Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

STATE	PROJECT NO.	PCN	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	24433	1	1

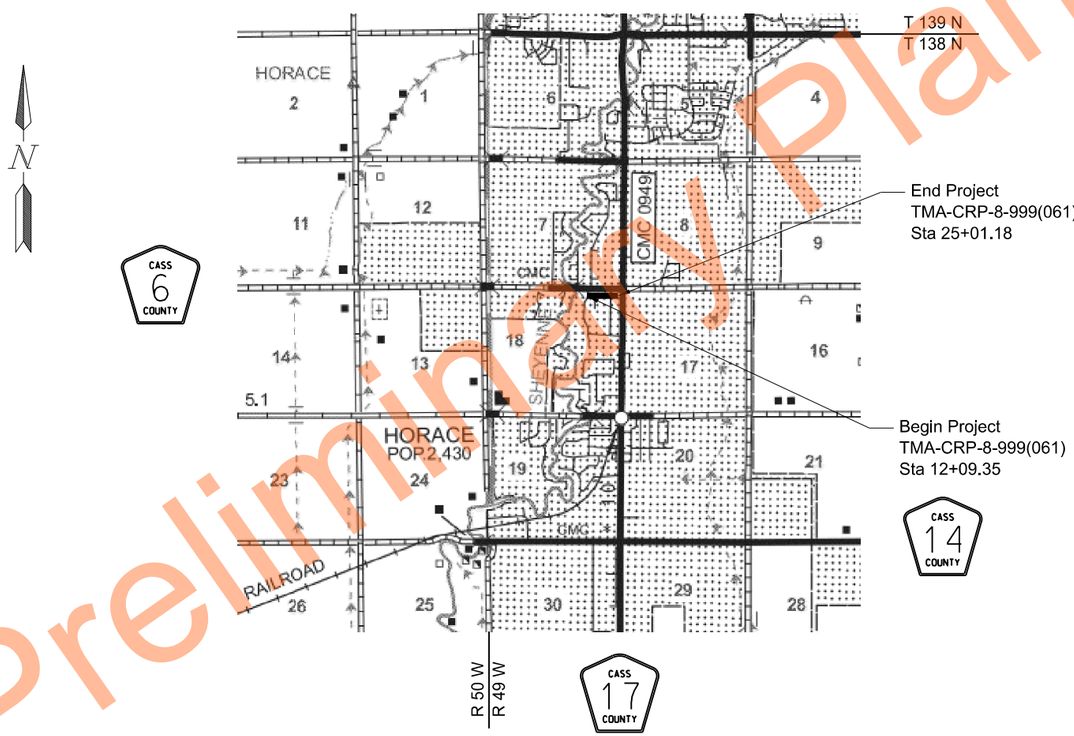
NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION

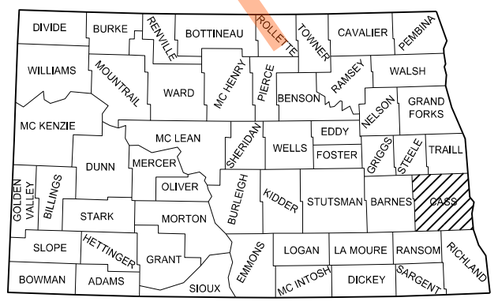
TMA-CRP-8-999(061)

CASS COUNTY
HORACE-76th Ave S
County Road 17 West to Brinks Drive
Concrete Shared Use Path, ADA Ramps, Trench Drains,
Culverts, Signs, and Grading

GOVERNING SPECIFICATIONS	Date Published and Adopted by the North Dakota Department of Transportation
Standard Specifications	07/01/2025
Supplemental Specifications	NONE

PROJECT NUMBER \ DESCRIPTION	NET MILES	GROSS MILES
TMA-CRP-8-999(061)	0.245	0.245





STATE COUNTY MAP

DESIGNER	JASON ERICSON
DESIGNER	ZACH HATTING
DESIGNER	TOBY ANVIK

INTERSTATE ENGINEERING
REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	2	1

TABLE OF CONTENTS

PLAN SECTIONS

Section	Page(s)	Description
1	1	Title Sheet
2	1	Table of Contents
4	1 - 2	Scope of Work
6	1 - 2	Notes
8	1	Quantities
10	1	Basis of Estimate
11	1	Data Tables
20	1 - 7	General Details
30	1 - 2	Typical Sections
40	1 - 2	Removals
60	1 - 4	Plan & Profile
70	1 - 2	Contours and Grading
76	1 - 2	Temporary Erosion Control
77	1 - 2	Permanent Erosion Control
100	1 - 6	Work Zone Traffic Control
110	1 - 4	Signing
200	1 - 8	Cross Sections

SPECIAL PROVISIONS

Number	Description
SSP 1	Temporary Erosion and Sediment Best Management Practices
SP 522(25)	Commercial Grade Hot Mix Asphalt - Without Density

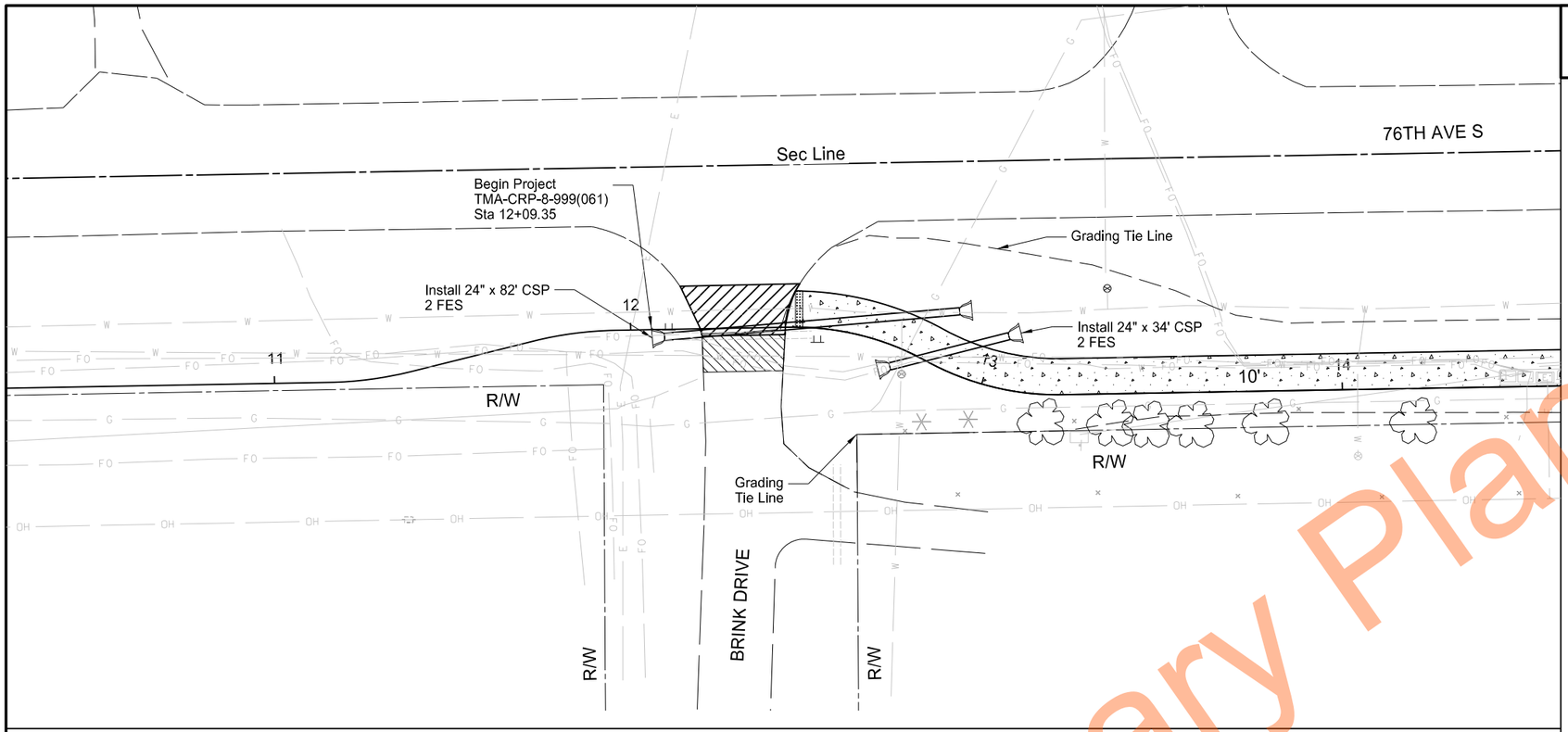
LIST OF STANDARD DRAWINGS

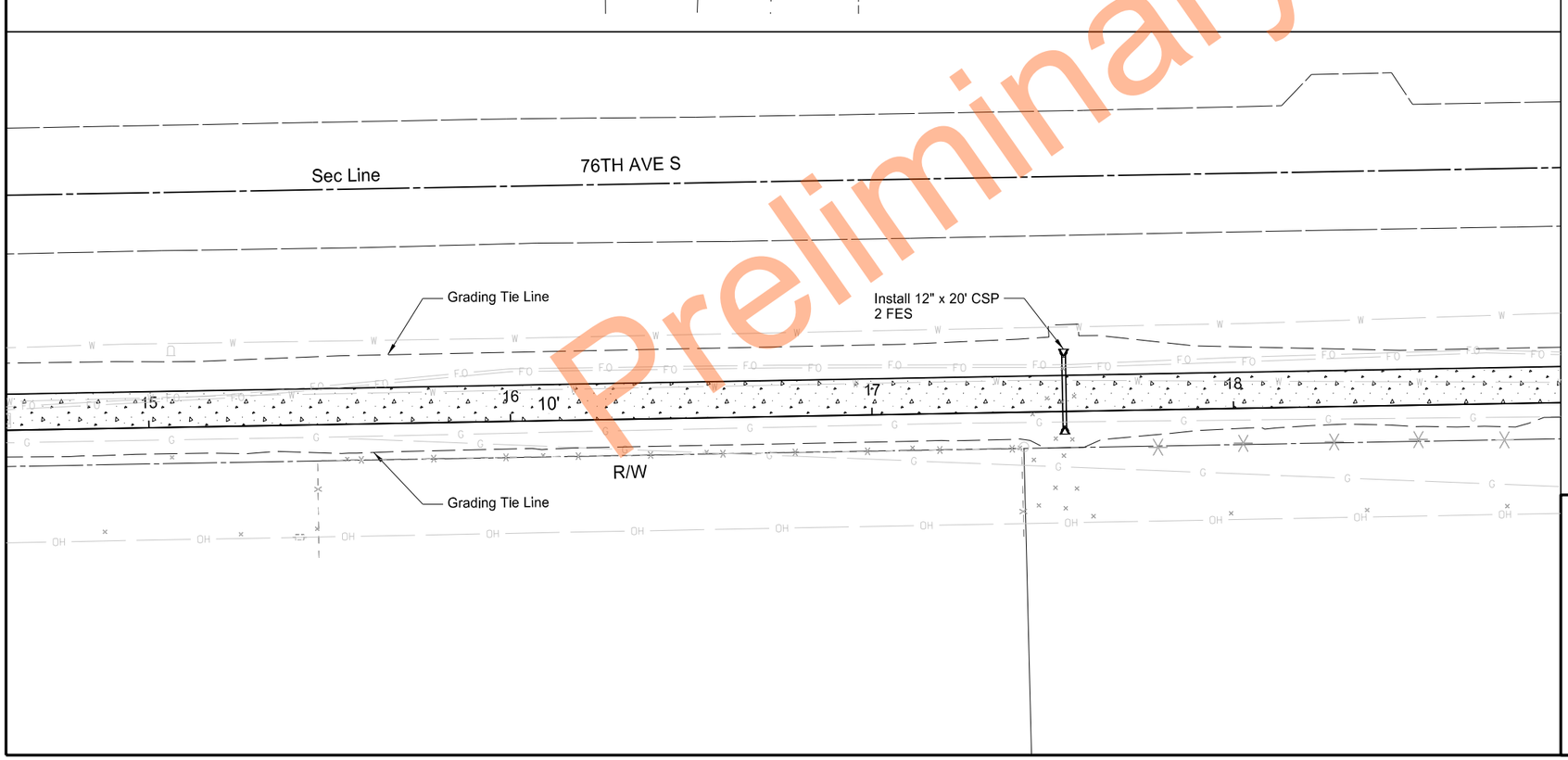
Number	Description
D-101-1, 2,3,4	NDDOT Abbreviations
D-101-10	NDDOT Utility Company and Organization Abbreviations
D-101-20, 21	Line Styles
D-101-30, 31,32,33	Symbols
D-255-2	Erosion And Siltation Control - Erosion Control Blanket Installation
D-256-1	Erosion And Siltation Controls
D-261-1	Erosion Control - Fiber Roll Placement Details
D-704-7	Breakaway Systems For Construction Zone Signs - Perforated Tube
D-704-8	Breakaway Systems For Construction Zone Signs - U-Channel Post
D-704-9	Construction Sign Details - Terminal And Guide Signs
D-704-10	Construction Sign Details - Regulatory Signs
D-704-11	Construction Sign Details - Warning Signs
D-704-12	Shoulder Closure Tapers
D-704-13	Barricade And Channelizing Device Details
D-704-14	Construction Sign Punching And Mounting Details
D-704-17	Sign Layout For One Lane Closure Two Lane Roadway
D-704-19	Road Closure And Lane Closure On A Two Way Road Layouts
D-704-20	Terminal And Seal Coat Sign Layouts
D-704-24	Shoulder Closures And Bridge Painting Layouts
D-704-25	Lane Closures On Urban Streets Layouts
D-704-26	Miscellaneous Sign Layouts
D-704-34	Sign Layout For One Lane Closure
D-704-50	Portable Sign Support Assembly
D-714-1	Reinforced Concrete Pipe Culverts And End Sections (Round Pipe)
D-714-4	Round Corrugated Steel Pipe Culverts And End Sections
D-714-26	Transverse Mainline Pipe Installation Detail - Pipes 4 Feet or Less Below Top of Subgrade
D-722-3	Inlet - Mountable Curb
D-748-1	Curb & Gutter And Valley Gutter
D-750-2	Sidewalk
D-750-3	Curb Ramp Retrofit Details
D-750-4	Curb Ramp Retrofit Transitional Area Details
D-754-23	Perforated Tube Assembly Details
D-754-24, 25	Mounting Details Perforated Tube
D-754-24A	Breakaway Coupler System For Perforated Tubes
D-754-28, 29,32	Sign Punching, Stringer and Support Location Details Regulatory, Warning and Guide Signs
D-754-46	Punching, Stringer and Support Location Details for Regulatory, Warning and Guide Bike Route Signs
D-754-87	Sign Punching, Stringer And Support Location Details For Street Name Signs And 911 Signs

Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	004	1





Preliminary Plans

N

- Salvage & Relay Aggregate Surface Course
- Commercial Grade Hot Mix Asphalt
- Sidewalk Concrete Reinf - 6IN
- Detectable Warning Panels

Scope of Work

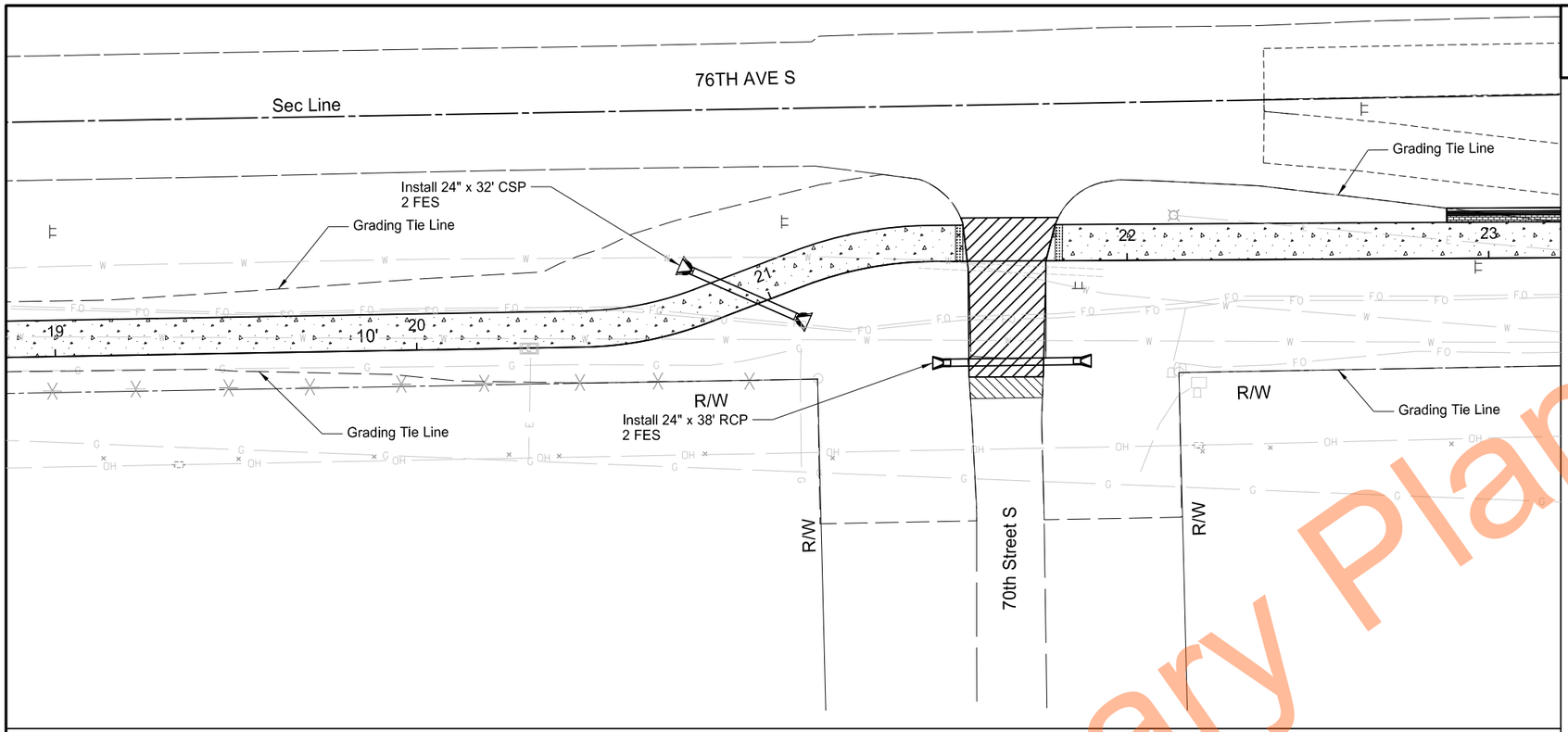
Shared Use Path - 76th Ave S
CR17 West to Brink Drive

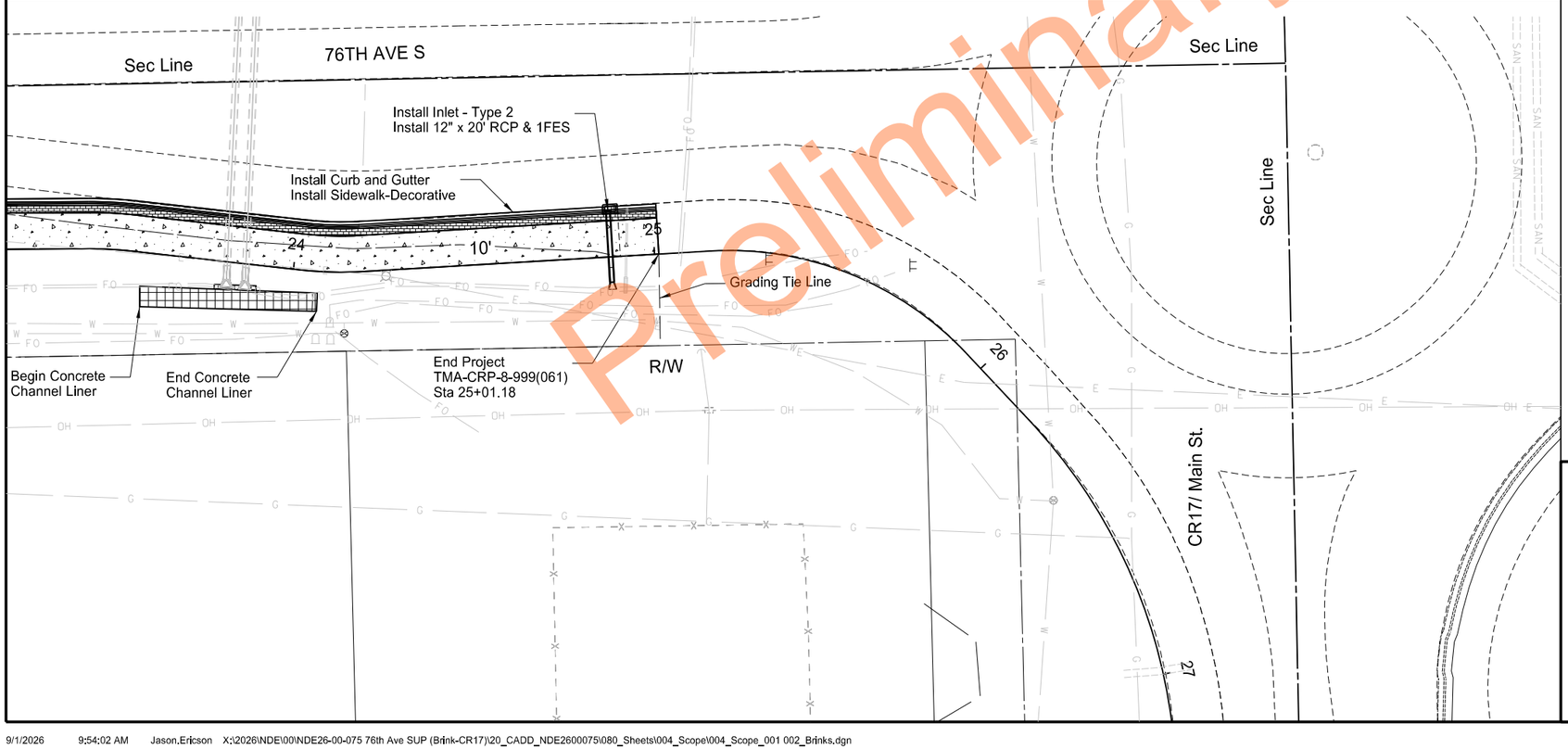
Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. JARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	004	2





Preliminary Plans



- Salvage & Relay Aggregate Surface Course
- Sidewalk Concrete Reinf - 6IN
- Sidewalk - Decorative
- Commercial Grade Hot Mix Asphalt
- Detectable Warning Panels

Scope of Work

Shared Use Path - 76th Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	6	1

NOTES

105-P01 UTILITIES: Utility locations shown on the Plans are approximate. It will be the Contractor's responsibility to contact all Utilities for verification of locations prior to digging in any area.

105-P02 COORDINATION OF PROJECTS: A following project is planned for the construction season of 2027 near the project area.
Project: Cass County roadway regrading along County Road 6 (76 Ave S) from Sheyenne Diversion to County Road 15.
Contact: Cass County Engineer
Kyle Litchy PE – Office Phone (701)-298-2380
1201 Main Ave West
West Fargo, ND 58078

105-P03 DRAINAGE: Maintain drainage in the 76th Avenue South ditch at all times and will provide 48-hour notice to the Project Engineer prior to installing final stabilization.

105-P04 PAVEMENT SWEEPING: Sweep paved areas that were used by construction traffic before opening these areas to the public. Sweep all newly constructed pavement no more than 24 hours before a scheduled final inspection. Use a vacuum or pick-up type sweeper to perform this work.

202-P01 REMOVAL OF BITUMINOUS SURFACING: Removal of pavement consists of bituminous pavement, side street surfacing, parking lots, and driveways. All costs, including saw cutting, pavement removal, hauling, and disposal will be included in the bid price for "REMOVAL OF BITUMINOUS SURFACING". Pavement depth for removal areas has been estimated at 8 inches.

203-P01 COMPACTION AND DENSITY CONTROL: Compact material as specified in Section 203.04 G.2.b, "ND T-99". Manipulate embankment material with disking equipment.

203-P03 COMMON EXCAVATION LIMITS: The limits of common excavation are shown on the cross sections. Include all embankment in the contract unit price of common excavation. Payment will be made at plan quantity unless changes are made by the Engineer.

203-P04 BORROW-EXCAVATION: Include all embankment material in the contract unit price of borrow excavation. Payment will be made at plan quantity unless changes are made by the Engineer. All costs associated with hauling, placing, and compaction will be included in the price bid for "Borrow-Excavation". Shrinkage 30 percent additional volume is included for shrinkage in earth embankment.

230-P01 SUBGRADE PREPARATION – 12 IN: Subgrade Preparation Type A will be required to a depth of 12 inches under the shared use path.

251-P01 SEEDING CLASS III: Provide the seed mix as follows:

Species	Percentage by Weight
Meadow Brome Grass	30%
Intermediate Wheatgrass	30%
Crested Wheatgrass	30%
Tetraploid Intermediate Perennial Ryegrass	10%
Total	100%

The percentage by weight shall be plus or minus 5% on all seed types.

Sow seed at rate of 50 Pounds per Acre. If areas are unable to be drill seeded, broadcast seed and rake into soil at double the specified rate.

Seed mixture shall contain one of the following nurse crops at the specified application rate:
a. April 1 to June 15 seeding window: 15 pounds per acre of Oats.
b. September 15 to November 15 seeding window: 15 pounds per acre of Rye or Winter Wheat.

100% of the seed will be sown prior to hydraulic mulching.

Seeding will be paid by actual field measurements of the placement areas contained within the planned excavation and stripping limits. Any areas disturbed outside these limits as a result of construction activities will be seeded at the Contractor's expense and will not be included in measurements for payment.

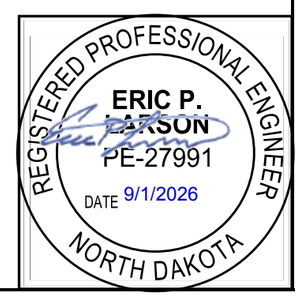
704-P01 TRAFFIC CONTROL FOR SHARED USE PATH: Traffic control for shared use path will consist of a shoulder closure and/or one lane closure, and flagging.

Applicable Standard Drawings for traffic control include but are not limited to the following:

1. Standard D 704-12
2. Standard D-704-17
3. Standard D-704-19
4. Standard D-704-24, Layout R, S, U
5. Standard D-704-25
6. Standard D-704-34

Remove lane/shoulder closures at the end of each day. All traffic control devices will be removed from the roadway and placed on the shoulder as approved by the Engineer.

The contractor's staging area will not be lane closure or shoulder closure on County Road 17.



Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	6	2

NOTES

714-P01 PIPE INSTALLATION: The pipe connections to existing pipes by using angle sections, nuts, bolts, connections, 24" bands for all extensions, and angle pipe sections will be Included in the contract unit price for linear foot of CSP or RCP piping material. Payment will be made at plan quantity unless changes are made by the Engineer. All costs associated with connecting, installing, and compaction of material around and over the pipes will be included in the price bid for "PIPE CORR STEEL .064IN 24IN" and/or "PIPE CONC REINF 24IN CL III" as applicable.

750-P01 SIDEWALK CONCRETE REINF: The concrete shared use path shall be at a thickness of 6" and be reinforced with No. 4 deformed reinforcing bar placed 24 inches on center both ways. Include an 18-inch minimum lap at splice locations. Use plastic chairs to support the rebar at mid-depth of the thickness of the concrete sidewalk panels and ensure a clearance of 3 inches to all outside concrete forms.

Saw a centerline longitudinal joint on concrete sidewalk greater than 8 feet in width. Saw all longitudinal and transverse contraction joints, saw joints in a timely manner to prevent any uncontrolled random cracking. If random cracking occurs, remove, and replace all cracked panels at the Contractor's expense.

At replacement areas, excavate material to accommodate the proposed aggregate base and dispose of excess excavation.

Portland Cement Concrete for this project will be class AE size 3 coarse aggregate as specified in Section 802.02 "MATERIALS".

Before beginning work submit a reinforcing jointing plan for sidewalk to the Engineer for approval.

Joint sealant shall be low modulus silicone polyurethane tensile strength at break (ASTM D412) 125 psi, movement capability: 50° expansion/contraction TT-S-00230G. Color shall be gray. The sealant shall be tooled and installed in accordance with the manufacturer's recommendations.

The contractor shall install and construct **All** ADA ramps and turning spaces in accordance with current PROWAG requirements. Any concrete sidewalk panels installed failing to meet the requirements shall be removed and replaced at the Contractors expense.

Include all costs for labor, equipment, and materials to perform the above referenced work in the contract unit price bid for "SIDEWALK CONCRETE REINF".

750-P02 SIDEWALK-DECORATIVE: The color brick pattern paving shall be installed to the location and dimensions shown on section 60 plan and Profile sheet 5. The color pigments should meet the requirements of the ASTM C979, Specification for Pigments for Integral for Integrally Colored Concrete. The pigment shall be L3296 or 417 Brick Red Uni-Mix Liquid integrally concrete Colorant as manufactured by Butterfield Color or an approved equal. The pigment shall be added as recommended by the manufacturer at a rate of 2-6% by weight of the total cement and cement substitutes in the mix.

Preliminary Plans

REGISTERED PROFESSIONAL ENGINEER
ERIC P. [illegible]SON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	8	1

Estimated Quantities

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
103	0100	CONTRACT BOND	L SUM	1	1
202	0114	REMOVAL OF CONCRETE PAVEMENT	SY	16	16
202	0130	REMOVAL OF CURB & GUTTER	LF	13	13
202	0132	REMOVAL OF BITUMINOUS SURFACING	SY	295	295
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES	EA	5	5
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES	LF	112	112
203	0101	COMMON EXCAVATION-TYPE A	CY	27	27
203	0125	REMOVE & SALVAGE TOPSOIL	CY	891	891
203	0140	BORROW-EXCAVATION	CY	1854	1854
230	0165	SUBGRADE PREPARATION-TYPE A-12IN	STA	12.9	12.9
251	0300	SEEDING CLASS III	ACRE	0.74	0.74
251	2000	TEMPORARY COVER CROP	ACRE	0.74	0.74
253	0201	HYDRAULIC MULCH	ACRE	0.74	0.74
255	0102	ECB TYPE 2	SY	108	108
261	0112	FIBER ROLLS 12IN	LF	820	820
261	0113	REMOVE FIBER ROLLS 12IN	LF	410	410
302	0121	AGGREGATE BASE COURSE CL 5	CY	205	205
302	0405	SALVAGE & RELAY AGGREGATE SURFACE COURSE	CY	9	9
430	0500	COMMERCIAL GRADE HOT MIX ASPHALT	TON	44	44
702	0100	MOBILIZATION	L SUM	1	1
704	0100	FLAGGING	MHR	40	40
704	1000	TRAFFIC CONTROL SIGNS	UNIT	1064	1064
704	1052	TYPE III BARRICADE	EA	2	2
704	1054	SIDEWALK BARRICADE	EA	2	2
704	1060	DELINEATOR DRUMS	EA	80	80
704	1067	TUBULAR MARKERS	EA	20	20
708	1540	INLET PROTECTION-SPECIAL	EA	1	1
708	1541	REMOVE INLET PROTECTION-SPECIAL	EA	1	1
714	0110	PIPE CONC REINF 12IN CL III	LF	20	20
714	0615	PIPE CONC REINF 24IN CL III	LF	38	38
714	3000	END SECT-CONC REINF 12IN	EA	1	1
714	3020	END SECT-CONC REINF 24IN	EA	2	2
714	5000	PIPE CORR STEEL .064IN 12IN	LF	20	20
714	5035	PIPE CORR STEEL .064IN 24IN	LF	148	148
714	5800	END SECT CORR STEEL .064IN 12IN	EA	2	2
714	5820	END SECT CORR STEEL .064IN 24IN	EA	6	6
714	9720	UNDERDRAIN PIPE PVC PERFORATED 4IN	LF	212	212
722	3510	INLET-TYPE 2	EA	1	1
748	0100	CURB & GUTTER	LF	212	212
750	0101	SIDEWALK CONCRETE REINF	SY	1370	1370
750	0107	SIDEWALK - DECORATIVE	SY	47	47
750	2115	DETECTABLE WARNING PANELS	SF	60	60
754	0110	FLAT SHEET FOR SIGNS-TYPE XI REFL SHEETING	SF	31	31
754	0112	FLAT SHEET FOR SIGNS-TYPE IV REFL SHEETING	SF	19	19
754	0206	STEEL GALV POSTS-TELESCOPING PERFORATED TUBE	LF	134	134
754	0592	RESET SIGN PANEL	EA	3	3
754	0593	RESET SIGN SUPPORT	EA	1	1

Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	8	2

Estimated Quantities

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE						TOTAL
990	0650	CONCRETE CHANNEL LINING	SY	30						30

Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	10	1

BASIS OF ESTIMATE

Materials

Aggregate Base Course @ 1.875 Ton/CY

Commercial Grade HMA @ 2.0 Ton/CY

Water

25 MGal/Mile for Dust Palliative

15 Gal/SY for Blended Base

20 Gal/Ton for Aggregates

10 Gal/CY for Embankment

Water is Incidental to the item it is required for.

Common Excavation

Any Existing Aggregate Base is Included in the Common Excavation Quantity.

Borrow Excavation

30% Additional Quantity Included in the bid item “Borrow Excavation” to Account for Shrinkage.

Preliminary Plans



Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	011	1

EARTHWORK SUMMARY

STATION TO STATION			EXCAVATION		EMBANKMENT			BORROW	TOPSOIL	
			VOLUME CUT	REMOVE AND SALVAGE TOPSOIL (8" THICKNESS)	VOLUME FILL	SHRINKAGE FACTOR	ADJUSTED FILL		TOPSOIL (8" THICKNESS)	TOPSOIL IMPORT
			A	B	C		D	E (D-A)	F	G (F-B)
			CY	CY	CY		CY	CY	CY	CY
12+09	to	25+01	27	891	1447	1.3	1881	1854	569	0
TOTALS			27	891	1447		1881	1854	569	0

PAY ITEM SUMMARY

203-0101	203-0125	203-0119	203-0140
COMMON EXCAVATION - TYPE A	REMOVE & SALVAGE TOPSOIL	TOPSOIL IMPORT	BOROW-EXCAVATION
A	B	G	E
CY	CY	CY	CY
27	891	0	1854

Note:

1 Embankment quantities include 30% shrinkage factor
2 Topsoil stripping estimated at 8" thickness
3 Topsoil replacement estimated at 8" thickness

Preliminary Plans

Data Tables

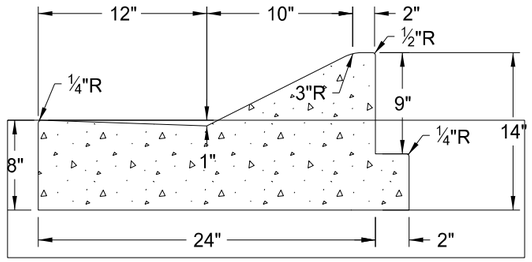
Shared Use Path - 76 Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

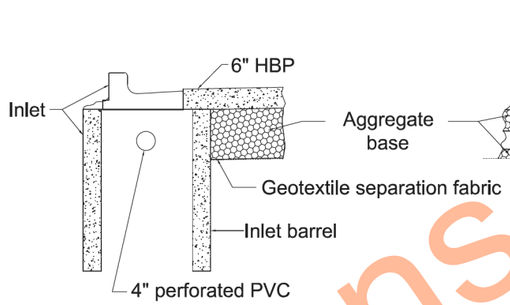
Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	020	1

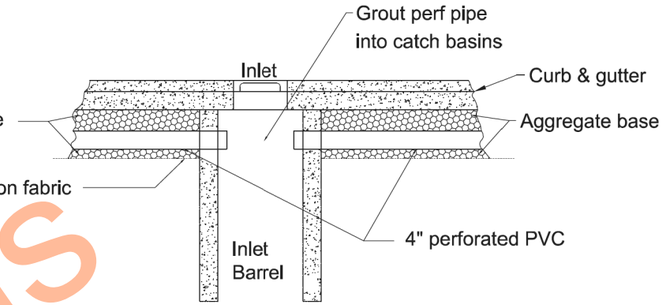


Notes:
1. This Curb Detail is from the original Cass County Highway Department plans for the 76th Ave Round-a-bout.
   a. Project Number: CH1904, Storm Sewer and Street ID. No. 2019-2
   b. Dated 03/01/2019
2. If the curb differs in the field, match the new curb to the existing curb that is currently installed.

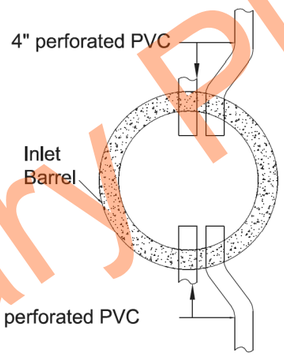
CURB (EXISTING)
S1 Not to Scale

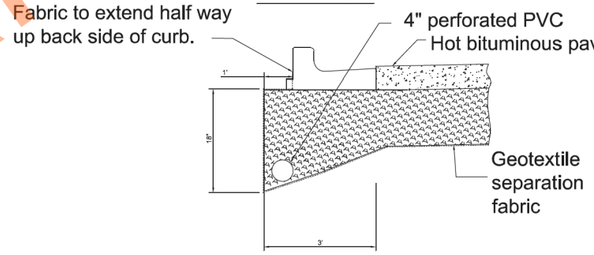


Side View



Front View

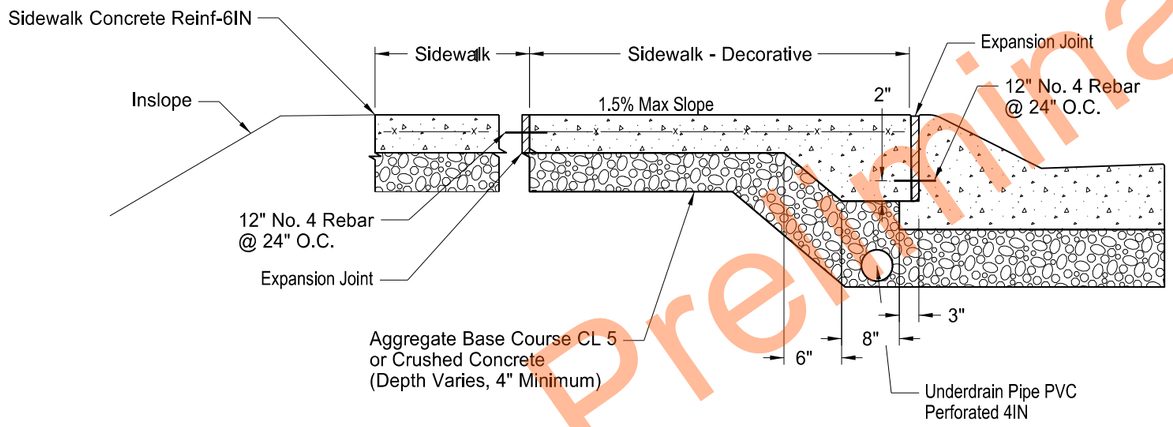




4" perforated PVC

Note:
Required bends incidental.
Cost of knockouts and grouting of pvc into inlets to be included in the price bid for inlets.

PERFORATED PIPE INLET CONNECTION DETAIL



Notes:
1. Use an isolation joint when abutting structures such as buildings, retaining walls, etc.
2. Install tied connection and thickened edge when back of curb is adjacent to concrete sidewalk or median.
3. Saw joints installed per sidewalk detail. Match curb and gutter joints and existing sidewalk joints.
4. Reinforce installed per sidewalk detail.

2 SIDEWALK-DECORATIVE ADJACENT TO CURB
S1 Not to Scale

Not to Scale

Sidewalk - Decorative Adjacent to Curb

Shared Use Path - 76th Ave S
CR17 West to Brink Drive

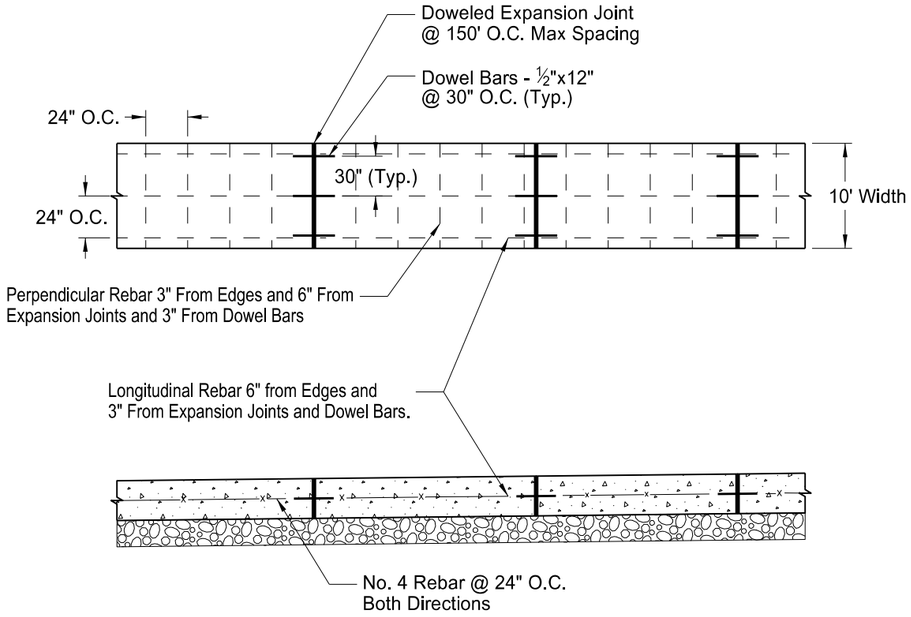
Horace, ND

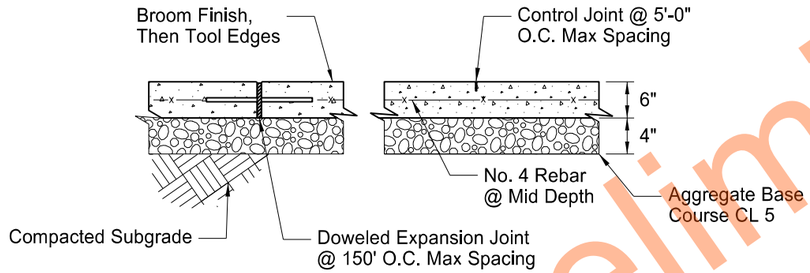
REGISTERED PROFESSIONAL ENGINEER
ERIC P. ERICSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

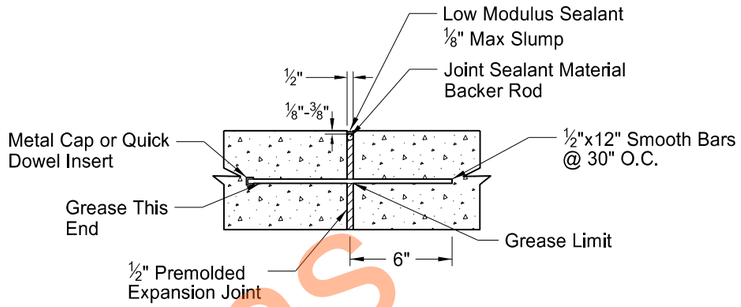
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	020	2



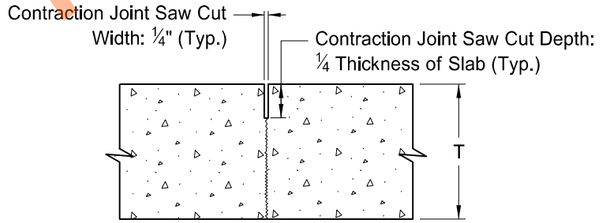


Notes:
1. Shared Use Paths are defined as being any walking path that are greater than 5 feet wide.
2. Coordinate joint locations with the engineer in the field.
3. All control joints to be sawed.
4. Chair or approved support devices to be used to support rebar at mid depth.
5. Saw cut a Centerline Control Joint on Shared Use Paths 8' or wider.
6. Shared Use Paths shall have a maximum cross slope of 2%. The preferred cross slope is 1.5%

1 / S2 SHARED USE PATH (STEEL REINF)
Not to Scale



2 / S2 DOWELED EXPANSION JOINT DETAIL
Not to Scale



3 / S2 CONTRACTION JOINT SAW CUT DETAIL
Not to Scale

Notes:
1. Coordinate joint locations with the engineer in the field.
2. A Doweled Expansion Joint shall also be placed where new concrete meets existing concrete. Dowel shall be drilled and epoxied into the existing concrete at mid depth.
3. Expansion joints shall be 1/2" premolded conforming to the standard specifications. The opening for the backer rod and joint sealant shall be formed by a precut piece of wood or other material approved by the engineer. Dowel supports not required on the second pour at a cold joint. The metal cap and greased dowel shall be on the second pour.
4. Joint sealing - all expansion joints shall be sealed as shown in details. The joint sealant shall be low modulus silicone polyurethane tensile strength at break (ASTM D412) 125 psi, movement capability: 50°expansion/contraction TT-S-00230G. Color shall be gray. The sealant shall be tooled and installed in accordance with the manufacturers recommendations.

Not to Scale

Sidewalk Concrete Steel Reinf & Joint Detail

Shared Use Path - 76th Ave S
CR17 West to Brink Drive

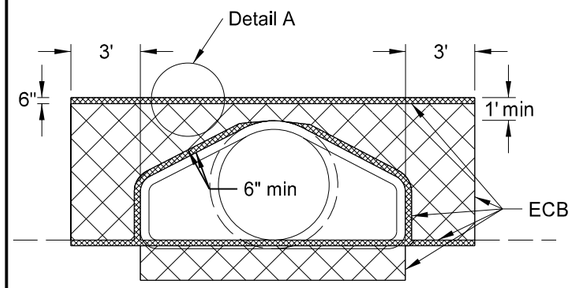
Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

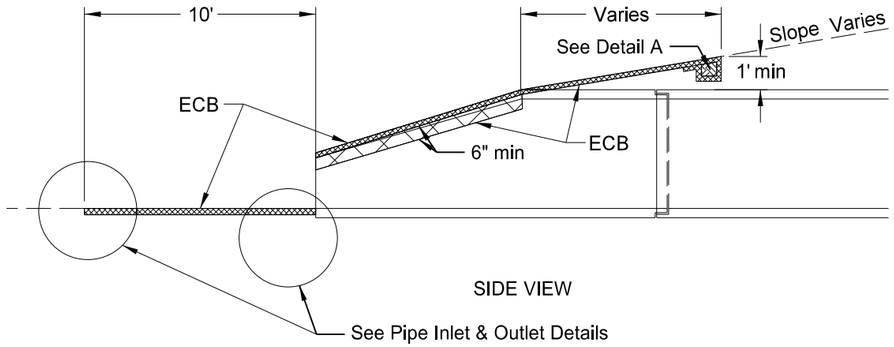
Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

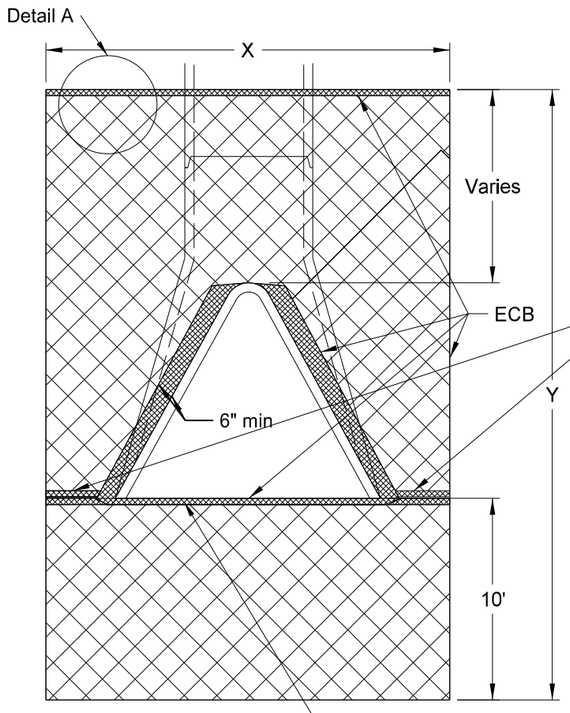
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	020	3



FRONT VIEW



SIDE VIEW

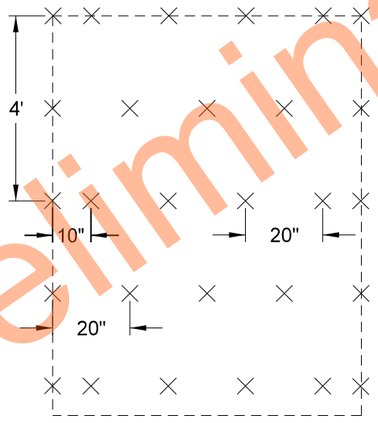


TOP VIEW

Tuck this end a minimum of 6" into the embankment.

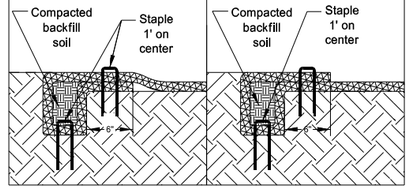
Inlet side - see applicable detail for pipe inlet.
Outlet side - see applicable detail for pipe outlet.

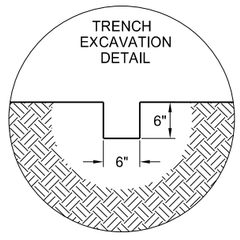
NOTE: Tuck the ECB a minimum of 6" into the embankment (against the flared end section) around the opening of the flared end section.



STAPLE PATTERN

DETAIL A
ANCHOR TRENCH & BLANKET INSTALLATION





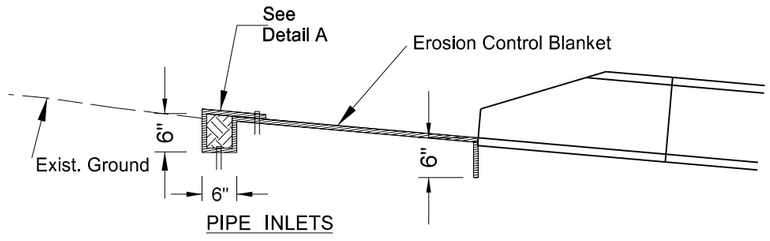
CENTERLINE CULVERTS

DIA	X	Y	Surface area to be protected	ECB	DIA	X	Y	Surface area to be protected	ECB
In	Ft	Ft	SF	SY	In	Ft	Ft	SF	SY
24	10.5	19.6	193.1	22	24	10.5	17.6	172.1	20
27	11.0	20.0	204.3	23	27	11.0	18.0	182.3	21
30	11.6	20.5	218.3	25	30	11.6	18.5	195.1	22
36	12.7	21.2	242.1	27	36	12.7	19.2	216.7	24
42	13.3	21.2	251.8	28	42	13.3	19.2	225.2	25
48	13.8	22.0	265.6	30	48	13.8	20.0	238.0	27
54	14.5	21.5	273.7	31	54	14.5	19.5	244.7	28
60	15.0	21.0	278.3	31	60	15.0	19.0	248.3	28
66	15.6	22.0	295.7	33	66	15.6	20.0	264.5	30
72	16.2	22.5	309.2	35	72	16.2	20.5	276.8	31
Note: Quantities based on 6:1 slope.					Note: Quantities based on 4:1 slope.				

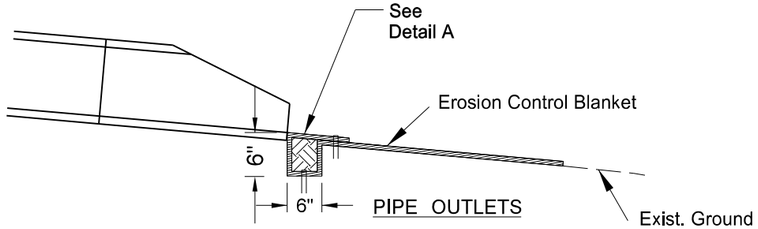
APPROACH CULVERTS

DIA	X	Y	Surface area to be protected	ECB
In	Ft	Ft	SF	SY
15	9.0	20.0	176.0	20
18	9.5	20.7	190.7	22
21	9.5	21.0	190.9	22
24	10.5	21.6	214.1	24
27	11.0	22.0	226.3	25
30	11.6	22.5	241.5	27
36	12.7	23.3	268.8	30
42	13.3	23.3	279.7	31
48	13.8	24.0	293.2	33
54	14.5	23.4	300.6	34
60	15.0	23.0	307.5	35
66	15.6	24.0	325.6	37
72	16.2	24.5	340.6	38
Note: Quantities based on 8:1 slope.				

Not to Scale



PIPE INLETS



PIPE OUTLETS

Erosion Control at Culvert Flared End Sections

Shared Use Path - 76th Ave S
CR17 West to Brink Drive

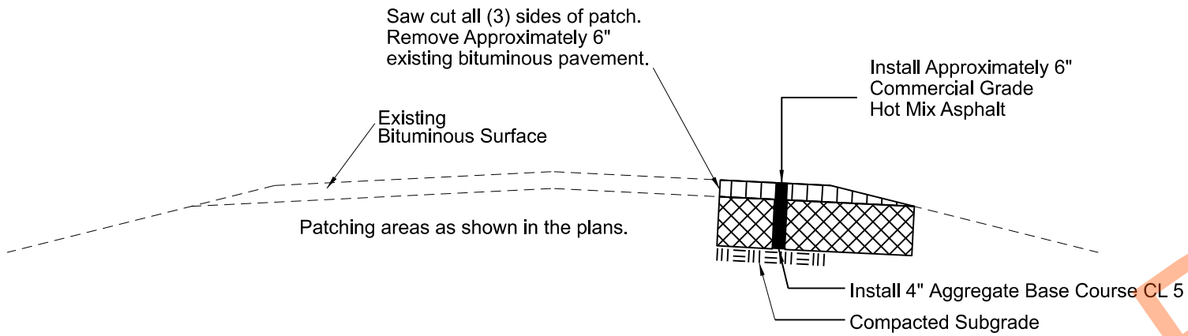
Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Preliminary Plans

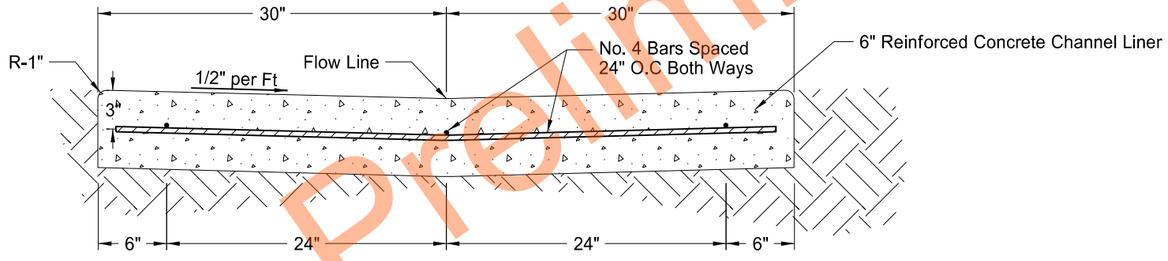
Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	020	4



1 / S4 HMA PATCHING DETAIL

Not to Scale



3 / S4 CONCRETE CHANNEL LINER

Not to Scale

Notes:
1. The Concrete Channel Liner shall be constructed on a minimum of 6" NDDOT CL 5 Aggregate Base Course
2. The NDDOT CL 5 Aggregate is incidental and included in the bid item for Concrete Channel Lining
3. The concrete mix design for the concrete channel liner will be the same as the shared use path.
4. The contractor will provide a jointing and reinforcement layout to be approved by the Engineer prior to installation.

Not to Scale

HMA Patching Detail & Concrete Channel Liner

Shared Use Path - 76th Ave S
CR17 West to Brink Drive

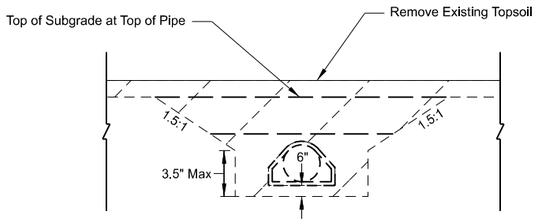
Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

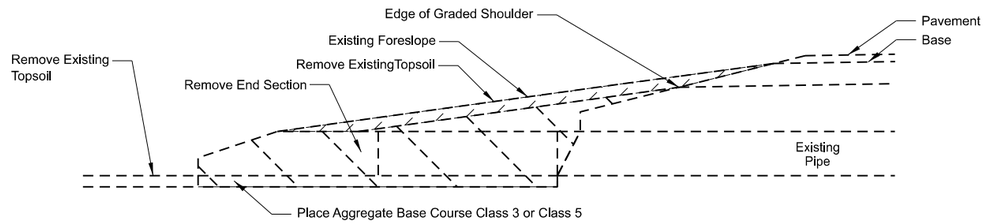
Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

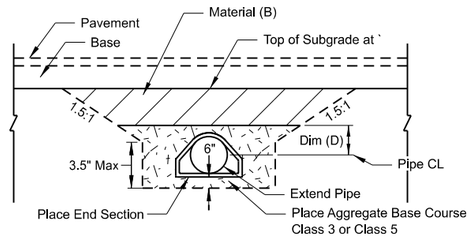
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	020	5



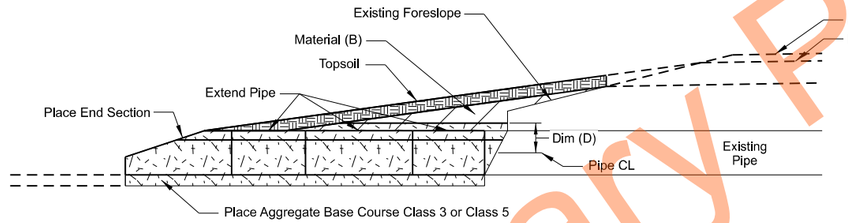
1 S6 BACKFILL DETAIL - SIDE VIEW
Not to Scale



4 S6 PROSED SECTION - CROSS SECTION VIEW
Not to Scale



2 S6 BACKFILL DETAIL - SIDE VIEW (TOPSOIL NOT SHOWN)
Not to Scale



5 S6 PROSED SECTION - CROSS SECTION VIEW
Not to Scale

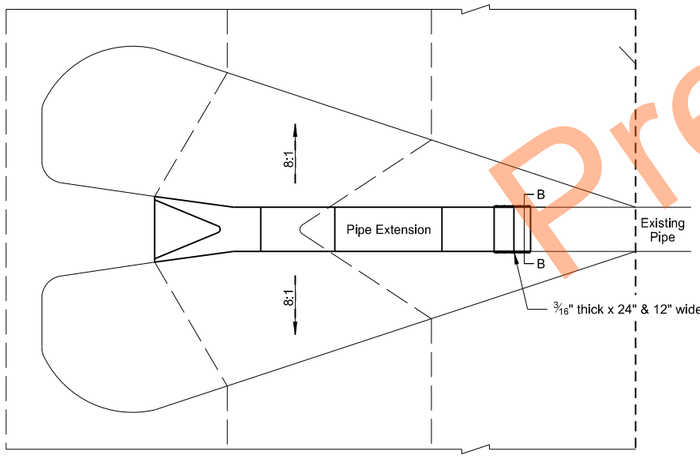
Pay Items
1) Pipe*
2) Removal of pipe (if required)

*Included in Pipe Pay Item
1) Pipe
2) Aggregate Base Course Class 3 or Class 5
3) Embankment
4) Trench Excavation

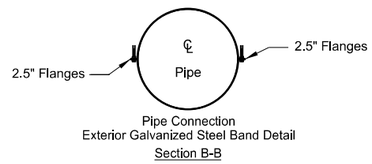
Pipe Materials	Dim (A) ≤ 4 Feet Material (B)	Backfill Dimension Dim (D)
Concrete	Embank or Aggr	0.5 O.D.
Metal	Embank or Aggr	0.5 O.D. + 1 Foot

Pipe Materials	Dim (A) > 4 Feet Material (B)	Backfill Dimension Dim (D)
Concrete	Embankment	0.5 O.D.
Metal	Embankment	0.5 O.D. + 1 Foot

NOTES:
1. Embankment may be either Borrow Excavation or Common Excavation.
2. Aggregate may be either Class 3 or Class 5 Aggregate Base Course.



3 S6 PROPOSED SECTION - PLAN VIEW
Not to Scale



Pipe Connection
Exterior Galvanized Steel Band Detail
Section B-B

Not to Scale

CSP & RCP Pipe Extension Detail

Shared Use Path - 76th Ave S
CR17 West to Brink Drive

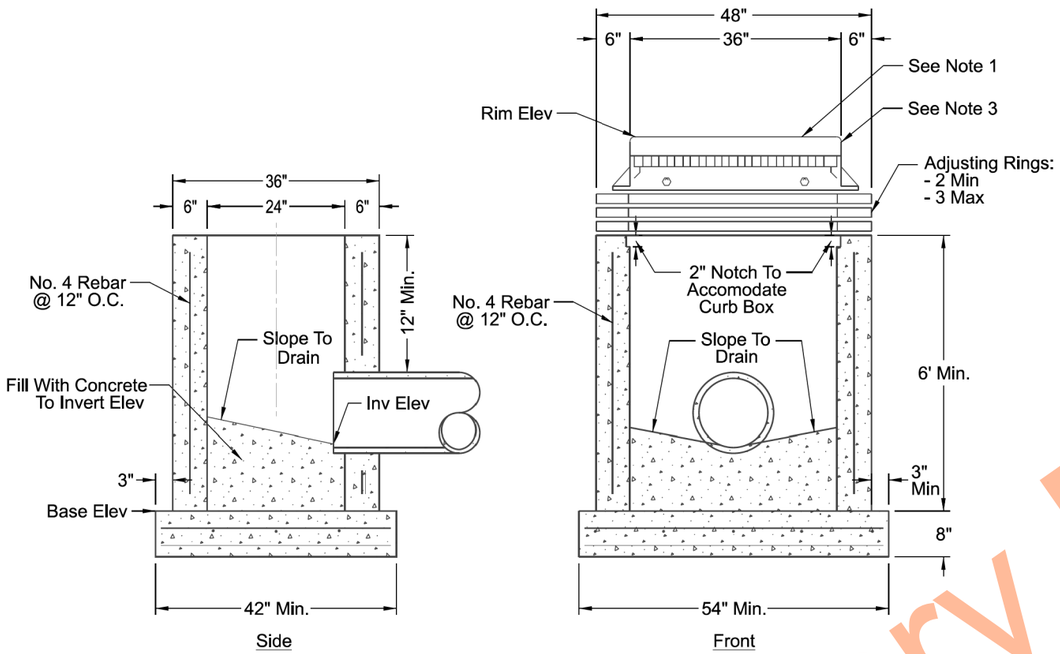
Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	020	6



Preliminary Plans

Notes:
1. Type II Inlet Grate and Casting
   a. Curb & Gutter
      i. EJIW 7030 with Type T1 Back and Type M2, Type M4, Type M5 or Type M6 Grate.
      ii. Neenah R-3067 with R-3290 Back and Type C, Type L, Type R, or Type V Grate.
      iii. Approved equal.
   b. Mountable Curb & Gutter
      i. EJIW 7030Z2 (No Back) with Type M2, Type M4, Type M5, or Type M6 Grate
      ii. Neenah R-2067-C (No Back) with Type C, Type L, Type R, or Type V Grate.
      iii. Approved equal.
2. Backfill inlet to invert of lead prior to installation.
3. Top of casting shall be flush to top of curb and gutter.
4. Drain tile pipe penetrations shall have rubber boots.

Not to Scale

Inlet Type II Detail

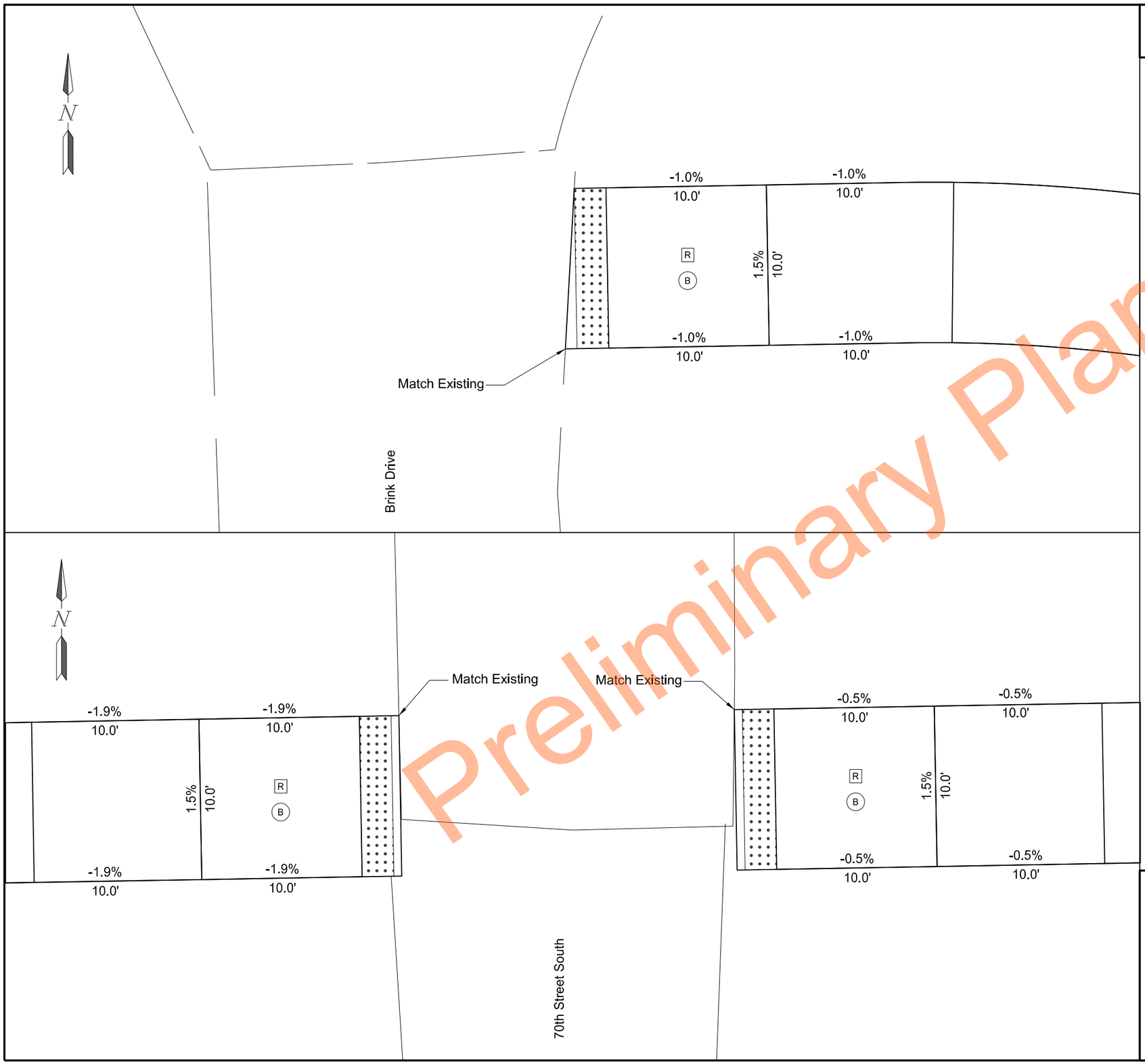
Shared Use Path - 76th Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	020	7



Preliminary Plans

Notes:

1. See Standard Drawings for additional information.
2. Dimensions shown in the plans may vary from actual. Adjust in the field if maximum slopes do not meet the dimensions given.
3. The contractor is responsible to ensure compliance with current PROWAG specifications current at the time of construction. If found to be out of compliance the Contractor will remove sections of concrete sidewalk out of compliance and replace at the Contractor's expense.

Detectable Warning Panel

Sidewalk Concrete Reinf - 6IN

ADA Ramp Detail

R — Ramp:
Preferred Ramp Grade = 5% to 7..5%.
Maximum Constructed Grade = 8.3%.
Preferred Cross Slope = 1.5%.
Maximum Constructed Cross Slope = 2%.

B — Preferred Cross Slope = 1.5%.
Maximum Constructed Cross Slope = 2%.
Running Slope Consistent with the EPF.
Preferred Maximum Counter Slope = 4.7%.
Maximum Constructed Counter Slope = 5%.

Not to Scale

ADA Ramp Detail

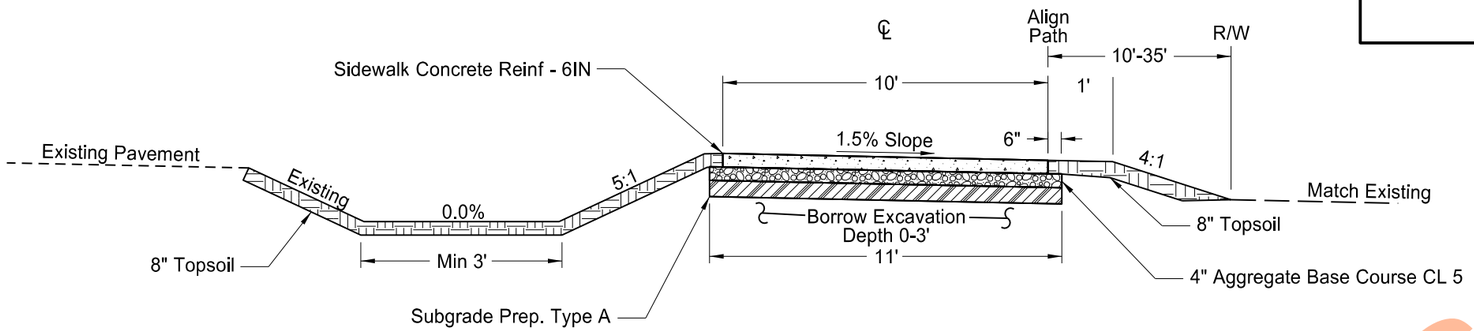
Shared Use Path - 76th Ave S
CR17 West to Brink Drive

Horace, ND

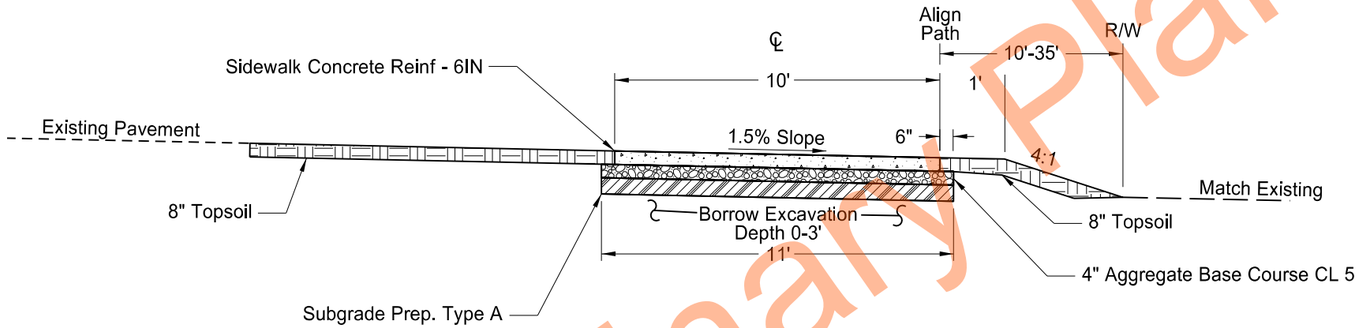
REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

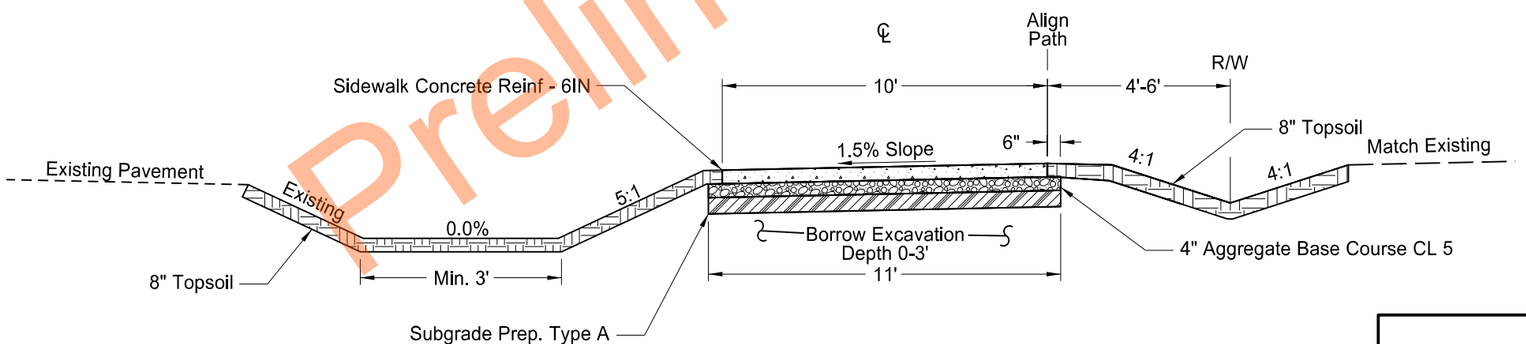
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	030	1



Proposed Shared Use Path Typical Section - 20' Transition
STA 12+42 to 12+62
STA 21+35 to 21+55



Proposed Shared Use Path Typical Section
STA 21+76 to 22+87



Proposed Shared Use Path Typical Section
Sta 12+62 to 21+35

Notes:

1. At the tie-in match the new Shared Use Path to the existing Shared Use Path use a transition if needed.
2. Existing PVC Underdrain pipe to remain in-placed and if damaged during construction contractor will replace at their expense.
3. Aggregate below the new Curb & Gutter and new Sidewalk-Decorative shall match the depth of the existing aggregate base or as shown in the detail, whichever is deeper.
4. At the sidewalk tie-in for the slope, grade the new slope to match with the existing sidewalk slope.

Typical Sections

Shared Use Path -76th Ave S
CR17 West to Brink Drive

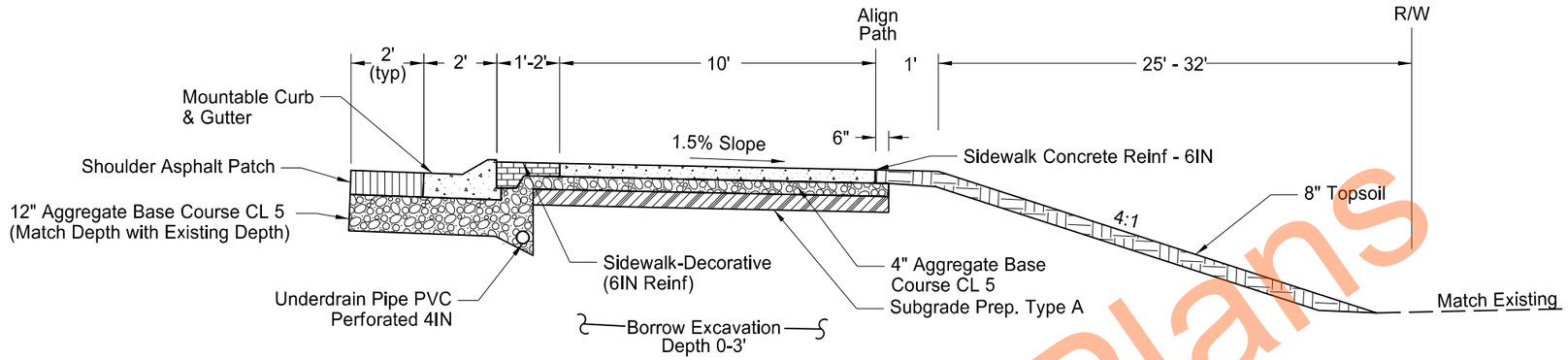
Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

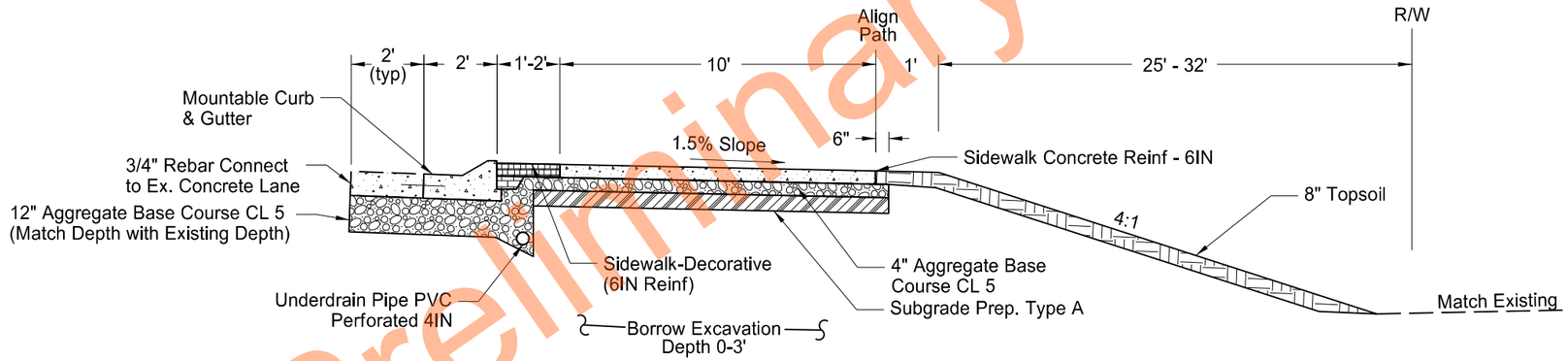
Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	030	2



Proposed Shared Use Path Typical Section
Sta 22+87 to Sta 23+48



Proposed Shared Use Path Typical Section
Sta 23+48 to Sta 25+01.18

Preliminary Plans

Notes:

1. At the tie-in match the new Shared Use Path to the existing Shared Use Path use a transition if needed.
2. Existing PVC Underdrain pipe to remain in-placed and if damaged during construction contractor will replace at their expense.
3. Aggregate below the new Curb & Gutter and new Sidewalk-Decorative shall match the depth of the existing aggregate base or as shown in the detail, whichever is deeper.
4. At the sidewalk tie-in for the slope, grade the new slope to match with the existing sidewalk slope.

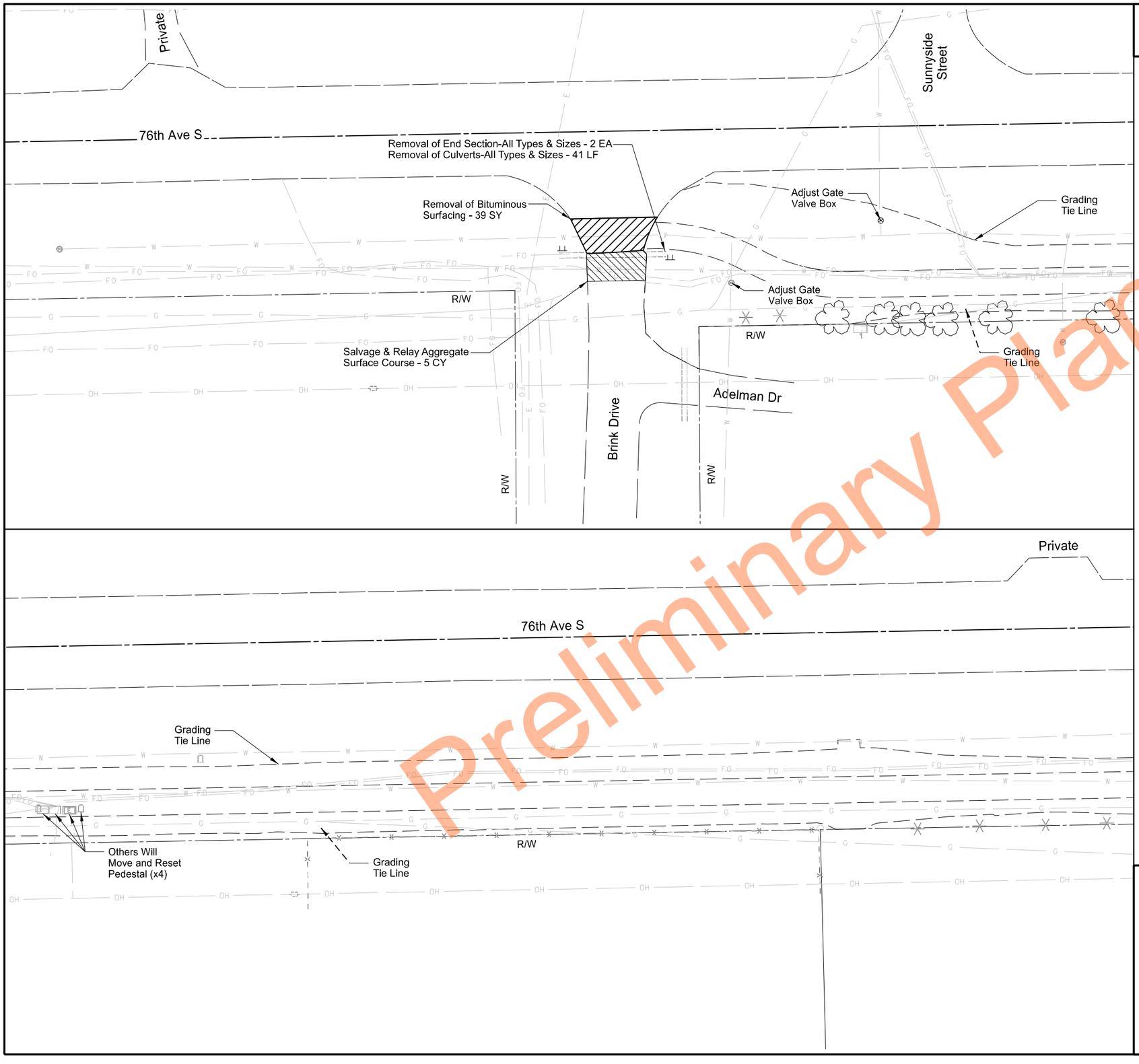
Typical Sections

Shared Use Path -76th Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25



Preliminary Plans

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	040	1

SPEC	CODE	BID ITEM	QTY	UNIT
202	0132	REMOVAL OF BITUMINOUS SURFACING		
		STA 12+14 to 12+47 LT&RT	39	SY
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES		
		STA 12+09	1	EA
		STA 12+50	1	EA
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		STA 12+09 to 12+50	41	LF
203	0125	REMOVE & SALVAGE TOPSOIL		
		STA 12+09 to 14+30 LT&RT	156	CY
		STA 14+30 to 18+60 LT&RT	185	CY
302	405	SALVAGE & RELAY AGGREGATE SURFACE COURSE		
		STA 12+20 to 12+42 LT&RT	5	CY
722	6140	ADJUST GATE VALVE BOX		
		STA 12+77 - 12' RT	1	EA
		STA 13+27 - 24' LT	1	EA

N

Removal of Bituminous Surfacing

Salvage & Relay Aggregate Surface Course

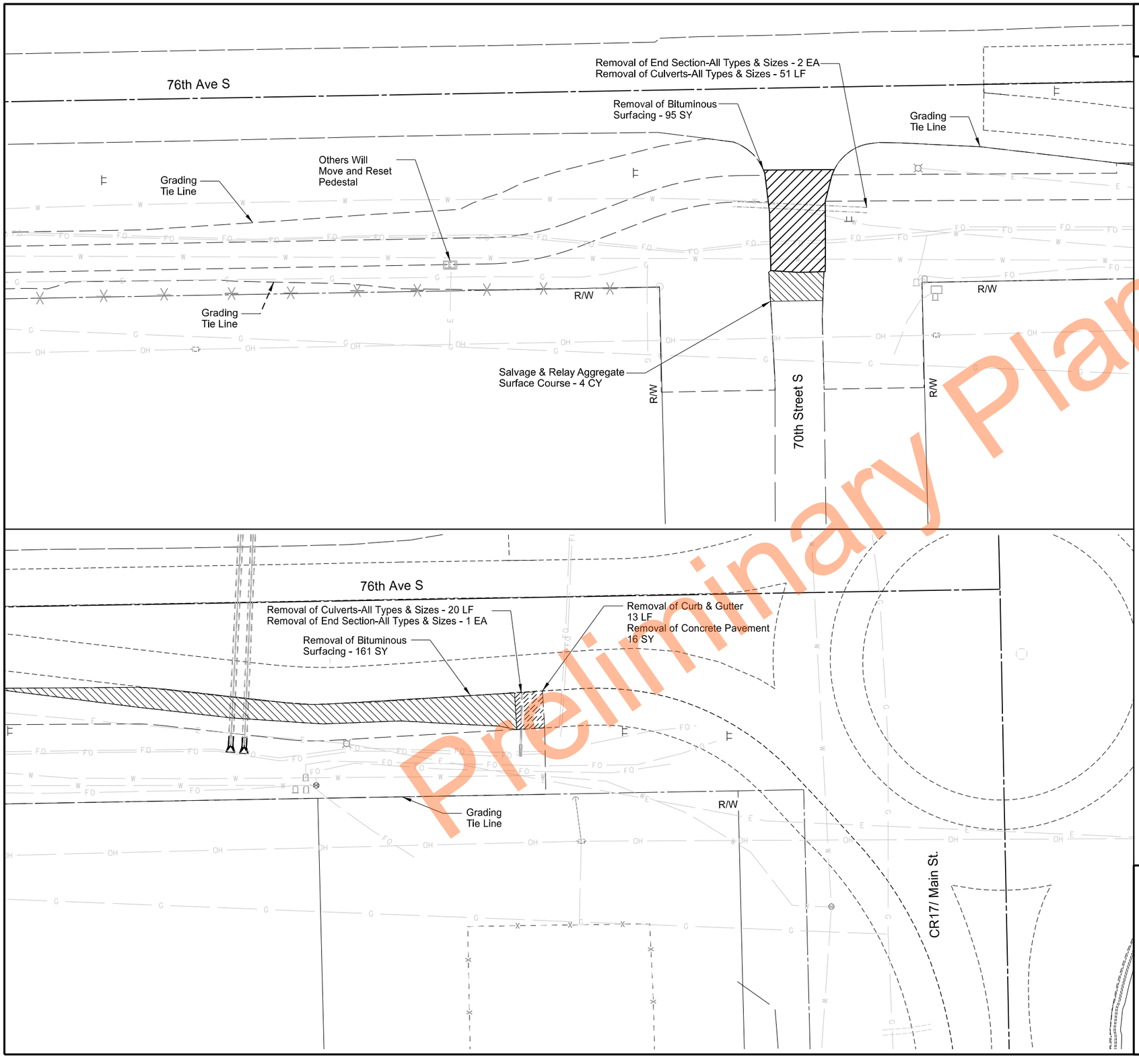
Removals

Shared Use Path - 76th Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25



Preliminary Plans

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	040	2

SPEC	CODE	BID ITEM	QTY	UNIT
202	0114	REMOVAL OF CONCRETE PAVEMENT		
		STA 24+91 to 25+01 LT	16	SY
202	0130	REMOVAL OF CURB & GUTTER		
		STA 24+88 to 25+01 LT	13	LF
202	0132	REMOVAL OF BITUMINOUS SURFACING		
		STA 21+86 to 21+78 LT&RT	95	SY
		STA 22+89 to 24+91 LT&RT	161	SY
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES	.	
		STA 21+42 RT	1	EA
		STA 21+93 RT	1	EA
		STA 24+92 RT	1	EA
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		STA 21+42 to 21+93	51	LF
		STA 24+92 - 6' RT to 14' LT	20	LF
203	0125	REMOVE & SALVAGE TOPSOIL		
		STA 18+60 to 22+94 LT&RT	331	CY
		STA 22+94 to 25+04 LT&RT	388	CY
302	405	SALVAGE & RELAY AGGREGATE SURFACE COURSE		
		STA 21+56 to 21+76 RT	4	CY

N

Removal of Bituminous Surfacing

Salvage & Relay Aggregate Surface Course

Removal of Concrete Pavement

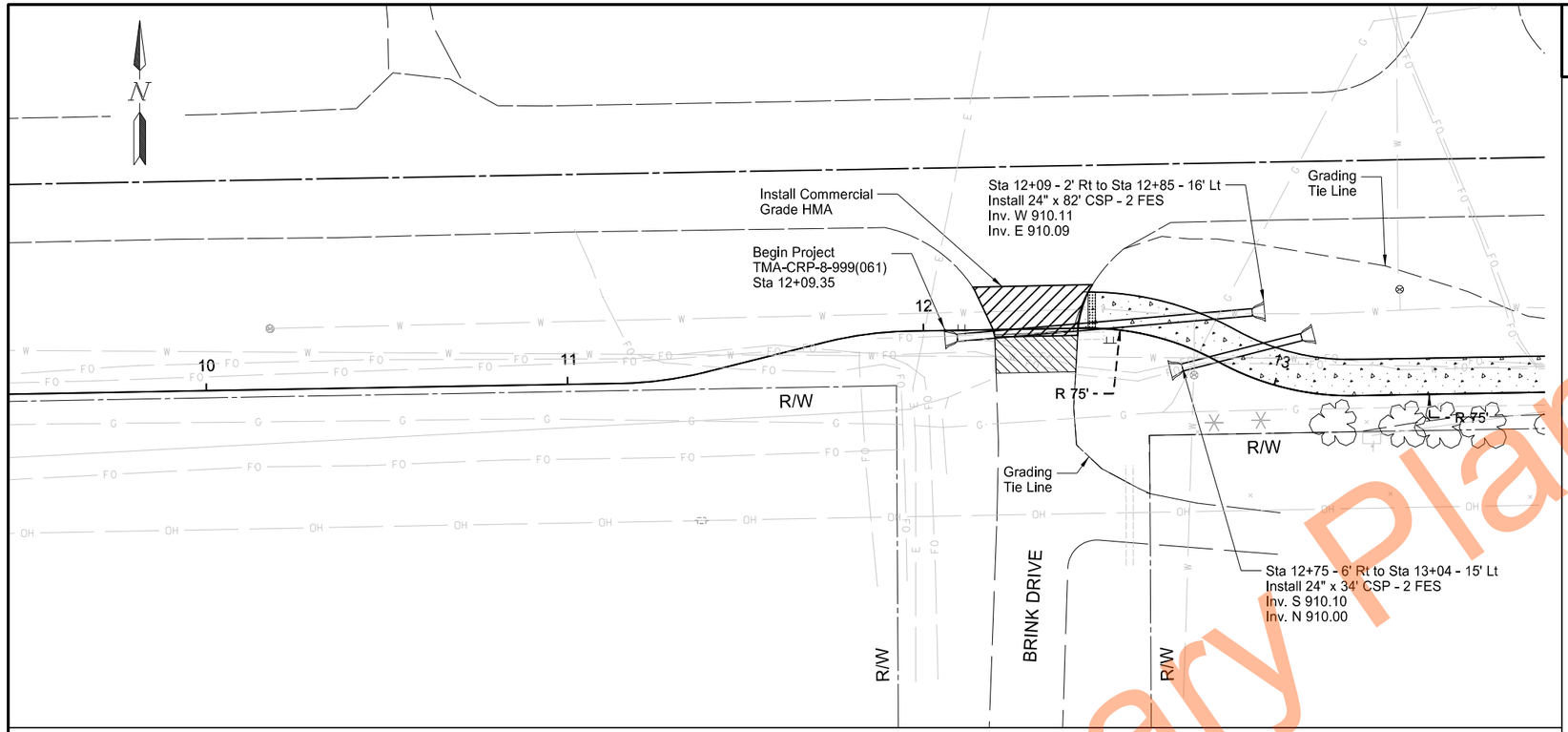
Removals

Shared Use Path - 76th Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	60	1

SPEC	CODE	BID ITEM	QTY	UNIT
230	0165	SUBGRADE PREPARATION-TYPE A-12IN		
		STA 12+14 to 13+00 LT&RT	1.4	STA
302	0121	AGGREGATE BASE COURSE CL 5		
		STA 12+14 to 14+47 LT&RT	5	CY
		STA 12+43 to 13+50 LT	15	CY
430	0500	COMMERCIAL GRADE HOT MIX ASPHALT		
		STA 12+14 to 12+47 LT&RT	4	TON
714	5035	PIPE CORR STEEL .064IN 24IN		
		STA 12+09 RT to 12+85 LT&RT	82	LF
		STA 12+75 LT to 13+04 LT&RT	16	LF
714	5820	END SECT CORR STEEL .064IN 24IN		
		STA 12+09 RT	1	EA
		STA 12+75 LT	1	EA
		STA 12+85 LT	1	EA
		STA 13+04 LT	1	EA
750	0101	SIDEWALK CONCRETE REINF (6IN)		
		STA 12+43 to 13+50 LT	119	SY
750	2115	DETECTABLE WARNING PANELS		
		STA 12+47 LT	20	SF

Salvage & Relay Aggregate Surface Course

Commercial Grade Hot Mix Asphalt

Sidewalk Concrete Reinf - 6IN

Detectable Warning Panels

0 40 80

SCALE IN FEET

Plan & Profile

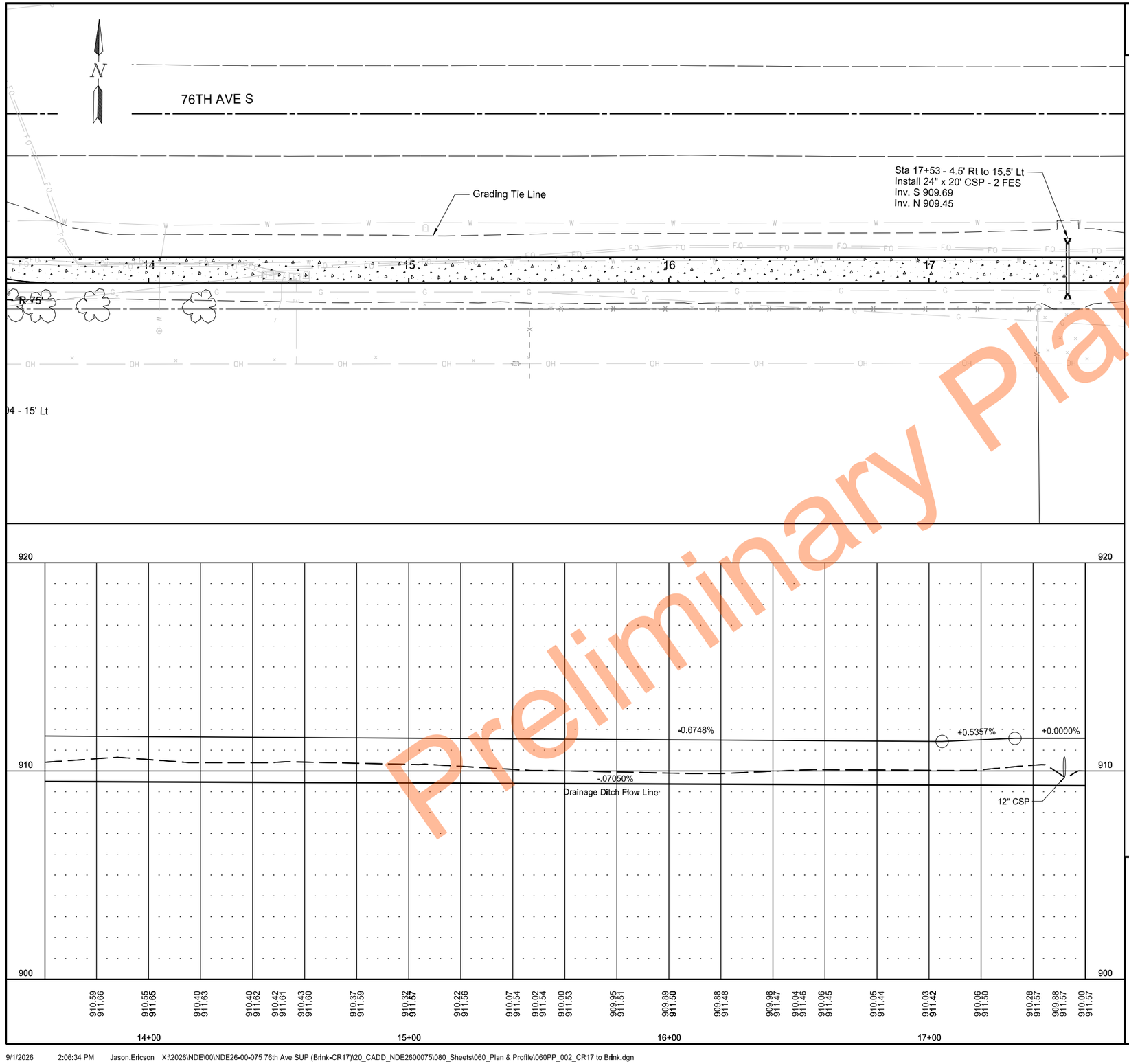
Shared Use Path - 76 Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25



Preliminary Plans

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	60	2

SPEC	CODE	BID ITEM	QTY	UNIT
230	0165	SUBGRADE PREPARATION-TYPE A-12IN		
		STA 13+50 to 17+50 LT	4.0	STA
302	0121	AGGREGATE BASE COURSE CL 5		
		STA 13+50 to 17+50 LT	54	CY
714	5000	PIPE CORR STEEL 0.064 12IN		
		STA 17+53	20	LF
714	5800	END SECT CORR STEEL .064IN 12IN		
		STA 17+53 LT	1	EA
		STA 17+53 RT	1	EA
750	0101	SIDEWALK CONCRETE REINF (6IN)		
		STA 13+75 to 17+75 LT	444	SY

Sidewalk Concrete Reinf - 6IN

0 40 80
SCALE IN FEET

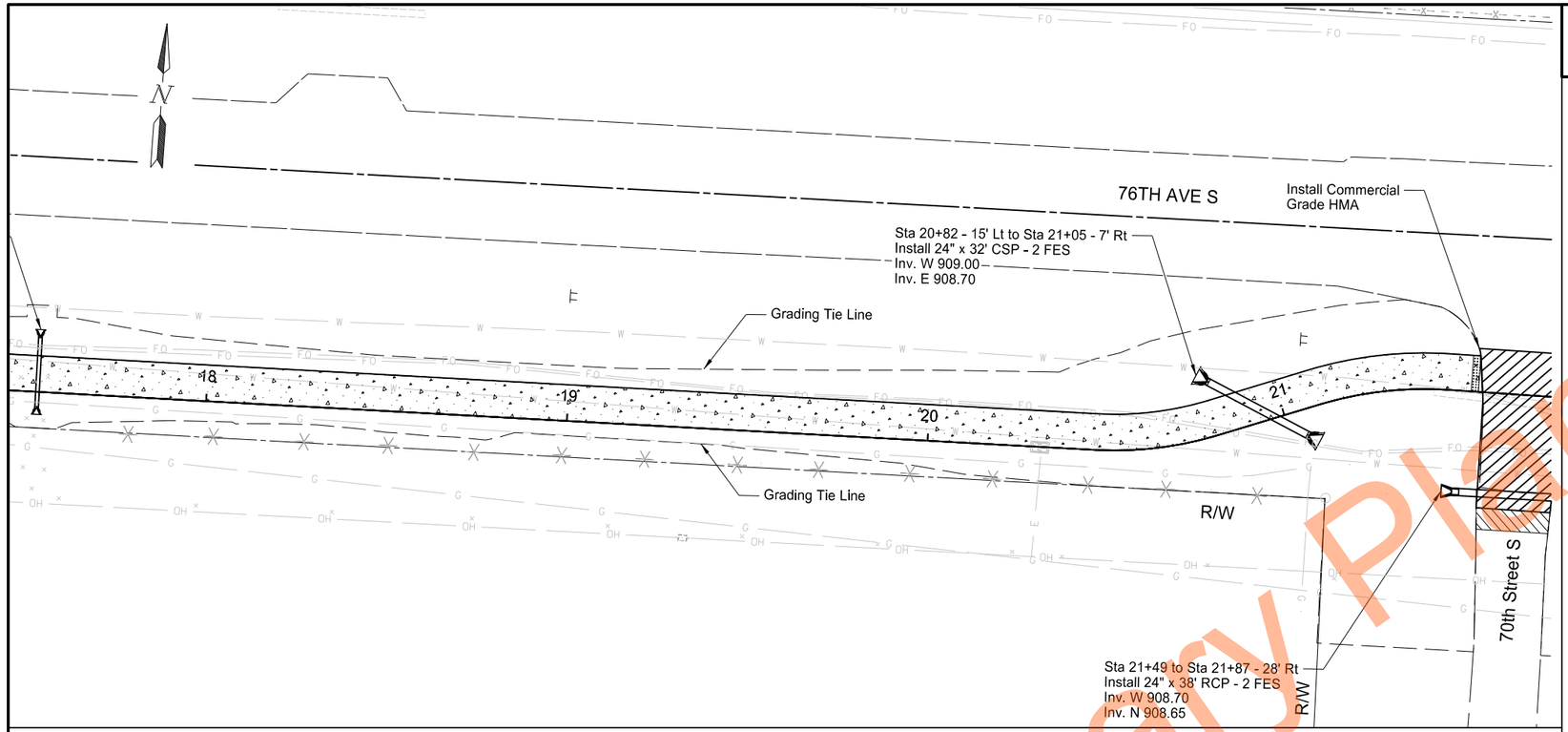
Plan & Profile

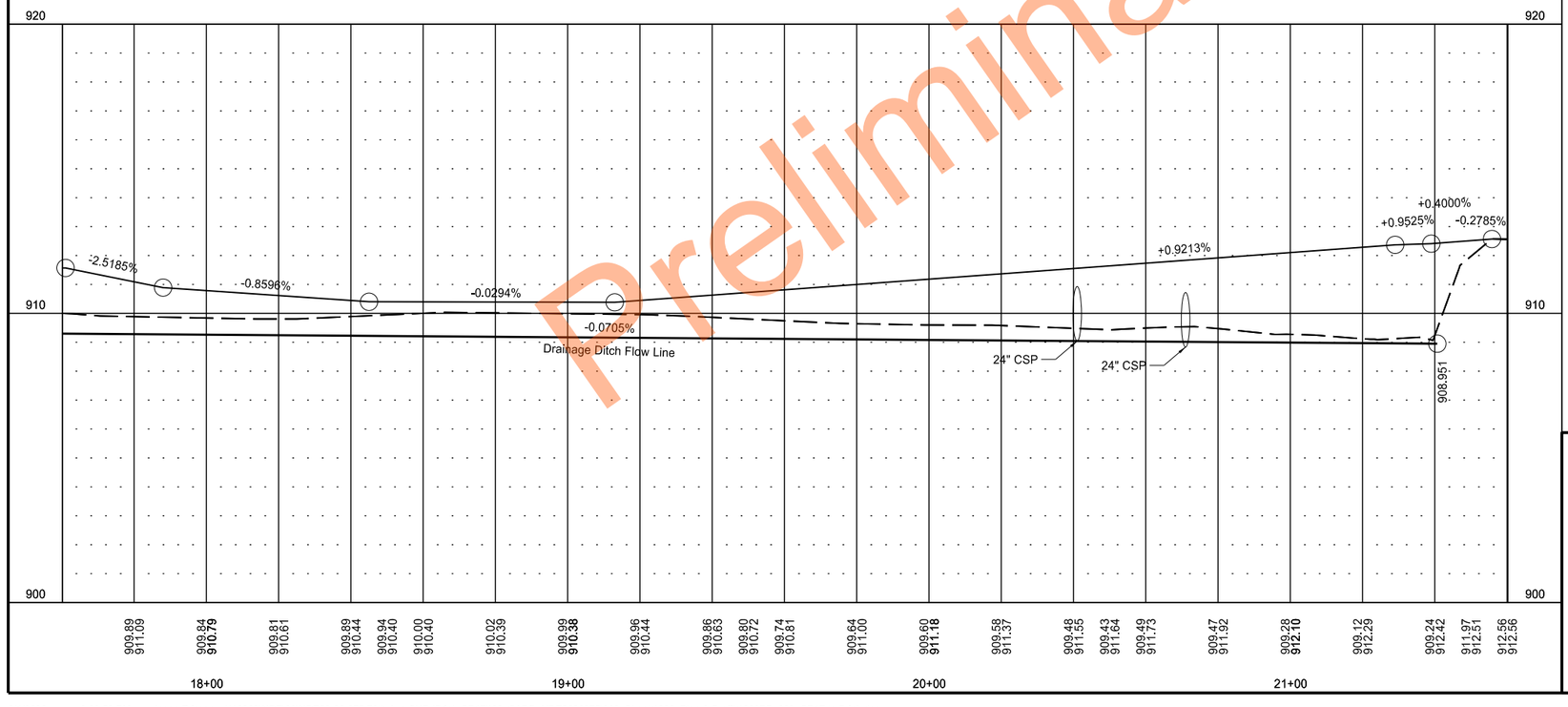
Shared Use Path - 76 Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	60	3

SPEC	CODE	BID ITEM	QTY	UNIT
230	0165	SUBGRADE PREPARATION-TYPE A-12IN		
		STA 17+50 to 21+90 LT&RT	4.4	STA
302	0121	AGGREGATE BASE COURSE CL 5		
		STA 17+75 to 21+56 LT	55	CY
		STA 21+56 to 21+80 LT&RT	18	CY
430	0500	COMMERCIAL GRADE HOT MIX ASPHALT		
		STA 21+56 to 21+78 LT&RT	36	TON
714	0615	PIPE CONC REINF 24IN CL III		
		STA 21+49 RT to 21+87 RT	38	LF
714	3020	END SECT-CONC REINF 24IN		
		STA 21+49 - 28' RT	1	EA
		STA 21+87 - 28' RT	1	EA
714	5035	PIPE CORR STEEL .064IN 24IN		
		STA 20+82 LT to 21+05 RT	32	LF
714	5820	END SECT CORR STEEL .064IN 24IN		
		STA 20+82 - 15' LT	1	EA
		STA 21+05 - 7' RT	1	EA
750	0101	SIDEWALK CONCRETE REINF (6IN)		
		STA 17+50 to 21+56 LT	449	SY
750	2115	DETECTABLE WARNING PANELS		
		STA 21+53 LT	20	SF
		STA 21+81 LT	20	SF

Salvage & Relay Aggregate Surface Course

Commercial Grade Hot Mix Asphalt

Sidewalk Concrete Reinf - 6IN

Detectable Warning Panels

0 40 80

SCALE IN FEET

Plan & Profile

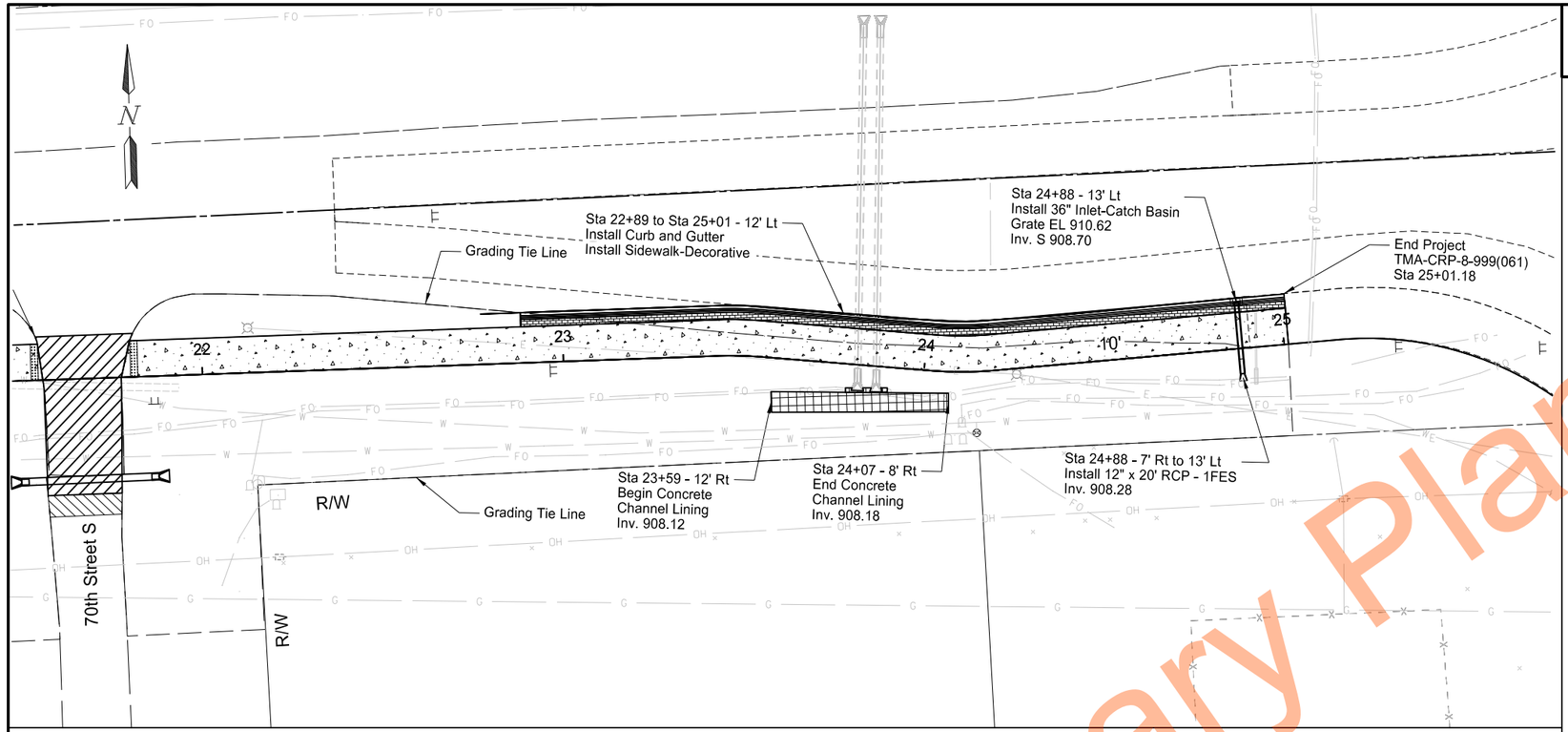
Shared Use Path - 76 Ave S
CR17 West to Brink Drive

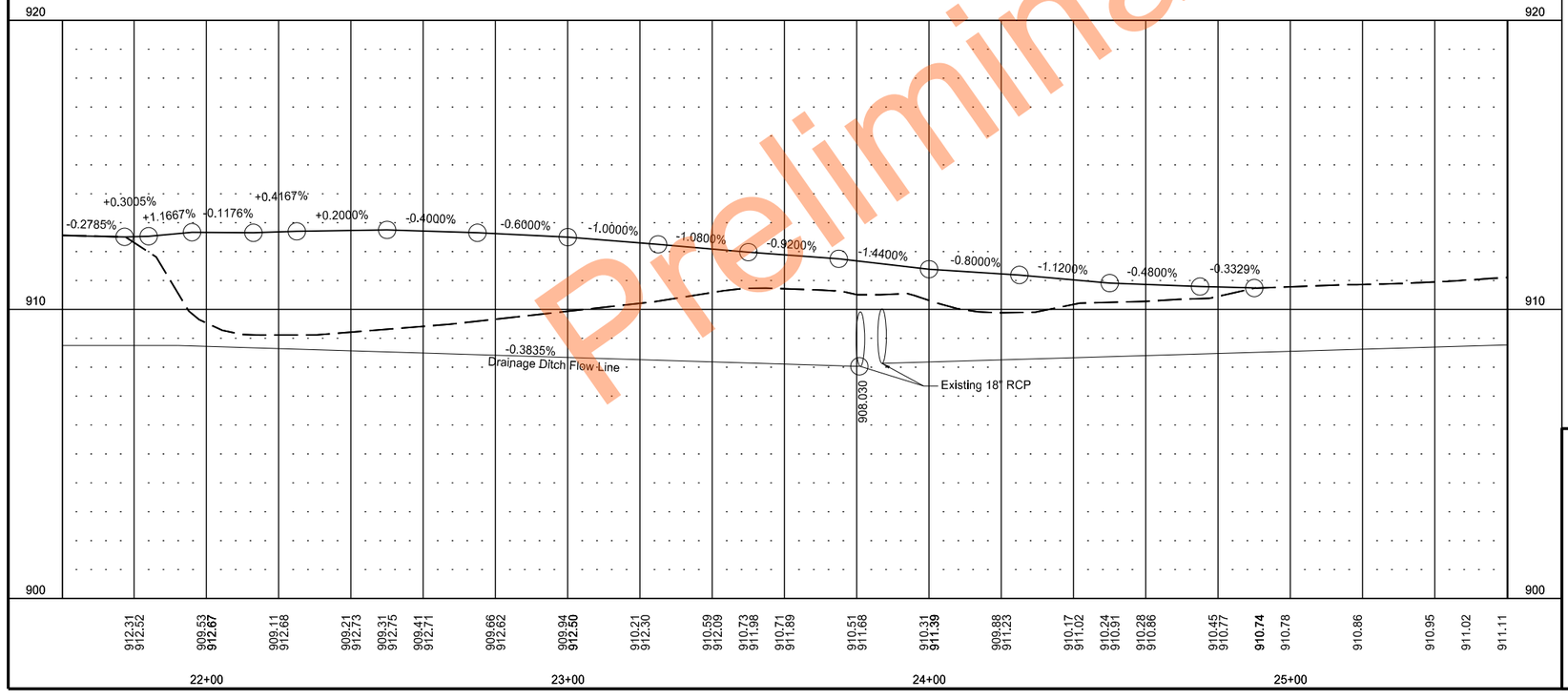
Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	60	4

SPEC	CODE	BID ITEM	QTY	UNIT
230	0165	SUBGRADE PREPARATION-TYPE A-12IN		
		STA 21+90 to 25+01 LT	3.1	STA
302	0121	AGGREGATE BASE COURSE CL 5		
		STA 21+65 to 25+01 LT	53	CY
		STA 23+58 to 24+07 RT	5	CY
430	0500	COMMERCIAL GRADE HOT MIX ASPHALT		
		STA 22+87 to 23+49 LT	4	TON
714	0110	PIPE CONC REINF 12IN CL III		
		STA 24+88 RT - 13' LT to 7' RT	20	LF
714	3000	END SECT-CONC REINF 12IN		
		STA 24+88 - 7' RT	1	EA
722	3510	INLET-TYPE 2		
		STA 24+88 - 13' LT	1	EA
748	0100	CURB & GUTTER		
		STA 22+89 to 25+01 LT	212	LF
750	0101	SIDEWALK CONCRETE REINF (6IN)		
		STA 21+65 to 25+01 LT	358	SY
750	0107	SIDEWALK - DECORATIVE		
		STA 22+88 to 25+01 LT	47	SY
990	0650	CONCRETE CHANNEL LINING		
		STA 23+59 to 24+07 RT	30	SY

Salvage & Relay Aggregate Surface Course

Sidewalk Concrete Reinf - 6IN

Sidewalk - Decorative

Commercial Grade Hot Mix Asphalt

Detectable Warning Panels

0 40 80

SCALE IN FEET

Plan & Profile

Shared Use Path - 76 Ave S
CR17 West to Brink Drive

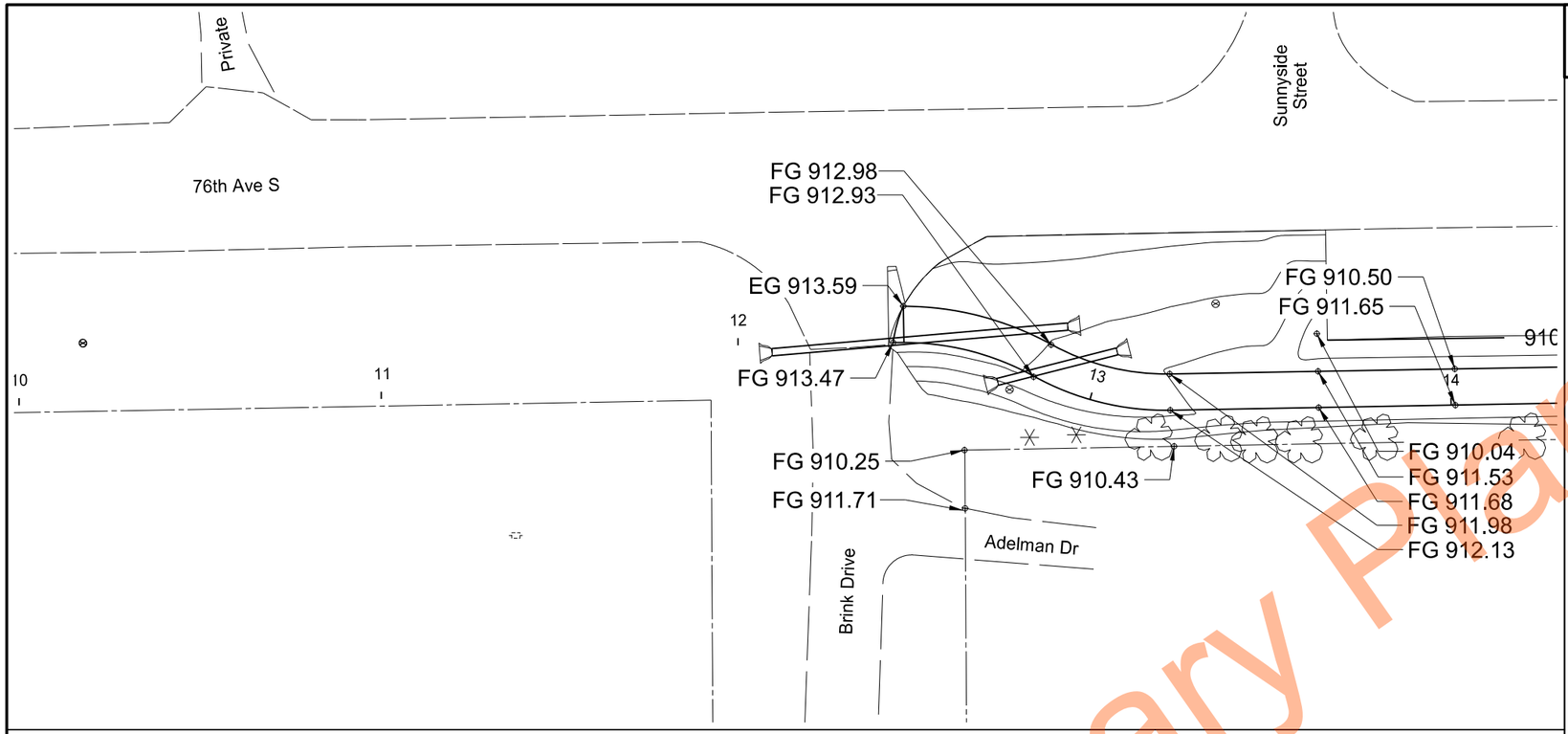
Horace, ND

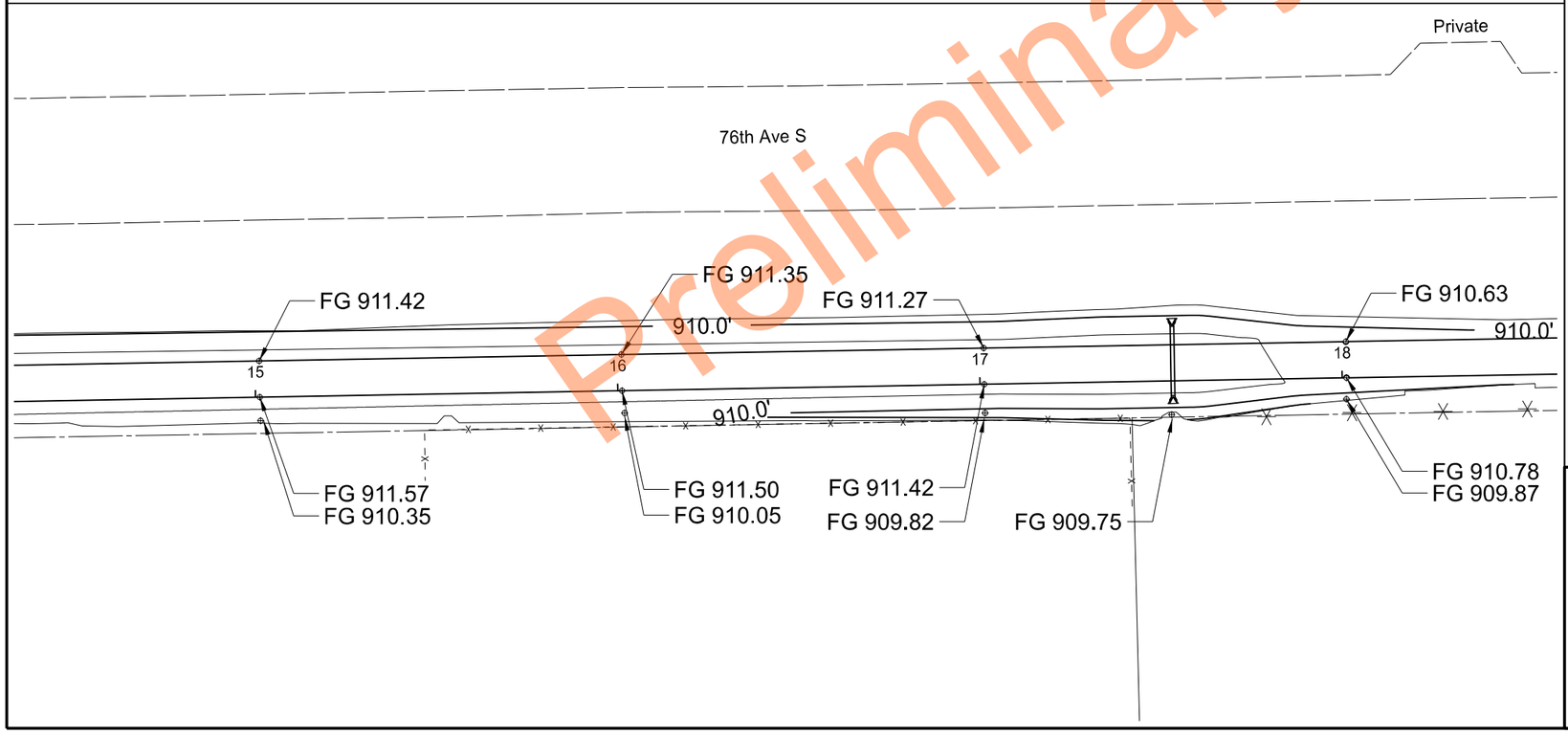
REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	070	1





Preliminary Plans

N

0 40 80

SCALE IN FEET

Contours

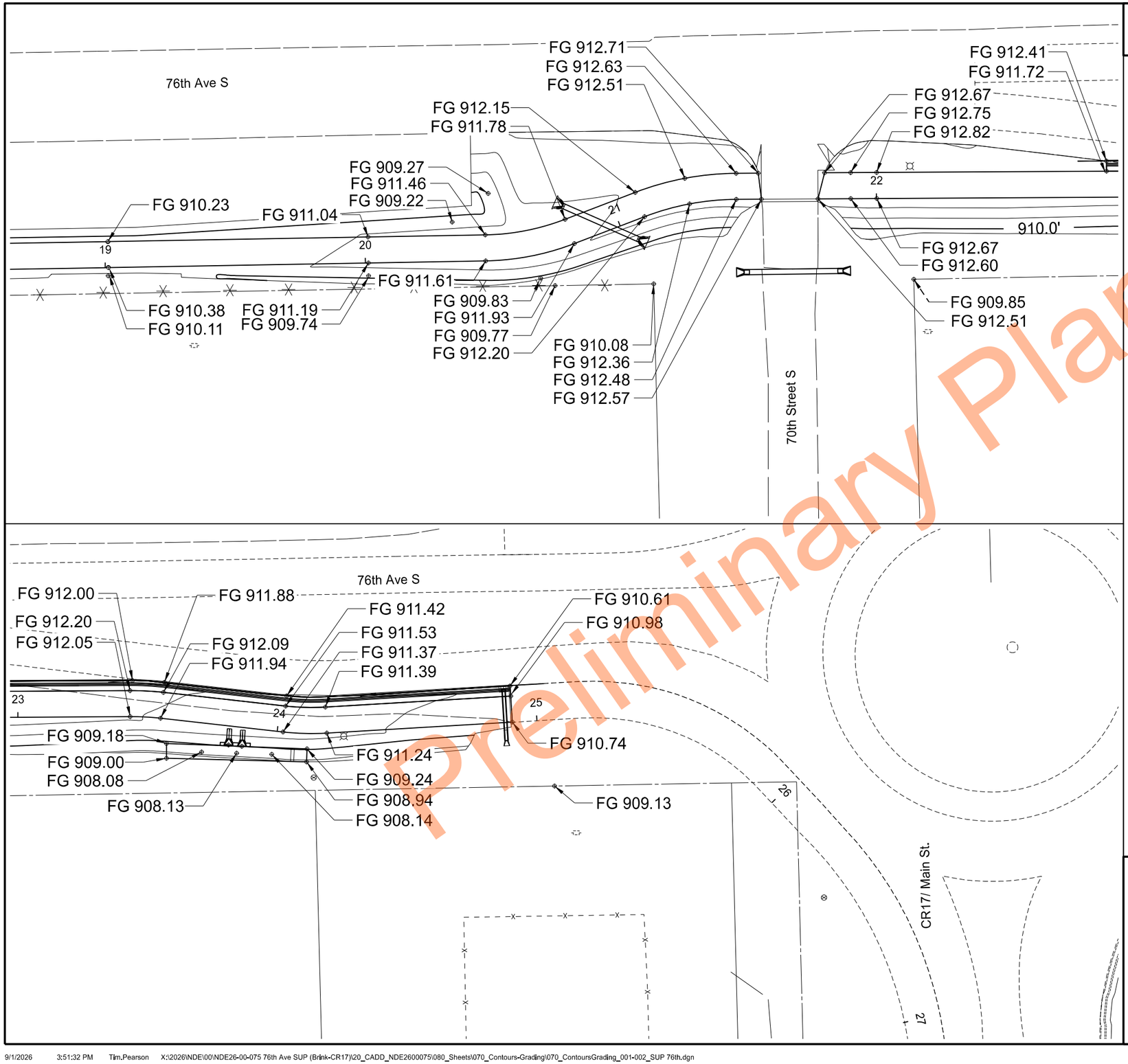
Shared Use Path - 76th Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	070	2



Preliminary Plans

N

0 40 80

SCALE IN FEET

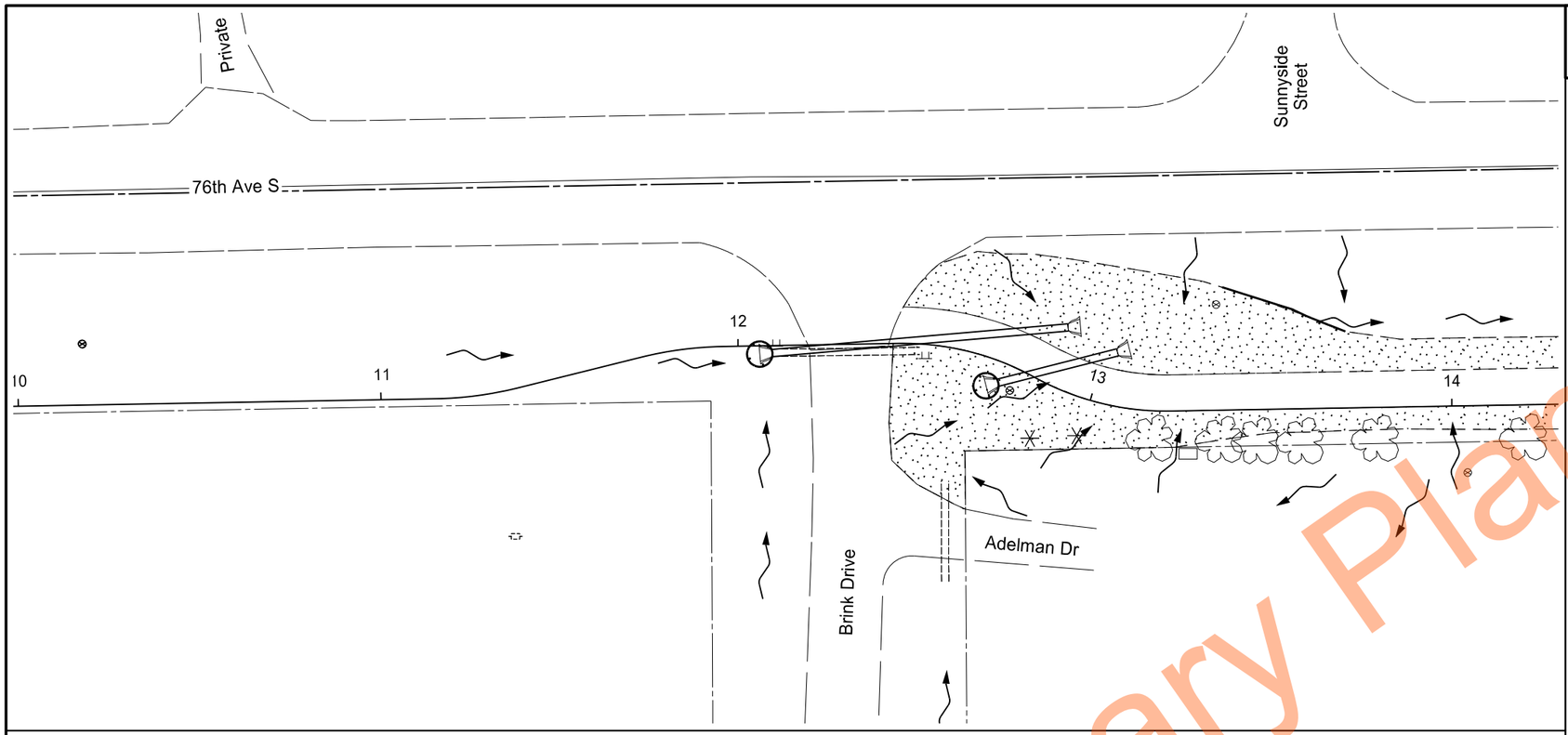
Contours

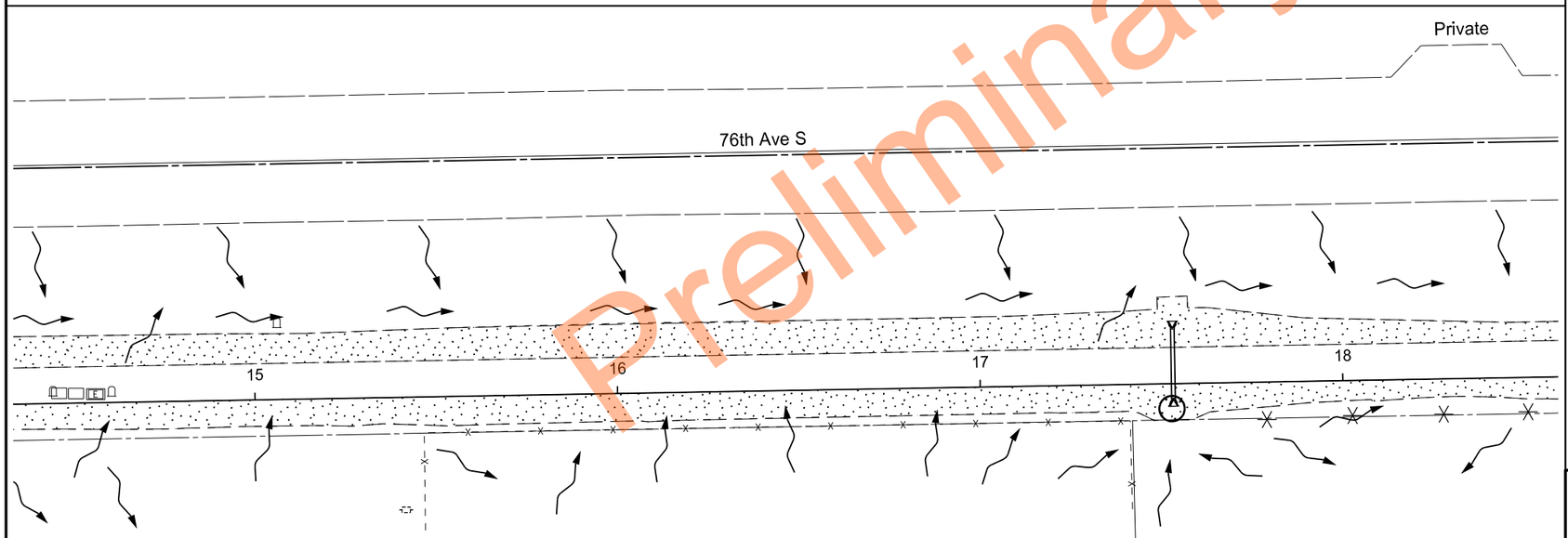
Shared Use Path - 76th Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. PEARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25





Preliminary Plans

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	076	1

SPEC	CODE	BID ITEM	QTY	UNIT
251	2000	TERMPORARY COVER CROP		
		STA 12+42 to 14+30 LT&RT	0.14	AC
		STA 14+30 to 18+60 LT&RT	0.16	AC
261	0112	FIBER ROLLS-12IN		
		STA 12+09 RT	30	LF
		STA 12+75 RT	30	LF
		STA 17+53 RT	30	LF
261	0113	REMOVE FIBER ROLLS-12IN		
		STA 12+09 RT	30	LF
		STA 12+75 RT	30	LF
		STA 17+53 RT	30	LF

N

Fiber Rolls-12IN

Temporary Cover Crop

0 40 80

SCALE IN FEET

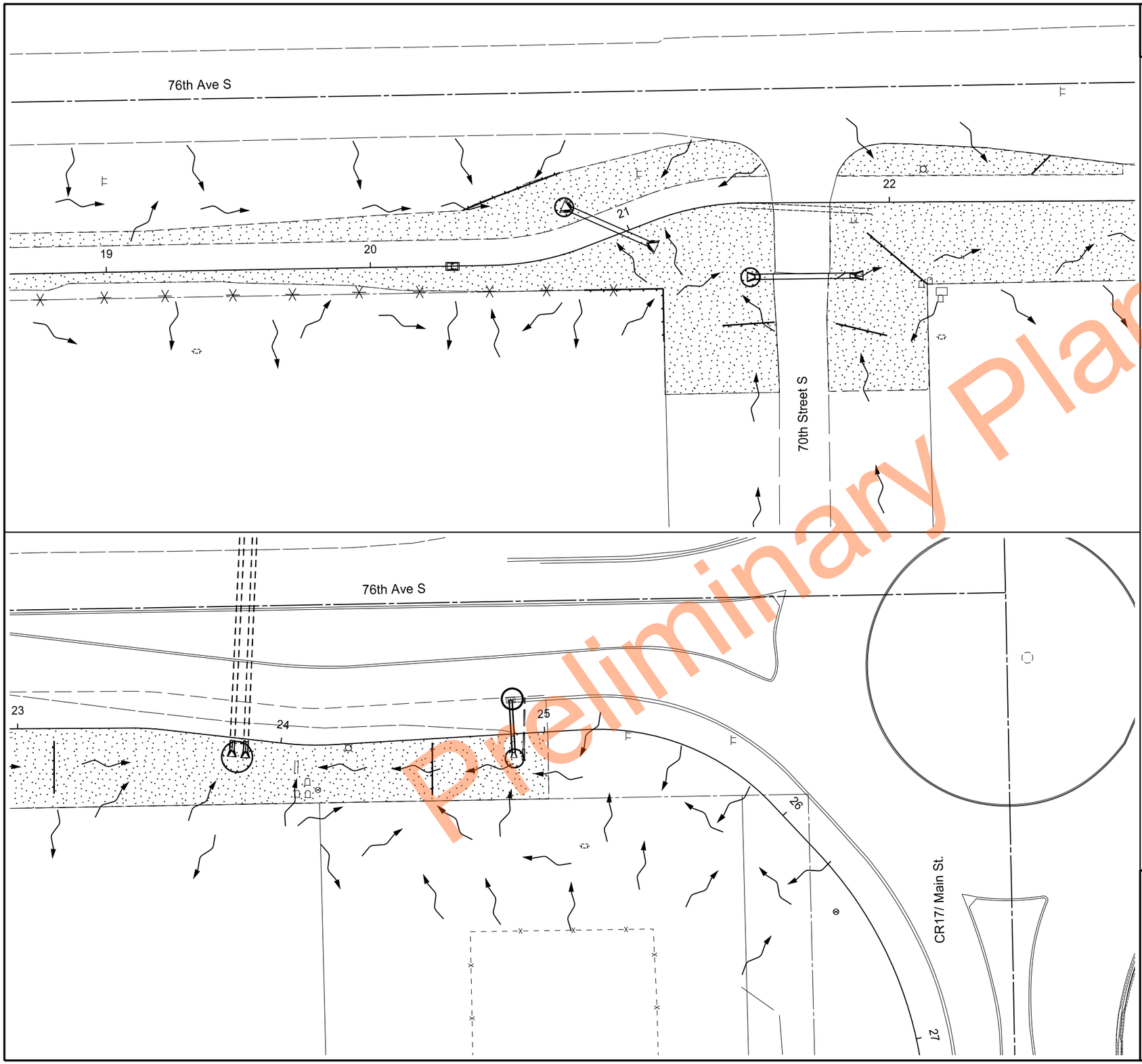
Temporary Erosion Control

Shared Use Path - 76th Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	076	2

251	2000	TERMPORARY COVER CROP		
		STA 18+60 to 22+94 LT&RT	0.31	AC
		STA 22+94 to 25+04 LT&RT	0.13	AC
261	0112	FIBER ROLLS-12IN		
		STA 20+35 to 20+84 LT	40	LF
		STA 20+77 to 20+97 LT	40	LF
		STA 20+82 LT	30	LF
		STA 21+49 RT	30	LF
		STA 21+78 to 21+89 RT	20	LF
		STA 21+79 to 21+89 RT	20	LF
		STA 21+92 to 22+14 RT	30	LF
		STA 22+54 to 22+60 RT	10	LF
		STA 23+13 RT	20	LF
		STA 23+83 RT	40	LF
		STA 24+57 RT	20	LF
		STA 24+88 RT	20	LF
261	0113	REMOVE FIBER ROLLS-12IN		
		STA 20+35 to 20+84 LT	40	LF
		STA 20+77 to 20+97 LT	40	LF
		STA 20+82 LT	30	LF
		STA 21+49 RT	30	LF
		STA 21+78 to 21+89 RT	20	LF
		STA 21+79 to 21+89 RT	20	LF
		STA 21+92 to 22+14 RT	30	LF
		STA 22+54 to 22+60 RT	10	LF
		STA 23+13 RT	20	LF
		STA 23+83 RT	40	LF
		STA 24+57 RT	20	LF
		STA 24+88 RT	20	LF
708	1540	INLET PROTECTION-SPECIAL		
		STA 24+87 - 13' LT	1	EA
708	1541	REMOVE INLET PROTECTION-SPECIAL		
		STA 24+87 - 13' LT	1	EA

Inlet Protection-Special

Fiber Rolls-12IN

Temporary Cover Crop

N

0 40 80

SCALE IN FEET

Temporary Erosion Control

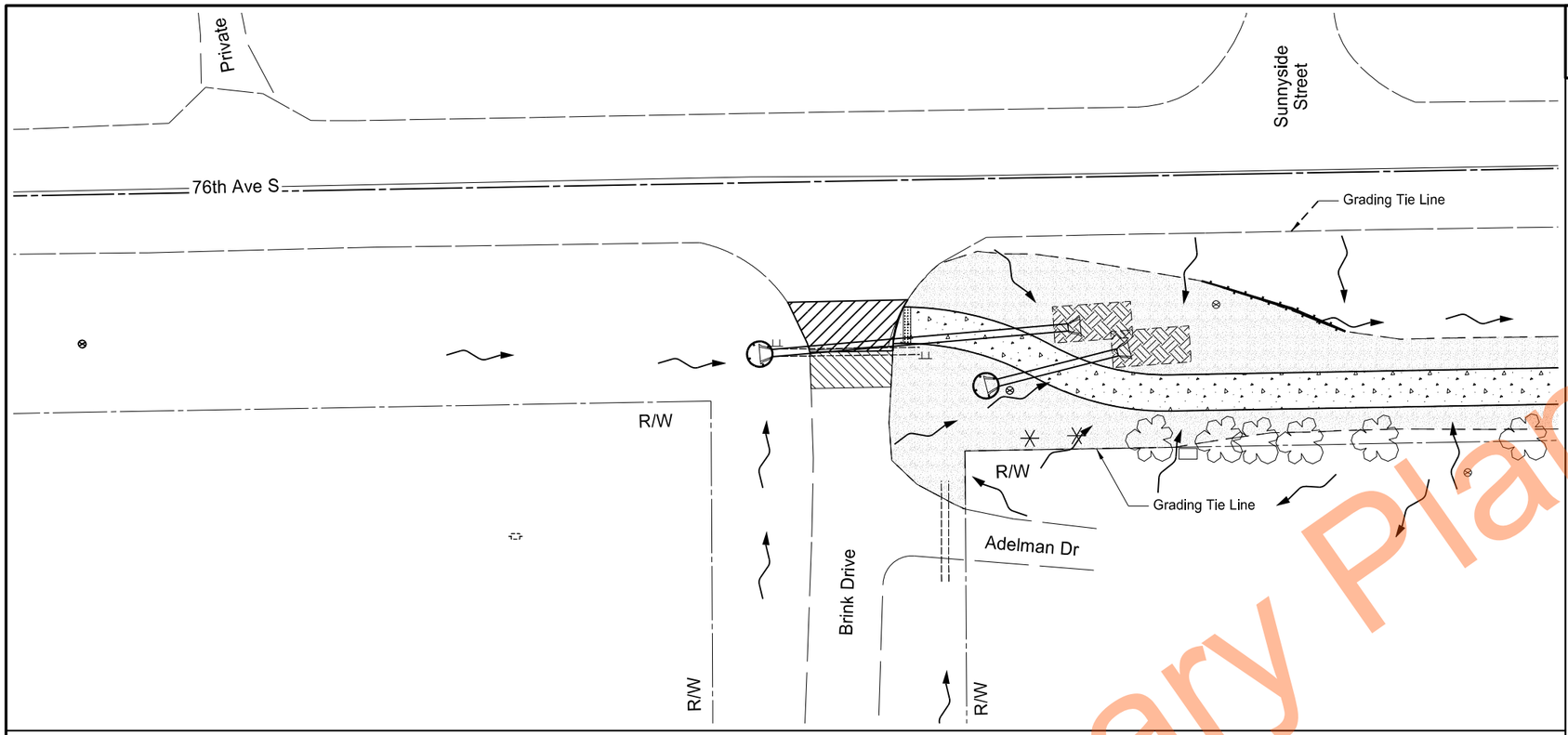
Shared Use Path - 76th Ave S
CR17 West to Brink Drive

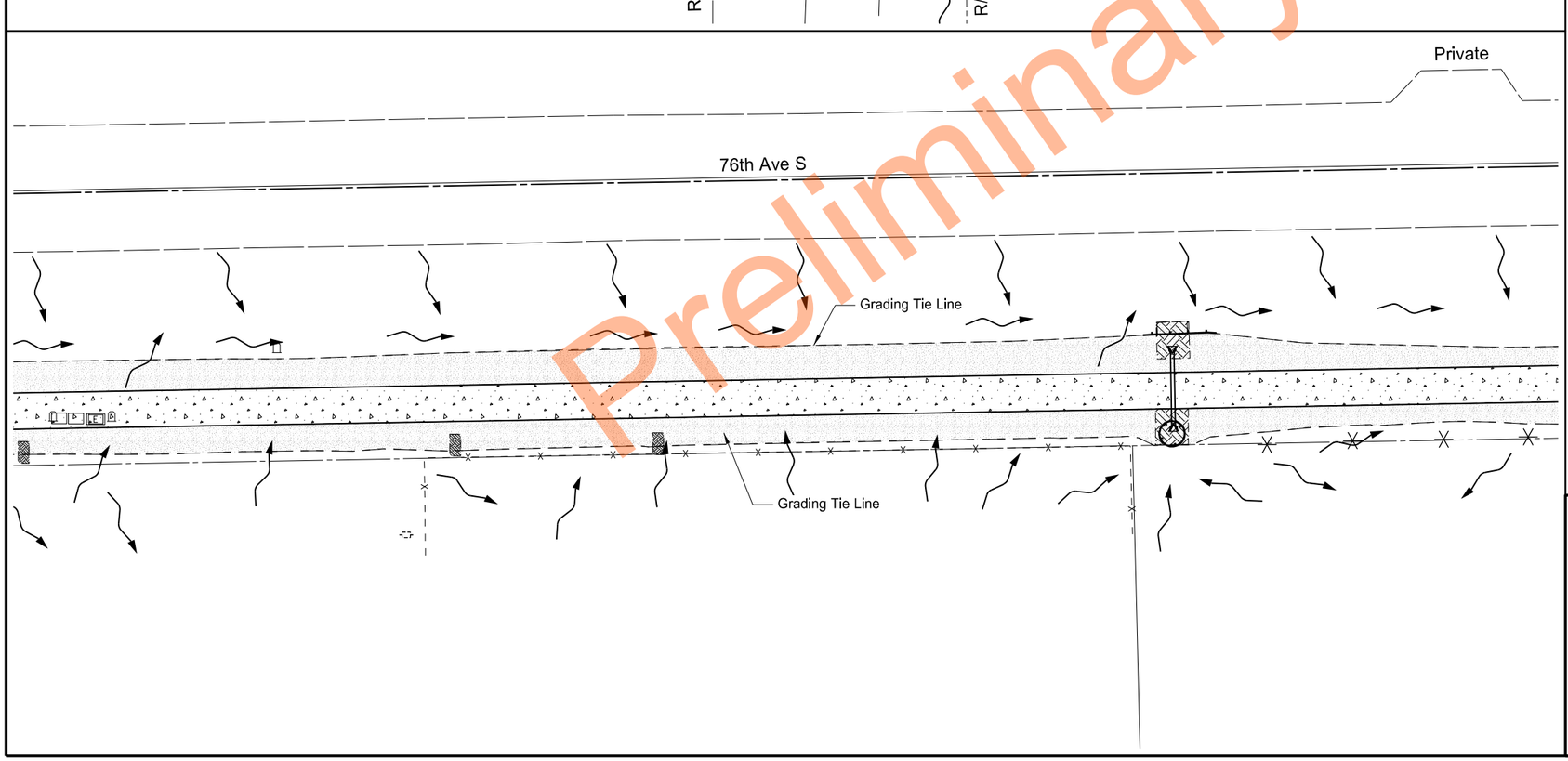
Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25





Preliminary Plans

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	077	1

SPEC	CODE	BID ITEM	QTY	UNIT
251	0300	SEEDING CLASS III		
		STA 12+42 to 14+30 LT&RT	0.14	AC
		STA 14+30 to 18+60 LT&RT	0.16	AC
253	0201	HYDRAULIC MULCH		
		STA 12+42 to 14+30 LT&RT	0.14	AC
		STA 14+30 to 18+60 LT&RT	0.16	AC
255	0102	ECB TYPE 1		
		STA 12+85 RT	22	SY
		STA 13+04 LT	22	SY
		STA 17+53 RT	10	SY
261	0112	FIBER ROLLS-12IN		
		STA 12+09 RT	30	LF
		STA 12+75 RT	30	LF
		STA 17+53 RT	30	LF

Fiber Rolls-12IN

Seeding Class III & Hydraulic Mulch

ECB-Type 1

N

0 40 80

SCALE IN FEET

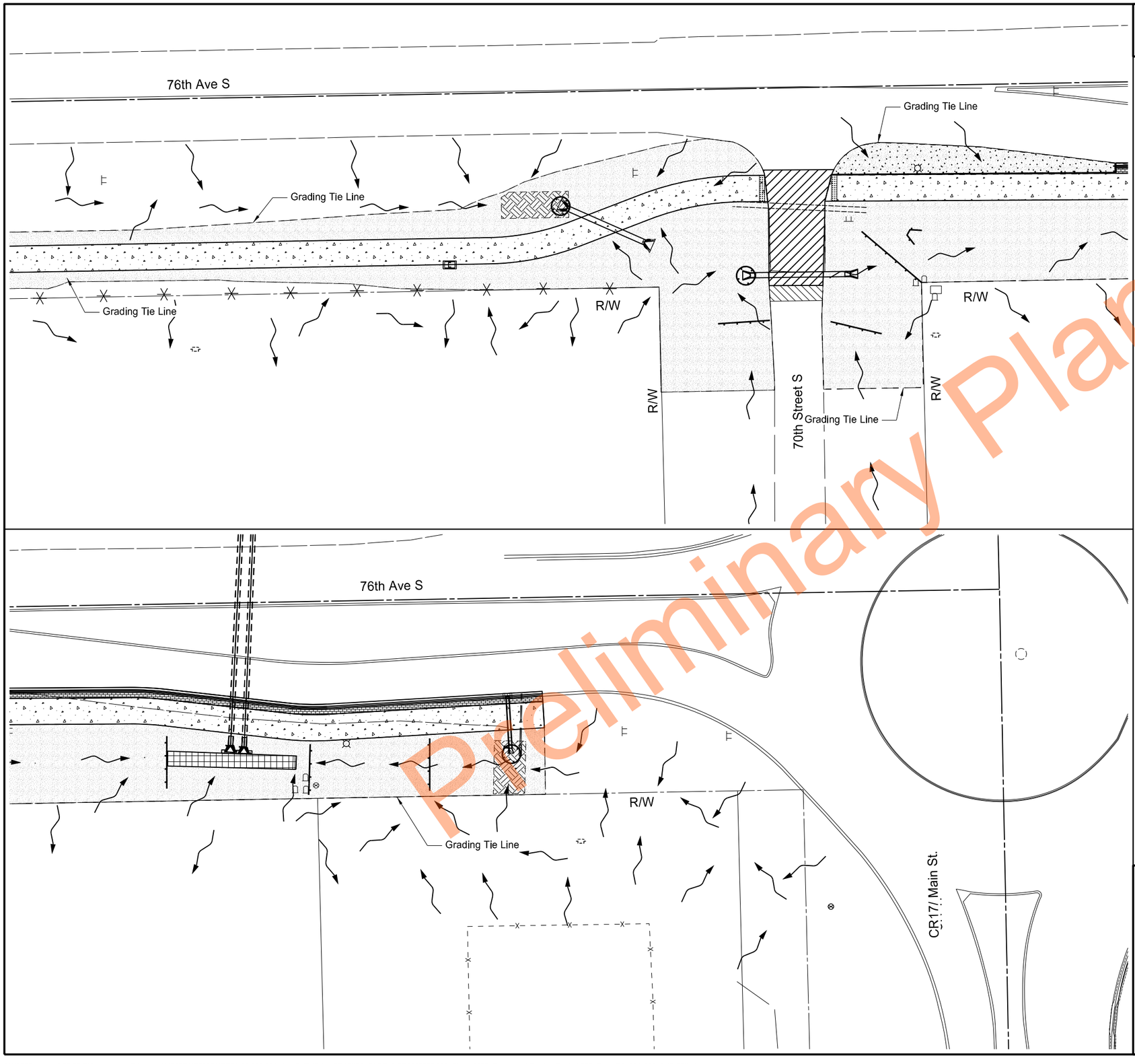
Temporary Erosion Control

Shared Use Path - 76th Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	077	2

SPEC	CODE	BID ITEM	QTY	UNIT
251	0300	SEEDING CLASS III		
		STA 18+60 to 22+94 LT&RT	0.31	AC
		STA 22+94 to 25+04 LT&RT	0.13	AC
253	0201	HYDRAULIC MULCH		
		STA 18+60 to 22+94 LT&RT	0.31	AC
		STA 22+94 to 25+04 LT&RT	0.13	AC
255	0102	ECB TYPE 1		
		STA 20+82 RT	22	SY
		STA 21+49 LT	22	SY
		STA 24+88 RT	10	SY
261	0112	FIBER ROLLS-12IN		
		STA 20+35 to 20+84 LT	40	LF
		STA 20+77 to 20+97 LT	40	LF
		STA 20+82 LT	30	LF
		STA 21+49 RT	30	LF
		STA 21+78 to 21+89 RT	20	LF
		STA 21+79 to 21+89 RT	20	LF
		STA 21+92 to 22+14 RT	30	LF
		STA 22+54 to 22+60 RT	10	LF
		STA 23+13 RT	20	LF
		STA 23+83 RT	40	LF
		STA 24+57 RT	20	LF
		STA 24+88 RT	20	LF

Fiber Rolls-12IN

Seeding Class III & Hydraulic Mulch

ECB-Type 1

N

0 40 80

SCALE IN FEET

Temporary Erosion Control

Shared Use Path - 76th Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	100	1

SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED	UNITS PER AMOUNT	UNITS SUB TOTAL
E5-1-48	48"x48"	EXIT GORE		35	
G20-1-60	60"x24"	ROAD WORK NEXT __ MILES		28	
G20-1b-60	60"x24"	NO WORK IN PROGRESS (Sign and installation only)		18	
G20-2-48	**48"x24"**	**END ROAD WORK**	**4**	**26**	**104**
G20-4-36	36"x18"	PILOT CAR FOLLOW ME (Mounted to back of pilot car)		18	
G20-4b-36	36"x30"	WAIT FOR PILOT CAR		18	
G20-50a-72	**72"x36"**	**ROAD WORK NEXT __ MILES RT & LT ARROWS**	**1**	**43**	**43**
G20-52a-72	**72"x24"**	**ROAD WORK NEXT __ MILES RT or LT ARROW**	**5**	**36**	**180**
G20-55-96	**96"x48"**	**SPEED LIMIT ENFORCED - MINIMUM FEE $80 WHEN WORKERS PRESENT**	**2**	**59**	**118**
M1-1-36	36"x36"	INTERSTATE ROUTE MARKER (Post and installation only)		11	
M1-4-24	24"x24"	U.S. ROUTE MARKER (Post and installation only)		10	
M1-5-24	24"x24"	STATE ROUTE MARKER (Post and installation only)		10	
M3-1-24	24"x12"	NORTH (Mounted on route marker post)		7	
M3-2-24	24"x12"	EAST (Mounted on route marker post)		7	
M3-3-24	24"x12"	SOUTH (Mounted on route marker post)		7	
M3-4-24	24"x12"	WEST (Mounted on route marker post)		7	
M4-8-24	24"x12"	DETOUR (Mounted on route marker post)		7	
M4-9-30	30"x24"	DETOUR ARROW RIGHT or LEFT/AHD AND RT or LT		15	
M4-10-48	48"x18"	DETOUR (INSIDE ARROW) RIGHT or LEFT (Mounted on barricade)		7	
M5-1-21	21"x15"	ADVANCE TURN ARROW RT or LT(Mounted on route marker post)		7	
M5-1-30	30"x21"	ADVANCE TURN ARROW RT or LT(Mounted on route marker post)		9	
M6-1-21	21"x15"	DIRECTIONAL ARROW RT or LT (Mounted on route marker post)		7	
M6-1-30	30"x21"	DIRECTIONAL ARROW RT or LT (Mounted on route marker post)		9	
M6-3-21	21"x15"	DIRECTIONAL ARROW UP (Mounted on route marker post)		7	
R1-1-48	48"x48"	STOP		32	
R1-2-60	60"x60"	YIELD		29	
R2-1-36	**36"x48"**	**SPEED LIMIT __ (Portable only)**	**2**	**30**	**60**
R2-1-48	**48"x60"**	**SPEED LIMIT __**	**1**	**39**	**39**
R2-1aP-24	**24"x18"**	**MINIMUM FEE $80 (Mounted on Speed Limit post)**	**2**	**10**	**20**
R3-2-48	48"x48"	NO LEFT TURN		35	
R4-1-48	48"x60"	DO NOT PASS		39	
R4-7-48	48"x60"	KEEP RIGHT		39	
R5-1-48	48"x48"	DO NOT ENTER		35	
R6-1-54	54"x18"	ONE WAY RIGHT or LEFT (Mounted on STOP or DO NOT ENTER post)		14	
R7-1-12	12"x18"	NO PARKING ANY TIME		11	
R10-6-24	24"x36"	STOP HERE ON RED		16	
R11-2-48	48"x30"	ROAD CLOSED (Mounted on barricade)		12	
R11-2a-48	48"x30"	STREET CLOSED (Mounted on barricade)		12	
R11-3a-60	60"x30"	ROAD CLOSED __ MILES AHEAD LOCAL TRAFFIC ONLY (Mtd on barricade)		15	
R11-3c-60	60"x30"	STREET CLOSED __ MILES AHEAD LOCAL TRAFFIC ONLY (Mtd on barricade)		15	
R11-4a-60	60"x30"	STREET CLOSED TO THRU TRAFFIC (Mounted on barricade)		15	
W1-3-48	48"x48"	REVERSE TURN RIGHT or LEFT		35	
W1-4-48	48"x48"	REVERSE CURVE RIGHT or LEFT		35	
W1-4b-48	48"x48"	TWO LANE REVERSE CURVE RIGHT or LEFT		35	
W1-6-48	48"x24"	ONE DIRECTION LARGE ARROW		26	
W3-1-48	48"x48"	STOP AHEAD		35	
W3-3-48	48"x48"	SIGNAL AHEAD		35	
W3-4-48	48"x48"	BE PREPARED TO STOP		35	
W3-5-48	**48"x48"**	**SPEED REDUCTION AHEAD**	**2**	**35**	**70**
W4-2-48	48"x48"	LANE ENDS RIGHT or LEFT		35	
W5-1-48	**48"x48"**	**ROAD NARROWS**	**2**	**35**	**70**
W5-8-48	48"x48"	THRU TRAFFIC RIGHT LANE		35	
W5-9-48	48"x48"	ROAD WORK TRAFFIC ONLY DOWN & LT or RT ARROW		35	
W6-3-48	48"x48"	TWO WAY TRAFFIC		35	
W8-1-48	48"x48"	BUMP		35	
W8-3-48	48"x48"	PAVEMENT ENDS		35	
W8-7-48	48"x48"	LOOSE GRAVEL		35	
W8-11-48	48"x48"	UNEVEN LANES		35	
W8-12-48	48"x48"	NO CENTER LINE		35	
W8-17-48	48"x48"	SHOULDER DROP-OFF SYMBOL		35	
W8-53-48	48"x48"	TRUCKS ENTERING HIGHWAY		35	
W8-54-48	48"x48"	TRUCKS ENTERING AHEAD or __ FT or _ MILE		35	
W8-55-48	48"x48"	TRUCKS CROSSING AHEAD or __ FT or _ MILE		35	
W8-56-48	48"x48"	TRUCKS EXITING HIGHWAY		35	
W9-3a-48	48"x48"	CENTER LANE CLOSED SYMBOL		35	
W13-1P-30	30"x30"	__ MPH ADVISORY SPEED PLAQUE (Mounted on warning sign post)		14	
W14-3-64	64"x48"	NO PASSING ZONE		28	
W16-2P-30	30"x24"	__ FEET PLAQUE (Mounted on warning sign post)		10	
W20-1-48	**48"x48"**	**ROAD WORK AHEAD or _FT or _ MILE**	**8**	**35**	**280**
W20-2-48	48"x48"	DETOUR AHEAD or __ FT or _ MILE		35	
W20-3-48	48"x48"	ROAD or STREET CLOSED AHEAD or __ FT or _ MILE		35	
W20-4-48	48"x48"	ONE LANE ROAD AHEAD or __ FT or _ MILE		35	
W20-5-48	48"x48"	RIGHT or CENTER or LEFT LANE CLOSED AHEAD or __ FT or _ MILE		35	
W20-7-48	**48"x48"**	**FLAGGER**	**2**	**35**	**70**
W20-8-18	**18"x18"**	**STOP - SLOW PADDLE Back to Back**	**2**	**5**	**10**
W20-52P-54	54"x12"	NEXT __ MILES (Mounted on warning sign post)		12	
W21-1-48	48"x48"	WORKERS		35	
W21-2-48	48"x48"	FRESH OIL		35	
W21-3-48	48"x48"	ROAD MACHINERY AHEAD or __ FT or _ MILE		35	
W21-5-48	48"x48"	SHOULDER WORK		35	
W21-5a-48	48"x48"	RIGHT or LEFT SHOULDER CLOSED		35	
W21-5b-48	48"x48"	RIGHT or LEFT SHOULDER CLOSED AHEAD or __ FT or _ MILE		35	

SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED	UNITS PER AMOUNT	UNITS SUB TOTAL
W21-6-48	48"x48"	SURVEY CREW		35	
W21-50-48	48"x48"	BRIDGE PAINTING AHEAD or __ FT		35	
W21-51-48	48"x48"	MATERIAL ON ROADWAY		35	
W21-52-48	48"x48"	PAVEMENT BREAKS		35	
W21-53-48	48"x48"	RUMBLE STRIPS AHEAD		35	
W22-8-48	48"x48"	FRESH OIL LOOSE ROCK		35	
W24-1-48	48"x48"	DOUBLE REVERSE CURVE		35	

SPECIAL SIGNS

SPEC & CODE

704-1000	**TRAFFIC CONTROL SIGNS**	**TOTAL UNITS**	**1064**

SPEC & CODE	DESCRIPTION	UNIT	QUANTITY
704-0100	**FLAGGING**	**MHR**	**40**
704-1048	PORTABLE RUMBLE STRIPS	EACH	
704-1050	TYPE I BARRICADES	EACH	
704-1052	**TYPE III BARRICADES**	**EACH**	**2**
704-1054	**SIDEWALK BARRICADE**	**EACH**	**2**
704-1060	**DELINEATOR DRUMS**	**EACH**	**80**
704-1065	TRAFFIC CONES	EACH	
704-1067	**TUBULAR MARKERS**	**EACH**	**20**
704-1070	DELINEATOR	EACH	
704-1072	FLEXIBLE DELINEATORS	EACH	
704-1080	STACKABLE VERTICAL PANELS	EACH	
704-1081	VERTICAL PANELS - BACK TO BACK	EACH	
704-1085	SEQUENCING ARROW PANEL - TYPE A	EACH	
704-1086	SEQUENCING ARROW PANEL - TYPE B	EACH	
704-1087	SEQUENCING ARROW PANEL - TYPE C	EACH	
704-1500	OBLITERATION OF PVMT MK	SF	
704-3501	PORTABLE PRECAST CONCRETE MED BARRIER	LF	
704-3510	PRECAST CONCRETE MED BARRIER - STATE FURNISHED	EACH	
762-0200	RAISED PAVEMENT MARKERS	EACH	
762-0420	SHORT TERM 4IN LINE - TYPE R	LF	
762-0430	SHORT TERM 4IN LINE - TYPE NR	LF	

NOTE:
If additional signs are required, units will be calculated using the formula from Section III-18.06 of the Design Manual.
http://www.dot.nd.gov/

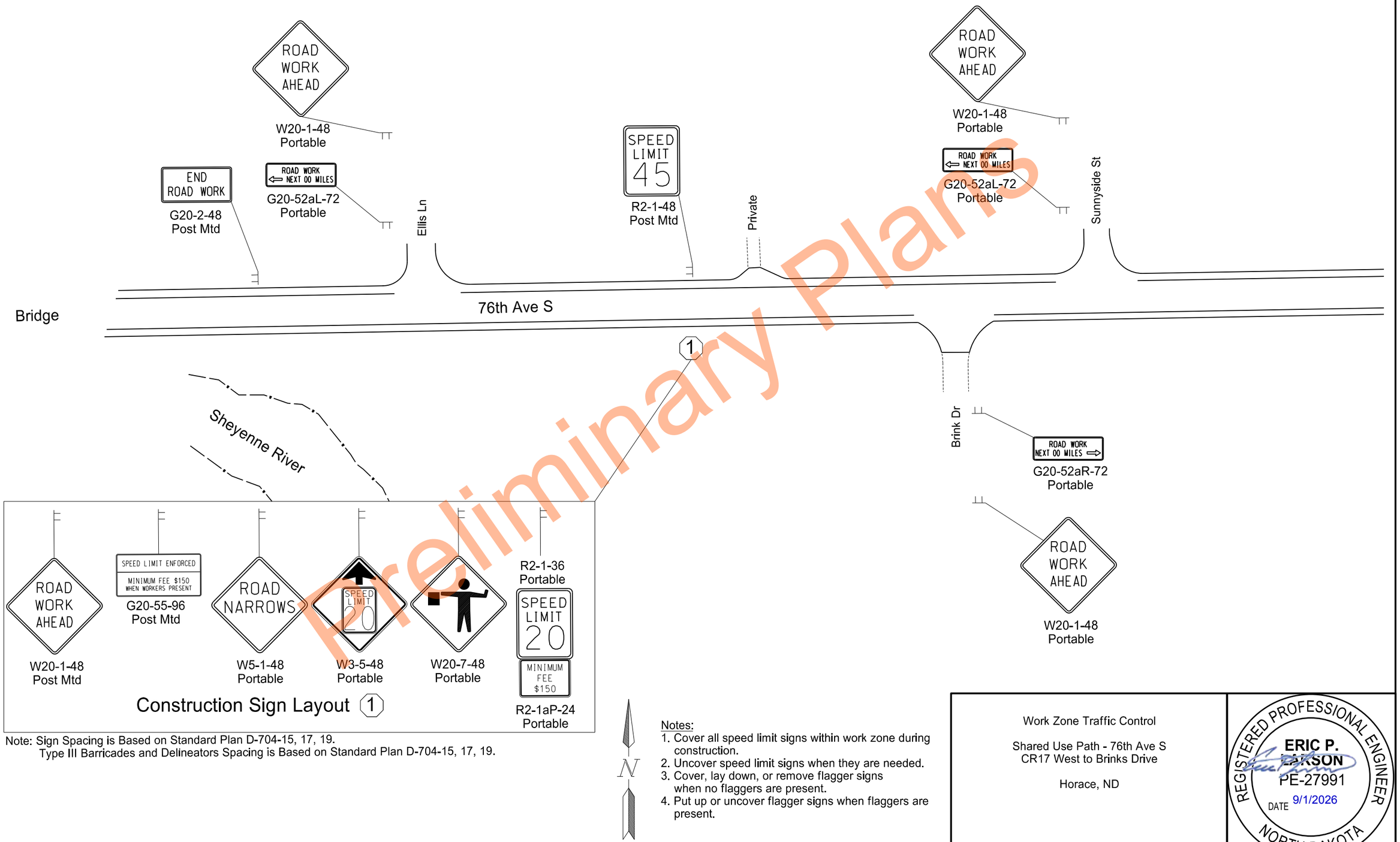
REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Traffic Control Devices List
Shared Use Path - 76th Ave S
Brink Drive to CR-17
Horace, ND

Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	100	2



Construction Sign Layout (1)

Note: Sign Spacing is Based on Standard Plan D-704-15, 17, 19.
Type III Barricades and Delineators Spacing is Based on Standard Plan D-704-15, 17, 19.

Preliminary Plans

N

Notes:
1. Cover all speed limit signs within work zone during construction.
2. Uncover speed limit signs when they are needed.
3. Cover, lay down, or remove flagger signs when no flaggers are present.
4. Put up or uncover flagger signs when flaggers are present.

Work Zone Traffic Control

Shared Use Path - 76th Ave S
CR17 West to Brinks Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	100	3

Notes:
1. Cover all speed limit signs within work zone during construction.
2. Uncover speed limit signs when they are needed.
3. Cover, lay down, or remove flagger signs when no flaggers are present.
4. Put up or uncover flagger signs when flaggers are present.



Preliminary Plans

Work Zone Traffic Control

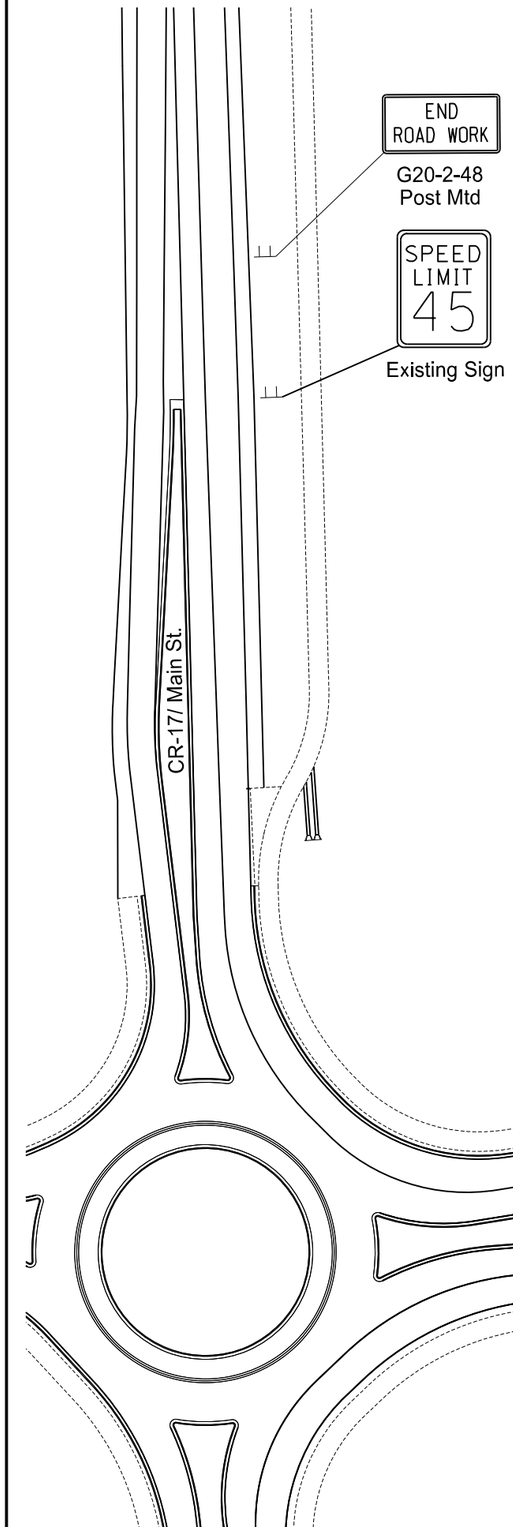
Shared Use Path - 76th Ave S
CR17 West to Brinks Drive

Horace, ND

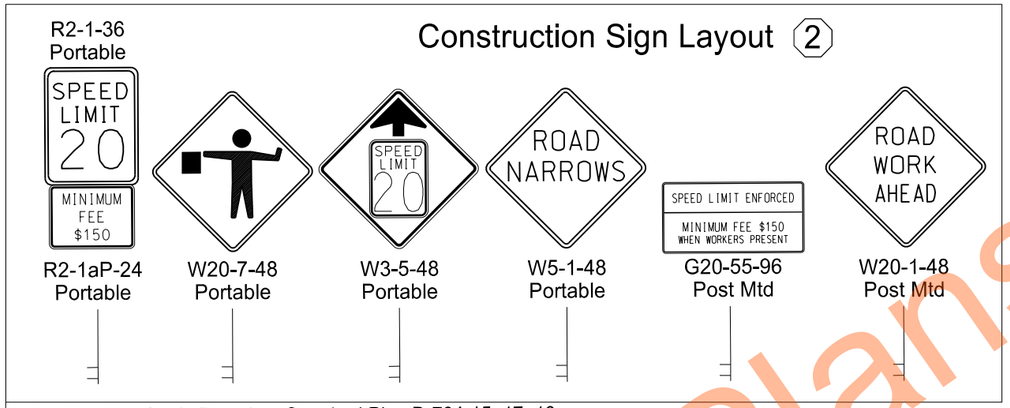
REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	100	4



Construction Sign Layout (2)



Note: Sign Spacing is Based on Standard Plan D-704-15, 17, 19.
Type III Barricades and Delineators Spacing is Based on Standard Plan D-704-15, 17, 19.



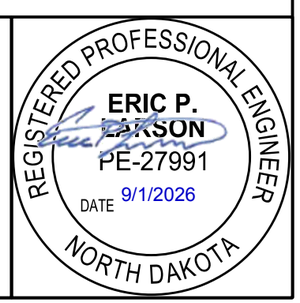
Notes:
1. Cover all speed limit signs within work zone during construction.
2. Uncover speed limit signs when they are needed.
3. Cover, lay down, or remove flagger signs when no flaggers are present.
4. Put up or uncover flagger sign when flaggers are present.

Preliminary Plans

Work Zone Traffic Control

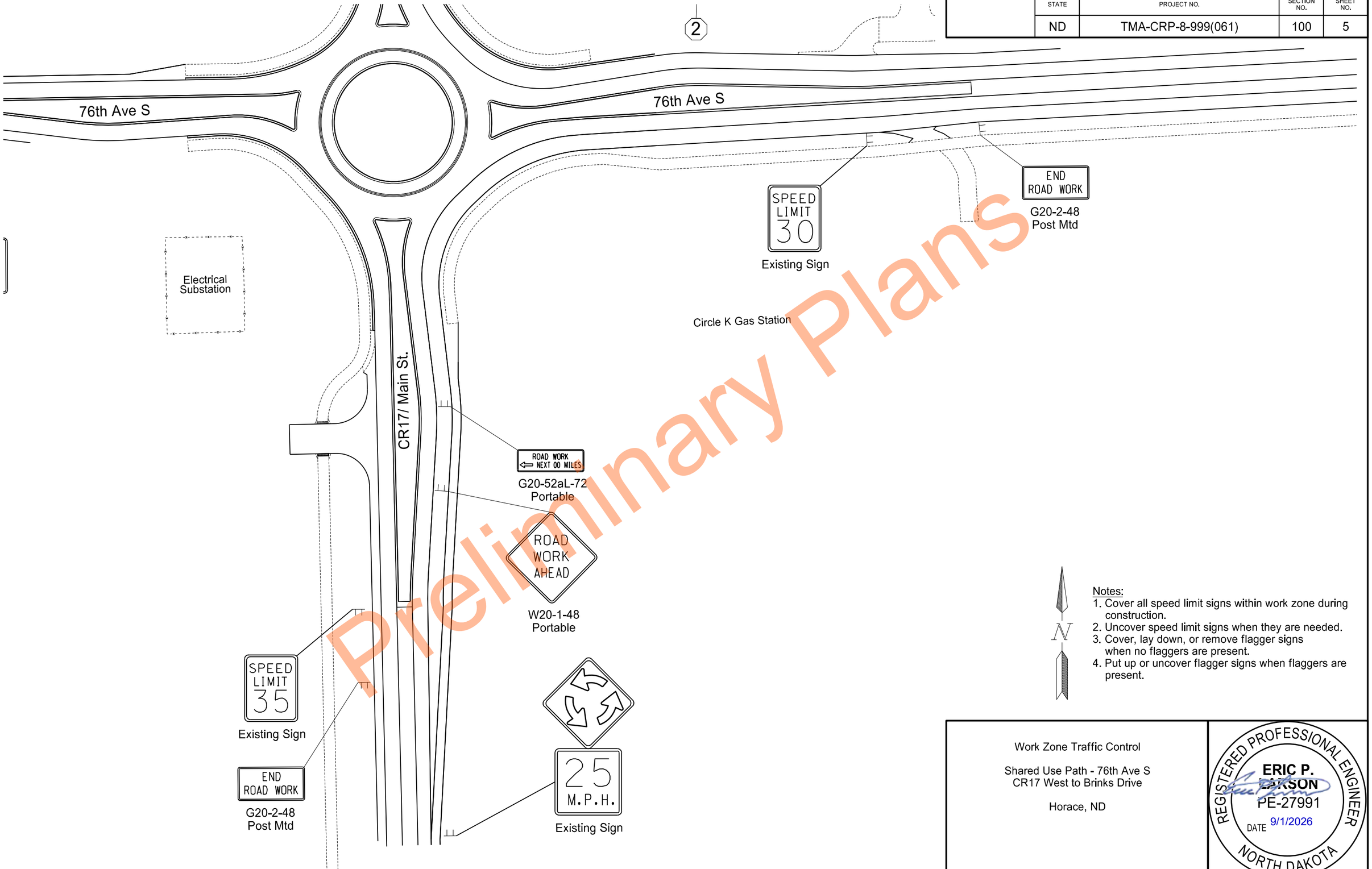
Shared Use Path - 76th Ave S
CR17 West to Brinks Drive

Horace, ND



Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	100	5



Preliminary Plans

N

Notes:
1. Cover all speed limit signs within work zone during construction.
2. Uncover speed limit signs when they are needed.
3. Cover, lay down, or remove flagger signs when no flaggers are present.
4. Put up or uncover flagger signs when flaggers are present.

Work Zone Traffic Control

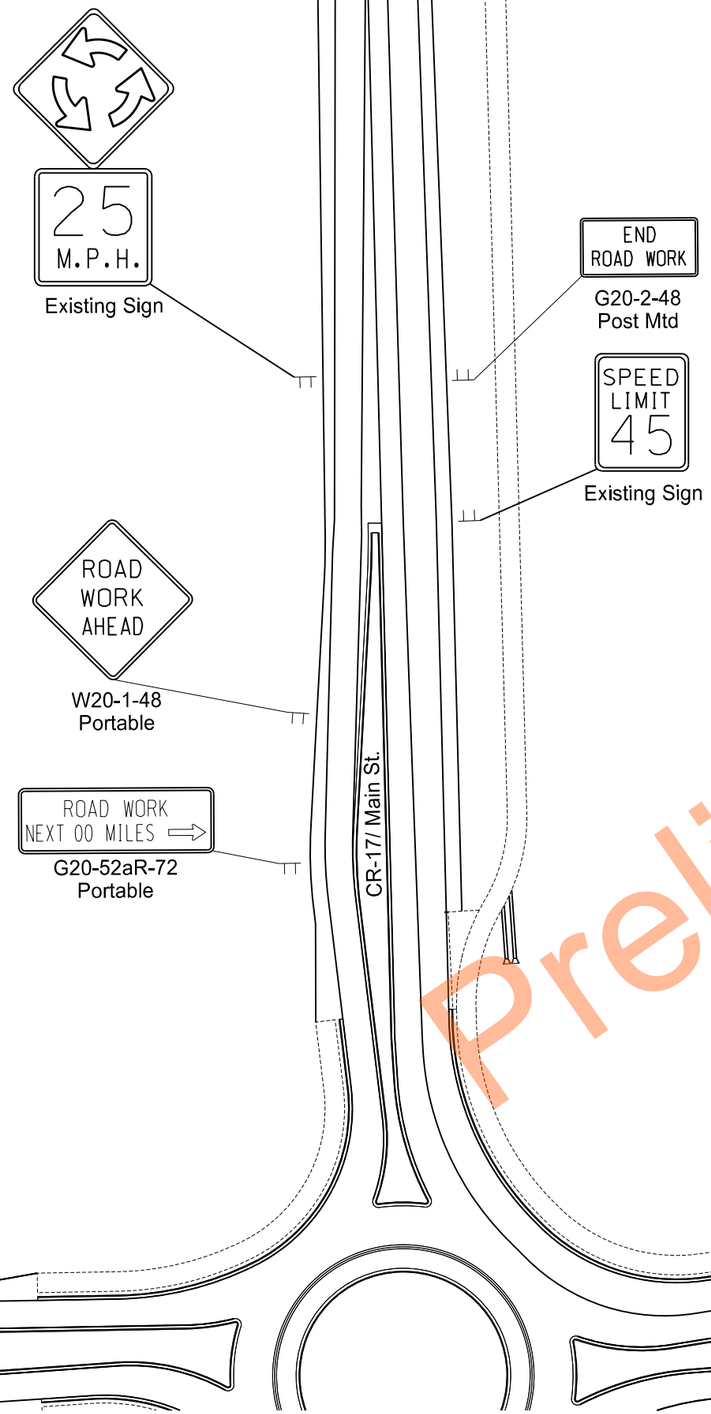
Shared Use Path - 76th Ave S
CR17 West to Brinks Drive

Horace, ND

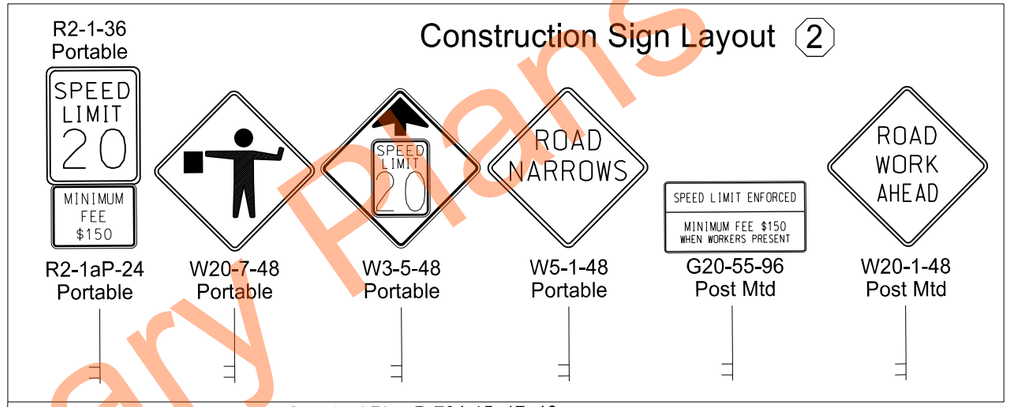
REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	100	6



Construction Sign Layout (2)



Note: Sign Spacing is Based on Standard Plan D-704-15, 17, 19.
Type III Barricades and Delineators Spacing is Based on Standard Plan D-704-15, 17, 19.

N

Notes:
1. Cover all speed limit signs within work zone during construction.
2. Uncover speed limit signs when they are needed.
3. Cover, lay down, or remove flagger signs when no flaggers are present.
4. Put up or uncover flagger signs when flaggers are present.

Work Zone Traffic Control

Shared Use Path - 76th Ave S
CR17 West to Brinks Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	110	1

Station / RP	Sign No.	Assembly No.	Flat Sheet For Signs IV SF	Flat Sheet For Signs XI SF	Sign Support Length 1st LF	2nd LF	3rd LF	4th LF	Vert Clearance FT	Support Size	Max Post Len LF	Sleeve Length 1st LF	2nd LF	3rd LF	4th LF	Sleeve Size	Anchor EA	Anchor LF	Anchor Size	Reset Sign Panel EA	Reset Sign Support EA	Break-Away EA	Comments
12+47 Rt	R1-1-30/SN1/SN2		9.0	5.2	10.7				5.0	2.25 x 2.25 12 ga	15.1	1.4				2.5 x 2.5 12 ga	1	4	3 x 3 7 ga			1	Special Assembly 1E
12+52 Lt	R1-1-18	100		1.9	6.6				4.0	2 x 2 12 ga	21.4						1	4	2.25 x 2.25 12 ga				
12+58 Rt	R5-3-24	14		4.0	7.3				4.0	2 x 2 12 ga	13.0						1	4	2.25 x 2.25 12 ga				
13+84 Lt	SN4	102		2.3	7.0				4.0	2 x 2 12 ga	17.8						1	4	2.25 x 2.25 12 ga				
21+09 Lt	W2-6-36/W13-1P-18	54			10.3				4.0	2.5 x 2.5 10 ga	11.4						1	4	3 x 3 7 ga	2		1	
21+42 Lt	R5-3-24	14		4.0	7.2				4.0	2 x 2 12 ga	13.0						1	4	2.25 x 2.25 12 ga				
21+49 Rt	R1-1-18	100		1.9	6.6				4.0	2 x 2 12 ga	21.4						1	4	2.25 x 2.25 12 ga				
21+80 Rt	R1-1-30/SN1/SN3		9.8	5.2	10.7				5.0	2.5 x 2.5 10 ga	12.8						1	4	3 x 3 7 ga			1	Special Assembly 1E
21+85 Lt	R1-1-18	100		1.9	6.6				4.0	2 x 2 12 ga	21.4						1	4	2.25 x 2.25 12 ga				
21+98 Rt	R5-3-24	14		4.0	7.2				4.0	2 x 2 12 ga	13.0						1	4	2.25 x 2.25 12 ga				
22+95 Rt	W3-2-36	20			9.8				4.0	2.5 x 2.5 12 ga	10.8						1	4	3 x 3 7 ga	1			
Sub Total			18.8	30.4		**Total**	90.0										**Total**	44.0		3	0	3	
Grand Total			**18.8**	**30.4**		**Total**	**90.0**										**Total**	**44**	**0**	**3**	**0**	**3**	

Preliminary Plans

Sign Summary

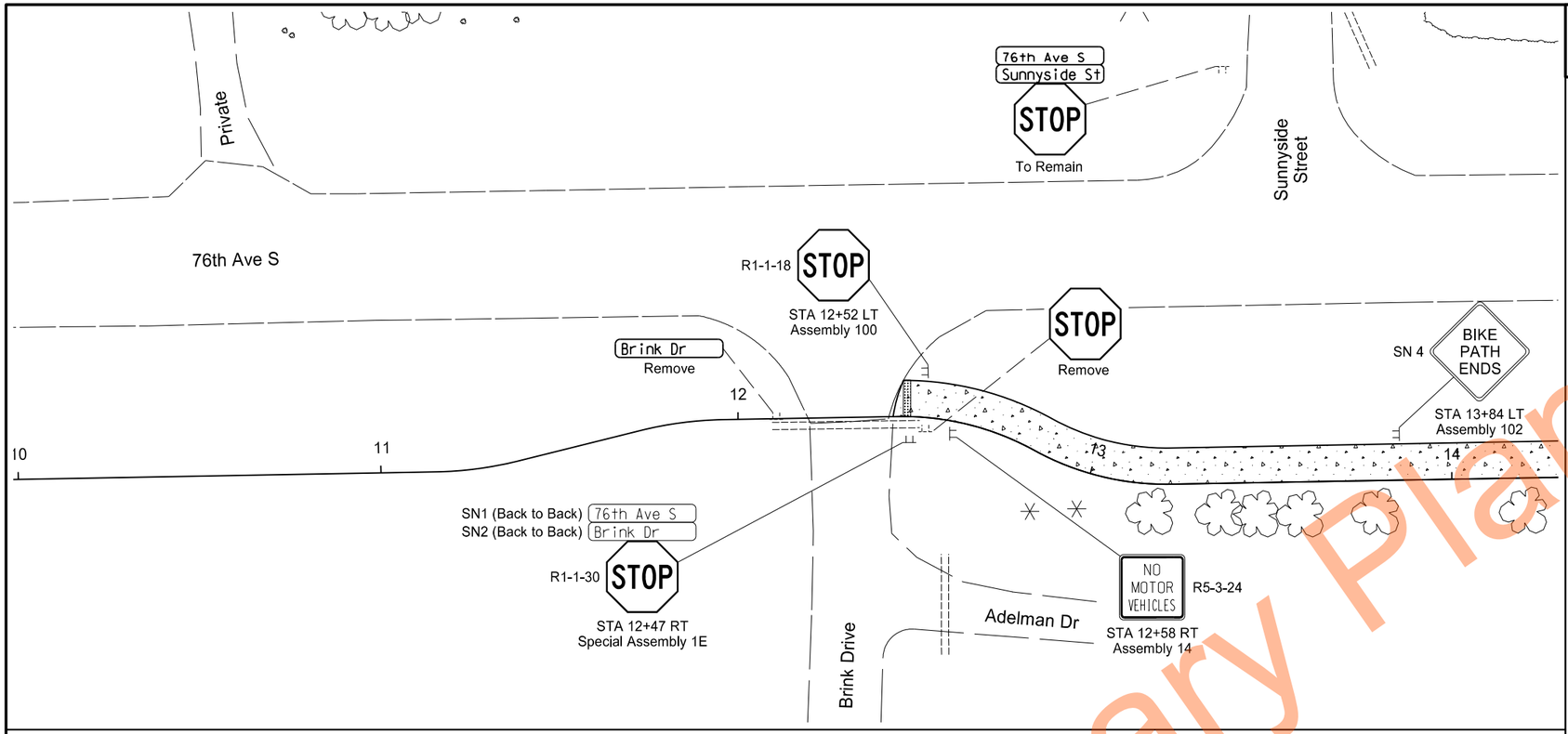
Shared Use Path - 76th Ave S
CR17 West to Brink Drive

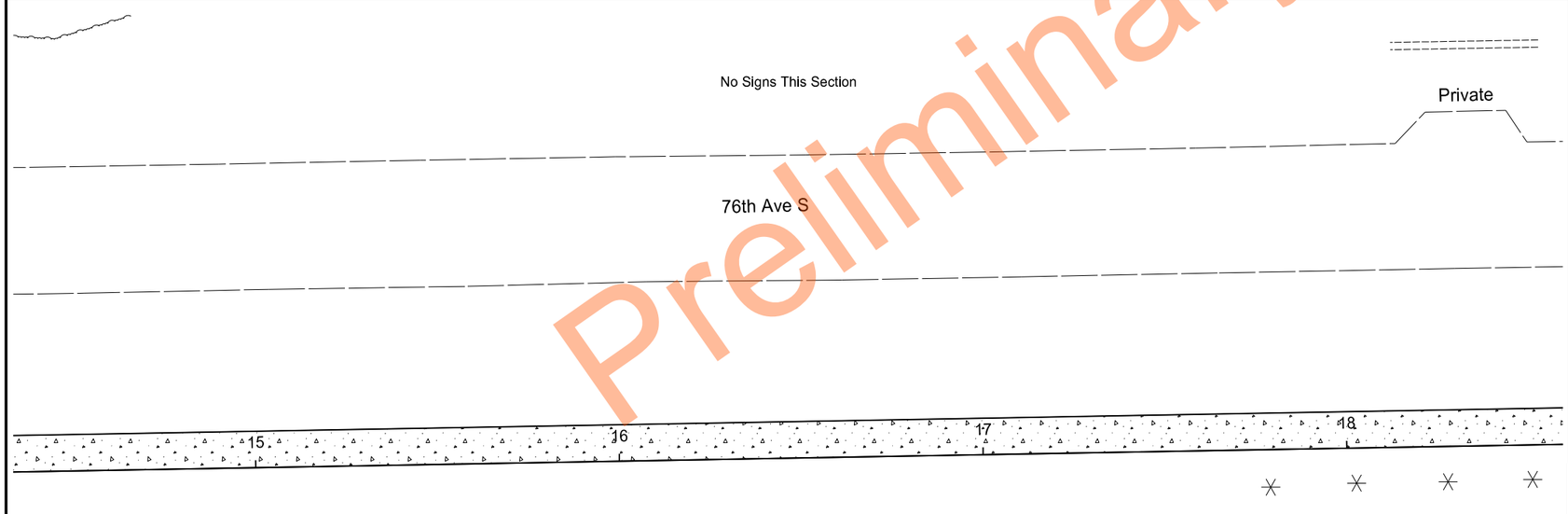
Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TMA-CRP-8-999(061)	110	2





Preliminary Plans

N

0 40 80
SCALE IN FEET

Sign Layout

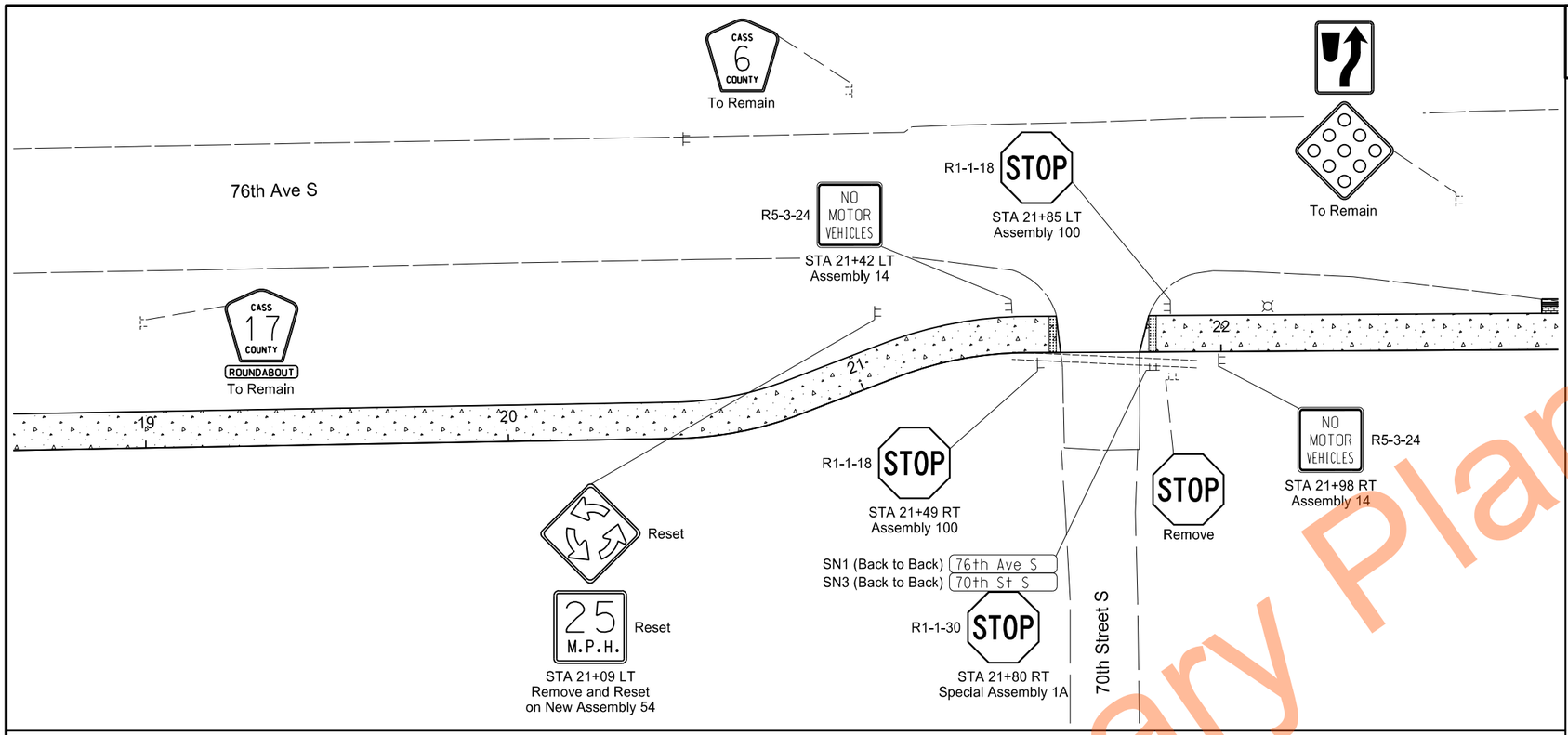
Shared Use Path - 76th Ave S
CR17 West to Brink Drive

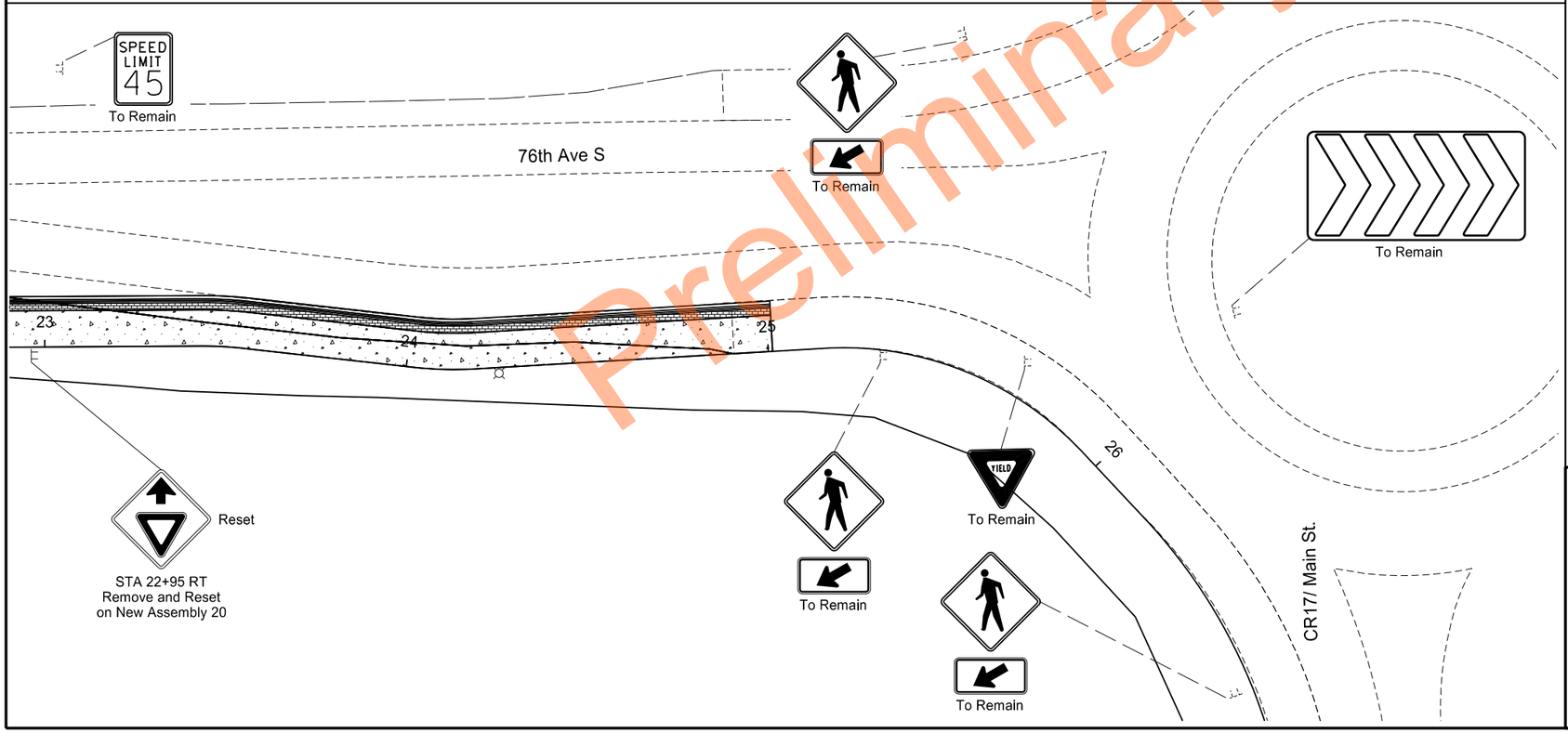
Horace, ND

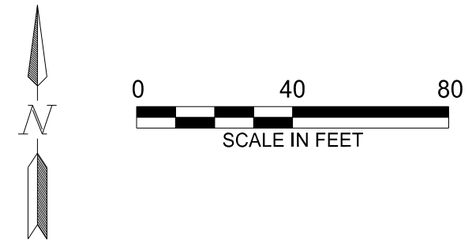
REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	110	3







Sign Layout

Shared Use Path - 76th Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. LARSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

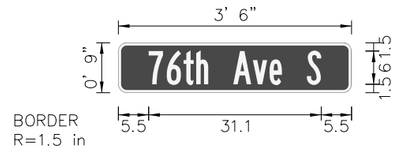
Preliminary Plans

Docusign Envelope ID: 104FA8CE-CA9D-8118-8274-4485D2CF4C25

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TMA-CRP-8-999(061)	110	4

	SN1
	3'-6" x 0'-9"
	0-1/2" (inset 0")
	1-1/2"
	Ground
	IV Reflective
	Green
	IV Reflective
	White

STATION(S): AREA: 2.625 Sq.Ft.
12+47 Rt (Back to Back)
21+80 Rt (Back to Back)



Panel Style: ND_Conv_Street Name.ssi
M.U.T.C.D.: 2009 Edition

Dimensions are in inches — Letter locations are panel edge to lower left corner

ND_Conv_Street Name.ssi

7	6	t	h		A	v	e		S										31.1	6/4.5	B 2000
5.5	8.7	11.75	14	16.2	20.7	24.25	27.25	29.5	34												

	SN2
	2'-6" x 0'-9"
	0-1/2" (inset 0")
	1-1/2"
	Ground
	IV Reflective
	Green
	IV Reflective
	White

STATION(S): AREA: 1.875 Sq.Ft.
12+47 Rt (Back to Back)



Panel Style: ND_Conv_Street Name.ssi
M.U.T.C.D.: 2009 Edition

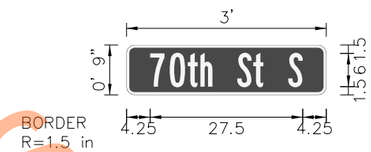
Dimensions are in inches — Letter locations are panel edge to lower left corner

ND_Conv_Street Name.ssi

B	r	i	n	k		D	r												22.3	6/4.5	B 2000
3.8	7.2	9.4	11.1	14.2	16.6	21.1	24.6														

	SN3
	3'-0" x 0'-9"
	0-1/2" (inset 0")
	1-1/2"
	Ground
	IV Reflective
	Green
	IV Reflective
	White

STATION(S): AREA: 2.25 Sq.Ft.
21+80 Rt (Back to Back)



Panel Style: ND_Conv_Street Name.ssi
M.U.T.C.D.: 2009 Edition

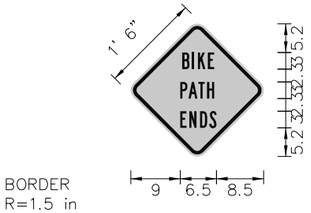
Dimensions are in inches — Letter locations are panel edge to lower left corner

ND_Conv_Street Name.ssi

7	0	t	h		S	t	S												27.5	6/4.5	B 2000
4.25	7.8	11	13.3	15.5	20	22.9	24.7	29.2													

	SN4
	2'-0" x 2'-0"
	0-5/8" (inset 0-3/8")
	1-1/2"
	Ground
	IV Reflective
	Yellow
	IV Reflective
	Black

STATION(S): AREA: 4 Sq.Ft.
13+84 Lt



Panel Style: ND_Warn_24_Small_Diam.ssi
M.U.T.C.D.: 2009 Edition

Dimensions are in inches — Letter locations are panel edge to lower left corner

ND_Warn_24_Small_Diam.ssi

B	I	K	E																5.75	3	B 2000
9.25	11	12.1	13.875																		
P	A	T	H																6.125	3	B 2000
9	10.375	12.2	13.7																		
E	N	D	S																6.5	3	B 2000
9	10.5	12.5	14.2																		

Sign Details

Shared Use Path - 76th Ave S
CR17 West to Brink Drive

Horace, ND

REGISTERED PROFESSIONAL ENGINEER
ERIC P. ERICSON
PE-27991
DATE 9/1/2026
NORTH DAKOTA

Preliminary Plans