

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Eighth Edition 2017.

DESIGN LOADING

Live Load HL - 93

TRAFFIC DATA

Current (2018) AADT 9210
Future (2038) AADT 11050
DHV - % of AADT 11%
Design Hour Volume 1216
Heavy Trucks (% of AADT) 6%
Heavy Trucks (% of DHV) 5%
Directional Distribution (% of DHV) 59%
18 kip Equivalent P 2.0 357
18 kip Equivalent P 2.5 340
Design Speed (mph) 25

MATERIALS

Concrete:
Curbs & Sidewalks Class "LP"
All Other Class "A"

Reinforcing Steel
Stainless Steel ASTM A 955, Grade 75

Structural Steel:
All Materials (except as noted) AASHTO M 270, Grade 50
High Strength Bolts ASTM F 3125, Grade A 325, Type 1 (Galvanized)

BASIC DESIGN STRESSES

Concrete Class "A" f'c = 4000 psi
Concrete Class "LP" f'c = 5000 psi

Reinforcing Steel:
Stainless Steel f y = 75,000 psi

Structural Steel:
AASHTO M 270, Grade 50 Fy = 50,000 psi
ASTM F 3125, Grade A 325, Type 1 Fm = 120,000 psi

NORWAY
OXFORD COUNTY
PLEASANT STREET BRIDGE
OVER
PENNESSEEWASSEE STREAM
ROUTES 117/118 (MAIN STREET)
FEDERAL AID PROJECT NO. 2363900
PROJECT LENGTH 0.058 mi.
BRIDGE NO. 2677

LIST OF DRAWINGS

Title Sheet	1
Estimated Quantities	2
General Notes	3
General Plan	4
Profile	5
Typical Sections	6
Staged Construction	7
Cross Sections	8-14
Detour Plan	15
Sign Summary	16
Abutment Modifications	17-20
Bearing Details	21
Structural Steel Details	22
Superstructure Plan	23
Reinforcing Plan	24
Reinforcing Details	25
Reinforcing Schedule	26
Steel Approach Railing 4-Bar	27
Right of Way Map	28

UTILITIES

Central Maine Power
Consolidated Communications
Town of Norway
Firstlight
Spectrum

MAINTENANCE OF TRAFFIC

Maintain one lane of one - way traffic on the bridge and one lane of one - way traffic utilizing an offsite detour and pedestrian detour.

PROJECT LOCATION	Main Street over Pennessseewassee Stream Located 400 feet West of Pleasant St. Lat./Long. 44°12'48.85" N 70°32'48.84" W
PROGRAM AREA	Bridge
OUTLINE OF WORK	Bridge Deck Replacement



WIN 023639.00

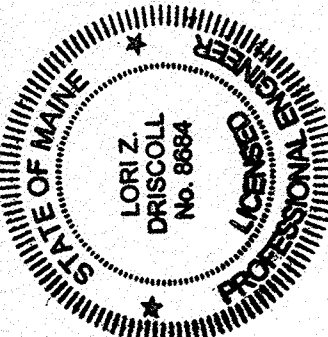
2363900

NORWAY
PLEASANT STREET BRIDGE
TITLE SHEET

SHEET NUMBER

1

OF 28



Signature: Lori Z. Driscoll
P.E. NUMBER: 8884
DATE: 1/15/2021

PROJECT INFORMATION					
PROGRAM	Bridge	PROJECT MANAGER	Mark Parlin	DESIGNER	Bret Gruber, P.E.
CONSULTANT	HNTB	PROJECT RESIDENT		CONTRACTOR	
				PROJECT COMPLETION DATE	

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		APPROVED	DATE
		COMMISSIONER: <i>[Signature]</i>	2-3-21
		CHIEF ENGINEER: <i>[Signature]</i>	2-3-2021

Date:1/26/2021

Username:

Division:

Filename: 002_Estimated Quantities.dgn

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.10	Removing Existing Superstructure Property of Contractor (75 CY)	1	LS
202.12	Remove Existing Structural Concrete	8	CY
202.13	Remove Existing Railings Retained by Department	88	LF
202.202	Removing Pavement Surface	900	SY
203.20	Common Excavation	430	CY
203.25	Granular Borrow	53	CY
304.10	Aggregate Subbase Course - Gravel	310	CY
403.2081	Hot Mix Asphalt - 12.5 mm Nominal Maximum Size (Polymer Modified)	139	Ton
403.209	Hot Mix Asphalt - 9.5 mm Nominal Maximum Size (Sidewalks, Drives, Islands, and Incidentals)	22	Ton
403.2131	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base course, Polymer Modified)	159	Ton
409.15	Bituminous Tack Coat, Applied	88	Gal
502.21	Structural Concrete, Abutments and Retaining Walls	8	CY
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges (64 CY)	1	LS
502.49	Structural Concrete Curbs and Sidewalks (18 CY)	1	LS
503.17	Mechanical/Welded Splice	194	EA
503.26	Stainless Steel Reinforcement, Fabricated and Delivered	28,100	LB
503.27	Stainless Steel Reinforcement, Placing	28,100	LB
504.514	Bearing Stiffeners	2	EA
505.08	Shear Connectors (1392 EA)	1	LS
507.08161	Steel Approach Railing, 4 bar	2	EA
507.0821	Steel Bridge Railing, 3 bar (50 LF)	1	LS
507.0822	Steel Approach Railing, 3 bar	2	EA
507.0831	Steel Bridge Railing, 4 bar (50 LF)	1	LS
508.14	High Performance Waterproofing Membrane (240 SY)	1	LS
515.21	Protective Coating for Concrete Surfaces (360 SY)	1	LS
518.60	Repair of Vertical Surfaces < 8"	40	SF
523.52	Bearing Installation	8	EA
523.5402	Laminated Elastomeric Bearings, Expansion	8	EA
524.301	Temporary Structural Support	1	LS
526.301	Temporary Concrete Barrier, Type I (230 LF)	1	LS
527.34	Work Zone Crash Cushions	2	UNIT
606.1301	31" W-Beam Guardrail - Mid-Way Splice - Single Faced	125	LF
606.1303	31" W-Beam Guardrail - Mid-Way Splice, 15' Radius and Less	25	LF
606.1304	31" W-Beam Guardrail - Mid-Way Splice, Over 15' Radius	25	LF
606.1721	Bridge Transition - Type I	4	EA
606.259	Anchorage Assembly	3	EA
606.353	Reflectorized Flexible Guardrail Marker	3	EA
608.26	Curb Ramp Detectable Warning Field	26	SF
609.13	Vertical Bridge Curb Type I	50	LF
609.222	Terminal Curb Type I - Circular	35	LF
609.38	Reset Curb Type I	140	LF
610.08	Plain Riprap	110	CY
613.319	Erosion Control Blanket	32	SY
615.07	Loam	8	CY
618.14	Seeding Method Number 2	2	UNIT
619.12	Mulch	2	UNIT
619.13	Bark Mulch	2	CY
619.14	Erosion Control Mix	16	CY
620.58	Erosion Control Geotextile	180	SY
627.51	6 Inch Temporary Pavement Marking Tape, Yellow or White	1,950	LF
627.57	12 Inch Removable Black Line Masking Tape	1,300	LF
627.733	4" White or Yellow Painted Pavement Marking Line	2,400	LF
627.75	White or Yellow Pavement and Curb Marking	350	SF
627.77	Removing Existing Pavement Marking	710	SF
627.78	Temporary 4" Painted Pavement Marking Line, White or Yellow	1,800	LF
629.05	Hand Labor, Straight Time	10	HR
631.10	Air Compressor (including operator)	10	HR
631.11	Air Tool (including operator)	10	HR
631.12	All Purpose Excavator (including operator)	10	HR
631.172	Truck-large (including operator)	10	HR
631.21	Road Broom (including operators and hauler)	10	HR
639.19	Field Office, Type B	1	EA
652.312	Type III Barricades	8	EA
652.33	Drum	45	EA
652.34	Cone	45	EA
652.35	Construction Signs	510	SF
652.361	Maintenance of Traffic Control Devices	1	LS
652.38	Flaggers	350	HR
652.41	Portable-Changeable Message Sign	2	EA
656.75	Temporary Soil Erosion and Water Pollution Control	1	LS
659.10	Mobilization	1	LS

STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

2363900

WIN

023639.00

BRIDGE NO. 2677

BRIDGE PLANS

PROJ. MANAGER

DESIGN-DETAILED

CHECKED-REVIEWED

DESIGNS-DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

BY

P. Bishop

L. Driscoll

-

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-

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DATE

1/21

1/21

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-

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SIGNATURE

P.E. NUMBER

DATE

PLEASANT STREET BRIDGE

PENNESSEEWASSEE STREAM

NORWAY


OXFORD COUNTY

ESTIMATED QUANTITIES

SHEET NUMBER

2

OF 28



Date:1/15/2021

Username:

Division:

Filename: 003_General Notes.dgn

GENERAL NOTES

1. The clearing limits will be established in the field by the Resident. Payment for clearing will be considered incidental to Contract Items.

2. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.

3. Unless otherwise shown, place loam 2 inches deep on all new or reconstructed side slopes or as directed by the Resident.

4. Guardrail end treatments shall be installed concurrently with the placement of each section of beam guardrail. No exposed ends are allowed.

5. Protective Coating for Concrete Surfaces shall be applied to the following areas:

All exposed surfaces of concrete curbs and sidewalks,
Fascias down to the drip notch,
Top of abutment backwalls and one foot below the top of backwalls on the back side,
Wingwalls top face and roadway face to one foot below roadway grade.

6. Project info referred to below may be accessed at the following MaineDOT web address: <http://www.maine.gov/mdot/contractors/>

7. The existing bridge plans may be accessed at the MaineDOT web address. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.

8. Quantities included for pay items measured and paid for by Lump Sum are estimated quantities and are provided by MaineDOT for informational purposes only. Lump Sum pay items will be paid for at the Contract Bid amount, with no addition or reduction in payment to the contractor if the actual final quantities are different from the MaineDOT provided estimated quantities, except as follows:

a. If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items, will take precedence.

b. If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.

c. If a design change results in changes to estimated quantities for Lump Sum pay items, price adjustments will be made in accordance with Standard Specifications section 109.7, Equitable Adjustments to Compensation.

9. The Contractor shall submit a Bridge Deck Removal Plan to the Resident at least 10 business days prior to the start of demolition work. The plan shall outline the methods and equipment to be used to remove and dispose of all materials included in the existing bridge deck. No work related to the removal of the bridge deck shall be undertaken by the Contractor until MaineDOT has reviewed the Bridge Deck Removal Plan for appropriateness and completeness. Payment for all work necessary for developing, submitting and finalizing the Demolition Plan will be considered incidental to the bridge removal pay item.

10. If steel portions of the existing bridge are coated with a lead-based paint system, the Contractor is responsible for the containment, proper management and disposal of all lead-contaminated hazardous waste generated by the project. The Contractor is responsible for implementing appropriate OSHA mandated personal protection standards related to this process. The Contractor is solely responsible for the care, custody and control of the components of the existing bridge that has been removed and any hazardous waste generated as a result of the storage, recycling or disposal of the bridge components, including lead-coated steel. The Contractor shall recycle or reuse the steel in accordance with the Maine Department of Environmental Protection's "Maine Hazardous Waste Management Regulations." Chapter 850. A copy of this regulation is available at MaineDOT's offices on Child Street in Augusta. Payment for all labor, materials, equipment and other costs required for proper management of hazardous waste shall be considered incidental to Contract Items.

11. The Contractor shall plan and conduct the work accordingly so that upon final completion of the project there is no drop-off from the edge of shoulder pavement. All remaining or disturbed material on slopes or in ditches on the project shall be capable of attaining a growth of grass that is acceptable according to Standard Specification 618.10. No separate payment will be made for this work.

12. Erosion Control Mix may be substituted in those areas normally receiving loam and seed as directed by the Resident. Placement shall be in accordance with Standard Specification Section 619, Mulch. Payment will be made under Item No. 619.14, Erosion Control Mix.

13. Extended use Erosion Control Blanket, seeded gutters, riprap downspouts and other gutters lined with Stone Ditch Protection shall be constructed after paving and shoulder work is completed where it is apparent that runoff will cause continual erosion. Payment will be made under the appropriate Contract Items.

14. Where new pavement joins existing pavement, the existing pavement shall be sawcut along a smooth line to a neat, even, vertical joint, as directed by the Resident. Broken or raveled edges will not be permitted. All work necessary for the preparation of this joint will be considered incidental to the related Contract Items.

15. Minor concrete repairs are required at the abutments and will be paid for under Item 518.60. The areas and limits of repair shall be established in the field by the Resident.

16. When removing existing bridge drains, the Contractor shall remove the support plate 2 inches from the girder web. Removal of bridge drains and drain supports, including the connection to the existing girders, is incidental to Item 202.10, Removing Existing Superstructure Property of Contractor. Cut ends of existing drain support plates shall be coated with a cold galvanizing compound approved by the Resident. The work shall be incidental to Item 202.10, Removing Existing Superstructure Property of Contractor.

17. Removing and resetting of existing fence to access the work will not be paid for directly but will be considered incidental to the contract.

18. Remove and reset and remove and dispose of signs shall be performed in accordance with Standard Specification Section 645 - Highway Signing and as directed by the Resident. Payment will be incidental to related contract items.

19. Guardrail shelf on the northwest approach shall be 2 feet wide. Guardrail in this area shall have 8 feet long posts with an embedment of 5.5 feet. Payment shall be incidental to the guardrail pay items.

20. Place a 24-inch wide strip of Erosion Control Blanket on the sideslopes along the top of the riprap and behind the wingwalls as applicable.

21. Costs associated with installing, maintaining, and removing a turbidity curtain for riprap work on the northwest corner of the project will be considered incidental to the related Contract Items.

22. Temporary pavement ramps shall be constructed to meet the following criteria:

For roadways with speed limits equaling or exceeding 50 mph, temporary ramps shall be constructed at a length of eight feet per inch of transition depth.

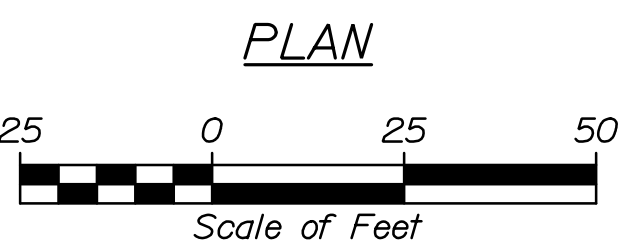
For roadways with speed limits less than 50 mph, temporary ramps shall be constructed at a length of four feet per inch of transition depth.

Materials, placement, maintenance, and removal shall be incidental to the related Contract Items.



SHEET NUMBER <div>3</div> <div>OF 28</div>	PLEASANT STREET BRIDGE PENNESSEEWASSEE STREAM NORWAY OXFORD COUNTY GENERAL NOTES	<div>PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES</div> <div>BY P. Bishop L. Driscoll - - - - - -</div> <div>DATE 1/21 1/21 - - - - - -</div>	STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
			2363900	
			BRIDGE NO. 2677	WIN 023639.00 BRIDGE PLANS

Filename: 004_GeneralPlan.dgn



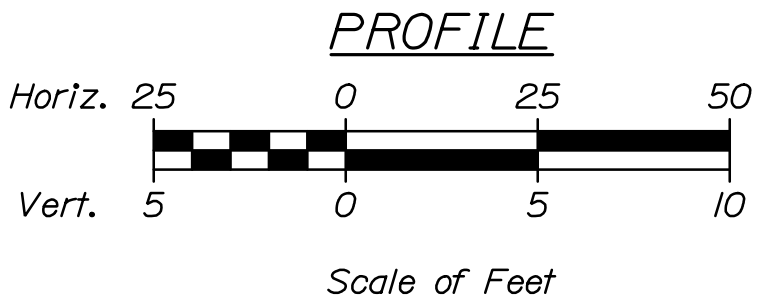
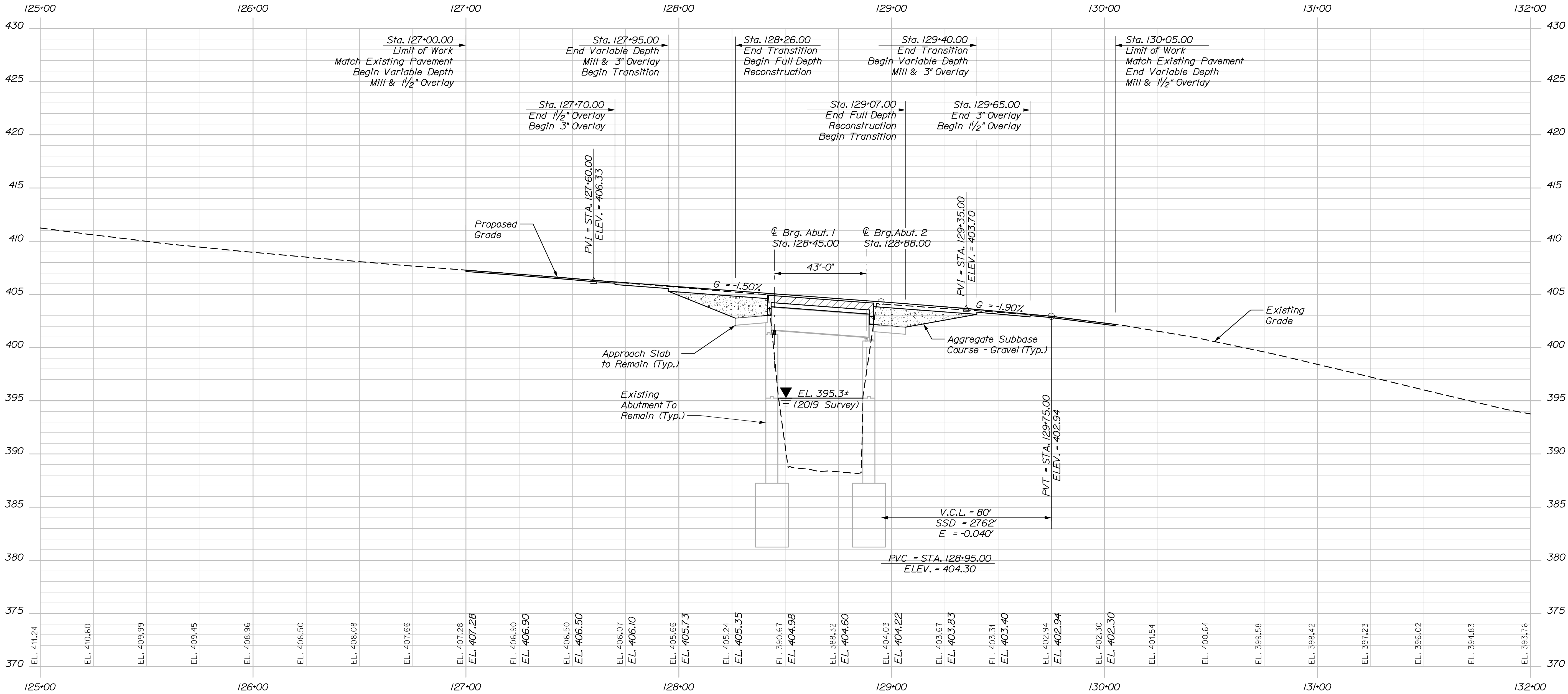
Control Points For Curbing				
Point	Station	Offset	Northing	Easting
1	127+18.33	24.96' RT.	939041.29	503077.63
2	127+28.71	27.74' RT.	939052.28	503077.48
3	127+34.68	29.82' RT.	939058.73	503076.98
4	127+41.69	33.26' RT.	939066.59	503075.49
5	128+05.75	34.42' RT.	939130.26	503093.23
6	128+10.06	27.80' RT.	939132.37	503100.91
7	128+16.07	23.04' RT.	939136.66	503107.39
8	128+23.55	20.40' RT.	939142.92	503112.33
9	128+27.98	20.00' RT.	939146.98	503114.14
10	128+61.58	20.00' RT.	939178.76	503125.06
11	129+11.42	20.00' RT.	939225.90	503141.23
12	129+29.09	20.00' RT.	939242.61	503146.97
13	129+80.00	20.00' RT.	939290.68	503163.25
14	130+05.00	19.44' RT.	939314.16	503171.63

Item 609.38 Reset Curb Type I		
Point To Point	Length	Radius
8 TO 9	4.45'	25.00'
9 TO 10	33.61'	-
11 TO 12	17.67	-
12 TO 13	50.75	6180.00'
13 TO 14	24.93	-

Item 609.222 Terminal Curb Type I - Circular		
Point To Point	Length	Radius
1 TO 2	11.00'	122.78'
3 TO 4	8.00'	70.44'
5 TO 6	8.00'	25.00'
7 TO 8	8.00'	25.00'

CURVE DATA #1
PI = 126+49.28
D = 5°21'17.1"
Δ = 18°12'18.5" Lt.
R = 1070.00'
L = 339.98'
T = 171.44'
E = 13.65'

CURVE DATA #2
PI = 131+08.73
D = 0°55'26.9"
Δ = 3°19'09.8" Rt.
R = 6200.00'
L = 359.19'
T = 179.65'
E = 2.60'





2. Crowns for both normal superelevation sections for all courses of subbase and pavement shall be straight, unless otherwise noted in the plans.

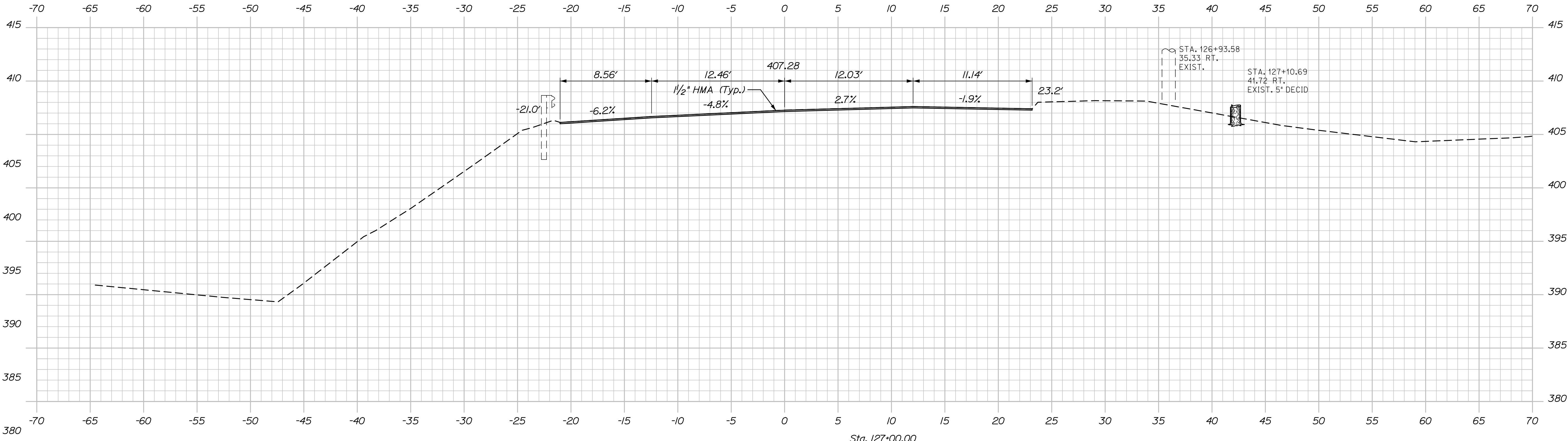
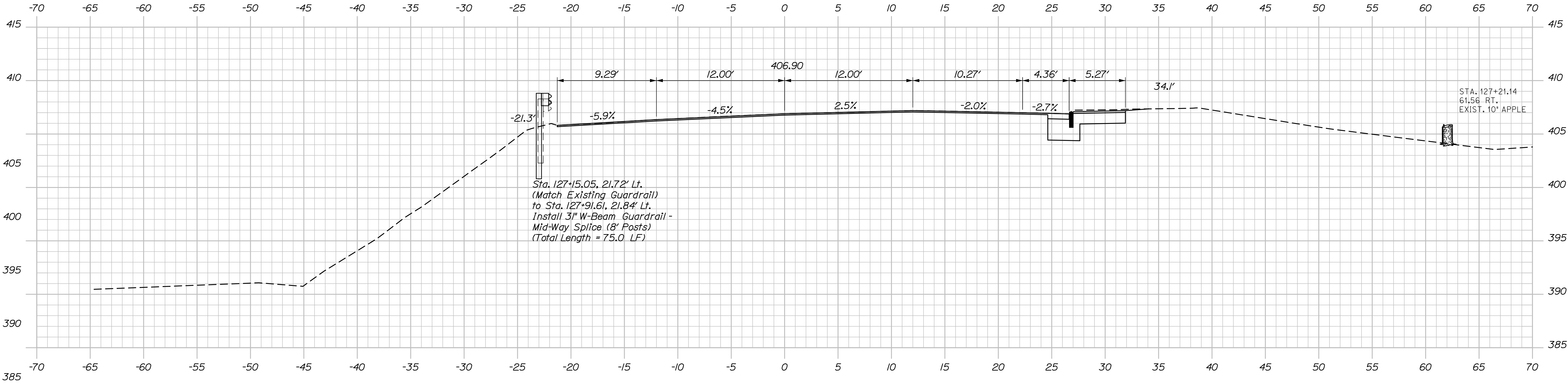
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Date:1/15/2021

Username:

Division:

Filename: Xsect.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2363900

WIN
023639.00

BRIDGE NO. 2677
BRIDGE PLANS

PROJ. MANAGER	DESIGN-DETAILED	C. Helmick	BY	P. Bishop	DATE	1/21
CHECKED-REVIEWED	A. Sweet	L. Driscoll				
DESIGN-DETAILED					SIGNATURE	
REVISIONS 1					P.E. NUMBER	
REVISIONS 2					DATE	
REVISIONS 3						
REVISIONS 4						
FIELD CHANGES						

PLEASANT STREET BRIDGE
PENNESSEEWASSEE STREAM
NORWAY
OXFORD COUNTY

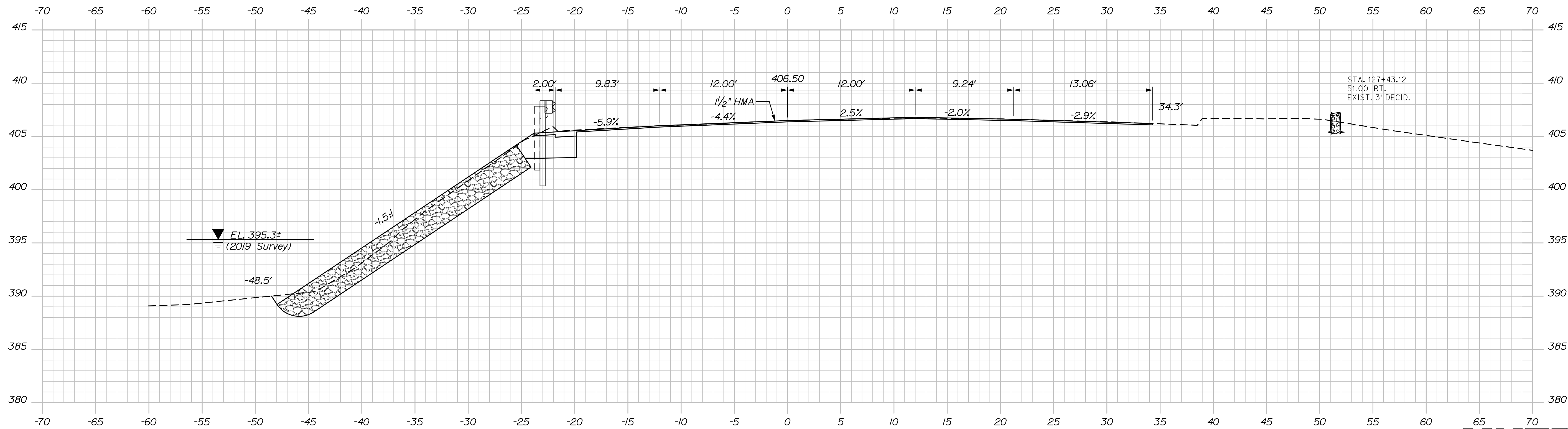
CROSS SECTIONS

SHEET NUMBER

8

OF 28

Filename: Xsect.dgn



127+50.00

Sta. 127+50.00 to Sta. 127+75.00

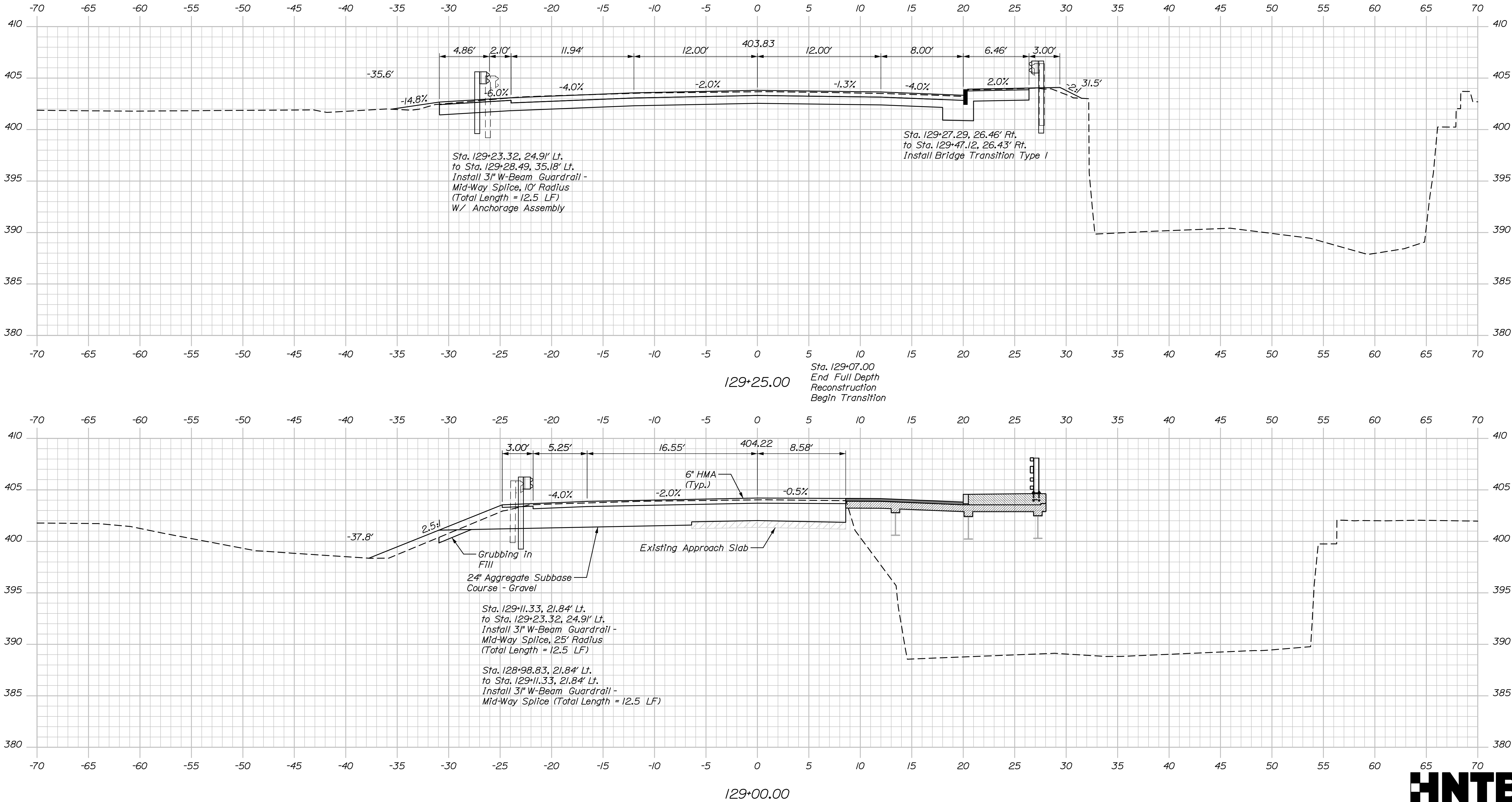
9 OF 28	SHEET NUMBER	PLEASANT STREET BRIDGE PENNESSEEWASSEE STREAM NORWAY OXFORD COUNTY				PROJ. MANAGER	C. Helmick	P. Bishop	DATE	STATE OF MAINE	
		DESIGN-DETAILED	CHECKED-REVIEWED	A. Sweet	L. Driscoll	1/21	DEPARTMENT OF TRANSPORTATION				
	DESIGN2-DETAILED2	-	-	-	-	SIGNATURE					
	DESIGN3-DETAILED3	-	-	-	-	P.E. NUMBER					
	REVISIONS 1	-	-	-	-	2363900					
	REVISIONS 2	-	-	-	-	WIN					
	REVISIONS 3	-	-	-	-	023639.00					
	REVISIONS 4	-	-	-	-	BRIDGE NO. 2677					
	FIELD CHANGES	-	-	-	-	BRIDGE PLANS					

Date:1/15/2021

Username:

Division:

Filename: Xsect.dgn



PROJ. MANAGER	BY	DATE	SIGNATURE
DESIGNED-DETAILED C. Helmick	P. Bishop	1/21	
CHECKED-REVIEWED A. Sweet	L. Driscoll	1/21	
DESIGNED-DETAILED -	-	-	
DESIGNED-DETAILED -	-	-	
REVISIONS 1	-	-	
REVISIONS 2	-	-	
REVISIONS 3	-	-	
REVISIONS 4	-	-	
FIELD CHANGES	-	-	

PLEASANT STREET BRIDGE
PENNESSEEWASSEE STREAM
OXFORD COUNTY
NORWAY
CROSS SECTIONS

Filename: Xsect.dgn



OF 28

CROSS SECTIONS

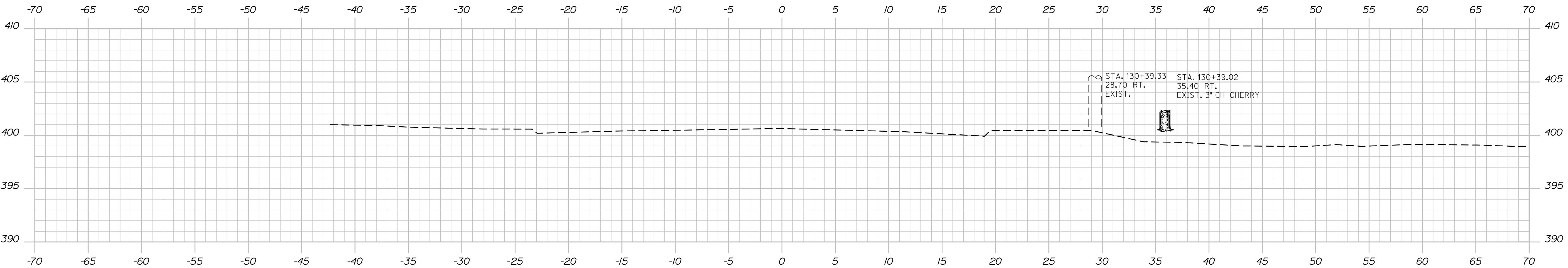
BRIDGE PLANS

Date:1/15/2021

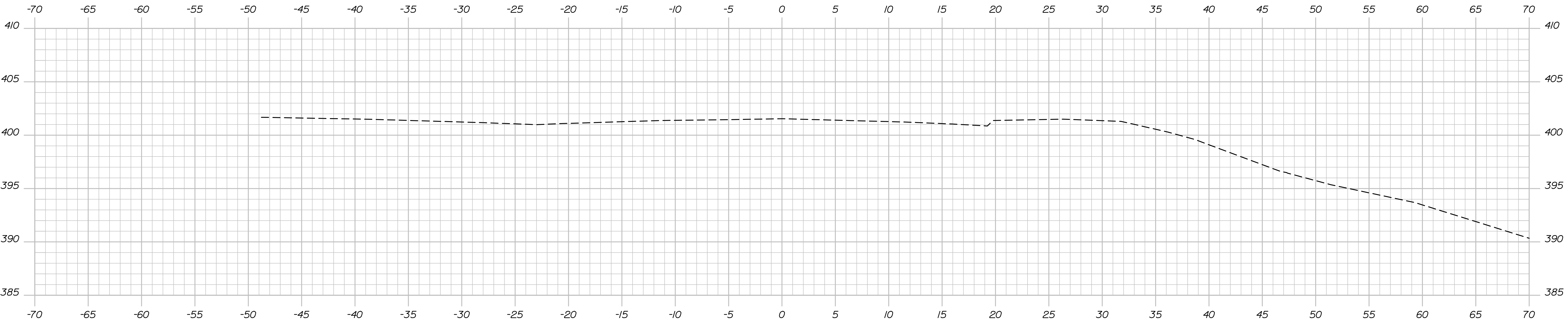
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Division:

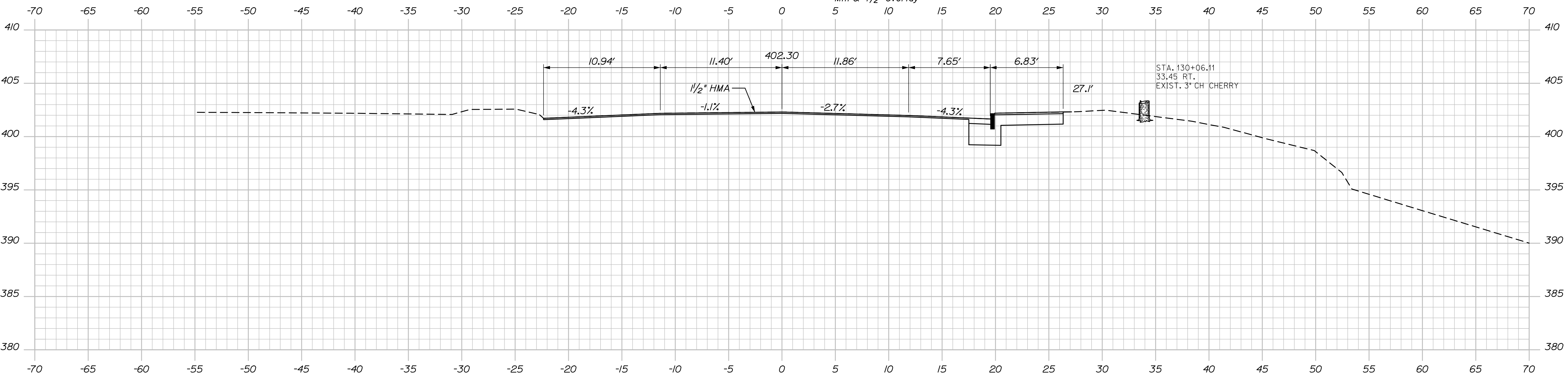
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130+50.00



130+25.00



130+00.00

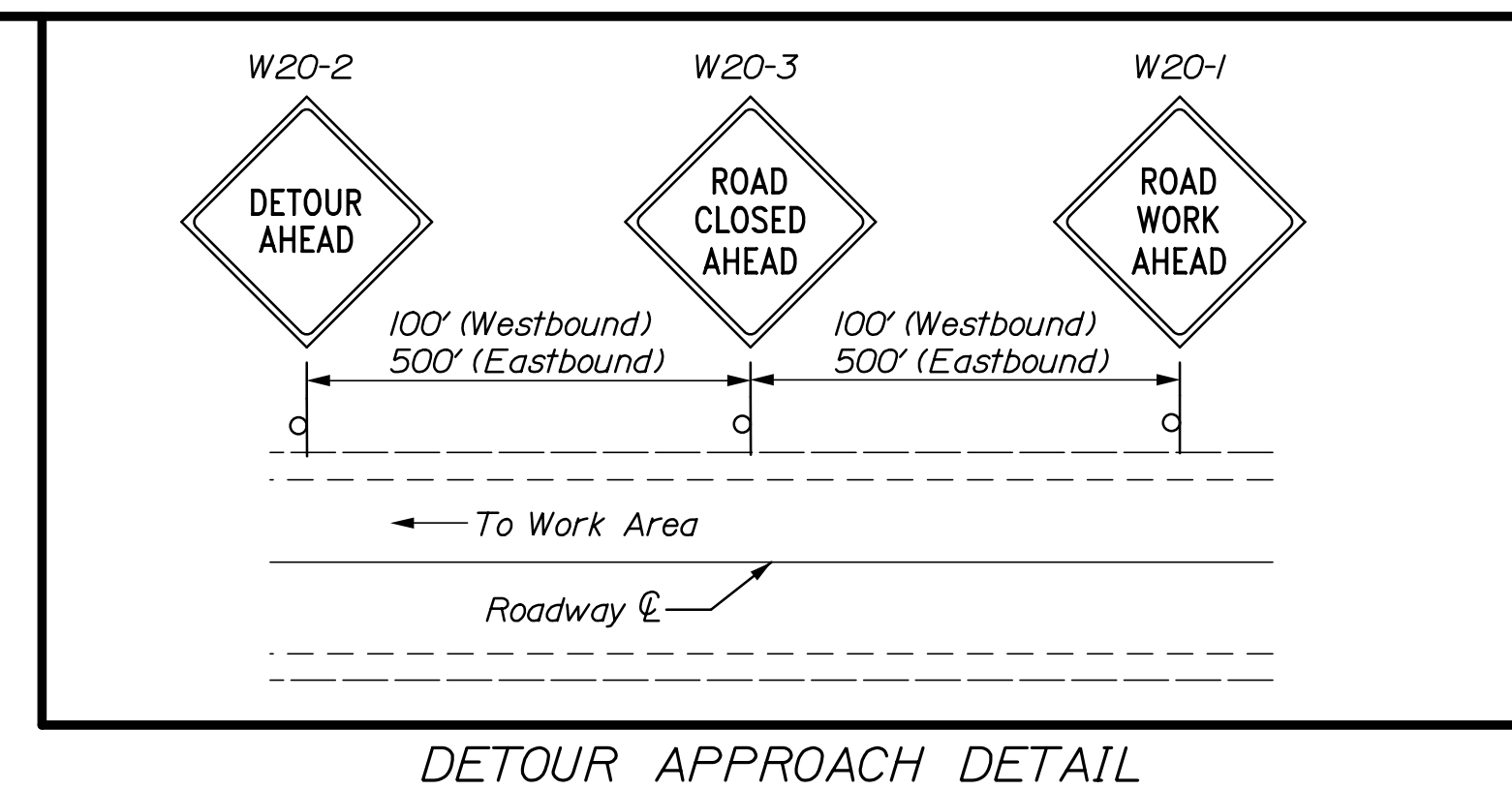
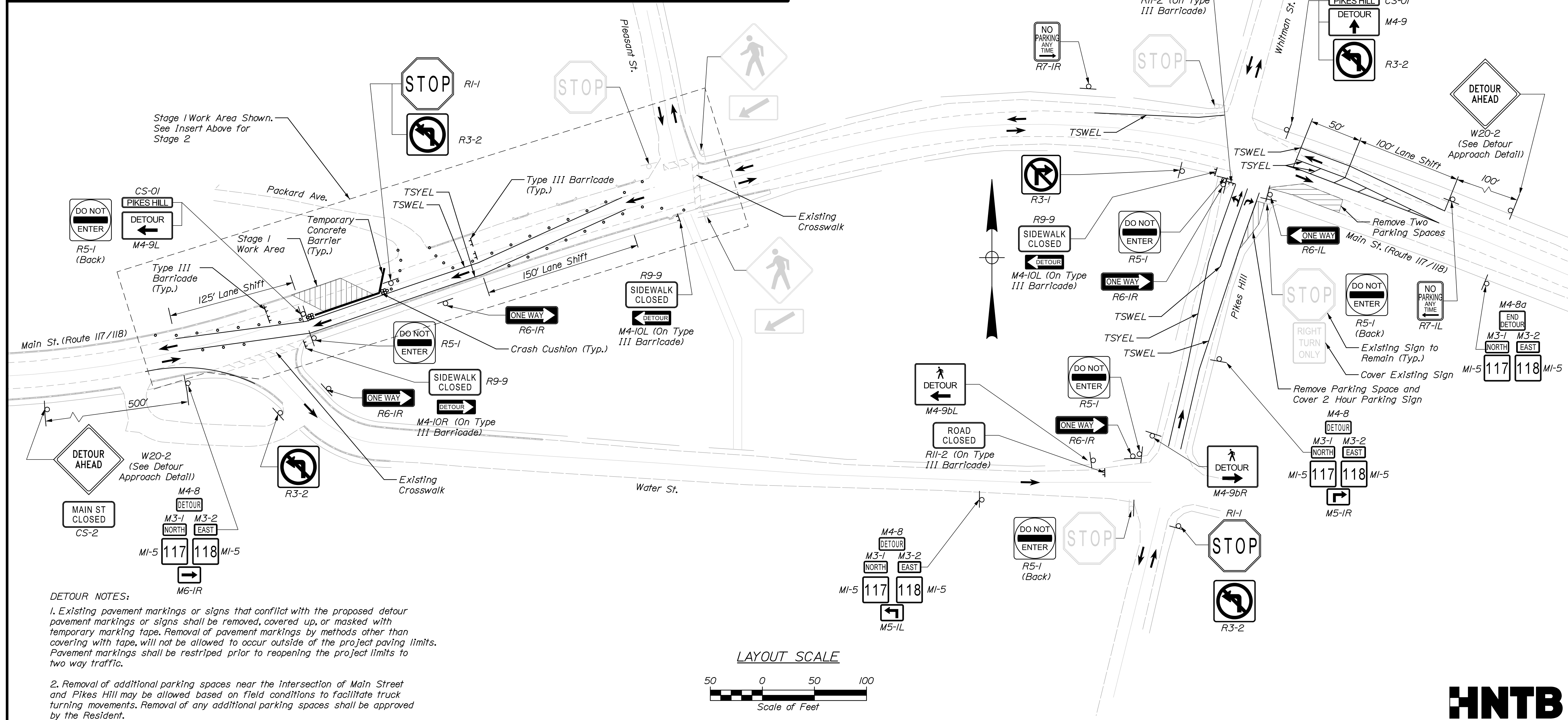


STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
2363900	
WIN	023639.00
BRIDGE NO. 2677	
BRIDGE PLANS	

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	P. Bishop	1/21
CHECKED-REVIEWED	L. Driscoll	1/21
DESIGN-DETAILED	-	-
DESIGN-DETAILED	-	-
REVISIONS 1	-	-
REVISIONS 2	-	-
REVISIONS 3	-	-
REVISIONS 4	-	-
FIELD CHANGES	-	-

PLEASANT STREET BRIDGE	
PENNESSEEWASSEE STREAM	
OXFORD COUNTY	
NORWAY	
CROSS SECTIONS	

SHEET NUMBER	
14	
OF 28	



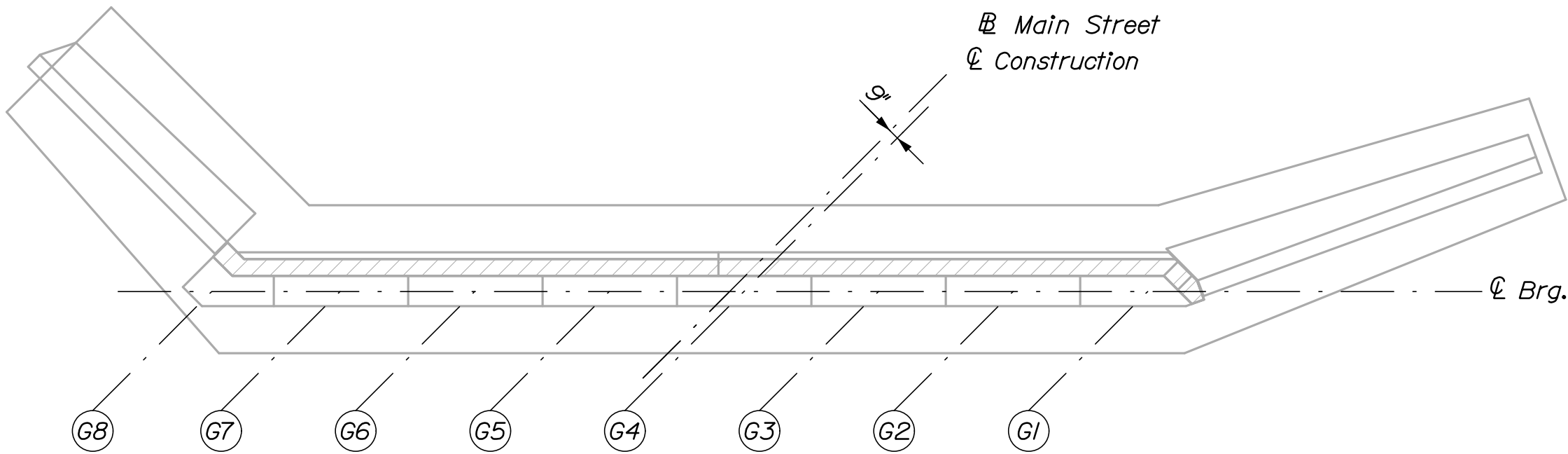
SHEET NUMBER <div>15</div> <div>OF 28</div>	PLEASANT STREET BRIDGE PENNESSEEWASSEE STREAM NORWAY OXFORD COUNTY				PROJ. MANAGER	BY	DATE
	DETOUR PLAN				DESIGN-DETAILED	C. Helmick	P. Bishop
					CHECKED-REVIEWED	A. Sweet	L. Driscoll
					DESIGNS-DETAILED	-	-
					DESIGNS-DETAILED	-	-
					REVISIONS 1	-	-
					REVISIONS 2	-	-
					REVISIONS 3	-	-
					REVISIONS 4	-	-
					FIELD CHANGES	-	-
STATE OF MAINE DEPARTMENT OF TRANSPORTATION 2363900 WIN 023639.00 BRIDGE NO. 2677 BRIDGE PLANS							

IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		BORDER RADIUS	AREA IN SQUARE FEET	NOTES
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND BORDER			
CS-1	30"	12"		4"C			2	ORANGE	BLACK	1.5"	2.50 (5.00)	
CS-2	24"	18"		4"C	3"		1	ORANGE	BLACK	1.5"	3.00 (3.00)	
MI-5	30"	24"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			4	SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			5.00 (20.00)	
							4				5.00 (20.00)	
M3-1	24"	12"					4				2.00 (8.00)	
M3-2	24"	12"					4				2.00 (8.00)	
M4-8a	24"	18"					1				3.00 (3.00)	
M4-8	24"	12"					3				2.00 (6.00)	
M4-9	30"	24"					1				5.00 (5.00)	
M4-9L	30"	24"					1				5.00 (5.00)	
M4-9bL	30"	24"					1				5.00 (5.00)	
M4-9bR	30"	24"					1				5.00 (5.00)	
M4-10L	48"	18"					2				6.00 (12.00)	
M4-10R	48"	18"					1				6.00 (6.00)	
M5-1L	21"	15"					1				2.19 (2.19)	
M5-1R	21"	15"					1				2.19 (2.19)	
M6-1R	21"	15"					1				2.19 (2.19)	
RI-1	36"	36"					2				9.00 (18.00)	
R3-1	24"	24"					1				4.00 (4.00)	
R3-2	24"	24"					3				4.00 (12.00)	
R5-1	30"	30"					6				6.25 (37.50)	

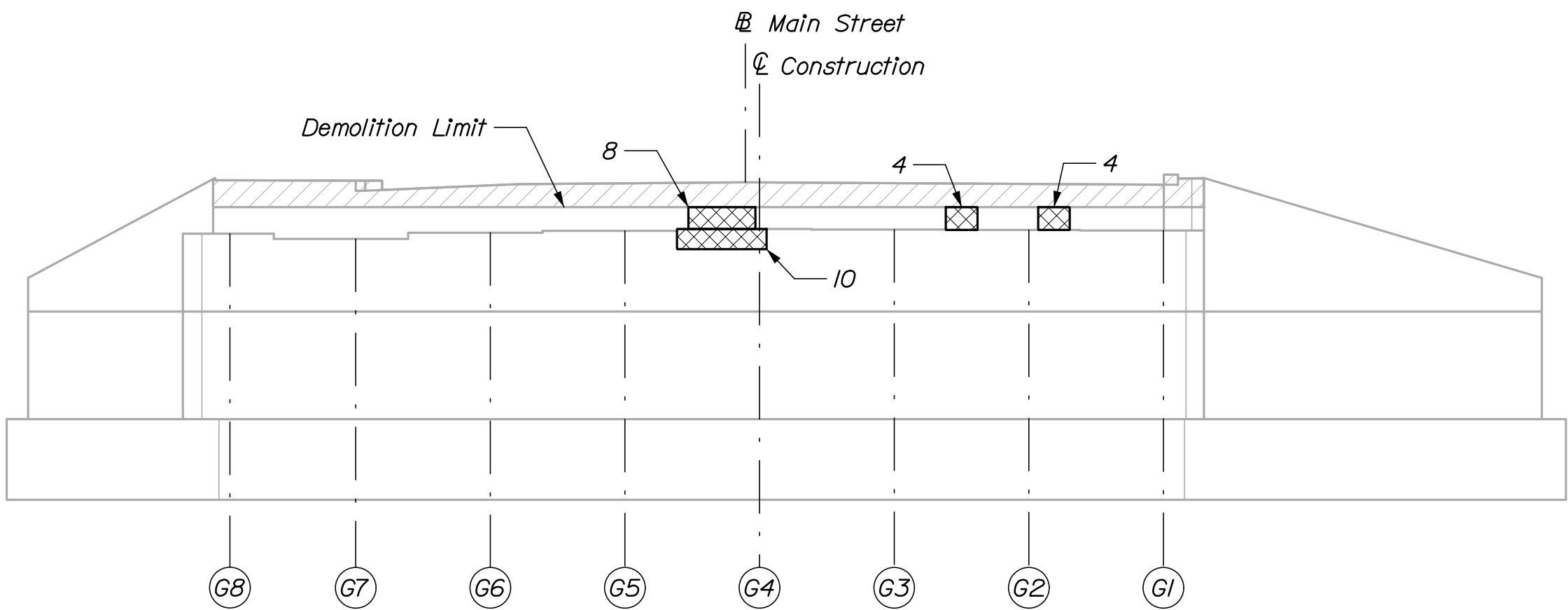
IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		BORDER RADIUS	AREA IN SQUARE FEET	NOTES
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND BORDER			
R6-1L	36"	12"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			1	SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			3.00 (3.00)	
R6-1R	36"	12"					4				3.00 (12.00)	
R7-1L	12"	18"					1				1.50 (1.50)	
R7-1R	12"	18"					1				1.50 (1.50)	
R9-9	24"	12"					3				2.50 (7.50)	
R11-2	48"	30"					2				10.00 (20.00)	
W20-1	48"	48"					2				16.00 (32.00)	
W20-2	48"	48"					2				16.00 (32.00)	
W20-3	48"	48"					2				16.00 (32.00)	

Note:

1. Sign summary includes detour signs only.



ABUTMENT I DEMOLITION PLAN



ABUTMENT I DEMOLITION ELEVATION

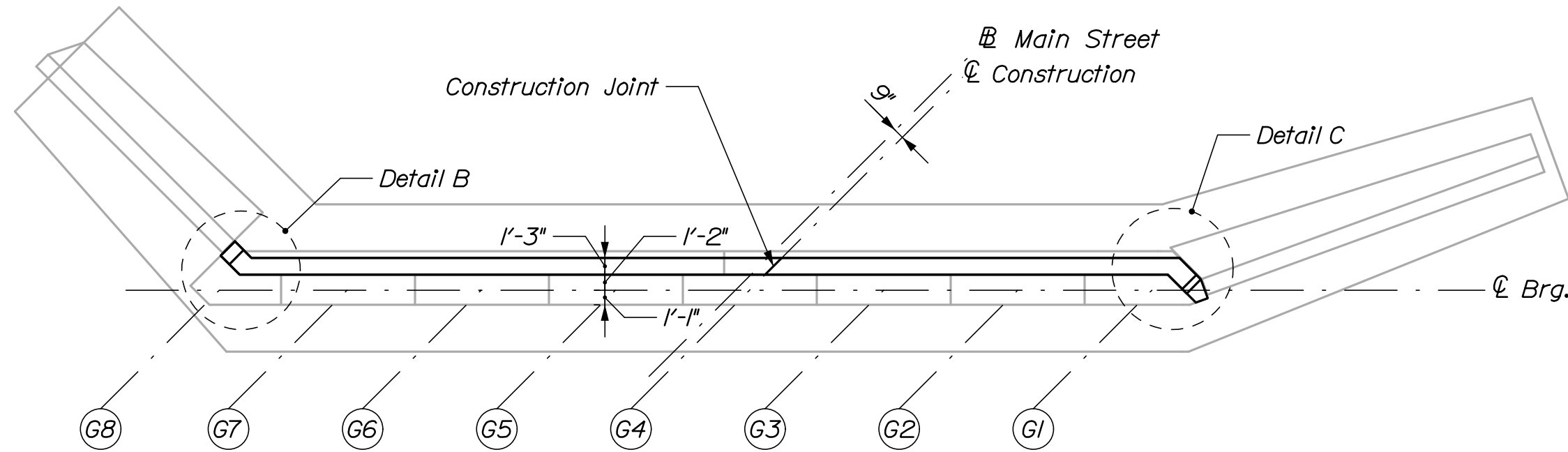
LEGEND

- Concrete Repair Area (SF)

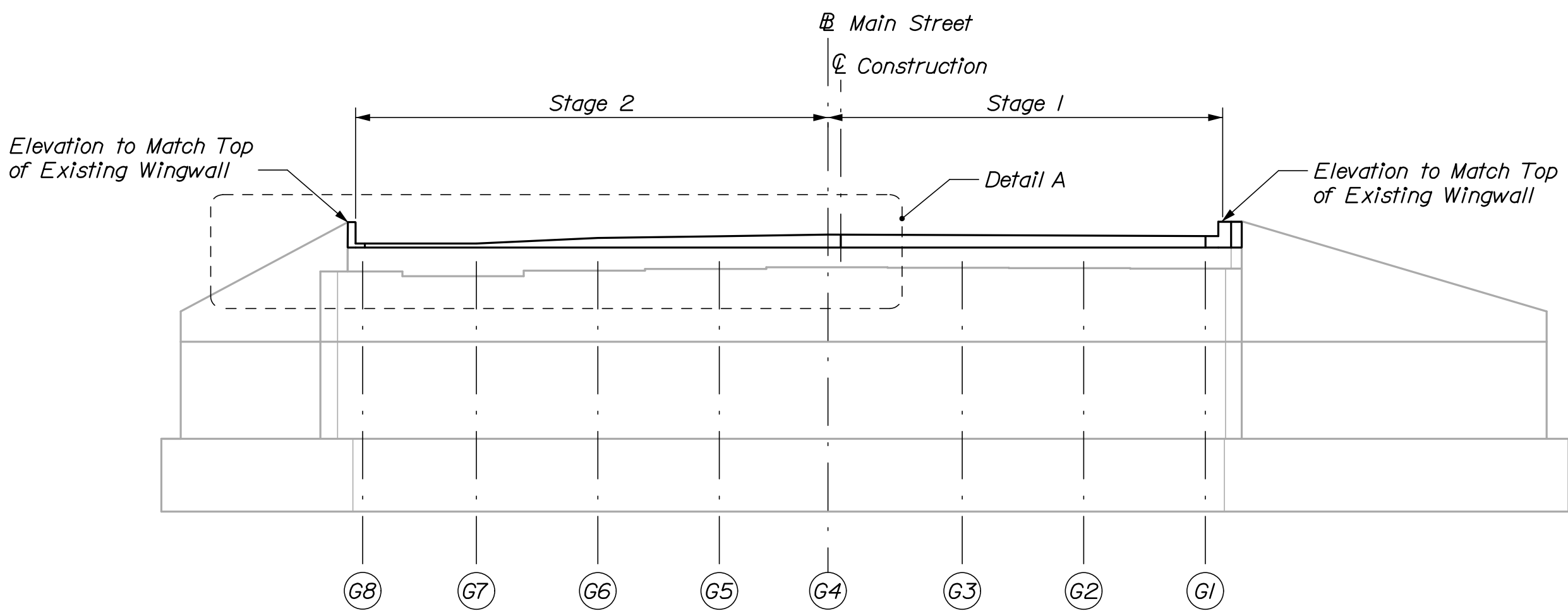
518.60 Repair of vertical surfaces < 8 inches = 40 SF *
* Includes 14 SF contingency

ABUTMENT MODIFICATION NOTES:

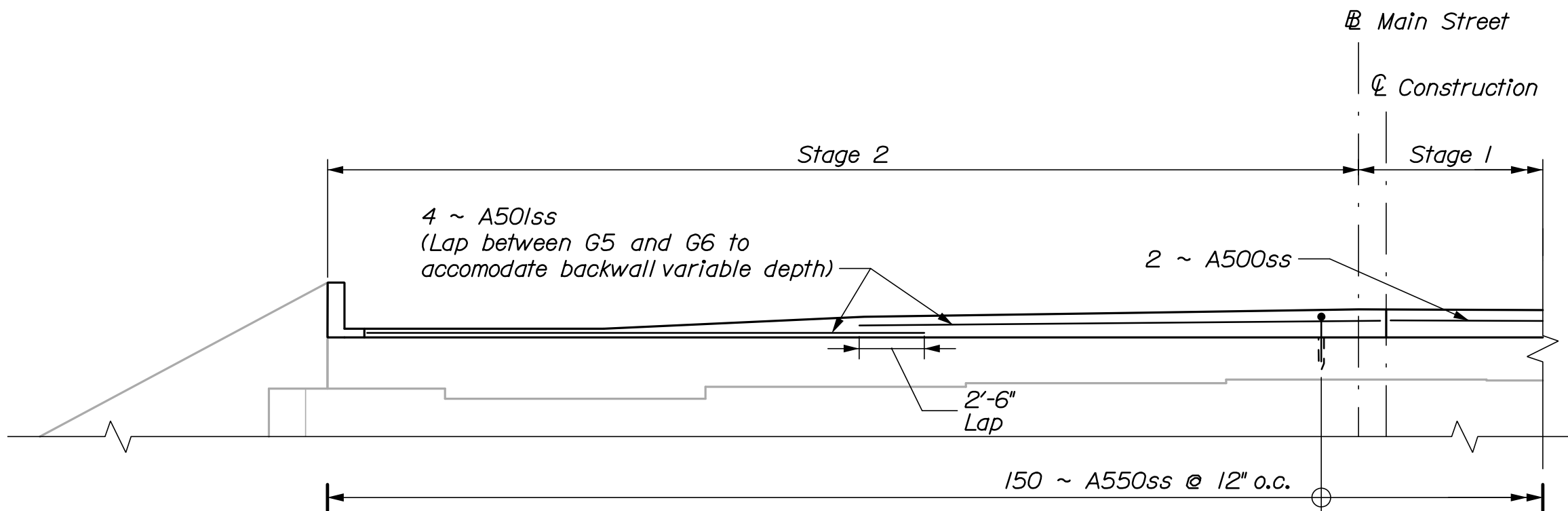
1. The Contractor shall use care not to damage the existing reinforcing steel which is to remain. Any damaged reinforcing steel shall be replaced as directed by the Resident at no expense to the Department.
2. The Contractor shall locate by non-destructive methods, reinforcing steel in existing concrete before drilling and grouting new reinforcing steel and anchor rods. All costs associated with this work shall be incidental to related contract items.
3. Reinforcing steel shall have 2 inches cover unless otherwise noted.
4. Existing concrete at abutments and wingwalls to be removed as shown on the plans shall be sawcut one inch deep prior to removing existing concrete. All costs associated with this work shall be incidental to related contract items.
5. Where drilling and anchoring of reinforcement is specified, the Contractor shall use a material listed on the Maine Department of Transportation Qualified Products List of Concrete Adhesive Anchor Systems. The depth of embedment shall be sufficient to develop 125% of the yield strength of the bar per the manufacturer's recommendations or 12 inches, whichever is greater. Proposed anchoring material and embedment depth shall be submitted for approval. No separate payment will be made for drilling and anchoring of reinforcing steel, but shall be incidental to the related Contract pay item.
6. All dimensions based on or related to the existing bridge shall be verified in the field by the Contractor.
7. All exposed edges of concrete shall have a $\frac{3}{4}$ inch chamfer unless noted otherwise.
8. The top of backwall shall be constructed to an elevation such that it meets the bottom of the thickened deck end, as shown on the abutment construction sections. The thickened deck end shall be flush with the bottom of the top flange at each girder line and follow a linear slope between girder lines.
9. Refer to "Abutment I Details" for Detail B and Detail C.



ABUTMENT I CONSTRUCTION PLAN



ABUTMENT I CONSTRUCTION ELEVATION



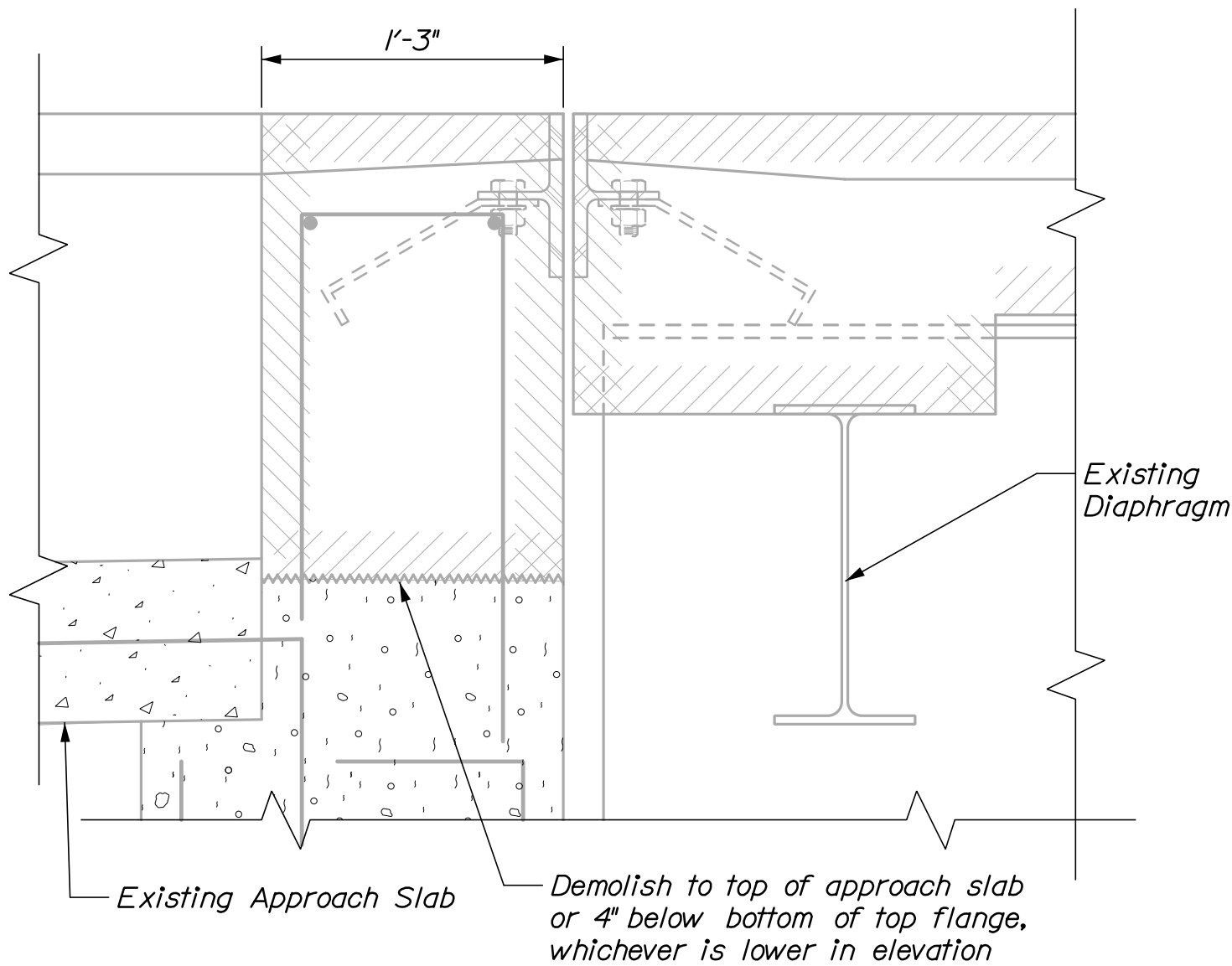
DETAIL A

Date:1/15/2021

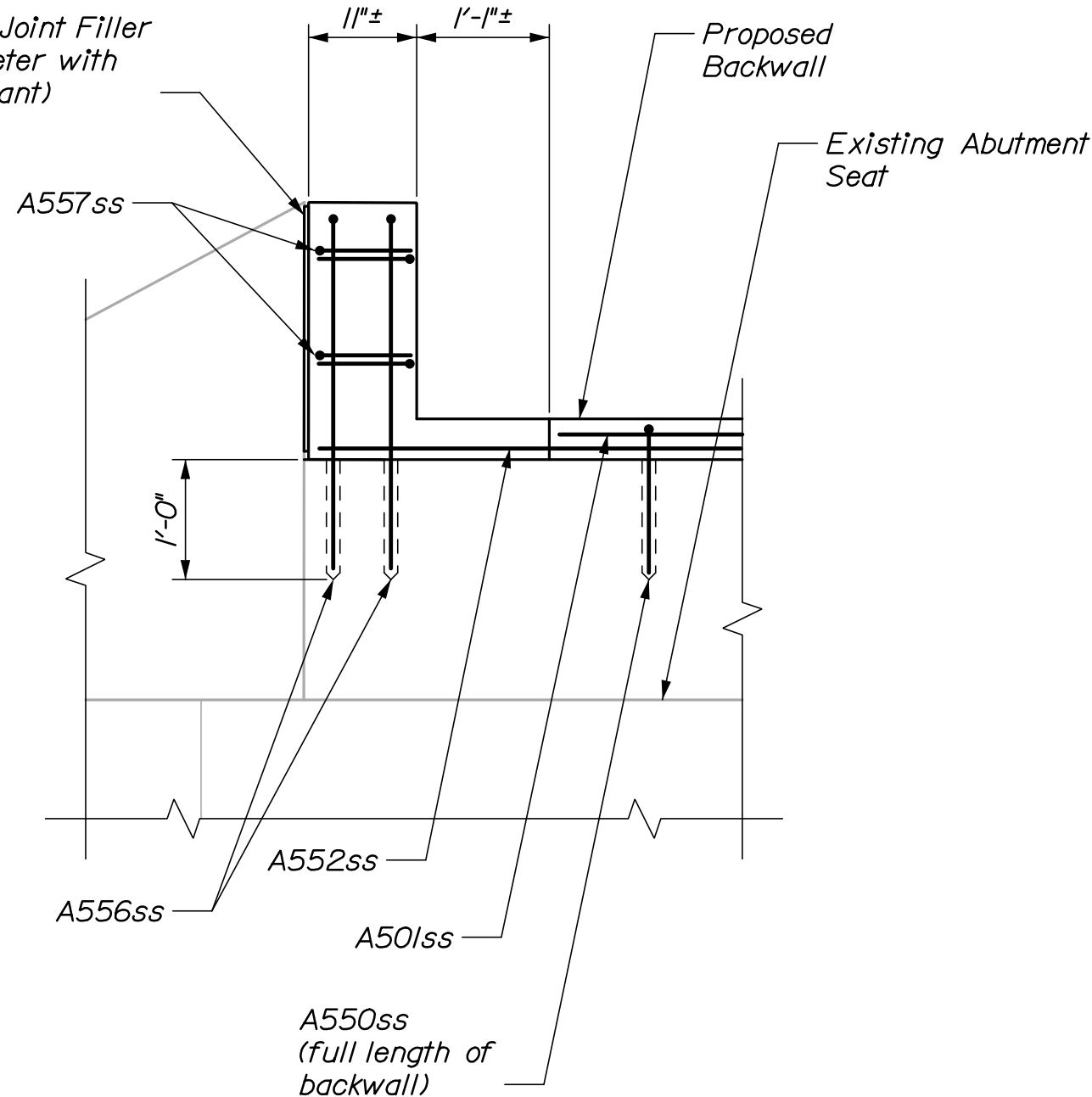
Username:

Division:

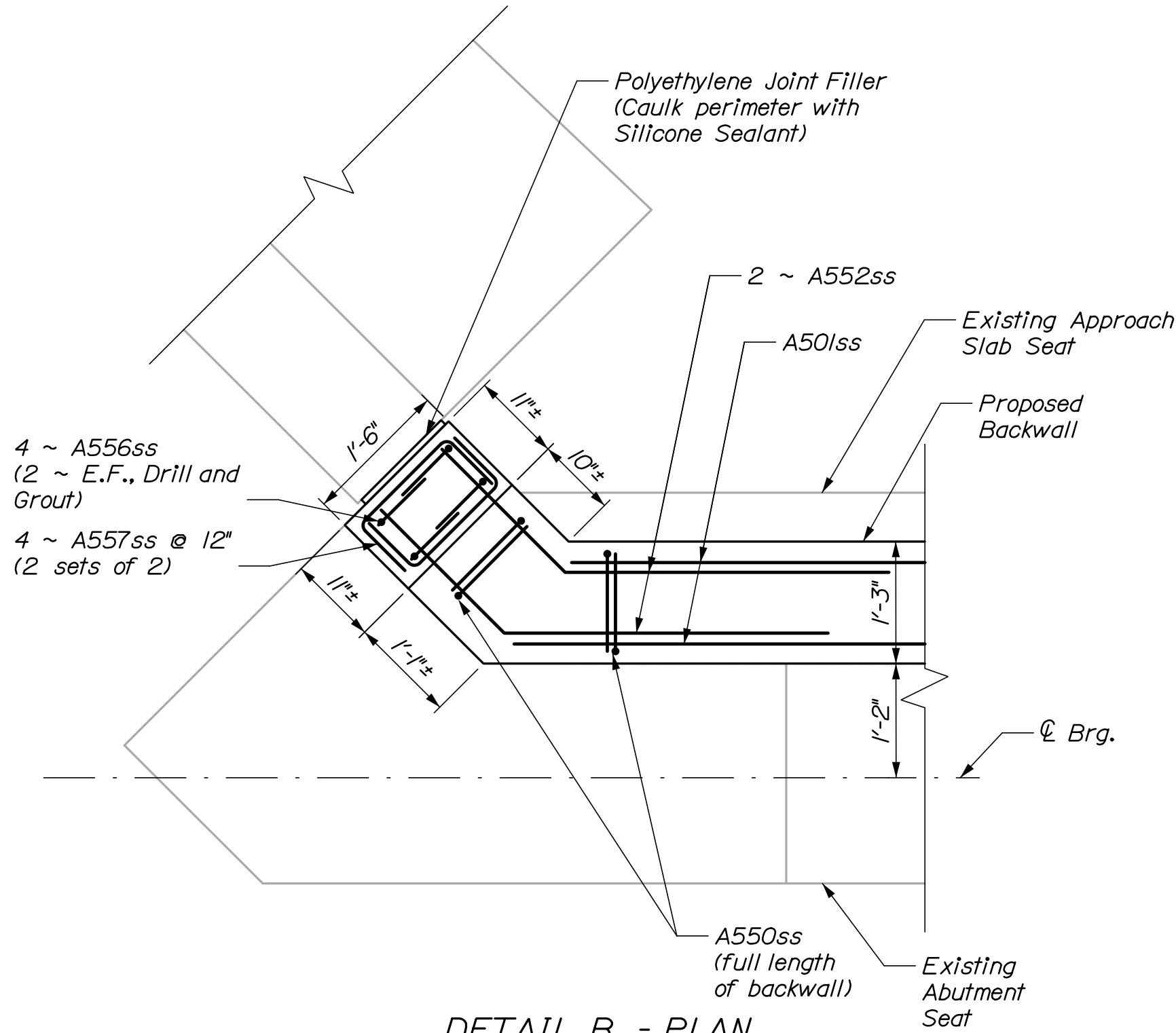
Filename: 018_Abutment 1Details.dgn



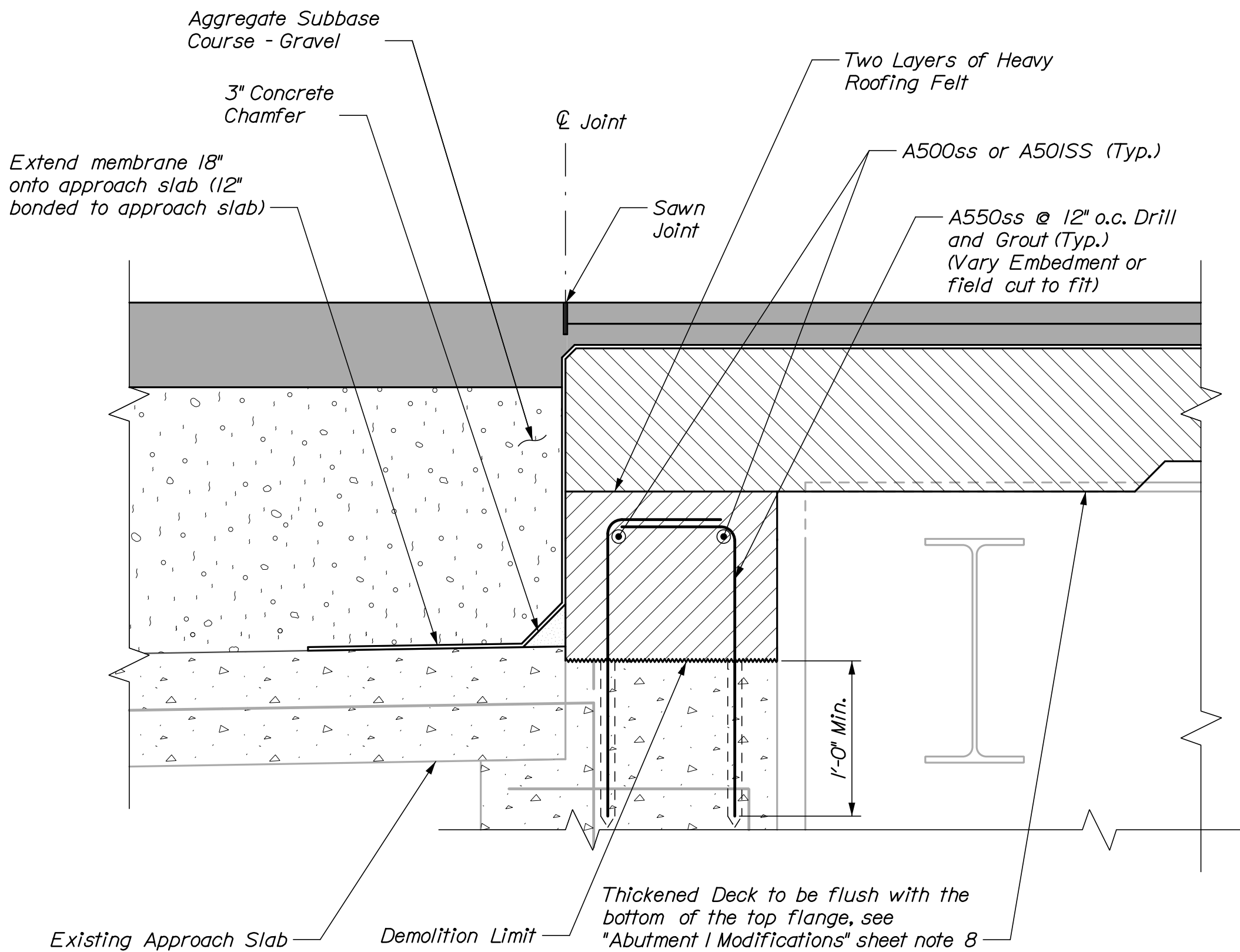
ABUTMENT I DEMOLITION SECTION



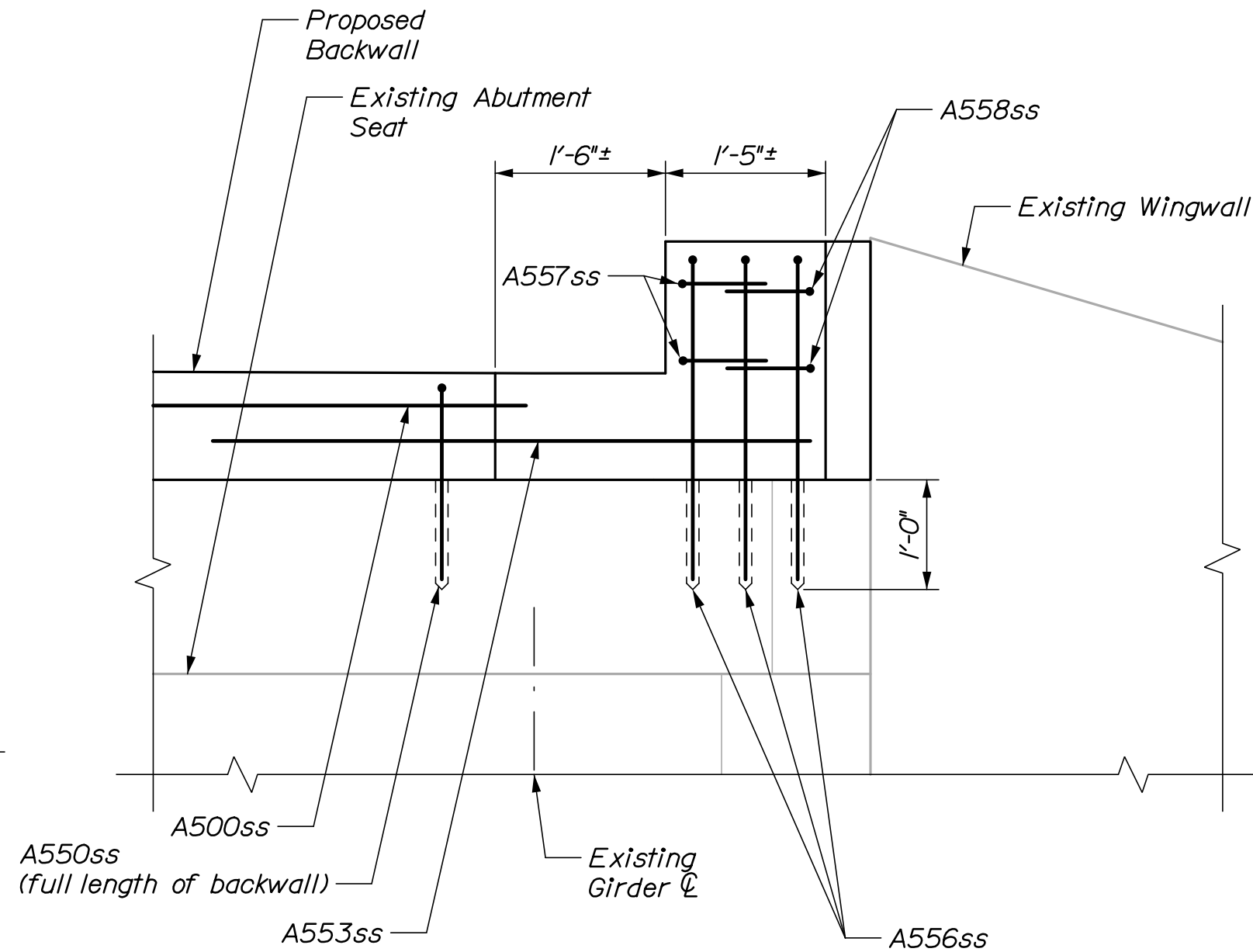
DETAIL B - ELEVATION



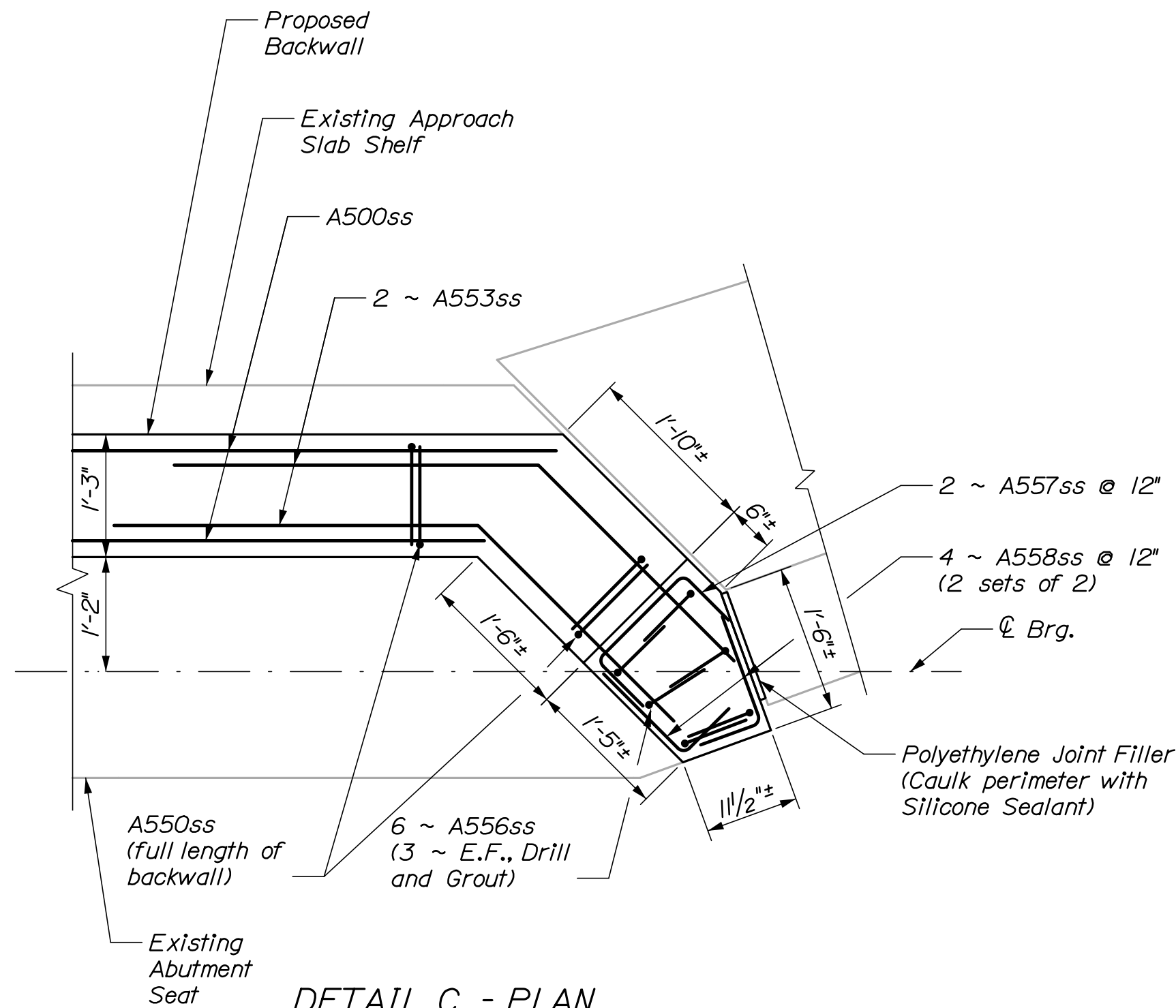
DETAIL B - PLAN



ABUTMENT I CONSTRUCTION



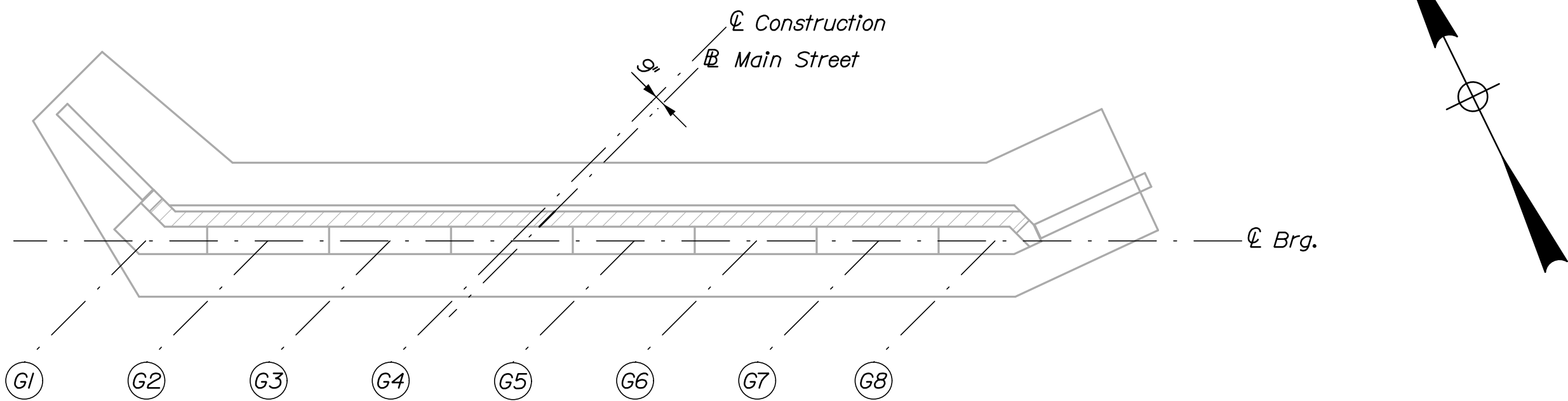
DETAIL C - ELEVATION



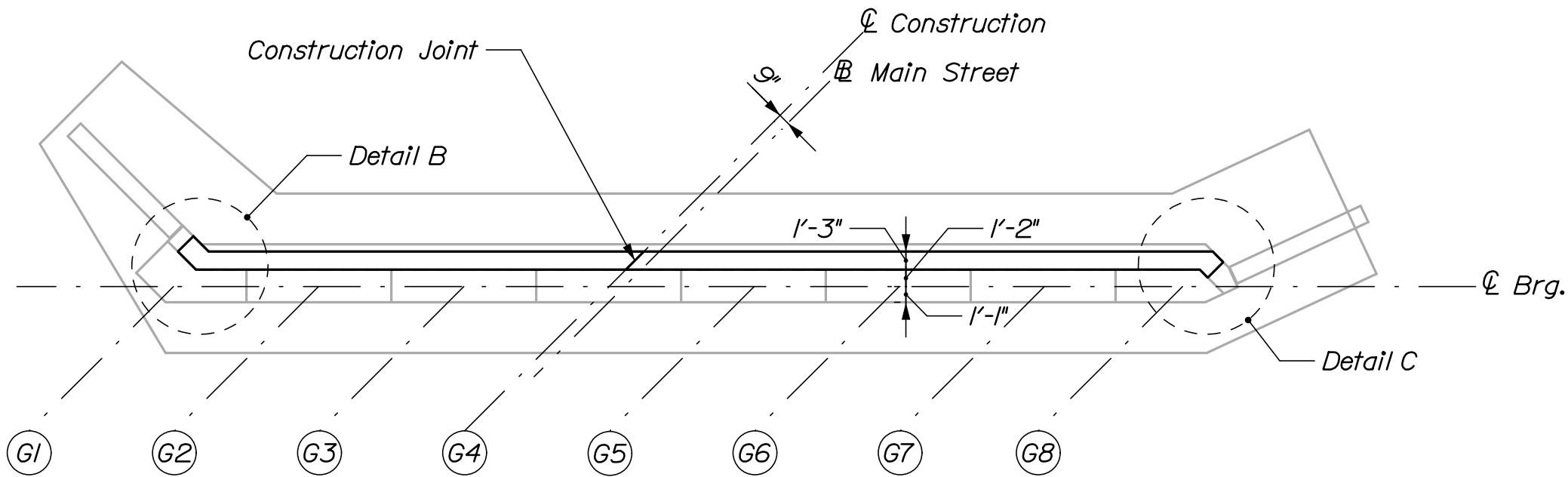
DETAIL C - PLAN

NOTES:
1. A500ss and A50lss shall terminate at the construction joint, no coupler or continuity is required.
2. Polyethylene Joint Filler (PEJF) and Silicone Sealant shall be considered incidental to related Contract Items.

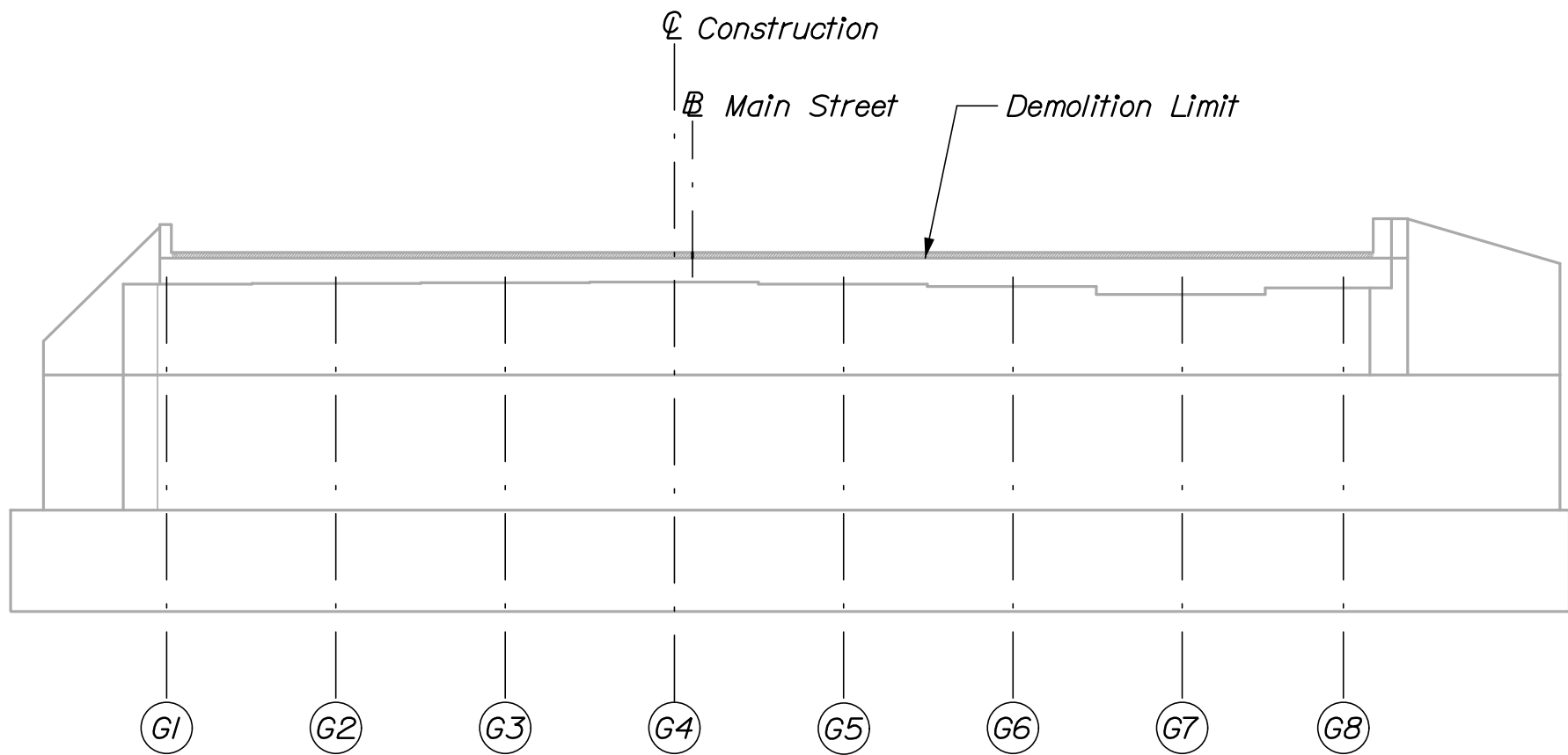
PLEASANT STREET BRIDGE PENNESSEWASSEE STREAM NORWAY OXFORD COUNTY						PROJ. MANAGER		BY	DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION		
ABUTMENT 1 DETAILS						DESIGN-DETAILED	G. Standley	P. Bishop	1/21			
						CHECKED-REVIEWED	B. Greiner	L. Driscoll	1/21			
						DESIGN2-DETAILED2	-	-	-			
						DESIGN3-DETAILED3	-	-	-			
						REVISIONS 1		-	-	P.E. NUMBER		
						REVISIONS 2		-	-			
						REVISIONS 3		-	-			
						REVISIONS 4		-	-	DATE		
						FIELD CHANGES		-	-			
SHEET NUMBER						BRIDGE NO. 2677					WIN	BRIDGE PLANS
18						023639.00						
OF 28												



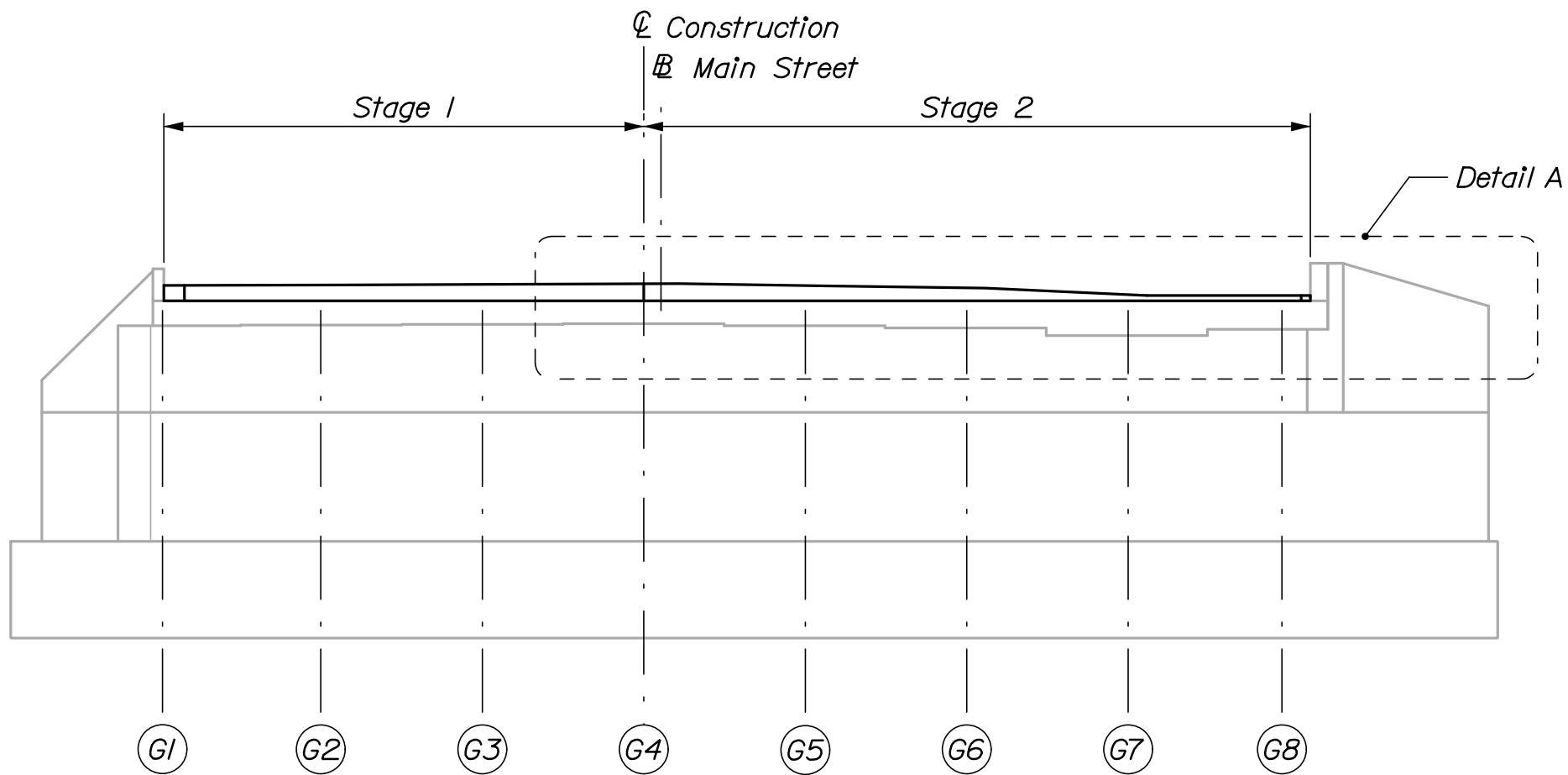
ABUTMENT 2 DEMOLITION PLAN



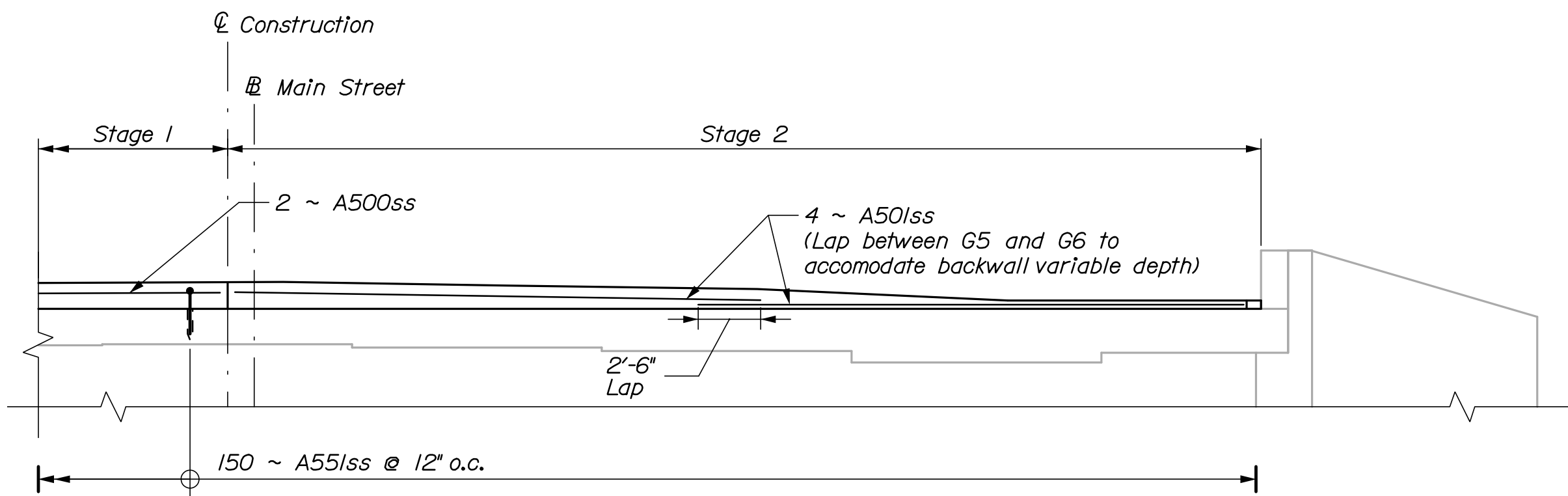
ABUTMENT 2 CONSTRUCTION PLAN



ABUTMENT 2 DEMOLITION ELEVATION



ABUTMENT 2 CONSTRUCTION ELEVATION

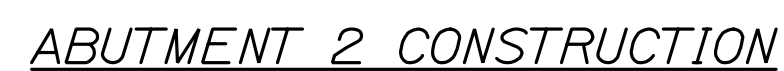


DETAIL A

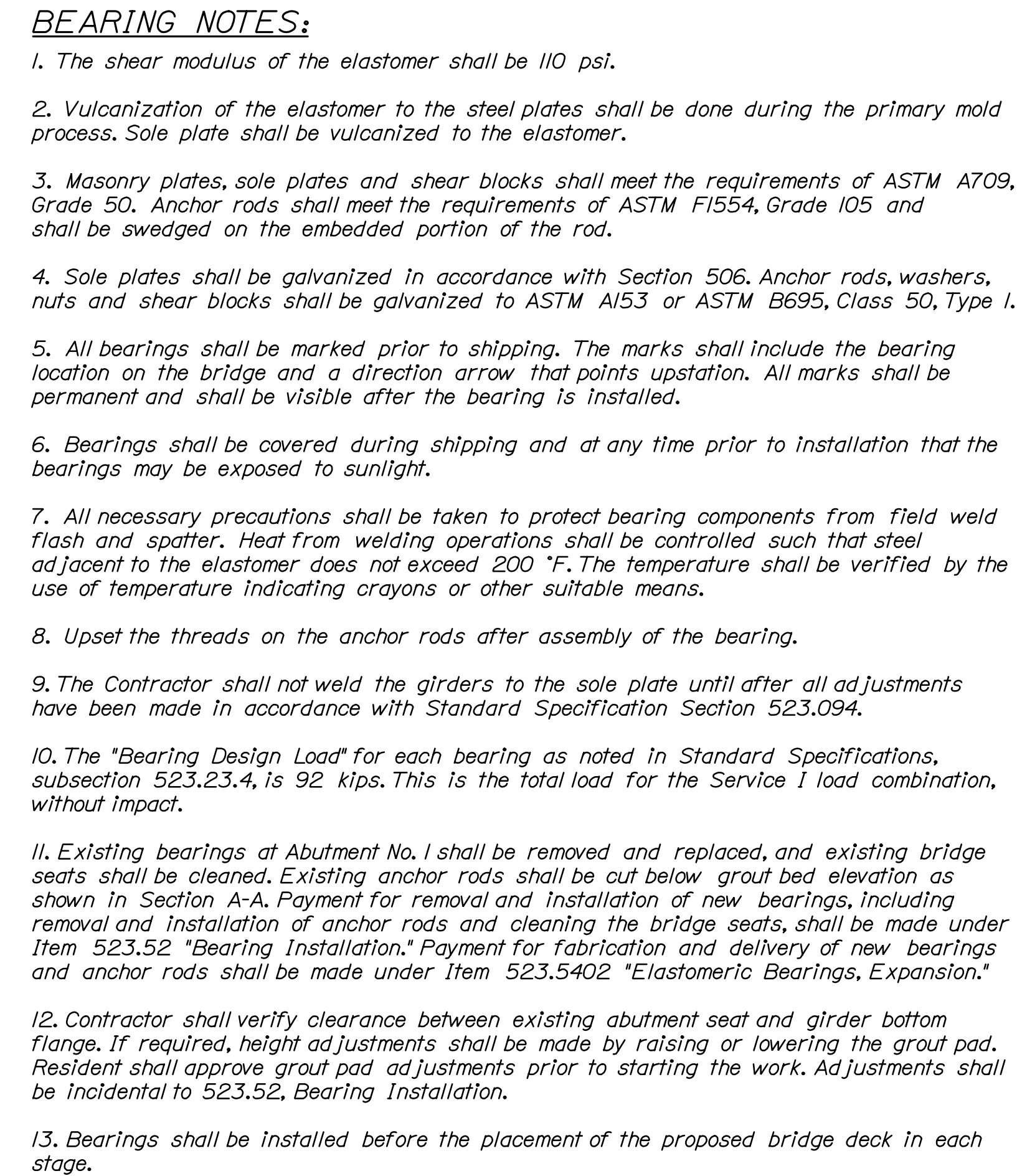
NOTE:
1. Refer to "Abutment 2 Details" for Detail B and Detail C.



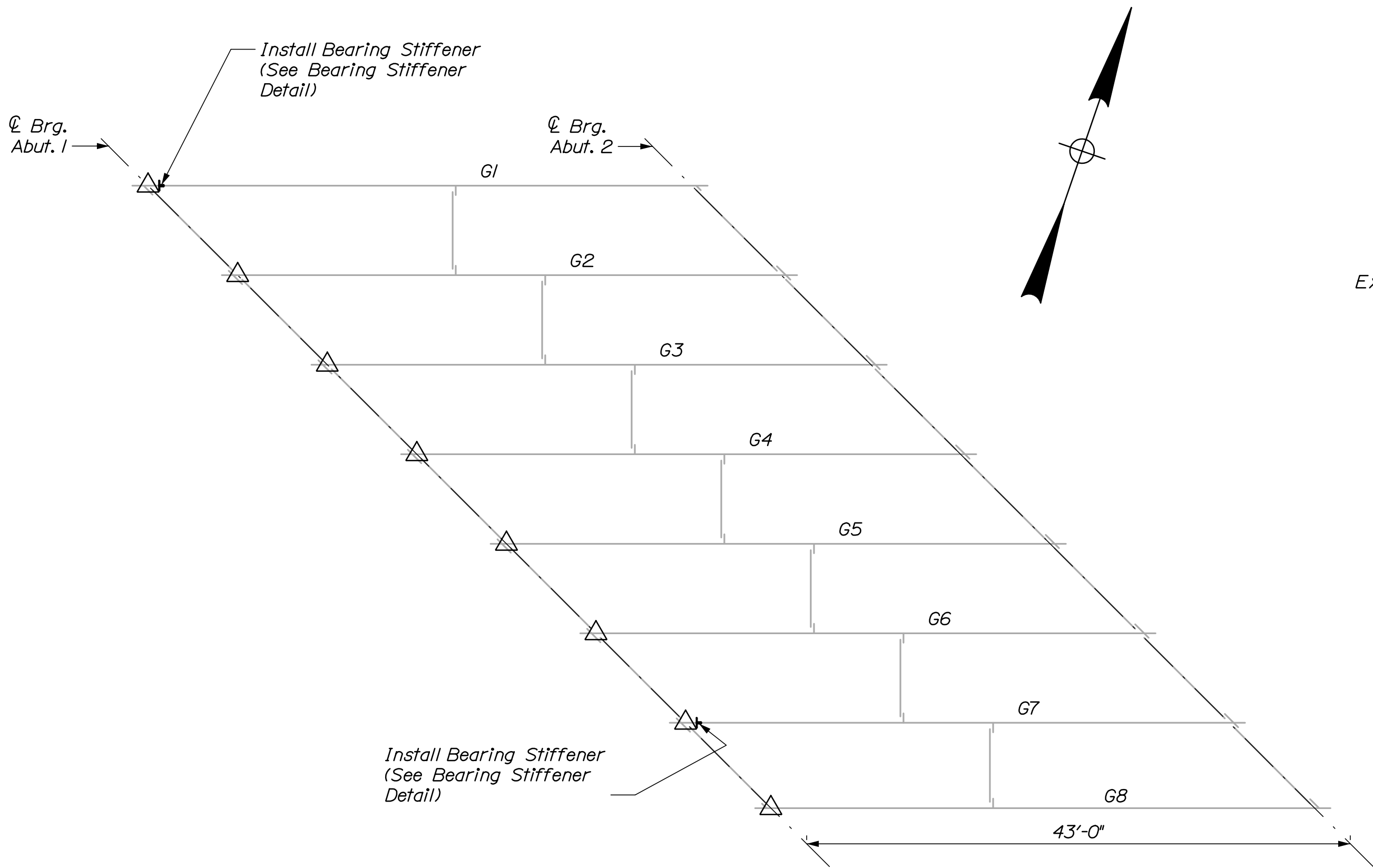
STATE OF MAINE DEPARTMENT OF TRANSPORTATION 2363900 WIN 023639.00 BRIDGE NO. 2677 BRIDGE PLANS	PLEASANT STREET BRIDGE PENNESSEEWASSEE STREAM NORWAY OXFORD COUNTY		PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	BY P. Bishop L. Driscoll -	DATE 11/21 11/21 -	SIGNATURE P.E. NUMBER DATE
	SHEET NUMBER		19			
	OF 28		ABUTMENT 2 MODIFICATIONS			



2. Polyethylene Joint Filler (PEJF) and Silicone Sealant shall be considered incidental to related Contract Items.



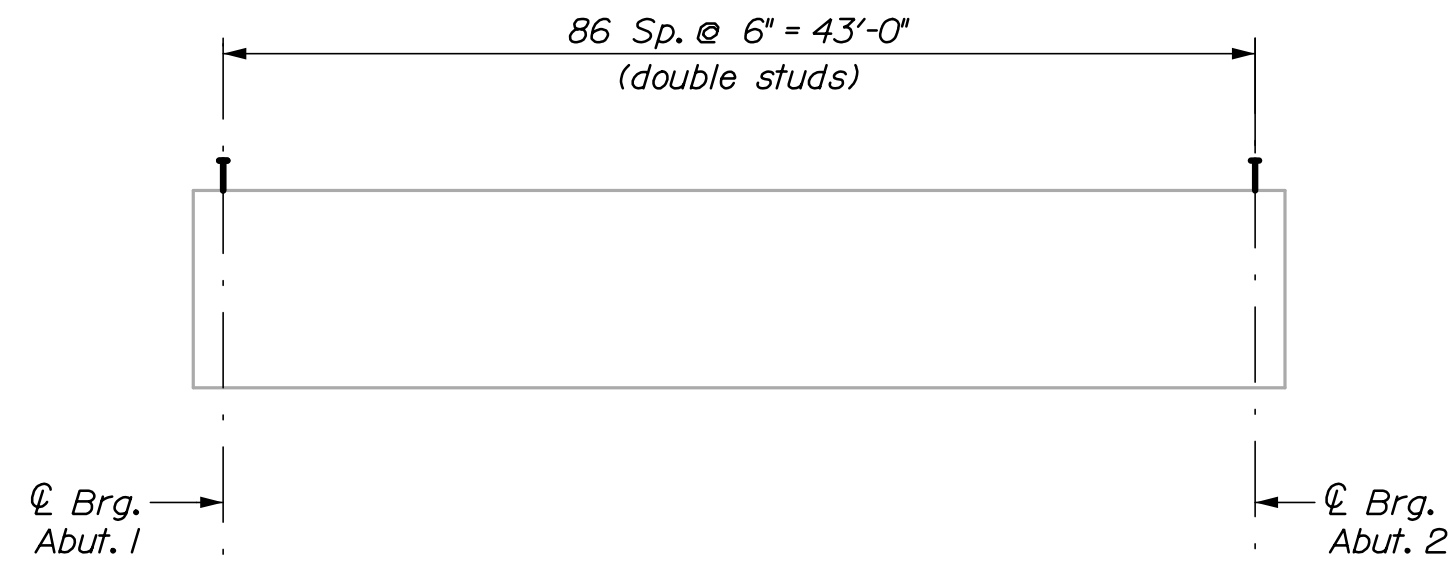
BEARING DESIGN CRITERIA	
Criteria	Abutment I
Unfactored Dead Load (kips)	28.8
Unfactored Live Load (kips)	63.1
Max. Longitudinal Displ. (in.)	0.40



KEY PLAN

LEGEND

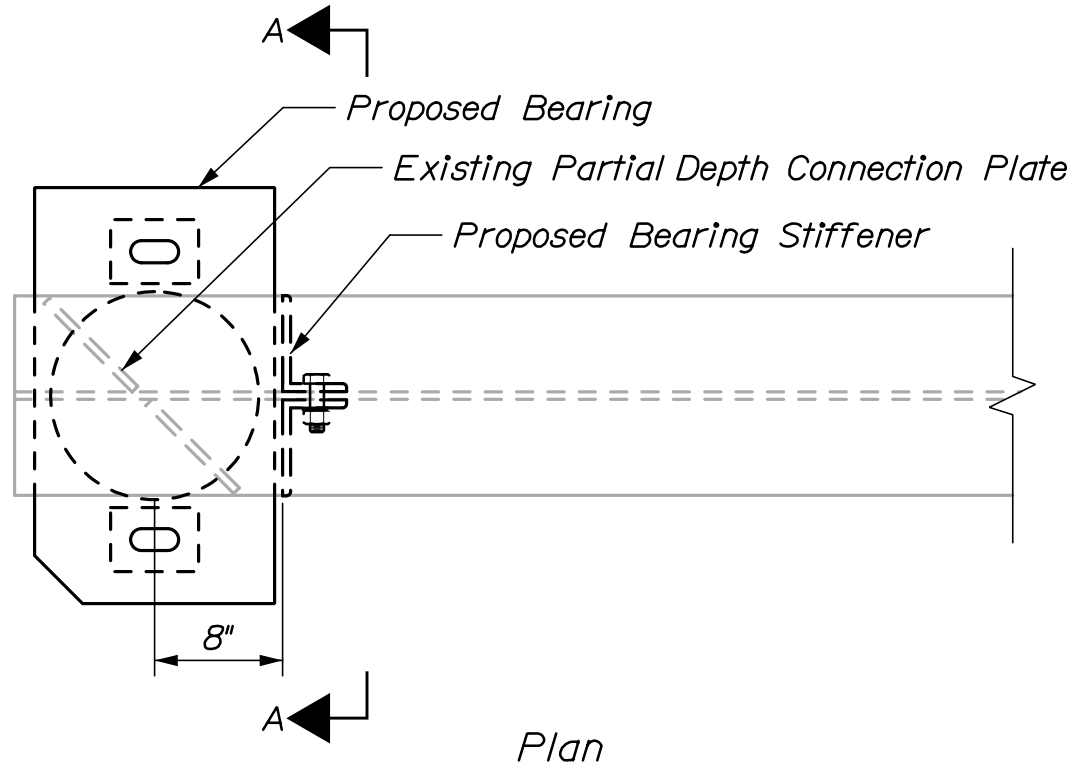
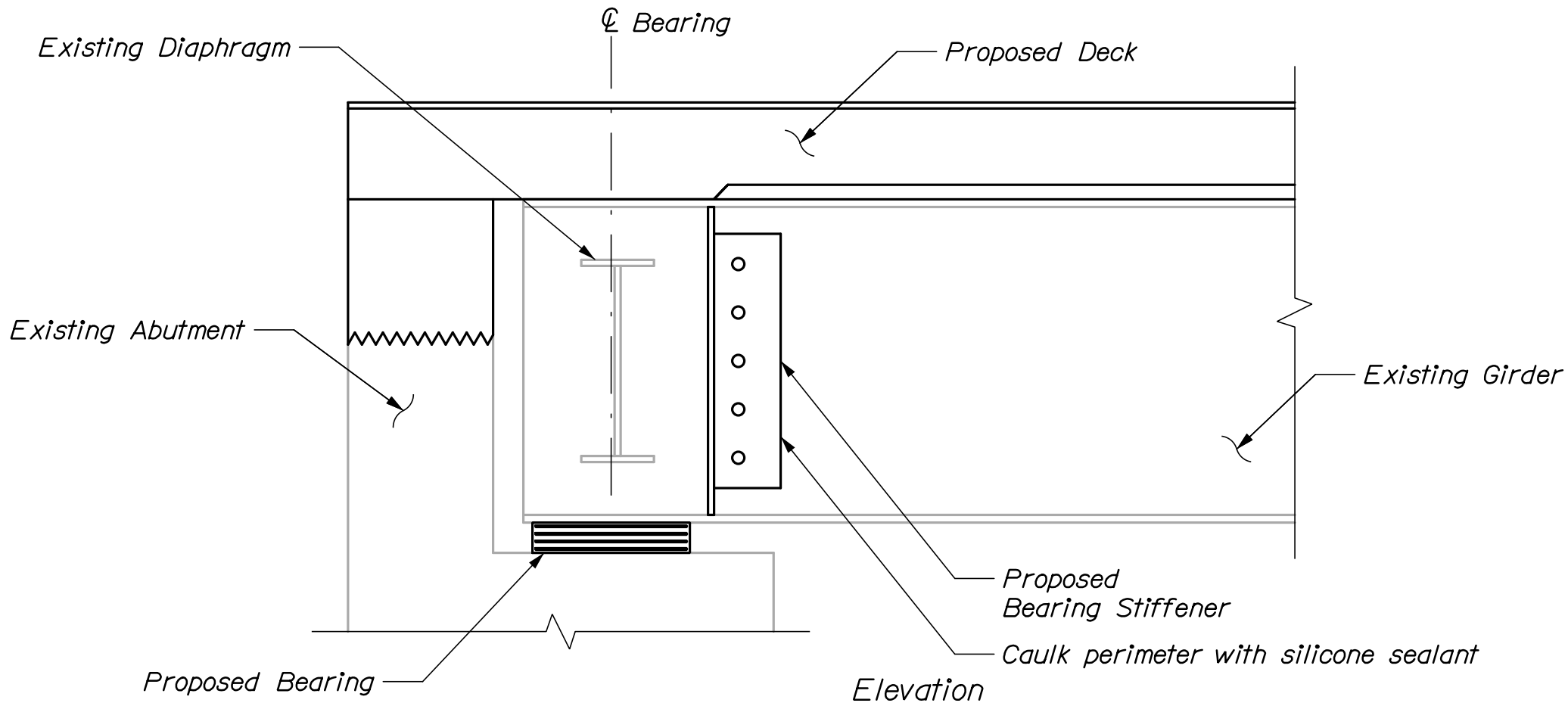
△ - Replace existing bearing with elastomeric expansion bearing



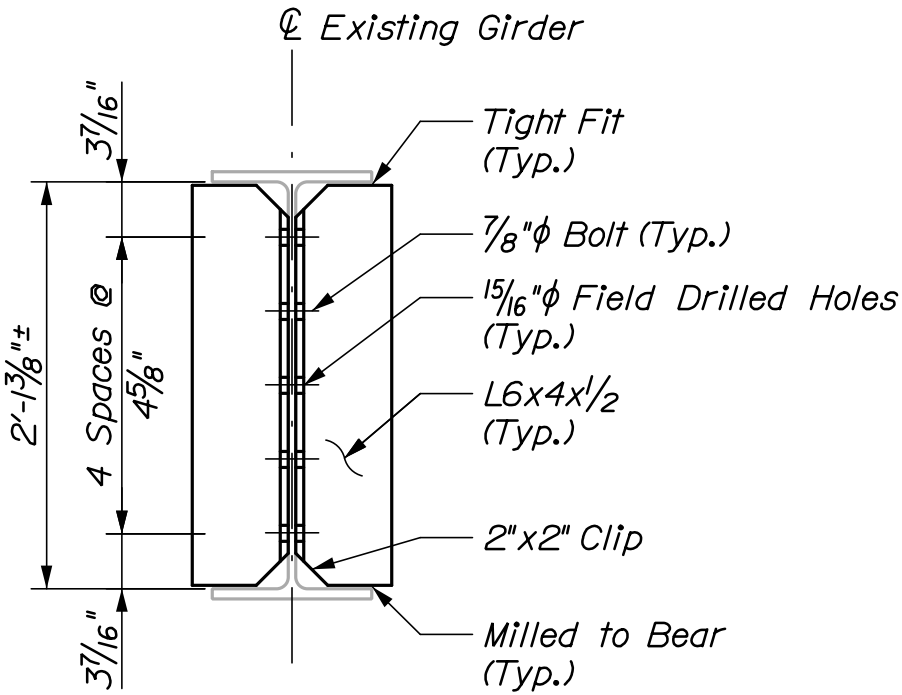
SHEAR CONNECTOR LAYOUT

N.T.S.

Bottom of Slab Elevation Table											
Girder Number	℄ Brg.	0.1 L	0.2 L	0.3 L	0.4 L	0.5 L	0.6 L	0.7 L	0.8 L	0.9 L	℄ Brg.
G1	404.01	403.96	403.91	403.85	403.79	403.73	403.66	403.59	403.52	403.44	403.37
G2	404.06	404.01	403.96	403.91	403.85	403.79	403.72	403.65	403.57	403.49	403.41
G3	404.08	404.03	403.98	403.93	403.87	403.81	403.74	403.67	403.59	403.51	403.43
G4	404.11	404.07	404.02	403.96	403.90	403.84	403.78	403.70	403.63	403.55	403.47
G5	403.99	403.94	403.89	403.84	403.78	403.72	403.65	403.58	403.51	403.43	403.35
G6	403.80	403.75	403.70	403.65	403.59	403.53	403.46	403.39	403.51	403.24	403.15
G7	403.41	403.36	403.31	403.26	403.20	403.14	403.07	403.00	402.93	402.85	402.76
G8	404.31	403.26	403.21	403.16	403.11	403.05	402.98	402.91	402.83	402.75	402.66



Plan

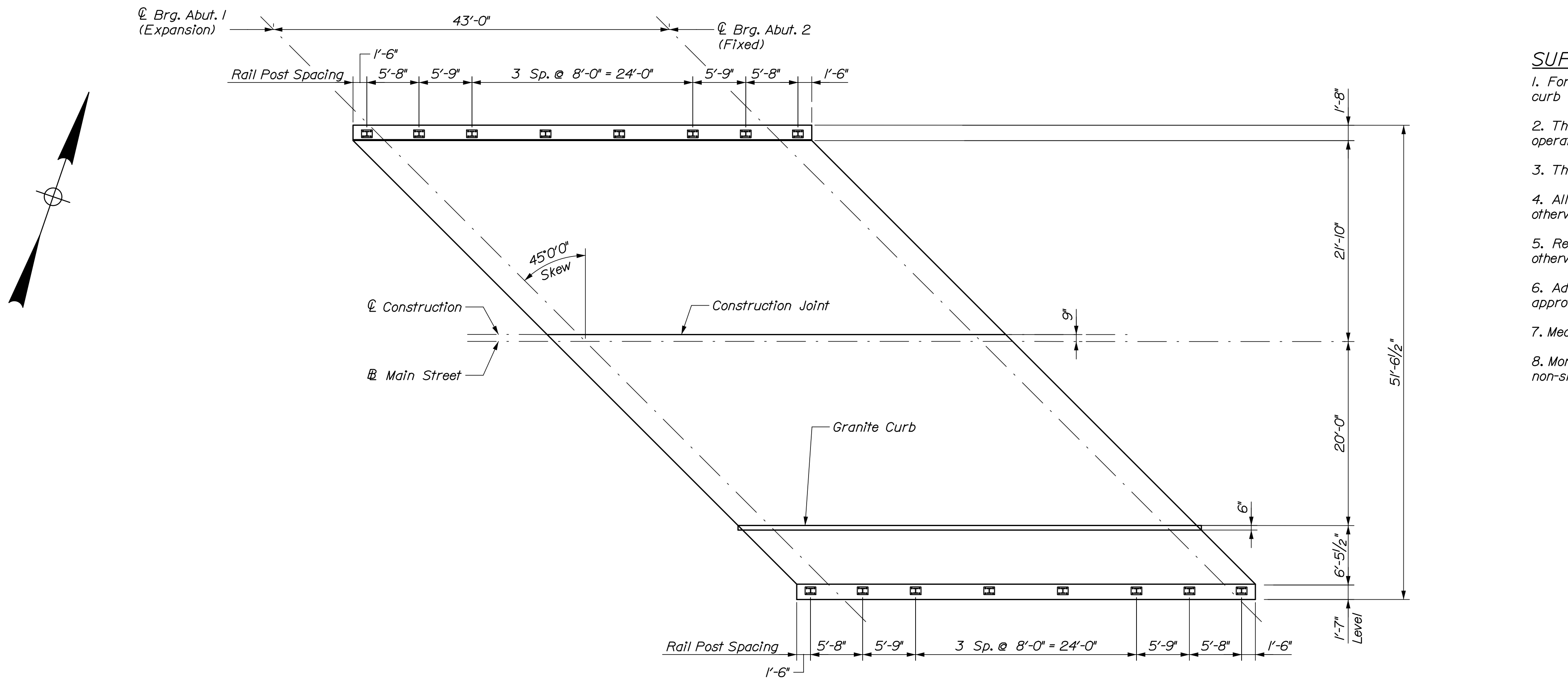


Section A-A

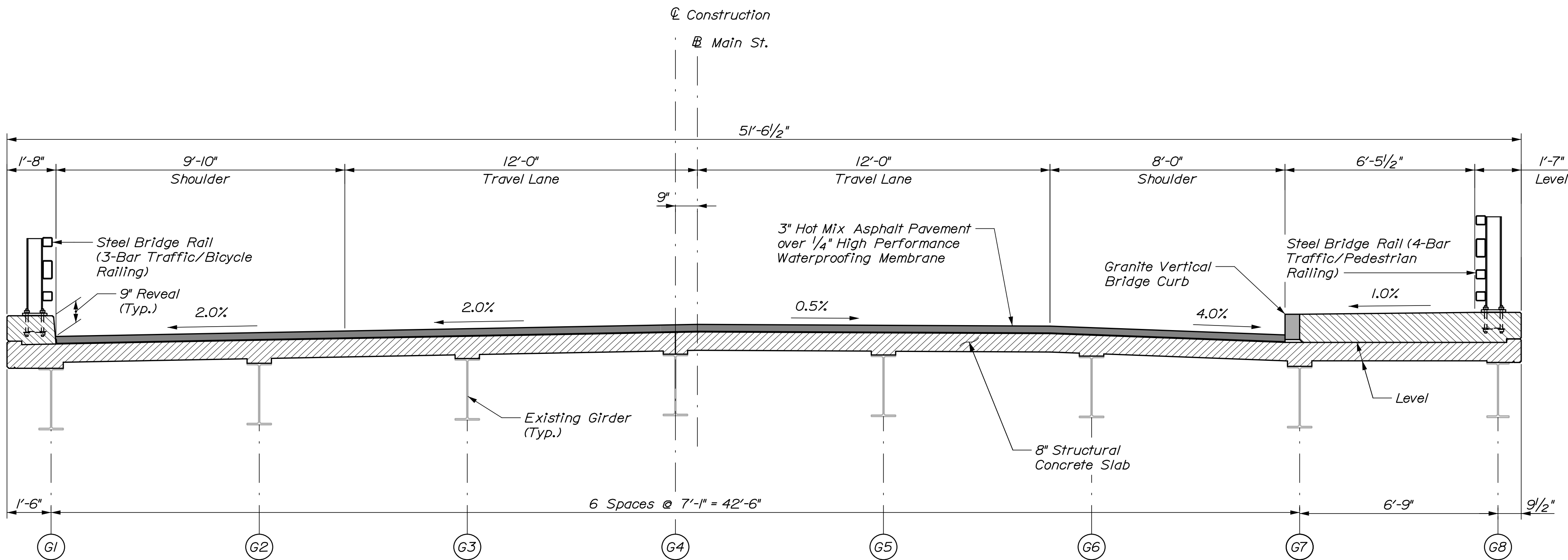
BEARING STIFFENER DETAIL

NOTES:

1. Prior to installing the proposed shear connectors, the Contractor shall clean the top flange so that it is free of debris, rust, scale, oil, and other contaminants that would adversely affect the welding operation. Payment for cleaning the top flange for installation of proposed shear connectors shall be incidental to Item 505.08, Shear Connectors. If lead paint is encountered while cleaning top flanges, the Contractor is responsible for the containment, proper management and disposal of all lead-contaminated hazardous waste. See note 10 on the general notes sheet for more information.
2. The proposed shear connectors shall be 7/8" diameter. Shear connectors shall penetrate above the bottom of deck a minimum of 2" and maintain a clear cover of 2" to the top of the deck.
3. Span locations provided are based on the centerline of bearing to centerline of bearing length "L" for each girder.
4. The theoretical blocking used for design of the structure is 1 1/2" at the centerline of bearing of the abutments.
5. If the existing shear connectors interfere with installation of new shear connectors or any other work, they shall be removed completely and ground flush with the top flange. All costs associated with this work shall be incidental to related Contract Items.
6. Bearing stiffeners shall be installed after existing deck removal and before proposed deck construction. Refer to Special Provision 504 for additional information.
7. Girder ends at proposed bearing stiffener locations shall be thoroughly cleaned and free of loose rust, paint, dirt, and foreign contaminants.
8. Bearing stiffeners shall be tight to fit on the top flange and milled to bear on the bottom flange of the existing girders. The Contractor shall verify girder dimensions prior to fabrication to ensure proper fit up.



DECK PLAN

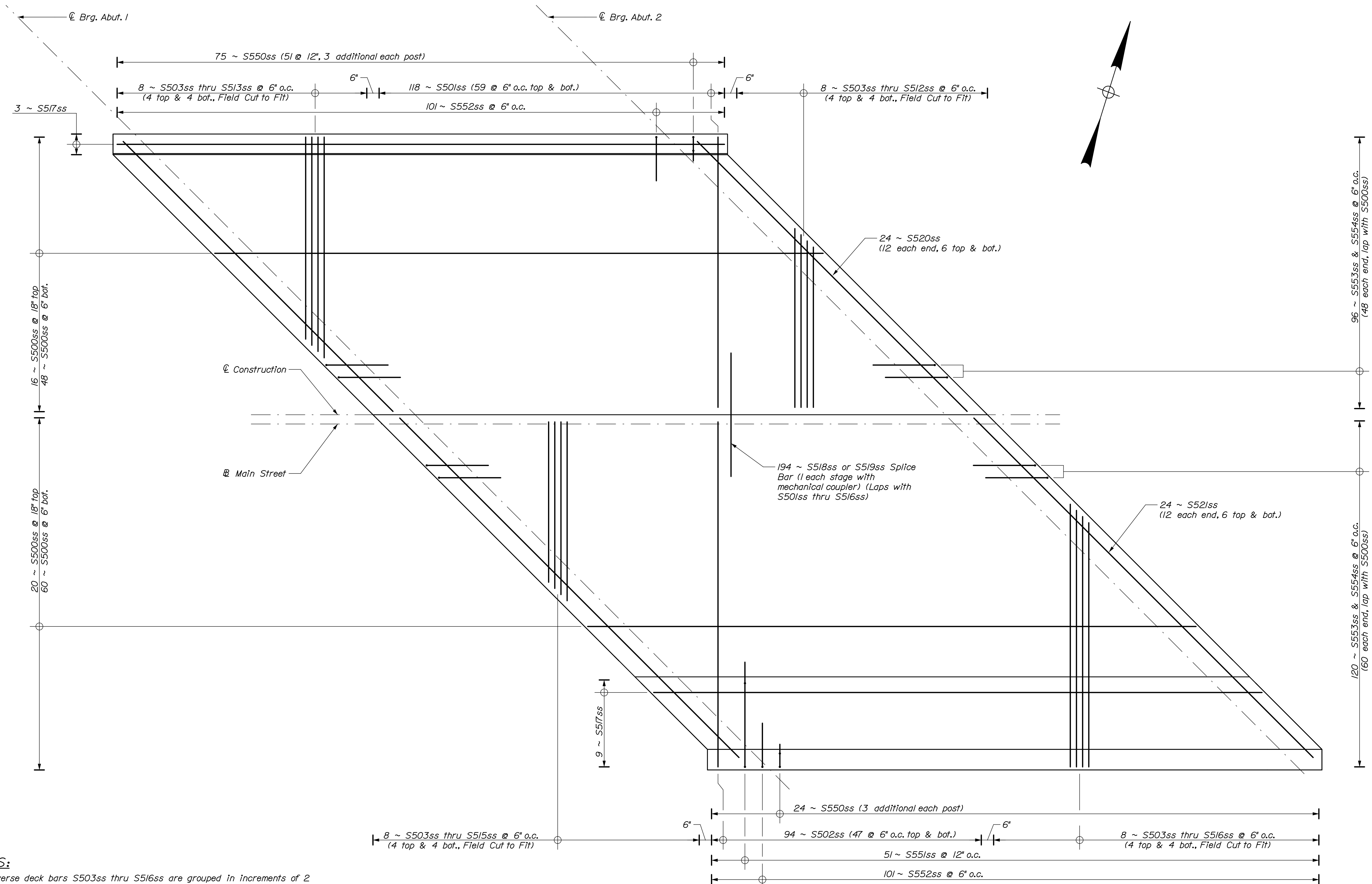


TRANSVERSE SECTION

SUPERSTRUCTURE NOTES:

1. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.
2. The superstructure slab concrete shall be placed in one continuous operation per stage.
3. The use of precast deck panels is prohibited.
4. All exposed edges of concrete shall have a 3/4 inch chamfer unless noted otherwise.
5. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
6. Adjust reinforcing steel to fit around the shear connectors in a manner approved by the Resident. Transverse reinforcing shall not be cut.
7. Mechanical couplers shall be stainless steel.
8. Mortar for bedding and joints in the granite curb shall contain an approved non-shrink additive.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2363900		WIN		023639.00		BRIDGE NO. 2677		BRIDGE PLANS	
PLEASANT STREET BRIDGE		PENNESSEEWASSEE STREAM		NORWAY		OXFORD COUNTY		SUPERSTRUCTURE PLAN		SHEET NUMBER		23	
DATE		BY		PROJ. MANAGER		DESIGN-DETAILED		CHECKED-REVIEWED		DESIGN-DETAILED		CHECKED-REVIEWED	
1/21		P. Bishop		G. Standley		-		-		-		-	
SIGNATURE		-		-		-		-		-		-	
P.E. NUMBER		-		-		-		-		-		-	
DATE		-		-		-		-		-		-	
FIELD CHANGES		-		-		-		-		-		-	



NOTES:

l. Transverse deck bars S503ss thru S516ss are grouped in increments of 2 feet to minimize number of individual bar lengths. Contractor shall field cut to fit skew as necessary. Field cutting shall be incidental to pay item 503.27 Stainless Steel Reinforcement, Placing.

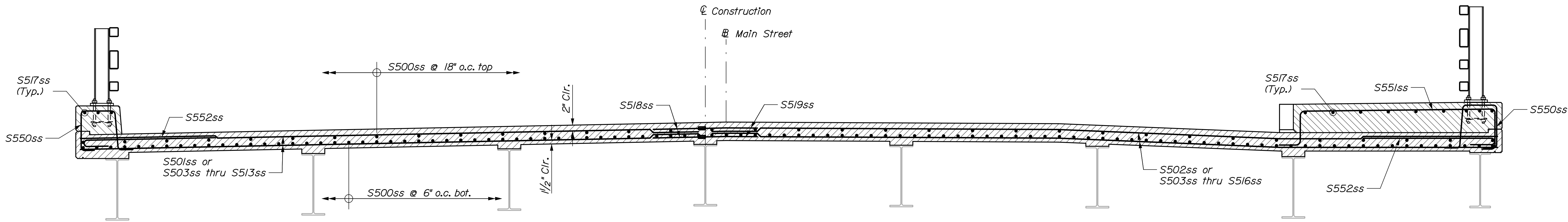
REINFORCING PLAN

Date:1/15/2021

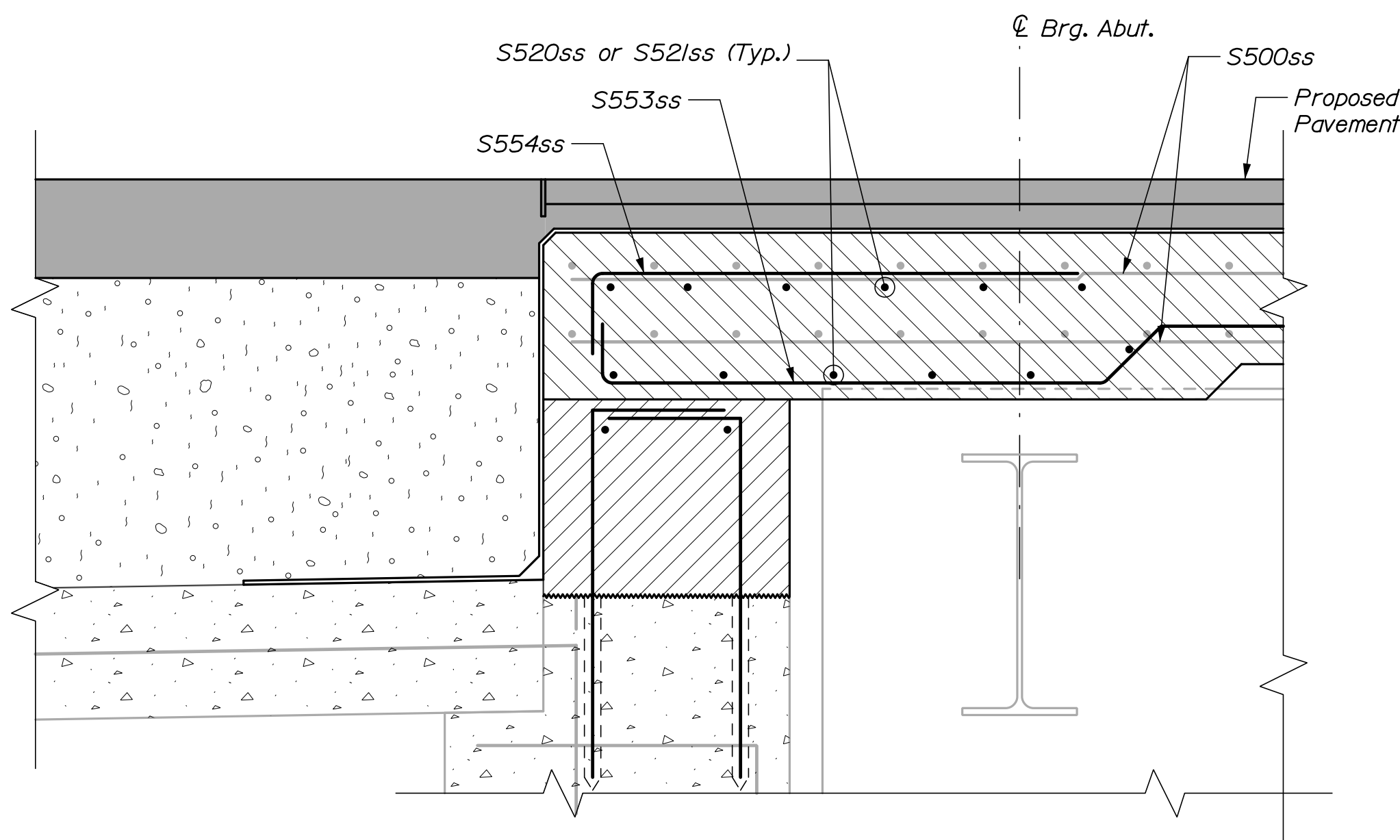
Username:

Division:

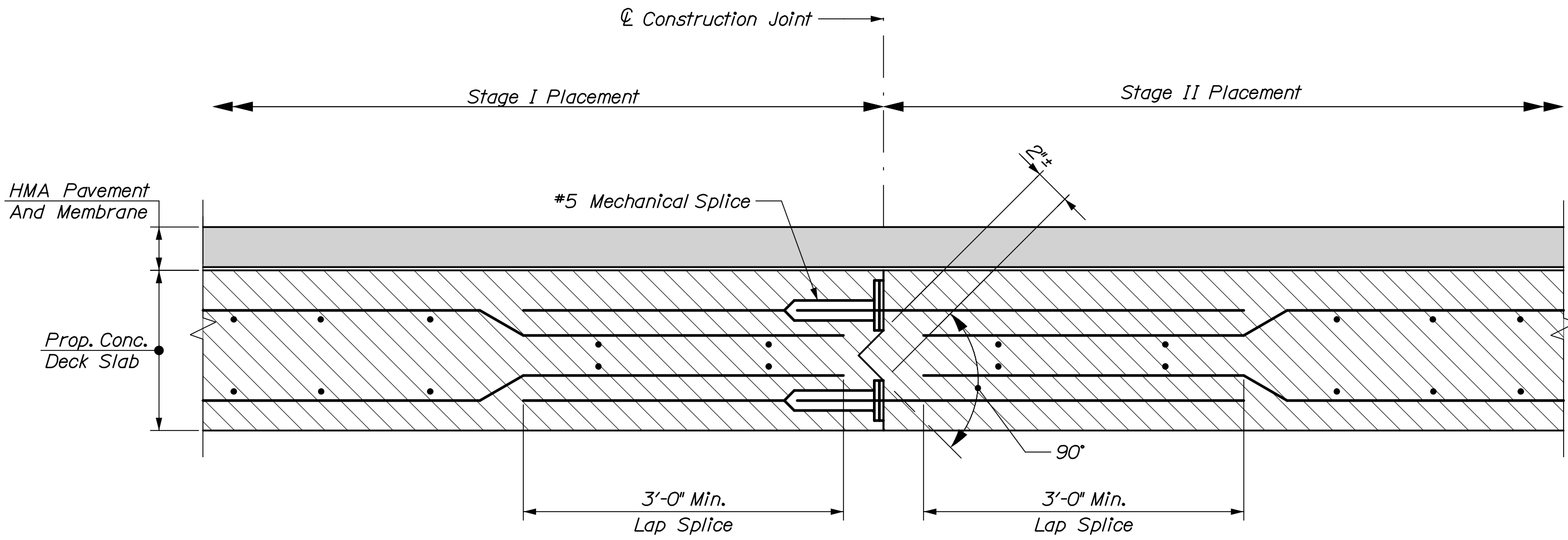
Filename: 025_Reinforcing Details.dgn



TRANSVERSE SECTION



THICKENED END SLAB DETAIL
(Abutment 1 shown, Abutment 2 similar)
(Deck reinforcing screened for clarity)



LONGITUDINAL CONSTRUCTION JOINT DETAIL
Not to Scale

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2363900
WIN
023639.00
BRIDGE NO. 2677
BRIDGE PLANS

PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	BY	DATE
G. Standley	P. Bishop	L. Driscoll	1/21	1/21
B. Greiner	L. Driscoll	-	1/21	1/21
DESIGN-DETAILED	-	-	-	-
REVISIONS 1	-	-	-	-
REVISIONS 2	-	-	-	-
REVISIONS 3	-	-	-	-
REVISIONS 4	-	-	-	-
FIELD CHANGES	-	-	-	-

PLEASANT STREET BRIDGE
PENNESSEEWASSEE STREAM
NORWAY OXFORD COUNTY
REINFORCING DETAILS

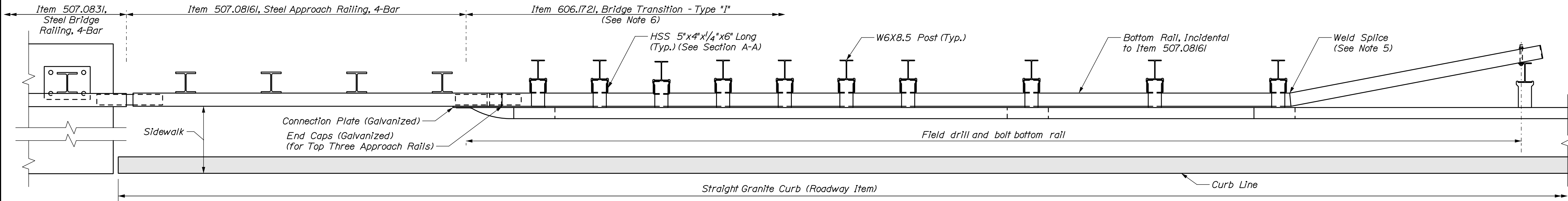
SHEET NUMBER
25
OF 28

Username:

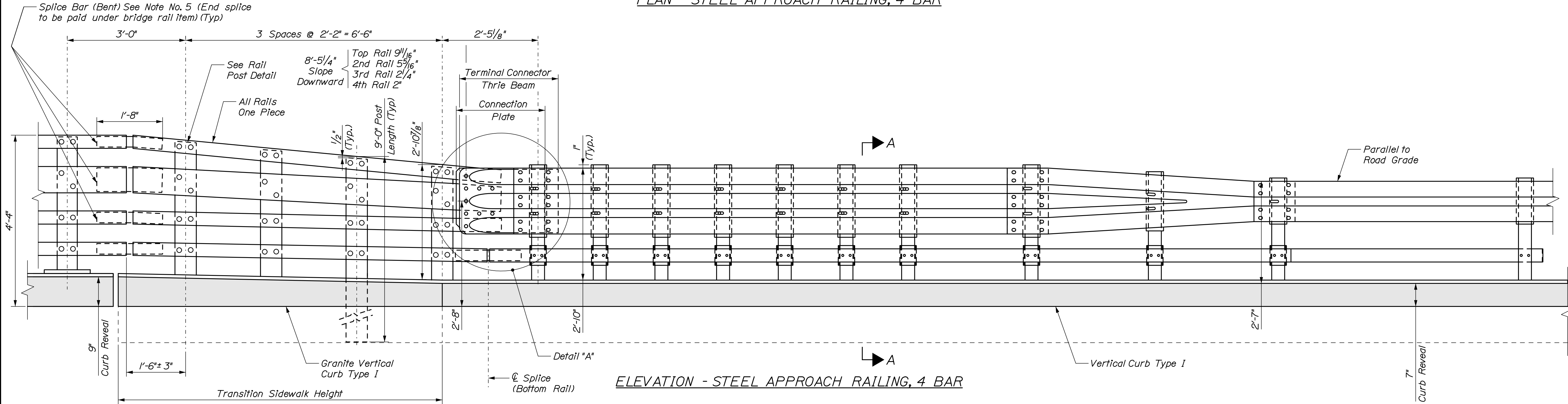
Date:1/15/2021

Division:

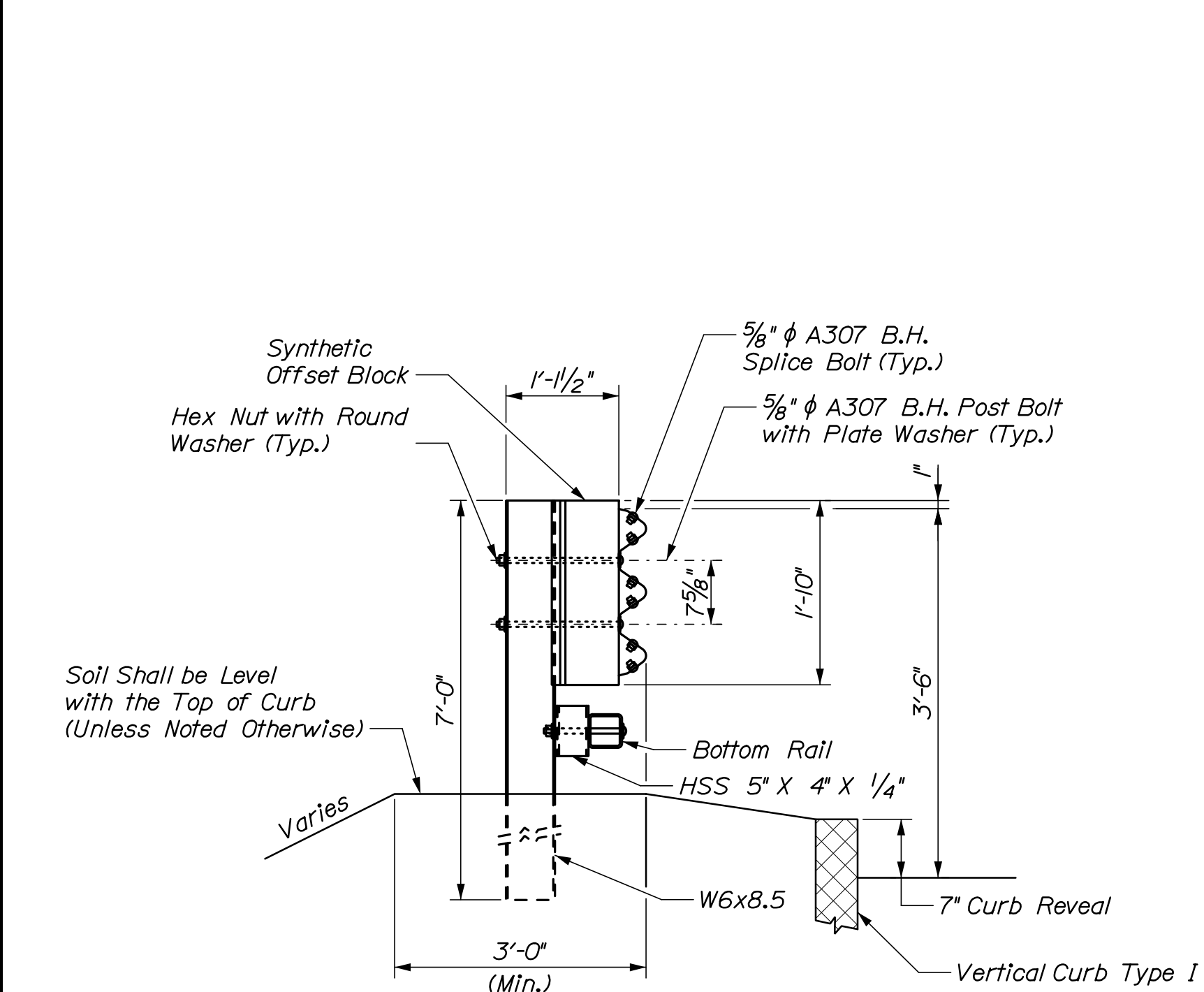
Filename: 027_4-Bar Stl Approach Rail.dgn



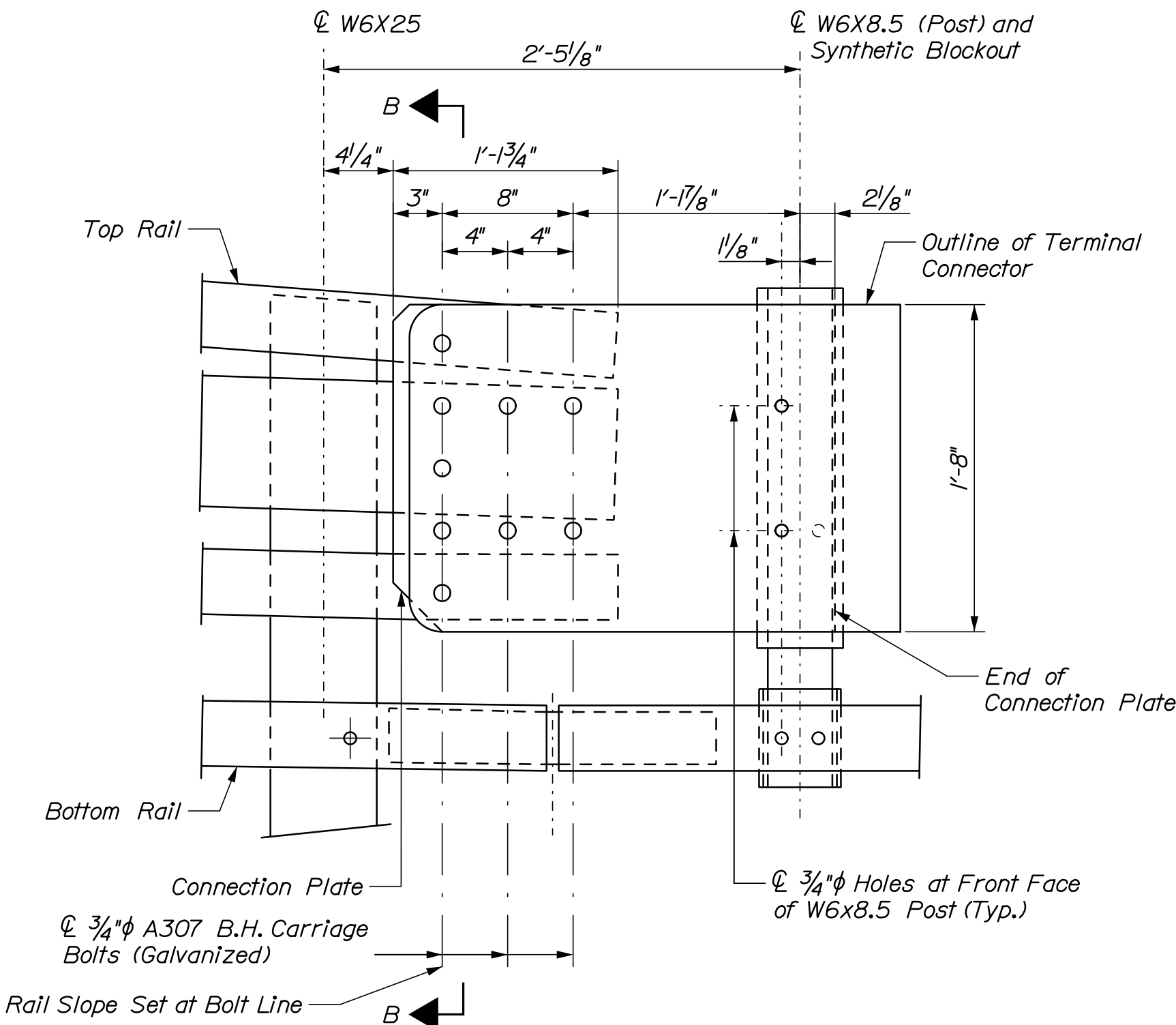
PLAN - STEEL APPROACH RAILING, 4 BAR



ELEVATION - STEEL APPROACH RAILING, 4 BAR

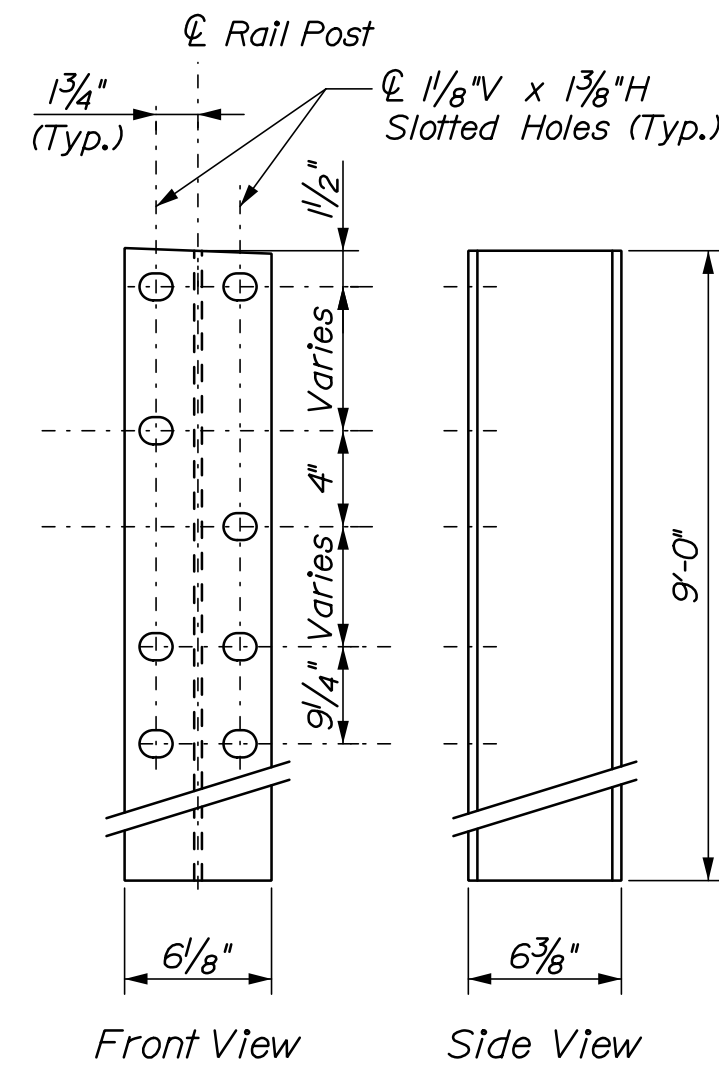


SECTION A-A (POST RAIL ASSEMBLY)



DETAIL A

(Overlapping of Double nested Thrie-Beam not Shown for Clarity)



RAIL POST (W6x25)

NOTES: STEEL BRIDGE RAILING, 4-BAR

1. Refer to Steel Bridge Railing and Steel Approach Railing, 3-Bar Standard Details for additional details, notes and materials specifications. For Section B-B, refer to Standard Detail 507(24).
2. Rail bar welds shall have a minimum penetration of 80% as demonstrated by a test weld performed by the fabricator.
3. The precast concrete vertical or transition curb shall meet the provisions of Section 609 - Curbing of the Standard Specifications. The bridge end of the curb shall be saw-cut in the field to fit flush against the backwall, as dictated by the bridge skew angle and the profile grade. Where curbing is specified on the adjacent highway, the transition shall be modified accordingly.
4. After installation of the guard rail is complete, upset the threads on the anchor bolts in three (3) places around each bolt, at the junction of the nut and the exposed thread, with a center punch or similar tool.
5. Weld splice bar to fit bend. Use complete joint penetration butt weld (B-U2).
6. Standard Bridge Transition may require longer posts to account for higher rail height. No additional payment will be made for this modification.

HNTB

PROJ. MANAGER	BY	DATE	SIGNATURE
DESIGN-DETAILED	P. Bishop	1/21	
CHECKED-REVIEWED	G. Standley	1/21	
DESIGN-DETAILED	L. Driscoll	1/21	
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

This figure is a detailed engineering plan for the right-of-way of State Highway "19" in Norway, Maine. The plan shows the proposed highway alignment, existing and proposed right-of-way lines, and various property boundaries. Key features include:

- Plan Legend:** Defines symbols for existing and proposed features, including roads, utilities, and structures.
- Scale:** A graphic scale bar indicates distances in feet (0 to 100).
- North Arrow:** Points towards the top of the page.
- Property Owners:** Labeled areas include Barbara Eliason, Philip L. Eliason, JASR5PA, LLC, Michael J.P. Cullinan, Sandra A. Cullinan, Michael J.P. Cullinan, and the Norway Landmarks Preservation Society.
- Highway Information:** The plan shows the intersection of State Highway "19" (Main Street) with Lake Road and Pleasant Street. The highway is labeled as "STATE HIGHWAY '19'" and "MAIN STREET ROUTES 117 & 118".
- Right-of-Way:** The plan shows the "RIGHT OF WAY" for the highway, with various easements and encroachments noted.
- Revisions:** A table at the bottom left lists revisions to the plan, including dates and descriptions.
- Plan Book:** A table at the bottom center lists the plan book information, including the plan number, date, and page.
- Notes:** Various notes are scattered throughout the plan, providing additional context and details.

The plan is titled "STATE OF MAINE DEPARTMENT OF TRANSPORTATION NORWAY RIGHT OF WAY MAP" and is identified as "SHEET 1 OF 1".