

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

- MaineDOT Standard Specifications 2020, w/ Updates
- AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, First Edition 2015
- Guidlines for the Installation, Inspection, Maintenance and Repair of Structural Supports for Highway Signs, Luminaires, and Traffic Signals FHWA NHI 05-036, March 2005
<https://www.fhwa.dot.gov/bridge/signinspection.pdf>

TRAFFIC DATA

AADT (2017) 16,170
Posted Speed (mph) 30

MATERIALS

Concrete Class "LP"
Reinforcing Steel ASTM A 615/A 615M, Grade 60
Structural Steel ASTM A 36, Grade 36, Galvanized
Anchor Bolts ASTM F1554, Grade 55, Galvanized
High Strength Bolts ASTM F3125, Grade A325, Type 1, Galvanized

BASIC DESIGN STRESSES

Concrete $f'c = 5,000$ psi
Reinforcing Steel $f_y = 60,000$ psi
Steel/Hardware:
ASTM A36, Grade 36 $F_y = 36,000$ psi
ASTM F1554, Grade 55 $F_u = 75,000$ psi
ASTM F 3125, Grade A 325 $F_u = 120,000$ psi

AUGUSTA KENNEBEC CANTILEVER SIGN SUPPORT TRSS-937037 ON STATE ROUTE 3 WIN 027923.00 PROJECT LENGTH 0.000 mi.

LIST OF DRAWINGS

Title Sheet	1
Elevation & Section	2
Disassembly & Demo	3
Foundation Repairs	4
Reassembly & Materials	5
Right of Way Map	6
Night Work TCP	7
Night Work TCP	8
Night Work TCP	9



MAINTENANCE OF TRAFFIC

During Sign Disassembly & Reassembly - (Night Work Only) Temporary lane shifts & traffic merging onto the two eastbound lanes in accordance with the Night Work Traffic Control Plan. Maintain one 12'0" lane of traffic in each direction.

During Other Construction Activities - Temporary shoulder closure in accordance with the Manual on Uniform Traffic Control Devices, MUTCD.

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
652.39	WORK ZONE TRAFFIC CONTROL	/	LS
659.10	MOBILIZATION	/	LS
910.03	SPECIAL WORK - SIGN SUPPORT REPAIRS	/	LS

<u>PROJECT LOCATION</u>	State Route 3 - Westbound Lanes Lat./Long. 44°21'08.5" N 69°46'43.9" W 44.3524, -69.7789
<u>PROGRAM AREA</u>	MaineDOT Maintenance & Operations
<u>OUTLINE OF WORK</u>	Foundation Repairs to Sign Support Structure TRSS - 937037 Including Incidental Work

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER:		5/2/2022
CHIEF ENGINEER:		



Signature: *Joel Veilleux*
SIGNATURE: Joel R. Veilleux
P.E. NUMBER: 13280
DATE: 4/29/2022

PROJECT INFORMATION	
PROGRAM	MaineDOT M&O
PROJECT MANAGER	Wayne Arsenault
DESIGNER	Joel Veilleux
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 027923.00

AUGUSTA
TRSS - 937037
TITLE SHEET

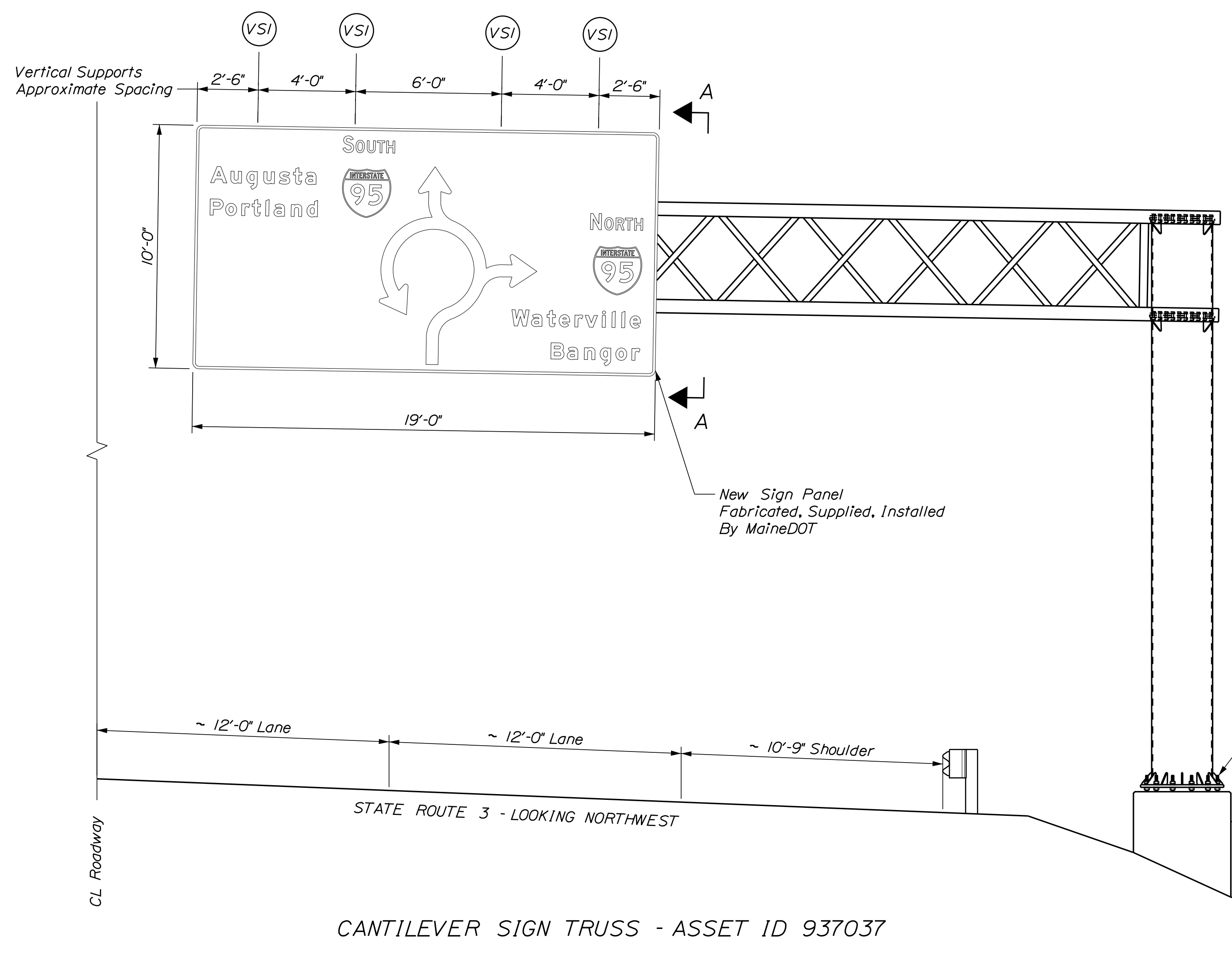
SHEET NUMBER
1
OF 9

Date: 4/29/2022

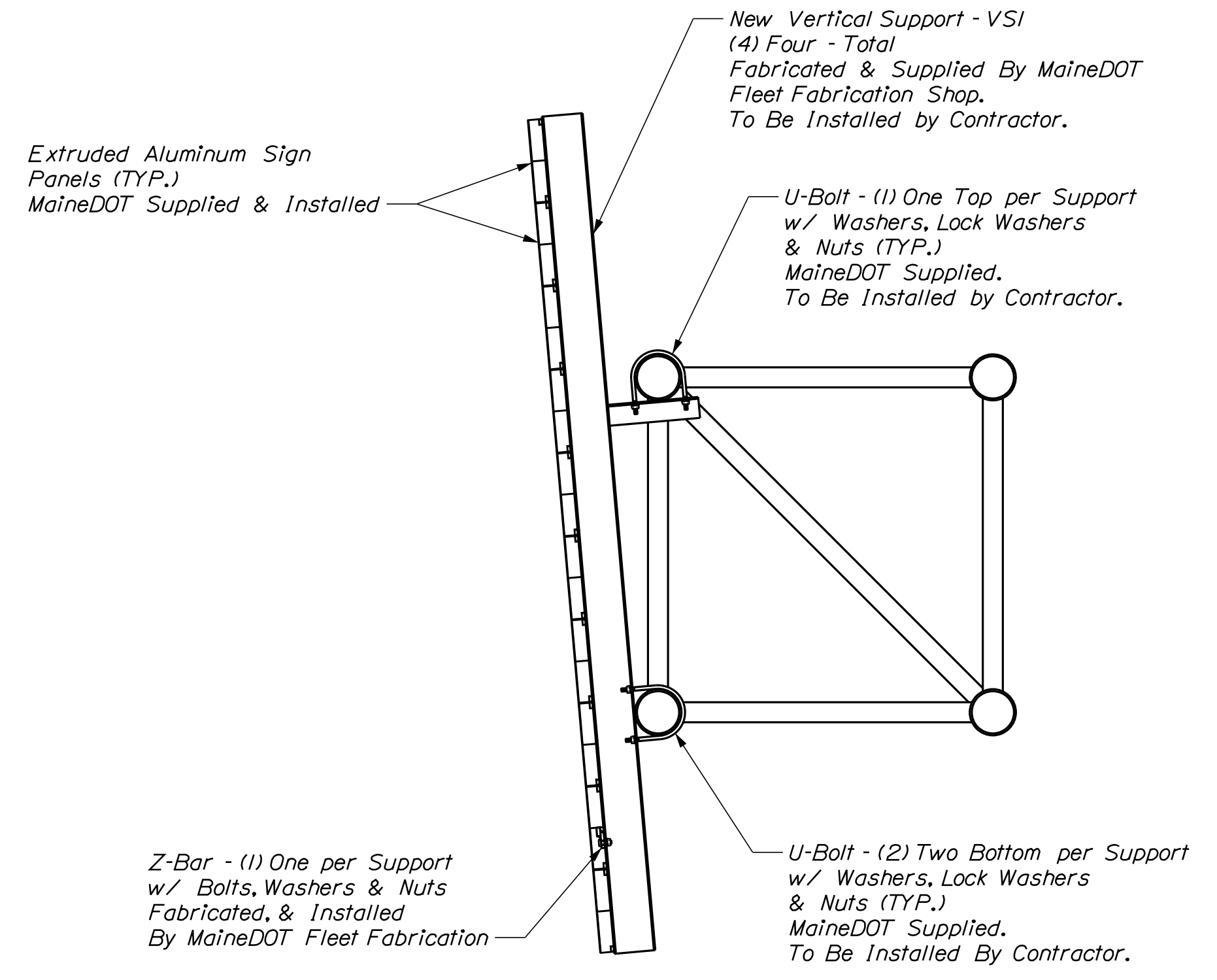
Username: Joel R. Veilleux

Division: BRIDGE

Filename: ... \002_Elevation and Section.dgn



CANTILEVER SIGN TRUSS - ASSET ID 937037



SECTION A-A



DAMAGE PHOTO - ELEVATION VIEW

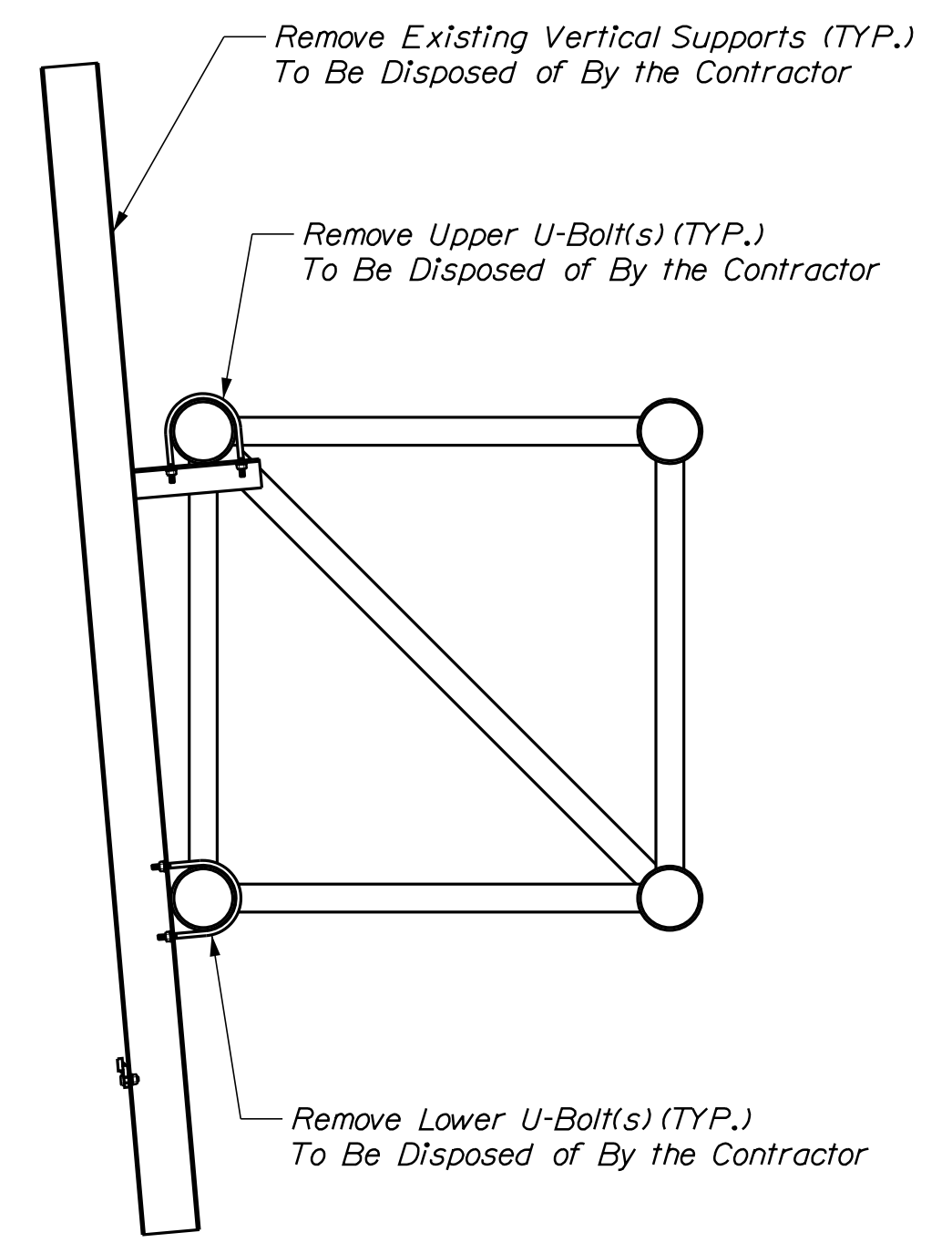
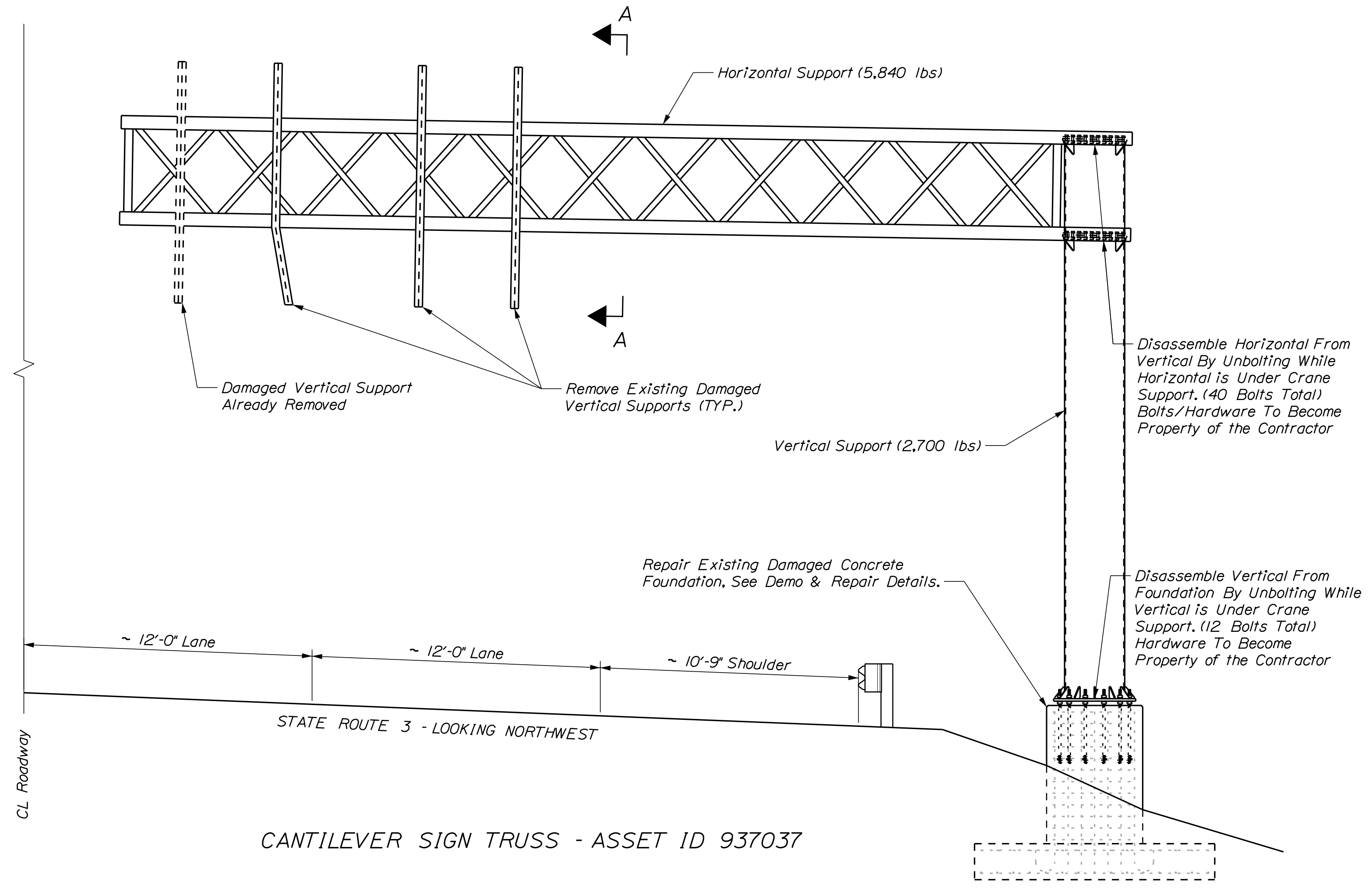


DAMAGE PHOTO - FOUNDATION VIEW

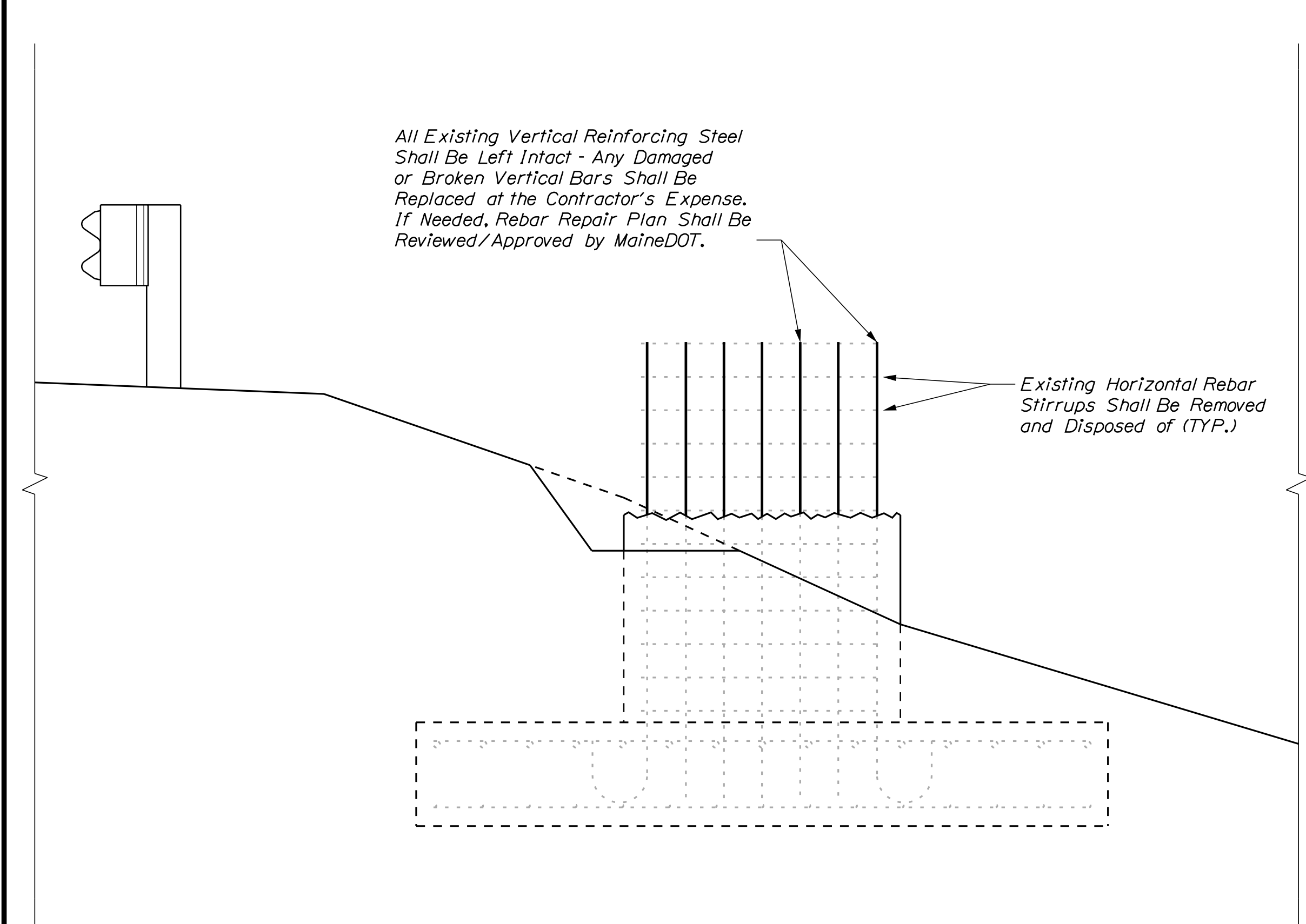
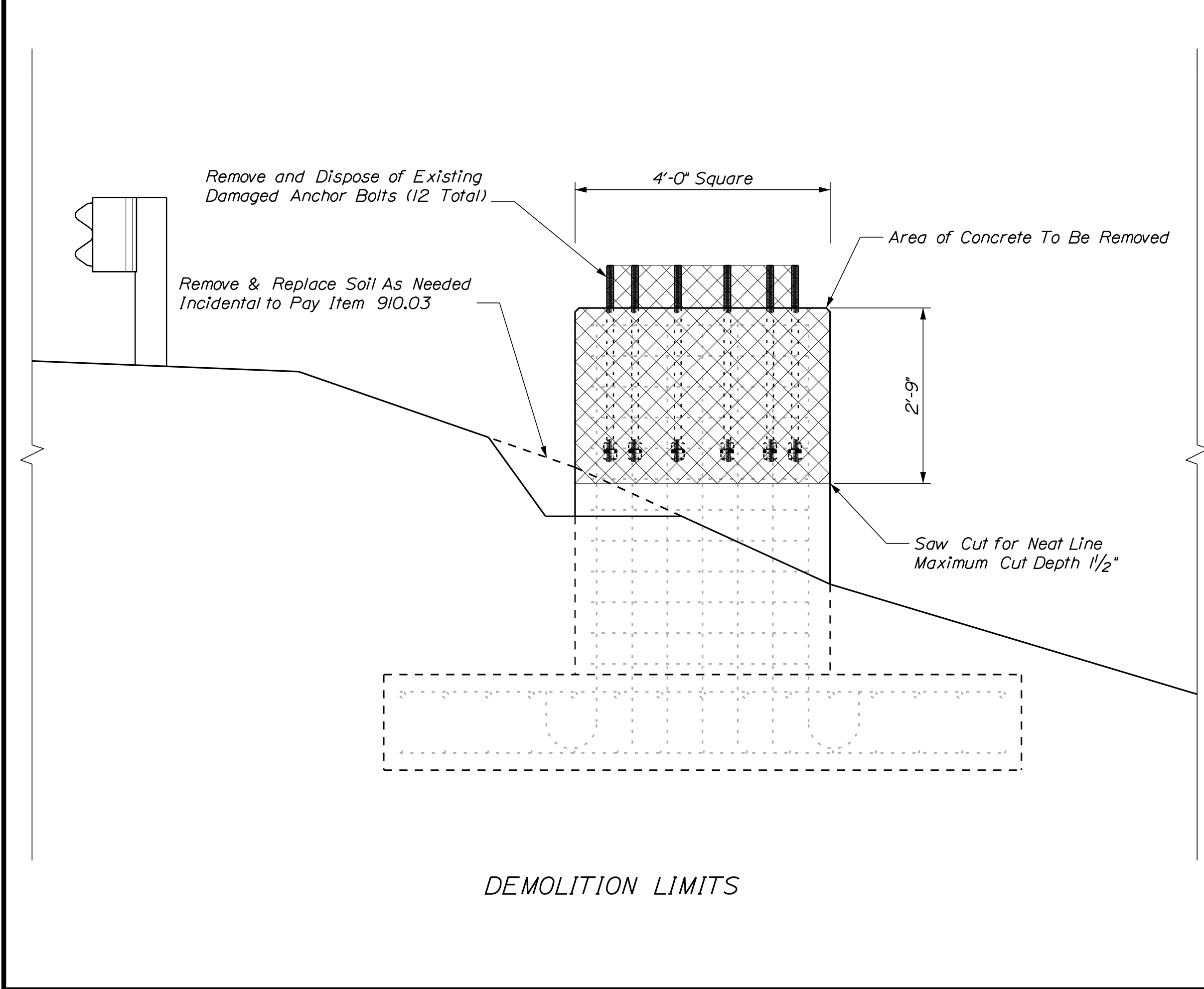


DAMAGE PHOTO - ANCHOR VIEW

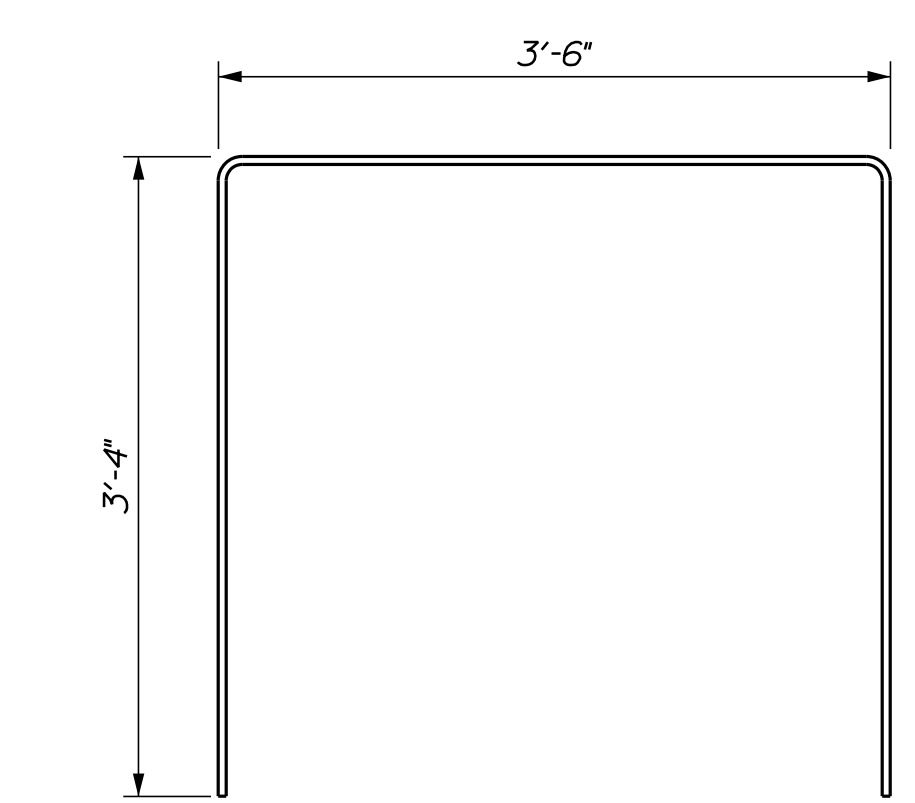
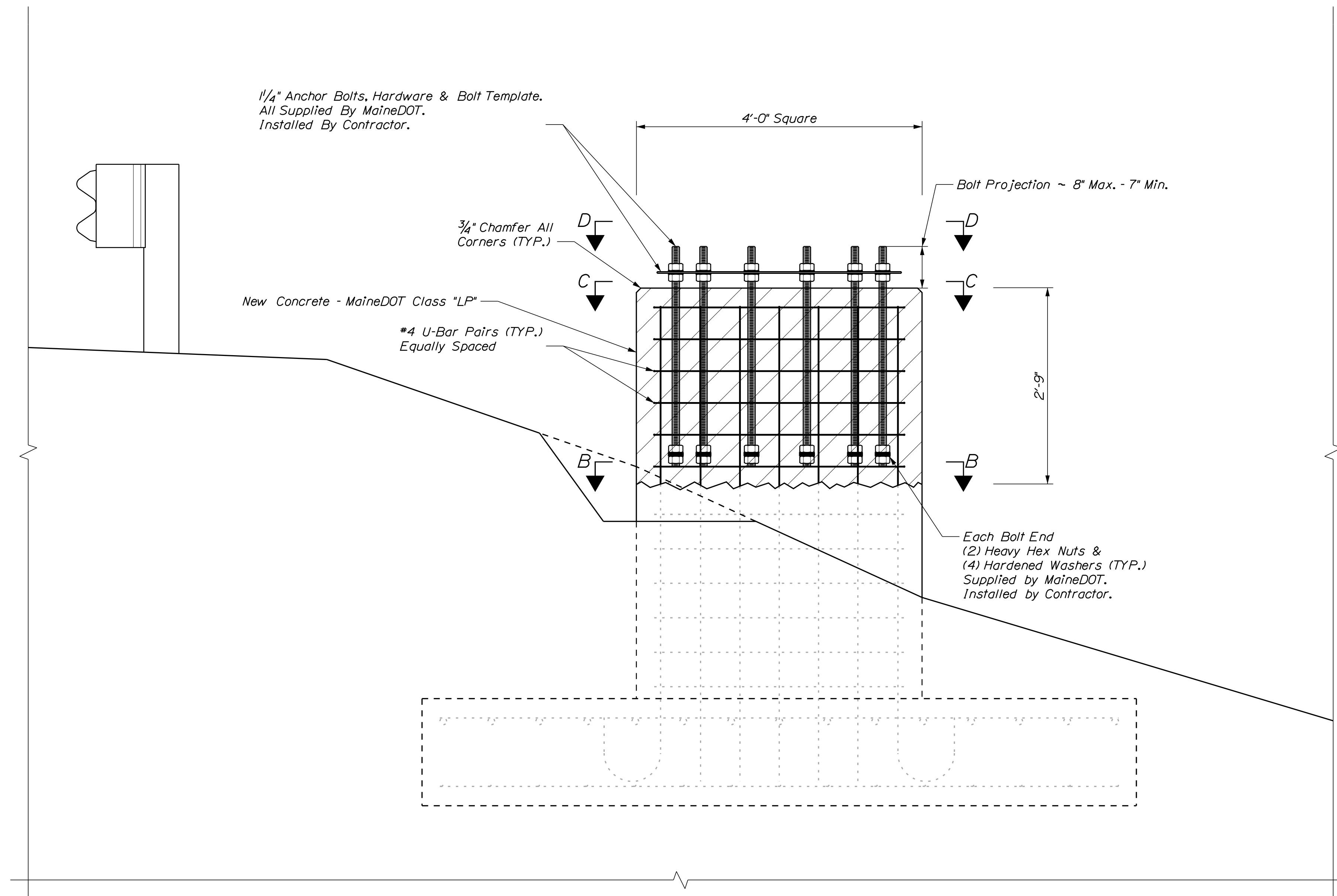
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		MAINTENANCE & OPERATIONS		WIN		027923.00		REPAIR PLANS	
PROJ. MANAGER	W. ARSENAULT	BY	J. VEILLEUX	DATE	3/7/2022	SIGNATURE	P.E. NUMBER	DATE			
DESIGN DETAILED	J. VEILLEUX	CHECKED-REVIEWED									
DESIGNS DETAILED		DESIGNS DETAILED									
REVISIONS 1		REVISIONS 1									
REVISIONS 2		REVISIONS 2									
REVISIONS 3		REVISIONS 3									
REVISIONS 4		REVISIONS 4									
FIELD CHANGES											
CANTILEVER SIGN SUPPORT				KENNEBEC				AUGUSTA			
TRSS - 937037											
ELEVATION & SECTION											
SHEET NUMBER											
2											
OF 7											



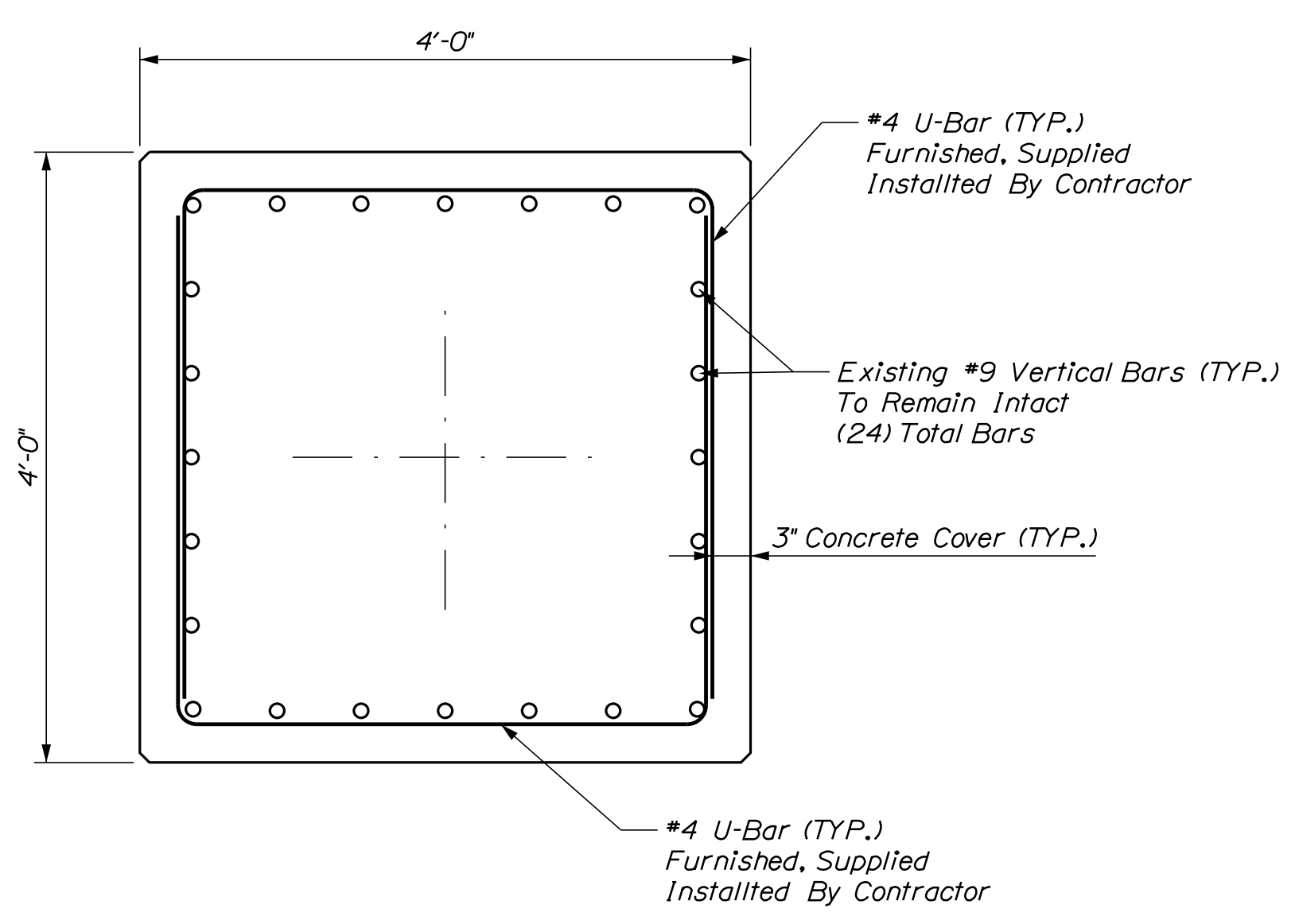
SECTION A-A



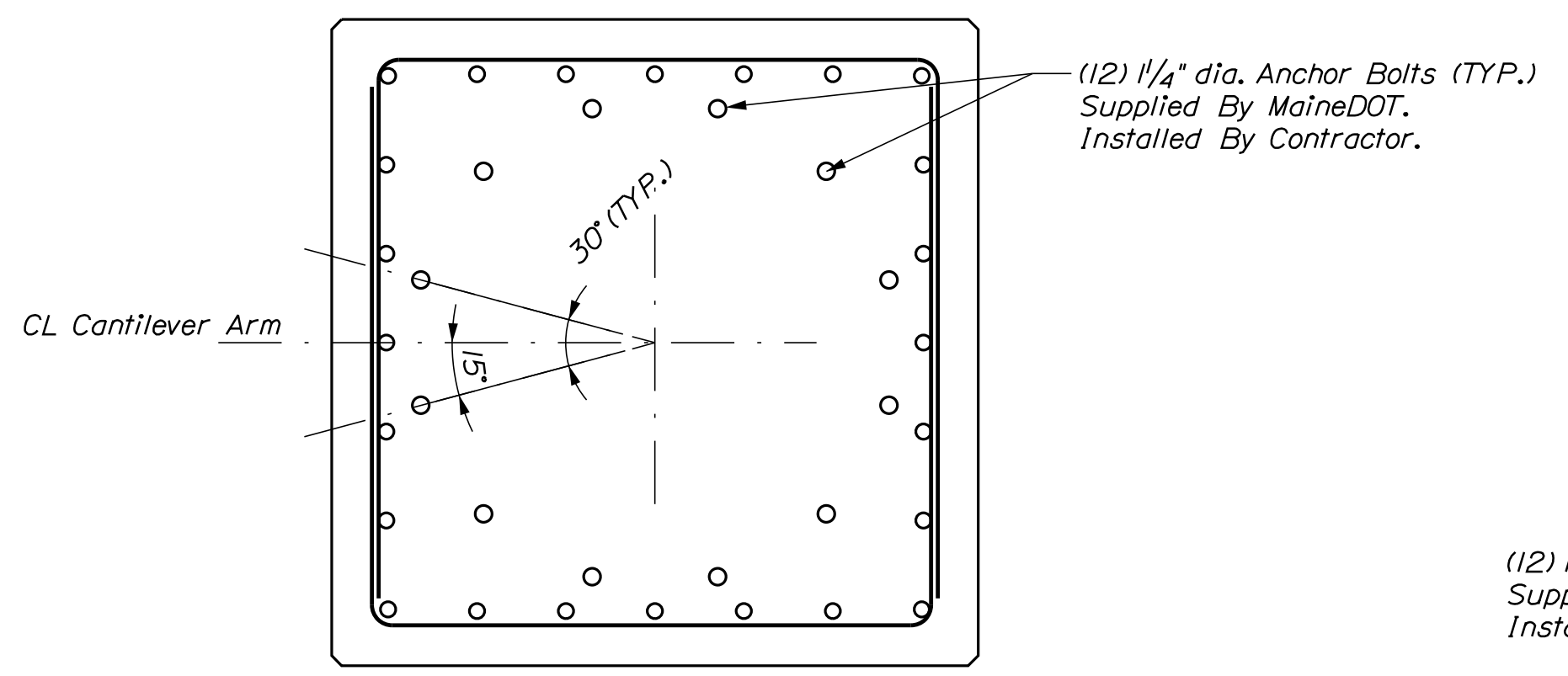
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		MAINTENANCE & OPERATIONS	
CANTILEVER SIGN SUPPORT		TRSS - 937037		AUGUSTA	
KENNEBEC		DISASSEMBLY & DEMO		SHEET NUMBER	
DESIGN: W. ARSENAULT		CHECKED: J. VEILLEUX		DATE: 3/2022	
DESIGNED: J. VEILLEUX		DESIGNED: J. VEILLEUX		SIGNATURE	
REVISIONS: 1		REVISIONS: 2		P.E. NUMBER	
REVISIONS: 3		REVISIONS: 4		DATE	
FIELD CHANGES		WIN		027923.00	
REPAIR PLANS		TRSS - 937037			



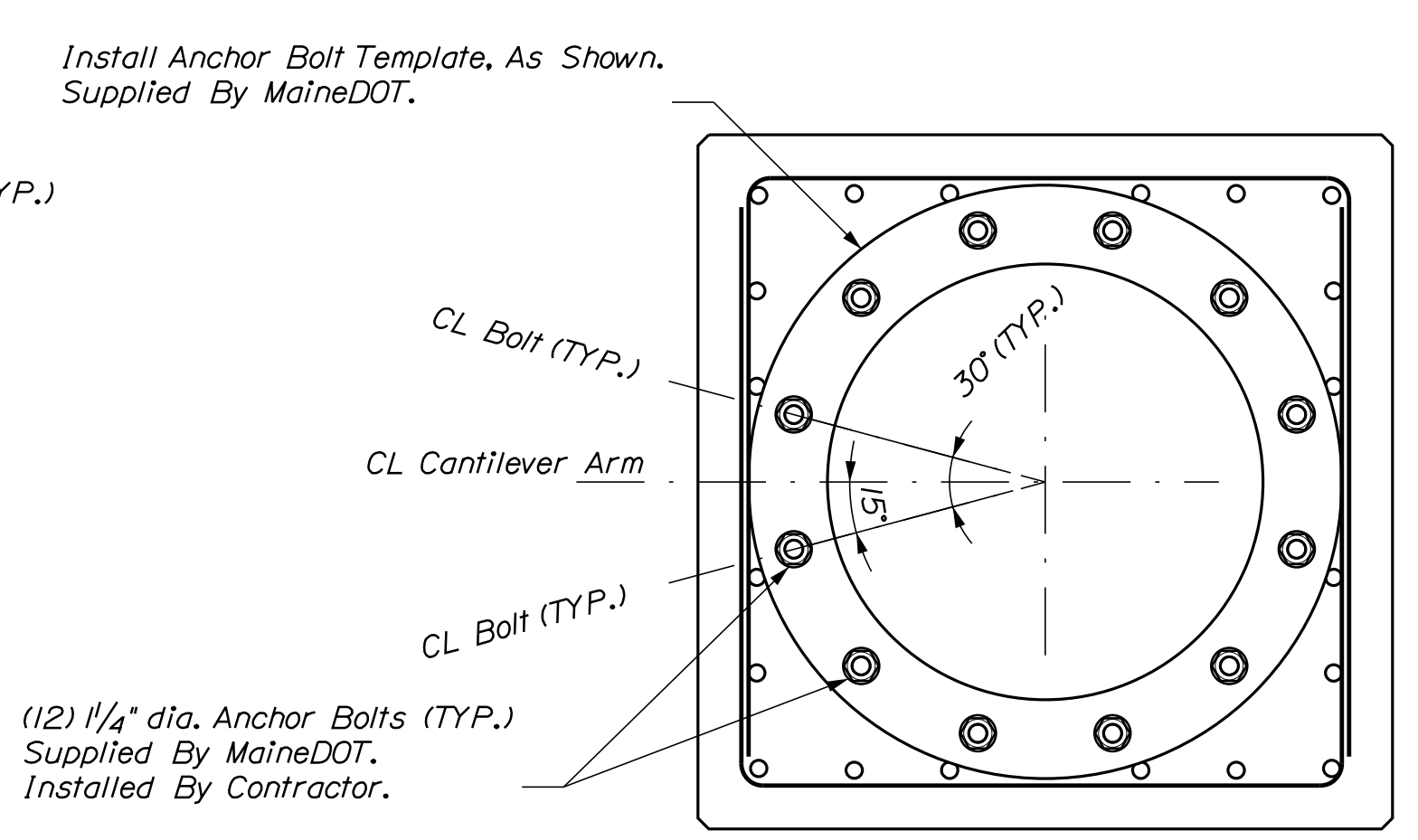
REBAR SCHEDULE
 #4 U-Bars - (12) Twelve Total Required
 Supplied & Installed By Contractor



SECTION B-B

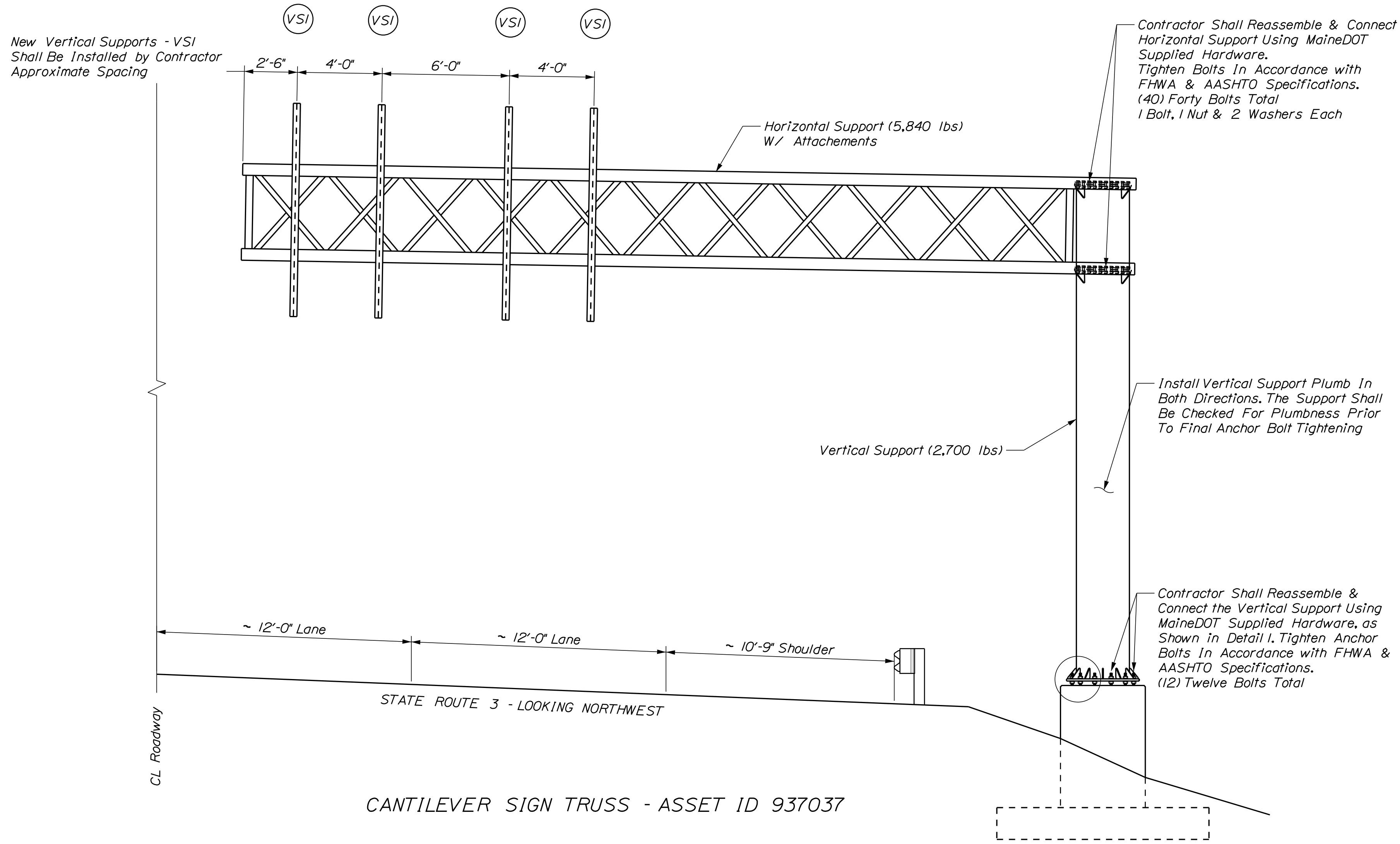


SECTION C-C

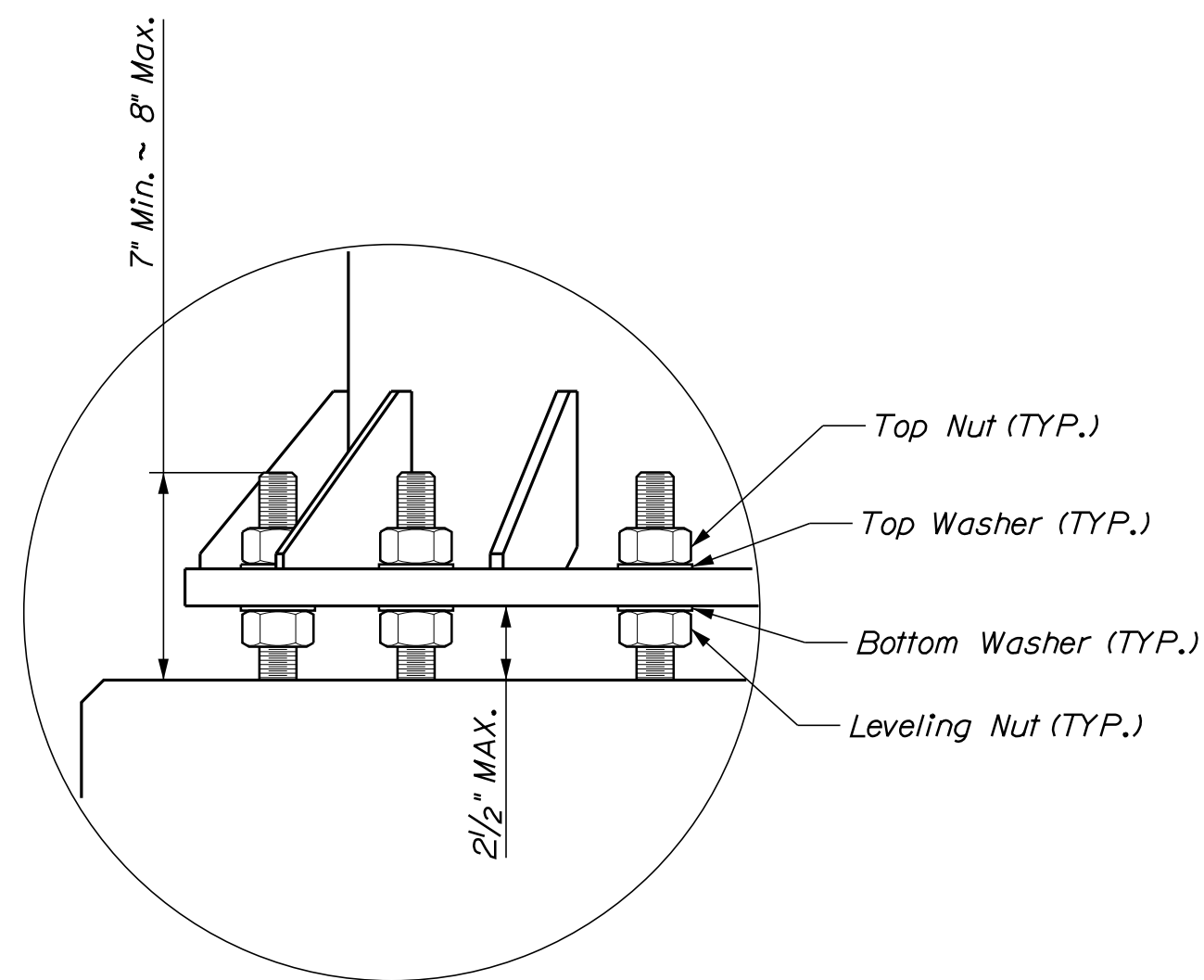


SECTION D-D

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		MAINTENANCE & OPERATIONS	
CANTILEVER SIGN SUPPORT TRSS - 937037		AUGUSTA	
KENNEBEC		FOUNDATION REPAIRS	
PROJ. MANAGER	W. ARSENAULT	BY	DATE
CHECKED-REVIEWED	J. VEILLEUX	J. VEILLEUX	3/2022
DESIGNS DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES		SIGNATURE	P.E. NUMBER
		DATE	
SHEET NUMBER		TRSS - 937037	
4		WIN 027923.00	
OF 9		REPAIR PLANS	



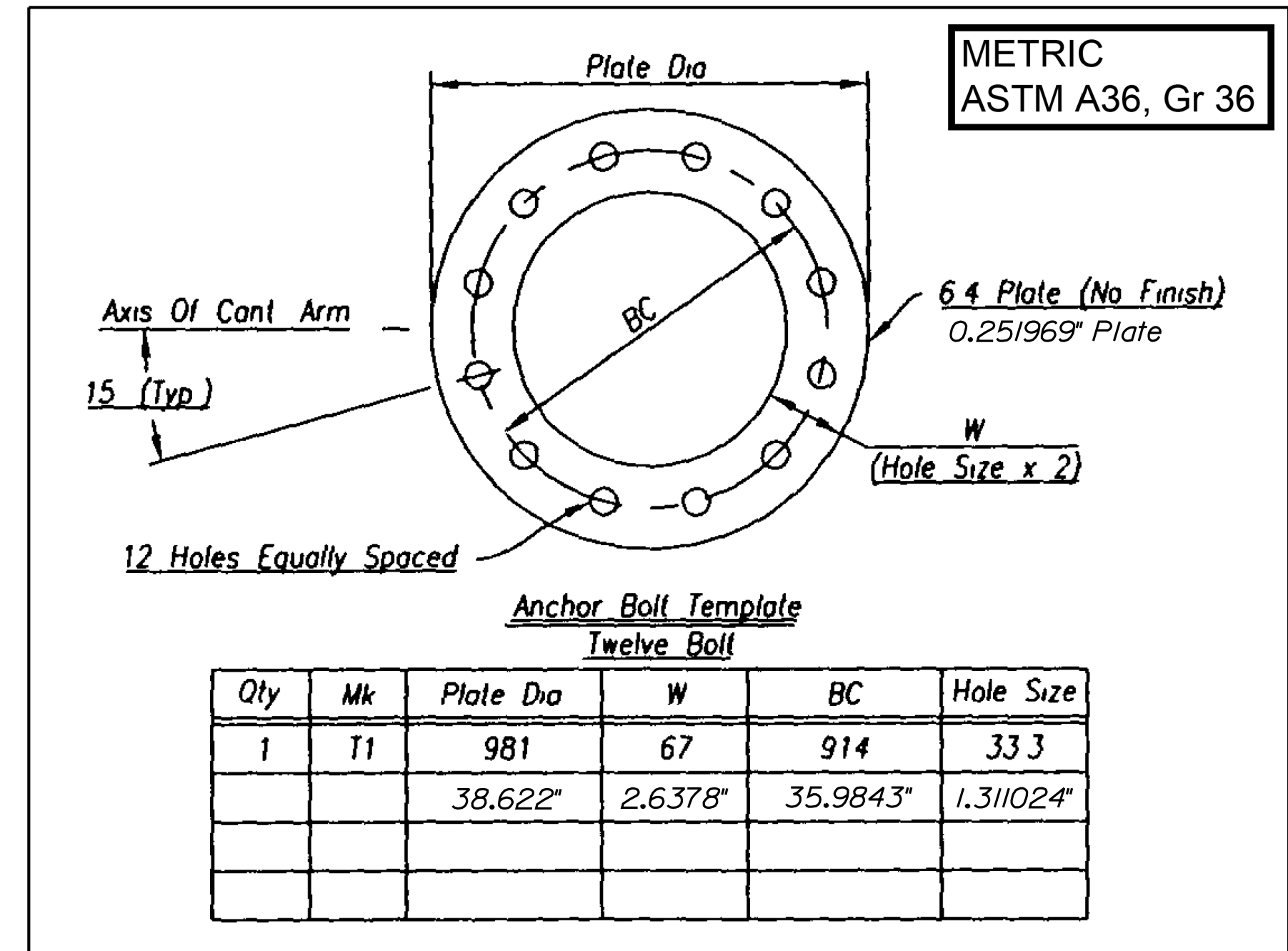
CANTILEVER SIGN TRUSS - ASSET ID 937037



DETAIL I

FASTENERS/HARDWARE SCHEDULE - MaineDOT Supplied			
QUANTITY	DESCRIPTION	LENGTH	REMARKS
Foundation Anchor Bolts			
12	1/4" dia. Anchors	37"	Fully Threaded, ASTM F1554, GR 55, HDG
72	Washer	N/A	1/4" dia. - ASTM F436 TYPE I, HDG
48	Heavy Hex Nut	N/A	1/4" dia. - ASTM A563 Grade DH, HDG
U - Bolts			
12	U - Bolt Round	8 3/8"	1/2"x6 3/4" ASTM A307 GR A, 2" Thread, HDG
24	Hex Nut	N/A	1/2" dia. - ASTM A563 GR A, HDG
24	Lock Washer	N/A	1/2" dia. - HDG
Z Bar Bolts			
8	Heavy Hex Bolt	1 1/2"	1/2" dia. - ASTM F3125 GR A325, HDG
8	Washer	N/A	1/2" dia. - ASTM F436 TYPE I, HDG
8	Heavy Hex Nut	N/A	1/2" dia. - ASTM A194 GR 2H, HDG
Vertical to Horizontal Connection Bolts			
40	Heavy Hex Bolt	3 3/4"	1" dia. - ASTM F3125 GR A325, HDG
80	Washer	N/A	1" dia. - ASTM F436 TYPE I, HDG
40	Heavy Hex Nut	N/A	1" dia. - ASTM A194 GR 2H, HDG
Vertical Sign Support			
4	VSI w/ ZBar	10'-0 1/2"	W6x9 - ASTM A36, GR 36, HDG

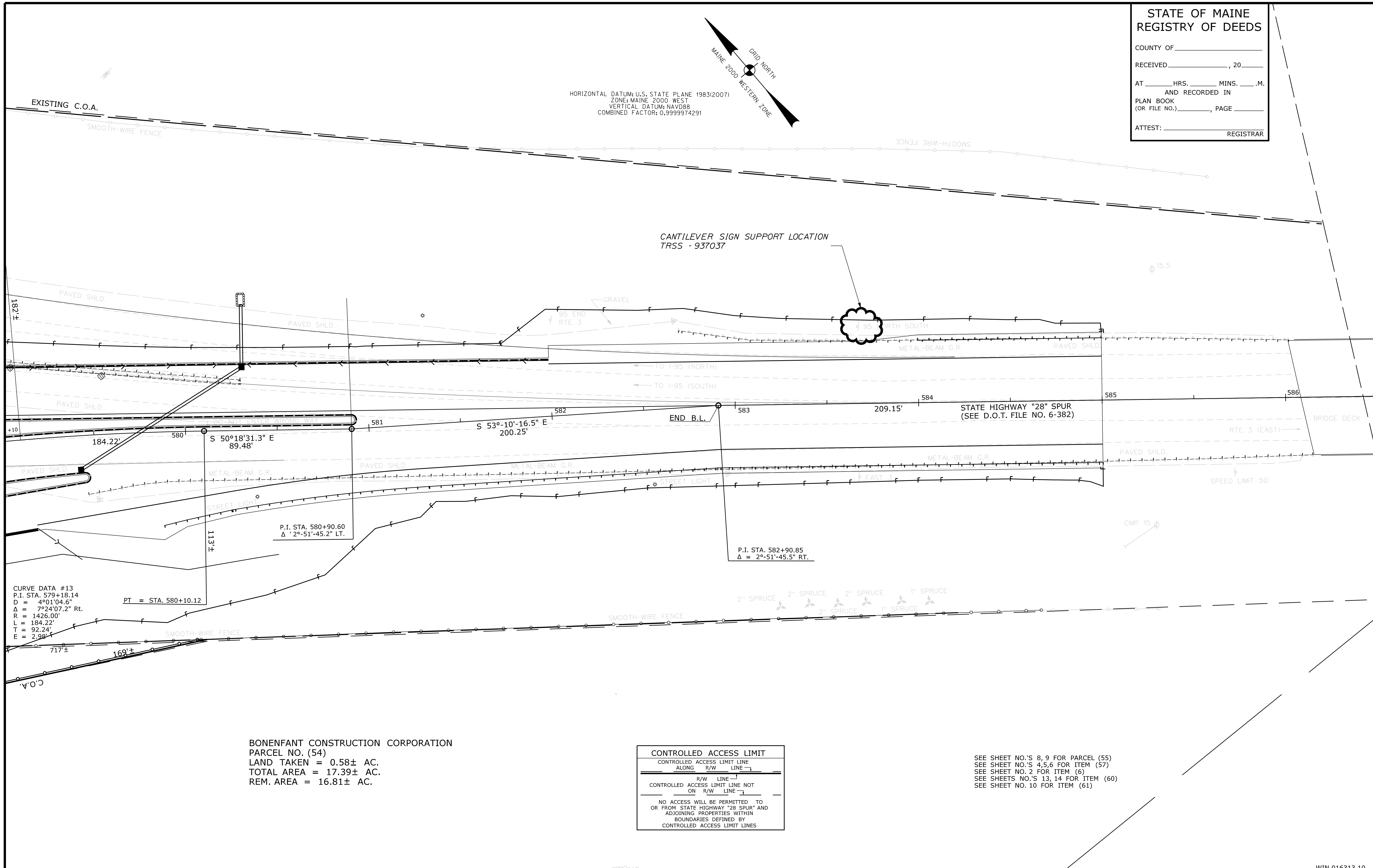
HARDWARE & MATERIALS
(MaineDOT Supplied)



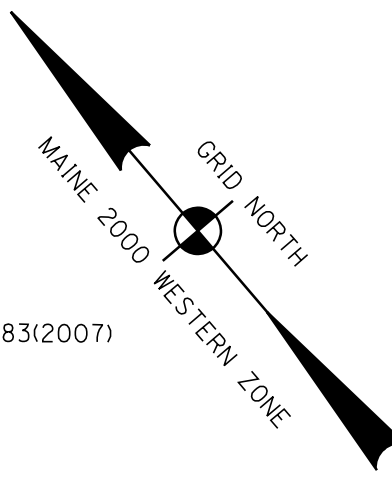
ANCHOR BOLT TEMPLATE - QTY = 1
FOR SETTING NEW ANCHOR BOLTS
(MaineDOT Supplied)

PROJ. MANAGER	W. ARSENAULT	BY	DATE
CHECKED/REVIEWED	J. VEILLEUX	J. VEILLEUX	3/7/2022
DESIGNS/DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

Filename: ... \006_Right of Way Map.dgn
 Division: BRIDGE
 Username: Joel.R.Veilieux
 Date: 4/29/2022



HORIZONTAL DATUM: U.S. STATE PLANE 1983(2007)
 ZONE: MAINE 2000 WEST
 VERTICAL DATUM: NAVD88
 COMBINED FACTOR: 0.9999974291



STATE OF MAINE
 REGISTRY OF DEEDS
 COUNTY OF _____
 RECEIVED _____, 20____
 AT _____ HRS. _____ MINS. _____ M.
 AND RECORDED IN
 PLAN BOOK _____, PAGE _____
 ATTEST: _____ REGISTRAR

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ADJUTING PROPERTY OWNERS.

SYMBOLS

○	WELL
—	GRAVING LIMIT LINE
—	CONSTRUCTION LIMIT LINE
—	PROPERTY LINE
—	LIMITS OF WRAUGHT PORTION (L.O.W.P.)
—	EXISTING RIGHT OF WAY
—	NEW RIGHT OF WAY
—	NEW ROW WITHIN EXIST. ROW
—	CONTROL OF ACCESS
●	P or R/P (IRON PIPE or PIN FOUND)
□	S.T. (SEPTIC TANK)
△	TRAVERSE POINT
—	WATER LINE
—	GAS LINE
—	ELECTRIC LINE
—	TELEPHONE LINE
—	SEWER LINE

ITEM CHECKED

BASE MAP	TECH
EXIST. R/W	D.W.B.
PROP. LINES	T.J.K.
AREAS	T.L.B.

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
 AUGUSTA
 RIGHT OF WAY MAP

CURVE DATA #13
 P.I. STA. 579+18.14
 D = 4°01'04.6"
 Δ = 7°24'07.2" Rt.
 R = 1426.00'
 L = 184.22'
 T = 92.24'
 E = 2.98'

PT = STA. 580+10.12

P.I. STA. 580+90.60
 Δ = 2°-51'-45.2" LT.

P.I. STA. 582+90.85
 Δ = 2°-51'-45.5" RT.

BONENFANT CONSTRUCTION CORPORATION
 PARCEL NO. (54)
 LAND TAKEN = 0.58± AC.
 TOTAL AREA = 17.39± AC.
 REM. AREA = 16.81± AC.

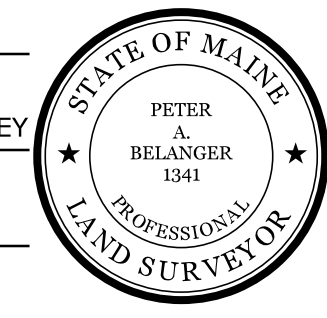
CONTROLLED ACCESS LIMIT
 CONTROLLED ACCESS LIMIT LINE
 ALONG R/W LINE
 R/W LINE
 CONTROLLED ACCESS LIMIT LINE NOT ON R/W LINE
 NO ACCESS WILL BE PERMITTED TO OR FROM STATE HIGHWAY "28 SPUR" AND ADJOINING PROPERTIES WITHIN BOUNDARIES DEFINED BY CONTROLLED ACCESS LIMIT LINES

SEE SHEET NO.'S 8, 9 FOR PARCEL (55)
 SEE SHEET NO.'S 4, 5, 6 FOR ITEM (57)
 SEE SHEET NO. 2 FOR ITEM (6)
 SEE SHEETS NO.'S 13, 14 FOR ITEM (60)
 SEE SHEET NO. 10 FOR ITEM (61)

WIN 016313.10

REVISIONS			PLAN FILED IN PLAN BOOK				PAGE COUNTY RECORD				
NO.	DATE	DESCRIPTION	BY	NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE	NO.	PAGE
					PART III	COND.	12/31/12	11266	236		

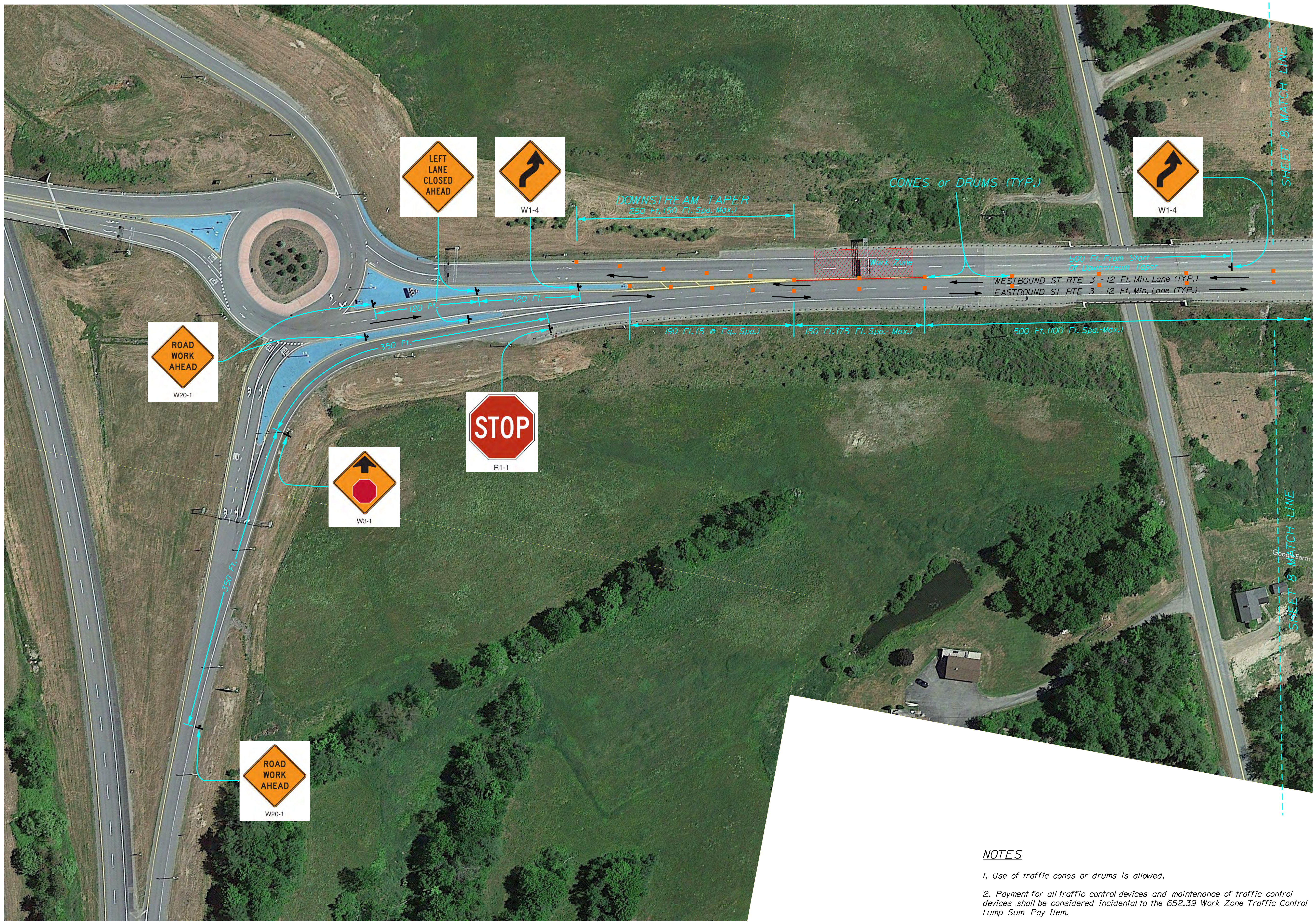
DAVID BERNHARDT
 COMMISSIONER
 KENNETH L. SWEENEY
 CHIEF ENGINEER
 DATE



To the best of my knowledge and belief the Highway Right of Way lines depicted hereon are based upon a survey conforming to the Standards of Practice promulgated by the Maine Board of Licensure for Professional Land Surveyors 02-360 CMR, Chapter 90; Exceptions: (1) No separate survey report, (2) Monumentation only as shown on plan. See sheets 26-27 of this plan set for coordinates. (3) Other boundary lines, including lines between abutters are approximate and for general reference purposes only.

STATE HIGHWAY "28" SPUR
 OLD BELGRADE ROAD (ROUTE 3)
 AUGUSTA KENNEBEC COUNTY
 FEDERAL AID PROJECT NO. IM-1631(310)E PART III
 MAY 2012 RIGHT-OF-WAY MAP
 SCALE 1" = 25' SHEET 21 OF 27
 D.O.T. FILE NO. 6-441

SHEET NUMBER
 6
 OF 9



NOTES

1. Use of traffic cones or drums is allowed.
2. Payment for all traffic control devices and maintenance of traffic control devices shall be considered incidental to the 652.39 Work Zone Traffic Control Lump Sum Pay Item.

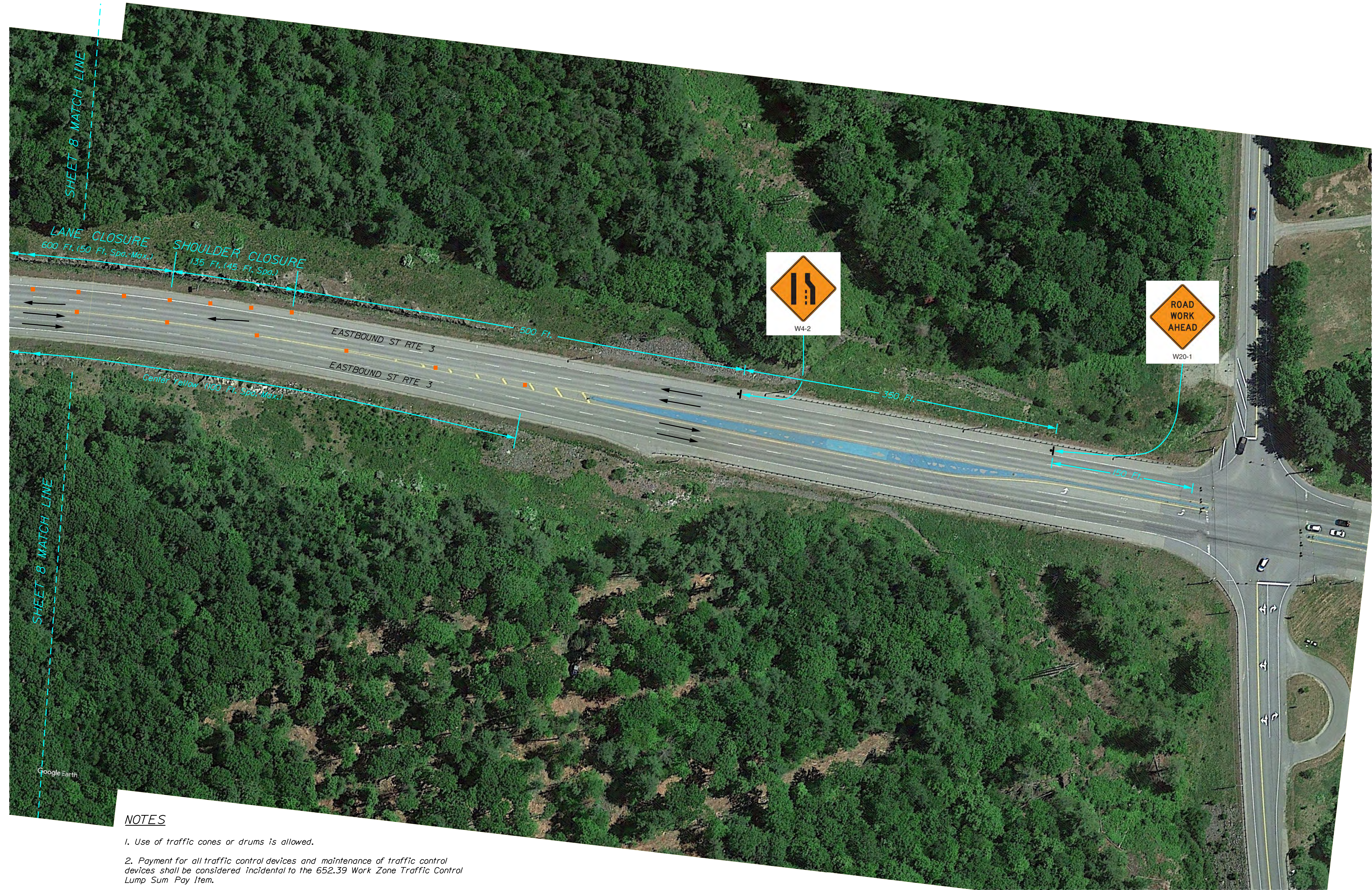
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		SIGNATURE	
MAINTENANCE & OPERATIONS		P.E. NUMBER	
TRSS - 937037		DATE	
WIN 027923.00		TRAFFIC CONTROL	
CANTILEVER SIGN SUPPORT TRSS - 937037		Kennebec	
AUGUSTA		NIGHT WORK TCP	
SHEET NUMBER		7	
OF 9			



NOTES

1. Use of traffic cones or drums is allowed.
2. Payment for all traffic control devices and maintenance of traffic control devices shall be considered incidental to the 652.39 Work Zone Traffic Control Lump Sum Pay Item.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		SIGNATURE	
MAINTENANCE & OPERATIONS		P.E. NUMBER	
TRSS - 937037		DATE	
WIN		DATE	
027923.00		DATE	
TRAFFIC CONTROL		DATE	
CANTILEVER SIGN SUPPORT		Kennebec	
TRSS - 937037		AUGUSTA	
NIGHT WORK TCP		TCP	
SHEET NUMBER		DATE	
8		DATE	
OF 9		DATE	



NOTES

1. Use of traffic cones or drums is allowed.
2. Payment for all traffic control devices and maintenance of traffic control devices shall be considered incidental to the 652.39 Work Zone Traffic Control Lump Sum Pay Item.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
MAINTENANCE & OPERATIONS		TRAFFIC CONTROL	
CANTILEVER SIGN SUPPORT		AUGUSTA	
TRSS - 937037		Kennebec	
NIGHT WORK TCP		Kennebec	
SHEET NUMBER		DATE	
9		SIGNATURE	
OF 9		P.E. NUMBER	
		DATE	
		FIELD CHANGES	
		REVISIONS 1	
		REVISIONS 2	
		REVISIONS 3	
		REVISIONS 4	
		PROJ. MANAGER	
		W. ARSENAULT	
		BY	
		J. VEILLEUX	
		DATE	
		4/2022	

TRSS - 937037 WIN 027923.00