-60i.pdf or call the Minnesota Pollution Control Agency at **651-296-6300 or 800-657-3864** and ask for *"Construction Stormwater."* If you have technical questions, ask for the *"Stormwater Policy and Technical Assistance Unit."*

CITY OF MOORHEAD SPECIFICATIONS
EXCAVATION, BACKFILL AND COMPACTION
WATER, SEWERS AND STRUCTURES

Description of Work:
The work to be done under these specifications and the accompanying plans consists of the furnishing of all labor, materials, accessories, and plans necessary for excavation, backfill, and compaction for the completion of the work as shown on the Plans and as modified in the Special Provisions.

SPECIFICATION I - EXCAVATION, BACKFILLING AND COMPACTION

SPECIFICATION II - MEASUREMENT AND PAYMENT

SPECIFICATION I: EXAVATION, BACKFILLING & COMPACTION

1-1 Trench Excavation, General Requirements: The terms "excavation" and "backfilling", as used in the specifications shall refer to, and shall mean, all material excavated or otherwise removed in the performance of the specified work, and all work required for, and in connection with, the excavation, removal, and subsequent handling and disposal of such material. Excavation and backfilling shall include site clearing and preparation where required, subgrade preparation, bell holes, all sheeting, shoring, bracing, and de-watering of trenches and other excavation, protection of adjacent property, backfilling, pipe embedment, all specified backfill consolidation and surfacing, and other work necessary and required.

The contractor shall not open more trench in advance of pipe laying than is necessary to expedite the work and, in the event that pipe laying is stopped for any cause, 100 feet will be the maximum length of open trench allowed on any line under construction.

Under ordinary conditions, excavation shall be by open cut from surface. Where the depth of trench and soil conditions permit, tunneling shall be required beneath cross walks, concrete driveways, curbs, gutters, pavements, and other surface structures; for such tunneling, no additional compensation will be allowed over the price for, or based upon, open cut excavation of equivalent depths below the ground surface.

All material excavated shall be deposited along the trench in a manner that will cause the least inconvenience to the public and be consistent with the rapid and economical handling of the work. Sidewalks shall be kept clear of all materials, cross streets, driveways, alleys, and avenues shall be kept open to traffic and all trees shall be protected from injury.

The contractor shall use a backhoe bucket with a smooth cutting edge for all excavation on this contract unless the Engineer gives prior approval for a change.

1-2 Classification of Excavated Materials: The term "excavation" shall include all materials excavated or otherwise removed in the performance of the contract work, regardless of the type, character, composition, or condition of any and all such material or materials. "Excavation" shall also include the removal and disposal of all debris, junk, broken concrete, bricks, stone, and all other materials encountered within the excavation limits.

1-2.1 De-Watering of Trenches: Whenever ground water or surface water is encountered in the trench, the contractor shall, at his own expense, provide suitable means of the removal of same and in no case shall this water be allowed to flow into the pipe or structure except by permission of the Engineer. In case quicksand or other unusual or exceptional conditions of soil or water are encountered and which are not otherwise covered by these specifications, the contractor shall immediately notify the Engineer. Upon receiving such notice, and after an inspection has been made, the Engineer shall direct the work to proceed in accordance with the general provisions for extra work and changes.

1-2.2 Excavation for Structures: Excavation shall be large enough to place structure and perform backfill and proper compaction.

Except where special construction on unstable soil is authorized, all manholes shall be founded on a two-inch (2") gravel cushion; all unauthorized excavation below the specified structure subgrade shall be replaced, by and at the expense of the contractor, with gravel or crushed rock.

All excavation shall be kept dry. No water shall be permitted to come in contact with any concrete within twelve (12) hours after placing. All excavations for structures which extend down to or below the static ground water elevation at the sites of such structures shall be de-watered by lowering and maintaining the ground water at an elevation not less than twelve (12) inches below the bottom of such excavation at all times when work thereon is in progress, during subgrade preparation and continuously thereafter until the structure concrete has been placed and has hardened.

The contractor shall be held responsible for the condition of any water line, sewer, drain or other conduit or pipeline which may be used for drainage purposes and all such pipe or conduits shall be clean and free from all sediments before acceptance thereof by the Engineer.

Subgrade soil for all structures, shall be firm, dense and thoroughly compacted and consolidated; and shall be free from mud and muck; and shall be sufficiently stable to remain firm and intact under the feet of the workmen engaged in subgrade surfacing, and depositing concrete thereon. Where necessary, a layer of concrete of sufficient strength and thickness to withstand subsequent construction operations shall be installed below the specified subgrade elevation and the structure concrete deposited thereon.

Coarse gravel or crushed stone may be used for subsoil reinforcement if satisfactory results can be obtained thereby. Such material shall be applied in thin layers, each layer being entirely embedded in the subsoil by thorough tamping. All excess soil shall be removed to compensate for the displacement of the gravel or crushed stone and the finished elevation of any subsoil reinforced in this manner shall not be above the specified subgrade.

1-2.3 Subsurface Exploration: Whenever necessary to determine the location or elevation of existing utilities, the contractor upon order of the Engineer, shall make the necessary excavation. Payment will be on an hourly basis as bid in the Proposal Form. The work shall include all labor and equipment necessary to expose the utilities from the time excavation is begun until the utility has been located and measured. Backfill and compaction of the exploration area shall be incidental.

1-3 Replacement of Unsuitable Pipe Foundation Materials - Crushed Rock Cradle: If the bottom of the trench is not sufficiently stable or firm to prevent vertical or lateral displacement of the pipe after installation, supplementary foundation will be required. Excavation of said unstable material shall be made to a depth of not less than eight (8) inches below grade and for the full width of the trench. A foundation of crushed rock shall be laid in layers of not more than four (4) inches thick from the bottom of the excavation to within two (2) inches of the pipe grade. The pipe shall then be laid to grade and the crushed rock carefully placed and uniformly tamped around the pipe to the spring line. The price as bid on the Proposal Form for each cubic yard includes the removal of unstable material and the placing of the crushed rock foundation complete in place. The unstable material shall not be used in backfilling the trench.

1-4 Trench Excavation: Grade lines parallel to the invert shall determine the alignment, depth, and pipe sub-grade of all trenches.

1-4.1 Finish Grading of Trench Bottom: Trench bottoms shall conform to the grade or depth to which the pipe is to be laid and the pipe bedding shall be accurately graded and shaped to provide uniform bearing and support for each pipe at every point along its entire length between bell holes before the pipe is placed in the trench. The pipe bedding shall include a three (3) inch depth of material below the pipe barrel. If excavation has been carried deeper than six (6) inches below the pipe barrel, the excess depth shall be filled with bedding material and be mechanically tamped.

In the event that after placing a pipe in the trench, it is found that the prepared trench bottom is not at the proper elevation, the pipe shall be removed and the grade corrected. In no case shall the pipe be raised from and dropped in the trench bottom for the purpose of lowering a subgrade, which is too high.

1-4.2 Maximum Sewer Trench Widths: In order to prevent the application of superimposed loadings on pipe in excess of the designed and specified pipe strengths, excavation of the pipe trench shall be in accordance with MnDOT 2503.3B, except that the maximum trench width shall also apply for cover depths less than 15 feet.

Where necessary to prevent sliding and caving of trench banks, which cannot be effectively braced because of the character of the soil, it will be permissible to deviate from the above standards as necessary to comply with OSHA requirements. However, no additional compensation will be made for over-excavation of the pipe trench.

1-4.3 Tunnel Excavation: Installation of pipes may be made in tunnels only where such installation is required or permitted by these specifications, the drawings, or the City Engineer.

Tunnel sections shall provide adequate clearance for pipe and workmen for proper lining, grading and jointing of the pipe installed therein. All bracing, shoring and sheeting necessary for the construction of the tunnel and the proper protection of workmen therein shall be furnished and installed and, where required by the City Engineer, shall be left in place. All tunnel backfill shall be of proper condition and moisture content to compact readily, and shall be thoroughly tamped and rammed under, around and over the pipe from the floor of the tunnel to the sidewalls and top thereof.

1-5 Trench Backfill: Unless otherwise specified, backfill above pipe encasement shall be done with original excavation material. Within the pipe encasement zone, granular backfill shall be placed in two layers of approximately equal depth to a height in the trench of six (6) inches above the top of the pipe. The bottom layer shall be compacted either mechanically or by hand around the pipe in such a way as to provide a good and sufficient bedding and support around the pipe, but not to disturb the pipe. The upper layer shall be mechanically compacted. Thereafter, additional backfill shall be placed in the trench in uniform lifts not exceeding 12 inches in thickness and compacted by the use of a sheep's foot roller or as directed by the Engineer. The trench shall be backfilled to the level of or slightly higher than the natural ground surface. Within the upper 3 feet of roadways, trench backfill shall be placed in uniform layers not exceeding 8 inches in thickness. After all backfilling has been satisfactorily completed, all excess earth or any other material or rubbish shall be removed from the site of work by the contractor and disposed of in a manner suitable and satisfactory to the Engineer. The contractor shall maintain the street over the trench until all settlement has taken place, provided that his responsibility for so maintaining the street shall not extend beyond the period of one year after the final payment date of the contract.

1-6 Drainage Maintenance: Backfilling of trenches for pipe installed beneath and/or across roadways, driveways, walks and other traffic ways adjacent to drainage ditches and water courses shall not be done prior to the completion of backfilling to the original ground surface of the trench on the upstream side of such traffic way in order to prevent the impounding of water at any point after the pipe has been laid, and all necessary bridges and other temporary structures required to maintain traffic across such unfilled trenches shall be constructed and maintained. All backfilling shall be done in such manner that water will not accumulate in unfilled or partially filled trenches. All material deposited in roadway ditches or other water courses crossed by the line of trench shall be removed immediately after backfilling is completed and the section, grades and contours of such ditches or water courses restored to their original condition, in order that surface drainage will be obstructed no longer than necessary.

1-7 Responsibility of Contractors for Backfill Settlement: Wherever trenching or other excavations made by the contractor in the performance of work under this contract have not been properly backfilled, or where settlement has occurred at any time prior to the final acceptance of the entire work, to the extent that the top of the backfill is below the original ground surface, such trenches shall be refilled and backfill surface compacted and smoothed to conform to the elevation of the adjacent ground surface. All sod in lawns and parking removed or damaged by reason of such settlement and the repair thereof, shall be replaced by and at the expense of the contractor.

1-8 Disposal of Excess Excavated Materials: All excess materials removed from trenches shall be disposed of as required in section 2104.3C of the current Minnesota Department of Transportation Specifications.

1-9 Protection of Pipe: In backfilling trenches, the installed pipe shall not be disturbed by dropping backfill material from the top of the trench onto the pipe, or by walking on or along side the sewer, or by pulling sheeting, or in any other manner.

1-10 Trench Compaction: Within streets, parking lots or other improved areas, the backfill shall be compacted to 95% of the maximum density determined by standard proctor by using the Specified Density Method (MnDOT 2106.3.G.1. The density of the compacted backfill will be determined by field density tests unless otherwise noted in the Special Provisions. Backfill in lawns or other green areas shall be compacted by the Quality Compaction Method (MnDOT 2106.3.G.2).

1-11 Stripping of the Topsoil: The contractor shall, on all unimproved streets and avenues, strip all topsoil as directed by the Engineer. Said topsoil shall be carefully preserved and stockpiled on the rear of the adjacent lots or other designated locations as directed by the Engineer. Payment for removal and stockpiling of said topsoil shall be at the unit price bid for Salvage Topsoil.

The Contractor shall, on all utility easements, strip all topsoil in the area to be disturbed by his operations. Said topsoil shall be carefully stock piled and preserved until after the sewer has been installed and the trench backfilled. The Contractor shall then restore the topsoil on the stripped area to its original depth and elevation. Stripping, preservation and restoration of the topsoil on utility easements shall be considered, as incidental to the project and no direct compensation shall be made for this work.

1-12 Excavation and Backfill for Structures: Excavation shall be limited to the size required for the manhole to be constructed. Allowance shall be made for a manhole bedding of two (2) inches of sand or gravel.

Backfill shall be compacted by an approved mechanical tamper. The backfill shall be compacted to the same specifications required for the adjacent trench.

SPECIFICATION II: MEASUREMENT AND PAYMENT

2-1 Excavating, Backfilling and Compaction: Excavation, Backfill and Compaction is incidental to pipe construction.

-END OF SECTION-

CITY OF MOORHEAD SPECIFICATIONS
TRAFFIC CONTROL (0563)

The contractor shall coordinate road closure and signing plan with the City of Moorhead Engineering Department prior to starting construction. The contractor shall furnish and maintain all construction signs, barricades and barricade weights, traffic marking tape, and warning lights which are needed for the guidance, warning and control of pedestrian and vehicular traffic through this project. All traffic control devices shall conform to the most current versions of the "Minnesota Manual on Uniform Traffic Control Devices" and Standard Signs Manual Part I and Part II.

No measurement will be made of the individual items required for Traffic Control. All work required to furnish and maintain the traffic control devices will be included in the lump sum price for Item No. 0563.601 (Traffic Control). Any additional minor items or slight changes as may be required shall be furnished by the contractor with no additional compensation being made therefore.

If the construction work is done in a sequence other than that which the plans show appropriate signing for, the contractor shall provide an updated traffic control and signing layout to the Engineer for review prior to implementation. If the change is at the request of the contractor it shall be considered incidental to the Traffic Control bid item.

Based on the lump sum contract price for "Traffic Control," partial payments will be made as follows:

- When 5 percent or more of the original contract amount is earned, 25 percent of the amount bid for "Traffic Control" will be paid.
- When 25 percent or more of the original contract amount is earned, 50 percent of the amount bid for "Traffic Control" will be paid.
- When 50 percent or more of the original contract amount is earned, 75 percent of the amount bid for "Traffic Control" will be paid.
- Except as noted below, 100 percent of the amount bid for "Traffic Control" will be paid upon completion of all contract work.

The contractor shall provide at least 2 working days' notice to the Engineer, prior to making any lane or roadway closures.

If, at any time, the contractor fails to adequately maintain any of the traffic control devices, the Engineer may proceed to maintain the work and deduct the costs thereof from any monies due the contractor.

If the Engineer should order additional traffic control, other than that included in these Special Provisions, they shall be included as extra work and the contractor shall be reimbursed at the invoice rental prices for such traffic control devices. Current rental price shall be furnished to the Engineer prior to such installations.

The contractor shall be responsible for the repair or replacement of all traffic control devices which become damaged, moved or destroyed; of all lights which cease to function properly, and of all barricade weights which are damaged, destroyed or otherwise fail to stabilize the barricades. He shall further provide sufficient surveillance of the barricades and signs to insure attention.

The contractor shall furnish names, addresses and phone numbers of at least two local individuals responsible for the traffic control devices to: City Engineer:(218) 299-5390 and City of Moorhead Police Department:(218) 299-5111.

All open excavations in excess of two inches in depth adjacent to a traffic lane or auxiliary lane shall be signed and delineated in accordance with the current version of the "Minnesota Temporary Traffic Control Field Manual". Signs and delineation shall be furnished, erected and maintained by the contractor. This shall be incidental work for which no direct compensation will be made.

The contractor shall furnish qualified personnel for directing and controlling traffic during such times as the Engineer deems necessary for the safety of the traveling public.

Traffic control personnel shall be thoroughly familiar with all applicable traffic laws and regulations, properly equipped and properly deputized by duly constituted authority, all to the satisfaction of the Engineer.

Providing traffic control officers, in accordance with the foregoing, shall be incidental work for which no direct compensation will be made.

-END OF SECTION-

CITY OF MOORHEAD SPECIFICATIONS
CONSTRUCTION OF SEWERS

Description of Work: The work to be done under these specifications and the accompanying plans consists of all labor, materials and equipment necessary to construct the storm and/or sanitary sewers as shown on the Plans and as modified in the Special Provisions.

SPECIFICATION I - SEWER LINE CONSTRUCTION

1-1 Location and Grade of Sewers:
Sewers and structures shall be located as shown on the drawings and as determined by the City Engineer. The grade and alignment of all sewer lines shall be determined and maintained by the use of laser control or a line parallel to the grade and line of the sewer or drain, this line to be supported above the ground surface on batter boards spaced not to exceed 30 feet apart and rigidly anchored to, and supported by, substantial posts driven into the ground.

All other methods of maintaining line and grade for construction shall be specifically approved by the Engineer and subject to any restrictions conditional to said approval.

1-2 Laying of Sewer:
The type of pipe to be used is specified on the sewer plans or specifications. The substitution of any other type of pipe may be made only with the approval of the Engineer.

Special care must be taken to lay sewer pipe to exact grade and line, the pipe shall be graded and bedded and encased as shown on plan detail sheets.

All pipes when jointed in the trench shall form a true and smooth line of sewer. Pipes shall not be trimmed except for closures, and pipes not making a good fit shall be removed. The interior surfaces of all pipes shall be clean when laid.

1-3 Sewer Pipe Joints:
All joints shall be installed in accordance with the manufacturer's recommendations including the application of the proper lubricants and/or solvents. Wherever joints are required which do not permit the use of the standard pipe joint, the joint shall be made water tight with materials acceptable to the Engineer and the joint shall be covered with a 6" minimum thickness concrete collar. Water main and sanitary sewer main joints shall be gasketed.

1-4 Installation of Wye Branches:
The Contractor shall install inline wyes exclusively except where otherwise noted on the plans. Approval of the Engineer is required before any type of wye other than an inline wye may be used.

Wye branches shall be marked with a two (2) inch by two (2) inch piece of sound wood extending vertically from the end of the connection a minimum of four feet long.

1-5 Installation of Risers:
Risers shall be installed where indicated on the sewer plans in accordance with the detail for standard risers. Risers shall be brought to the height above pipe invert indicated on the plans.

1-6 Installation of Cleanouts:
Cleanouts shall be installed where indicated on the sewer plans in accordance with the detail for cleanouts. Wye, vertical pipe, casting, labor and any other materials needed to construct cleanout is considered incidental to the bid item.

1-7 Bulkheads:
All manhole stubs and wye branches or risers shall be capped when providing connections for future sewers. Caps shall be watertight.

1-8 Manholes:
Manholes shall be constructed at the locations and grades indicated on the sewer plans. Their construction shall be interpreted as including excavation and backfill and all material required for a complete and satisfactory installation. Construction shall be precast concrete unless it is physically impossible to use precast. Permission by the Engineer must be obtained before any manhole can be constructed of block or brick. The invert of storm sewer manholes shall be shaped to approximate pipe diameters. Concrete fill shall be shaped upward from the top of the invert at two (2) inches per foot to the edge of the manhole. Side branch inverts shall be constructed with as large radius of curvature as possible. Inverts shall be left smooth and clean. All inverts and concrete rings shall use TCC Materials Underground Utility Mortar or approved equal meeting ASTM C270, ASTM C387 and MnDOT 2506.2B.

Care shall be taken to properly work the concrete to insure maximum contact with the water stops.

Sanitary manholes shall have monolithic base and inverts with watertight rubber sleeve connector for sewer pipe. Sanitary manhole bottom section interiors shall be coated with Sulfide-resistant Coating per item 2-7 “Sulfide-resistant Coating” in section 05000 “Material Specification for Sewer Construction”.

The Contractor shall use bituminous mastic rope or gasketed joints on all manhole joints. All sanitary sewer manholes shall have gasketed joints and integral bases unless otherwise specified on the plans.

Whenever the manhole casting is set at a finish elevation below the existing ground, the Contractor shall seal the casting so as to prevent excessive water infiltration.

This shall be done by placing a plastic wrap over the top of the casting and then backfilling over the casting with the excavated material on hand. This work shall be considered incidental to the manhole construction.

This work shall not be done until after the Engineering Department has made a final inspection of the sewer work and approved same.

The elevation of the top of the manhole shall be determined in accordance with the sewer plans. The Engineer may alter the elevation as required.

1-9 Manhole Castings and Steps:
Manhole frames, covers and steps shall be furnished and placed by the Contractor.

1-10 Connection for Future Sewers:
Manhole stubs shall be furnished and installed where indicated on the sewer plans. The connection pipe shall be as specified on the plans and shall terminate in a bell or groove end. Unless otherwise specified, the stubs shall extend two (2) feet outside of the manhole. The pipe shall be carefully set to the line and grade indicated on the plans. An approved water stop shall be provided as directed by the Engineer.

1-11 Sewers to be Kept Clean:
All sewers must be kept thoroughly clean. When pipe laying is ceased for the day or for other reasons, the end of the pipe must be bulk headed.

1-12 Infiltration:
All sanitary sewers must be kept nearly watertight and free from leakage, as the materials used will permit. The rate of infiltration of water into the sewer project, including appurtenances, shall not be in excess of 200 gallons per day per inch of pipe diameter per mile of sewer. The Contractor is required, however, to repair all visible leaks, even if the infiltration requirements are met.

The infiltration allowances for manhole shall be computed using the total number of vertical feet of manhole expressed as the equivalent diameter sewer.

1-13 Testing: Sanitary Sewer
A. Clean all lines prior to testing.
B. Furnish equipment for performing tests and measurements.
C. All testing shall be done under the review of the Engineer.
D. Televising: The Contractor shall have all new 8" and larger sewer pipe televised at least 14 days after installation and shall submit a flash drive (or other data storage device) of the inspection along with a written report to the Engineer for review.
E. Pressure Test: The Contractor shall test all new sewer pipes by pumping it full of air to a minimum of 4 psi above the groundwater pressure at the centerline of the pipe. The allowable pressure drop shall not exceed 0.5 psi in 5 minutes.
F. Repair or replace sections of pipe not meeting allowable pressure, alignment and deflection tests. Requirements for alignment and deflection tolerance shall be per the following:

   Variance of individual pipe sections from established line and grade shall not be greater than those listed in the table below, providing that such variance does not result in a level or reverse sloping invert.

Diameter (Inches)	Allowance Tolerance (Feet)
8	0.03
10	0.03
12	0.03
14	0.04
16	0.04
18	0.05

Note: For all pipe sizes over eighteen inches (18") in diameter, variance shall not exceed five hundredths feet (0.05).

SPECIFICATION 2 - MEASUREMENT AND PAYMENT

2-1 Excavating, Backfill, and Compaction:
Excavation, backfill and compaction shall be incidental to sewer construction.

2-2 Granular Material for Pipe Bedding and Encasement:
All costs of granular bedding and encasement of sewer pipe shall be incidental.

2-3 Wye Branches:
Payment for wye connections will be made at the unit price bid for each and shall include payment for the entire section or piece of pipe in which the wye is located (assumed 2 foot length) when inline wyes are being used. If saddle wyes are being used, the unit price shall include a two (2) foot section of the pipe as well as the wye. The Contractor shall install inline wyes exclusively except where otherwise noted on the plan. A two (2) inch by two (2) inch marker required at each connection shall be considered as incidental and all costs should be included with wye.

2-4 Standard Riser:
Riser will be measured from invert of main sewer to the top of riser as shown on the detail sheet. Payment for risers

will be at the unit price bid per lineal foot and shall include all costs for materials, excavation and labor.

2-5 Drop Manhole Connection:
Drop manhole connection will be measured in linear feet from invert to invert of the two pipes being connected by the drop. Payment for drop manhole connection shall include cost of furnishing and placing the pipe and pipefittings and concrete as indicated on the detail, the manhole itself will be paid for under other items herein provided.

2-6 Standard Manholes:
Payment will be made at the unit prices and shall be payment for all work, materials and services incidental to their construction including excavation, backfill, sheathing, pumping, removal of excess dirt, casting, and clean up.

2-7 Furnish and Install Sewer Pipe:
Payment will be made for the actual number of lineal feet of sewer pipe placed in the trench measured from center of manhole to center of manhole at the unit prices bid for the various sizes of pipe.

-END OF SECTION-

CITY OF MOORHEAD SPECIFICATIONS
SEWER SERVICE CONSTRUCTION

Construction: All sewer pipes shall be of the type and quality as specified elsewhere in these specifications. Sewer pipe shall be laid true to line and grade as given by the Engineer and in such a manner as to form a close concentric joint with adjoining sections of pipe. All sewer pipes shall be laid with bell ends up grade.

Joints in sewer pipe shall be installed in strict accordance with the manufacturer's recommendations.

Materials for sewer service pipe shall meet the specifications outlined in Section 05000 (materials specifications).

The contractor shall furnish upon request by the Engineer an affidavit that all materials meet the requirements of these specifications.

New Construction Testing: Sewer services shall be pressure tested to 4-psi air pressure, maintained for 4 minutes. Water services shall be pressure tested with the new watermain.

Basis of Payment: Payment for construction of sewer services will be made at the unit price bid on the proposal form and in accordance with the following provisions.

Measurement of sanitary sewer services shall be from the centerline of the sanitary sewer or sanitary sewer riser to the property line of the lot to be served, or 10' beyond the property line when designated on plan sheets. Payment for said sanitary sewer service shall include all costs of construction including, but not limited to, materials, labor and incidentals necessary to complete the work in accordance with the plans and specifications.

MISCELLANEOUS

Markers for Sewer Clean-out: Each sanitary clean-out shall be marked with a 2”x2”x4’ wooden marker as shown on the standard detail sheets. The upper 24” of said marker shall be painted with green paint in a manner satisfactory to the Engineer.

Nothing in the specifications shall prevent a property owner from retaining persons or parties other than the City contractor for installation of the sewer and water services for individual lots if said services are needed before work on this contract begins.

The Contractor shall use a backhoe bucket with smooth cutting edge for all excavation on this contract unless the Engineer gives prior approval for a change.

The Contractor shall plug pipes where designated with a plug intended by the manufacturer to be used with the type of pipe being installed. Installation of plugs shall be incidental.

-END OF SECTION-

CITY OF MOORHEAD MATERIAL SPECIFICATIONS FOR SEWER CONSTRUCTION

SPECIFICATION I - SAMPLES AND TESTS

1-1 Tests:
The Engineer may at any time require testing of material samples proposed or furnished for the work.

1-1.1 Certification of Pipe and Appurtenances:
The Engineer prior to the laying of any pipe may request the manufacturer's certificate as to compliance of the pipe and specials furnished for this contract.

1-2 Standards:
The use of an ASTM, ANSI, AASHTO, etc. designation in these specifications refers to the latest revision of that particular standard of that organization.

SPECIFICATION II - GENERAL REQUIREMENTS

2-1 Pipe Requirements:
Each length of pipe shall conform to the following specifications for that type of pipe. Pipe shall be rejected that does not conform to the specifications or for any of the following reasons:

a) Fractures or cracks passing through the pipe.
b) Other fractures, cracks or chips sufficient to impair the strength, durability or serviceability of the pipe.
c) Defects that indicate improper proportioning, mixing, or molding.
d) Variation of more than l/8 inch per linear foot in alignment of a pipe intended to be straight.

e) Insecure attachment of wye branches.
f) Damaged ends, where such damage would prevent making a satisfactory joint.

2-1.1 Reinforced Concrete Sewer Pipe (Sanitary):
All reinforced concrete pipe used in sanitary sewers shall conform to ASTM Specification C76-63T except as hereafter required:

a) Portland Cement shall be Type 2 with a maximum tri-calciumaluminite content of 7%.
b) Concrete shall have an air content of 4-7%.
c) Calcium chloride shall not be used in the concrete.
d) Joints shall be Cretex CX-4 or an approved equal.
e) Inside surfaces shall be coated with two (2) coats of Inertol Standard, as applied in accordance with manufacturer's recommendations.

2-1.2 Reinforced Concrete Sewer Pipe (Storm Sewer):
All reinforced concrete pipe used in storm sewers shall conform to ASTM Designation C76-63T (Table III, Wall B) and be of the tongue and groove type unless otherwise specified. Pipe shall be laid in six (6) or eight (8) foot lengths. Each pipe shall be marked with the date of manufacture and all pipe shall be at least seven (7) days old before use in the project.

All reinforced concrete pipe used for jacking shall conform to ASTM Designation C76-57T (Table IV, Wall B).

2-1.3 Polyvinyl Chloride Pipe (Sanitary and Storm Sewer):
All polyvinyl chloride (PVC) pipe shall conform to ASTM Designation D3034 SDR 35. All PVC pipe on the contract shall meet the same specification.

All fittings such as saddles, elbows, tees, wyes, and others shall be of material, construction and joint design corresponding to the adjacent pipe. Inline wyes shall be installed exclusively except where otherwise noted on the plans. Approved adapters shall be provided for transitions to other types of pipe.

Polyvinyl chloride saddle wyes installed in the field shall be secured in accordance with manufacturer's recommendation.

2-1.4 Schedule 40 PVC:
All Schedule 40 Pipe shall conform to ASTM D-1785 and D-2665

2-1.5 Polyethylene Pipe - Sanitary Sewer Slip Liner:
High-density polyethylene pipe shall conform to ASTM 3350, cell classification 345434C and ASTM 714 for PE 3408 High Density Pipe.

2-1.6 Corrugated Polyethylene Tubing (3" to 10") Storm Sewer:
Pipe shall conform to AASHTO M252.

2-1.7 Corrugated Polyethylene Pipe - Storm Sewer (12" to 36"):
Pipe shall conform to AASHTO M294 for dual wall pipe.

2-1.8 Ductile Iron Pipe:
All cast iron pipe shall conform to Specification ASA A21.6 with a pressure class outlined in the sewer plans.

Pipe and fittings shall be made with bell and spigot ends adaptable for use of a rubber gasket slip joint. They shall be straight and of true circular section with their inner and outer surfaces concentric.

2-1.9 Acrylonitrile Butadiene Styrene (ABS) Truss Pipe:
All ABS pipe shall conform to ASTM D2680 for Truss pipe and ASTM D2751 for Solid Wall pipe.

All fittings such as saddle, elbow, tees, wyes and others shall be of material, construction and joint design as specified above. Approved adapters shall be provided for transitions to other types of pipe. Inline wyes shall be installed exclusively except where otherwise noted on the plan.

ABS saddle wyes installed in the field shall be secured in accordance with manufacturer's recommendations and, in addition, shall be fastened with two (2) stainless steel straps.

2-2 Concrete:
All concrete shall conform to Specification No. 2461 of the MnDOT Standard Specifications for Construction, 2020 Edition.

Tests shall be conducted by the Engineer in accordance with standard testing methods for compressive strength, slump and air content of concrete work. The Engineer shall have the right to take samples of concrete whenever he deems necessary.

2-3 Concrete Brick and Block:
Concrete brick or block shall be made from a mixture of Portland Cement, sand and gravel or crushed stone. Concrete brick shall conform to ASTM Designation C-55 (Grade V-II). Concrete block shall conform to ASTM Designation C-139.

2-4 Precast Reinforced Concrete Manholes:
Precast reinforced concrete manhole risers and tops shall meet the requirement of ASTM Designation C-478. Precast manhole tops shall be as noted on plans.

2-4.1 Manhole Joint Sealant:
Kent-Seal Sealant, bituminous mastic or an approved equal, shall be used for joints in storm sewer manholes. Sanitary sewer manholes shall have gasketed joints.

2-4.2 Manhole Steps:
Manhole steps shall conform to ASTM C478.

2-4.3 Manhole Castings:
Manhole casting assemblies shall be as shown on the standard detail sheets. Metal used in the manufacture of the castings shall conform to ASTM A48-76 Class 35 for gray iron. Proof Load Test procedure shall be in accordance with Federal Specification RR-F-621c.

2-5 Precast Catch Basins:
Precast catch basins shall conform to the standard catch basin design included in the sewer plans.

2-5.1 Catch Basin Castings:
Catch basin casting assemblies shall be the types shown on the standard detail sheet. Metal used in the manufacture of the casting shall conform to ASTM A48-76 Class 35 for gray iron. Proof Load Test procedure shall be in accordance with Federal Specification RR-F-621c.

2-6 Resilient Type Joint Material:
Resilient type joints for vitrified clay pipe shall conform to ASTM Designation C-425. Rubber type gaskets on concrete pipe shall conform to ASTM Designation C-443.

2-7 Sulfide Resistant Coating:
Unless otherwise required by the plans and special provisions, the bottom 4 feet of all sanitary manhole structures shall be made resistant to biologically induced hydrogen sulfide corrosion of concrete and metal surfaces through the application of an approved coating. The approved coating shall consist of polymeric spray, sprayable epoxy, thermoplastic resin and hydraulic cement-based products as manufactured by Raven Lining Systems (Raven A-10 Prime Coat followed by 80 mils DFT of Raven 405), Sauereisen Cements (Underlayment No. F-120 and two 40 mil DFT coats of Corrosion-Clad Polymer Lining No. 210S), Polymorphic Polymers Corporation (QC Resin applied in a 10 mil DFT prime coat, 30 mil DFT intermediate coat and 12 mil DFT final coat), Tnemec (1/16” prime coat of Series 218 Mortar Clad and 30 to 40 mil DFT final coat of Series 435 Perma-Glaze), or equal. The coating shall be factory applied unless otherwise approved by the Engineer, and surfaces shall be prepared and cleaned and the coating shall be applied to an even and fine texture in accordance with the manufacturer’s instructions. The coating shall not be applied until after the concrete has cured for a minimum of 28 days. The coating shall be applied at the

manufacturer's recommended spreading rate with the number of coats as needed to achieve the thickness specified, or to the manufacturer's recommended thickness if not specified. The contractor shall touch up and restore damaged coating surfaces, if any, upon completion of the work.

2-8 Jointing Material for Storm Sewer Pipe:
Unless otherwise specified, storm sewer jointing material shall be a bituminous cold mix such as "Kalktite", "Carey Sewertite", "Prestite" or other approved equal.

2-9 Pipe Bedding and Encasement:
Granular material for pipe bedding and encasement shall be any pit run sand or gravel which meets the gradation requirements of Specification No. 3149 F of the MnDOT Standard Specifications for Construction, 2020 Edition. It shall be free from hard or frozen chunks.

2-10 Steel Reinforcement:
Steel bars shall conform to the specification for deformed steel bars as specified in ASTM Designation A-615. Structural steel shall conform to ASTM Designation A-283 or A-306.

2-11 Rubber Gasket Joint for PVC Sewer Pipe:
The rubber gasket shall conform to ASTM Specification D-3212 and ASTM F477 and shall be installed in accordance with manufacturer's recommendations.

2-12 Solvent Welded Joint for ABS & PVC Sewer Pipe:
The primer and the cement used in making the solvent welded joint shall meet the pipe manufacturer's specifications. The manufacturer's recommended procedure shall be followed in making the solvent welded joint.

2-13 Corrugated Polyethylene Pipe Joints:
Joints shall conform to AASHTO M252 and M294.

2-14 Geotextile Pipe Wrapping:
Geotextile Material shall conform to MnDOT Specification 3733.

Type 5 geotextile fabric shall be used.

-END OF SECTION-

SECTION 10000
SPECIAL PROVISIONS

9th Ave S, 10th Ave S, and 16th St S
Area Street Improvements

Eng. No. 25-A2-01

1. **Specifications:** The Minnesota Department of Transportation (MnDOT) "Standard Specification for Construction" 2020 edition, shall govern all work on this project, except as noted in City specifications or special provisions included in this contract. All *.600 series bid items refer to City of Moorhead contract specifications or special provisions. Where the terms “City”, “Department”, “Contracting Authority” and “Commissioner” appear in the MnDOT specifications, they shall be construed to mean “City of Moorhead”.

2. **Responsible Contractor:** In accordance with Laws of Minnesota, 2014, chapter 253 (Minnesota Statutes §16C.285), Bidders are hereby advised that the City cannot award a construction contract in excess of $50,000 unless the contractor is a “responsible contractor” as defined in Minnesota Statutes §16C.285, subdivision 3. A bidder submitting a Proposal for this Project must verify that it meets the minimum criteria specified in Minnesota Statutes §16C.285, subdivision 3, by completing the Certification of Compliance of Responsible Contractors within this Proposal. Statements in the certificate must be certified by a company officer. Bidders are responsible for obtaining verifications of compliance from all subcontractors, using a form provided by the City. A bidder must submit signed verifications from subcontractors upon the City’s request.

   A Bidder or subcontractor who does not meet the minimum criteria established in Minnesota Statutes §16C.285, subdivision 3, or who fails to verify compliance with the minimum requirements, will not be a “responsible contractor” and will be ineligible to be awarded the Contract for this Project or to work on this Project. Bidders and subcontractors are also advised that making a false statement verifying compliance with any of the minimum criteria will render the Bidder or subcontractor ineligible to be awarded a construction contract for this Project and may result in the termination of a contract awarded to a Bidder or subcontractor that makes a false statement.

3. **Access to Proposal Package (MnDOT 1203):** MnDOT 1203 is deleted and replaced with the following: The City will provide Bidders with access to the Proposal Package through QuestCDN.com. The City may require a fee for Bidders to purchase and download copies of the Proposal Package.

4. **Preparation and Delivery (MnDOT 1206.1):** The first two paragraphs of MnDOT 1206.1 are deleted and replaced with the following:

   The Bidder shall use the electronic submittal process. The Bidder shall submit the electronic Proposal in accordance with QuestCDN software and the QuestCDN.com website.

   The Bidder shall submit its Proposal by the date and time for opening Proposals. QuestCDN will not accept Proposals past the date and time of the opening of Proposals.

5. **Maintenance of Traffic (MnDOT 1404):** Prior to closing portions of a road, the Contractor shall provide at least two (2) working days’ notice to the affected residents. Proper notice shall consist of contacting the City Engineering Department and delivering leaflets to each affected residence describing construction operations and timelines.

Temporary no parking signs may be used to delineate the project limits to be completed the following day. Full closures of roadways may require a public notice release 48 hours prior and installation of detour signage.

6. **Cooperation by Contractors (MnDOT 1505):** MnDOT 1505 is modified as follows: The successful bidder shall cooperate with all public and private contractors within and near the project limits. The contractor shall also cooperate and coordinate with the various private utility companies which may be working in the area.

   The Contractor is advised that there are other contracts for public and private work in the vicinity of this project. The Contractors will be required to coordinate work in these areas of the project. Specifically, Xcel Energy plans to replace existing gas mains and Moorhead Public Service plans to replace watermain within the project area.

7. **Utility Property and Service (MnDOT 1507):** Construction operations in the proximity of utility properties shall be performed in accordance with the provisions of MnDOT 1507, except as modified below:

   Contractor to make Gopher One call prior to any construction. Per MN Statutes 216D, utilities were contacted during design and a utility coordination meeting was held. Information provided from the utilities that were in attendance has been included in the plans. Said utilities may have existing facilities that could be affected by the work under this Contract, all of which they intend where necessary to relocate or adjust in advance of or concurrently with the Contractor's operations. Note that additional facilities (public and/or private) may not be shown in the plans.

8. **Utility Coordination:** The contractor shall coordinate with utility owners for the installation of new facilities within the project area. Prior to the installation of sidewalks, the contractor shall coordinate work schedule with Xcel Energy.

9. **Permits, Licenses and Taxes (MnDOT 1702):** MnDOT 1702 is modified as follows: The City shall pay for and apply for the following permits:

   a) MPCA – NPDES General Stormwater Permit
   b) Buffalo Red River Watershed District – Drainage Improvement Permit

   The Contractor shall become a co-permittee with the City for the MPCA General Storm Water Permit, in accordance with the Special Provisions and Section 00900 and 00950 of these specifications.

   The Contractor is responsible for obtaining all other state and local permits for the project.

10. **Progress Schedules (MnDOT 1803):** MnDOT 1803 is modified as follows: **The bar chart or critical path diagram progress schedule as specified in MnDOT specification 1803.2 and 1803.3 shall be submitted 3 days prior to the Preconstruction Conference**. The Contractor shall commence work and continue work on site with adequate personnel and equipment to make significant progress (as determined by the Engineer) within 15 days after the "Notice to Proceed" is issued.

11. **Project Phasing:** Contractor shall remove pavement in only one phase at a time and

may not proceed to the next phase until the first lift of base course has been placed in previous phase.

Restoration of concrete driveways shall begin within 2 working days of removal of curb and gutter affecting access to driveways. Driveways shall be made accessible within 9 calendar days of curb and gutter work affecting any given driveway.

In areas of curb removal adjacent to and affecting driveways, new curb shall be poured within 2 calendar days of removal of existing curb. Where feasible, curb in front of driveways shall be completed in two pours to maintain access.

Areas designated for pavement rehabilitation may be closed to local traffic a maximum of 15 working days from the point of pavement removal to placement of bituminous base course.

12. **Determination and Extension of Contract Time (MnDOT 1806) & Failure to Complete the Work on Time (MnDOT 1807):** MnDOT 1806 and 1807 are modified as follows: It is anticipated that the City of Moorhead will award the Contract on **March 24, 2025**. No construction activity may begin anywhere on this project until the Notice-to-Proceed has been issued. The Notice-to-Proceed will be issued after required bonds, insurance documents and signed contracts have been received. Street improvements, including subgrade excavation and subgrade preparation shall not begin prior to April 1, 2025. The substantial completion date is **August 31, 2025** and shall include all items with the exception of punch list items and seeding. All work shall be fully completed by **September 30, 2025**.

    The City is entitled to the recovery of damages due to the Contractor's failure to complete the work on time. By executing the Contract, the Contractor agrees to the assessment of Liquidated Damages per Table 1807.1-1 of MnDOT 1807. The determination of calendar days is subject to the provisions of MnDOT 1807.2. The intent of the Contract is that these damages will be used at the discretion of the Engineer in lieu of making a precise determination of actual damages incurred.

13. **Haul Road Maintenance and Restoration (MnDOT 2051):** MnDOT 2051 is modified as follows: Haul routes shall be coordinated with and approved by the City of Moorhead Engineering department prior to construction. A construction entrance must be provided at all locations where construction vehicles enter and exit the site, and drainage must be maintained at any temporary entrances. The Contractor shall be required to sweep the haul route within 1,000 feet of the construction entrance to the project a minimum of once per week. Additional sweeping shall be required as needed as determined by the Engineer. Sweeping of the haul route shall be considered incidental to other items. No construction traffic shall be permitted on any other existing City streets unless approved by the Engineer. The Contractor is responsible for repairing any damage to haul roads that occurs during construction. Damaged roads shall be restored to pre-construction conditions. Haul roads shall be determined at the pre-construction conference. Only approved haul roads shall be used.

14. **Machine Time:** The Machine Time bid item will be used as directed by the Engineer to make exploratory excavation in advance of construction to verify the location of existing utilities. Machine time will be measured on an hourly basis from the time the exploratory excavation begins until the utility has been located and measured. Backfilling and compacting the exploration area shall be incidental. The machine time bid item shall include, at a minimum, a 1.5 CY backhoe, a front-end loader, foreman, operators and laborers necessary to complete the work.

15. **Mud Jacking Curb & Gutter:** Curb and gutter repaired by mud jacking shall be paid for by unit bid price per lineal foot (LF) for mud jacking. Sections of curb and gutter damaged (uncontrolled new cracks) by mud jacking shall be removed and replaced at contractor's expense. Grade tolerances to be met for grade shall be as per MnDOT 2531.3.I. If the pavement is damaged during mud jacking, the Contractor shall patch the street to a depth of 12 inches with 6 inches aggregate base and 6 inches of asphalt. The patch width will be a minimum of 2 feet from the existing curb/pavement edge to allow compaction of the installed patch material. The edges of the patch shall be full depth sawcut. All work associated with patching shall be incidental to this item.

16. **Curb and Gutter Removal & Replacement:** Items identified on the plan as "repair" curb and gutter can be, at the contractor's discretion, repaired by mud jacking or by removing and replacing curb and gutter. The Contractor shall remove curb and gutter in the areas shown on the plan sheets and install new concrete curb and gutter as indicated on the plans. The removal and replacement costs associated with this work shall be paid for as part of the corresponding bid items "Remove Curb and Gutter" and "Concrete Curb and Gutter". Curb & pavement shall be sawcut prior to removal. When bituminous surface cannot be left in-place, the Contractor shall patch the street to a depth of 12 inches with the bottom layer being 5 inches of crushed concrete base, followed by 5 inches of concrete, and 2 inches of bituminous pavement on top. The patch width will be a minimum of 1 foot and a maximum of 2 feet from the existing pavement edge to allow compaction of the installed patch material unless otherwise directed by the Engineer. The edges of the patch shall be full depth sawcut with no jagged edges on the pavement. Concrete shall be a smooth broomed finished quality. Concrete must be left 2 inches below finished road grade to accommodate final 2" bituminous overlay on top. All work associated with patching shall be incidental to this item.

17. **Removing Pavement and Miscellaneous Structures (MnDOT 2104):** MnDOT 2104 is modified as follows: This contract includes the removal of miscellaneous items. The limits of removal shall be as shown on the plans or as determined in the field by the Engineer. It is the responsibility of the Contractor to properly dispose of all excess materials, including bituminous and concrete pavement, miscellaneous pipe and structure removals, concrete curb & gutter, and other items. Where a bid item has been included on the proposal form, the item to be removed shall be measured on a unit, area or lineal foot basis as indicated on the proposal form. Where no bid item has been provided, the removal and or abandonment of the items shall be considered incidental. For pavement removals, the Contractor shall sawcut the pavement full-depth to provide a straight, vertical edge at the limits of removal within 5 days in advance of placing the new pavement. **Sawcutting of concrete sidewalk shall be incidental to the REMOVE CONCRETE SIDEWALK bid item. Any sawcutting of concrete driveway pavement or bituminous pavement shall be paid for at the respective unit bid price.**

18. **Excavation and Embankment – Compacted Volume Method (MnDOT 2106):** MnDOT 2106 is modified as follows: The latest editions of the standards listed below but referred to hereinafter by basic designation only, form a part of this section of the specifications.

    American Society of Testing Materials (ASTM)

    1. D-1556 "Standard Test Method for Density and Unit Weight of Soil in Place by the Sand Cone Method"
    2. D-698 "Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/cu. ft. (600 kN-m/cu. m.))"
    3. D-2487 "Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)"

4. D-6938 "Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)"
Classification according to ASTM D-2487 and a laboratory compaction curve according to ASTM D-698 test reports for each on-site and borrow soil material proposed for fill and backfill shall be submitted to the Engineer.

A. **Common Excavation:** Common Excavation as required in the street construction and/or boulevard shall be measured on the basis of excavated volume (planned quantity) and paid for at the Contract Unit Price per cubic yard. For street construction, the plan quantity includes the pavement removal areas but does not include the subgrade preparation, but includes the removal of material below the existing pavement. For boulevards, the plan quantity includes the removal of the topsoil as specified on the plan while leaving a smooth surface on the virgin soil with grade from sidewalk to the curb and ready for turf establishment. Payment for the Common Excavation bid item shall include all labor, materials and equipment necessary to excavate, load, and place the material as shown on the construction plans and/or haul the material the contractors disposal. This item shall not be measured payment, but plan quantity and shall be paid at the contract unit price per cubic yard for the bid item “Excavation – Common (EV) (P)”.

B. **Preparation of Embankment Foundation (MnDOT 2106.3.D):** Material shall not be placed on surfaces that are muddy, frozen, contain frost, or where unsatisfactory material remains in or under the fill. All soft or yielding material and other portions of the subgrade which will not readily compact shall be removed and replaced with suitable material. The entire subgrade shall then be brought to a line and grade and foundation of uniform compaction which will provide uniform support for fill embankments to be subsequently placed. The subgrade shall be scarified to a depth of six (6) inches for the full width of the subgrade. The loose materials shall then be spread and manipulated so as to bring all the material to a uniform density.

C. **Placing Embankment Materials (MnDOT 2106.3.F):** Embankment shall not be constructed during periods when the embankment material freezes while being placed and compacted, nor shall any embankment material be placed on soil that is frozen. Where the foundation soil is frozen at a time when weather conditions are such that embankment construction could be continued without the material freezing as it is being placed and compacted, the Contractor may be permitted to excavate the frozen foundation soil and proceed with the embankment construction for so long as the weather will permit, but only if and to the extent approved by the Engineer, and with the understanding that the additional costs involved shall be at the expense of the Contractor. The frozen soil shall be pulverized or wasted and replaced with other suitable soil as may be necessary to construct the embankment as specified.

The distribution of materials throughout each zone shall be essentially uniform, and the fill shall be free from lenses, pockets, streaks or layers of material differing substantially in texture or gradation from the surrounding material. Fill shall be placed in uniform uncompacted lifts not to exceed twelve (12) inches in thickness, and thoroughly mixed by disking or other approved methods to obtain uniformity of material.

Moisture content of the embankment material at the time of placement shall be maintained within minus 1% and plus 3% of optimum moisture as defined by ASTM D-698. Water may be applied by sprinkling the materials after placement on the fill,

if necessary. Uniform moisture distribution shall be obtained by disking. Material that is above the optimum moisture content shall either be removed or be dried to the specified moisture content prior to compaction. If the top layer of the preceding lift of compacted fill becomes too dry to permit a suitable bond it shall either be removed or scarified and moistened by the addition of water to an acceptable moisture content prior to placement of the next lift. Once each lift has been adequately processed, the surface of each lift should be scarified to a minimum of 2" prior to placing additional lifts.

D. **Compacting Embankments and Backfills (MnDOT 2106.3.G):** During the course of the work, the Engineer will perform such quality assurance tests as are required to identify materials; determine compaction characteristics; determine moisture content; and determine density of fill in place. Tests performed by the Engineer will be used to verify that the fills conform to contract requirements of the specifications and not as a replacement for the Contractor's quality control program. Densities of fill requiring compaction will be determined in accordance with the appropriate ASTM methods which may include ASTM D1556 (Sand Cone Method), D6938 (Nuclear Methods), D2937 (Drive Cylinder Method), quality compaction method and other methods approved by the Engineer. The Engineer will determine the density test which is appropriate for the conditions and materials encountered.

The moisture content will be determined in accordance with appropriate ASTM methods which may include ASTM D2216, D6938, D4643, D4944, D4959 and other methods approved by the Engineer. The Engineer will determine moisture content test which is appropriate for the conditions and materials encountered.

Where the density and moisture content tests do not meet the minimum requirements as set forth above, the Contractor, at his own expense, shall remove and replace and recompact the embankment material. A retest shall be required for every test that does not meet the minimum requirements for moisture and density. Retest shall be at the Contractors expense.

All backfill material shall be compacted to a minimum density of 95% of the maximum density per ASTM D-698. Fill adjacent to structures shall be compacted to a density equivalent to that of the surrounding fill by means of hand tamping if permitted by the Engineer, or manually directed power tampers or plate vibrators. Heavy equipment shall not be operated within two feet of any structure. Vibrating rollers shall not be operated within five (5) feet of any structure. Compaction by means of drop weights operating from a crane or hoist will not be permitted. The passage of heavy equipment will not be allowed over any type of conduit until the backfill has been placed above the top surface of the structure to a height equal to one-half the clear span width of the structure or pipe or two (2) feet, whichever is greater.

19. **Select Topsoil Borrow (LV):** The source of the topsoil must be from within 10 miles of the construction location and be approved by the Engineer at least 10 days in advance of topsoil placement. Load tickets shall be presented to a City representative onsite at the time the topsoil arrives and shall show the material volume in cubic yards (CY), or payment for this item may be unauthorized. This bid item will include all labor and equipment necessary to deliver and place the topsoil in the designated locations. This bid item will be paid at the contract unit price by the cubic yard.

20. **Crushed Concrete (MnDOT 2211):** MnDOT 2211 is modified as follows: Crushed Concrete, used on this project shall be a modified Class 5 containing greater than 75 percent recycled concrete conforming to the requirements of the table below. Crushed

Concrete shall be used only as directed by the Engineer when insitu subgrade material, in the opinion of the Engineer, cannot be stabilized via standard scarification and compaction methods. When utilized, per the plan detail, the corresponding plan quantity volume changes in Common Excavation and Class 5 Aggregate Base shall be adjusted and paid based on actual revised, calculated plan volume of Common Excavation and Aggregate Base, Class 5. In lieu of MnDOT Certification Form TP-24346, the Contractor shall submit gradation samples for approval a minimum of **ten (10) days prior to placement** of any Crushed Concrete. During placement, the Engineer will take samples to verify that gradation requirements are being met. The cost of all failed gradation tests shall be deducted from any money due the Contractor.

Class 5 > 75% Recycled Concrete – Modified Gradation Specification	
Total Percent Passing	
Sieve Size	Class 5 > 75% Conc.
37.5 mm (1.5 in)	100
25.0 mm (1 in)	90-100
19.0 mm (3/4 in)	-
9.5 mm (3/8 in)	-
4.75 mm (#4)	15 – 65
2.00 mm (#10)	10 – 45
0.425 mm (#40)	0 – 20
0.75 (#200)	0 – **8**

The Crushed Concrete compacted in-place volume (CV) includes the aggregate base necessary to construct as shown in the plans. The quality compaction method will be used to test crushed concrete densities.

21. **Mill Bituminous Pavement (Special) Profile Mill (MnDOT 2232):** This milling procedure shall be performed prior to the placement of the new wear course mixture by milling to a depth of 1 3/4 inches (+/- ¼") at the in-place curb, to a milling depth of 1" at the width of up to 4 ft. minimum from the curb, and to 0" at centerline to establish a new roadway slope after placement of the new wear course from the centerline to the in-place curb.

    Payment shall be by the Square Yard of bituminous milled from edge of curb to where milling daylights (typically centerline). The milling shall include full compensation for all costs to mill and shall include all costs associated with the milling operations, loading of milled material, and hauling to a disposal site. Sweeping and cleaning of the existing bituminous surface after the milling operations and prior to the asphalt placement shall be incidental to the milling operations.

    The City shall have right of first refusal for up to 1,300 C.Y. of millings. Millings delivered to the City shall be deposited at designated locations, at either the City of Moorhead compost site or the joint public works facility. Any additional millings shall be the property of the contractor and contractor shall be responsible for disposal.

22. **Mill Bituminous Pavement (Special) (MnDOT 2232):**
    This work shall consist of milling the in-place bituminous surface, per plans, at abutting intersecting streets and/or project limits, a minimum width of 6 feet and minimum depth of 1.5 inches. If shown in the plan, milling also may be needed along the in-place curb and gutter, manholes and catch basins a minimum width of 3 feet and a depth of 1 inch or less to maintain a defined paving edge.

    Payment shall be by the Square Yard of bituminous milled. The milling shall include full compensation for all costs to mill and shall include all costs associated with the milling

operations, loading of milled material, and hauling to a disposal site. Sweeping and cleaning of the existing bituminous surface after the milling operations and prior to the asphalt placement shall be incidental to the milling operations. The City shall have right of first refusal for up to 1,300 C.Y. of millings. Millings delivered to the City shall be deposited at designated locations, at either the City of Moorhead compost site or the joint public works facility. Any additional millings shall be the property of the contractor and contractor shall be responsible for disposal.

23. **Subgrade Preparation:** The scarification and re-compaction of the 12" (six inches) below the granular section shall be paid as "Subgrade Preparation". The quality compaction method will be used to test subgrade densities. The addition of water, if necessary to meet the above moisture requirements, shall be incidental to the subgrade preparation. The contractor is responsible for protecting all installed structures and piping throughout all construction activities. Any borrow material needed for subgrade preparation shall be incidental to the Subgrade Preparation bid item.

24. **Geotextile Fabric Type V - Modified:** Geotextile fabric shall be installed for separation, stabilization and reinforcement of the subgrade as shown on the typical section and in accordance with the Manufacturer's recommendations. Geotextile fabric shall be a Type V-Modified Fabric in accordance with MnDOT 3733 and shall be manufactured of woven, polypropylene yarns. The fabric shall meet the following material properties:

Grab Tensile Strength minimum, each principal direction	ASTM D4632	Pounds	315
Elongation minimum, each principal direction	ASTM D4632	Percent	12
Seam Breaking Strength minimum	ASTM D4632	Pounds	180
Apparent Opening Size maximum opening size	ASTM D4751	US Standard Sieve Size	20
Permittivity minimum	ASTM D4491	Falling head per second	0.15
CBR Puncture Strength minimum	ASTM D6241	Pounds	1,000
Wide Width Strip Tensile Strength, min. each principal direction	ASTM D4595	Pounds per foot	3,200

The prepared surface shall be relatively smooth and free of stones, sticks, or other debris that would tend to puncture or tear the Geotextile, and laid with 12 inches overlap at seams. Geotextile shall be sewn using a "double spool" machine capable of sewing federal Type 401 locking stitch. Seam type "J" seam, thread strength 25 pounds minimum, number of rows of stitching (1 or 2) and stitches per inch (typical 5-7) shall be consistent with achieving the required seam strength and as recommended by the manufacturer. Fabric may be installed parallel with or perpendicular to the street centerline, in accordance with the manufacturer's recommendations. Geotextile can also be glued using cylinder spray adhesive. The spray should be applied using a single coat, 6 inches wide at a rate of 1 ft/second to ensure a proper bond.

The Geotextile shall be adequately secured so that it is not displaced during subsequent construction. No traffic or construction equipment shall be permitted directly on the geotextile. Any damaged textile shall be repaired to the satisfaction of the Engineer by patching and sewing.

Measurement shall be by the square yard and shall not make allowances for overlaps and seams. Payment shall be made at the contract unit price per square yard for the bid item “Geotextile Fabric”.

25. **Bituminous Tack Coat (MnDOT 2357):** MnDOT 2357 is modified as follows: Bituminous material shall be applied at a rate of 0.035 gallons per square yard. The Engineer may delete this work from the Contract.

26. **Concrete Pavement & Structural Concrete (MnDOT 2301 & 2461):** Concrete Pavement shall be constructed in accordance with the provisions of MnDOT 2301 and 2461 and as modified below:

    For regular concrete pavement, curb and gutter, and sidewalk pavement, concrete shall be Type 3, Grade A with a 28-day compressive strength of 3,900 psi in accordance with MnDOT 2461. Where high early strength concrete is called for on the plans or directed in the field by the engineer, it shall have a 48-hour compressive strength of 3,000 psi.

    The Surface Smoothness and Ride Quality specifications (MnDOT 2301.3.P and 2301.3.Q) are deleted from the specifications.

    MnDOT 2301.5 is deleted and replaced with the following: Concrete paving shall be measured on an area basis and paid at the respective contract unit prices per square yard Concrete Pavement. The contract unit price shall be considered full compensation for all labor, materials and equipment necessary to complete the concrete pavement, including any dowel bars, tie bars, supplemental reinforcing, drilling and grouting tie bars, curing, sawing, sealing and such other work as may be necessary to construct the pavement in accordance with the detail and to match the existing pavement.

27. **Plant Mixed Asphalt Pavement (MnDOT 2360):** MnDOT 2360 is modified as follows: Bituminous mixture shall be type SPNWB330B for base course mixtures, and type SPWEB340B for the wearing course. Only virgin materials shall be used for aggregates – no scrap asphalt shingles, crushed concrete, salvaged aggregate, sewage sludge ash or recycled asphaltic pavement shall be allowed, except that recycled asphaltic pavement may be used in the bituminous base course. No RAP is allowed to be used in the wearing course.

    A. **Mixture Design (MnDOT 2360.2.E):** The Contractor will be responsible for supplying a bituminous mixture that meets the requirements of these specifications. All testing costs necessary for bituminous trial mix approval are the responsibility of the Contractor. **At least seven (7) days prior** to the start of asphalt production, the Contractor shall submit in writing a proposed Job Mix formula (JMF) for each combination of aggregates to the City-approved Bituminous Engineer for review and approval. The City will accept Job Mix design approval from any of the following; the MnDOT Bituminous Engineer or District Materials Engineer, or Braun Intertec, or Terracon Testing Labs. A copy of this Job mix design and approval shall be provided to the City of Moorhead at least three (3) days prior to commencing any paving operations. Modified Mixture Design (Option 2) shall be used for this project, unless otherwise approved by the Engineer.

B. **Mixture Quality Management (MnDOT 2360.2.G):** All bituminous mixture provided for this project shall be supplied from a Contractor Certified Plant. The Contractor shall be responsible for testing the materials as necessary to ensure quality control / quality assurance. The Engineer will conduct verification testing in accordance with 2360.2.G.3. The cost of failed test results shall be deducted from the contract. Price adjustments for material failures will be determined in accordance with 2360.5.B.4 and the MnDOT bituminous office.

C. **Payment Schedule for Maximum Density:** Payment shall be made in accordance with Table 2360.5-4, except that the maximum payment shall be 100 percent of the Contract Unit Price. This modification is intended to eliminate incentive payments for pavement density.

D. **Thickness and Surface Smoothness Requirements (MnDOT 2360.3.E):** Asphalt surfaces adjacent to manhole and gate valve castings shall be 5/8" (+/- 1/8" higher than the top of the casting. Profilograph testing will not be required for this project. The requirements of MnDOT 2399 Pavement Surface Smoothness is deleted from MnDOT 2360.3.E surface requirements.

28. **Bituminous Patch Special:** Each bituminous overlay section includes an estimated quantity for patching damaged pavement sections. The Engineer shall designate pavement repair areas in the field. Bituminous Patch areas repaired as designated by the Engineer shall be measured on an area basis and paid for at the contract unit price per square yard. Payment shall be considered full compensation for all labor, materials and equipment necessary to patch as shown in the details and plan sheets. Excavation, geotextile fabric, aggregate and bituminous material shall all be considered incidental to the bituminous patch bid item. Compaction of all materials within patch areas shall be by the Quality Compaction method.

29. **Density Requirements:** Density requirements for asphalt courses shall be MnDOT Maximum Density Method (MnDOT 2360.3.D.1). The subgrade shall be compacted in accordance with the quality compaction method and Class 5 (Modified) aggregate base shall be compacted in accordance with the specified density method per MnDOT 2106.3.G.2 and MnDOT 2211.3.D.2.A, respectively, except that the use of a nuclear gage will be permitted.

30. **Storm Sewer Pipe:** All storm sewer that is under the paved portion of City streets shall be reinforced concrete pipe (RCP). All polyvinyl chloride (PVC) or corrugated high-density polyethylene (HDPE) pipe shall conform to the requirements of Section 05000 of these specifications, and as modified herein. All reinforced concrete storm sewer pipe used on this project shall have gasketed joints in accordance with MnDOT Standard Plate 3006. All PVC and HDPE pipe shall have watertight joints. Pipe bedding material shall be considered incidental to storm sewer installation. All televising shall be performed in the presence of the Engineer. Any cleaning or repairs needed will be at the contractor's expense. All perforated PVC draintile pipe shall be schedule 40. All necessary fittings required to install the draintile pipe shall be considered incidental to the "4" PERF PVC PIPE DRAIN" bid item.

31. **Install Salvaged Casting:** All manhole and catch basin casting adjustments, whether in paved or unpaved areas, shall be constructed using HDPE rings, **utilizing both Flat and Sloped designs** and shall be constructed with a concrete collar according to the detail. All HDPE adjustment rings shall be stacked atop each other without overlap - offsetting or staggering rings is not allowed and shall be properly sealed and installed according to the manufacturer's instructions. **Shims for final adjustment shall not be used**, ¼-inch HDPE adjustment rings shall be utilized for the final adjustment. All HDPE

Adjustment Rings shall be those included on the **MNDOT approved list.** The current list is available at www.mrr.dot.state.mn.us. Saw cutting pavement for removal, removing required pavement, salvage of the existing casting, removal of the existing rings, and removal of concrete collar shall be incidental. **During removal, contractor shall retain and store all 24" casting covers (solid & grate style) at an easily accessible location on site so that the covers may be picked up by the City of Moorhead Public Works department.** Install salvaged casting shall be measured on a unit basis for each salvaged casting in accordance with the respective details and paid for at the contract unit price per each. The contract unit price shall be full compensation for all labor, materials and equipment necessary to sawcut and remove the pavement, adjusting rings, waterproof membrane, concrete collar, replace the geotextile, granular and aggregate base and concrete around the casting.

32. **Furnish and Install New Casting:** Manhole and inlet castings shall be of the size and type shown on the plans. Adjusting rings shall match the size of the casting. All manhole and catch basin casting adjustments, whether in paved or unpaved areas, shall be constructed using HDPE rings, **utilizing both Flat and Sloped designs** and shall be constructed with a concrete collar according to the detail. All HDPE adjustment rings shall be stacked atop each other without overlap - offsetting or staggering rings is not allowed and shall be properly sealed and installed according to the manufacturer's instructions. **Shims for final adjustment shall not be used**, ¼-inch HDPE adjustment rings shall be utilized for the final adjustment. All HDPE Adjustment Rings shall be those included on the **MNDOT approved list.** The current list is available at www.mrr.dot.state.mn.us. Saw cutting pavement for removal, removing required pavement, removal of the existing casting, excavation, removal of the existing rings, and removal of concrete collar shall be incidental. **During removal, contractor shall retain and store all 24" casting covers (solid & grate style) at an easily accessible location on site so that the covers may be picked up by the City of Moorhead Public Works department.** It shall be measured on a unit basis for each salvaged casting in accordance with the respective details and paid for at the contract unit price per each. The contract unit price shall be full compensation for all labor, materials and equipment necessary to saw-cut and remove the pavement, adjusting rings, waterproof membrane, concrete collar, replace the geotextile, granular and aggregate base and concrete around the casting.

33. **Furnish and Install Manhole Extension Ring:** Manhole extension rings shall be Neenah Foundry R-1979 Series or approved equal. Work shall include placement of extension ring and adhesive and all associated work. Adhesive shall be manufacturer recommended and approved by the engineer.

34. **Adjust Frame, Ring & Casting:** Manhole and inlet castings shall be of the size and type shown on the plans. Adjusting rings shall match the size of the casting. All manhole and catch basin casting adjustments, whether in paved or unpaved areas, shall be constructed using HDPE rings, utilizing both Flat and Sloped designs and shall be constructed with a concrete collar according to the detail. All HDPE adjustment rings shall be stacked atop each other without overlap - offsetting or staggering rings is not allowed and shall be properly sealed and installed according to the manufacturer's instructions. Shims for final adjustment shall not be used, ¼-inch HDPE adjustment rings shall be utilized for the final adjustment. All HDPE Adjustment Rings shall be those included on the MNDOT approved list. The current list is available at www.mrr.dot.state.mn.us. All labor, materials and equipment necessary to saw-cut and remove the pavement and install all items as shown in "Adjust Frame, Ring & Casting" detail shall be considered incidental to the respective "Construct Drainage Structure" item.

35. **Reconstruct Drainage Structure/Brick Manhole:** Shall include Manholes and Catch Basins which require repair as shown on the plans and identified by the engineer in the field include any modifications to the structure **below the existing adjustment rings**, to include adding barrel sections to limit the height of adjusting rings to a minimum of 4" and maximum of 10" of adjusting rings (generally 2 to 4 rings) and relocating an existing structure to eliminate offset adjusting rings. The reconstruct drainage structure shall consist of installing boots at existing draintile connections. If determined feasible the Engineer, the existing draintile (only if draintile is present) connections at applicable catch basins shall have the existing draintile pipe re-fitted at the connections with an approved preformed rubber boot. Installation of the preformed rubber boot will require the coring of a larger hole in the catch basin at the draintile connections. The new draintile connection shall be approved by the engineer prior to backfilling. The contract unit price shall include all materials, labor and equipment necessary to remove and replace the inplace bituminous according the detail, all sawcutting of bituminous or concrete, salvaging the inplace structure, furnishing and installing concrete barrel sections or cone sections, grout for new draintile connections, coring of a new hole, the removal of sufficient existing draintile for coring purposes, new draintile, drain tile adaptors, the preformed rubber boot, placing a concrete collar around the catch basin, excavation and backfilling. The Class 5 used as backfill shall be paid under the appropriate bid item 2211.503 "Aggregate Base Class 5". Installing new rings and salvaged or new castings shall be paid for as per bid items for Install Salvaged Casting and Furnish and Install New Casting.

36. **Drainage Structure:** Shall include **new** manholes and catch basins as shown on the plans and identified by the engineer in the field include any construction **below the existing adjustment rings**, to include base, barrel sections to limit the height of adjusting rings to a minimum of 4" and maximum of 10" of adjusting rings (generally 2 to 4 rings) and relocating a structure to eliminate offset adjusting rings. The drainage structure shall consist of installing boots at existing draintile connections. If determined feasible the Engineer, the existing draintile (only if draintile is present) connections at applicable catch basins shall have the existing draintile pipe re-fitted at the connections with an approved preformed rubber boot. Installation of the preformed rubber boot will require the preforming or coring of a larger hole in the catch basin at the draintile connections. The new draintile connection shall be approved by the engineer prior to backfilling. The contract unit price shall include all materials, labor and equipment necessary to remove and replace the inplace bituminous according the detail, all sawcutting of bituminous or concrete, furnishing and installing concrete base, barrel and cone sections, grout for new draintile connections, coring, the removal of sufficient existing draintile for coring purposes, new draintile, drain tile adaptors, the preformed rubber boot, placing a concrete collar around the catch basin, and excavation and backfilling. The Class 5 used as backfill shall be paid under the appropriate bid item "Aggregate Base (CV) Class 5 Modified (P)". Installing new rings and salvaged or new castings shall be paid for as per bid items for Install Salvaged Casting and Furnish and Install New Casting.

37. **Mud Jacking Flatwork:** Sidewalk repaired by mud jacking shall be paid for by unit bid price per square foot (SF). This item shall include all labor and materials necessary to mud jack sidewalk as shown in the plans and specifications and as marked in the field by the Engineer. Sections of sidewalk damaged (uncontrolled new cracks) by mud jacking shall be removed and replaced at contractor's expense.

38. **Walks (MnDOT 2521):** MnDOT 2521 is modified as follows: Concrete walks shall be measured on an area basis, exclusive of the pedestrian curb ramps as noted below. Walks shall be paid for at the contract unit price per square foot, which shall be considered full compensation for all labor, materials and equipment necessary to

construct the walks as required by the plans. Common excavation, Class 5-modified aggregate base, and longitudinal and transverse steel reinforcement shall be incidental to the walk construction.

39. **Pedestrian Curb Ramp:** MnDOT 2521 is modified as follows: Pedestrian ramps shall comply with the Americans with Disabilities Act (see the Details plan sheet). Except as identified on the plan, the sidewalk shall be natural concrete color. Concrete curb and gutter at the ramp shall be measured and paid on a linear foot basis as curb and gutter. The pedestrian curb ramp shall include the area of sidewalk, truncated dome panels, excavation, grading, aggregate base, steel reinforcement and all associated work as shown on the plan and will be measured on a unit basis as "pedestrian curb ramp" and paid for at the contract unit price per each for each width indicated on the plan. Truncated dome panels shall be cast iron and can either be uncoated or coated. If coated they shall be Navajo Red. Truncated dome panels must be included on the MNDOT approved list. The current list is available at www.mrr.dot.state.mn.us.

40. **Concrete PROWAG Certification**: The Contractor must designate a responsible person competent in all aspects of PROWAG to assess proposed sidewalk layouts at each site before work begins. The designated person must have attended the MNDOT ADA Construction Certification Course and received a passing score, within the past 3 years. For class dates and locations please refer to the following link at: http://www.dot.state.mn.us/ada/training.html. A minimum of one person per project must possess a valid ADA Construction Certification card anytime ADA work is being performed on the project. If work on electrical components is the only ADA work taking place on the project the electrician must have in their possession a current MNDOT Signals and Lighting Certification.

    ADA work shall include, but not be limited to, the following: assessment of proposed sidewalk layouts at each site before work begins, determining and marking removal limits for work pertaining to pedestrian facilities, all ADA related removals and grading, forming and finishing of concrete at all pedestrian facilities, paving pedestrian crossings, placing bituminous pedestrian facilities, final grading, and pavement markings. Any ADA work not listed above can be added at the discretion of the Engineer. An ADA Certified person is not required on site if the only work being performed concerns traffic signals and APS installations.

    These requirements shall be effective as of May 1st, 2019. Any time work the Contractor is performing concerns pedestrian facilities, the Contractor's ADA Certified person shall be on site.

41. **Truncated Domes:** Truncated Dome panels shall be MNDOT approved. The truncated dome panel shall consist of surface of truncated domes aligned in a square grid pattern.

42. **Construction Limits Fencing:** If the Contractor fails to obey designated construction limits, the Engineer may require the Contractor to install construction limit fencing at their own expense.

    The fencing shall be orange in color, 4 feet high, constructed of high-density polyethylene, and shall be installed in accordance with manufacturer's recommendations. Tenax Sentry Diamond Mesh fence product or equivalent shall be used if required.

43. **Temporary Erosion Control (MnDOT 2573):** The Contractor shall be required to install the erosion control devices as required by MnDOT specifications 2573 and City specifications 00900 in advance of construction operations, where possible, and to

install the remaining devices at the appropriate times in accordance with the MPCA General Storm Water Permit. Once installed, the Contractor shall be responsible to maintain the devices until they are no longer needed or until final completion of the contract and a Notice of Termination has been completed and approved. The Contractor shall be required to clean up material that is washed, tracked or otherwise eroded off site due to negligence in maintaining the erosion and pollution control devices. Erosion Control devices installed as directed by the Engineer shall be measured and paid for in accordance with the contract unit prices. The contractor will receive payment for ½ of the contract unit price for each Temporary Erosion Control item upon installation, and receive payment for the other ½ of the contract unit price for removal of said Temporary Erosion Control item.

City of Moorhead Specification Section 00900 is modified under Turf Establishment so that **the maximum time any area not being actively worked can be open shall be 7 days.**

Temporary cover of exposed soils for stabilization as required by the MPCA General Storm Water Permit shall be at the expense of the Contractor and shall not be measured for separate payment.

Inlet protection shall be measured on a unit basis once per inlet. Payment at the contract unit price per each shall be considered full compensation for all labor, materials and equipment necessary to install and upgrade the devices from one "Type" to another in accordance with the construction schedule and the plan details. Silt fence used for Inlet Protection, Type A, shall be incidental to the inlet protection bid item. Inlet Protection, Type C shall become property of the owner and remain in place at the completion of the project. Temporary rock construction entrances shall be at the expense of the Contractor unless approved by the Engineer. Payment shall be considered full compensation for all labor, materials and equipment necessary to install and maintain the entrance as long as it is needed. Construction entrances used in addition to those listed on the bid sheet shall be at the expense of the Contractor unless approved by the Engineer. Street sweeping as necessary to remove materials tracked off site shall be incidental to the temporary rock construction entrances. Fiberlog shall consist of 6-inch bioroll, and shall be measured on the basis of length, and shall be paid for at the contract unit price per linear foot.

All other erosion and pollution control devices not included on the proposal form shall be incidental to construction. Maintenance of the devices, and removal upon completion of construction, shall be incidental. Street sweeping as necessary to remove materials tracked off site shall be incidental to other items.

44. **Turf Establishment (MnDOT 2575):** Turf establishment will consist of permanent seeding with Type 5 Hydromulch, as well as seeding the soil prior to placement of Type 5 Hydromulch and shall be completed in accordance with MnDOT 2575. The permanent seed mix shall be Agassiz Brand Lawn Seed Premium Sunny Brand Lawn Mixture or equal, applied at a rate of 300 pounds per acre. The seed mixture shall contain 60% Park Kentucky Bluegrass, 10% Creeping Red Fescue, and 30% Fine Leaf Perennial Ryegrass. Turf establishment items shall be measured together on an area basis and paid for at the contract unit price per square yard. All work necessary to complete the seeding (preparing the soil, hydromulch, seed mixture, watering, etc.) shall be incidental to the turf establishment bid item. In order to comply with MPCA General Stormwater Permit requirements, multiple mobilizations for turf establishment should be expected.

45. **Water For Turf Establishment:**
Watering of newly placed hydromulch shall be applied every 3 days at a rate equal to 1/2 inch of rainfall or as directed by the engineer. The water, number of mobilizations necessary, and any labor and equipment needed to water the turf is incidental to the bid item.

46. **Pavement Markings (MnDOT 2582):** MnDOT 2582 is modified as follows: For recessing (ground in) pavement markings during chip seal.
    A. Before the chip seal is installed remove all existing markings that will not be masked by grooving out the existing marking with a groove that is 100 mils in depth.
    B. Before the chip seal is installed, install a groove 100 mils in depth where new markings are to be placed.
    C. Where an existing marking is to be removed but will not be replaced by another marking, the Contractor shall be paid under 2102.503 Remove Pavement Markings.
    D. Contractor is responsible for cleanup of all old marking materials that are left on the roadway.
    E. Install reflective temporary raised pavement markers immediately after the existing marking is removed and before the roadway is opened up to traffic.
        i. Raised pavement markers shall be maintained by the Contractor until the epoxy marking is installed.
        ii. Temporary raised pavement markers shall be incidental to the price bid for epoxy.
        iii. Install 1 marker at the beginning of each skip.
        iv. Install 1 marker at the beginning and at the end on all solid longitudinal lane lines and every 20' in between.
        v. Install 1 marker at the beginning and at the end on all solid white edge lines and every 100' in between.
        vi. Install 1 marker at the beginning of all striping tapers
        vii. Install 1 marker at the beginning and end of all gore and cross hatched areas.
    F. Epoxy material application shall be 40 mils thick and shall be installed in the entire groove as per marking width.
    G. Epoxy markings shall not be installed within 7 days of the chip seal application or before the roadway has been sweep from excess loose chip seal aggregate.
    H. All costs associated with the above work shall be incidental to the price bid for 2582.503 Pavement Markings.

47. **4" Polystyrene Insulation:** Insulation shall be used when a watermain offset or utility crossing is required because of a frost generating structure. Frost generating structures include, but are not limited to, catch basins, manholes, and other outlets. The minimum guidelines for the placement of insulation shall be as follows:

    A. If a water pipe crosses within 3 feet above or below a storm sewer, insulation shall be placed between the water pipe and storm sewer.
    B. If a water pipe is offset over a storm sewer, insulation shall be placed both between the water pipe and storm sewer and over the top of the water pipe.
    C. If a water pipe is within 4 feet of a frost generating structure, insulation shall be placed between the structure and water pipe.

    Insulation shall be placed parallel to the water pipe and 2 feet beyond either side of the water pipe. For guidelines A and B above, insulation shall also extend 2 feet beyond

either side of the storm sewer. For guideline C, insulation shall extend 2 feet beyond either side of the water pipe and 2 feet beyond either side of the structure.

48. **Garbage & Recycling Bin Collection:** Contractor shall collect resident garbage and recycling bins during the appropriate time of the week and bring them to a common area for collection. After collection, contractor shall return bins to their respective owners. All work associated with collecting and transporting bins shall be considered incidental to the project.

49. **Clean and Televise Pipe Sewer Main:** After the installation of the sanitary services and/or storm leads, and prior to road and base construction, the Contractor shall have all mainline of the sanitary sewer and storm sewer televised and shall submit a flash drive (or other data storage device) and a typewritten report for the televised mainline pipe to the Engineer. The video of the mainline shall include audio description and printed stationing of service lateral locations and/or storm leads locations and any defects encountered. This item shall be measured on a linear foot basis and paid for at the respective contract unit prices per foot. Segments that need to be repaired shall be re-televised at the Contractor's expense after the repair is completed.

    The sewer pipe inspection recordings will be provided with software that integrates video playback, inspection reports, and mapping on a single screen. The software will enable users to navigate to any point within the pipe run by clicking on the corresponding section. Additionally, it will support report and map printing. The inspection data, including the video and report database, will be fully compatible with ArcGIS, allowing city personnel to access video runs, reports, and maps directly by selecting the pipe within the ArcGIS interface. Where applicable, the videos will be linked to existing GIS pipe segment identifiers to maintain data consistency and support direct retrieval within the City's ArcGIS database. Contractor shall contact City of Moorhead GIS to ensure correct existing GIS pipe segment identifiers are being used prior to any televising at 218-299-5390. The inspection software for this purpose will be Pipeline Observation System Management (POSM) by R.S. Technical Services.

- END OF SECTION -

860 9th St NE – Unit K
West Fargo, ND 58078
P (701) 282-9633
Terracon.com

December 20, 2024

Moorhead City Engineers
PO Box 779
Moorhead, MN 56560

Attn.: Mr. Michael Aamodt
P: (218) 299 5389
E: michael.aamodt@moorheadmn.gov

Re: Geotechnical Exploration Report
2025 CIP Project 25-A2-01
Various City Streets
Moorhead, Minnesota
Terracon Project No. M1245059

Dear Mr. Aamodt:

We have completed the scope of Geotechnical Exploration services for the above referenced project in general accordance with Terracon Proposal No. PM1245063 dated October 1, 2024, and Task Order 24-01 dated October 25, 2024. This report presents the findings of the subsurface exploration.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,

Terracon

Sajib

Sajib Sarkar
Field Engineer

Daniel B. Mahrt, PE
Principal/Department Manager-Geotechnical

Table of Contents

Attachments

Note: This report was originally delivered in a web-based format. **Blue Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the Terracon logo will bring you back to this page. For more interactive features, please view your project online at **client.terracon.com**.

Refer to each individual Attachment for a listing of contents.

Introduction

This report presents the results of our subsurface exploration services performed for the proposed street improvements in Moorhead, Minnesota. The purpose of these services was to provide information relative to:

- Subsurface soil conditions
- Existing pavement thickness

The Scope of Services for this project included the advancement of eight borings to approximately 3 feet below existing grade and obtaining five pavement cores.

Maps showing the site and boring locations are shown on the **Site Location** and **Exploration Plan**, respectively. Logs of the borings are included in the **Exploration and Laboratory Results** section of this report.

Project Description

The project includes mill and overlay work along various streets in Moorhead, Minnesota.

Site Conditions

The following description of site conditions is derived from our site visit in association with the field exploration.

Item	Description
Parcel Information	The project is located along the following streets: ▪ 10th Avenue S from 14th Street S to 16th Street S ▪ 9th Avenue S from 14th Street S to 17th Street S See **Site Location**
Existing Improvements	Paved city streets in a residential area
Current Ground Cover	Bituminous pavements
Existing Topography	Relatively flat

Geotechnical Characterization

Pavement thicknesses at the boring and core sample locations were measured to the nearest 1/4 inch, recorded, and provided in the table below. Pictures of the core samples can be found in the **Photography Log** section of this report.

Boring	Pavement Thickness (inches)	Core	Pavement Thickness (inches)
B-1	9 ½	C-1	4
B-2	9	C-2	5
B-3	9	C-3	3
B-4	7	C-4	2 ½
B-5	4	C-5	1 ½
B-6	4		
B-7	2		
B-8	4		

At soil boring locations, granular fill ranging in thickness from 3 ½ to 10 inches was generally encountered beneath the bituminous pavement. The fill was underlain by native inorganic fat clays.

The boreholes were observed while drilling for the presence of groundwater. Groundwater was not observed during or immediately upon completion of the boreholes. Due to the low permeability of the natural clay soils throughout the area, a relatively long period of time may be necessary for a groundwater level to develop and stabilize in a borehole. Long-term observations in piezometers or observation wells sealed from influence of surface water are often required to define groundwater levels in materials of this type.

General Comments

The information presented in this exploration summary report is based upon the data obtained from the borings performed at the indicated locations and from other information discussed in this report. Terracon was not asked to provide geotechnical engineering recommendations for this project. Any interpretation or design performed by others based on this data is done at their risk. It should be understood that there may be possible variations between boring locations and changes due to modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials, or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly affect excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety and cost estimating including excavation support and dewatering requirements/design are the responsibility of others. Construction and site development have the potential to affect adjacent properties. Such impacts can include damages due to vibration, modification of groundwater/surface water flow during construction, foundation movement due to undermining or subsidence from excavation, as well as noise or air quality concerns. Evaluation of these items on nearby properties are commonly associated with contractor means and methods and are not addressed in this report. The owner and contractor should consider a preconstruction/precondition survey of surrounding development. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

Attachments

Exploration and Testing Procedures

Field Exploration

Number of Borings and Pavement Cores	Approximate Boring Depth (feet)	Location
8	3	City streets
5	-	

Boring Layout and Elevations: Terracon personnel provided the boring layout using handheld GPS equipment (estimated horizontal accuracy of about ±10 feet) and referencing existing site features.

Subsurface Exploration Procedures: We advanced the borings with a track-mounted rotary drill rig using continuous flight augers. Samples were retrieved from the auger cuttings for the upper portion of the 3-foot borings, and split-spoon samples taken at 1.5 feet below grade. In the split-spoon sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon was driven into the ground by a 140-pound automatic hammer falling 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. For safety purposes, all borings were backfilled with auger cuttings after their completion. Pavements were patched with cold-mix asphalt.

We also observed the boreholes while drilling and at the completion of drilling for the presence of groundwater. Groundwater was not observed at these times in the boreholes.

The sampling depths, penetration distances, and other sampling information was recorded on the field boring logs. The samples were placed in appropriate containers and taken to our soil laboratory for testing and classification by a Geotechnical Engineer. Our exploration team prepared field boring logs as part of the drilling operations. These field logs included visual classifications of the materials observed during drilling and our interpretation of the subsurface conditions between samples. Final boring logs were prepared from the field logs. The final boring logs includes the Geotechnical Engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

Laboratory Testing

The laboratory testing program included water content testing of the soil samples and examination of soil samples by an engineer. Based on the results of our field and laboratory programs, we described and classified the soil samples in accordance with the Unified Soil Classification System.

Photography Log

2025 CIP 25-A2-01, C1-C5

Site Location and Exploration Plans

Contents:

Note: All attachments are one page unless noted above.

Site Location

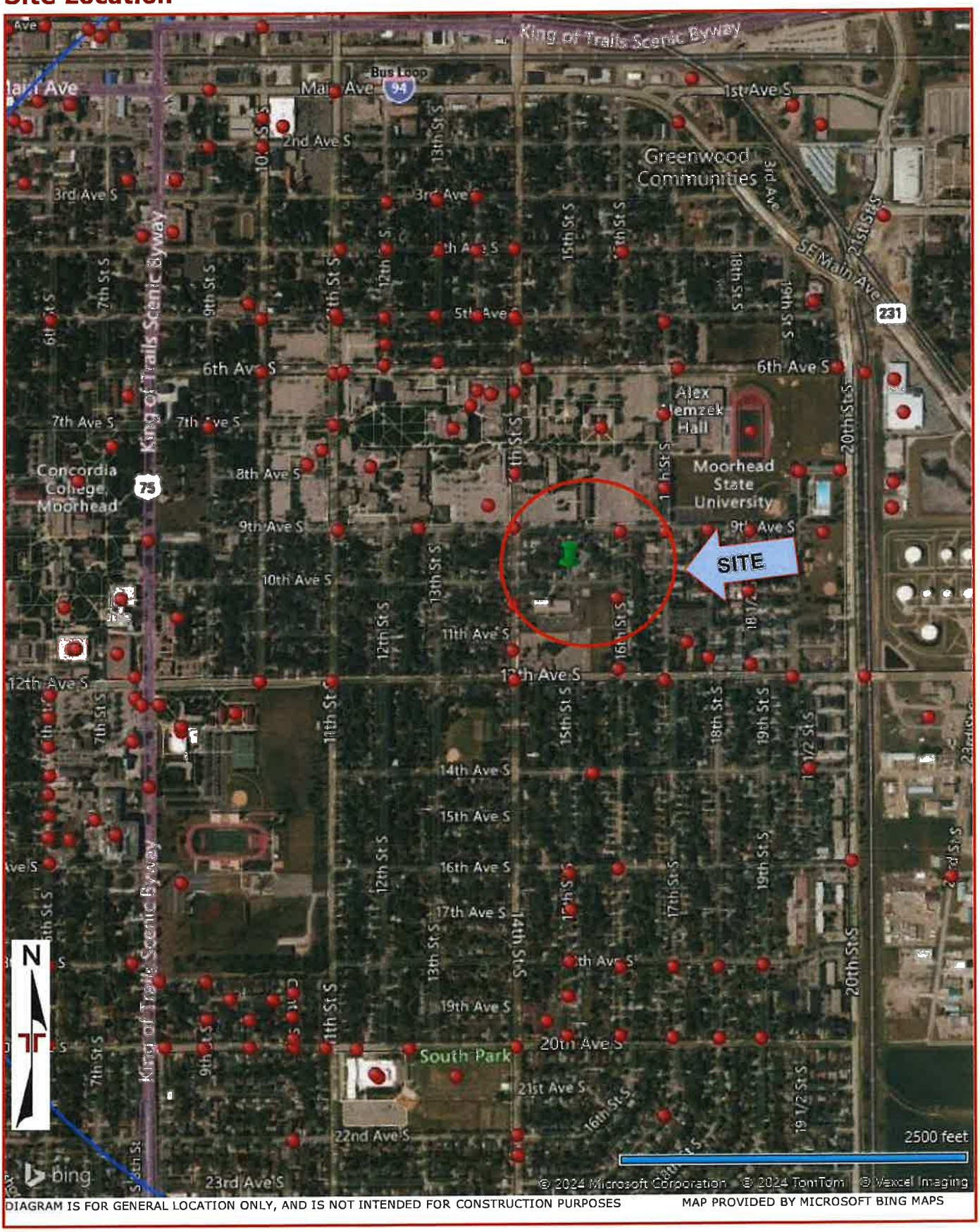


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Exploration Plan

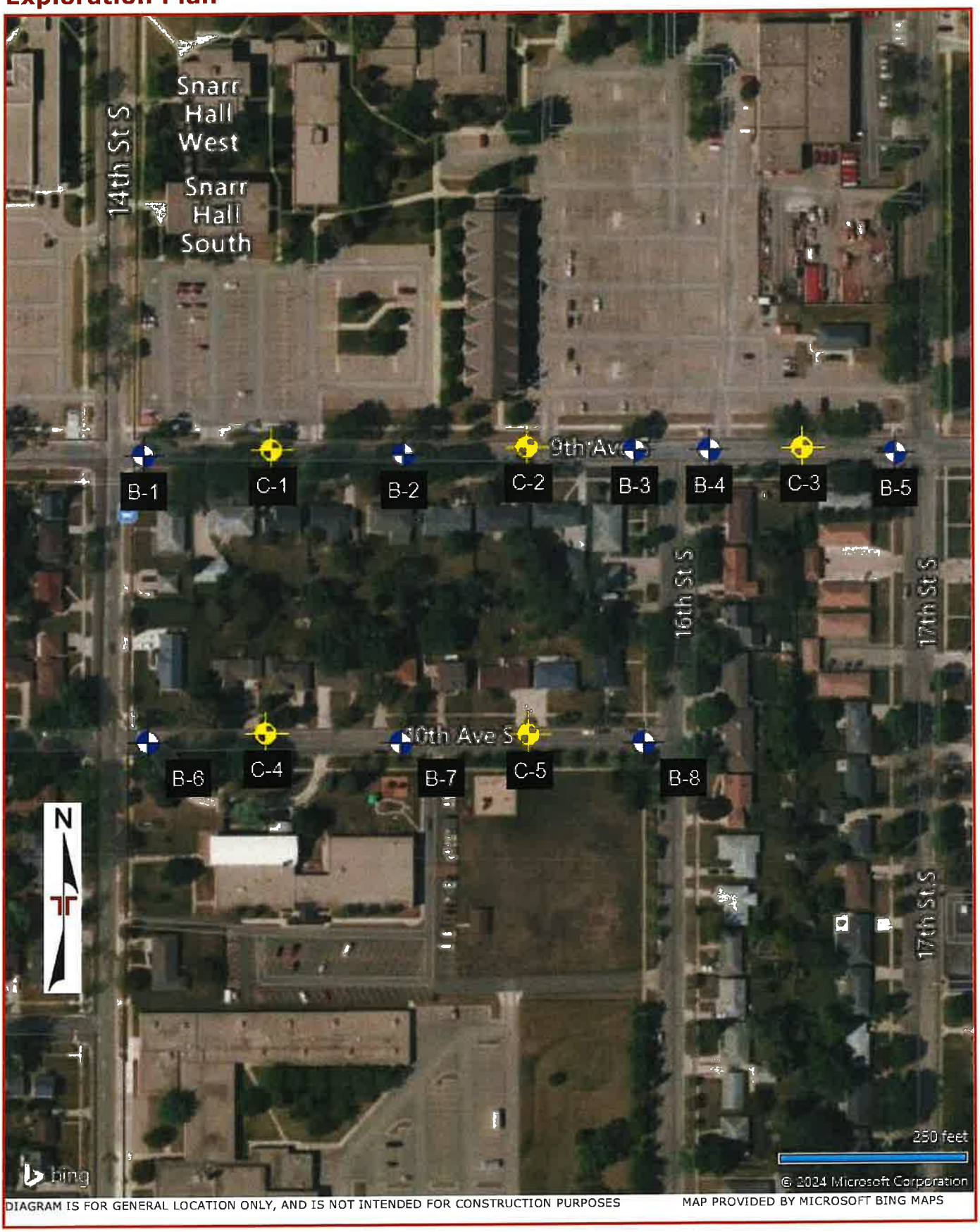


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Exploration and Laboratory Results

Contents:

Boring Logs (B-1 through B-8)

Note: All attachments are one page unless noted above.

860 9th St. NE, Unit K
West Fargo, ND

Boring Log No. B-1

Location: See Exploration Plan

Latitude: 46.8651° Longitude: -96.7573°

Depth (Ft.) | Elevation: 907 (Ft.) +/-

Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)
9 1/2" BITUMINOUS PAVEMENT, black	0.8 / 906.2					
FILL - SAND WITH GRAVEL, brown, medium grained	1.1 / 905.9					
FAT CLAY (CH), gray, very stiff	1					2.7
	2			17	19-15-12 N=27	26.7
	3.0 / 904					
Boring Terminated at 3 Feet						

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were estimated using MnTOPO and should be considered approximate

Notes

Water Level Observations
No free water observed

Advancement Method
3¼ inch Hollow Stem Auger

Abandonment Method
Borings backfilled with soil cuttings upon completion. Sealed with bituminous cold patch at surface.

Drill Rig
DR #1163

Hammer Type
Automatic

Driller
JM

Logged by
RJ

Boring Started
12-13-2024

Boring Completed
12-13-2024

860 9th St. NE, Unit K
West Fargo, ND

Boring Log No. B-2

Location: See Exploration Plan

Latitude: 46.8651° Longitude: -96.7560°

Graphic Log	Depth (Ft.)	Elevation: 906 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)
	0.8	**9" BITUMINOUS PAVEMENT**, black						
		905.25						
	1.1	**FILL - SAND WITH GRAVEL**, brown, medium grained	1					3.1
		904.9						
	3.0	**FAT CLAY (CH)**, gray, medium stiff	2			9	3-2-3 N=5	29.4
		903	3					
		Boring Terminated at 3 Feet						

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were estimated using MnTOPO and should be considered approximate

Notes

Water Level Observations
No free water observed

Advancement Method
3¼ inch Hollow Stem Auger

Abandonment Method
Borings backfilled with soil cuttings upon completion. Sealed with bituminous cold patch at surface.

Drill Rig
DR #1163

Hammer Type
Automatic

Driller
JM

Logged by
RJ

Boring Started
12-13-2024

Boring Completed
12-13-2024

860 9th St. NE, Unit K
West Fargo, ND

Boring Log No. B-3

Location: See Exploration Plan

Latitude: 46.8651° Longitude: -96.7547°

Depth (Ft.) | Elevation: 905 (Ft.) +/-

Graphic Log	Depth (Ft.)	Elevation	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)
	0.8	904.25					
9" BITUMINOUS PAVEMENT, black							
	1.1	903.9					
FILL - SAND WITH GRAVEL, brown, medium grained							
							12.6
FAT CLAY (CH), gray, medium stiff					12	5-3-3 N=6	28.3
	3.0	902					
Boring Terminated at 3 Feet							

1
2
3

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were estimated using MnTOPO and should be considered approximate

Notes

Water Level Observations
No free water observed

Advancement Method
3¼ inch Hollow Stem Auger

Abandonment Method
Borings backfilled with soil cuttings upon completion. Sealed with bituminous cold patch at surface.

Drill Rig
DR #1163

Hammer Type
Automatic

Driller
JM

Logged by
RJ

Boring Started
12-13-2024

Boring Completed
12-13-2024

860 9th St. NE, Unit K
West Fargo, ND

Boring Log No. B-4

Location: See Exploration Plan

Latitude: 46.8651° Longitude: -96.7543°

Depth (Ft.) | Elevation: 905 (Ft.) +/-

Graphic Log	Depth (Ft.)	Elevation	Description	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)
	0.6	904.42	**7" BITUMINOUS PAVEMENT**, black						
	1.0	904	**FILL - SAND WITH GRAVEL**, brown, medium grained	1					12.7
	3.0	902	**FAT CLAY (CH)**, gray, medium stiff	2			11.5	5-4-4 N=8	23.4
			Boring Terminated at 3 Feet	3					

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were estimated using MnTOPO and should be considered approximate

Notes

Water Level Observations
No free water observed

Advancement Method
3¼ inch Hollow Stem Auger

Abandonment Method
Borings backfilled with soil cuttings upon completion. Sealed with bituminous cold patch at surface.

Drill Rig
DR #1163

Hammer Type
Automatic

Driller
JM

Logged by
RJ

Boring Started
12-13-2024

Boring Completed
12-13-2024

860 9th St. NE, Unit K
West Fargo, ND

Boring Log No. B-5

Location: See Exploration Plan

Latitude: 46.8651° Longitude: -96.7533°

Graphic Log	Depth (Ft.)	Elevation: 905 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)
	0.3	**4" BITUMINOUS PAVEMENT**, black 904.67						
	1.1	**FILL - SAND WITH GRAVEL**, brown, medium grained 903.88	1					4.9
	3.0	**FAT CLAY (CH)**, gray, stiff 902	2			14	7-6-7 N=13	23.1
		Boring Terminated at 3 Feet	3					

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were estimated using MnTOPO and should be considered approximate

Notes

Water Level Observations
No free water observed

Advancement Method
3¼ inch Hollow Stem Auger

Abandonment Method
Borings backfilled with soil cuttings upon completion. Sealed with bituminous cold patch at surface.

Drill Rig
DR #1163

Hammer Type
Automatic

Driller
JM

Logged by
RJ

Boring Started
12-13-2024

Boring Completed
12-13-2024

860 9th St. NE, Unit K
West Fargo, ND

Boring Log No. B-6

Location: See Exploration Plan

Latitude: 46.8641° Longitude: -96.7573°

Depth (Ft.)	Elevation: 908 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)
0.3	**4" BITUMINOUS PAVEMENT**, black						
	907.67						
	FILL - SAND WITH GRAVEL, brown, medium grained	1					13.2
1.1	906.88						
	FAT CLAY (CH), gray, stiff	2			12.5	4-4-5 N=9	29.3
3.0	905	3					
	Boring Terminated at 3 Feet						

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were estimated using MnTOPO and should be considered approximate

Notes

Water Level Observations
No free water observed

Advancement Method
3¼ inch Hollow Stem Auger

Abandonment Method
Borings backfilled with soil cuttings upon completion. Sealed with bituminous cold patch at surface.

Drill Rig
DR #1163

Hammer Type
Automatic

Driller
JM

Logged by
RJ

Boring Started
12-13-2024

Boring Completed
12-13-2024

860 9th St. NE, Unit K
West Fargo, ND

Boring Log No. B-7

Location: See Exploration Plan

Latitude: 46.8641° Longitude: -96.7560°

Graphic Log	Depth (Ft.)	Elevation: 908 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)
	0.2	**2" BITUMINOUS PAVEMENT**, black — 907.83						
	0.8	**FILL - SAND WITH GRAVEL**, brown, medium grained — 907.25						9.1
	3.0	**FAT CLAY (CH)**, gray, medium stiff — 905	1					
			2			12	3-2-3 N=5	27.5
			3					
		Boring Terminated at 3 Feet						

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were estimated using MnTOPO and should be considered approximate

Notes

Water Level Observations
No free water observed

Advancement Method
3¼ Inch Hollow Stem Auger

Abandonment Method
Borings backfilled with soil cuttings upon completion. Sealed with bituminous cold patch at surface.

Drill Rig
DR #1163

Hammer Type
Automatic

Driller
JM

Logged by
RJ

Boring Started
12-13-2024

Boring Completed
12-13-2024

860 9th St. NE, Unit K
West Fargo, ND

Boring Log No. B-8

Location: See Exploration Plan

Latitude: 46.8641° Longitude: -96.7547°

Depth (Ft.)	Elevation: 906 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)
0.3	**4" BITUMINOUS PAVEMENT**, black						
	905.67						
	FILL - SAND WITH GRAVEL, brown, medium grained	1					7.9
1.1	904.92						
	FAT CLAY (CH), gray, stiff	2			10	6-4-5 N=9	22.5
3.0	903	3					
	Boring Terminated at 3 Feet						

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were estimated using MnTOPO and should be considered approximate

Notes

Water Level Observations
No free water observed

Advancement Method
3¼ inch Hollow Stem Auger

Abandonment Method
Borings backfilled with soil cuttings upon completion. Sealed with bituminous cold patch at surface.

Drill Rig
DR #1163

Hammer Type
Automatic

Driller
JM

Logged by
RJ

Boring Started
12-13-2024

Boring Completed
12-13-2024

Supporting Information

Contents:

Note: All attachments are one page unless noted above.

Terracon
860 9th St. NE, Unit K
West Fargo, ND

General Notes

Sampling

Water Level

Water Initially Encountered

Water Level After a Specified Period of Time

Water Level After a Specified Period of Time

Cave In Encountered

Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.

Field Tests

N	Standard Penetration Test Resistance (Blows/Ft.)
(HP)	Hand Penetrometer
(T)	Torvane
(DCP)	Dynamic Cone Penetrometer
UC	Unconfined Compressive Strength
(PID)	Photo-Ionization Detector
(OVA)	Organic Vapor Analyzer

Descriptive Soil Classification

Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

Location And Elevation Notes

Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See Exploration and Testing Procedures in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

Strength Terms

Relative Density of Coarse-Grained Soils (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance		Consistency of Fine-Grained Soils (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance		
Relative Density	**Standard Penetration or N-Value (Blows/Ft.)**	**Consistency**	**Unconfined Compressive Strength Qu (psf)**	**Standard Penetration or N-Value (Blows/Ft.)**
Very Loose	0 - 3	Very Soft	less than 500	0 - 1
Loose	4 - 9	Soft	500 to 1,000	2 - 4
Medium Dense	10 - 29	Medium Stiff	1,000 to 2,000	4 - 8
Dense	30 - 50	Stiff	2,000 to 4,000	8 - 15
Very Dense	> 50	Very Stiff	4,000 to 8,000	15 - 30
		Hard	> 8,000	> 30

Relevance of Exploration and Laboratory Test Results

Exploration/field results and/or laboratory test data contained within this document are intended for application to the project as described in this document. Use of such exploration/field results and/or laboratory test data should not be used independently of this document.

!! CAUTION !!

UTILITIES IN THE AREA, BEFORE CONSTRUCTION
UTILIZE 1 CALL **1-800-252-1166**

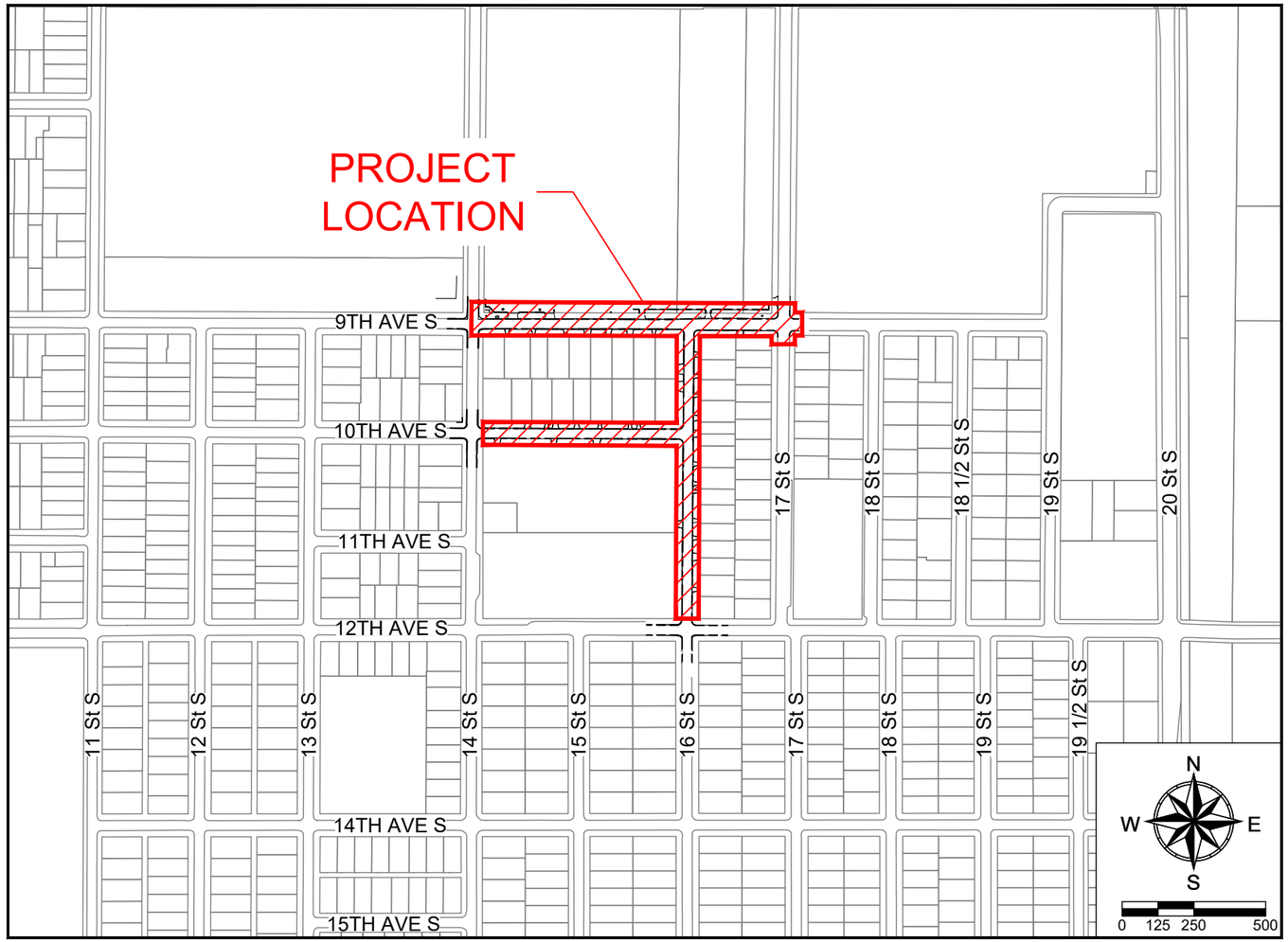
THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL " C ". THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

PLAN SYMBOLS

- RIGHT-OF-WAY LINE ROAD
- RIGHT-OF-WAY LINE DRAINAGE DITCH
- SECTION LINE
- QUARTER LINE
- PROPERTY LINE
- EASEMENT LINE
- RAILROAD
- FENCE
- SANITARY SEWER - EXISTING
- SANITARY SEWER - PROPOSED
- SANITARY SEWER SERVICE - EXISTING
- SANITARY SEWER SERVICE - PROPOSED
- SANITARY SEWER FORCE MAIN
- STORM SEWER - EXISTING
- STORM SEWER - PROPOSED
- WATER - EXISTING
- WATER - PROPOSED
- WATER SERVICE - EXISTING
- WATER SERVICE - PROPOSED
- TELEPHONE
- TELEVISION
- FIBER OPTIC
- OVERHEAD POWER
- UNDERGROUND POWER
- PETROLEUM PIPELINE
- GAS
- CURB & GUTTER - EXISTING
- CURB & GUTTER - PROPOSED
- SANITARY MANHOLE
- STORM MANHOLE
- EXISTING MANHOLE
- HYDRANT
- EXISTING HYDRANT
- GATE VALVE
- EXISTING GATE VALVE
- CLEAN OUT
- CURB STOP
- PROPOSED INLET
- EXISTING INLET
- SIGN - STREET NAME
- SIGN - REGULATORY / WARNING
- POWER POLE or
- STREET LIGHT or
- ELECTRICAL TRANSFORMER or
- UTILITY PEDESTAL or
- UTILITY HANDHOLD / VAULT or
- DECIDUOUS TREE or
- CONIFEROUS TREE or
- BUSH / HEDGE or

CITY OF MOORHEAD

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING
ENG. NO. 25-A2-01



SHEET INDEX

SPECIFICATION REFERENCE

THE CURRENT EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN, AS MODIFIED BY THE CITY OF MOORHEAD SPECIFICATIONS AND SPECIAL PROVISIONS.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE CURRENT VERSION OF THE MMUTCD, AND TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS (FIELD MANUAL).

PROJECT LOCATION

PART OF SECTION	SW 1/4 OF THE SW 1/4
SECTION No.	9
TOWNSHIP	139
RANGE	48W

SURVEY CONTROL

HORIZONTAL: CLAY COUNTY COORDINATE SYSTEM NAD83(1996)
VERTICAL (18TH ST. S.): NAVD88 (1996 ADJ.)
VERTICAL (14TH AVE. S. & 13TH ST. S.): NAVD88 (1996 ADJ.)
CP 1 NORTHING: 185736.21, EASTING:485593.99, ELEV. 908.44
CP 2 NORTHING: 185789.66, EASTING:485938.35, ELEV. 907.33

--	A2-01-2025	25-A2-01
SAP No.	LEGAL No.	ENG. No.
EMH	MJA	JAS
DRAWN BY	CHECKED BY	APPROVED BY

MOORHEAD MINNESOTA Engineering

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

03/07/2025
Date

26225
License No.

JAMES A. SCHULZ
Name - Project Engineer

Signature - Project Engineer

COVER SHEET

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 1 OF 45

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!! CAUTION !!

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UTILIZE 1 CALL **1-800-252-1166**

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CITY OF MOORHEAD

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING
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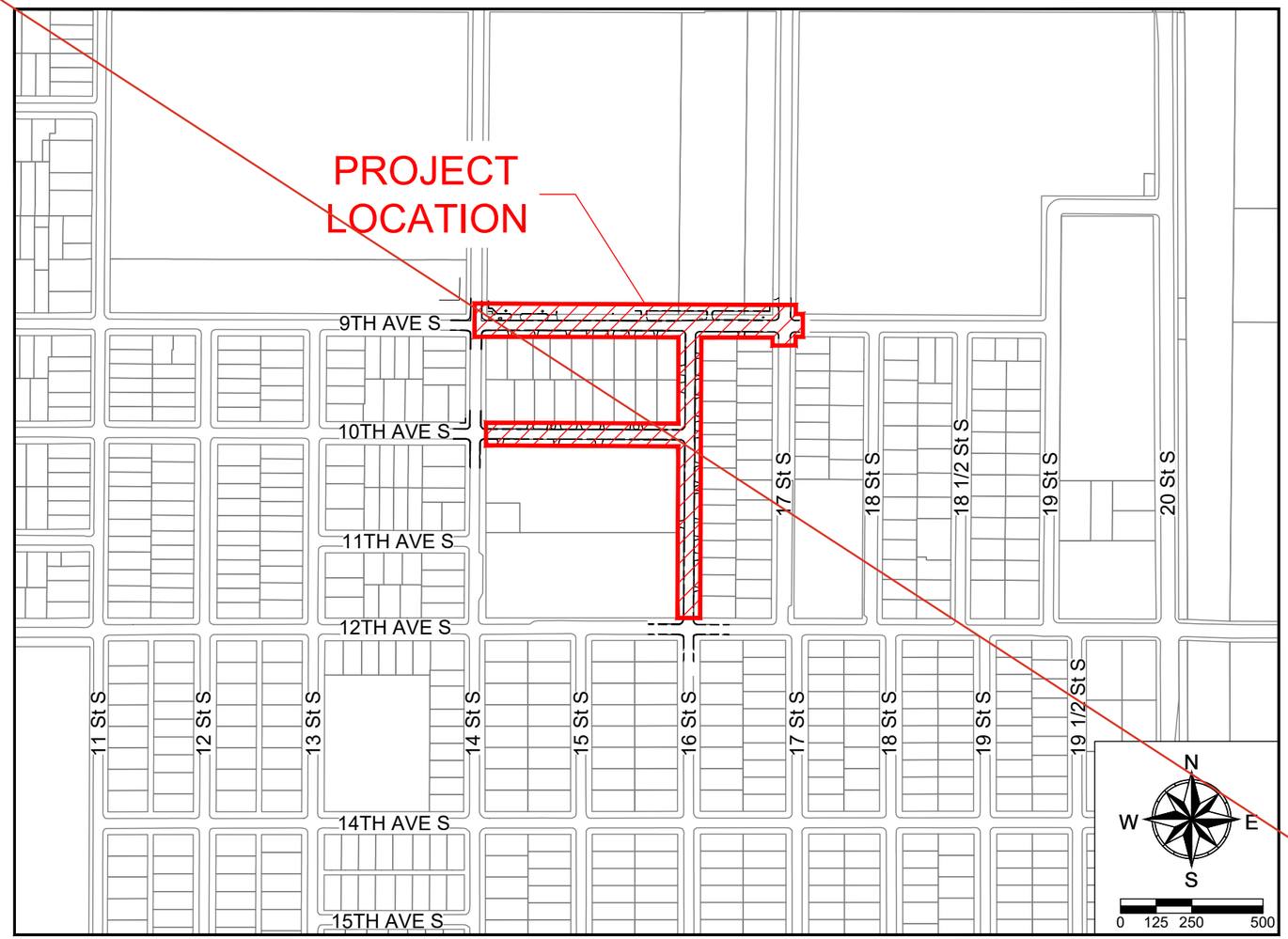

SHEET INDEX

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PROJECT LOCATION

PART OF SECTION	SW 1/4 OF THE SW 1/4
SECTION No.	9
TOWNSHIP	139
RANGE	48W

SURVEY CONTROL

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SAP No.	LEGAL No.	ENG. No.
EMH	MJA	JAS
DRAWN BY	CHECKED BY	APPROVED BY

MOORHEAD MINNESOTA Engineering

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

--/--/----
Date

JAMES A. SCHULZ
Name - Project Engineer

26225
License No.

Signature - Project Engineer

COVER SHEET

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 1 OF 45

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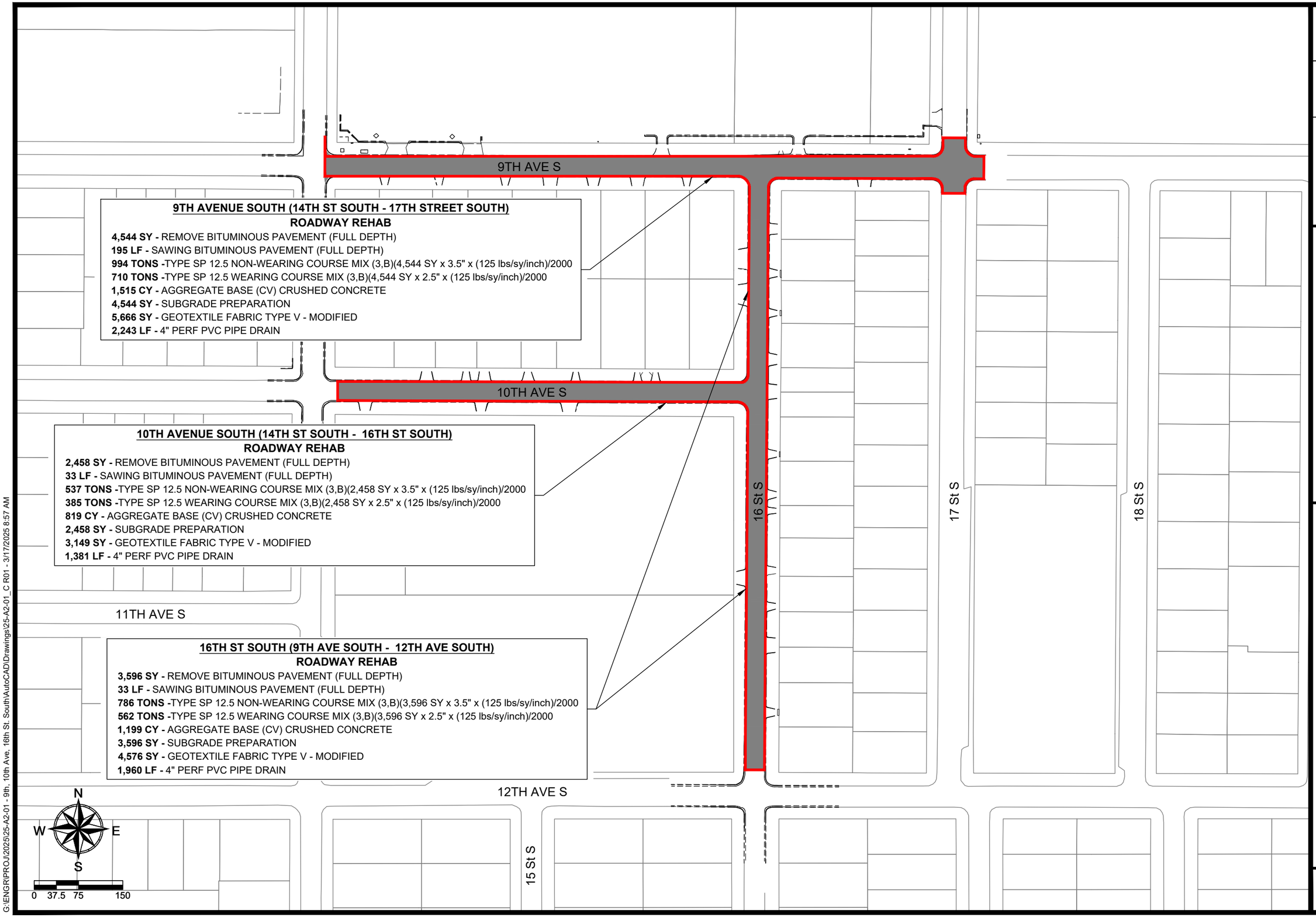

9TH AVENUE SOUTH (14TH ST SOUTH - 17TH STREET SOUTH)
ROADWAY REHAB

4,544 SY - REMOVE BITUMINOUS PAVEMENT (FULL DEPTH)
195 LF - SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
994 TONS -TYPE SP 12.5 NON-WEARING COURSE MIX (3,B)(4,544 SY x 3.5" x (125 lbs/sy/inch)/2000
710 TONS -TYPE SP 12.5 WEARING COURSE MIX (3,B)(4,544 SY x 2.5" x (125 lbs/sy/inch)/2000
1,515 CY - AGGREGATE BASE (CV) CRUSHED CONCRETE
4,544 SY - SUBGRADE PREPARATION
5,666 SY - GEOTEXTILE FABRIC TYPE V - MODIFIED
2,243 LF - 4" PERF PVC PIPE DRAIN

10TH AVENUE SOUTH (14TH ST SOUTH - 16TH ST SOUTH)
ROADWAY REHAB

2,458 SY - REMOVE BITUMINOUS PAVEMENT (FULL DEPTH)
33 LF - SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
537 TONS -TYPE SP 12.5 NON-WEARING COURSE MIX (3,B)(2,458 SY x 3.5" x (125 lbs/sy/inch)/2000
385 TONS -TYPE SP 12.5 WEARING COURSE MIX (3,B)(2,458 SY x 2.5" x (125 lbs/sy/inch)/2000
819 CY - AGGREGATE BASE (CV) CRUSHED CONCRETE
2,458 SY - SUBGRADE PREPARATION
3,149 SY - GEOTEXTILE FABRIC TYPE V - MODIFIED
1,381 LF - 4" PERF PVC PIPE DRAIN

16TH ST SOUTH (9TH AVE SOUTH - 12TH AVE SOUTH)
ROADWAY REHAB

3,596 SY - REMOVE BITUMINOUS PAVEMENT (FULL DEPTH)
33 LF - SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
786 TONS -TYPE SP 12.5 NON-WEARING COURSE MIX (3,B)(3,596 SY x 3.5" x (125 lbs/sy/inch)/2000
562 TONS -TYPE SP 12.5 WEARING COURSE MIX (3,B)(3,596 SY x 2.5" x (125 lbs/sy/inch)/2000
1,199 CY - AGGREGATE BASE (CV) CRUSHED CONCRETE
3,596 SY - SUBGRADE PREPARATION
4,576 SY - GEOTEXTILE FABRIC TYPE V - MODIFIED
1,960 LF - 4" PERF PVC PIPE DRAIN

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EMH	MJA	JAS
DRAWN BY	CHECKED BY	APPROVED BY

--	A2-01-2025	25-A2-01
SAP. No.	LEGAL No.	ENG. No.

MOORHEAD MINNESOTA Engineering

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

Signature - Project Engineer

03/07/2025
Date

JAMES A. SCHULZ
Name - Project Engineer

26225
License No.

GENERAL LAYOUT

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 2 OF 45

9TH AVE S

10TH AVE S

11TH AVE S

12TH AVE S

16 St S

15 St S

17 St S

18 St S

9TH AVENUE SOUTH (14TH ST SOUTH - 17TH STREET SOUTH)
ROADWAY REHAB

4,544 SY - REMOVE BITUMINOUS PAVEMENT (FULL DEPTH)
195 LF - SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
994 TONS -TYPE SP 12.5 NON-WEARING COURSE MIX (3,B)(4,544 SY x 3.5" x (125 lbs/sy/inch)/2000
710 TONS -TYPE SP 12.5 WEARING COURSE MIX (3,B)(4,544 SY x 2.5" x (125 lbs/sy/inch)/2000
1,515 CY - AGGREGATE BASE (CV) CRUSHED CONCRETE
4,544 SY - SUBGRADE PREPARATION
5,666 SY - GEOTEXTILE FABRIC TYPE V - MODIFIED
2,243 LF - 4" PERF PVC PIPE DRAIN

10TH AVENUE SOUTH (14TH ST SOUTH - 16TH ST SOUTH)
ROADWAY REHAB

2,458 SY - REMOVE BITUMINOUS PAVEMENT (FULL DEPTH)
33 LF - SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
537 TONS -TYPE SP 12.5 NON-WEARING COURSE MIX (3,B)(2,458 SY x 3.5" x (125 lbs/sy/inch)/2000
385 TONS -TYPE SP 12.5 WEARING COURSE MIX (3,B)(2,458 SY x 2.5" x (125 lbs/sy/inch)/2000
819 CY - AGGREGATE BASE (CV) CRUSHED CONCRETE
2,458 SY - SUBGRADE PREPARATION
3,149 SY - GEOTEXTILE FABRIC TYPE V - MODIFIED
1,381 LF - 4" PERF PVC PIPE DRAIN

16TH ST SOUTH (9TH AVE SOUTH - 12TH AVE SOUTH)
ROADWAY REHAB

3,596 SY - REMOVE BITUMINOUS PAVEMENT (FULL DEPTH)
33 LF - SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
786 TONS -TYPE SP 12.5 NON-WEARING COURSE MIX (3,B)(3,596 SY x 3.5" x (125 lbs/sy/inch)/2000
562 TONS -TYPE SP 12.5 WEARING COURSE MIX (3,B)(3,596 SY x 2.5" x (125 lbs/sy/inch)/2000
1,199 CY - AGGREGATE BASE (CV) CRUSHED CONCRETE
3,596 SY - SUBGRADE PREPARATION
4,576 SY - GEOTEXTILE FABRIC TYPE V - MODIFIED
1,960 LF - 4" PERF PVC PIPE DRAIN

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Signature - Project Engineer

GENERAL LAYOUT

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 2 OF 45

CITY APPROVED HAUL ROUTES:

16th St S to 12th Avenue S

12th Avenue South to 14th St S

14th St S to 20th Avenue S

20th Avenue South (20th Street South or 8th St S**)**

20th Street South (Interstate 94 to 15th Avenue North)

8th Street South (Interstate 94 to Center Avenue North)

COUNTY, STATE AND FEDERAL ROADS:

(It is the responsibility of the Contractor to obtain permission from the County and the State for the use of these roads)

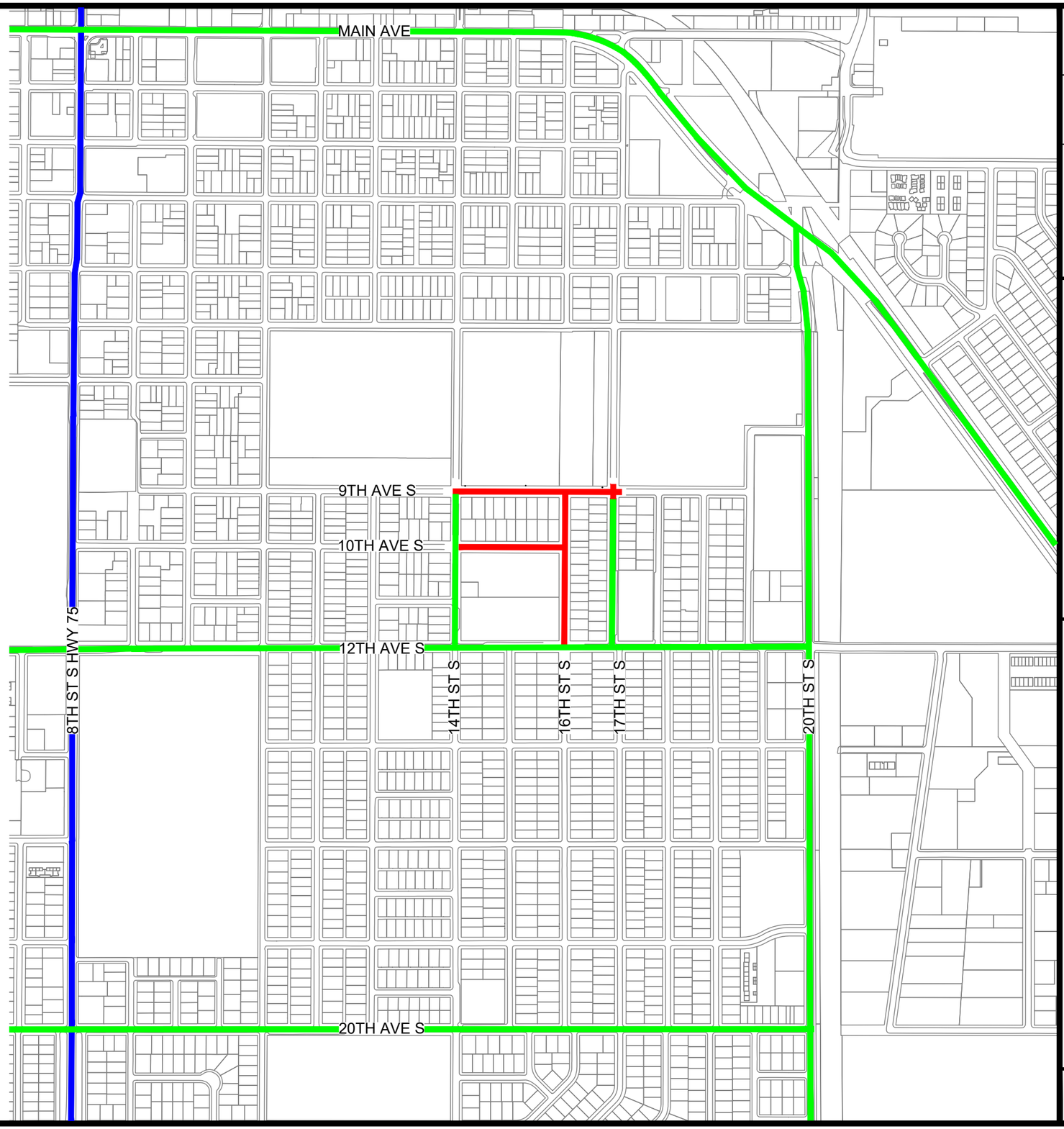
INTERSTATE 94
TH 75
TH 10

CONSTRUCTION AREA:

9th Avenue South (14th ST S to 17th ST S)

10th Avenue South (14th ST S to 16th ST S)

16th ST S (9th Ave S to 12th Ave S)



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HAUL ROUTE

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 3 OF 45

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CITY APPROVED HAUL ROUTES:

16th St S to 12th Avenue S

12th Avenue South to 14th St S

14th St S to 20th Avenue S

20th Avenue South (20th Street South or 8th St S**)**

20th Street South (Interstate 94 to 15th Avenue North)

8th Street South (Interstate 94 to Center Avenue North)

COUNTY, STATE AND FEDERAL ROADS:

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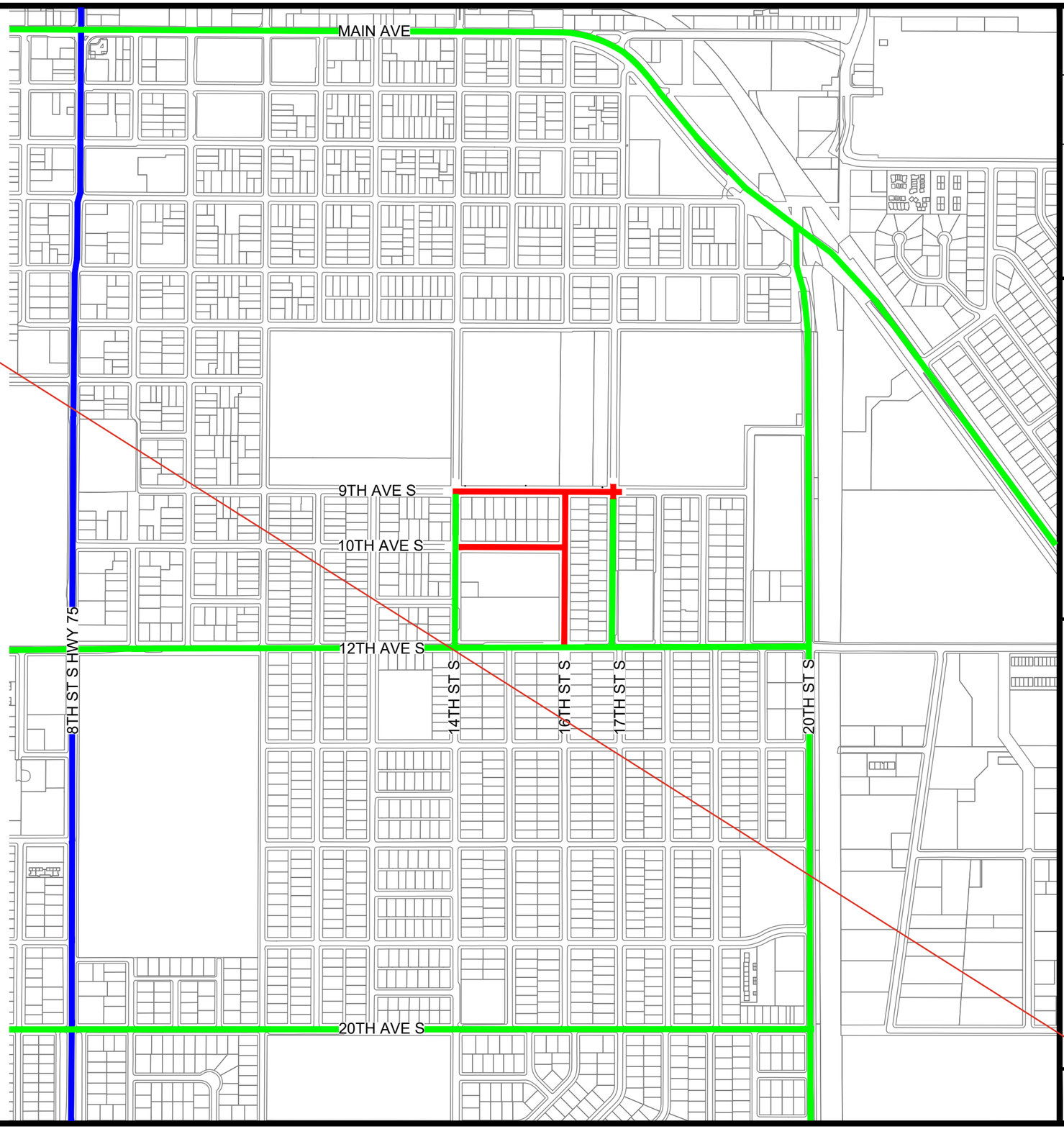
INTERSTATE 94
TH 75
TH 10

CONSTRUCTION AREA:

9th Avenue South (14th ST S to 17th ST S)

10th Avenue South (14th ST S to 16th ST S)

16th ST S (9th Ave S to 12th Ave S)



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HAUL ROUTE

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 3 OF 45

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Traffic Control & Phasing

NOTES:

1. LOCATIONS OF SIGNS AND BARRICADES MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.

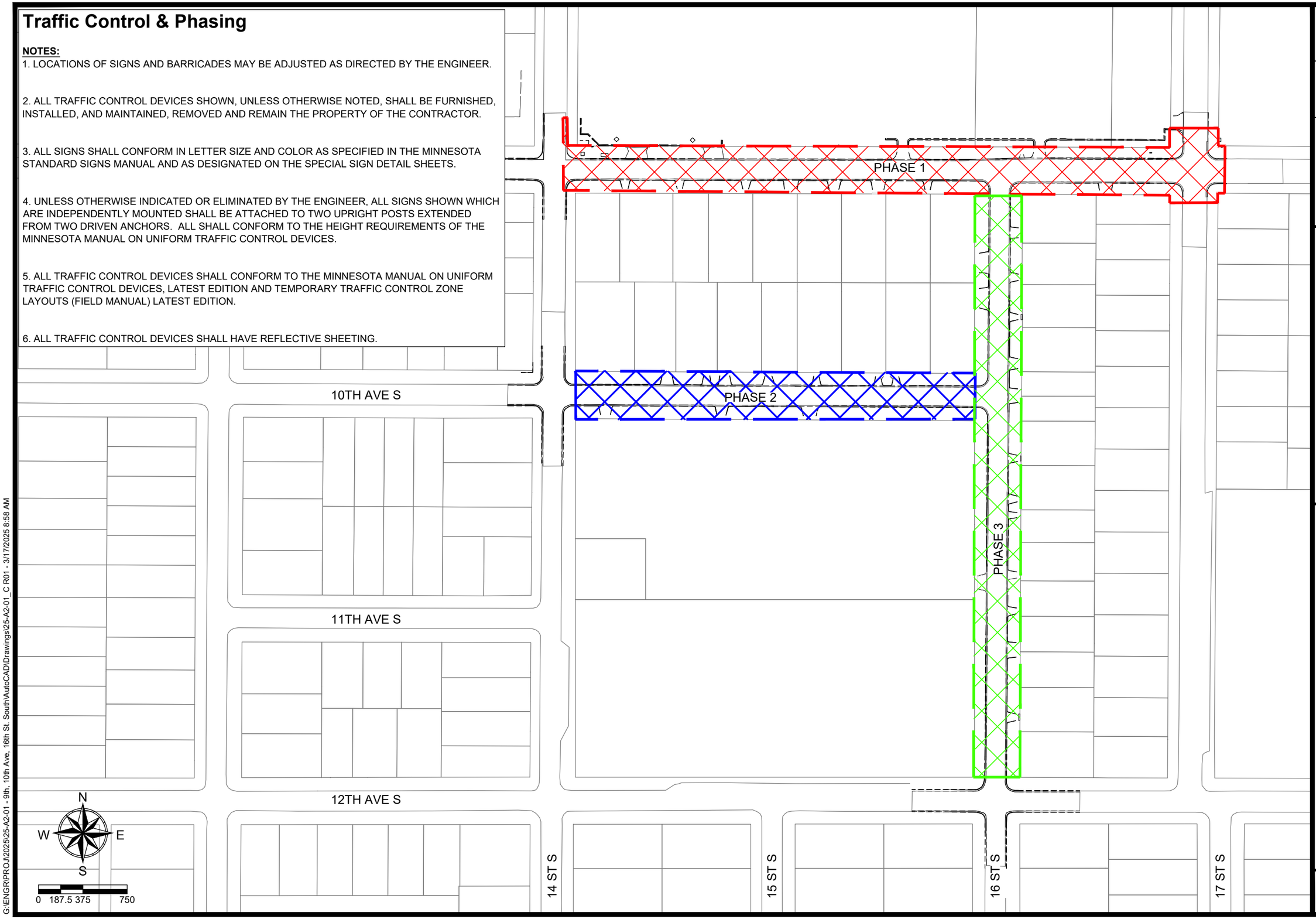
2. ALL TRAFFIC CONTROL DEVICES SHOWN, UNLESS OTHERWISE NOTED, SHALL BE FURNISHED, INSTALLED, AND MAINTAINED, REMOVED AND REMAIN THE PROPERTY OF THE CONTRACTOR.

3. ALL SIGNS SHALL CONFORM IN LETTER SIZE AND COLOR AS SPECIFIED IN THE MINNESOTA STANDARD SIGNS MANUAL AND AS DESIGNATED ON THE SPECIAL SIGN DETAIL SHEETS.

4. UNLESS OTHERWISE INDICATED OR ELIMINATED BY THE ENGINEER, ALL SIGNS SHOWN WHICH ARE INDEPENDENTLY MOUNTED SHALL BE ATTACHED TO TWO UPRIGHT POSTS EXTENDED FROM TWO DRIVEN ANCHORS. ALL SHALL CONFORM TO THE HEIGHT REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

5. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION AND TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS (FIELD MANUAL) LATEST EDITION.

6. ALL TRAFFIC CONTROL DEVICES SHALL HAVE REFLECTIVE SHEETING.



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Signature - Project Engineer

TRAFFIC CONTROL & PHASING

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 4 OF 45

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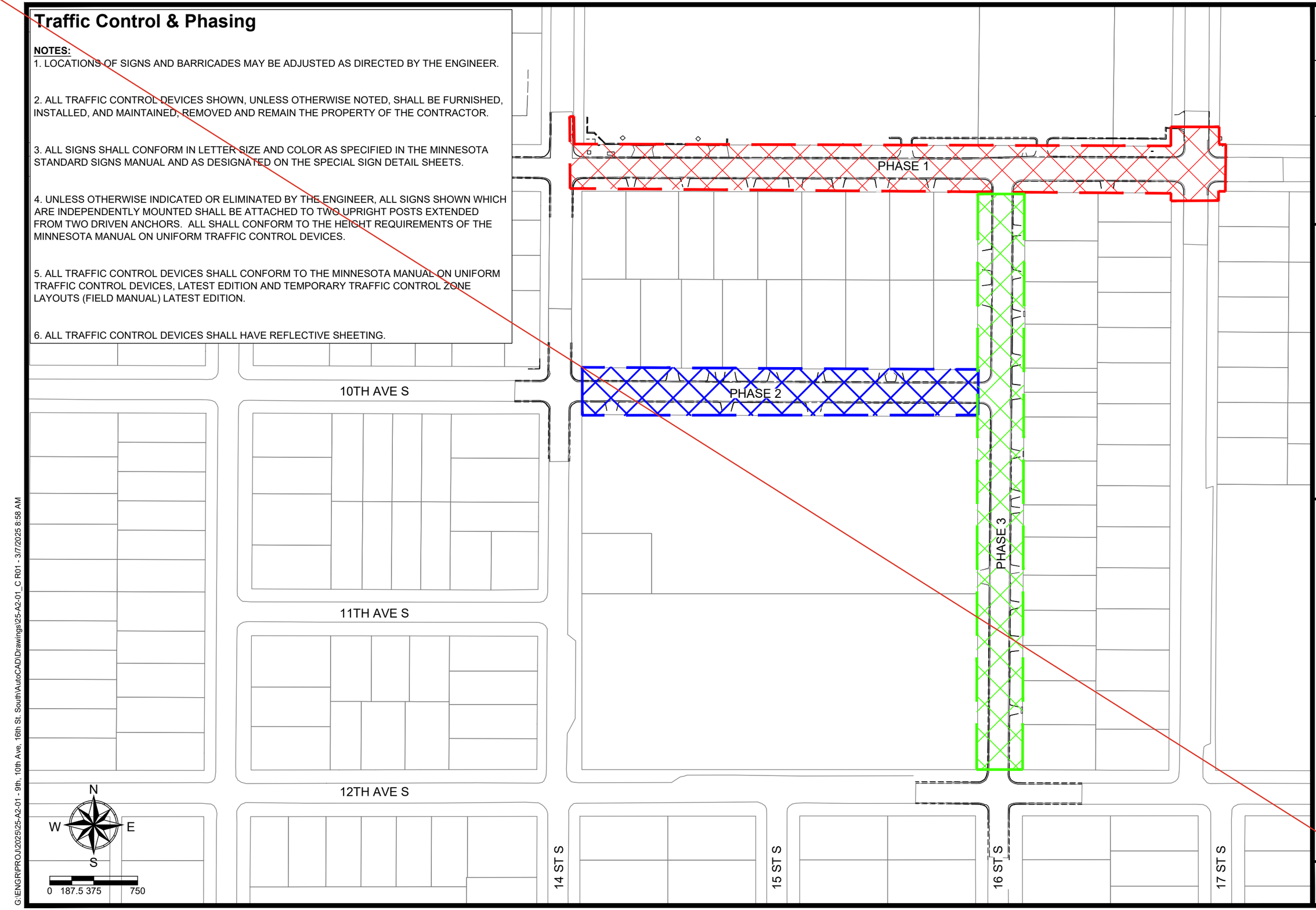

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TRAFFIC CONTROL & PHASING

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 4 OF 45

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PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF STREET REHABILITATION AND DRAINAGE IMPROVEMENTS OF VARIOUS CITY STREETS WITHIN THE PROJECT AREA. INCLUDING:

- 9TH AVE S FROM 14TH ST S TO 17TH ST S (REHABILITATION)
- 10TH AVE S FROM 14TH ST S TO 16TH ST S (REHABILITATION)
- 16TH ST S FROM 9TH AVE S TO 12TH AVE S (REHABILITATION)

REHABILITATION MEANS THAT THE EXISTING ROAD SURFACE MATERIAL WILL BE REMOVED IN IT'S ENTIRETY AND REPLACED WITH THE FOLLOWING:

- 9TH AVE S (14TH ST S TO 17TH ST S) - GEOTEXTILE FABRIC, 6 INCHES OF GRAVEL BASE AND 6 INCHES OF NEW BITUMINOUS PAVEMENT, CURB AND GUTTER IN SPECIFIED AREAS.
- 10TH AVE S (14TH ST S TO 16TH ST S) - GEOTEXTILE FABRIC, 6 INCHES OF GRAVEL BASE AND 6 INCHES OF NEW BITUMINOUS PAVEMENT, CURB AND GUTTER IN SPECIFIED AREAS.
- 16TH ST S (9TH AVE S TO 12TH AVE S) - GEOTEXTILE FABRIC, 6 INCHES OF GRAVEL BASE AND 6 INCHES OF NEW BITUMINOUS PAVEMENT, CURB AND GUTTER IN SPECIFIED AREAS.

THE EXISTING CURB AND GUTTER IN ALL AREAS WILL BE PRESERVED, EXCEPT FOR RELATIVELY MINOR SEGMENTS THAT WILL BE REMOVED AND REPLACED AT THE DISCRETION OF THE CITY.

SITE CONDITIONS: THE SITE CONSISTS OF MOSTLY DEVELOPED RESIDENTIAL PROPERTY.

TOTAL AREA DISTURBED = 3 ACRES

EXISTING IMPERVIOUS AREA = 2.5 ACRES

NEW IMPERVIOUS AREA = 0 ACRES

POST CONSTRUCTION IMPERVIOUS AREA = 2.5 ACRES

PROJECT CONTACTS

PROJECT ENGINEER	STORMWATER	MPCA	STATE DUTY OFFICER
CLAY LEXEN, P.E.	ANDREA CRABTREE NAYES	BRIAN GREEN	MPCA
CITY OF MOORHEAD	CITY OF MOORHEAD	MPCA DETROIT LAKES	(800) 422-0798
(715) 928-0347	(218)-299-5387	(507) 206-2610	

CONTRACTOR'S RESPONSIBILITIES

THE CONSTRUCTION SITE EROSION CONTROL (EC) SUPERVISOR FOR THE PROJECT WILL BE PROVIDED BY THE CONTRACTOR DURING CONSTRUCTION ACTIVITIES. THE EC SUPERVISOR WILL BE IDENTIFIED BY NAME AT THE PRECONSTRUCTION CONFERENCE AND A CONTACT CELL PHONE NUMBER WILL BE MADE AVAILABLE. ISSUES THAT ARISE DURING CONSTRUCTION THAT IMPACT THE "WATERS OF THE STATE" WILL BE ADDRESSED AND THE EC SUPERVISOR WILL NOTIFY THE PROPER REGULATORY OFFICIAL AS LISTED ABOVE.

IT WILL BE THE RESPONSIBILITY OF THE EC SUPERVISOR TO IMPLEMENT THE SWPPP PLAN DURING CONSTRUCTION AND MAINTAIN A QUALITY CONTROL PROGRAM. IN ADDITION, THE EC SUPERVISOR WILL 1) OVERSEE MAINTENANCE PRACTICES IDENTIFIED AS BMPS IN THE SWPPP; 2) IMPLEMENT AND OVERSEE SWPPP AND BMP TRAINING FOR ALL PARTIES THAT WILL BE CONSTRUCTING THE PROJECT; 3) CONDUCT AND PROVIDE INSPECTIONS AS NECESSARY; 4) IDENTIFY OTHER POTENTIAL POLLUTANT SOURCES AND MAKE SURE THEY ARE ADDED TO THE PLAN; 5) IDENTIFY ANY DEFICIENCIES IN THE SWPPP AND MAKE SURE THEY ARE CORRECT; 6) ENSURE THAT ANY CHANGES IN CONSTRUCTION PLANS ARE ADDRESSED IN THE SWPPP; AND 7) TO AID IN THE IMPLEMENTATION OF THE SWPPP PLAN.

THE EC SUPERVISOR WILL PROVIDE THE CITY OF MOORHEAD WITH THE FOLLOWING INFORMATION AS REQUIRED BY THE MPCA:

1. NAMES OF THE PERSONNEL ASSOCIATED WITH THIS PROJECT THAT ARE REQUIRED TO BE TRAINED.
2. DATES OF TRAINING AND NAME OF INSTRUCTOR(S) AND ENTITY PROVIDING TRAINING.
3. CONTENT OF TRAINING COURSE OR WORKSHOP (INCLUDING NUMBER OF HOURS TRAIN) OR A CERTIFICATION CARD FROM THE UNIVERSITY OF MINNESOTA EROSION AND STORMWATER MANAGEMENT CERTIFICATION PROGRAM

NAME OF RECEIVING WATER

STORMWATER RUNOFF FROM THE PROJECT AREA DRAINS TO THE RED RIVER OF THE NORTH WHICH IS GRATER THAN 1 MILE AWAY. THE RED RIVER IS LISTED AS IMPAIRED ON THE 303(D) LIST. NO TMDL STUDY PLAN HAS BEEN APPROVED BY THE EPA AT THIS TIME.

SOIL TYPE

ACCORDING TO THE USDA WEB SOIL SURVEY (WSS), THE PROJECT AREA CONSISTS OF 77.8% URBAN LAND - AQUERTS SOIL AND 22.2% URBAIN LAND SOILS. THESE TYPES OF SOILS BELONG TO HYDROLOGIC SOIL GROUPS C/D, DRAINS POORLY, HAS LOW STRENGTH, IS SUBJECT TO SHRINK AND SWELL, AND HAS AN AVERAGE DEPTH OF 0-18 INCHES TO THE WATER TABLE.

DEWATERING

DEWATERING OR BASIN DRAINAGE RELATED TO CONSTRUCTION SHALL BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN. DISCHARGING DIRECTLY TO THE STORM SEWER SYSTEM IS NOT ALLOWED UNDER THE TERMS OF THE CONTRACT. ALL WATER FROM DEWATERING OR BASIN DRAINING ACTIVITIES MUST BE DISCHARGED IN A MANNER THAT DOES NOT CAUSE NUISANCE CONDITIONS, EROSION IN RECEIVING CHANNELS OR DOWN SLOPE PROPERTIES, OR INUNDATION OF THE RED RIVER CAUSING SIGNIFICANT ADVERSE IMPACT TO THE RIVER.

POLLUTION PREVENTION

1. WASTE RECEPTACLES WITH COVERS ARE REQUIRED ON SITE FOR ANY SOLID WASTE GENERATED DURING THE CONSTRUCTION PROCESS. THESE RECEPTACLES MUST BE EMPTIED PERIODICALLY AND THE TRASH MUST BE DISPOSED OF PROPERLY.
2. HAZARDOUS MATERIALS WILL BE LIMITED TO GASOLINE, DIESEL, FUEL, AND MOTOR OIL. THE CONTRACTOR MUST MAKE THE NECESSARY ARRANGEMENT TO STORE THESE HAZARDOUS MATERIALS IN A MANNER THAT IS COMPLIANT WITH THE MPCA REGULATIONS. SPILLS MUST BE REPORTED TO THE MPCA DUTY OFFICER AT (800) 422-0798
3. EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES WILL NOT BE ALLOWED ON THE PROJECT SITE. CONCRETE TRUCKS SHALL BE WASHED ONLY IN A DESIGNATED AREA.
4. THE CONTRACTOR SHALL PROVIDE PORTABLE REST ROOM FACILITIES WHICH SHALL BE CLEANED PERIODICALLY. PORTABLE RESTROOM FACILITIES AND COSTS NECESSARY TO MAINTAIN ARE INCIDENTAL.

STORMWATER POLLUTION PREVENTION PLAN

SEE THE STORMWATER POLLUTION PREVENTION DOCUMENT FOR

1. EROSION AND SEDIMENT CONTROLS
2. INSPECTION AND MAINTENANCE
3. FINAL STABILIZATION

EMH	MJA	JAS
DRAWN BY	CHECKED BY	APPROVED BY

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Signature - Project Engineer — Date: 03/07/2025

JAMES A. SCHULZ
Name - Project Engineer — License No. 26225

STORM WATER POLLUTION PREVENTION PLAN

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 5 OF 45

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STORMWATER POLLUTION PREVENTION PLAN

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2. INSPECTION AND MAINTENANCE
3. FINAL STABILIZATION

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JAMES A. SCHULZ
Name - Project Engineer

Signature - Project Engineer

--/--/----
Date

26225
License No.

STORM WATER POLLUTION PREVENTION PLAN

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 5 OF 45

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QUANTITIES:

INLET PROTECTION - 24 EA

CONSTRUCTION ENTRANCE - 6 EA

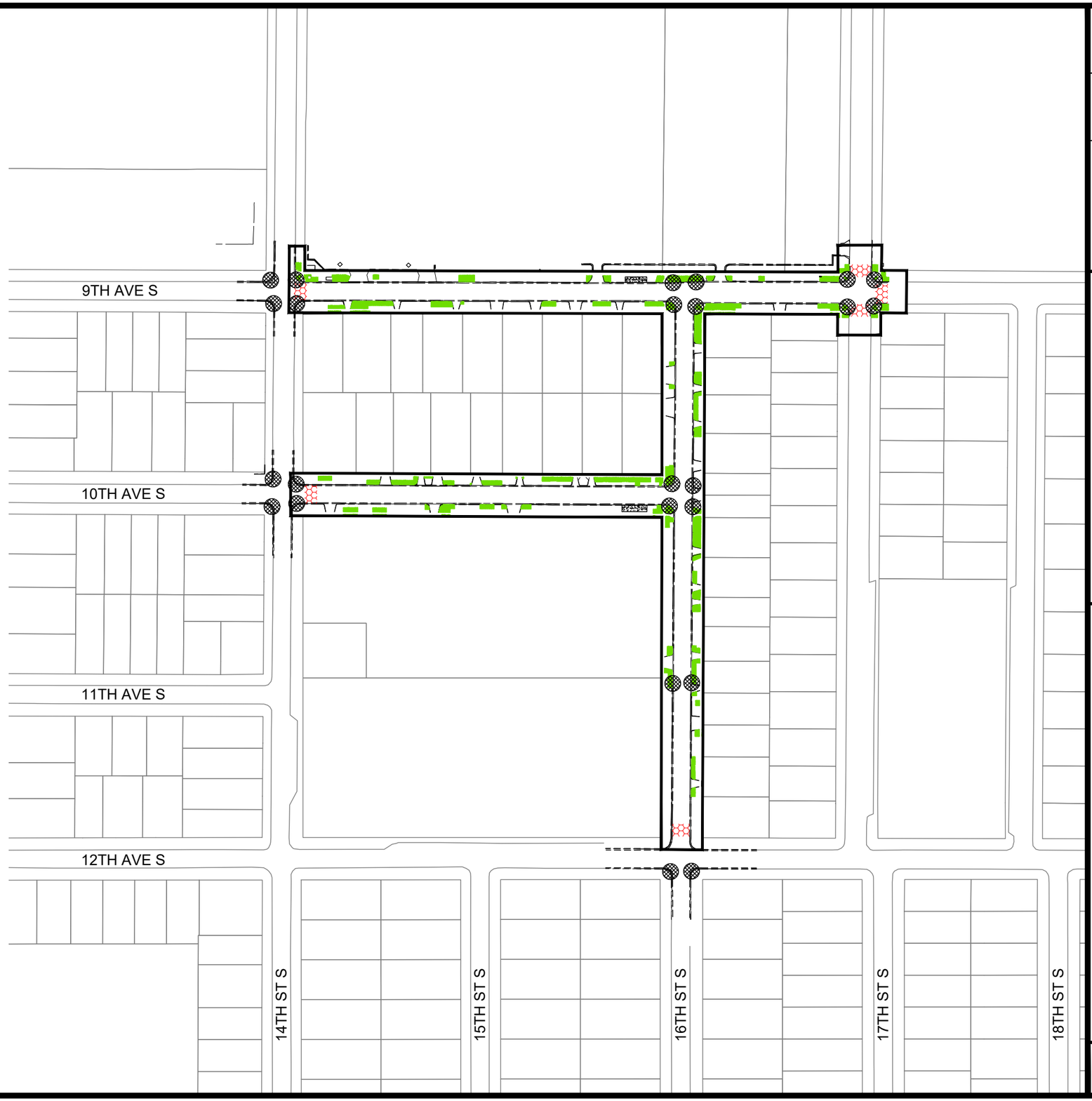
SEEDING WITH TYPE 5 HYDROMULCH - 2,221 SY

LEGEND

- INLET PROTECTION - TYPE A, B OR C
- CONSTRUCTION LIMITS
- TEMPORARY CONSTRUCTION ENTRANCE
- SEEDING WITH TYPE 5 HYDROMULCH
- CONCRETE WASHOUT STATION PROVIDED BY CONTRACTOR

NOTES:

1. ALL DISTURBED TOPSOIL SHALL HAVE PERMANENT SEEDING WHICH SHALL CONSIST OF 300 LBS./AC. OF AGASSIZ SEED & SUPPLIES PREMIUM SUNNY BRAND LAWN MIX OR APPROVED EQUAL WITH TYPE 5 MULCH UNLESS OTHERWISE INDICATED. DUE TO SCOPE OF WORK ADDITIONAL SEEDING MAY BE NECESSARY. DISTURBED AREAS SHALL NOT BE LEFT UNSTABILIZED FOR MORE THAN 14 DAYS.
2. THE CONCRETE TRUCK WASHOUT MUST BE CONTAINED IN A LEAK PROOF CONTAINER AND CANNOT CONTACT THE GROUND. ALL TRUCKS DELIVERING CONCRETE TO THE SITE SHALL WASH AT THE DESIGNATED LOCATION. ALTERNATE METHODS OF TREATING CONCRETE TRUCK WASH WATER TO BE CHOSEN BY CONTRACTOR AND APPROVED BY THE ENGINEER.
3. AT THE END OF EACH DAY OF CONSTRUCTION, THE CONTRACTOR SHALL USE A SKID-STEER OR OTHER APPROVED METHOD TO REMOVE CLAY AND DIRT DEPOSITS THAT HAVE BEEN TRACKED FROM THE CONSTRUCTION SITE ONTO ADJACENT PAVED ROADS. THIS WORK SHALL BE INCIDENTAL TO CONSTRUCTION.
4. AT LEAST ONCE PER WEEK, WHILE ACTIVELY GRADING THE PROJECT AREA AND/OR HAULING MATERIALS, THE CONTRACTOR SHALL SWEEP THE HAUL ROUTE AS NEEDED TO REMOVE CLAY AND DIRT THAT HAS BEEN TRACKED OFF SITE. AT A MINIMUM, THE SWEEPING SHALL INCLUDE ALL HAUL ROUTES WITHIN 500 FEET OF THE SITE. IF TRACKING EXTENDS MORE THAN 300 FEET FROM THE SITE, THE CONTRACTOR SHALL SWEEP THE HAUL ROUTE AT LEAST ONCE PER DAY.
5. MAINTAIN ALL EROSION CONTROL DEVICES, AND UPGRADE THEM AS NECESSARY DURING CONSTRUCTION
6. CONSTRUCTION ENTRANCES SHALL BE MAINTAINED AS NECESSARY TO MINIMIZE TRACKING OF CLAY AND DIRT MATERIALS OFF SITE. IF TRACKING IS OBSERVED TO EXTEND MORE THAN 300 FEET FROM THE SITE, THE CONTRACTOR SHALL EXTEND OR MODIFY THE CONSTRUCTION ENTRANCES AS NECESSARY TO PREVENT THE TRACKING BEYOND 300 FEET.
7. CONTRACTOR IS TO LEAVE GRADE A MINIMUM OF 1 INCH BELOW THE TOP OF CURB IN ALL AREAS THAT BIO-ROLL IS NOT PLACED.



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SAP. No.	LEGAL No.	ENG. No.	
EMH	MJA	JAS	
DRAWN BY	CHECKED BY	APPROVED BY	

MOORHEAD MINNESOTA Engineering

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03/07/2025
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JAMES A. SCHULZ
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Signature - Project Engineer

EROSION CONTROL & TURF ESTABLISHMENT

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 6 OF 45

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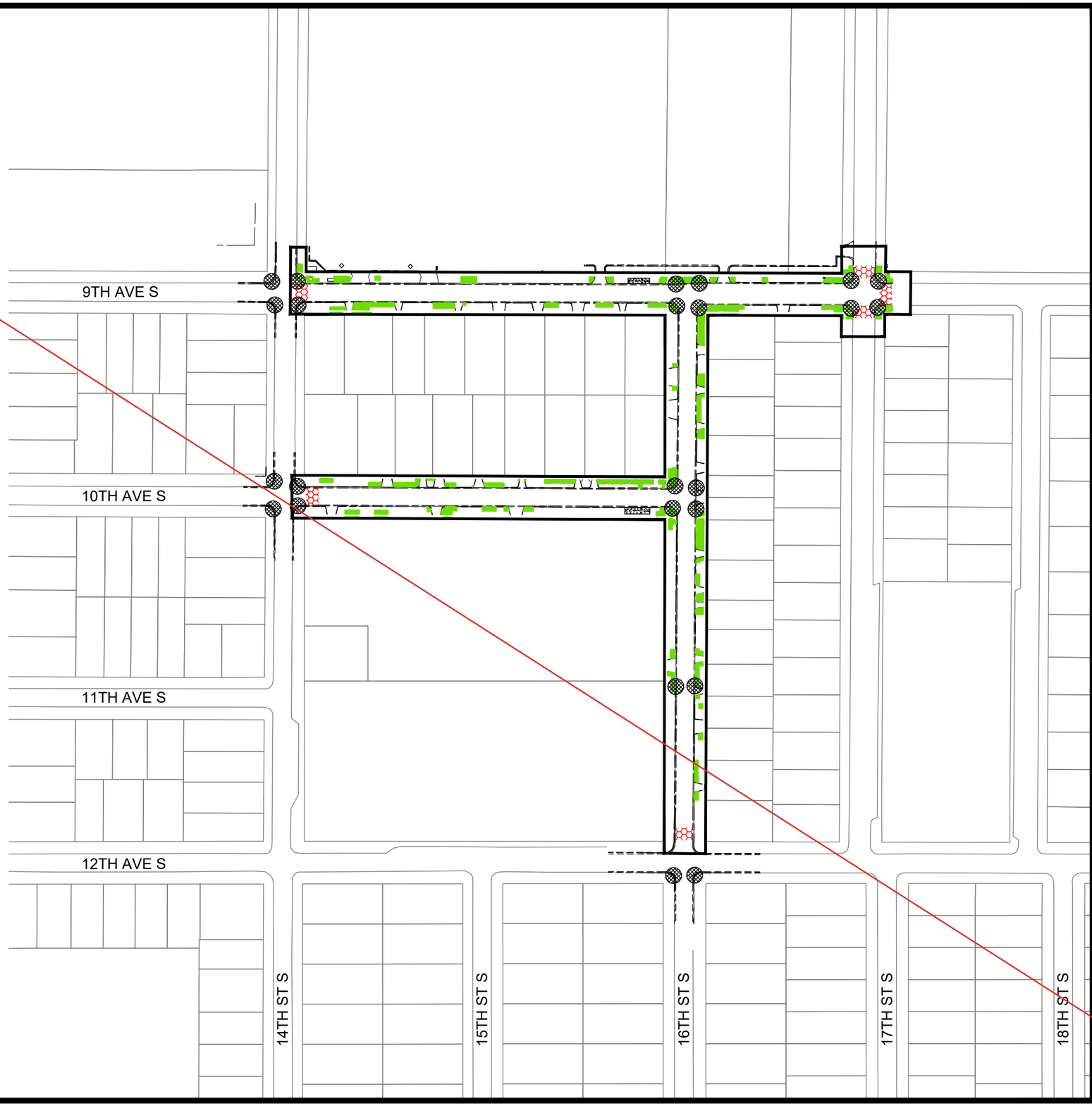

N W E S

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EROSION CONTROL & TURF ESTABLISHMENT

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 6 OF 45

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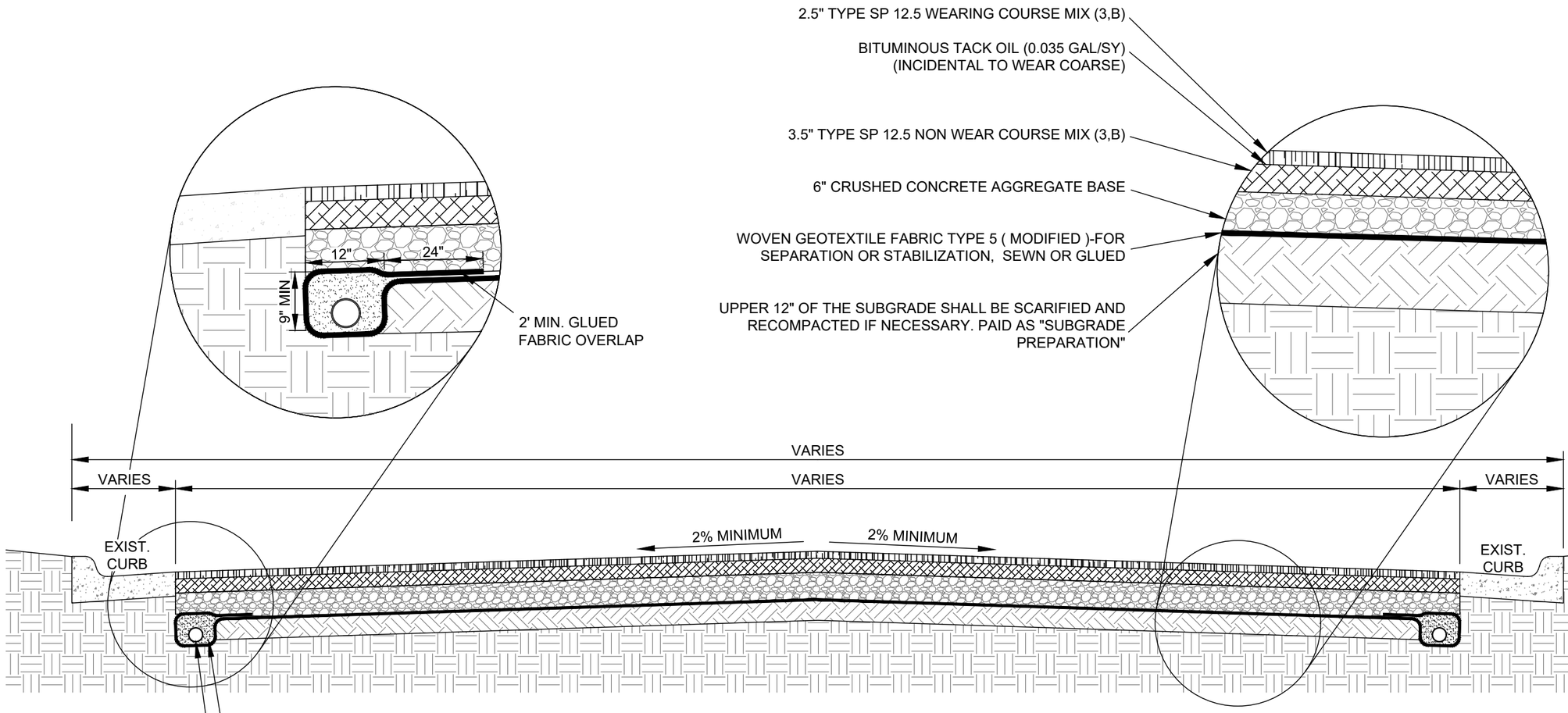

LOCAL REHABILITATION - TYPICAL STREET SECTION

B-624 CURB **BITUMINOUS PAVEMENT** **NOT TO SCALE**

NOTE:

1. RESTORE BOULEVARDS AS DIRECTED BY THE ENGINEER
2. FABRIC AROUND DRAIN TILE MUST BE OVERLAPPED 2' MIN. AND GLUED
3. REMOVE AND REPLACE CURB PER PLAN SHEETS

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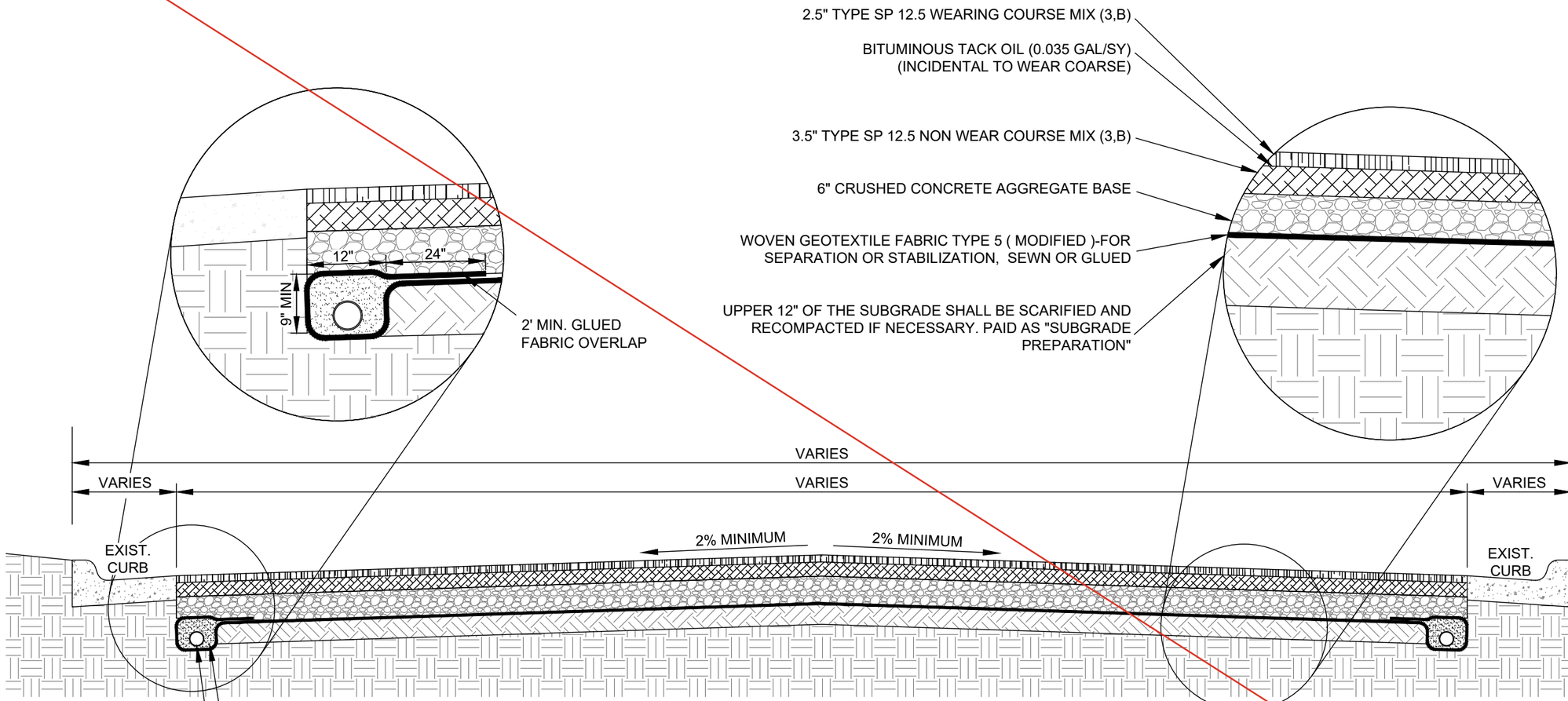
TYPICAL SECTIONS

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 7 OF 45



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TYPICAL SECTIONS

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 7 OF 45

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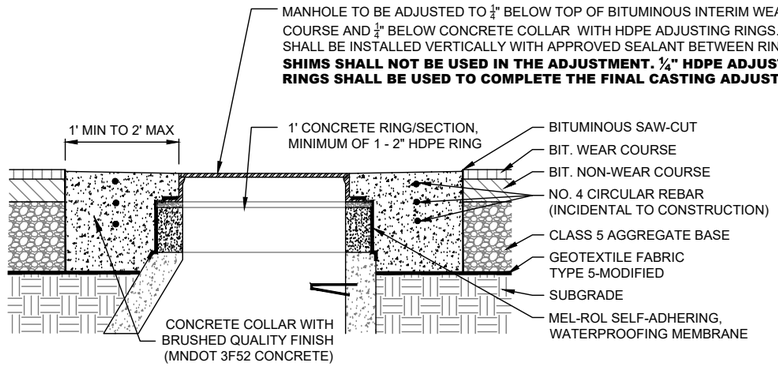
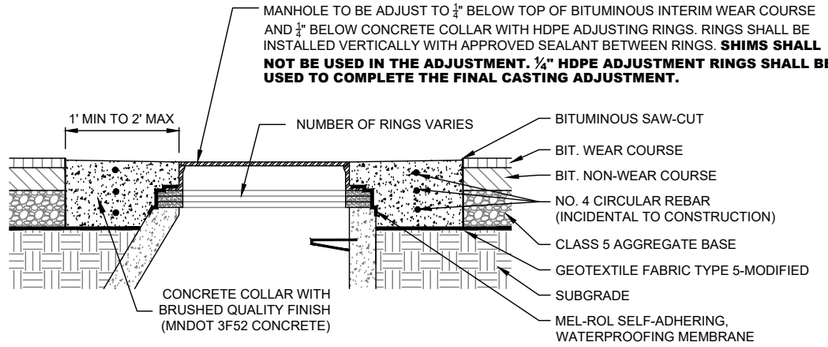


ADJUSTMENT - TYPE A

F&I NEW/SALVAGED CASTING GREATER THAN 12" ADJUSTING RINGS

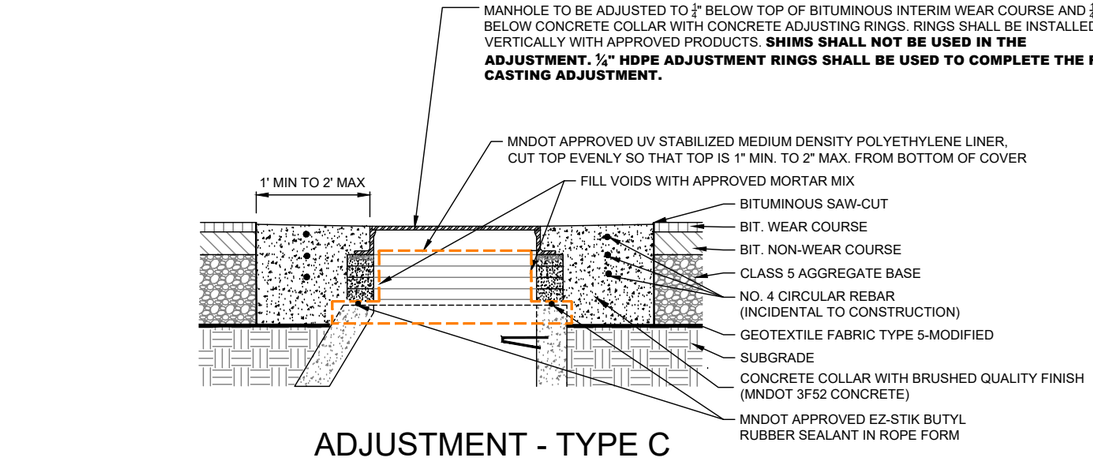
SALVAGED/NEW SANITARY AND STORM SEWER MANHOLE ADJUSTMENTS OVER 12",
COMPLETED AFTER WEAR COURSE PLACEMENT,
SURFACE EXCAVATION TO BE CIRCULAR WITH A UNIFORM RADIUS,
MAXIMUM ONE 12" CONCRETE SECTION WITH AT LEAST ONE 2" RING,
NOT TO SCALE



ADJUSTMENT - TYPE B

F&I NEW/SALVAGED CASTING, LESS THAN OR EQUAL TO 12" ADJUSTING RINGS

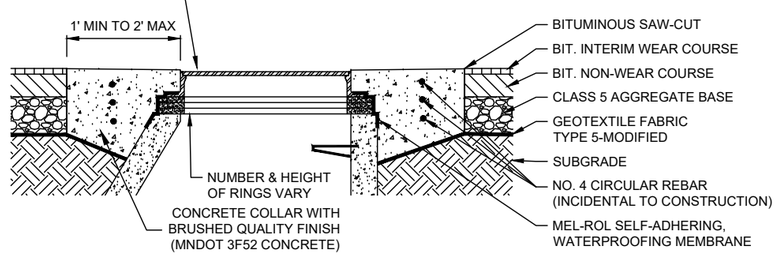
SALVAGED/NEW SANITARY AND STORM SEWER MANHOLE ADJUSTMENT,
COMPLETED AFTER FINAL WEAR COURSE PLACEMENT,
SURFACE EXCAVATION TO BE CIRCULAR WITH A UNIFORM RADIUS,
MAXIMUM 4 ADJUSTMENT RINGS WITH AT LEAST ONE 2" RING,
NOT TO SCALE



ADJUSTMENT - TYPE C

F&I NEW/SALVAGED CASTING, LESS THAN OR EQUAL TO 12" ADJUSTING RINGS - ALTERNATE

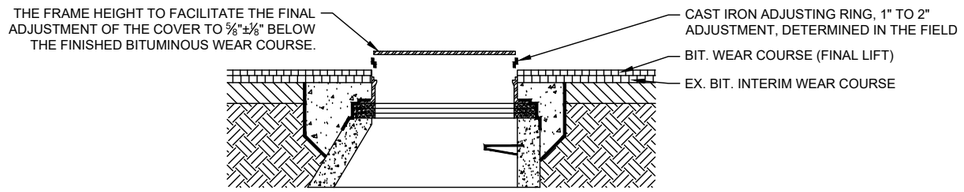
SALVAGED/NEW SANITARY AND STORM SEWER MANHOLE ADJUSTMENT,
COMPLETED AFTER WEAR COURSE PLACEMENT,
SURFACE EXCAVATION TO BE CIRCULAR WITH A UNIFORM RADIUS,
NOT TO SCALE



ADJUSTMENT - TYPE D

INTERIM - ADJUST FRAME, RING & CASTING

NEW SANITARY AND STORM SEWER MANHOLE ADJUSTMENT,
BITUMINOUS INTERIM WEAR COURSE INSTALLED AFTER ADJUSTMENT,
SURFACE EXCAVATION TO BE CIRCULAR WITH A UNIFORM RADIUS,
MAXIMUM 4 ADJUSTMENT RINGS WITH AT LEAST ONE 2" RING,
NOT TO SCALE



ADJUSTMENT - TYPE E

FINAL OVERLAY/MILL & OVERLAY- CAST IRON ADJUSTING RING/INSERT

SANITARY AND STORM SEWER MANHOLES
NOT TO SCALE

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9TH AVE S, 10TH AVE S , AND 16TH ST S

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SHEET 8 OF 45

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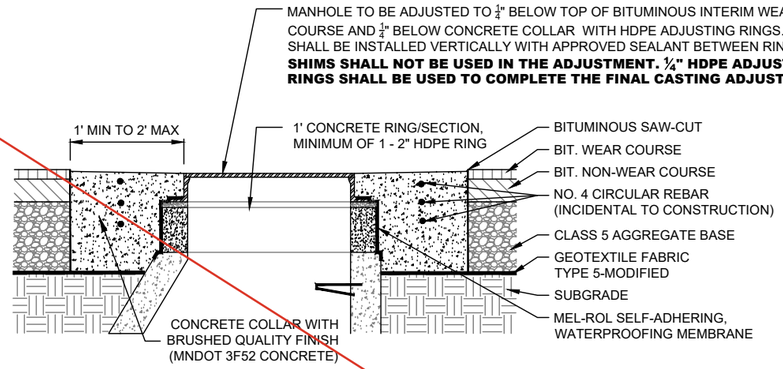
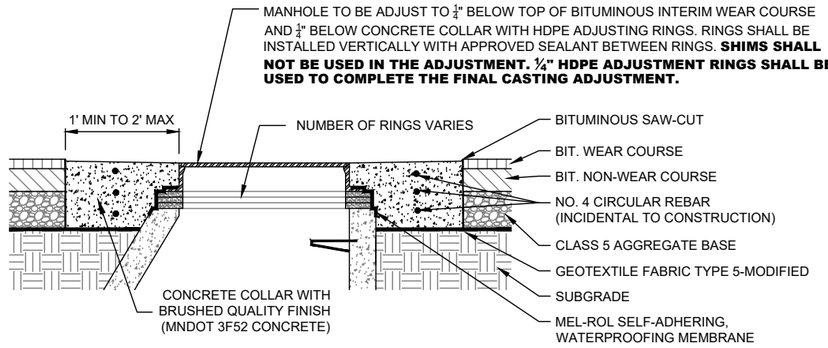


ADJUSTMENT - TYPE A

F&I NEW/SALVAGED CASTING GREATER THAN 12" ADJUSTING RINGS

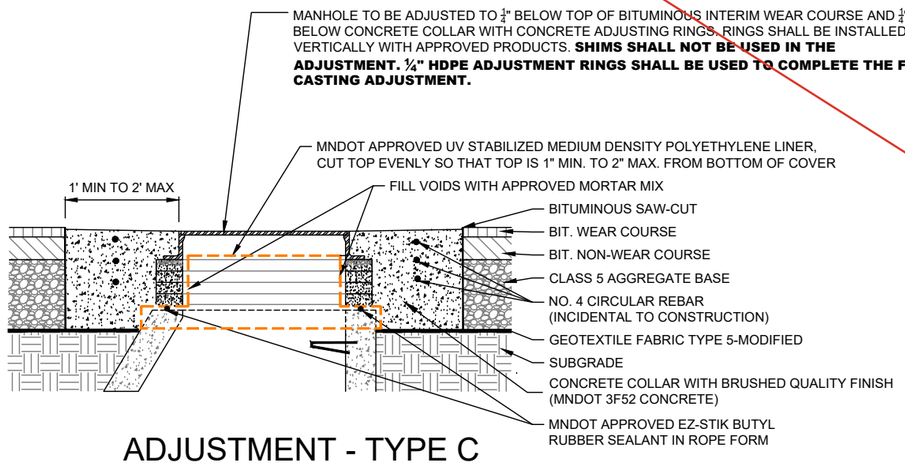
SALVAGED/NEW SANITARY AND STORM SEWER MANHOLE ADJUSTMENTS OVER 12",
COMPLETED AFTER WEAR COURSE PLACEMENT,
SURFACE EXCAVATION TO BE CIRCULAR WITH A UNIFORM RADIUS,
MAXIMUM ONE 12" CONCRETE SECTION WITH AT LEAST ONE 2" RING,
NOT TO SCALE



ADJUSTMENT - TYPE B

F&I NEW/SALVAGED CASTING, LESS THAN OR EQUAL TO 12" ADJUSTING RINGS

SALVAGED/NEW SANITARY AND STORM SEWER MANHOLE ADJUSTMENT,
COMPLETED AFTER FINAL WEAR COURSE PLACEMENT,
SURFACE EXCAVATION TO BE CIRCULAR WITH A UNIFORM RADIUS,
MAXIMUM 4 ADJUSTMENT RINGS WITH AT LEAST ONE 2" RING,
NOT TO SCALE



ADJUSTMENT - TYPE C

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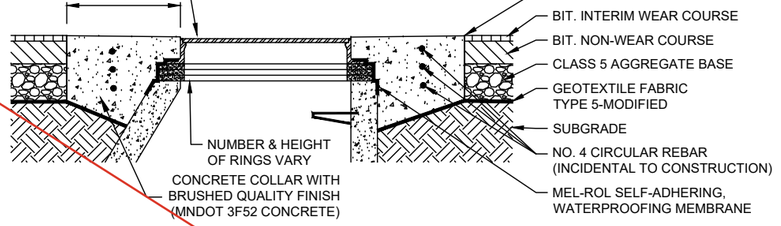

ADJUSTMENT - TYPE D

INTERIM - ADJUST FRAME, RING & CASTING

NEW SANITARY AND STORM SEWER MANHOLE ADJUSTMENT,
BITUMINOUS INTERIM WEAR COURSE INSTALLED AFTER ADJUSTMENT,
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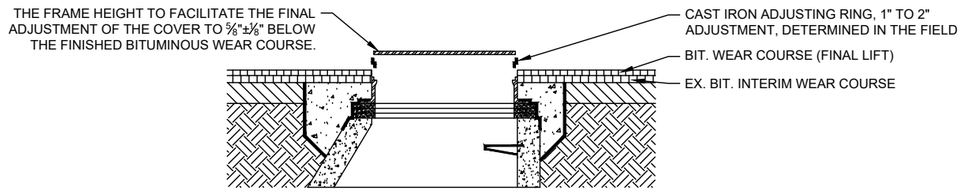

ADJUSTMENT - TYPE E

FINAL OVERLAY/MILL & OVERLAY- CAST IRON ADJUSTING RING/INSERT

SANITARY AND STORM SEWER MANHOLES
NOT TO SCALE

EMH	MJA	JAS	--
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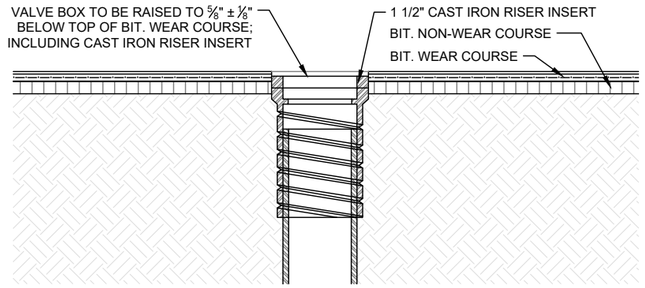
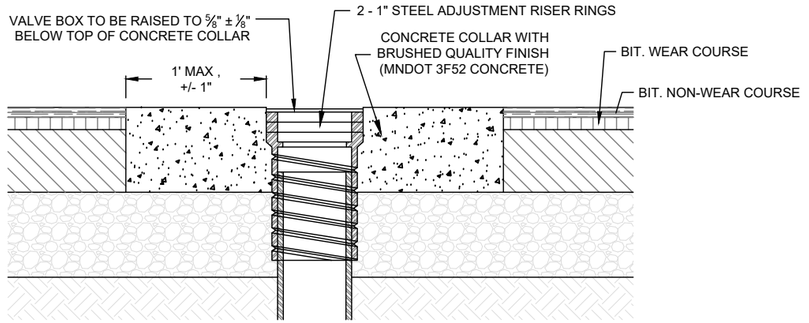


FINAL OVERLAY/MILL & OVERLAY - ADJUST GATE VALVE BOX TO GRADE

BITUMINOUS PAVEMENT WEAR COURSE INSTALLED AFTER ADJUSTMENT

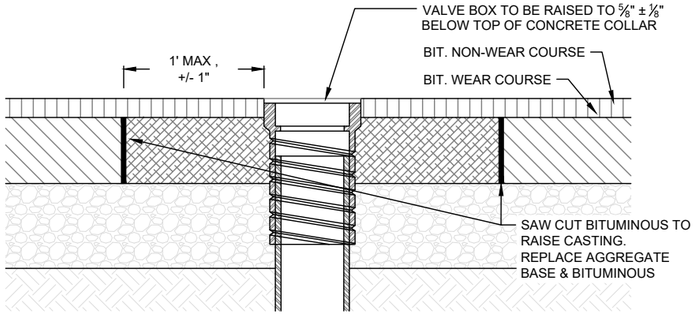
NOT TO SCALE



REHAB/RECONSTRUCT ADJUST GATE VALVE BOX TO GRADE

ADJUSTMENT MADE AFTER BITUMINOUS PAVEMENT WEAR COURSE INSTALLED

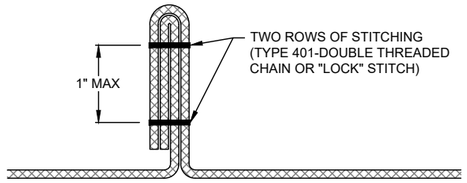
NOT TO SCALE



INTERIM - ADJUST GATE VALVE BOX TO GRADE

BITUMINOUS PAVEMENT WEAR COURSE INSTALLED AFTER ADJUSTMENT

NOT TO SCALE

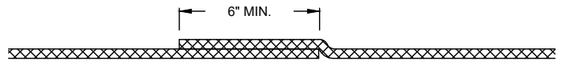


NOTE: ALL SEAMS SHALL BE PLACED POINTING UP

GEOTEXTILE SEAM SEWING

"J" SEAM - TYPE SSn-2

NOT TO SCALE

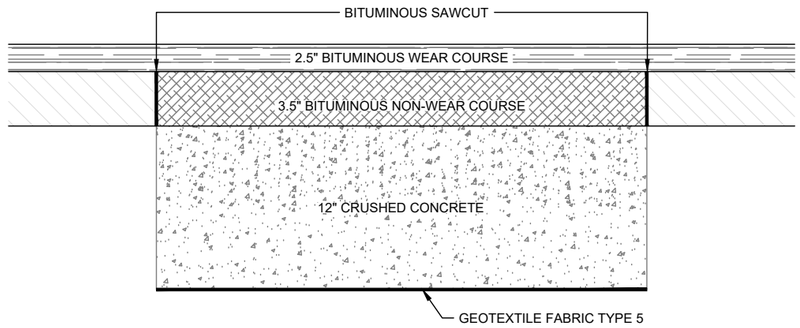


NOTE: INSTALLER MUST SPRAY BOTH SIDES OF FABRIC ON BONDING SURFACES

GEOTEXTILE FABRIC ADHESIVE SEAL

ADHESIVE BOND- 3M™ SCOTCH-WELD™ HOLDFAST 70 CYLINDER SPRAY ADHESIVE

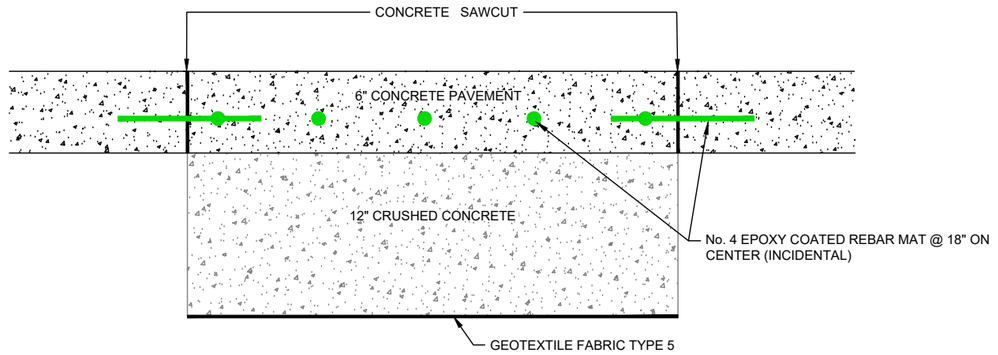
NOT TO SCALE



MILL & OVERLAY BITUMINOUS PATCH SPECIAL

BITUMINOUS PAVEMENT

NOT TO SCALE



CONCRETE PATCH SPECIAL

CONCRETE PAVEMENT

NOT TO SCALE

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CURB & GUTTER, ASPHALT PAVING

SHEET 9 OF 45

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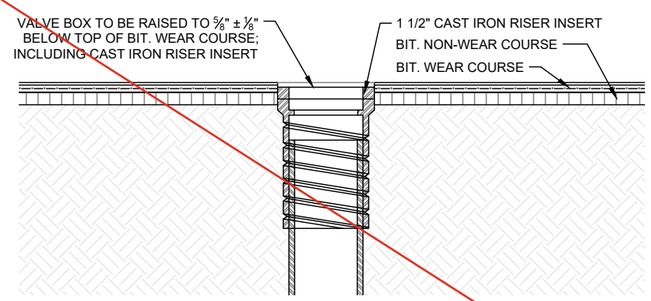
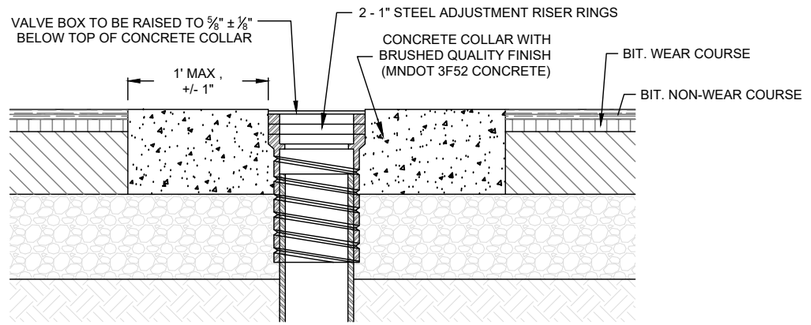


FINAL OVERLAY/MILL & OVERLAY - ADJUST GATE VALVE BOX TO GRADE

BITUMINOUS PAVEMENT WEAR COURSE INSTALLED AFTER ADJUSTMENT

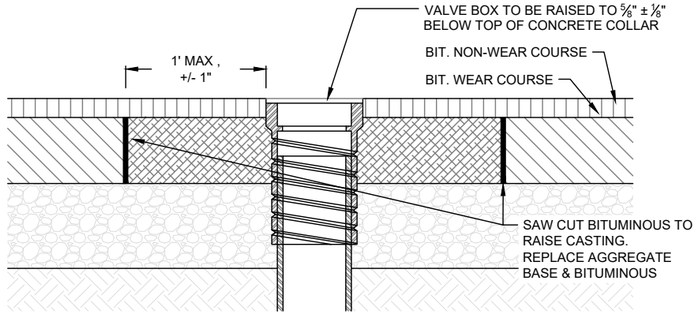
NOT TO SCALE



REHAB/RECONSTRUCT ADJUST GATE VALVE BOX TO GRADE

ADJUSTMENT MADE AFTER BITUMINOUS PAVEMENT WEAR COURSE INSTALLED

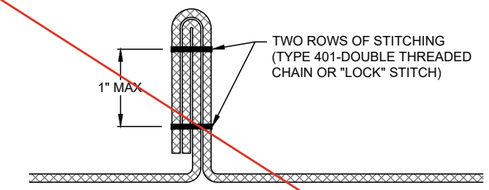
NOT TO SCALE



INTERIM - ADJUST GATE VALVE BOX TO GRADE

BITUMINOUS PAVEMENT WEAR COURSE INSTALLED AFTER ADJUSTMENT

NOT TO SCALE

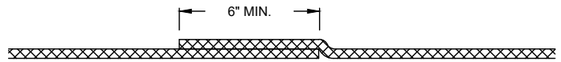


NOTE: ALL SEAMS SHALL BE PLACED POINTING UP

GEOTEXTILE SEAM SEWING

"J" SEAM - TYPE SSn-2

NOT TO SCALE

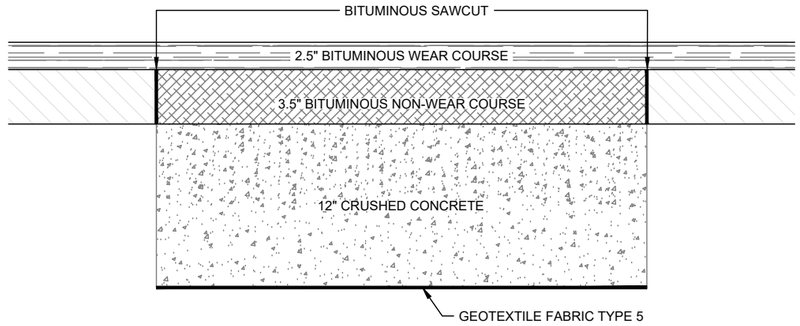


NOTE: INSTALLER MUST SPRAY BOTH SIDES OF FABRIC ON BONDING SURFACES

GEOTEXTILE FABRIC ADHESIVE SEAL

ADHESIVE BOND- 3M™ SCOTCH-WELD™ HOLDFAST 70 CYLINDER SPRAY ADHESIVE

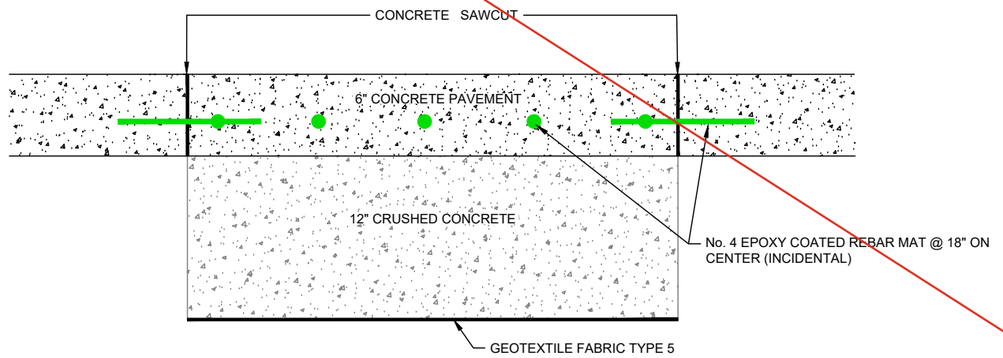
NOT TO SCALE



MILL & OVERLAY BITUMINOUS PATCH SPECIAL

BITUMINOUS PAVEMENT

NOT TO SCALE



CONCRETE PATCH SPECIAL

CONCRETE PAVEMENT

NOT TO SCALE

SAP No.	--
LEGAL No.	A2-01-2025
ENG. No.	25-A2-01
DRAWN BY	EMH
CHECKED BY	MJA
APPROVED BY	JAS

MOORHEAD MINNESOTA Engineering

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--/--/---- *Date*

Signature - Project Engineer

JAMES A. SCHULZ *Name - Project Engineer*

26225 *License No.*

BIT X-SEC 2

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 9 OF 45

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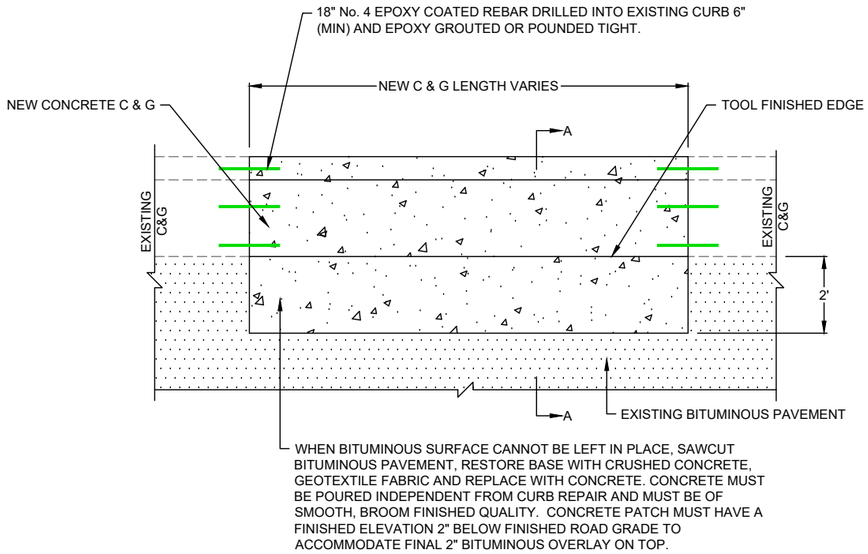
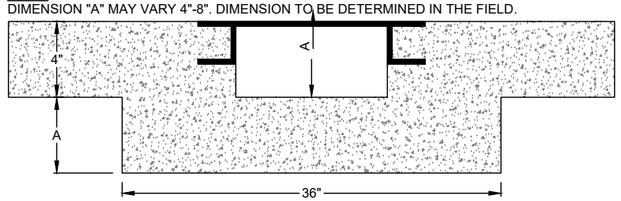
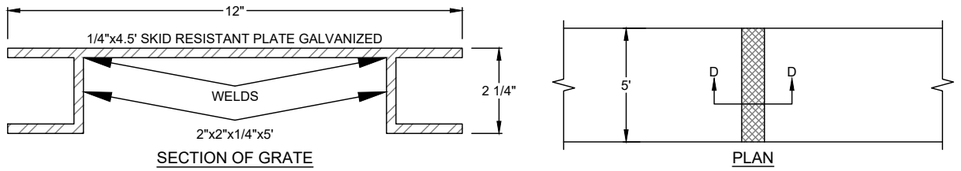


PLAN VIEW

NOTE:
DIMENSION "A" MAY VARY 4"-8". DIMENSION TO BE DETERMINED IN THE FIELD.



SECTION D-D

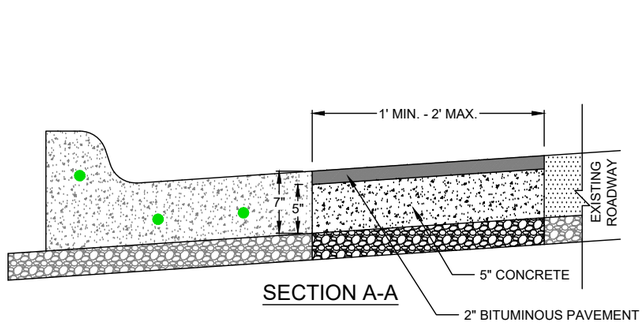


SECTION OF GRATE

PLAN

CAST-IN PLACE SIDEWALK GRATE

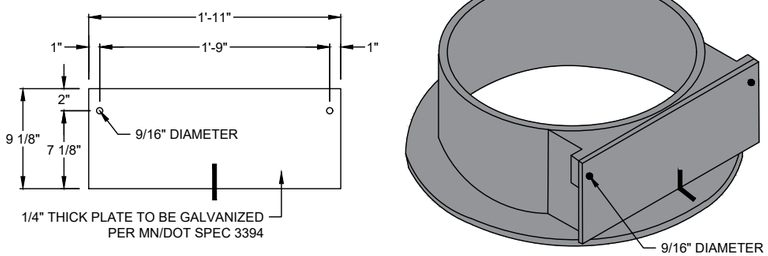
NOT TO SCALE



SECTION A-A

SPOT CURB AND GUTTER REPLACEMENT

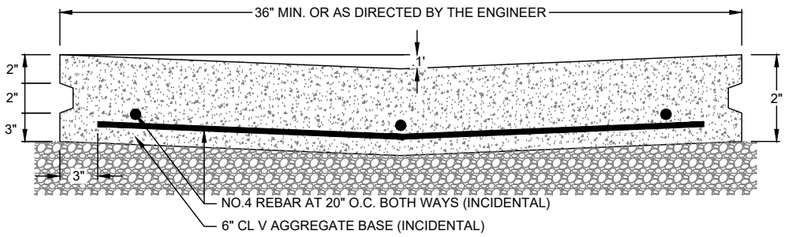
NOT TO SCALE



CURB BOX BACK PLATE DETAIL

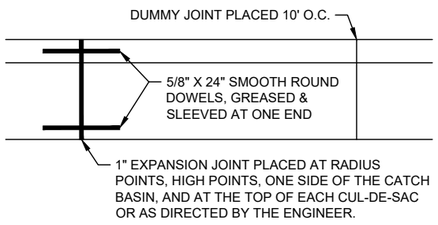
INSTALLED IN AREAS ADJACENT TO PEDESTRIAN CURB RAMPS

NOT TO SCALE



VALLEY GUTTER DETAIL

NOT TO SCALE



CURB AND GUTTER EXPANSION JOINT DETAIL

NOT TO SCALE

--	A2-01-2025		25-A2-01
SAP. No.	LEGAL No.		ENG. No.
EMH	MJA		JAS
DRAWN BY	CHECKED BY		APPROVED BY

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03/07/2025
Date

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License No.

CURB & GUTTER

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 10 OF 45

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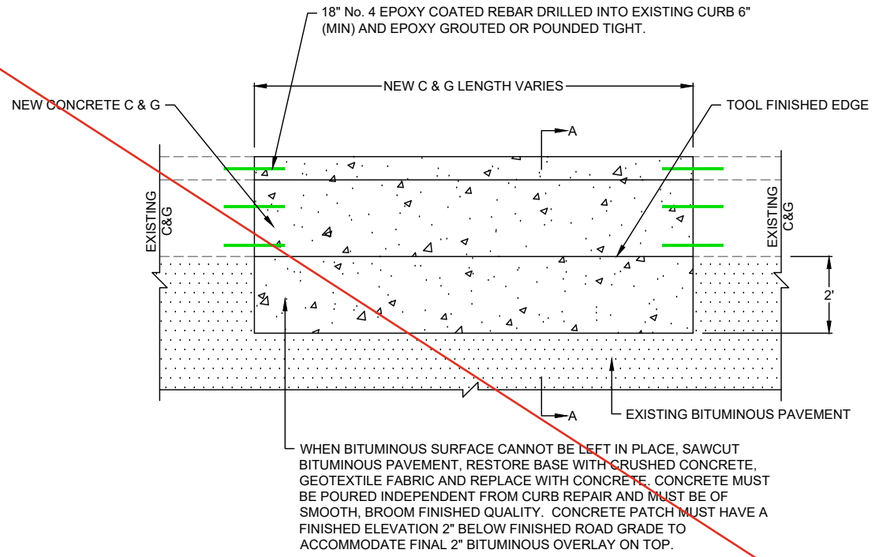

PLAN VIEW

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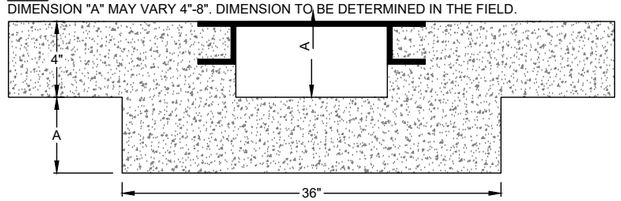
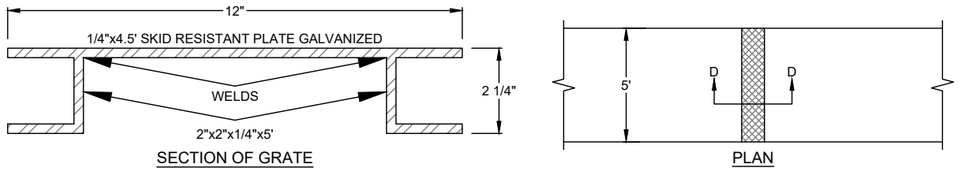


SECTION D-D

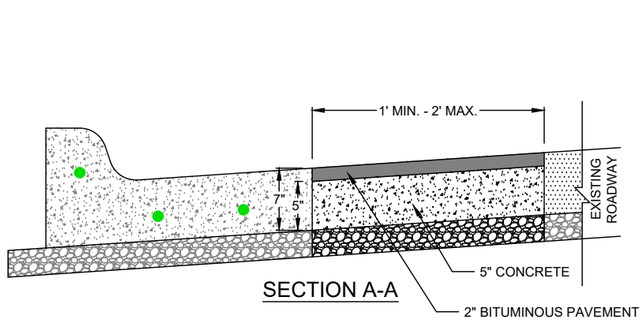


SECTION OF GRATE

PLAN

CAST-IN PLACE SIDEWALK GRATE

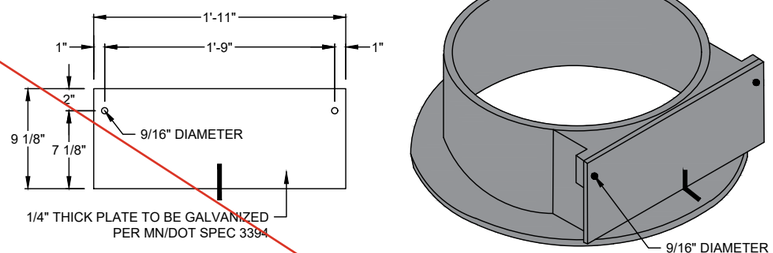
NOT TO SCALE



SECTION A-A

SPOT CURB AND GUTTER REPLACEMENT

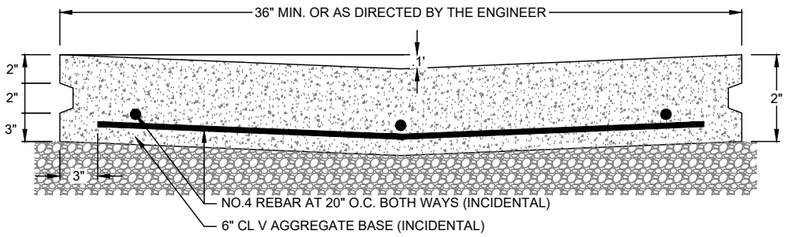
NOT TO SCALE



CURB BOX BACK PLATE DETAIL

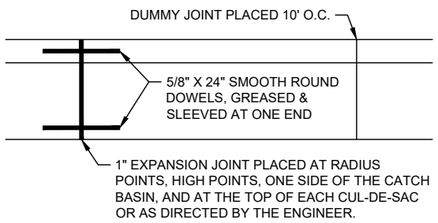
INSTALLED IN AREAS ADJACENT TO PEDESTRIAN CURB RAMPS

NOT TO SCALE



VALLEY GUTTER DETAIL

NOT TO SCALE



CURB AND GUTTER EXPANSION JOINT DETAIL

NOT TO SCALE

--	A2-01-2025		25-A2-01
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EMH	MJA		JAS
DRAWN BY	CHECKED BY		APPROVED BY

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Signature - Project Engineer --/--/---- *Date*

JAMES A. SCHULZ *Name - Project Engineer* 26225 *License No.*

CURB & GUTTER

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 10 OF 45

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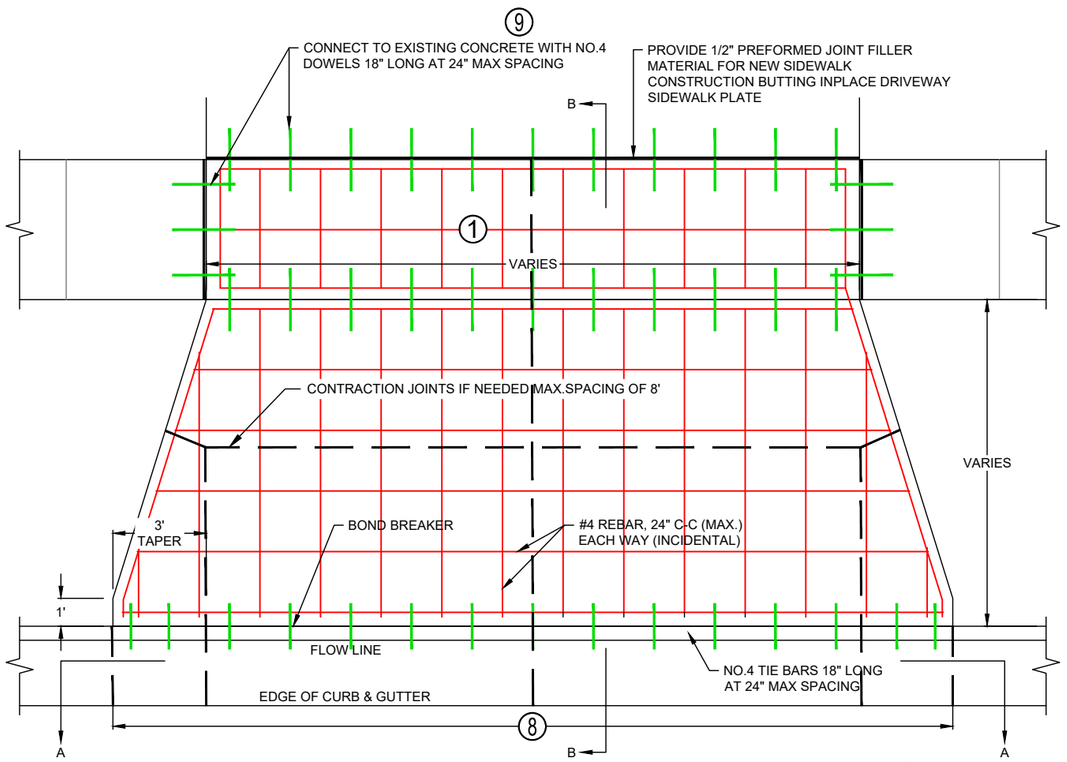
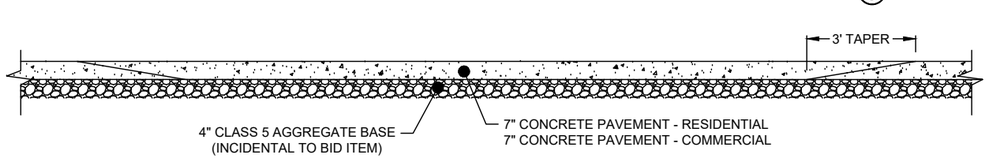
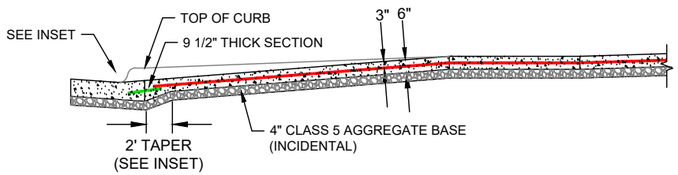
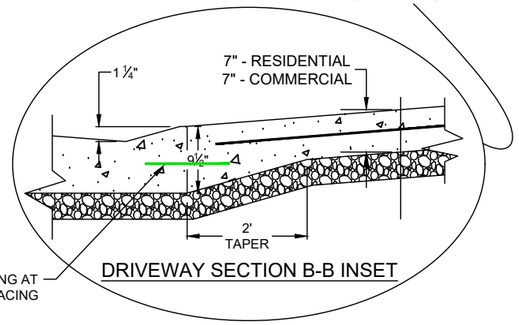




DRIVEWAY SECTION A-A



DRIVEWAY SECTION B-B
B-624 CURB



DRIVEWAY SECTION B-B INSET

NOTES:

1. DRIVEWAY CROSSING PLATE TO BE **POURED BEFORE AND INDEPENDENT** FROM THE APRON.
2. ALL CONCRETE SIDEWALK TO BE 4" THICK UNLESS OTHERWISE NOTED.
3. JOINT SPACING MUST NOT EXCEED 5' IN ANY DIRECTION SAWED OR TOOLED.
4. REINFORCEMENT SPACING SHALL NOT EXCEED 24" IN ANY DIRECTION AND BE SUPPORTED MID-DEPTH ON REBAR RISER CHAIRS EVERY 4' ON CENTER .
5. REINFORCING MUST BE PLACED 4" OF BOTH SIDES OF ALL JOINTS TOOLED OR SAWED.
6. ALL PATHS AT OR WIDER THAN 8' SHALL HAVE A LONGITUDINAL SAWED JOINT DOWN THE CENTER.
7. ALL REINFORCEMENT, AGGREGATE BASE, AND JOINTS SHALL BE INCIDENTAL TO CONSTRUCTION.
8. 18' MINIMUM OPENING INCLUDED 3' TAPERS. THE CURB AND CURB TRANSITION WILL BE PAID FOR AS LINEAR FEET OF CONCRETE CURB OR CONCRETE CURB AND GUTTER. SEE CURB & GUTTER DETAIL FOR ADDITIONAL REINFORCEMENT SPECS.
9. ALL TIE BARS AND DOWELS SHALL BE EPOXY COATED. ONE END OF ALL DOWEL BARS TO BE GREASED.
10. WHERE EPOXY COATED REBAR IS REQUIRED IT SHALL HAVE NO VISIBLE DINGS, SCRATCHES, OR OTHER EXPOSED METAL.
11. ALL REBAR, SUPPORTING CHAIRS, EXPANSION MATERIAL, AND FRAMEWORK SHALL BE INCIDENTAL TO CONSTRUCTION.
12. TOOLED JOINTS MUST NOT EXCEED 1/4" IN WIDTH, MUST HAVE A 1/4" RADIUS BEVEL AND BE 1/4 THE SLAB THICKNESS IN DEPTH.
13. SAWED JOINTS MUST NOT EXCEED 1/4" IN WIDTH, BE 1/4 THE SLAB THICKNESS IN DEPTH AND BE SAW CUT WITHIN 24 HOURS OF CONCRETE PLACEMENT.
14. 1/2" PRE-FORMED JOINT FILLER MATERIAL, AASHTO M-213 (CELLULAR FIBER BIT. FELT) PLACED AT EVERY PC AND PT OR EVERY 200 FT. UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
15. LIMITS OF SIDEWALK REMOVAL SHALL BE SHOWN IN THE PLANS OR AS DETERMINED IN THE FIELD BY THE ENGINEER. ALL EXCAVATED AND REMOVED MATERIAL SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OF NEW SIDEWALK AND IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROPERLY DISPOSE OF ALL EXCAVATED MATERIALS, INCLUDING BITUMINOUS AND CONCRETE.
16. **CONCRETE PROWAG CERTIFICATION:** THE CONTRACTOR MUST DESIGNATE A RESPONSIBLE PERSON COMPETENT IN ALL ASPECTS OF PROWAG TO ASSESS PROPOSED SIDEWALK LAYOUTS AT EACH SITE BEFORE WORK BEGINS. THE DESIGNATED PERSON MUST HAVE ATTENDED THE MNDOT ADA CONSTRUCTION CERTIFICATION COURSE AND RECEIVED A PASSING SCORE, WITHIN THE PAST 3 YEARS. A MINIMUM OF ONE PERSON PER PROJECT MUST POSSESS A VALID ADA CONSTRUCTION CERTIFICATION CARD ANYTIME ADA WORK IS BEING PERFORMED ON THE PROJECT. ADA WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: ASSESSMENT OF PROPOSED SIDEWALK LAYOUTS AT EACH SITE BEFORE WORK BEGINS, DETERMINING AND MARKING REMOVAL LIMITS FOR WORK PERTAINING TO PEDESTRIAN FACILITIES, ALL ADA RELATED REMOVALS AND GRADING, FORMING AND FINISHING OF CONCRETE AT ALL PEDESTRIAN FACILITIES, PAVING PEDESTRIAN CROSSINGS, PLACING BITUMINOUS PEDESTRIAN FACILITIES, FINAL GRADING, AND PAVEMENT MARKINGS. ANY ADA WORK NOT LISTED ABOVE CAN BE ADDED AT THE DISCRETION OF THE ENGINEER. AN ADA CERTIFIED PERSON IS NOT REQUIRED ON SITE IF THE ONLY WORK BEING PERFORMED CONCERNS TRAFFIC SIGNALS AND APS INSTALLATIONS.

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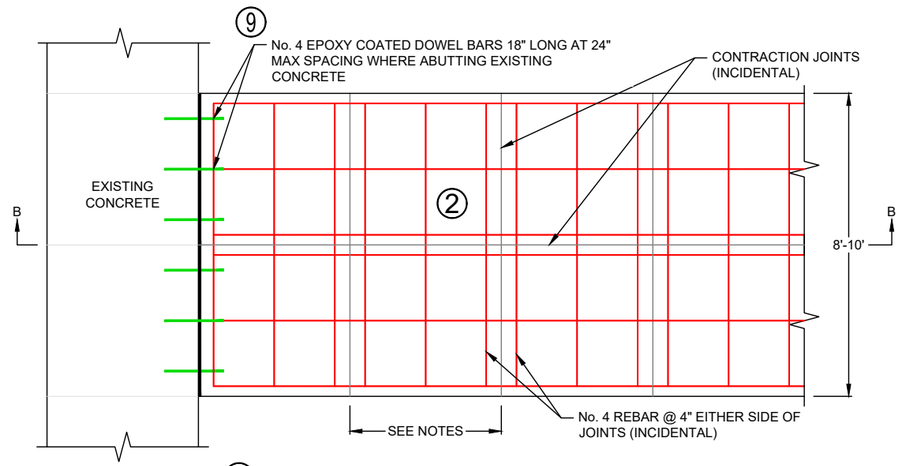

SIDEWALK SECTION C-C

SAP. No.	LEGAL No.	ENG. No.
--	A2-01-2025	25-A2-01
DRAWN BY	CHECKED BY	APPROVED BY
EMH	MJA	JAS

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Signature - Project Engineer

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Name - Project Engineer

03/07/2025
Date

26225
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SIDEWALK-APPROACH

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 11 OF 45

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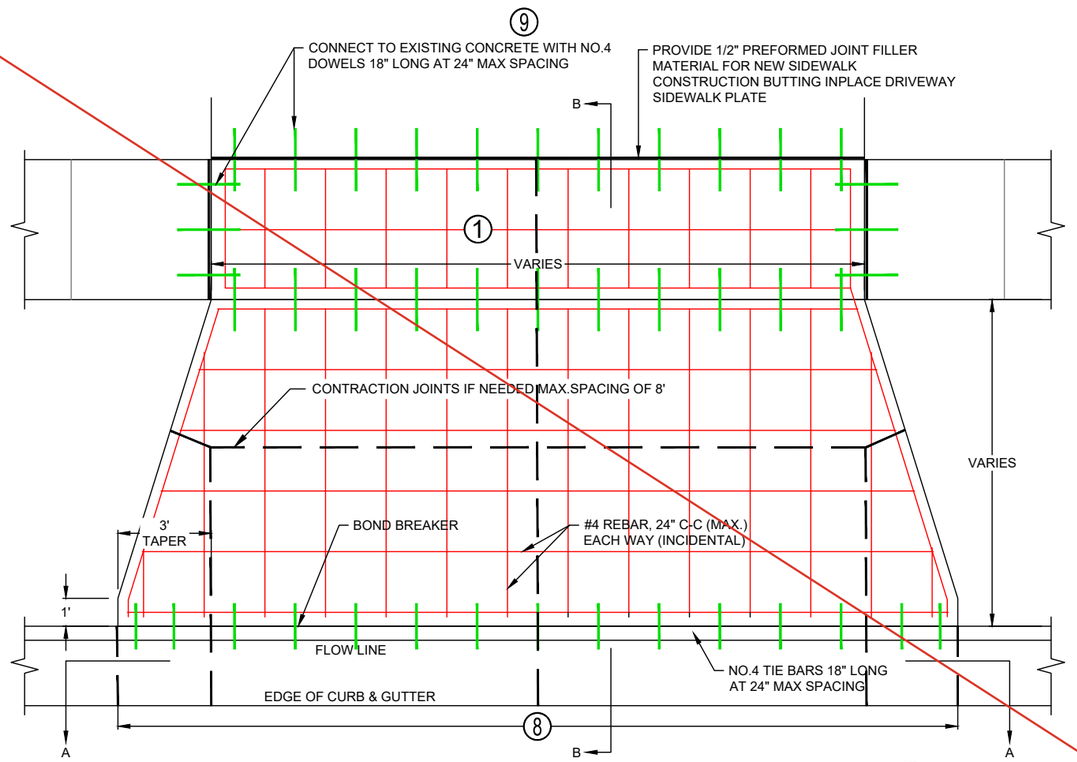
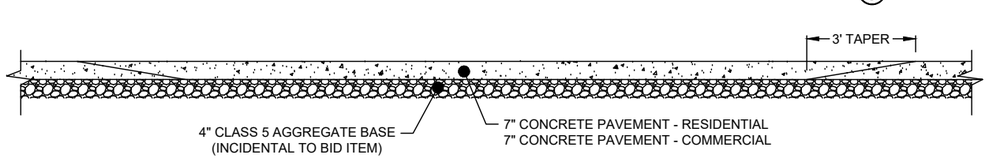
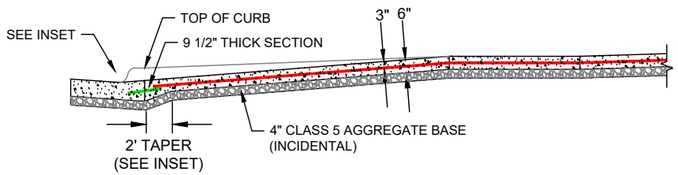
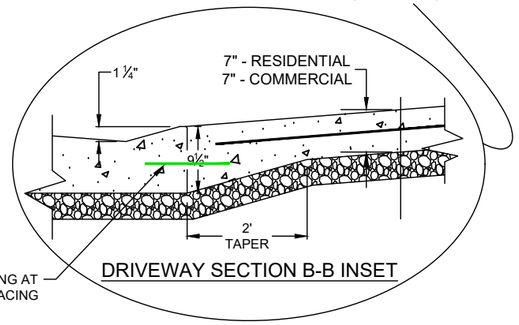




DRIVEWAY SECTION A-A



DRIVEWAY SECTION B-B
B-624 CURB



DRIVEWAY SECTION B-B INSET

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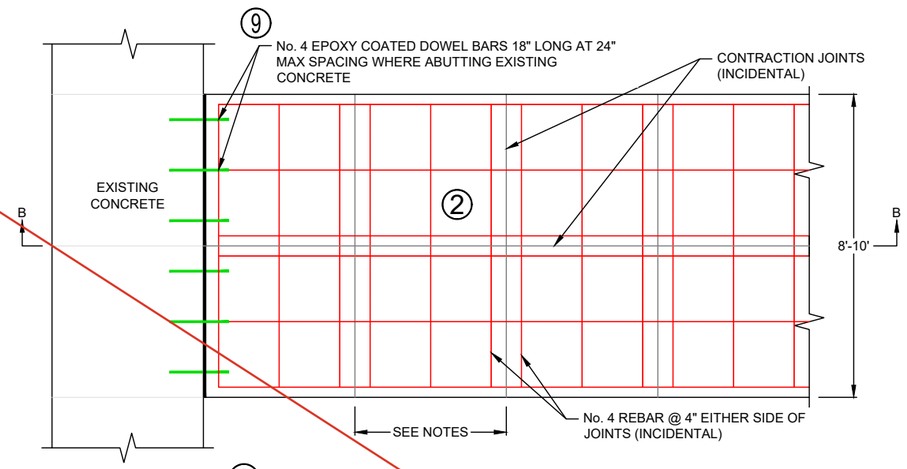

SIDEWALK SECTION C-C

--	A2-01-2025	25-A2-01
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DRAWN BY	CHECKED BY	APPROVED BY

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SIDEWALK-APPROACH

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CURB & GUTTER, ASPHALT PAVING

SHEET 11 OF 45

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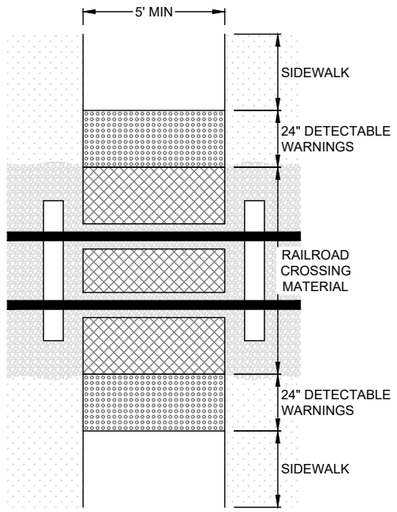
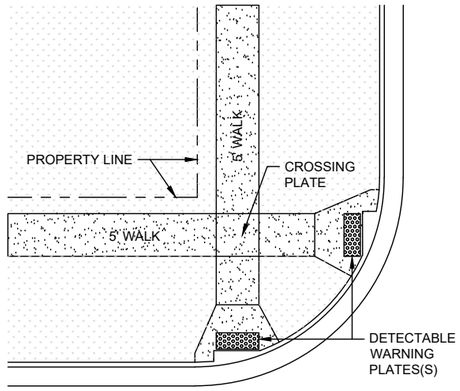
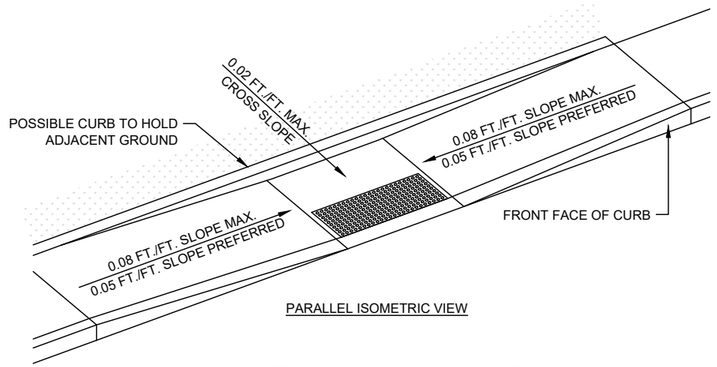


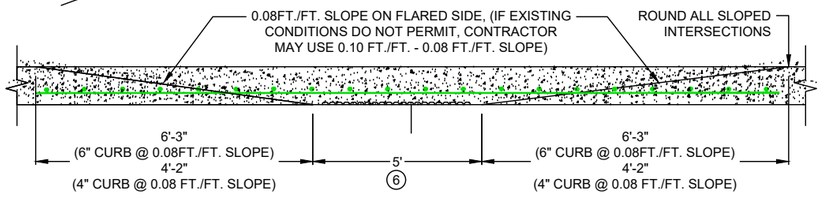
RAILROAD CROSSING
NOT TO SCALE



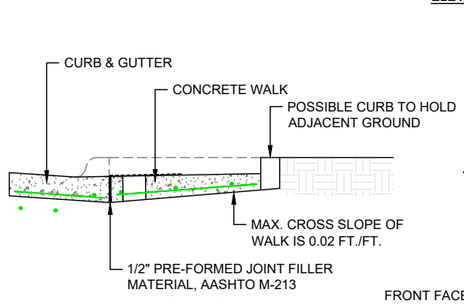
TYPICAL CORNER
(SEE PLAN SHEETS FOR NUMBER &LOCATION OF RAMPS)
NOT TO SCALE



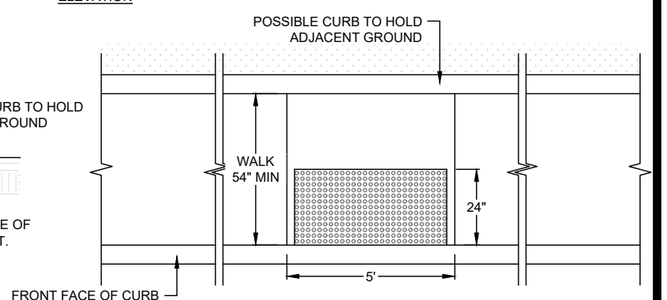
PARALLEL ISOMETRIC VIEW



ELEVATION

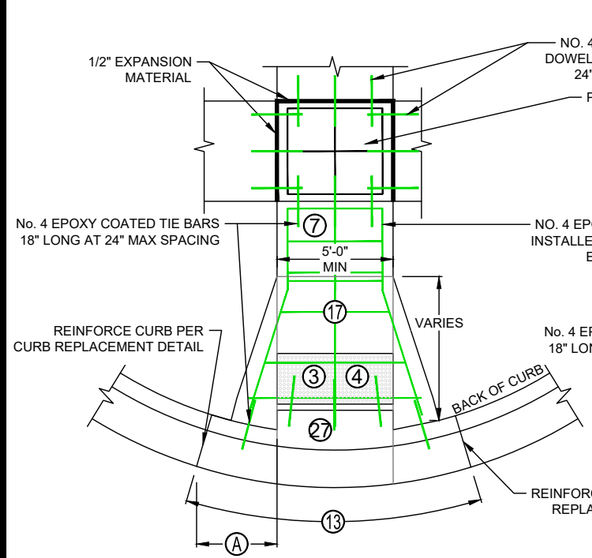


PLAN VIEW

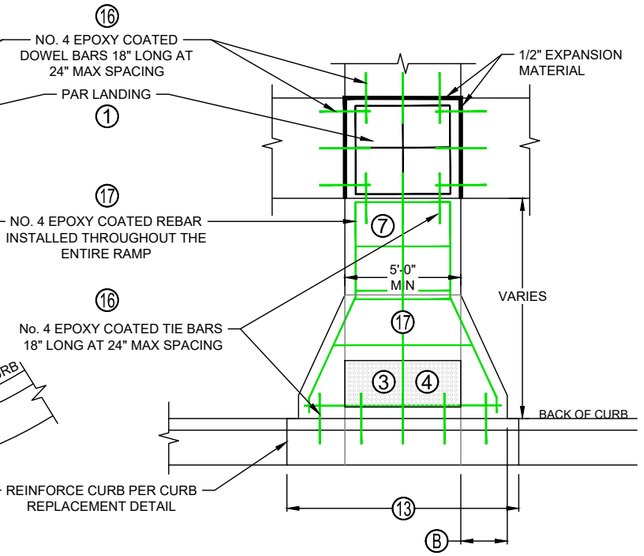


PARALLEL RAMP PLAN VIEW

PARALLEL RAMP
NOT TO SCALE



DIAGONAL / RADIAL RAMP
A: MOUNTABLE CURB - 2' MINIMUM FLAIR, HIGH-BACK CURB - 3' MINIMUM FLAIR; MEASURED PERPENDICULAR TO DIRECTION OF TRAVEL
NOT TO SCALE



PERPENDICULAR RAMP
B: MOUNTABLE CURB - 2' MINIMUM FLAIR, HIGH-BACK CURB - 3' MINIMUM FLAIR
NOT TO SCALE

NOTES:

1. PEDESTRIAN ACCESS ROUTE (PAR) LANDING TO BE **POURED BEFORE AND INDEPENDENT** TO THE PEDESTRIAN CURB RAMP.
2. WHEN ABUTTING EXISTING CONCRETE THAT EXCEEDS A 2% CROSS SLOPE THEN A TRANSITION OF NO MORE THAN 0.5% SLOPE CORRECTION PER FOOT TO BE USED.
3. ALL TRUNCATED DOMES MUST BE COATED CAST IRON AND BE A MNDOT APPROVED PRODUCT.
4. ALL TRUNCATED DOMES MUST HAVE FACTORY INSTALLED WEEP HOLES TO ENSURE PROPER BEDDING.
5. TRUNCATED DOMES MUST BE INSTALLED WITHIN 3" OF THE EDGE OF THE CONCRETE ON BOTH SIDES MEASURED PERPENDICULAR TO THE DIRECTION OF TRAVEL.
6. **THE CUTTING OF TRUNCATED DOME PANELS IS NOT ALLOWED.**
7. ALL CONCRETE SIDEWALK TO BE 6" THICK UNLESS OTHERWISE NOTED.
8. JOINT SPACING MUST NOT EXCEED 5' IN ANY DIRECTION SAWED OR TOOLED.
9. REINFORCEMENT SPACING SHALL NOT EXCEED 24" IN ANY DIRECTION AND BE SUPPORTED MID-DEPTH ON REBAR RISER CHAIRS EVERY 4' ON CENTER .
10. REINFORCING MUST BE PLACED 4" OF BOTH SIDES OF ALL JOINTS TOOLED OR SAWED.
11. ALL PATHS AT OR WIDER THAN 8' SHALL HAVE A LONGITUDINAL SAWED JOINT DOWN THE CENTER.
12. ALL REINFORCEMENT, AGGREGATE BASE, AND JOINTS SHALL BE INCIDENTAL TO CONSTRUCTION.
13. THE CURB AND CURB TRANSITION WILL BE PAID FOR AS LINEAR FEET OF CONCRETE CURB OR CONCRETE CURB AND GUTTER. SEE CURB & GUTTER DETAIL FOR ADDITIONAL REINFORCEMENT SPECS.
14. THE RAMP AREA WILL BE PAID AS ONE UNIT PEDESTRIAN RAMP 5' OR PEDESTRIAN RAMP 10'. THE TRUNCATED DOME AREA SHALL BE CONSIDERED INCIDENTAL.
15. THE PEDESTRIAN RAMP WILL INCLUDE AREA FROM BACK OF CURB THROUGH THE LANDING OR CROSSING PLATE AND IS NOT TO EXCEED 15', ANYTHING OVER 15' WILL BE PAID FOR AS CONCRETE WALK.
16. ALL TIE BARS AND DOWELS SHALL BE EPOXY COATED. ONE END OF ALL DOWEL BARS TO BE GREASED.
17. ALL REINFORCEMENT WITHIN THE PEDESTRIAN RAMP SHALL BE EPOXY COATED.
18. WHERE EPOXY COATED REBAR IS REQUIRED IT SHALL HAVE NO VISIBLE DINGS, SCRATCHES, OR OTHER EXPOSED METAL.
19. ALL REBAR, SUPPORTING CHAIRS, AND FRAMEWORK SHALL BE INCIDENTAL TO CONSTRUCTION.
20. TOOLED JOINTS MUST NOT EXCEED 1/4" IN WIDTH, MUST HAVE A 1/4" RADIUS BEVEL AND BE 1/4 THE SLAB THICKNESS IN DEPTH.
21. SAWED JOINTS MUST NOT EXCEED 1/4" IN WIDTH, BE 1/4 THE SLAB THICKNESS IN DEPTH AND BE SAW CUT WITHIN 24 HOURS OF CONCRETE PLACEMENT.
22. 1/2" PRE-FORMED JOINT FILLER MATERIAL, AASHTO M-213 (CELLULAR FIBER BIT. FELT)
23. LIMITS OF REMOVALS SHALL BE SHOWN IN THE PLANS OR AS DETERMINED IN THE FIELD BY THE ENGINEER. ALL EXCAVATED AND REMOVED MATERIAL SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OF NEW SIDEWALK AND IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROPERLY DISPOSE OF ALL EXCAVATED MATERIALS, INCLUDING BITUMINOUS AND CONCRETE.
24. **CONCRETE PROWAG CERTIFICATION:** THE CONTRACTOR MUST DESIGNATE A RESPONSIBLE PERSON COMPETENT IN ALL ASPECTS OF PROWAG TO ASSESS PROPOSED SIDEWALK LAYOUTS AT EACH SITE BEFORE WORK BEGINS. THE DESIGNATED PERSON MUST HAVE ATTENDED THE MNDOT ADA CONSTRUCTION CERTIFICATION COURSE AND RECEIVED A PASSING SCORE, WITHIN THE PAST 3 YEARS. A MINIMUM OF ONE PERSON PER PROJECT MUST POSSESS A VALID ADA CONSTRUCTION CERTIFICATION CARD ANYTIME ADA WORK IS BEING PERFORMED ON THE PROJECT. ADA WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: ASSESSMENT OF PROPOSED SIDEWALK LAYOUTS AT EACH SITE BEFORE WORK BEGINS, DETERMINING AND MARKING REMOVAL LIMITS FOR WORK PERTAINING TO PEDESTRIAN FACILITIES, ALL ADA RELATED REMOVALS AND GRADING, FORMING AND FINISHING OF CONCRETE AT ALL PEDESTRIAN FACILITIES, PAVING PEDESTRIAN CROSSINGS, PLACING BITUMINOUS PEDESTRIAN FACILITIES, FINAL GRADING, AND PAVEMENT MARKINGS. ANY ADA WORK NOT LISTED ABOVE CAN BE ADDED AT THE DISCRETION OF THE ENGINEER. AN ADA CERTIFIED PERSON IS NOT REQUIRED ON SITE IF THE ONLY WORK BEING PERFORMED CONCERNS TRAFFIC SIGNALS AND APS INSTALLATIONS.
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THESE REQUIREMENTS SHALL BE EFFECTIVE AS OF MAY 1ST, 2019. ANY TIME WORK THE CONTRACTOR IS PERFORMING CONCERNS PEDESTRIAN FACILITIES, THE CONTRACTOR'S ADA CERTIFIED PERSON SHALL BE ON SITE.

STANDARD PEDESTRIAN CURB RAMP
NOT TO SCALE

EMH	MJA	A2-01-2025	--
DRAWN BY	CHECKED BY	LEGAL No.	SAP. No.
	JAS		25-A2-01
	APPROVED BY		ENG. No.

MOORHEAD MINNESOTA Engineering

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

JAMES A. SCHULZ
Name - Project Engineer

Signature - Project Engineer

03/07/2025
Date

26225
License No.

PED RAMP

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 12 OF 45

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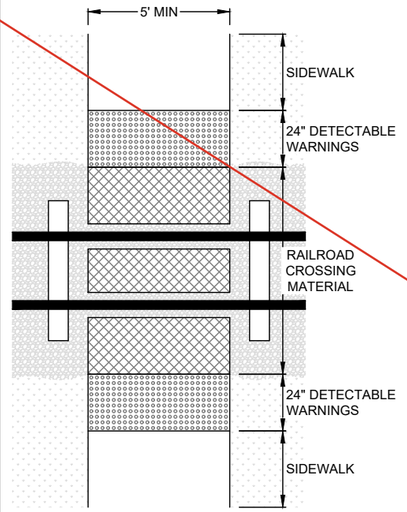

RAILROAD CROSSING
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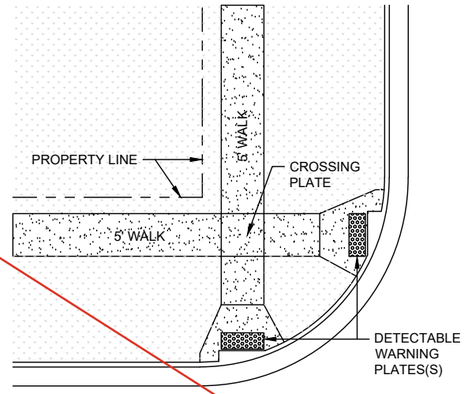

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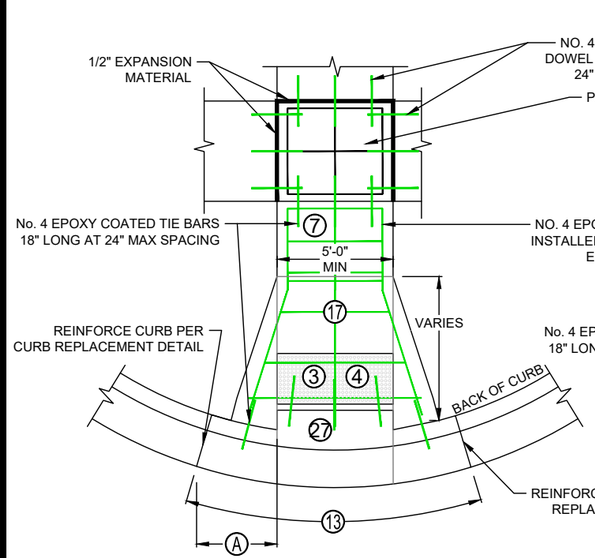

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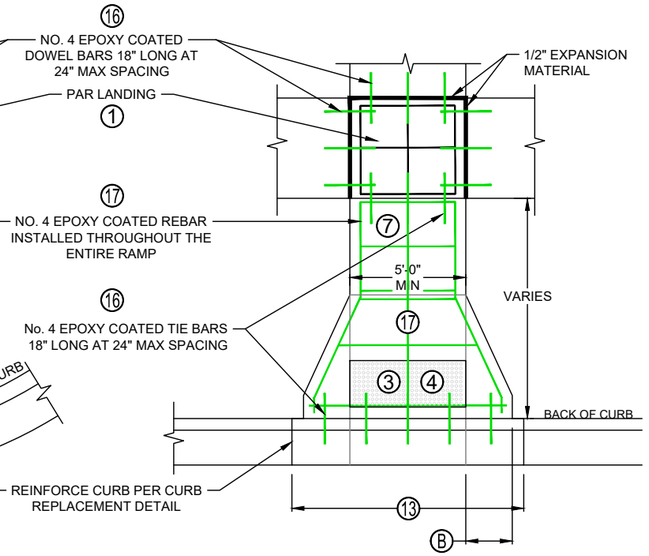

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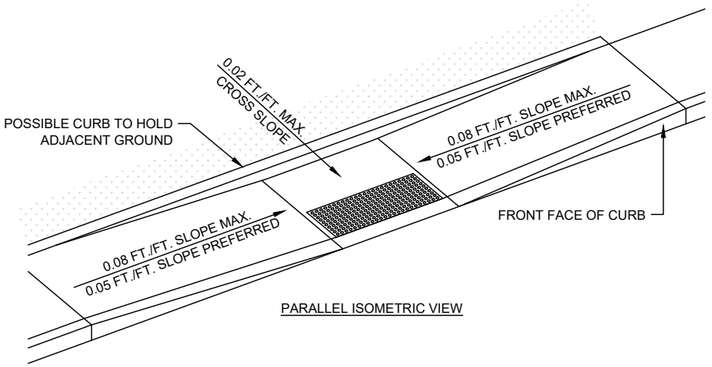
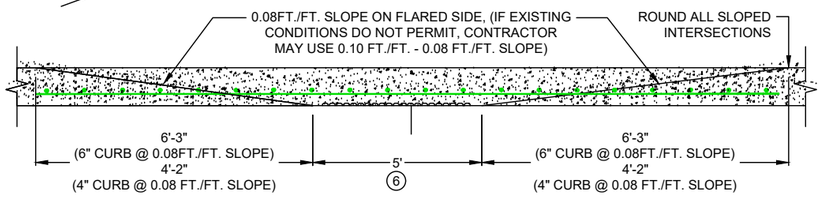
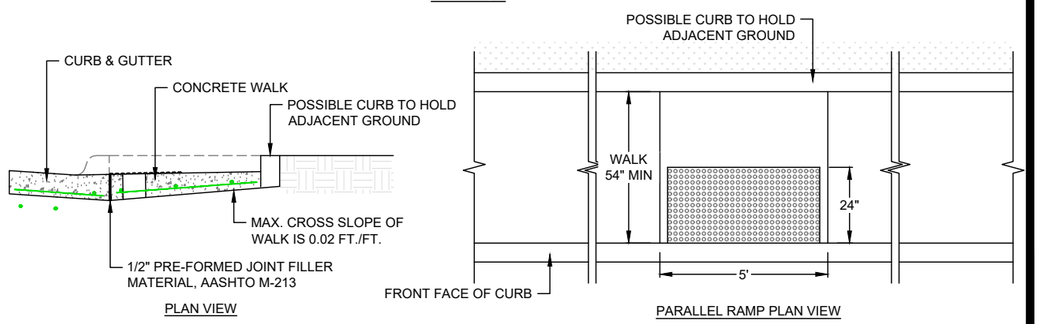
STANDARD PEDESTRIAN CURB RAMP
NOT TO SCALE



PARALLEL ISOMETRIC VIEW



ELEVATION



PLAN VIEW

PARALLEL RAMP PLAN VIEW

PARALLEL RAMP
NOT TO SCALE

--	SAP. No.
A2-01-2025	LEGAL No.
25-A2-01	ENG. No.
EMH	DRAWN BY
MJA	CHECKED BY
JAS	APPROVED BY

MOORHEAD MINNESOTA Engineering

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

--/--/---- Date

26225 License No.

JAMES A. SCHULZ
Name - Project Engineer

PED RAMP

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 12 OF 45

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NOTES:
1. REINFORCEMENT NOT SHOWN
2. TYPE "A" CASTING ASSEMBLY TO BE USED FOR STORM AND SANITARY MANHOLES
3. TYPE "B" CASTING ASSEMBLY TO BE USED FOR REAR YARD, BOULEVARD, AND DITCH DRAINAGE
4. TYPE "C" CASTING ASSEMBLY TO BE USED IN TYPE "C" MOUNTABLE CURB AND GUTTER
5. TYPE "D" CASTING ASSEMBLY TO BE USED IN B-624 CURB AND GUTTER
6. TYPE "E" CASTING ASSEMBLY TO BE AT ADA PEDESTRIAN RAMP LOCATIONS AS DIRECTED BY THE ENGINEER.
7. TYPE "F" CASTING ASSEMBLY TO BE USED FOR STORM SEWER CATCH BASIN INSTALLATIONS WITH ELEVATION CONSTRAINTS.
8. TYPE "G" CASTING ASSEMBLY TO BE USED IN CONCRETE ROADWAY CONSTRUCTION.
9. INLET PIPE OPENINGS SHALL BE GROUTED ON THE INSIDE AND OUTSIDE OF EACH STRUCTURE WITH AN APPROVED CONCRETE MIX
10. HDPE RINGS SHALL BE INSTALLED VERTICALLY; STAGGERING OF ADJUSTMENT RINGS SHALL NOT BE ALLOWED, CONTRACTOR SHALL ADJUST STRUCTURE PLACEMENT OR CURB ALIGNMENT AS NECESSARY
11. PROVIDE MORTAR FILLETS / INVERTS TO DIRECT FLOW TO OUTLET

TYPE "A" CASTING ASSEMBLY

FRAME	Mn/DOT 700-7
FRAME	Mn/DOT 700-4 (LOW PROFILE)
SAN. GRATE	Mn/DOT 716 (MUST HAVE CONCEALED PICK HOLES)
STS. GRATE	Mn/DOT 715

TYPE "B" CASTING ASSEMBLY

FRAME	CONCRETE (STND PLATE 4143E)
GRATE	MNDOT CASTING #731 (NEENAH R-4342)

TYPE "C" CASTING ASSEMBLY

FRAME	NEENAH 3508-A2
GRATE	NEENAH TYPE C

TYPE "D" CASTING ASSEMBLY

FRAME	Mn/DOT 801
GRATE	Mn/DOT 810
CURB BOX	Mn/DOT 823A (STRAIGHT CURB)
CURB BOX	Mn/DOT 821B (RADIUS CURB)

TYPE "E" CASTING ASSEMBLY

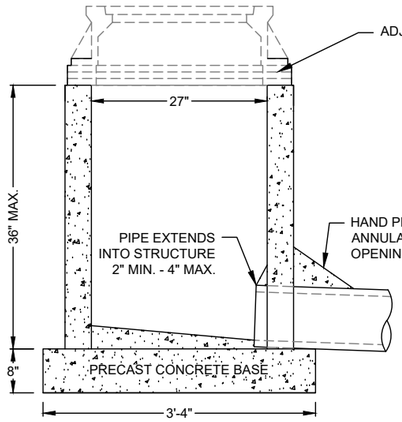
FRAME	Mn/DOT 805 (ADA RAMP USE)
GRATE	Mn/DOT 817 (ADA RAMP USE)

TYPE "F" CASTING ASSEMBLY

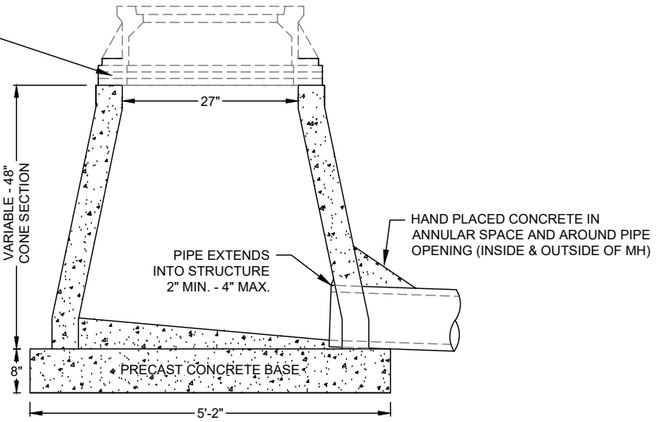
FRAME	Mn/DOT 700-4 (LOW PROFILE)
STS. GRATE	Mn/DOT 721

TYPE "G" CASTING ASSEMBLY

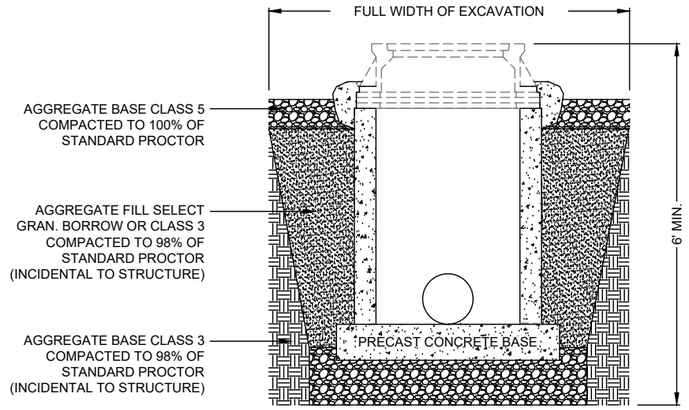
FRAME	NEENAH R-1955-1 (FLOATING CASTING)
GRATE	Mn/DOT 716 (MUST HAVE CONCEALED PICK HOLES)
GRATE	Mn/DOT 715



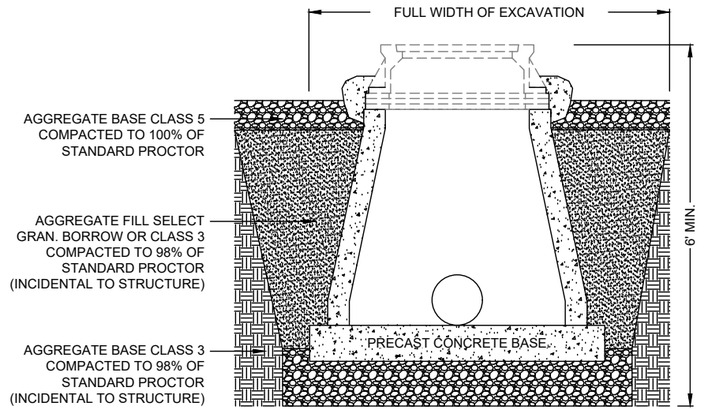
Mn/DOT DESIGN "H"
STANDARD PLATE NO. 4006L NOT TO SCALE



Mn/DOT DESIGN "G"
STANDARD PLATE NO. 4006L NOT TO SCALE



Mn/DOT DESIGN "H" CATCH BASIN INSTALLATION
STANDARD PLATE NO. 4006L NOT TO SCALE



Mn/DOT DESIGN "G" CATCH BASIN INSTALLATION
STANDARD PLATE NO. 4006L NOT TO SCALE

SAP. No.	--
LEGAL No.	A2-01-2025
ENG. No.	25-A2-01
DRAWN BY	EMH
CHECKED BY	MJA
APPROVED BY	JAS

MOORHEAD MINNESOTA Engineering

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

Signature - Project Engineer — 03/07/2025 Date

JAMES A. SCHULZ Name - Project Engineer — 26225 License No.

STORM

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 13 OF 45

G:\ENGR\PROJ\2025\25-A2-01 - 9th, 10th Ave, 16th St. South\AutoCAD\Drawings\25-A2-01_DETAILS - 3/17/2025 8:58 AM

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STS. GRATE	Mn/DOT 715

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GRATE	MNDOT CASTING #731 (NEENAH R-4342)

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FRAME	NEENAH 3508-A2
GRATE	NEENAH TYPE C

TYPE "D" CASTING ASSEMBLY

FRAME	Mn/DOT 801
GRATE	Mn/DOT 810
CURB BOX	Mn/DOT 823A (STRAIGHT CURB)
CURB BOX	Mn/DOT 821B (RADIUS CURB)

TYPE "E" CASTING ASSEMBLY

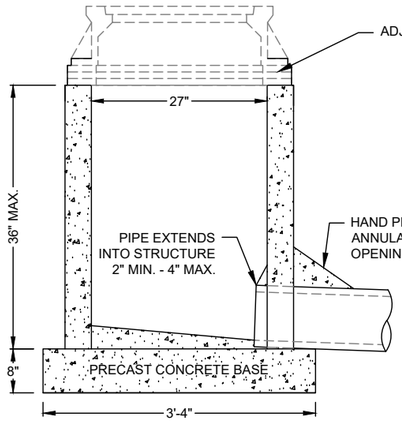
FRAME	Mn/DOT 805 (ADA RAMP USE)
GRATE	Mn/DOT 817 (ADA RAMP USE)

TYPE "F" CASTING ASSEMBLY

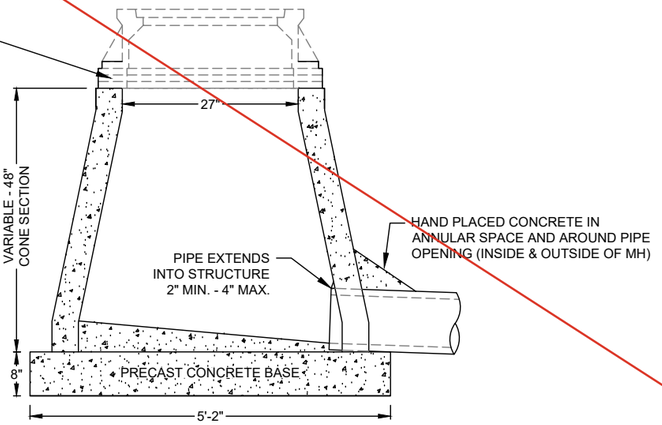
FRAME	Mn/DOT 700-4 (LOW PROFILE)
STS. GRATE	Mn/DOT 721

TYPE "G" CASTING ASSEMBLY

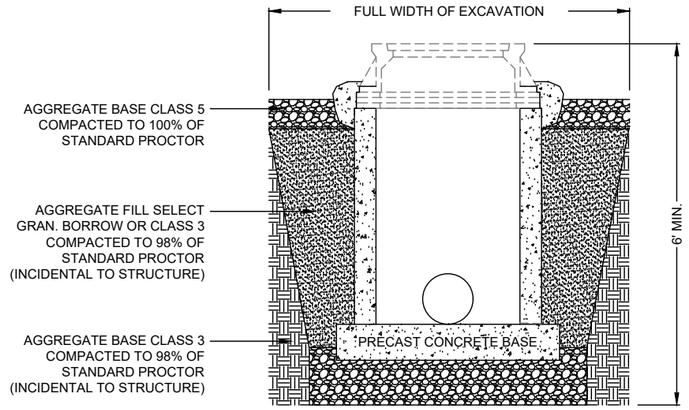
FRAME	NEENAH R-1955-1 (FLOATING CASTING)
GRATE	Mn/DOT 716 (MUST HAVE CONCEALED PICK HOLES)
GRATE	Mn/DOT 715



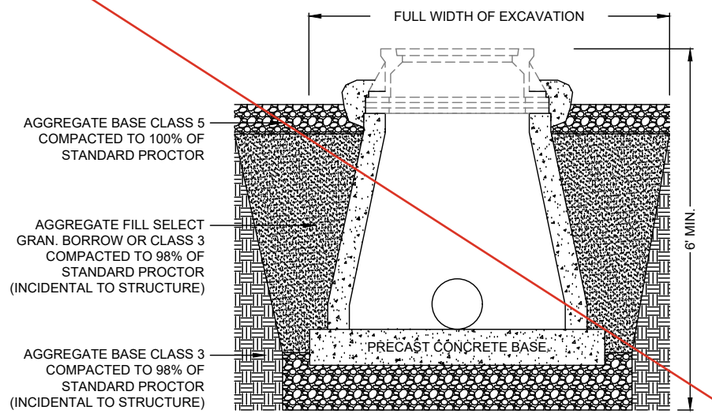
Mn/DOT DESIGN "H"
STANDARD PLATE NO. 4006L NOT TO SCALE



Mn/DOT DESIGN "G"
STANDARD PLATE NO. 4006L NOT TO SCALE



Mn/DOT DESIGN "H" CATCH BASIN INSTALLATION
STANDARD PLATE NO. 4006L NOT TO SCALE



Mn/DOT DESIGN "G" CATCH BASIN INSTALLATION
STANDARD PLATE NO. 4006L NOT TO SCALE

--	A2-01-2025	25-A2-01	
SAP. No.	LEGAL No.	ENG. No.	
EMH	MJA	JAS	
DRAWN BY	CHECKED BY	APPROVED BY	

MOORHEAD MINNESOTA Engineering

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

--/--/---- Date

26225 License No.

JAMES A. SCHULZ
Name - Project Engineer

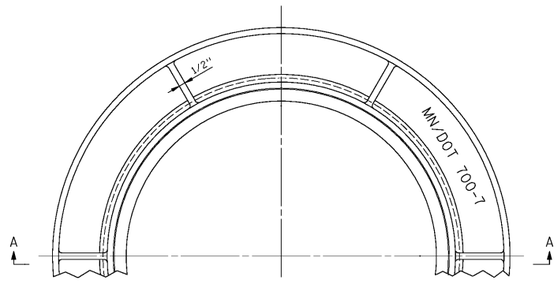
Signature - Project Engineer

STORM

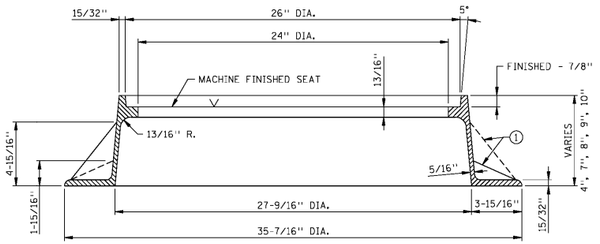
9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 13 OF 45

G:\ENGR\PROJ\2025\25-A2-01 - 9th, 10th Ave, 16th St. South\AutoCAD\Drawings\25-A2-01_DETAILS - 3/7/2025 8:59 AM



HALF TOP VIEW



SECTION A-A
(NO. 700-7 SHOWN)

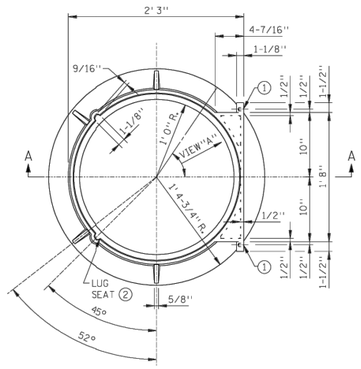
NOTES:

THIS RING CASTING TO BE USED IN CONJUNCTION WITH ANY OF THE FOLLOWING CASTINGS:
MANHOLE COVER NO. 715 OR NO. 716
MANHOLE OR CATCH BASIN GRATES NO. 720 OR NO. 721 .

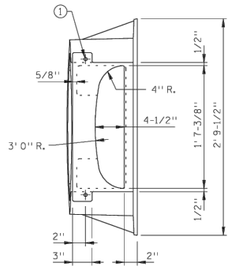
① ALTERNATING GUSSETS (3 EACH).

4" CASTING NO. 700-4 (98 LBS.)
7" CASTING NO. 700-7 (118 LBS.)
8" CASTING NO. 700-8
9" CASTING NO. 700-9
10" CASTING NO. 700-10

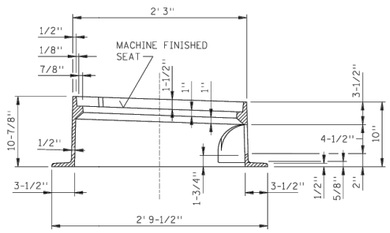
APPROVED OCTOBER 25, 1996 Gerald J. Rochard STATE DESIGN ENGINEER	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION RING CASTING FOR MANHOLE OR CATCH BASIN	SPECIFICATION REFERENCE 2506	STANDARD PLATE NO. 4101D



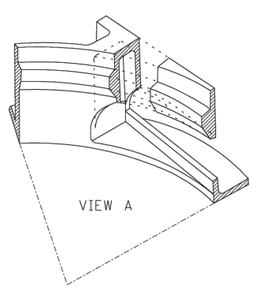
TOP VIEW



END VIEW



SECTION A-A



NOTES:

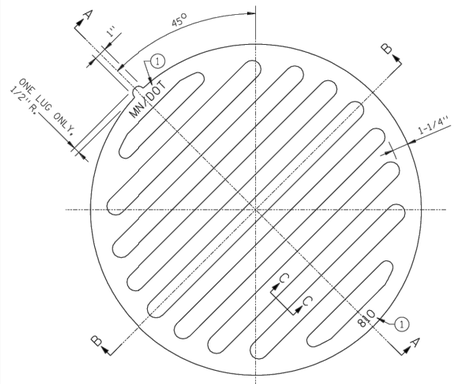
USE 1/4" FILLETS IN ALL CORNERS.
SEE STANDARD PLATE 7111, "INSTALLATION OF CATCH BASIN CASTINGS" FOR CONSTRUCTION REQUIREMENTS.

① LUG (2 THUS) DRILL BLIND HOLE FOR 1/2" CAP SCREW. TAP TO 3/4" DEPTH.
② APPLIES TO DESIGN B OR V CURB AND CURB & GUTTER.
③ USE WITH DESIGN S CURB.

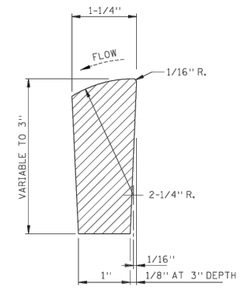
CASTINGS USED FOR ASSEMBLY	
GRATE FRAME	NO. 801
GRATE	NO. 810
CURB BOX ②	NO. 821B OR 831A
CURB BOX ③	NO. 822

GRATE FRAME CASTING NO. 801

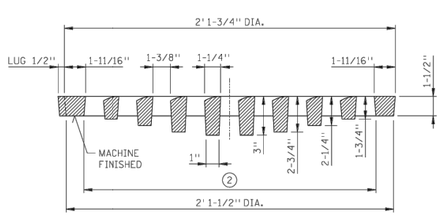
APPROVED April 5, 1989 R H Sullivan Director Materials, Research and Standards	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION CATCH BASIN FRAME CASTING	SPECIFICATION REFERENCE 2506	STANDARD PLATE NO. 4126F



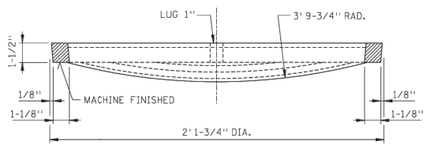
TOP VIEW



SECTION C-C



SECTION A-A



SECTION B-B

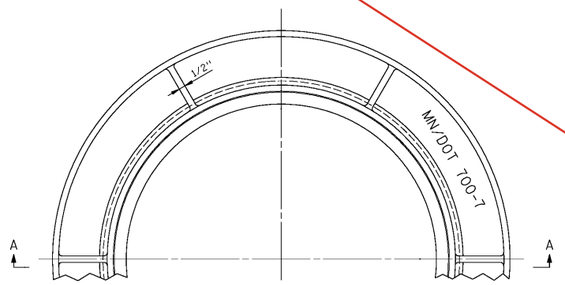
NOTES:

THIS GRATE TO BE USED WITH CATCH BASIN FRAME CASTING NO. 801.

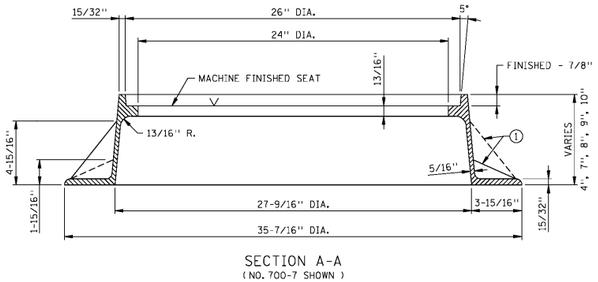
① ON OPPOSITE SIDE OF TOP SURFACE PLACE CASTING NUMBER. LETTERS (MN/DOT) AND NUMERALS TO BE 3/4" IN HEIGHT AND DEPRESSED 1/8".
② 9 SPACES AT 1-3/8" AND 8 BARS AT 1-1/4".

GRATE CASTING NO. 810

APPROVED Oct. 1, 1966 W. A. Ebern ASSISTANT COMMISSIONER ENGINEERING STANDARDS	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION GRATE CASTING FOR CATCH BASIN	SPECIFICATION REFERENCE 2506 3321 REVISED 1-21-98	STANDARD PLATE NO. 4149C



HALF TOP VIEW

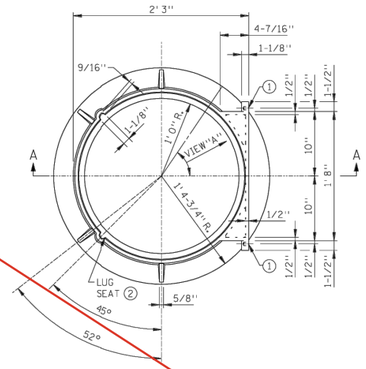


SECTION A-A
(NO. 700-7 SHOWN)

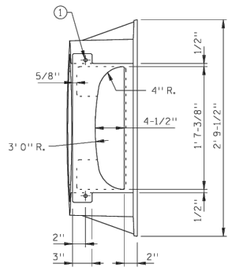
NOTES:
THIS RING CASTING TO BE USED IN CONJUNCTION WITH ANY OF THE FOLLOWING CASTINGS:
MANHOLE COVER NO. 715 OR NO. 716
MANHOLE OR CATCH BASIN GRATES NO. 720 OR NO. 721 .
① ALTERNATING GUSSETS (3 EACH).

4" CASTING NO. 700-4 (98 LBS.)
7" CASTING NO. 700-7 (118 LBS.)
8" CASTING NO. 700-8
9" CASTING NO. 700-9
10" CASTING NO. 700-10

APPROVED OCTOBER 25, 1996 Gerald J. Rochon STATE DESIGN ENGINEER	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION RING CASTING FOR MANHOLE OR CATCH BASIN	SPECIFICATION REFERENCE 2506	STANDARD PLATE NO. 4101D

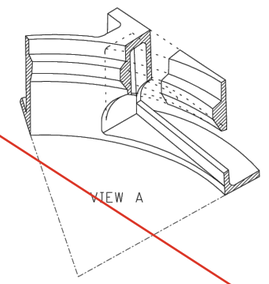


TOP VIEW



END VIEW

SECTION A-A

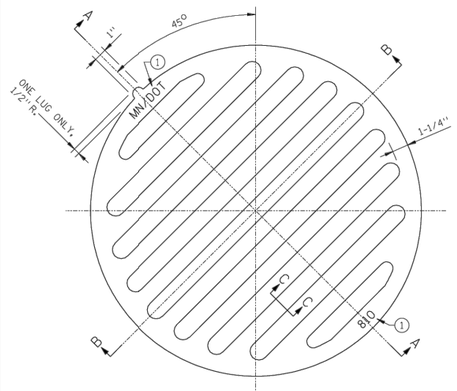


CASTINGS USED FOR ASSEMBLY	
GRATE FRAME	NO. 801
GRATE	NO. 810
CURB BOX ②	NO. 821B OR 831A
CURB BOX ③	NO. 822

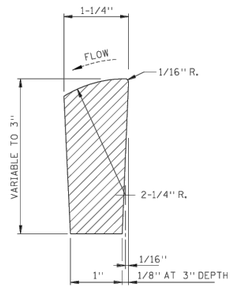
NOTES:
USE 1/4" FILLETS IN ALL CORNERS.
SEE STANDARD PLATE 7111, "INSTALLATION OF CATCH BASIN CASTINGS" FOR CONSTRUCTION REQUIREMENTS.
① LUG (2 THUS) DRILL BLIND HOLE FOR 1/2" CAP SCREW. TAP TO 3/4" DEPTH.
② APPLIES TO DESIGN B OR V CURB AND CURB & GUTTER.
③ USE WITH DESIGN S CURB.

GRATE FRAME CASTING NO. 801

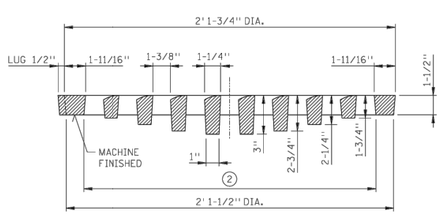
APPROVED April 5, 1989 R H Sullivan Director Materials, Research and Standards	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION CATCH BASIN FRAME CASTING	SPECIFICATION REFERENCE 2506	STANDARD PLATE NO. 4126F



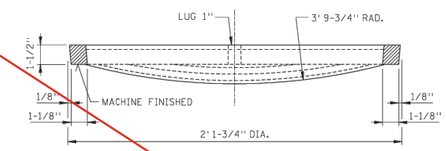
TOP VIEW



SECTION C-C



SECTION A-A

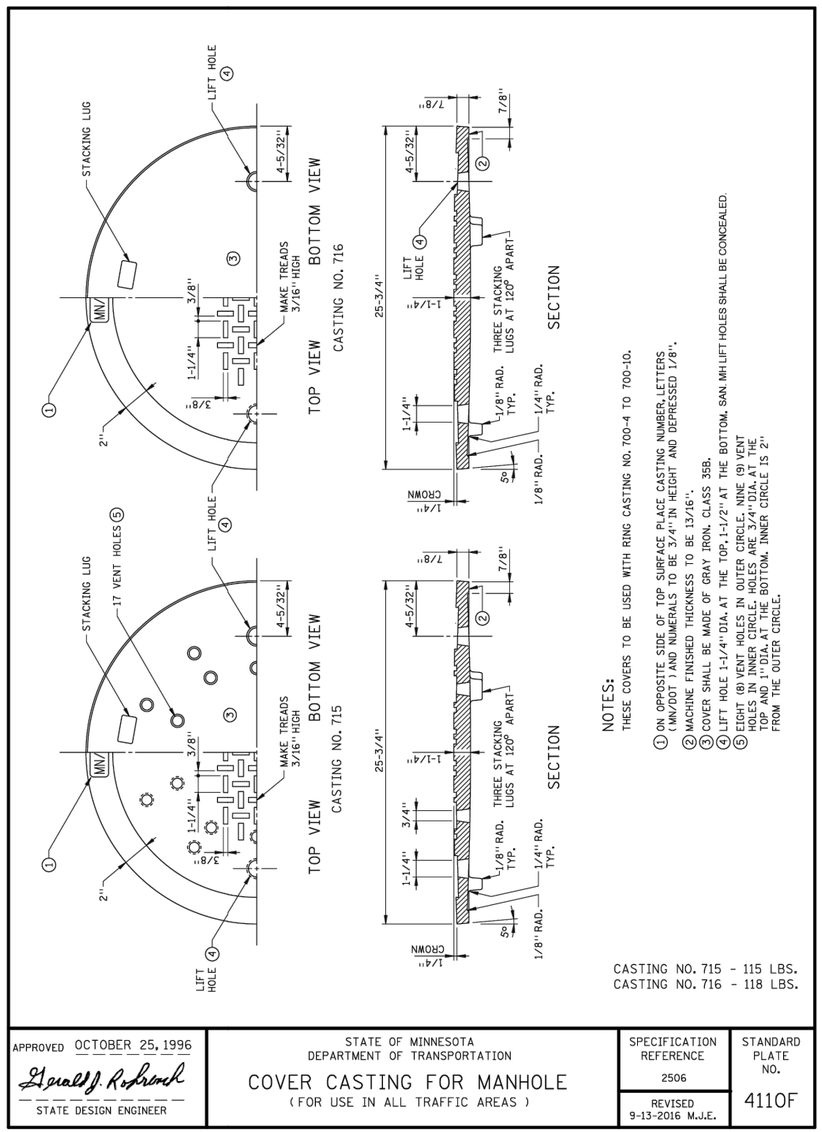


SECTION B-B

NOTES:
THIS GRATE TO BE USED WITH CATCH BASIN FRAME CASTING NO. 801.
① ON OPPOSITE SIDE OF TOP SURFACE PLACE CASTING NUMBER. LETTERS (MN/DOT) AND NUMERALS TO BE 3/4" IN HEIGHT AND DEPRESSED 1/8".
② 9 SPACES AT 1-3/8" AND 8 BARS AT 1-1/4".

GRATE CASTING NO. 810

APPROVED Oct. 1, 1966 W. A. Ebern ASSISTANT COMMISSIONER ENGINEERING STANDARDS	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION GRATE CASTING FOR CATCH BASIN	SPECIFICATION REFERENCE 2506 3321 REVISED 1-21-98	STANDARD PLATE NO. 4149C

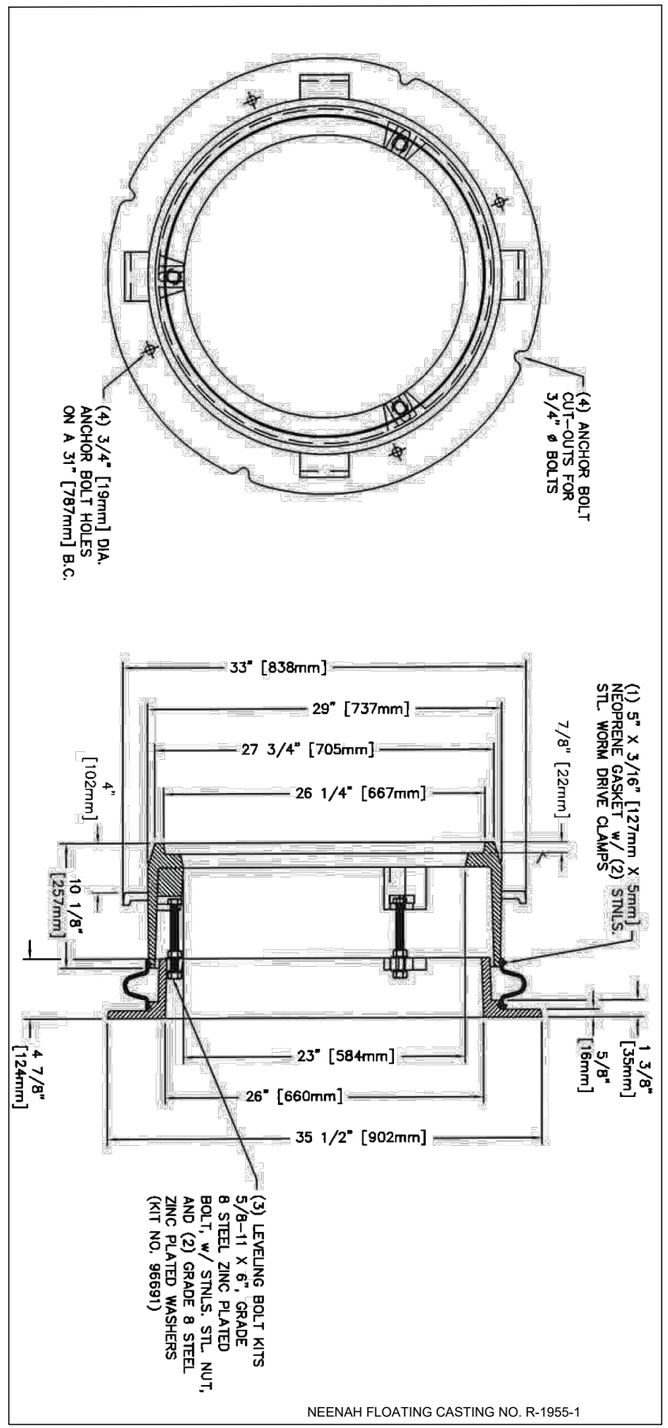


NOTES:
THESE COVERS TO BE USED WITH RING CASTING NO. 700-4 TO 700-10.

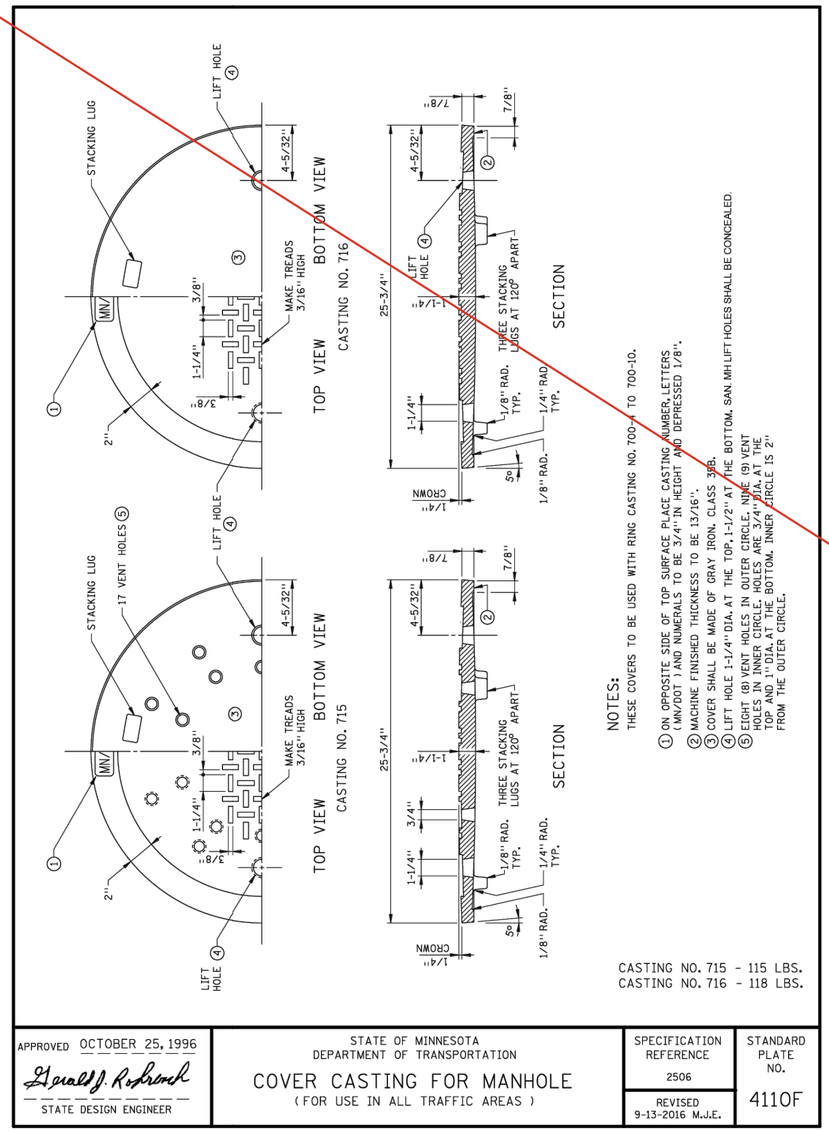
① ON OPPOSITE SIDE OF TOP SURFACE PLACE CASTING NUMBER, LETTERS (MN/DOT) AND NUMERALS TO BE 3/4" IN HEIGHT AND DEPRESSED 1/8".
② MACHINE FINISHED THICKNESS TO BE 13/16".
③ COVER SHALL BE MADE OF GRAY IRON, CLASS 35B.
④ LIFT HOLE 1-1/4" DIA. AT THE TOP, 1-1/2" AT THE BOTTOM. SAN. MH LIFT HOLES SHALL BE CONCEALED.
⑤ EIGHT (8) VENT HOLES IN OUTER CIRCLE, NINE (9) VENT HOLES IN INNER CIRCLE ARE 3/4" DIA. AT THE TOP AND 1" DIA. AT THE BOTTOM. INNER CIRCLE IS 2" FROM THE OUTER CIRCLE.

CASTING NO. 715 - 115 LBS.
CASTING NO. 716 - 118 LBS.

APPROVED OCTOBER 25, 1996 Donald J. Rodronk STATE DESIGN ENGINEER	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION COVER CASTING FOR MANHOLE (FOR USE IN ALL TRAFFIC AREAS)	SPECIFICATION REFERENCE 2506 REVISED 9-13-2016 M.J.E.	STANDARD PLATE NO. 4110F



NEENAH FLOATING CASTING NO. R-1955-1

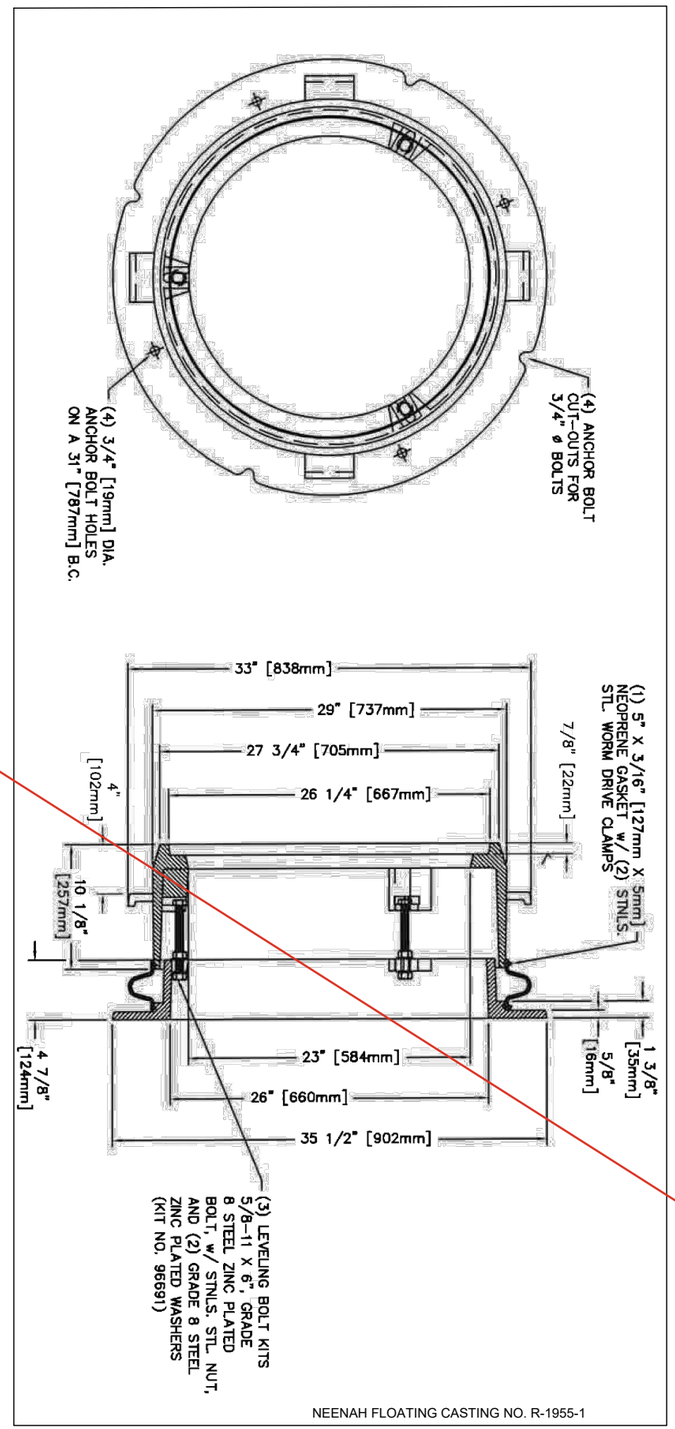


NOTES:
THESE COVERS TO BE USED WITH RING CASTING NO. 700 TO 700-10.

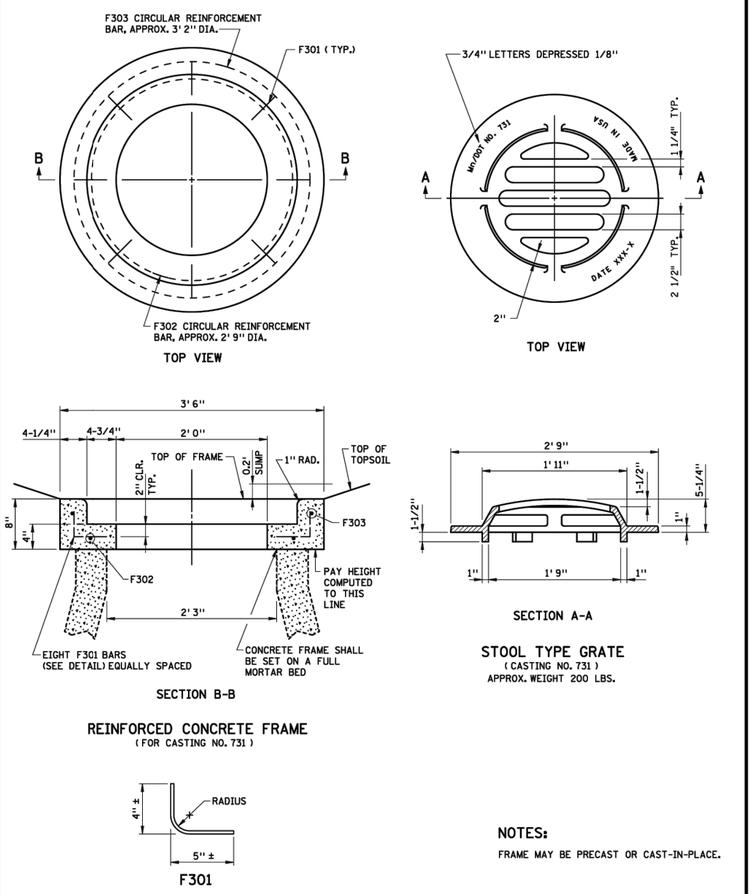
① ON OPPOSITE SIDE OF TOP SURFACE PLACE CASTING NUMBER, LETTERS (MN/DOT) AND NUMERALS TO BE 3/4" IN HEIGHT AND DEPRESSED 1/8".
② MACHINE FINISHED THICKNESS TO BE 13/16".
③ COVER SHALL BE MADE OF GRAY IRON, CLASS 35B.
④ LIFT HOLE 1-1/4" DIA AT THE TOP, 1-1/2" AT THE BOTTOM. SAN. MH LIFT HOLES SHALL BE CONCEALED.
⑤ EIGHT (8) VENT HOLES IN OUTER CIRCLE, NINE (9) VENT HOLES IN INNER CIRCLE ARE 3/4" DIA AT THE TOP AND 1" DIA AT THE BOTTOM. SPACING OF HOLES AT THE OUTER CIRCLE IS 2" FROM THE OUTER CIRCLE.

CASTING NO. 715 - 115 LBS.
CASTING NO. 716 - 118 LBS.

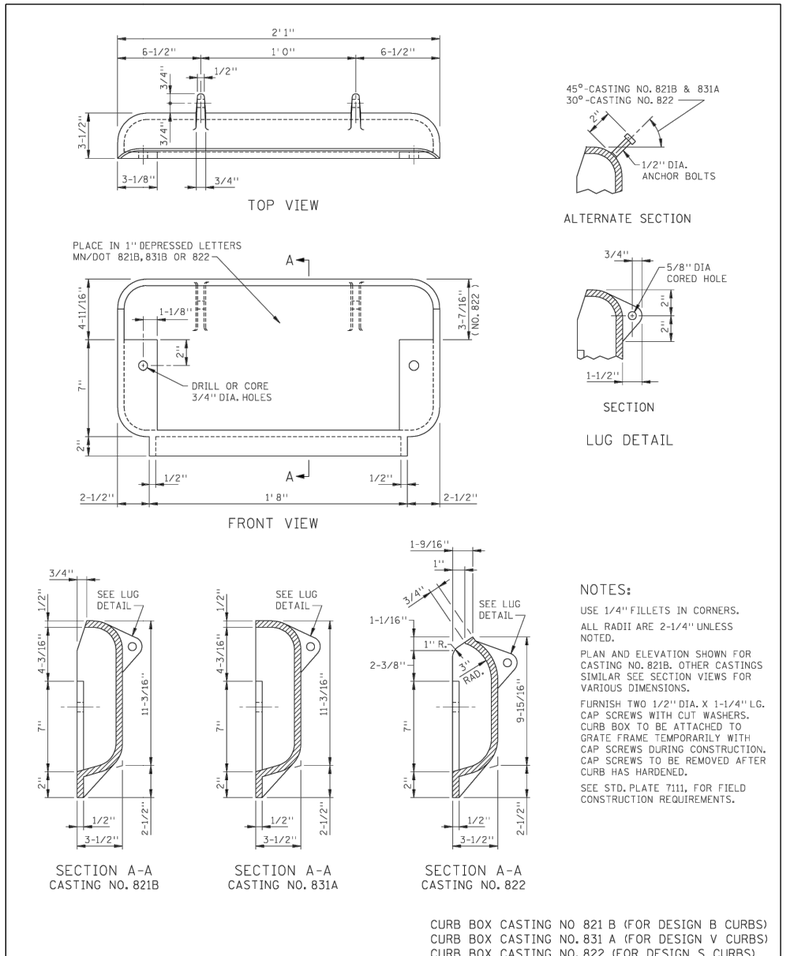
APPROVED OCTOBER 25, 1996 Gerald J. Rohrbach STATE DESIGN ENGINEER	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION COVER CASTING FOR MANHOLE (FOR USE IN ALL TRAFFIC AREAS)	SPECIFICATION REFERENCE 2506 REVISED 9-13-2016 M.J.E.	STANDARD PLATE NO. 4110F



NEENAH FLOATING CASTING NO. R-1955-1

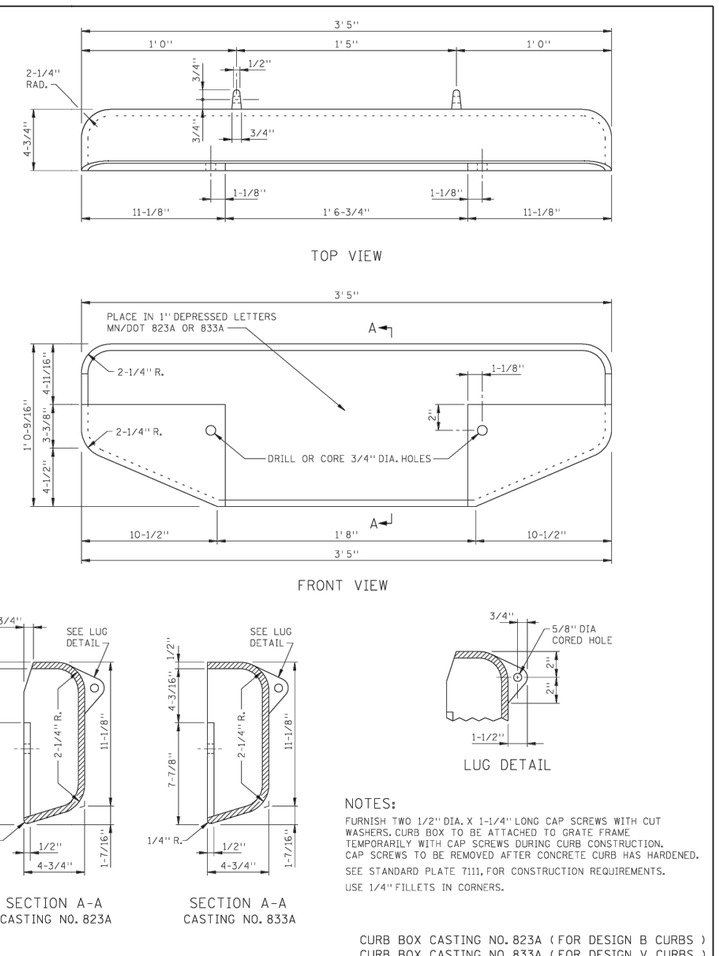


APPROVED MARCH 14, 1996 Donald J. Rohrbach STATE DESIGN ENGINEER	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION STOOL GRATE & CONCRETE FRAME (MEDIAN DRAINS)	SPECIFICATION REFERENCE 2506 REVISED 3-22-2013 M.J.E.	STANDARD PLATE NO. 4143E



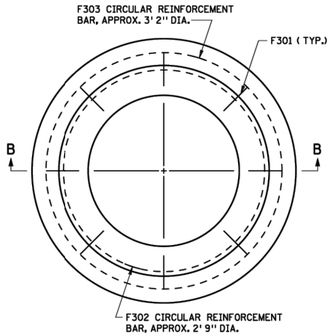
CURB BOX CASTING NO 821 B (FOR DESIGN B CURBS)
CURB BOX CASTING NO. 831 A (FOR DESIGN V CURBS)
CURB BOX CASTING NO. 822 (FOR DESIGN S CURBS)

APPROVED Dec. 10, 1982 R. H. Sullivan Assistant Division Director Technical Services	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION CURB BOX CASTING FOR CATCH BASIN	SPECIFICATION REFERENCE 2506	STANDARD PLATE NO. 4161F

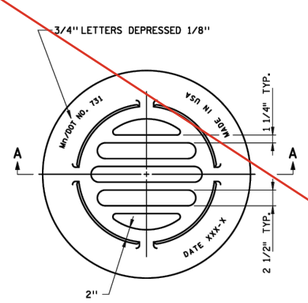


CURB BOX CASTING NO. 823A (FOR DESIGN B CURBS)
CURB BOX CASTING NO. 833A (FOR DESIGN V CURBS)

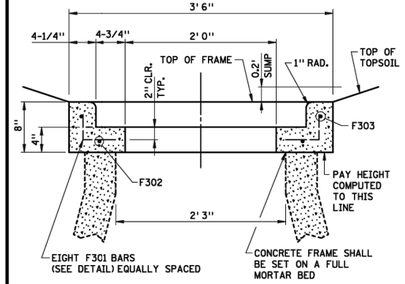
APPROVED Dec. 10, 1982 R. H. Sullivan Assistant Division Director Technical Services	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION CURB BOX CASTING FOR CATCH BASIN	SPECIFICATION REFERENCE 2506	STANDARD PLATE NO. 4160D



TOP VIEW

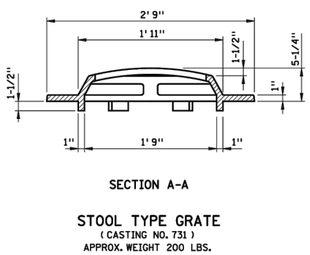


TOP VIEW



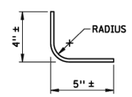
SECTION B-B

REINFORCED CONCRETE FRAME
(FOR CASTING NO. 731)



SECTION A-A

STOOL TYPE GRATE
(CASTING NO. 731)
APPROX. WEIGHT 200 LBS.



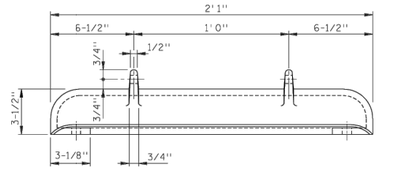
F301

NOTES:

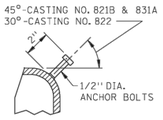
FRAME MAY BE PRECAST OR CAST-IN-PLACE.

CASTING NO. 731 & FRAME

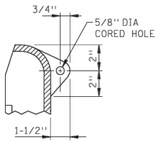
APPROVED MARCH 14, 1996 — Donald J. Rohrbach, STATE DESIGN ENGINEER	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION — STOOL GRATE & CONCRETE FRAME (MEDIAN DRAINS)	SPECIFICATION REFERENCE 2506 — REVISED 3-22-2013 M.J.E.	STANDARD PLATE NO. 4143E



TOP VIEW

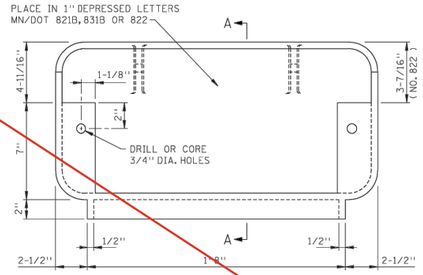


ALTERNATE SECTION

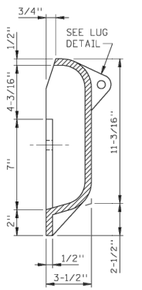


SECTION

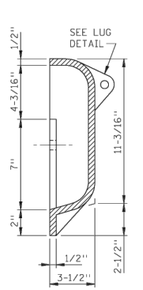
LUG DETAIL



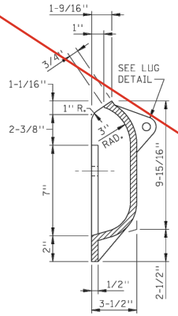
FRONT VIEW



SECTION A-A
CASTING NO. 821B



SECTION A-A
CASTING NO. 831A



SECTION A-A
CASTING NO. 822

NOTES:

USE 1/4" FILLETS IN CORNERS.

ALL RADII ARE 2-1/4" UNLESS NOTED.

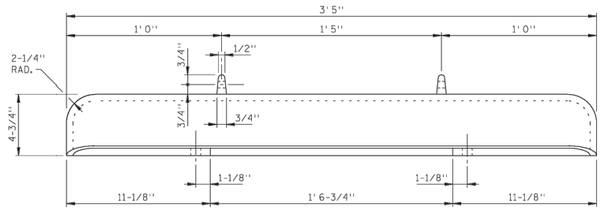
PLAN AND ELEVATION SHOWN FOR CASTING NO. 821B. OTHER CASTINGS SIMILAR SEE SECTION VIEWS FOR VARIOUS DIMENSIONS.

FURNISH TWO 1/2" DIA. X 1-1/4" LG. CAP SCREWS WITH CUT WASHERS. CURB BOX TO BE ATTACHED TO GRATE FRAME TEMPORARILY WITH CAP SCREWS DURING CONSTRUCTION. CAP SCREWS TO BE REMOVED AFTER CURB HAS HARDENED.

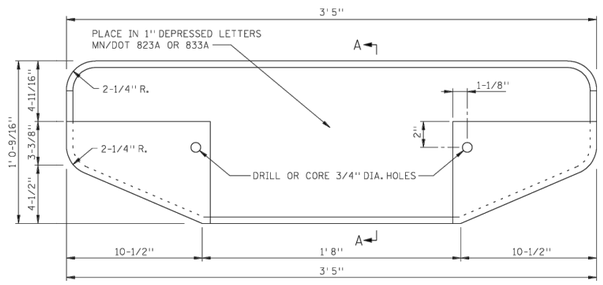
SEE STD. PLATE 7111, FOR FIELD CONSTRUCTION REQUIREMENTS.

CURB BOX CASTING NO 821 B (FOR DESIGN B CURBS)
CURB BOX CASTING NO. 831 A (FOR DESIGN V CURBS)
CURB BOX CASTING NO. 822 (FOR DESIGN S CURBS)

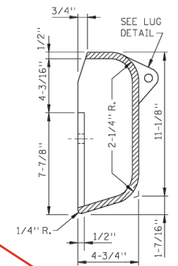
APPROVED Dec. 10, 1982 — R. H. Sullivan, Assistant Division Director Technical Services	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION — CURB BOX CASTING FOR CATCH BASIN	SPECIFICATION REFERENCE 2506	STANDARD PLATE NO. 4161F



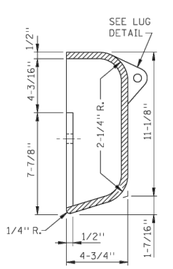
TOP VIEW



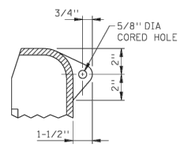
FRONT VIEW



SECTION A-A
CASTING NO. 823A



SECTION A-A
CASTING NO. 833A



LUG DETAIL

NOTES:

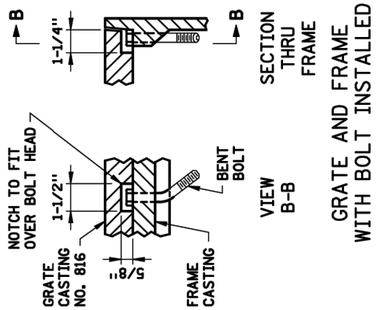
FURNISH TWO 1/2" DIA. X 1-1/4" LONG CAP SCREWS WITH CUT WASHERS. CURB BOX TO BE ATTACHED TO GRATE FRAME TEMPORARILY WITH CAP SCREWS DURING CURB CONSTRUCTION. CAP SCREWS TO BE REMOVED AFTER CONCRETE CURB HAS HARDENED.

SEE STANDARD PLATE 7111, FOR CONSTRUCTION REQUIREMENTS.

USE 1/4" FILLETS IN CORNERS.

CURB BOX CASTING NO. 823A (FOR DESIGN B CURBS)
CURB BOX CASTING NO. 833A (FOR DESIGN V CURBS)

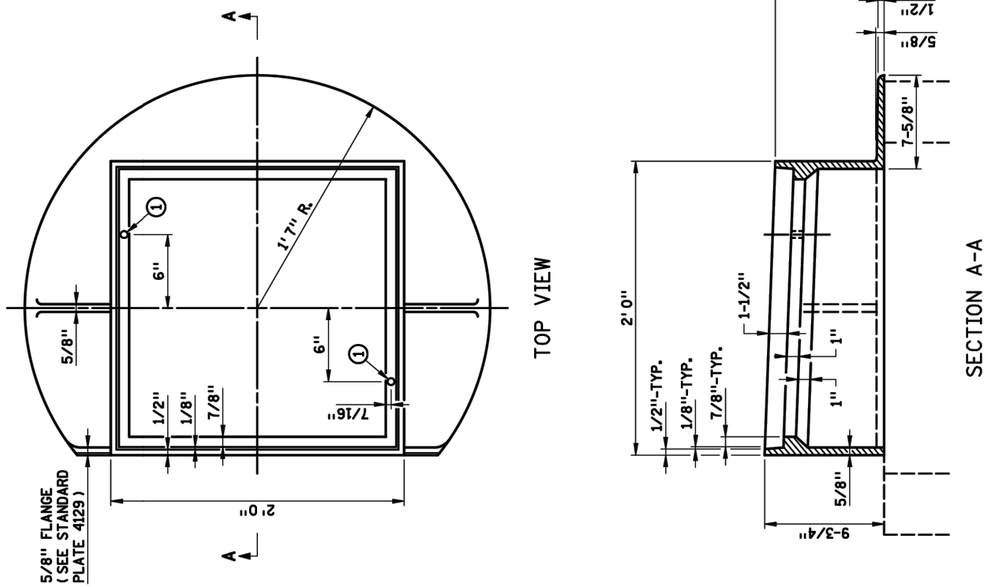
APPROVED Dec. 10, 1982 — R. H. Sullivan, Assistant Division Director Technical Services	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION — CURB BOX CASTING FOR CATCH BASIN	SPECIFICATION REFERENCE 2506	STANDARD PLATE NO. 4160D



GRATE AND FRAME
WITH BOLT INSTALLED ①

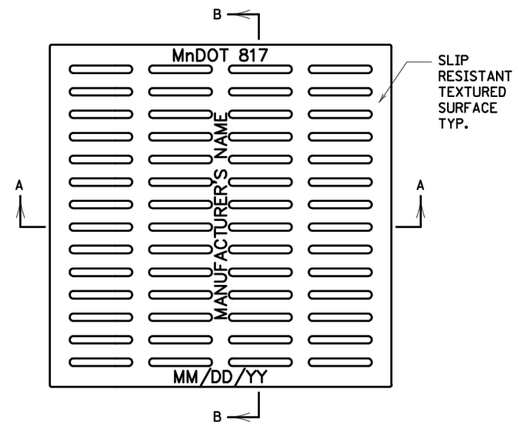
CASTINGS USED FOR ASSEMBLY	
GRATE FRAME	NO. 805 (4132)
GRATE	NO. 814A (4152), 815 (4153), 816 (4154), 817 (4155)

NOTES:
USE 1/4" FILLETS IN ALL CORNERS.
SEE STANDARD PLATE 7111 FOR INSTALLATION REQUIREMENTS.
① AT LOCATIONS INDICATED IN TOP VIEW, PROVIDE 9/16 INCH DIA. HOLES WHEN GRATE NO. 816 (4154) IS USED WITH THIS FRAME. FIELD PLACE 1/2 INCH DIA. X 4 INCHES LONG GALV. BOLT IN UP STREAM SIDE AND BEND UNDERSIDE TO PREVENT REMOVAL. THIS WILL PREVENT GRATE NO. 816 (4154) FROM BEING PLACED IN WRONG DIRECTION AND NOT BEING BICYCLE SAFE.

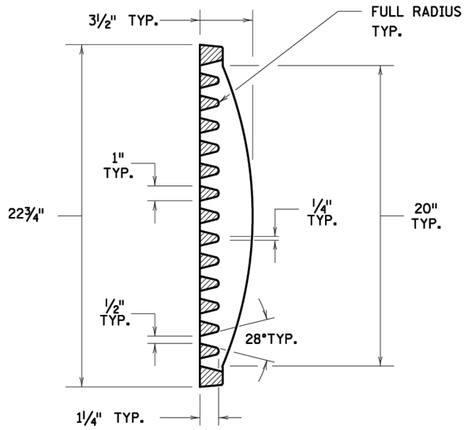


GRATE FRAME CASTING NO. 805

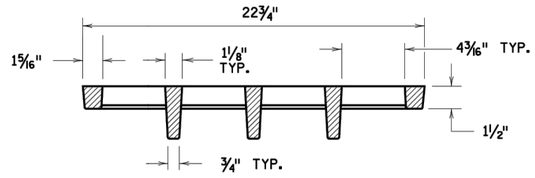
APPROVED SEPTEMBER 19, 2018 STATE DESIGN ENGINEER	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE	STANDARD PLATE NO.
	CATCH BASIN FRAME CASTING (FOR SQUARE GRATE)	2506	4132G



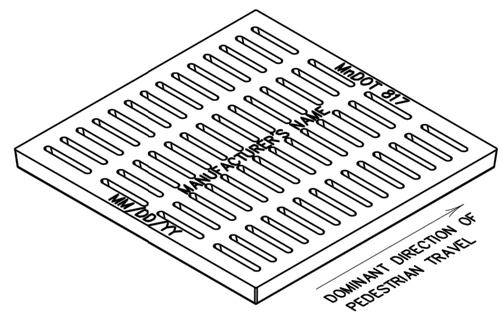
TOP VIEW



SECTION B-B



SECTION A-A

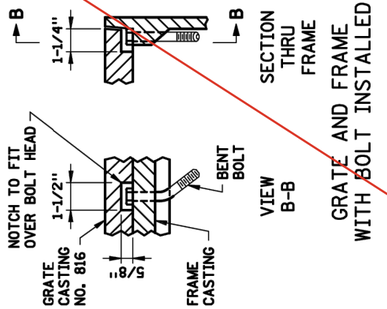


ISOMETRIC TOP VIEW

NOTES:
THIS GRATE MEETS ADA REQUIREMENTS.
THIS GRATE USED WITH FRAME CASTING NO. 805.
CAST GRAY IRON, AASHTO M105/ASTM A48, CLASS 35B.
PRODUCT MARKING PER AASHTO M 105. CASTING SHALL INCLUDE: MANUFACTURER, CASTING DATE, MnDOT DESIGNATION, AND CASTING NUMBER. MARKING TEXT SHALL BE 3/4" IN HEIGHT AND DEPRESSED 1/8".

GRATE CASTING NO. 817

APPROVED SEPTEMBER 19, 2018 STATE DESIGN ENGINEER	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE	STANDARD PLATE NO.
	ADA GRATE INLET CASTING	2506	4155A



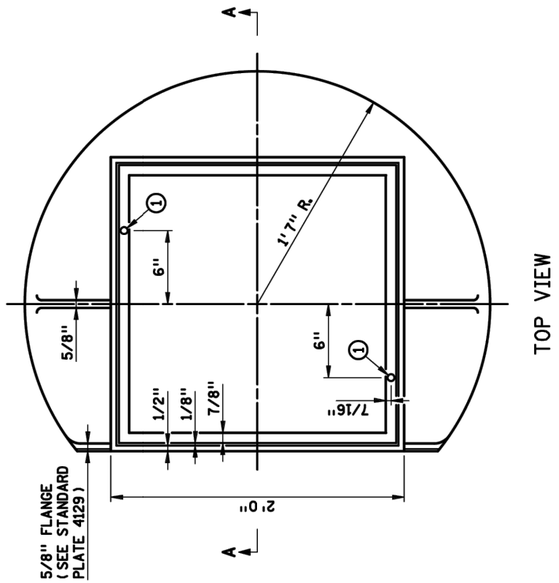
SECTION THRU FRAME

VIEW B-B

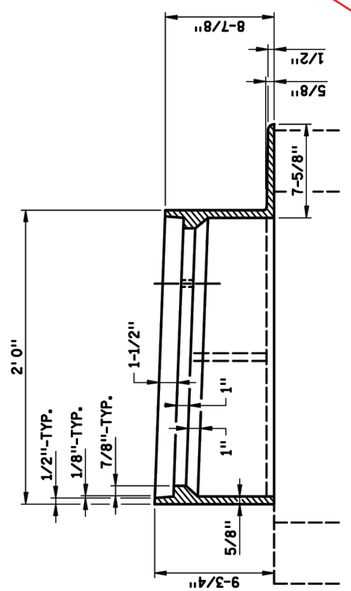
GRATE AND FRAME WITH BOLT INSTALLED ①

CASTINGS USED FOR ASSEMBLY	
GRATE FRAME	NO. 805 (4132)
GRATE	NO. 814A (4152), 815 (4153), 816 (4154), 817 (4155)

NOTES:
USE 1/4" FILLETS IN ALL CORNERS.
SEE STANDARD PLATE 7111 FOR INSTALLATION REQUIREMENTS.
① AT LOCATIONS INDICATED IN TOP VIEW, PROVIDE 9/16 INCH DIA. HOLES WHEN GRATE NO. 816 (4154) IS USED WITH THIS FRAME. FIELD PLACE 1/2 INCH DIA. X 4 INCHES LONG GALV. BOLT IN UP STREAM SIDE AND BEND UNDERSIDE TO PREVENT REMOVAL. THIS WILL PREVENT GRATE NO. 816 (4154) FROM BEING PLACED IN WRONG DIRECTION AND NOT BEING BICYCLE SAFE.



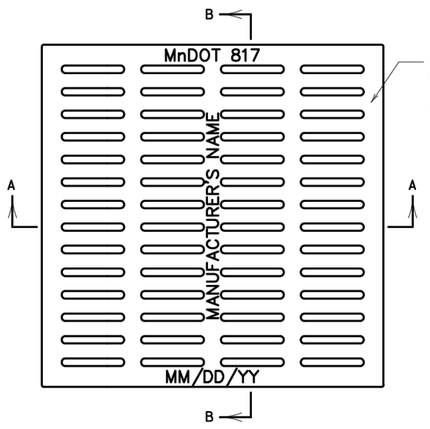
TOP VIEW



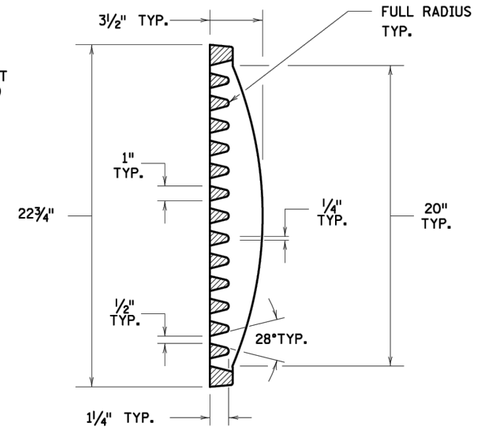
SECTION A-A

GRATE FRAME CASTING NO. 805

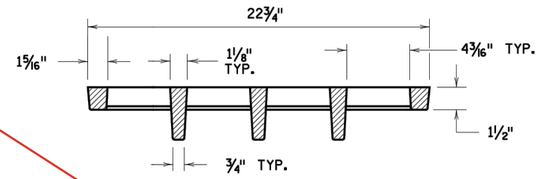
APPROVED SEPTEMBER 19, 2018	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE	STANDARD PLATE NO.
STATE DESIGN ENGINEER	CATCH BASIN FRAME CASTING (FOR SQUARE GRATE)	2506	4132G



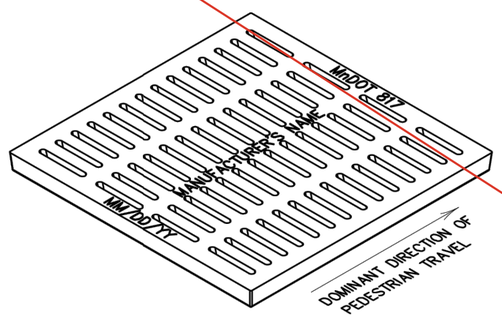
TOP VIEW



SECTION B-B



SECTION A-A



ISOMETRIC TOP VIEW

NOTES:
THIS GRATE MEETS ADA REQUIREMENTS.
THIS GRATE USED WITH FRAME CASTING NO. 805.
CAST GRAY IRON, AASHTO M105/ASTM A48, CLASS 35B.
PRODUCT MARKING PER AASHTO M 105. CASTING SHALL INCLUDE: MANUFACTURER, CASTING DATE, MnDOT DESIGNATION, AND CASTING NUMBER. MARKING TEXT SHALL BE 3/4" IN HEIGHT AND DEPRESSED 1/8".

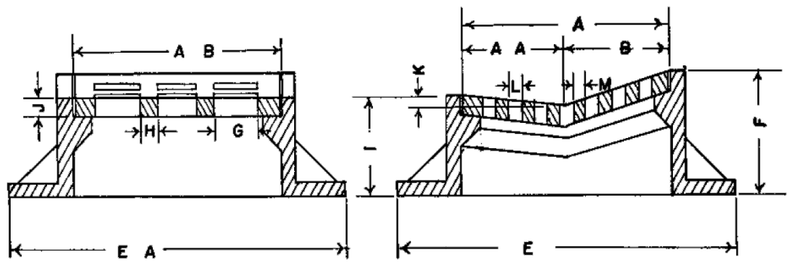
GRATE CASTING NO. 817

APPROVED SEPTEMBER 19, 2018	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE	STANDARD PLATE NO.
STATE DESIGN ENGINEER	ADA GRATE INLET CASTING	2506	4155A

R-3506 to R-3517 Series
Inlet Frame and Grate for Driveway and Mountable Curb

Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3506-A2	C	1.4	2.9
R-3506-B	C	1.2	2.9
R-3507-C	D	1.6	3.7
R-3507-D	D	1.6	3.7
R-3508-A2	C	1.7	3.8
R-3508-B	C	1.8	3.8
R-3508-B1	D	1.9	3.8
R-3508-B2	K	1.4	7.5
R-3508-C	C	1.4	3.8
R-3509	K	0.9	2.8
R-3510	C	2.9	4.1
R-3511	C	2.0	2.9
R-3513	A	1.4	4.7
R-3514-F	C	2.6	5.5
R-3514-F2	C	5.1	7.7
R-3517	C	1.8	3.7



Illustrating R-3508-A2

Dimensions in inches

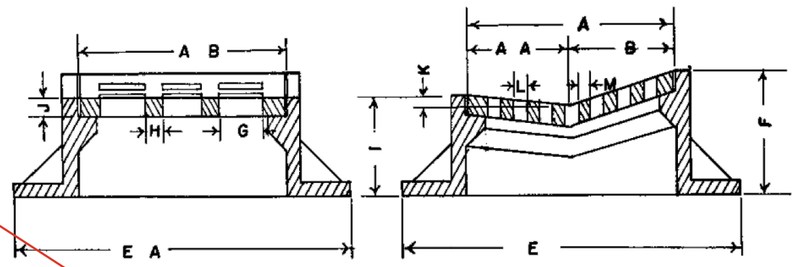
Catalog No.	A	AB	AA	B	E	EA	F	G	H	I	J	K	L	M
R-3506-A2 *	19 1/4	19 1/4	8 1/8	11 1/8	28 1/4	30	12 1/2	6 1/4	3/4	10	1 1/2	1 1/4	1 1/2	7/8
R-3506-B *	19 1/4	19 1/4	8 1/8	11 1/8	28 1/4	30	11	4 3/4	1	10	1 1/2	1 1/2	1 7/8	1
R-3507-C	22	22	11	11	35	35	10	19 3/4	-	10	1 3/4	2	1 1/2	7/8
R-3507-D **	22	22	11	11	30	35	10	19 3/4	-	10	1 3/4	2	1 1/2	7/8
R-3508-A2	22 3/4	22 3/4	11 3/8	11 3/8	35	Dia.	12	6 1/4	3/4	10	1 3/4	2	1 1/2	7/8
R-3508-B	22 3/4	22 3/4	11 3/8	11 3/8	35	Dia.	10	6	1	10	1 3/4	1 3/4	2	1
R-3508-B1	22 3/4	22 3/4	11 3/8	11 3/8	35	Dia.	10	20 3/4	-	10	1 3/4	1 3/4	1 1/2	7/8
R-3508-B2 *	22 1/2	22 1/2	11 1/4	11 1/4	35	Dia.	10	6	1	10	1 3/4	1 3/4	1	7/8
R-3508-C *	22 3/4	22 3/4	11 3/8	11 3/8	38	Dia.	13 1/2	4 1/4	1 3/16	10	2 3/8	1/2	1 3/8	1
R-3509	17	22	8 1/2	8 1/2	25	29	5 1/4	1 1/4	1 1/4	5 1/4	1 3/4	1	6 3/4	1 1/4
R-3510	21 3/4	35 3/4	13 7/8	7 7/8	30	44	9 1/2	10 3/8	1 1/8	6	2	1	1 7/8	1 1/8
R-3511	19	30	8 1/8	10 7/8	27	38	8	8 1/2	1 1/8	7	2	1 3/8	1 7/8	1 1/8
R-3513	24	24	16 1/4	7 3/4	36	35 5/8	7	1 1/4	1	7	1 7/8	2 1/2	4	2 1/4
R-3514-F ***	29 3/8	28 1/8	19 1/8	10 1/4	38 1/4	36 1/4	11 1/2	7 1/2	1	8	2	1 1/2	1 1/2	1
R-3514-F2 +	29 3/8	28 1/8	19 1/8	10 1/4	38 1/4	69 1/2	11 1/2	7 1/2	1	8	2	1 1/2	1 1/2	1
R-3517	22 1/4	22 1/4	11 1/8	11 1/8	36	Dia.	6	6	1	6	2	1/2	2	1

* No base flange at rear.
** No base flange on front.
*** Also available with 44" diameter base flange.
\+ Two piece frame, two piece grate.

R-3506 to R-3517 Series
Inlet Frame and Grate for Driveway and Mountable Curb

Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3506-A2	C	1.4	2.9
R-3506-B	C	1.2	2.9
R-3507-C	D	1.6	3.7
R-3507-D	D	1.6	3.7
R-3508-A2	C	1.7	3.8
R-3508-B	C	1.8	3.8
R-3508-B1	D	1.9	3.8
R-3508-B2	K	1.4	7.5
R-3508-C	C	1.4	3.8
R-3509	K	0.9	2.8
R-3510	C	2.9	4.1
R-3511	C	2.0	2.9
R-3513	A	1.4	4.7
R-3514-F	C	2.6	5.5
R-3514-F2	C	5.1	7.7
R-3517	C	1.8	3.7

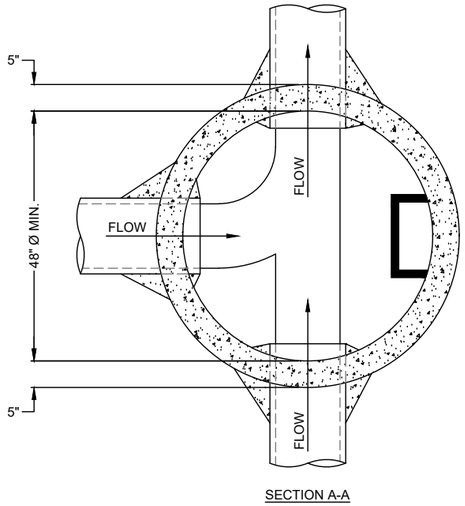


Illustrating R-3508-A2

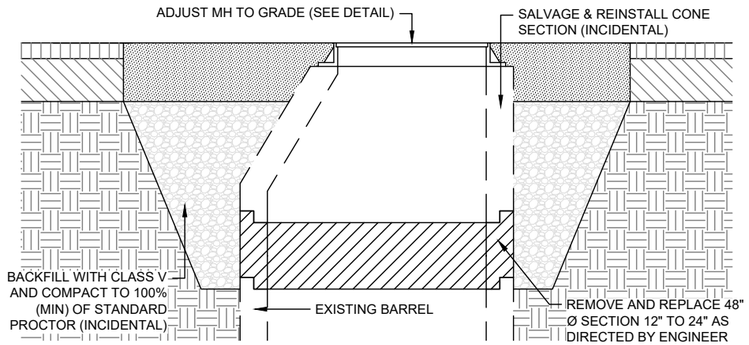
Dimensions in inches

Catalog No.	A	AB	AA	B	E	EA	F	G	H	I	J	K	L	M
R-3506-A2 *	19 1/4	19 1/4	8 1/8	11 1/8	28 1/4	30	12 1/2	6 1/4	3/4	10	1 1/2	1 1/4	1 1/2	7/8
R-3506-B *	19 1/4	19 1/4	8 1/8	11 1/8	28 1/4	30	11	4 3/4	1	10	1 1/2	1 1/2	1 7/8	1
R-3507-C	22	22	11	11	35	35	10	19 3/4	-	10	1 3/4	2	1 1/2	7/8
R-3507-D **	22	22	11	11	30	35	10	19 3/4	-	10	1 3/4	2	1 1/2	7/8
R-3508-A2	22 3/4	22 3/4	11 3/8	11 3/8	35	Dia.	12	6 1/4	3/4	10	1 3/4	2	1 1/2	7/8
R-3508-B	22 3/4	22 3/4	11 3/8	11 3/8	35	Dia.	10	6	1	10	1 3/4	1 3/4	2	1
R-3508-B1	22 3/4	22 3/4	11 3/8	11 3/8	35	Dia.	10	20 3/4	-	10	1 3/4	1 3/4	1 1/2	7/8
R-3508-B2 *	22 1/2	22 1/2	11 1/4	11 1/4	35	Dia.	10	6	1	10	1 3/4	1 3/4	1	7/8
R-3508-C *	22 3/4	22 3/4	11 3/8	11 3/8	38	Dia.	13 1/2	4 1/4	1 3/16	10	2 3/8	1/2	1 3/8	1
R-3509	17	22	8 1/2	8 1/2	25	29	5 1/4	1 1/4	1 1/4	5 1/4	1 3/4	1	6 3/4	1 1/4
R-3510	21 3/4	35 3/4	13 7/8	7 7/8	30	44	9 1/2	10 3/8	1 1/8	6	2	1	1 7/8	1 1/8
R-3511	19	30	8 1/8	10 7/8	27	38	8	8 1/2	1 1/8	7	2	1 3/8	1 7/8	1 1/8
R-3513	24	24	16 1/4	7 3/4	36	35 5/8	7	1 1/4	1	7	1 7/8	2 1/2	4	2 1/4
R-3514-F ***	29 3/8	28 1/8	19 1/8	10 1/4	38 1/4	36 1/4	11 1/2	7 1/2	1	8	2	1 1/2	1 1/2	1
R-3514-F2 +	29 3/8	28 1/8	19 1/8	10 1/4	38 1/4	69 1/2	11 1/2	7 1/2	1	8	2	1 1/2	1 1/2	1
R-3517	22 1/4	22 1/4	11 1/8	11 1/8	36	Dia.	6	6	1	6	2	1/2	2	1

* No base flange at rear.
** No base flange on front.
*** Also available with 44" diameter base flange.
\+ Two piece frame, two piece grate.



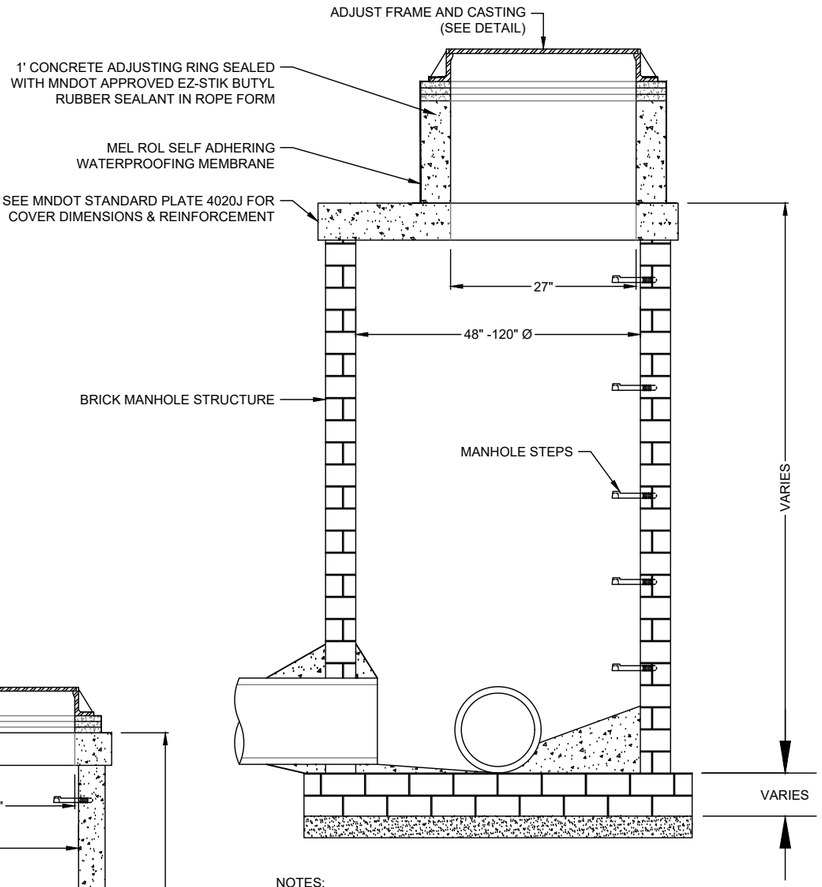
SECTION A-A



RECONSTRUCT DRAINAGE STRUCTURE

NOTE: CASTING SHALL BE SALVAGED & REINSTALLED UNLESS DIRECTED OTHERWISE BY THE ENGINEER

NOT TO SCALE



NOTES:
1. REMOVE TOP CONIC SECTION OF BRICK STRUCTURE UNTIL OPENING IS SUFFICIENT FOR PLACEMENT OF COVER
2. THE COVER SHALL BE DESIGNED FOR AASHTO HS 25 HIGHWAY LOADING

BRICK MANHOLE RECONSTRUCT DETAIL

NOT TO SCALE

NOTES:
1. REINFORCEMENT NOT SHOWN
2. 48" DIAMETER MANHOLE REQUIRES A 27"-48" ECCENTRIC CONE SECTION
3. THE COVER SHALL BE DESIGNED FOR AASHTO HS 20 HIGHWAY LOADING
4. CHANNEL TO BE FORMED AS REQUIRED BY GENERAL SEWER PLANS AND SPECIFICATIONS. CONCRETE SHALL BE MNDOT 3G52

STANDARD PRECAST 48-4005 STORM SEWER MANHOLE DETAIL

NOT TO SCALE

NOTES:
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2. THE COVER SHALL BE DESIGNED FOR AASHTO HS 25 HIGHWAY LOADING
3. CHANNEL TO BE FORMED AS REQUIRED BY GENERAL SEWER PLANS AND SPECIFICATIONS. CONCRETE SHALL BE Mn/DOT 3G52

STANDARD PRECAST 4020 STORM SEWER MANHOLE DETAIL

NOT TO SCALE

--	EMH	A2-01-2025	25-A2-01
SAP. No.	DRAWN BY	LEGAL No.	ENG. No.
	MJA		JAS
	CHECKED BY		APPROVED BY

MOORHEAD MINNESOTA Engineering

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JAMES A. SCHULZ — Name - Project Engineer

03/07/2025 — Date

26225 — License No.

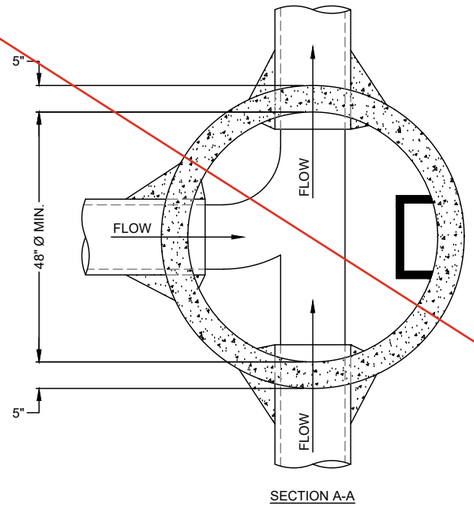
Signature - Project Engineer

STORM

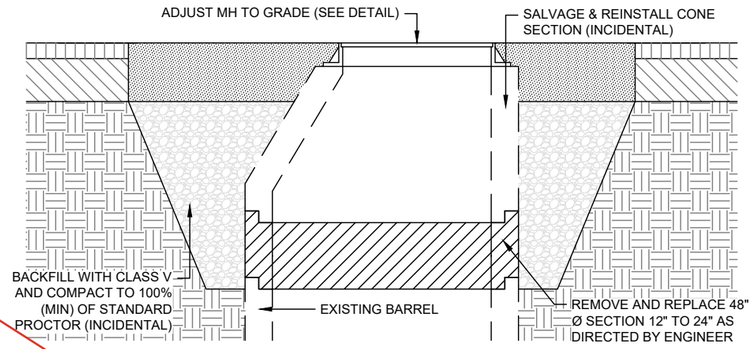
9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 19 OF 45



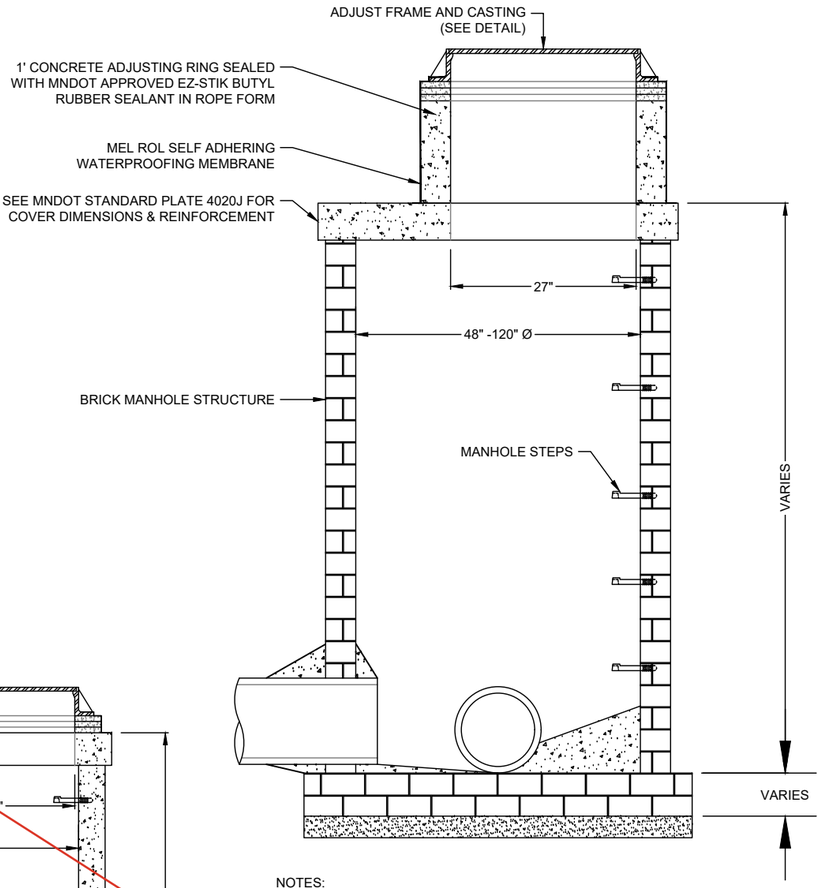
SECTION A-A



RECONSTRUCT DRAINAGE STRUCTURE

NOTE: CASTING SHALL BE SALVAGED & REINSTALLED UNLESS DIRECTED OTHERWISE BY THE ENGINEER

NOT TO SCALE



NOTES:
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2. THE COVER SHALL BE DESIGNED FOR AASHTO HS 25 HIGHWAY LOADING

BRICK MANHOLE RECONSTRUCT DETAIL

NOT TO SCALE

NOTES:
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2. 48" DIAMETER MANHOLE REQUIRES A 27"-48" ECCENTRIC CONE SECTION
3. THE COVER SHALL BE DESIGNED FOR AASHTO HS 20 HIGHWAY LOADING
4. CHANNEL TO BE FORMED AS REQUIRED BY GENERAL SEWER PLANS AND SPECIFICATIONS. CONCRETE SHALL BE MNDOT 3G52

STANDARD PRECAST 48-4005 STORM SEWER MANHOLE DETAIL

NOT TO SCALE

NOTES:
1. REINFORCEMENT NOT SHOWN
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3. CHANNEL TO BE FORMED AS REQUIRED BY GENERAL SEWER PLANS AND SPECIFICATIONS. CONCRETE SHALL BE Mn/DOT 3G52

STANDARD PRECAST 4020 STORM SEWER MANHOLE DETAIL

NOT TO SCALE

--	A2-01-2025	25-A2-01
SAP. No.	LEGAL No.	ENG. No.
EMH	MJA	JAS
DRAWN BY	CHECKED BY	APPROVED BY

MOORHEAD MINNESOTA Engineering

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--/--/----
Date

JAMES A. SCHULZ
Name - Project Engineer

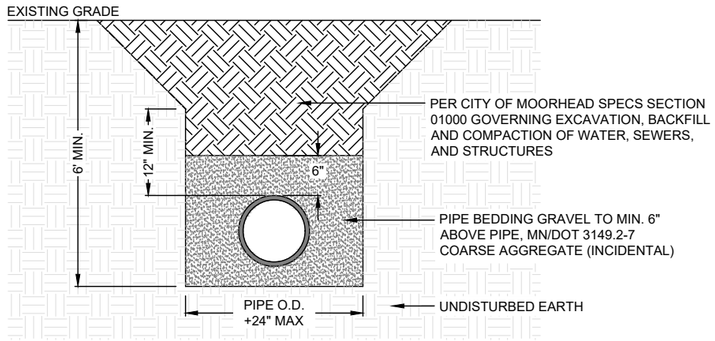
26225
License No.

STORM

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

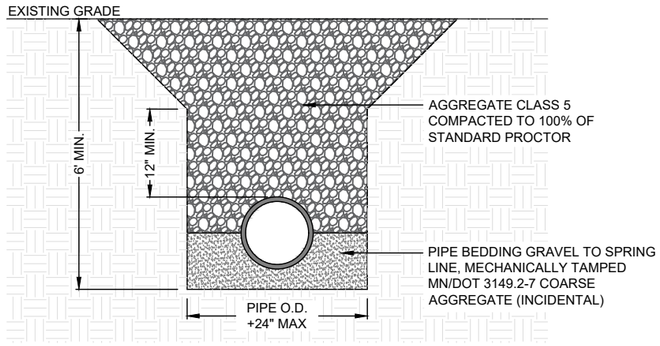
SHEET 19 OF 45

G:\ENGR\PROJ\2025\25-A2-01 - 9th, 10th Ave, 16th St. South\AutoCAD\Drawings\25-A2-01_DETAILS - 3/7/2025 8:59 AM



PVC OR HDPE TRENCH BACKFILL DETAIL

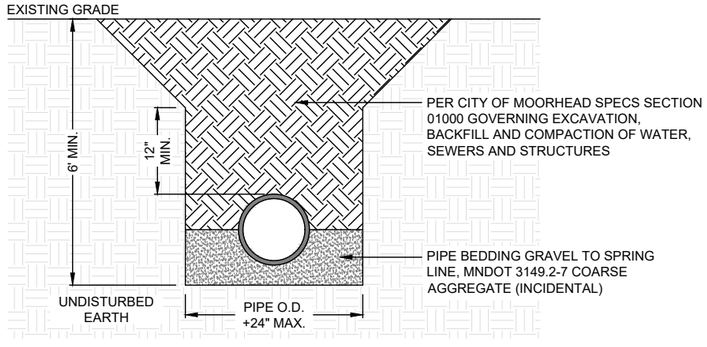
NOT TO SCALE



SHALLOW TRENCH BACKFILL DETAIL

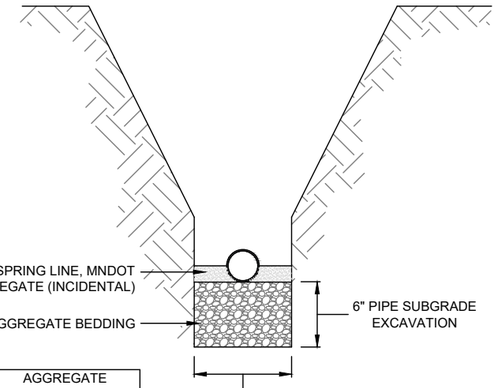
NOT TO SCALE

NOTE:
SHALLOW TRENCH BACKFILL DETAIL TO BE USED WHERE ANY PIPE EXCAVATION OCCURS WITHIN 6' OF THE ROAD CORRIDOR, MNDOT 2105.3E



RCP TRENCH BACKFILL DETAIL

NOT TO SCALE



PIPE	AGGREGATE BEDDING (CV)
6"-12" DIAM.	0.22 C.Y./L.F.
15"-18" DIAM.	0.26 C.Y./L.F.
21"-24" DIAM.	0.30 C.Y./L.F.
27"-30" DIAM.	0.33 C.Y./L.F.
33"-36" DIAM.	0.37 C.Y./L.F.

UNSUITABLE SOILS PIPE BEDDING DETAIL

NOT TO SCALE

EMH	MJA	JAS	--
DRAWN BY	CHECKED BY	APPROVED BY	SAP. No.
			A2-01-2025
			LEGAL No.
			25-A2-01
			ENG. No.

MOORHEAD MINNESOTA Engineering

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Signature - Project Engineer 03/07/2025 *Date*

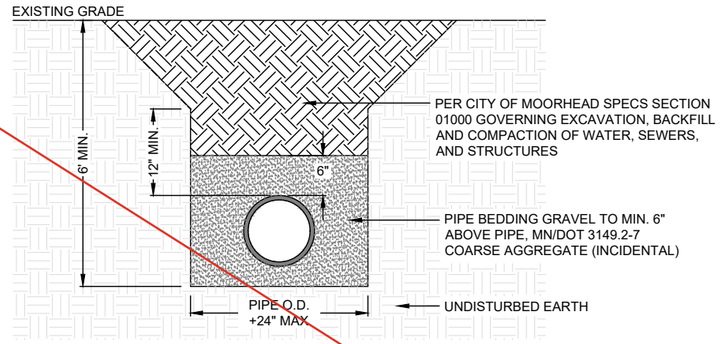
JAMES A. SCHULZ *Name - Project Engineer* 26225 *License No.*

STORM

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

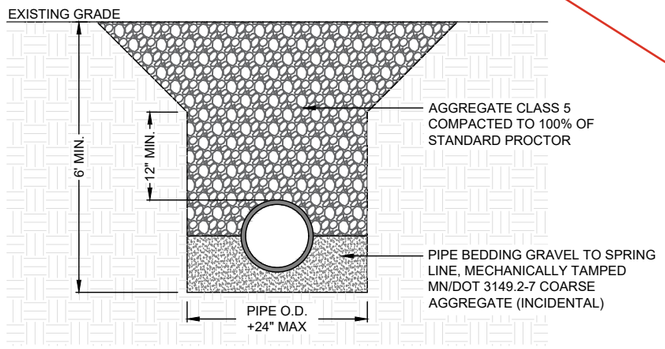
SHEET 20 OF 45

G:\ENGR\PROJ\2025\25-A2-01 - 9th, 10th Ave, 16th St. South\AutoCAD\Drawings\25-A2-01_DETAILS - 3/17/2025 8:58 AM



PVC OR HDPE TRENCH BACKFILL DETAIL

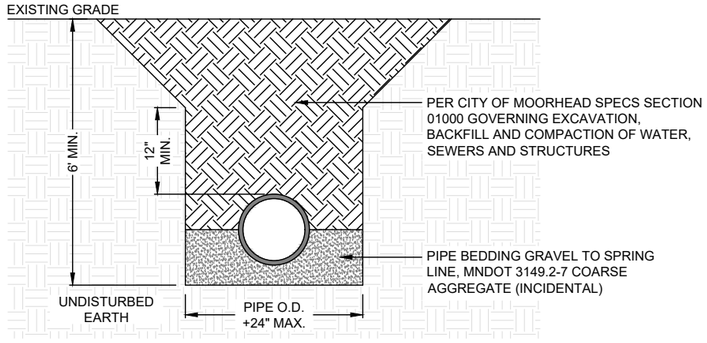
NOT TO SCALE



SHALLOW TRENCH BACKFILL DETAIL

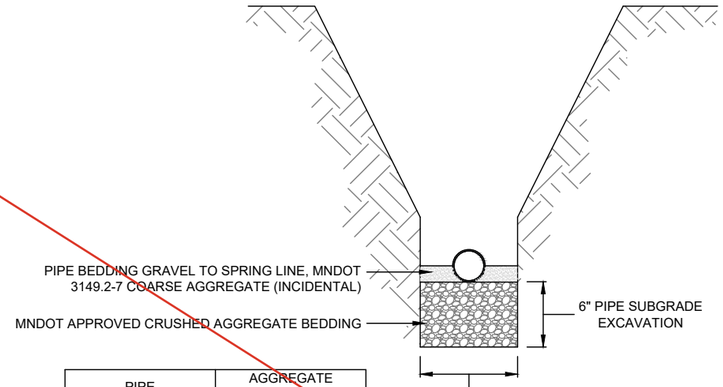
NOT TO SCALE

NOTE:
SHALLOW TRENCH BACKFILL DETAIL TO BE USED WHERE ANY PIPE EXCAVATION OCCURS WITHIN 6' OF THE ROAD CORRIDOR, MNDOT 2105.3E



RCP TRENCH BACKFILL DETAIL

NOT TO SCALE



PIPE	AGGREGATE BEDDING (CY)
6"-12" DIAM.	0.22 C.Y./L.F.
15"-18" DIAM.	0.26 C.Y./L.F.
21"-24" DIAM.	0.30 C.Y./L.F.
27"-30" DIAM.	0.33 C.Y./L.F.
33"-36" DIAM.	0.37 C.Y./L.F.

UNSUITABLE SOILS PIPE BEDDING DETAIL

NOT TO SCALE

EMH	--
DRAWN BY	SAP. No.
MJA	A2-01-2025
CHECKED BY	LEGAL No.
JAS	25-A2-01
APPROVED BY	ENG. No.

MOORHEAD MINNESOTA Engineering

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Signature - Project Engineer — *Date* --/--/----

JAMES A. SCHULZ — 26225

Name - Project Engineer — *License No.*

STORM

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 20 OF 45

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NOTES:
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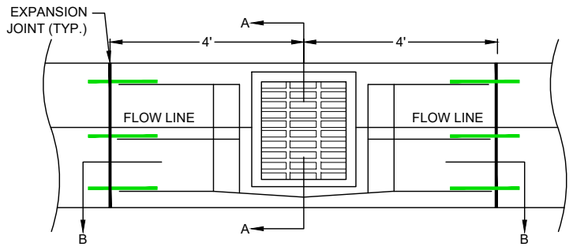
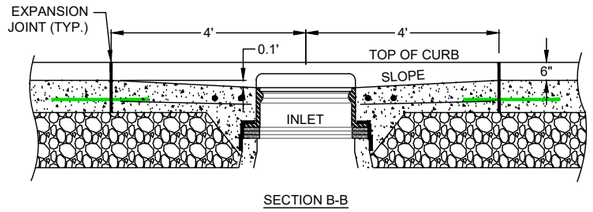
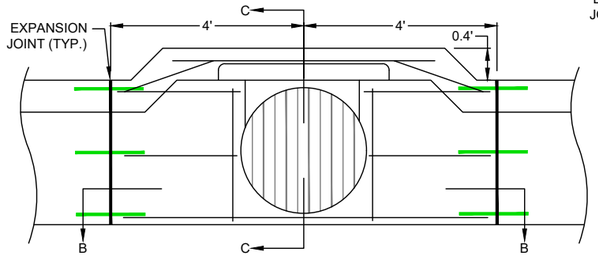
5. ALL REINFORCEMENT AROUND CATCH BASINS SHALL BE EPOXY COATED
6. WHERE EPOXY COATED REBAR IS REQUIRED IT SHALL HAVE NO VISIBLE DINGS, SCRATCHES, OR OTHER EXPOSED METAL
7. ALL REBAR, SUPPORTING CHAIRS, AND FRAMEWORK SHALL BE INCIDENTAL TO CONSTRUCTION



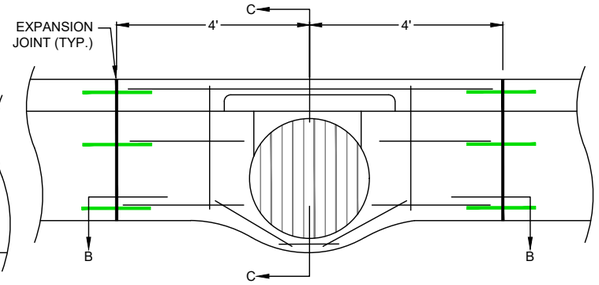
PLAN VIEW TYPE "C"



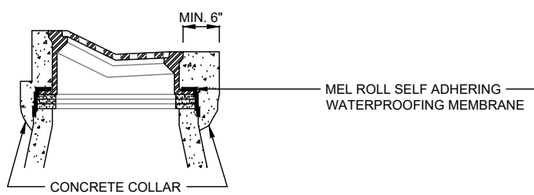
SECTION B-B



PLAN VIEW B-624

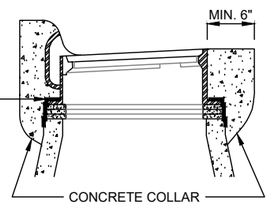


PLAN VIEW B-624



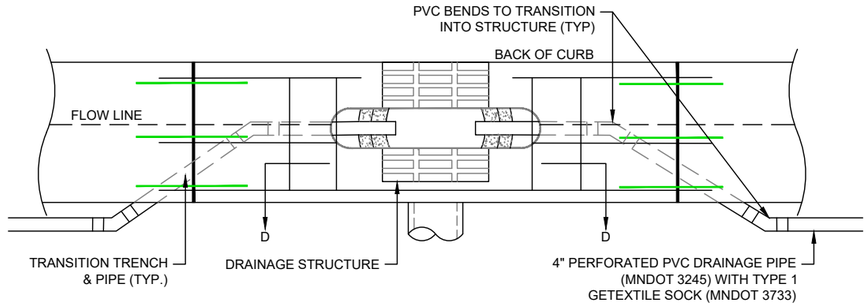
SECTION A-A

TYPE "C" MOUNTABLE CURB & GUTTER CONSTRUCTION AT CATCH BASIN
NOT TO SCALE

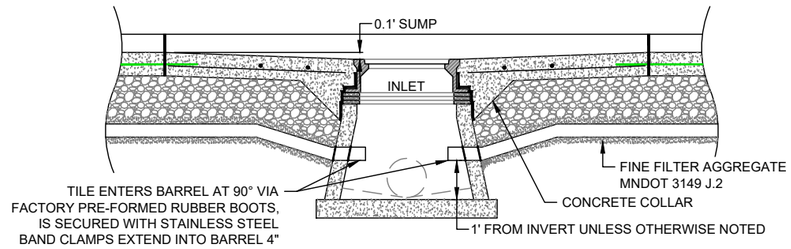


SECTION C-C

B-624 CURB & GUTTER CONSTRUCTION AT CATCH BASIN
NOT TO SCALE

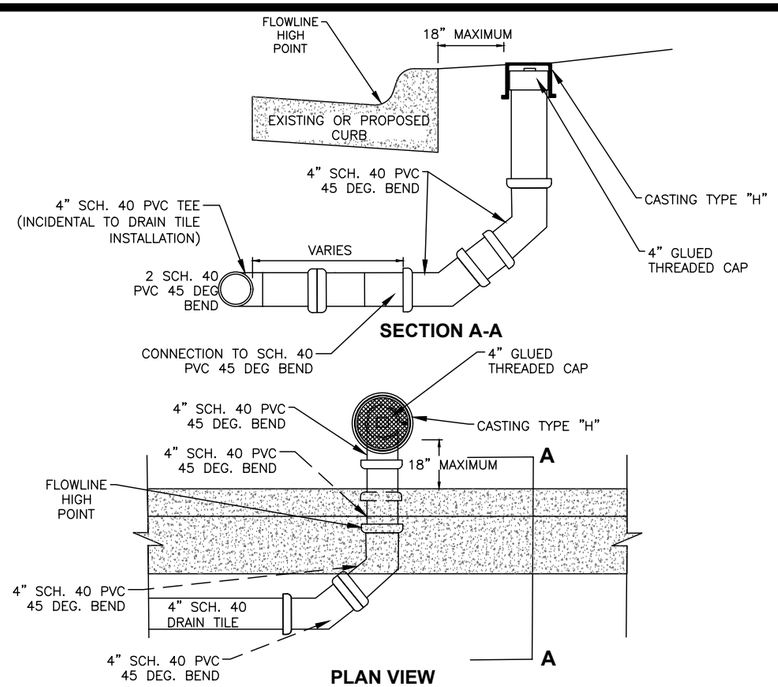


PLAN VIEW



SECTION D-D

REHAB CONSTRUCTION EDGE DRAIN CONNECTION TO INLETS
NOTE: DRAIN TILE CONNECTION AT INLET CAN BE SUBSTITUTED WITH ONE "T" CONNECTION AT THE FRONT OF THE STRUCTURE
NOT TO SCALE



DRAIN TILE CLEANOUT CONNECTION BEHIND CURB
NEW CONSTRUCTION AREAS
NOT TO SCALE

SAP. No.	LEGAL No.	ENG. No.
--	A2-01-2025	25-A2-01

DRAWN BY	CHECKED BY	APPROVED BY
EMH	MJA	JAS

MOORHEAD MINNESOTA Engineering

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03/07/2025 Date

26225 License No.

JAMES A. SCHULZ
Name - Project Engineer

STRUCT INLET

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 21 OF 45

G:\ENGR\PROJ\2025\25-A2-01 - 9th, 10th Ave, 16th St. South\AutoCAD\Drawings\25-A2-01_DETAILS - 3/17/2025 8:58 AM

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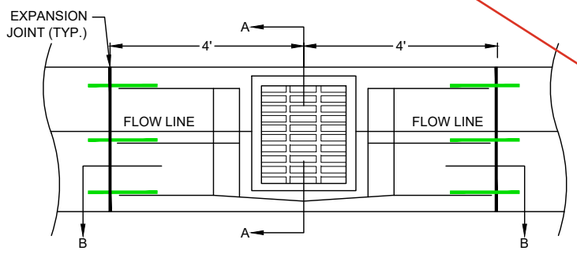
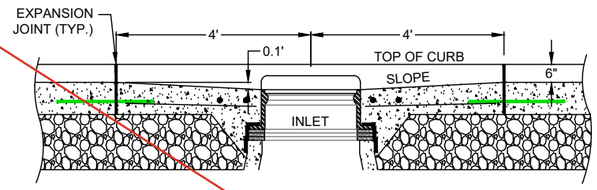
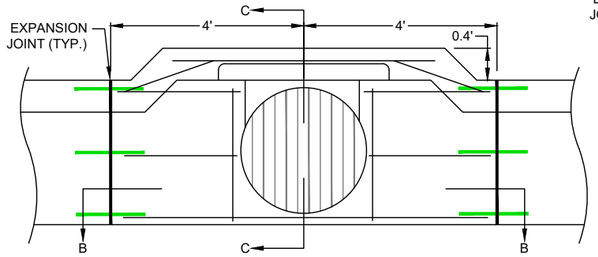


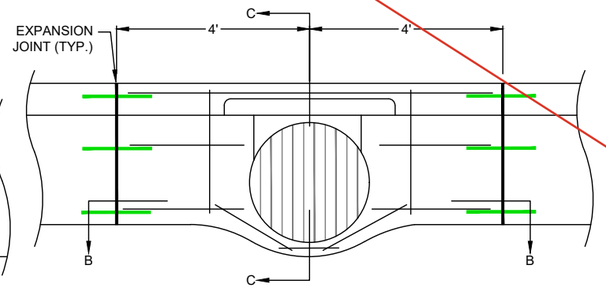
PLAN VIEW TYPE "C"



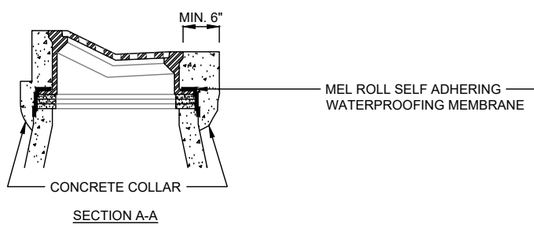
SECTION B-B



PLAN VIEW B-624

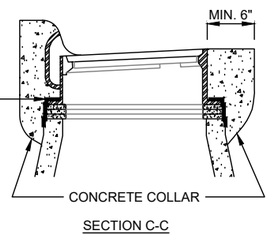


PLAN VIEW B-624



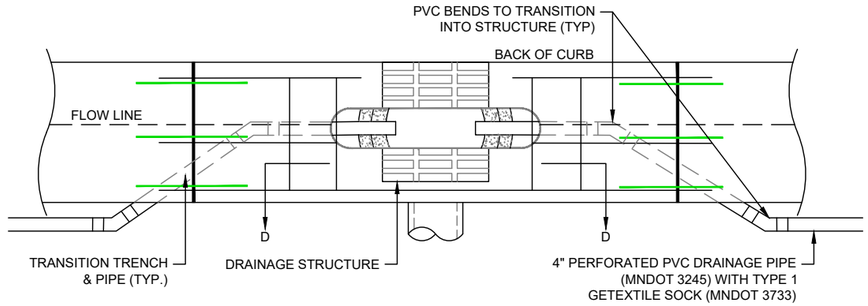
SECTION A-A

TYPE "C" MOUNTABLE CURB & GUTTER CONSTRUCTION AT CATCH BASIN
NOT TO SCALE

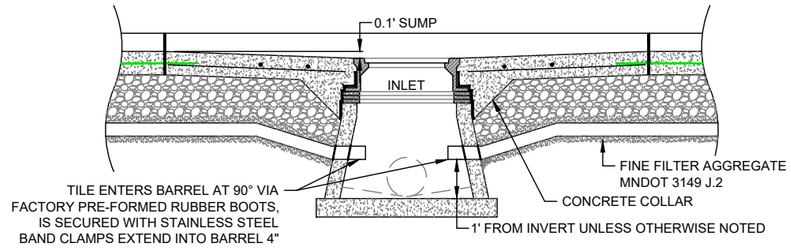


SECTION C-C

B-624 CURB & GUTTER CONSTRUCTION AT CATCH BASIN
NOT TO SCALE

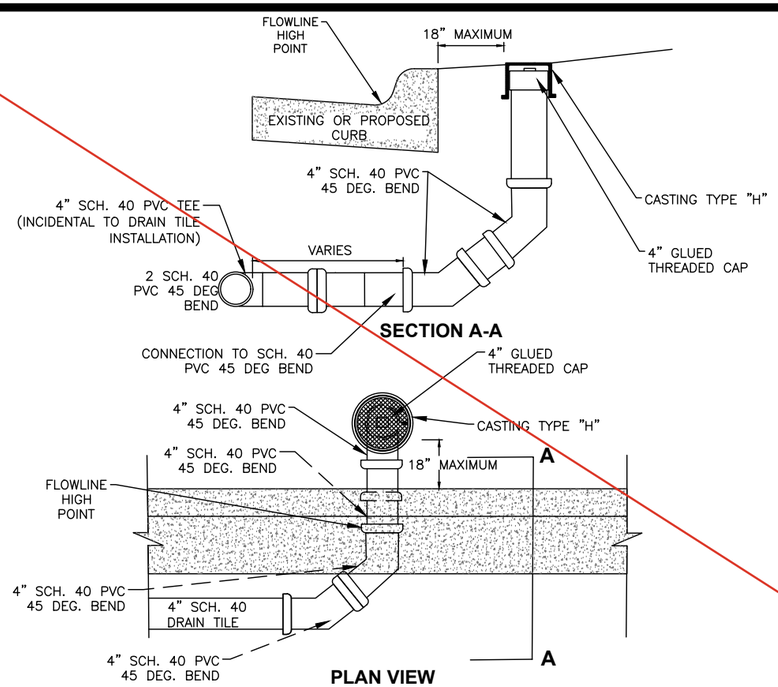


PLAN VIEW



SECTION D-D

REHAB CONSTRUCTION EDGE DRAIN CONNECTION TO INLETS
NOTE: DRAIN TILE CONNECTION AT INLET CAN BE SUBSTITUTED WITH ONE "T" CONNECTION AT THE FRONT OF THE STRUCTURE
NOT TO SCALE



DRAIN TILE CLEANOUT CONNECTION BEHIND CURB
NEW CONSTRUCTION AREAS
NOT TO SCALE

SAP No.	LEGAL No.	ENG. No.
--	A2-01-2025	25-A2-01

DRAWN BY	CHECKED BY	APPROVED BY
EMH	MJA	JAS

MOORHEAD MINNESOTA Engineering

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--/--/---- Date

26225 License No.

JAMES A. SCHULZ
Name - Project Engineer

STRUCT INLET

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 21 OF 45

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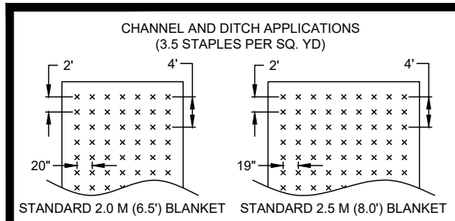
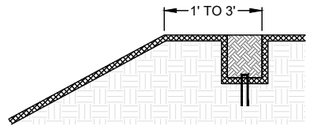


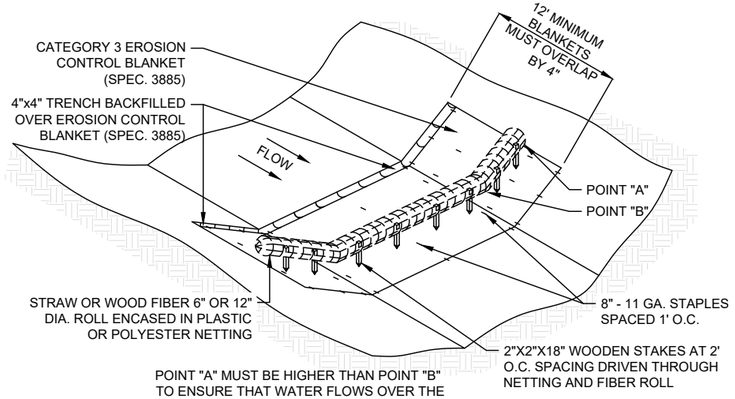
EROSION CONTROL BLANKET INSTALLATION STANDARDS

NOT TO SCALE



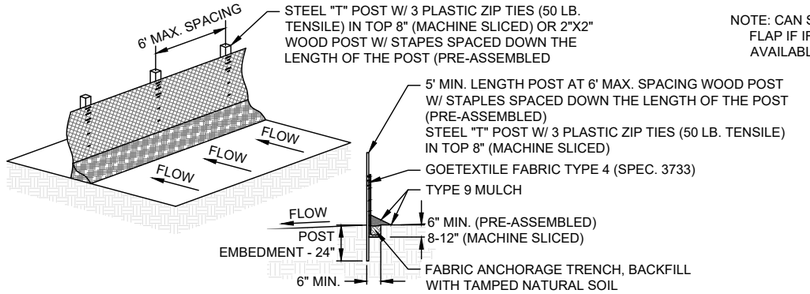
CHECK SLOT

1. DIG 6"x6" TRENCH
2. LAY BLANKET END INTO TRENCH
3. STAPLE BLANKET IN BOTTOM OF TRENCH EVERY 1.5'
4. BACKFILL TRENCH WITH SOIL AND COMPACT



BIOROLL BLANKET SYSTEM

TYPE 3 SPEC. 3889 NOT TO SCALE

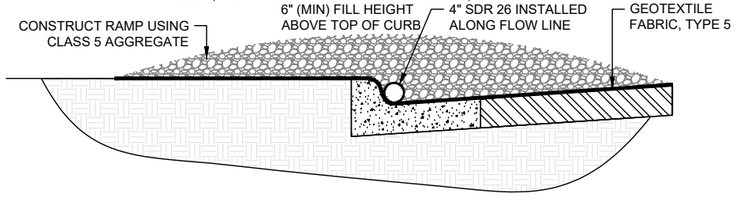


SILT FENCE

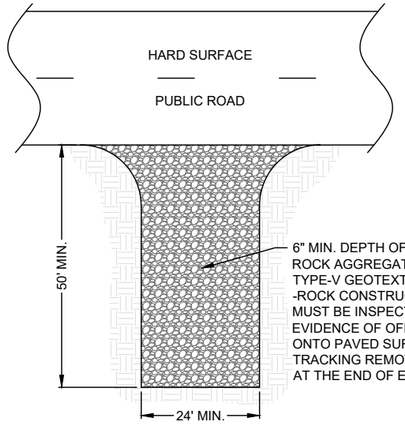
NOT TO SCALE

NOTES:

1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY
4. INSTALLATION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH Mn/DOT 3886 FOR THE TYPE OF SILT FENCE INSTALLED (PRE-ASSEMBLED OR MACHINE SLICED)

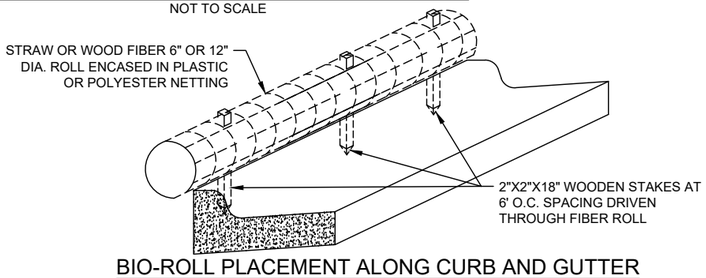


TEMPORARY CONSTRUCTION RAMP OVER CURB & GUTTER:



TEMPORARY ROCK CONSTRUCTION ENTRANCE

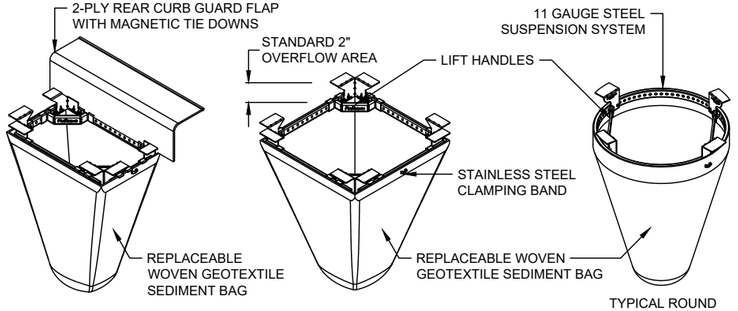
NOT TO SCALE



BIO-ROLL PLACEMENT ALONG CURB AND GUTTER

NOT TO SCALE

NOTE: CAN SLIDE 2 x 4 THROUGH FLAP IF IRON CURB BACK IS NOT AVAILABLE FOR MAGNETS.



TYPICAL CURB BOX INLET FILTER (TYPE C WITH CURB BOX)

TYPICAL FLAT/RECTANGULAR/ROLLED CURB INLET FILTER (TYPES A, B, C, & D)

MATERIALS:

1. FRAMING - 11 GAUGE STEEL; CORROSION RESISTANT
2. SEDIMENT BAG - WOVEN GEOTEXTILE (TYPE FF OR APPROVED EQUAL); 2 C.F. TYPICAL VOLUME; STAINLESS STEEL LOCKING BAND SECURING BAG TO FRAME

INSTALLATION

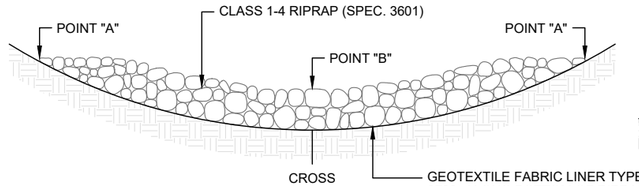
1. REMOVE GRATE FROM DRAINAGE STRUCTURE
2. CLEAN SOIL AND DEBRIS FROM LEDGE (LIP) OF DRAINAGE STRUCTURE
3. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
4. REPLACE GRATE AND CONFIRM IT IS NOT ELEVATED MORE THAN ⅛", THE THICKNESS OF THE STEEL HANGARS

TYPE "C" INLET PROTECTION

(SILT FENCE TO PROTECT DROP INLETS)

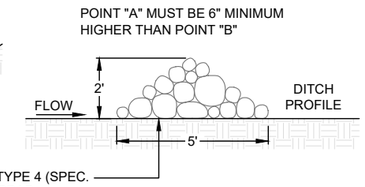
USE WHERE INLET DRAINS AN AREA WITH SLOPES AT 1:3 or LESS

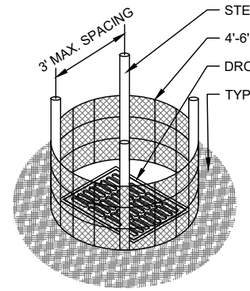
TYPE A SPEC. 3891 NOT TO SCALE

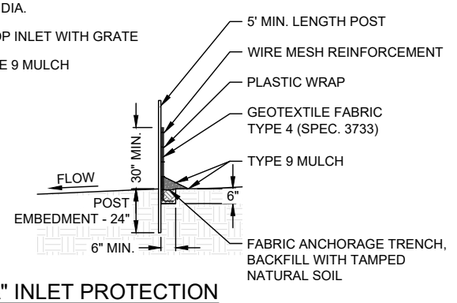


ROCK CHECK

TYPE 7 SPEC. 3889 NOT TO SCALE





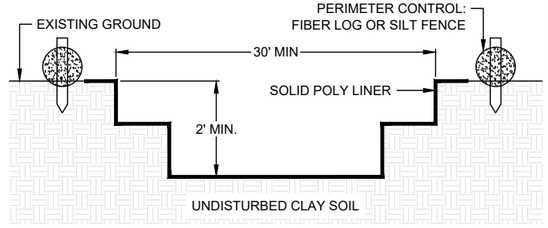


TYPE "A" INLET PROTECTION

(SILT FENCE TO PROTECT DROP INLETS)

USE WHERE INLET DRAINS AN AREA WITH SLOPES AT 1:3 or LESS

TYPE A SPEC. 3891 NOT TO SCALE

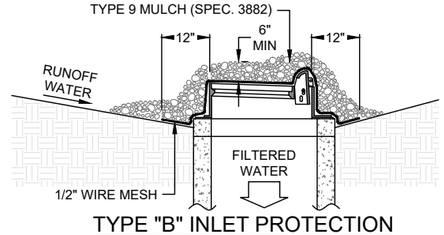


NOTES:

1. WASHOUT SHALL BE 15' BY 30'
2. PERIMETER CONTROL SHALL BE INSTALLED ON THREE SIDES NOT ABUTTING DUMP ENTRANCE
3. ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK PROOF CONTAINMENT FACILITY OR CLAY SOIL PIT WITH POLY LINER (AS SHOWN). INSTALLATION, MAINTENANCE, AND REMOVAL OF CONCRETE WASHOUT SHALL BE INCIDENTAL TO CONSTRICTION

TYPICAL CONCRETE WASHOUT

NOT TO SCALE



TYPE "B" INLET PROTECTION

NOT TO SCALE

SAP No.	--
LEGAL No.	A2-01-2025
ENG. No.	25-A2-01
DRAWN BY	EMH
CHECKED BY	MJA
APPROVED BY	JAS

MOORHEAD MINNESOTA Engineering

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

JAMES A. SCHULZ
Name - Project Engineer

Signature - Project Engineer

03/07/2025
Date

26225
License No.

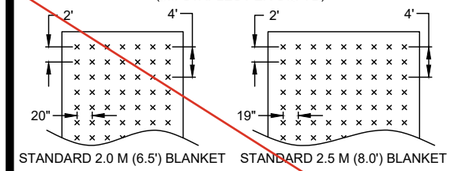
EROSION CONTROL

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 22 OF 45

G:\ENGR\PROJ\2025\25-A2-01 - 9th, 10th Ave, 16th St. South\AutoCAD\Drawings\25-A2-01_DETAILS - 3/17/2025 8:58 AM

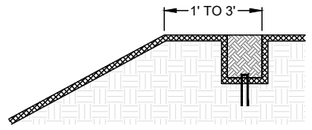
CHANNEL AND DITCH APPLICATIONS
(3.5 STAPLES PER SQ. YD)



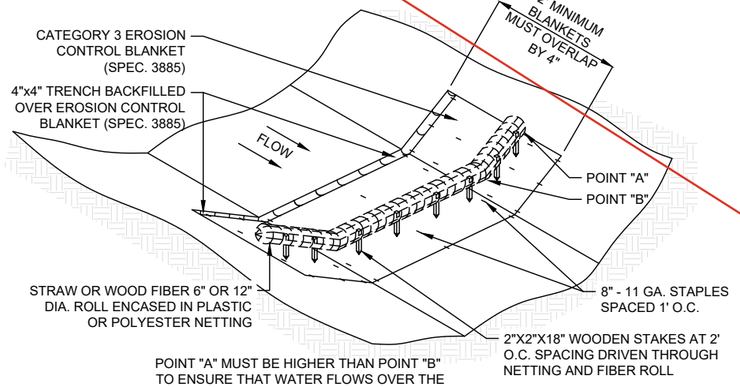
STANDARD 2.0 M (6.5') BLANKET STANDARD 2.5 M (8.0') BLANKET

EROSION CONTROL BLANKET INSTALLATION STANDARDS

NOT TO SCALE



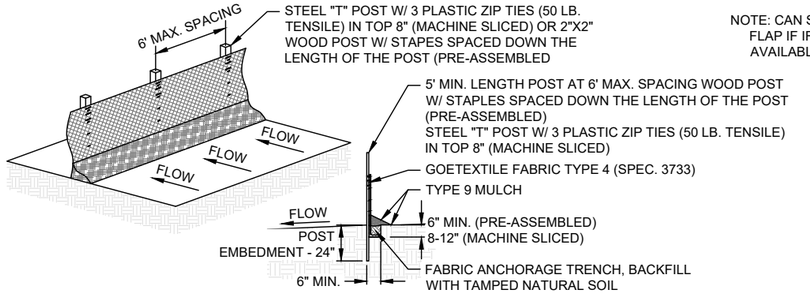
CHECK SLOT
1. DIG 6"x6" TRENCH
2. LAY BLANKET END INTO TRENCH
3. STAPLE BLANKET IN BOTTOM OF TRENCH EVERY 1.5'
4. BACKFILL TRENCH WITH SOIL AND COMPACT



POINT "A" MUST BE HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS

BIOROLL BLANKET SYSTEM

TYPE 3 SPEC. 3889 NOT TO SCALE



SILT FENCE

NOT TO SCALE

NOTES:
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2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED
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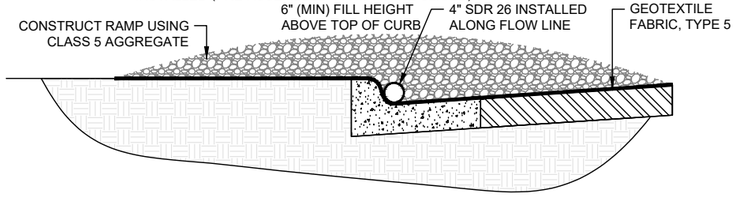
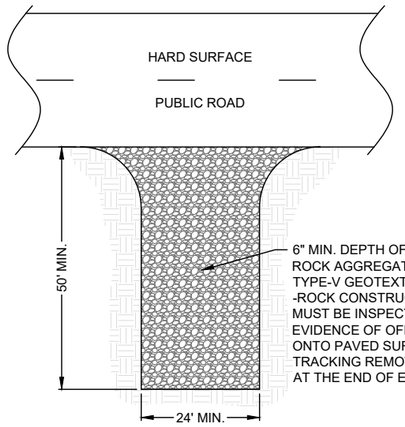
4. INSTALLATION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH Mn/DOT 3886 FOR THE TYPE OF SILT FENCE INSTALLED (PRE-ASSEMBLED OR MACHINE SLICED)

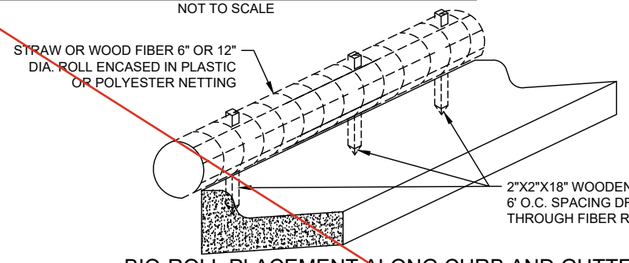


TEMPORARY CONSTRUCTION RAMP OVER CURB & GUTTER:



TEMPORARY ROCK CONSTRUCTION ENTRANCE

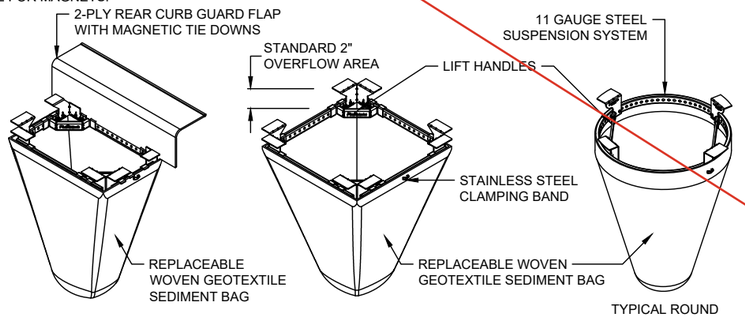
NOT TO SCALE



BIO-ROLL PLACEMENT ALONG CURB AND GUTTER

NOT TO SCALE

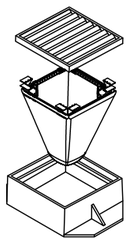
NOTE: CAN SLIDE 2 x 4 THROUGH FLAP IF IRON CURB BACK IS NOT AVAILABLE FOR MAGNETS.



TYPICAL CURB BOX INLET FILTER (TYPE C WITH CURB BOX)

TYPICAL FLAT/RECTANGULAR/ROLLED CURB INLET FILTER (TYPES A, B, C, & D)

TYPICAL ROUND INLET FILTER



MATERIALS:
1. FRAMING - 11 GAUGE STEEL; CORROSION RESISTANT
2. SEDIMENT BAG - WOVEN GEOTEXTILE (TYPE FF OR APPROVED EQUAL); 2 C.F. TYPICAL VOLUME; STAINLESS STEEL LOCKING BAND SECURING BAG TO FRAME

INSTALLATION
1. REMOVE GRATE FROM DRAINAGE STRUCTURE
2. CLEAN SOIL AND DEBRIS FROM LEDGE (LIP) OF DRAINAGE STRUCTURE
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4. REPLACE GRATE AND CONFIRM IT IS NOT ELEVATED MORE THAN ⅛", THE THICKNESS OF THE STEEL HANGARS

TYPE "C" INLET PROTECTION

(SILT FENCE TO PROTECT DROP INLETS)
USE WHERE INLET DRAINS AN AREA WITH SLOPES AT 1:3 or LESS
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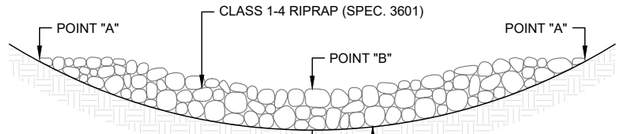
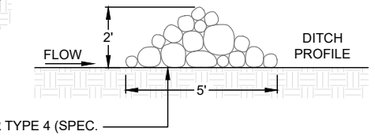
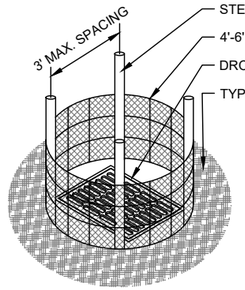


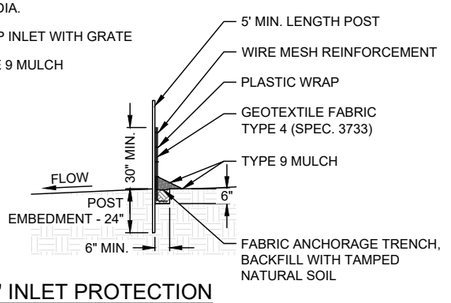
ROCK CHECK

TYPE 7 SPEC. 3889 NOT TO SCALE

POINT "A" MUST BE 6" MINIMUM HIGHER THAN POINT "B"

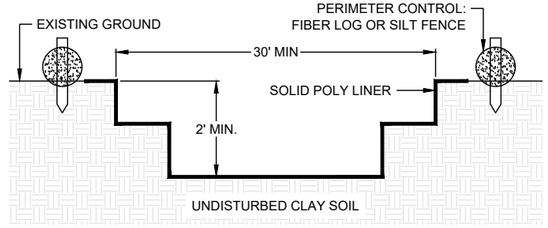






TYPE "A" INLET PROTECTION

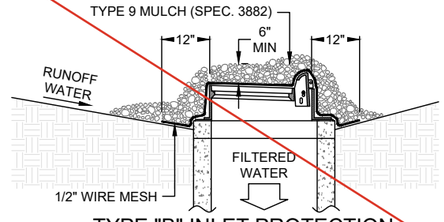
(SILT FENCE TO PROTECT DROP INLETS)
USE WHERE INLET DRAINS AN AREA WITH SLOPES AT 1:3 or LESS
TYPE A SPEC. 3891 NOT TO SCALE



NOTES:
1. WASHOUT SHALL BE 15' BY 30'
2. PERIMETER CONTROL SHALL BE INSTALLED ON THREE SIDES NOT ABUTTING DUMP ENTRANCE
3. ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK PROOF CONTAINMENT FACILITY OR CLAY SOIL PIT WITH POLY LINER (AS SHOWN). INSTALLATION, MAINTENANCE, AND REMOVAL OF CONCRETE WASHOUT SHALL BE INCIDENTAL TO CONSTRICTION

TYPICAL CONCRETE WASHOUT

NOT TO SCALE



TYPE "B" INLET PROTECTION

NOT TO SCALE

--	A2-01-2025	25-A2-01
SAP. No.	LEGAL No.	ENG. No.
EMH	MJA	JAS
DRAWN BY	CHECKED BY	APPROVED BY

MOORHEAD MINNESOTA Engineering

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

--/--/----
Date

26225
License No.

JAMES A. SCHULZ
Name - Project Engineer

Signature - Project Engineer

EROSION CONTROL

9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 22 OF 45

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PROJECT 25-A2-02 STORM STRUCTURES

PROJECT ID	CITY NAME	LOCATION	RIM ELEV.	INV-1	INV-2	INV-3	INV-4	INV-5	INV-6	INV-7	EX. STRUCTURE TYPE	EX. STRUCTURE SIZE	EX. CASTING SIZE	EX. CASTING TYPE	CASTINGS AND ADJUSTMENTS		HEIGHT OF ADJUSTMENT	EX. RING TYPE	STRUCTURE ACTION
															CASTING ACTION	ADJUSTMENT TYPE			
MHST-1	RCS32	12th Ave S & 16th ST S	906.83	N-898.23	S-898.23	E-901.53	W-901.63	NW-900.13			PRECAST	60"	24"	PRECAST	F & I CASTING - TYPE "A"	TYPE "A"	1.2	4-HDPE	NO ACTION
CB1		13th Ave S & 16th ST S	906.50	W-902.50							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1	2-CONCRETE	NO ACTION
CB2		14th Ave S & 16th ST S	906.62	E-902.82	W-902.92						PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "B"	0.9	1-CONCRETE	NO ACTION
MHST-2	RCS33	10th Ave S & 16th ST S	906.05	N-899.35	S-899.15	NE-900.65	NW-900.45	SE-900.25	SW-900.85		PRECAST	48"	24"	PRECAST	F & I CASTING - TYPE "A"	TYPE "A"	1.4	4-HDPE	NO ACTION
CB3		11th Ave S & 16th ST S	905.62	SW-901.62							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.1	2-HDPE	NO ACTION
CB4		12th Ave S & 16th ST S	906.12	NE-902.72							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "B"	0.9	0-CONCRETE	NO ACTION
CB5		13th Ave S & 16th ST S	905.85	SE-902.65							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "B"	0.9	0-CONCRETE	NO ACTION
CB6		14th Ave S & 16th ST S	905.70	NW-901.9							BRICK	24"	24"	BRICK	F & I CASTING - TYPE "D"	TYPE "B"	0.9	0-CONCRETE	BRICK RECONSTRUCT
MHST-3	RAS114	9th Ave S & 14th ST S	907.59	S-903.09	W-903.39	NE-903.19	NW-903.39	SE-403.49			PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "A"	TYPE "A"	1.6	3-HDPE	NO ACTION
CB7		10th Ave S & 14th ST S	907.24	NW-902.74							PRECAST	36"	27"	PRECAST	SALVAGE & INSTALL - TYPE "D"	TYPE "A"	1.3	2-HDPE	NO ACTION
MHST-4	RCS34	9th Ave S & 16th ST S	905.31	S-900.11	NE-900.21	NW-900.31	SE-900.21	SW-900.11			PRECAST	48"	24"	PRECAST	F & I CASTING - TYPE "A"	TYPE "A"	1.8	6-CONCRETE	NO ACTION
CB8		10th Ave S & 16th ST S	904.37	SW-900.27							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.3	2-CONCRETE	VERIFY
CB9		11th Ave S & 16th ST S	904.50	NW-900.30							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "B"	0.9	1-CONCRETE	NO ACTION
CB10		12th Ave S & 16th ST S	904.66	NE-900.56							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.2	2-CONCRETE	NO ACTION
CB11		13th Ave S & 16th ST S	905.03	SE-900.93							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.7	4-CONCRETE	NO ACTION
MHST-5	LS5.3	9th Ave S & 17th ST S	905.18	N-889.18	S-889.08	E-889.38	NE-889.18	NW-889.18	SE-889.18	SW-889.18	PRECAST	60+"	24"	PRECAST	F & I CASTING - TYPE "A"	TYPE "A"	1.3	2-CONCRETE	NO ACTION
CB12		10th Ave S & 17th ST S	904.25	SW-900.25							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.2	2-CONCRETE	F&I CB
CB13		11th Ave S & 17th ST S	904.76	NW-900.96							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	0.9	1-CONCRETE	NO ACTION
CB14		12th Ave S & 17th ST S	904.68	N-901.08							PRECAST		24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.2	2-CONCRETE	NO ACTION
CB15		13th Ave S & 17th ST S	904.40	S-900.40	SE-900.20						PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.2	2-CONCRETE	NO ACTION
MHST-6	RAS127	10th Ave S & 14th ST S	907.62	N-901.92	W-901.92	NE-902.32	NW-902.12	SE-902.22	SW-902.22		PRECAST	48"	24"	PRECAST	F & I CASTING - TYPE "A"	TYPE "B"	0.8	1-HDPE	NO ACTION
CB16		11th Ave S & 14th ST S	907.34	SW-903.24							PRECAST	36"	27"	PRECAST	SALVAGE & INSTALL	TYPE "A"	1.2	2-HDPE	NO ACTION
CB17		12th Ave S & 14th ST S	903.81	N-899.71							PRECAST	36"	27"	PRECAST	SALVAGE & INSTALL	TYPE "A"	1	1-HDPE	NO ACTION

--	A2-01-2025	25-A2-01
SAP. No.	LEGAL No.	ENG. No.
EMH	MJA	JAS
DRAWN BY	CHECKED BY	APPROVED BY

MOORHEAD MINNESOTA Engineering

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

03/07/2025
Date

26225
License No.

Signature - Project Engineer

JAMES A. SCHULZ
Name - Project Engineer

SANITARY SEWER STRUCTURE TABLE

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 23 OF 45

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PROJECT 25-A2-02 STORM STRUCTURES

PROJECT ID	CITY NAME	LOCATION	RIM ELEV.	INV-1	INV-2	INV-3	INV-4	INV-5	INV-6	INV-7	EX. STRUCTURE TYPE	EX. STRUCTURE SIZE	EX. CASTING SIZE	EX. CASTING TYPE	CASTINGS AND ADJUSTMENTS		HEIGHT OF ADJUSTMENT	EX. RING TYPE	STRUCTURE ACTION
															CASTING ACTION	ADJUSTMENT TYPE			
MHST-1	RCS32	12th Ave S & 16th ST S	906.83	N-898.23	S-898.23	E-901.53	W-901.63	NW-900.13			PRECAST	60"	24"	PRECAST	F & I CASTING - TYPE "A"	TYPE "A"	1.2	4-HDPE	NO ACTION
CB1		13th Ave S & 16th ST S	906.50	W-902.50							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1	2-CONCRETE	NO ACTION
CB2		14th Ave S & 16th ST S	906.62	E-902.82	W-902.92						PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "B"	0.9	1-CONCRETE	NO ACTION
MHST-2	RCS33	10th Ave S & 16th ST S	906.05	N-899.35	S-899.15	NE-900.65	NW-900.45	SE-900.25	SW-900.85		PRECAST	48"	24"	PRECAST	F & I CASTING - TYPE "A"	TYPE "A"	1.4	4-HDPE	NO ACTION
CB3		11th Ave S & 16th ST S	905.62	SW-901.62							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.1	2-HDPE	NO ACTION
CB4		12th Ave S & 16th ST S	906.12	NE-902.72							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "B"	0.9	0-CONCRETE	NO ACTION
CB5		13th Ave S & 16th ST S	905.85	SE-902.65							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "B"	0.9	0-CONCRETE	NO ACTION
CB6		14th Ave S & 16th ST S	905.70	NW-901.9							BRICK	24"	24"	BRICK	F & I CASTING - TYPE "D"	TYPE "B"	0.9	0-CONCRETE	BRICK RECONSTRUCT
MHST-3	RAS114	9th Ave S & 14th ST S	907.59	S-903.09	W-903.39	NE-903.19	NW-903.39	SE-403.49			PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "A"	TYPE "A"	1.6	3-HDPE	NO ACTION
CB7		10th Ave S & 14th ST S	907.24	NW-902.74							PRECAST	36"	27"	PRECAST	SALVAGE & INSTALL - TYPE "D"	TYPE "A"	1.3	2-HDPE	NO ACTION
MHST-4	RCS34	9th Ave S & 16th ST S	905.31	S-900.11	NE-900.21	NW-900.31	SE-900.21	SW-900.11			PRECAST	48"	24"	PRECAST	F & I CASTING - TYPE "A"	TYPE "A"	1.8	6-CONCRETE	NO ACTION
CB8		10th Ave S & 16th ST S	904.37	SW-900.27							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.3	2-CONCRETE	VERIFY
CB9		11th Ave S & 16th ST S	904.50	NW-900.30							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "B"	0.9	1-CONCRETE	NO ACTION
CB10		12th Ave S & 16th ST S	904.66	NE-900.56							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.2	2-CONCRETE	NO ACTION
CB11		13th Ave S & 16th ST S	905.03	SE-900.93							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.7	4-CONCRETE	NO ACTION
MHST-5	LS5.3	9th Ave S & 17th ST S	905.18	N-889.18	S-889.08	E-889.38	NE-889.18	NW-889.18	SE-889.18	SW-889.18	PRECAST	60+"	24"	PRECAST	F & I CASTING - TYPE "A"	TYPE "A"	1.3	2-CONCRETE	NO ACTION
CB12		10th Ave S & 17th ST S	904.25	SW-900.25							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.2	2-CONCRETE	F&I CB
CB13		11th Ave S & 17th ST S	904.76	NW-900.96							PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	0.9	1-CONCRETE	NO ACTION
CB14		12th Ave S & 17th ST S	904.68	N-901.08							PRECAST		24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.2	2-CONCRETE	NO ACTION
CB15		13th Ave S & 17th ST S	904.40	S-900.40	SE-900.20						PRECAST	36"	24"	PRECAST	F & I CASTING - TYPE "D"	TYPE "A"	1.2	2-CONCRETE	NO ACTION
MHST-6	RAS127	10th Ave S & 14th ST S	907.62	N-901.92	W-901.92	NE-902.32	NW-902.12	SE-902.22	SW-902.22		PRECAST	48"	24"	PRECAST	F & I CASTING - TYPE "A"	TYPE "B"	0.8	1-HDPE	NO ACTION
CB16		11th Ave S & 14th ST S	907.34	SW-903.24							PRECAST	36"	27"	PRECAST	SALVAGE & INSTALL	TYPE "A"	1.2	2-HDPE	NO ACTION
CB17		12th Ave S & 14th ST S	903.81	N-899.71							PRECAST	36"	27"	PRECAST	SALVAGE & INSTALL	TYPE "A"	1	1-HDPE	NO ACTION

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EMH	MJA	JAS	
DRAWN BY	CHECKED BY	APPROVED BY	

MOORHEAD MINNESOTA Engineering

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Signature - Project Engineer

--/--/----
Date

JAMES A. SCHULZ
Name - Project Engineer

26225
License No.

SANITARY SEWER STRUCTURE TABLE

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 23 OF 45

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PROJECT 25-A2-02 SANITARY STRUCTURES

PROJECT ID	CITY NAME	LOCATION	RIM ELEV.	INV-1	INV-2	INV-3	INV-4	EX. STRUCTURE TYPE	EX. STRUCTURE SIZE	EX. CASTING SIZE	EX. CASTING TYPE	CASTINGS AND ADJUSTMENTS		HEIGHT OF ADJUSTMENT	EX. RING TYPE	STRUCTURE ACTION
												CASTING ACTION	ADJUSTMENT TYPE			
MHSS-1	5.20	12th Ave S & 16th ST S	907.81	N-900.41	E-900.61	S-900.51		PRECAST	48"	24"	SS MANHOLE	F & I CASTING - TYPE "A"	TYPE "A"	1.30	3-CONCRETE	NO ACTION
MHSS-2	5.19	12th Ave S & 16th ST S	906.81	N-899.11	E-899.31	S-899.31		PRECAST	48"	24"	SS MANHOLE	F & I CASTING - TYPE "A"	TYPE "A"	1.70	4-CONCRETE	NO ACTION
MHSS-3	5.18	10th Ave S & 16th ST S	906.35	N-897.85	S-898.05			PRECAST	48"	24"	SS MANHOLE	F & I CASTING - TYPE "A"	TYPE "A"	1.50	3-CONCRETE	NO ACTION
MHSS-4	5.14	9th Ave S & 14th ST S	906.65	N-891.45	E-890.85	W-890.65		PRECAST	60"	24"	SS MANHOLE	F & I CASTING - TYPE "A"	TYPE "A"	1.00	1-CONCRETE	NO ACTION
MHSS-5	5.16	9th Ave S & 16th ST S	905.41	E-891.71	S-891.81	W-891.81		PRECAST	60"	24"	SS MANHOLE	F & I CASTING - TYPE "A"	TYPE "A"	1.90	5-CONCRETE	NO ACTION
MHSS-6	5.23	9th Ave S & 17th ST S	905.66	N-893.66	E-892.76	S-893.66	W-892.46	PRECAST	48"	24"	SS MANHOLE	F & I CASTING - TYPE "A"	TYPE "A"	1.60	3-CONCRETE/1-HDPE	NO ACTION

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STORM SEWER STRUCTURE TABLES

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

PROJECT 25-A2-02 SANITARY STRUCTURES

PROJECT ID	CITY NAME	LOCATION	RIM ELEV.	INV-1	INV-2	INV-3	INV-4	EX. STRUCTURE TYPE	EX. STRUCTURE SIZE	EX. CASTING SIZE	EX. CASTING TYPE	CASTINGS AND ADJUSTMENTS		HEIGHT OF ADJUSTMENT	EX. RING TYPE	STRUCTURE ACTION
												CASTING ACTION	ADJUSTMENT TYPE			
MHSS-1	5.20	12th Ave S & 16th ST S	907.81	N-900.41	E-900.61	S-900.51		PRECAST	48"	24"	SS MANHOLE	F & I CASTING - TYPE "A"	TYPE "A"	1.30	3-CONCRETE	NO ACTION
MHSS-2	5.19	12th Ave S & 16th ST S	906.81	N-899.11	E-899.31	S-899.31		PRECAST	48"	24"	SS MANHOLE	F & I CASTING - TYPE "A"	TYPE "A"	1.70	4-CONCRETE	NO ACTION
MHSS-3	5.18	10th Ave S & 16th ST S	906.35	N-897.85	S-898.05			PRECAST	48"	24"	SS MANHOLE	F & I CASTING - TYPE "A"	TYPE "A"	1.50	3-CONCRETE	NO ACTION
MHSS-4	5.14	9th Ave S & 14th ST S	906.65	N-891.45	E-890.85	W-890.65		PRECAST	60"	24"	SS MANHOLE	F & I CASTING - TYPE "A"	TYPE "A"	1.00	1-CONCRETE	NO ACTION
MHSS-5	5.16	9th Ave S & 16th ST S	905.41	E-891.71	S-891.81	W-891.81		PRECAST	60"	24"	SS MANHOLE	F & I CASTING - TYPE "A"	TYPE "A"	1.90	5-CONCRETE	NO ACTION
MHSS-6	5.23	9th Ave S & 17th ST S	905.66	N-893.66	E-892.76	S-893.66	W-892.46	PRECAST	48"	24"	SS MANHOLE	F & I CASTING - TYPE "A"	TYPE "A"	1.60	3-CONCRETE/1-HDPE	NO ACTION

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9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

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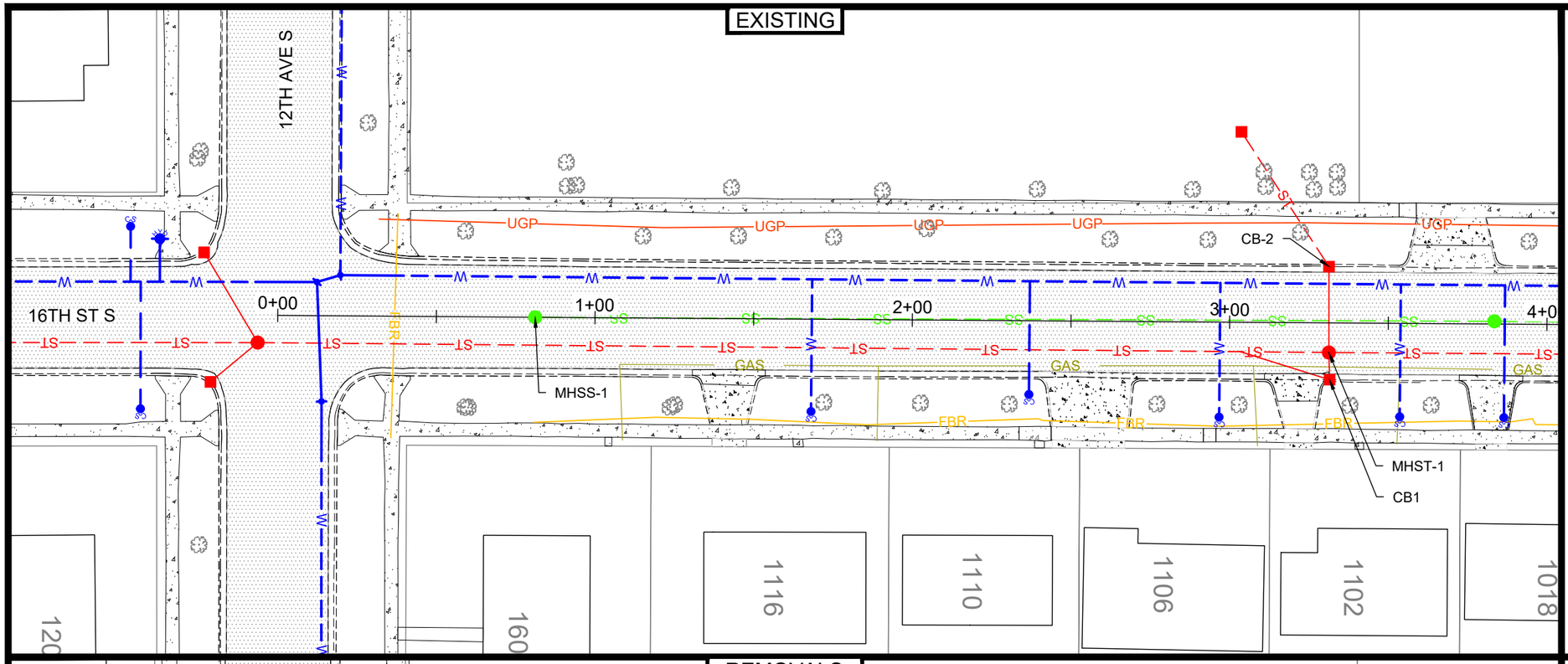

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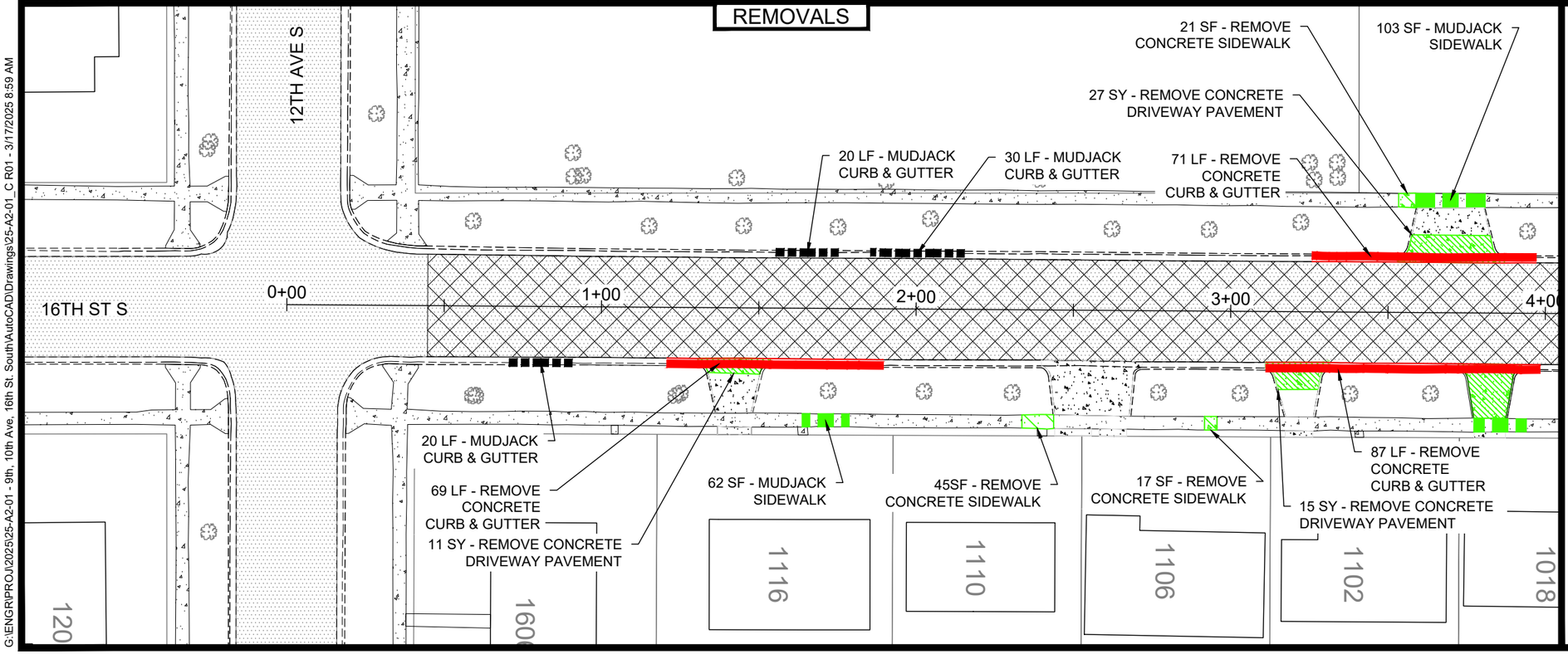
EXT. CONC. SIDEWALK

REMOVALS



REMOVE BITUMINOUS PAVEMENT

REMOVE CONC. SIDEWALK

REMOVE CURB & GUTTER

MUDJACK CURB & GUTTER

MUDJACK SIDEWALK

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EXISTING CONDITIONS & REMOVALS - 16TH STREET SOUTH

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 25 OF 45

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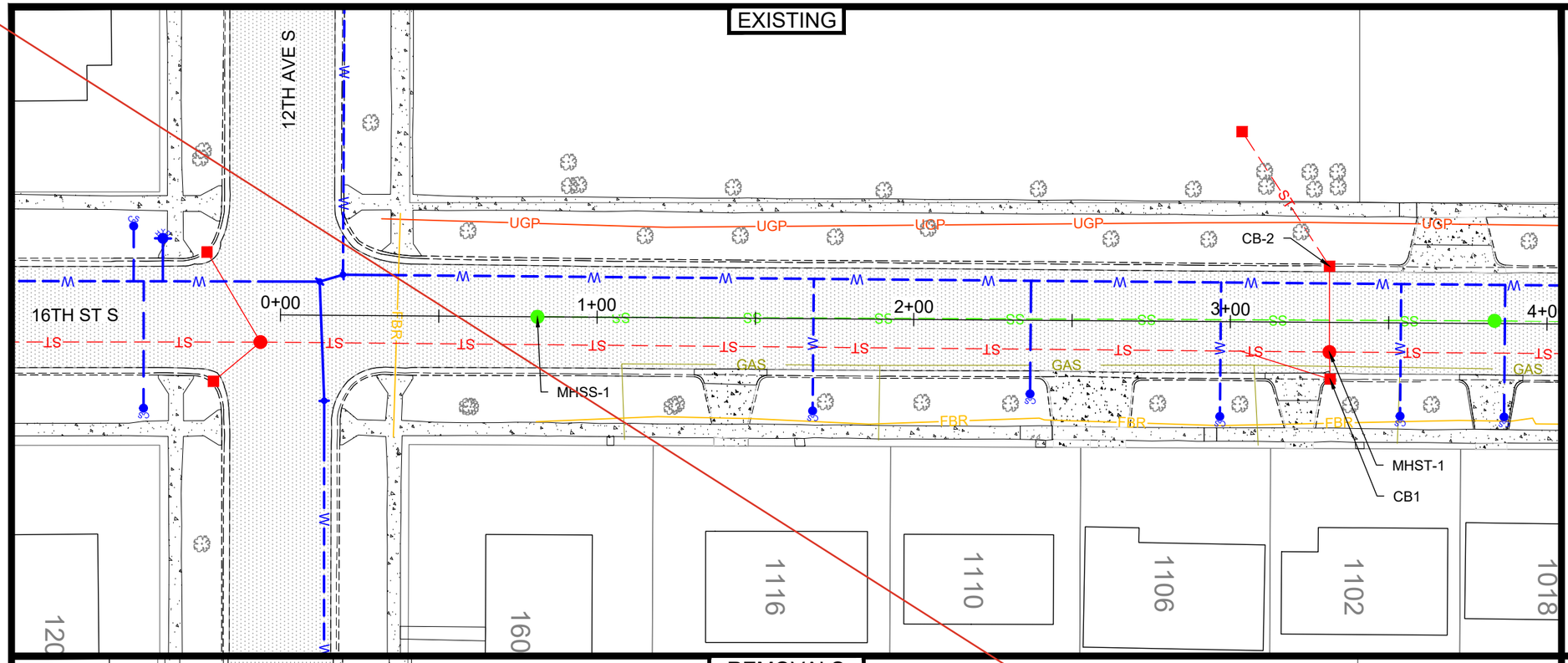
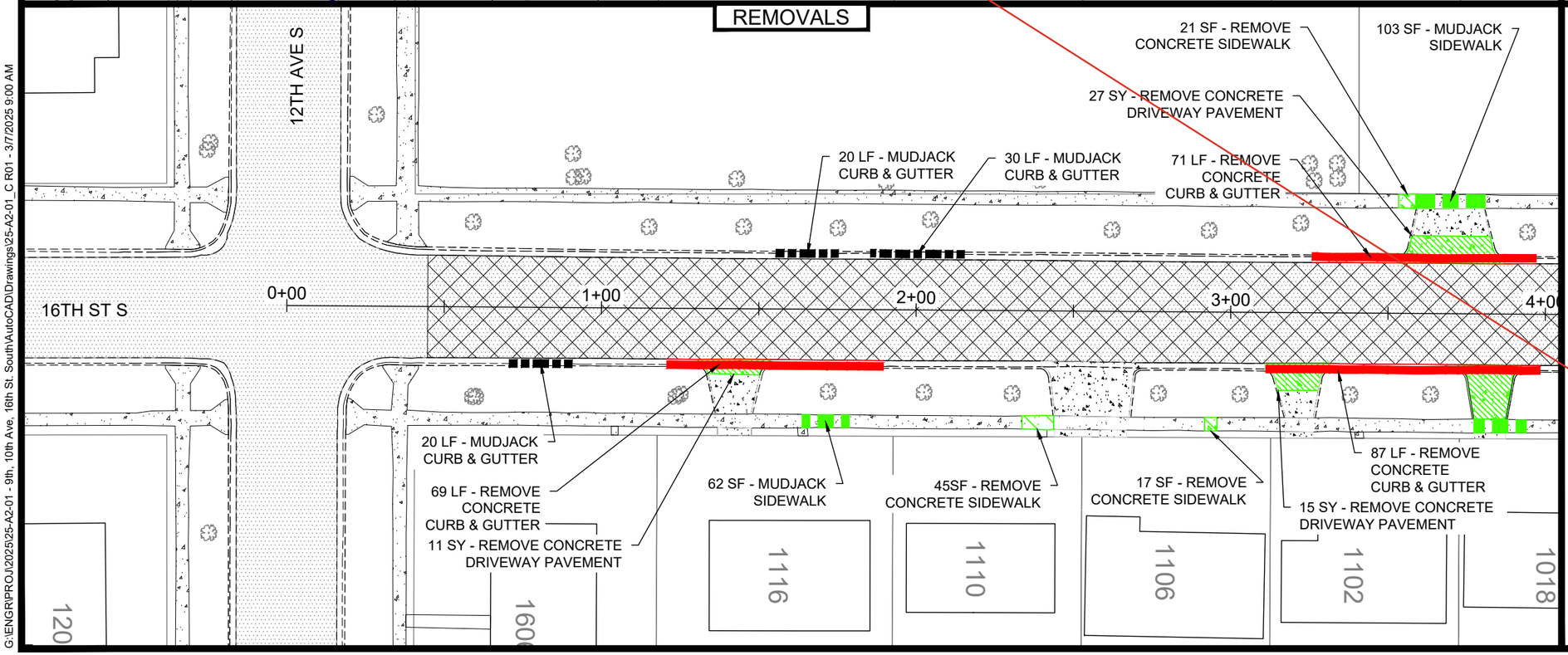


EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK

REMOVALS



REMOVE BITUMINOUS PAVEMENT

REMOVE CONC. SIDEWALK

REMOVE CURB & GUTTER

MUDJACK CURB & GUTTER

MUDJACK SIDEWALK

W S N E

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EXISTING CONDITIONS & REMOVALS - 16TH STREET SOUTH

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 25 OF 45

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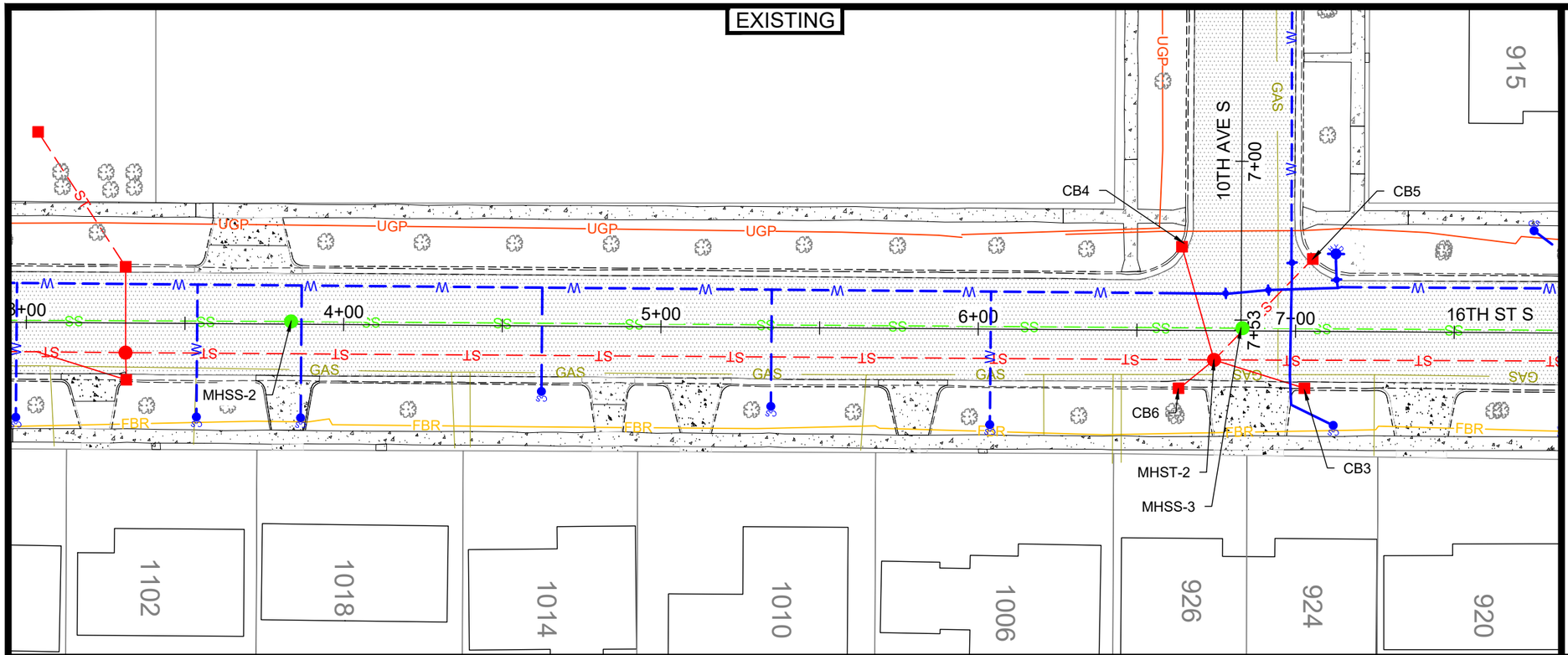
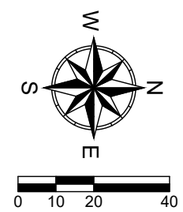


EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK



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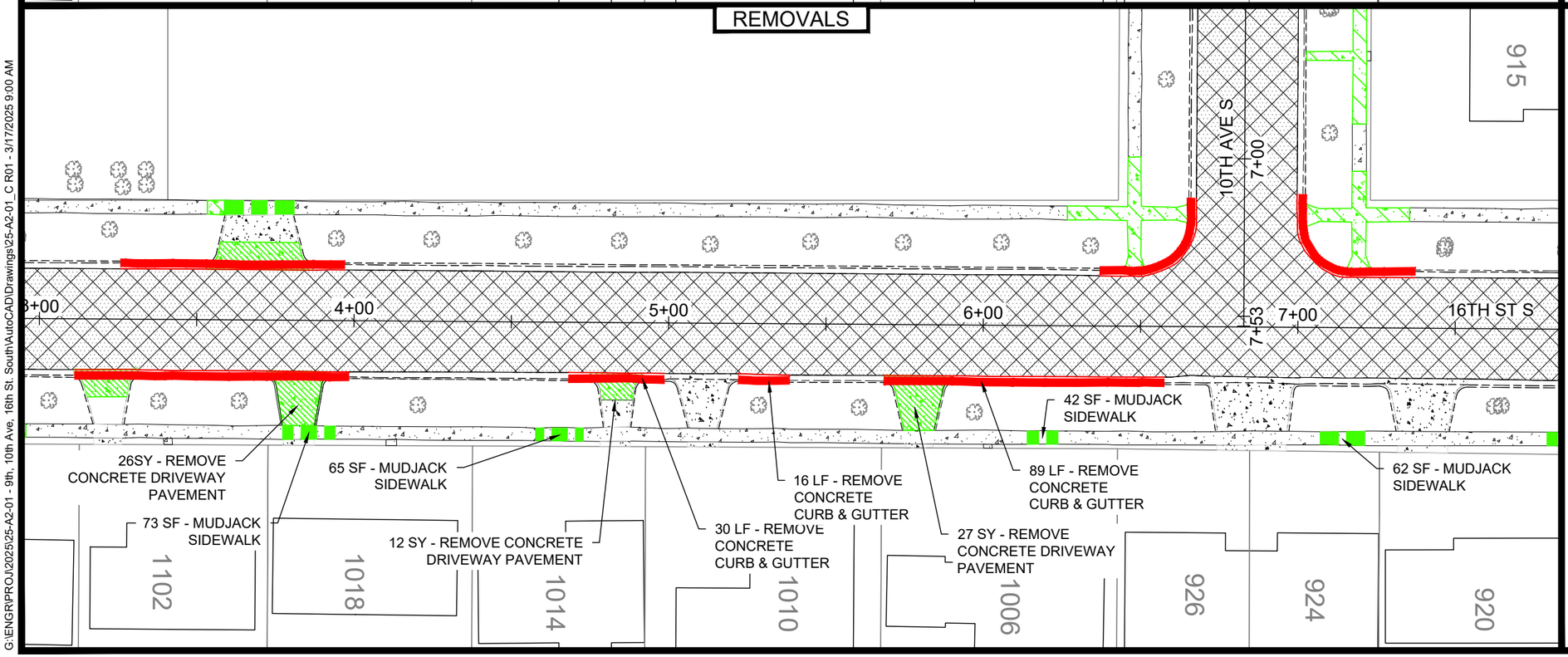


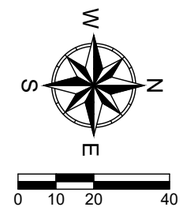
REMOVE BITUMINOUS PAVEMENT

REMOVE CONC. SIDEWALK

REMOVE CURB & GUTTER

MUDJACK CURB & GUTTER

MUDJACK SIDEWALK



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EXISTING CONDITIONS & REMOVALS - 16TH STREET SOUTH

9TH AVE S, 10TH AVE S, AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 26 OF 45

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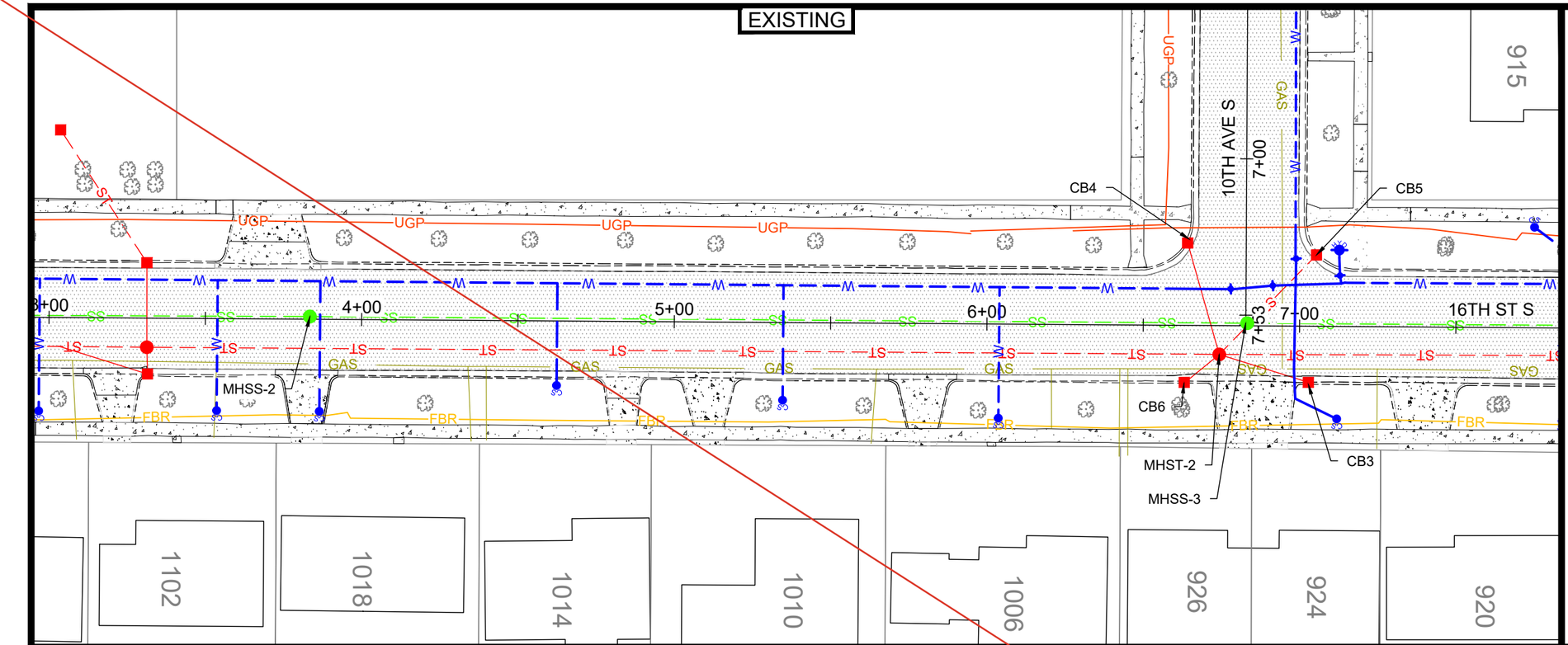
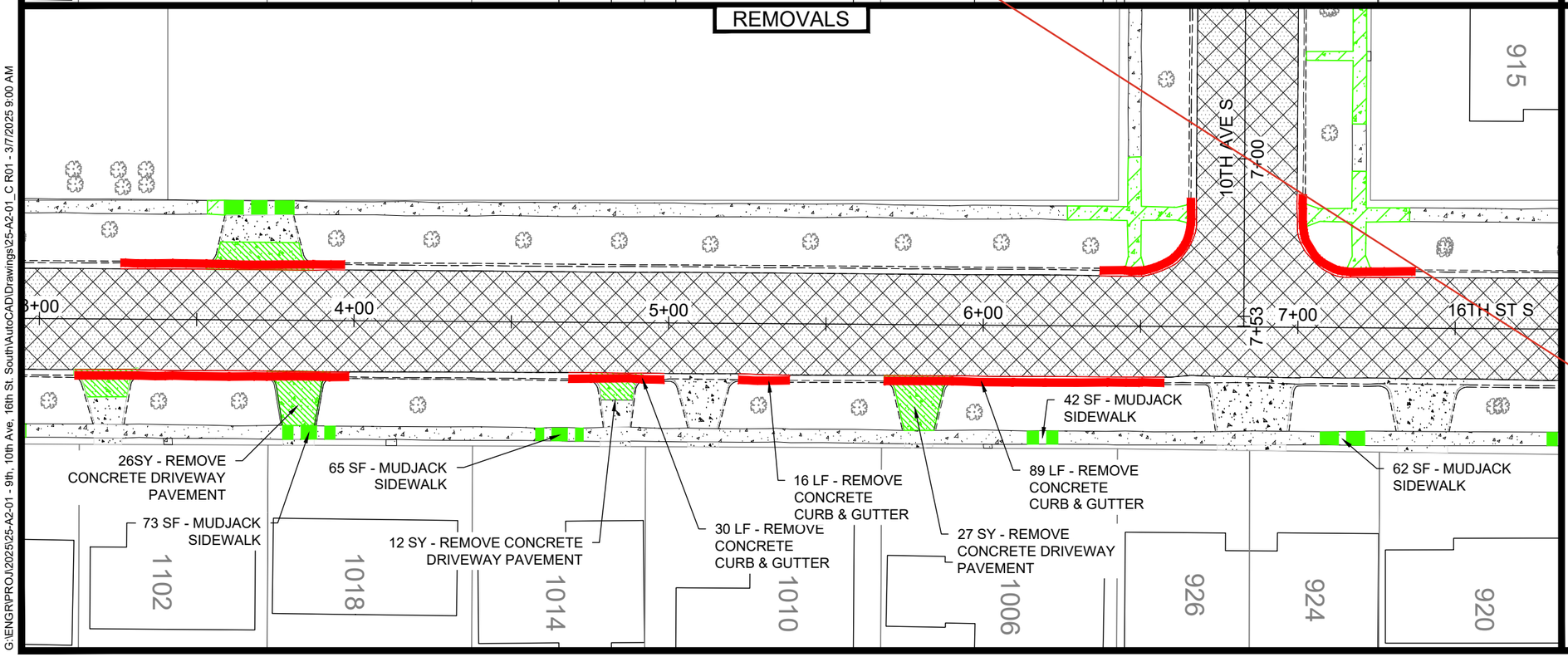


EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK

REMOVALS



REMOVE BITUMINOUS PAVEMENT

REMOVE CONC. SIDEWALK

REMOVE CURB & GUTTER

MUDJACK CURB & GUTTER

MUDJACK SIDEWALK

26SY - REMOVE CONCRETE DRIVEWAY PAVEMENT

73 SF - MUDJACK SIDEWALK

65 SF - MUDJACK SIDEWALK

12 SY - REMOVE CONCRETE DRIVEWAY PAVEMENT

30 LF - REMOVE CONCRETE CURB & GUTTER

16 LF - REMOVE CONCRETE CURB & GUTTER

27 SY - REMOVE CONCRETE DRIVEWAY PAVEMENT

89 LF - REMOVE CONCRETE CURB & GUTTER

42 SF - MUDJACK SIDEWALK

62 SF - MUDJACK SIDEWALK

W S N E

0 10 20 40

SAP No.	LEGAL No.	ENG. No.
--	A2-01-2025	25-A2-01

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EXISTING CONDITIONS & REMOVALS - 16TH STREET SOUTH

9TH AVE S, 10TH AVE S, AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 26 OF 45

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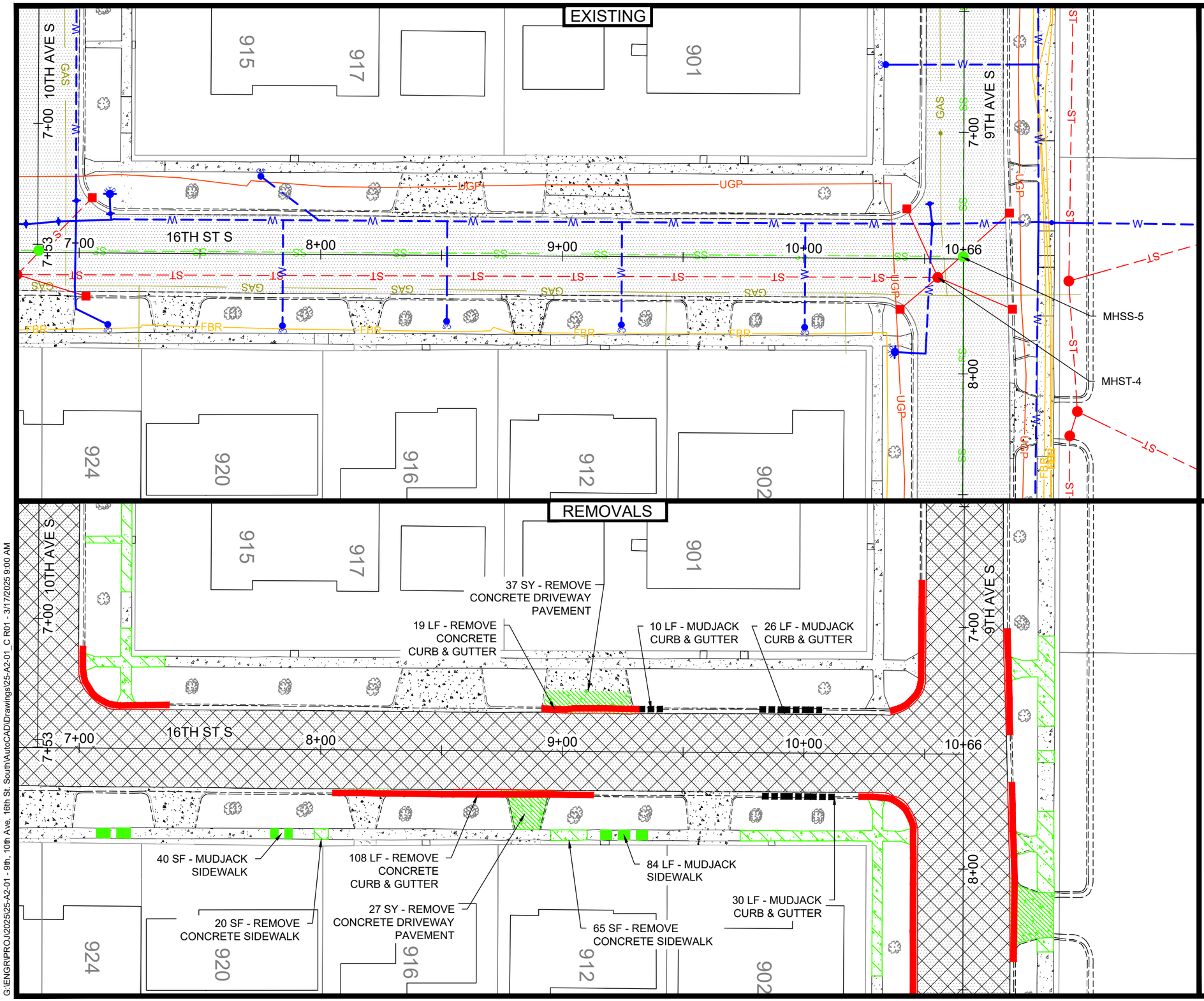

EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK

REMOVE BITUMINOUS PAVEMENT

REMOVE CONC. SIDEWALK

REMOVE CURB & GUTTER

MUDJACK CURB & GUTTER

MUDJACK SIDEWALK

0 10 20 40

--	EMH	MJA	JAS
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ENG. No.			

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EXISTING CONDITIONS & REMOVALS - 16TH STREET SOUTH

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 27 OF 45

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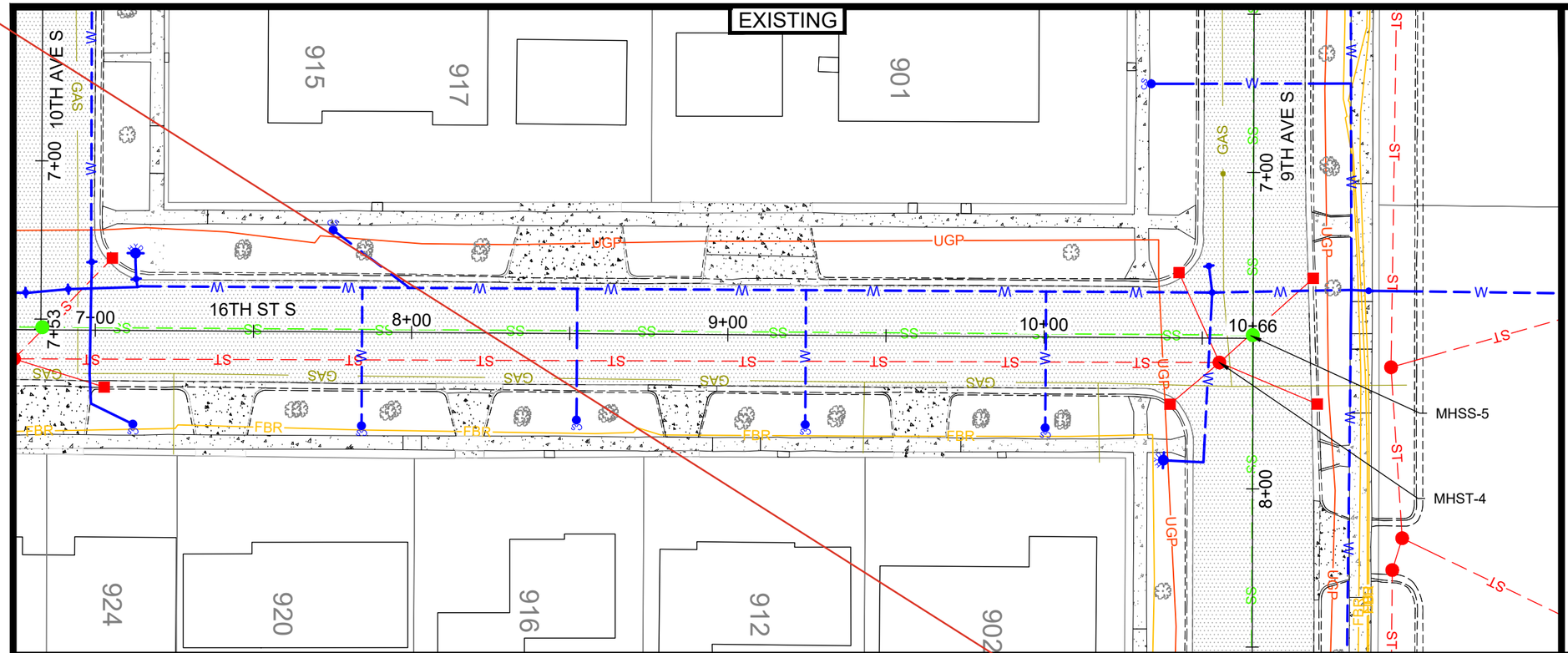
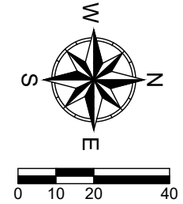


EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK



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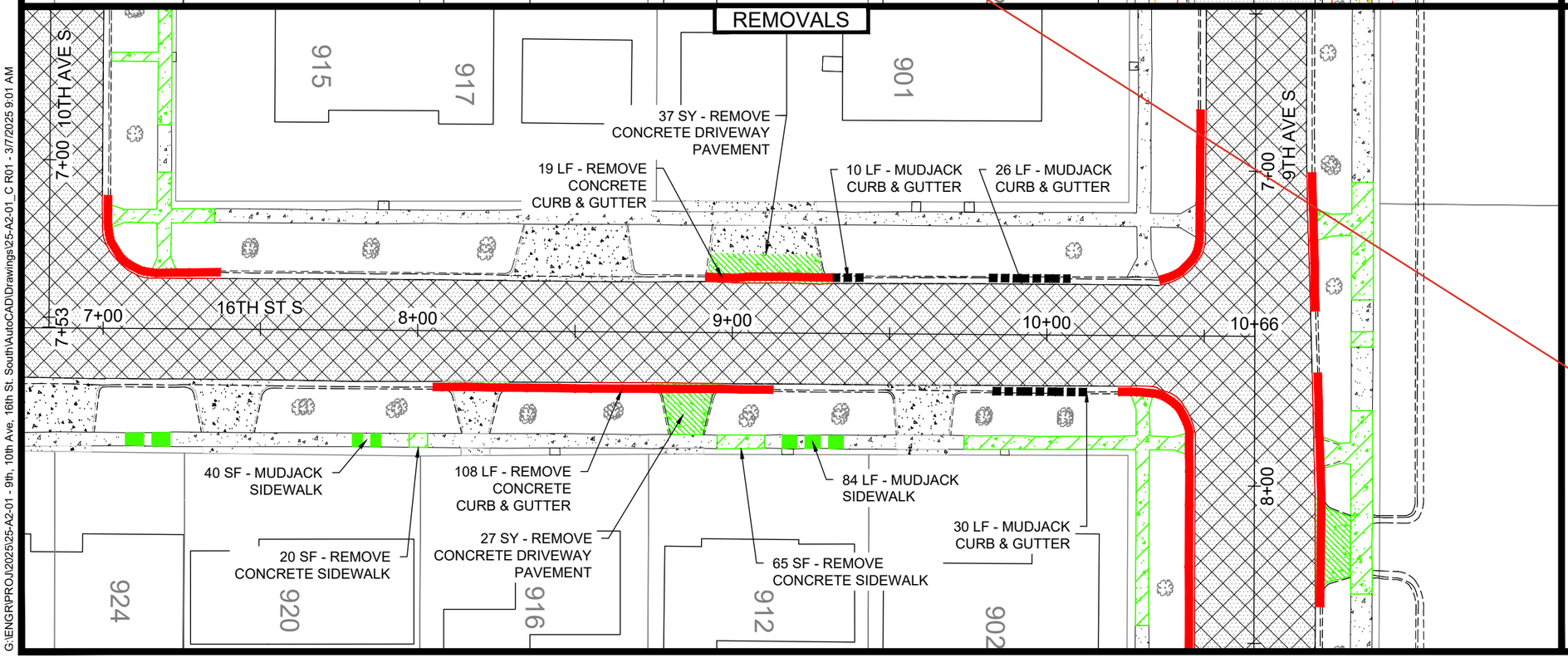


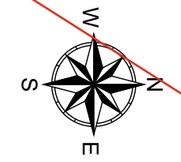
REMOVE BITUMINOUS PAVEMENT

REMOVE CONC. SIDEWALK

REMOVE CURB & GUTTER

MUDJACK CURB & GUTTER

MUDJACK SIDEWALK



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EXISTING CONDITIONS & REMOVALS - 16TH STREET SOUTH
9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 27 OF 45

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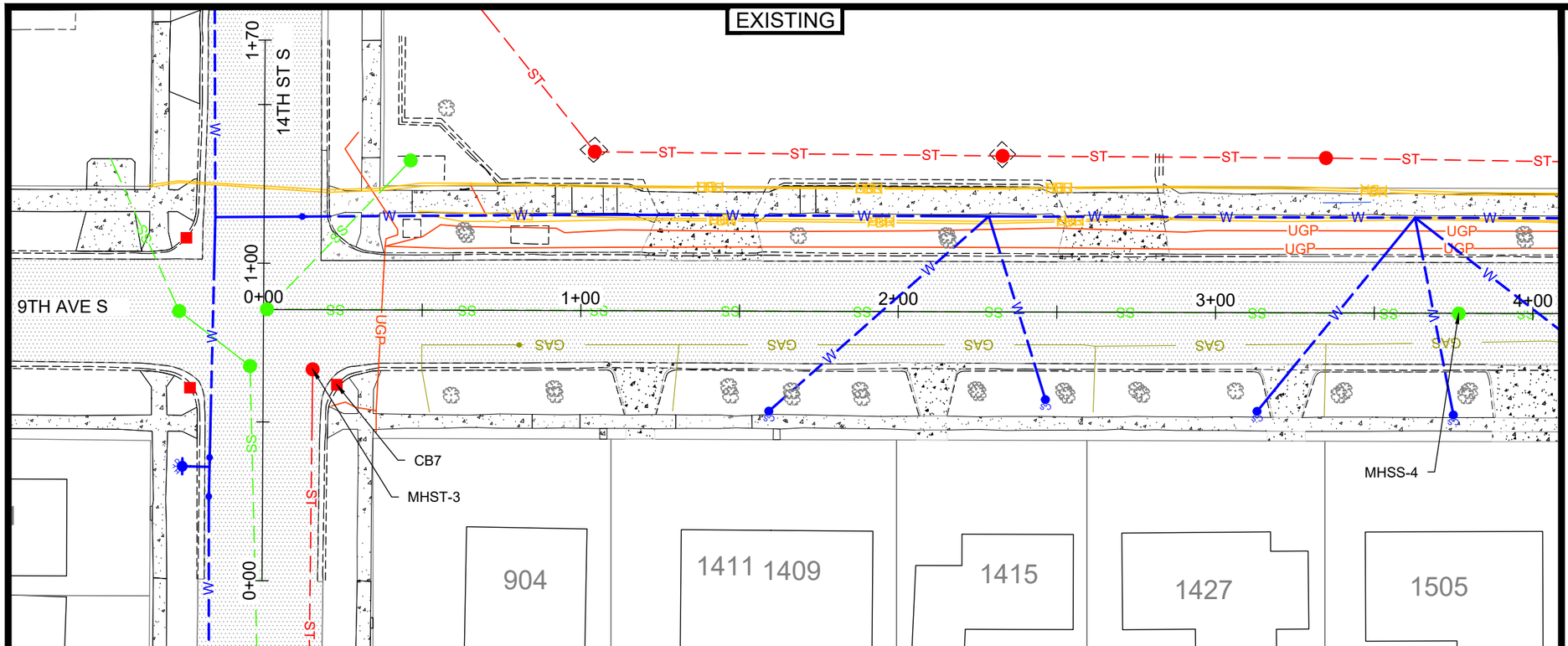
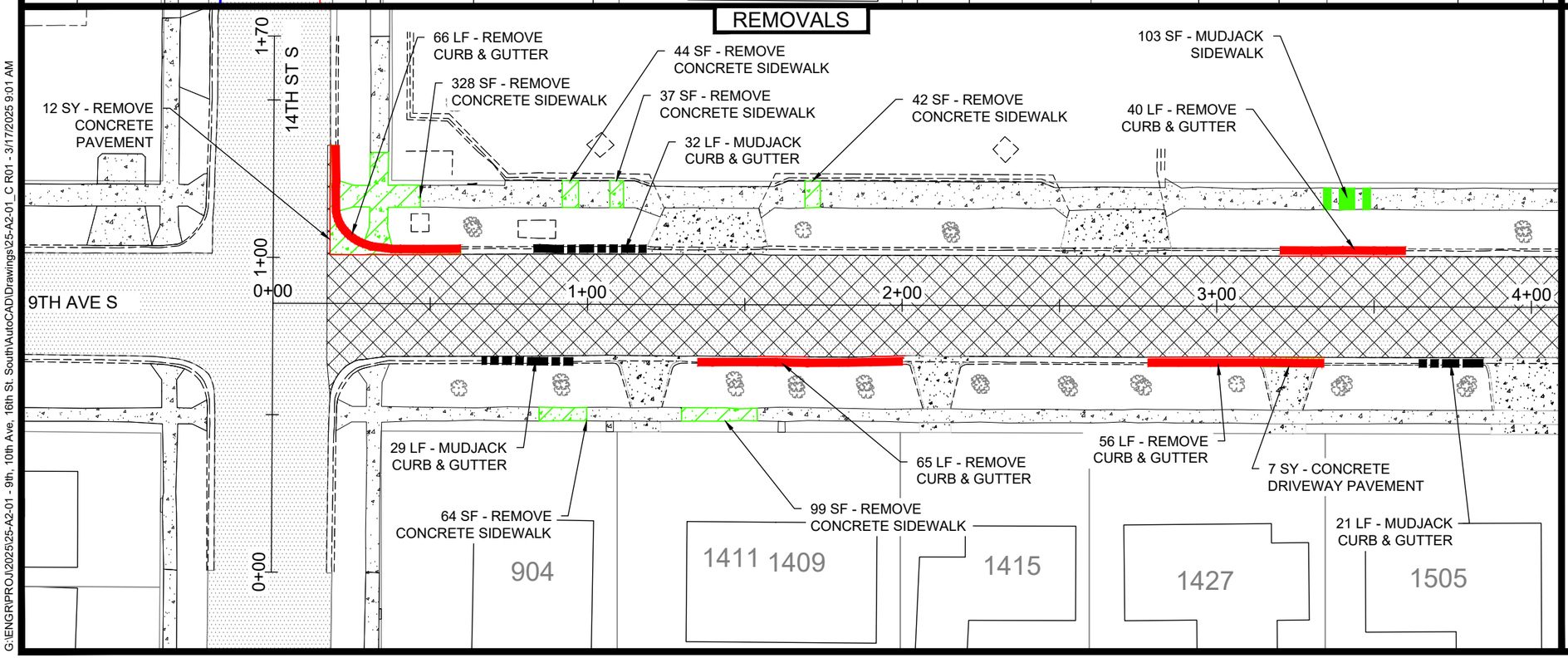


EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK

REMOVALS



REMOVE BITUMINOUS PAVEMENT

REMOVE CONC. SIDEWALK

REMOVE CURB & GUTTER

MUDJACK CURB & GUTTER

MUDJACK SIDEWALK

--	A2-01-2025	25-A2-01	
SAP. No.	LEGAL No.	ENG. No.	
EMH	MJA	JAS	
DRAWN BY	CHECKED BY	APPROVED BY	

MOORHEAD MINNESOTA Engineering

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03/07/2025
Date

26225
License No.

JAMES A. SCHULZ
Name - Project Engineer

EXISTING CONDITIONS & REMOVALS - 9TH AVENUE SOUTH

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 28 OF 45

G:\ENGR\PROJ\2025\25-A2-01 - 9th, 10th Ave, 16th St. South\AutoCAD\Drawings\25-A2-01_C R01 - 3/17/2025 9:01 AM

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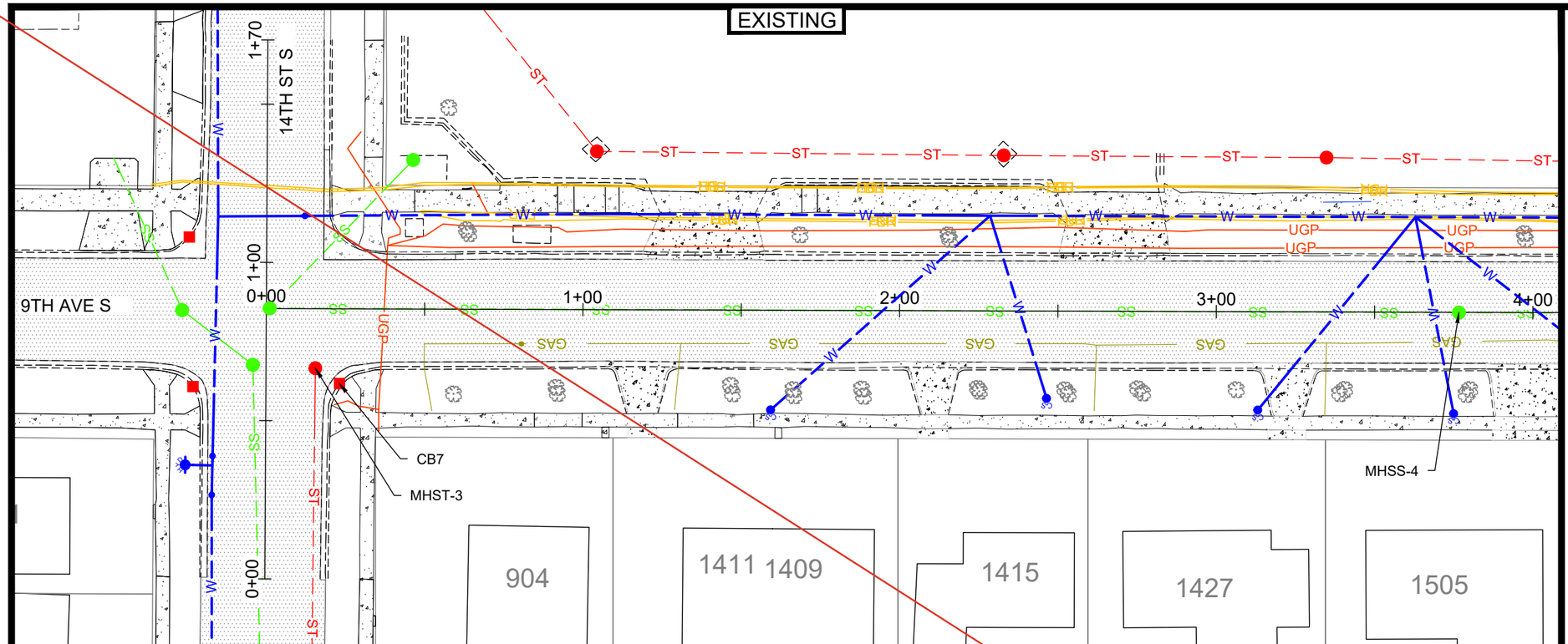
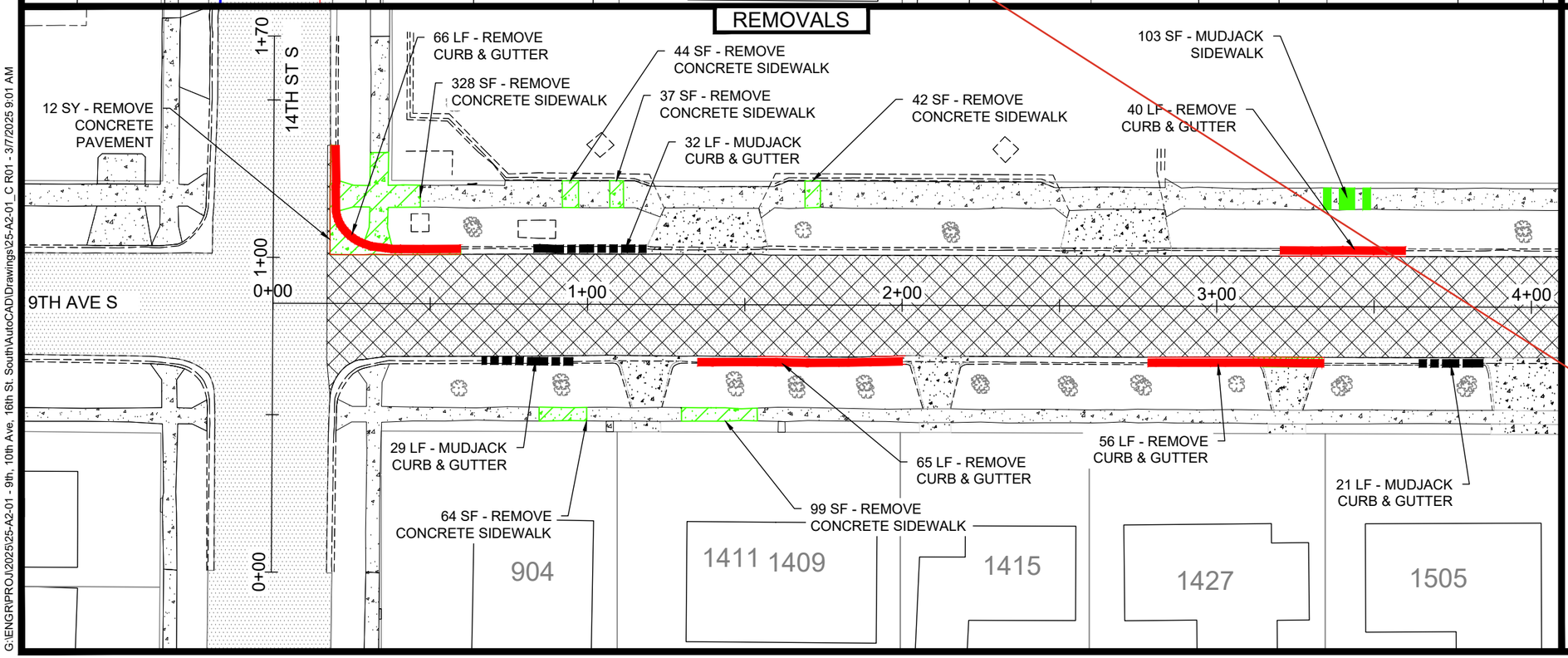


EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK

REMOVALS



REMOVE BITUMINOUS PAVEMENT

REMOVE CONC. SIDEWALK

REMOVE CURB & GUTTER

MUDJACK CURB & GUTTER

MUDJACK SIDEWALK

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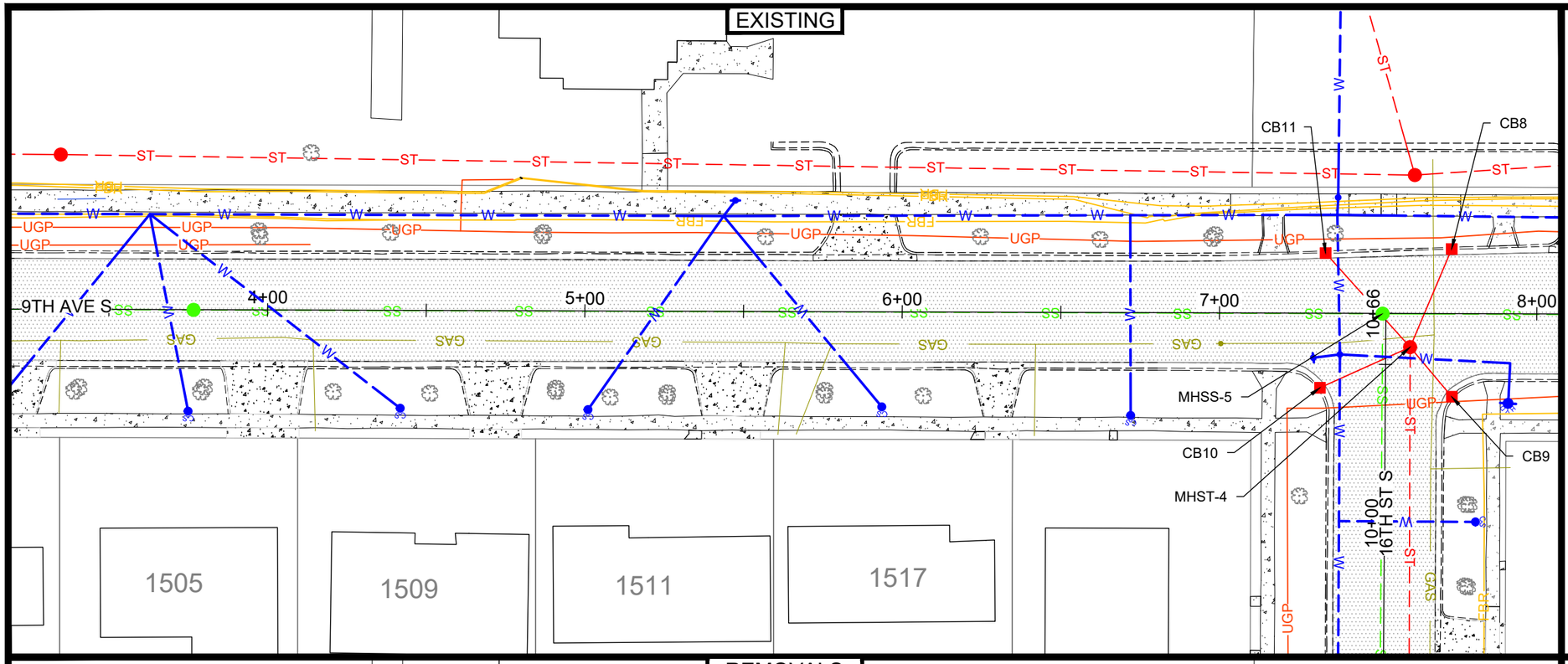

EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK

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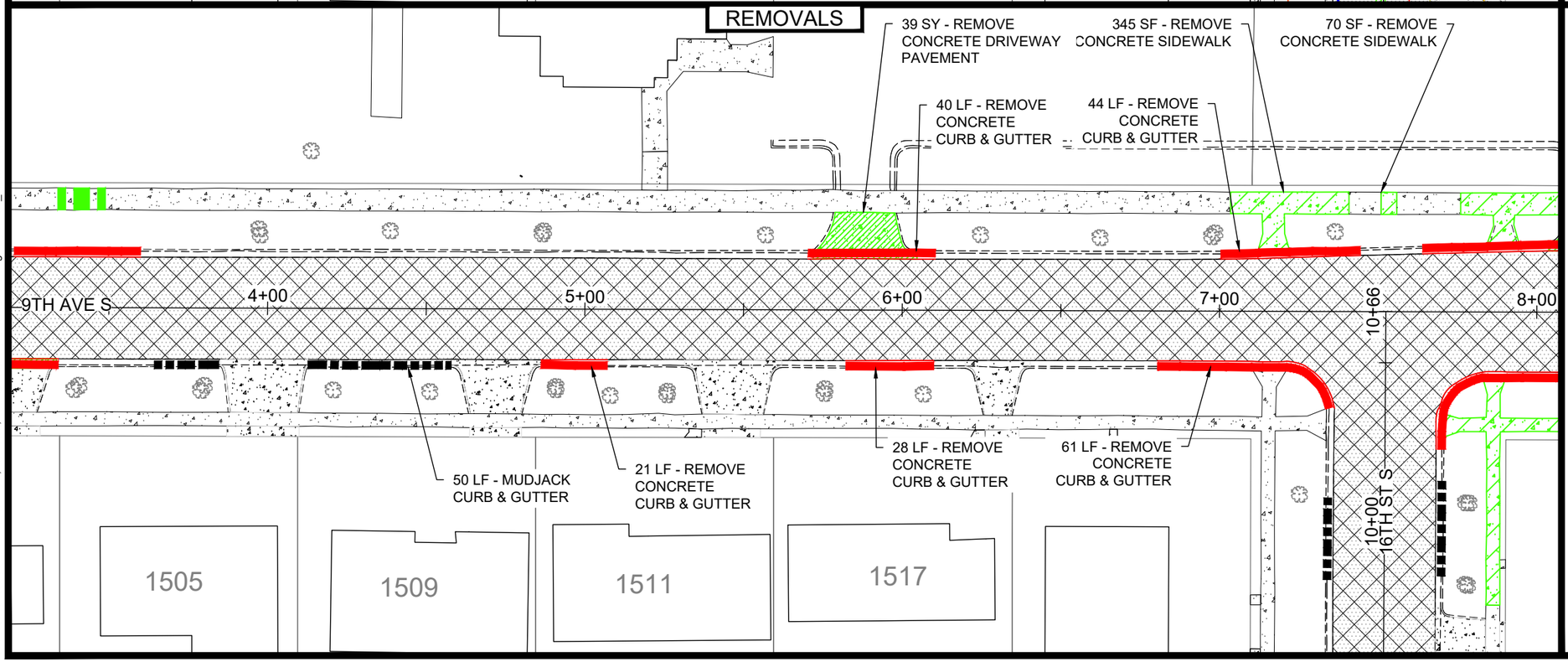
REMOVALS



REMOVE BITUMINOUS PAVEMENT

REMOVE CONC. SIDEWALK

REMOVE CURB & GUTTER

MUDJACK CURB & GUTTER

MUDJACK SIDEWALK

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EXISTING CONDITIONS & REMOVALS - 9TH AVENUE SOUTH

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 29 OF 45

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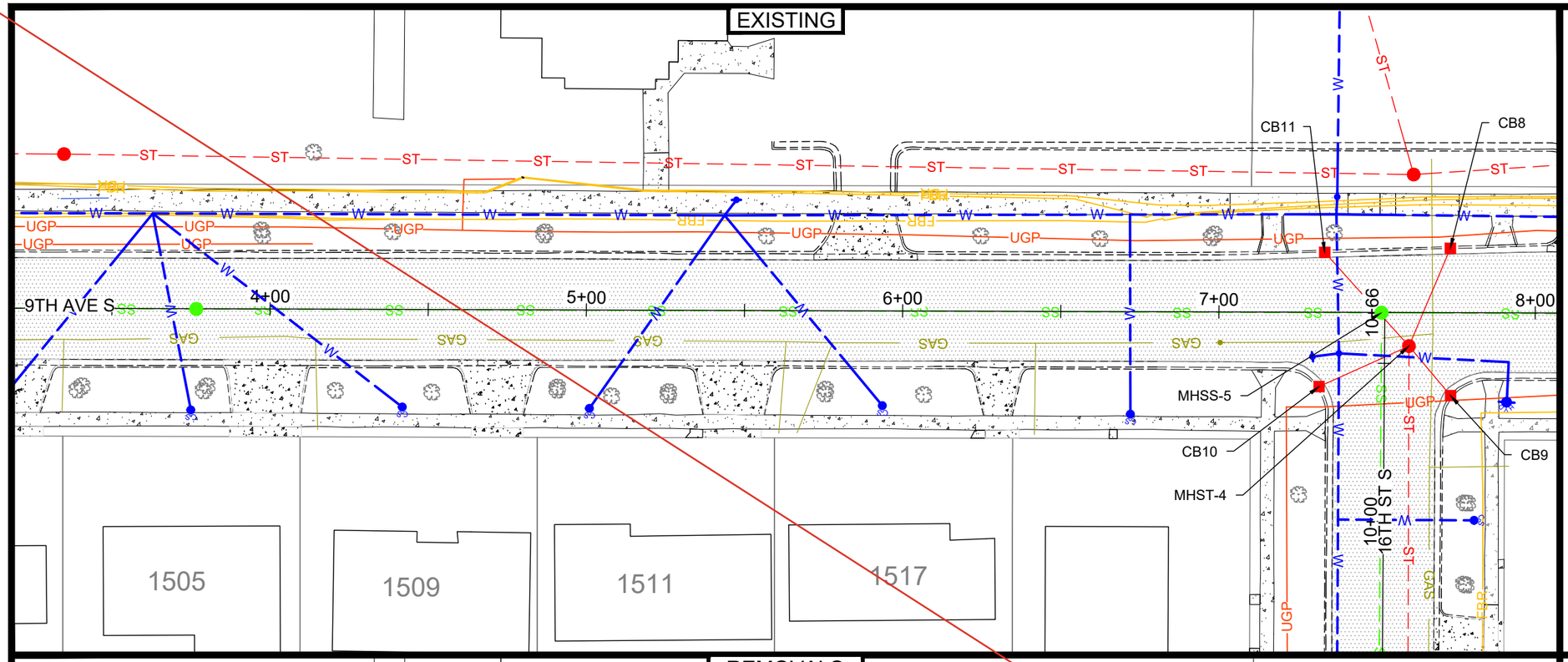

EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK

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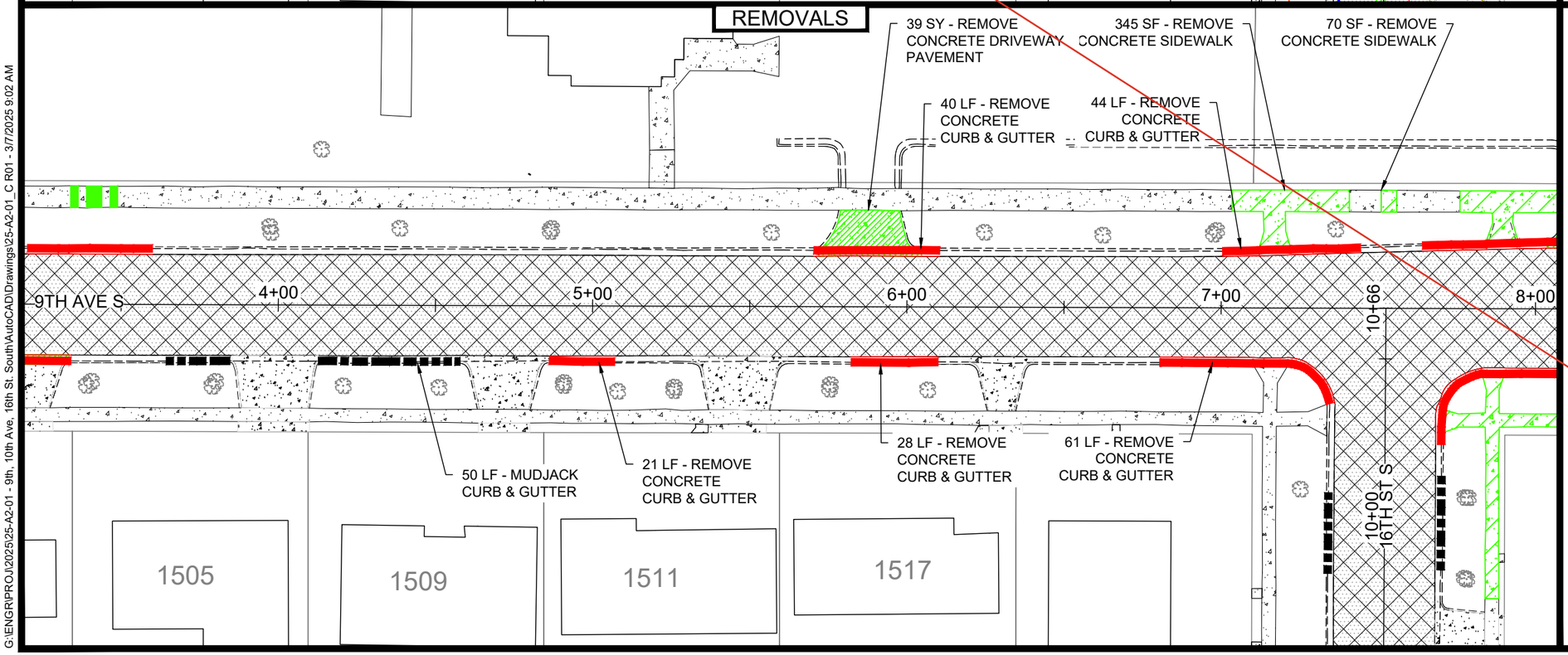
REMOVALS



REMOVE BITUMINOUS PAVEMENT

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MUDJACK CURB & GUTTER

MUDJACK SIDEWALK

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0 10 20 40

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		LEGAL No.	ENG. No.

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9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 29 OF 45

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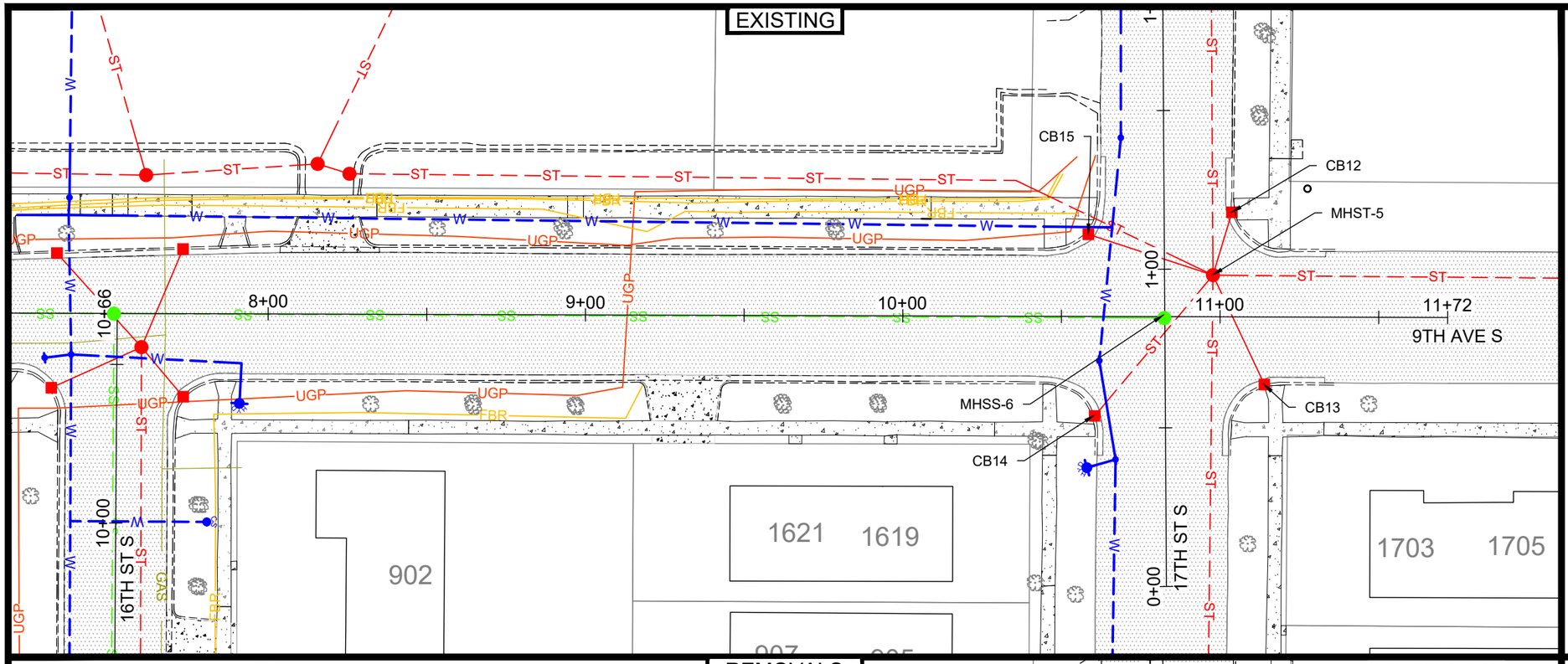

EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK

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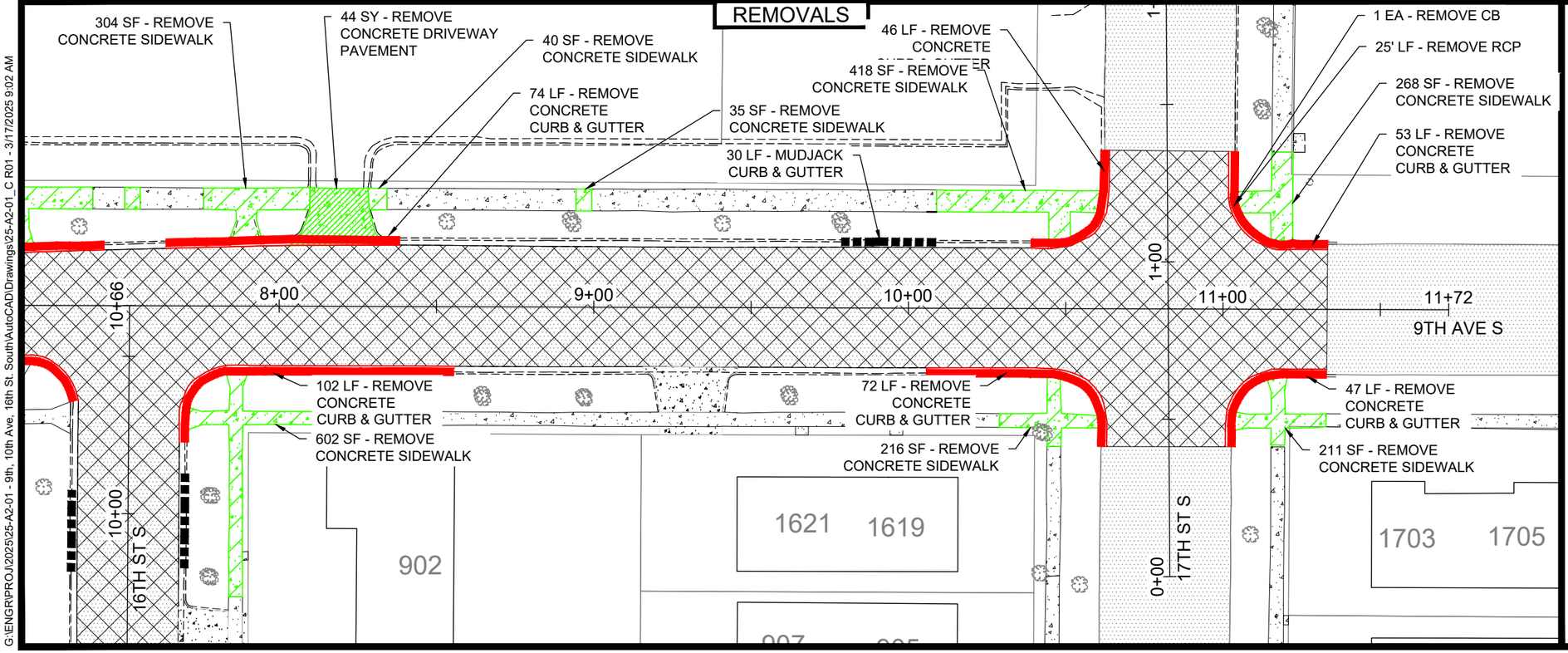
REMOVALS



REMOVE BITUMINOUS PAVEMENT

REMOVE CONC. SIDEWALK

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EXISTING CONDITIONS & REMOVALS - 9TH AVENUE SOUTH

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 30 OF 45

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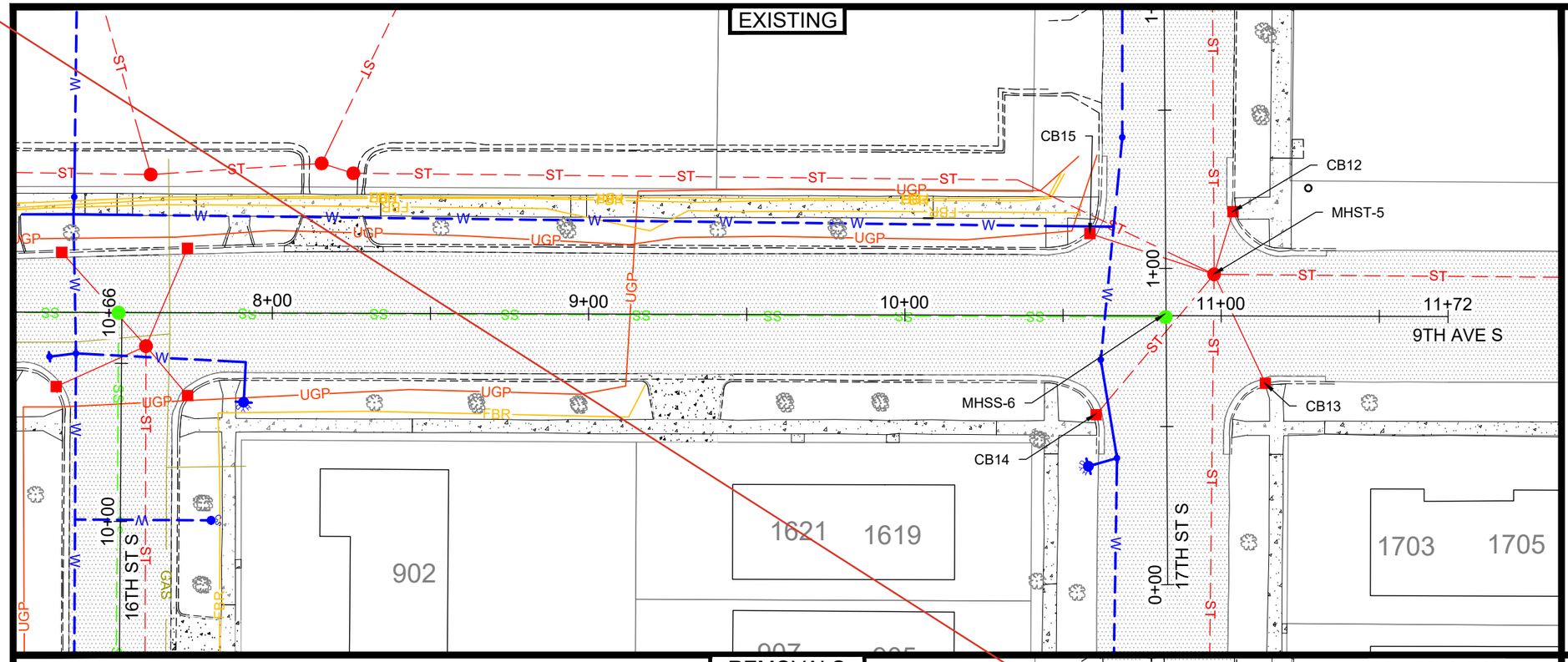

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EXT. CONC. SIDEWALK

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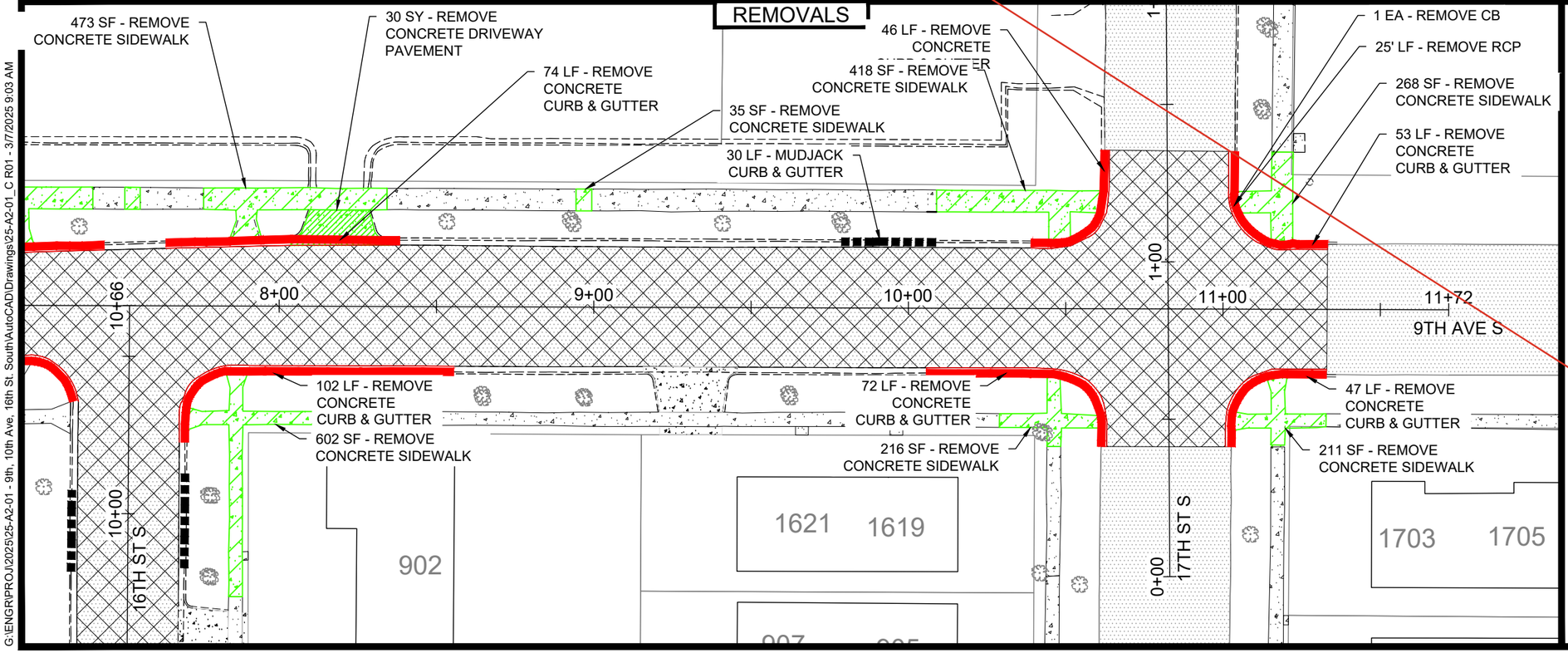
REMOVALS



REMOVE BITUMINOUS PAVEMENT

REMOVE CONC. SIDEWALK

REMOVE CURB & GUTTER

MUDJACK CURB & GUTTER

MUDJACK SIDEWALK

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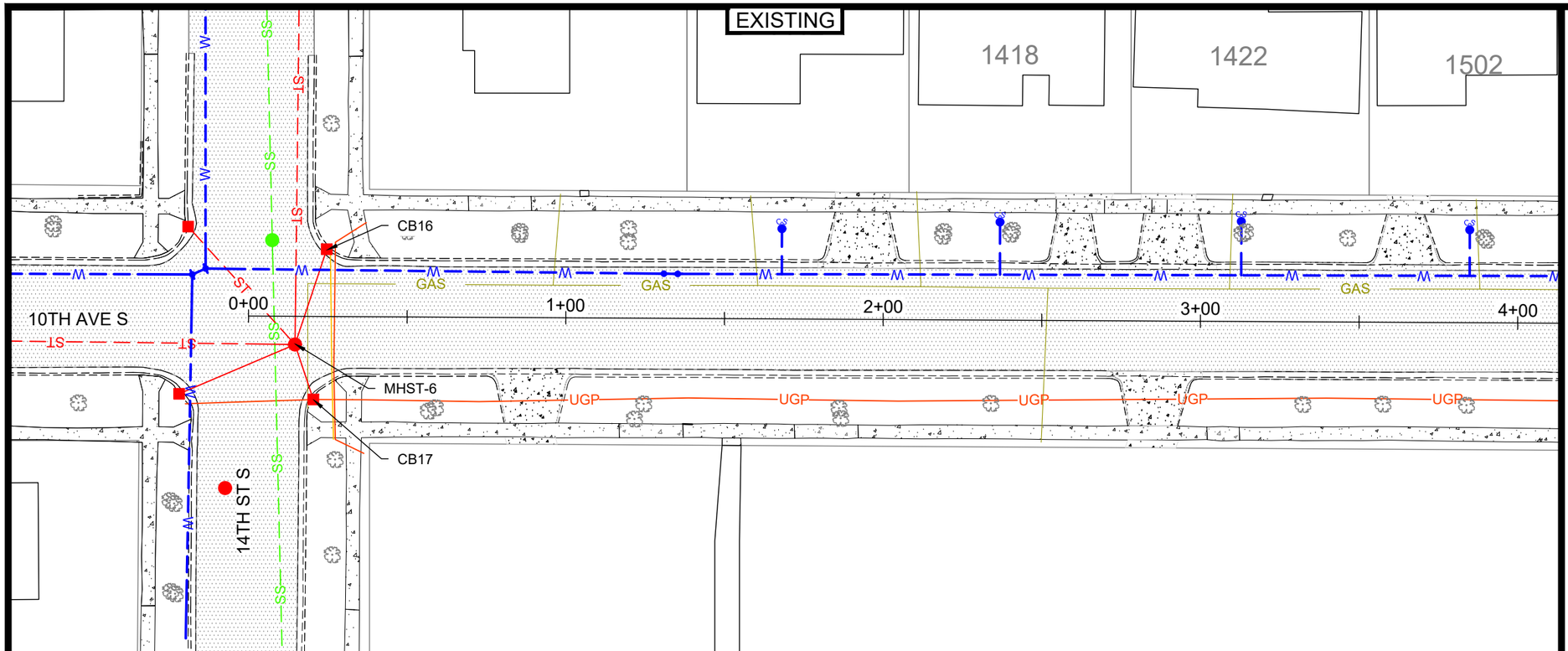
EXISTING CONDITIONS & REMOVALS - 9TH AVENUE SOUTH

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 30 OF 45

EXISTING



EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK

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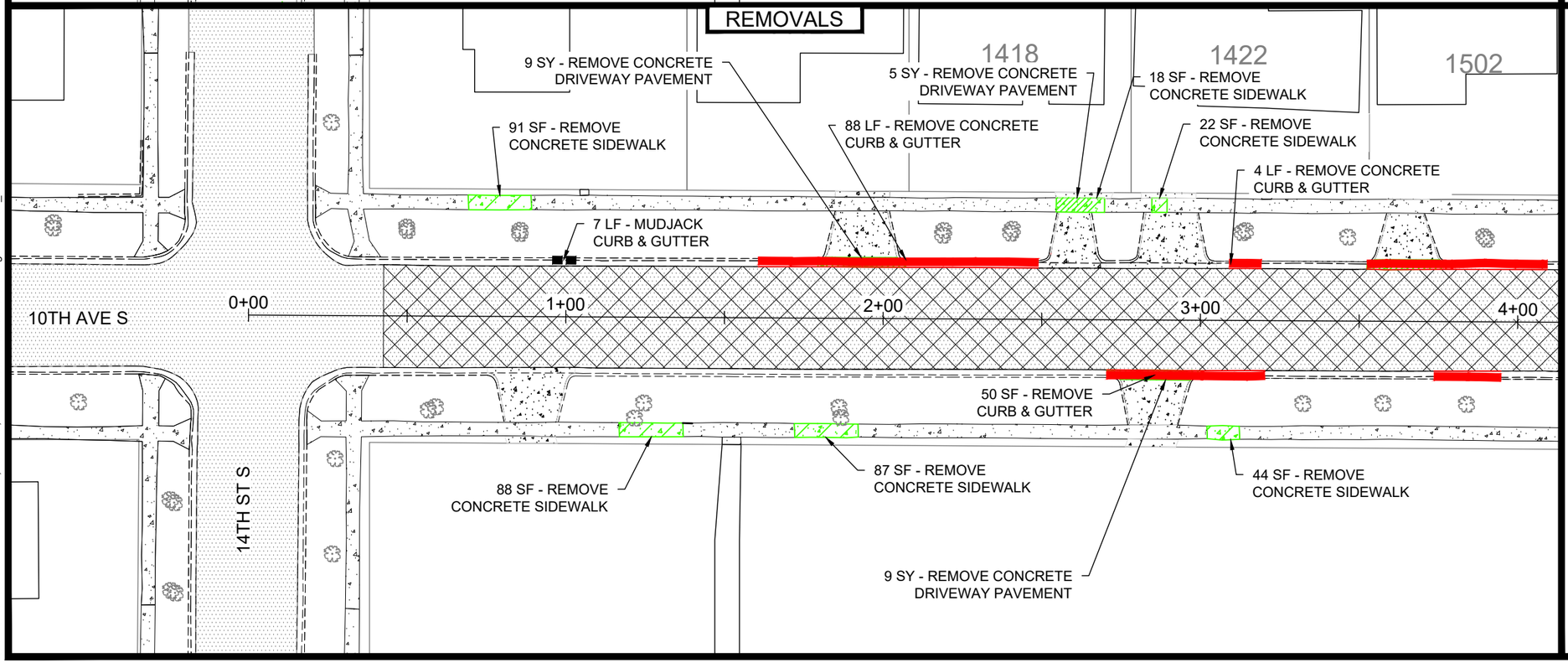

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EXISTING CONDITIONS & REMOVALS - 10TH AVENUE SOUTH

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 31 OF 45

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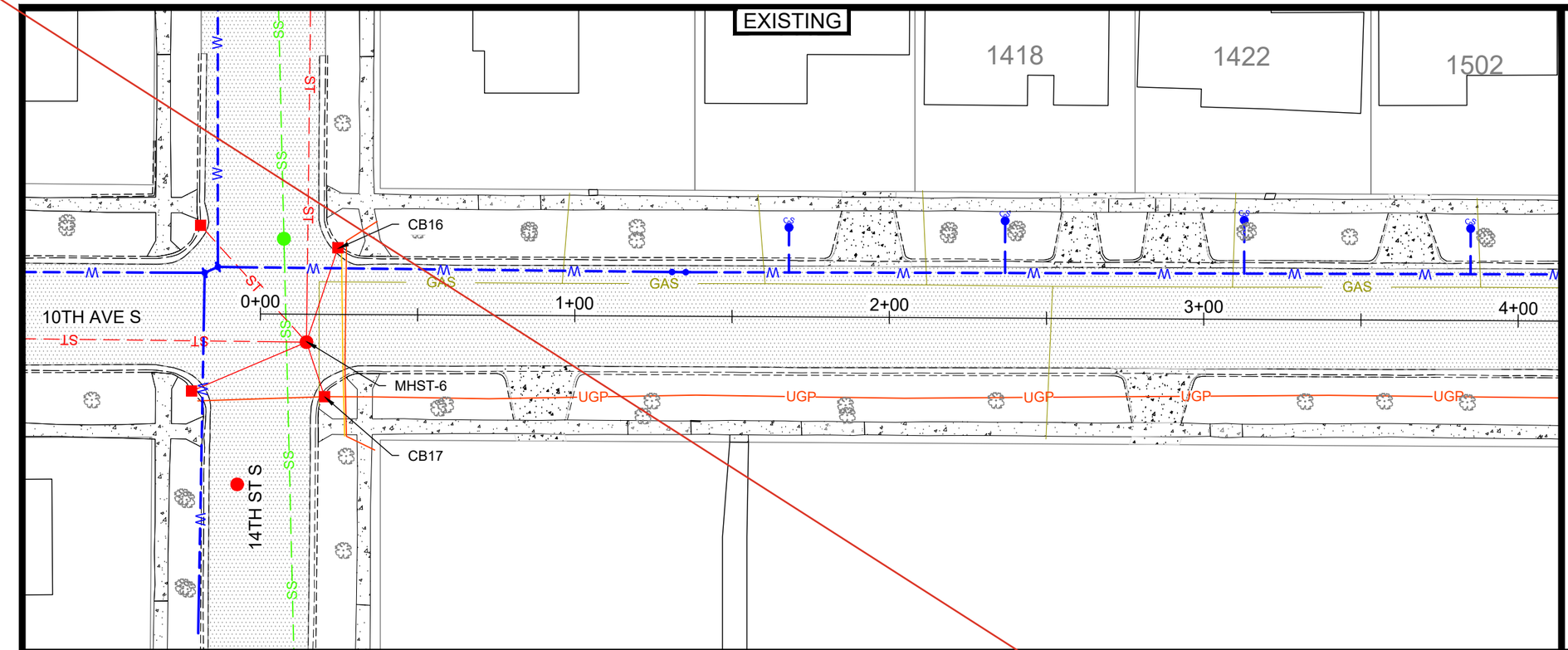

EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK

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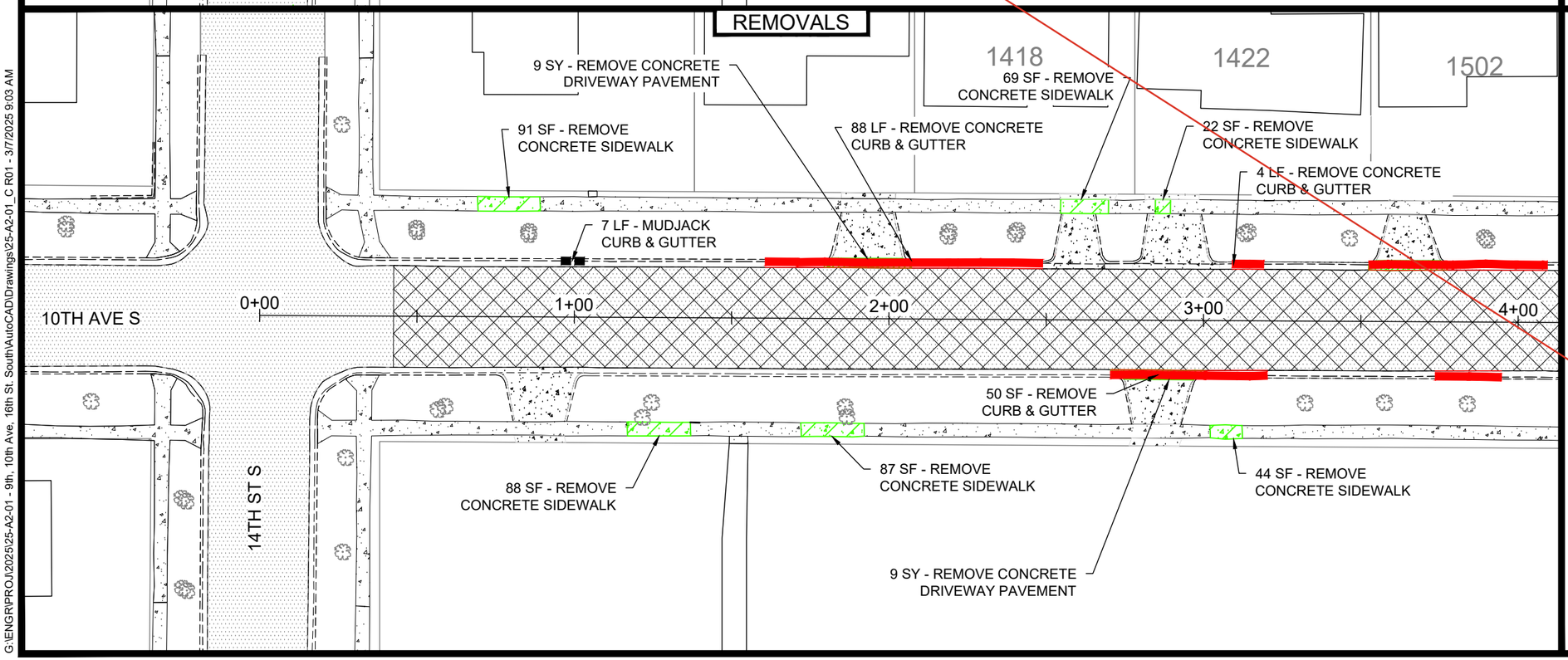

REMOVE BITUMINOUS PAVEMENT

REMOVE CONC. SIDEWALK

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MUDJACK CURB & GUTTER

MUDJACK SIDEWALK

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EXISTING CONDITIONS & REMOVALS - 10TH AVENUE SOUTH
9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 31 OF 45

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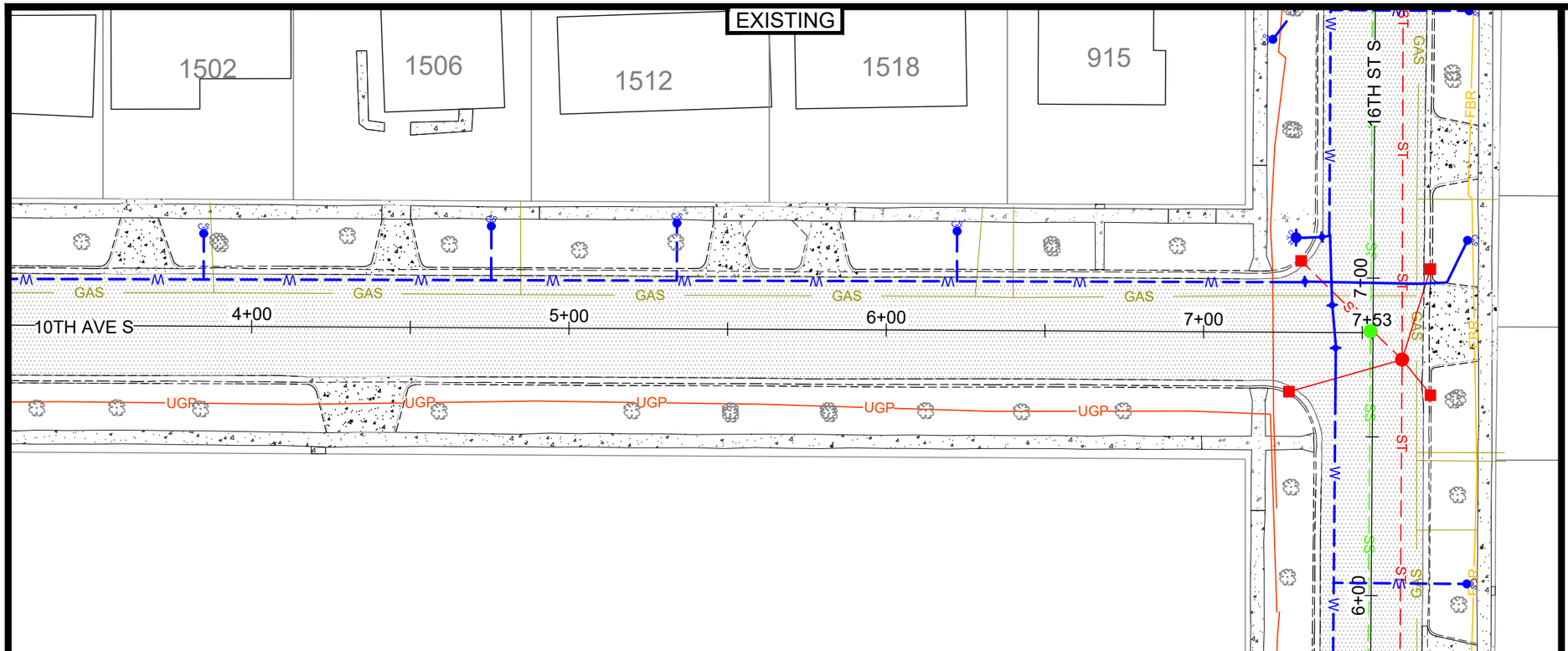

EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK

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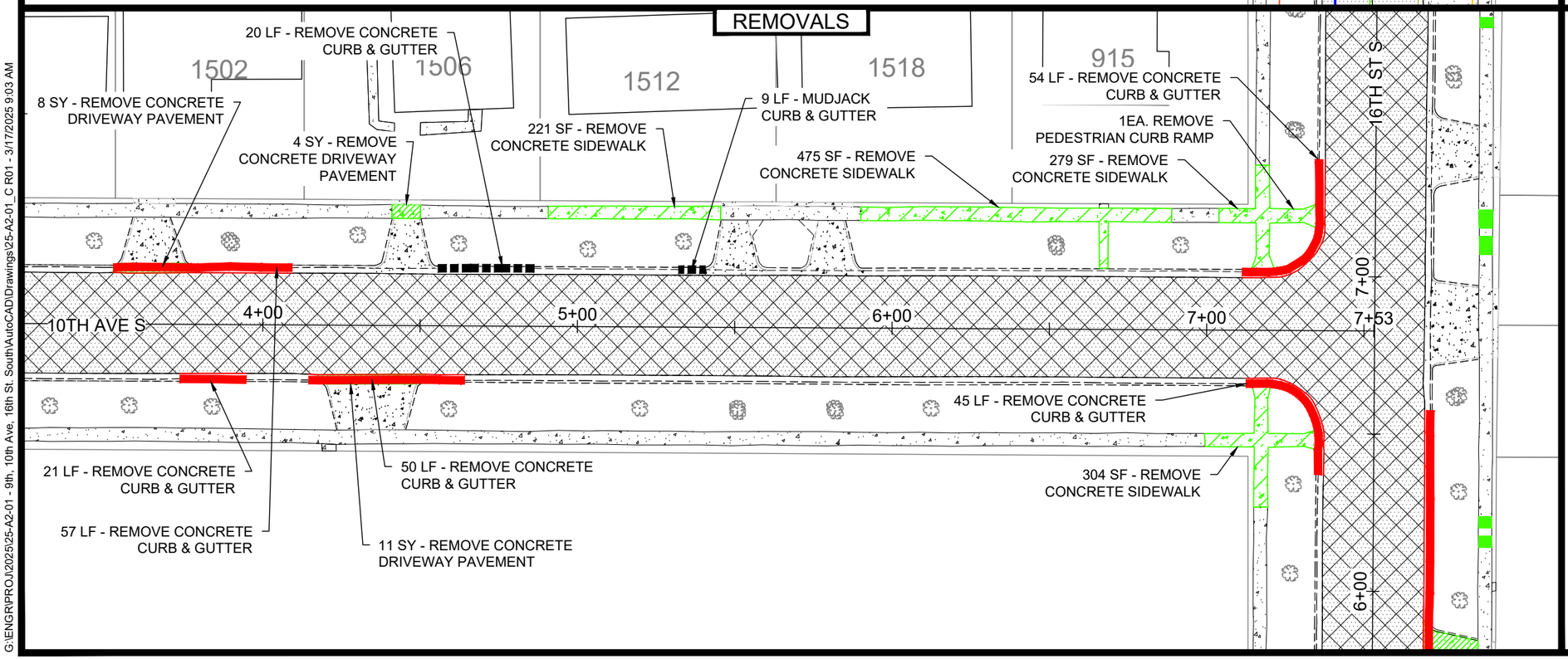
REMOVALS



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CURB & GUTTER, ASPHALT PAVING

SHEET 32 OF 45

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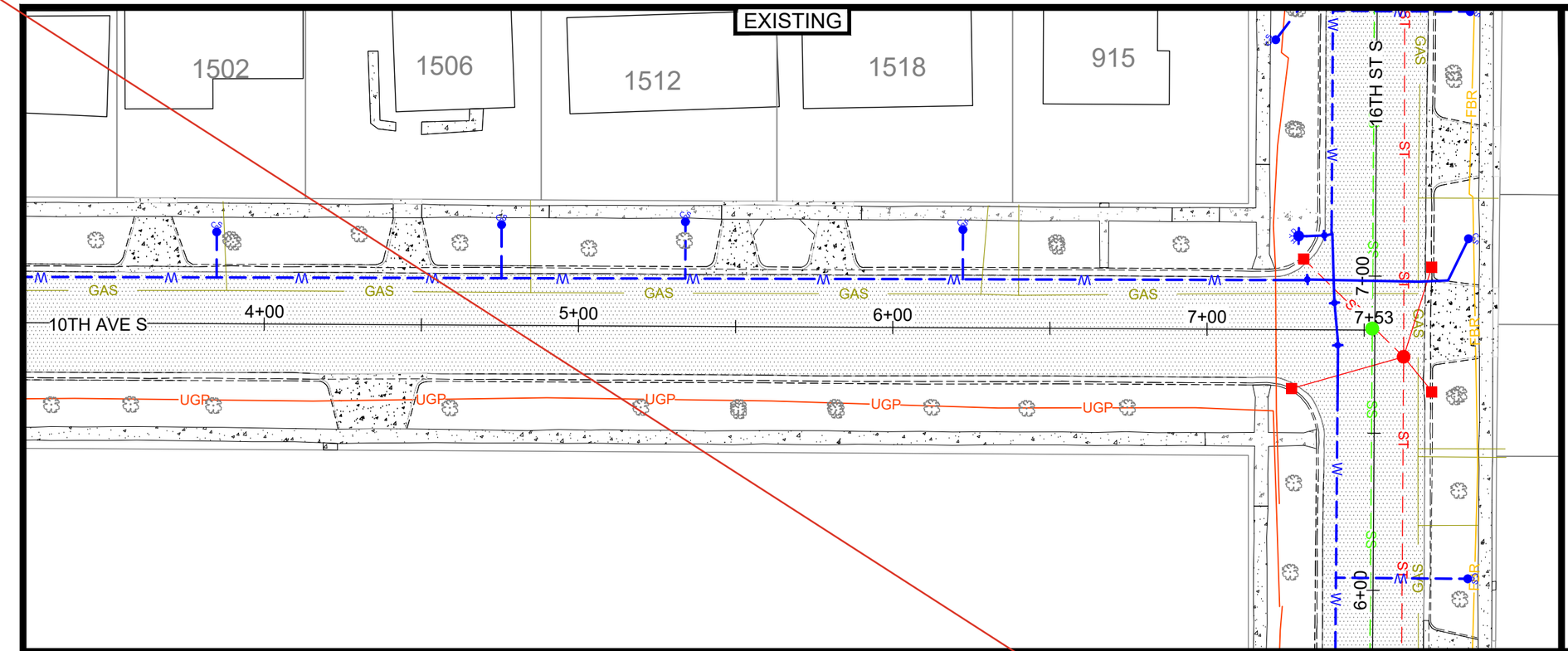

EXISTING BITUMINOUS PAVEMENT

EXT. CONC. SIDEWALK

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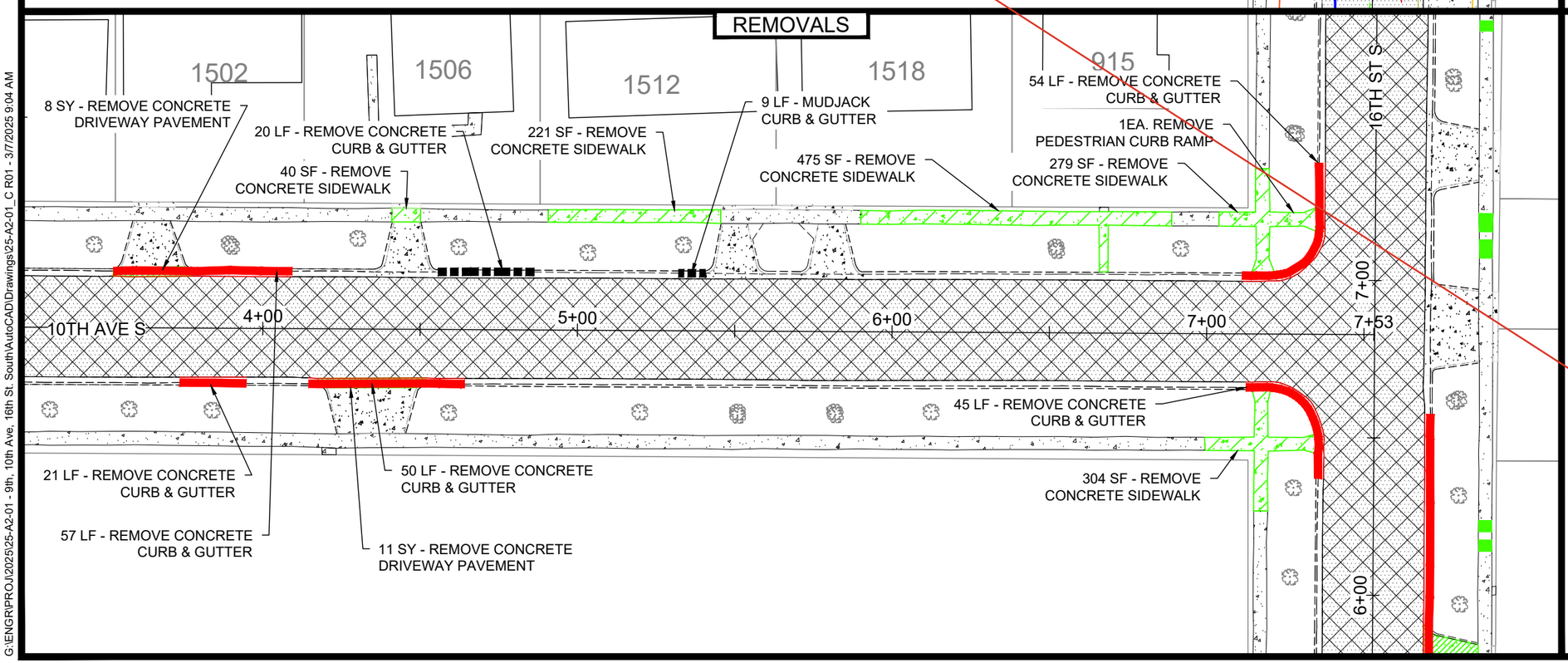
REMOVALS



REMOVE BITUMINOUS PAVEMENT

REMOVE CONC. SIDEWALK

REMOVE CURB & GUTTER

MUDJACK CURB & GUTTER

MUDJACK SIDEWALK

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EXISTING CONDITIONS & REMOVALS - 10TH AVENUE SOUTH
9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 32 OF 45

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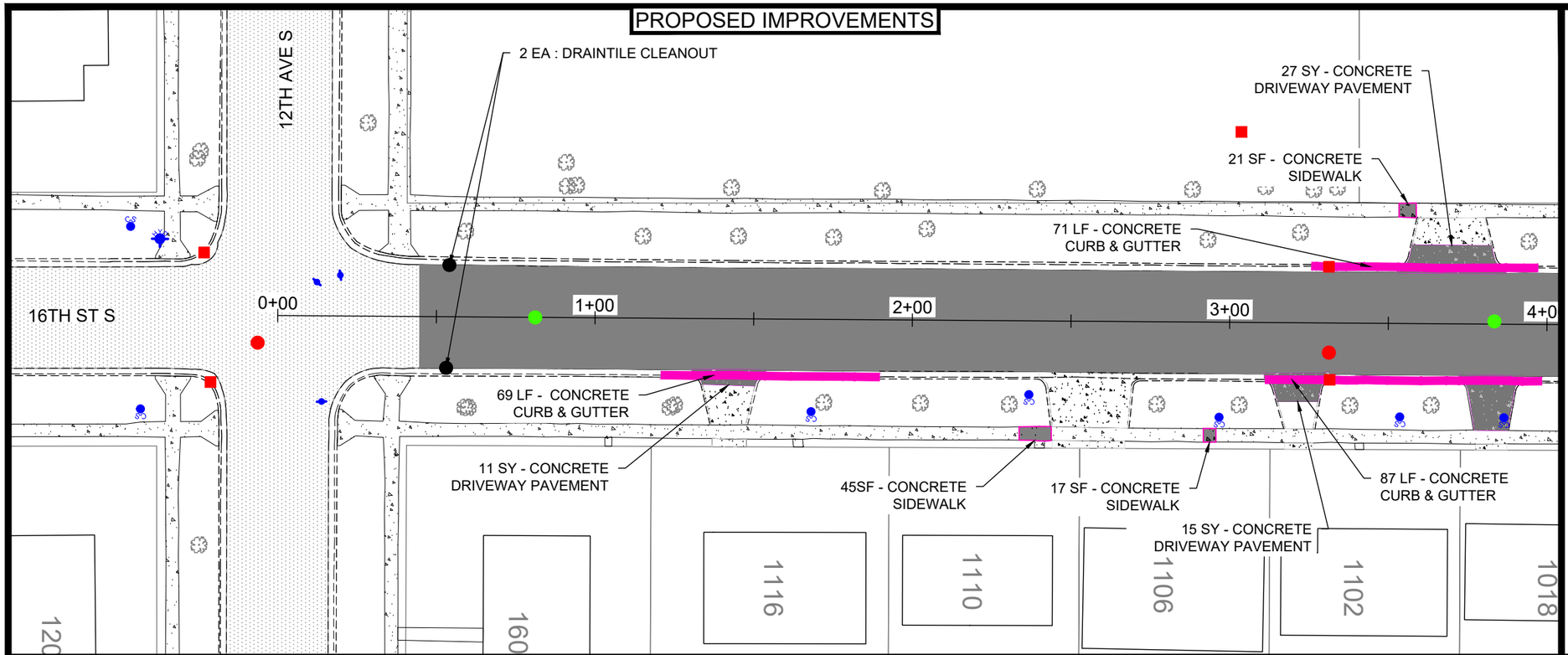
PROPOSED IMPROVEMENTS



4" CONC. SIDEWALK

PEDESTRIAN RAMP

NEW BITUMINOUS PAVEMENT

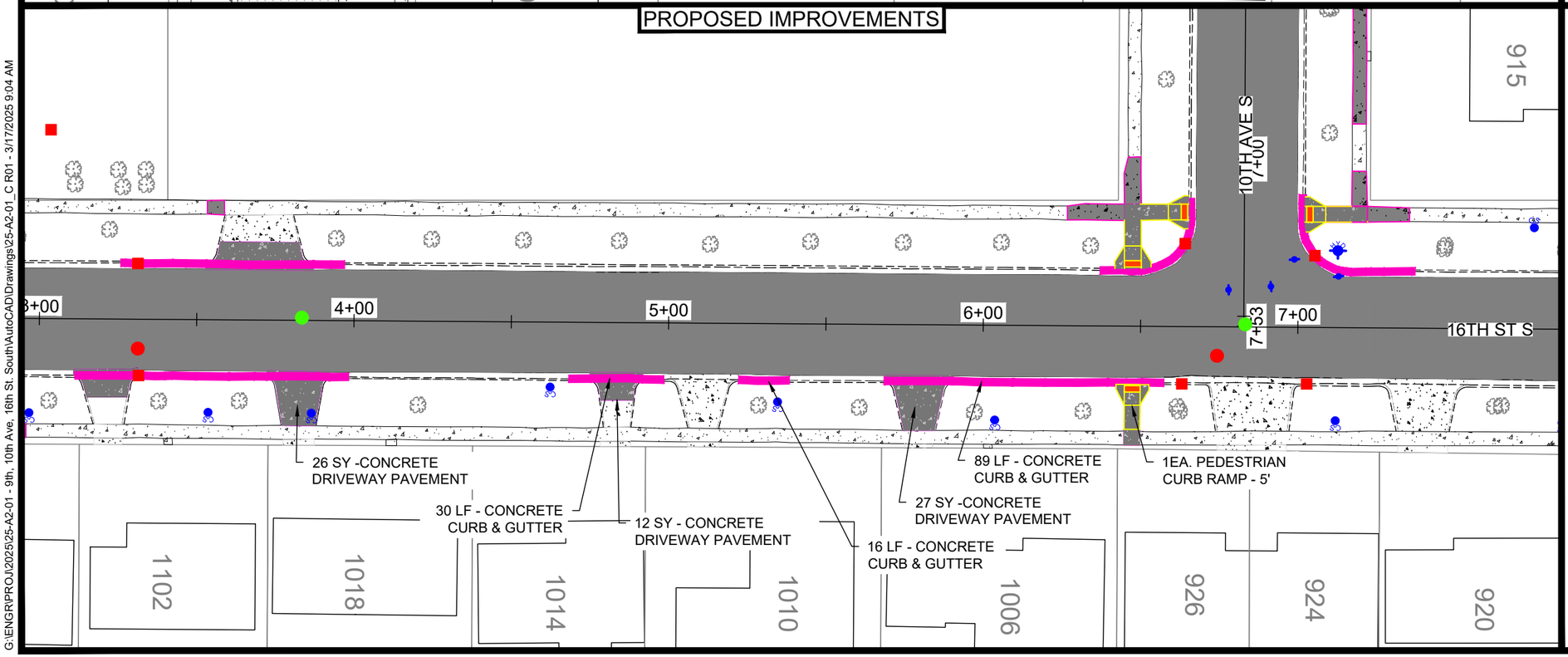
NEW CONC. DRIVE

NEW CURB & GUTTER

W S N E

0 10 20 40

PROPOSED IMPROVEMENTS



4" CONC. SIDEWALK

PEDESTRIAN RAMP

NEW BITUMINOUS PAVEMENT

NEW CONC. DRIVE

NEW CURB & GUTTER

W S N E

0 10 20 40

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PROPOSED IMPROVEMENTS - 16TH ATREET SOUTH

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 33 OF 45

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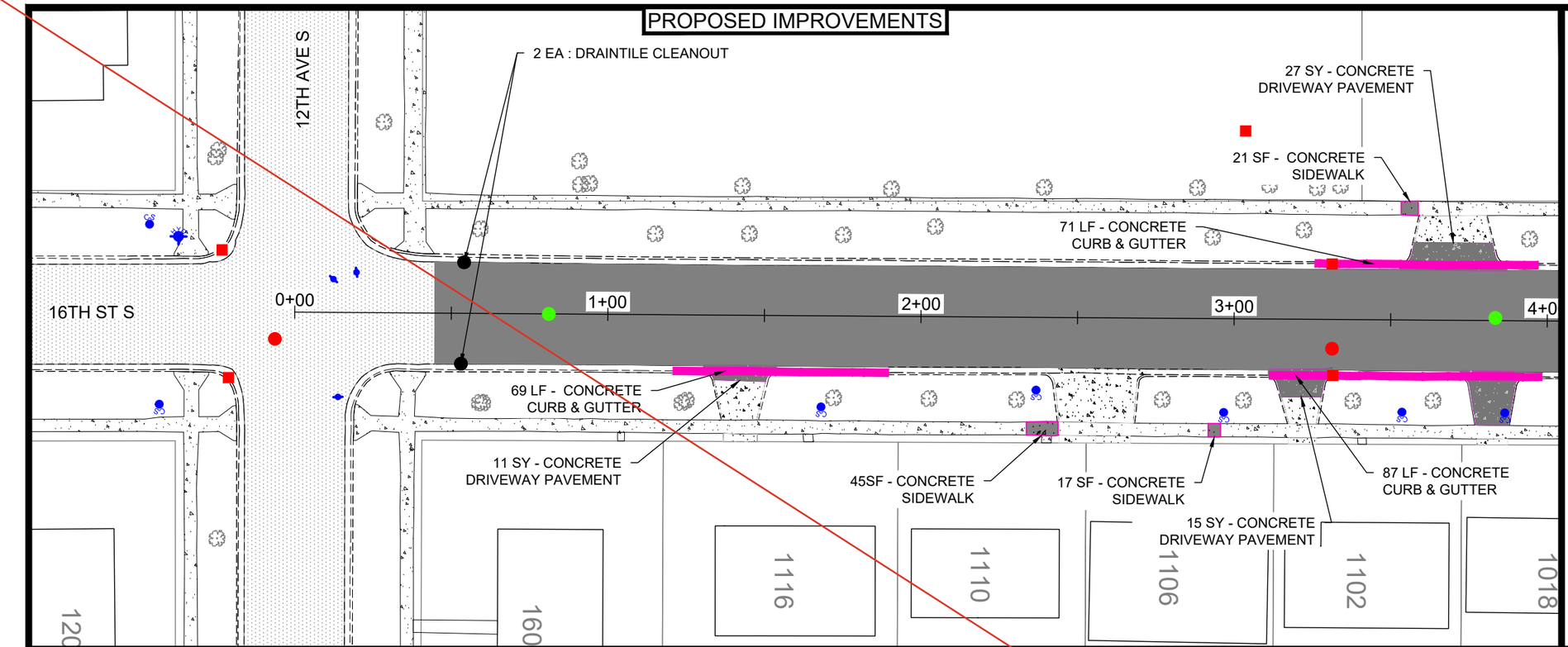


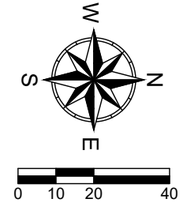
4" CONC. SIDEWALK

PEDESTRIAN RAMP

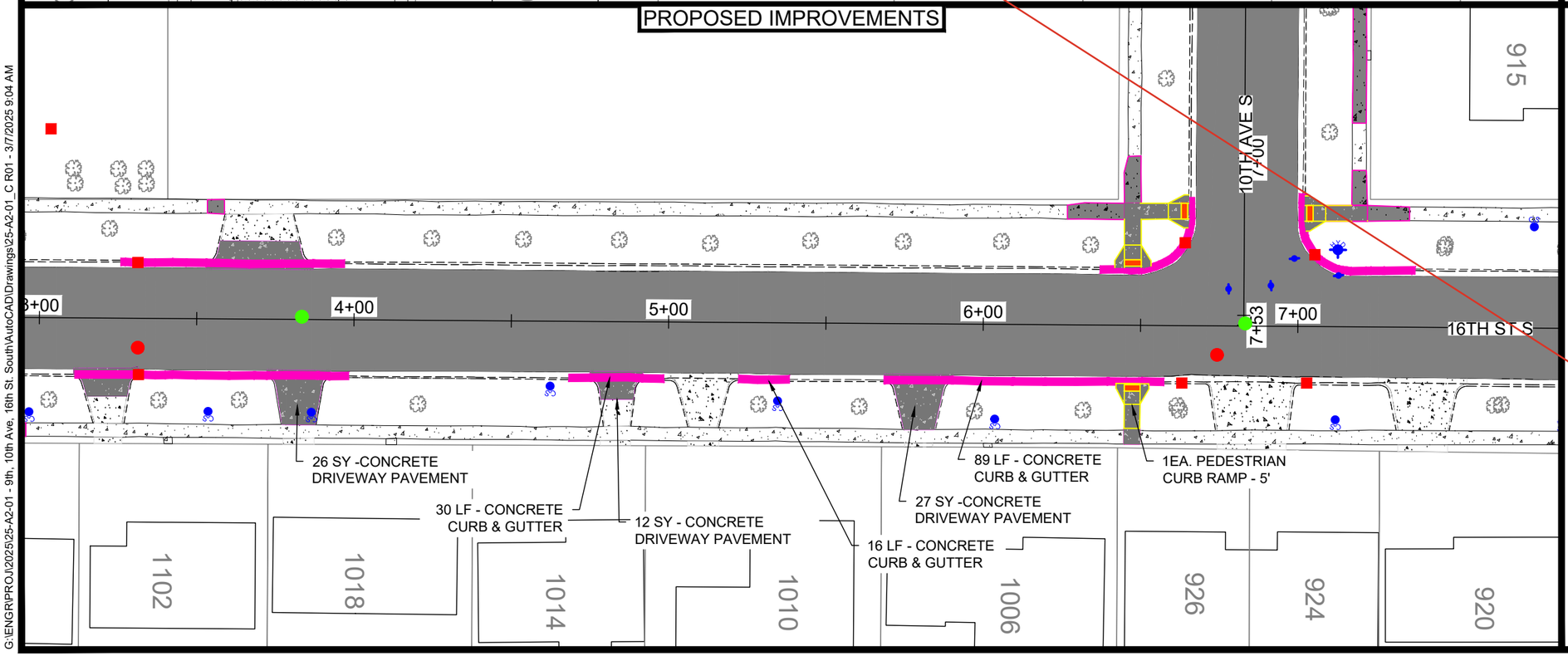
NEW BITUMINOUS PAVEMENT

NEW CONC. DRIVE

NEW CURB & GUTTER



PROPOSED IMPROVEMENTS



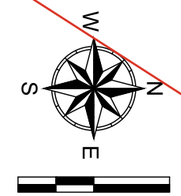
4" CONC. SIDEWALK

PEDESTRIAN RAMP

NEW BITUMINOUS PAVEMENT

NEW CONC. DRIVE

NEW CURB & GUTTER



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EMH DRAWN BY	MJA CHECKED BY	JAS APPROVED BY
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CURB & GUTTER, ASPHALT PAVING

SHEET 33 OF 45

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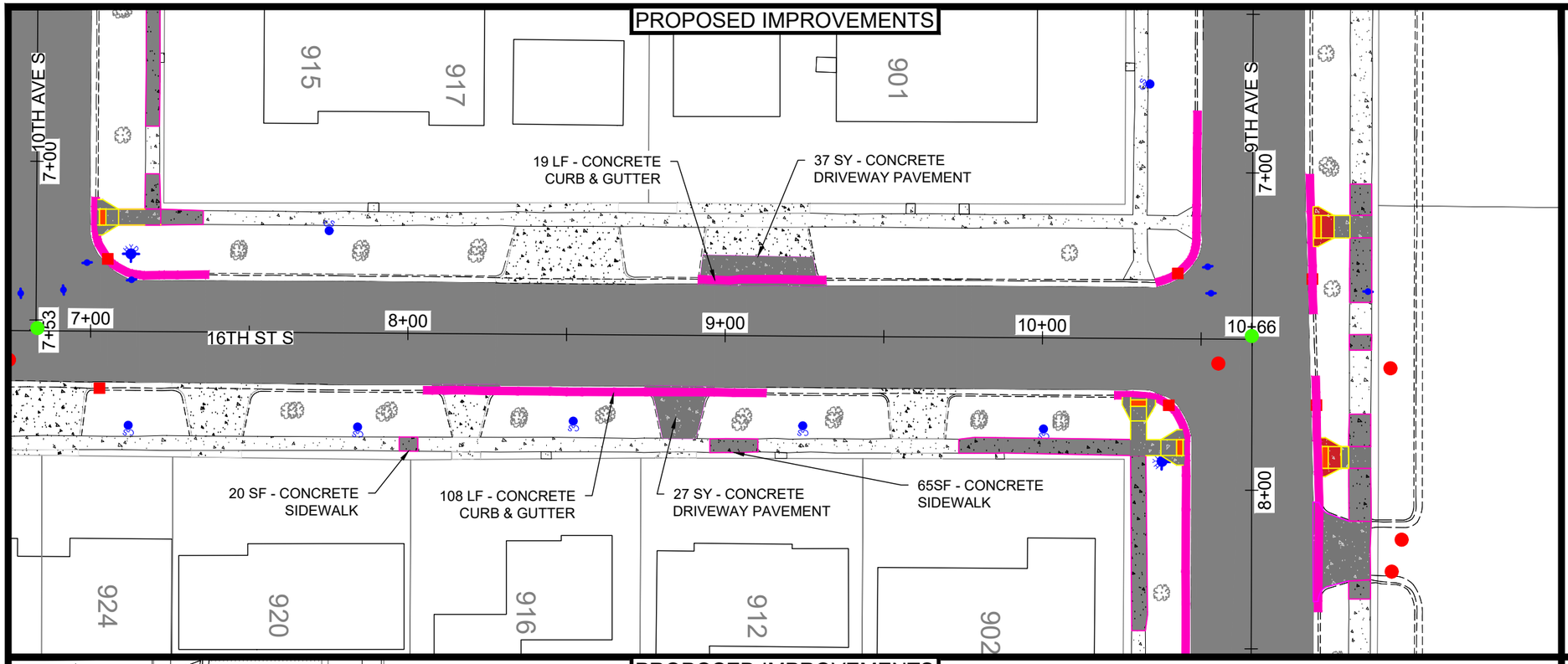
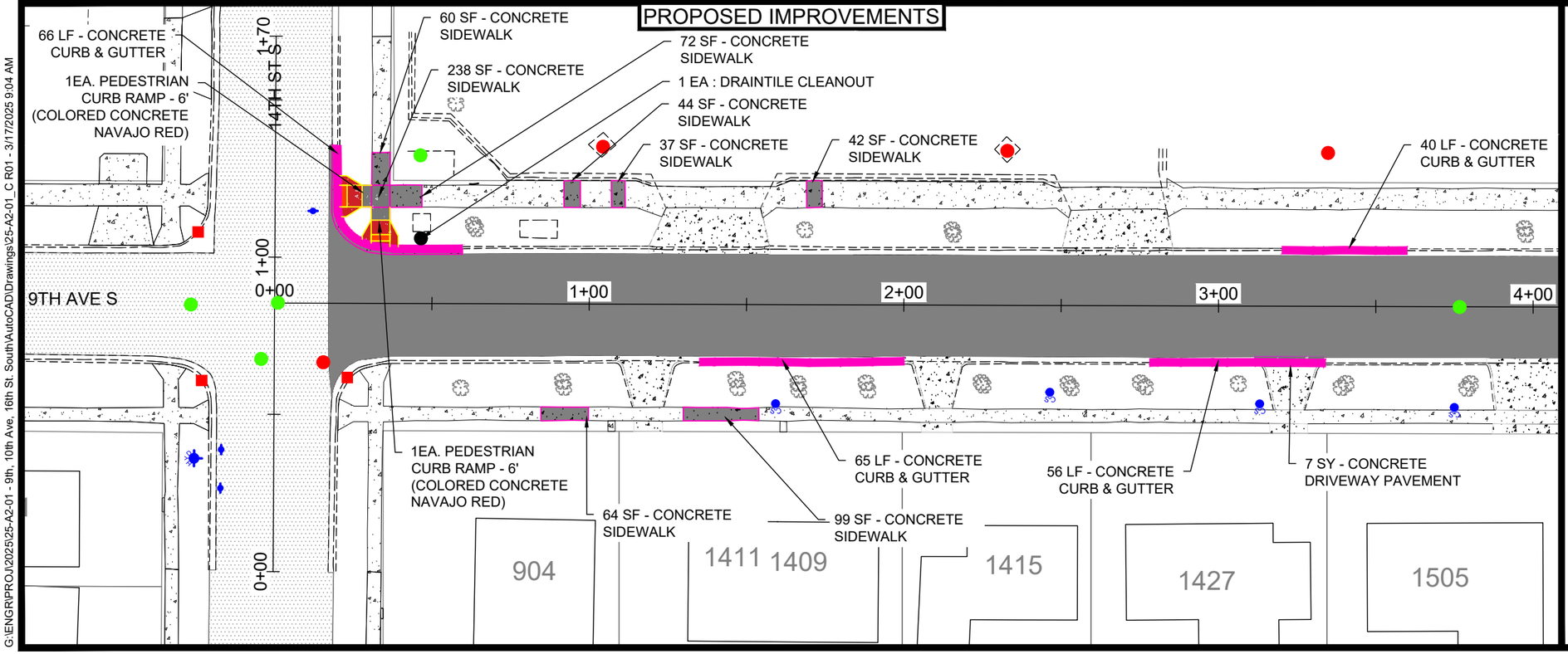


PROPOSED IMPROVEMENTS



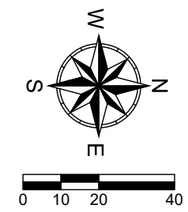
4" CONC. SIDEWALK

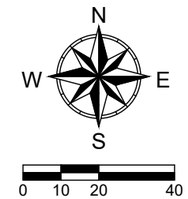
PEDESTRIAN RAMP

NEW BITUMINOUS PAVEMENT

NEW CONC. DRIVE

NEW CURB & GUTTER





--	A2-01-2025	25-A2-01	
SAP. No.	LEGAL No.	ENG. No.	
EMH	MJA	JAS	
DRAWN BY	CHECKED BY	APPROVED BY	

MOORHEAD MINNESOTA Engineering

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

Signature - Project Engineer

JAMES A. SCHULZ
Name - Project Engineer

03/07/2025
Date

26225
License No.

PROPOSED IMPROVEMENTS - 9TH AVE & 16TH STREET SOUTH

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 34 OF 45

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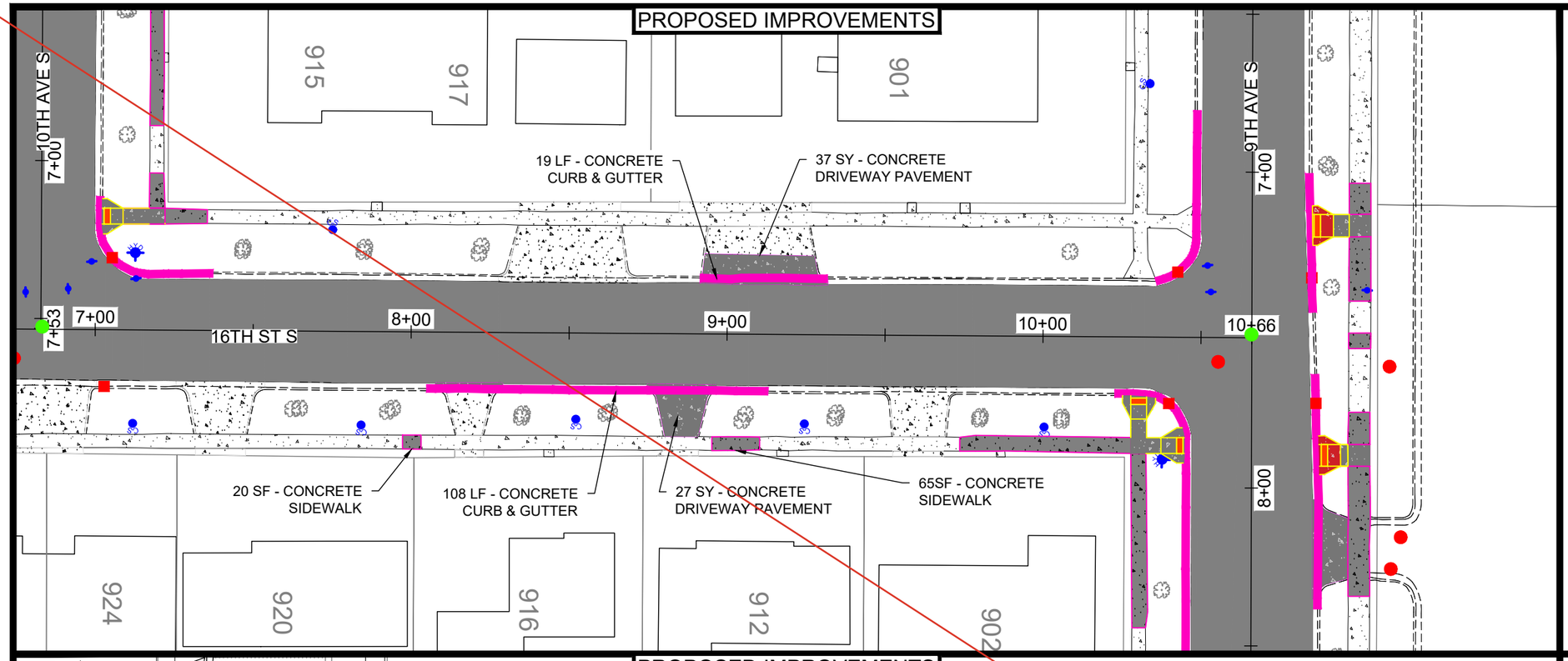
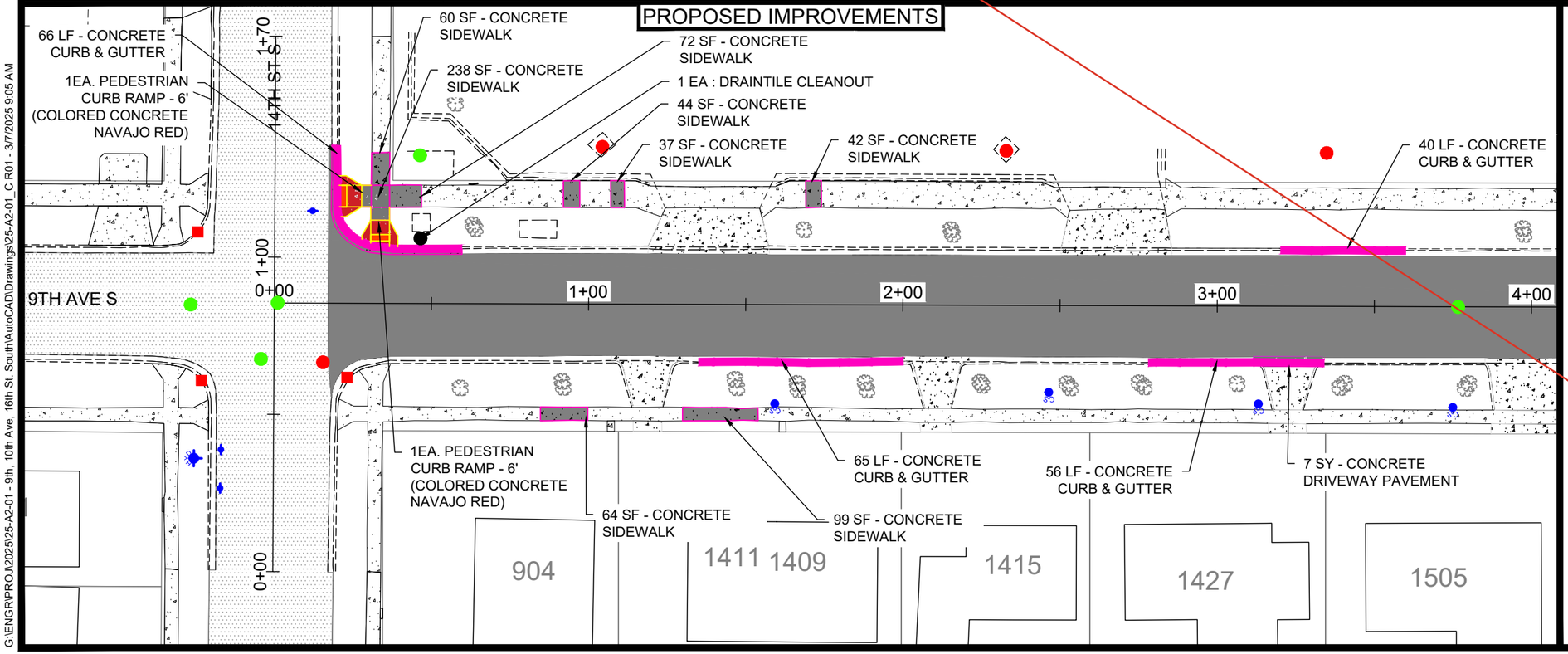
PROPOSED IMPROVEMENTS



PROPOSED IMPROVEMENTS



4" CONC. SIDEWALK

PEDESTRIAN RAMP

NEW BITUMINOUS PAVEMENT

NEW CONC. DRIVE

NEW CURB & GUTTER

N W E S

0 10 20 40

--	A2-01-2025	25-A2-01	
SAP. No.	LEGAL No.	ENG. No.	
EMH	MJA	JAS	
DRAWN BY	CHECKED BY	APPROVED BY	

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Signature - Project Engineer

--/--/----
Date

26225
License No.

JAMES A. SCHULZ
Name - Project Engineer

PROPOSED IMPROVEMENTS - 9TH AVE & 16TH STREET SOUTH

9TH AVE S, 10TH AVE S , AND 16TH ST S

CURB & GUTTER, ASPHALT PAVING

SHEET 34 OF 45

G:\ENGR\PROJ\2025\25-A2-01 - 9th, 10th Ave, 16th St. South\AutoCAD\Drawings\25-A2-01_C R01 - 3/7/2025 9:05 AM

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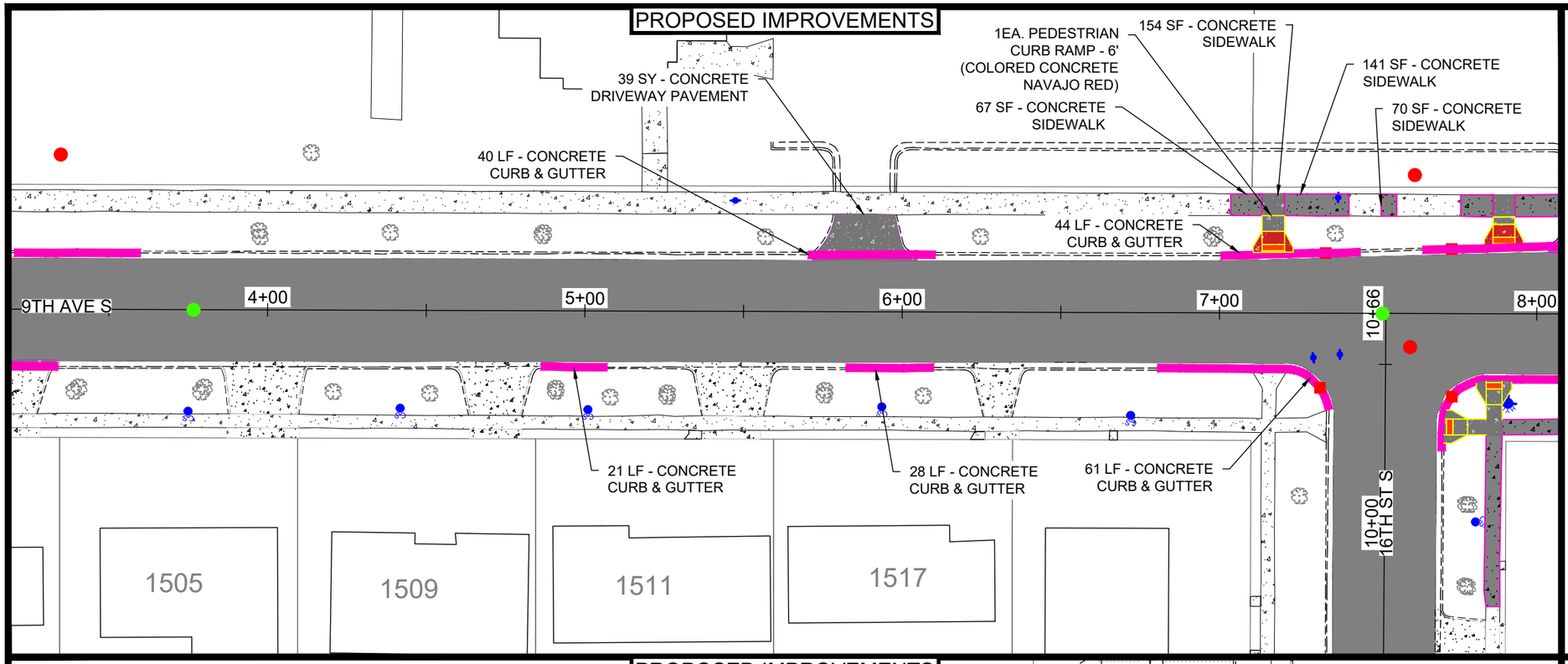


4" CONC. SIDEWALK

PEDESTRIAN RAMP

NEW BITUMINOUS PAVEMENT

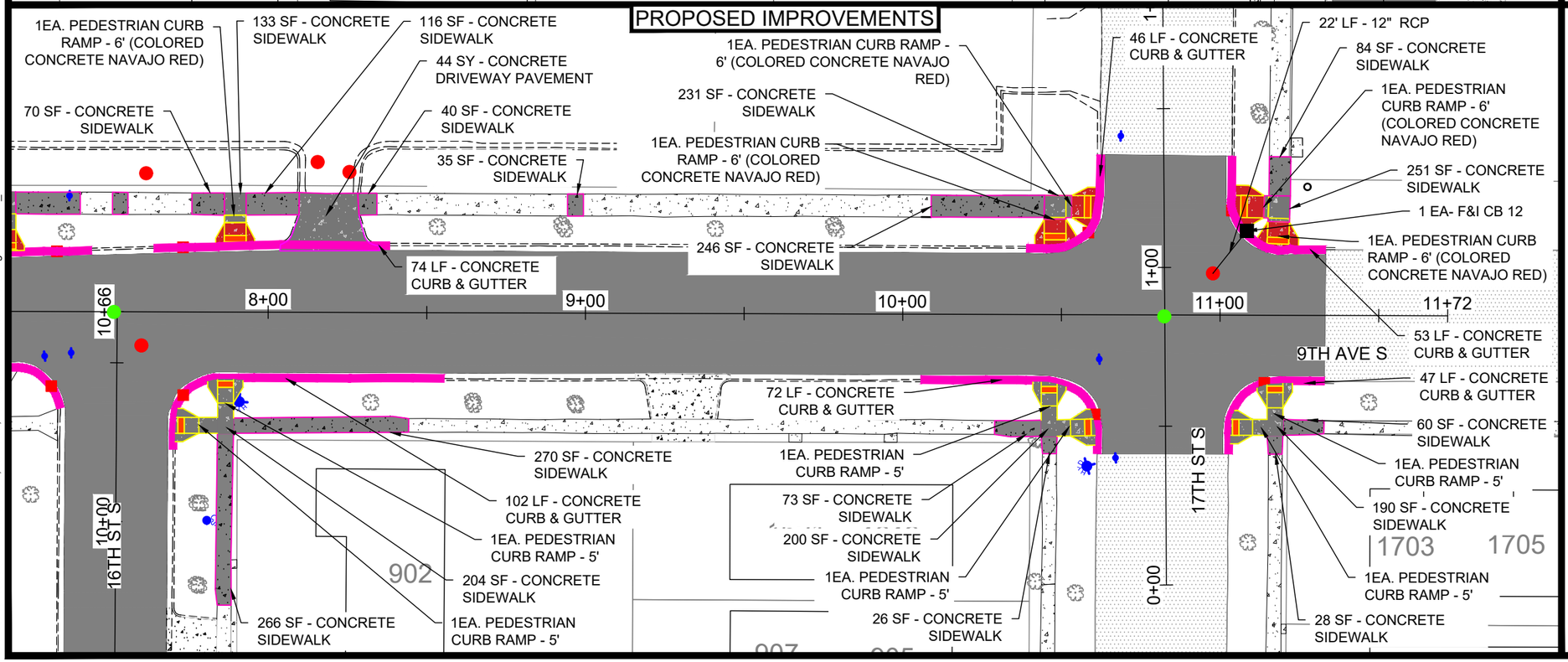
NEW CONC. DRIVE

NEW CURB & GUTTER

N W E S

0 10 20 40

PROPOSED IMPROVEMENTS



4" CONC. SIDEWALK

PEDESTRIAN RAMP

NEW BITUMINOUS PAVEMENT

NEW CONC. DRIVE

NEW CURB & GUTTER

N W E S

0 10 20 40

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SAP. No.	LEGAL No.	ENG. No.	
EMH	MJA	JAS	
DRAWN BY	CHECKED BY	APPROVED BY	

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JAMES A. SCHULZ
Name - Project Engineer

03/07/2025
Date

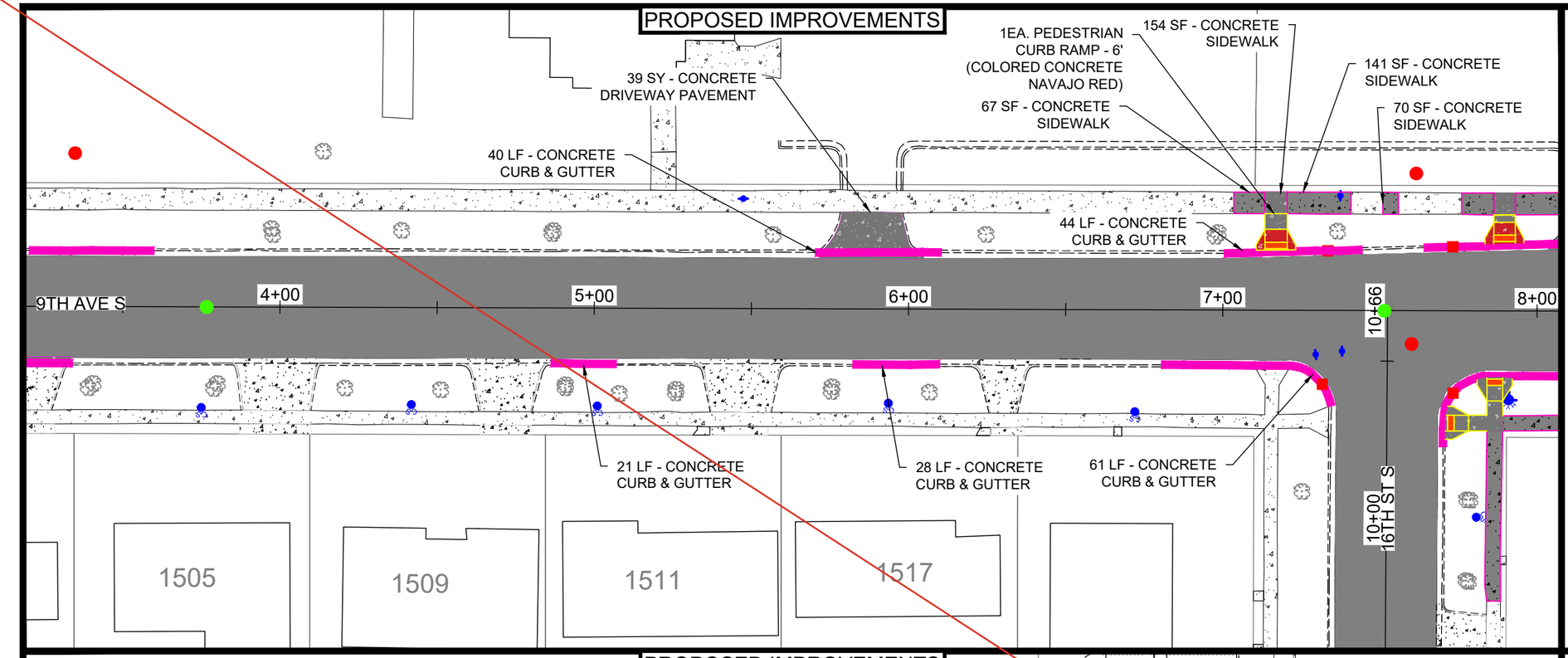
26225
License No.

Signature - Project Engineer

PROPOSED IMPROVEMENTS -9TH AVENUE SOUTH
9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 35 OF 45

PROPOSED IMPROVEMENTS



4" CONC. SIDEWALK

PEDESTRIAN RAMP

NEW BITUMINOUS PAVEMENT

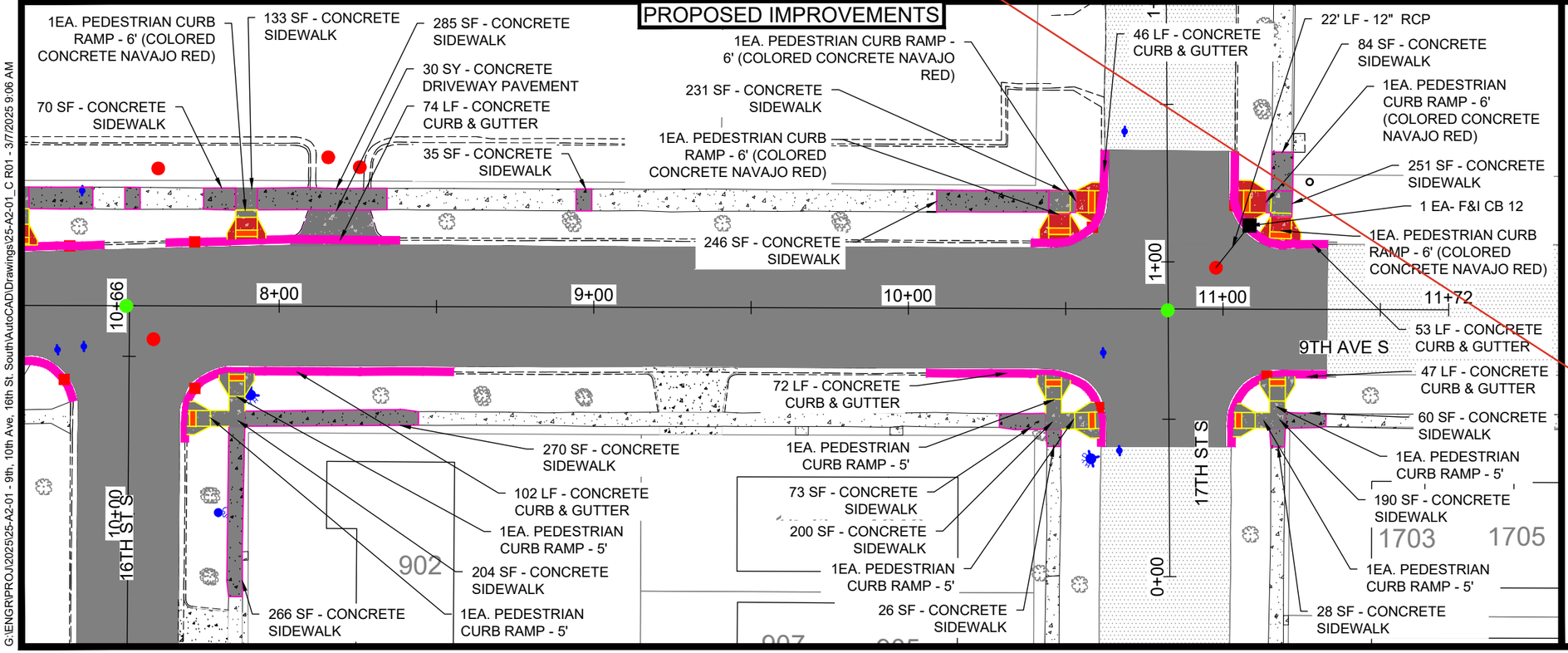
NEW CONC. DRIVE

NEW CURB & GUTTER

N W E S

0 10 20 40

PROPOSED IMPROVEMENTS



4" CONC. SIDEWALK

PEDESTRIAN RAMP

NEW BITUMINOUS PAVEMENT

NEW CONC. DRIVE

NEW CURB & GUTTER

N W E S

0 10 20 40

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SAP. No.	LEGAL No.	ENG. No.	
EMH	MJA	JAS	
DRAWN BY	CHECKED BY	APPROVED BY	

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Date

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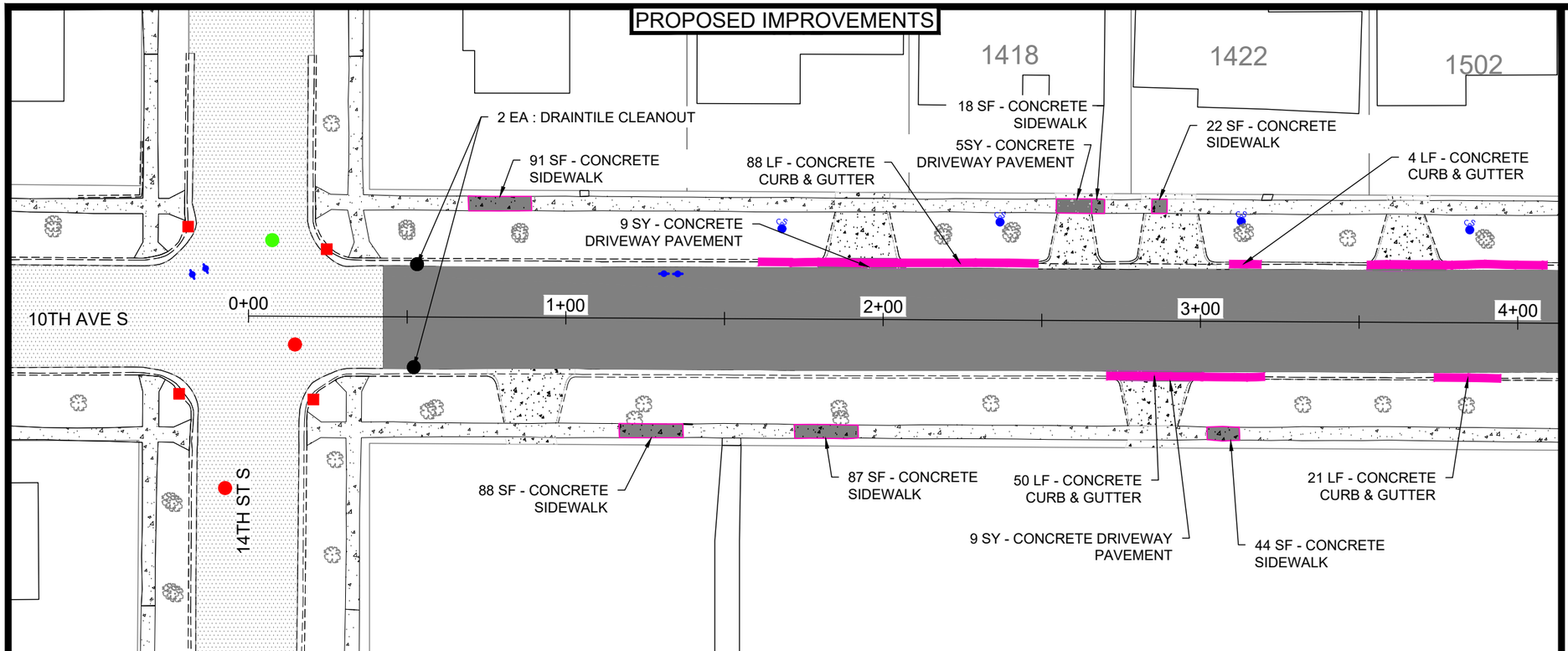
License No.

JAMES A. SCHULZ
Name - Project Engineer

PROPOSED IMPROVEMENTS -9TH AVENUE SOUTH
9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 35 OF 45

PROPOSED IMPROVEMENTS



4" CONC. SIDEWALK

PEDESTRIAN RAMP

NEW BITUMINOUS PAVEMENT

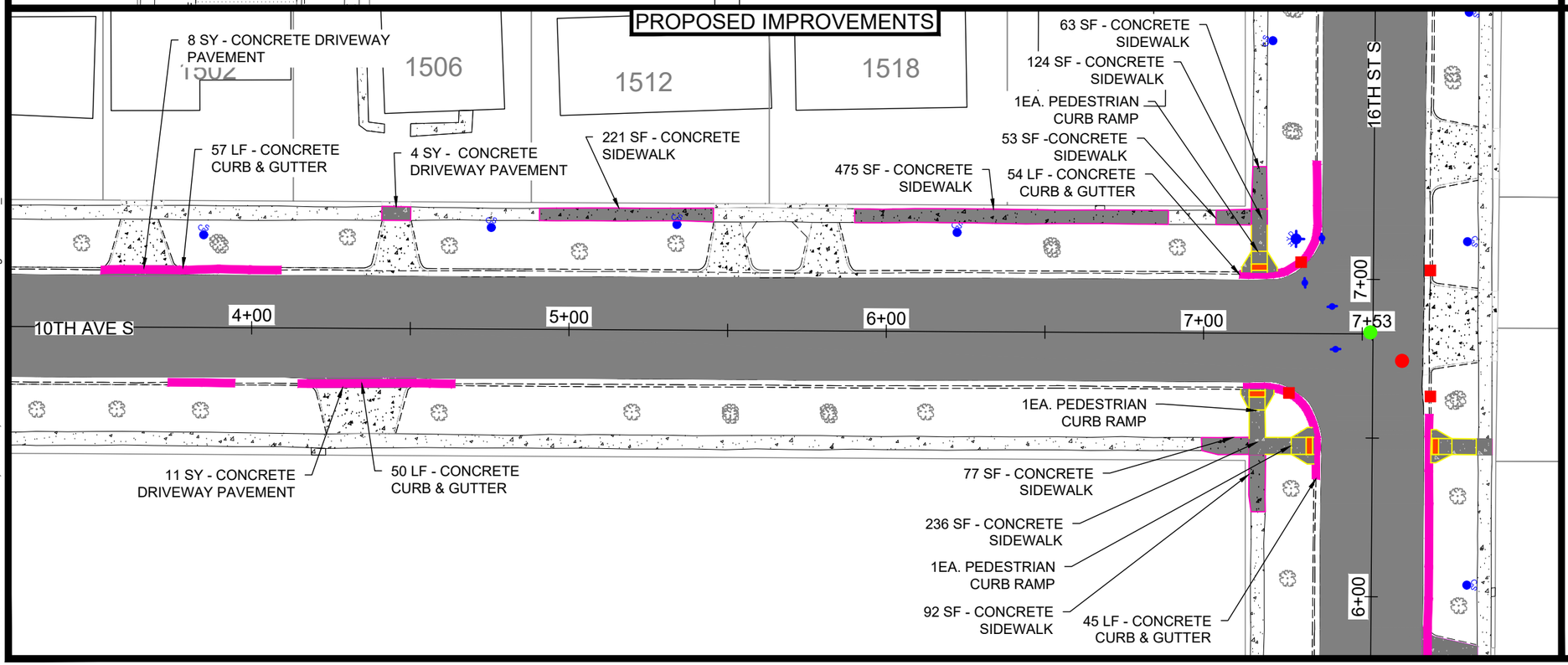
NEW CONC. DRIVE

NEW CURB & GUTTER

N W E S

0 10 20 40

PROPOSED IMPROVEMENTS



4" CONC. SIDEWALK

PEDESTRIAN RAMP

NEW BITUMINOUS PAVEMENT

NEW CONC. DRIVE

NEW CURB & GUTTER

N W E S

0 10 20 40

--	A2-01-2025	25-A2-01	
SAP. No.	LEGAL No.	ENG. No.	
EMH	MJA	JAS	
DRAWN BY	CHECKED BY	APPROVED BY	

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Signature - Project Engineer

JAMES A. SCHULZ
Name - Project Engineer

03/07/2025
Date

26225
License No.

PROPOSED IMPROVEMENTS - 10TH AVENUE SOUTH
9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 36 OF 45

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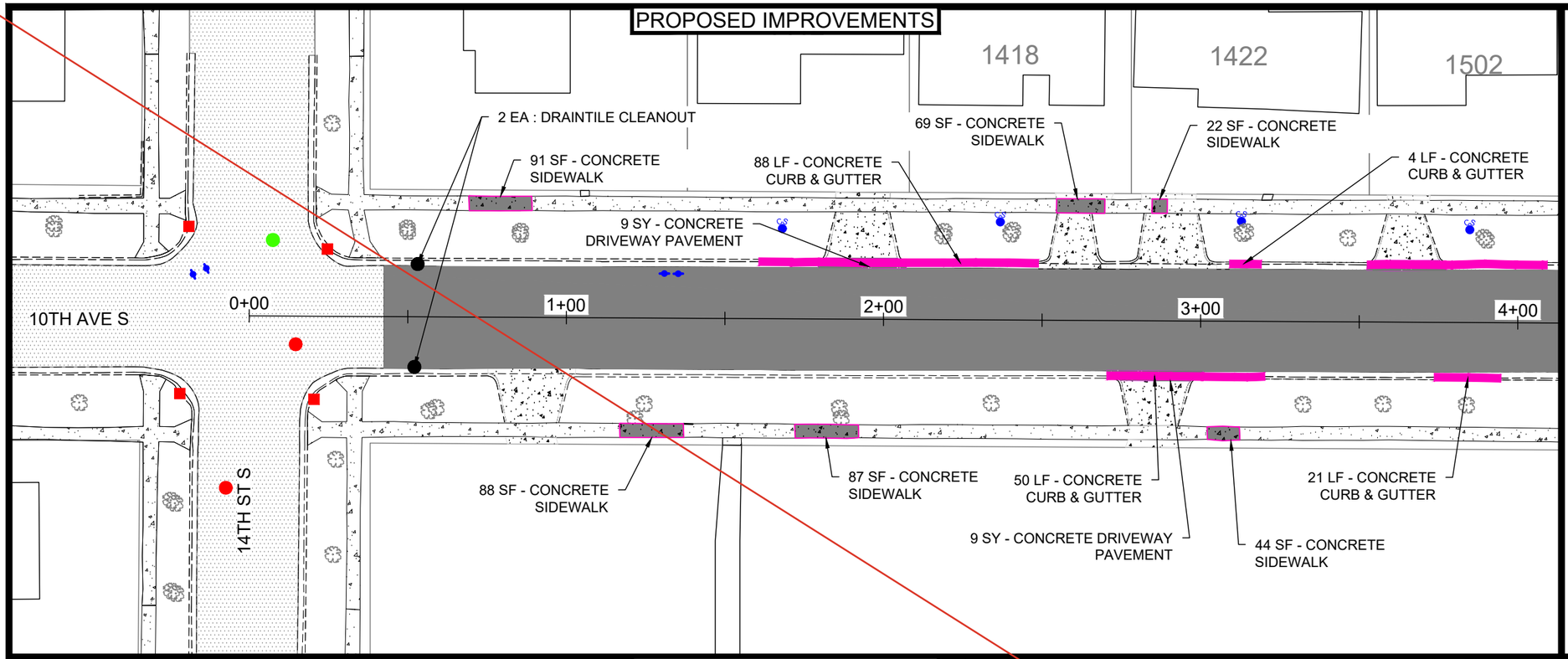
PROPOSED IMPROVEMENTS



4" CONC. SIDEWALK

PEDESTRIAN RAMP

NEW BITUMINOUS PAVEMENT

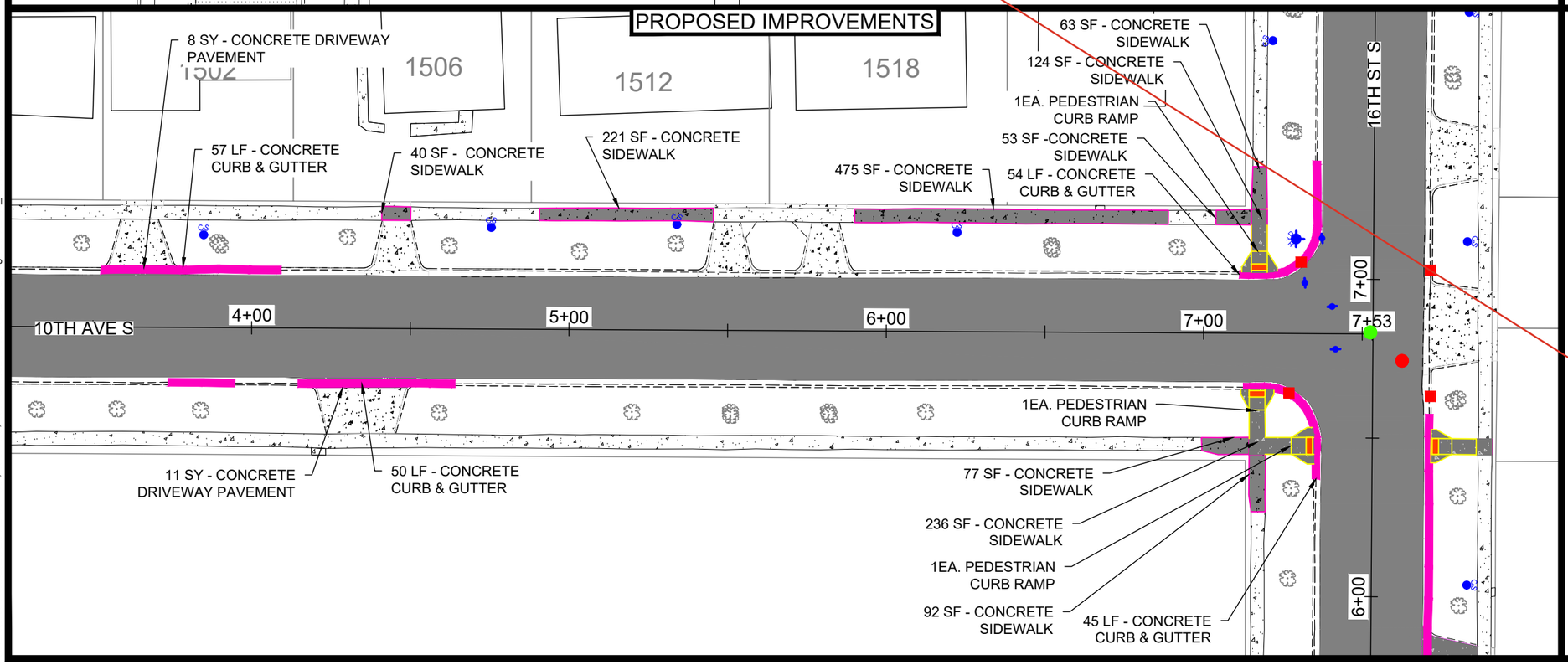
NEW CONC. DRIVE

NEW CURB & GUTTER

N W E S

0 10 20 40

PROPOSED IMPROVEMENTS



4" CONC. SIDEWALK

PEDESTRIAN RAMP

NEW BITUMINOUS PAVEMENT

NEW CONC. DRIVE

NEW CURB & GUTTER

N W E S

0 10 20 40

--	A2-01-2025	25-A2-01	
SAP. No.	LEGAL No.	ENG. No.	
EMH	MJA	JAS	
DRAWN BY	CHECKED BY	APPROVED BY	

MOORHEAD MINNESOTA Engineering

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--/--/----
Date

26225
License No.

JAMES A. SCHULZ
Name - Project Engineer

Signature - Project Engineer

PROPOSED IMPROVEMENTS - 10TH AVENUE SOUTH
9TH AVE S, 10TH AVE S , AND 16TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 36 OF 45

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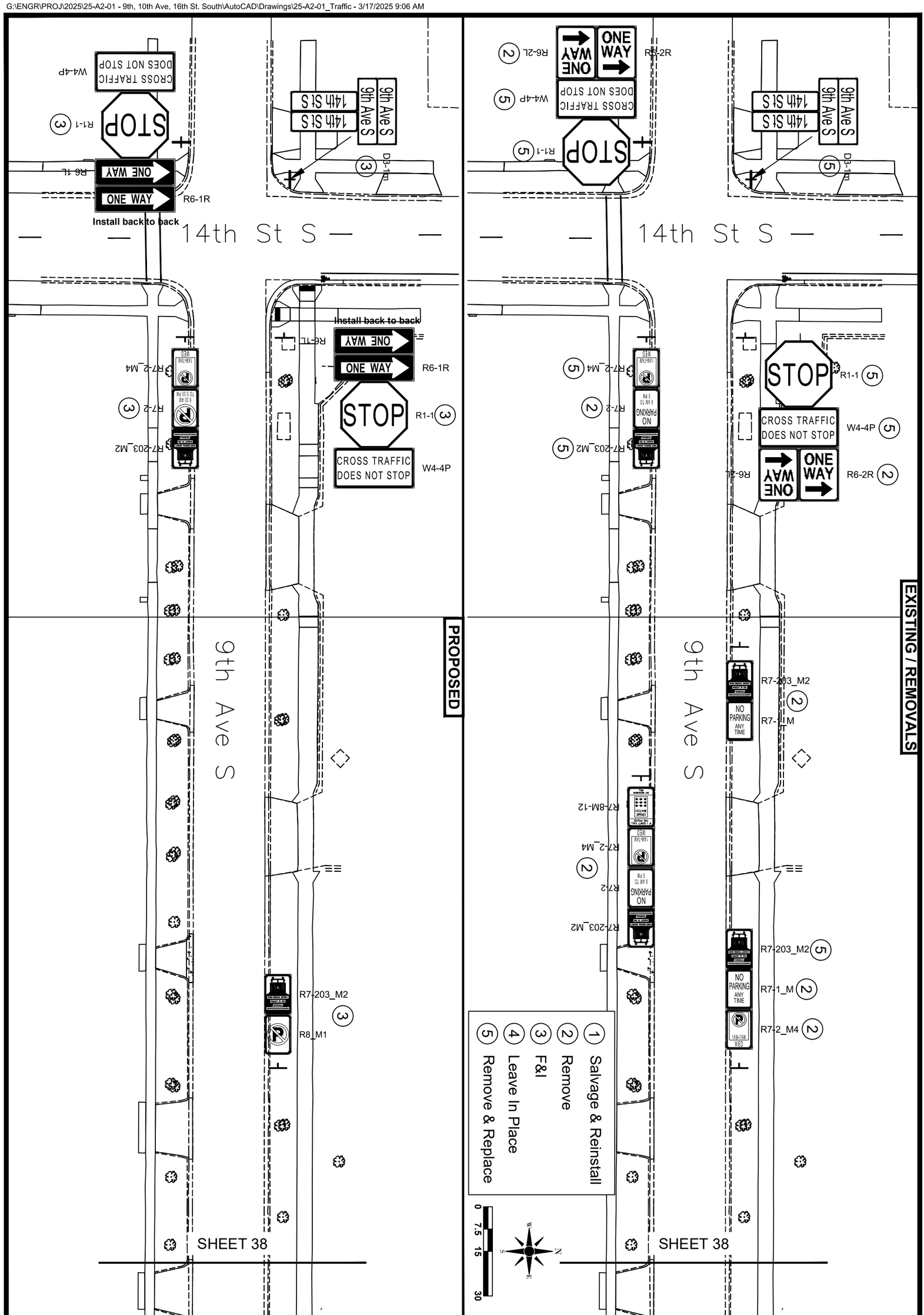

SHEET 37 OF 45

Signing And Striping

9TH AVE S, 10TH AVE S , AND 16TH ST S

Curb & Gutter, Asphalt Paving

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

Signature - Project Engineer

--/--/----
Date

Jonathan Atkins
Name - Project Engineer

51897
License No.

MOORHEAD MINNESOTA Engineering

TSL DRAWN BY	-- S.P. No.
JAA CHECKED BY	**25-A2-01** ENG. No.
JAA APPROVED BY	**A2-01-2025** LEGAL. No.

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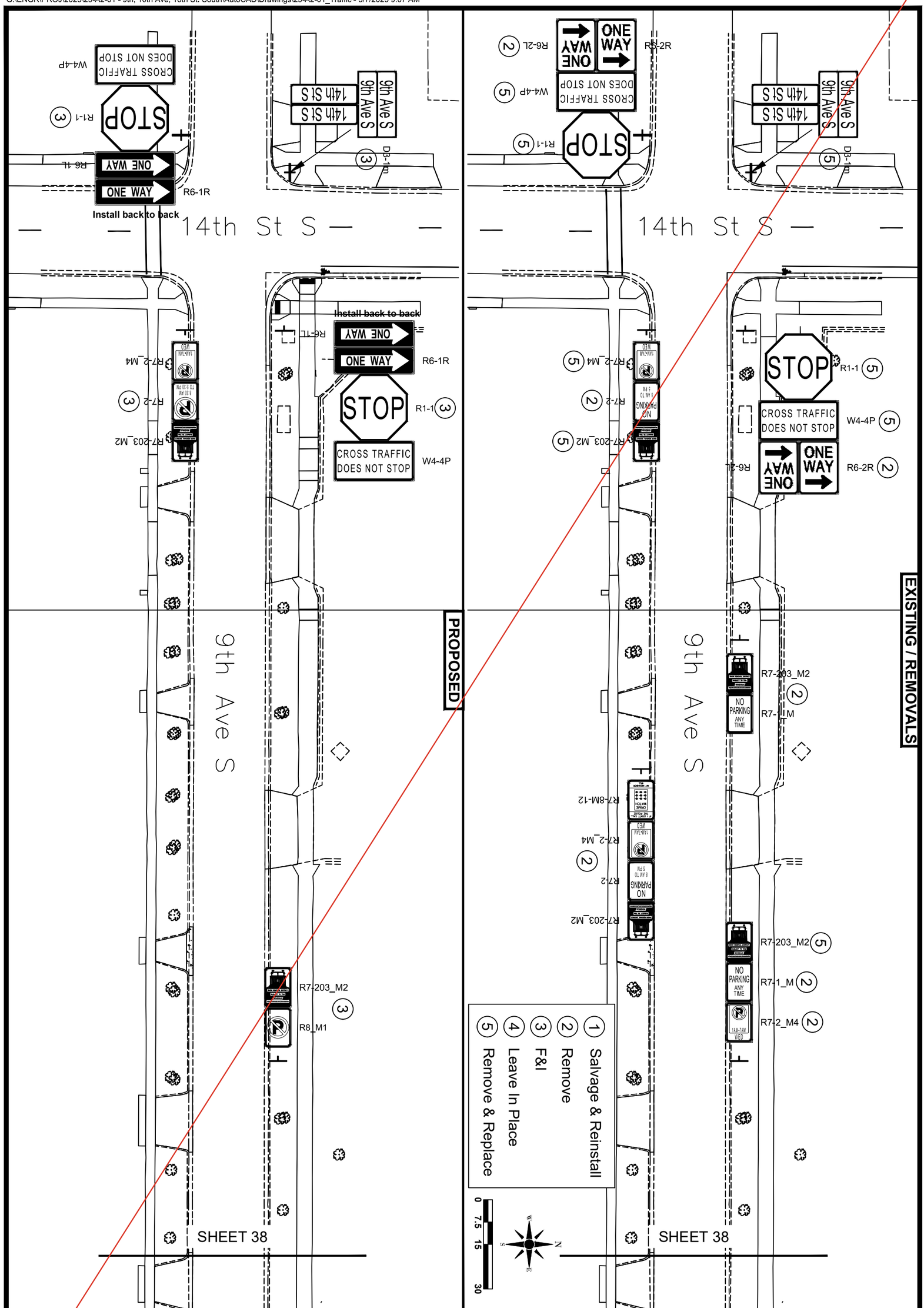

SHEET 37 OF 45

Signing And Striping

9TH AVE S, 10TH AVE S , AND 16TH ST S

Curb & Gutter, Asphalt Paving

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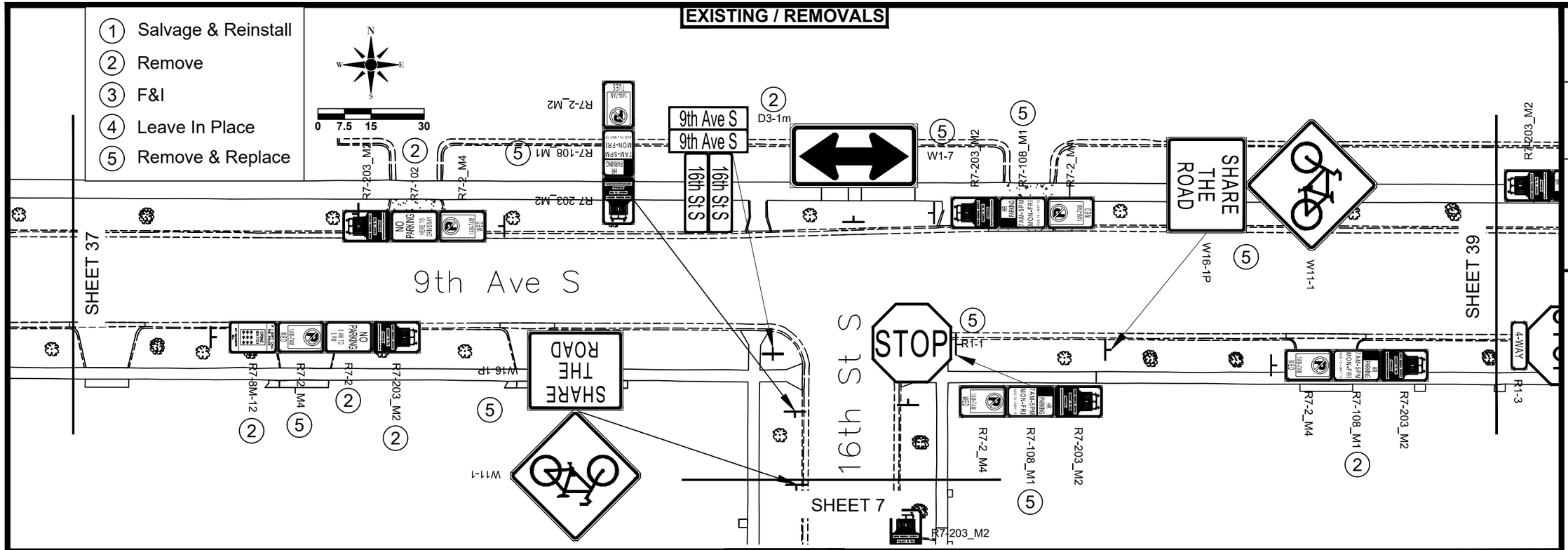
MOORHEAD MINNESOTA Engineering

TSL DRAWN BY	-- S.P. No.
JAA CHECKED BY	**25-A2-01** ENG. No.
JAA APPROVED BY	**A2-01-2025** LEGAL. No.

EXISTING / REMOVALS

1. Salvage & Reinstall
2. Remove
3. F&I
4. Leave In Place
5. Remove & Replace



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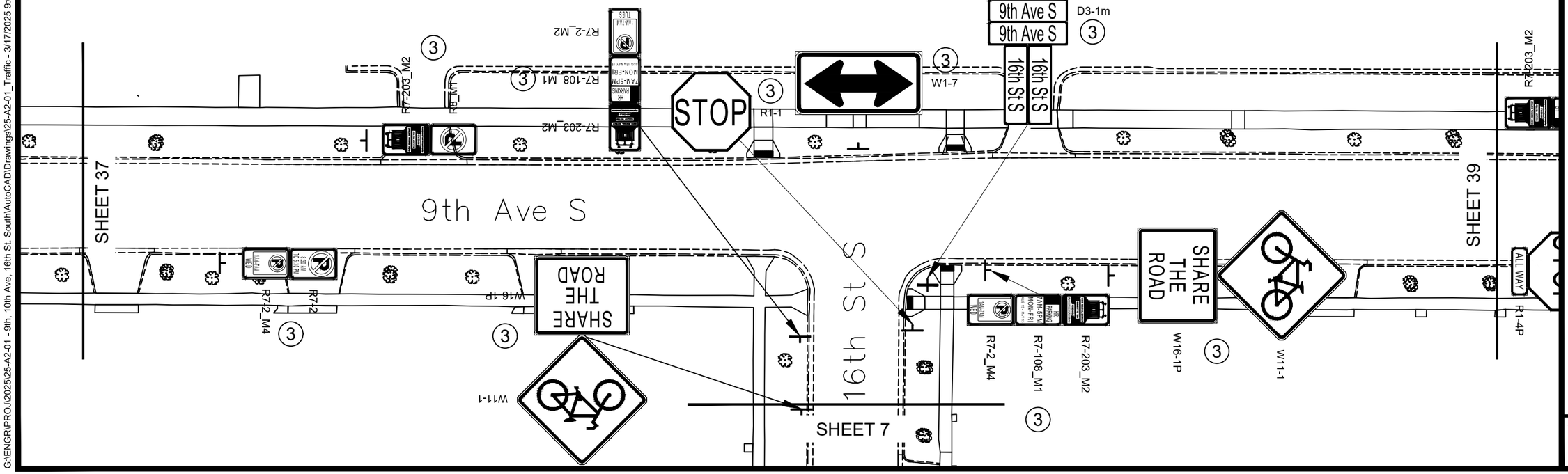

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S.P. No.

25-A2-01
ENG. No.

A2-01-2025
LEGAL No.

DRAWN BY
JAA
CHECKED BY
JAA
APPROVED BY

MOORHEAD
MINNESOTA
Engineering

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Signature - Project Engineer

Jonathan Atkins
Name - Project Engineer

--/--/----
Date

51897
License No.

Signing And Striping

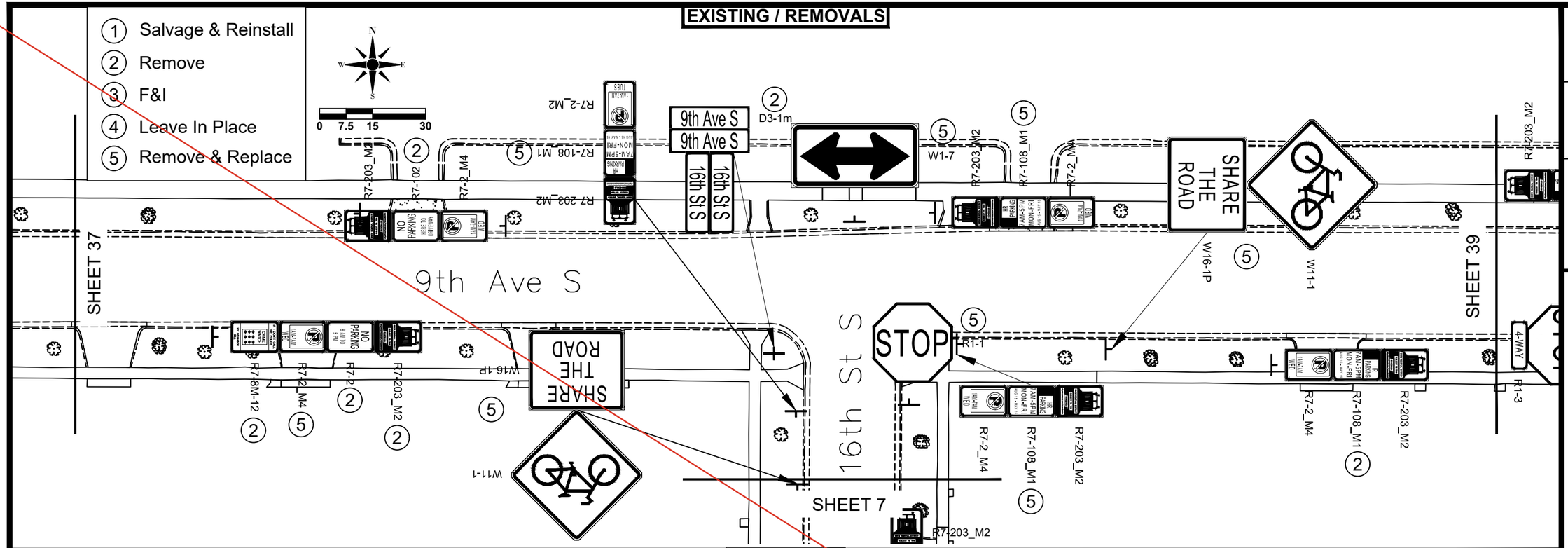
9TH AVE S, 10TH AVE S, AND 16TH ST S

Curb & Gutter, Asphalt Paving

SHEET
38
OF 45

1 Salvage & Reinstall
2 Remove
3 F&I
4 Leave In Place
5 Remove & Replace

EXISTING / REMOVALS



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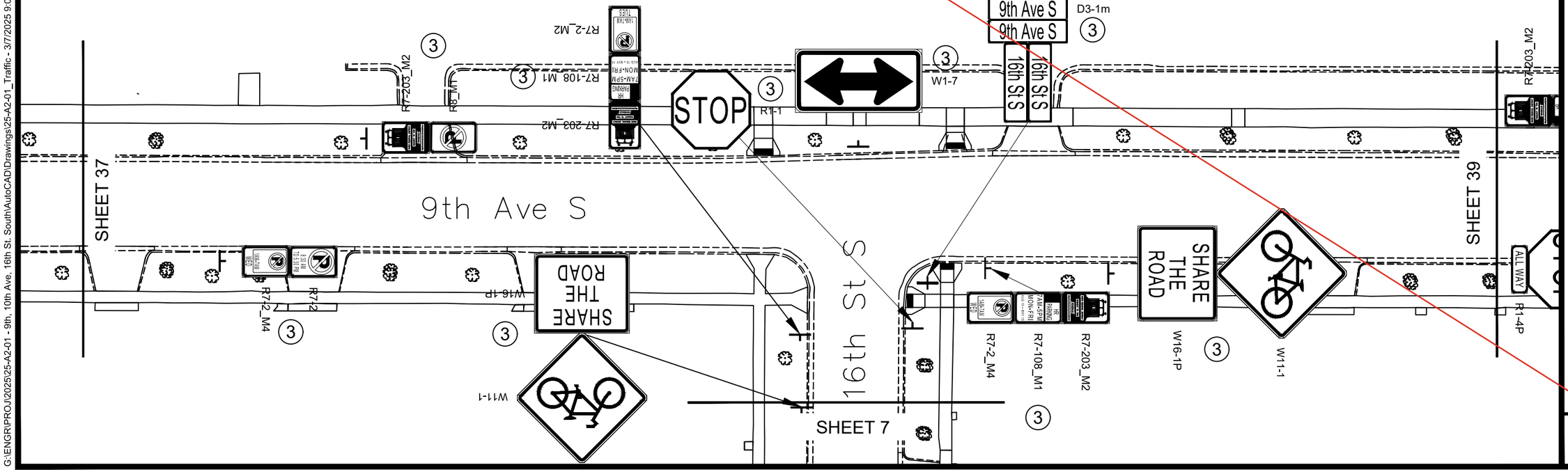

S.P. No.	
25-A2-01 ENG. No.	
A2-01-2025 LEGAL. No.	
DRAWN BY	
JAA CHECKED BY	
JAA APPROVED BY	

MOORHEAD MINNESOTA Engineering

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Date

51897
License No.

Signature - Project Engineer

Jonathan Atkins
Name - Project Engineer

Signing And Striping

9TH AVE S, 10TH AVE S , AND 16TH ST S

Curb & Gutter, Asphalt Paving

SHEET 38 OF 45

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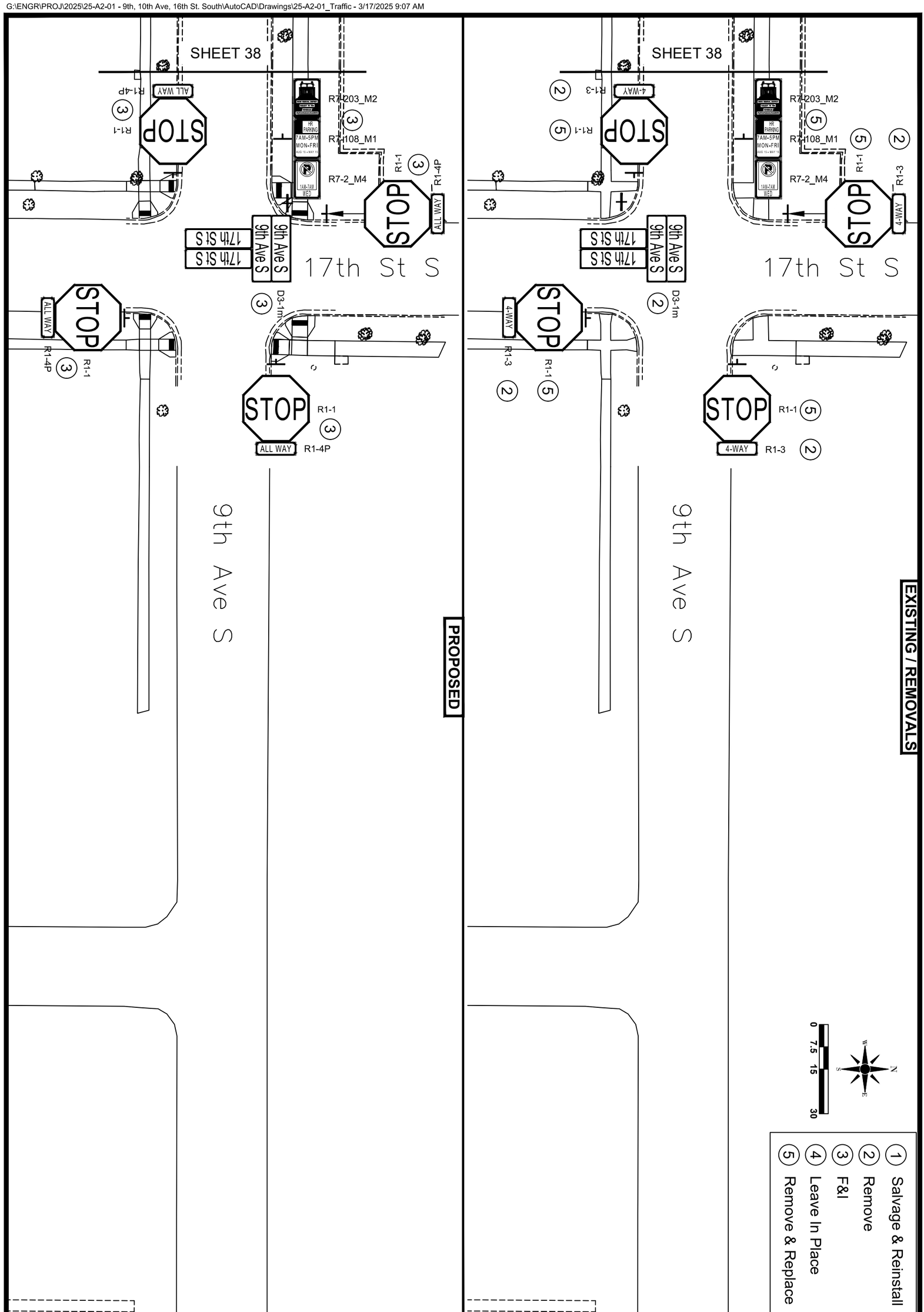

Signing And Striping

9TH AVE S, 10TH AVE S , AND 16TH ST S

Curb & Gutter, Asphalt Paving

SHEET 39 OF 45

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Date

Jonathan Atkins
Name - Project Engineer

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License No.

MOORHEAD MINNESOTA Engineering

TSL DRAWN BY	-- S.P. No.
JAA CHECKED BY	25-A2-01 ENG. No.
JAA APPROVED BY	A2-01-2025 LEGAL. No.

EXISTING / REMOVALS

1. Salvage & Reinstall
2. Remove
3. F&I
4. Leave In Place
5. Remove & Replace

PROPOSED

-- S.P. No.	25-A2-01 ENG. No.	A2-01-2025 LEGAL. No.
TSL DRAWN BY	JAA CHECKED BY	JAA APPROVED BY

MOORHEAD MINNESOTA Engineering

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51897 License No.

Jonathan Atkins
Name - Project Engineer

Signature - Project Engineer

Signing And Striping

9TH AVE S, 10TH AVE S , AND 16TH ST S

Curb & Gutter, Asphalt Paving

SHEET 39 OF 45

G:\ENGR\PROJ\2025\25-A2-01 - 9th, 10th Ave, 16th St. South\AutoCAD\Drawings\25-A2-01_Traffic - 3/7/2025 9:08 AM

1. Salvage & Reinstall
2. Remove
3. F&I
4. Leave In Place
5. Remove & Replace

0 7.5 15 30

PROPOSED

STOP R1-1
ONE WAY R6-1L
ONE WAY R6-1R
Install back to back
14th St S
10th Ave S
D3-1m

EXISTING / REMOVALS

ONE WAY ONE WAY R6-2L R6-2R
STOP R1-1
14th St S
10th Ave S
D3-1m

10th Ave S
SHEET 41
R7-2_M4
R7-108_M1
R7-203_M2
Install back to back
R6-1L
R6-1R
STOP R1-1

10th Ave S
SHEET 41
R7-2_M4
R7-108_M1
R7-203_M2
STOP R1-1
R6-2L
R6-2R
R7-8M-12
R7-203_M2

SHEET 40 OF 45

Signing And Striping

9TH AVE S, 10TH AVE S , AND 16TH ST S

Curb & Gutter, Asphalt Paving

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JAA CHECKED BY	25-A2-01 ENG. No.
JAA APPROVED BY	A2-01-2025 LEGAL. No.

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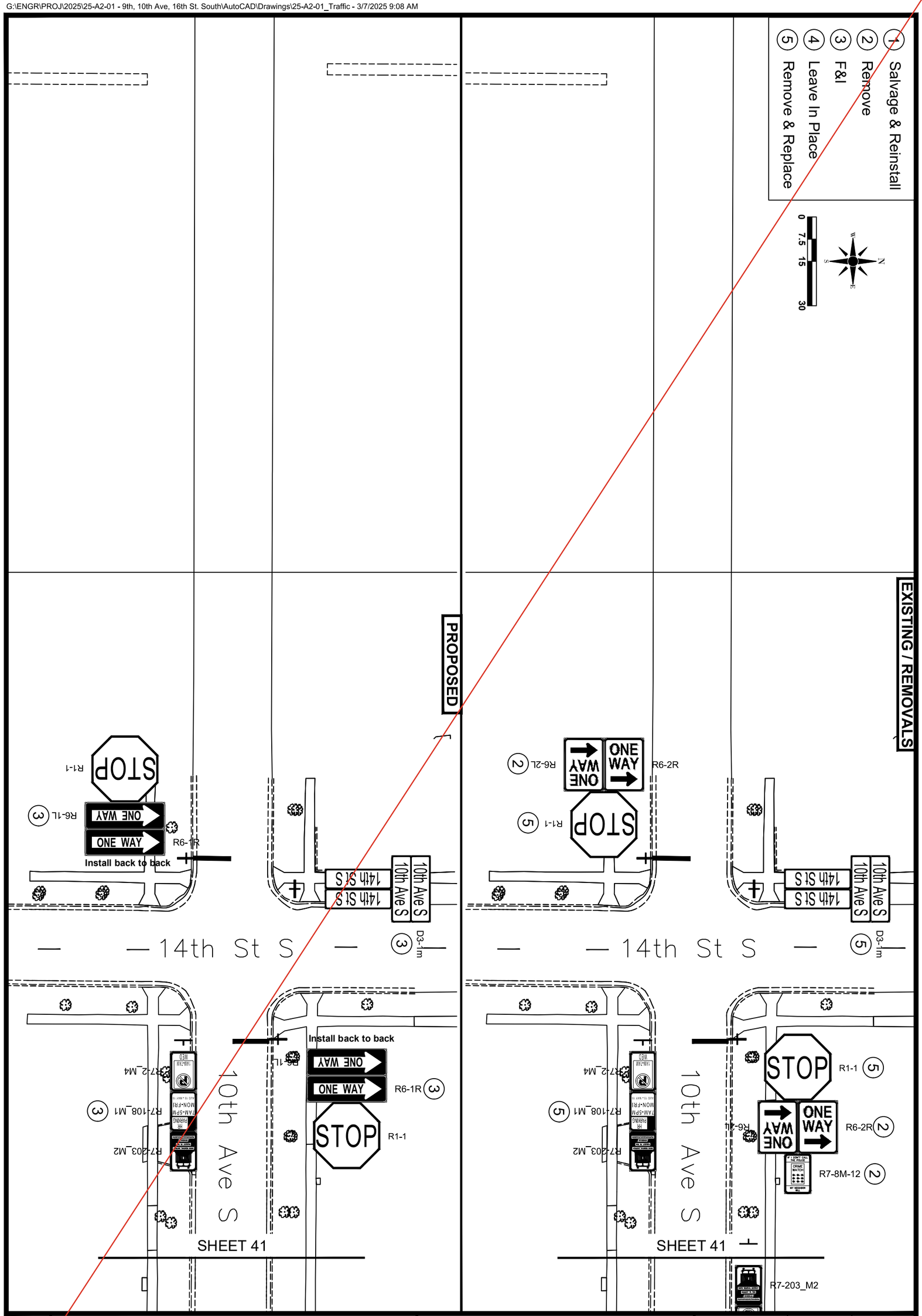

SHEET 40 OF 45

Signing And Striping

9TH AVE S, 10TH AVE S , AND 16TH ST S

Curb & Gutter, Asphalt Paving

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Date

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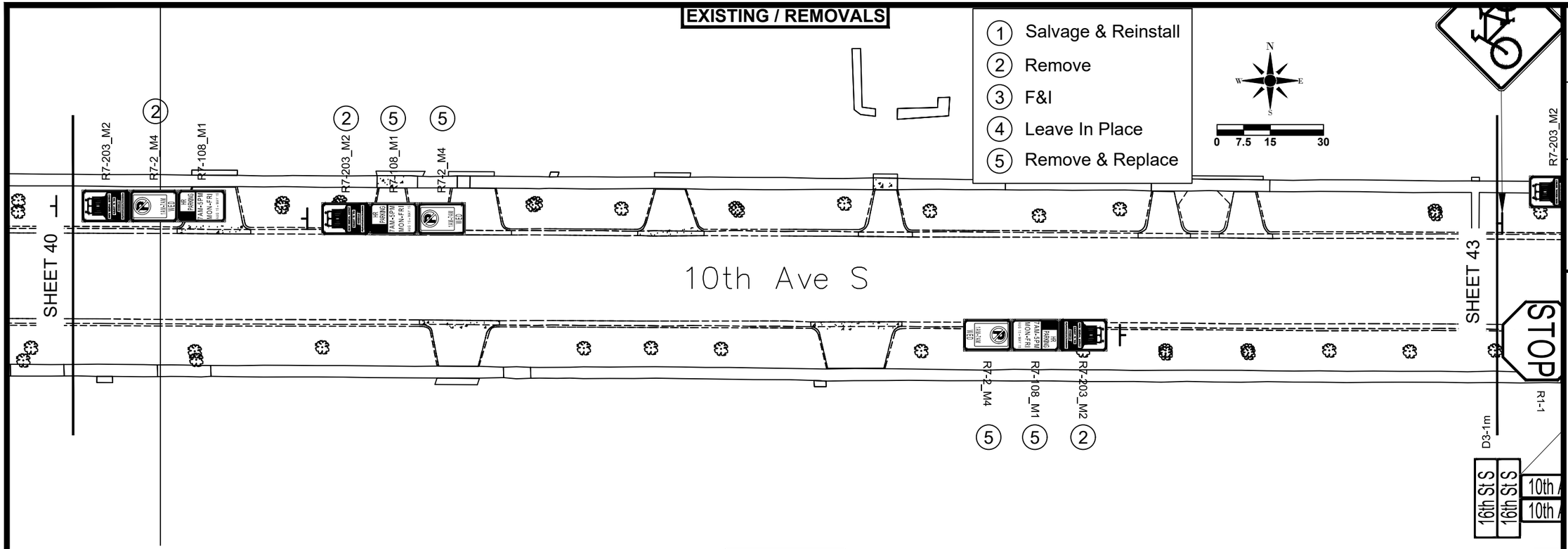
JAA CHECKED BY	**25-A2-01** ENG. No.
JAA APPROVED BY	**A2-01-2025** LEGAL. No.

EXISTING / REMOVALS



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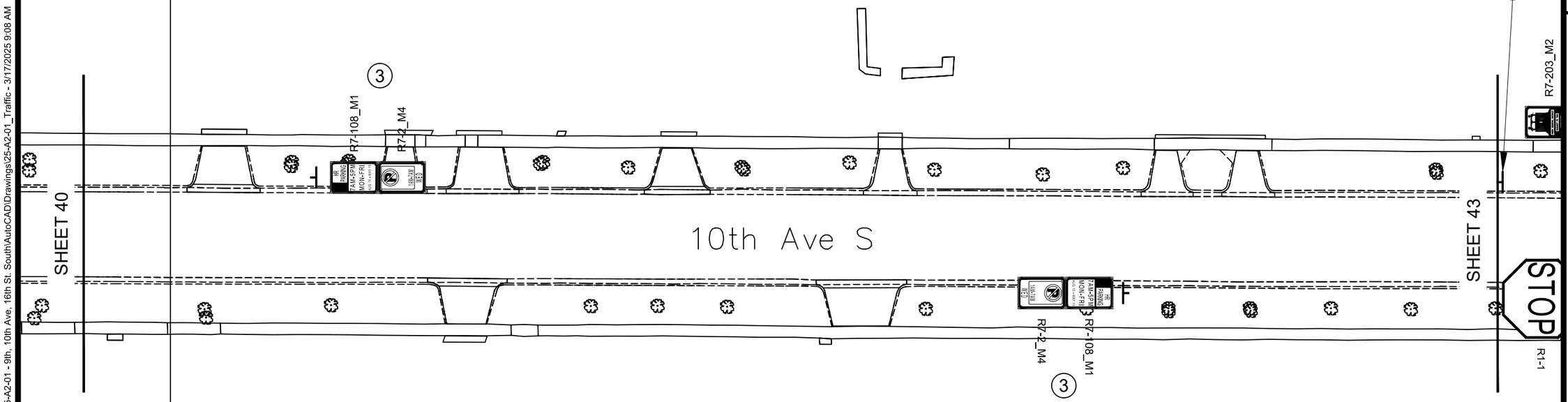

--	25-A2-01	A2-01-2025
S.P. No.	ENG. No.	LEGAL. No.
TSL	JAA	JAA
DRAWN BY	CHECKED BY	APPROVED BY

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Signature - Project Engineer

Signing And Striping

9TH AVE S, 10TH AVE S , AND 16TH ST S

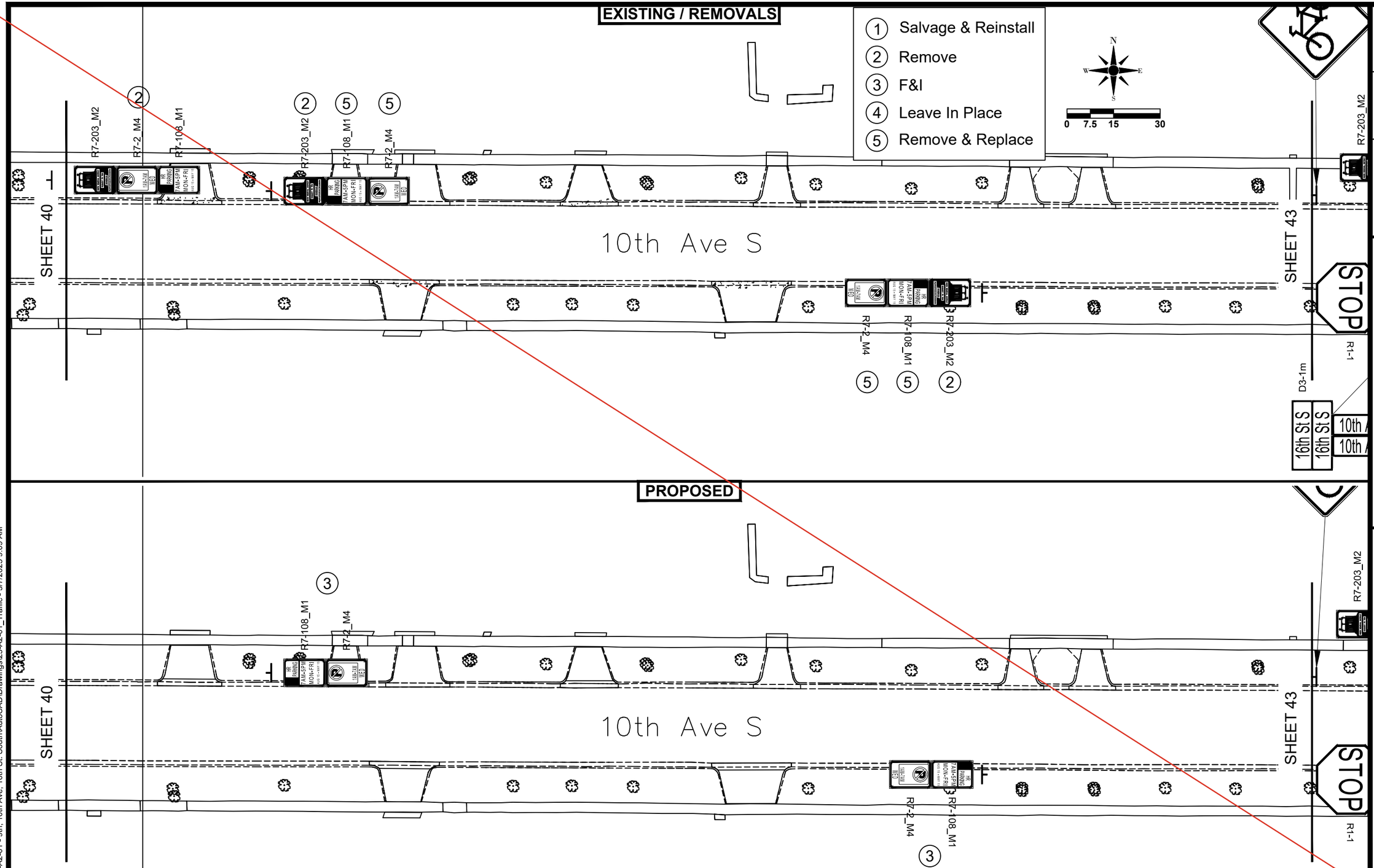
Curb & Gutter, Asphalt Paving

SHEET 41 OF 45

G:\ENGR\PROJ\2025\25-A2-01 - 9th, 10th Ave, 16th St. South\AutoCAD\Drawings\25-A2-01_Traffic - 3/17/2025 9:08 AM

EXISTING / REMOVALS

1. Salvage & Reinstall
2. Remove
3. F&I
4. Leave In Place
5. Remove & Replace



PROPOSED

--	25-A2-01	A2-01-2025
S.P. No.	ENG. No.	LEGAL. No.
TSL	JAA	JAA
DRAWN BY	CHECKED BY	APPROVED BY

MOORHEAD MINNESOTA Engineering

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--/--/----
Date

51897
License No.

Signature - Project Engineer

Jonathan Atkins
Name - Project Engineer

Signing And Striping

9TH AVE S, 10TH AVE S , AND 16TH ST S

Curb & Gutter, Asphalt Paving

SHEET 41 OF 45

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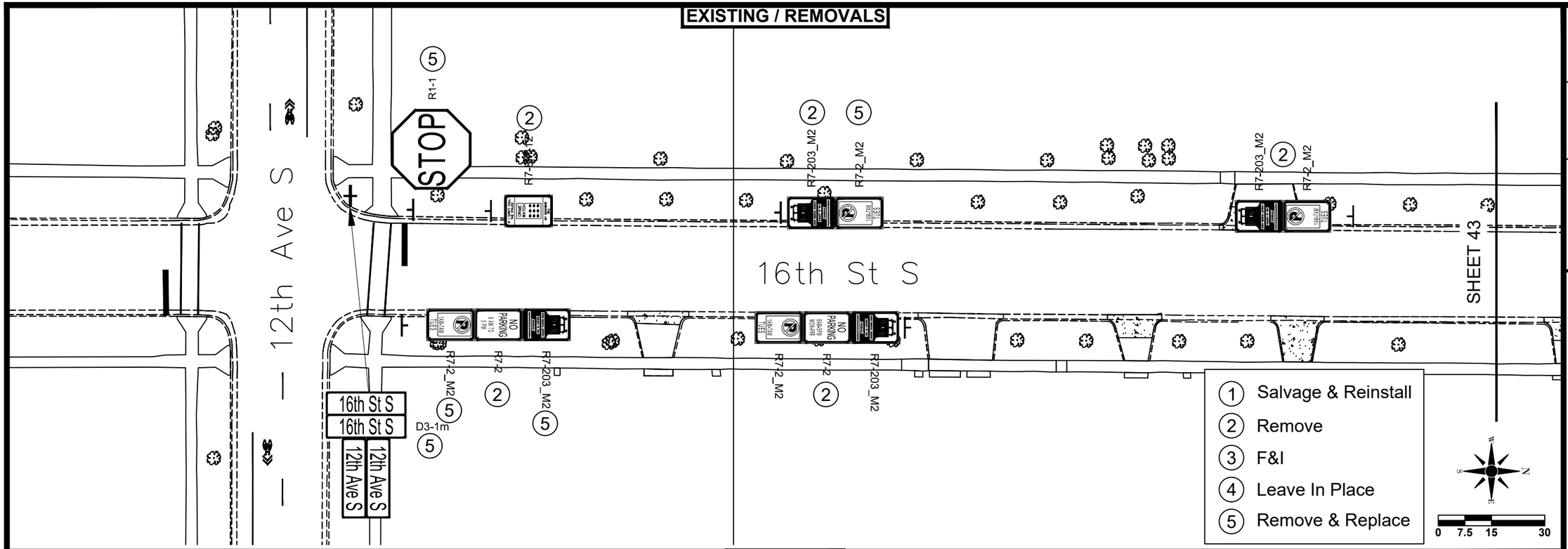
EXISTING / REMOVALS



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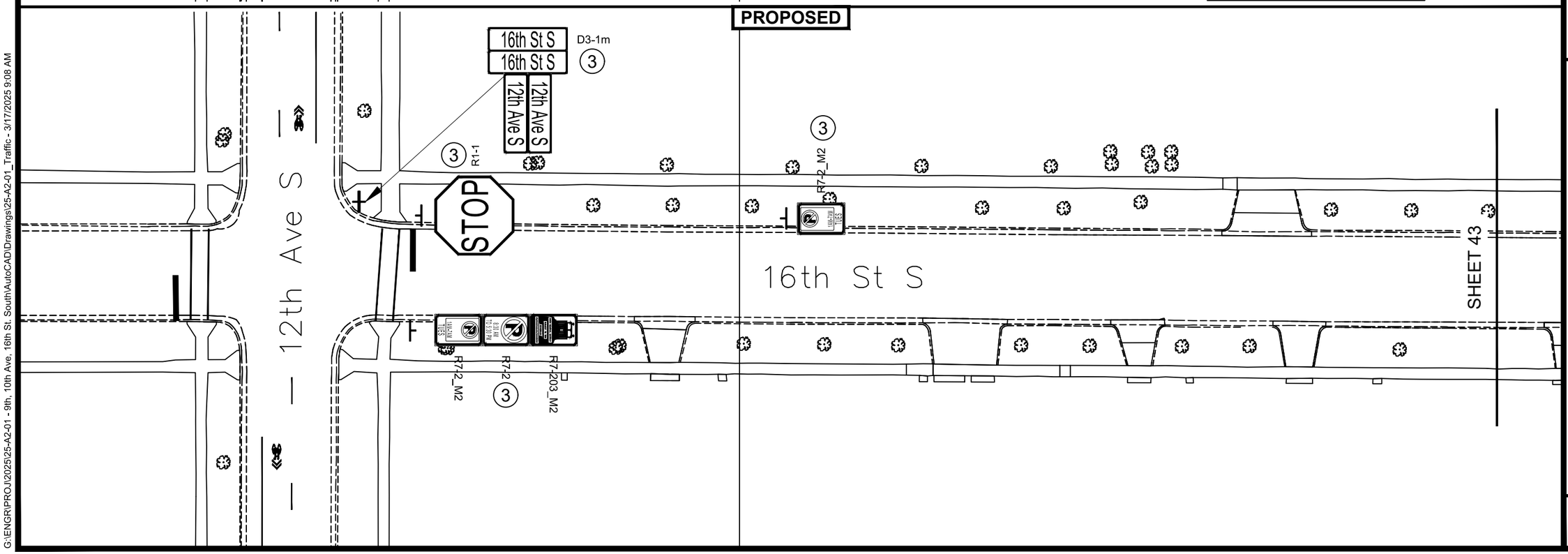

TSL	JAA	JAA
DRAWN BY	CHECKED BY	APPROVED BY

--	25-A2-01	A2-01-2025
S.P. No.	ENG. No.	LEGAL. No.

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9TH AVE S, 10TH AVE S , AND 16TH ST S

Curb & Gutter, Asphalt Paving

SHEET 42 OF 45

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EXISTING / REMOVALS

PROPOSED

TSL	JAA	JAA
DRAWN BY	CHECKED BY	APPROVED BY
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S.P. No.	ENG. No.	LEGAL. No.

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Name - Project Engineer

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9TH AVE S, 10TH AVE S , AND 16TH ST S

Curb & Gutter, Asphalt Paving

SHEET 42 OF 45

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1 Salvage & Reinstall
2 Remove
3 F&I
4 Leave In Place
5 Remove & Replace

0 7.5 15 30

EXISTING / REMOVALS

SHEET 41
SHEET 42
SHEET 38
16th St S
10th Ave S
16th St S
10th Ave S
STOP
R1-1
D3-1m
W11-1
W16-1P
SHARE THE ROAD
R7-203_M2
R7-108_M1
R7-2_M4
R7-8M-12
R7-2_M2
R7-2
R7-203_M2

PROPOSED

SHEET 41
SHEET 42
SHEET 38
16th St S
10th Ave S
STOP
R1-1
D3-1m
W11-1
W16-1P
SHARE THE ROAD
R7-203_M2
R7-108_M1
R7-2_M4
R7-2_M2
R7-2
R7-203_M2
Power pole

TSL DRAWN BY	JAA CHECKED BY	JAA APPROVED BY
-- S.P. No.	25-A2-01 ENG. No.	A2-01-2025 LEGAL. No.

MOORHEAD MINNESOTA Engineering

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--/--/---- Date

51897 License No.

Jonathan Atkins
Name - Project Engineer

Signature - Project Engineer

Signing And Striping

9TH AVE S, 10TH AVE S , AND 16TH ST S

Curb & Gutter, Asphalt Paving

SHEET 43 OF 45

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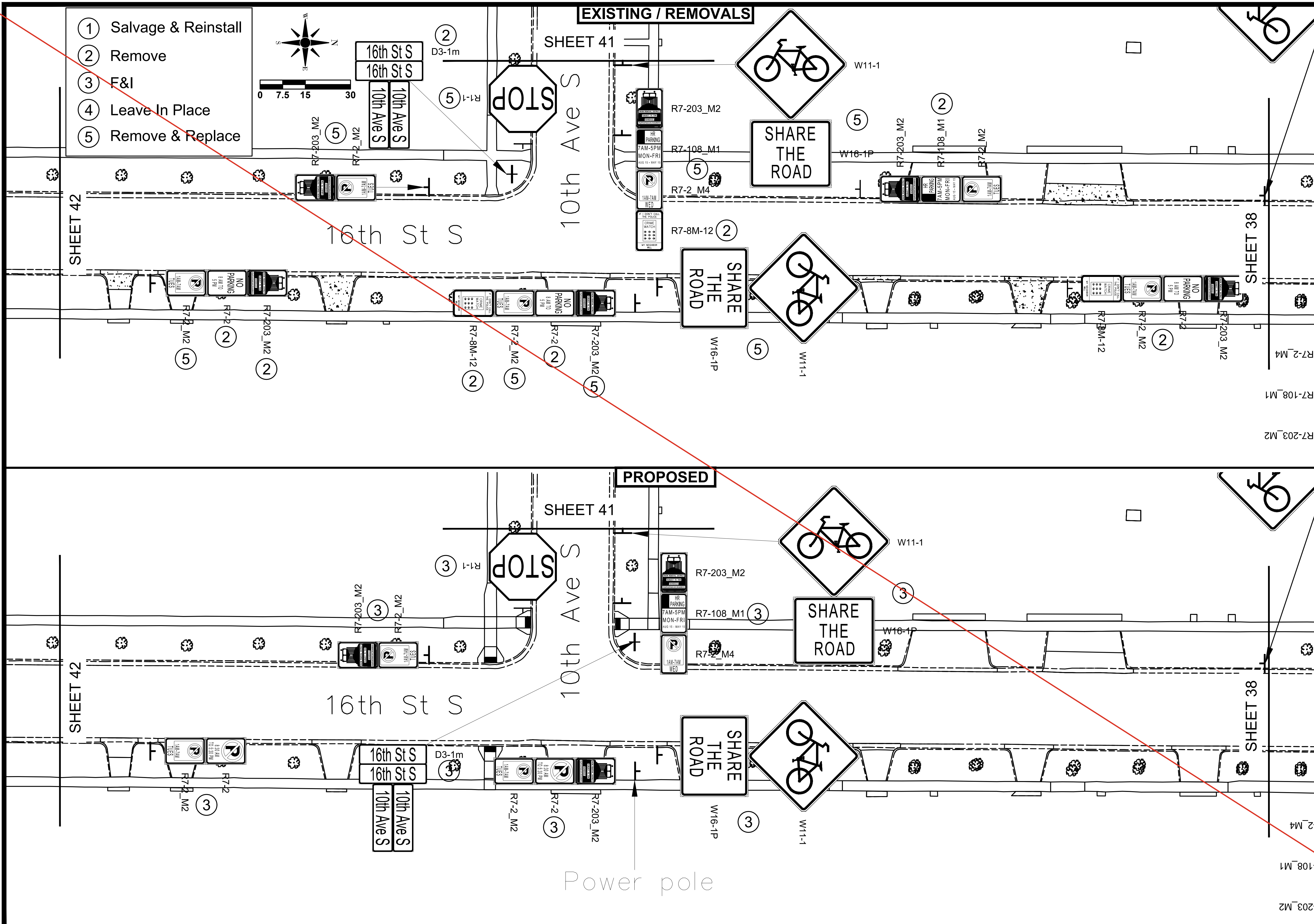

Signing And Striping

9TH AVE S, 10TH AVE S, AND 16TH ST S

Curb & Gutter, Asphalt Paving

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Jonathan Atkins
Name - Project Engineer

Date --/--/----

51897
License No.

MOORHEAD MINNESOTA Engineering

TSL DRAWN BY

JAA CHECKED BY

JAA APPROVED BY

-- S.P. No.

25-A2-01 ENG. No.

A2-01-2025 LEGAL No.

SHEET 43 OF 45

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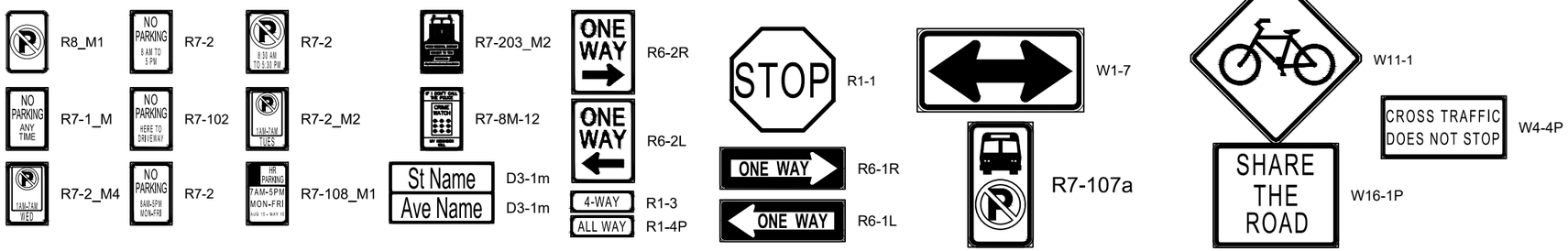
REMOVE SIGN TYPE C

SIGN QUANTITY	PANEL CODE NUMBER	LEGEND	REMARKS
11	R1-1	STOP	DISPOSE OF SIGNS
1	W1-7	DOUBLE ARROW	DISPOSE OF SIGNS
4	W11-1	BICYCLE	DISPOSE OF SIGNS
4	W16-1P	SHARE THE ROAD	DISPOSE OF SIGNS
4	R6-2R	ONE WAY RIGHT	DISPOSE OF SIGNS
4	R6-2L	ONE WAY LEFT	DISPOSE OF SIGNS
4	R1-3	4-WAY	DISPOSE OF SIGNS
25	R7-203_M2	SNOWPLOW	DISPOSE OF SIGNS
7	R7-8M-12	CRIME WATCH	DISPOSE OF SIGNS
11	R7-108_M1	3 HR PARKING	DISPOSE OF SIGNS
7	R7-2	NO PARKING 8 AM TO 5 PM	DISPOSE OF SIGNS
1	R7-2	NO PARKING 8 AM - 5 PM MON-FRI	DISPOSE OF SIGNS
1	R7-102	NO PARKING HERE TO DRIVEWAY	DISPOSE OF SIGNS
10	R7-2_M2	NO PARKING 1AM-7AM TUES	DISPOSE OF SIGNS
2	R7-1_M	NO PARKING ANYTIME	DISPOSE OF SIGNS
14	R7-2_M4	NO PARKING 1AM-7AM WED	DISPOSE OF SIGNS
2	W4-4P	CROSS TRAFFIC DOES NOT STOP	DISPOSE OF SIGNS

INSTALL SIGN TYPE C

SIGN QUANTITY	PANELS SIZE INCH	PANELS SIZE INCH	PANELS SQ FT	PANELS CUMULATIVE SQ FT	PANEL CODE NUMBER	LEGEND
11	30	30	6.25	68.5	R1-1	STOP
1	48	24	8	8	W1-7	DOUBLE ARROW
4	30	30	6.25	25	W11-1	BICYCLE
4	24	30	5	20	W16-1P	SHARE THE ROAD
4	24	8	1.3	5.2	R6-1R	ONE WAY RIGHT
4	24	8	1.3	5.2	R6-1L	ONE WAY LEFT
4	12	6	.5	2	R1-4P	ALL WAY
11	12	18	1.5	16.5	R7-203_M2	SNOWPLOW
8	12	18	1.5	12	R7-2_M4	NO PARKING 1AM-7AM WED
7	12	18	1.5	10.5	R7-108_M1	3 HR PARKING
2	12	18	1.5	3	R8_M1	NO PARKING
5	12	18	1.5	7.5	R7-2	NO PARKING 830AM-530PM
6	12	18	1.5	9	R7-2_M2	NO PARKING 1AM-7AM TUES
2	24	12	2	4	W4-4P	CROSS TRAFFIC DOES NOT STOP
	TOTAL			196.4 SQ.FT		



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EMH	MJA	JAS
DRAWN BY	CHECKED BY	APPROVED BY

MOORHEAD MINNESOTA Engineering

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Signature - Project Engineer

Jonathan Atkins
Name - Project Engineer

2/28/2024
Date

51897
License No.

SIGNING AND STRIPING

4TH AVE S, 5TH AVE S AND 6TH ST S
CURB & GUTTER, ASPHALT PAVING

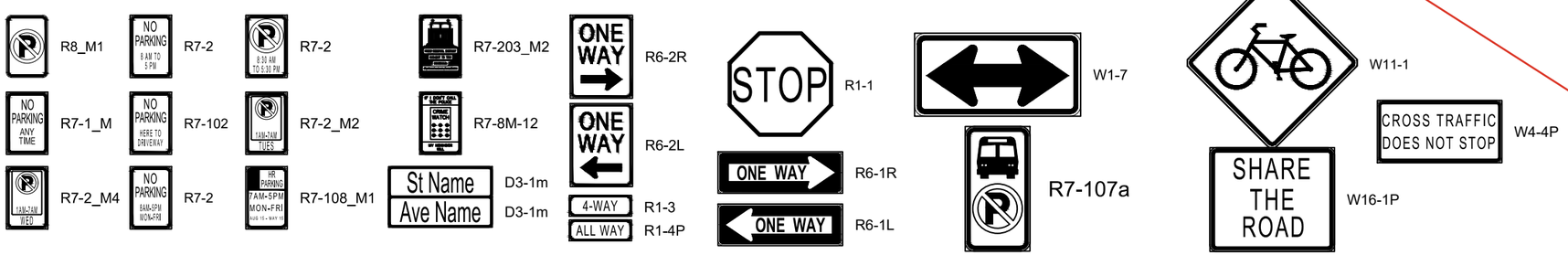
SHEET 44 OF 45

REMOVE SIGN TYPE C

SIGN QUANTITY	PANEL CODE NUMBER	LEGEND	REMARKS
11	R1-1	STOP	DISPOSE OF SIGNS
1	W1-7	DOUBLE ARROW	DISPOSE OF SIGNS
4	W11-1	BICYCLE	DISPOSE OF SIGNS
4	W16-1P	SHARE THE ROAD	DISPOSE OF SIGNS
4	R6-2R	ONE WAY RIGHT	DISPOSE OF SIGNS
4	R6-2L	ONE WAY LEFT	DISPOSE OF SIGNS
4	R1-3	4-WAY	DISPOSE OF SIGNS
25	R7-203_M2	SNOWPLOW	DISPOSE OF SIGNS
7	R7-8M-12	CRIME WATCH	DISPOSE OF SIGNS
11	R7-108_M1	3 HR PARKING	DISPOSE OF SIGNS
7	R7-2	NO PARKING 8 AM TO 5 PM	DISPOSE OF SIGNS
1	R7-2	NO PARKING 8 AM - 5 PM MON-FRI	DISPOSE OF SIGNS
1	R7-102	NO PARKING HERE TO DRIVEWAY	DISPOSE OF SIGNS
10	R7-2_M2	NO PARKING 1AM-7AM TUES	DISPOSE OF SIGNS
2	R7-1_M	NO PARKING ANYTIME	DISPOSE OF SIGNS
14	R7-2_M4	NO PARKING 1AM-7AM WED	DISPOSE OF SIGNS
2	W4-4P	CROSS TRAFFIC DOES NOT STOP	DISPOSE OF SIGNS

INSTALL SIGN TYPE C

SIGN QUANTITY	PANELS SIZE INCH	PANELS SIZE INCH	PANELS SQ FT	PANELS CUMULATIVE SQ FT	PANEL CODE NUMBER	LEGEND
11	30	30	6.25	68.5	R1-1	STOP
1	48	24	8	8	W1-7	DOUBLE ARROW
4	30	30	6.25	25	W11-1	BICYCLE
4	24	30	5	20	W16-1P	SHARE THE ROAD
4	24	8	1.3	5.2	R6-1R	ONE WAY RIGHT
4	24	8	1.3	5.2	R6-1L	ONE WAY LEFT
4	12	6	.5	2	R1-4P	ALL WAY
11	12	18	1.5	16.5	R7-203_M2	SNOWPLOW
8	12	18	1.5	12	R7-2_M4	NO PARKING 1AM-7AM WED
7	12	18	1.5	10.5	R7-108_M1	3 HR PARKING
2	12	18	1.5	3	R8_M1	NO PARKING
5	12	18	1.5	7.5	R7-2	NO PARKING 830AM-530PM
6	12	18	1.5	9	R7-2_M2	NO PARKING 1AM-7AM TUES
2	24	12	2	4	W4-4P	CROSS TRAFFIC DOES NOT STOP
	TOTAL			196.4 SQ.FT		



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EMH	MJA	JAS
DRAWN BY	CHECKED BY	APPROVED BY

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Signature - Project Engineer — Date: 2/28/2024

Jonathan Atkins, Name - Project Engineer — License No. 51897

SIGNING AND STRIPING

4TH AVE S, 5TH AVE S AND 6TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 44 OF 45

INSTALL SIGN TYPE D

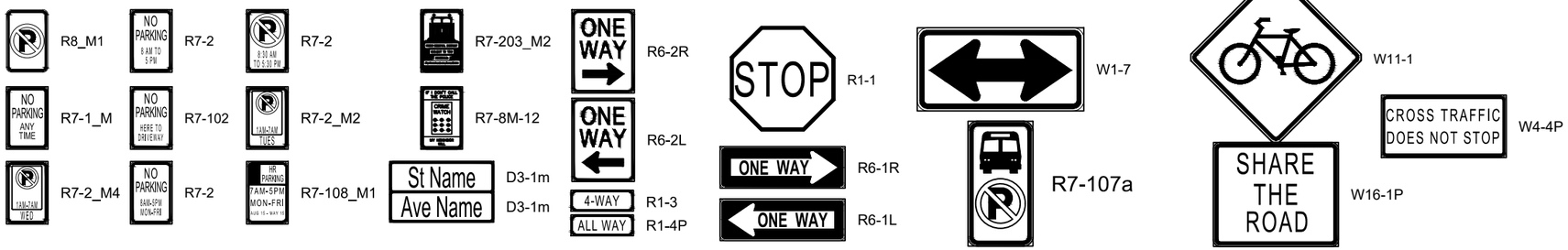
SIGN QUANTITY	PANELS SIZE INCH	PANELS SIZE INCH	SQ FT	CULMATIVE SQ FT	PANEL CODE NUMBER	LEGEND	REMARKS
4	30	9	1.875	7.5	D3-1	14TH ST S	INSTALL BACK TO BACK
6	30	9	1.875	11.25	D3-1	16TH ST S	INSTALL BACK TO BACK
2	30	9	1.875	3.75	D3-1	17TH ST S	INSTALL BACK TO BACK
6	30	9	1.875	11.25	D3-1	9TH AVE S	INSTALL BACK TO BACK
4	30	9	1.875	7.5	D3-1	10TH AVE S	INSTALL BACK TO BACK
2	30	9	1.875	3.75	D3-1	12TH AVE S	INSTALL BACK TO BACK
			TOTAL	45 SQ.FT			

REMOVE SIGN TYPE D

SIGN NUMBER	SIGN QUANTITY	LEGEND
D3-1m	24	STREET/AVE NAME

SIGN SUMMARY

ITEM	UNIT	QTY
REMOVE SIGN TYPE C	EACH	112
INSTALL SIGN TYPE C	SQ FT	196.4
REMOVE SIGN TYPE D	EACH	24
INSTALL SIGN TYPE D	SQ FT	45



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Name - Project Engineer

2/28/2024
Date

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License No.

SIGNING AND STRIPING

4TH AVE S, 5TH AVE S AND 6TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 45 OF 45

INSTALL SIGN TYPE D

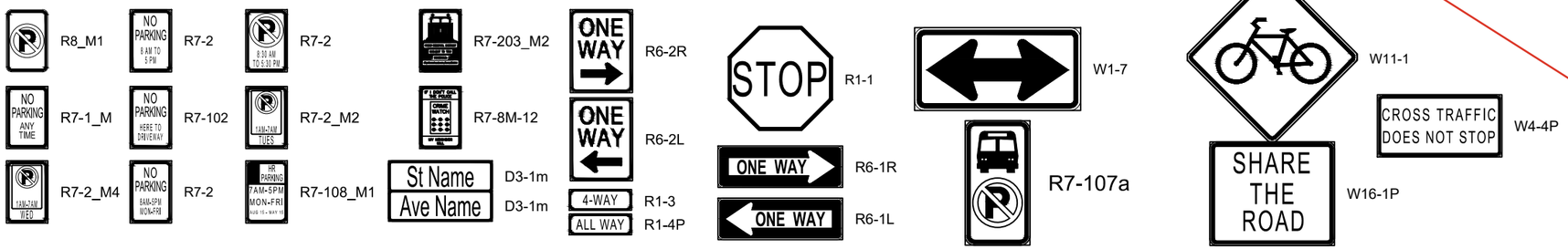
SIGN QUANTITY	PANELS SIZE INCH	INCH	SQ FT	CULMATIVE SQ FT	PANEL CODE NUMBER	LEGEND	REMARKS
4	30	9	1.875	7.5	D3-1	14TH ST S	INSTALL BACK TO BACK
6	30	9	1.875	11.25	D3-1	16TH ST S	INSTALL BACK TO BACK
2	30	9	1.875	3.75	D3-1	17TH ST S	INSTALL BACK TO BACK
6	30	9	1.875	11.25	D3-1	9TH AVE S	INSTALL BACK TO BACK
4	30	9	1.875	7.5	D3-1	10TH AVE S	INSTALL BACK TO BACK
2	30	9	1.875	3.75	D3-1	12TH AVE S	INSTALL BACK TO BACK
			TOTAL	45 SQ.FT			

REMOVE SIGN TYPE D

SIGN NUMBER	SIGN QUANTITY	LEGEND
D3-1m	24	STREET/AVE NAME

SIGN SUMMARY

ITEM	UNIT	QTY
REMOVE SIGN TYPE C	EACH	112
INSTALL SIGN TYPE C	SQ FT	196.4
REMOVE SIGN TYPE D	EACH	24
INSTALL SIGN TYPE D	SQ FT	45



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EMH DRAWN BY	MJA CHECKED BY	JAS APPROVED BY

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License No.

SIGNING AND STRIPING

4TH AVE S, 5TH AVE S AND 6TH ST S
CURB & GUTTER, ASPHALT PAVING

SHEET 45 OF 45

FORM OF PROPOSAL

(Unit Price Contract)

TO: The Mayor & City Council of Moorhead, Minnesota

The undersigned, being familiar with local conditions which may affect the cost of the work, and with the provisions of the contract documents including the Advertisement for Bids, Form of Contract, General Conditions, Plans and Specifications and Special Provisions all on file in the office of the City Clerk of Moorhead, Minnesota hereby proposes to furnish all labor, material, equipment and services necessary for the **"9th Ave S, 10th Ave S, and 16th St S Area Street Improvements (Eng. No. 25-A2-01)"** in the City of Moorhead.

In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that BIDDER has examined and carefully studied the Bidding Documents and the following Addenda, receipt of all which is hereby acknowledged:

Acknowledgement of Addenda

Date	Number
_____	_____
_____	_____
_____	_____
_____	_____

BID FORM FOR ENG. NO. 25-A2-01 (Addendum 1)
9th Ave S, 10th Ave S, and 16th St S Area Street Improvements

Bid Form

SECTION I - STREET IMPROVEMENTS

No.	Spec. No.	Item	Units	Qty	Unit Price	Total Price
1	2021.501	MOBILIZATION	LS	1		$ -
2	2104.502	REMOVE SIGN TYPE C	EA	112		$ -
3	2104.502	REMOVE SIGN TYPE D	EA	24		$ -
4	2104.503	REMOVE CURB AND GUTTER	LF	1,700		$ -
5	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LF	83		$ -
6	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	261		$ -
7	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	295		$ -
8	2104.504	REMOVE BITUMINOUS PAVEMENT	SY	10,598		$ -
9	2104.504	REMOVE CONCRETE PAVEMENT	SY	12		$ -
10	2104.518	REMOVE CONCRETE SIDEWALK	SF	5,135		$ -
11	2106.507	EXCAVATION - COMMON (EV) (P)	CY	2,171		$ -
12	2108.504	GEOTEXTILE FABRIC TYPE V - MODIFIED	SY	13,390		$ -
13	2112.604	SUBGRADE PREPARATION	SY	10,598		$ -
14	2123.610	MACHINE TIME	HR	15		$ -
15	2211.507	AGGREGATE BASE (CV) CRUSHED CONCRETE (P)	CY	1,766		$ -
16	2232.504	MILL BITUMINOUS SURFACE 3"	SY	60		$ -
17	2360.509	TYPE SP 12.5 WEARING COURSE MIX (3,B)	TON	1,656		$ -
18	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (3,B)	TON	2,318		$ -
19	2521.518	4" CONCRETE WALK	SF	3,729		$ -
20	2531.504	7" CONCRETE DRIVEWAY PAVEMENT	SY	294		$ -
21	2531.602	PEDESTRIAN CURB RAMP - 5' WIDE	EA	10		$ -
22	2531.602	PEDESTRIAN CURB RAMP - 6' WIDE (COLORED CONC.)	EA	8		$ -
23	2531.603	CONCRETE CURB AND GUTTER DESIGN B624	LF	1,700		$ -
24	2563.601	TRAFFIC CONTROL	LS	1		$ -
25	2564.602	FURNISH AND INSTALL SIGN TYPE C	SF	196		$ -
26	2564.602	FURNISH AND INSTALL SIGN TYPE D	SF	45		$ -
27	2573.501	STABILIZED CONSTRUCTION EXIT	LS	1		$ -
28	2573.502	STORM DRAIN INLET PROTECTION	EA	24		$ -
29	2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LF	1,700		$ -
30	2574.507	SELECT TOPSOIL BORROW (LV)	CY	185		$ -
31	2575.505	TURF ESTABLISHMENT - GRASS SEEDING WITH TYPE 5 HYDROMULCH	SY	2,221		$ -
32	2575.523	WATER FOR TURF ESTABLISHMENT	M GAL	140		$ -
33	SPEC PROV	CRUSHED CONC. BASE FOR SUBGRADE REPAIR(CV)	CY	150		$ -
34	SPEC PROV	MUD JACKING CURB & GUTTER	LF	314		$ -
35	SPEC PROV	MUD JACKING FLATWORK	SF	634		$ -
				SECTION I - TOTAL	**$**	**-**

SECTION II - SANITARY SEWER

No.	Spec. No.	Item	Units	Qty	Unit Price	Total Price
36	SPEC PROV	FURNISH AND INSTALL NEW CASTING - TYPE A	EA	6		$ -
				SECTION II - TOTAL	**$**	**-**

SECTION III - WATERMAIN

No.	Spec. No.	Item	Units	Qty	Unit Price	Total Price
37	2504.602	ADJUST GATE VALVE AND BOX	EA	8		$ -
				SECTION III - TOTAL	**$**	**-**

SECTION IV - STORM SEWER

No.	Spec. No.	Item	Units	Qty	Unit Price	Total Price
38	2104.502	REMOVE CATCH BASIN	EA	1		$ -
39	2104.503	REMOVE SEWER PIPE (STORM) 12" RCP	LF	25		$ -
40	2502.503	4" PERF PVC PIPE DRAIN	LF	5,584		$ -
41	2503.503	12" RC PIPE SEWER DESIGN 3006 CL III	LF	22		$ -
42	2503.602	4" DRAINTILE CLEAN-OUT ASSEMBLY	EA	5		$ -
43	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN G OR H	EA	1		$ -
44	2506.602	CONNECT INTO EXISTING DRAINAGE STRUCTURE	EA	21		$ -
45	SPEC PROV	INSTALL SALVAGED CASTING	EA	3		$ -
46	SPEC PROV	FURNISH AND INSTALL NEW CASTING - TYPE A	EA	6		$ -
47	SPEC PROV	FURNISH AND INSTALL NEW CASTING - TYPE D	EA	15		$ -
48	SPEC PROV	RECONSTRUCT DRAINAGE STRUCTURE/BRICK MANHOLE	EA	1		$ -
49	SPEC PROV	CLEAN AND TELEVISE PIPE SEWER MAIN	LF	22		$ -
				SECTION IV - TOTAL	**$**	**-**
				BID TOTAL	**$**	**-**

BID FORM FOR ENG. NO. 25-A2-01
9th Ave S, 10th Ave S, and 16th St S Area Street Improvements

					Bid Form	
SECTION I - STREET IMPROVEMENTS						
No.	**Spec. No.**	**Item**	**Units**	**Qty**	**Unit Price**	**Total Price**
1	2021.501	MOBILIZATION	LS	1		$ -
2	2104.502	REMOVE SIGN TYPE C	EA	112		$ -
3	2104.502	REMOVE SIGN TYPE D	EA	24		$ -
4	2104.503	REMOVE CURB AND GUTTER	LF	1,700		$ -
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	261		$ -
6	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	288		$ -
7	2104.504	REMOVE BITUMINOUS PAVEMENT	SY	10,598		$ -
8	2104.504	REMOVE CONCRETE PAVEMENT	SY	12		$ -
9	2104.518	REMOVE CONCRETE SIDEWALK	SF	5,221		$ -
10	2106.507	EXCAVATION - COMMON (EV) (P)	CY	2,171		$ -
11	2108.504	GEOTEXTILE FABRIC TYPE V - MODIFIED	SY	13,390		$ -
12	2112.604	SUBGRADE PREPARATION	SY	10,598		$ -
13	2123.610	MACHINE TIME	HR	15		$ -
14	2211.507	AGGREGATE BASE (CV) CRUSHED CONCRETE (P)	CY	1,766		$ -
15	2232.504	MILL BITUMINOUS SURFACE 3"	SY	60		$ -
16	2360.509	TYPE SP 12.5 WEARING COURSE MIX (3,B)	TON	1,656		$ -
17	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (3,B)	TON	2,318		$ -
18	2521.518	4" CONCRETE WALK	SF	5,770		$ -
19	2531.504	7" CONCRETE DRIVEWAY PAVEMENT	SY	294		$ -
20	2531.602	PEDESTRIAN CURB RAMP - 5' WIDE	EA	5		$ -
21	2531.602	PEDESTRIAN CURB RAMP - 6' WIDE (COLORED CONC.)	EA	8		$ -
22	2531.603	CONCRETE CURB AND GUTTER DESIGN B624	LF	1,700		$ -
23	2563.601	TRAFFIC CONTROL	LS	1		$ -
24	2564.602	FURNISH AND INSTALL SIGN TYPE C	SF	196		$ -
25	2564.602	FURNISH AND INSTALL SIGN TYPE D	SF	45		$ -
26	2573.501	STABILIZED CONSTRUCTION EXIT	LS	1		$ -
27	2573.502	STORM DRAIN INLET PROTECTION	EA	24		$ -
28	2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LF	1,700		$ -
29	2574.507	SELECT TOPSOIL BORROW (LV)	CY	185		$ -
30	2575.505	TURF ESTABLISHMENT - GRASS SEEDING WITH TYPE 5 HYDROMULCH	SY	2,221		$ -
31	2575.523	WATER FOR TURF ESTABLISHMENT	M GAL	140		$ -
32	SPEC PROV	CRUSHED CONC. BASE FOR SUBGRADE REPAIR(CV)	CY	150		$ -
33	SPEC PROV	MUD JACKING CURB & GUTTER	LF	334		$ -
34	SPEC PROV	MUD JACKING FLATWORK	SF	634		$ -
				SECTION I - TOTAL	**$**	**-**
SECTION II - SANITARY SEWER						
No.	**Spec. No.**	**Item**	**Units**	**Qty**	**Unit Price**	**Total Price**
35	SPEC PROV	FURNISH AND INSTALL NEW CASTING - TYPE A	EA	6		$ -
				SECTION II - TOTAL	**$**	**-**
SECTION III - WATERMAIN						
No.	**Spec. No.**	**Item**	**Units**	**Qty**	**Unit Price**	**Total Price**
36	2504.602	ADJUST GATE VALVE AND BOX	EA	8		$ -
				SECTION III - TOTAL	**$**	**-**
SECTION IV - STORM SEWER						
No.	**Spec. No.**	**Item**	**Units**	**Qty**	**Unit Price**	**Total Price**
37	2104.502	REMOVE CATCH BASIN	EA	1		$ -
38	2104.503	REMOVE SEWER PIPE (STORM) 12" RCP	LF	25		$ -
39	2502.503	4" PERF PVC PIPE DRAIN	LF	5,584		$ -
40	2503.503	12" RC PIPE SEWER DESIGN 3006 CL III	LF	22		$ -
41	2503.602	4" DRAINTILE CLEAN-OUT ASSEMBLY	EA	5		$ -
42	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN G OR H	EA	1		$ -
43	2506.602	CONNECT INTO EXISTING DRAINAGE STRUCTURE	EA	21		$ -
44	SPEC PROV	INSTALL SALVAGED CASTING	EA	3		$ -
45	SPEC PROV	FURNISH AND INSTALL NEW CASTING - TYPE A	EA	6		$ -
46	SPEC PROV	FURNISH AND INSTALL NEW CASTING - TYPE D	EA	15		$ -
46	SPEC PROV	RECONSTRUCT DRAINAGE STRUCTURE/BRICK MANHOLE	EA	1		$ -
47	SPEC PROV	CLEAN AND TELEVISE PIPE SEWER MAIN	LF	22		$ -
				SECTION IV - TOTAL	**$**	**-**
				BID TOTAL	**$**	**-**

FORM OF PROPOSAL SIGNATURE SHEET

Accompanying this proposal is a certified check, cash or bidder's bond in the amount of 5% of the bid which shall serve as a guaranty that, should this proposal be accepted by the City, the undersigned will enter into a Contract with the City for the performance of the work at the unit prices stipulated herein.

The undersigned further agrees that within ten (10) days from the date of "Notice of Award" of this bid, he or they will execute the Contract and furnish to the City of Moorhead, Minnesota, satisfactory Contract Bonds, in conformance with MSA 574.26 for the full amount of the proposal, guaranteeing the faithful performance of the work and the payment of bills; and that, within said ten (10) days, he or they shall furnish evidence or certification of all necessary or required approval of the City Attorney.

The undersigned further agrees that he or they will begin work on this project within fifteen (15) days of the issuance of the Notice to Proceed and shall complete the work as set forth in the Special Provisions.

In submitting this bid, it is understood that the right is reserved by the City to reject any or all bids and to waive informalities. It is further understood that this bid may not be withdrawn for a period of at least **30 days** from the date of the opening of the bids, unless otherwise determined by the City Council.

The Undersigned hereby acknowledges receipt of all addenda:

DATE: _____

FIRM NAME: _____

ADDRESS: _____

CITY/STATE/ZIP: _____

BY: _____

TITLE: _____

SECTION 00325 – CERTIFICATION OF COMPLIANCE OF RESPONSIBLE CONTRACTORS

PART 1 – GENERAL

1.1 A contractor responding to this solicitation document shall submit to the City a signed statement under oath by an owner or officer verifying compliance with each of the minimum criteria in Minnesota Statutes, section 16C.285, subdivision 3. The term 'responsible contractor' as used in this solicitation document means a contractor, subcontractor or motor carrier as defined in Minnesota Statutes, section 16C.285, subdivision 1 that meets the minimum criteria established in Minnesota Statutes, section 16C.285, subdivision 3. Any prime contractor or subcontractor that does not meet the minimum criteria in Minnesota Statutes, section 16C.285, subdivision 3 or fails to verify that it meets those criteria is not a responsible contractor and is not eligible to be awarded the construction contract for the project or to perform work on the project. A false statement under oath verifying compliance with any of the minimum criteria shall render the prime contractor or subcontractor that makes the false statement ineligible to be awarded a construction contract on the project and may result in termination of a contract awarded to a prime contractor or subcontractor that submits a false statement. A prime contractor shall submit to the City upon request copies of the signed verifications of compliance from all subcontractors of any tier pursuant to Minnesota Statutes, section 16C.285, subdivision 3, clause 7. Changes to the information listed in the subsequent sections may only be made with the approval of the Engineer.

PART 2 – PRIME CONTRACTOR

2.1 In submitting this bid, the bidder certifies that they intend to act as the prime contractor in the construction of this project, and that at the time of the submission of the proposal they intend to complete all work with their own forces with the exception of the contract items identified to be completed by subcontractors as identified in Part 3 of this form below. The bidder further certifies that they meet the definition of a 'responsible contractor' as defined in Minnesota Statutes, section 16C.285, subdivision 3.

PART 3 – SUBCONTRACTORS

3.1 The undersigned bidder hereby certifies that the following is a complete and accurate listing of subcontractors and motor carriers proposed to be used in the construction of this project at the time this proposal was submitted, and that the bidder will require signed verifications of compliance with Minnesota Statutes, section 16C.285, subdivision 3 from each of the proposed subcontractors prior to executing the contract. Bidder further certifies that should any additional subcontractors be proposed for this project subsequent to execution of the contract, that bidder shall obtain the required certification of compliance as a responsible contractor from the proposed subcontractor or motor carrier and shall submit a revised certification of compliance form to the City within 14 days of retaining the additional subcontractor or motor carrier, and that said subcontractor or motor carrier shall not be allowed to perform any work under this contract until the revised certification of compliance form has been submitted to the City Engineer. Bidder shall keep a copy of all responsible contractor certification forms on file in said bidder's office until final payment has been made, and shall supply copies of the certification forms to the Engineer upon request.

Name of First-Tier Subcontractor

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

I hereby certify that I am an officer or owner of _____, hereinafter referred to as CONTRACTOR, and that as of the date this bid was submitted, CONTRACTOR is in compliance with each of the minimum criteria in Minnesota Statutes, section 16C.285, subdivision 3, with the exception of Clause 7.

BY: _____DATE:

TITLE: _____

-END OF SECTION-

SECTION 00330 – LIST OF MATERIALS SUPPLIERS

PART 1 – GENERAL

1.1 The following information must be completed and submitted with the bid. Failure to complete and submit this form with the bidding documents may result in rejection of the bid. Changes to the information listed in the subsequent sections may only be made with the approval of the Engineer.

PART 2 – SUPPLIERS

2.1 The undersigned bidder hereby certifies that the materials suppliers identified below are the suppliers whose quotes were relied upon in the preparation of this bid proposal for the material items requested below. Bidder further certifies that no changes will be made to the proposed materials suppliers identified below without the express, written approval of the Engineer. Bidder shall keep a copy of all of the materials suppliers' quotes on which this proposal was made on file in said bidder's office until final payment has been made, and may be required to show this information to the Engineer in the event that they propose to change suppliers after the bidding date. Bidder shall require their first-tier subcontractors to do the same.

Material	**Name of Material Supplier**

I hereby certify that I am an officer or owner of _____, hereinafter referred to as CONTRACTOR, and that as of the time this bid was submitted, the materials suppliers identified above were the suppliers whose quotes this BID PROPOSAL was based upon.

BY: _____DATE:

TITLE: _____

-END OF SECTION-

NON-COLLUSION AFFIDAVIT

The following Non-Collusion Affidavit shall be executed by the bidder:

State Project No:_____

Federal Project No:_____

City Project No:_____

STATE OF MINNESOTA)
) ss
COUNTY OF CLAY)

I, _____, being first duly sworn, do depose
(Name of Person Signing this Affidavit)

and say:

(1) that I am the authorized representative of:

_____
(Individual name, partnership or corporation submitting this proposal)

and that I have the authority to make this affidavit for and on behalf of said bidder;

(2) that, in connection with this proposal, the said bidder has not either directly or indirectly entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding;

(3) that, to the best of my knowledge and belief, the contents of this proposal have not been communicated by the bidder or by any of his employees or agents to any person who is not an employee or agent of the bidder or of the surety on any bond furnished with the proposal, and will not be communicated to any person who is not an employee or agent of the bidder or of the said surety prior to the official opening of the proposal, and

(4) that I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Signed: _____
Bidder or his authorized representative

Certification of Compliance with the Minnesota Worker's Compensation Law

Name: _____ Doing Business As: _____
Print your full name — Business name, if different than yours

Address: _____ _____ _____ _____
Mailing Address — City — State — Zip

Telephone Number: _____ Type of business: _____
(Example: bldg construction; trucking)

Worker's Compensation Insurance Company Name:

_____
Print full name of Insurance Company (Not your Agent)

Policy Number: _____
Full number

Dates of Coverage: _____ through _____
Starting date — Ending date

-OR-

I certify that I am not required to carry worker's compensation insurance because:

(check one)

_____ I am a sole proprietor or partner and I have no employees.

_____ I have no employees who are covered by the worker's compensation law. (Only employees specifically exempted by statute are not covered by the worker's compensation law. These included: Spouse; Parent; Children, regardless of age; and farm labor employees of a family farm that spent less than $8,000 for labor in the previous calendar year. All other workers whose work activity is controlled by the employer must be covered.)

I understand that the information provided about will be verified by the Minnesota Department of Labor and Industry, and that I am subject to a $1,000 penalty if the information provided is false. I certify that the information proved is accurate and complete.

Signed by: _____ Date: _____

This Form must Be Completed and Submitted with Your Proposal