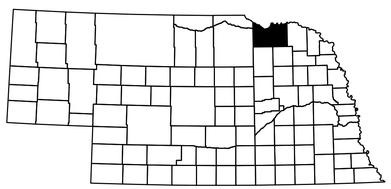
STATE OF NEBRASKA
DEPARTMENT OF TRANSPORTATION
PLANS FOR CONSTRUCTION

BAZILE CREEK BRIDGE
KNOX COUNTY



THE WORK ON THIS PROJECT CONSISTS OF GROUPS
1 - GRADING, 3 - CONCRETE PAVEMENT, 4 - CULVERTS,
5 - SEEDING, 6 - BRIDGE, 7 - GUARDRAIL,
8 - MISCELLANEOUS, 9 - BITUMINOUS & 10 - GENERAL

◣ GROUPS 1, 3, 4, 5, 6, 7, 8, 9 & 10 ARE INCLUDED
IN THE LETTING OF FEBRUARY 29, 2024

▲ GROUPS _____ ARE INCLUDED
IN THE LETTING OF _____

■ GROUPS _____ ARE INCLUDED
IN THE LETTING OF _____

THE 2017 EDITION OF THE NEBRASKA STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS APPLY TO THIS PROJECT.

N-12 DESIGN DESIGNATION
3R RURAL
TRAFFIC

YEAR:	2024	2044
ADT:	1395	1485
DHV:	-	-

T= 9 % D= - %

A1

Project Number
STR 12-5
(1018)

C.N. 31674B

◣C.N.

▲C.N.

■C.N.

REFERENCE POST NO. 166.03 MILES
TOTAL NET LENGTH OF PROJECT: FEET

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

PROFESSIONAL CIVIL ENGINEER
MICK S. SYSLO
E-10043
STATE OF NEBRASKA

I, Mick Syslo, am the Coordinating Professional on the Brazile Creek Bridge project.

FILE: 31674B_NDOT_Title_and_Index.dgn DATE: 23-JAN-2024 10:14 COMPUTER: BG0419M593

SHEET NO.		
A1	TITLE PAGE	
A2	INDEX OF SHEETS	
B1	TYPICAL CROSS SECTIONS	
C1	SUMMARY OF QUANTITIES	
E1	ENVIRONMENTAL	
F1 - F4	HORIZONTAL ALIGNMENT & ORIENTATION	
G1	GENERAL INFORMATION	
J1	GEOMETRICS	
J2 - J3	EROSION & SEDIMENT CONTROL	
J4 - J5	CONSTRUCTION & REMOVAL	
L1	PLAN & PROFILE	
M1	TYPICAL TRAFFIC CONTROL PLAN--TEMPORARY TRAFFIC SIGNAL FOR PAVED SHOO-FLY DETOUR	
M2	TYPICAL SIGNAL CONTROL PLAN--TEMPORARY TRAFFIC SIGNAL DETAILS	
Q1	EARTHWORK	
S1 - S10	SPECIAL PLAN 1	230'-0" 3-SPAN STEEL GIRDER BRIDGE (W-36X150) REDECK STA. 241+20.08
S11 - S19	SPECIAL PLAN 2	272'-8½" 2-SPAN PORTABLE PREFABRICATED TRUSS-TYPE BRIDGE STA. 141+01.61
U1 - U2	SPECIAL PLAN 1C	GUARDRAIL PLANS
U3 - U6	SPECIAL PLAN 2C	SILT CHECKS ALL TYPES
U7	SPECIAL PLAN 3C	CONCRETE WASHOUT & CONSTRUCTION EXIT
W1	RIGHT-OF-WAY	
X1 - X10	CROSS SECTIONS	

STANDARD PLANS	
501-R7	(3 SHEETS) EROSION CONTROL
502-R2	(2 SHEETS) SILT FENCE DETAILS
920-R7	(3 SHEETS) TRAFFIC CONTROL, CONSTRUCTION AND MAINTENANCE
921-R8	(2 SHEETS) TRAFFIC CONTROL, CONSTRUCTION AND MAINTENANCE
922-R11	(2 SHEETS) TRAFFIC CONTROL FOR ASPHALT SURFACING
941-R1	(2 SHEETS) PAVEMENT MARKING
943	(4 SHEETS) TEMPORARY PAVEMENT MARKING

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A2

Project Number
12-5(1018)

C.N. 31674B

INDEX OF SHEETS

NEBRASKA
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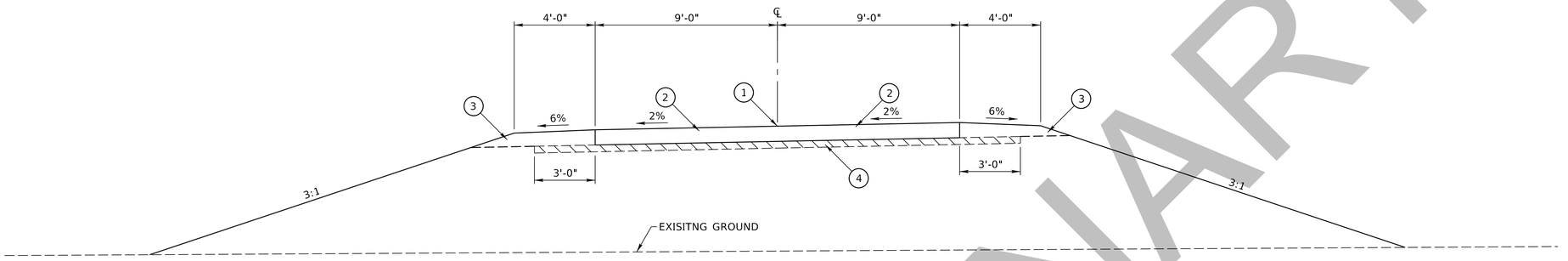
LEGEND

1. PROFILE GRADE LINE
2. 8" TEMPORARY SURFACING
3. EARTH SHOULDER CONSTRUCTION
4. SUBGRADE PREPARATION



HWY. N-12 SHOOFLY

STATION	TO	STATION
135+52	-	148+97

BRIDGE EXCEPTION: STA. 139+65.45 - STA. 142+37.75

TYPICAL CROSS SECTIONS

B1

Project Number
12-5(1018)

C.N. 31674B

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DEPARTMENT OF TRANSPORTATION

Roadway Design Division

FILE: 31674B Sheets Typical Cross Sections.dgn
DATE: 11-JAN-2024 12:38
COMPUTER: NEOM-2404

C1

Project Number
12-5(1018)

C.N. 31674B

SUMMARY OF QUANTITIES

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

FILE: 31674B_NDOT_Summary_of_Quantities.dgn DATE: 19-JAN-2024 13:33 COMPUTER: BG0419M593

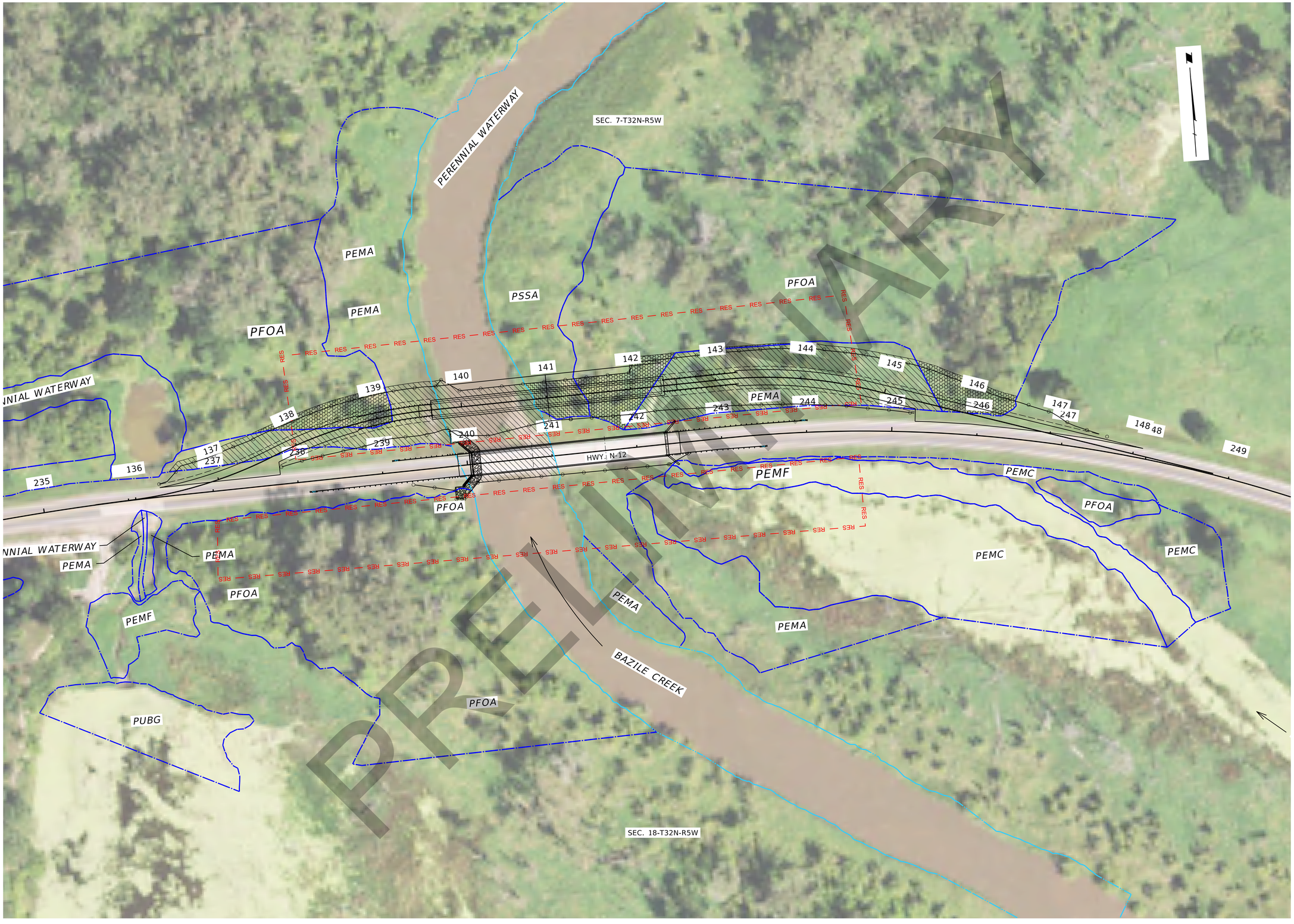
Project Number
12-5(1018)

C.N. 31674B

DATE: XXXX
FLIGHT: ####

LEGEND

- ○—○—○ LIMITS OF CONSTRUCTION
- ⬭ WETLANDS - DO NOT DISTURB -
- ▨ IMPACTED WETLANDS
- ▧ TEMPORARY IMPACTED WETLANDS
- ▤ IMPACTED PSSA
- ▦ IMPACTED PFOA
- — RES — RESTRICTED AREA



ENVIRONMENTAL

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

Roadway
Design
Division

COMPUTER: NEOM-2404
DATE: 11-JAN-2024 12:42
FILE: 31674B Sheets Enviro.dgn

F1

Project Number
12-5(1018)

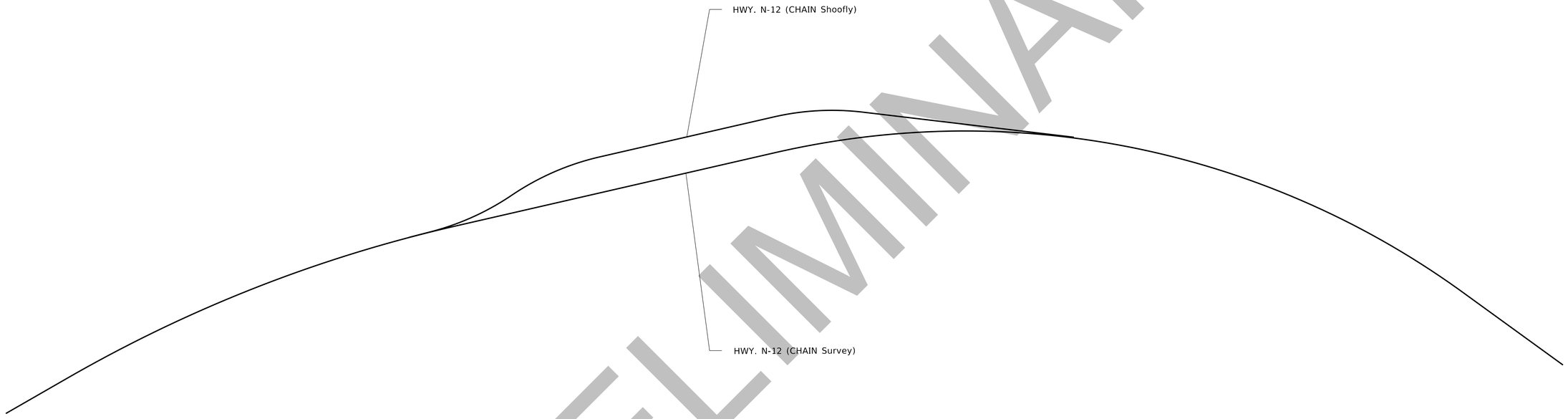
C.N. 31674B

HORIZONTAL ALIGNMENT & ORIENTATION

DATUM INFORMATION

HORIZONTAL	VERTICAL
NAD 83 (1995)	NAVD 88

D.A.F. = 1.00015555



ALIGNMENT INFORMATION		
SEGMENT	ALIGNMENT	PROFILE
HWY. N-12	Shoofly	-
HWY. N-12	Survey	-

NOTE: ALIGNMENT HAS BEEN CREATED FROM ASBUILT INFORMATION AND MODIFIED TO REPRESENT THE FIELD SURVEY DATA COLLECTED.

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

Roadway Design Division

FILE: 31674B Sheets Horiz Align.dgn DATE: 11-JAN-2024 12:44 COMPUTER: NEOM-2404

DATUM INFORMATION

HORIZONTAL	VERTICAL
NAD 83 (1995)	NAVD 88

D.A.F. = 1.0001555

UNITS = US SURVEY FEET

CONTROL POINT DATA						
CONTROL POINT	X	Y	Z	STATION	OFFSET	OBJECT USED FOR STATION
CP 165-60	2191158.6170	1071437.8660	1224.0230	Beyond Reference Limits		REBAR & CAP
CP 165-50	2189728.8530	1070913.2600	1222.6580	Beyond Reference Limits		REBAR & CAP

NOTE: CONTROL POINT INFORMATION AVAILABLE UPON REQUEST.

F2

Project Number
12-5(1018)

C.N. 31674B

CONTROL POINT TIES
HORIZONTAL ALIGNMENT & ORIENTATION

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

Roadway Design Division

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DATE: 23-JAN-2024 09:31
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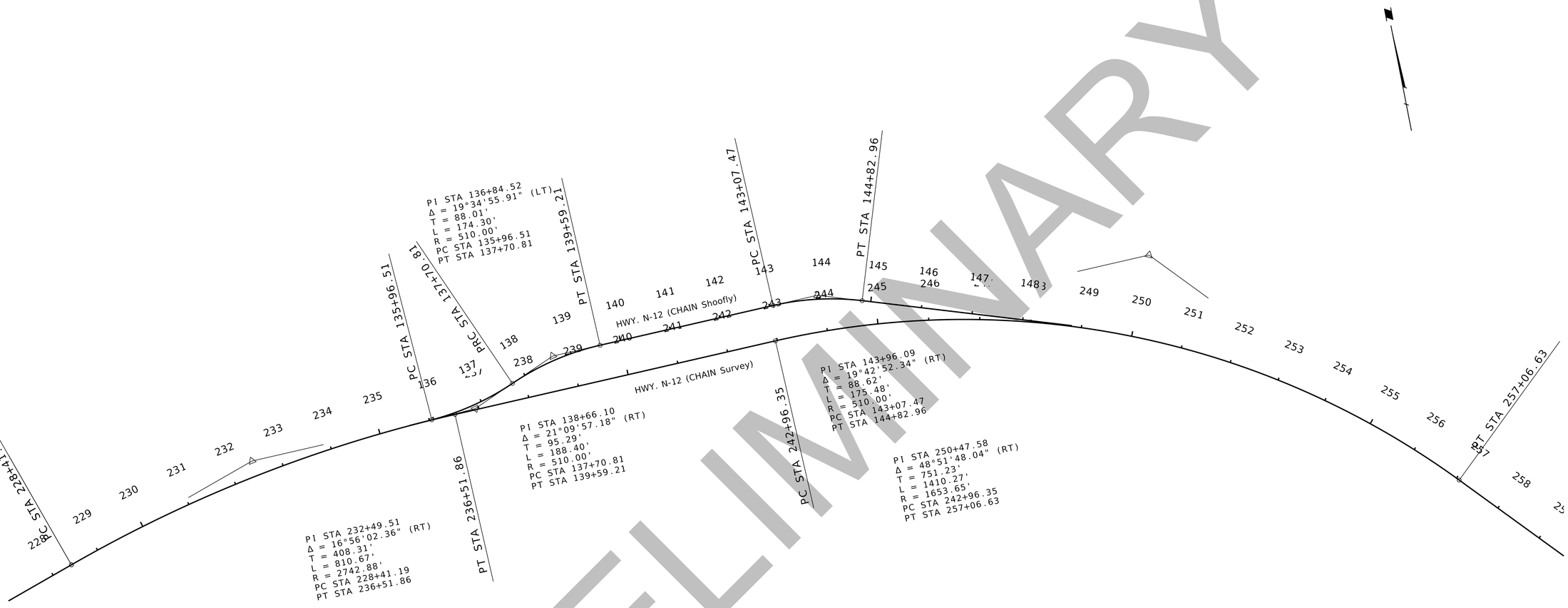

DATUM INFORMATION

HORIZONTAL	VERTICAL
NAD 83 (1995)	NAVD 88

D.A.F. = 1.00015555

PRELIMINARY

ALIGNMENT INFORMATION		
SEGMENT	ALIGNMENT	PROFILE
HWY N-12 Shoofly	Shoofly	-
Hwy N-12	Survey	-

NOTE: ALIGNMENT HAS BEEN CREATED FROM ASBUILT INFORMATION AND MODIFIED TO REPRESENT THE FIELD SURVEY DATA COLLECTED.

F3

Project Number
12-5(1018)

C.N. 31674B

HORIZONTAL ALIGNMENT & ORIENTATION

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

Roadway Design Division

COMPUTER: NEOM-2404
DATE: 11-JAN-2024 12:47
FILE: 31674B Sheets Horiz Align.dgn

Alignment Name:		Shoofly		
Alignment Description:				
Alignment Style:		Alignment\Temp Roads\Temp Road 1		
		Station	X	Y
Element: Linear				
START	( )	135+52.20	2191675.54	1071502.79
PC	( )	135+96.51	2191719.77	1071505.45
Tangential Direction:		86.56°		
Tangential Length:		44.31		
Element: Circular				
PC	( )	135+96.51	2191719.77	1071505.45
HPI	( )	136+84.52	2191807.62	1071510.73
CC	( )		2191689.15	1072014.53
PRC	( )	137+70.81	2191888.62	1071545.16
Radius:		510		
Delta:		19.58°	Left	
Degree of Curvature (Arc):		11.23°		
Length:		174.3		
Tangent:		88.01		
Chord:		173.46		
Middle Ordinate:		7.43		
External:		7.54		
Tangent Direction:		86.56°		
Radial Direction:		176.56°		
Chord Direction:		76.77°		
Radial Direction:		156.98°		
Tangent Direction:		66.98°		
Element: Circular				
PRC	( )	137+70.81	2191888.62	1071545.16
HPI	( )	138+66.10	2191976.31	1071582.42
CC	( )		2192088.09	1071075.78
PT	( )	139+59.21	2192071.55	1071585.51
Radius:		510		
Delta:		21.17°	Right	
Degree of Curvature (Arc):		11.23°		
Length:		188.4		
Tangent:		95.29		
Chord:		187.33		
Middle Ordinate:		8.68		
External:		8.83		
Tangent Direction:		66.98°		
Radial Direction:		156.98°		
Chord Direction:		77.56°		
Radial Direction:		178.14°		
Tangent Direction:		88.14°		
Element: Linear				
PT	( )	139+59.21	2192071.55	1071585.51
PC	( )	143+07.47	2192419.63	1071596.8
Tangential Direction:		88.14°		
Tangential Length:		348.26		
Element: Circular				
PC	( )	143+07.47	2192419.63	1071596.8
HPI	( )	143+96.09	2192508.2	1071599.68
CC	( )		2192436.16	1071087.07
PT	( )	144+82.96	2192592.55	1071572.5
Radius:		510		
Delta:		19.71°	Right	
Degree of Curvature (Arc):		11.23°		
Length:		175.48		
Tangent:		88.62		
Chord:		174.62		
Middle Ordinate:		7.53		
External:		7.64		
Tangent Direction:		88.14°		
Radial Direction:		178.14°		
Chord Direction:		98.00°		
Radial Direction:		197.86°		
Tangent Direction:		107.86°		
Element: Linear				
PT	( )	144+82.96	2192592.55	1071572.5
END	( )	148+97.14	2192986.78	1071445.5
Tangential Direction:		107.86°		
Tangential Length:		414.19		

Alignment Name:		Survey		
Alignment Description:				
Alignment Style:		Alignment\Survey		
		Station	X	Y
Element: Linear				
START	( )	225+62.41 R1	2190707.91	1071272.52
PC	( )	228+41.19 R1	2190971.83	1071362.31
Tangential Direction:		71.21°		
Tangential Length:		278.78		
Element: Circular				
PC	( )	228+41.19 R1	2190971.83	1071362.31
HPI	( )	232+49.51 R1	2191358.38	1071493.82
CC	( )		2191855.26	1068765.6
PT	( )	236+51.86 R1	2191766.48	1071507.04
Radius:		2742.88		
Delta:		16.93°	Right	
Degree of Curvature (Arc):		2.09°		
Length:		810.67		
Tangent:		408.31		
Chord:		807.72		
Middle Ordinate:		29.9		
External:		30.22		
Tangent Direction:		71.21°		
Radial Direction:		161.21°		
Chord Direction:		79.68°		
Radial Direction:		178.15°		
Tangent Direction:		88.15°		
Element: Linear				
PT	( )	236+51.86 R1	2191766.48	1071507.04
PC	( )	242+96.35 R1	2192410.63	1071527.9
Tangential Direction:		88.15°		
Tangential Length:		644.49		
Element: Circular				
PC	( )	242+96.35 R1	2192410.63	1071527.9
HPI	( )	250+47.58 R1	2193161.47	1071552.21
CC	( )		2192464.16	1069875.12
PT	( )	257+06.63 R1	2193673.72	1071002.72
Radius:		1653.65		
Delta:		48.86°	Right	
Degree of Curvature (Arc):		3.46°		
Length:		1410.27		
Tangent:		751.23		
Chord:		1367.92		
Middle Ordinate:		148.08		
External:		162.64		
Tangent Direction:		88.15°		
Radial Direction:		178.15°		
Chord Direction:		112.58°		
Radial Direction:		227.01°		
Tangent Direction:		137.01°		
Element: Linear				
PT	( )	257+06.63 R1	2193673.72	1071002.72
END	( )	260+42.84 R1	2193902.98	1070756.8
Tangential Direction:		137.01°		
Tangential Length:		336.21		

DATUM INFORMATION

HORIZONTAL	VERTICAL
NAD 83 (1995)	NAVD 88

D.A.F. = 1.00015555

F4

Project Number
12-5(1018)

C.N. 31674B

HORIZONTAL ALIGNMENT & ORIENTATION

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

Roadway Design Division

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DATE: 11-JAN-2024 12:48
FILE: 31674B Sheets Horiz Align.dgn

NOTES

- The locations of all aerial and underground utility facilities may not be indicated in these plans. Underground utilities, whether indicated or not will be located and flagged by the Utilities at the request of the Contractor.

  No excavation will be permitted in the area of underground utility facilities until all such facilities have been located and identified to the satisfaction of all parties. The excavation must be accomplished with extreme care in order to avoid any possibility of damage to the utility facility.

- Topsoil will be salvaged from all areas within the grading areas of the project. Salvaging and Placing Topsoil = 5624 S.Y.

FOR INFORMATION ONLY

- As indicated by the Cross-Sections, Earthwork Measured in Embankment will be required. This material will be furnished by the Contractor from sources other than State Right-of-Way.
- The Contractor will be required to furnish Borrow on this Project.
- 3875 cubic yards Earthwork Measured in Embankment of which 3875 cubic yards shall be excavated as shown in the Cross-Sections.
- The Contractor will be required to furnish Waste Areas for Excess Excavation on this Project
- The Contractor shall seed all areas disturbed by grading or construction operations, unless otherwise noted, with Type "Buffer" seed mix. This includes areas disturbed by construction of gravel road to site entrance from highway.

RESTRICTED USE AREAS

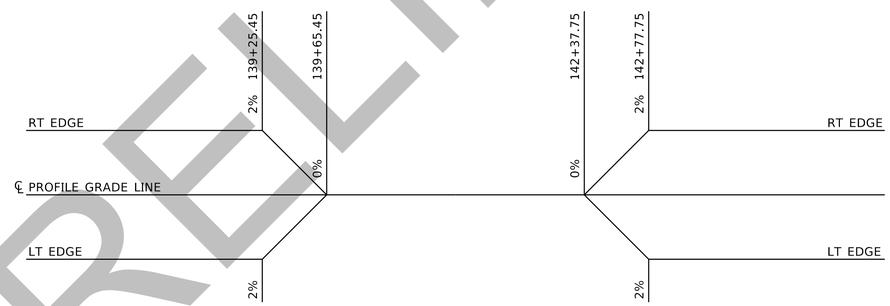
Restricted Use Areas are designated on the Erosion and Sediment Control Plans at the Station Range Shown; from the edge of pavement to the ROW Line. This will protect waters of the state, Critical Habitat, and/or other sensitive resources. Construction Activities in these areas are limited to those required to build the Project as specified in the Contract.

Restricted Use Areas May Not Be Used For:

1. Equipment Storage and Maintenance, with the Exception of Cranes.
2. Stockpile of Construction and Excavated Materials, unless they are protected with adequate BMPs and kept back from waters of the state.
3. Sanitary Facilities.
4. Mixing or Storage of any Hazardous Materials.
5. Concrete Washout.

EARTHWORK QUANTITIES		
STATION TO STATION	EXCAVATION AVAILABLE (CU. YDS.)	EARTHWORK MEASURED IN EMBANKMENT (CU. YDS.)
136+32.72 - 140+00.00	0	1052
142+50.00 - 148+00.00	0	2823
TOTAL	0	3875

EARTHWORK QUANTITIES FOR TEMPORARY ROAD REMOVAL	
STATION TO STATION	EXCAVATION ESTABLISHED QUANTITIES (CU. YDS.)
136+32.72 - 140+00.00	1052
142+50.00 - 148+00.00	2823
TOTAL	3875



SUPERELEVATION DIAGRAM

LEGEND

- GAS LINE
- ELECTRICAL SERVICE
- POWER LINE
- OVERHEAD POWER LINE
- SANITARY SEWER
- STORM SEWER
- TELEPHONE LINE
- FIBER OPTIC TELE. LINE
- OVERHEAD TELEPHONE LINE
- CABLE TV LINE
- OVERHEAD CABLE TV LINE
- WATER LINE
- FENCE - CHAIN LINK
- FENCE - R.O.W. OR WIRE
- FENCE - WOOD
- FLOWLINE
- CENTER LINE DRIVE
- BENCH MARK
- CENTER PIVOT
- CONTROL POINT
- CULVERT
- DIKE
- GAS METER
- GAS VALVE
- GRID TICK
- GUARDRAIL
- GUARD POST
- GUY POLE
- GUY WIRE
- LIGHT POLE
- MAILBOX
- MANHOLE
- MARSH
- OIL WELL
- PHOTO CODE POINT
- POWER BOX
- POWER POLE
- POWER PULL BOX
- PROPANE TANK
- R.O.W. MARKER
- ADVANCED R.R. WARNING SIGN
- RAILROAD WARNING
- RAILROAD TRACKS
- RETAINING WALL
- SATELLITE DISH
- SIGN
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL/ST. LIGHT
- TELEPHONE BOX
- TELE. FIBER OPTICS BOX
- TELEPHONE PULL BOX
- TELEPHONE POLE
- TELEVISION BOX
- TRAVELED WAY
- TREE - CONIFEROUS
- TREE - DECIDUOUS
- TREE STUMP
- WATER (FIRE) HYDRANT
- WATER VALVE
- WATER METER
- WELL
- WINDMILL

G1

Project Number 12-5(1018)

C.N. 31674B

GENERAL INFORMATION

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

Roadway Design Division

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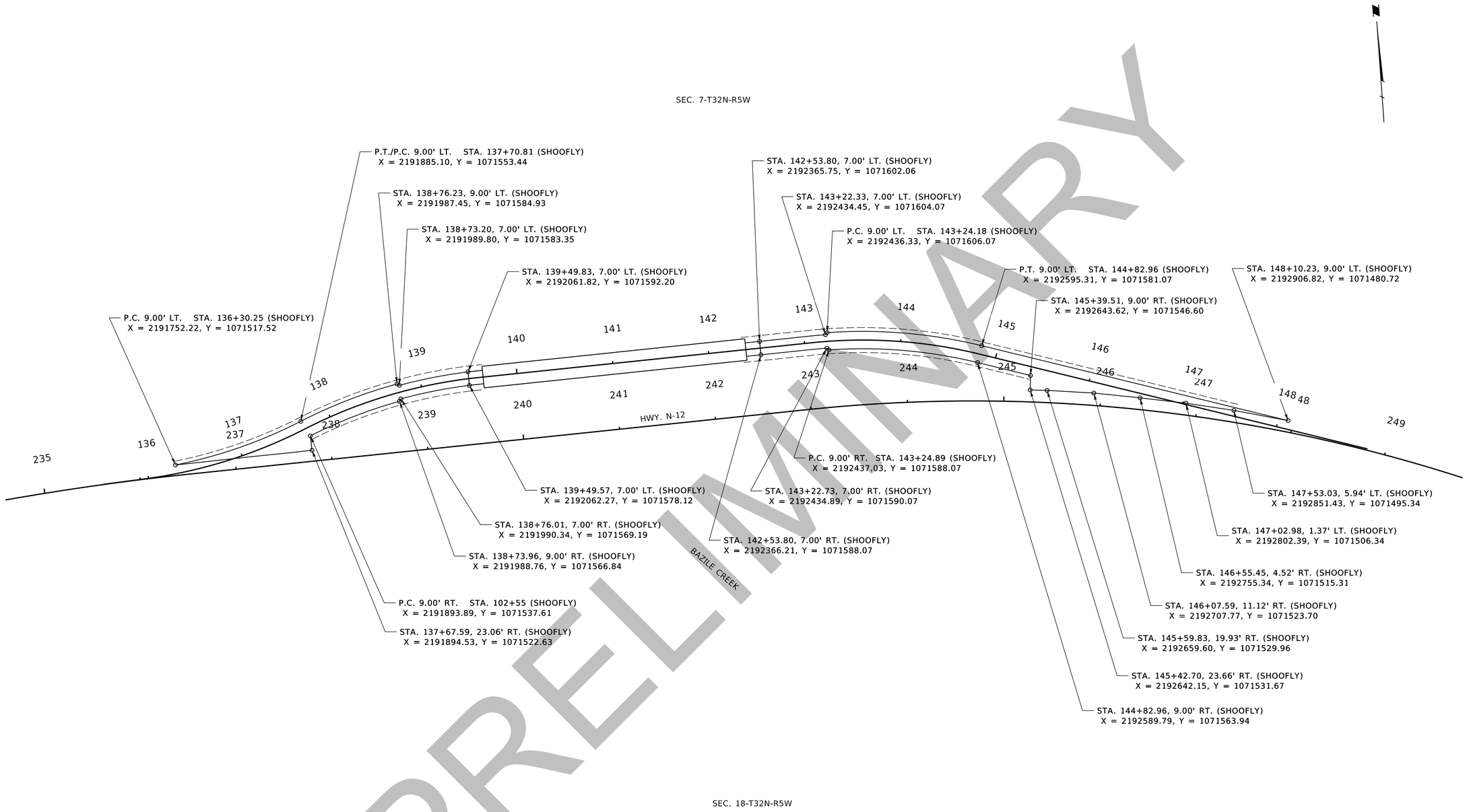

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FILE: 31674B Sheets Geometrics.dgn

J1

Project Number
12-5(1018)

C.N. 31674B

GEOMETRICS

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

Roadway Design Division

BUILD EROSION CONTROL-CLASS 1D, PLAN 501

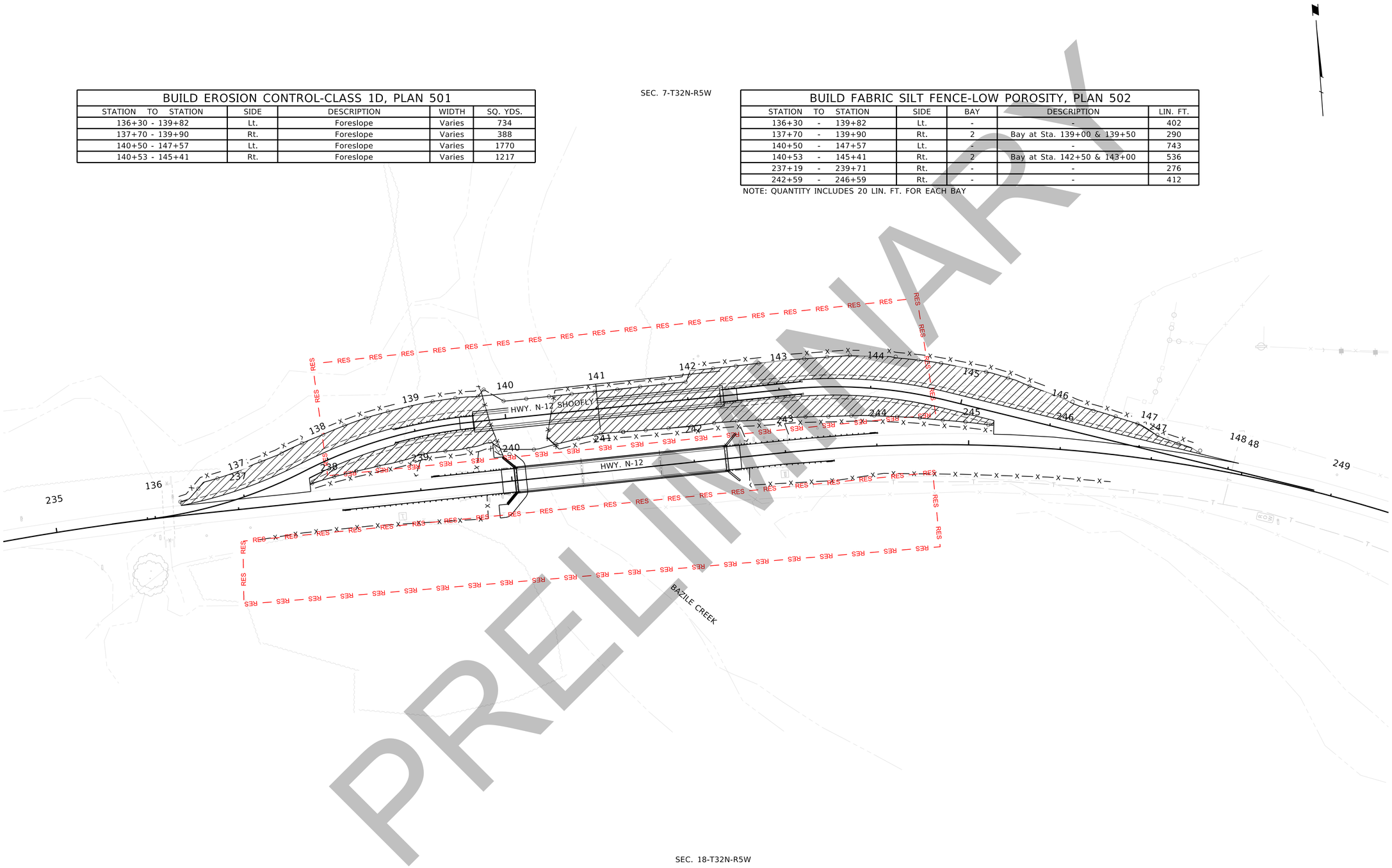
STATION TO STATION	SIDE	DESCRIPTION	WIDTH	SQ. YDS.
136+30 - 139+82	Lt.	Foreslope	Varies	734
137+70 - 139+90	Rt.	Foreslope	Varies	388
140+50 - 147+57	Lt.	Foreslope	Varies	1770
140+53 - 145+41	Rt.	Foreslope	Varies	1217

SEC. 7-T32N-R5W

BUILD FABRIC SILT FENCE-LOW POROSITY, PLAN 502

STATION	TO	STATION	SIDE	BAY	DESCRIPTION	LIN. FT.
136+30	-	139+82	Lt.	-	-	402
137+70	-	139+90	Rt.	2	Bay at Sta. 139+00 & 139+50	290
140+50	-	147+57	Lt.	-	-	743
140+53	-	145+41	Rt.	2	Bay at Sta. 142+50 & 143+00	536
237+19	-	239+71	Rt.	-	-	276
242+59	-	246+59	Rt.	-	-	412

NOTE: QUANTITY INCLUDES 20 LIN. FT. FOR EACH BAY



SEC. 18-T32N-R5W

J2

Project Number
12-5(1018)

C.N. 31674B

LEGEND

- LIMITS OF CONSTRUCTION
- WETLANDS - DO NOT DISTURB -
- EROSION CONTROL, CLASS 1D
- FABRIC SILT FENCE - LOW POROSITY
- HYDRO-MULCH, TYPE 3
- SILT CHECKS
- RES RESTRICTED AREA

EROSION CONTROL

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

Roadway Design Division

COMPUTER: NEOM-2404
DATE: 11-JAN-2024 12:56
FILE: 31674B Sheets Erosion Control.dgn

BUILD FABRIC SILT FENCE-LOW POROSITY, PLAN 502						
STATION	TO	STATION	SIDE	BAY	DESCRIPTION	LIN. FT.
236+65	-	239+83	Lt.	-	Foreslope	319
242+48	-	247+15	Lt.	-	Foreslope	163

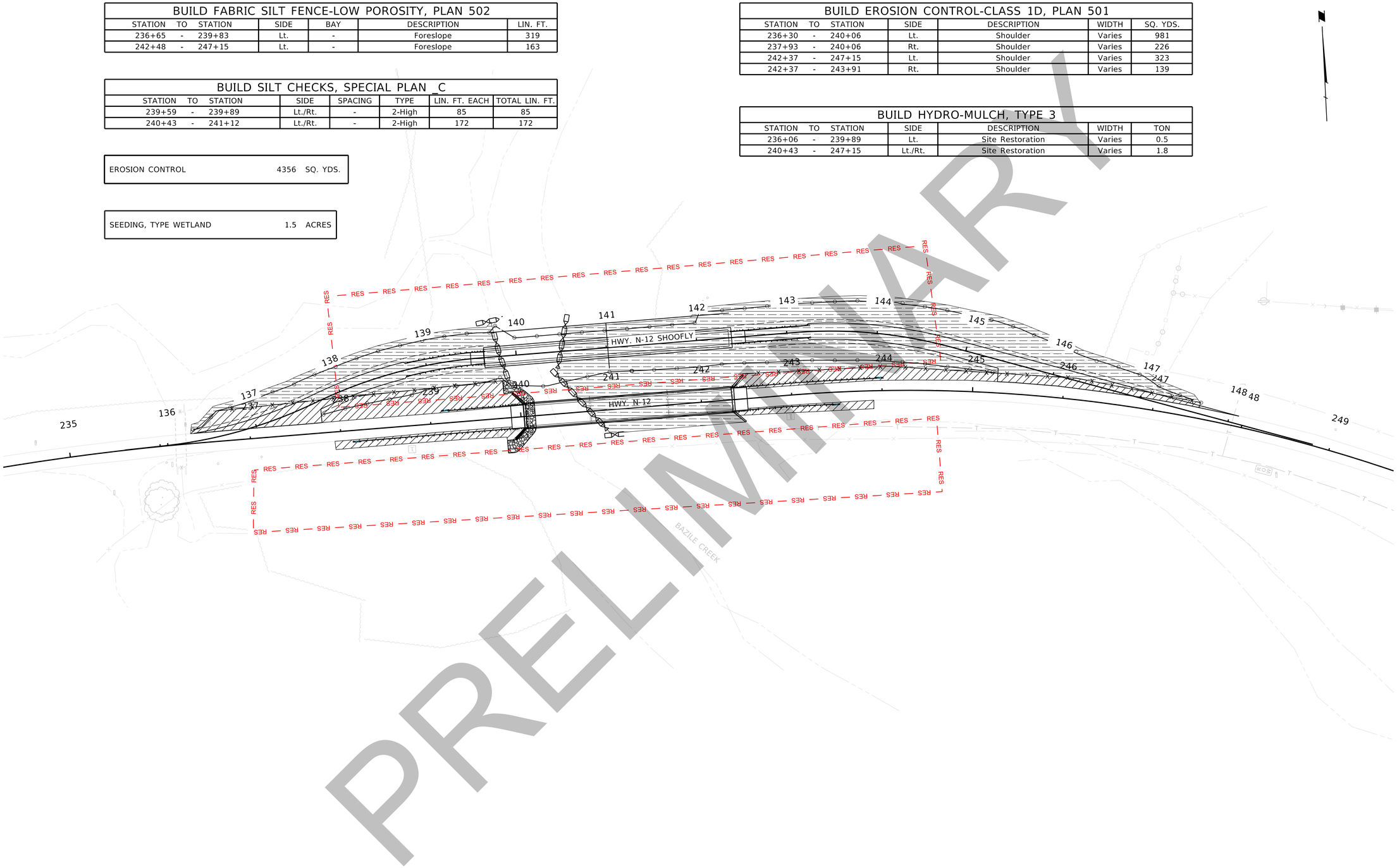
BUILD SILT CHECKS, SPECIAL PLAN _C							
STATION	TO	STATION	SIDE	SPACING	TYPE	LIN. FT. EACH	TOTAL LIN. FT.
239+59	-	239+89	Lt./Rt.	-	2-High	85	85
240+43	-	241+12	Lt./Rt.	-	2-High	172	172

EROSION CONTROL	4356 SQ. YDS.

SEEDING, TYPE WETLAND	1.5 ACRES

BUILD EROSION CONTROL-CLASS 1D, PLAN 501						
STATION	TO	STATION	SIDE	DESCRIPTION	WIDTH	SQ. YDS.
236+30	-	240+06	Lt.	Shoulder	Varies	981
237+93	-	240+06	Rt.	Shoulder	Varies	226
242+37	-	247+15	Lt.	Shoulder	Varies	323
242+37	-	243+91	Rt.	Shoulder	Varies	139

BUILD HYDRO-MULCH, TYPE 3						
STATION	TO	STATION	SIDE	DESCRIPTION	WIDTH	TON
236+06	-	239+89	Lt.	Site Restoration	Varies	0.5
240+43	-	247+15	Lt./Rt.	Site Restoration	Varies	1.8



J3

Project Number
12-5(1018)

C.N. 31674B

LEGEND

- LIMITS OF CONSTRUCTION
- WETLANDS - DO NOT DISTURB -
- EROSION CONTROL, CLASS 1D
- FABRIC SILT FENCE - LOW POROSITY
- HYDRO-MULCH, TYPE 3
- SILT CHECKS
- RES RESTRICTED AREA

EROSION CONTROL

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

Roadway Design Division

COMPUTER: NEOM-2404
DATE: 11-JAN-2024 12:54
FILE: 31674B Sheets Erosion Control.dgn

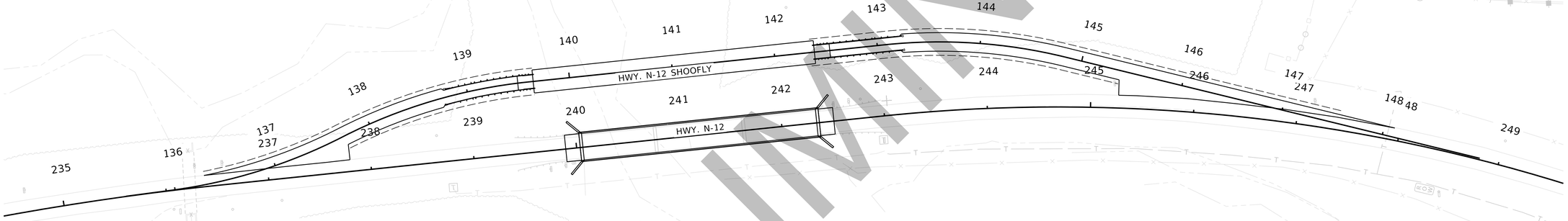
BUILD STRUCTURE, SPECIAL PLAN 2		
STATION	STRUCTURE NO.	DESCRIPTION
141+01.60	-	272'-3 5/8" 2-SPAN PORTABLE PREFABRICATED TRUSS-TYPE BRIDGE

REMOVE STRUCTURE		
STATION	SIDE	DESCRIPTION
141+01.60	Lt./Rt.	272'-3 5/8" 2-SPAN PORTABLE PREFABRICATED TRUSS-TYPE BRIDGE

SEC. 7-T32N-R5W

BUILD TEMPORARY SURFACING 8"				
STATION	TO	STATION	SIDE	SQ. YDS.
136+30	-	139+50	Lt./Rt.	528
142+39	-	148+10	Lt./Rt.	947

BUILD W-BEAM GUARDRAIL, SPECIAL PLAN 1C.			
STATION	TO	STATION	SIDE
138+76	-	139+66	Rt.
138+76	-	139+66	Lt.
142+39	-	143+27	Lt.
142+39	-	143+27	Rt.



REMOVE GUARDRAIL		
STATION	SIDE	LIN. FT.
141+02	Lt./Rt.	352

SEC. 18-T32N-R5W

J4

Project Number
12-5(1018)

C.N. 31674B

LEGEND
ROCK RIPRAP
BRIDGE REPAIR

CONSTRUCTION & REMOVAL

NEBRASKA
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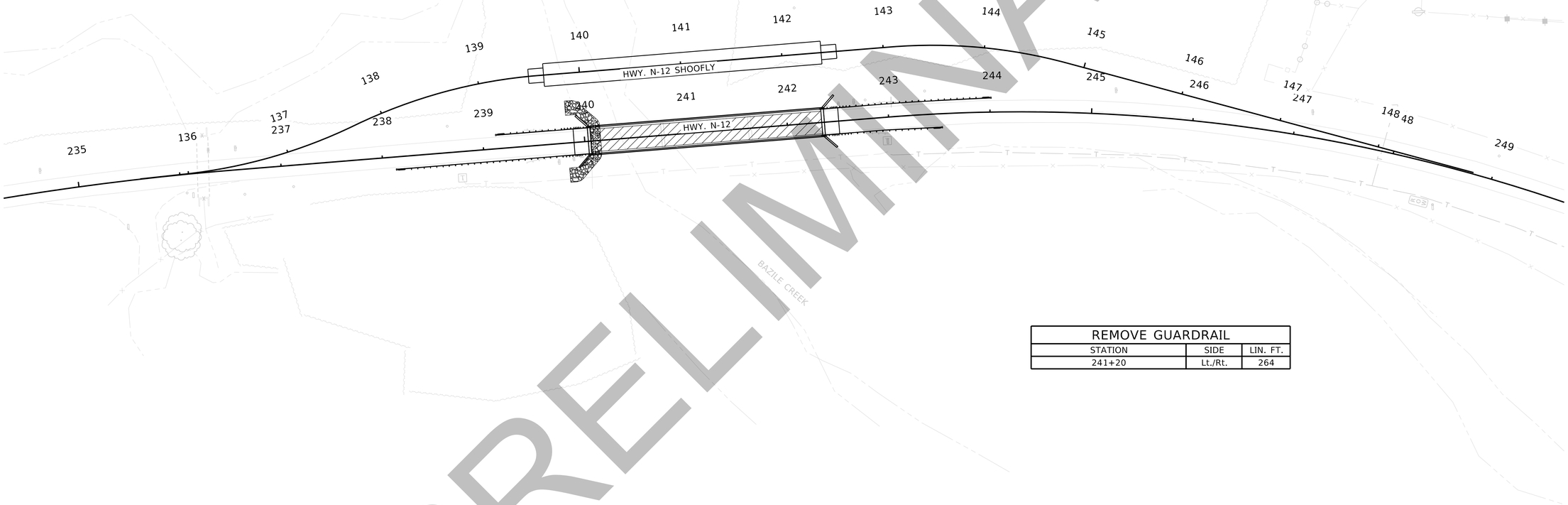
DEPARTMENT OF TRANSPORTATION

Roadway Design Division

COMPUTER: NEOM-2404
DATE: 11-JAN-2024 12:58
FILE: 31674B Sheets Construction & Removal.dgn

BUILD STRUCTURE, SPECIAL PLAN 1		
STATION	STRUCTURE NO.	DESCRIPTION
241+20.08	S012 16603	BRIDGE REPAIR 230'-0" 3-SPAN STEEL GIRDER BRIDGE (W36-150)

BUILD W-BEAM GUARDRAIL, SPECIAL PLAN 1C.		
STATION TO STATION		SIDE
238+12	- 240+07	Rt.
239+12	- 240+07	Lt.
242+33	- 244+02	Lt.
242+33	- 243+53	Rt.



REMOVE GUARDRAIL		
STATION	SIDE	LIN. FT.
241+20	Lt./Rt.	264

ROCK RIPRAP

BRIDGE REPAIR

J5

Project Number
12-5(1018)

C.N. 31674B

CONSTRUCTION & REMOVAL

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

Roadway Design Division

COMPUTER: NEOM-2404

DATE: 11-JAN-2024 12:59

FILE: 31674B Sheets Construction & Removal.dgn

PI STA 136+84.52
Δ = 19°34'55.91" (LT)
T = 88.01'
L = 174.30'
R = 510.00'
PC STA 135+96.51
PT STA 137+70.81

PC STA 228+41.19

BAZILE CREEK
SECONDARY CHANNEL

PC STA 135+96.51

PRC STA 137+70.81

PT STA 139+59.21

PC STA 143+07.47

PT STA 144+82.96

SEC. 7-T32N-R5W

HWY. N-12

PI STA 232+49.51
Δ = 16°56'02.36" (RT)
T = 408.31'
L = 810.67'
R = 2742.88'
PC STA 228+41.19
PT STA 236+51.86

PT STA 236+51.86

PI STA 138+66.10
Δ = 21°09'57.18" (RT)
T = 95.29'
L = 188.40'
R = 510.00'
PC STA 137+70.81
PT STA 139+59.21

BAZILE CREEK

PC STA 242+96.35

PI STA 143+96.09
Δ = 19°42'52.34" (RT)
T = 88.62'
L = 175.48'
R = 510.00'
PC STA 143+07.47
PT STA 144+82.96

PI STA 250+47.58
Δ = 48°51'48.04" (RT)
T = 751.23'
L = 1410.27'
R = 1653.65'
PC STA 242+96.35
PT STA 257+06.63

SEC. 18-T32N-R5W

PT STA 257+06.63

+0.83% +0.83% +0.02% +0.02% +0.02% +0.75% +0.75%

STA 139+00.00
EL = 1233.82
L = 100'

STA 143+04.00
EL = 1233.89
L = 100'

1,232.99	1,232.17	1,232.58	1,232.99	1,233.41	1,233.72	1,233.83	1,233.84	1,233.85	1,233.85	1,233.86	1,233.87	1,233.88	1,233.97	1,234.24	1,234.61	1,234.99	1,235.36	1,235.74	1,236.11	1,236.48	1,236.80

1280 1270 1260 1250 1240 1230 1220 1210 1200 1190 1180

130+00 135+00 140+00 145+00

L1

Project Number
12-5(1018)

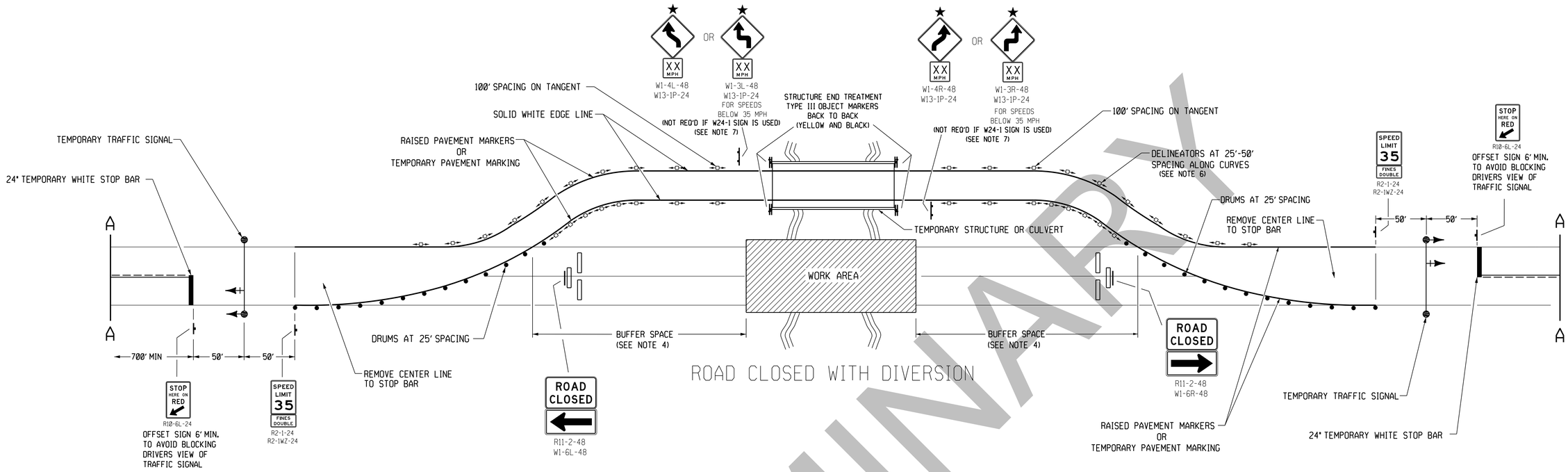
C.N. 31674B

PLAN & PROFILE

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

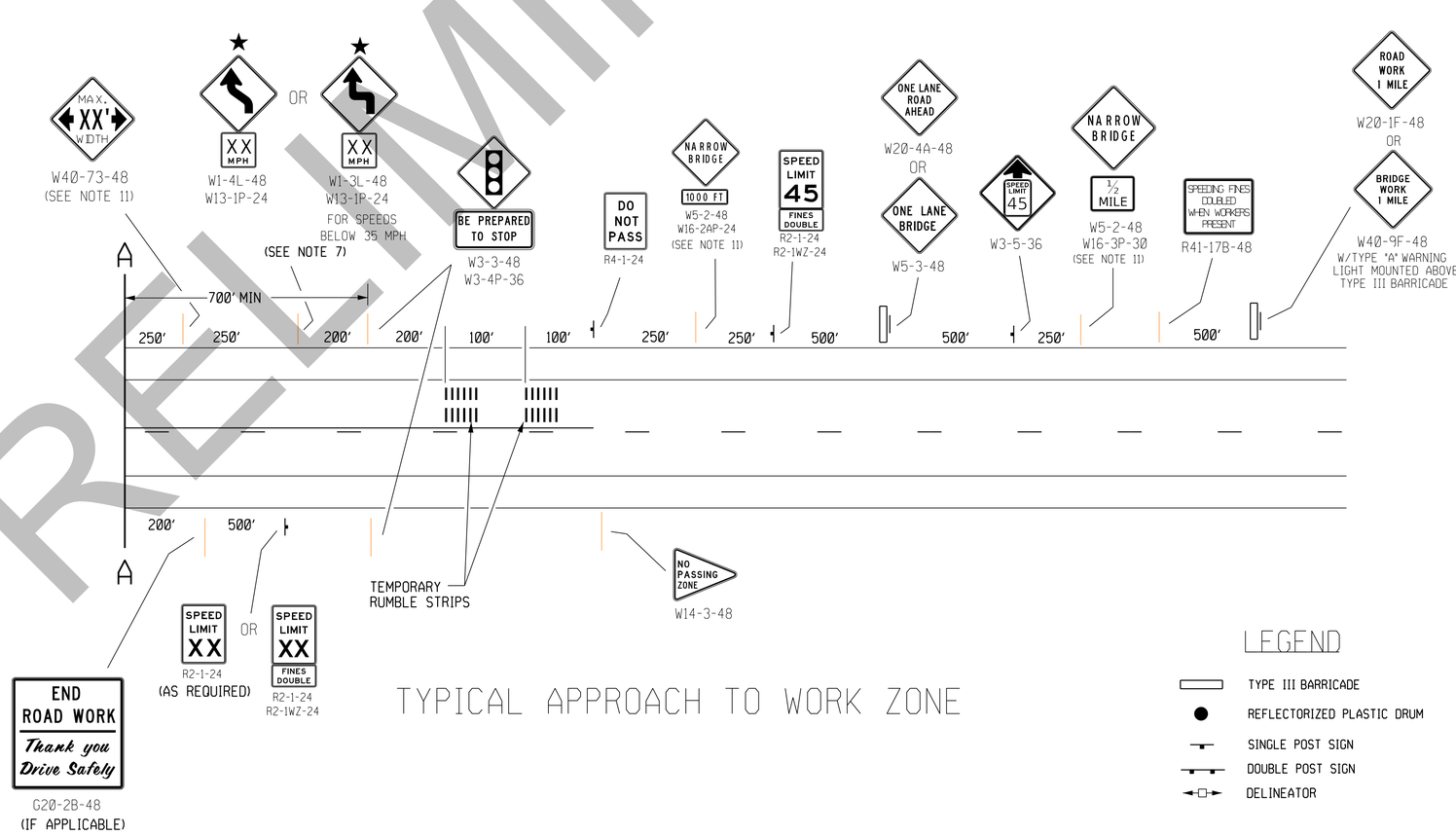
Roadway
Design
Division

COMPUTER: NEOM-2404
DATE: 11-JAN-2024 13:01
FILE: 31674B Sheets Plan & Profile.dgn



NOTES

1. SIGNS SHOWN ARE FOR ONE DIRECTION OF TRAVEL ONLY.
2. RAISED PAVEMENT MARKERS (IF USED) SHALL BE SPACED AT 5' INTERVALS.
3. THE WORK AREA SHALL INCLUDE THE AREA USED BY THE WORK ACTIVITY, EQUIPMENT, VEHICLES AND MATERIALS.
4. NO EQUIPMENT, VEHICLES OR CONSTRUCTION MATERIAL SHALL BE PLACED WITHIN THE BUFFER SPACE OR IN FRONT OF THE WORK AREA.
5. REMOVE ALL CONFLICTING PAVEMENT MARKINGS.
6. DELINEATORS SHALL BE REPLACED BY VERTICAL PANELS, PLACED BACK-TO-BACK, AT 25' TO 50' SPACING ALONG THE SHOOFLY WHEN THE FILL SLOPE IS STEEPER THAN 3:1. SEE STANDARD PLAN 921 FOR VERTICAL PANEL INSTALLATION DETAILS.
7. A DOUBLE REVERSE CURVE SIGN (W24-1) MAY BE USED WHEN THE TANGENT DISTANCE BETWEEN TWO REVERSE CURVES IS LESS THAN 600'.
8. ALL TEMPORARY PAVEMENT MARKINGS SHALL BE INSTALLED WITH SMOOTH AND GRADUAL TRANSISTIONS AND ALIGNMENTS. WHEN NECESSARY, THE CONTRACTOR SHALL PREMARK THE PAVEMENT PRIOR TO PLACING THE MARKINGS.
9. ★ DESIGNATION OF SPEED SHOWN ON ADVISORY SPEED SIGNS (W13-1P) SHALL BE DETERMINED BY THE ENGINEER IN ACCORDANCE WITH MUTCD. THE SPEED DESIGNATION SHALL BE AS HIGH AS PRACTICAL AND FEASIBLE.
10. WORK ZONE SPEED LIMITS SHALL NOT BE INSTALLED WITHOUT A SPEED ZONE AUTHORIZATION COMPLETED BY THE DEPARTMENT. THE WORK ZONE SPEED LIMIT SHALL BE ESTABLISHED ACCORDING TO DOR-01 60-18. SEE WORK ZONE SPEED LIMIT NOTES ON STANDARD PLAN 920.
11. INSTALL WHEN LANE WIDTH ACROSS DIVERSION IS LESS THAN THE APPROACH LANE WIDTH OF THE ROADWAY.
12. SIGNS R41-17B-48, W20-1F-48 AND W40-9F-48 ARE NOT REQUIRED IF INSTALLED ON THE PROJECT IN ADVANCE OF THIS WORK SITE.
13. WHEN THE CONTRACTOR IS ACTIVELY WORKING ON THE SHOO-FLY, THE CONTRACTOR, AT THEIR EXPENSE, MAY TURN THE TRAFFIC SIGNAL TO RED FLASH AND PROVIDE FLAGGERS TO CONTROL TRAFFIC. ADVANCE FLAGGER SIGN (W20-7-48) SHALL BE INSTALLED OVER THE SIGNAL AHEAD SIGN.
14. ALL BARRICADE AND SIGN LOCATIONS ARE APPROXIMATE, AND MAY BE ADJUSTED TO FIT FIELD CONDITIONS. THE SIGNS SHALL BE INSTALLED SO AS TO NOT OBSCURE THE VIEW OF OTHER TRAFFIC CONTROL DEVICES FROM MOTORISTS.



TYPICAL APPROACH TO WORK ZONE

LEGEND

- TYPE III BARRICADE
- REFLECTORIZED PLASTIC DRUM
- SINGLE POST SIGN
- DOUBLE POST SIGN
- DELINEATOR

TYPICAL TRAFFIC CONTROL PLAN
TEMPORARY TRAFFIC SIGNAL
FOR PAVED SHOO-FLY DETOUR

DESIGNED BY AJM
DATE 08/23

NEBRASKA DEPARTMENT OF TRANSPORTATION - TRAFFIC ENGINEERING DIVISION

M1

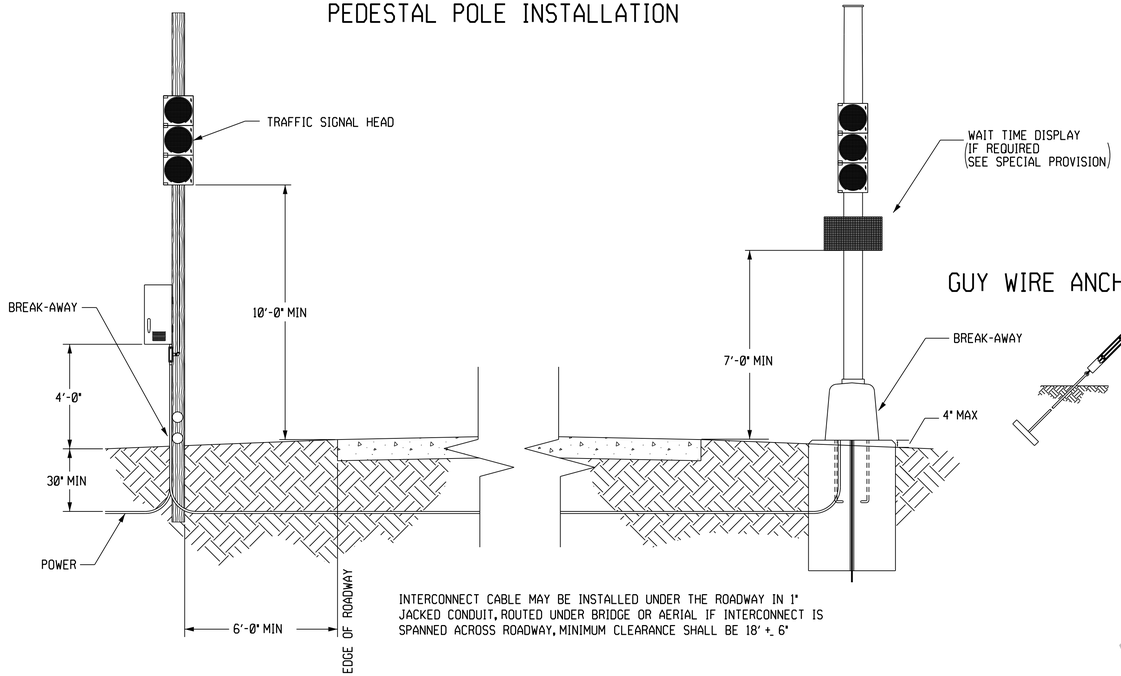
Project Number
12-5(1018)

C.N. 31674B

PLAN SHEET NUMBER 1/1

COMPUTER: BG0419M208
DATE: 8-JAN-2024 11:53
FILE: wz111e-3.dgn

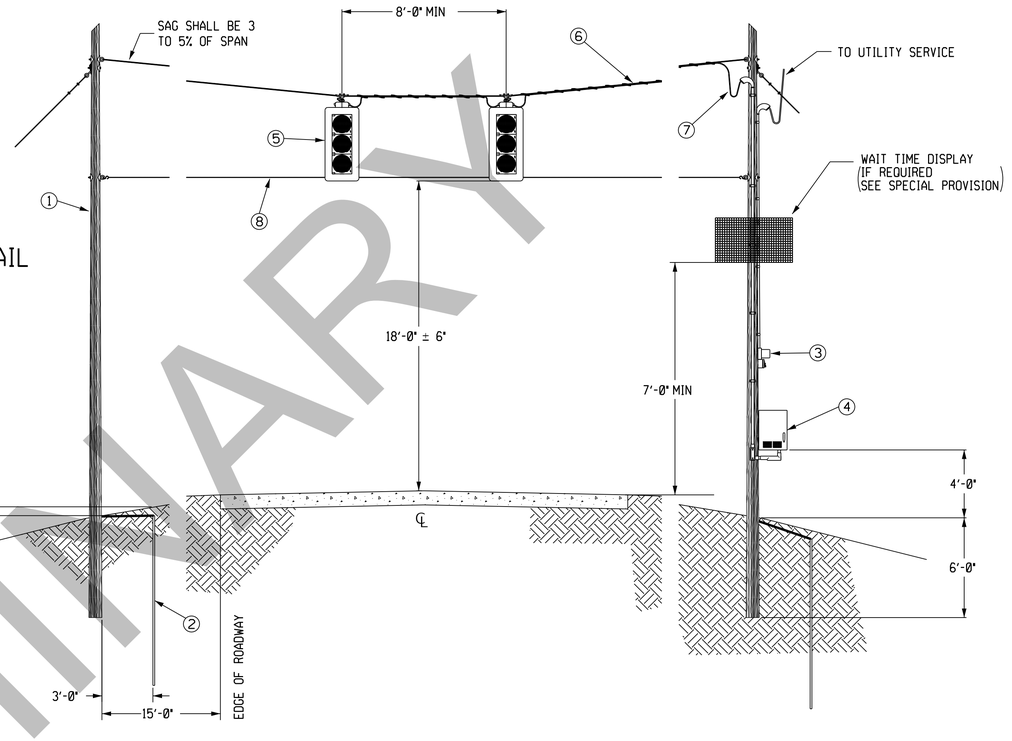
PEDESTAL POLE INSTALLATION



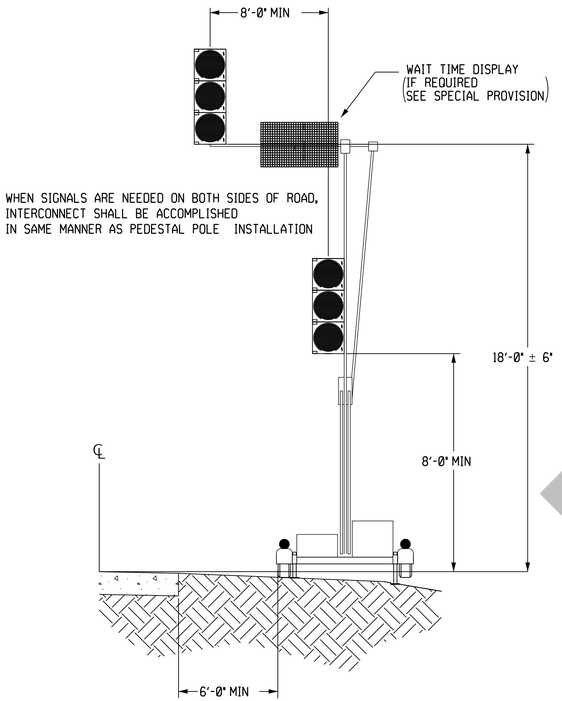
INTERCONNECT CABLE MAY BE INSTALLED UNDER THE ROADWAY IN 1" JACKED CONDUIT, ROUTED UNDER BRIDGE OR AERIAL IF INTERCONNECT IS SPANNED ACROSS ROADWAY, MINIMUM CLEARANCE SHALL BE 18' +- 6"

GUY WIRE ANCHOR DETAIL

SPAN WIRE INSTALLATION



PORTABLE SIGNAL



NOTES

1. THE LOCATIONS OF ALL AERIAL AND UNDERGROUND UTILITY FACILITIES MAY NOT BE INDICATED IN THESE PLANS, UNDERGROUND UTILITIES, WHETHER INDICATED OR NOT WILL BE LOCATED AND FLAGGED BY THE UTILITIES AT THE REQUEST OF THE CONTRACTOR. NO EXCAVATION WILL BE PERMITTED IN THE AREA OF UNDERGROUND UTILITY FACILITIES UNTIL ALL SUCH FACILITIES HAVE BEEN LOCATED AND IDENTIFIED TO THE SATISFACTION OF ALL PARTIES. THE EXCAVATION MUST BE ACCOMPLISHED WITH EXTREME CARE IN ORDER TO AVOID ANY POSSIBILITY OF DAMAGE TO THE UTILITY FACILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL AERIAL AND UNDERGROUND UTILITIES AND CONSTRUCTIONS.
2. THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT AND MATERIAL REQUIRED FOR THE TEMPORARY SIGNAL UNLESS OTHERWISE SPECIFIED. ALL EQUIPMENT AND MATERIAL FURNISHED BY THE CONTRACTOR SHALL REMAIN HIS PROPERTY.
3. ANY STATE SUPPLIED EQUIPMENT OR MATERIAL SHALL REMAIN THE PROPERTY OF THE STATE OF NEBRASKA.
4. THE SIGNAL HEAD LENSES SHALL BE A MINIMUM OF 12 INCHES IN DIAMETER.
5. ALL SIGNAL LAMPS SHALL BE EXTENDED ANGLE LED.
6. MAINTENANCE OF THE TEMPORARY SIGNAL SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR.
7. TRAFFIC SIGNALS POWERED BY MEANS OF A PORTABLE GENERATOR SHALL HAVE STANDBY BATTERY POWER CAPABLE OF OPERATING THE SIGNAL NOT LESS THAN 26 HOURS. PORTABLE TRAFFIC SIGNALS SHALL BE CHECKED EVERY 24 HOURS TO INSURE PROPER OPERATION.
8. SIGNAL POLE LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER UNLESS THE EXACT PLACEMENT IS NOTED IN THE PLANS.
9. THE TIMING OF THE SIGNAL CYCLE SHALL BE DETERMINED BY THE NDOT TRAFFIC ENGINEERING DIVISION. FOR THE SPECIFIC INSTALLATION, CALL TRAFFIC ENGINEERING DIVISION AT 402-479-4594. HAVE THE FOLLOWING INFORMATION READY WHEN YOU CALL. PROJECT NAME, CONTROL NUMBER, DISTANCE BETWEEN STOP BARS, NUMBER OF SIDE STREET SIGNALS AND ADT FOR HIGHWAYS. TIMING SHOULD BE REQUESTED ONE WEEK PRIOR TO INSTALLATION TO AVOID UNEXPECTED PROJECT DELAYS.
10. THE SIGNAL SHALL BE PLACED INTO FLASHING AMBER OPERATON FOR BOTH DIRECTIONS DURING PERIODS WHEN THE BRIDGE IS OPEN TO TWO-WAY TRAFFIC. UNDER NO CIRCUMSTANCES SHALL AN INOPERATIVE TRAFFIC SIGNAL BE LEFT UNCOVERED ON AN OPEN ROAD TO THE PUBLIC.

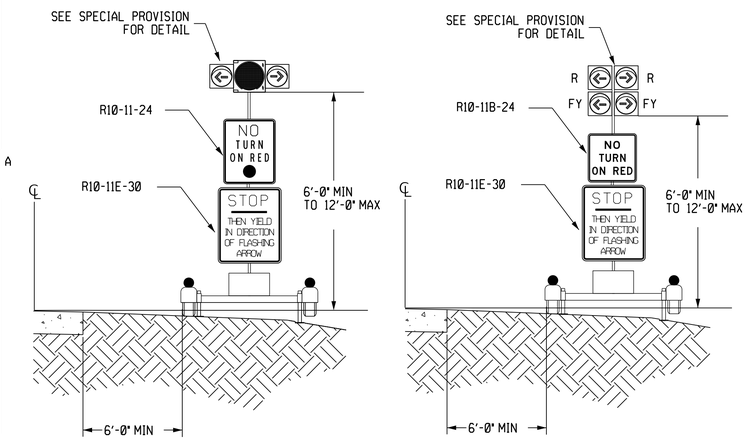
ITEM NO.	DESCRIPTION
1	CLASS IV BUTT TREATED WOOD POLE W/DOWN GUYS
2	5/8" X 10' COPPERWELD GROUND ROD
3	METER SOCKET (IF REQ'D BY UTILITY)
4	CONTROLLER CABINET •
5	TRAFFIC SIGNAL W/BACKPLATE
6	3/8" HIGH STRENGTH 7 STRAND WIRE ROPE
7	600 VOLT NO. 12 AWG 5/C TRAFFIC SIGNAL CABLE
8	1/4" SIEMANS MARTIN 7 STRAND WIRE ROPE

• CONTRACTOR SHALL FURNISH A SOLID STATE DIGITAL CONTROLLER WITH A PROGRAMMING MANUAL.

SIGNAL	APPROXIMATE LOCATION OF TEMP TRAFFIC SIGNAL
1	S012 16603 (WITH WAIT TIME DISPLAY)
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

11. INSTALLATION OF THE TEMPORARY SIGNAL SHALL BE IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE (LATEST EDITION), THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, ALL LOCAL ORDINANCES AND REGULATIONS, THE SPECIFICATIONS AND THE PROJECT PLANS.
12. THE TRAFFIC SIGNAL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE ITEM "TEMPORARY TRAFFIC SIGNAL" OR "TEMPORARY TRAFFIC SIGNAL WITH WAIT TIME DISPLAY". THIS PRICE SHALL BE FULL COMPENSATION FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE COMPLETE TEMPORARY SIGNAL.
13. SEE SIGNING STANDARD FOR REQUIRED SIGNING TO ACCOMPANY SIGNAL.
14. WHEN REQUIRED, THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT AND MATERIAL REQUIRED FOR VEHICLE DETECTION ON ALL APPROACHES.

DRIVEWAY ASSISTANCE DEVICE



M2

Project Number 12-5(1018)

C.N. 31674B

TYPICAL SIGNAL CONTROL PLAN
TEMPORARY TRAFFIC SIGNAL DETAILS

DESIGNED BY NRL DATE 12/22

NEBRASKA DEPARTMENT OF TRANSPORTATION - TRAFFIC ENGINEERING DIVISION

PLAN SHEET NUMBER 1/1

COMPUTER: BG0419M208
DATE: 8-JAN-2024 11:53
FILE: Spits_r4.dgn

	- - - - - - - - Cut - - - - - - - -				- - - - - - - - Fill - - - - - - - -				
Station	Factor	Area	Volume	Adjusted	Factor	Area	Volume	Adjusted	Mass Ordinate
136+32.72	1	0	0	0	1	0	0	0	0
136+50.00	1	0	0	0	1	2	1	1	-1
137+00.00	1	0	0	0	1	41	40	40	-40
137+50.00	1	0	0	0	1	64	97	97	-137
137+70.81	1	0	0	0	1	67	51	51	-188
138+00.00	1	0	0	0	1	98	89	89	-277
138+50.00	1	0	0	0	1	129	210	210	-487
139+00.00	1	0	0	0	1	115	226	226	-713
139+50.00	1	0	0	0	1	118	216	216	-929
139+59.21	1	0	0	0	1	111	39	39	-968
140+00.00	1	0	0	0	1	0	84	84	-1052
140+50.00	1	0	0	0	1	0	0	0	-1052
141+00.00	1	0	0	0	1	0	0	0	-1052
141+50.00	1	0	0	0	1	0	0	0	-1052
142+00.00	1	0	0	0	1	0	0	0	-1052
142+50.00	1	0	0	0	1	148	137	137	-1189
143+00.00	1	0	0	0	1	176	300	300	-1489
143+07.47	1	0	0	0	1	182	49	49	-1539
143+50.00	1	0	0	0	1	201	301	301	-1840
144+00.00	1	0	0	0	1	223	393	393	-2233
144+50.00	1	0	0	0	1	233	422	422	-2655
144+82.96	1	0	0	0	1	224	279	279	-2934
145+00.00	1	0	0	0	1	208	136	136	-3070
145+50.00	1	0	0	0	1	146	328	328	-3398
146+00.00	1	0	0	0	1	120	246	246	-3644
146+50.00	1	0	0	0	1	52	159	159	-3804
147+00.00	1	0	0	0	1	12	59	59	-3863
147+50.00	1	0	0	0	1	0	11	11	-3874
148+00.00	1	0	0	0	1	0	0	0	-3875
148+10.23	1	0	0	0	1	0	0	0	-3875
	Factor		Volume	Adjusted	Factor		Volume	Adjusted	
Grand Total	1		0	0	1		3875	3875	

Q1

Project Number
12-5(1018)

C.N. 31674B

TEMPORARY ROAD
EARTHWORK

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

Roadway Design Division

COMPUTER: NEOM-2404
DATE: 11-JAN-2024 13:03
FILE: 31674B Sheets Earthwork.dgn

- BAZILE CREEK BRIDGE -

- NOTES -

GENERAL

The reconstructed deck design and girder check have been completed in accordance with the AASHTO LRFD Bridge Design Specifications, Ninth Edition, including subsequent interim revisions.

The shear studs have been designed based on a 40-year fatigue life.

The concrete bridge deck is designed by the empirical design method.

The superstructure is designed for the allowance of stay-in-place forms (5 psf) between girders.

All dimensions shown are in horizontal plane only. No allowances have been made for vertical curve or roadway cross slope.

Unless noted "NOT TO SCALE", all details are drawn using a constant scale in accordance with NDOT Bridge Scaling Policy.

Girder shims that will be provided to the Contractor account for the dead load deflection due to weight of the slab and rail only. The Contractor is responsible for making the necessary adjustments for the specific forming system used to achieve the slab grades and elevations shown on the plans.

The shim shots may be taken before or after the turndowns are poured.

EXCAVATION

Any excavation required for Riprap below the new channel cross section shall be subsidiary to the respective Riprap Pay Item.

CONCRETE & REINFORCEMENT

Concrete for slab, approach slabs, turndowns, and rails/barriers shall be Class "47BD", with a 28-day strength of 4,000 psi.

All other cast-in-place concrete shall be Class "47B" concrete, with a 28-day strength of 3,000 psi.

Chamfer all exposed edges of concrete.

Unless noted as "Optional", all construction joints shown are mandatory.

All reinforcing steel shall be epoxy coated and conform to the requirements of ASTM A615, Grade 60 steel.

The minimum clearance, measured from the face of the concrete to the surface of any reinforcing bar, shall be 3" for substructure elements and 2" for superstructure elements, except where otherwise noted.

Field bend and/or clip reinforcing bars to maintain minimum clearance. Epoxy coat clipped ends.

MISCELLANEOUS

All materials, equipment, tools, labor, and incidentals necessary to complete the work, not paid for directly, shall be considered subsidiary to other items for which payment is made.

The girders for this bridge are not designed to resist any torsional or lateral forces due to temporary construction loads. The Contractor must provide any temporary bracing necessary to support the girder web and flanges against all torsional or lateral forces resulting from constructio loads.

REPAIR

All materials removed shall become the property of the Contractor and shall be removed from the project site.

The State does not guarantee that these repair plans or the As-built plans depict the actual site conditions and shall not be liable for any discrepancies.

The Contractor shall place a 1" deep saw cut at the limits of concrete removal to facilitate a clean, smooth line when breaking back existing concrete.

All existing concrete surfaces to be in contact with the new construction shall be thoroughly roughened and cleaned before placing any new concrete.

Existing unbroken concrete surfaces to be in contact with the new concrete shall be scarified to an amplitude of ¼".

Use surface saturated dry condition when placing new concrete against old concrete.

Damage to existing structures, consequent to the Contractors operations, shall be repaired at the Contractor's expense, under the direction of the Engineer.

Actual field conditions may require repair more or less than what is depicted in the plans. The final areas to be repaired shall be determined by the Engineer. The Bridge Office shall be notified when field conditions impede the implementation of these plans or vary significantly from what is shown.

PPF JOINT - INSTALLATION INSTRUCTIONS

1. Correctly form and cure the expansion joint gap.
2. Sandblast gap surfaces to clean and prepare.
3. Thoroughly clean gap with compressed air and solvent-dampened rags to remove all dust and contaminants.
4. Apply manufacturer's epoxy adhesive to gap surfaces, as instructed. Make sure to install joint before epoxy adhesive begins to cure.
5. Push first section of PPF Joint down into place, working a few feet at a time. Leave end to be spliced sticking out of gap.
6. Install next section of PPF, working towards previously installed section. Push spliced ends tightly together, and set splice in place. Connect silicone facings together per manufacturers instructions.
7. Repeat process for additonal sections of PPF Joint. Measure and cut final section of PPF Joint as needed.
8. Once seal is fully placed, apply silicone sealer to top corners of joint. Force tip of caulking gun into corner to completely fill.

SHOP PLANS FOR REVIEW:
Waterstop

- QUANTITIES -

GROUP 6

PREPARATION OF BRIDGE AT STATION 241+08.08		1 EA
CLASS 47BD-4000 CONCRETE FOR BRIDGE		221.5 CY
SLAB	171.3 CY	
HAUNCHES	5.3 CY	
CONCRETE RAILS	44.9 CY	
SHEAR CONNECTORS		2,440 EA
EPOXY COATED REINFORCING STEEL		52,235 LB
SLAB	40,490 LB	
CONCRETE RAILS	11,745 LB	
CONCRETE PATCHING		23.8 SF
GRANULAR BACKFILL		40 CY
ROCK RIPRAP, TYPE "B"		135 TON
CONCRETE FOR PAVEMENT APPROACHES CLASS 47BD-4000		34.4 CY
SLABS	34.4 CY	
EPOXY COATED REINFORCING STEEL FOR PAVEMENT APPROACHES		7,690 LB
SLABS	7,690 LB	
BRIDGE DECK GROOVING		580 SY
PRECOMPRESSED POLYURETHANE FOAM JOINT, TYPE A		28 LF
2" CONDUIT IN BRIDGE		271 LF

- INDEX -

DESIGN HISTORY

PROJECT NO.	CONTROL NO.	YEAR	TYPE OF WORK
F-113(5)	-	1946	Original Construction
12(166.03)	-	1976	BRIDGE DECK RESURFACING

Existing Plans are available from the Bridge Division upon request.

S1

PROJECT NUMBER
STR-12-5(1018)

C.N. 31674B

STRUCTURE NUMBER
S012 16603

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

230'-0" 3-SPAN STEEL GIRDER
BRIDGE (W36X150) REDECK

GENERAL NOTES, QUANTITIES & INDEX

DATE NOVEMBER 2023

CHECKED BY MJK/ZZJ

DETAILED BY NTF

DESIGNED BY CJC

COUNTY KNOX
HWY. NO. U.S. 12
REF. POST. 166.03
STA. 241+20.08

LOCATION BAZILE CREEK BRIDGE
SKEW 0°
ROADWAY 26'-0"
DESIGN LIVE LOAD HL-93

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

benesch

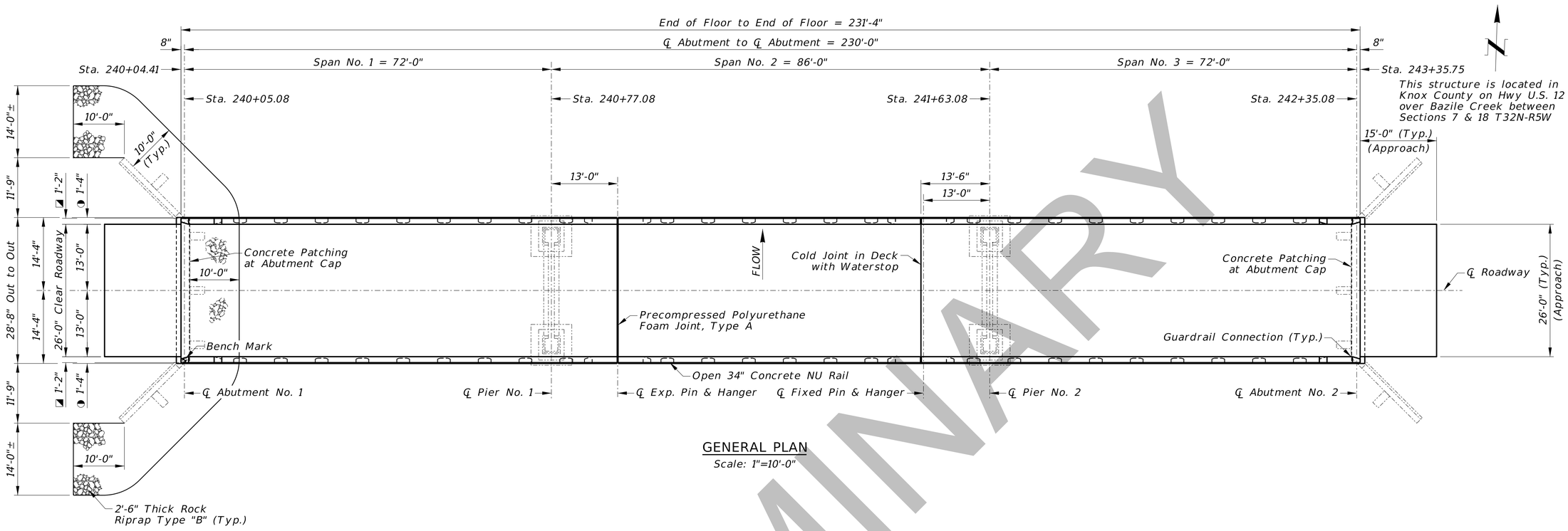
SPECIAL PLAN NO. 1

1/10

COMPUTER$$$$

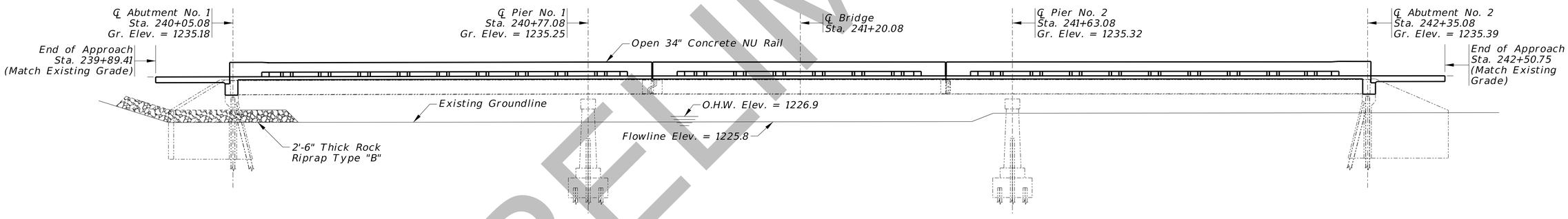
DATE$$$$$$$$$$$$$$$

DGNSPEC$$$$$$$$$$$$$



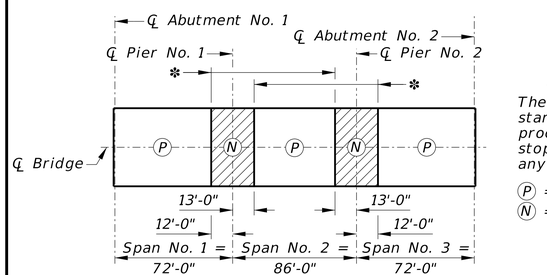
GENERAL PLAN

Scale: 1"=10'-0"



SECTIONAL ELEVATION

Scale: 1"=10'-0"



❇ Optional Construction Joints (Pour in direction of arrows)

POURING DIAGRAM

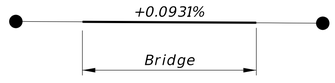
Not to Scale

POURING SEQUENCE:

The entire slab shall be poured starting at either end and proceeding to the other end, stopping at the completion of any "P" section.

(P) = Positive moment section

(N) = Negative moment section



VERTICAL PROFILE DATA

(For Bridge Only)
Not to Scale

NOTES:

1. Grade Elevations are Profile Grade at the Profile Grade Line (PGL) along ℄ Roadway. Grade Elevations are at the top of the Concrete Deck or Slab.
2. Stations shown are at ℄ Roadway, unless otherwise noted.
3. Existing Grade Elevations are based on as-built drawings. Contractor shall verify exiting deck elevations and match existing grades.

◑ Measured to Edge of Deck

◪ Rail Width

S2

PROJECT NUMBER
STR-12-5(1018)

C.N. 31674B

STRUCTURE NUMBER
S012 16603

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

230'-0" 3-SPAN STEEL GIRDER BRIDGE (W36X150) REDECK

GENERAL PLAN & ELEVATION

DATE NOVEMBER 2023

CHECKED BY MJK/ZZJ

DETAILED BY NTF

DESIGNED BY CJC

COUNTY KNOX
HWY. NO. U.S. 12
REF. POST. 166.03
STA. 241+20.08

LOCATION BAZILE CREEK BRIDGE
SKEW 0°
ROADWAY 26'-0"
DESIGN LIVE LOAD HL-93

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

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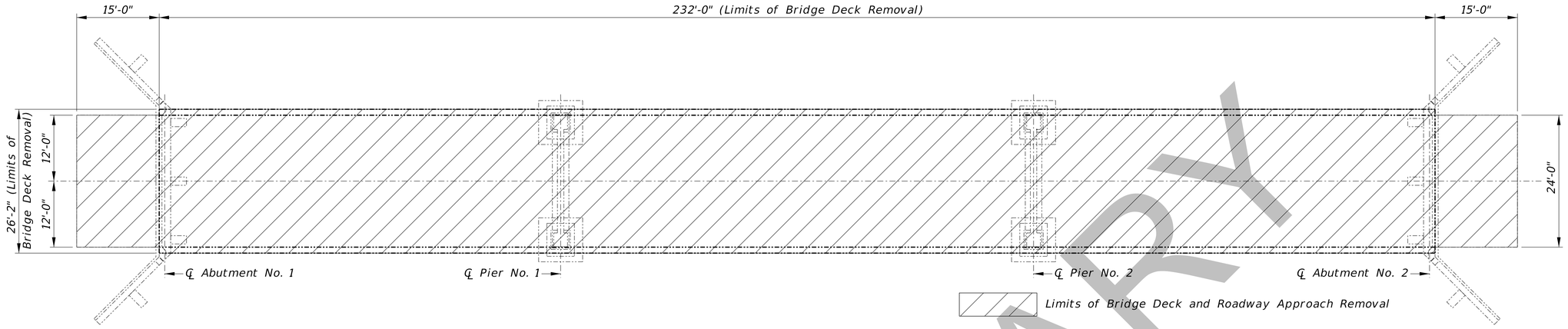
SPECIAL PLAN NO. 1

2 / 10

COMPUTER$$$$

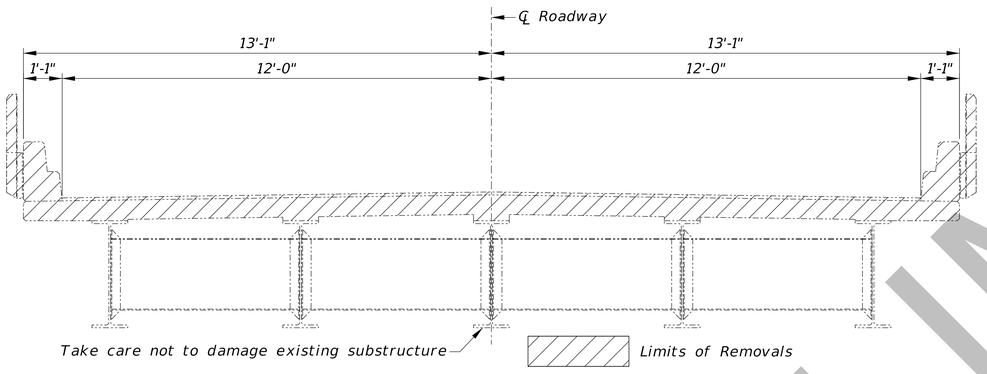
DATE$$$$$$$$$$$$$$$

DGNSPEC$$$$$$$$$$$$$



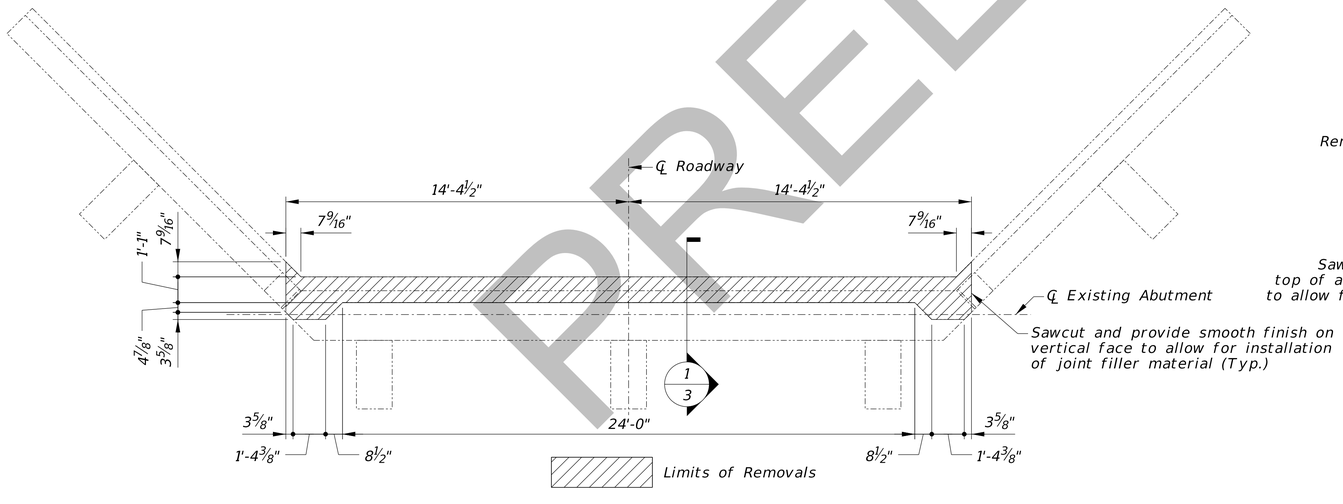
PLAN OF BRIDGE DECK AND ROADWAY APPROACH REMOVAL LIMITS

Scale: 1" = 10'-0"



CROSS SECTION OF DECK REMOVAL LIMITS

Scale: ½" = 1'-0"



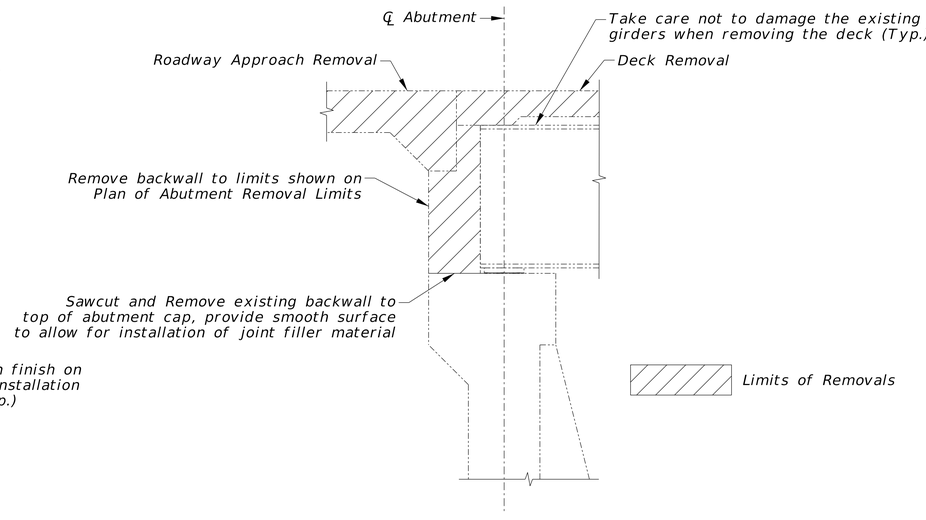
PLAN OF ABUTMENT REMOVAL LIMITS

Scale: ⅜" = 1'-0"

Approximate Limits of Concrete Patching

ABUTMENT CAP PATCHING

(Typical at Abut. No. 1 and Abut. No. 2)



SECTION 1/3

Scale: ¾" = 1'-0"

S3

PROJECT NUMBER *STR-12-5(1018)*

C.N. *31674B*

STRUCTURE NUMBER *S012 16603*

PROFESSIONAL CIVIL ENGINEER ★ ROSS D. BARRON E-14018 ★ STATE OF NEBRASKA

BRIDGE ENGINEER

230'-0" 3-SPAN STEEL GIRDER BRIDGE (W36X150) REDECK

REMOVAL & PATCHING DETAILS

DATE *NOVEMBER 2023*

CHECKED BY *MJK/ZZJ*

DETAILED BY *NTF*

DESIGNED BY *CJC*

COUNTY *KNOX*

HWY. NO. *U.S. 12*

REF. POST. *166.03*

STA. *241+20.08*

LOCATION *BAZILE CREEK BRIDGE*

SKEW *0°*

ROADWAY *26'-0"*

DESIGN LIVE LOAD *HL-93*

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

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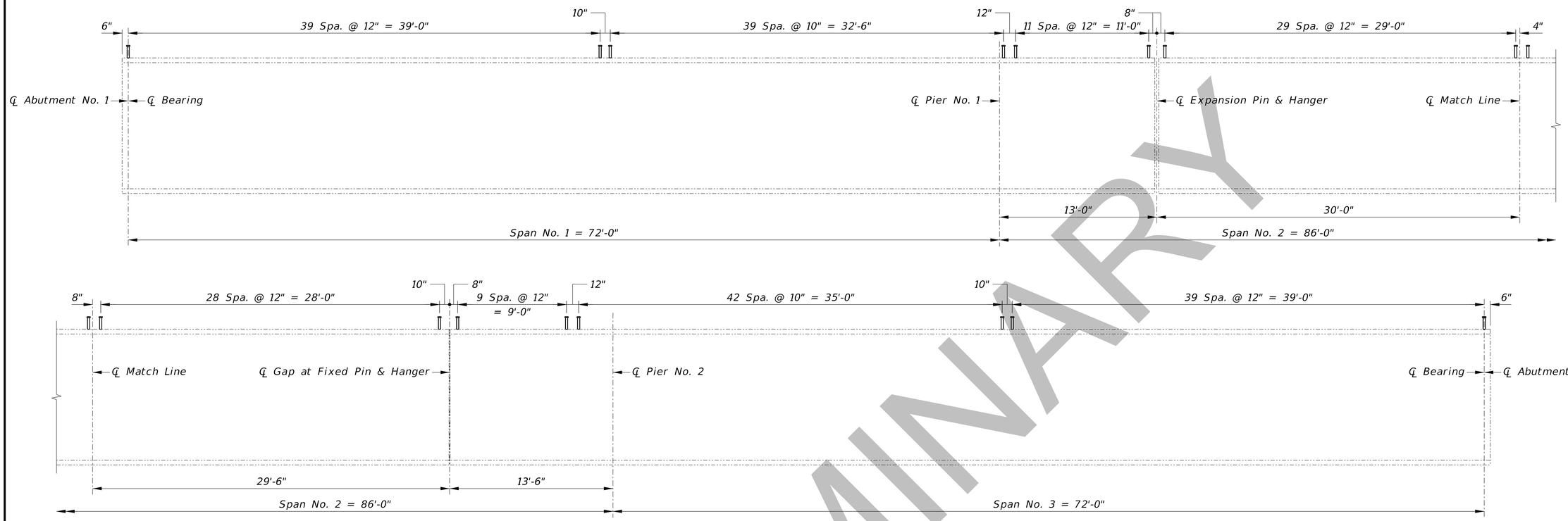
SPECIAL PLAN NO. 1

3 / 10

COMPUTER$$$$

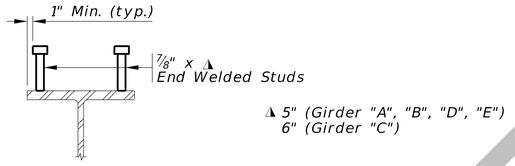
DATE$$$$$$$$$$$$$$$

DGNSPEC$$$$$$$$$$$$$$



NOTE: Pin and Hanger Hardware not shown for clarity.

ELEVATION OF SHEAR CONNECTOR LAYOUT
Not to Scale



When Shear Connectors are field applied, the following notes shall apply:

The Bridge Office shall be notified a minimum of one week prior to the application of the field welded studs.

Stud welding shall be accomplished in accordance with the AWS D1.5 Standard Specifications, Section 7.

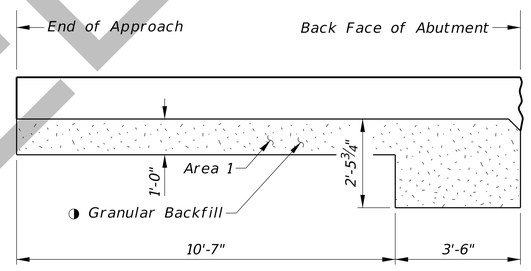
All stud welding shall be done by a certified stud welder. At the time of stud welding, the studs and base metal shall be free from rust, rust pits, scale, oil, moisture, falling rain or snow, and any other foreign material. Areas must be wire brushed or cleaned by grinding before any welding can occur.

If damage or deterioration at the top of flange surface does not allow for proper installation of the studs, contact the Engineer for direction.

Any studs that do not exhibit a 360° collar must be repaired by a SMAW fillet weld (E8018-C3 Electrode) and the repair shall extend 3/8" beyond each end of the missing collar.

Mill Certification for the studs shall be submitted to the Engineer.

SHEAR CONNECTOR DETAIL
Not to Scale

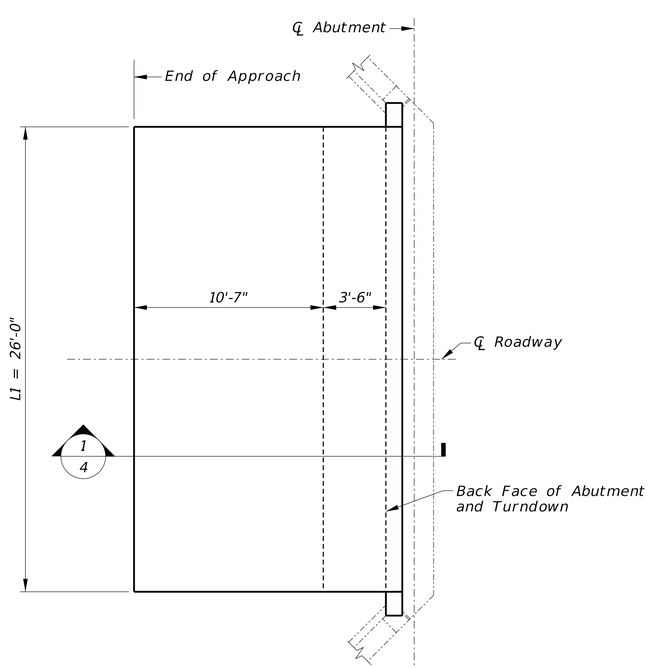


The pay limit quantity for Granular Backfill, per Abutment, has been established using the following equation:

$$\text{Quantity } (yd^3) = \frac{\text{Area 1} \times L1}{27}$$

◑ *The Granular Backfill in this area shall be placed in 8 inch layers and compacted by a single pass of a walk-behind, lightweight (approx. 100 lbs.) mechanical tamper, roller, or vibratory compactor. There is no density requirement. Heavy compaction equipment shall not be used in this area. Flooding the granular backfill with water is not allowed.*

SECTION 1/4
Not to Scale



PLAN OF GRANULAR BACKFILL
(Typical at Each Abutment)
Not to Scale

S4

PROJECT NUMBER
STR-12-5(1018)

C.N. *31674B*

STRUCTURE NUMBER
S012 16603

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

230'-0" 3-SPAN STEEL GIRDER BRIDGE (W36X150) REDECK
SHEAR CONNECTOR & BACKFILL DETAILS

DESIGNED BY *C/C* DETAILED BY *NTF* CHECKED BY *MJK/ZZJ* DATE *NOVEMBER 2023*

COUNTY *KNOX* LOCATION *BAZILE CREEK BRIDGE*
HWY. NO. *U.S. 12* SKEW *0°*
REF. POST. *166.03* ROADWAY *26'-0"*
STA. *241+20.08* DESIGN LIVE LOAD *HL-93*

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

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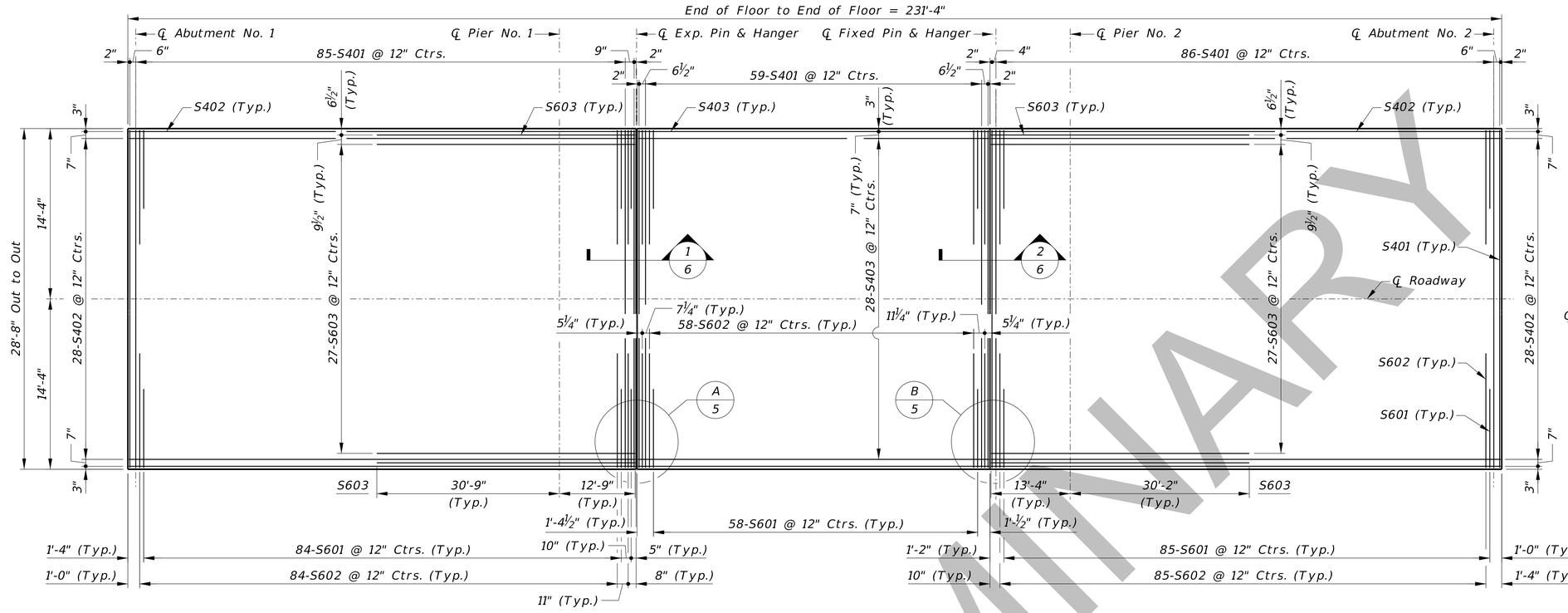
SPECIAL PLAN NO. 1

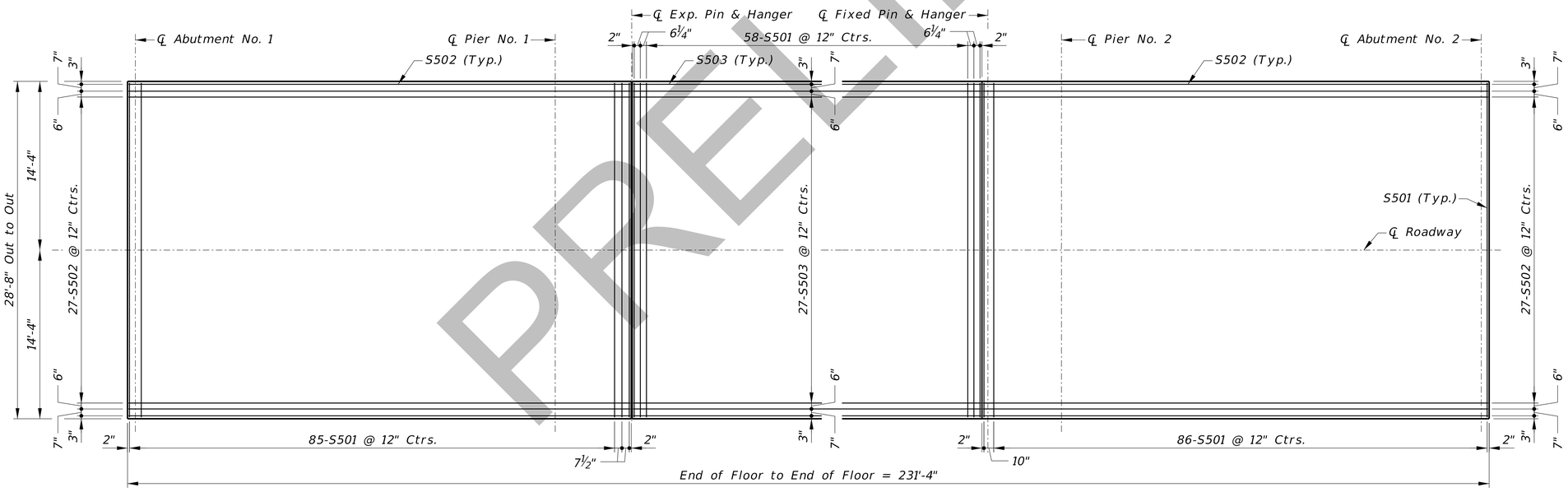
4/10

COMPUTER$$$$
DATE$$$$$$$$$$$$$$
DGNSPEC$$$$$$$$$$$$



TOP OF SLAB REINFORCING LAYOUT

Not to Scale



BOTTOM OF SLAB REINFORCING LAYOUT

Not to Scale

S5

PROJECT NUMBER
STR-12-5(1018)

C.N. 31674B

STRUCTURE NUMBER
S012 16603

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

230'-0" 3-SPAN STEEL GIRDER
BRIDGE (W36X150) REDECK
SLAB REINFORCING LAYOUT

DATE NOVEMBER 2023
CHECKED BY MJK/ZZJ

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

COUNTY KNOX
HWY. NO. U.S. 12
REF. POST. 166.03
STA. 241+20.08

LOCATION BAZILE CREEK BRIDGE
SKEW 0°
ROADWAY 26'-0"
DESIGN LIVE LOAD HL-93
DETAILED BY NTF
DESIGNED BY CJC

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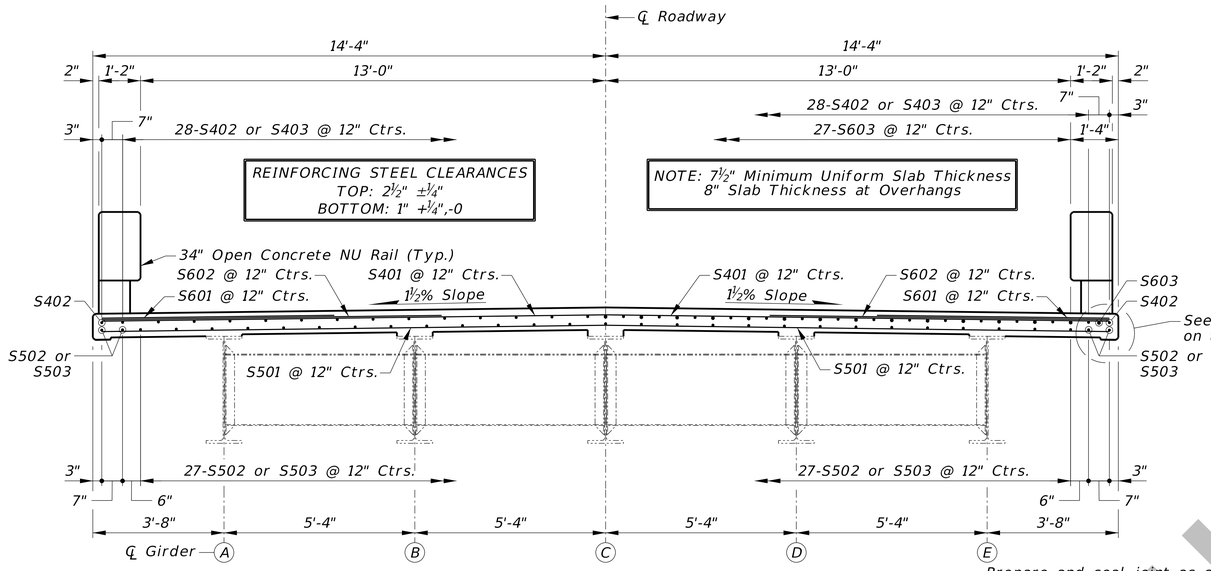
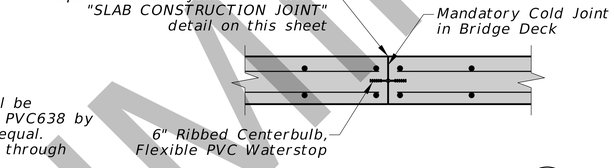
SPECIAL PLAN NO. 1

5/10

COMPUTER$$$$
DATE$$$$$$$$$$$$$$$
DGNSPEC$$$$$$$$$$$$





PROJECT NUMBER *STR-12-5(1018)*

C.N. *31674B*

STRUCTURE NUMBER *S012 16603*

ROSS D. BARRON E-14018

BRIDGE ENGINEER

CROSS SECTION OF ROADWAY

Scale: ½"=1'-0"

NOTES:

1. 6" Ribbed Centerbulb, Flexible PVC Waterstop shall be Greenstreak Type 732 by Sika, Earth Shield Type PVC638 by JP Specialties, Type 9 by Durajoint, or approved equal.
2. Submit selected product for approval by Engineer through the shop drawing process.
3. 6" Ribbed Centerbulb, Flexible PVC Waterstop will not be paid for directly, but will be considered subsidiary to the item "CLASS 47BD-4000 CONCRETE FOR BRIDGE".

CROWN TEMPLET

Not to Scale

DRIP BEAD DETAIL

Not to Scale

NOTES:

The Contractor shall prepare and seal the joint according to the manufacturer's recommendations.

Before sealing, the joint wall surfaces shall be sandblasted to remove any loose particles and concrete dust.

After sandblasting, the entire joint shall be cleaned with compressed air having a minimum pressure of 90 psi. The compressed air shall be free of any contaminants.

The joint shall be dry at the time of sealing.

SLAB CONSTRUCTION JOINT

Not to Scale

SECTION AT WATERSTOP JOINT

2/5

JOINT DETAIL AT RAIL

SECTION AT EXPANSION JOINT

NOTES:

PPF Joint Nominal Material Size to be ordered at 2¼".

Dimension 'B' provided by Expansion Joint manufacturer.

BILL OF BARS

	MARK	NUMBER OF BARS	LENGTH	TYPE	A	B	C	D	E	F	PIN Ø	HOOK	WEIGHT (LB)
SLAB	S601	458	6'-6"	Str.									4,471
	S602	460	9'-0"	Str.									6,218
	S603	58	43'-6"	Str.									3,790
	S604	52	3'-0"	105	1'-6"	1'-6"	1'-1"				4½"		234
	S501	236	28'-4"	Str.									6,974
	S502	62	89'-1"	Str.	Includes 1 ~ 3'-6" Lap								5,761
	S503	31	59'-5"	Str.									1,921
	S504	64	8'-11"	107	1'-9"	2'-3"					2½"	5½"	595
	S505	128	6'-0"	104	3'-0"	3'-0"					2½"		801
	S506	56	5'-0"	Str.									292
	S507	28	3'-4"	Str.									97
	S508	6	28'-4"	Str.									177
	S401	236	28'-4"	Str.									4,467
	S402	60	87'-7"	Str.	Includes 1 ~ 2'-0" Lap								3,510
	S403	30	58'-11"	Str.									1,181
											SUBTOTAL (LB) =		40,489

BILL OF BARS (CONT.)

	MARK	NUMBER OF BARS	LENGTH	TYPE	A	B	C	D	E	F	PIN Ø	HOOK	WEIGHT (LB)
RAIL ON BRIDGE	S690	342	6'-4"	104	3'-2"	3'-2"					4½"		3,253
	S691	136	5'-10"	104	2'-11"	2'-11"					4½"		1,192
	S590	36	14'-5"	130	4'-8"	0'-10"	6'-1"	0'-5"	1'-6"	1'-5"	2½"	5½"	541
	S591	12	6'-1"	124	1'-6"	1'-7"	3'-0"	0'-10"	1'-6"		2½"		76
	S592	32	82'-8"	Str.	Includes 1 ~ 3'-0" Lap								2,759
	S593	16	56'-0"	Str.									935
	S594	48	11'-11"	107	4'-8"	0'-10"					2½"	5½"	597
	S595	24	14'-3"	130	4'-7"	0'-10"	6'-0"	0'-5"	1'-6"	1'-5"	2½"	5½"	357
	S490	192	5'-10"	104	2'-11"	2'-11"					2½"		748
	S390	288	4'-8"	130	1'-1½"	0'-6½"	1'-6"	0'-5"	0'-5"	0'-4½"	1½"	4"	505
	S391	402	5'-2"	107	1'-5"	0'-10"					1½"	4"	781
											SUBTOTAL (LB) =		11,744
											TOTAL (LB) =		52,233

NOTE: FOR BENDING DIAGRAMS, HOOK LENGTHS & PIN DIAMETERS SEE SHEET 10 OF 10.
THE NUMBER OF LAP SPLICES ARE CALCULATED BASED ON 60'-0" LENGTHS OF REINFORCING STEEL BARS.
SPLICES ON BARS SHORTER THAN 60'-0" WILL REQUIRE ADDITIONAL LAP SPLICES AT NO ADDITIONAL EXPENSE TO NDOT.

COUNTY *KNOX*
HWY. NO. *U.S. 12*
REF. POST. *166.03*
STA. *241+20.08*
LOCATION *BAZILE CREEK BRIDGE*
SKEW *0°*
ROADWAY *26'-0"*
DESIGN LIVE LOAD *HL-93*

230'-0" 3-SPAN STEEL GIRDER BRIDGE (W36X150) REDECK
CROSS SECTION OF ROADWAY & SLAB BILL OF BARS

DESIGNED BY *CJC* DETAILED BY *NTF* CHECKED BY *MJK/ZZJ* DATE *NOVEMBER 2023*

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

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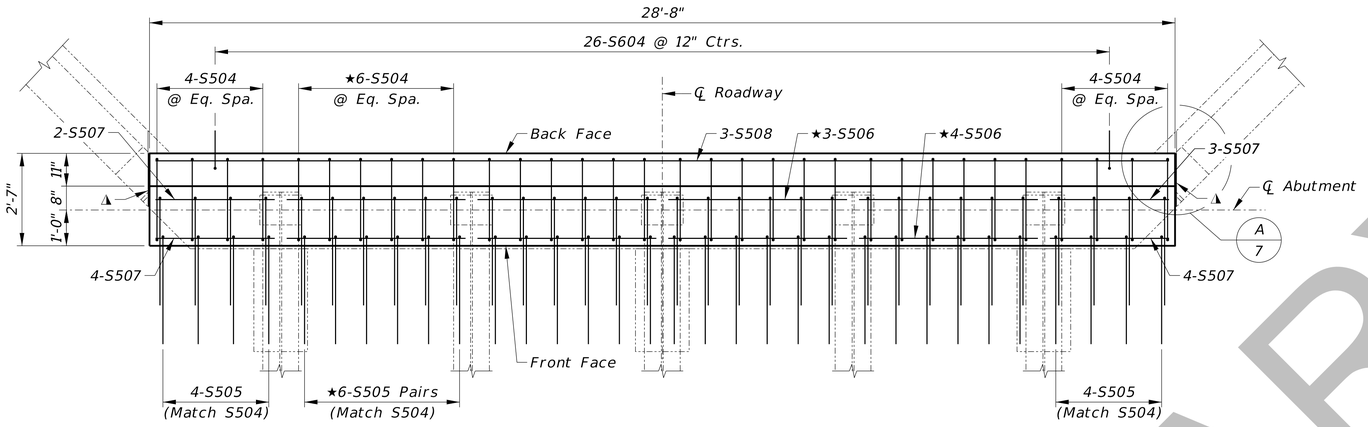
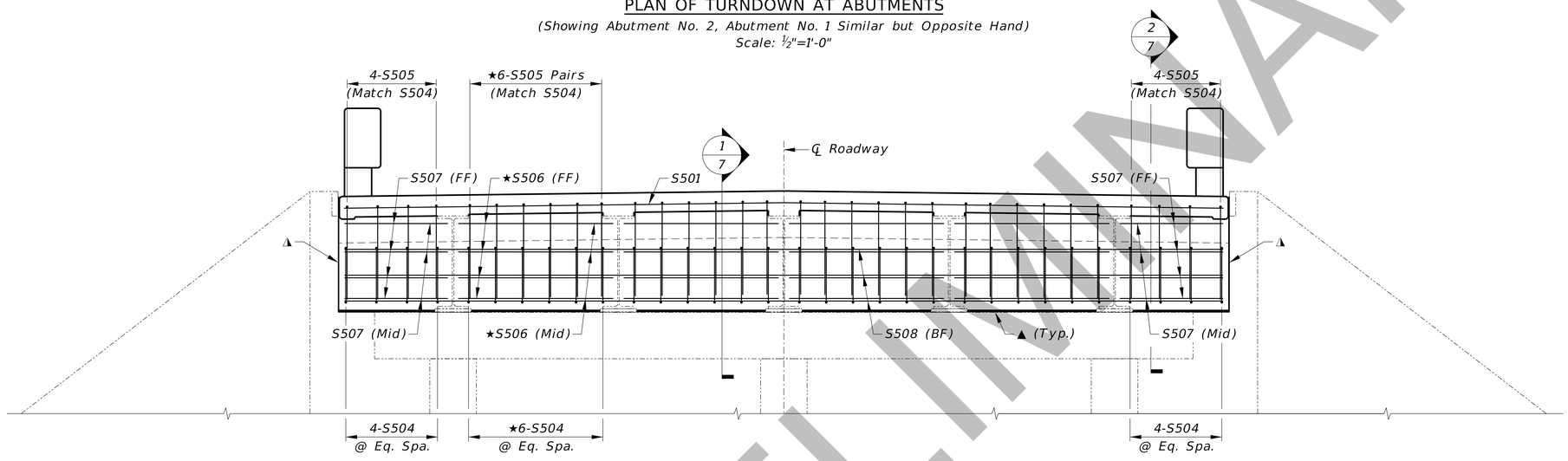
SPECIAL PLAN NO. 1



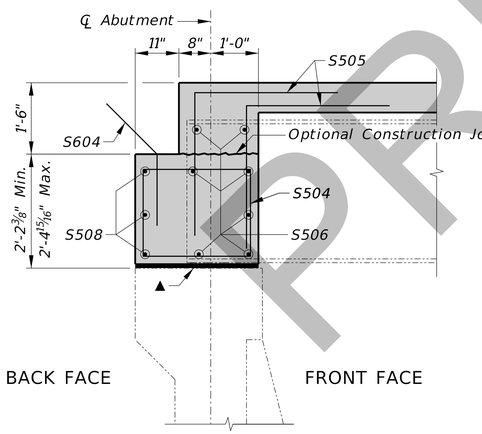
PLAN OF TURNDOWN AT ABUTMENTS

(Showing Abutment No. 2, Abutment No. 1 Similar but Opposite Hand)
Scale: ½"=1'-0"

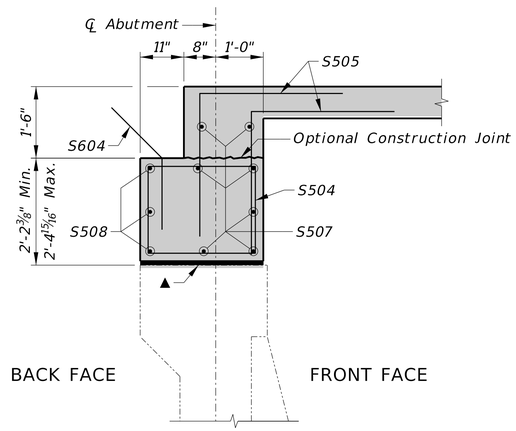


ELEVATION OF TURNDOWN AT ABUTMENTS

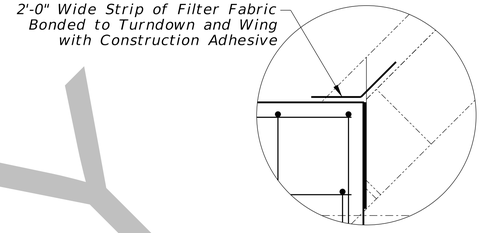
(Showing Abutment No. 2, Abutment No. 1 Similar but Opposite Hand)
Scale: ½"=1'-0"



SECTION 1 / 7
Scale: ¾"=1'-0"



SECTION 2 / 7
Scale: ¾"=1'-0"



DETAIL A / 7
Scale: 1"=1'-0"

NOTE:
Filter fabric and construction adhesive are not paid for directly, but are subsidiary to the bid item "CLASS 47BD-4000 CONCRETE FOR BRIDGE."

NOTES:

◭ ½" Preformed Joint Filler (Sponge Rubber Type) Typical on Vertical Faces.

▲ 1" Preformed Joint Filler or Polystyrene (Typ.)

★ Typical between Girders

(FF) Front Face (BF) Back Face

S7

PROJECT NUMBER
STR-12-5(1018)

C.N. 31674B

STRUCTURE NUMBER
S012 16603

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

230'-0" 3-SPAN STEEL GIRDER BRIDGE (W36X150) REDECK
TURNDOWN DETAILS

COUNTY KNOX
HWY. NO. U.S. 12
REF. POST. 166.03
STA. 241+20.08

LOCATION BAZILE CREEK BRIDGE
SKEW 0°
ROADWAY 26'-0"
DESIGN LIVE LOAD HL-93

DESIGNED BY CJC
DETAILED BY NTF
CHECKED BY MJK/ZZJ
DATE NOVEMBER 2023

NEBRASKA
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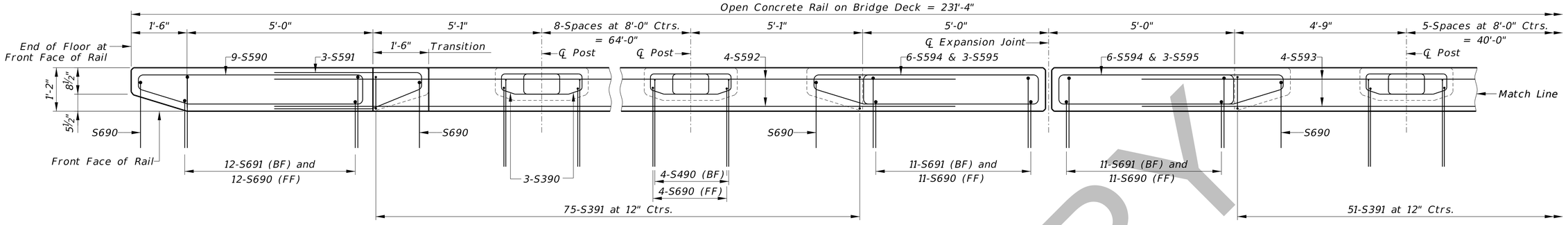
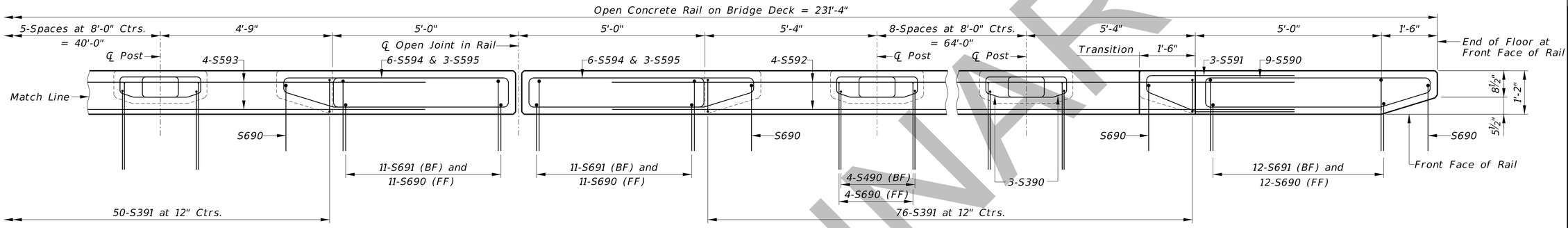
SPECIAL PLAN NO. 1

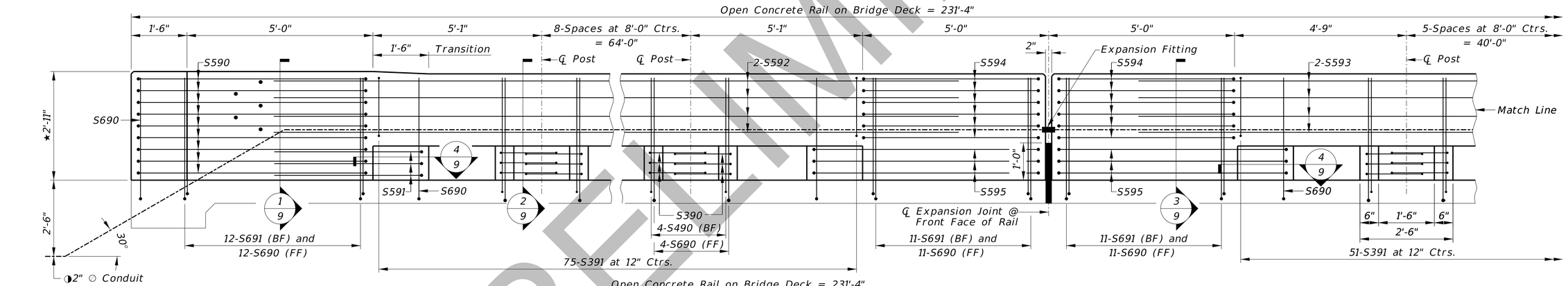
7 / 10

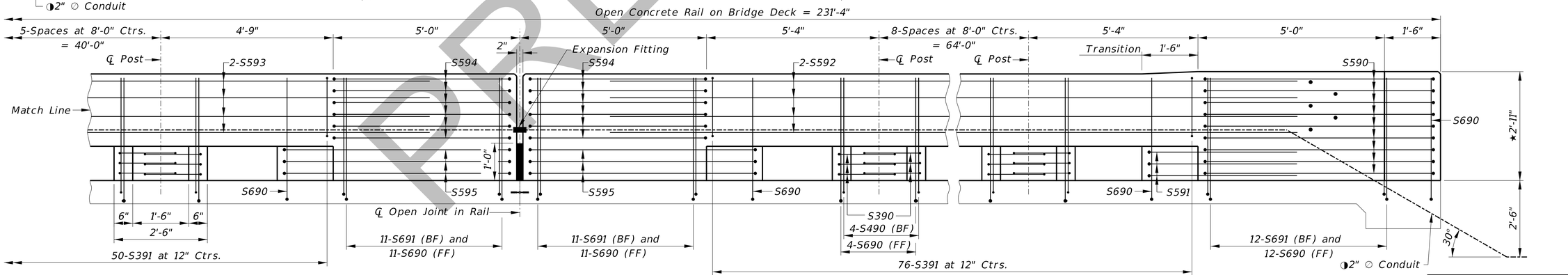
COMPUTER$$$$
DATE$$$$$$$$$$$$$$$
DGNSPEC$$$$$$$$$$$$$





PLAN OF OPEN CONCRETE RAIL ON BRIDGE





ELEVATION OF OPEN CONCRETE RAIL ON BRIDGE

NOTE:
See sheet 6 of 10 for detials of joints in deck.

◑ Right Rail Only
★ Measured at Front Face of Rail

S8

PROJECT NUMBER
STR-12-5(1018)

C.N. 31674B

STRUCTURE NUMBER
S012 16603

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

230'-0" 3-SPAN STEEL GIRDER BRIDGE
BRIDGE (W36X150) REDECK
CONCRETE RAIL ON BRIDGE (A)

COUNTY KNOX
HWY. NO. U.S. 12
REF. POST. 166.03
STA. 241+20.08

LOCATION BAZILE CREEK BRIDGE
SKEW 0°
ROADWAY 26'-0"
DESIGN LIVE LOAD HL-93

DESIGNED BY C/C
DETAILED BY NTF
CHECKED BY MJK/ZZJ
DATE NOVEMBER 2023

NEBRASKA
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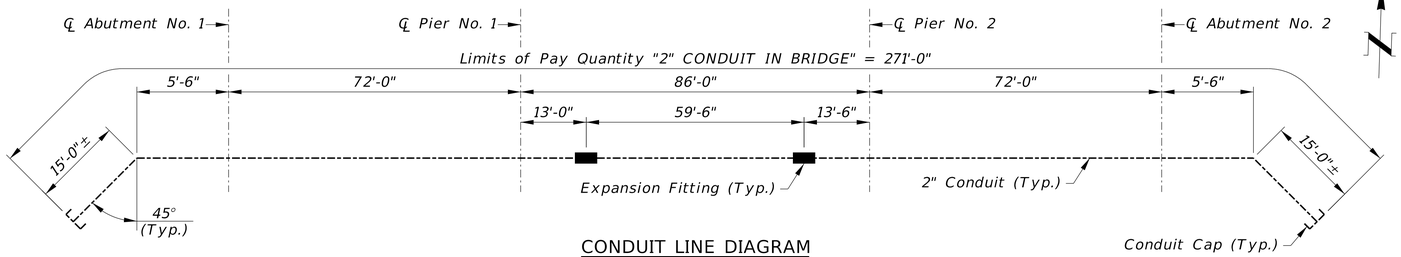
SPECIAL PLAN NO. 1

8/10

COMPUTER$$$$
DATE$$$$$$$$$$$$$$$
DGNSPEC$$$$$$$$$$$$$



CONDUIT LINE DIAGRAM
(Right Rail Only)
Not to Scale

ELECTRICAL CONDUIT NOTES

All conduit shall be P.V.C. and bear the U.L. label, with the exception that conduit stub outs shall be Type GRS or IMC.

All fittings used with P.V.C. conduit shall be P.V.C. Metallic fittings are not acceptable.

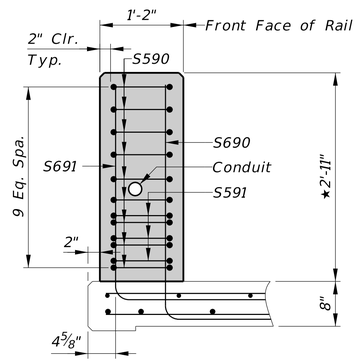
Expansion fittings shall be installed with conduit positioned with respect to ambient temperature and shall bear the U.L. label.

Conduit bends, elbows, and offsets shall be accurately formed.

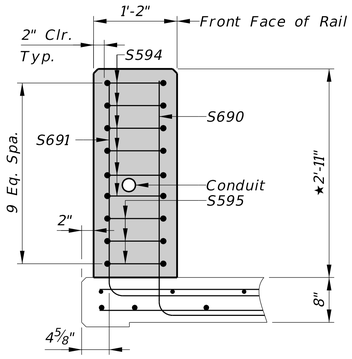
The conduit installation shall be performed by or under the direct supervision of a competent Journeyman Electrician or Lineman.

Fittings used with Liquidtight Flexible Metal Conduit must be approved for the application.

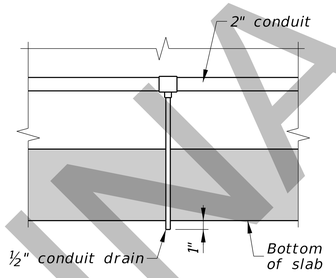
Conduit drains with 1" projection from the concrete face, must be provided at low spots in the electrical conduit and near each Abutment and Pier.



SECTION 1/8
Not to Scale

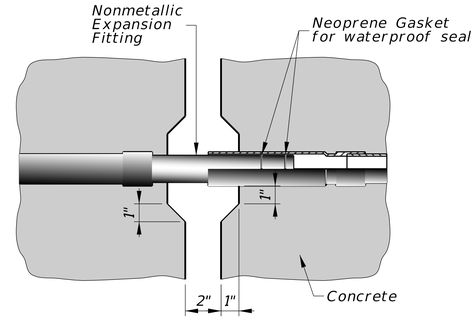


SECTION 3/8
Not to Scale

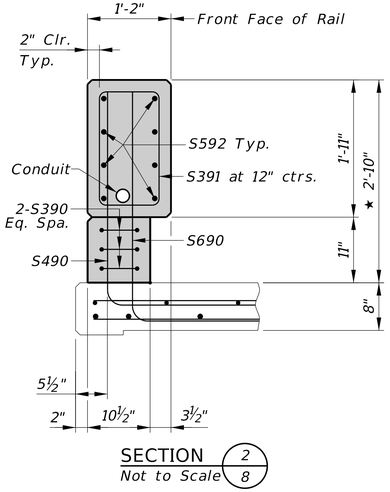


CONDUIT DRAIN

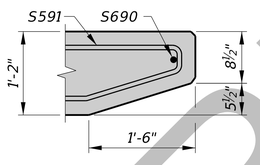
NOTE:
Install one drain near each Abutment and Pier.
2" Conduit shall be placed in such a manner as to provide a low spot at this point.



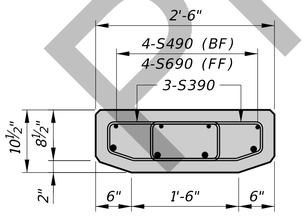
EXPANSION FITTING (4" max. Movement)



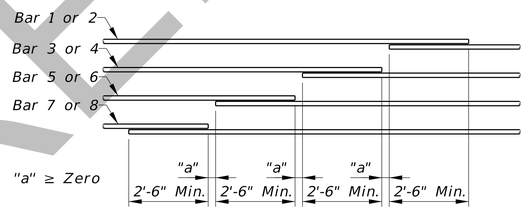
SECTION 2/8
Not to Scale



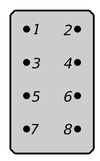
SECTION 4/8
Not to Scale



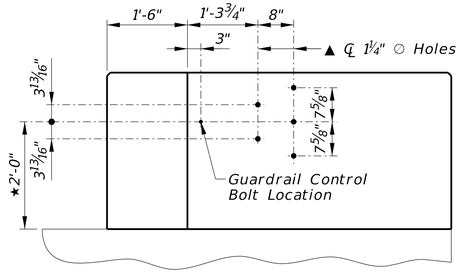
PLAN OF 2'-6" POST



LAP DETAIL
Not to Scale



RAIL SECTION
See Lap Detail



THRIE BEAM TERMINAL CONNECTION DETAIL

NOTES

Concrete rail will be built plumb.

For Rail on Bridge Bill of Bars See Sheet 6 of 10.

★ Measured at front face of rail.

(EF) = Each Face (FF) = Front Face (BF) = Back Face

▲ As an alternate method, the contractor shall furnish and cast into the concrete an approved welded assembly consisting of threaded inserts, held accurately to the template of the holes shown. Inserts are to be complete with galvanized plate washers and galvanized ⅞" ∅ x 2" cap screws. The insert assembly shall be a standard product of a reputable manufacturer of such items and be capable of resisting a shear load of 80,000 lbs.

S9

PROJECT NUMBER
STR-12-5(1018)

C.N. 31674B

STRUCTURE NUMBER
S012 16603

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

230'-0" 3-SPAN STEEL GIRDER
BRIDGE (W36X150) REDECK
CONCRETE RAIL ON BRIDGE (B)

COUNTY KNOX
HWY. NO. U.S. 12
REF. POST. 166.03
STA. 241+20.08

LOCATION BAZILE CREEK BRIDGE
SKEW 0°
ROADWAY 26'-0"
DESIGN LIVE LOAD HL-93
DETAILED BY NTF
CHECKED BY MJK/ZZJ
DATE NOVEMBER 2023

DESIGNED BY CJC

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

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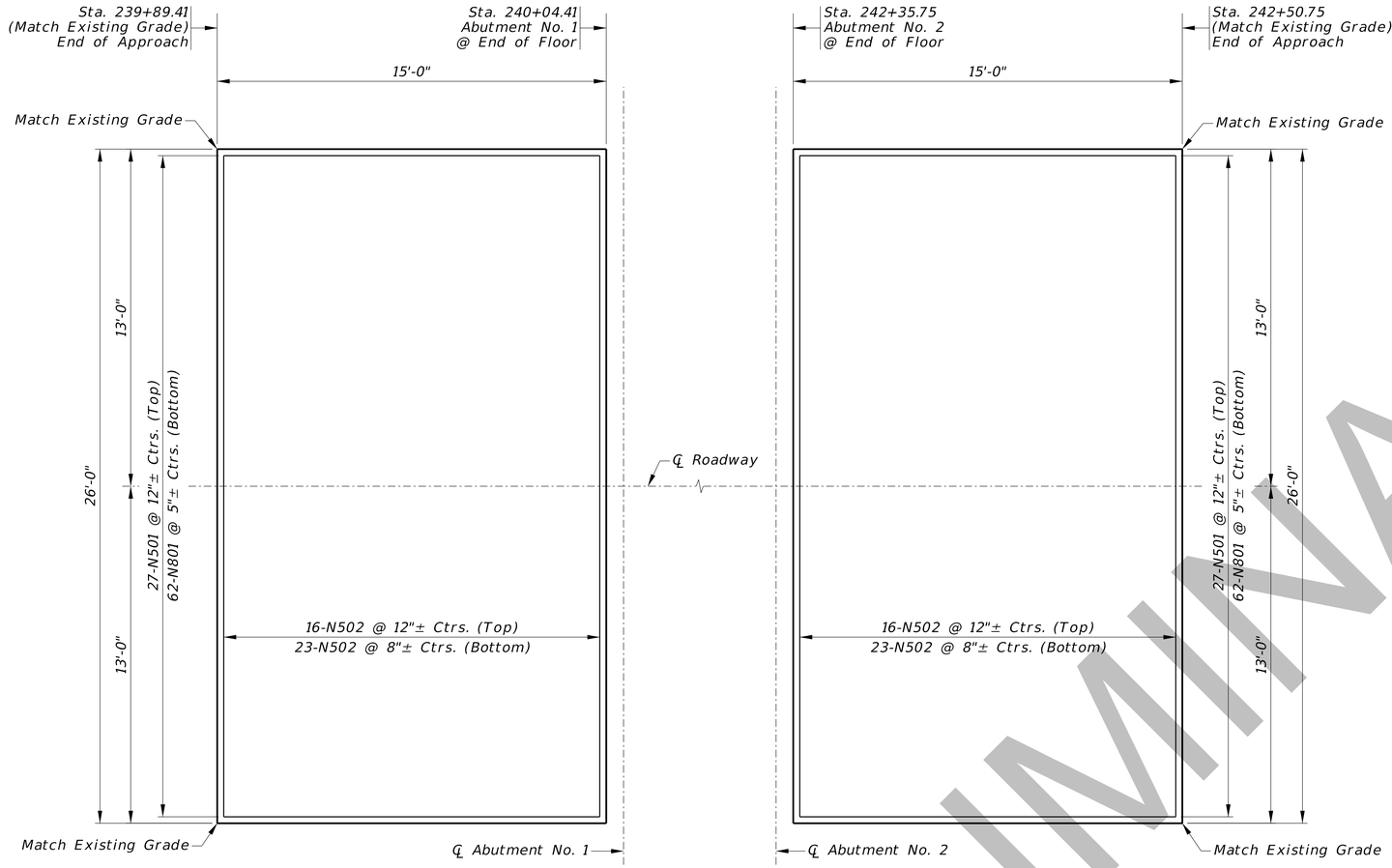
SPECIAL PLAN NO. 1

9/10

COMPUTER$$$$
DATE$$$$$$$$$$$$$$
DGNSPEC$$$$$$$$$$$$$

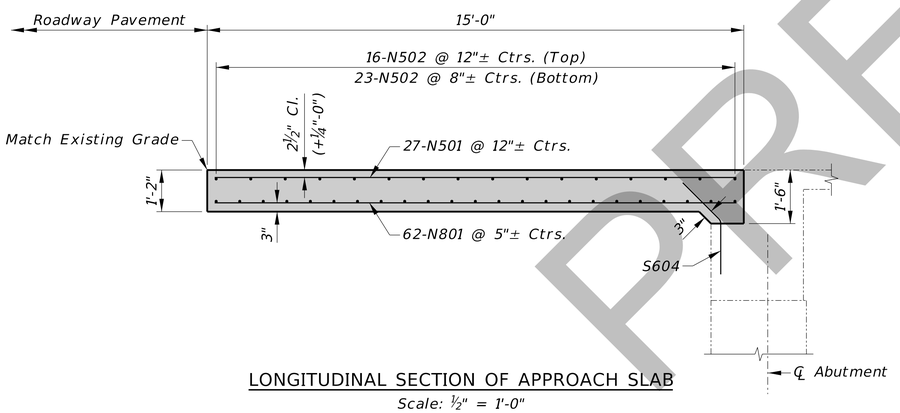


PLAN OF APPROACH SLAB NO. 1

Scale: ⅜" = 1'-0"

PLAN OF APPROACH SLAB NO. 2

Scale: ⅜" = 1'-0"



LONGITUDINAL SECTION OF APPROACH SLAB

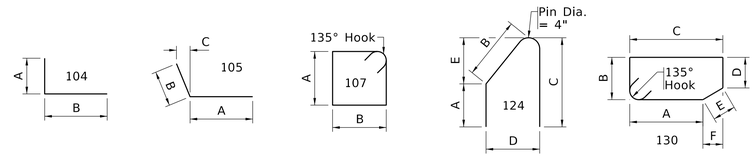
Scale: ½" = 1'-0"

BILL OF BARS

	MARK	NUMBER OF BARS	LENGTH	TYPE	A	B	C	D	E	F	PIN Ø	HOOK	WEIGHT (LB)
Approach Slab No. 1	N801	62	14'-6"	Str.									2,400
	N501	27	14'-6"	Str.									408
	N502	39	25'-6"	Str.									1,037
													SUBTOTAL (LB) = 3,845
Approach Slab No. 2	N801	62	14'-6"	Str.									2,400
	N501	27	14'-6"	Str.									408
	N502	39	25'-6"	Str.									1,037
													SUBTOTAL (LB) = 3,845
													TOTAL (LB) = 7,690

BENDING DIAGRAMS

ALL DIMENSIONS ARE OUT TO OUT & NOT TO SCALE



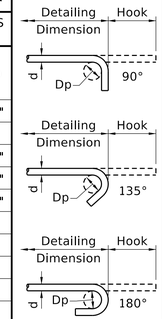
BAR MARK

A413 A 4 13

- *13* — BAR NUMBER: 01 - 99
- *4* — BAR SIZE
- *A* — TYPE OF BRIDGE ELEMENT: (D = Drilled Shaft, A = Abutment, B = Bent, P = Pier, S = Slab & N = Approach Slab)

THE NUMBER OF LAP SPLICES ARE CALCULATED BASED ON 60'-0" LENGTHS OF REINFORCING STEEL BARS. SPLICES ON BARS SHORTER THAN 60'-0" WILL REQUIRE ADDITIONAL LAP SPLICES AT NO ADDITIONAL EXPENSE TO NDOT.

STANDARD HOOK LENGTH						PIN DIAMETER			
PRIMARY STRESS			STIRRUPS & TIES			PRIMARY STRESS		STIRRUPS & TIES	
BAR SIZE	HOOK 90°	HOOK 180°	BAR SIZE	HOOK 90°	HOOK 135°	BAR SIZE	Dp	BAR SIZE	Dp
			3	4"	4"			3	1½"
4	8"	6"	4	4½"	4½"	4	3"	4	2"
5	10"	7"	5	6"	5½"	5	3¾"	5	2½"
6	12"	8"	6	12"	8"	6	4½"	6	4½"
7	15"	10"	7	14"	9"	7	5¼"	7	5¼"
8	17"	11"	8	16"	10½"	8	6"	8	6"
9	19"	15"	d = Bar Size Dp = Pin Diameter			9	9½"		
10	23"	17"				10	10¾"		
11	24"	19"				11	12"		
14	31"	27"				14	18¼"		
18	41"	36"				18	24"		



S10

PROJECT NUMBER
STR-12-5(1018)

C.N. *31674B*

STRUCTURE NUMBER
S012 16603

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

230'-0" 3-SPAN STEEL GIRDER BRIDGE (W36X150) REDECK
APPROACH SLAB DETAILS & BILL OF BARS

LOCATION *BAZILE CREEK BRIDGE* DATE *NOVEMBER 2023*
COUNTY *KNOX* SKEW *0°* ROADWAY *26'-0"*
HWY. NO. *U.S. 12* DESIGN LIVE LOAD *HL-93*
REF. POST. *166.03* CHECKED BY *MJK/ZZJ*
STA. *241+20.08* DETAILED BY *NTF*
DESIGNED BY *CJC*

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

NEBRASKA
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SPECIAL PLAN NO. *1* / *10* / *10*

- BAZILE CREEK BRIDGE -

- TEMPORARY BRIDGE -

- NOTES -

GENERAL

This structure is designed in accordance with the AASHTO LRFD Bridge Design Specifications, Ninth Edition, including subsequent interim revisions.

All dimensions shown are in horizontal plane only. No allowances have been made for vertical curve or roadway cross slope.

Unless noted "NOT TO SCALE", all details are drawn using a constant scale in accordance with NDOT Bridge Scaling Policy.

The locations of all aerial and underground utility facilities may not be indicated in these plans. Underground utilities, whether indicated or not will be located and flagged by the utilities at the request of the Contractor.

No excavation will be permitted in the area of underground facilities until all such facilities have been located and identified to the satisfaction of all parties. The excavation must be accomplished with extreme care in order to avoid any possibility of damage to the utility's facility.

These plans are being issued as part of an emergency repair project. Field conditions encountered during construction may necessitate changes to items such as (but not limited to) pile lengths.

CONCRETE & REINFORCEMENT

Concrete for approach slabs shall be Class "47BD" concrete with a 28-day strength of 4,000 psi.

All other concrete shall be Class "47B" concrete, with a 28-day strength of 3,000 psi.

Chamfer all exposed edges of concrete.

Unless noted as "Optional", all construction joints shown are mandatory.

All reinforcing steel shall be epoxy coated and conform to the requirements of ASTM A615, Grade 60 steel unless otherwise noted.

The minimum clearance, measured from the face of the concrete to the surface of any reinforcing bar, shall be 3".

MISCELLANEOUS

All labor, equipment, tools, materials, and all incidentals necessary to complete the work, that are not paid for directly, shall be considered subsidiary to other items for which payment has been made.

SUBSTRUCTURE

All structural steel shall conform to the requirements of ASTM A709, Grade 36.

All steel H-piles driven for the temporary bridge shall be completely extracted as part of the bridge removal. Pile extraction and other activities associated with removal of the temporary bridge are paid as part of the pay item "REMOVE STRUCTURE AT STATION 141+01.61."

The abutment and bent caps have been designed to be precast on site or by a precast fabricator. Design of any necessary lifting devices is the responsibility of the Contractor.

Temporary Bridge foundations shall be constructed in accordance with the project plans, which were developed based on an ACROW bridge with TSHR2H+/DSH+ configuration. If a different bridge type is provided, the Contractor shall provide reactions and dimensional information for the selected bridge type as part of the shop drawing submittal.

Substructure Design Data: Following are the reactions used to design the substructure shown on these plans. The design was based upon an Acrow bridge type TSHR2H+/DSH+.

	Abutment Reactions (Kips)			Bent Reactions (Kips)		
Load Combination	Vertical	Longitudinal	Transverse	Vertical	Longitudinal	Transverse
Service I	359.3	7.1	18.0	527.6	47.1	18.6
Strength I	546.3	12.5	-	796.8	37.8	-
Strength III	232.5	-	25.8	360.0	45.4	26.0
Strength V	474.6	9.6	21.0	697.0	59.8	21.6

All reactions are per support. Longitudinal loads are parallel to ℄ Roadway and transverse loads are perpendicular to ℄ Roadway. Multiple Presence Factor (MPF) is included in the above reactions. Dynamic load allowance (IM) is included in the above reactions.

SHOP PLANS FOR RECORD:
Temporary Bridge

- QUANTITIES -

GROUP 6A

TEMPORARY BRIDGE		1 LS
ABUTMENT NO. 1 EXCAVATION		1 LS
BENT NO. 1 EXCAVATION		1 LS
ABUTMENT NO. 2 EXCAVATION		1 LS
CLASS 47B-3000 CONCRETE FOR BRIDGE		37.0 CY
ABUTMENTS	29.1 CY	
BENT	7.9 CY	
EPOXY COATED REINFORCING STEEL		4,420 LB
ABUTMENTS	3,450 LB	
BENT	970 LB	
HP 14 INCH X 89 LB STEEL PILING		840 LF
GRANULAR BACKFILL		13.9 CY
CONCRETE FOR PAVEMENT APPROACHES CLASS 47BD-4000		18.4 CY
SLABS	18.4 CY	
EPOXY COATED REINFORCING STEEL FOR PAVEMENT APPROACHES		4,185 LB
SLABS	4,185 LB	

- INDEX -

S11

PROJECT NUMBER
STR-12-5(1018)

C.N. 31674B

STRUCTURE NUMBER
-

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

272'-8½" 2-SPAN PORTABLE PREFABRICATED TRUSS-TYPE BRIDGE
GENERAL NOTES, QUANTITIES & INDEX
DATE NOVEMBER 2023

LOCATION BAZILE CREEK BRIDGE
SKEW 0°
ROADWAY 13.8'
DESIGN LIVE LOAD HL-93
DETAILED BY NTF
CHECKED BY ZZJ
DESIGNED BY MJK

COUNTY KNOX
HWY. NO. -
REF. POST. -
STA. 141+01.61

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

NEBRASKA
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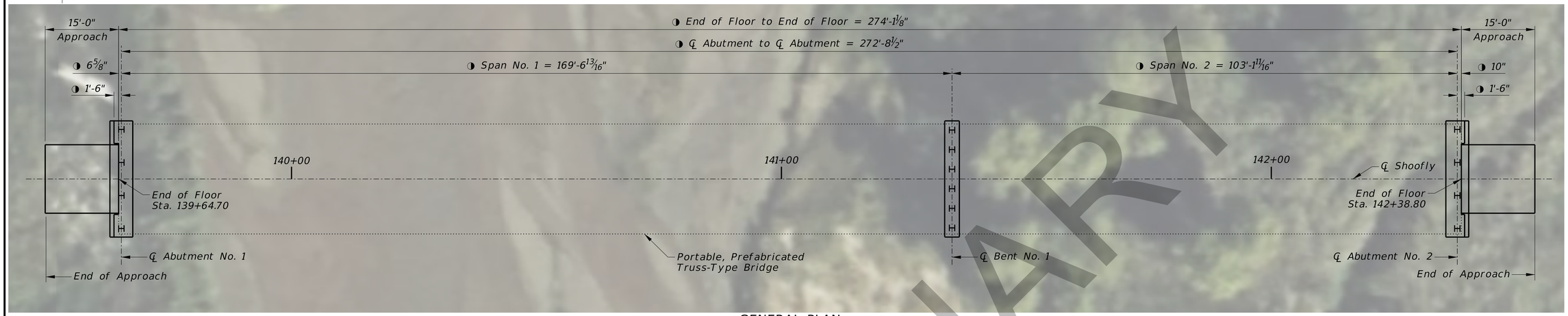
SPECIAL PLAN NO. 2

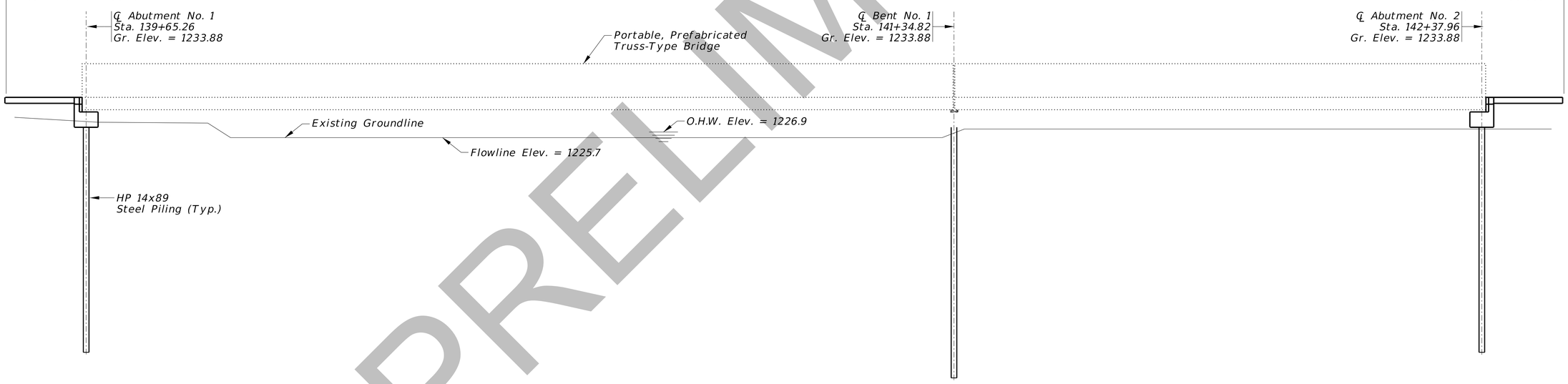
1/9

COMPUTER$$$$
DATE$$$$$$$$$$$$$$
DGNSPEC$$$$$$$$$$$$$



GENERAL PLAN

Scale: 1"=10'-0"



SECTIONAL ELEVATION

Scale: 1"=10'-0"

NOTES:

1. *Grade Elevations are Profile Grade at the Profile Grade Line (PGL). Grade Elevations are at the top of the Prefrabricated Bridge Deck.*

2. *Stations shown are at ℄ Shoofly.*

◑ *Engineer will adjust dimensions if necessary to accomodate the selected Temporary Bridge. Dimensional changes must be approved by the Engineer through the shop plan process.*

S12

PROJECT NUMBER
STR-12-5(1018)

C.N. *31674B*

STRUCTURE NUMBER
-

PROFESSIONAL CIVIL ENGINEER ★ ROSS D. BARRON E-14018 ★ STATE OF NEBRASKA

BRIDGE ENGINEER

272'-8½" 2-SPAN PORTABLE PREFABRICATED TRUSS-TYPE BRIDGE

GENERAL PLAN & ELEVATION

DATE *NOVEMBER 2023*

CHECKED BY *ZZJ*

DETAILED BY *NTF*

DESIGNED BY *MJK*

LOCATION *BAZILE CREEK BRIDGE*

SKEW *0°*

ROADWAY *13.8'*

DESIGN LIVE LOAD *HL-93*

COUNTY *KNOX*

HWY. NO. -

REF. POST. -

STA. *141+01.61*

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

NEBRASKA
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SPECIAL PLAN NO. 2

2 / 9

COMPUTER$$$$

DATE$$$$$$$$$$$$$$

DGNSPEC$$$$$$$$$$$$$

COORDINATE PLAN

Scale: 1"=10'-0"

DATUM INFORMATION

Horizontal	Vertical
NAD 83 (1995)	NAVD 88

DAF = 1.00015555

COORDINATES, STATIONING & OFFSETS

LOCATION	STATION	OFFSET (ft.)	X COORDINATE	Y COORDINATE
1	139+49.83	7.09 Lt.	2192061.82	1071592.20
2	139+49.70	0.09 Lt.	2192062.04	1071585.20
3	139+49.57	6.91 Rt.	2192062.27	1071578.21
4	139+65.26	11.88 Lt.	2192077.20	1071597.58
5	139+65.26	0.00	2192077.59	1071585.71
6	139+65.26	11.88 Rt.	2192077.97	1071573.84
7	141+34.82	11.88 Lt.	2192246.68	1071603.08
8	141+34.82	0.00	2192247.07	1071591.21
9	141+34.82	11.88 Rt.	2192247.45	1071579.34
10	142+37.96	11.88 Lt.	2192349.77	1071606.42
11	142+37.96	0.00	2192350.15	1071594.55
12	142+37.96	11.88 Rt.	2192350.54	1071582.68
13	142+53.80	7.00 Lt.	2192365.75	1071602.06
14	142+53.80	0.00	2192365.98	1071595.06
15	142+53.80	7.00 Rt.	2192366.21	1071588.07

S13

PROJECT NUMBER
STR-12-5(1018)

C.N. 31674B

STRUCTURE NUMBER
-

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

272'-8½" 2-SPAN PORTABLE PREFABRICATED TRUSS-TYPE BRIDGE
COORDINATE PLAN

DATE NOVEMBER 2023

LOCATION BAZILE CREEK BRIDGE
SKEW 0°
ROADWAY 13.8'
DESIGN LIVE LOAD HL-93
CHECKED BY ZZJ
DETAILED BY NTF
DESIGNED BY MJK
COUNTY KNOX
HWY. NO. -
REF. POST. -
STA. 141+01.61

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

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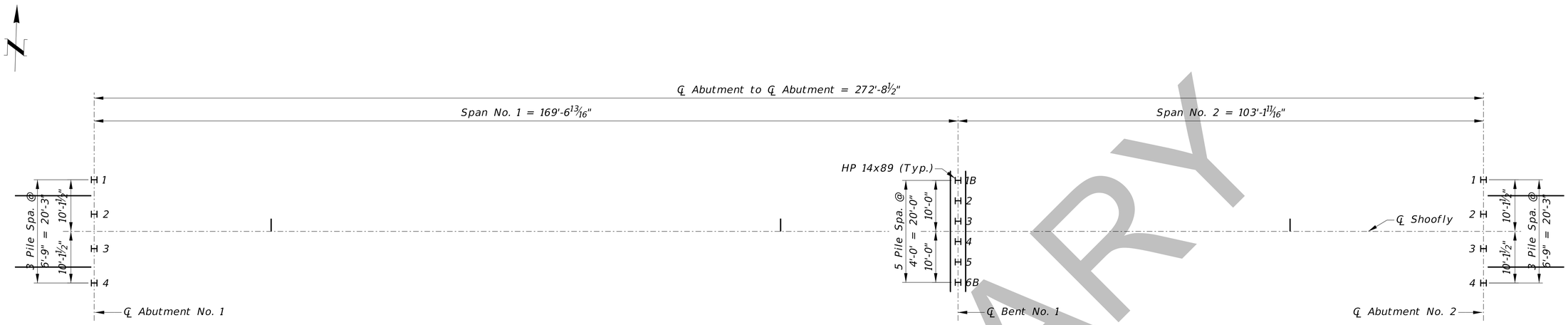
SPECIAL PLAN NO. 2

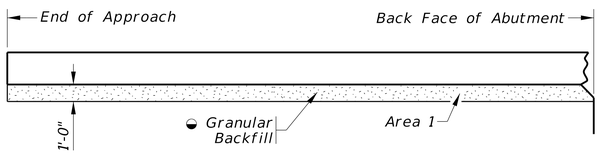
3/9

COMPUTER$$$$
DATE$$$$$$$$$$$$$$$
DGNSPEC$$$$$$$$$$$$$



PILE LAYOUT

Scale: 1"=10'-0"

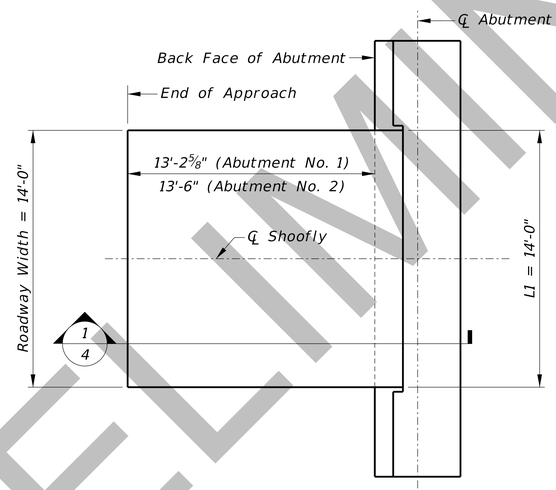


The pay limit quantity for Granular Backfill, per Abutment, has been established using the following equation:

$$\text{Quantity } (yd^3) = \frac{\text{Area 1 x L1}}{27}$$

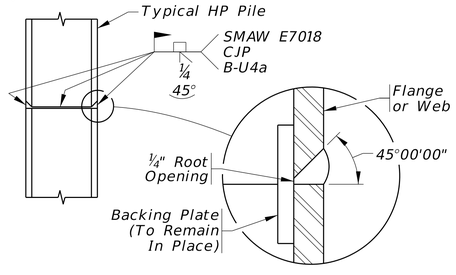
◒ *The Granular Backfill in this area shall be placed in 8 inch layers and compacted by a single pass of a walk-behind, lightweight (approx. 100 lbs.) mechanical tamper, roller, or vibratory compactor. There is no density requirement. Heavy compaction equipment shall not be used in this area. Flooding the granular backfill with water is not allowed.*

SECTION 1/4
Not to Scale



PLAN OF GRANULAR BACKFILL

Not to Scale



NOTE:
See "FIELD WELDING GUIDE" for Steel Pile Splice welding requirements and procedure. The Guide is located under "PROJECT MANAGER RESOURCES" on the NDOT Website.

STANDARD PILE SPLICE

GENERAL
All pile spacing is given at the bottom of concrete.

Bents are designed for scour to Elev. 1213.00 for 100-Year Flood.

Bent piling followed by the letter "B" shall be battered at 1H:8V.

PILE DATA

LOCATION	PILE NUMBER	CUT-OFF ELEVATION	MINIMUM PENETRATION BELOW CUT-OFF (feet)	PILE ORDER LENGTH (feet)	DESIGN PILE BEARING (kips/pile)	PILE TYPE
Abutment No. 1	1-4	1228.01	45	60	200	HP 14x89
Bent No. 1	2-5	1227.70	45	60	185	HP 14x89
Bent No. 1	1B, 6B	1227.70	45	60	185	HP 14x89
Abutment No. 2	1-4	1228.01	50	60	200	HP 14x89

S14

PROJECT NUMBER
STR-12-5(1018)

C.N. 31674B

STRUCTURE NUMBER
-

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

272'-8½" 2-SPAN PORTABLE PREFABRICATED TRUSS-TYPE BRIDGE
PILE LAYOUT & PILE DATA

DATE NOVEMBER 2023

COUNTY KNOX
HWY. NO. -
REF. POST. -
STA. 141+01.61

LOCATION BAZILE CREEK BRIDGE
SKEW 0°
ROADWAY 13.8'
DESIGN LIVE LOAD HL-93

DESIGNED BY MJK
DETAILED BY NTF
CHECKED BY ZZJ
DRAWN BY -

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

NEBRASKA
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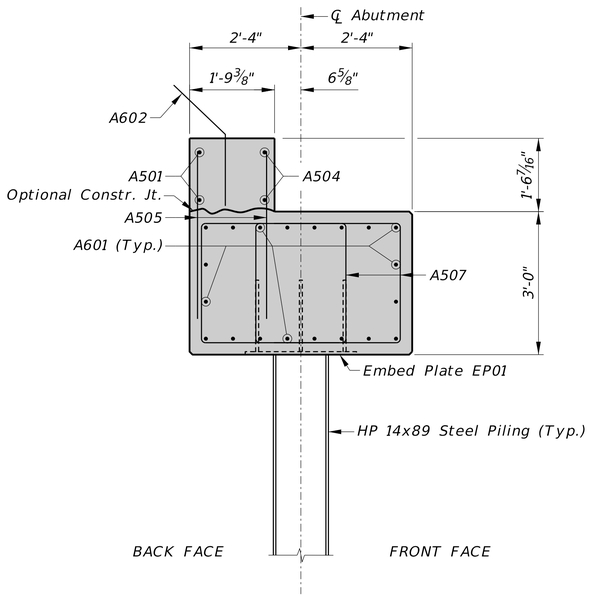
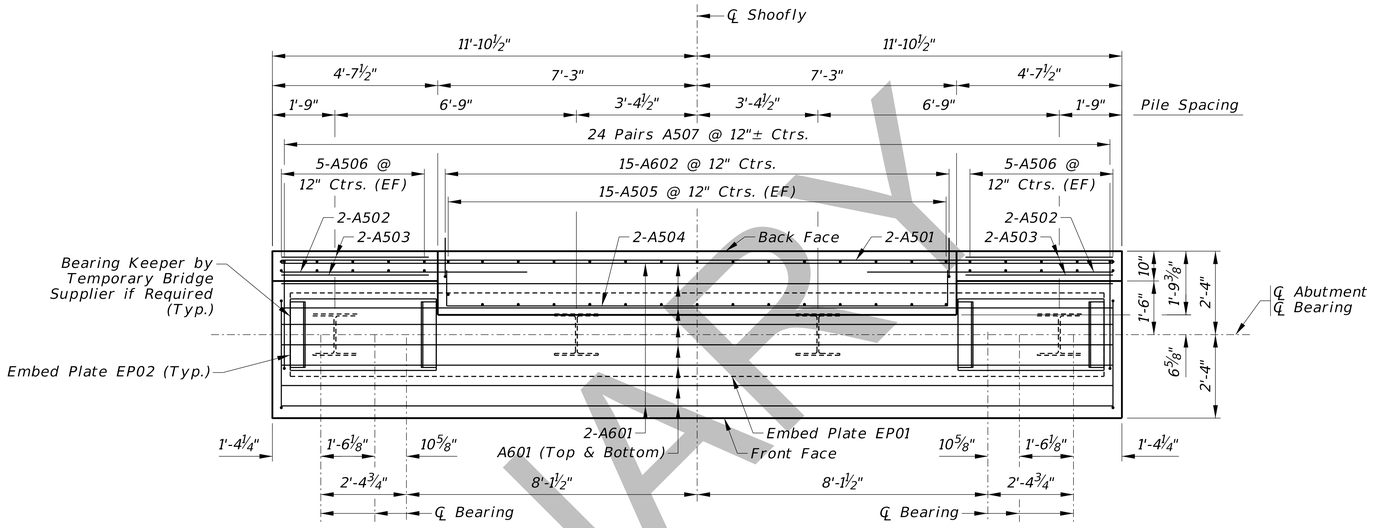
SPECIAL PLAN NO. 2 / 4 9

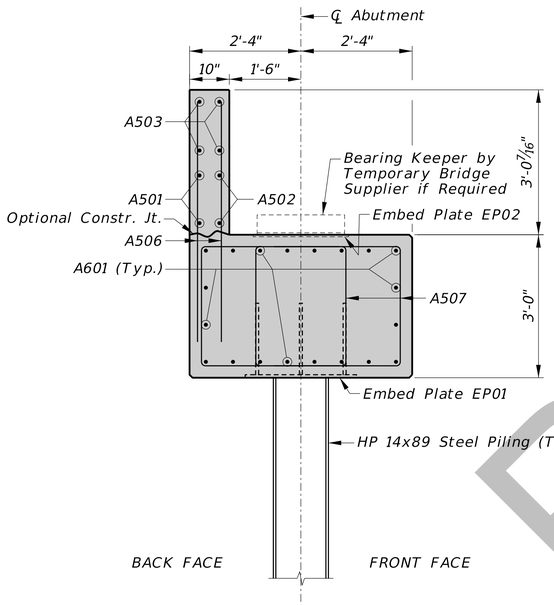
COMPUTER$$$$
DATE$$$$$$$$$$$$$$$
DGNSPEC$$$$$$$$$$$$$



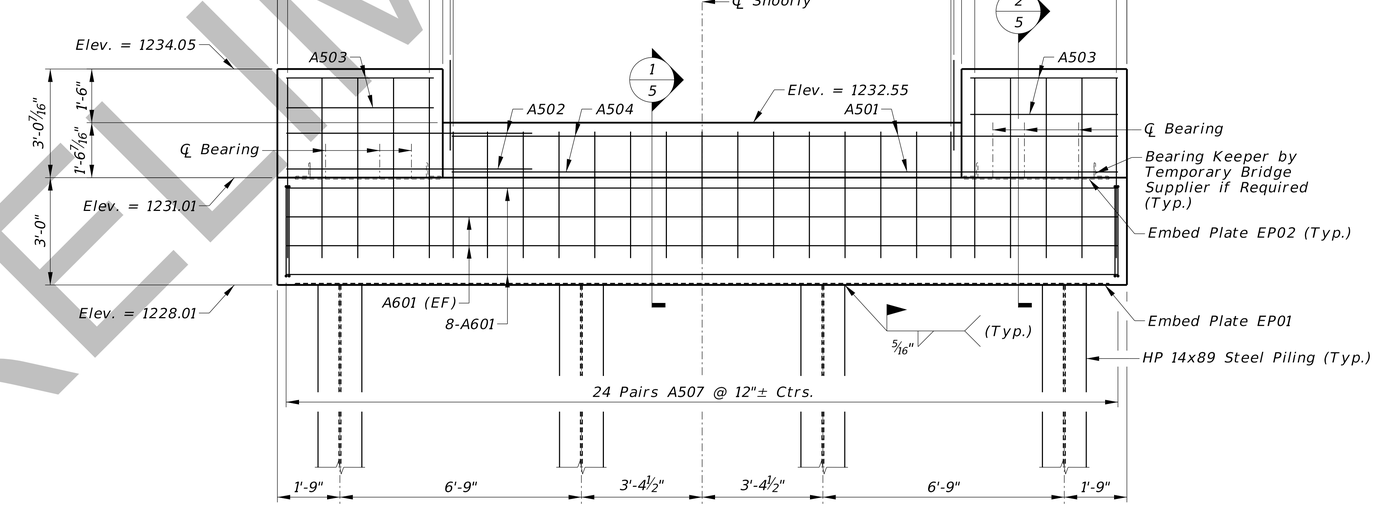
SECTION 1/5
Scale: 3/4" = 1'-0"



PLAN OF ABUTMENT NO. 1
Scale: 1/2" = 1'-0"



SECTION 2/5
Scale: 3/4" = 1'-0"



ELEVATION OF ABUTMENT NO. 1
Scale: 1/2" = 1'-0"

NOTES:

For Details of Embed Plates, See Sheet 8 of 9.

(EF) Each Face

S15

PROJECT NUMBER
STR-12-5(1018)

C.N. 31674B

STRUCTURE NUMBER
-

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

272'-8 1/2" 2-SPAN PORTABLE PREFABRICATED TRUSS-TYPE BRIDGE
PLAN & ELEVATION OF ABUTMENT NO. 1

DATE NOVEMBER 2023
CHECKED BY ZZJ
DETAILED BY NTF
DESIGNED BY MJK

LOCATION BAZILE CREEK BRIDGE
SKEW 0°
ROADWAY 13.8'
DESIGN LIVE LOAD HL-93
COUNTY KNOX
HWY. NO. -
REF. POST. -
STA. 141+01.61

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

benesch

SPECIAL PLAN NO. 2

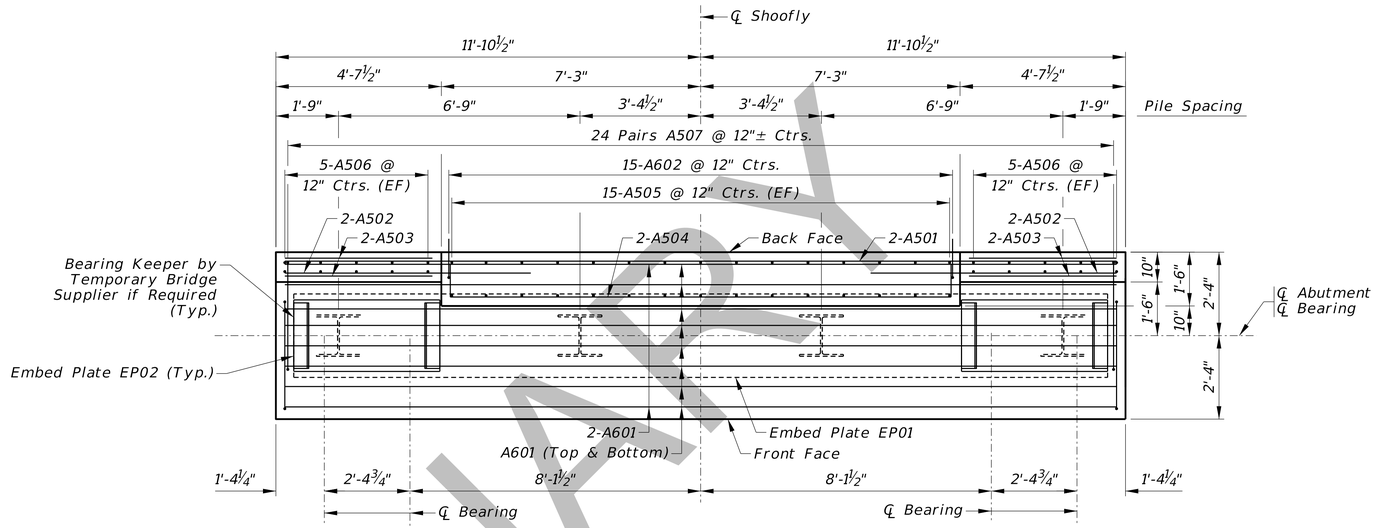
5/9

COMPUTER$$$$
DATE$$$$$$$$$$$$$$
DGNSPEC$$$$$$$$$$

BILL OF BARS

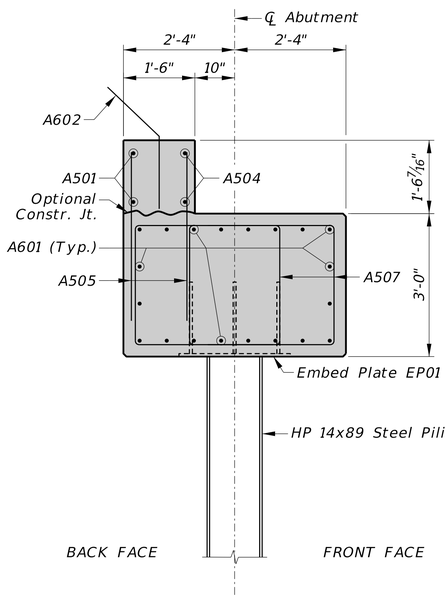
	MARK	NUMBER OF BARS	LENGTH	TYPE	A	B	C	D	E	F	PIN Ø	HOOK	WEIGHT (LB)
Abutment No. 1	A601	20	23'-3"	Str.									698
	A602	15	3'-0"	105	1'-6"	1'-6"	1'-1"				4½"		68
	A501	2	23'-3"	Str.									48
	A502	4	6'-10"	Str.									29
	A503	8	4'-2"	Str.									35
	A504	2	16'-0"	103	1'-0"	14'-0"	1'-0"				2½"		33
	A505	30	3'-7"	Str.									112
	A506	20	5'-0"	Str.									104
	A507	48	11'-11"	107	2'-6"	3'-0"					2½"	5½"	597
												SUBTOTAL (LB) =	1,724
Abutment No. 2	A601	20	23'-3"	Str.									698
	A602	15	3'-0"	105	1'-6"	1'-6"	1'-1"				4½"		68
	A501	2	23'-3"	Str.									48
	A502	4	6'-10"	Str.									29
	A503	8	4'-2"	Str.									35
	A504	2	16'-0"	103	1'-0"	14'-0"	1'-0"				2½"		33
	A505	30	3'-7"	Str.									112
	A506	20	5'-0"	Str.									104
	A507	48	11'-11"	107	2'-6"	3'-0"					2½"	5½"	597
												SUBTOTAL (LB) =	1,724
												TOTAL (LB) =	3,448

NOTE: FOR BENDING DIAGRAMS, HOOK LENGTHS & PIN DIAMETERS SEE SHEET 9 OF 9.



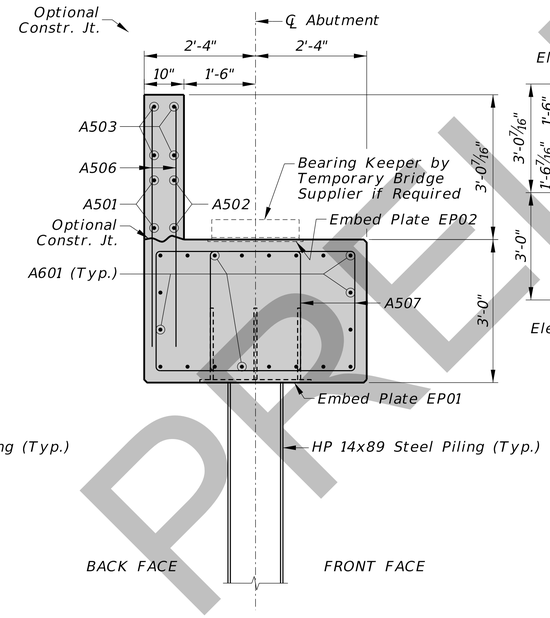
PLAN OF ABUTMENT NO. 2

Scale: ½" = 1'-0"



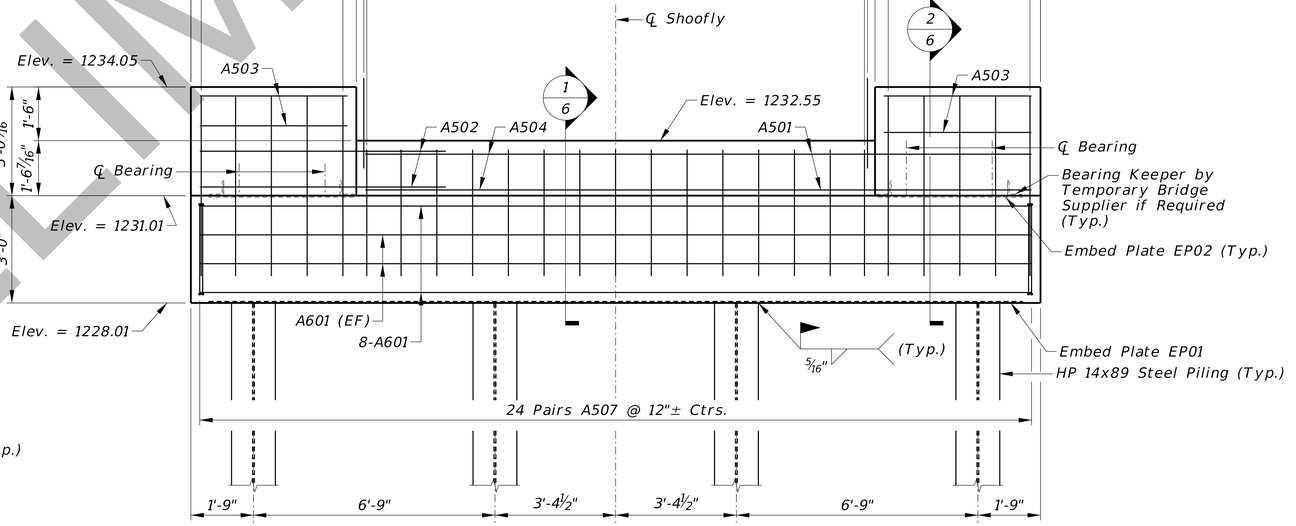
SECTION 1/6

Scale: ¾" = 1'-0"



SECTION 2/6

Scale: ¾" = 1'-0"



ELEVATION OF ABUTMENT NO. 2

Scale: ½" = 1'-0"

NOTES:

For Details of Embed Plates, See Sheet 8 of 9.

(EF) Each Face

S16

PROJECT NUMBER
STR-12-5(1018)

C.N. 31674B

STRUCTURE NUMBER
-

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

272'-8½" 2-SPAN PORTABLE PREFABRICATED TRUSS-TYPE BRIDGE
PLAN & ELEVATION OF ABUTMENT NO. 2

DATE NOVEMBER 2023
CHECKED BY ZZJ
DETAILED BY NTF
DESIGNED BY MJK

LOCATION BAZILE CREEK BRIDGE
SKEW 0°
ROADWAY 13.8'
DESIGN LIVE LOAD HL-93
COUNTY KNOX
HWY. NO. -
REF. POST. -
STA. 141+01.61

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

benesch

SPECIAL PLAN NO. 2

6/9

COMPUTER$$$$
DATE$$$$$$$$$$$$$$$
DGNSPEC$$$$$$$$$$$

BILL OF BARS

	MARK	NUMBER OF BARS	LENGTH	TYPE	A	B	C	D	E	F	PIN Ø	HOOK	WEIGHT (LB)
Bent No. 1	B601	14	23'-3"	Str.									489
	B501	48	9'-7"	107	2'-6"	1'-10"					2½"	5½"	480

TOTAL (LB) = 969

NOTE: FOR BENDING DIAGRAMS, HOOK LENGTHS & PIN DIAMETERS SEE SHEET 9 OF 9.

PLAN OF BENT

(Looking Ahead Station)
Scale: ½" = 1'-0"

TYPICAL SECTION OF BENT

Scale: ¾" = 1'-0"

ELEVATION OF BENT

(Looking Ahead Station)
Scale: ½" = 1'-0"

NOTE:

For Details of Embed Plates, See Sheet 8 of 9.

COMPUTER$$$
DATE$$$$$$$$$$$$$$
DGNSPEC$$$$$$$$$$$

S17

PROJECT NUMBER
STR-12-5(1018)

C.N. 31674B

STRUCTURE NUMBER
-

ROSS D. BARRON
E-14018

BRIDGE ENGINEER

COUNTY KNOX
HWY. NO. -
REF. POST. -
STA. 141+01.61
LOCATION BAZILE CREEK BRIDGE
SKEW 0°
ROADWAY 13.8'
DESIGN LIVE LOAD HL-93

272'-8½" 2-SPAN PORTABLE
PREFABRICATED TRUSS-TYPE BRIDGE
PLAN & ELEVATION OF BENT

DESIGNED BY MJK
DETAILED BY NTF
CHECKED BY ZZJ
DATE NOVEMBER 2023

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

NEBRASKA
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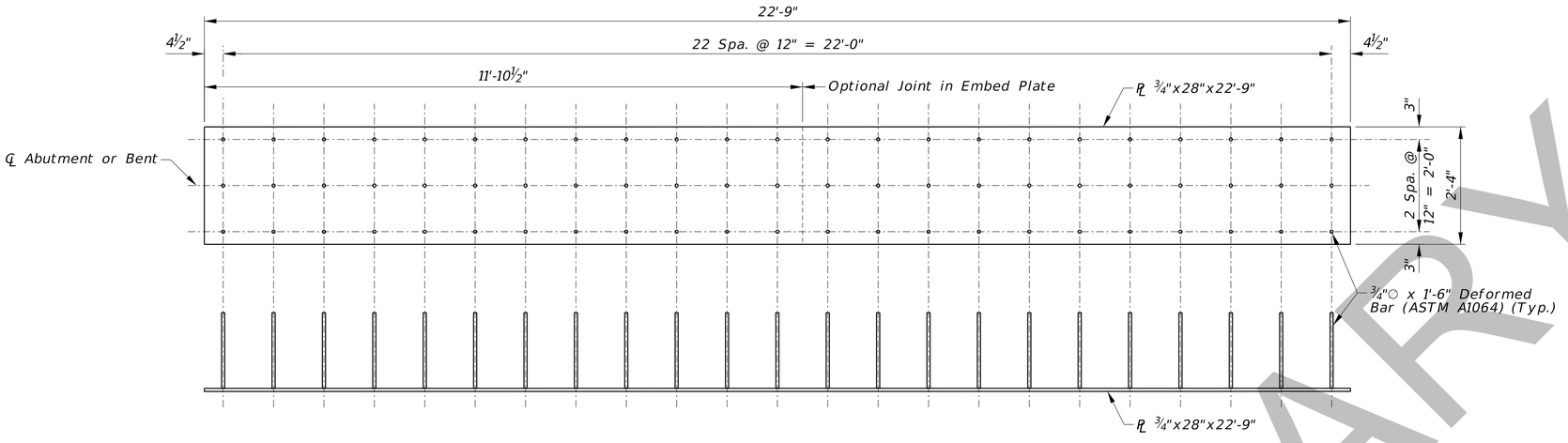
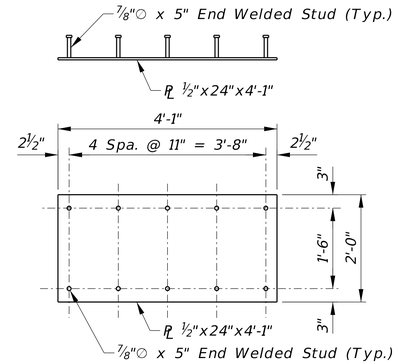
SPECIAL PLAN NO.
2

7/9



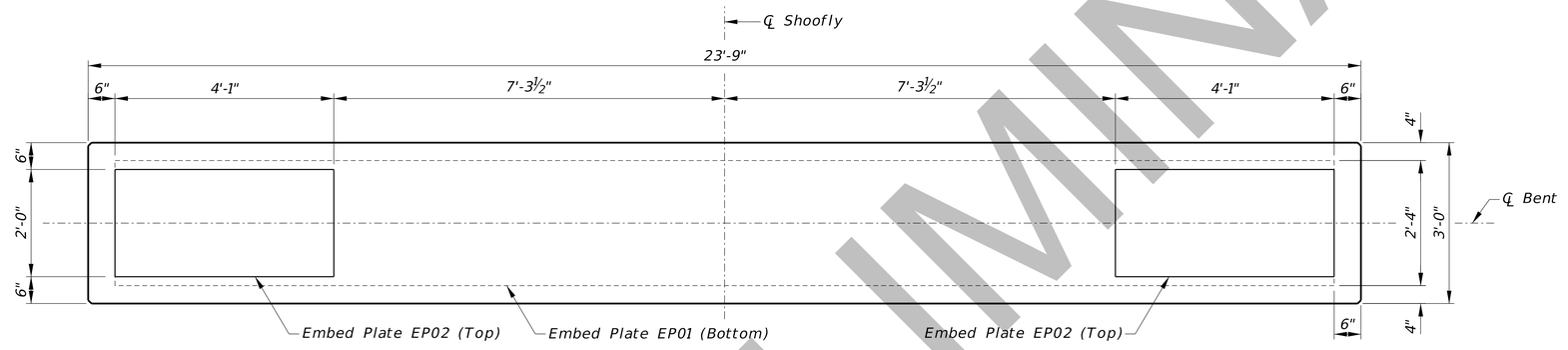
EMBED PLATE EP01

(3 Required)
Scale: ¾" = 1'-0"



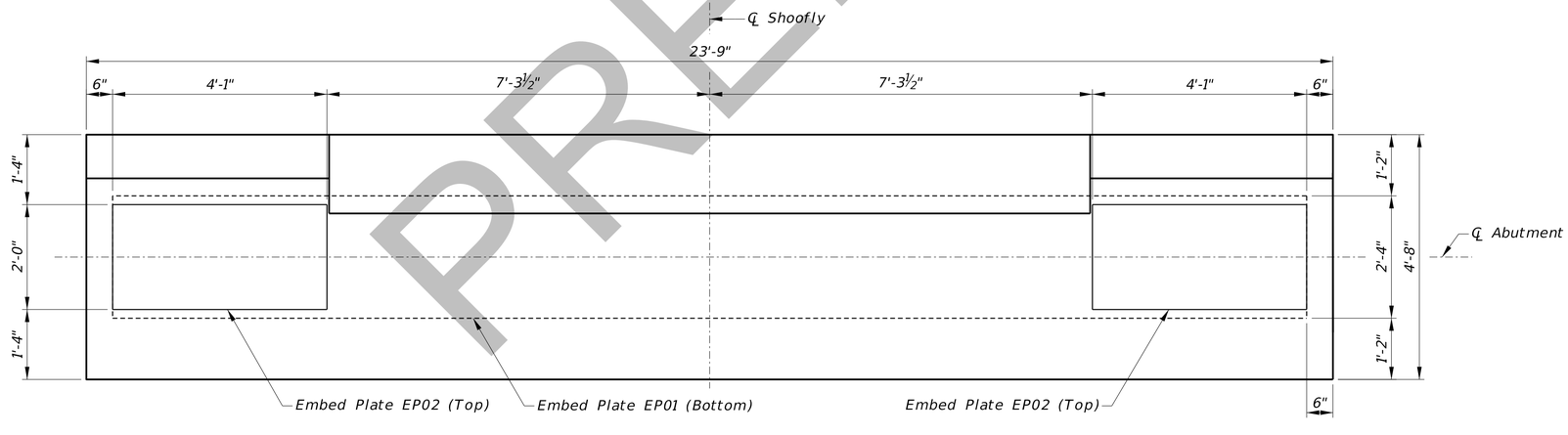
EMBED PLATE EP02

(6 Required)
Scale: ¾" = 1'-0"



PLAN OF BENT CAP

Scale: ¾" = 1'-0"



PLAN OF ABUTMENT

Scale: ¾" = 1'-0"

NOTES:

1. *Embed Plates Shall be Subsidiary to the Pay Item "Class 47BD-300 Concrete for Bridge."*
2. *Deformed bars and studs to be automatically end welded to embed plate.*

S18

PROJECT NUMBER
STR-12-5(1018)

C.N. *31674B*

STRUCTURE NUMBER
-

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

272'-8½" 2-SPAN PORTABLE PREFABRICATED TRUSS-TYPE BRIDGE
EMBED PLATE DETAILS

DATE *NOVEMBER 2023*

LOCATION *BAZILE CREEK BRIDGE*
SKEW *0°*
ROADWAY *13.8'*
DESIGN LIVE LOAD *HL-93*

DESIGNED BY *MJK* DETAILED BY *NTF* CHECKED BY *ZZJ* DATE

COUNTY *KNOX*
HWY. NO. -
REF. POST. -
STA. *141+01.61*

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

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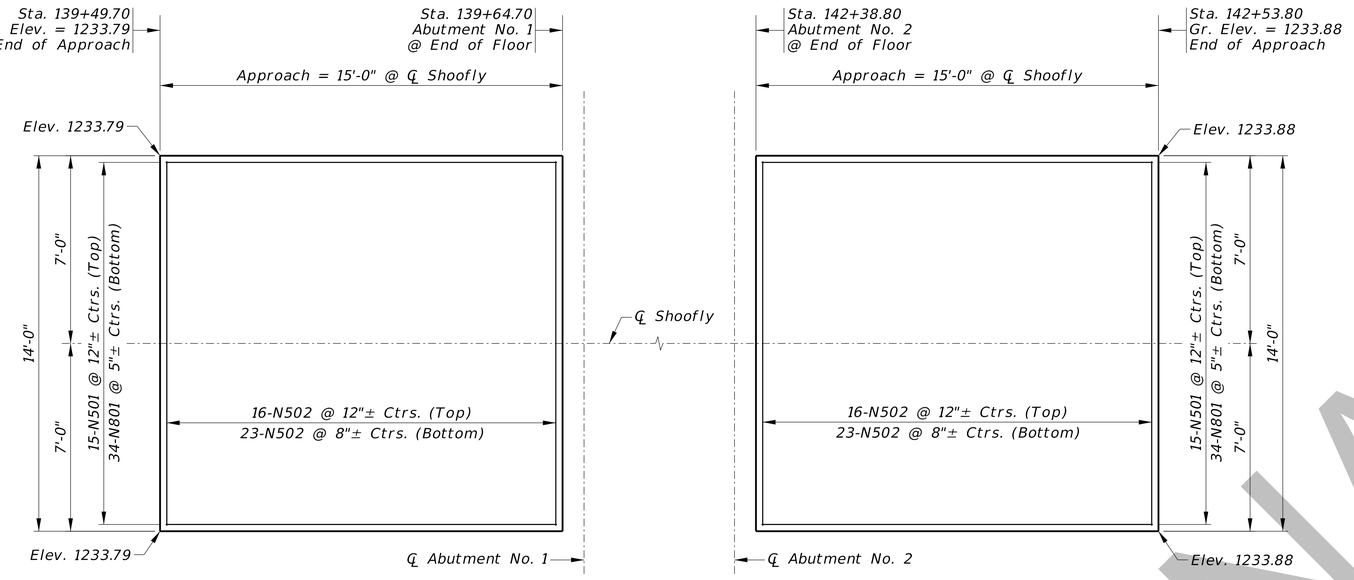
SPECIAL PLAN NO. 2

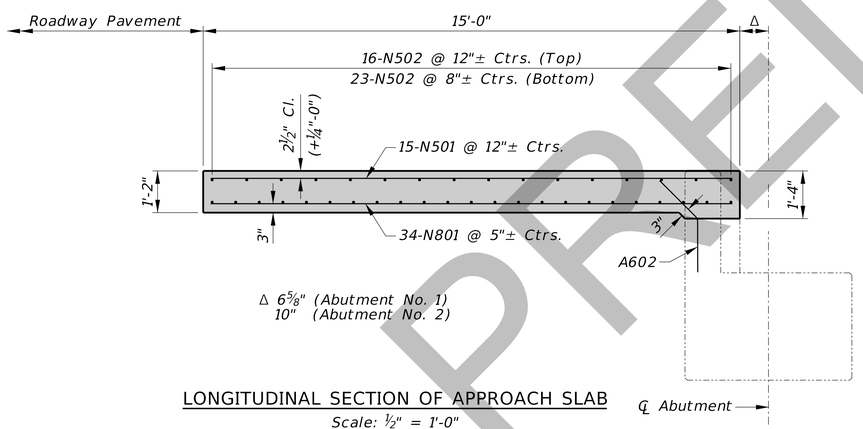
8/9

COMPUTER$$$$
DATE$$$$$$$$$$$$$$$
DGNSPEC$$$$$$$$$$$$$



PLAN OF APPROACH SLAB NO. 1
Scale: 3/8" = 1'-0"

PLAN OF APPROACH SLAB NO. 2
Scale: 3/8" = 1'-0"



LONGITUDINAL SECTION OF APPROACH SLAB
Scale: ½" = 1'-0"

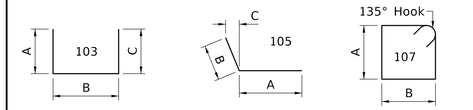
NOTE:
See Standard Specifications for tining and finishing of approach slabs.

BILL OF BARS

	MARK	NUMBER OF BARS	LENGTH	TYPE	A	B	C	D	E	F	PIN Ø	HOOK	WEIGHT (LB)
Approach Slab No. 1	N801	34	14'-6"	Str.									1,316
	N501	15	14'-6"	Str.									227
	N502	39	13'-6"	Str.									549
												SUBTOTAL (LB) =	2,092
Approach Slab No. 2	N801	34	14'-6"	Str.									1,316
	N501	15	14'-6"	Str.									227
	N502	39	13'-6"	Str.									549
												SUBTOTAL (LB) =	2,092
												TOTAL (LB) =	4,184

BENDING DIAGRAMS

ALL DIMENSIONS ARE OUT TO OUT & NOT TO SCALE

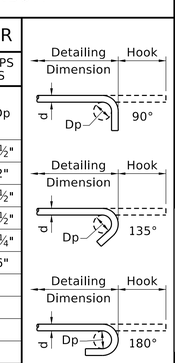


BAR MARK

A413 A 4 13
- 13 — BAR NUMBER: 01 - 99
- 4 — BAR SIZE
- A — TYPE OF BRIDGE ELEMENT: (D = Drilled Shaft, A = Abutment, B = Bent, P = Pier, S = Slab & N = Approach Slab)

THE NUMBER OF LAP SPLICES ARE CALCULATED BASED ON 60'-0" LENGTHS OF REINFORCING STEEL BARS.
SPLICES ON BARS SHORTER THAN 60'-0" WILL REQUIRE ADDITIONAL LAP SPLICES AT NO ADDITIONAL EXPENSE TO NDOT.

STANDARD HOOK LENGTH						PIN DIAMETER			
PRIMARY STRESS			STIRRUPS & TIES			PRIMARY STRESS		STIRRUPS & TIES	
BAR SIZE	HOOK 90°	HOOK 180°	BAR SIZE	HOOK 90°	HOOK 135°	BAR SIZE	Dp	BAR SIZE	Dp
			3	4"	4"			3	1½"
4	8"	6"	4	4½"	4½"	4	3"	4	2"
5	10"	7"	5	6"	5½"	5	3¾"	5	2½"
6	12"	8"	6	12"	8"	6	4½"	6	4½"
7	15"	10"	7	14"	9"	7	5¼"	7	5¼"
8	17"	11"	8	16"	10½"	8	6"	8	6"
9	19"	15"	d = Bar Size Dp = Pin Diameter			9	9½"		
10	23"	17"				10	10¾"		
11	24"	19"				11	12"		
14	31"	27"				14	18¼"		
18	41"	36"				18	24"		



S19

PROJECT NUMBER
STR-12-5(1018)

C.N. 31674B

STRUCTURE NUMBER
-

PROFESSIONAL CIVIL ENGINEER
ROSS D. BARRON
E-14018
STATE OF NEBRASKA

BRIDGE ENGINEER

272'-8½" 2-SPAN PORTABLE PREFABRICATED TRUSS-TYPE BRIDGE
APPROACH SLAB DETAILS & BILL OF BARS

DATE NOVEMBER 2023
CHECKED BY ZZJ
DESIGN LIVE LOAD HL-93
DETAILED BY NTF
ROADWAY 13.8'
SKEW 0°
LOCATION BAZILE CREEK BRIDGE
DESIGNED BY MJK
REF. POST. -
HWY. NO. -
COUNTY KNOX
STA. 141+01.61

NEBRASKA DEPARTMENT OF TRANSPORTATION - BRIDGE DIVISION

NEBRASKA
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SPECIAL PLAN NO. 2

9 / 9

COMPUTER: NEOM-2404

DATE: 11-JAN-2024 13:07

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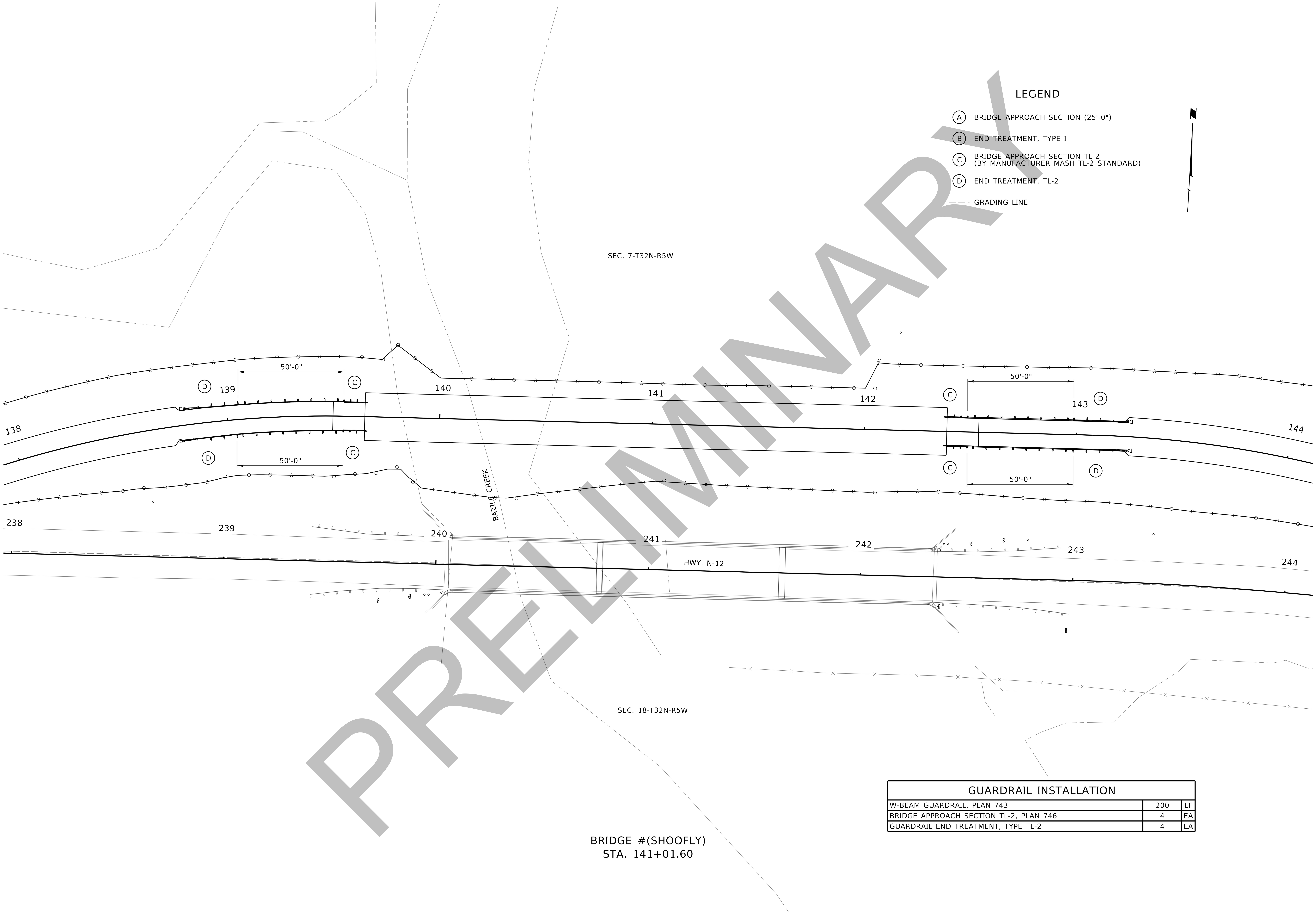

LEGEND

- (A) BRIDGE APPROACH SECTION (25'-0")
- (B) END TREATMENT, TYPE I
- (C) BRIDGE APPROACH SECTION TL-2 (BY MANUFACTURER MASH TL-2 STANDARD)
- (D) END TREATMENT, TL-2
- — — GRADING LINE

BRIDGE #(SHOOFLY)
STA. 141+01.60

GUARDRAIL INSTALLATION		
W-BEAM GUARDRAIL, PLAN 743	200	LF
BRIDGE APPROACH SECTION TL-2, PLAN 746	4	EA
GUARDRAIL END TREATMENT, TYPE TL-2	4	EA

U1

Project Number
12-5(1018)

C.N. 31674B

SPECIAL PLAN 1C
1 OF 2
GUARDRAIL

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

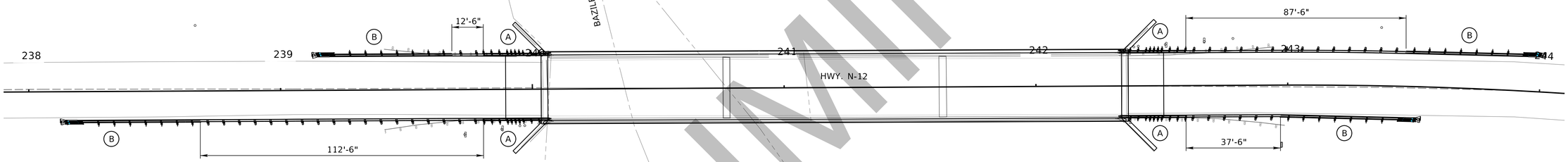
Roadway
Design
Division

GUARDRAIL INSTALLATION		
W-BEAM GUARDRAIL, PLAN 743	250	LF
BRIDGE APPROACH SECTION , PLANS 740 & 743	4	EA
GUARDRAIL END TREATMENT, TYPE I	4	EA

SEC. 7-T32N-R5W

LEGEND

- (A) BRIDGE APPROACH SECTION (25'-0")
- (B) END TREATMENT, TYPE I
- (C) BRIDGE APPROACH SECTION TL-2 (BY MANUFACTURER MASH TL-2 STANDARD)
- (D) END TREATMENT, TL-2
- GRADING LINE



SEC. 18-T32N-R5W

BRIDGE S012 16603
STA. 241+20.08

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DATE: 11-JAN-2024 13:06
FILE: 31674B Sheets Specials.dgn

U2

Project Number
12-5(1018)

C.N. 31674B

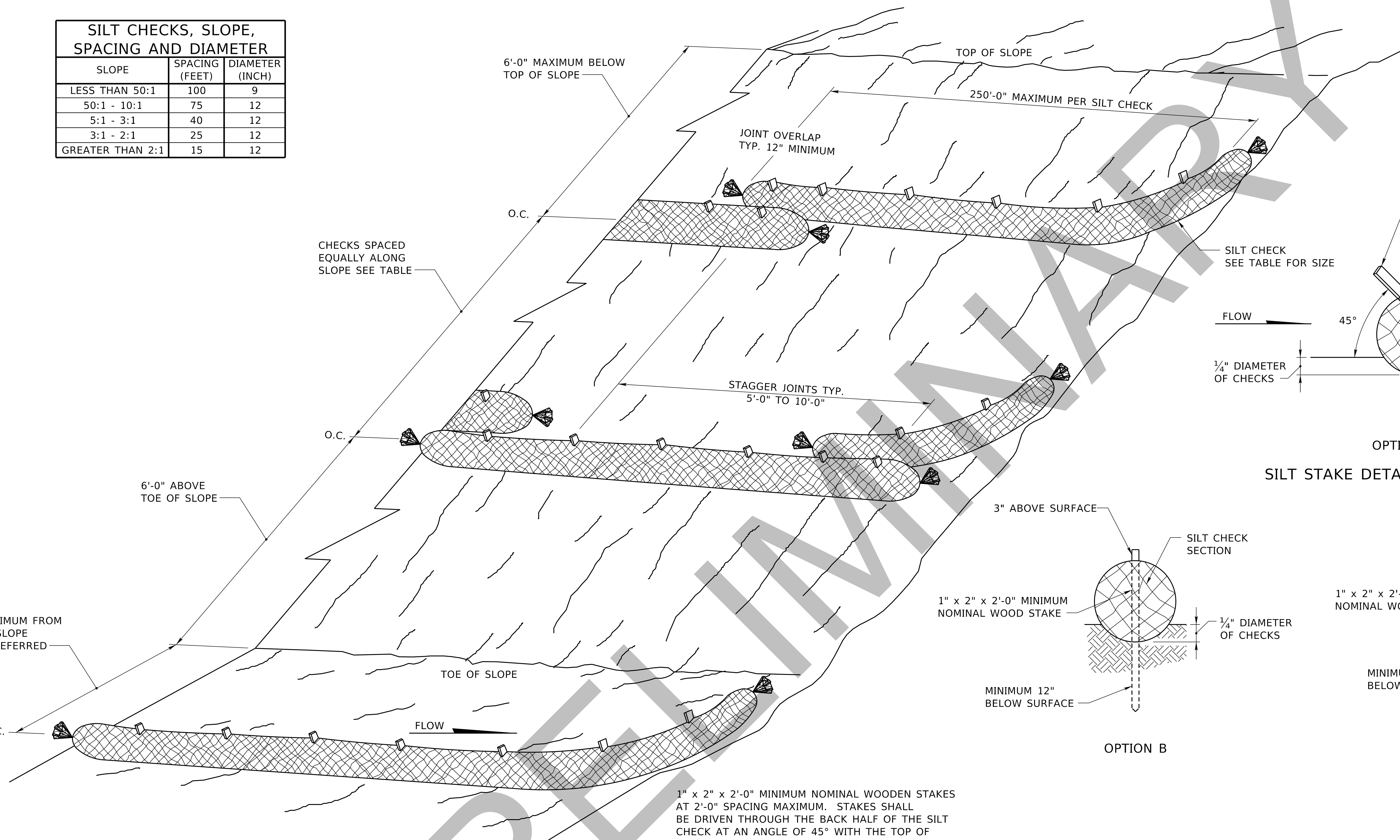
SPECIAL PLAN 1C
2 OF 2
GUARDRAIL

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

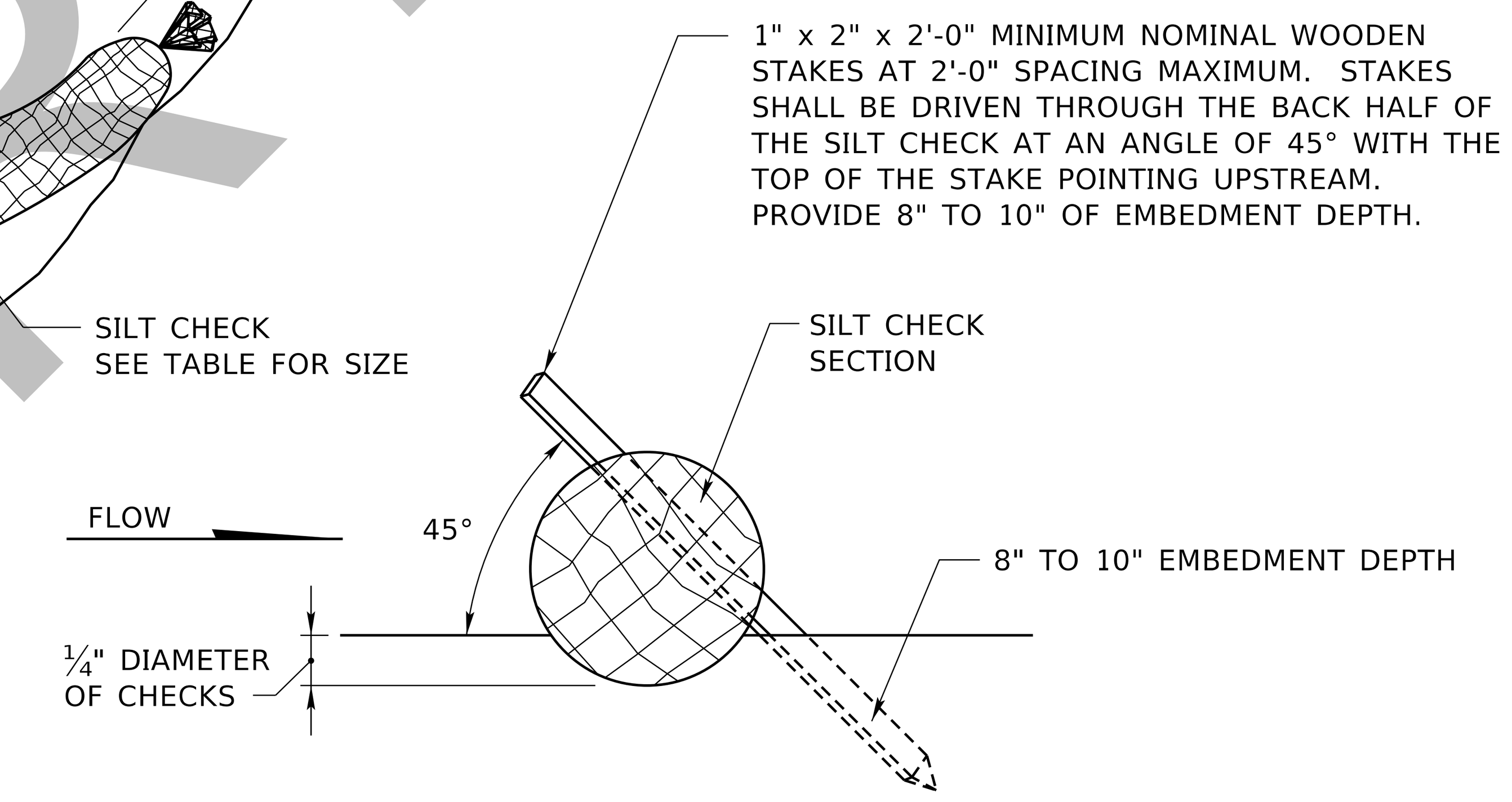
Roadway Design Division

SILT CHECKS, SLOPE, SPACING AND DIAMETER

SLOPE	SPACING (FEET)	DIAMETER (INCH)
LESS THAN 50:1	100	9
50:1 - 10:1	75	12
5:1 - 3:1	40	12
3:1 - 2:1	25	12
GREATER THAN 2:1	15	12



SLOPE APPLICATION
PERSPECTIVE VIEW

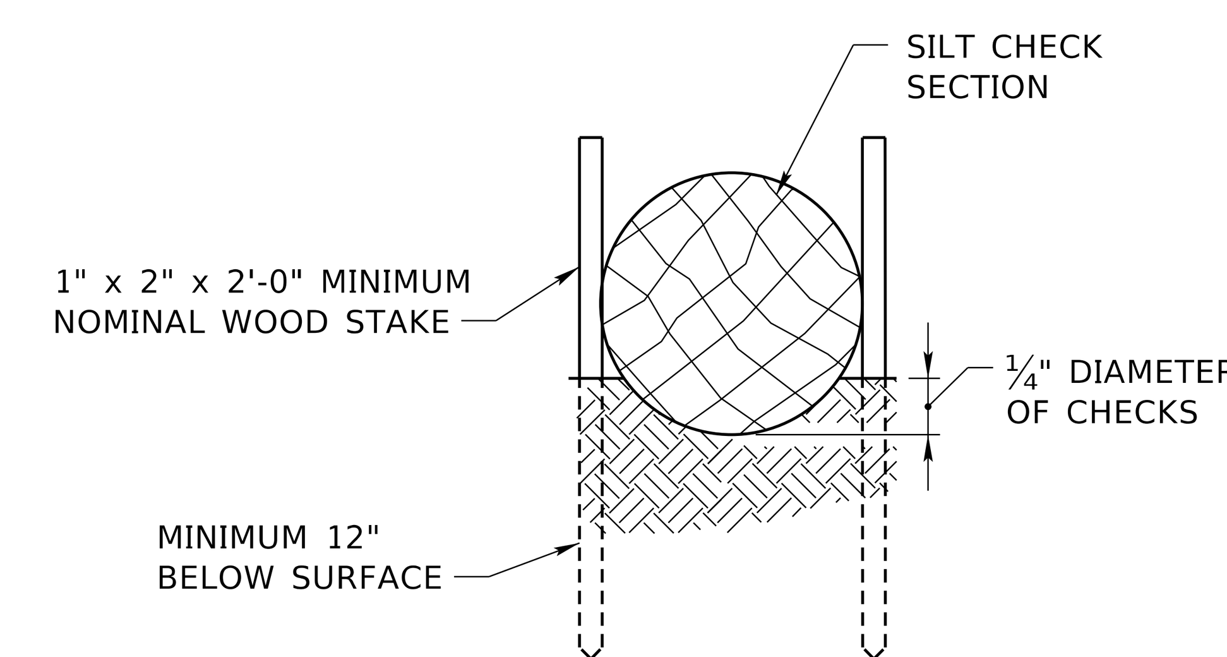


OPTION A

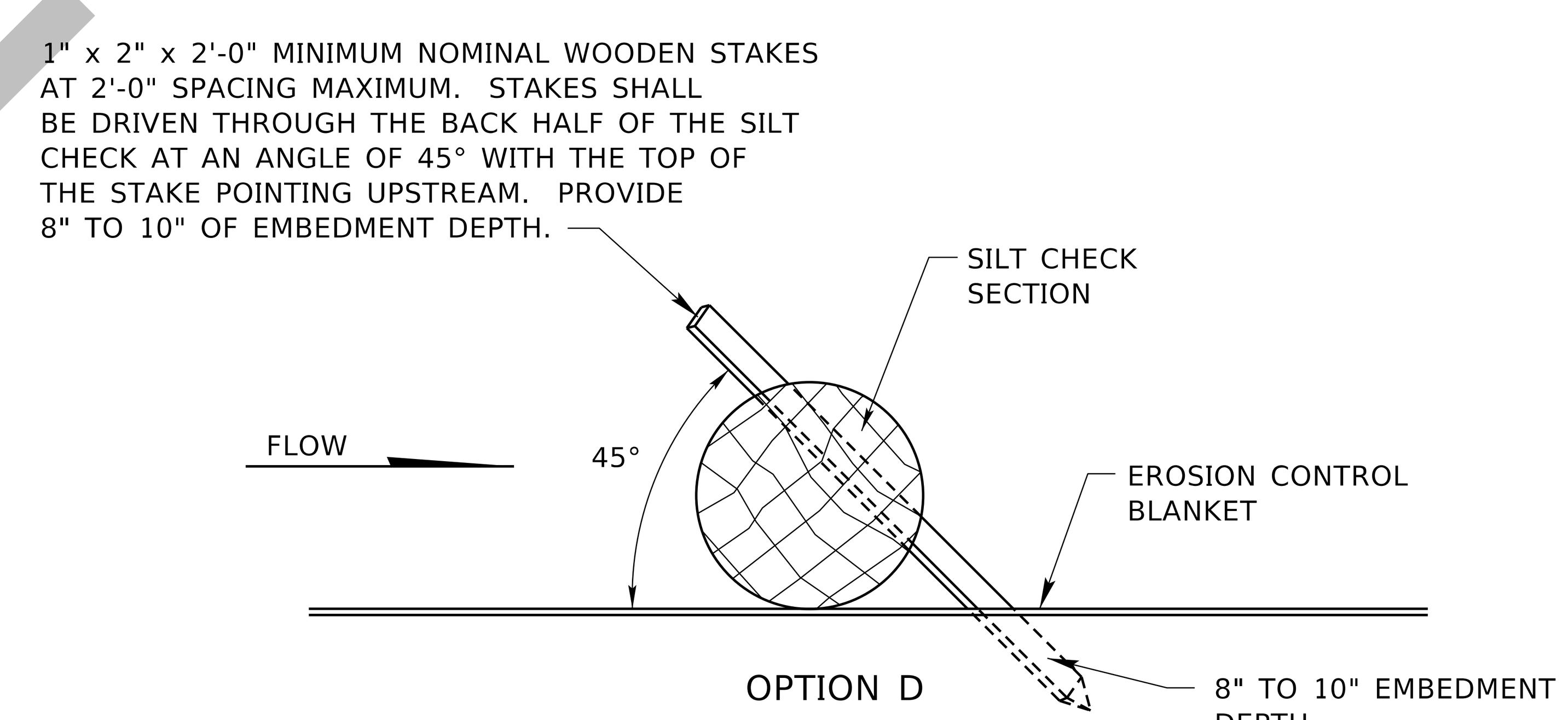
SILT STAKE DETAIL (WITH TRENCH)

3" ABOVE SURFACE
SILT CHECK SECTION
1" x 2" x 2'-0" MINIMUM NOMINAL WOOD STAKE
¼" DIAMETER OF CHECKS
MINIMUM 12" BELOW SURFACE

OPTION B



OPTION C



OPTION D

STAKE DETAIL (NO TRENCH)

NOTE:

TRENCHING IS OPTIONAL FOR CHECKS ON BACKSLOPES & FORESLOPES

U3

Project Number 12-5(1018)

C.N. 31674B

SPECIAL PLAN 2C
1 OF 4
SILT CHECKS ALL TYPES

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

Roadway Design Division

PROFESSIONAL LANDSCAPE ARCHITECT RONALD E. POE REGISTERED STATE OF NEBRASKA May 24, 2022

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DATE: 19-JAN-2024 12:12
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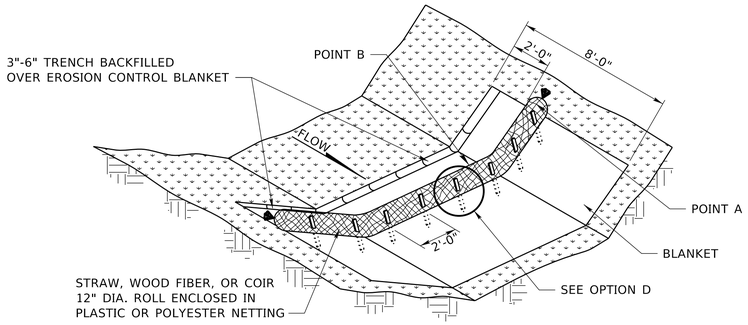
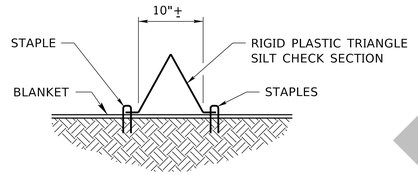
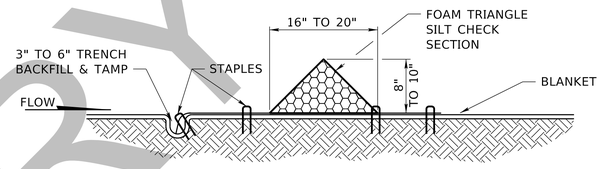


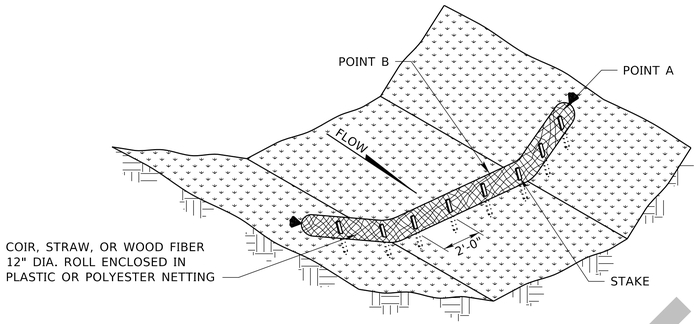
TYPE 2 & 3: HIGH & LOW
WITH EROSION CONTROL



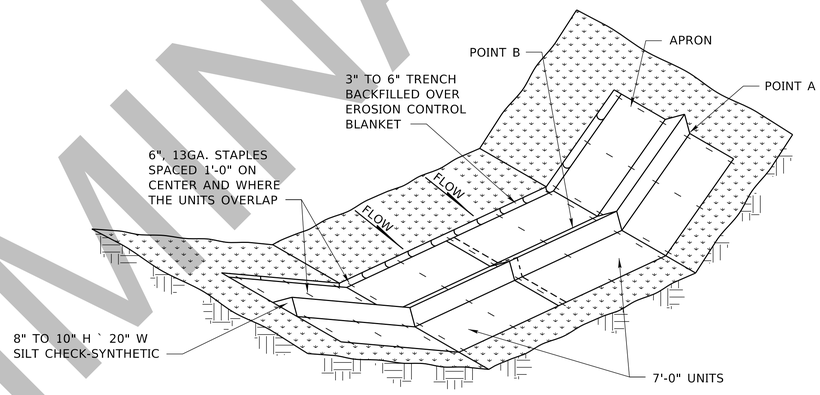
TYPE 4 SECTION



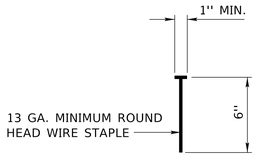
TYPE 4 SECTION



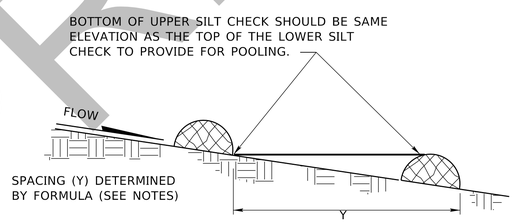
TYPE 1, 2 & 3: HIGH & LOW
USE ON ROUGH GRADED & BARE SOIL AREAS



SILT CHECK: TYPE 4



WIRE STAPLE DETAIL



SILT CHECK SPACING-DITCH

NOTES:

APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:

APPROXIMATE SPACING OF DITCH CHECKS (FT.) = $Y = \frac{\text{SILT CHECK HEIGHT (FT.)}}{\text{\% CHANNEL SLOPE}} \times 100$

POINT A MUST BE A MINIMUM OF 6" HIGHER THAN POINT B TO ENSURE THAT WATER FLOWS OVER THE CHECK AND NOT AROUND THE ENDS.

PERMANENT ROCK CHECKS PLACED WITHIN THE CLEAR ZONE WILL NEED TO BE 18" OR LESS IN HEIGHT. A 10:1 APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.

THE TRENCH ON THE UPSTREAM SIDE OF THE SILT CHECK IS NOT REQUIRED IF THE EROSION CONTROL BLANKET CONTINUES IN THE ENTIRE LENGTH OF THE DITCH.

THE MANUFACTURERS RECOMMENDED INSTALLATION DETAILS SHALL GOVERN OVER THE PLANS.

SEE STAKING DETAIL SHEET 1 OF 4

U4

Project Number
12-5(1018)

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SPECIAL PLAN 2C
2 OF 4
SILT CHECKS ALL TYPES

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Roadway
Design
Division

PROFESSIONAL LANDSCAPE ARCHITECT
RONALD
POE
LA-25
REGISTERED
STATE OF NEBRASKA
Nov 24, 2023

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Project Number
12-5(1018)
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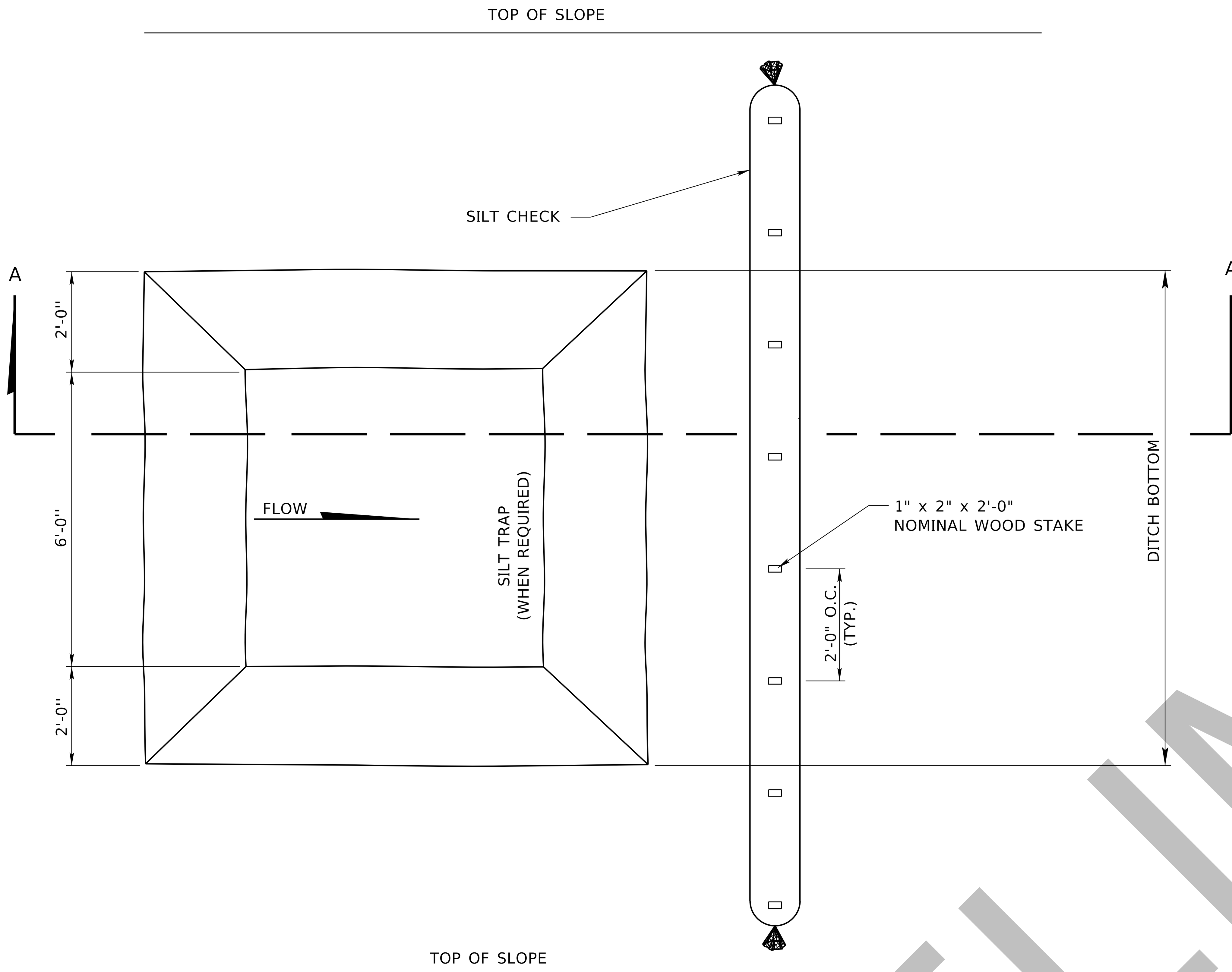
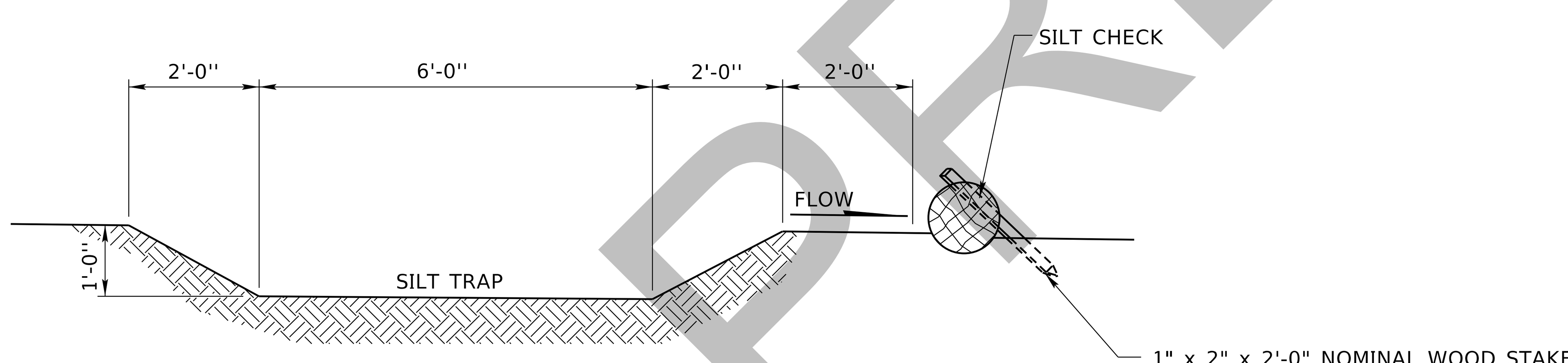


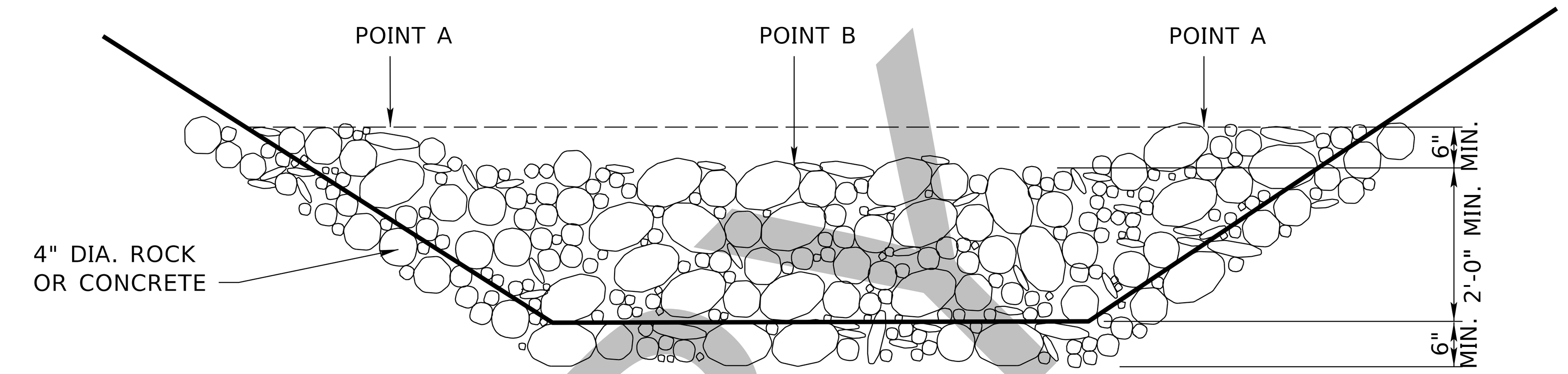
PLAN VIEW

FOR FLAT BOTTOM DITCH

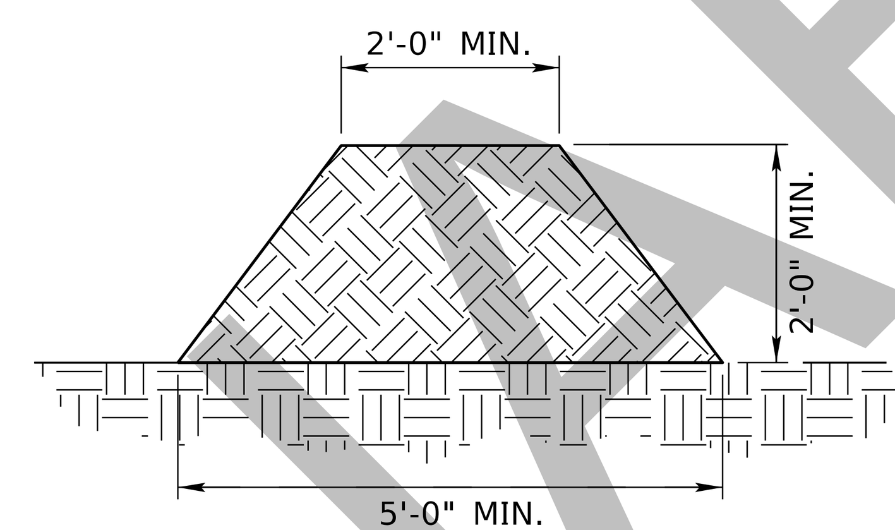


WHEN REQUIRED A SILT TRAP (ST) SHALL BE
EXCAVATED TO THE WIDTH OF THE DITCH AND
NO DIRECT PAYMENT WILL BE MADE.

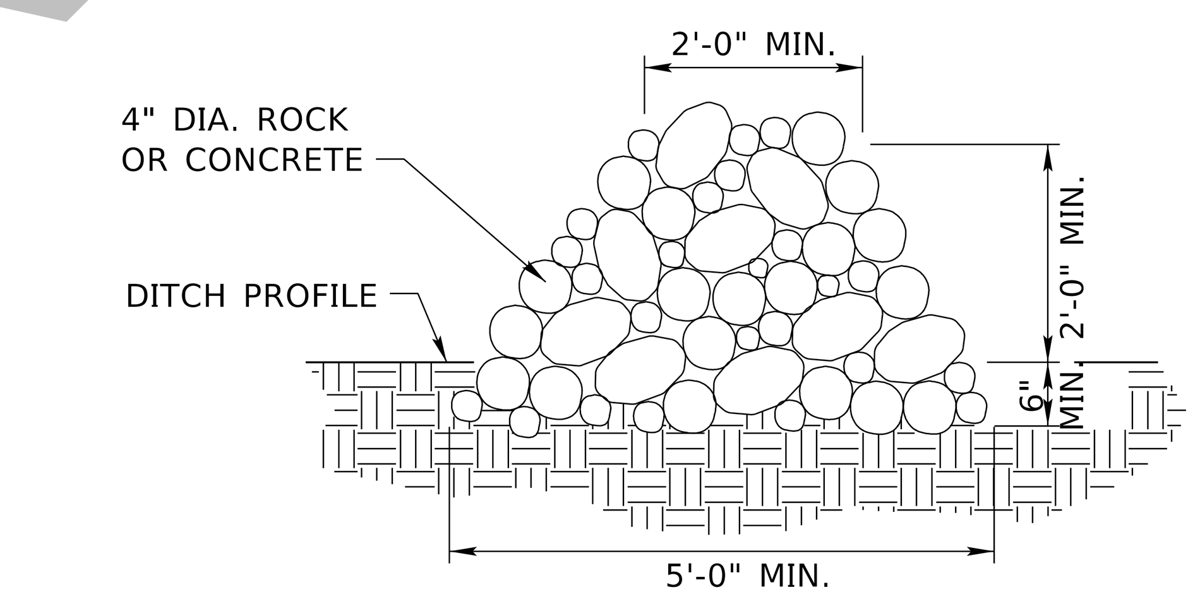
SECTION A-A



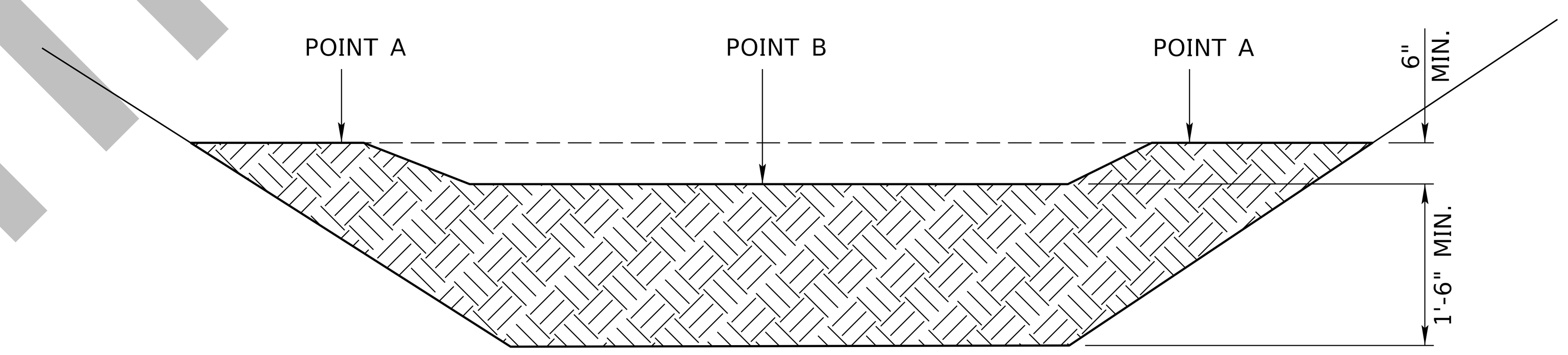
ROCK CHECK
ELEVATION VIEW



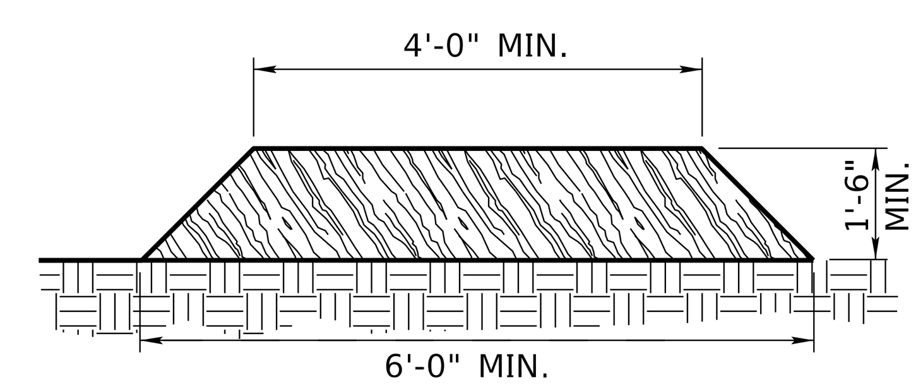
EARTH-SLASH MULCH PERIMETER BERM
CROSS SECTION



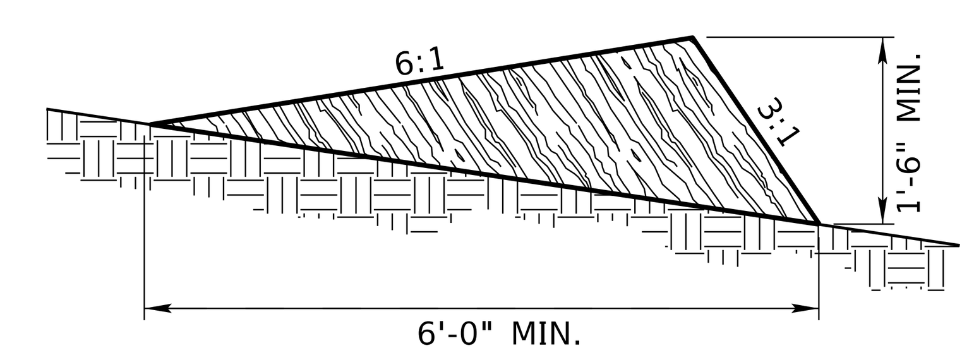
ROCK CHECK
CROSS SECTION



EARTH-SLASH MULCH CHECK
ELEVATION VIEW



CROSS SECTION
SILT CHECK-SLASH MULCH
OPTION A



CROSS SECTION
SILT CHECK-SLASH MULCH
OPTION B

SEE STAKING DETAIL SHEET 1 OF 4

SPECIAL PLAN 2C
3 OF 4
SILT CHECKS ALL TYPES

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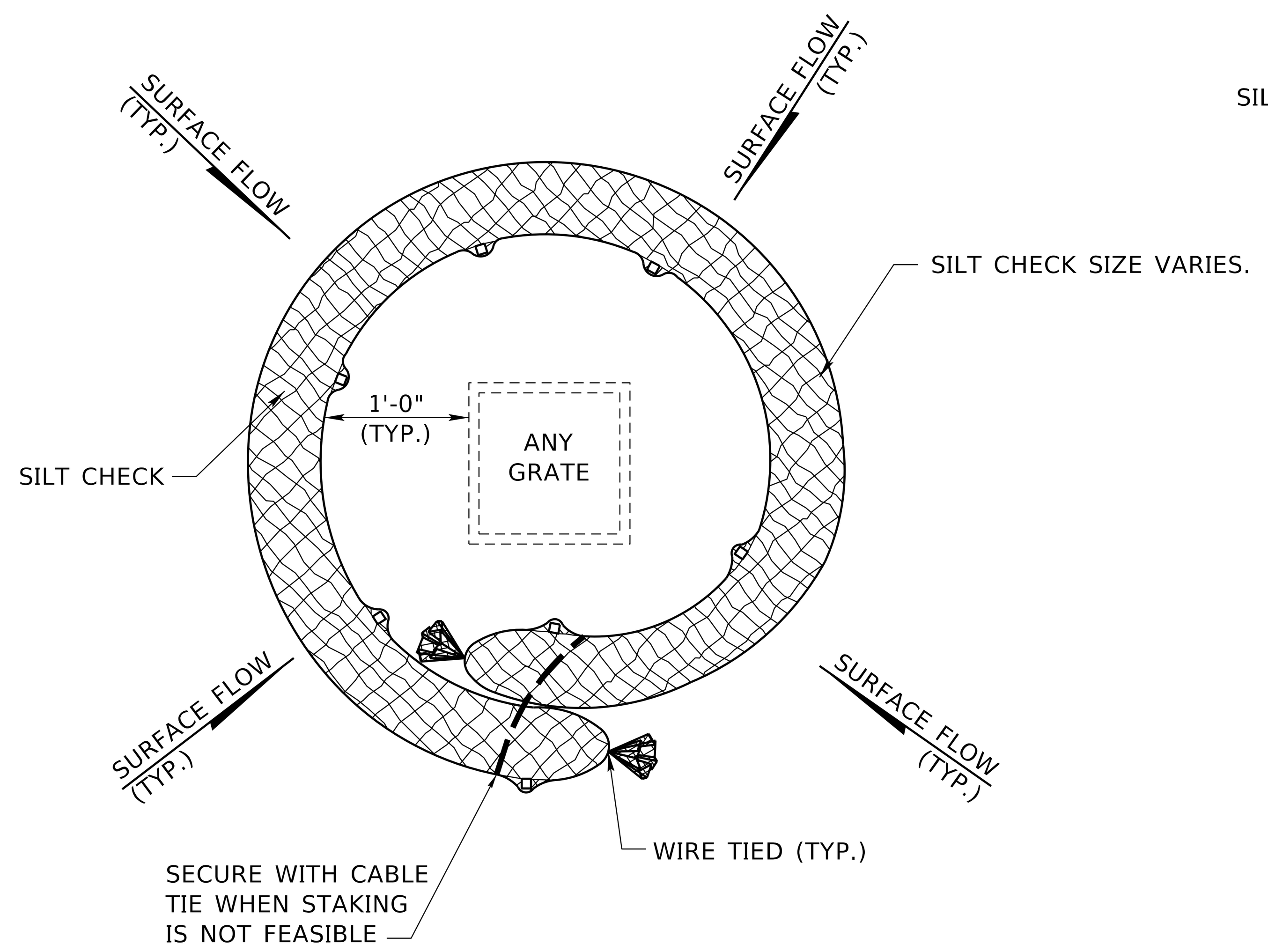
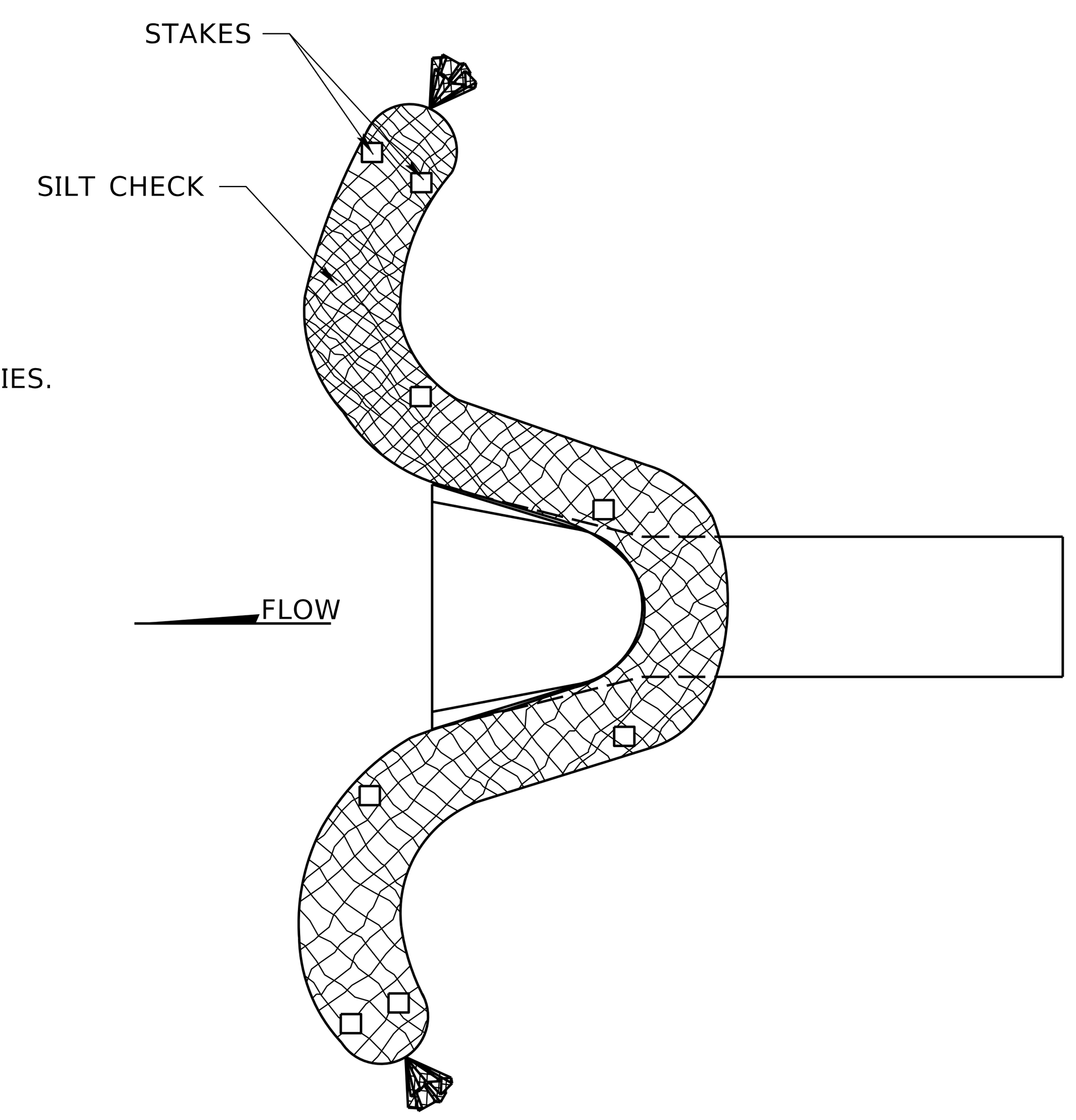
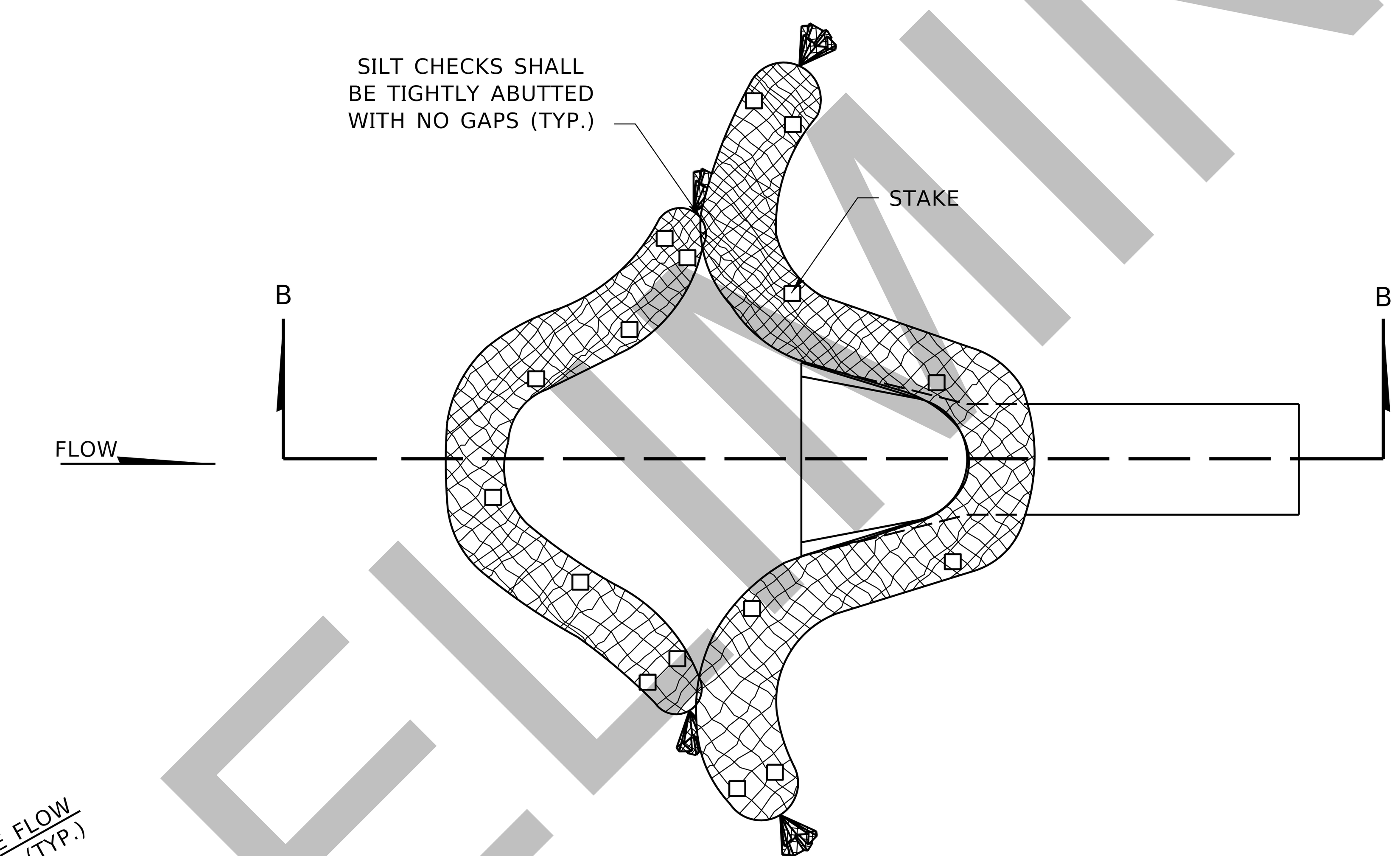


PLAN VIEW

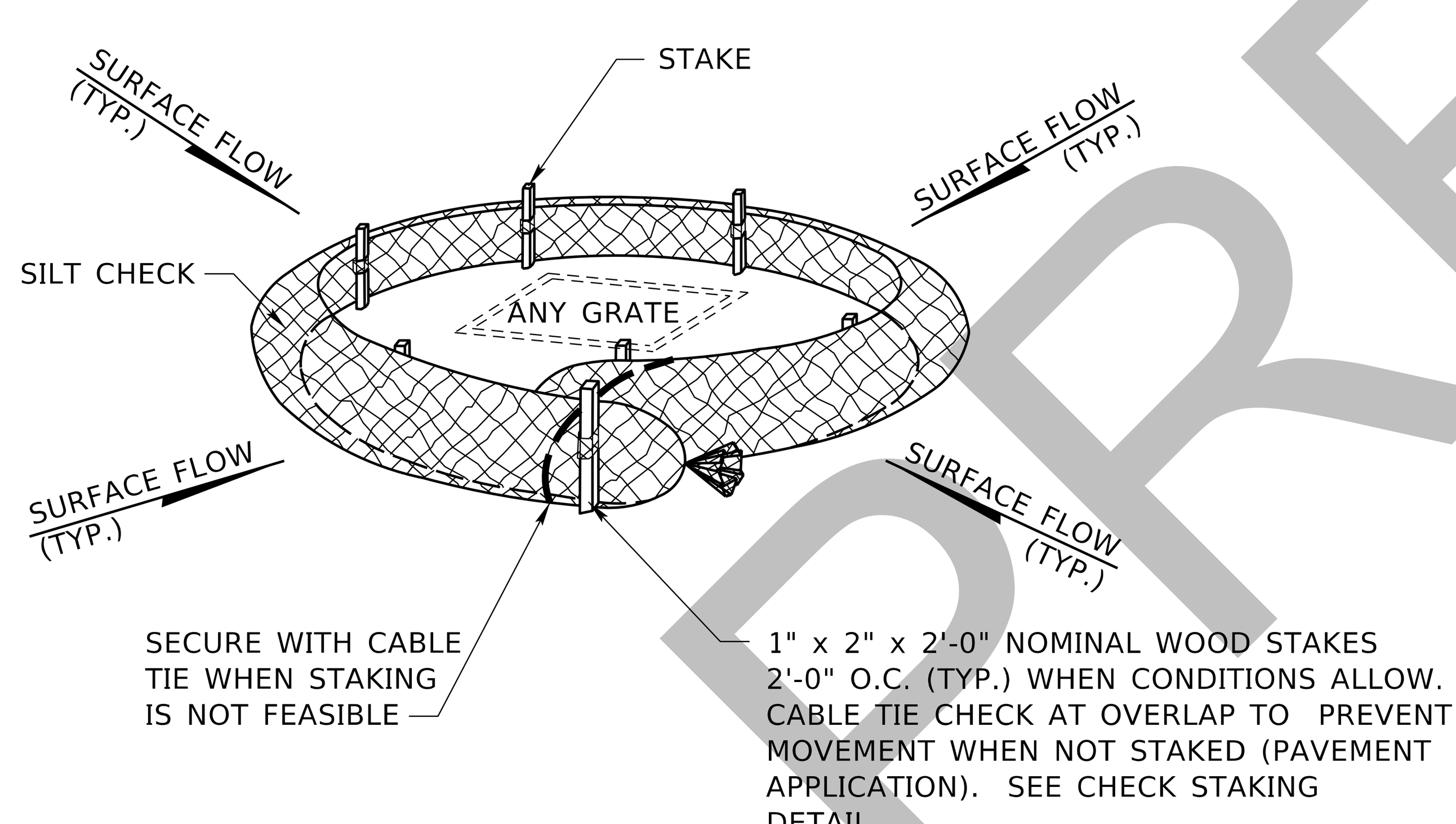


SILT CHECK OUTLET PROTECTION

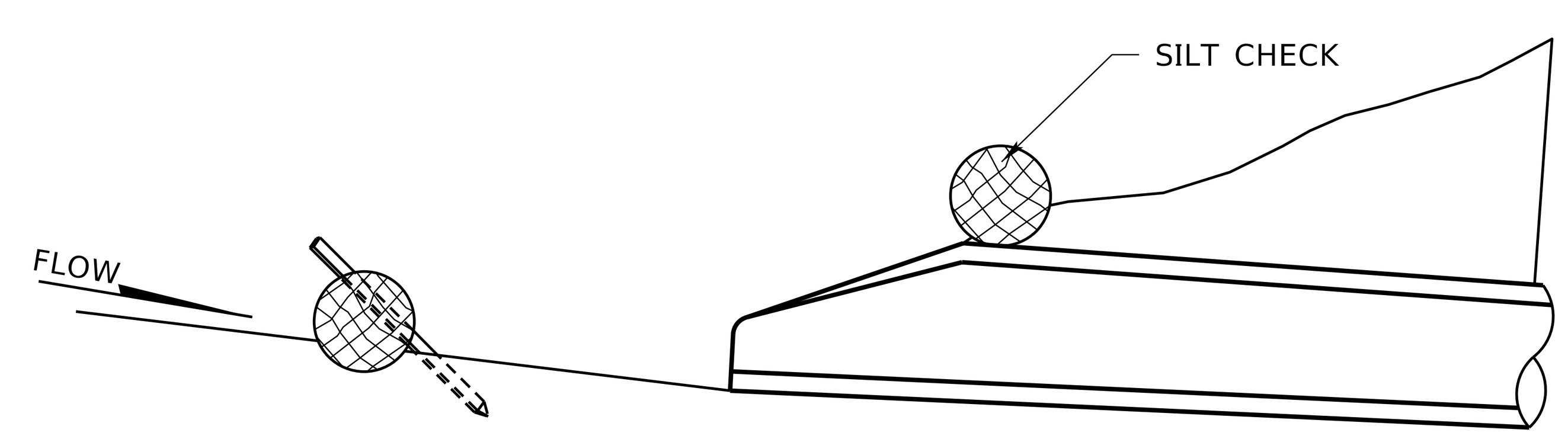


PLAN VIEW

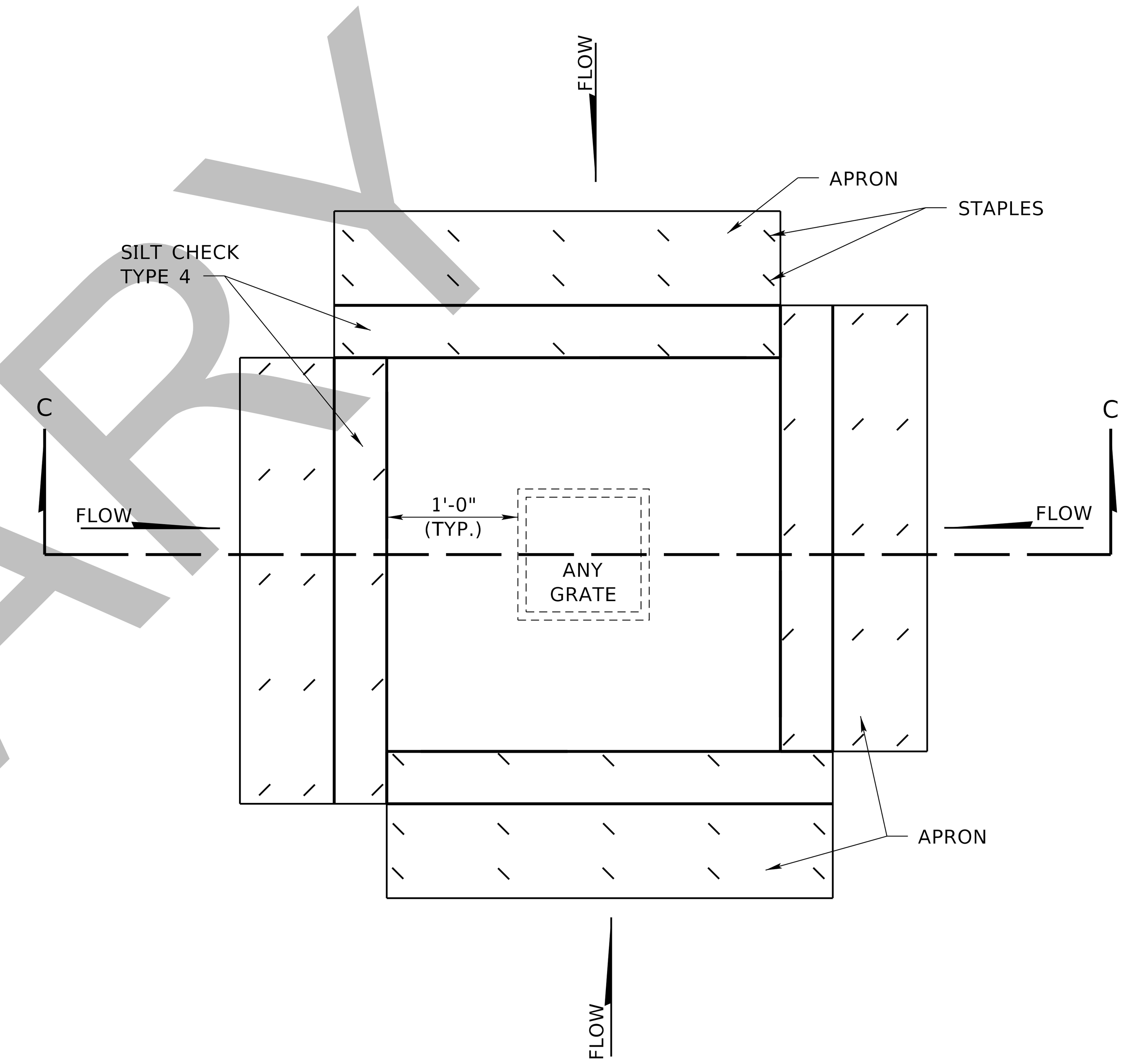
SILT CHECK INLET PROTECTION



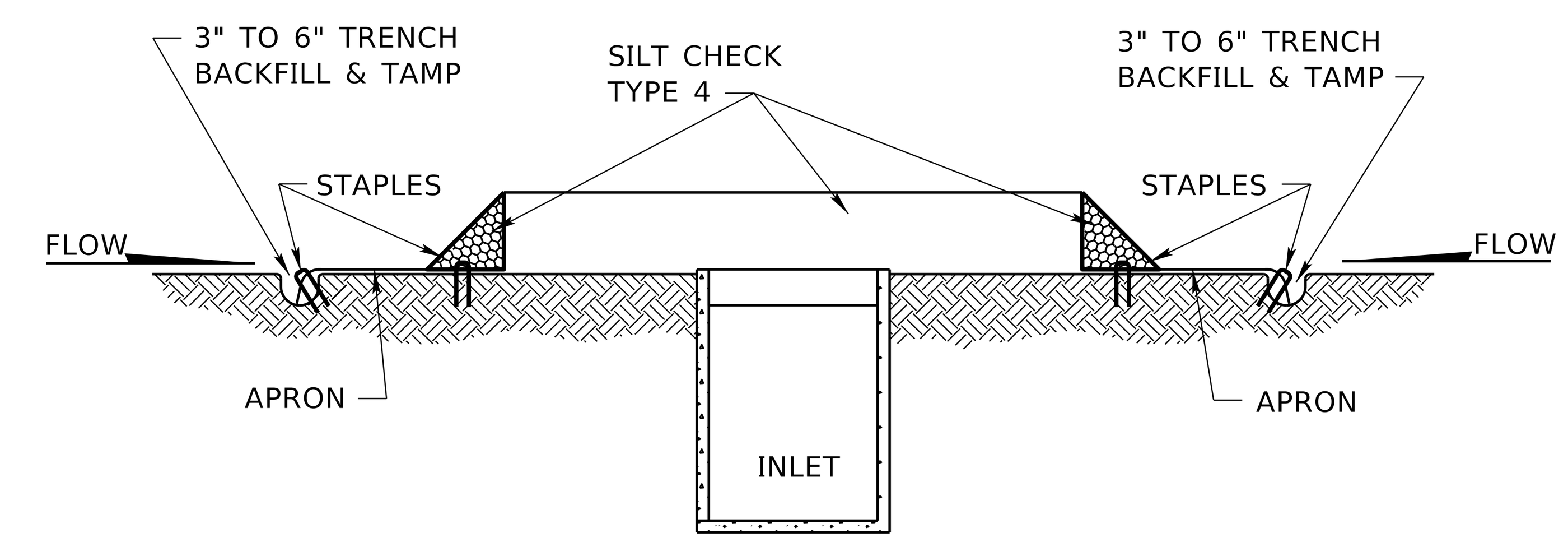
SILT CHECK INLET FILTER
PERSPECTIVE VIEW



SECTION B-B



PLAN VIEW



SECTION C-C

SILT CHECK TYPE 4
AT INLET

SEE STAKING DETAIL SHEET 1 OF 4

SPECIAL PLAN 2C

SILT CHECKS ALL TYPES

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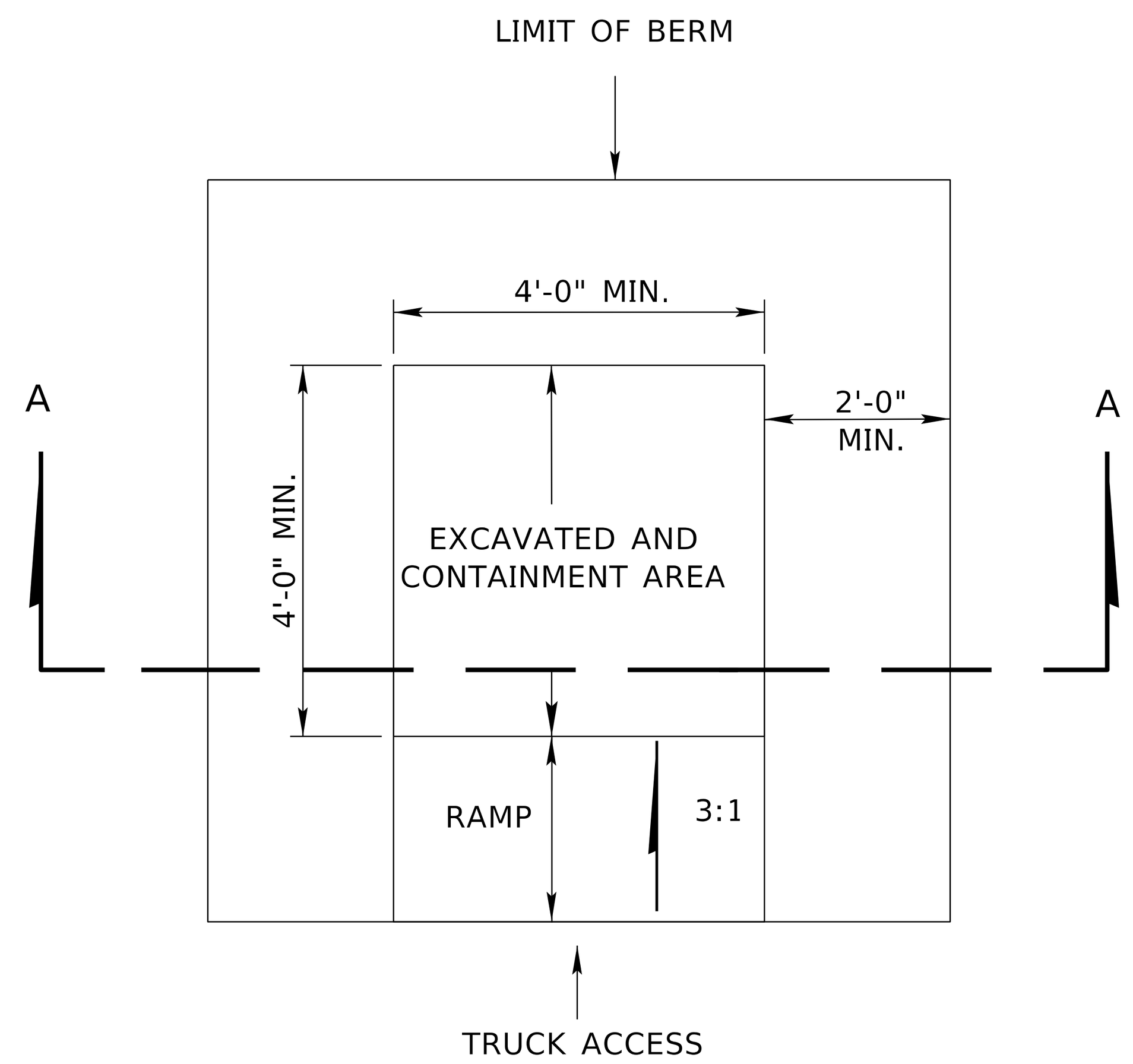
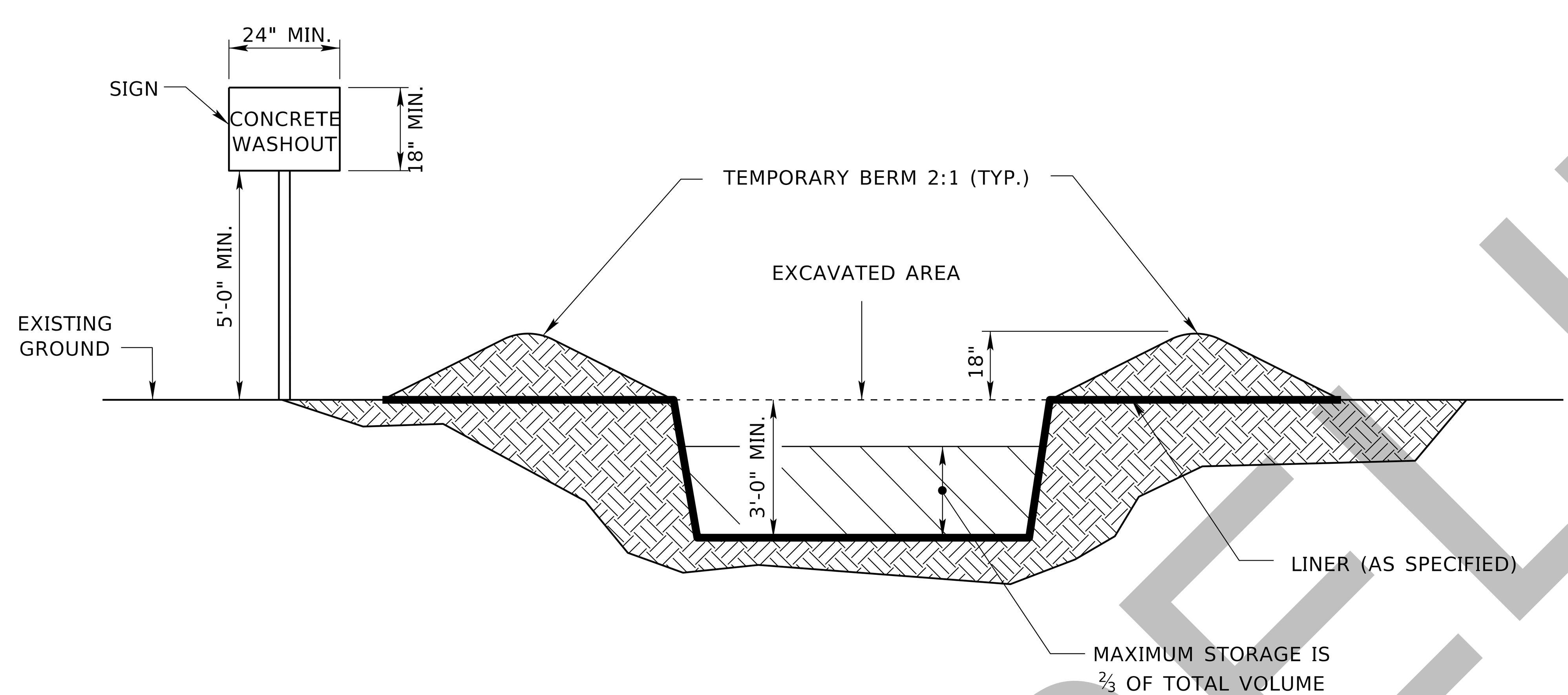
Project Number 12-5(1018)

C.N. 31674B



PLAN VIEW



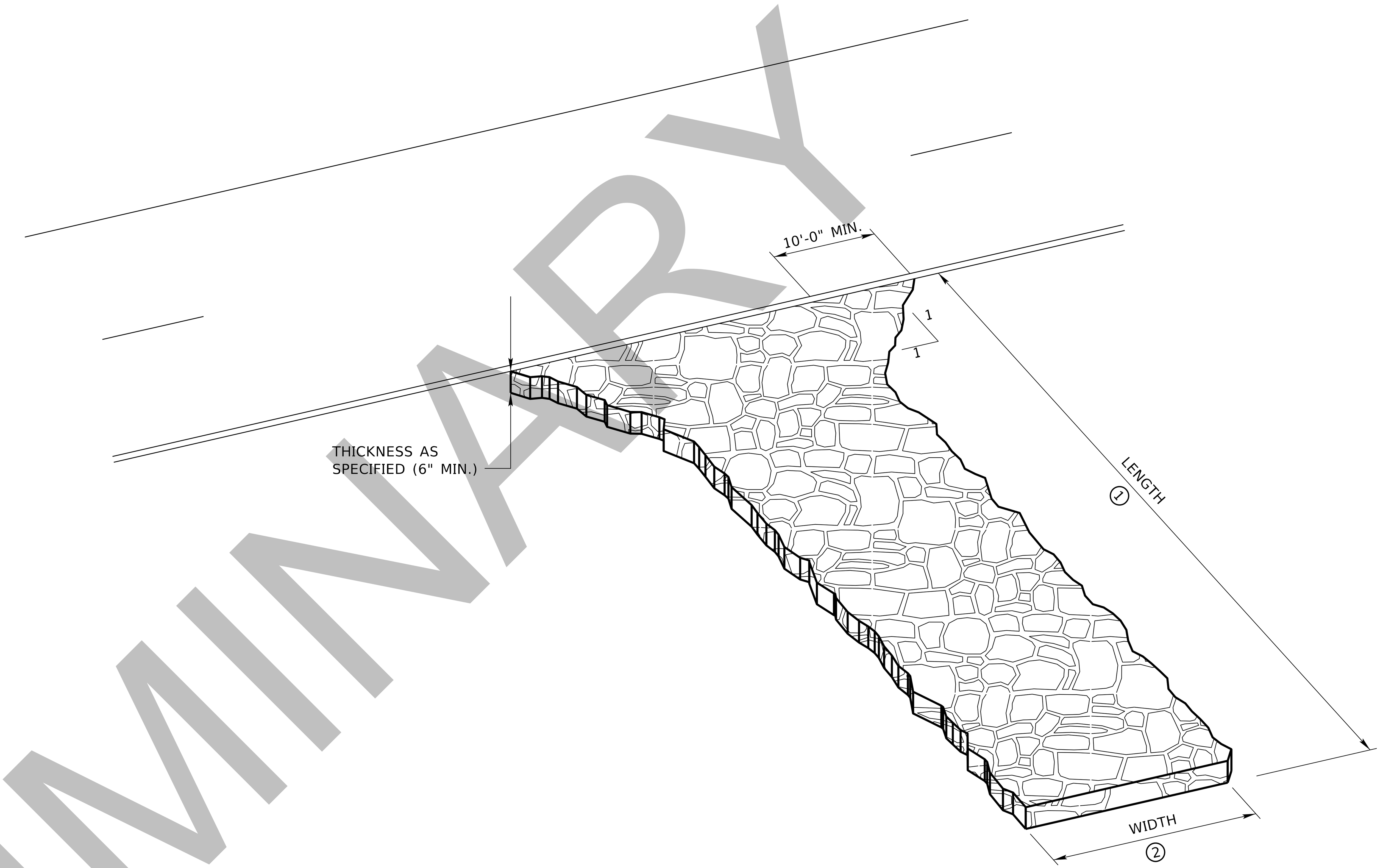
SECTION A-A

NOTES:
EROSION BALES MAY BE USED AS AN ALTERNATIVE FOR THE BERM AREA, EXCEPT AT THE OPENING.

THE CONCRETE WASHOUT SIGN SHALL HAVE LETTERS AT LEAST 3 INCHES HIGH.

STRUCTURE MUST BE LINED WITH MATERIAL NOTED IN SPECIAL PROVISIONS.

CONCRETE WASHOUT STRUCTURE



NOTES:

REMOVE VEGETATION AND EXCAVATE SOFT SOILS FROM EXIT AREA. THOROUGHLY COMPACT SUBGRADE PRIOR TO PLACING STONE.

INSTALL CULVERT UNDER EXIT IF NECESSARY TO MAINTAIN DRAINAGE.

GRADE EXIT TO PREVENT RUNOFF FROM FLOWING ONTO STREET. DIRECT ALL RUNOFF FROM EXIT TO A SEDIMENT RETENTION DEVICE.

WHEN SPECIFIED, INSTALL SUBGRADE STABILIZATION FABRIC PRIOR TO PLACING CRUSHED STONE.

INSTALL LAYER OF CRUSHED STONE TO THE THICKNESS (6 INCH MINIMUM) AND DIMENSIONS SPECIFIED.

① EXIT LENGTH: 30 FT. MINIMUM OR AS SPECIFIED. LENGTH OF EXIT MAY BE INCREASED IF SEDIMENT TRACK-OUT OCCURS.

② EXIT WIDTH: 20 FT. MINIMUM.

STABILIZED CONSTRUCTION EXIT

SPECIAL PLAN 2C
1 OF 1
CONCRETE WASHOUT & CONSTRUCTION EXIT

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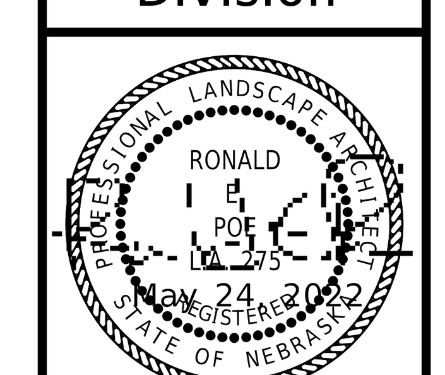

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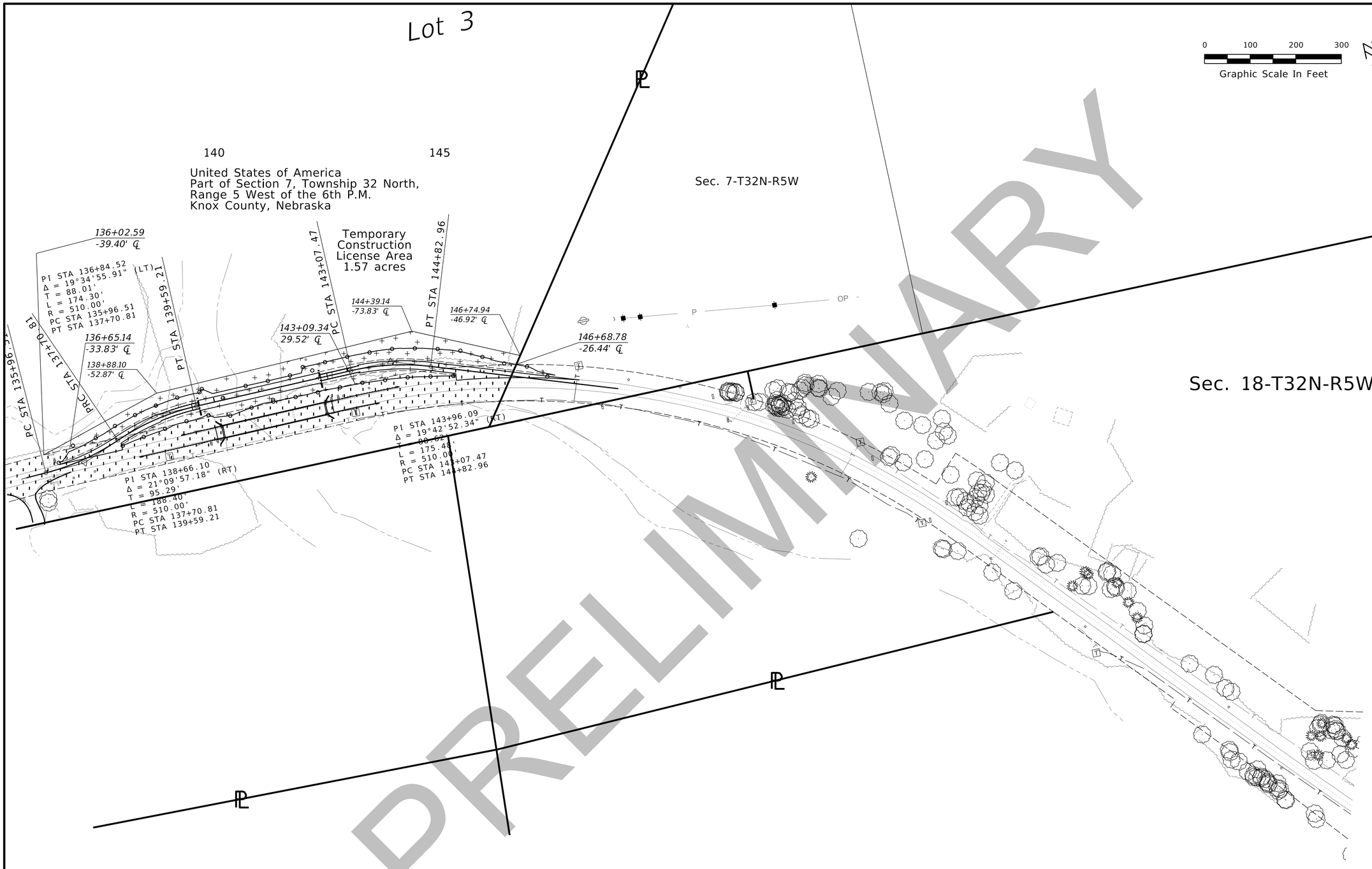

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LEGEND

- NEW CONTROLLED ACCESS
- PREVIOUS CONTROLLED ACCESS
- LIMITS OF CONSTRUCTION
- PREVIOUS R.O.W.
- EXISTING PERMANENT EASEMENT
- EXISTING RAILROAD EASEMENT
- NEW R.O.W.
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- EXCESS TAKING
- NEW RAILROAD PERMANENT EASEMENT
- NEW RAILROAD TEMPORARY EASEMENT

Previous ROW Purchased Under Projects: F-113(5), S-714(2)

DOCUMENT VERSION DATED: 1-24-2024

Sheet 3 | W1

Project Number 12-5(1018)

C.N. 31674B

Location: Bazile Creek Bridge

ROW Project No: 12-5(1018)

ROW Control No: 31674B

County: Knox

Right of Way Plans

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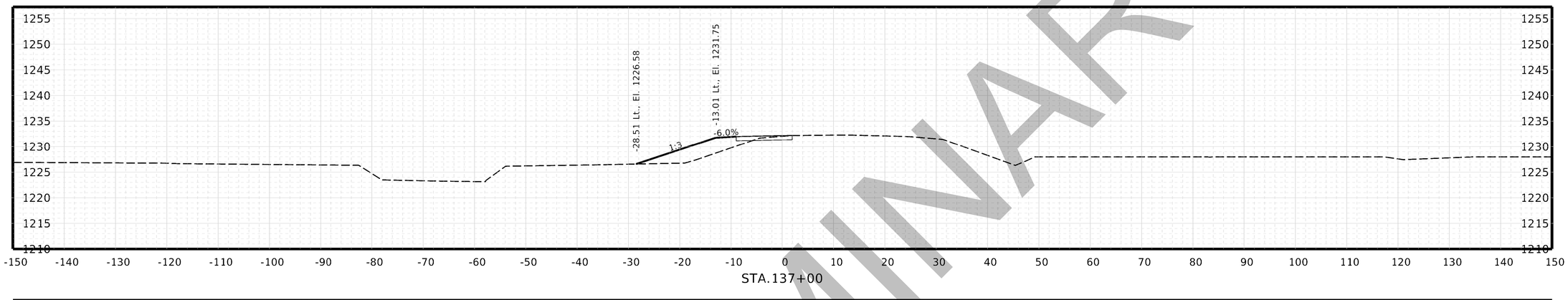
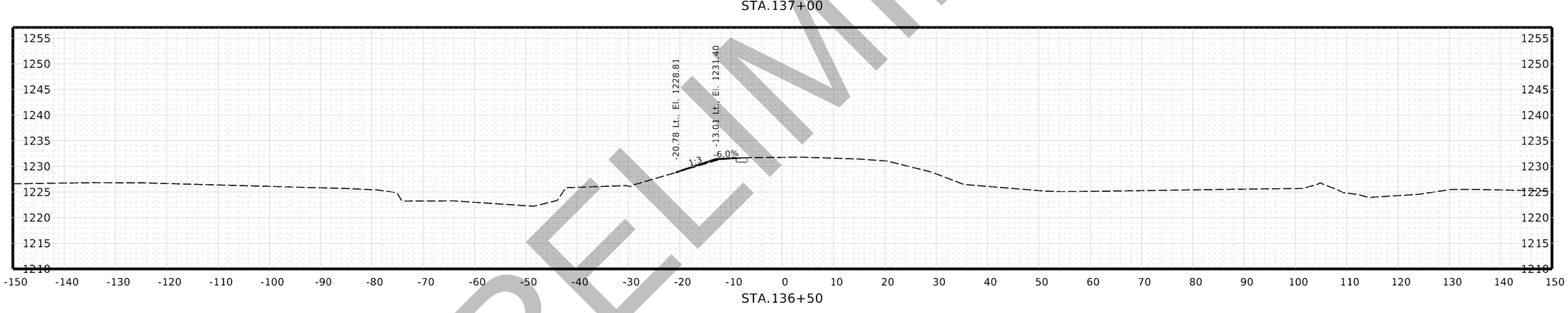
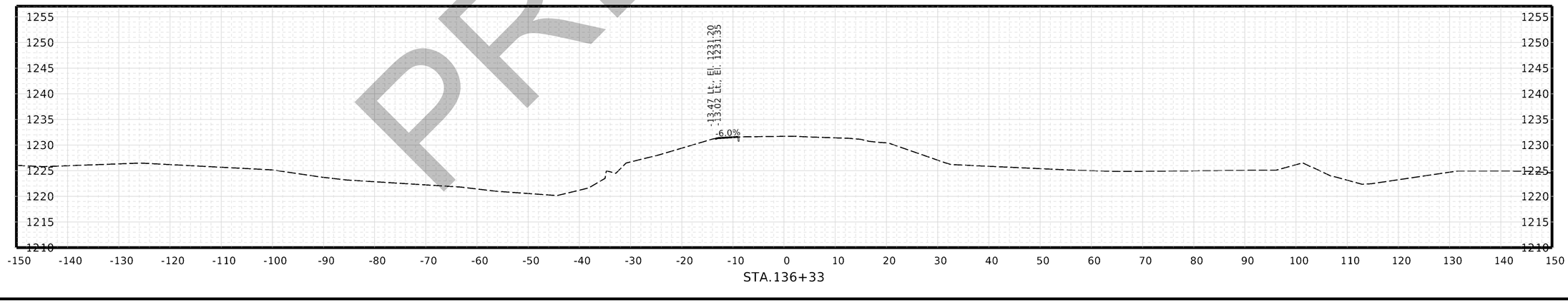
Right-of-Way Division







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X1

Project Number
12-5(1018)

C.N. 31674B

TEMPORARY DETOUR
CROSS SECTIONS

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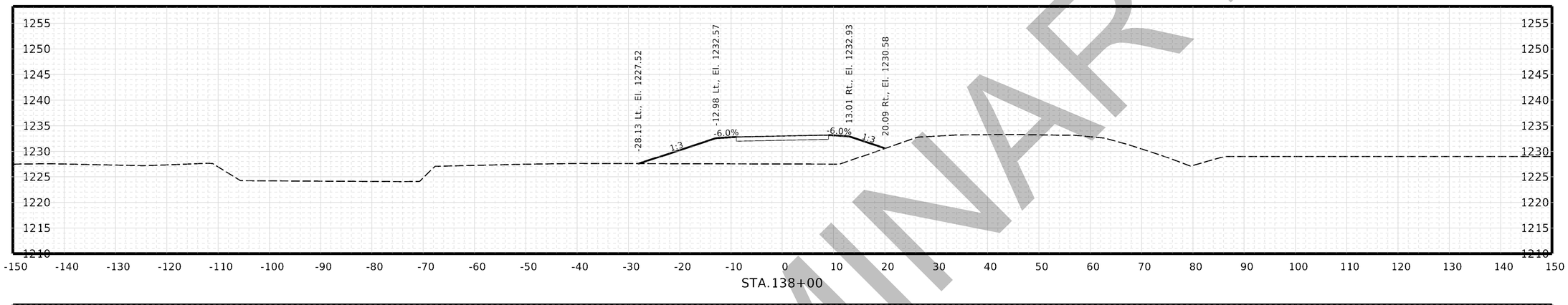

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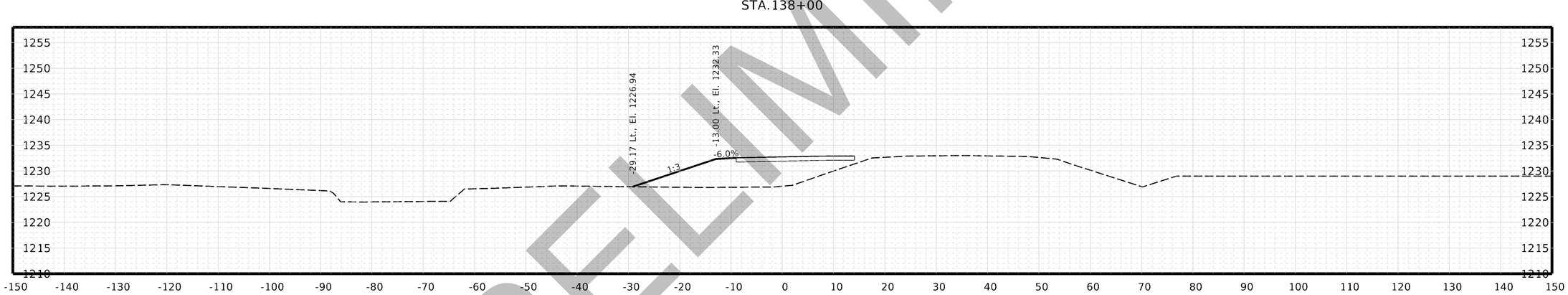

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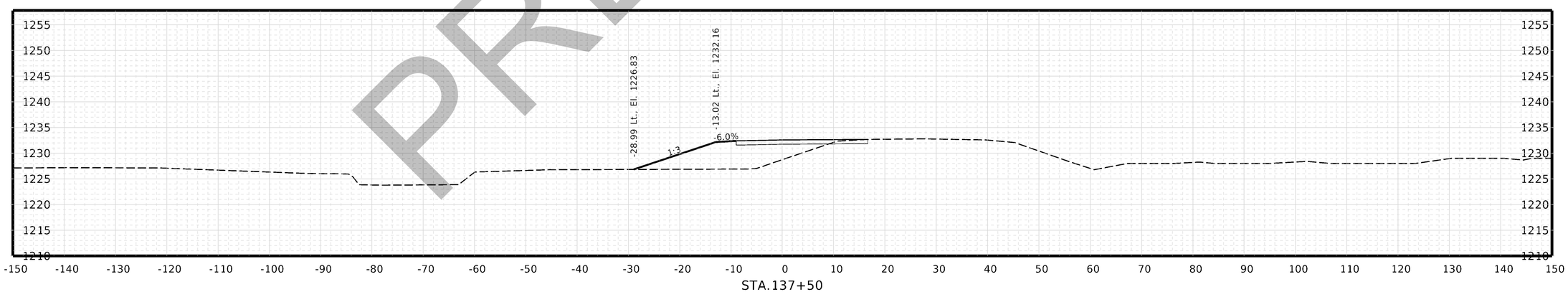

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Project Number
12-5(1018)

C.N. 31674B

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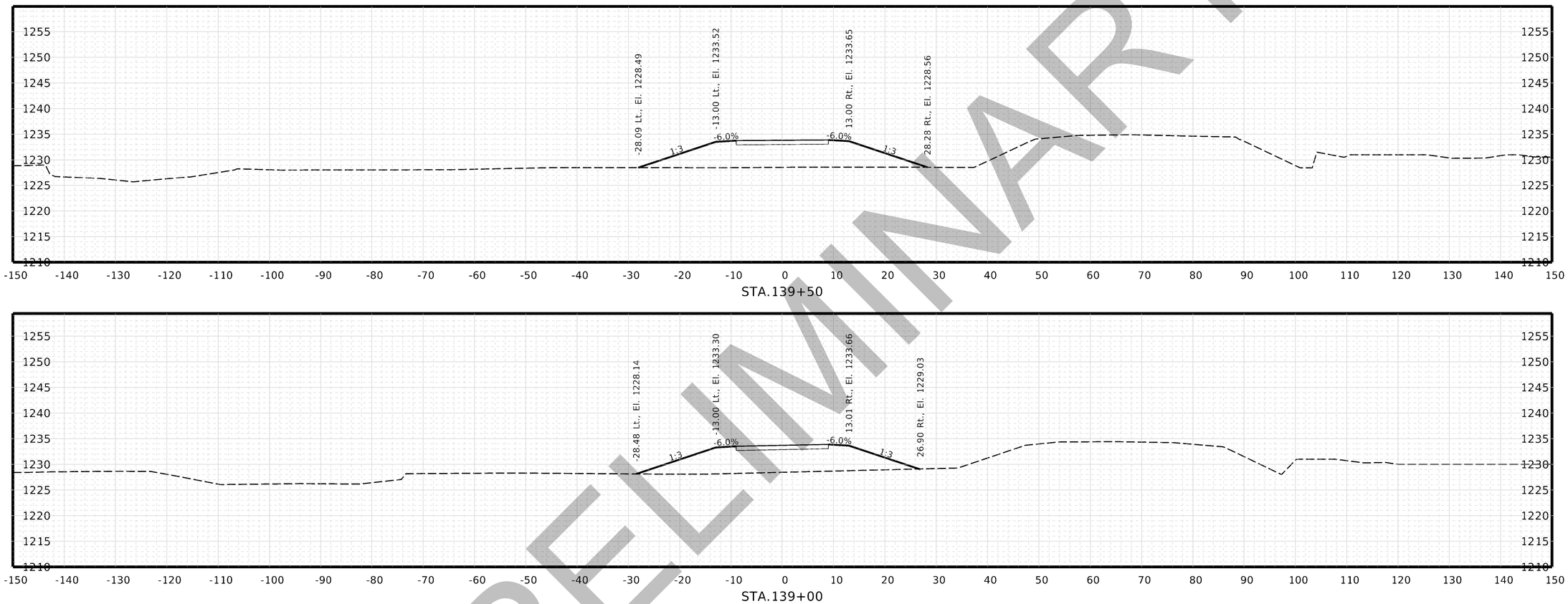

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X3

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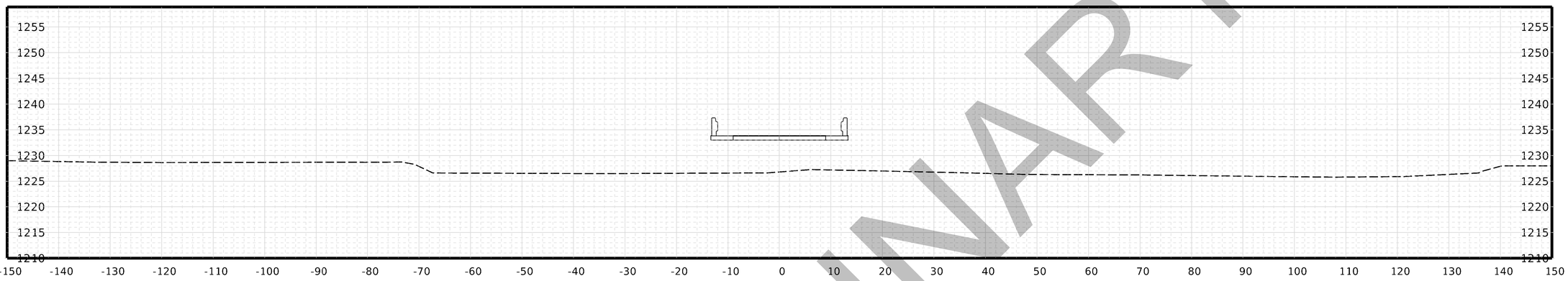

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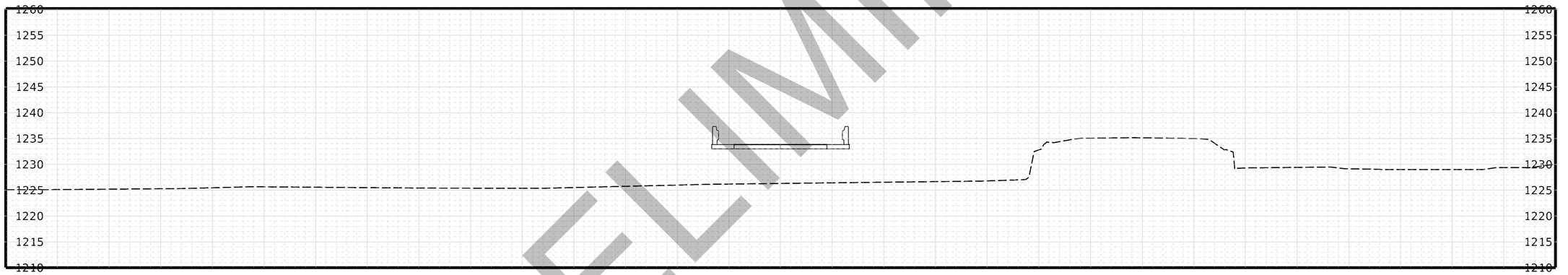

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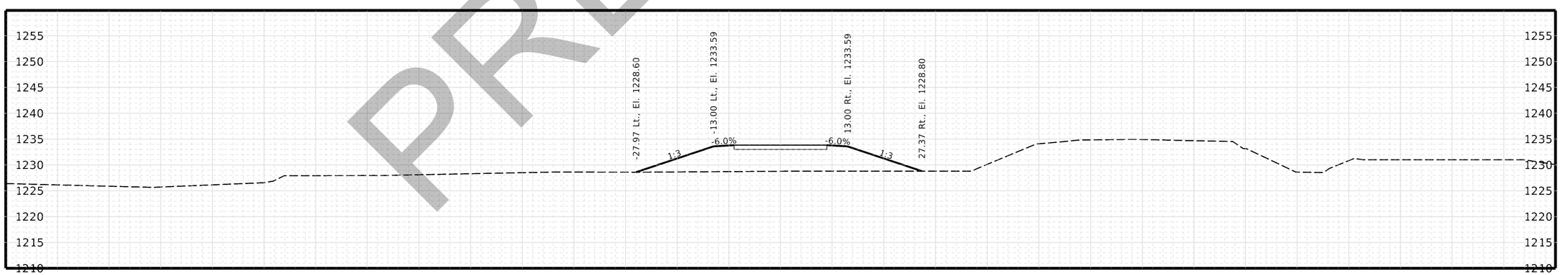

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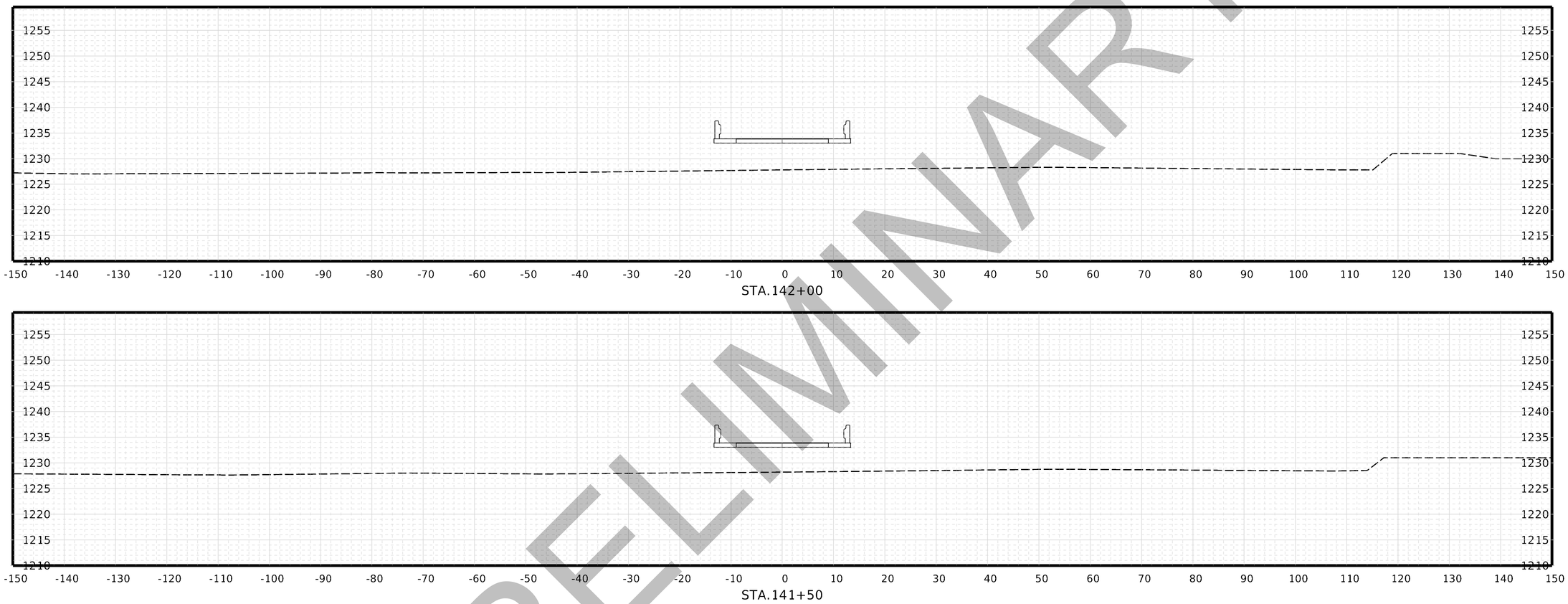

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X5

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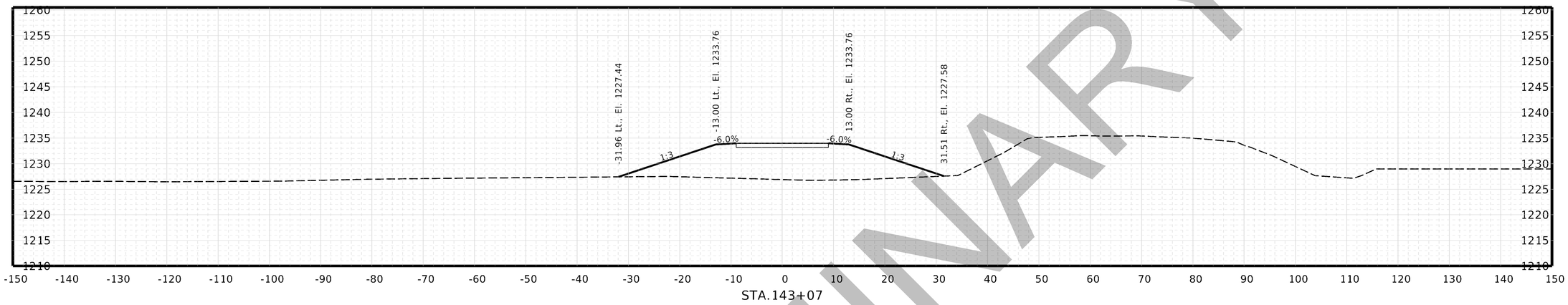

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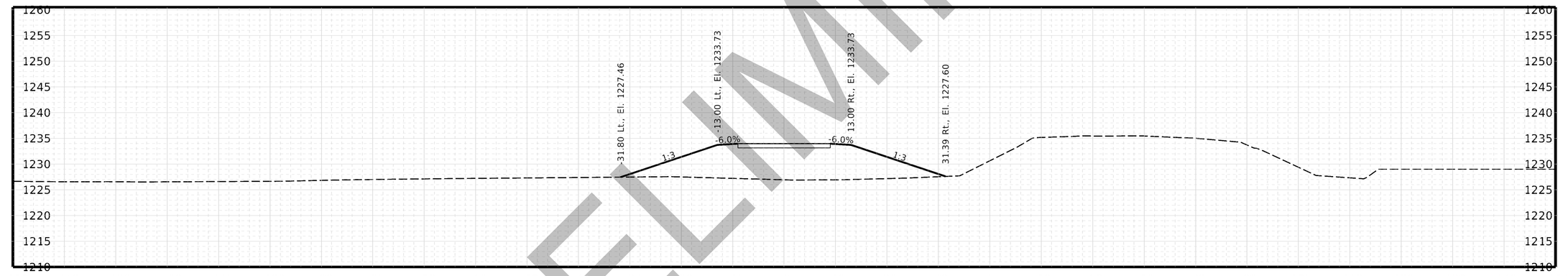

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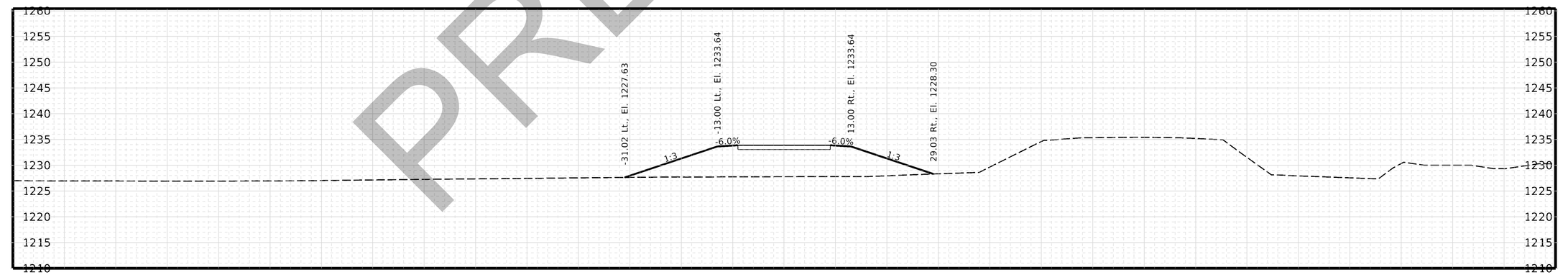

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Project Number
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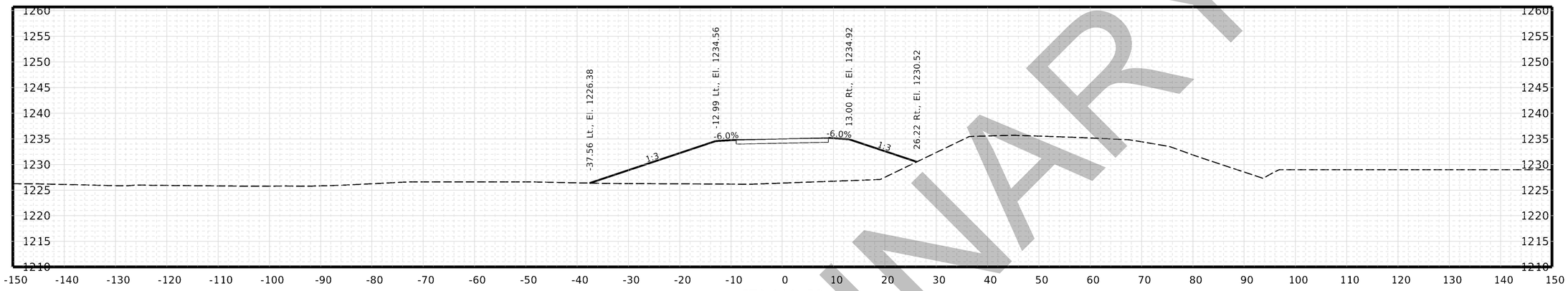

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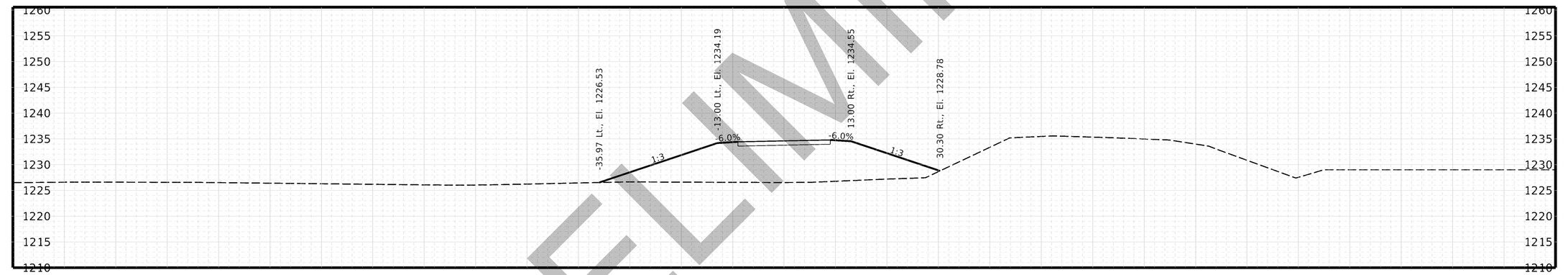

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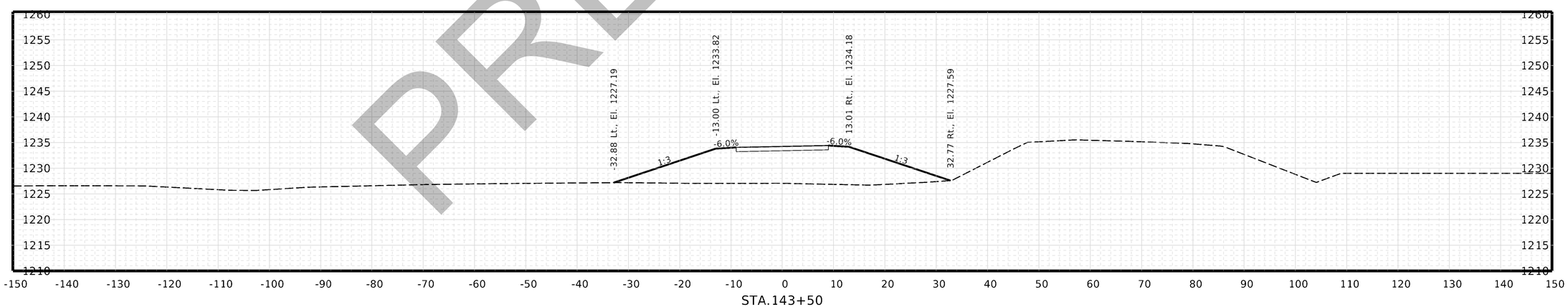

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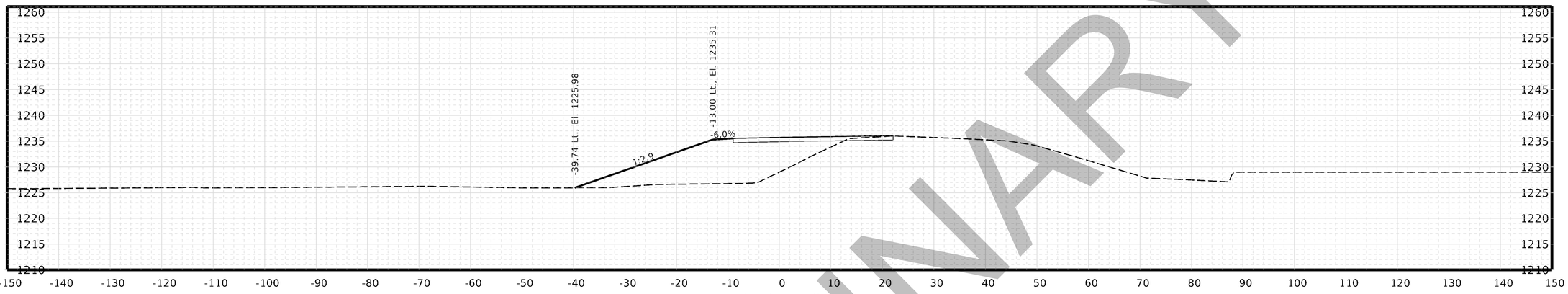

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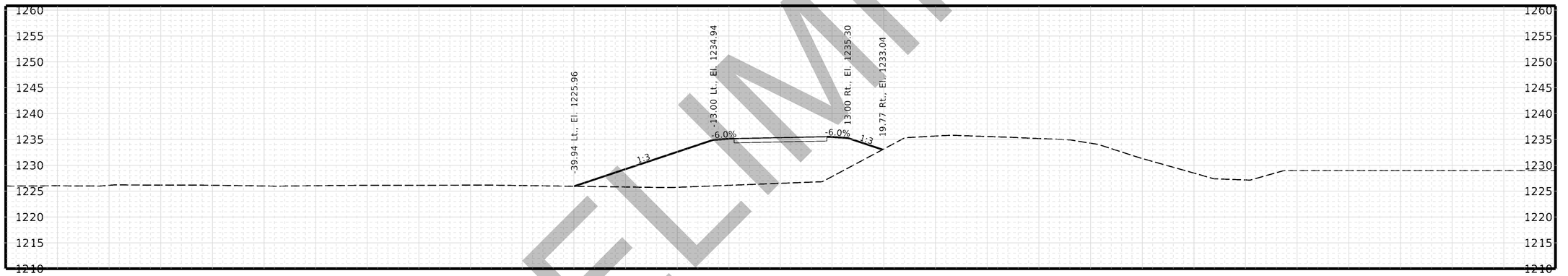

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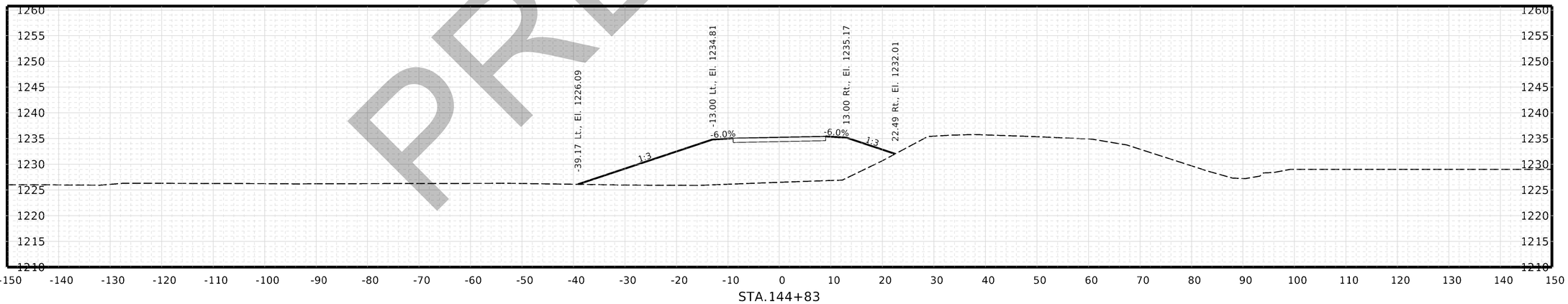

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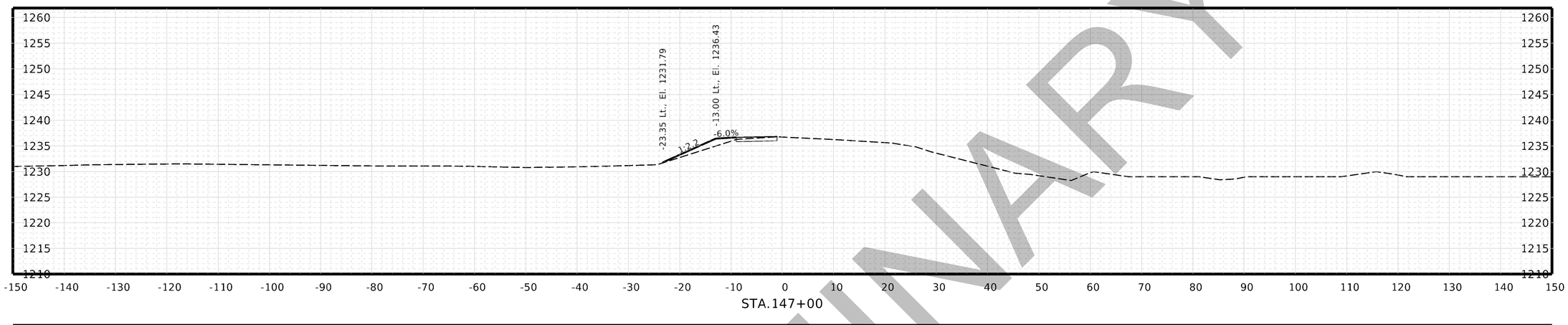

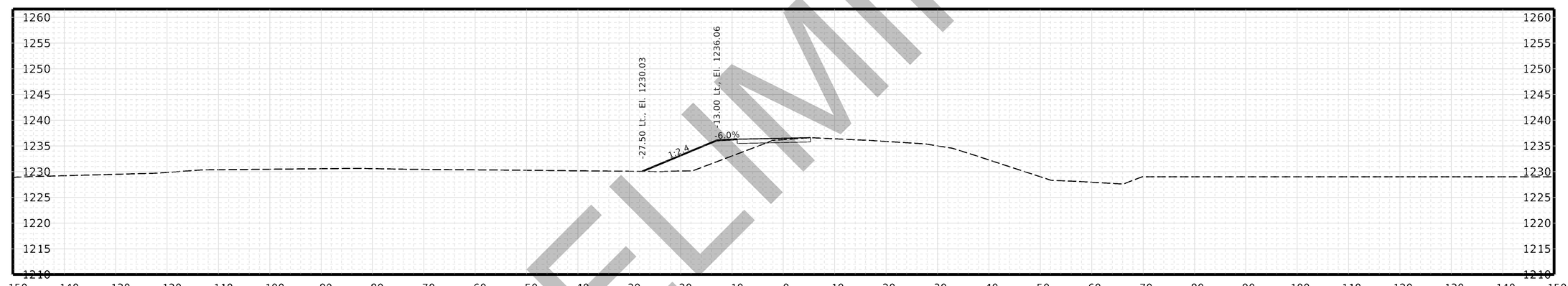

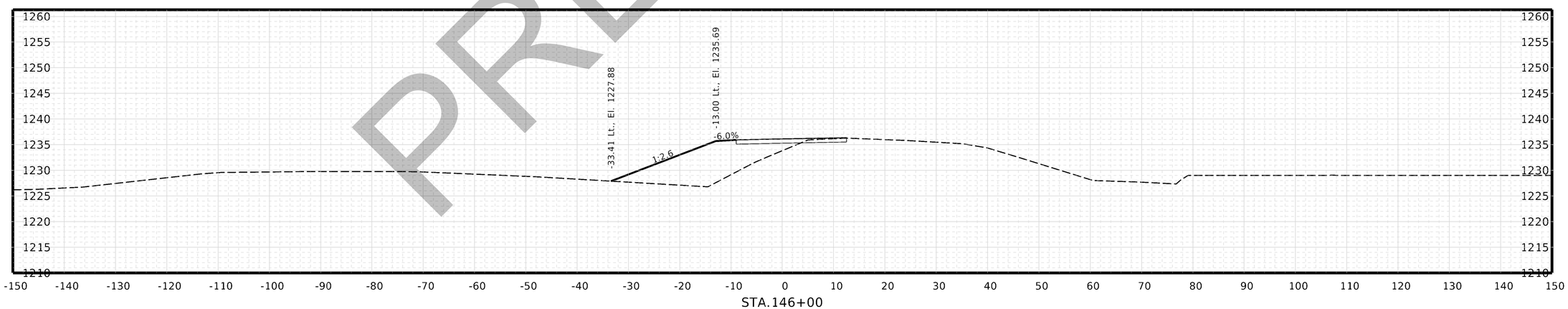

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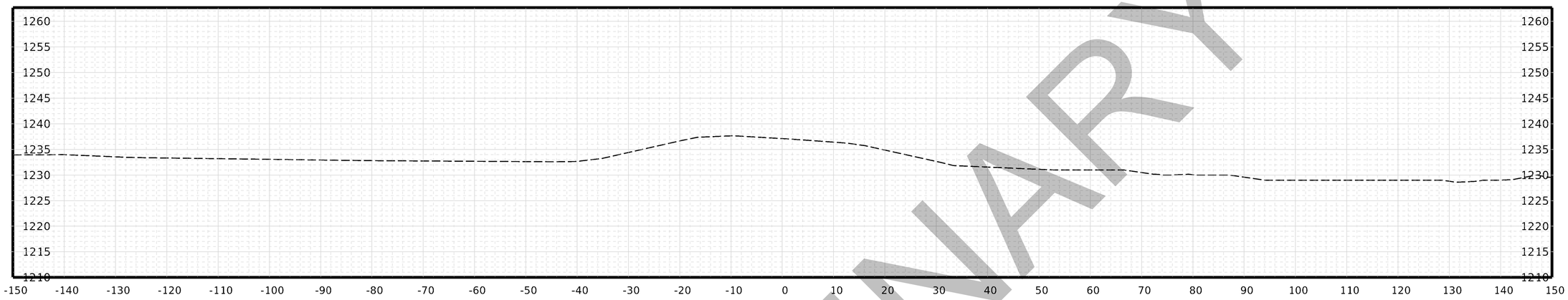

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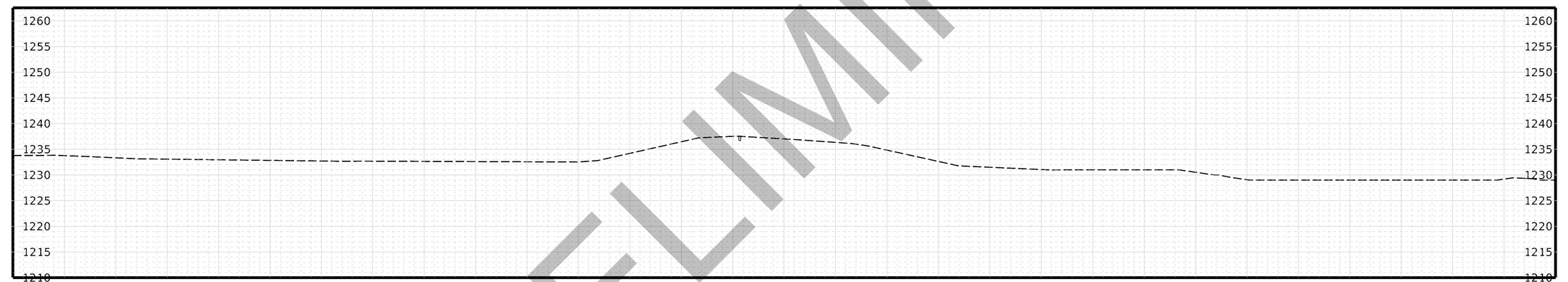

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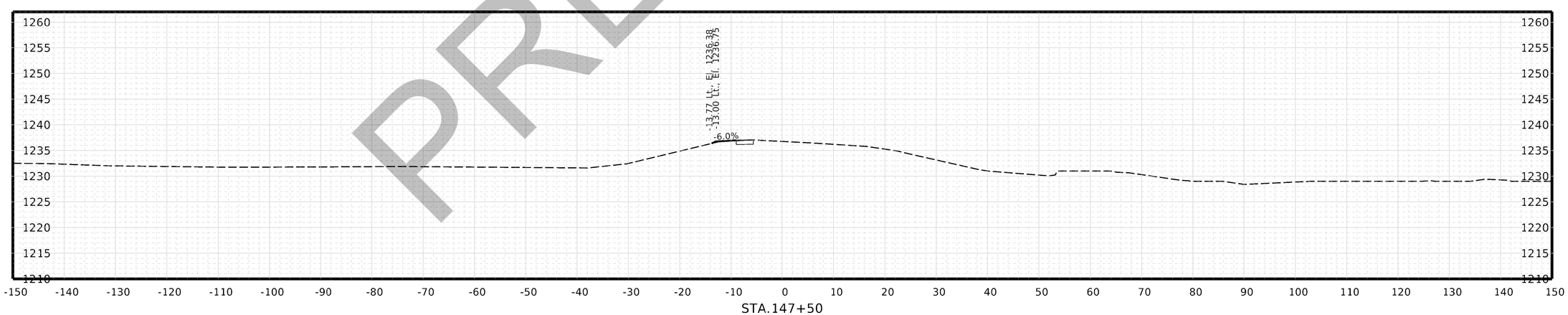

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Project Number
12-5(1018)

C.N. 31674B

TEMPORARY DETOUR
CROSS SECTIONS

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Roadway Design Division

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