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DESIGN DATA - HWY 5				
Traffic	Average Daily			
Current 2024	Pass: 965	Trucks: 260	Total: 1225	
Forecast 2044	Pass: 1200	Trucks: 290	Total: 1590	
Clear Zone Distance: 14'		Design Speed: 45 mph		
Minimum Sight Dist. for Stopping: 360'		Bridges: N/A		
Sight Dist. for No Passing Zone: 700'				
Pavement Design Life 20 (years)				
Design Accumulated One-way Flexible ESALs: 1,359,184				

DESIGN DATA - HWY 8				
Traffic	Average Daily			
Current 2024	Pass: 140	Trucks: 70	Total: 210	
Forecast 2044	Pass: 180	Trucks: 115	Total: 295	
Clear Zone Distance: 26'		Design Speed: 65 mph		
Minimum Sight Dist. for Stopping: 645'		Bridges: N/A		
Sight Dist. for No Passing Zone: 1,100'				
Pavement Design Life 20 (years)				
Design Accumulated One-way Flexible ESALs: N/A				

	STATE	PROJECT NO.	PCN	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	24738	1	1

NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION

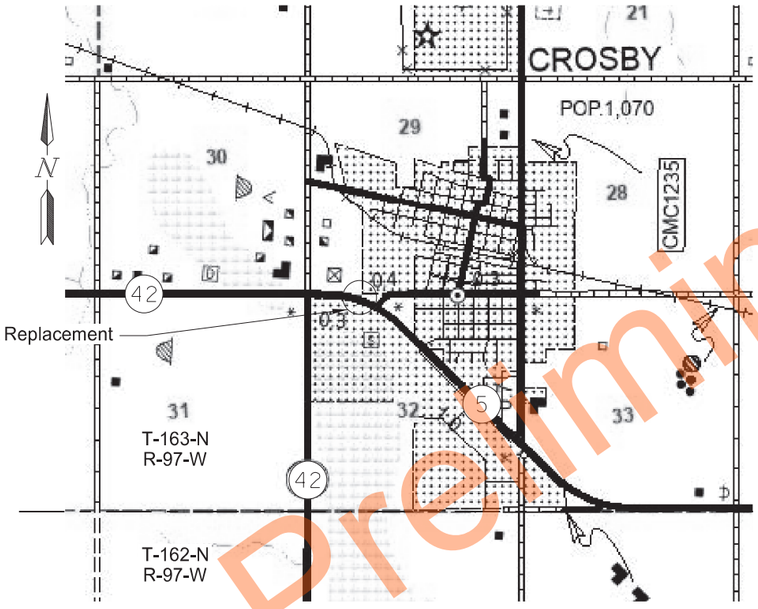
SS-7-999(028)

Divide & Burke Counties
ND Hwy 5 - 0.25 Miles East of Jct ND 42 & ND 5
ND Hwy 8 - 1 Mi South of Coteau

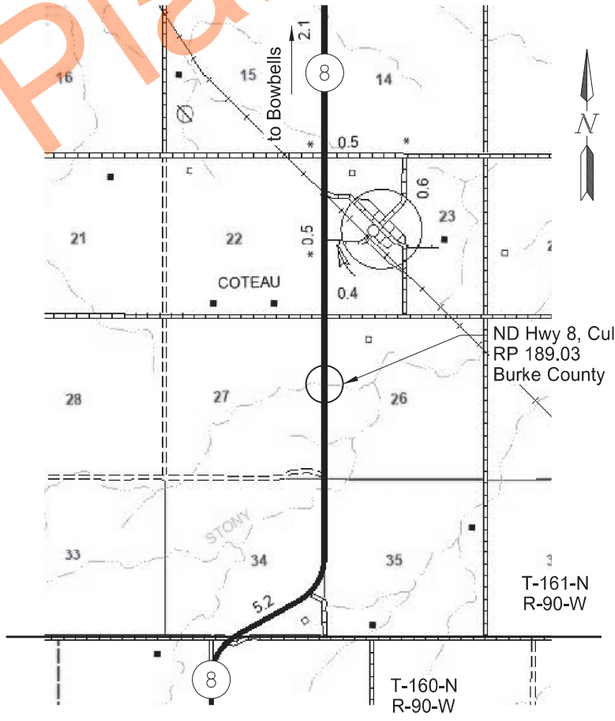
ND Hwy 5 - Culvert Replacement
ND Hwy 8 - Culvert Rehabilitation

GOVERNING SPECIFICATIONS	Date Published and Adopted by the North Dakota Department of Transportation
Standard Specifications	8/1/2026
Supplemental Specifications	NONE

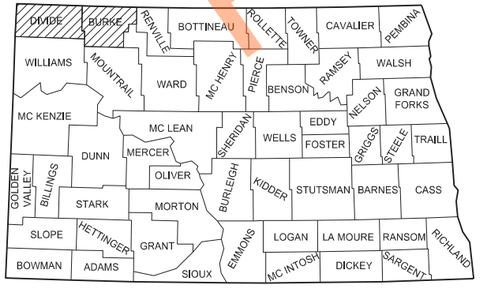
PROJECT NUMBER \ DESCRIPTION	NET MILES	GROSS MILES
SS-7-999(028)		
ND 5	N/A	N/A
ND 8	N/A	N/A



ND Hwy 5, Culvert Replacement
RP 34.57
Divide County



ND Hwy 8, Culvert Rehabilitation
RP 189.03
Burke County



STATE COUNTY MAP

DESIGNER
Leon Eckroth

ND DEPARTMENT OF TRANSPORTATION
OFFICE OF PROJECT DEVELOPMENT

kirk Hoff

Kirk Hoff
11/03/26

NDDOT DESIGN DIVISION

CHAD FRISINGER
REGISTERED
PROFESSIONAL
PE-4876
ENGINEER
NORTH DAKOTA

11/03/26

Preliminary Plans

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	2	1

TABLE OF CONTENTS

PLAN SECTIONS

Section	Page(s)	Description
1	1	Title Sheet
2	1	Table of Contents
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6	1 - 2	Notes
6	3	Environmental Notes
8	1 - 2	Quantities
10	1	Basis of Estimate
20	1 - 4	General Details
30	1 - 3	Typical Sections
40	1 - 2	Removals
50	1	Hydraulic Data
51	1	Allowable Pipe List
60	1 - 3	Plan & Profile
76	1 - 2	Temporary Erosion Control
77	1 - 2	Permanent Erosion Control
81	1 - 2	Survey Coordinate and Curve Data
82	1 - 5	Survey Data Layouts
90	1	Paving Layouts
100	1 - 6	Work Zone Traffic Control
110	1 - 2	Signing
200	1 - 17	Cross Sections

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-101-40	Cross Section Legend
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, 11A	Construction Sign Details - Warning Signs
D-704-13	Barricade And Channelizing Device Details
D-704-14	Construction Sign Punching And Mounting Details
D-704-15	Road Closure Layouts
D-704-16	Lane Closure On A Two Lane Road Using Traffic Control Signals
D-704-17	Sign Layout For One Lane Closure Two Lane Roadway
D-704-22	Construction Truck And Temporary Detour Layouts
D-704-24	Shoulder Closures And Bridge Painting Layouts
D-704-26	Miscellaneous Sign Layouts
D-704-27	Mobile Operation (Pavement Marking)
D-704-50	Portable Sign Support Assembly
D-714-1	Reinforced Concrete Pipe Culverts And End Sections (Round Pipe)
D-714-22	Concrete Pipe, Cattle Pass, or Precast Concrete Box Culvert Ties
D-714-25	Transverse Mainline Pipe Installation Detail - Pipes More Than 4 Feet Below Top of Subgrade
D-720-1	Standard Monuments And Right Of Way Markers
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-754-83	Object Markers - Culverts
D-762-4	Pavement Marking
D-762-11	Short-Term Pavement Marking

SPECIAL PROVISIONS

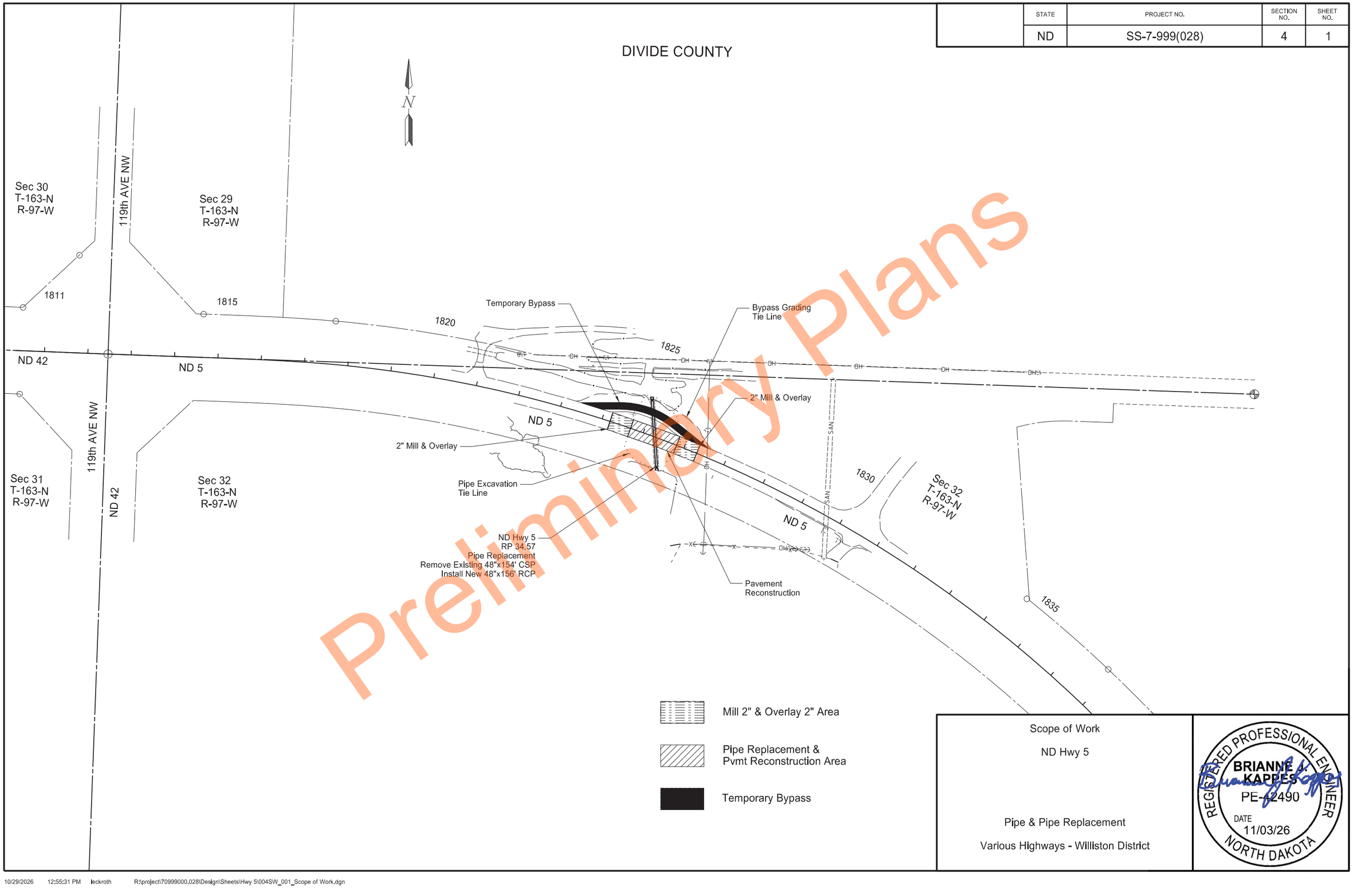
Number	Description
SP 53(26)	Temporary Water Diversion
SP 52(26)	Soil Stabilization
SP 51(26)	Commercial Grade Hot Mix Asphalt with Density
SP 50(26)	Utility Coordination
SSP 1	Temporary Erosion and Sediment Best Management Practices
SSP 4	Longitudinal Joint Density

Preliminary Plans

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DIVIDE COUNTY



Preliminary Plans

Scope of Work

ND Hwy 5

Pipe & Pipe Replacement

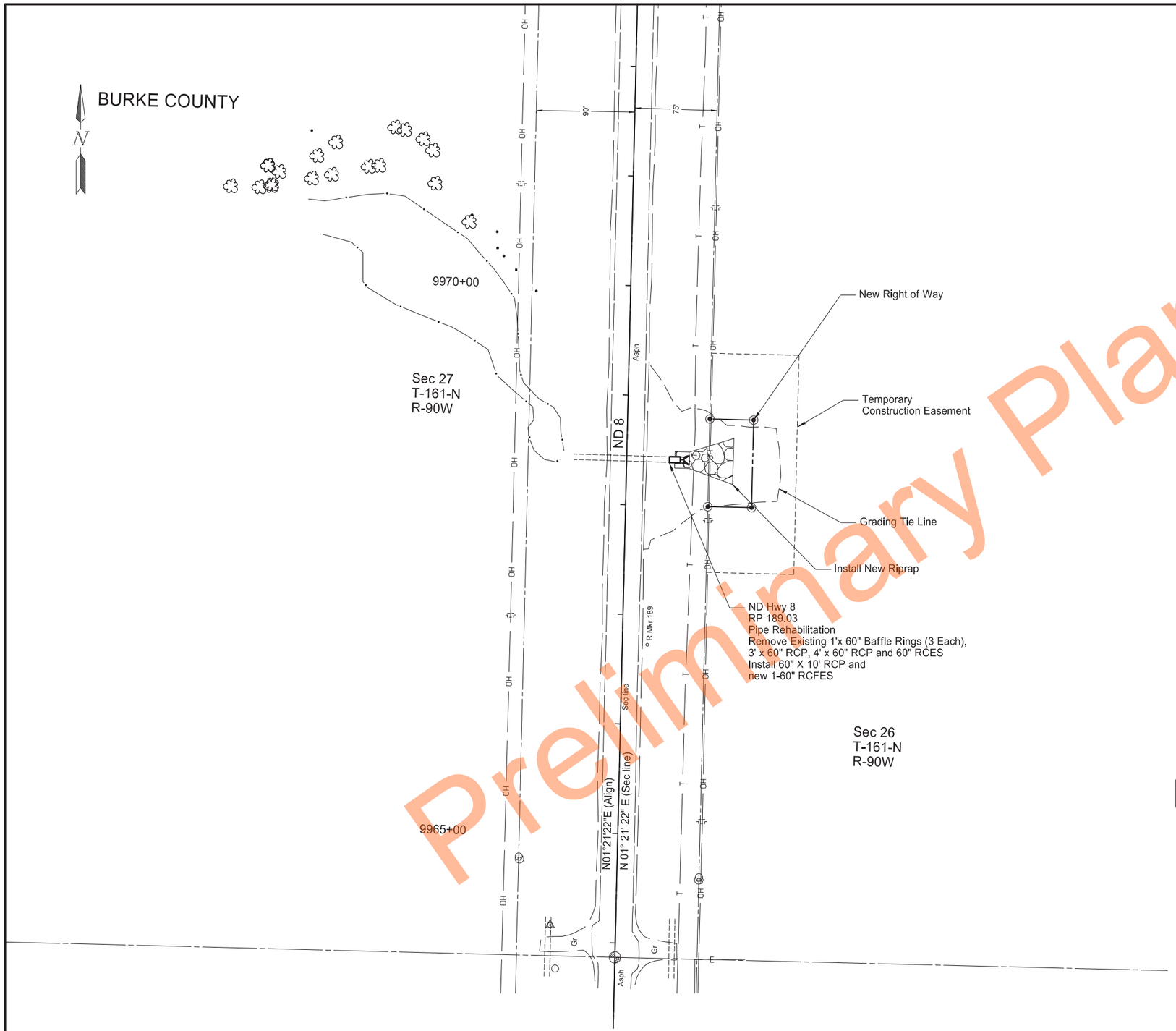
Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-12490
DATE
11/03/26
NORTH DAKOTA

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STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SS-7-999(028)	4	2



Preliminary Plans

Scope of Work

ND Hwy 8

Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-12490
DATE
11/03/26
NORTH DAKOTA

ESTIMATE OF QUANTITIES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SS-7-999(028)	8	1

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
103	0100	CONTRACT BOND	L SUM	1	1
202	0132	REMOVAL OF BITUMINOUS SURFACING	SY	515	515
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES	EA	3	3
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES	LF	164	164
202	0350	REMOVAL OF TEMPORARY BYPASS	EA	1	1
203	0101	COMMON EXCAVATION-TYPE A	CY	480	480
203	0109	TOPSOIL	CY	512	512
203	0113	COMMON EXCAVATION-WASTE	CY	362	362
203	0140	BORROW-EXCAVATION	CY	338	338
216	0100	WATER	M GAL	27	27
251	0200	SEEDING CLASS II	ACRE	0.96	0.96
253	0061	SOIL STABILIZATION	ACRE	1.56	1.56
255	0201	TRM TYPE 1	SY	60	60
256	0200	RIPRAP GRADE II	CY	140	140
261	0112	FIBER ROLLS 12IN	LF	2,082	2,082
261	0113	REMOVE FIBER ROLLS 12IN	LF	1,030	1,030
262	0100	FLOTATION SILT CURTAIN	LF	175	175
262	0101	REMOVE FLOTATION SILT CURTAIN	LF	175	175
302	0050	TRAFFIC SERVICE AGGREGATE	TON	451	451
302	0120	AGGREGATE BASE COURSE CL 5	TON	524	524
411	0114	MILLING PAVEMENT SURFACE - 2 INCH	SY	460	460
430	0500	COMMERCIAL GRADE HOT MIX ASPHALT	TON	181	181
430	1000	CORED SAMPLE	EA	2	2
626	0100	COFFERDAM	EA	2	2
702	0100	MOBILIZATION	L SUM	1	1
704	0100	FLAGGING	MHR	240	240
704	1000	TRAFFIC CONTROL SIGNS	UNIT	1,857	1,857
704	1018	LANE CLOSURE-SIGNAL CONTROL/FLAGGING CONTROL	EA	1	1
704	1052	TYPE III BARRICADE	EA	8	8
704	1060	DELINEATOR DRUMS	EA	38	38
704	1067	TUBULAR MARKERS	EA	30	30
704	1081	VERTICAL PANELS-BACK TO BACK	EA	35	35
704	1500	OBLITERATION OF PAVEMENT MARKING	SF	266	266

Preliminary Plans

ESTIMATE NUMBER: 25769 ESTIMATE TYPE: FINAL FINALIZED: Y RUN DATE: 11/02/2026 TIME: 10:12:49

ESTIMATE OF QUANTITIES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SS-7-999(028)	8	2

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
709	0100	GEOSYNTHETIC MATERIAL TYPE G	SY	152	152
709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	205	205
714	3055	END SECT-CONC REINF 60IN	EA	1	1
714	4125	PIPE CONDUIT 48IN	LF	156	156
714	4135	PIPE CONDUIT 60IN	LF	10	10
720	0110	RIGHT OF WAY MARKERS	EA	4	4
720	0130	IRON PIN R/W MONUMENTS	EA	4	4
720	0135	IRON PIN REFERENCE MONUMENTS	EA	4	4
754	0206	STEEL GALV POSTS-TELESCOPING PERFORATED TUBE	LF	17	17
754	0592	RESET SIGN PANEL	EA	1	1
754	0805	OBJECT MARKERS - CULVERTS	EA	3	3
762	0422	SHORT TERM 6IN LINE-TYPE R	LF	2,400	2,400
762	0426	SHORT TERM 24IN LINE-TYPE R	LF	24	24
762	0432	SHORT TERM 6IN LINE-TYPE NR	LF	175	175
762	1106	PVMT MK PAINTED 6IN LINE	LF	1,575	1,575

Preliminary Plans

ESTIMATE NUMBER: 25769 ESTIMATE TYPE: FINAL FINALIZED: Y RUN DATE: 11/02/2026 TIME: 10:12:49

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	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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		ND Hwy 5				ND Hwy 8	Totals
		Mainline			Bypass	Mainline	
		Sta 1824+19 to 1824+69	1824+69 to 1825+82	Sta 1825+82 to 1826+32	Sta 1+46 to 4+66		
Material	Unit	Quantity	Quantity	Quantity	Quantity	Quantity	
202-0132 REMOVAL OF BITUMINOUS SURFACING	SY		515.00				515
302-0050 TRAFFIC SURFACE AGGREGATE	Ton				451.00		451
302-0120 AGGREGATE BASE COURSE CL 5 @ 1.875 Ton/CY	Ton		523.57				524
411-0114 MILLING PAVEMENT SURFACE - 2 IN	SY	230.00		230.00			460
430-0500 COMMERCIAL GRADE HOT MIX ASPHALT @ 2 Ton/CY	Ton	20.04	140.45	20.04			181
* TACK COAT @ 0.05 Gal/SY (2nd lift)	Gal	9.44	25.75	9.44			45
* PRIME COAT @ 0.25 Gal/SY	Gal		14.31				14
* ASPHALT CEMENT @ 6.1%	Ton	1.22	8.57	1.22			11

*For Information purpose only
Included in the Price Bid for Commercial Grade Hot Mix Asphalt

Earthwork Summary

Location	203-0101 COMMON EXCAVATION (Type A)	Embankment*	203-0140 BORROW EXCAVATION	203-0113 COMMON EXCAVATION (Waste)	203-109 TOPSOIL
	Pay Item		Pay Item	Pay Item	Pay Item
	(CY)	(CY)	(CY)	(CY)	(CY)
	A	B	D=B-A	C=B-A	
ND Hwy 5					
Mainline (OL_Hwy 5)	0	0	0	0	207
Temporary Bypass	68	406	338	0	115
ND Hwy 8					
Mainline (SCL 8)	412	50	0	362	190
Totals	480	456	338	362	512

*25% Volume was added to embankment volumes to allow for shrinkage.

216-0100 Water	Hwy 5	Hwy 8	Total (MGal)
25 MGal/Mile for Dust Palliative	1.00	1.00	2.00
25 MGal/Mile for Subgrade Preparation	1.00	1.00	2.00
20 Gal/Ton for Aggregates	19.49	0.00	19.49
10 Gal/CY for Embankment	3.17	0.50	3.67
			27

754-0805 Object Markers - Culverts

Location of Pipe	Each
Station	#
ND Hwy 5	
1824+95 - Lt - CL (SCL5	1
1825+56 - Rt -CL (SCL5	1
ND Hwy 8	
9968+42 - Rt - CL (SCL8	1

Temporary Pavement Markings

Spec-Code	Location - Type	Basis	Quantity
	ND Hwy 5		
704-1500	OBLITERATION OF PVMT MK		266 SF
762-0422	SHORT TERM 6IN LINE-TYPE R (White) Interim Edge Line	Barrier Line - 10,560LF/Mile 400 LF/Setup - 1 Set up	400 LF
762-0422	SHORT TERM 6IN LINE-TYPE R (Yellow) Dbl Center Line	Barrier Line - 10,560LF/Mile 2000 LF/Setup - 1 Set up	2000 LF
762-0426	SHORT TERM 24IN LINE-TYPE R	24" White	24 LF
762-0432	SHORT TERM 6IN LINE-TYPE NR (Yellow) - Centerline Skip - 2nd Lift	Skip Line - 1,320LF/Mile	175 LF

Permanent Pavement Markings

Spec-Code	Location - Type	Basis	Quantity
	ND Hwy 5		
762-1106	PVMT MK PAINTED 6IN LINE (Yellow) - Centerline Skip	Skip Line - 1,320LF/Mile	175 LF
762-1106	PVMT MK PAINTED 6IN LINE (White) - Edge Line	Barrier Line - 10,560 LF/Mile	1400 LF

Preliminary Plans

Basis of Estimate

Hwy 5 & Hwy 8

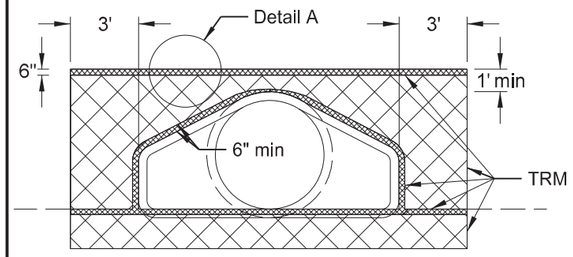
Pipe & Pipe Replacement

Various Highways - Williston District

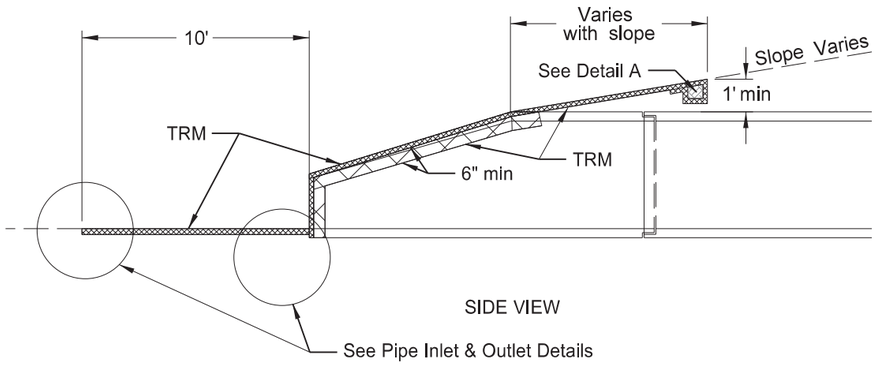
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BRIANNE KAPPES
PE-12490
DATE
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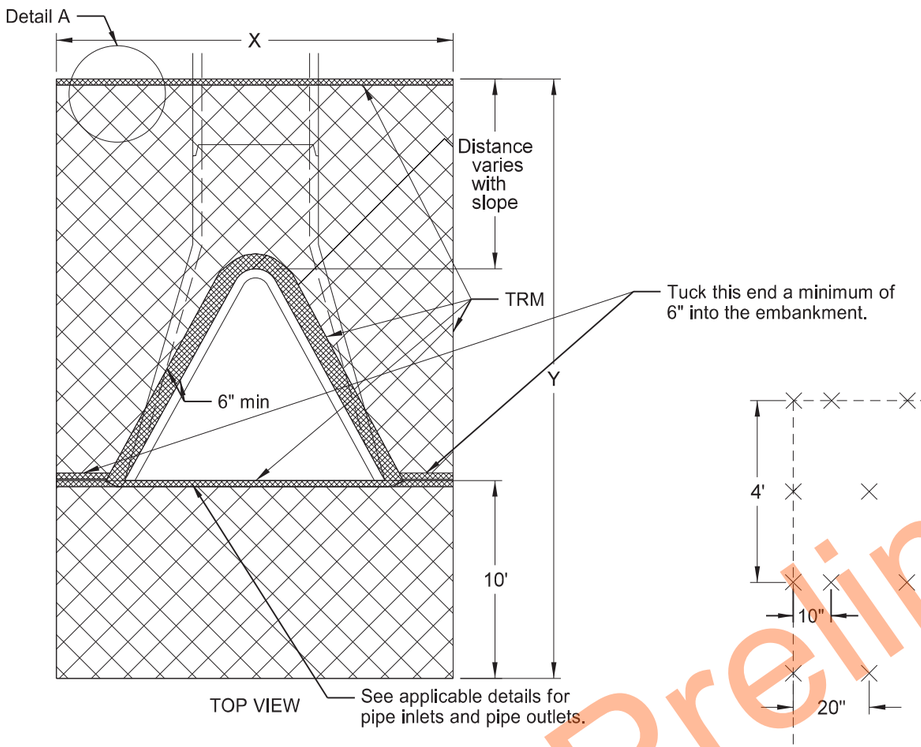
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FRONT VIEW

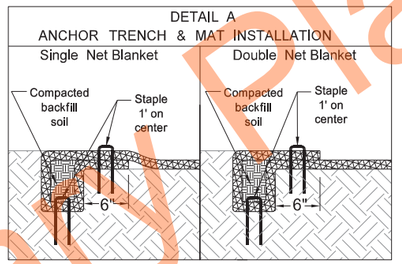


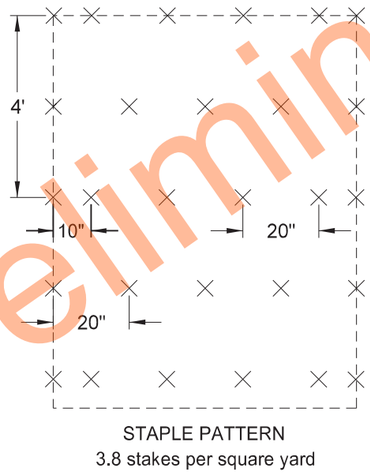
SIDE VIEW



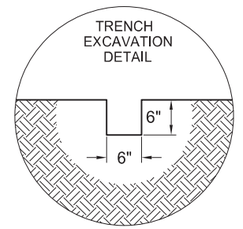
TOP VIEW

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





STAPLE PATTERN
3.8 stakes per square yard



Erosion Control Blanket (ECB)

Location to be protected	Culvert Type Appr/CL	Pipe Diam (Inch)	No	Unit Quantity	Total Quantity			
Station				(SY)	Type 1 (SY)	Type 2 (SY)	Type 3 (SY)	Type 4 (SY)
1824+94 Lt	CL	48	1	30	30	30		
1825+58 Rt	CL	48	1	30	30	30		
Total (SY)					60	60		

APPROACH CULVERTS

DIA	X	Y	Surface area to be protected	TRM
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.

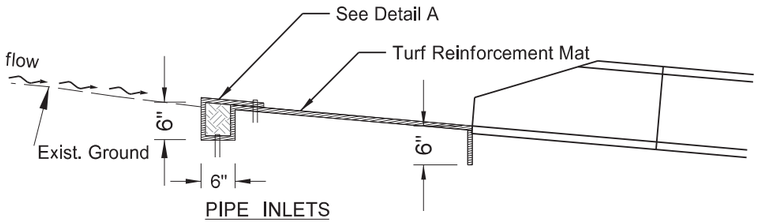
CENTERLINE CULVERTS

DIA	X	Y	Surface area to be protected	TRM
In	Ft	Ft	SF	SY
24	10.5	19.6	193.1	22
27	11.0	20.0	204.3	23
30	11.6	20.5	218.3	25
36	12.7	21.2	242.1	27
42	13.3	21.2	251.8	28
48	13.8	22.0	265.6	30
54	14.5	21.5	273.7	31
60	15.0	21.0	278.3	31
66	15.6	22.0	295.7	33
72	16.2	22.5	309.2	35

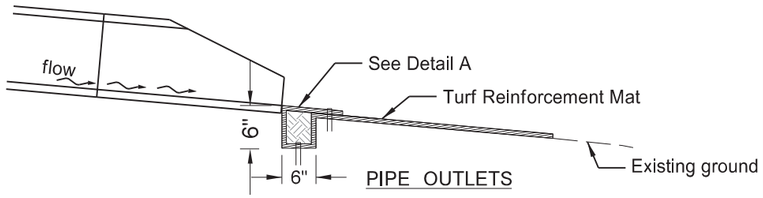
Note: Quantities based on 6:1 slope.

DIA	X	Y	Surface area to be protected	TRM
In	Ft	Ft	SF	SY
24	10.5	17.6	172.1	20
27	11.0	18.0	182.3	21
30	11.6	18.5	195.1	22
36	12.7	19.2	216.7	24
42	13.3	19.2	225.2	25
48	13.8	20.0	238.0	27
54	14.5	19.5	244.7	28
60	15.0	19.0	248.3	28
66	15.6	20.0	264.5	30
72	16.2	20.5	276.8	31

Note: Quantities based on 4:1 slope.



PIPE INLETS



PIPE OUTLETS

Erosion Control at Culvert Flared End Sections
ND Hwy 5
Pipe Replacement

Pipe & Pipe Replacement

Various Highway - Williston Didtrict

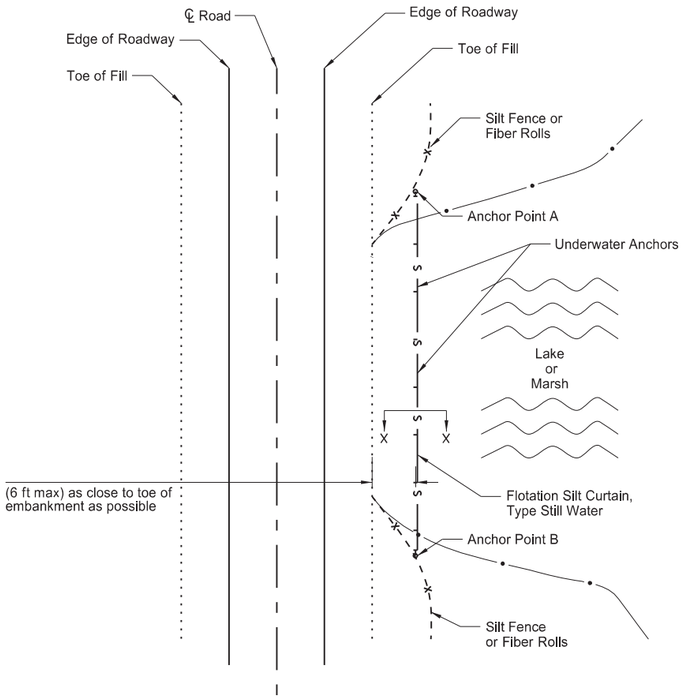
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BRIANNE KAPPES
PE-12490
DATE 11/03/26
NORTH DAKOTA

Preliminary Plans

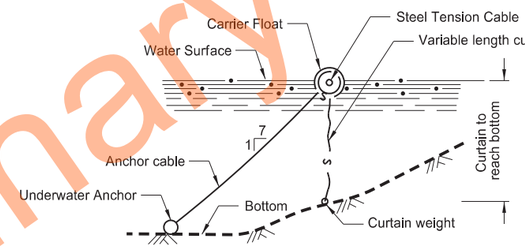
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TYPICAL INSTALLATIONS
May vary with conditions



PLAN VIEW
FLOTATION SILT CURTAIN - TYPE STILL WATER
Extend silt curtain onto shore and anchor there also.



SECTION X-X
FLOTATION SILT CURTAINS

Preliminary Plans

Temporary Erosion Control - Flotation Silt Curtain

ND Hwy 5

Pipe & Pipe Replacement

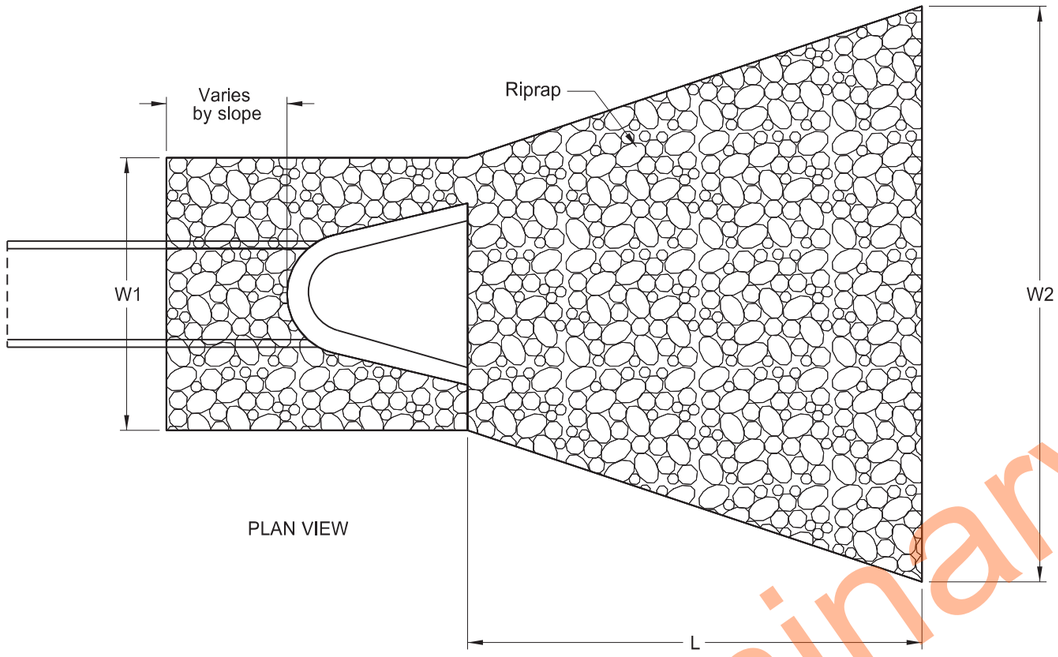
Various Highways - Williston District

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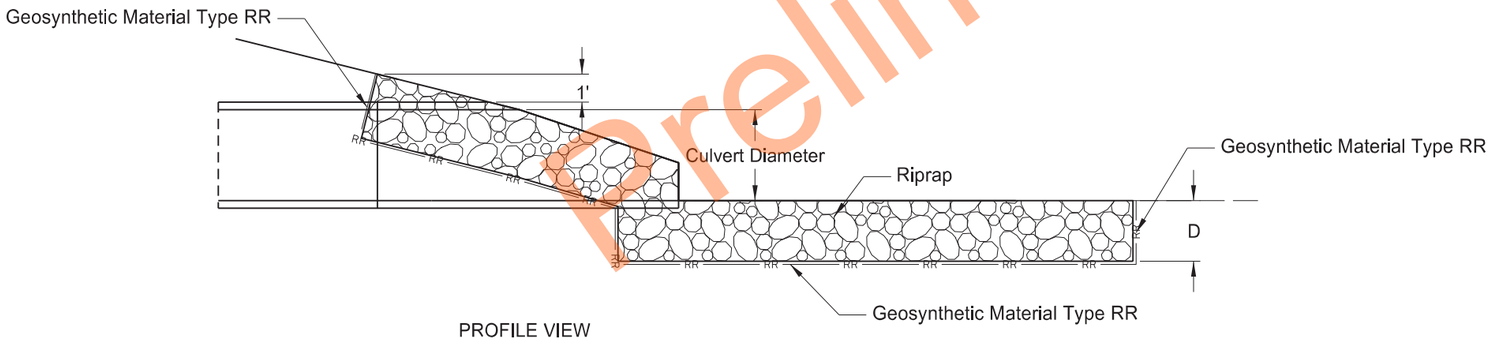
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	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	20	3

	Dimensions						Quantities	
Location	Culvert Diameter (inches)	L (feet)	W1 (feet)	W2 (feet)	Riprap Depth, D (inches)	Riprap Grade	Geosynthetic Material Type RR (SY)	Riprap Grade II (CY)
9968+42	60	40	15	42	36	II	205	140
TOTAL							205	140



PLAN VIEW



PROFILE VIEW

Preliminary Plans

Riprap at Pipe Outlets

ND Hwy 8

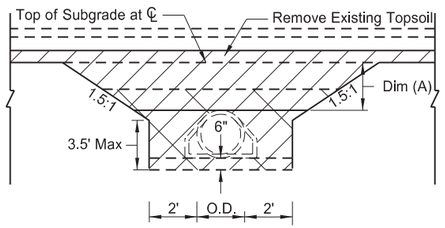
Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-42490
DATE 11/03/26
NORTH DAKOTA

Docusign Envelope ID: FBE26761-C1E2-8A45-816D-7696C2D73C72

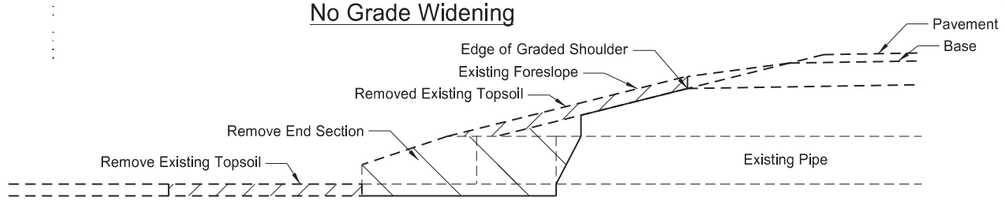
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	20	4



Removal Detail

Side View

No Grade Widening



Removal Section

Cross Section View

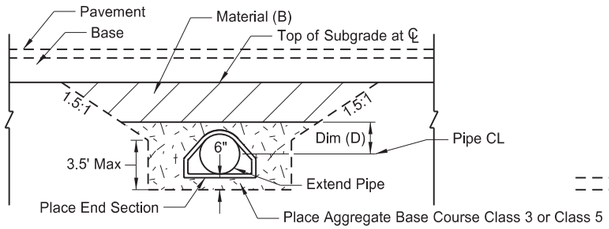
NOTES:
1. Embankment may be either Borrow Excavation or Common Excavation.
2. Aggregate may be either Class 3 or Class 5 Aggregate Base Course.

Pay Items
1) Pipe*
2) Remove & Reset End Section or
Remove End Section and Place New End Section

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

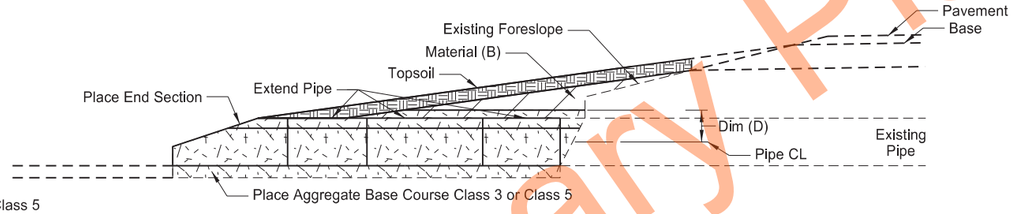
Pipe Materials	Dim (A)<=4 Feet Material (B)	Backfill Dimension Dim (D)
Concrete	Embank or Aggr	0.5 O.D.
Metal	Embank or Aggr	0.5 O.D.+1 Foot

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



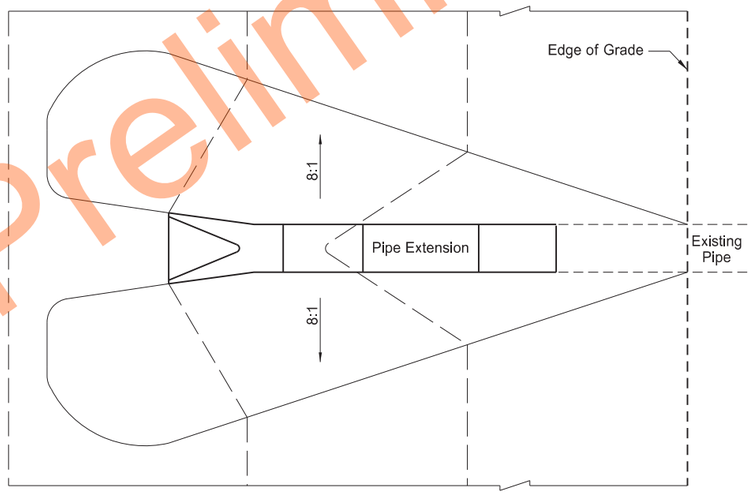
Backfill Detail

Side View (Topsoil not shown)



Proposed Section

Cross Section View



Proposed Section

Plan View

Mainline Centerline Pipe Extension Detail

ND Hwy 8

Pipe & Pipe Replacement

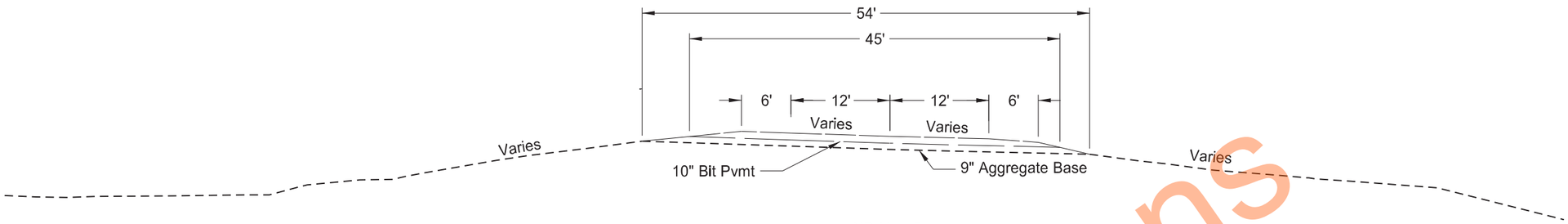
Various Highways - Williston District



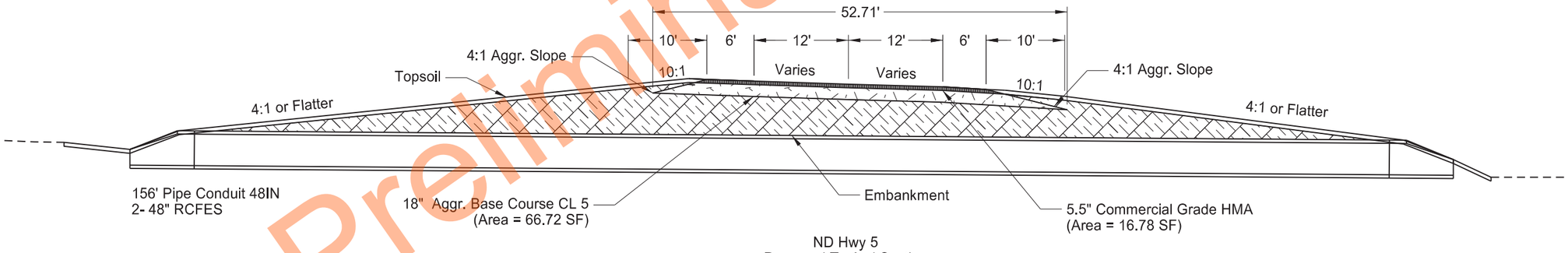
Preliminary Plans

Docusign Envelope ID: A729FF1C-C696-8773-80B0-7DA915FDA59B

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	30	1



ND Hwy 5
Existing Typical Section
Sta 1842+19 to 1826+32



ND Hwy 5
Proposed Typical Section
Sta 1824+69 to 1825+82
(Full Reconstruction Area)

Note: The existing Superelevation in the construction area is -3.37% WB lane and -2.80% EB lane.

Typical Sections
ND Hwy 5

Pipe & Pipe Replacement

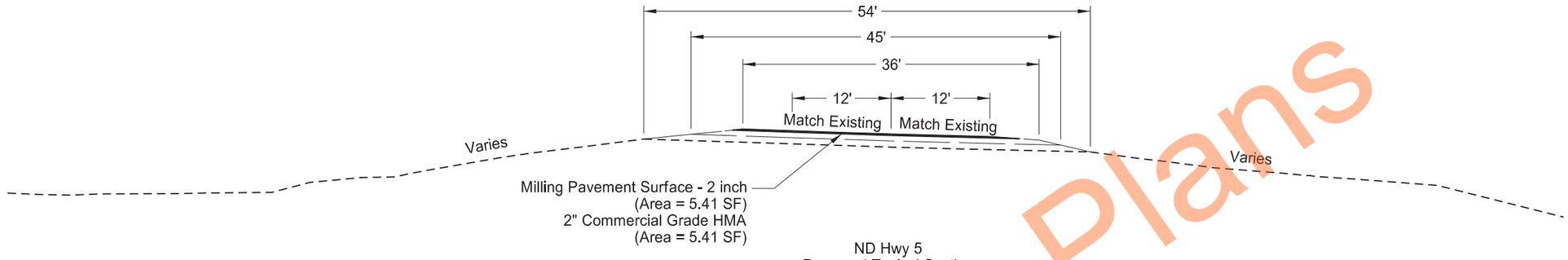
Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-12490
DATE 11/03/26
NORTH DAKOTA

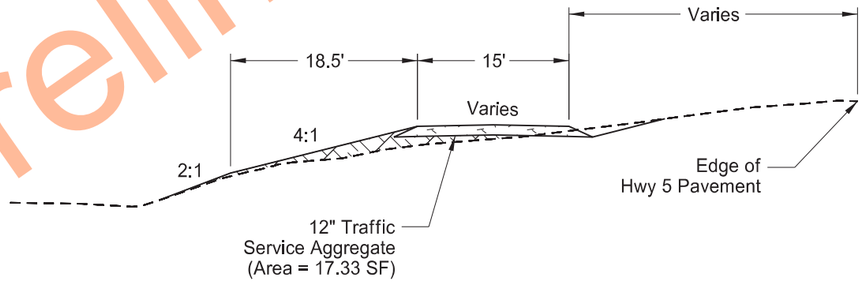
Preliminary Plans

Docusign Envelope ID: A729FF1C-C696-8773-80B0-7DA915FDA59B

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	30	2



ND Hwy 5
Proposed Typical Section
1824+19 to 1824+69
1825+82 to 1826+32
(Mill and Overlay Areas)



ND Hwy 5
Proposed Typical Section
Temporary Bypass

Preliminary Plans

Typical Sections
ND Hwy 5

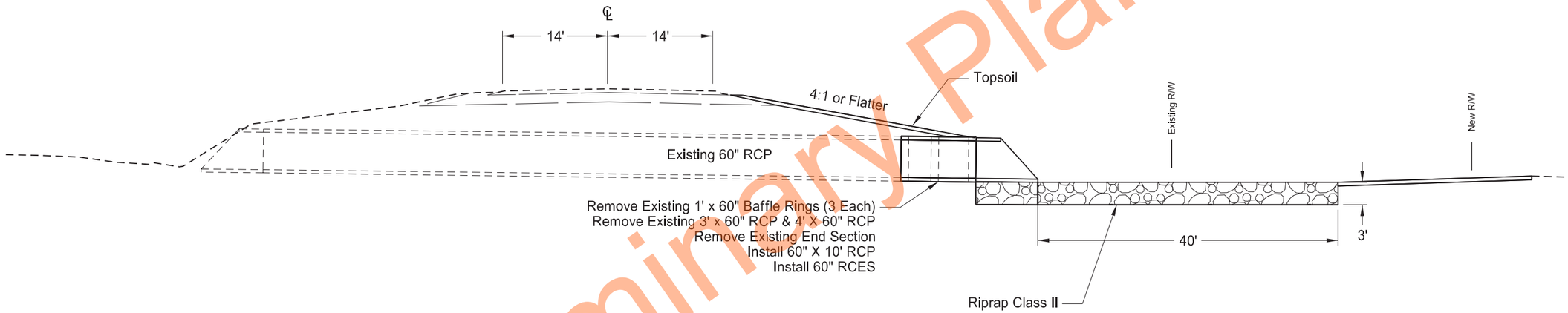
Pipe & Pipe Replacement

Various Highway -Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-12490
DATE
11/03/26
NORTH DAKOTA

Docusign Envelope ID: A729FF1C-C696-8773-80B0-7DA915FDA59B

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	30	3



ND Hwy 8
Proposed Typical Section
Sta 9968+42

Preliminary Plans

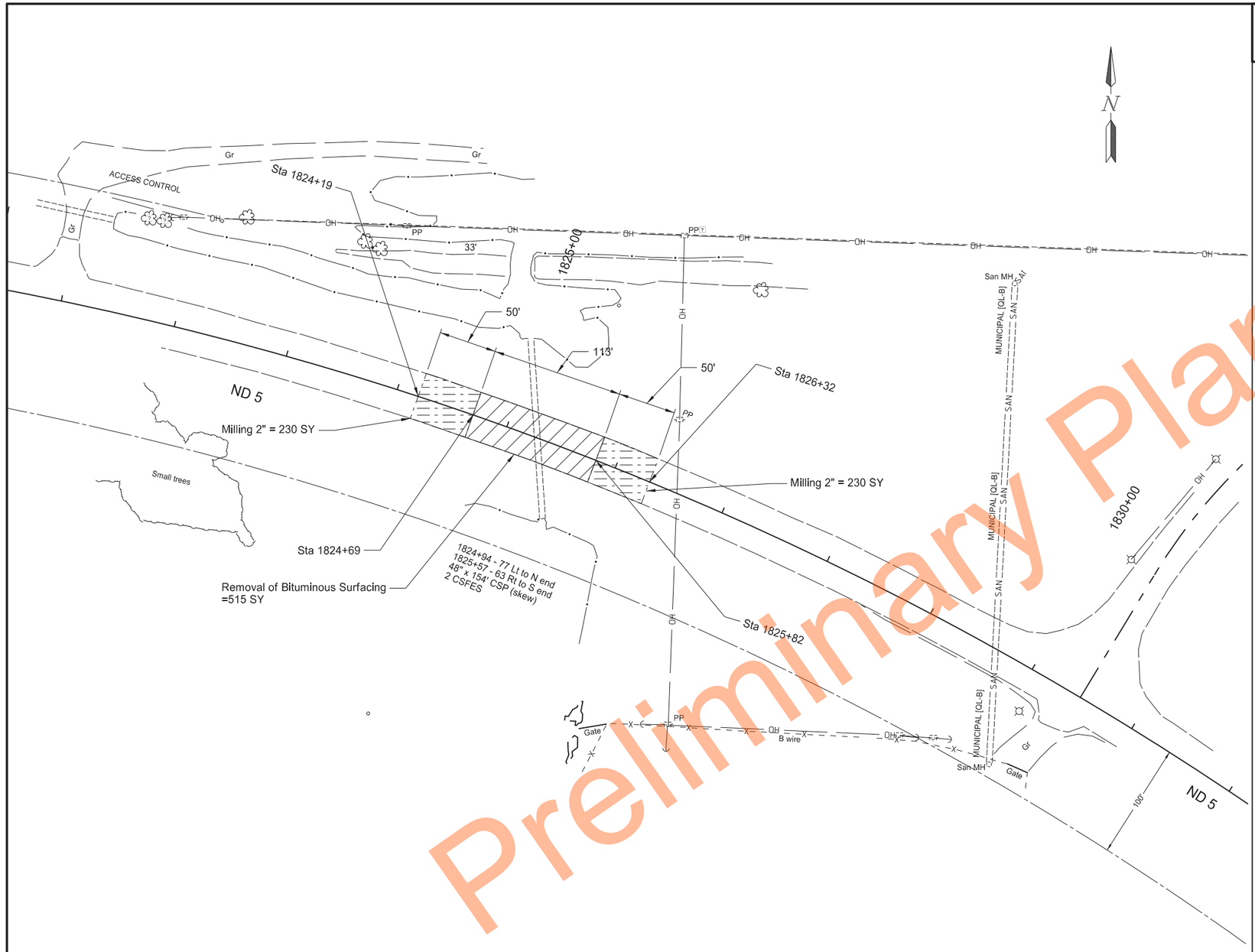
Typical Sections
ND Hwy 8

Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-12490
DATE
11/03/26
NORTH DAKOTA

Docusign Envelope ID: C7D81189-4F0D-84A9-820E-7D7DB43E0E2A



Preliminary Plans

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	40	1

SPEC	CODE	BID ITEM	QUANTITY	UNIT
202	132	REMOVAL OF BITUMINOUS SURFACING		
		Sta 1824+69 to 1825+82 (OL_Hwy 5)	515	SY
202	169	REMOVAL OF END SECTION-ALL TYPES & SIZES		
		48" X 154' CSP Sta 1825+28 (OL_Hwy 5)	2	EA
202	170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		48" X 154' CSP Sta 1825+28 (OL_Hwy 5)	154	LF
411	114	MILLING PAVEMENT SURFACE - 2 INCH		
		Sta 1824+19 to 1824+69 (OL_Hwy 5)	230	SY
		Sta 1825+82 to 1826+32 (OL_Hwy 5)	230	SY

Milling 2"

Removal of Bituminous Surfacing
10" Bit. Pvmt. & 9" Aggregate Base

Removals
ND Hwy 5

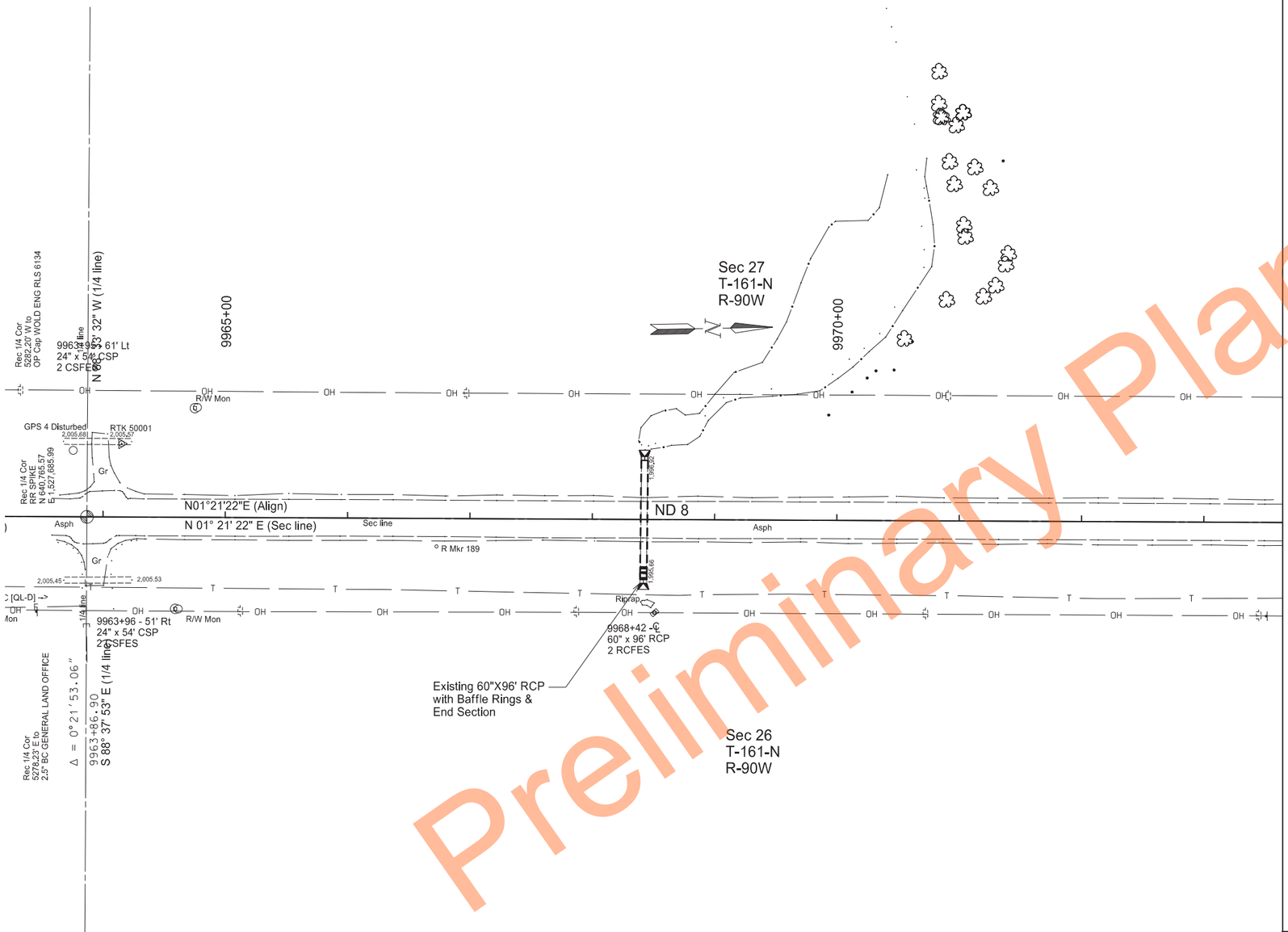
Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE A. KAPPES
PE-12490
DATE
11/03/26
NORTH DAKOTA

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	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	40	2

SPEC	CODE	BID ITEM	QUANTITY	UNIT
202	169	REMOVAL OF END SECTION-ALL TYPES & SIZES		
		60" X 96' RCP Sta 9968+42 - Rt (OL_Hwy 8)	1	EA
202	170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		60" X 96' RCP Sta 9968+42 - Rt (OL_Hwy 8)		
		1' x 60" RCP Baffle Ring (3 Each)		
		3' x 60" RCP		
		4' x 60" RCP	10	LF

Preliminary Plans

Removals
ND Hwy 8

Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-42490
DATE
11/03/26
NORTH DAKOTA

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	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	50	1

HYDRAULIC DATA FOR SS-7-999(028) | PCN 24738 (A)

STATION	EXISTING PIPE	PROPOSED PIPE SIZE	DRAINAGE AREA (ACRES)	25-YEAR DATA				100-YEAR DATA	
				DESIGN DISCHARGE (CFS)	DESIGN HEADWATER (FT)	DESIGN VELOCITY (FPS)	DESIGN STAGE (NAVD 88)	100-YEAR DISCHARGE (CFS)	100-YEAR STAGE (NAVD 88)
1825+25	48"x154' CSP	48"	416.3	87.9	4.96	6.99	1951.07	140.7	1953.72

(A) Hydraulic data provided is for smooth-walled (Manning's n=0.012) type conduits.

Preliminary Plans

REGISTERED PROFESSIONAL ENGINEER
RANDALL SANDVIG
PE-8783
DATE 08/11/26
NORTH DAKOTA

Culvert Hydraulic Data

Various Hwys - Williston District

Docusign Envelope ID: 8E8C3E65-2CA6-8DC0-8243-F1DA95EA36F0

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	51	1

Begin Station / Location	Begin Offset	End Station / Location	End Offset	Pipe Installation (Pay Item)			Allowable Material	Required Diameter	Steel Pipe Coatings	Steel Pipe Corrugations or Spiral Ribs	Steel Pipe Minimum Thickness	Geosythetic Material - Type G (Pay Item)	(*) End Sections		Applicable Backfill
													Begin	End	
				In	Bid Item	LF		In	Type		In	SY	EA	EA	
ND Hwy 5															
1824+95	76.15' Lt	1825+56.5	62.71' Rt	48	Pipe Conduit	156	Reinforced Concrete Pipe - Class III (barrel length = 152 LF)	48				152	FES	FES	Standard D-714-25
ND Hwy 8															
9968+42	38.92' Rt	9968+42	48.92' Rt	60	Pipe Conc. Reinf. CL III (Extension)	10	Reinforced Concrete Pipe - Class III (barrell length = 10 LF)	60						FES	Sheet 20-4

Corrugations: 2 = 2-2/3"x1/2"
3 = 3"x1"
5 = 5"x1"

Coatings: Z = Zinc
A = Aluminum
P = Polymeric (over Zinc or Aluminum)

Spiral Ribs: 3/4 = 3/4"x3/4"@7-1/2"
1= 3/4"x1"@11-1/2"

(*) End sections are measured and paid for separately for pipe extensions.
FES = Flared End Section
TES = Traversable End Section

Preliminary Plans

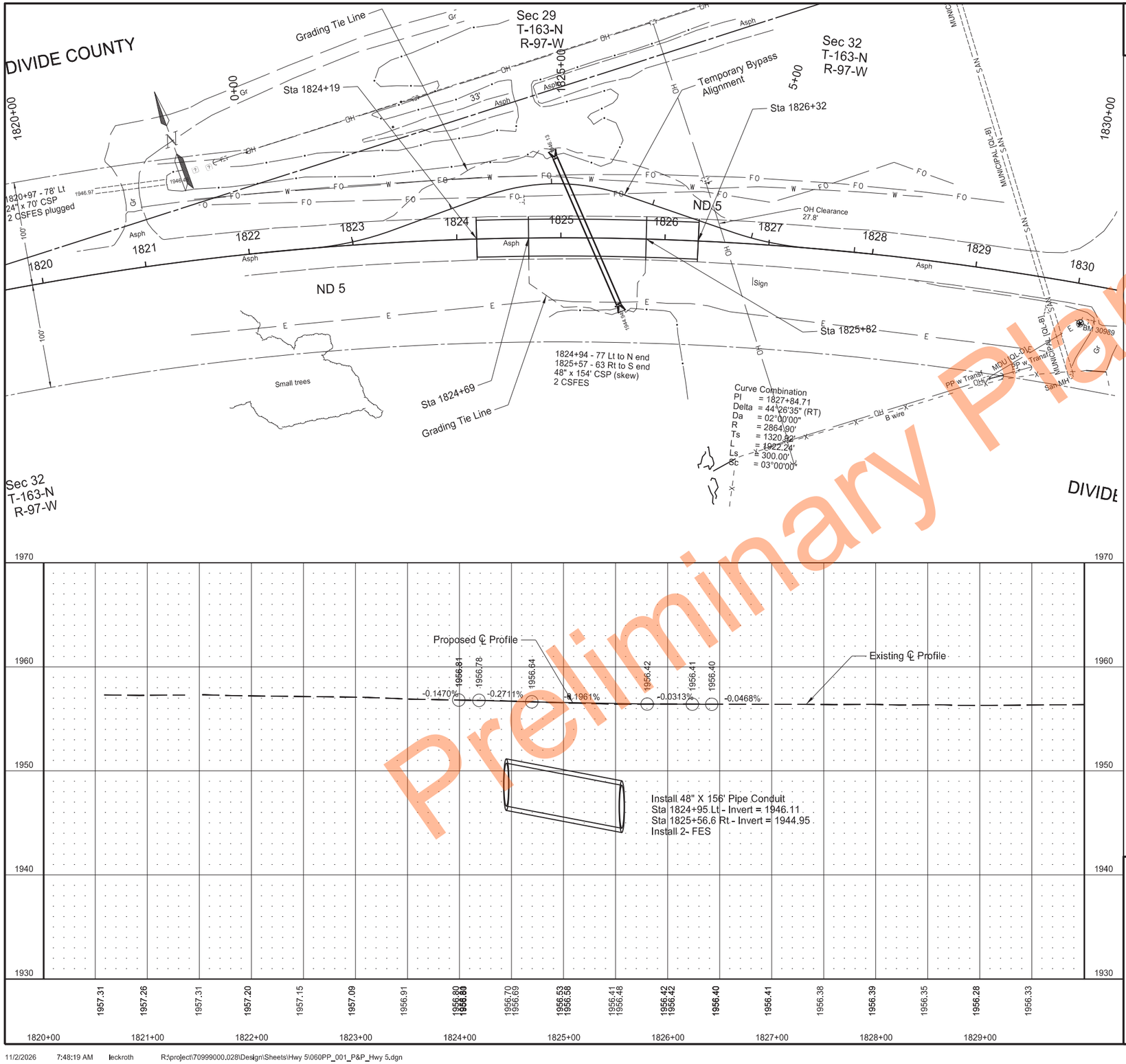
Allowable Pipe List
ND Hwy 5 & ND Hwy 8

Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-12490
DATE 11/03/26
NORTH DAKOTA

Docusign Envelope ID: 297936F0-2852-8633-80EA-DCA8A71FD0D7



Preliminary Plans

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	60	1

SPEC	CODE	BID ITEM	QUANTITY	UNIT
709	100	GEOSYNTHETIC MATERIAL TYPE G		
		Sta 1824+95 Lt to 1825+56 Rt (SCL5)	152	SY
714	4125	PIPE CONDUIT 48IN		
		Sta 1824+95 Lt to 1825+56 Rt (SCL5)	156	LF

Plan & Profile
Hwy 5 Mainline

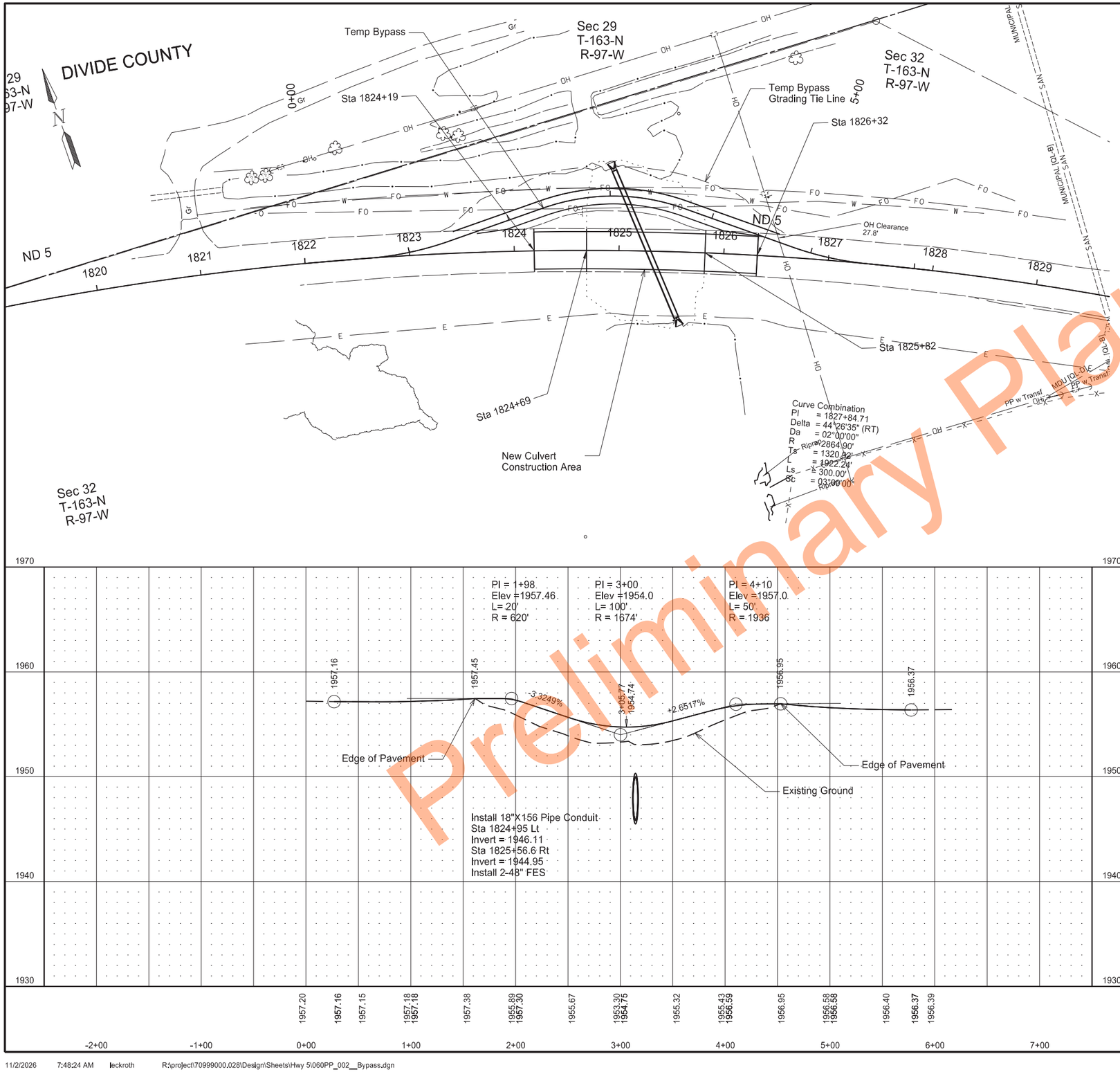
Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-42490
DATE
11/03/26
NORTH DAKOTA

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Docusign Envelope ID: 297936F0-2852-8633-80EA-DCA8A71FD0D7



Preliminary Plans

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	60	2

SPEC	CODE	BID ITEM	QUANTITY	UNIT
202	350	REMOVAL OF TEMPORARY BYPASS		
		Sta 0+75 to 4+50 (OL_Bypass_Hwy5)	1	EA
302	50	TRAFFIC SERVICE AGGREGATE		
		Sta 0+75 to 4+50 (OL_Bypass_Hwy5)	451	TON

Plan & Profile
ND Hwy 5
Temproary Bypass

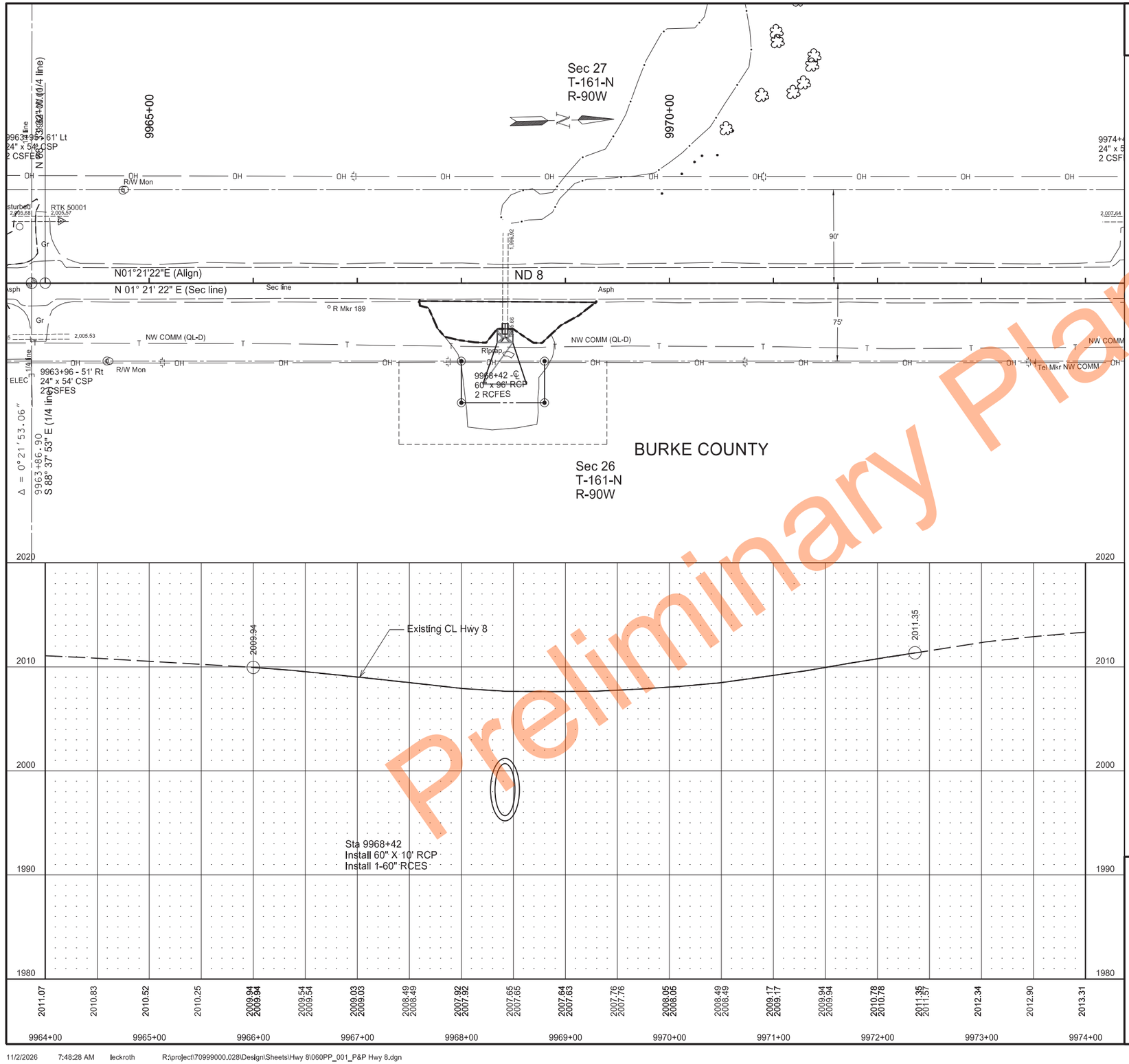
Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-42490
DATE
11/03/26
NORTH DAKOTA

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	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	60	3

SPEC	CODE	BID ITEM	QUANTITY	UNIT
714	1310	PIPE CONC REINF 60IN CL III		
		Sta 9968+42 Rt	10	LF
714	3055	END SECT-CONC REINF 60IN		
		Sta 9968+42 Rt	1	EA

Preliminary Plans

Plan & Profile
ND Hwy 8

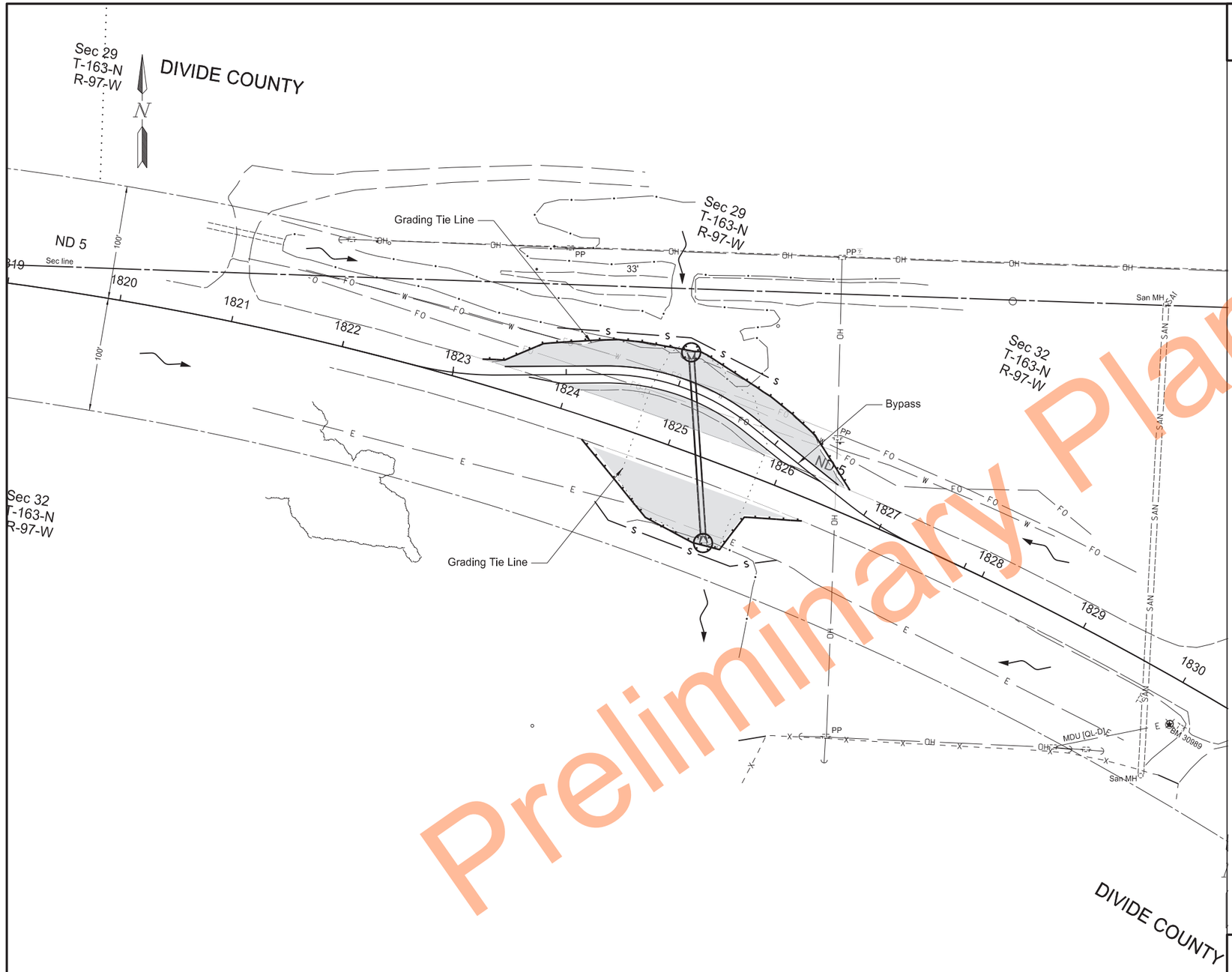
Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-42490
DATE
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NORTH DAKOTA

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Preliminary Plans

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	76	1

SPEC	CODE	BID ITEM	QUANTITY	UNIT
253	61	SOIL STABILIZATION		
		Sta 1823+00 to 1827+00 Lt & Rt	0.34	ACRE
261	112	FIBER ROLLS 12IN		
		Sta 1823+00 to 1827+00 Lt	430	LF
		Sta 1824+30 to 1826+50 Rt	300	LF
261	113	REMOVE FIBER ROLLS 12IN		
		Sta 1823+00 to 1827+00 Lt	430	LF
		Sta 1824+30 to 1826+50 Rt	300	LF
262	100	FLOTATION SILT CURTAIN		
		Sta 1824+50 to 1826+25	175	LF
262	101	REMOVE FLOTATION SILT CURTAIN		
		Sta 1824+50 to 1826+25	175	LF

Soil Stabilization

12" Fiber Rolls

S Floatation Silt Curtain

Temporary Erosion Control
ND Hwy 5

Pipe & Pipe Replacement

Various Highways - Williston District

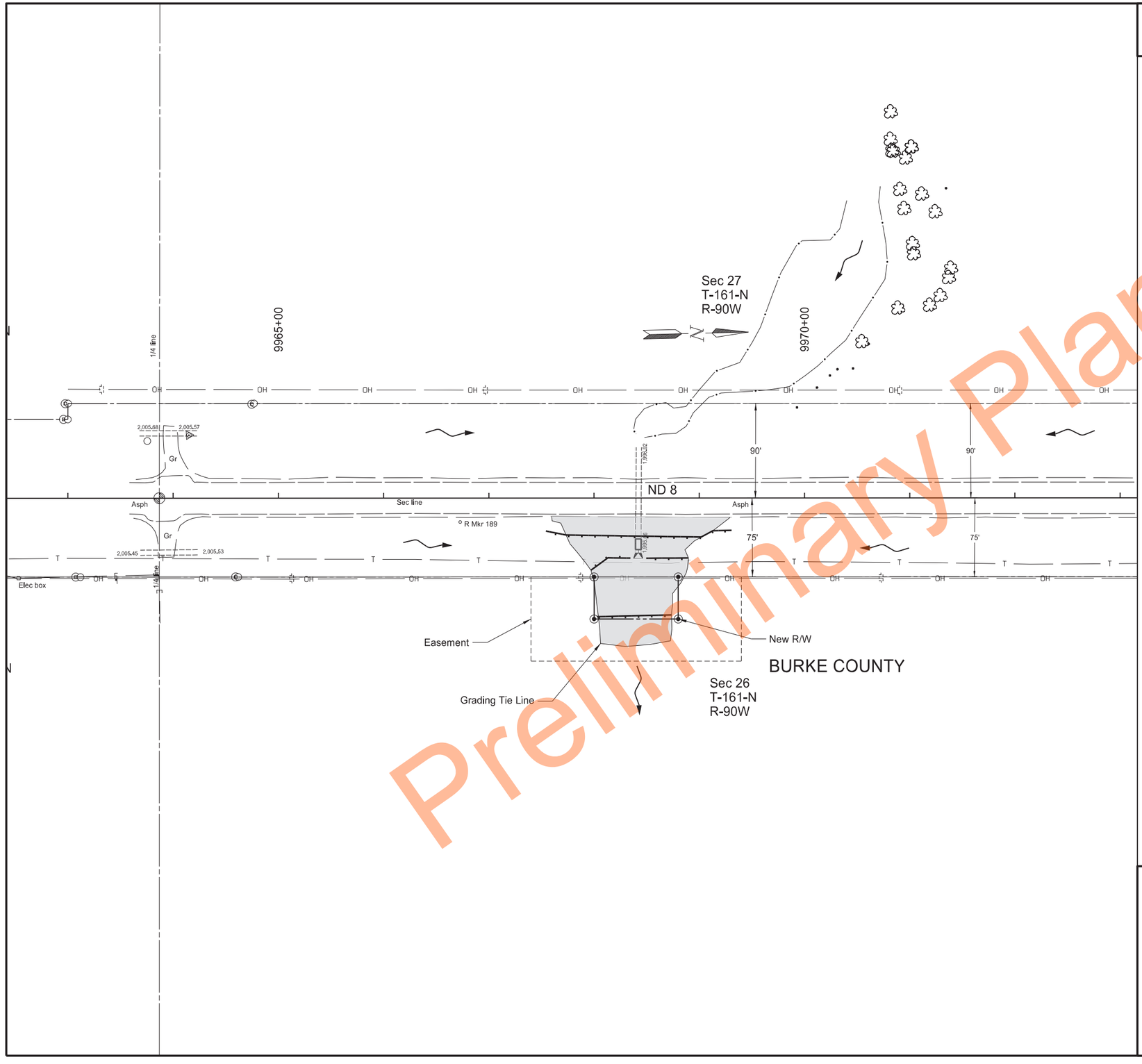
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BRIANNE KAPPES
PE-42490
DATE
11/03/26
NORTH DAKOTA

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	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	76	2

SPEC	CODE	BID ITEM	QUANTITY	UNIT
253	61	SOIL STABILIZATION		
		Sta 9967+00 to 9969+50 Rt	0.26	ACRE
261	112	FIBER ROLLS 12IN		
		Sta 9967+00 to 9969+50 Rt	300	LF
261	113	REMOVE FIBER ROLLS 12IN		
		Sta 9967+00 to 9969+50 Rt	300	LF



Soil Stabilization

12" Fiber Rolls

Temporary Erosion Control
ND Hwy 8

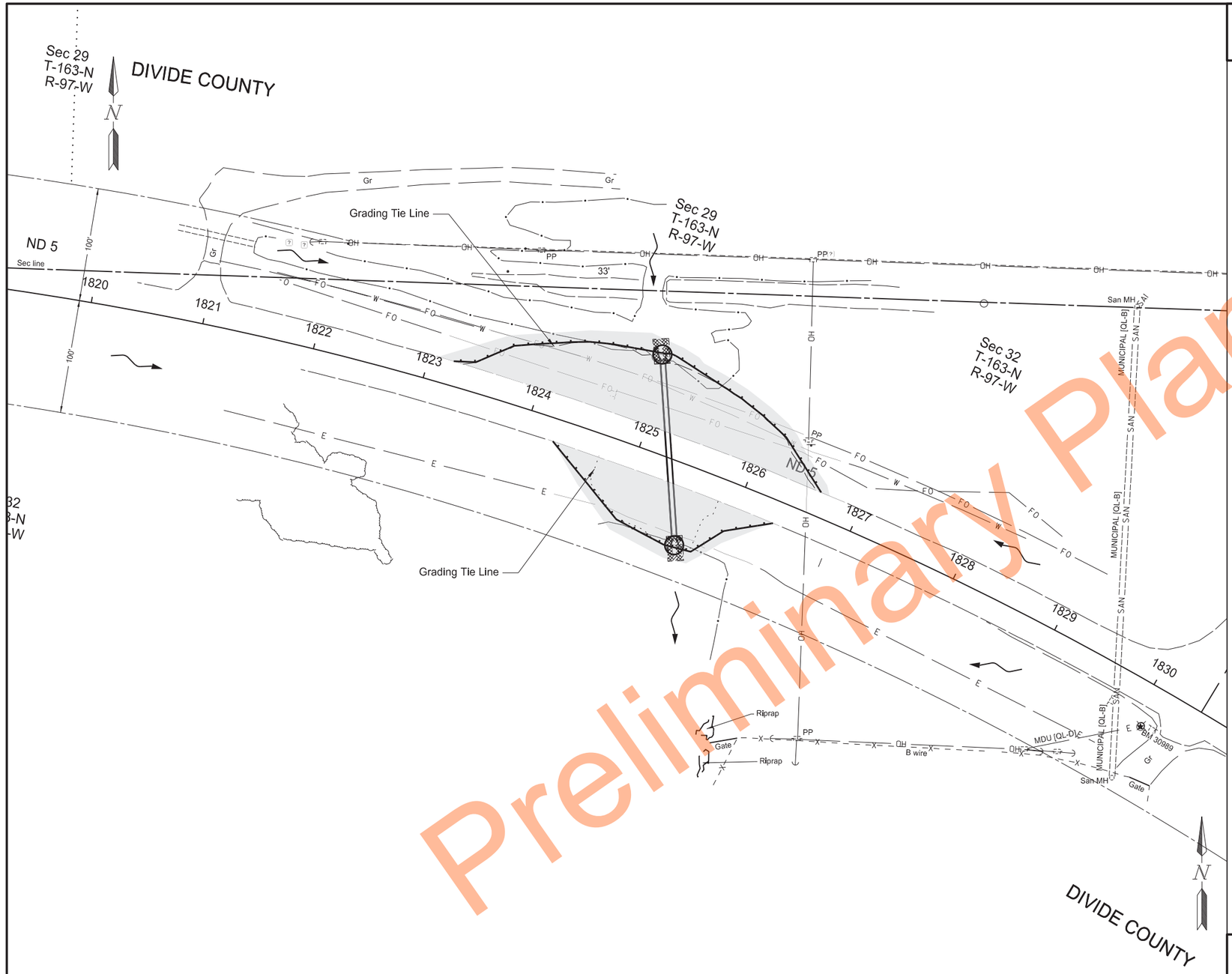
Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE A. KAPPES
PE-12490
DATE
11/03/26
NORTH DAKOTA

Preliminary Plans

Docusign Envelope ID: E7295A21-A6D5-89C5-8062-25C58AADA2C7



Preliminary Plans

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	77	1

SPEC	CODE	BID ITEM	QUANTITY	UNIT
251	200	SEEDING CLASS II		
		Sta1823+00 to 1827+00 Lt & Rt	0.61	ACRE
253	61	SOIL STABILIZATION		
		Sta1823+00 to 1827+00 Lt & Rt	0.61	ACRE
255	201	TRM TYPE 1		
		1824+94 Lt	30	SY
		1825+58 Rt	30	SY
261	112	FIBER ROLLS 12IN		
		Sta 1823+00 to 1827+00 Lt	430	LF
		Sta 1824+30 to 1826+50 Rt	290	LF

Seeding Class II & Soil Stabilization

TRM TYPE 1

12" Fiber Rolls

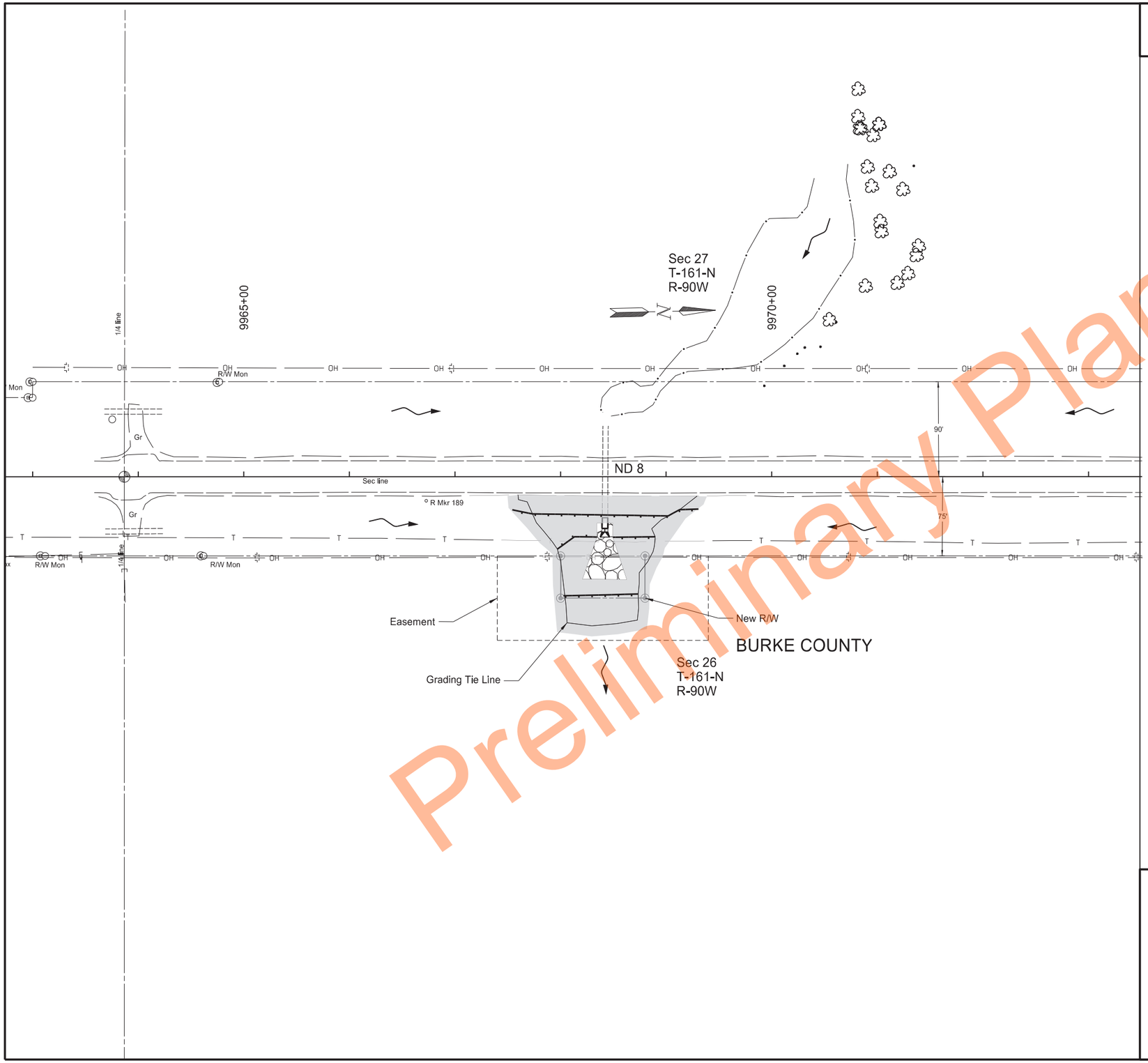
Permanent Erosion Control
ND Hwy 5

Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-12490
DATE
11/03/26
NORTH DAKOTA

Docusign Envelope ID: E7295A21-A6D5-89C5-8062-25C58AADA2C7



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	77	2

SPEC	CODE	BID ITEM	QUANTITY	UNIT
251	200	SEEDING CLASS II		
		Sta 9967+00 to 9969+50 Rt	0.35	ACRE
253	61	SOIL STABILIZATION		
		Sta 9967+00 to 9969+50 Rt	0.35	ACRE
256	200	RIPRAP GRADE II		
		Sta 9968+20 to 9968+62 Rt	140	CY
261	112	FIBER ROLLS 12IN		
		Sta 9967+00 to 9969+50 Rt	332	LF
709	155	GEOSYNTHETIC MATERIAL TYPE RR		
		Sta 9968+42 Rt	205	SY

Seeding Class II & Soil Stabilization

Riprap Grade II

12" Fiber Rolls

Preliminary Plans

Permanent Erosion Control
ND Hwy 8

Pipe and Pipe Replacement

Various Highways - Willistion District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE J. KAPPES
PE-12490
DATE
11/03/26
NORTH DAKOTA

PRELIMINARY SURVEY COORDINATE AND CURVE DATA - Various Hwys - Williston District On Hwy 5 at RP 34.610

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SS-7-999(028)	81	1

HORIZONTAL ALIGNMENT

PNT	STATION	NORTHING	EASTING
ND 5 (SCL5)			
Begin	1800+00.00	708,800.34	1,291,153.07
Station equation ND 5 (SCL_5) and ND 42 (SCL_42) / Rec Sec Cor			
ND 5	1812+46.56	708,751.71	1,292,398.68
ND 42	1224+30.63	708,751.71	1,292,398.68
TS	1814+63.79	708,743.93	1,292,615.77
SC	1817+63.79	708,727.95	1,292,915.30
PI	1827+84.71	708,696.62	1,293,935.84
CS	1836+86.03	707,952.46	1,294,634.91
ST	1839+86.03	707,738.52	1,294,845.17
End	1853+82.56	706,725.58	1,295,806.57
ND 42 (SCL42)			
Begin	1220+00.00	708,321.36	1,292,382.96
ND5/Rec Sec Cor	1224+30.63	708,751.71	1,292,398.68
End	1230+00.00	709,320.69	1,292,419.67

CURVE DATA

ARC DEFINITION

Curve Combination

PI	= 1827+84.71
Delta	= 44°26'35" (RT)
Da	= 02°00'00"
R	= 2864.90'
Ts	= 1320.92'
L	= 1922.24'
Ls	= 300.00'
Sc	= 03°00'00"

US PUBLIC LAND SURVEY DATA

T-163-N R-97-W

CORNER	IRN	NORTHING	EASTING
S 1/4 Cor Sec 30	2-L	708,854.60	1,289,763.44
W 1/4 Cor 29	3-K	711,393.72	1,292,496.12
SW Cor Sec 29	3-L	708,751.70	1,292,398.68
SW Cor Sec 32	3-N	703,470.69	1,292,204.82
N 1/4 Cor Sec 32	4-L	708,658.96	1,295,040.98

REFERENCE MARKERS

#	NORTHING	EASTING	STATION	O/S	ALIGNMENT
34	708,784.24	1,290,696.13	N/A	N/A	SCL5
35	707,113.87	1,295,384.25	1848+10	39' Rt	SCL5

SURVEY CONTROL POINTS

PNT	NORTHING	EASTING	ELEV	STATION	OFFSET	ALIGNMENT	MONUMENT
PRIMARY CONTROL							
GPS 23	706,345.49	1,292,237.79	1973.10	1811+80	2411' Rt	SCL5	1.5" Alum cap
SECONDARY CONTROL							
RTK 50048	708,838.43	1,292,096.70	1953.04	1809+41	75' Lt	SCL5	#5 Rebar
BM 30989	708,323.92	1,294,073.78	1953.80	1830+08	38' Rt	SCL5	RR Spk
RTK 40000	705,527.44	1,297,514.07	1989.87	N/A	N/A	SCL5	1.5" Alum cap
RTK 30000	695,508.97	1,291,869.11	1987.49	N/A	N/A	SCL5	1.5" Alum cap

All coordinates and measurements on this document derived from the International Foot definition.

INITIALIZING BENCH MARK
NDGPS Stations (OPUS)

- [x] NAVD-88
- [ ] _____
- [ ] GEOID12B
- [x] GEOID18
- [ ] _____

Date Survey Completed 04/06/2026

- [ ] Assumed Coordinates
- [x] All coordinates on this sheet are Divide County ground coordinates. They are derived from the NAD83(2011) reference frame; North Dakota North Zone Combination Factor (cf) = 0.9999130

REGISTERED PROFESSIONAL LAND SURVEYOR
Kristofer Johnson
LS-10169
DATE 07/27/26
NORTH DAKOTA

NOTES: Sheet 1 of 2
Alignment per NDDOT project 7-005(023)034 and 7-042(014)000

Preliminary Plans

PRELIMINARY SURVEY COORDINATE AND CURVE DATA - Various Hwys - Williston District On Hwy 8 at RP 189.031

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SS-7-999(028)	81	2

HORIZONTAL ALIGNMENT

PNT	STATION	NORTHING	EASTING
ND 8 (SCL8)			
Begin/Rec Sec Cor	9937+44.41	638,123.83	1,527,623.06
Rec 1/4 Cor	9963+86.90	640,765.57	1,527,685.99
End/Rec Sec Cor	9990+30.51	643,408.43	1,527,748.56

CURVE DATA

ARC DEFINITION

US PUBLIC LAND SURVEY DATA

CORNER	IRN	NORTHING	EASTING
T-161-N R-90-W			
NW Cor Sec 27	7-J	643,541.60	1,522,467.10
E 1/4 Cor Sec 28	7-K	640,898.42	1,522,405.46
SE Cor Sec 28	7-L	638,255.56	1,522,343.74
N 1/4 Cor Sec 27	8-J	643,474.94	1,525,107.87
S 1/4 Cor Sec 27	8-L	638,189.69	1,524,983.43
NE Cor Sec 27	9-J	643,408.43	1,527,748.56
E 1/4 Cor Sec 27	9-K	640,765.57	1,527,685.99
NW Cor Sec 35	9-L	638,123.83	1,527,623.06
N 1/4 Cor Sec 26	10-J	643,343.67	1,530,385.60
N 1/4 Cor Sec 35	10-L	638,062.02	1,530,259.53
W 1/4 Cor Sec 25	11-K	640,639.51	1,532,962.72
NW Cor Sec 36	11-L	637,998.39	1,532,901.22

REFERENCE MARKERS

#	NORTHING	EASTING	STATION	O/S	ALIGNMENT
188	635,774.03	1,527,590.78	N/A	N/A	SCL8
189	641,050.82	1,527,715.55	9966+73	23' Rt	SCL8
190	646,350.43	1,527,841.88	N/A	N/A	SCL8

SURVEY CONTROL POINTS

PNT	NORTHING	EASTING	ELEV	STATION	OFFSET	ALIGNMENT	MONUMENT
PRIMARY CONTROL							
GPS 187	634,244.79	1,527,081.75	2,040.92	N/A	N/A	SCL8	#5 Rebar w 1.5"Alum cap NDDOT Control
GPS 189	644,484.78	1,527,849.04	2,011.64	N/A	N/A	SCL8	#5 Rebar w 1.5" Alum cap NDDOT Control
SECONDARY CONTROL							
RTK 50001	640,795.08	1,527,626.76	2,008.29	9964+15	60' Lt	SCL8	#5 Rebar w center punch

All coordinates and measurements on this document derived from the International Foot definition.

INITIALIZING BENCH MARK NDGPS Stations (OPUS)

- [x] NAVD-88
- [ ] _____
- [ ] GEOID12B
- [x] GEOID18
- [ ] _____

Date Survey Completed 04/16/2026

- [ ] Assumed Coordinates
- [x] All coordinates on this sheet are Burke County ground coordinates. They are derived from the NAD83(2011) reference frame; North Dakota North Zone Combination Factor (cf) = 0.9999095

REGISTERED PROFESSIONAL LAND SURVEYOR
Kristofer Johnson
LS-10169
DATE 07/27/26
NORTH DAKOTA

NOTES: Sheet 2 of 2

Alignment per NDDOT Project 7-008(026)174

Preliminary Plans

Docusign Envelope ID: AB947869-B773-8B19-8175-BA2577428ED2

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	82	1

DIVIDE COUNTY

Sec 30
T-163-N
R-97-W

Sec 29
T-163-N
R-97-W

Sec 31
T-163-N
R-97-W

Sec 32
T-163-N
R-97-W

119th AVE NW

119th AVE NW

1809 1810 1811 1812 1813 1814 1815 1816 1817 1818 1819 1820 1821 1822 1823 1824 1825 1826 1827 1828 1829 1830 1831 1832 1833 1834 1835 1836 1837 1838 1839 1840 1841 1842

(SCL5)

ND 42

ND 5

ND 5

ND 5

Station equation
1812+46.56 ND 5 =
1224+30.63 ND 42
Δ = 0°01'13" Lt (SCL5)
Δ = 0°11'00" Rt (SCL42)
Rec Sec Cor
#6 Rebar

TS 1814+63.78

SC 1817+63.78

Begin 1220+00.00

PI 1827+84.71
RR SPIKE

Curve Combination
PI = 1827+84.71
Delta = 44°26'35" (RT)
Da = 02°00'00"
R = 2864.90'
Ts = 1320.92'
Ls = 1922.24'
Sc = 300.00'
= 03°00'00"

SAN

SAN

(SCL 5)

CS 1836+86.02

ST 1839+86.02

N

Preliminary Plans

Survey Data
ND Hwy 5

Mainline Hwy 5
(SCL5 - Survey Location)

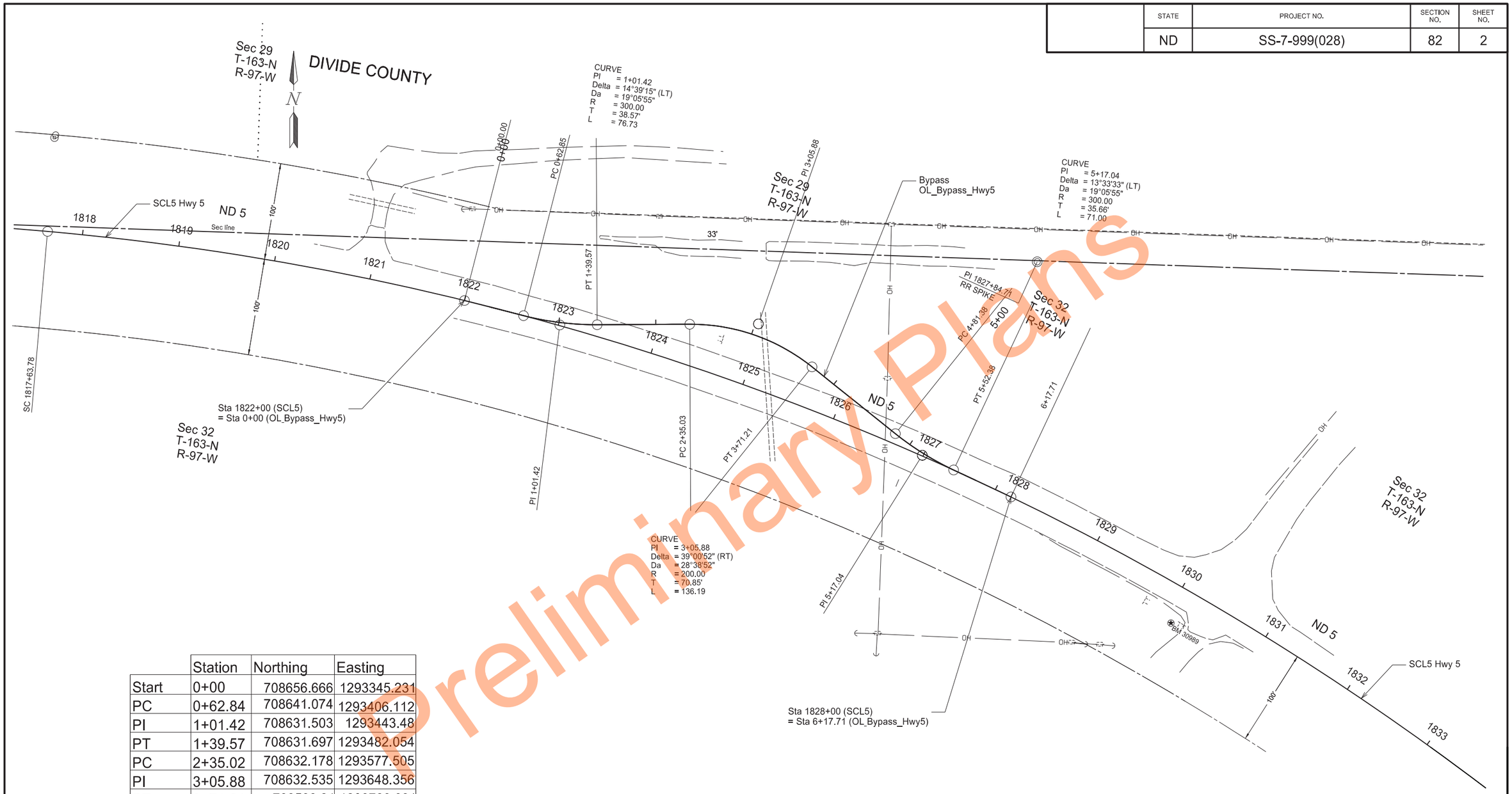
Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-12490
DATE
11/03/26
NORTH DAKOTA

Docusign Envelope ID: AB947869-B773-8B19-8175-BA2577428ED2

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	82	2



	Station	Northing	Easting
Start	0+00	708656.666	1293345.231
PC	0+62.84	708641.074	1293406.112
PI	1+01.42	708631.503	1293443.48
PT	1+39.57	708631.697	1293482.054
PC	2+35.02	708632.178	1293577.505
PI	3+05.88	708632.535	1293648.356
PT	3+71.21	708588.21	1293703.631
PC	4+81.38	708519.289	1293789.578
PI	5+17.04	708496.978	1293817.402
PT	5+52.38	708481.811	1293849.681
End	6+17.71	708454.028	1293908.813

Preliminary Plans

Survey Data
ND Hwy 5

Bypass Hwy 5
(SCL5 - Survey Loction)
(OL_Bypass_Hwy5)

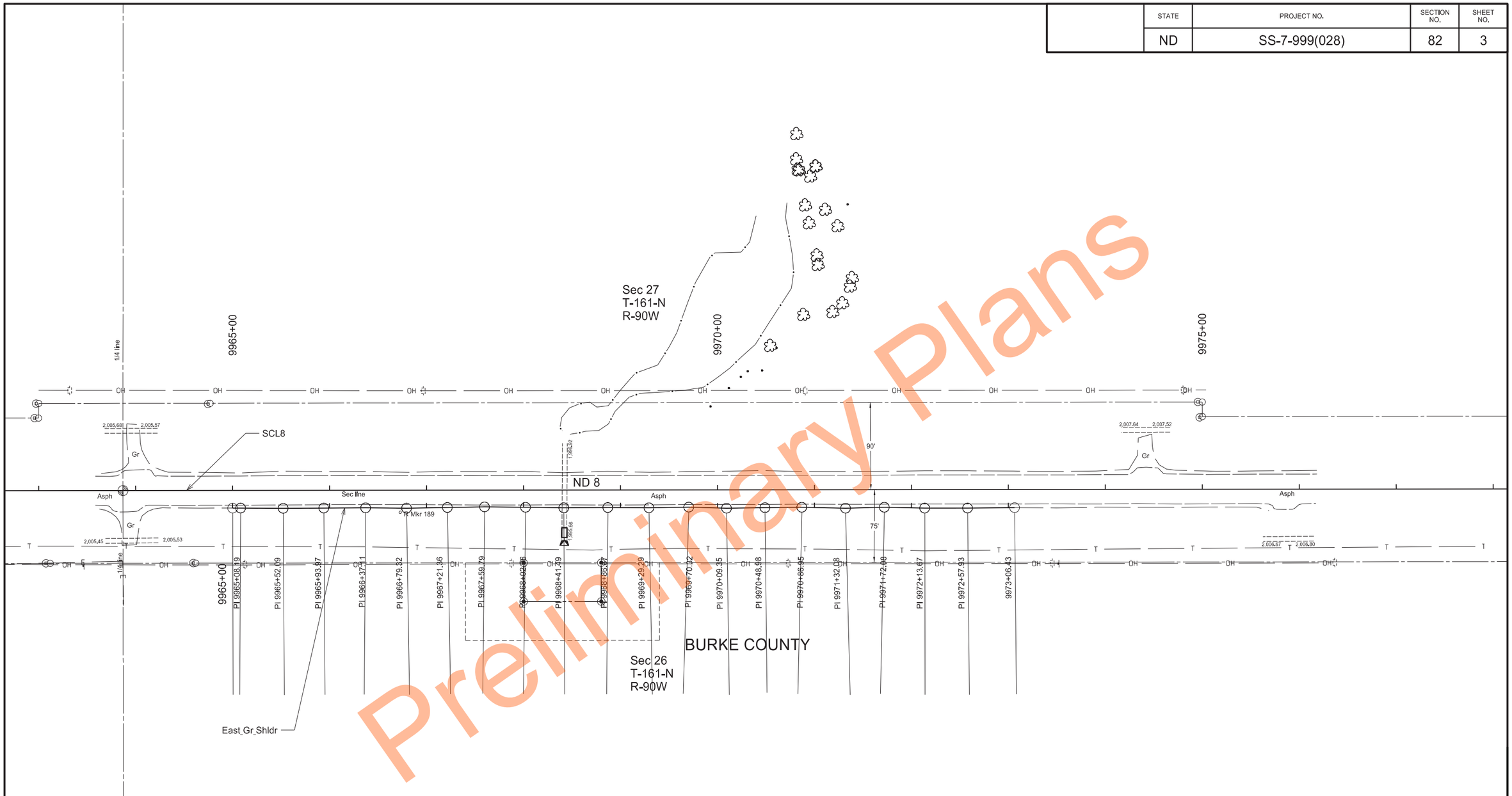
Pipe & Pipe Replacement

Various Highway - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-42490
DATE
11/03/26
NORTH DAKOTA

Docusign Envelope ID: AB947869-B773-8B19-8175-BA2577428ED2

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	82	3



Preliminary Plans

Survey Data
ND Hwy 8

Mainline Hwy 8
(OL_Hwy 8)
East Shoulder
(East_Gr_Shldr)

Pipe & Pipe Replacement

Various Highways - Williston District

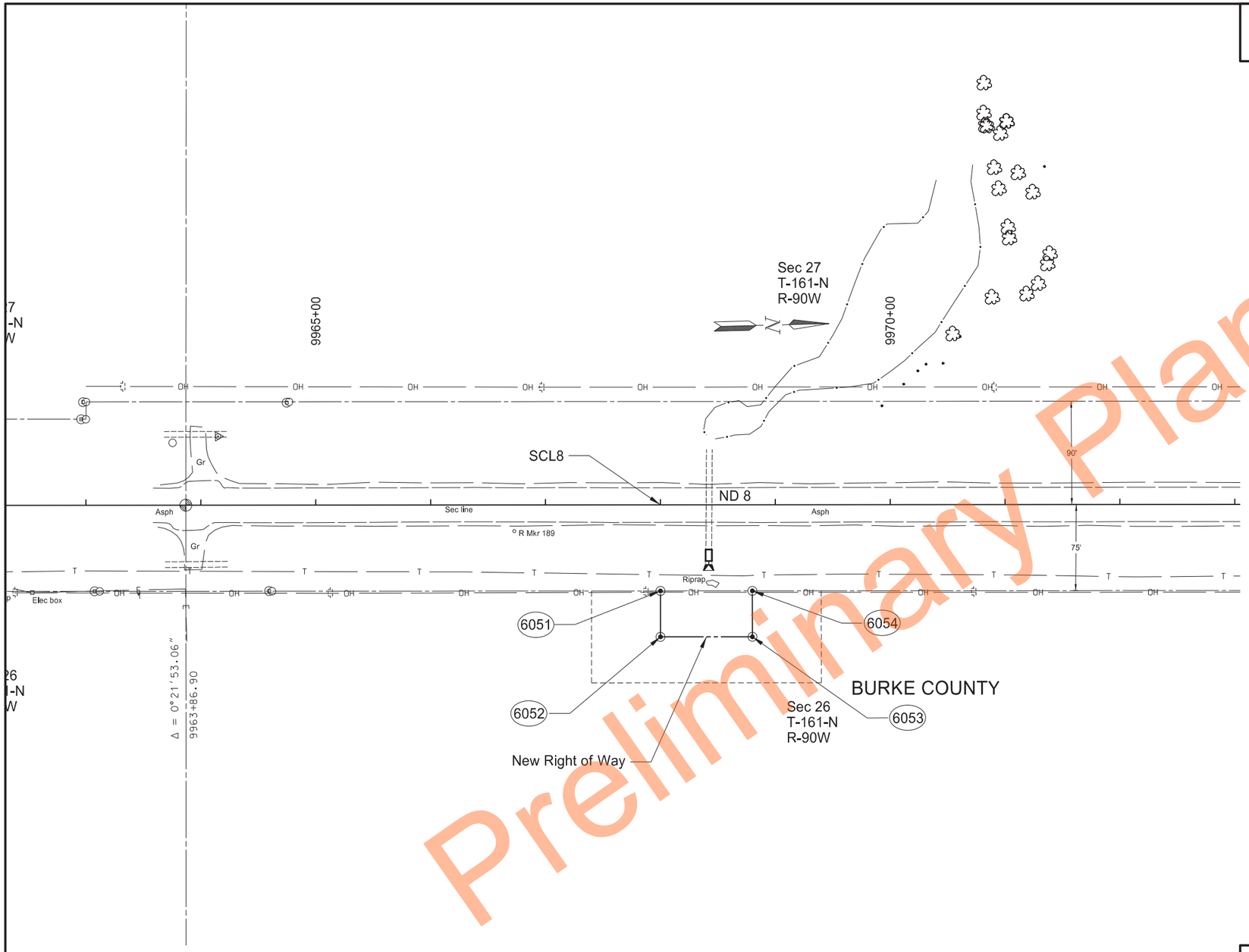
REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-12490
DATE
11/03/26
NORTH DAKOTA

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Docusign Envelope ID: AB947869-B773-8B19-8175-BA2577428ED2

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	82	4

SPEC	CODE	BID ITEM	QUANTITY	UNIT
720	110	RIGHT OF WAY MARKERS		
		Sta 9968+00 - 75' Rt	1	EA
		Sta 9968+00 - 115' Rt	1	EA
		Sta 9968+80 - 115' Rt	1	EA
		Sta 9968+80 - 75' Rt	1	EA
720	130	IRON PIN R/W MONUMENTS		
		Sta 9968+00 - 75' Rt	1	EA
		Sta 9968+00 - 115' Rt	1	EA
		Sta 9968+80 - 115' Rt	1	EA
		Sta 9968+80 - 75' Rt	1	EA
720	135	IRON PIN REFERENCE MONUMENTS		
		Sta 9968+00 - 75' Rt	1	EA
		Sta 9968+00 - 115' Rt	1	EA
		Sta 9968+80 - 115' Rt	1	EA
		Sta 9968+80 - 75' Rt	1	EA



Station and Offsets based on Hwy 8 CL Alignment (SCL8)

Point	North	East	Station	Offset	720-110 R/W Marker (Witness Post)	720-130 Iron Pin R/W Monument	720-135 Iron Pin Referance Monument
6051	641176.78	1527770.75	9968+00	75' Rt	1	1	1
6052	641175.83	1527810.74	9968+00	115' Rt	1	1	1
6053	641255.81	1527812.63	9968+80	115' Rt	1	1	1
6054	641256.76	1527772.64	9968+80	75' Rt	1	1	1

Right of Way Markers
ND Hwy 8

Pipe & Pipe Replacement

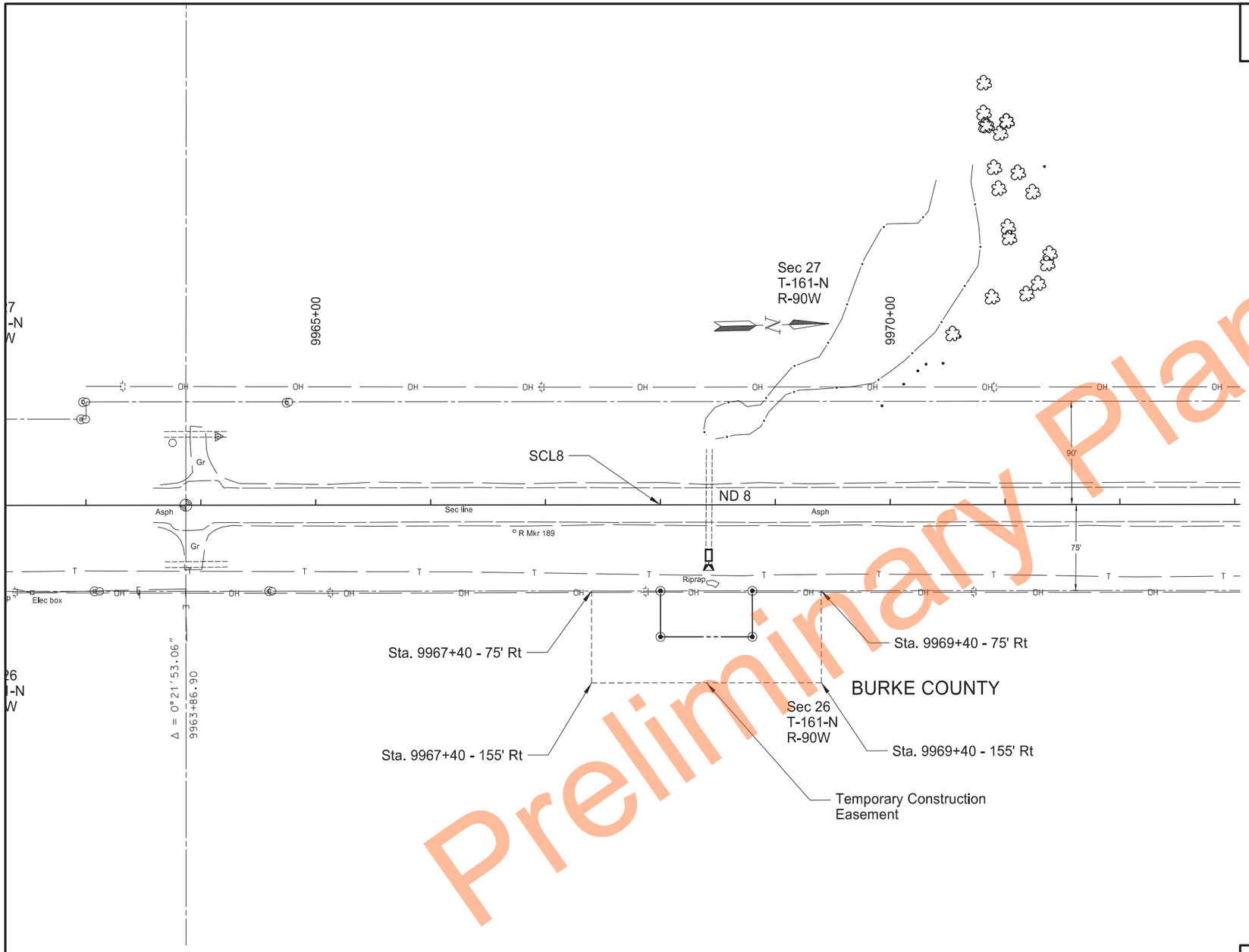
Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE J. KAPPES
PE-42490
DATE 11/03/26
NORTH DAKOTA

Preliminary Plans

Docusign Envelope ID: AB947869-B773-8B19-8175-BA2577428ED2

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	82	5



Preliminary Plans

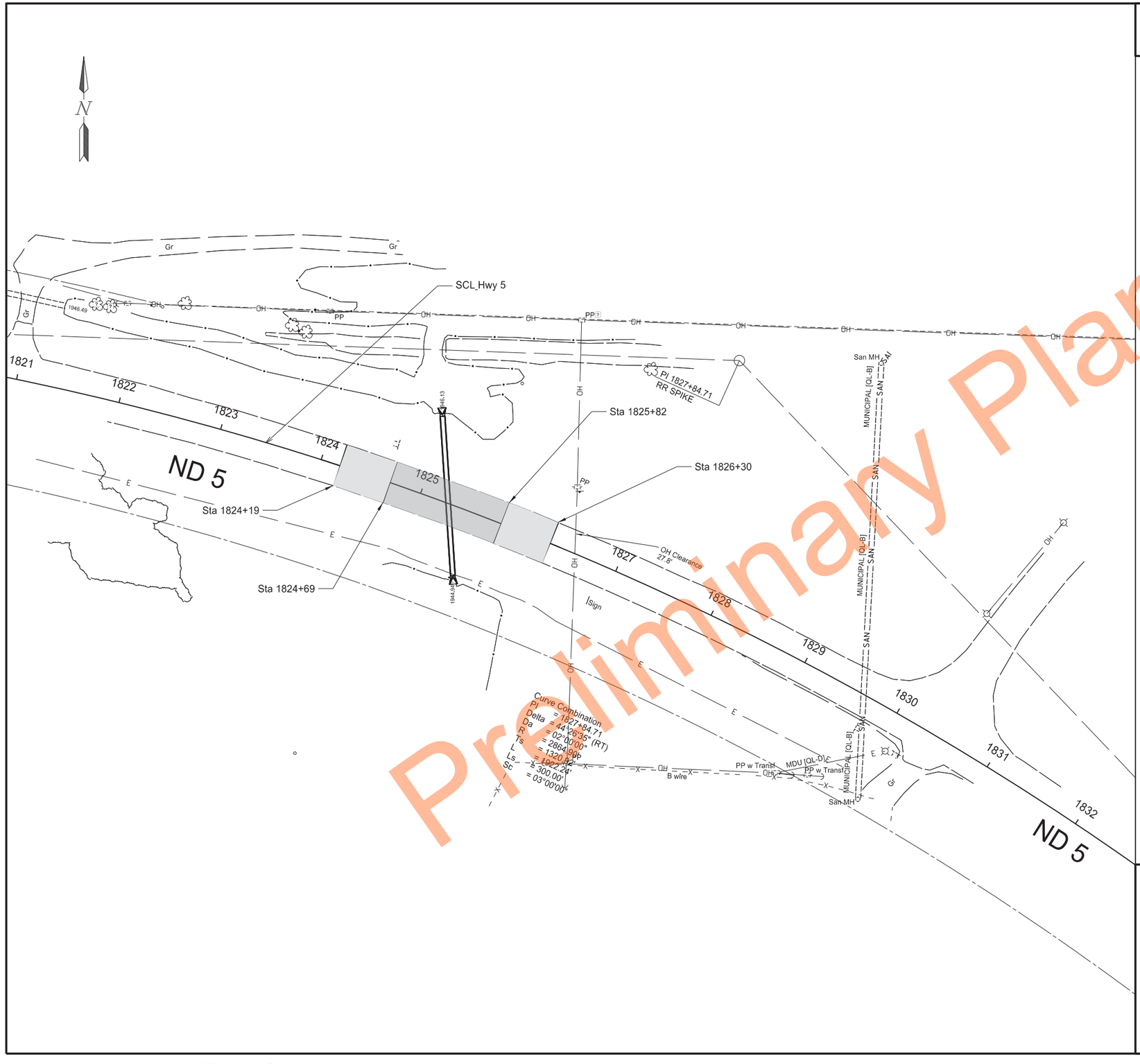
Temporary Construction Easements
ND Hwy 8

Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE J. KAPPES
PE-42490
DATE
11/03/26
NORTH DAKOTA

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Preliminary Plans

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	90	1

SPEC	CODE	BID ITEM	QUANTITY	UNIT
302	120	AGGREGATE BASE COURSE CL 5		
		Sta 1824+69 to 1825+82	524	TON
430	500	COMMERCIAL GRADE HOT MIX ASPHALT		
		Sta 1824+19 to 1824+69	20	TON
		Sta. 1824+69 to 1825+82	141	TON
		Sta.1825+82 to 1826+30	20	TON

5,5" Commercial Grade HMA &
12" Aggregate Base Course Cl 5

2" Commercial Grade HMA

Paving Layouts
ND Hwy 5

Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-42490
DATE
11/03/26
NORTH DAKOTA

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STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SS-7-999(028)	100	1

SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED BY PHASE NO. 1	2	3		TOTAL 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**	**1**		**1**		**1**	**28**	**28**
G20-1b-60	60"x24"	NO WORK IN PROGRESS (Sign and installation only)						18	
G20-2-48	**48"x24"**	**END ROAD WORK**	**2**	**2**	**2**		**2**	**26**	**52**
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						43	
G20-52a-72	**72"x24"**	**ROAD WORK NEXT __ MILES RT or LT ARROW**		**2**			**2**	**36**	**72**
G20-55-96	**96"x48"**	**SPEED LIMIT ENFORCED - MINIMUM FEE $150 WHEN WORKERS PRESENT**		**2**			**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**	**4**				**4**	**32**	**128**
R1-2-60	60"x60"	YIELD						29	
R2-1-36	**36"x48"**	**SPEED LIMIT __ (Portable only)**	**2**		**2**		**2**	**30**	**60**
R2-1-48	**48"x60"**	**SPEED LIMIT __**		**4**			**4**	**39**	**156**
R2-1aP-24	**24"x18"**	**MINIMUM FEE $150 (Mounted on Speed Limit post)**	**1**	**2**	**1**		**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**		**2**			**2**	**16**	**32**
R11-2-48	**48"x30"**	**ROAD CLOSED (Mounted on barricade)**		**2**			**2**	**12**	**24**
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**		**5**			**5**	**35**	**175**
W1-4b-48	48"x48"	TWO LANE REVERSE CURVE RIGHT or LEFT						35	
W1-6-48	**48"x24"**	**ONE DIRECTION LARGE ARROW**		**2**			**2**	**26**	**52**
W3-1-48	48"x48"	STOP AHEAD						35	
W3-3-48	**48"x48"**	**SIGNAL AHEAD**		**2**			**2**	**35**	**70**
W3-4-48	48"x48"	BE PREPARED TO STOP						35	
W3-5-48	**48"x48"**	**SPEED REDUCTION AHEAD**	**1**	**2**	**1**		**2**	**35**	**70**
W4-2-48	48"x48"	LANE ENDS RIGHT or LEFT						35	
W5-1-48	48"x48"	ROAD NARROWS						35	
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**	**2**				**2**	**35**	**70**
W8-55-48	**48"x48"**	**TRUCKS CROSSING AHEAD or __ FT or _ MILE**	**2**				**2**	**35**	**70**
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**	**1**	**2**	**1**		**2**	**35**	**70**
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**		**2**			**2**	**35**	**70**
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**		**2**		**2**	**35**	**70**
W20-8-18	**18"x18"**	**STOP - SLOW PADDLE Back to Back**	**2**		**2**		**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**	**1**		**1**		**1**	**35**	**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 BY PHASE NO. 1	2	3		TOTAL 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**			**2**		**2**	**35**	**70**
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 1522**

SPEC & CODE	DESCRIPTION	UNIT	QUANTITY BY PHASE NO. 1	2	3		TOTAL QUANTITY
704-0100	**FLAGGING**	MHR	**40**	**80**	**40**		**160**
704-1018	**LANE CLOSURE-SIGNAL CONTROL/FLAGGING CONTROL**	EACH		**1**			**1**
704-1039	ATTENUATION DEVICE-TYPE B-45	EACH					
704-1048	PORTABLE RUMBLE STRIPS	EACH					
704-1050	TYPE I BARRICADES	EACH					
704-1052	**TYPE III BARRICADES**	EACH		**8**			**8**
704-1060	**DELINEATOR DRUMS**	EACH	**22**	**22**	**12**		**22**
704-1065	TRAFFIC CONES	EACH					
704-1067	**TUBULAR MARKERS**	EACH	**16**		**21**		**21**
704-1070	DELINEATOR	EACH					
704-1072	FLEXIBLE DELINEATORS	EACH					
704-1080	STACKABLE VERTICAL PANELS	EACH					
704-1081	**VERTICAL PANELS - BACK TO BACK**	EACH		**35**	**5**		**35**
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		**266**			**266**
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					
762-0422	**SHORT TERM 6IN LINE-TYPE R**	LF		**2400**			**2400**
762-0426	**SHORT TERM 24IN LINE-TYPE R**	LF		**24**			**24**
762-0430	SHORT TERM 4IN LINE - TYPE NR	LF					
762-0432	**SHORT TERM 6IN LINE-TYPE NR**	LF		**175**			**175**
762-1106	**PVMT MK PAINTED 6IN LINE**	LF		**1575**			**1575**

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/

Preliminary Plans

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
PE-22490
DATE 11/03/26
NORTH DAKOTA

Traffic Control Devices List
ND Hwy 5
All Phases

Docusign Envelope ID: A3D878BD-BE2E-8A68-8006-F3436E0A12A4

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SS-7-999(028)	100	2

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**	**1**	**28**	**28**
G20-1b-60	60"x24"	NO WORK IN PROGRESS (Sign and installation only)		18	
G20-2-48	**48"x24"**	**END ROAD WORK**	**2**	**26**	**52**
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		43	
G20-52a-72	72"x24"	ROAD WORK NEXT __ MILES RT or LT ARROW		36	
G20-55-96	96"x48"	SPEED LIMIT ENFORCED - MINIMUM FEE $150 WHEN WORKERS PRESENT		59	
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 __		39	
R2-1aP-24	**24"x18"**	**MINIMUM FEE $150 (Mounted on Speed Limit post)**	**1**	**10**	**10**
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**	**1**	**35**	**35**
W4-2-48	48"x48"	LANE ENDS RIGHT or LEFT		35	
W5-1-48	48"x48"	ROAD NARROWS		35	
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**	**1**	**35**	**35**
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**	**1**	**35**	**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**	**335**

SPEC & CODE	DESCRIPTION	UNIT	QUANTITY
704-0100	**FLAGGING**	**MHR**	**80**
704-1048	PORTABLE RUMBLE STRIPS	EACH	
704-1050	TYPE I BARRICADES	EACH	
704-1052	TYPE III BARRICADES	EACH	
704-1060	**DELINEATOR DRUMS**	**EACH**	**16**
704-1065	TRAFFIC CONES	EACH	
704-1067	**TUBULAR MARKERS**	**EACH**	**9**
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	
762-1106	PVMT MK PAINTED 6IN LINE	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/

Preliminary Plans

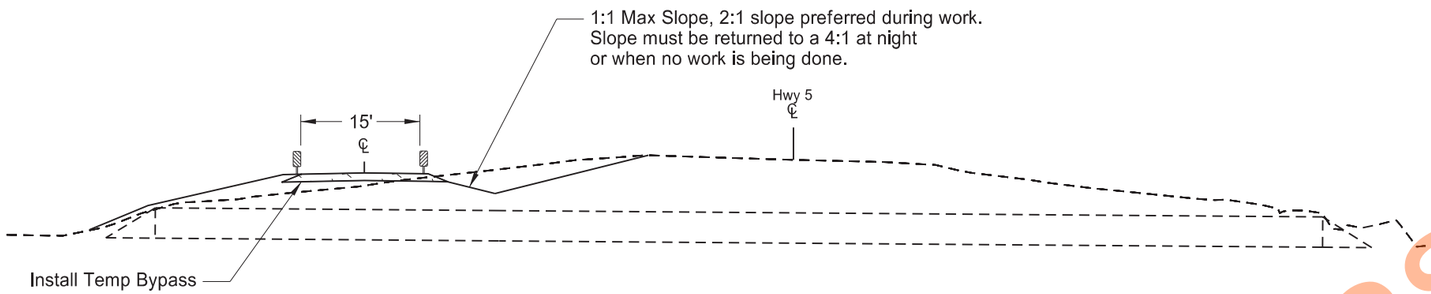
REGISTERED PROFESSIONAL ENGINEER
BRIANNE L. KAPPES
PE-42490
DATE
11/03/26
NORTH DAKOTA

Traffic Control Devices List

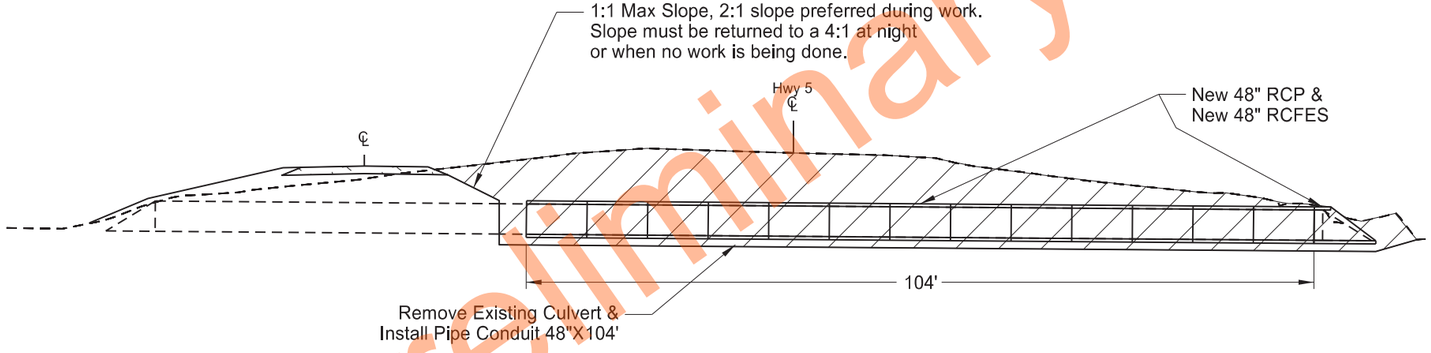
ND Hwy 8

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	ND	SS-7-999(028)	100	3



Phase 1
Construct Temp Bypass



Phase 2
Install portions of Pipe Conduit 48" &
Construct ND Hwy 5

Preliminary Plans

Construction Phasing Details

ND Hwy 5

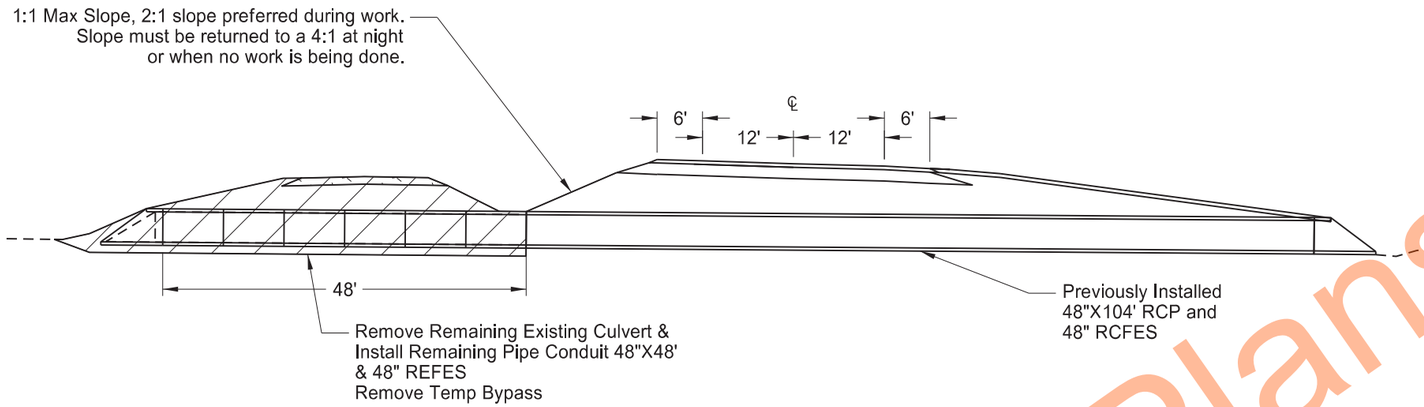
Pipe & Pipe Replacement

Various Highways - Williston District

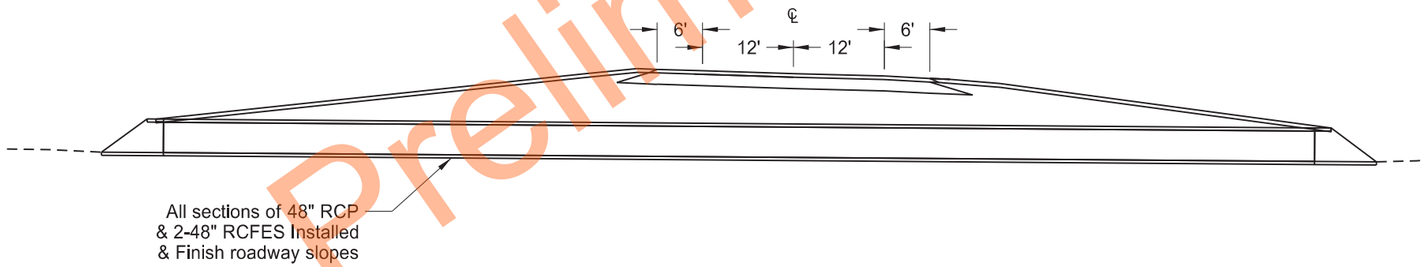
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BRIANNE J. KAPPES
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DATE
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NORTH DAKOTA

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	ND	SS-7-999(028)	100	4



Phase 3
Install final portions of Pipe Conduit 48"
& Remove Temp Bypass



Construction Phase 4
Completed Section

Preliminary Plans

Construction Phasing Details

ND Hwy 5

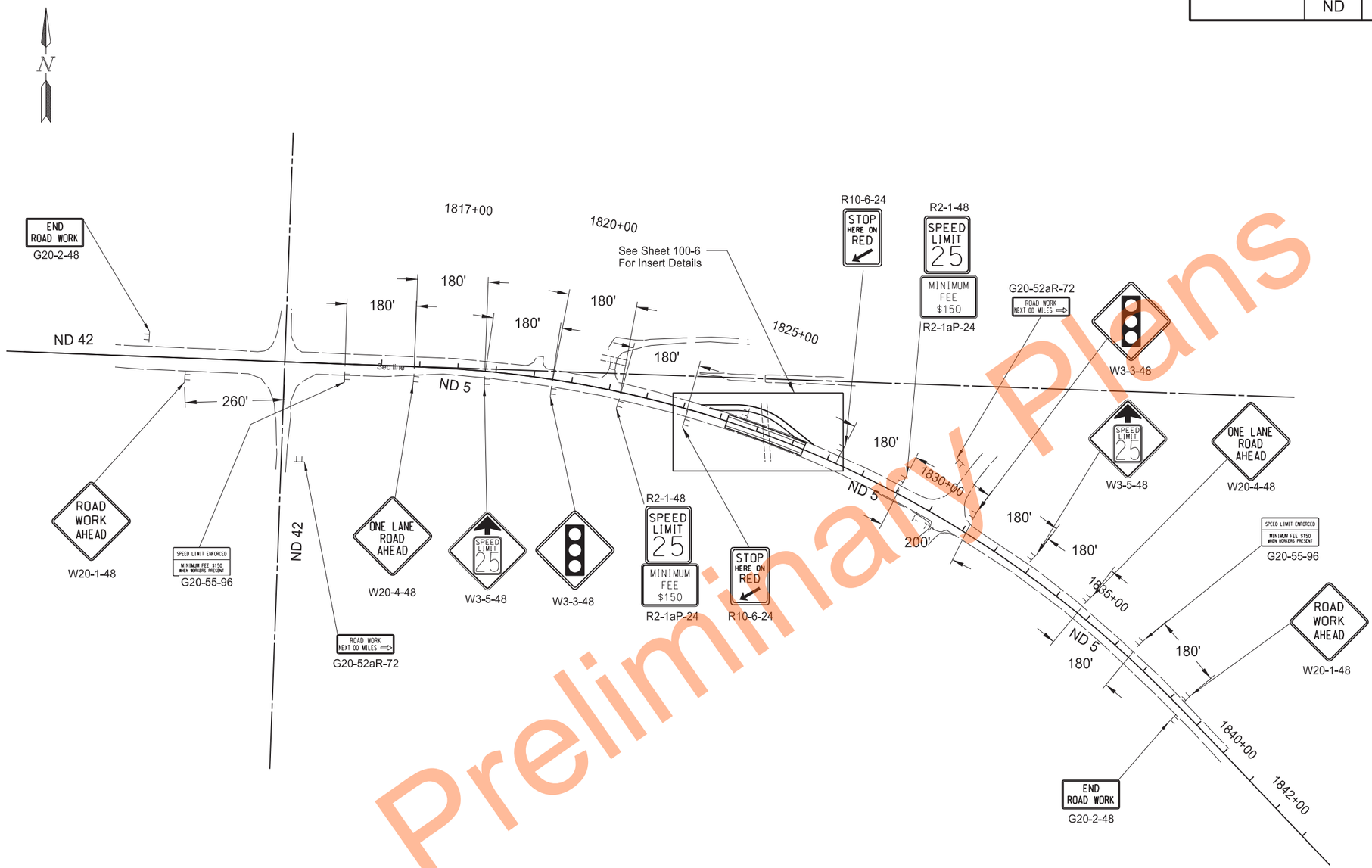
Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE A. KAPPES
PE-42490
DATE
11/03/26
NORTH DAKOTA

Docusign Envelope ID: A3D878BD-BE2E-8A68-8006-F3436E0A12A4

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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Preliminary Plans

Note: See D-704-16 for additional details

WZTC
Construction Signing Details

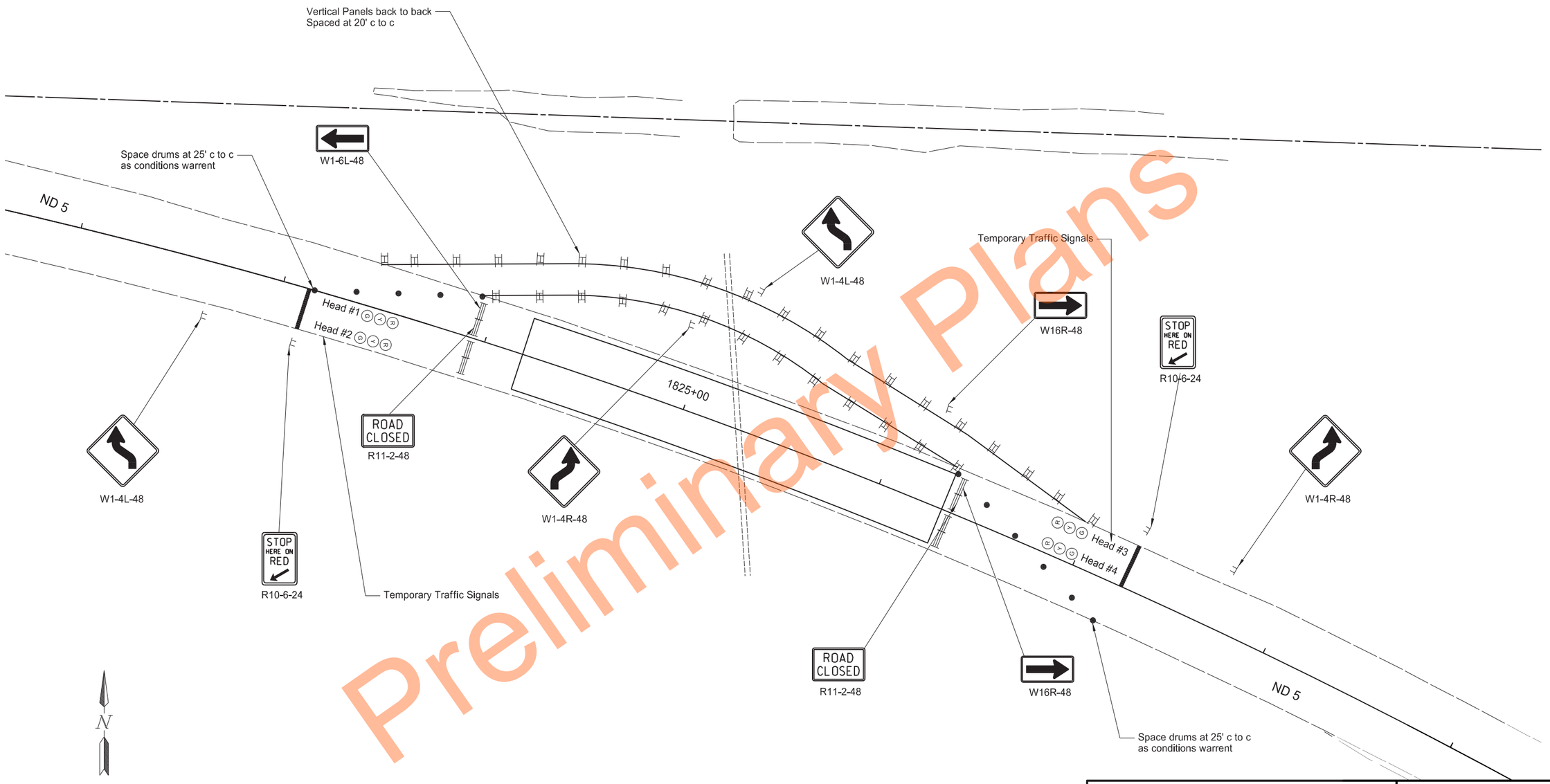
Pipe & Pipe Replacement

Various Highways - Williston District

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DATE 11/03/26
NORTH DAKOTA

Docusign Envelope ID: A3D878BD-BE2E-8A68-8006-F3436E0A12A4

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	100	6



Preliminary Plans

WZTC
Construction Signing Details

Note: See D-704-15 Type B for additional details.

Pipe & Pipe Replacement

Various Highways - Williston District

REGISTERED PROFESSIONAL ENGINEER
BRIANNE KAPPES
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DATE
11/03/26
NORTH DAKOTA

Docusign Envelope ID: 714D434D-5F44-88D4-8013-B3E068A52DB4

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	SS-7-999(028)	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 Clear-ance 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
1824+65 Lt					12.8				5.0	2.5 x 2.5 12 ga	15.9						1	4	3 x 3 7 ga	1			
Sub Total			0.0	0.0		**Total**	12.8										**Total**	4.0		1	0	0	
Grand Total			**0.0**	**0.0**		**Total**	**12.8**										**Total**	**4**	**0**	**1**	**0**	**0**	

Preliminary Plans

REGISTERED PROFESSIONAL ENGINEER
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PE-6529
DATE 10/21/26
NORTH DAKOTA

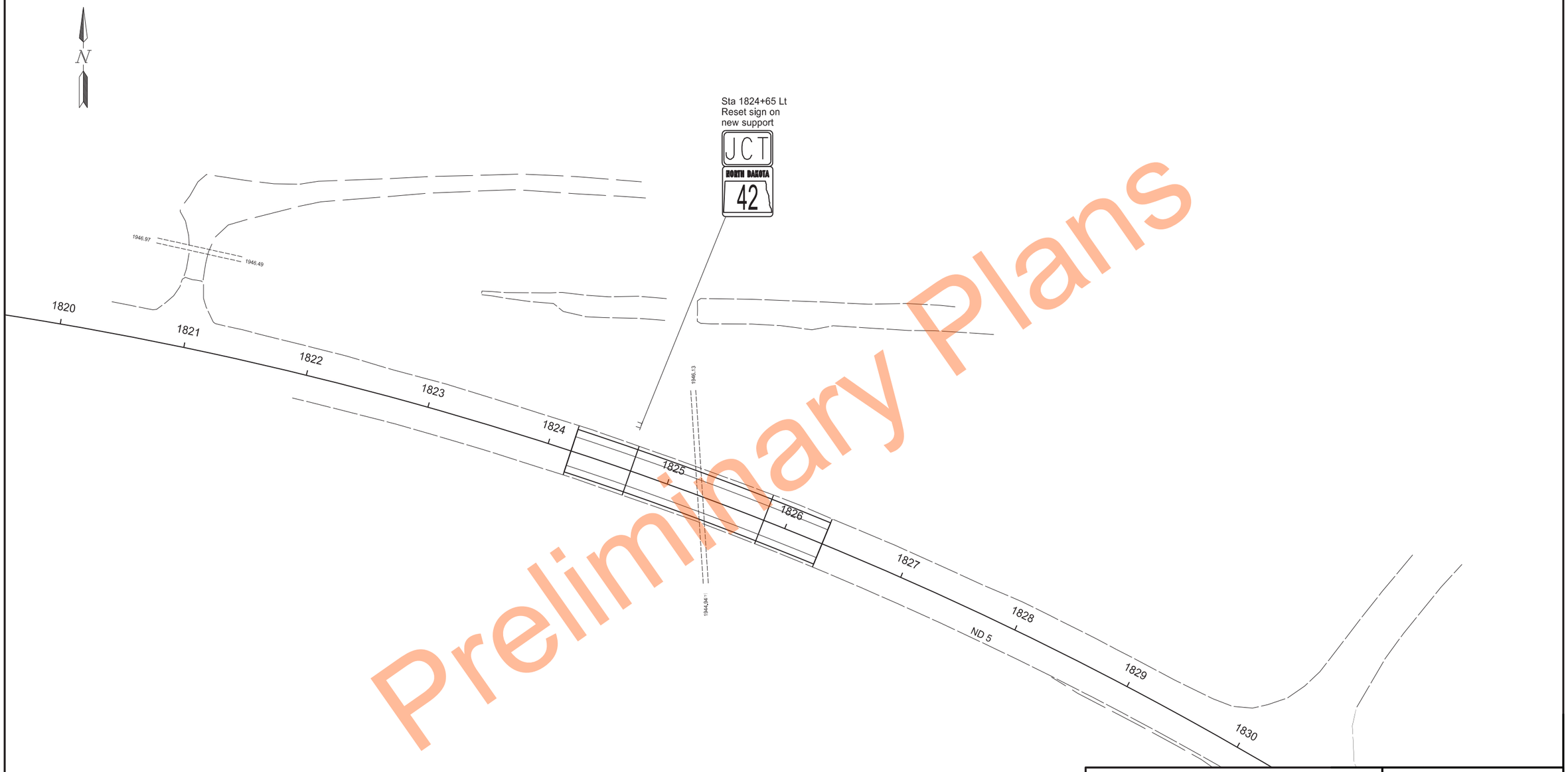
Sign Summary
Perforated Tube

0.25 Miles East of Jct ND 42 & ND 5
Culvert Replacement

ND Hwy 5

Docusign Envelope ID: 714D434D-5F44-88D4-8013-B3E068A52DB4

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	110	2



Preliminary Plans

Signing Layout

0.25 Miles East of Jct ND 42 & ND 5
Culvert Replacement

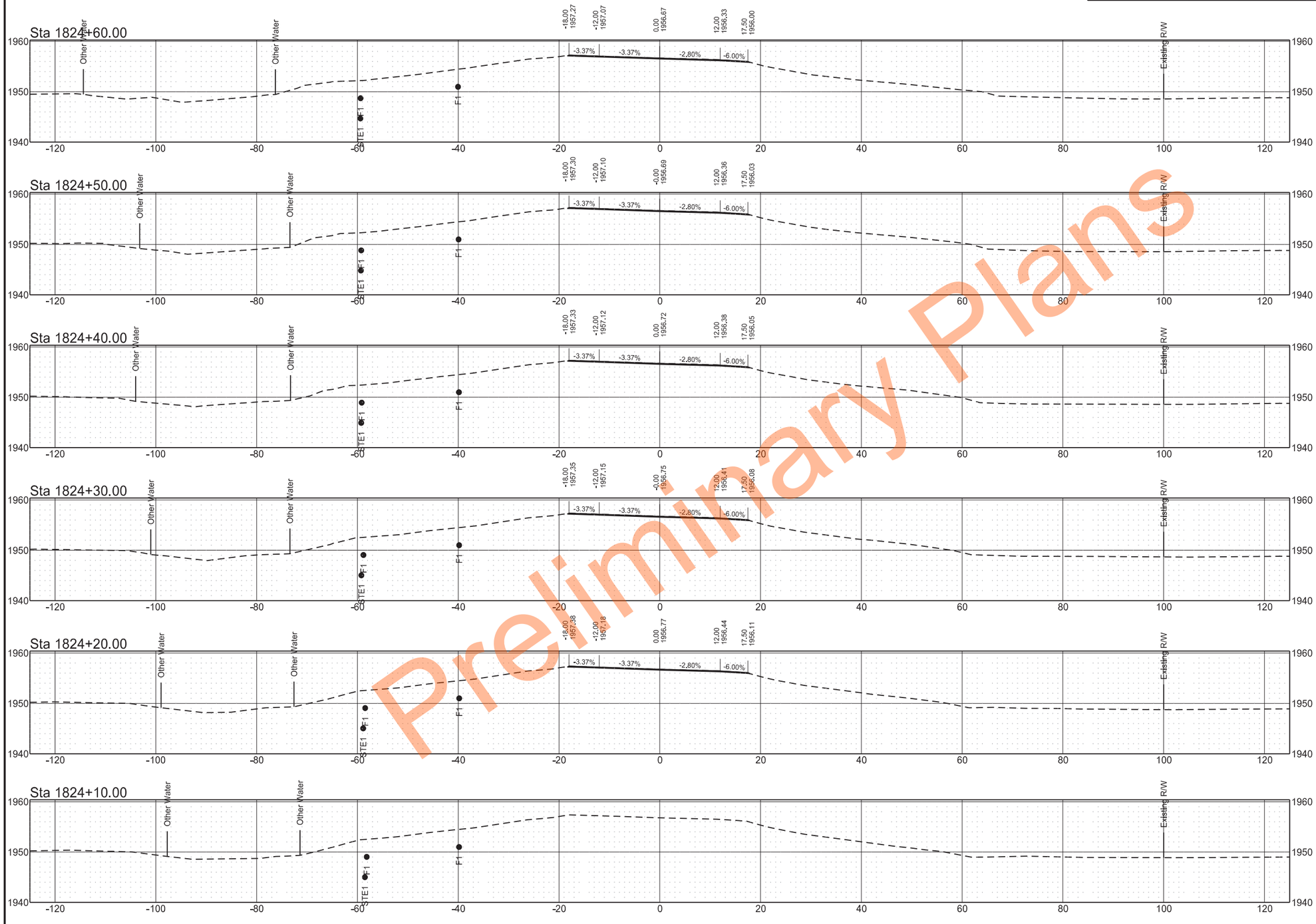
ND Hwy 5

REGISTERED PROFESSIONAL ENGINEER
Darell Arne
PE-6529
DATE 10/21/26
NORTH DAKOTA

Cross Sections

Hwy 5 Mainline

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	200	1

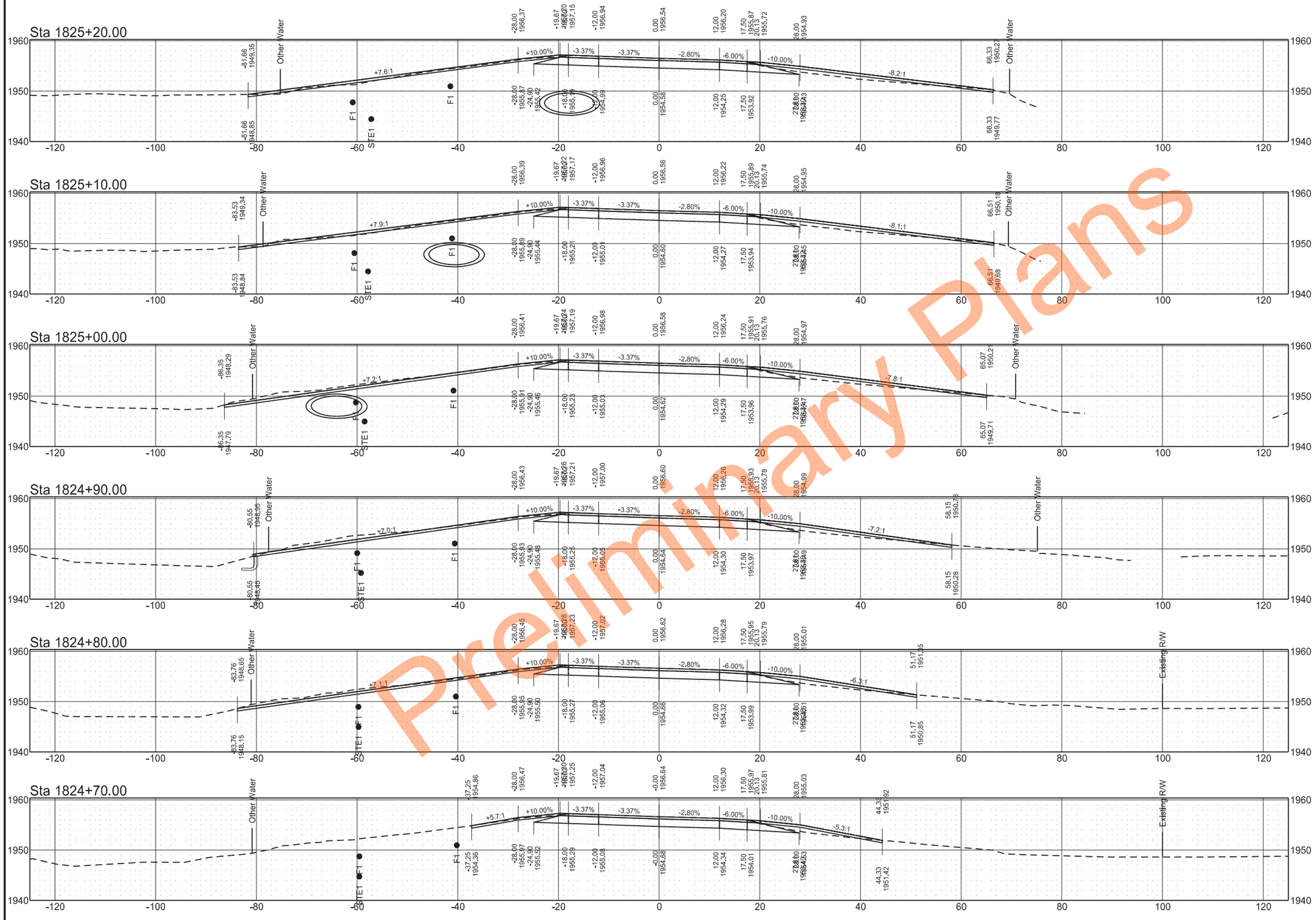


Preliminary Plans

Cross Sections

Hwy 5 Mainline

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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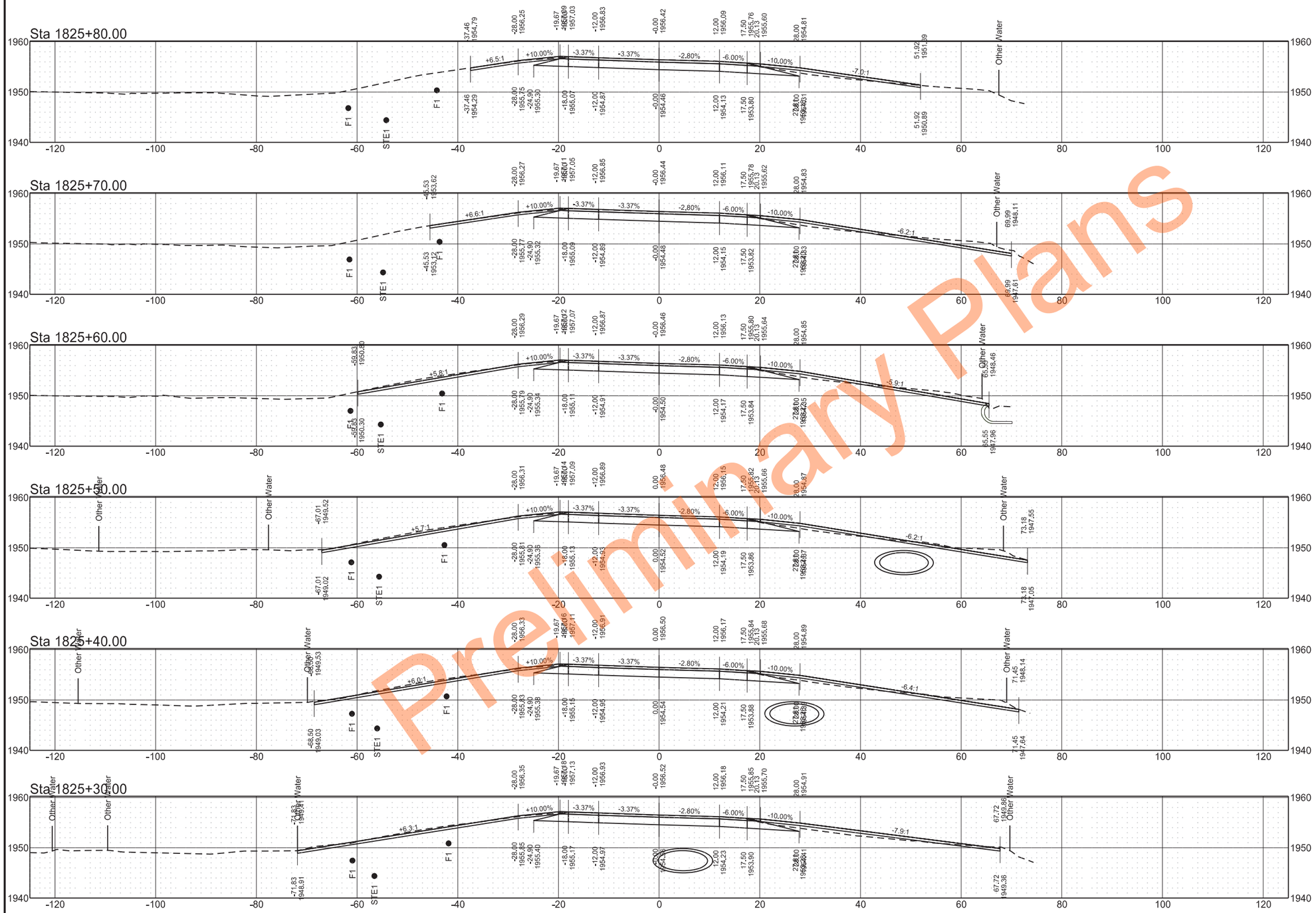


Preliminary Plans

Cross Sections

Hwy 5 Mainline

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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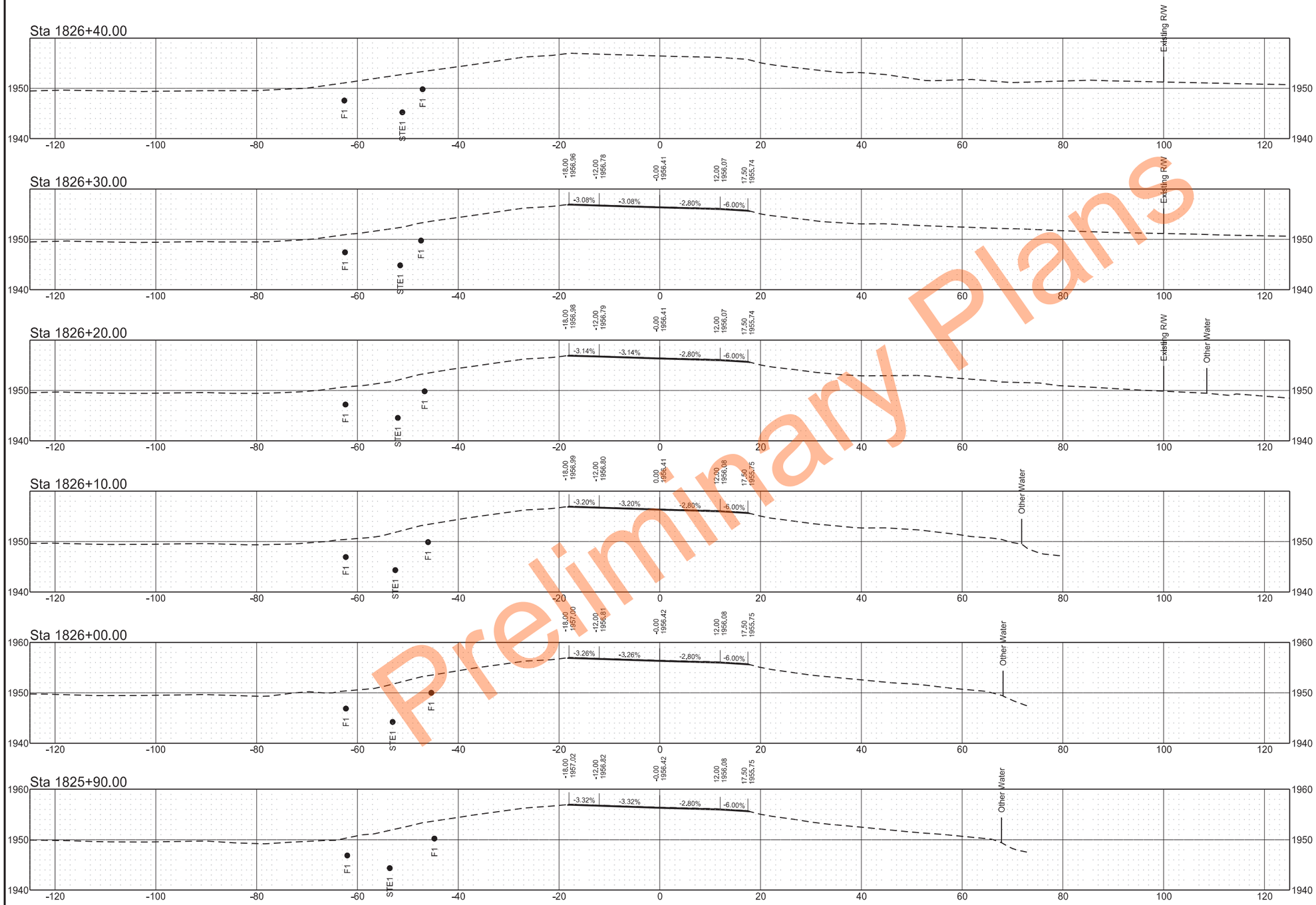


Preliminary Plans

Cross Sections

Hwy 5 Mainline

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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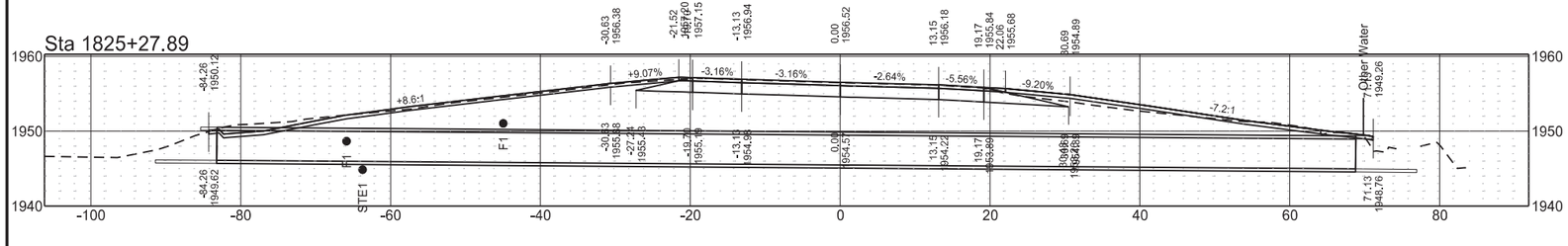
Preliminary Plans

Cross Sections

Hwy 5 Mainline - Sta. 1825+27

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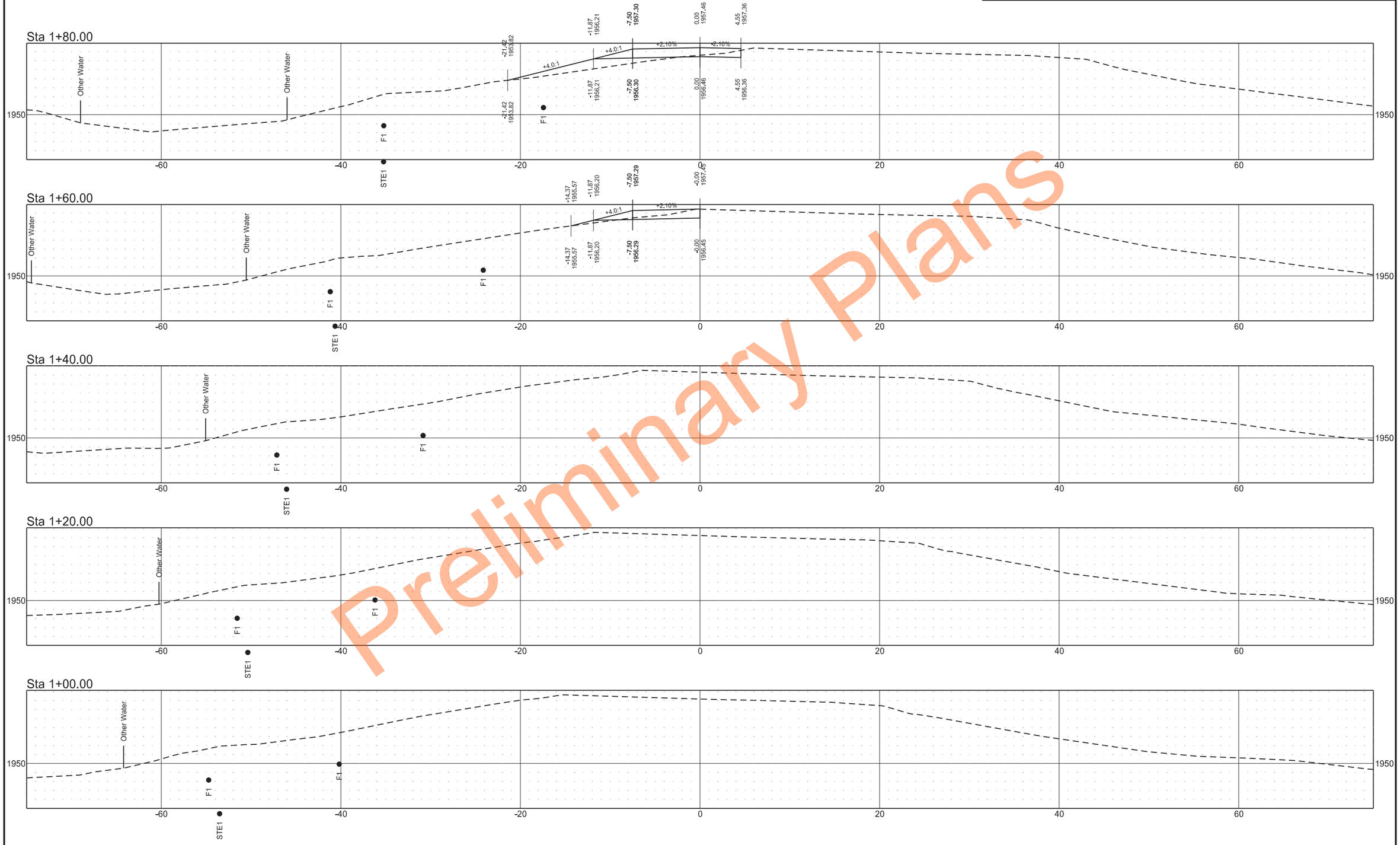
Preliminary Plans



Cross Sections

Hwy 5 Bypass

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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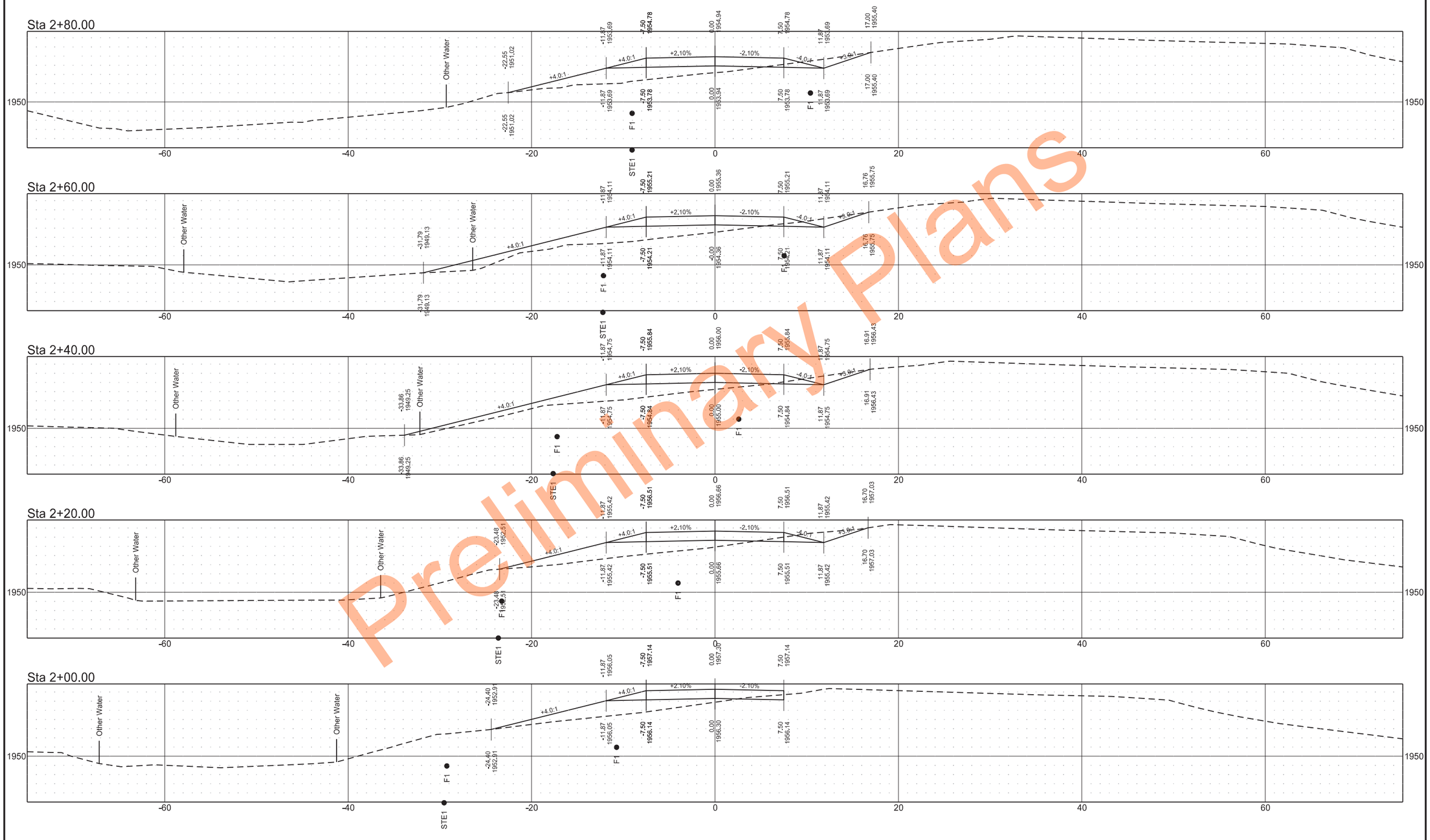


Preliminary Plans

Cross Sections

Hwy 5 Bypass

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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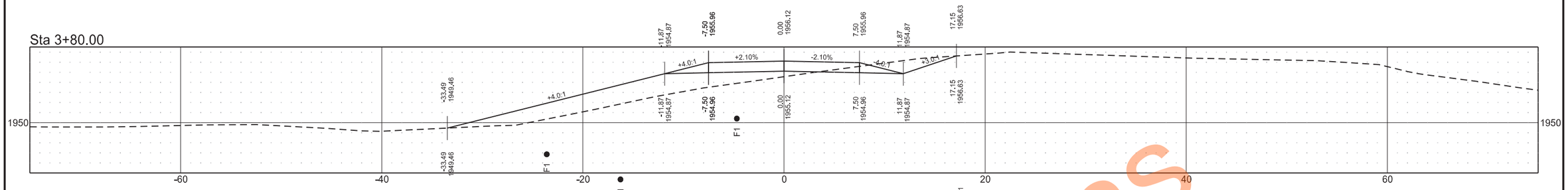
Preliminary Plans

Cross Sections

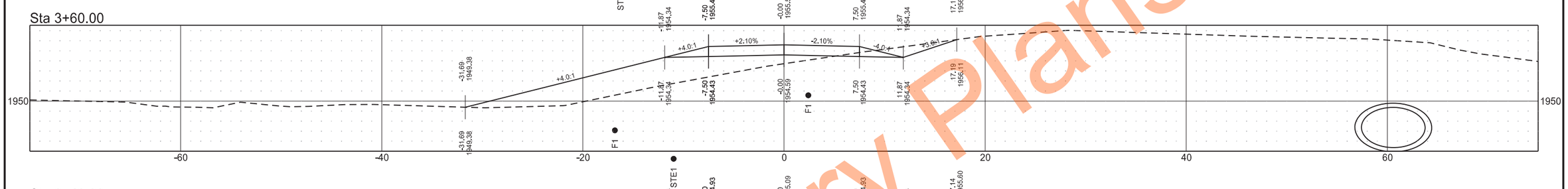
Hwy 5 Bypass

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	200	8

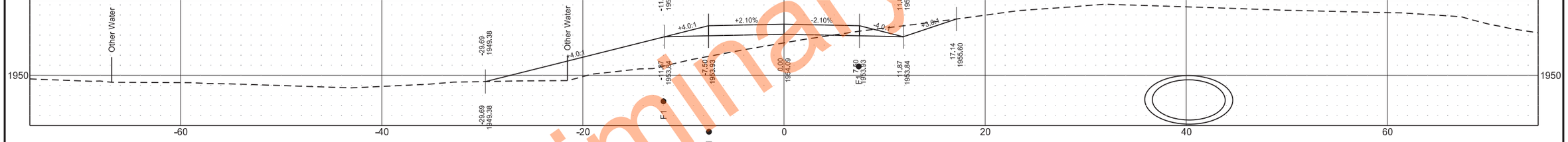
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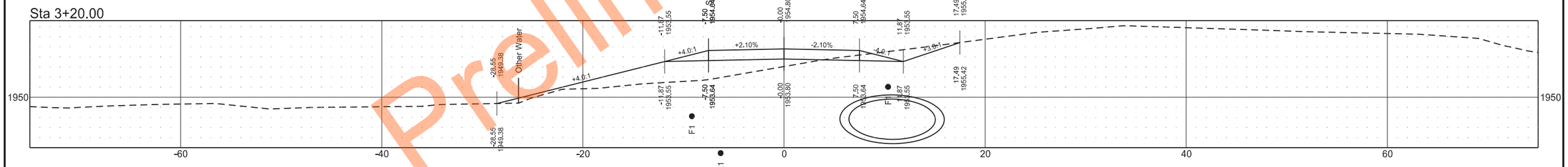
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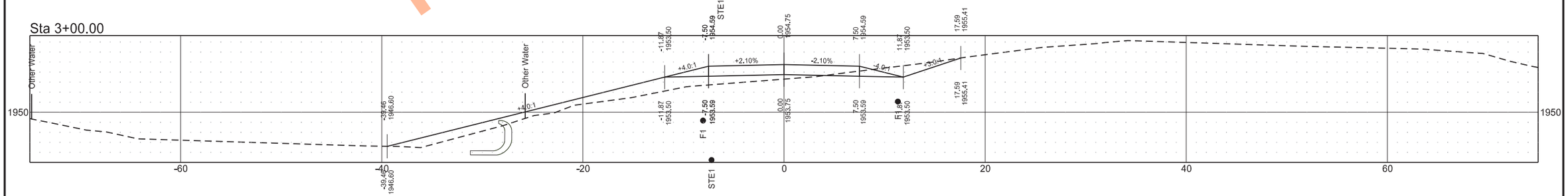
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Sta 3+20.00



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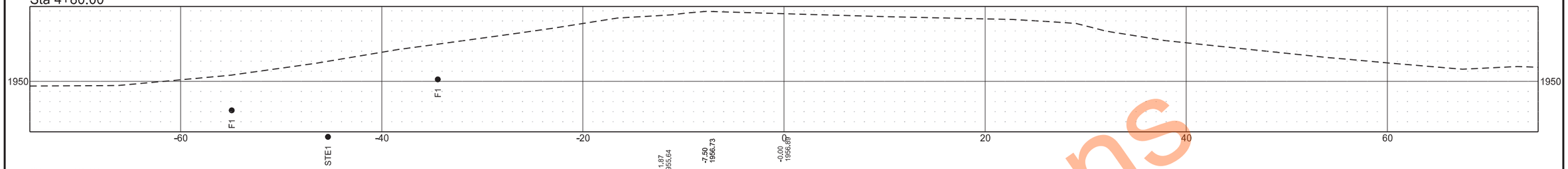
Preliminary Plans

Cross Sections

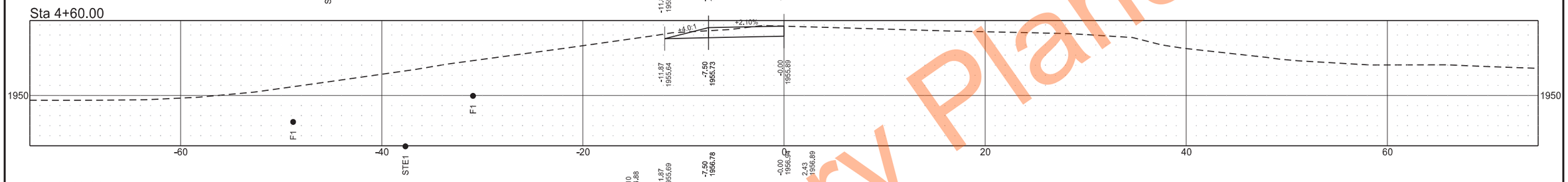
Hwy 5 Bypass

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	200	9

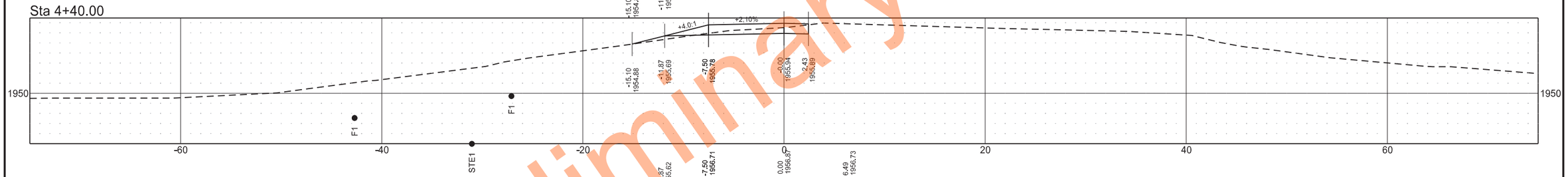
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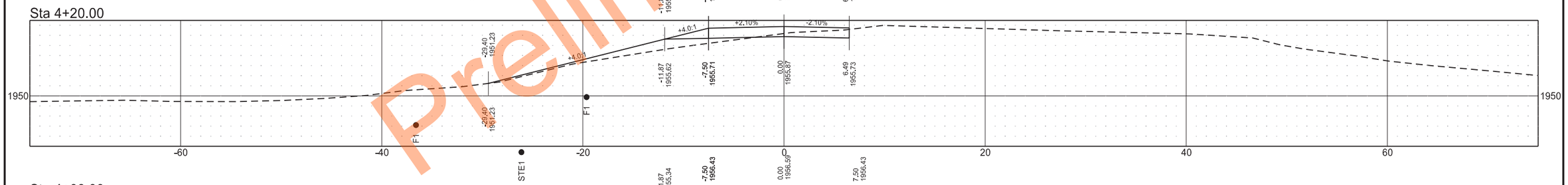
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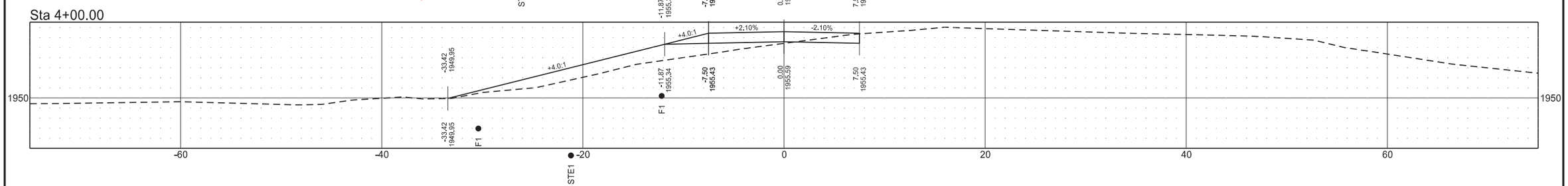
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Sta 4+00.00



Preliminary Plans

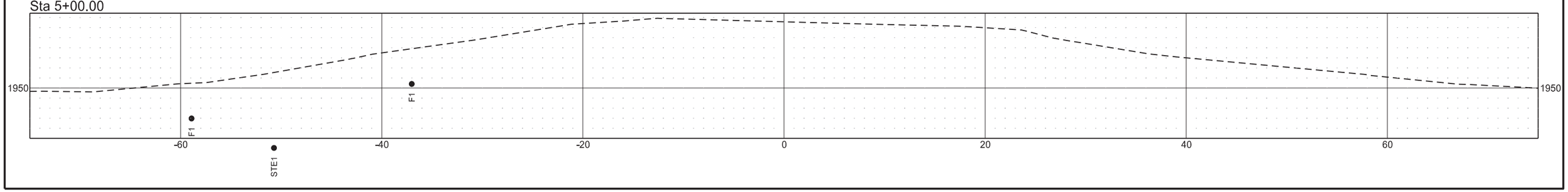
Cross Sections

Hwy 5 Bypass

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	200	10

Preliminary Plans

Sta 5+00.00

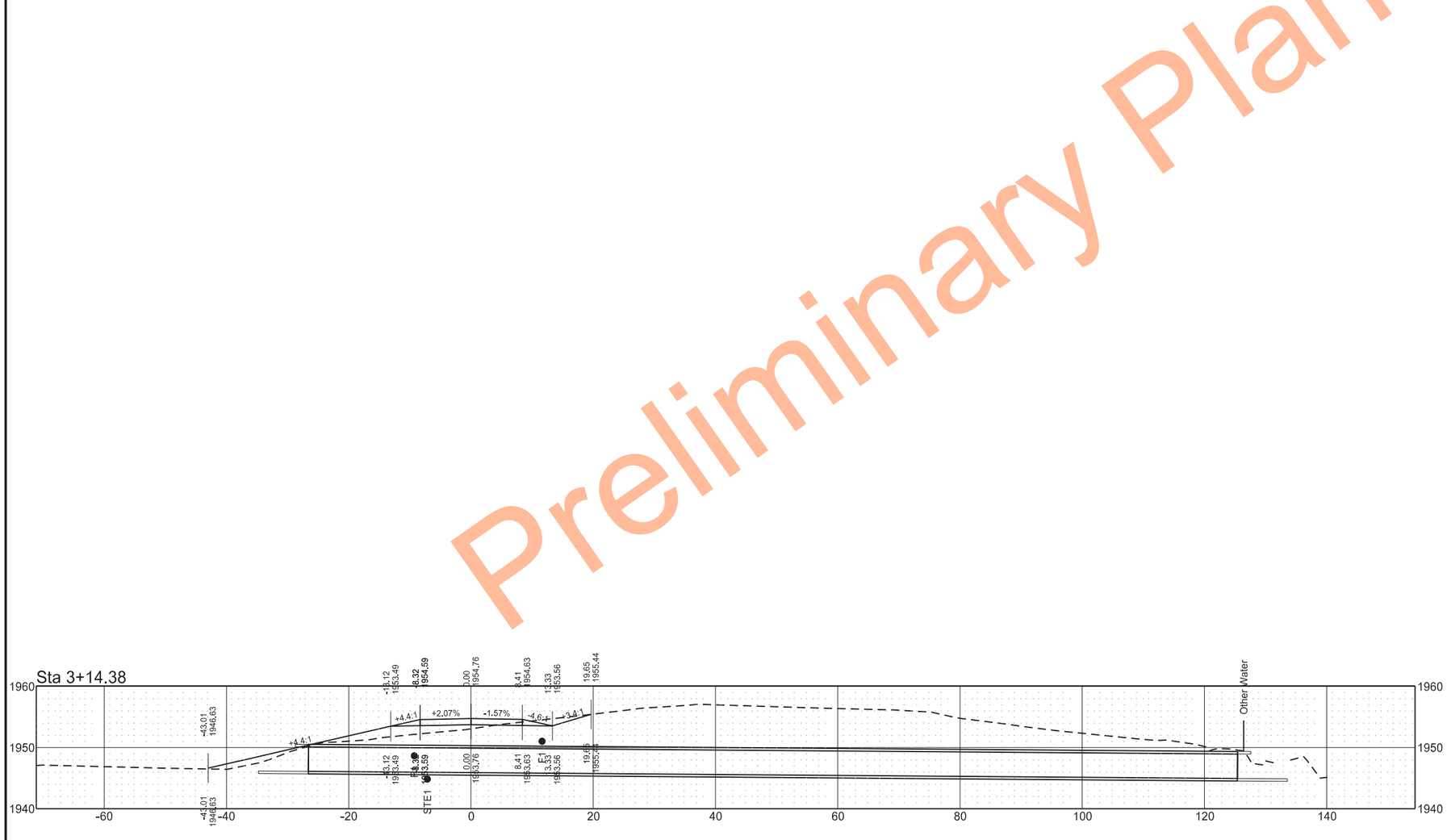


Cross Sections

Hwy 5 Bypass

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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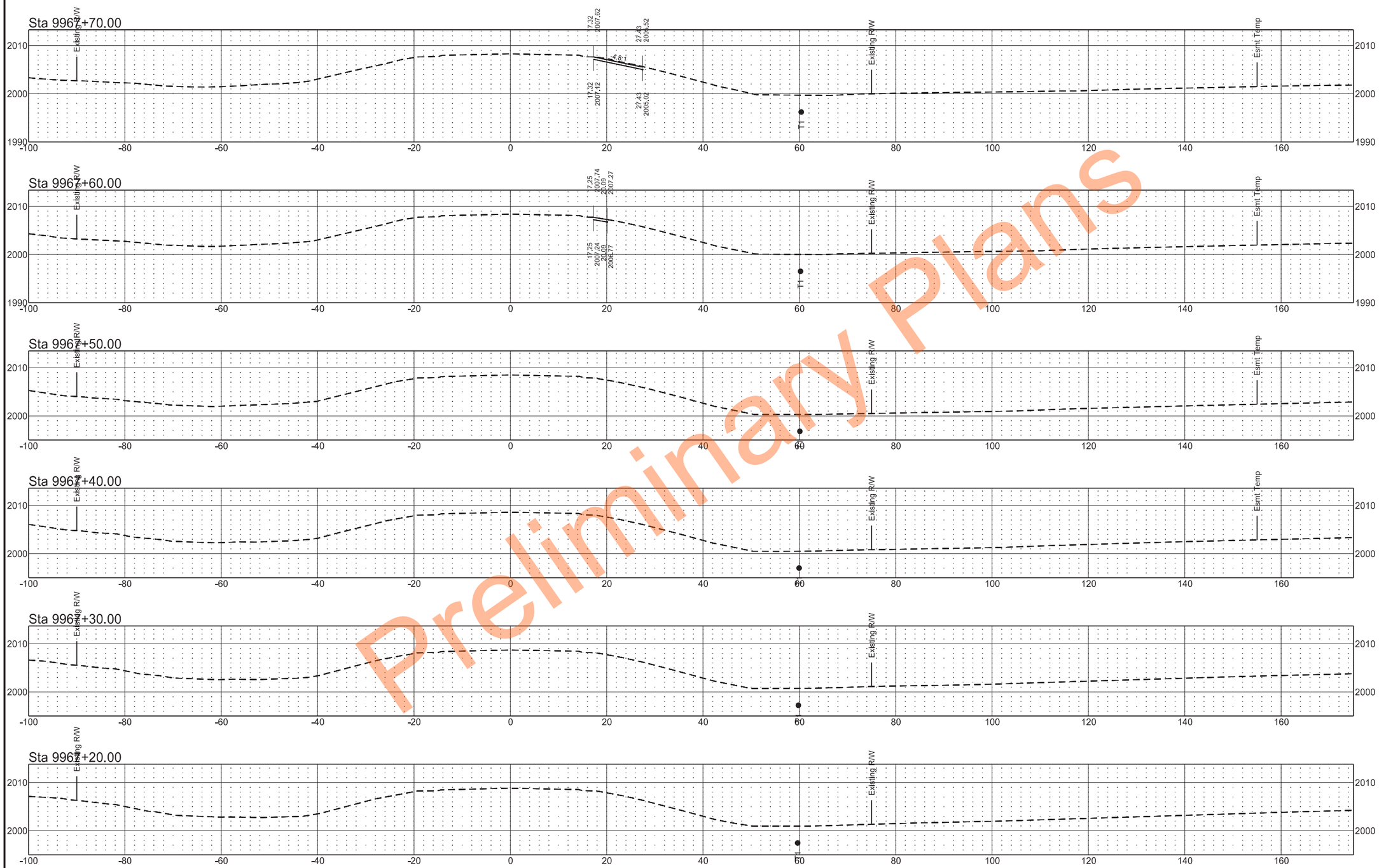
Preliminary Plans



Cross Sections

Hwy 8 Mainline

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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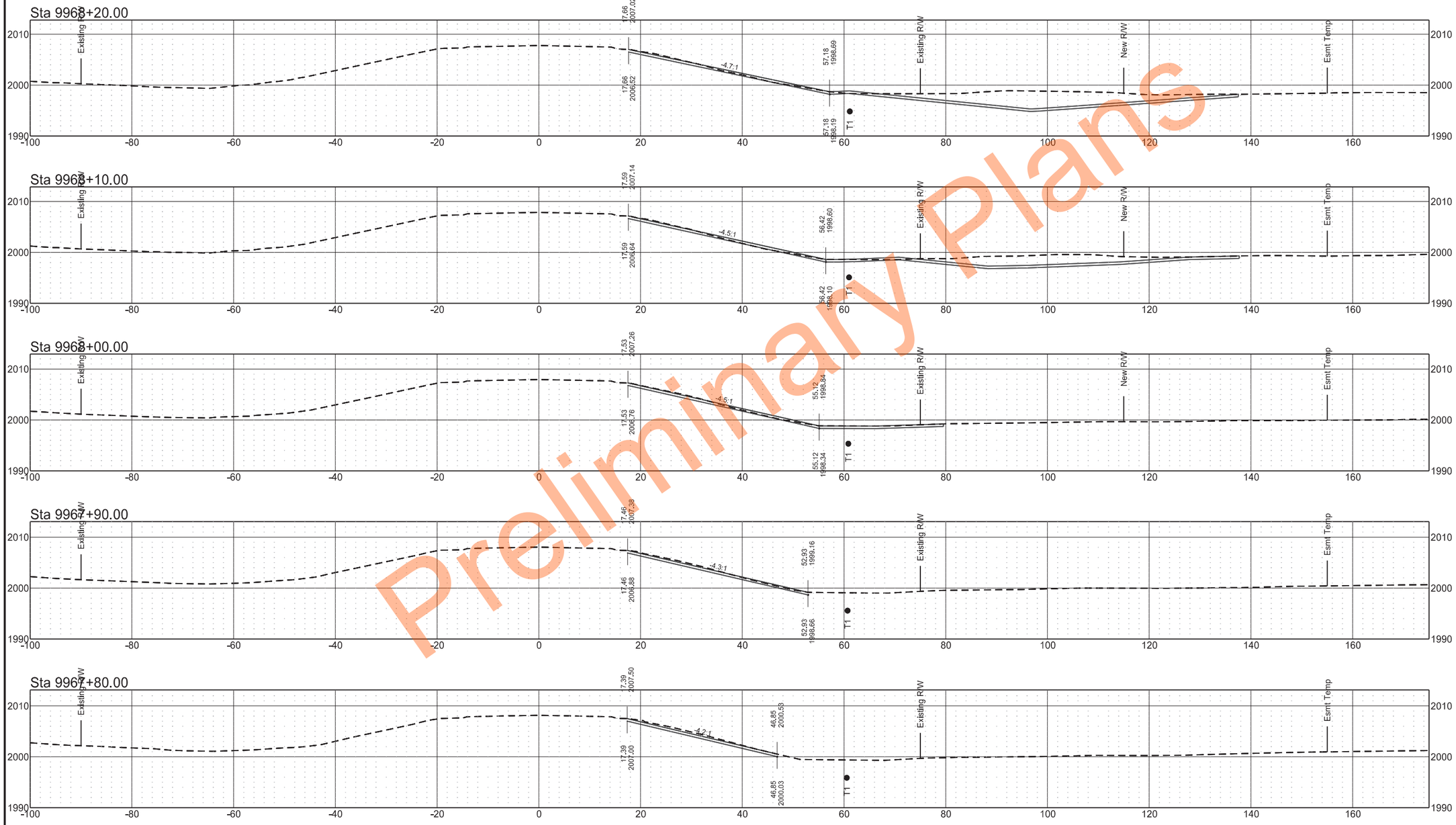


Preliminary Plans

Cross Sections

Hwy 8 Mainline

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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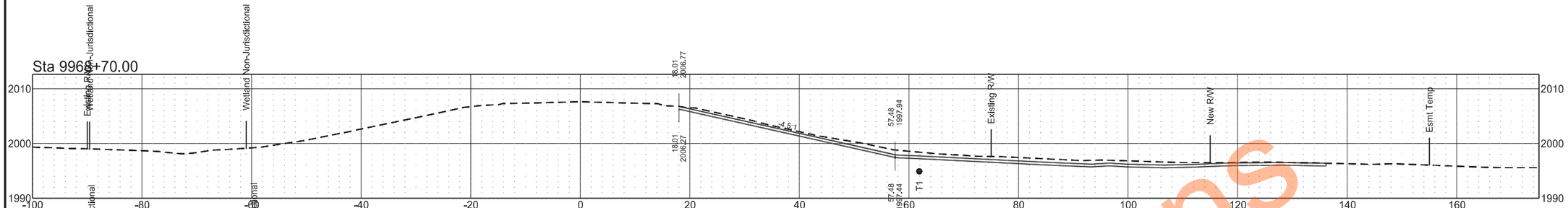
Preliminary Plans

Cross Sections

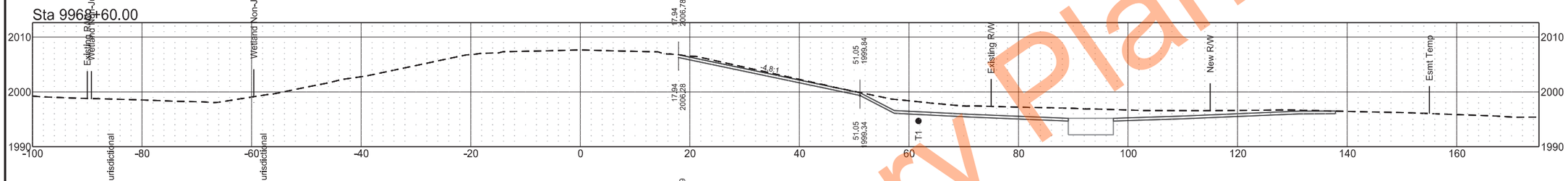
Hwy 8 Mainline

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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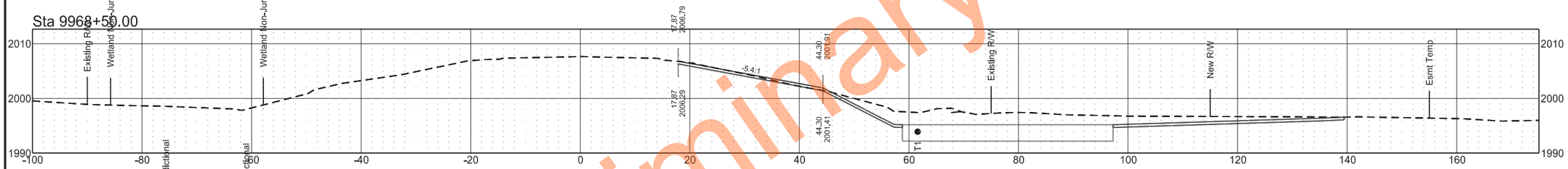
Sta 9968+70.00



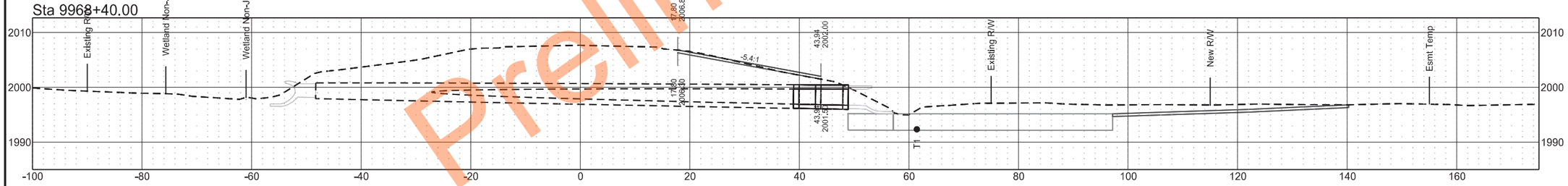
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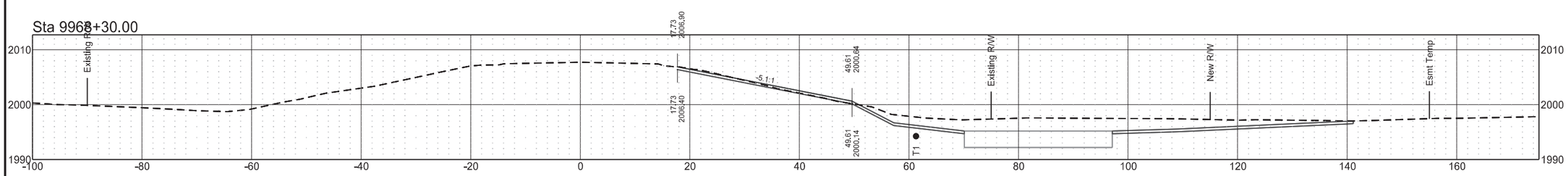
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Sta 9968+40.00



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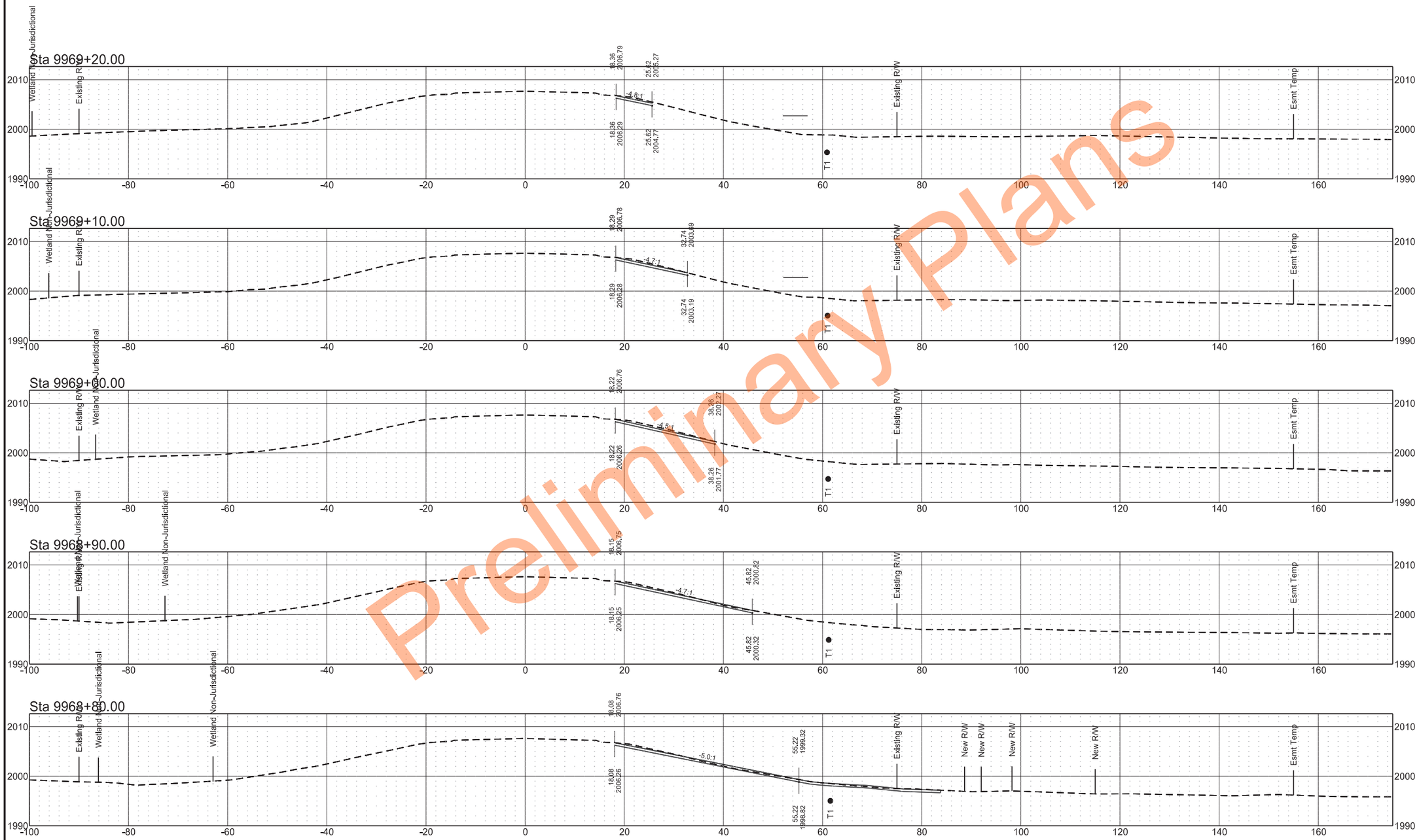


Preliminary Plans

Cross Sections

Hwy 8 Mainline

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	200	15



Preliminary Plans

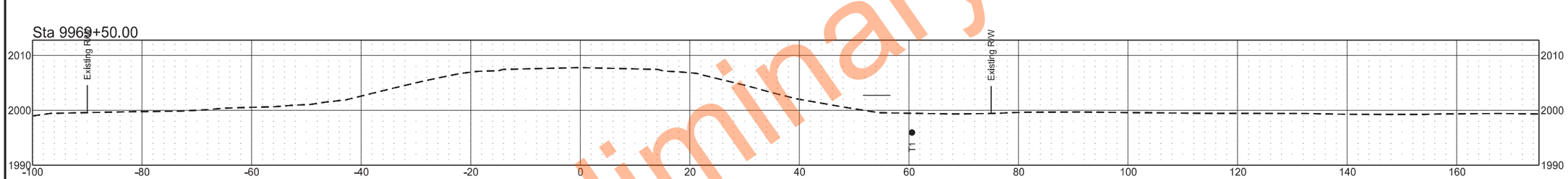
Cross Sections

Hwy 8 Mainline

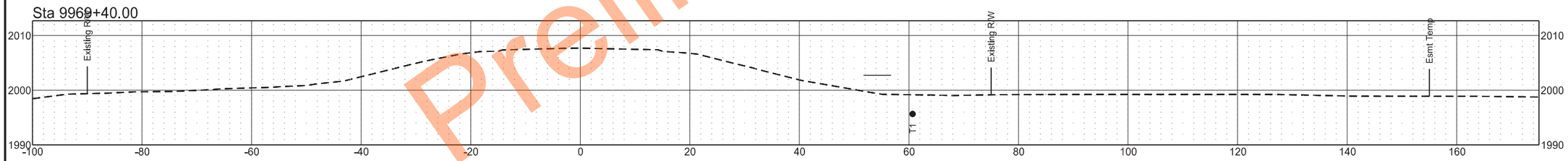
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	200	16

Preliminary Plans

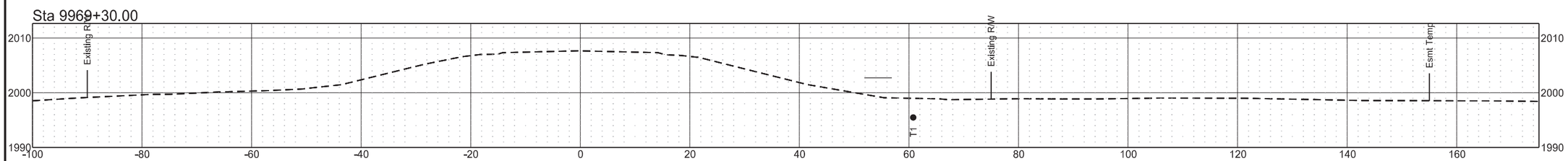
Sta 9969+50.00



Sta 9969+40.00



Sta 9969+30.00



Cross Sections

Hwy 8 Mainline

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-7-999(028)	200	17

Preliminary Plans

