

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Designed by:



500 Southborough Dr.
Suite 105B
South Portland, ME 04106

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Eighth Edition 2017 with 2018 Interim Revisions.

TRAFFIC DATA

Current (2018) AADT	4800
Future (2038) AADT	5760
DHV - % of AADT	9%
Design Hour Volume	518
Heavy Trucks (% of AADT)	19%
Heavy Trucks (% of DHV)	13%
Directional Distribution (% of DHV)	51%
18 kip Equivalent P 2.0	969
18 kip Equivalent P 2.5	923
Design Speed (mph)	55

MATERIALS

Concrete:	
Curb & Barrier	Class "LP"
Deck Wearing Surface	Class "A"
All Other	Class "A"
Reinforcing Steel	ASTM A 615/A 615M, Grade 60

BASIC DESIGN STRESSES

Concrete Class "A"	f 'c = 4,000 psi
Concrete Class "LP"	f 'c = 5,000 psi
Reinforcing Steel	f y = 60,000 psi



BETHEL
OXFORD COUNTY
SUNDAY RIVER BRIDGE
OVER
SUNDAY RIVER
ROUTE 2, 5 & 26
FEDERAL AID PROJECT NO. 2365100
PROJECT LENGTH 0.06 mi.
BRIDGE NO. 2822

LIST OF DRAWINGS

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UTILITIES

CMP
Oxford
Firstlight

MAINTENANCE OF TRAFFIC

One lane of alternating vehicular traffic with temporary signals on each approach.

PROJECT LOCATION:

Sunday River Bridge (#2822) over Sunday River. Located 0.18 of a mile north of Martin Lane. Bridge coordinates of Latitude 44°27'21.4" N Longitude 70°48'17.5" W

PROGRAM AREA:

Bridge Program

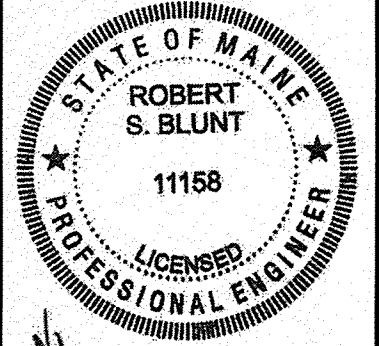
OUTLINE OF WORK:

Bridge Construction: Bridge rehabilitation and approach work.

WIN 23651.00

2365100

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
	COMMISSIONER: <i>[Signature]</i>	12-10-2020
	CHIEF ENGINEER: <i>[Signature]</i>	12-9-2020



<i>[Signature]</i>	SIGNATURE	P.E. NUMBER	DATE
	ROBERT S. BLUNT	11158	November 25, 2020

PROJECT INFORMATION	BRIDGE
PROGRAM	JASON STETSON
PROJECT MANAGER	ROBERT S. BLUNT
DESIGNER	VHB
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

BETHEL SUNDAY RIVER BRIDGE	TITLE SHEET
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SHEET NUMBER
1
OF 16

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.12	Removing Existing Structural Concrete	24	CY
202.202	Removing Pavement Surface	220	SY
203.20	Common Excavation	170	CY
304.10	Aggregate Subbase Course-Gravel	85	CY
403.2081	Hot Mix Asphalt - 12.5 mm Nominal Maximum Size (Polymer Modified)	46	TON
403.2131	Hot Mix Asphalt - 12.5 mm Nominal Maximum Size (Base and Intermediate Base course, Polymer Modified)	130	TON
409.15	Bituminous Tack Coat, Applied	72	GAL
502.21	Structural Concrete, Abutments and Retaining Walls	5	CY
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges	(17 CY)	LS
502.291	Saw Cut Grooving	(5170 SF)	LS
502.49	Structural Concrete Curbs and Sidewalks	(2 CY)	LS
502.71	Bridge Drain Extensions	10	EA
503.12	Reinforcing Steel, Fabricated and Delivered	5,550	LB
503.13	Reinforcing Steel, Placing	5,550	LB
503.17	Mechanical/Welded Splice	66	EA
508.13	Sheet Waterproofing Membrane	(18 SY)	LS
515.21	Protective Coating for Concrete Surfaces	(860 SY)	LS
518.51	Repair of Upward Facing Surfaces - below Reinforcing Steel < 8 inches	100	SF
518.60	Repair of Vertical Surfaces < 8 inches	25	SF
518.80	Crack Repair	90	LF
519.60	Expansion Device - Asphaltic Plug Joint	78	LF
520.233	Expansion Device - Silicone Coated Precompressed Foam	18	LF
524.301	Temporary Structural Support - Roadway	1	LS
526.301	Temporary Concrete Barrier, Type I	(400 LF)	LS
526.34	Permanent Concrete Transition Barrier	4	EA
527.34	Work Zone Crash Cushions	2	UNIT
606.63	Thrie Beam Rail Beam	87.5	LF
627.733	4" White or Yellow Painted Pavement Marking Line	2,300	LF
627.75	White or Yellow Pavement & Curb Marking	120	SF
627.77	Remove Existing Pavement Marking	500	SF
627.78	Temporary 4" Painted Pavement Marking Line, White or Yellow	2,700	LF
629.05	Hand Labor, Straight Time	10	HR
631.12	All Purpose Excavator (including operator)	10	HR
631.172	Truck-large (including operator)	10	HR
639.19	Field Office, Type B	0.5	EA
643.72	Temporary Traffic Signal: Sunday River Bridge	1	LS
652.312	Type III Barricades	4	EA
652.33	Drum	50	EA
652.34	Cone	50	EA
652.35	Construction Signs	225	SF
652.361	Maintenance of Traffic Control Devices	1	LS
652.38	Flaggers	240	HR
656.75	Temporary Soil Erosion and Water Pollution Control	1	LS
659.10	Mobilization	1	LS

GENERAL CONSTRUCTION NOTES

1. Dimensions and details shown in these plans have been obtained from limited field measurements and may not accurately reflect actual field conditions. Accordingly, the Contractor shall take field measurements of all existing components impacted by the proposed work to ensure consistency with the proposed work. Any discrepancies in dimensions, character or extent of the existing features that affect the proposed work shall be brought to the attention of the Resident before advancing the work.
2. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
3. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.
4. Protective Coating for Concrete Surfaces shall be applied to the following:
All exposed surfaces of the concrete curbs and transition barrier
Bridge deck fascia down to the drip notch
Concrete wearing surfaces
Exposed faces of the abutments and wingwalls and to one foot below the top of wingwalls on the back side.

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

6. 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.

7. 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.

8. Any disturbance or damage to existing ground and slopes beyond what is shown in these plans shall be repaired to the preconstruction condition as directed by the Resident at no cost to the Department.

9. All aluminum bridge rail, rail posts and associated hardware which are required to be removed shall be carefully salvaged by the Contractor and remain the property of the Department. Payment shall be incidental to related Contract Items.

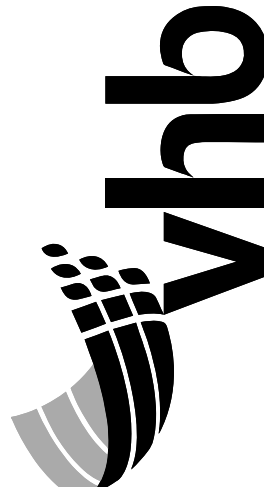
10. There is an existing utility conduit mounted to the west fascia of the bridge that continues through the backwalls and into the approach section at each end. See Special Provision Section 104 for additional information.

11. 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 contract items.
- STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365100

WIN
23651.00

BRIDGE NO. 2822
BRIDGE PLANS



PROJ. MANAGER	JASON STETSON	BY	DATE
DESIGN-DETAILED	WEB	DPD	11/25/20
CHECKED-REVIEWED	GME	RSB	11/25/20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SUNDAY RIVER BRIDGE
OVER SUNDAY RIVER

BETHEL ME

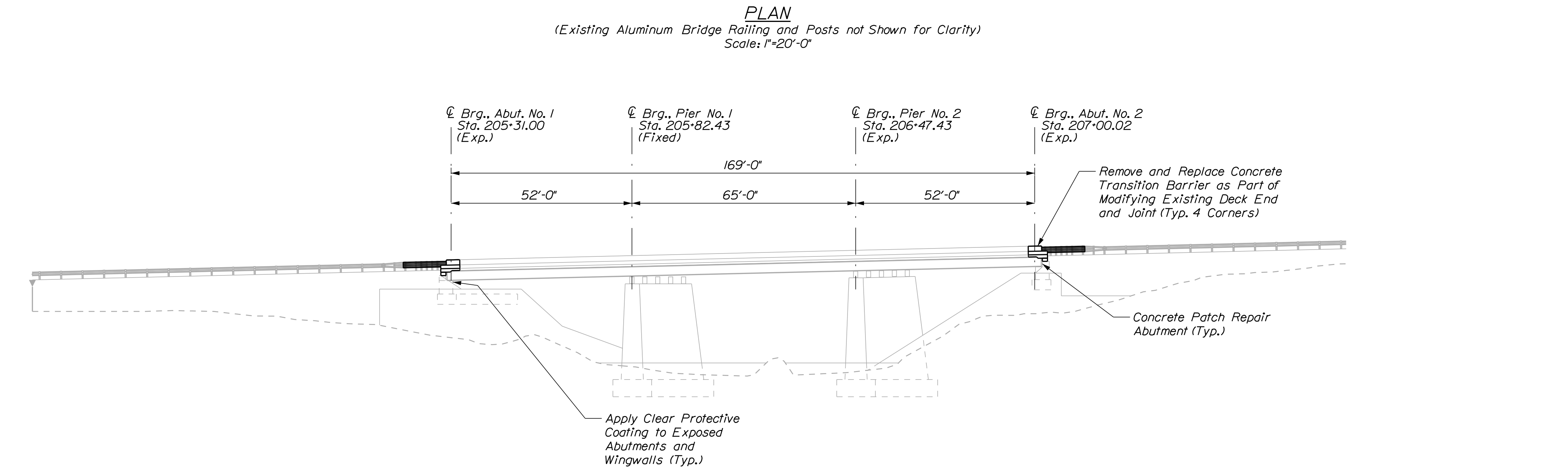
OXFORD COUNTY

ESTIMATED QUANTITIES AND
NOTES

SHEET NUMBER

2

OF 16

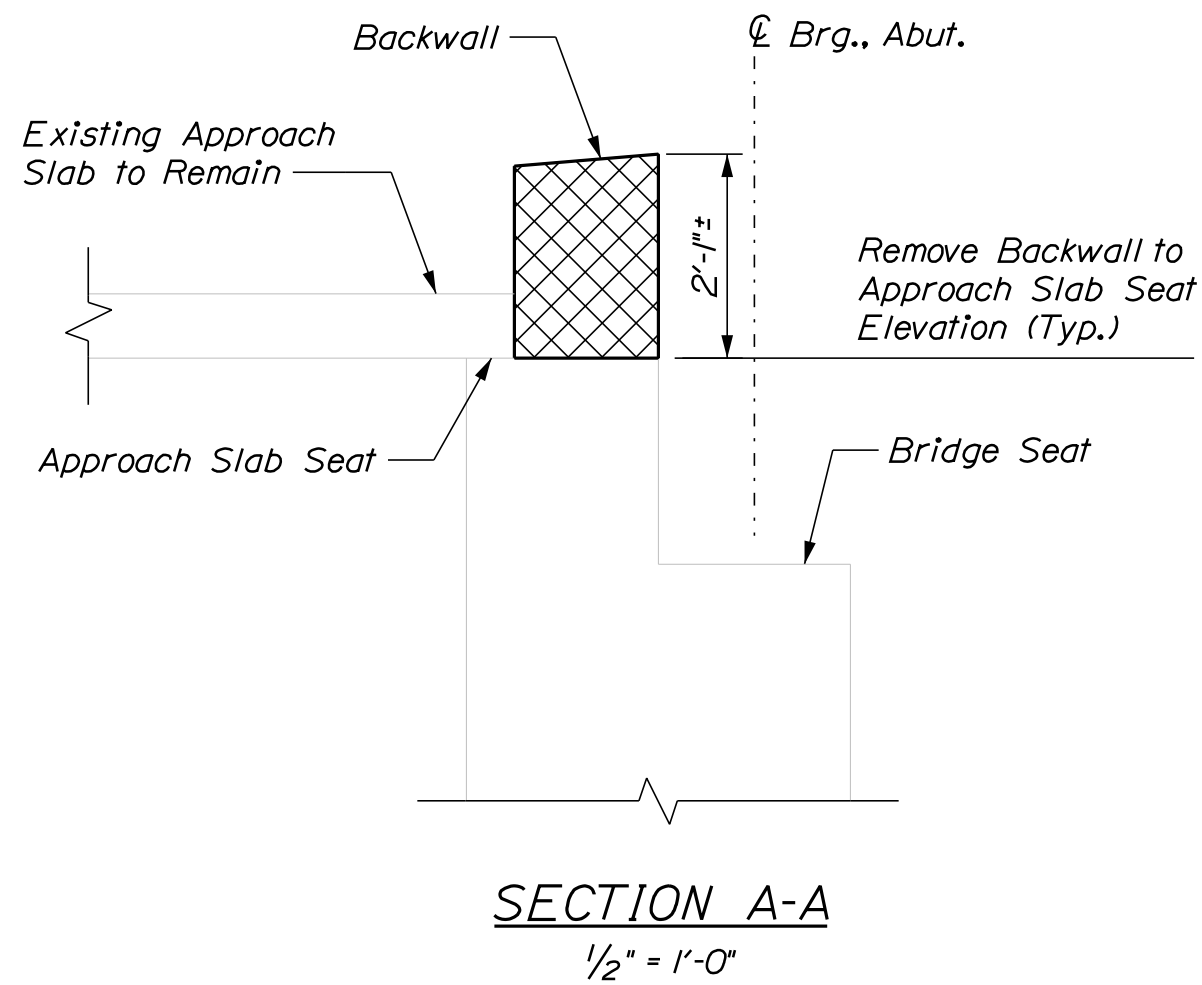
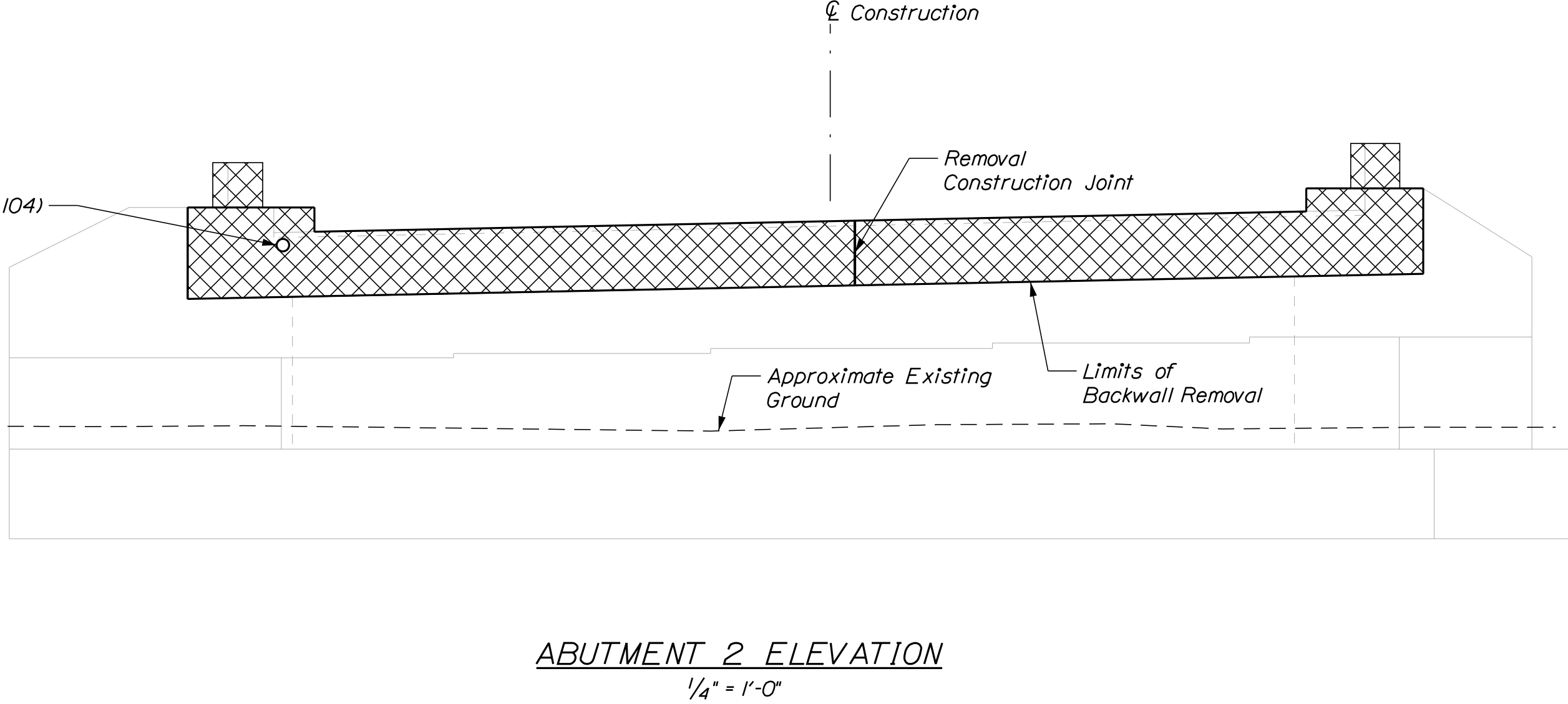
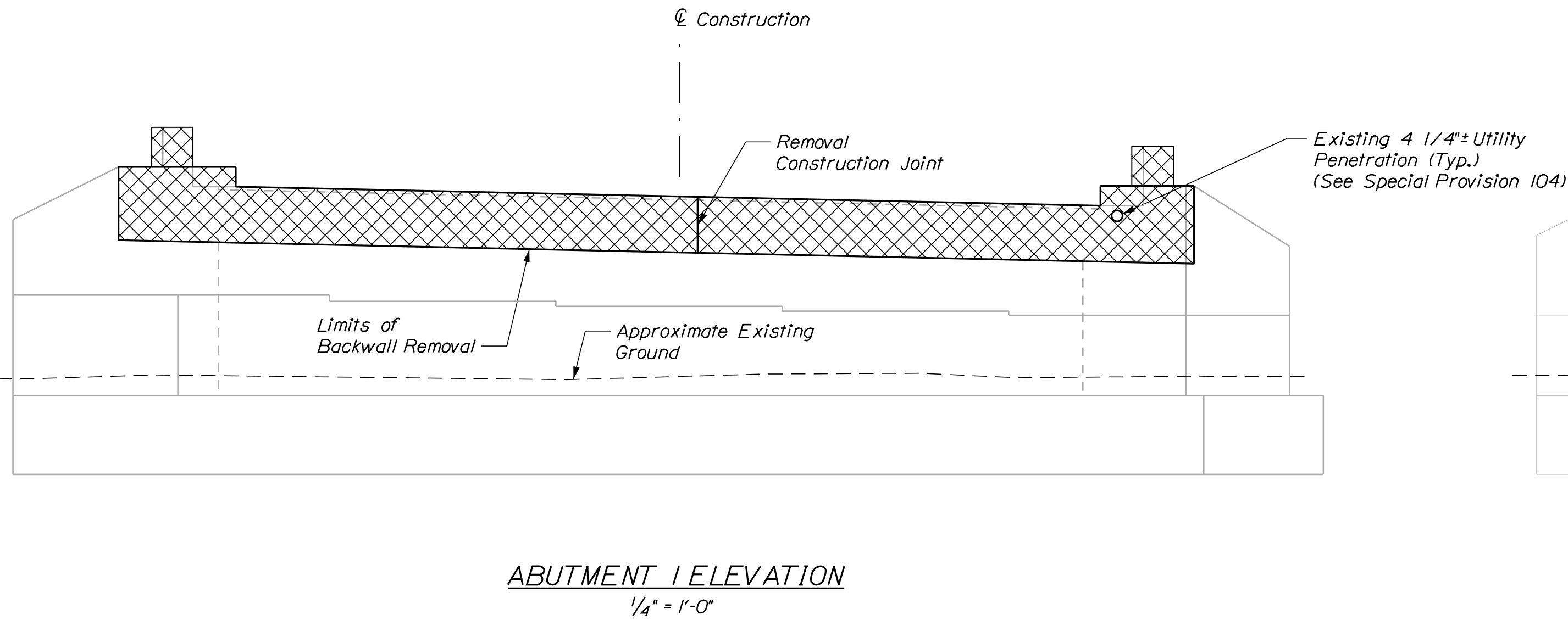
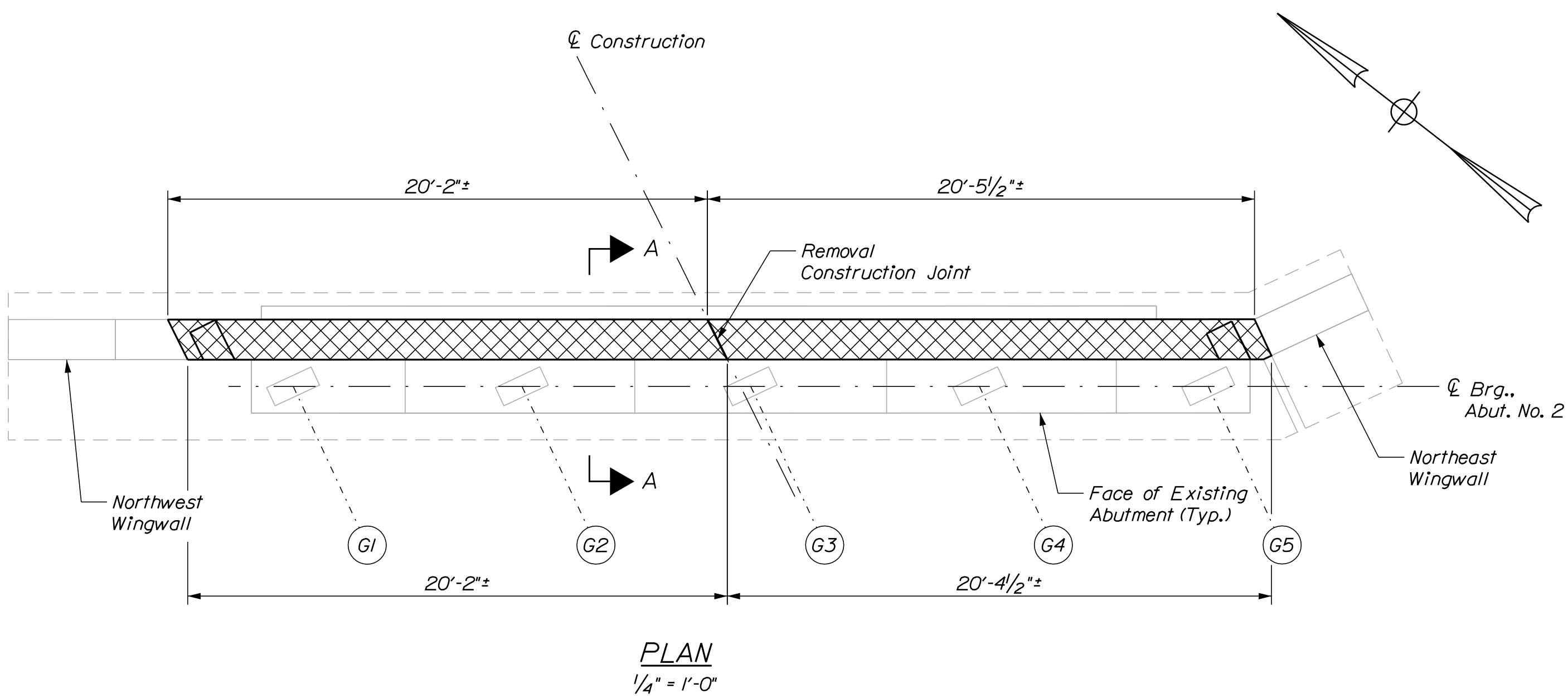
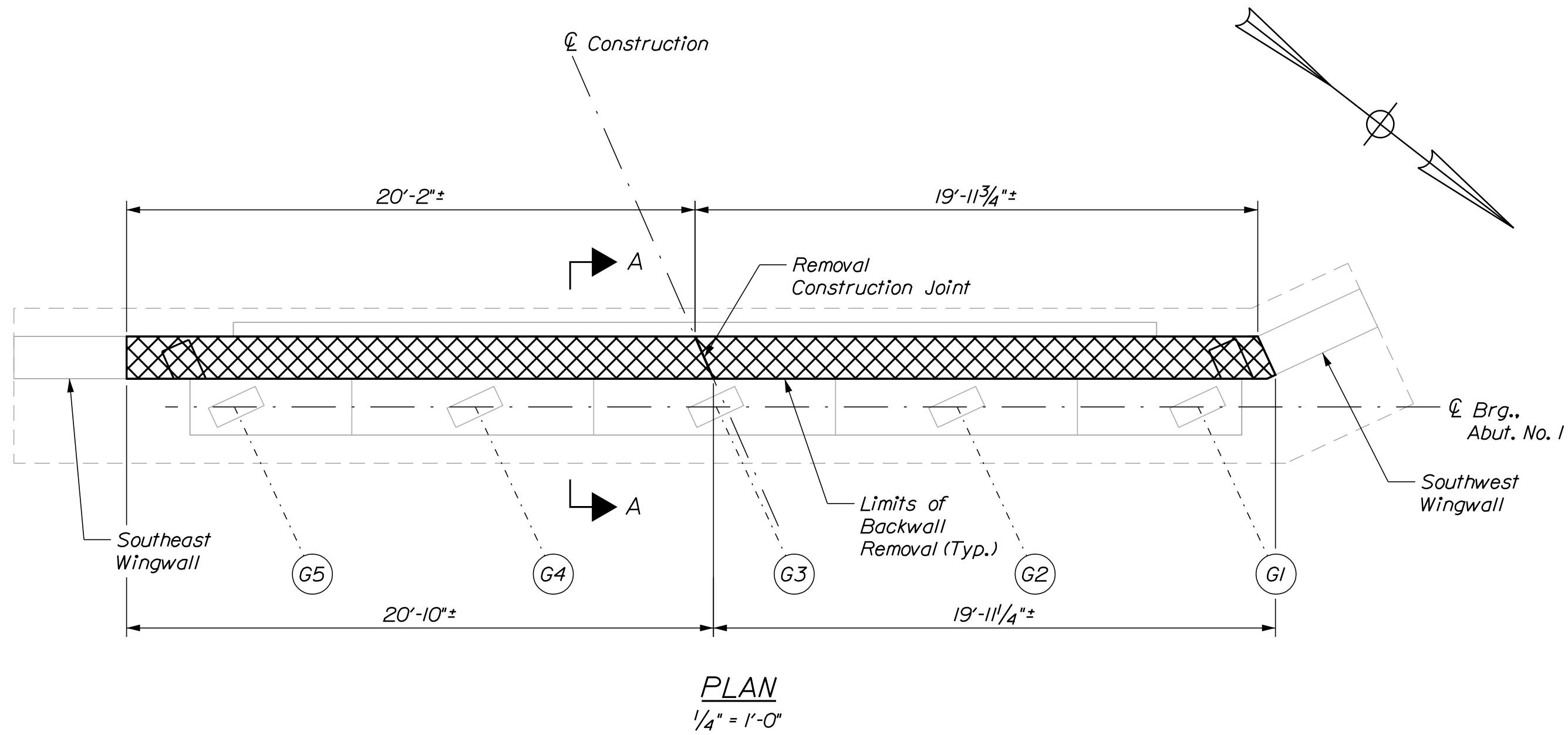


Date:11/25/2020

Username: kwentworth

Division: HIGHWAY

Filename: 004_Abut_Rem.dgn



KEY

= Concrete Removal

NOTE

1. 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.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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BRIDGE NO. 2822

BRIDGE PLANS

PROJ. MANAGER	JASON	STETSON	DATE
DESIGN-DETAILED	WEB	11/25/20	
CHECKED-REVIEWED	GME	11/25/20	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS	1		
REVISIONS	2		
REVISIONS	3		
REVISIONS	4		
FIELD	CHANGES		

SUNDAY RIVER BRIDGE
OVER SUNDAY RIVER

BETHEL ME

OXFORD COUNTY

ABUTMENT REMOVAL DETAILS

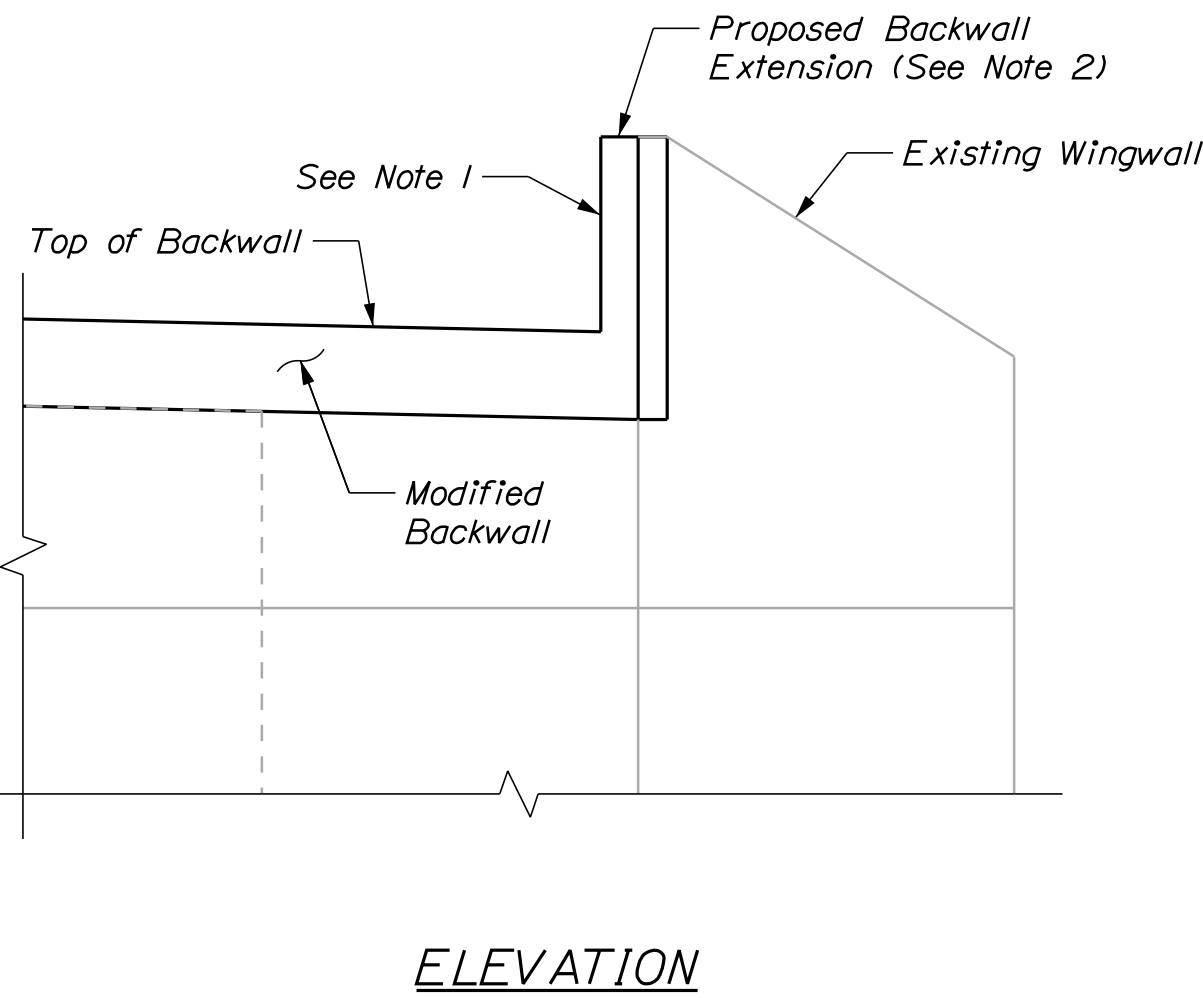
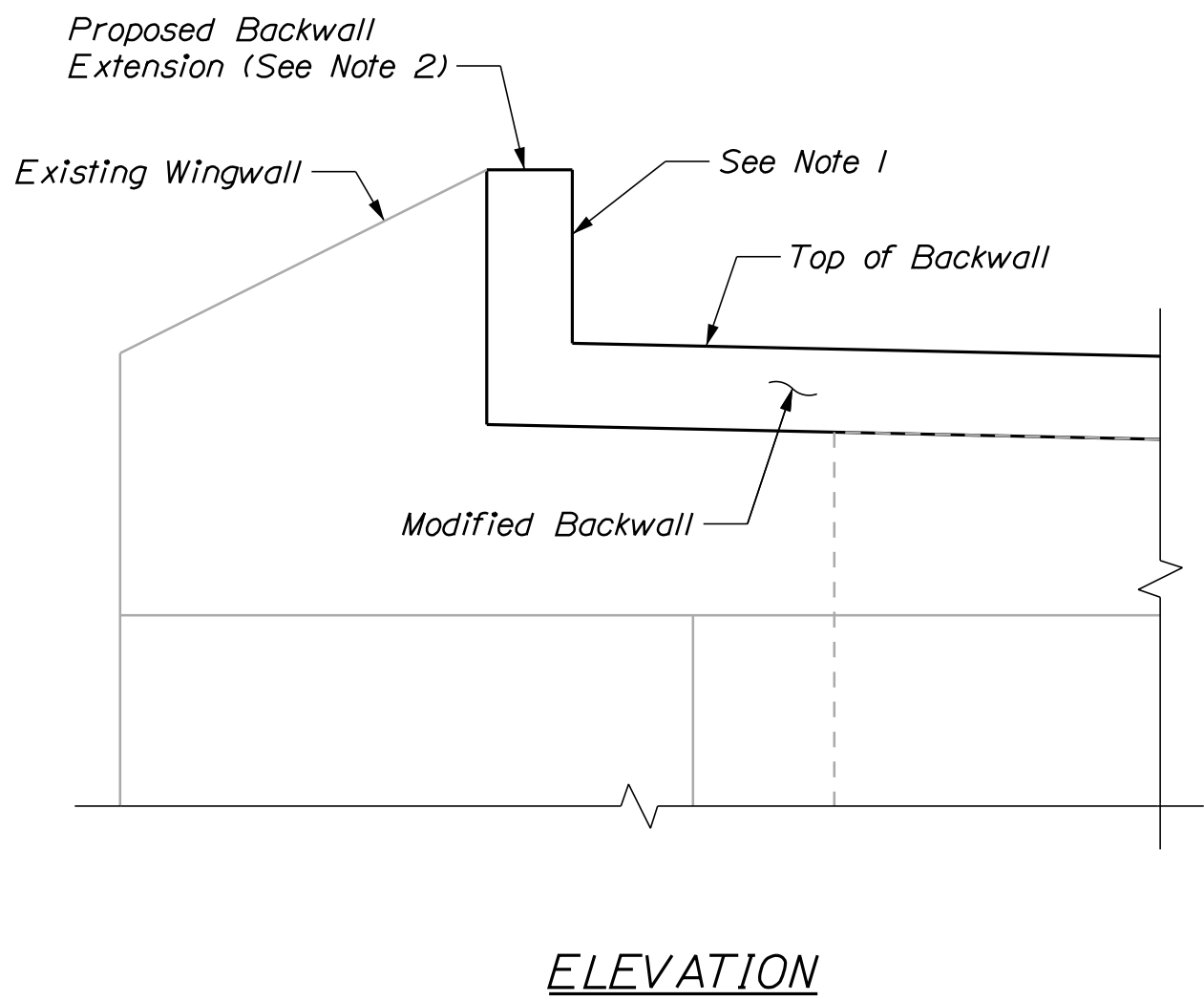
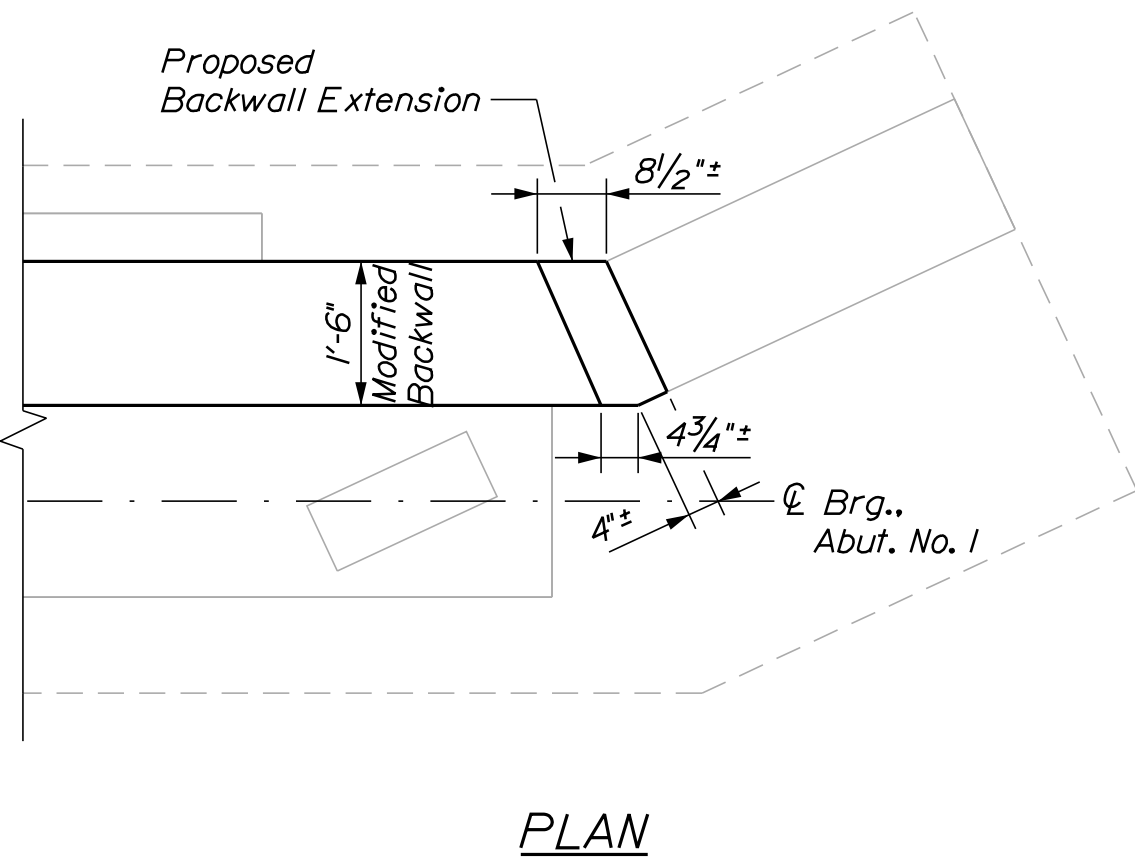
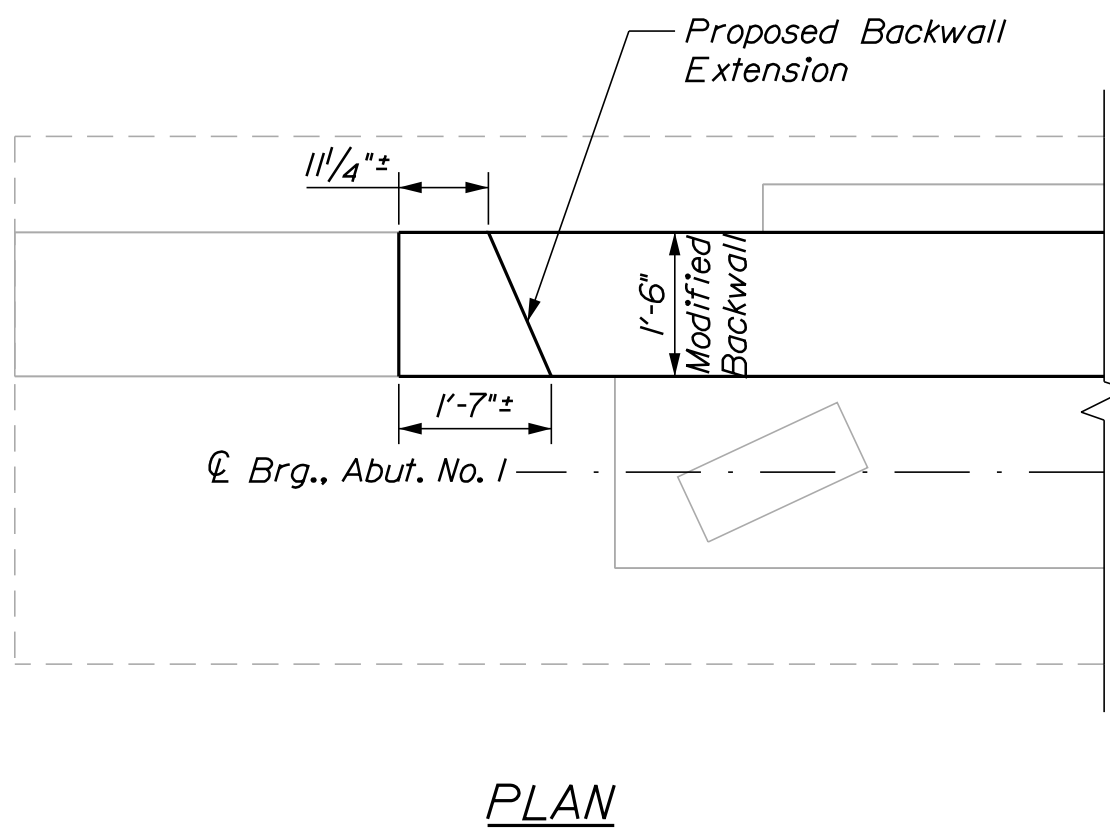
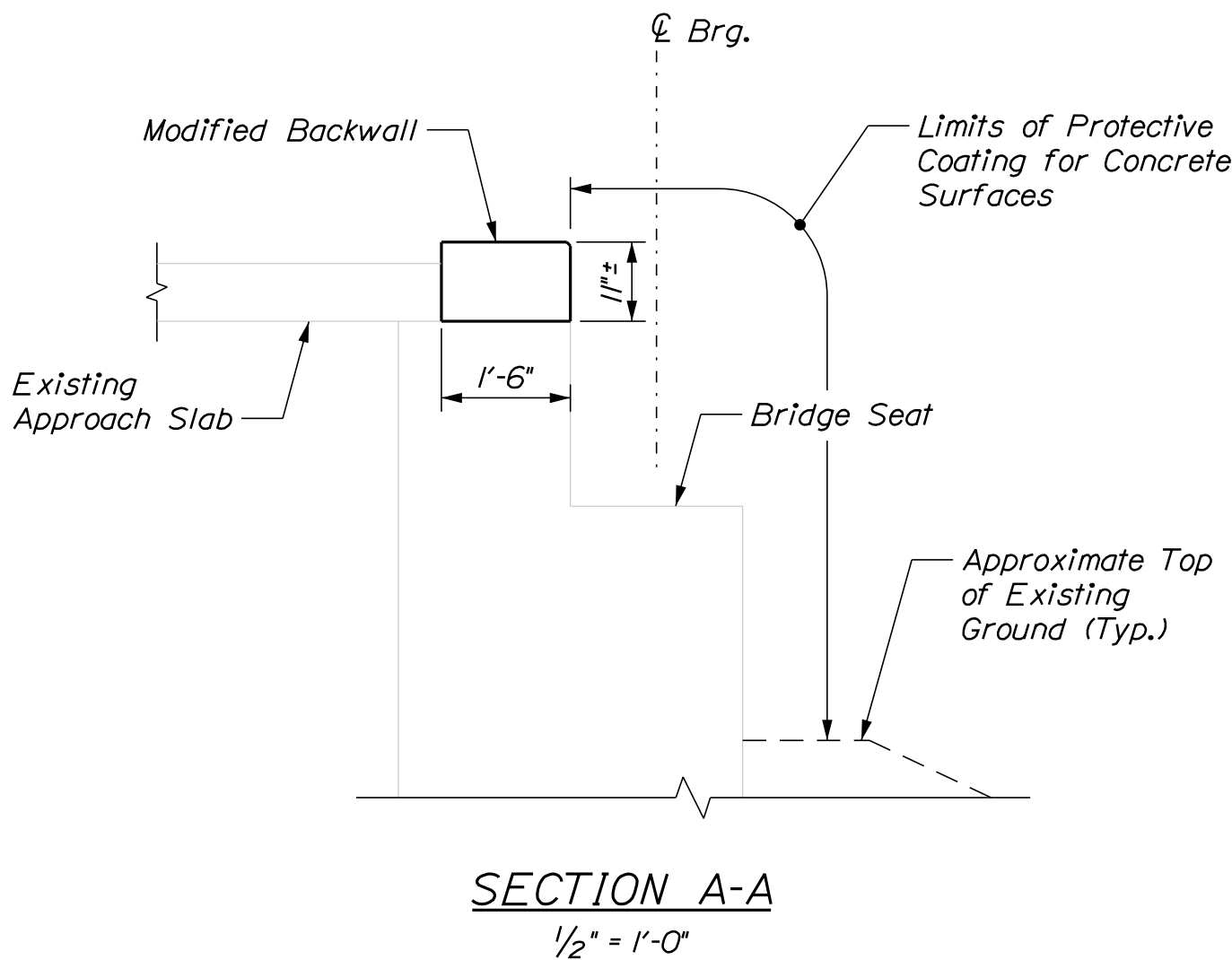
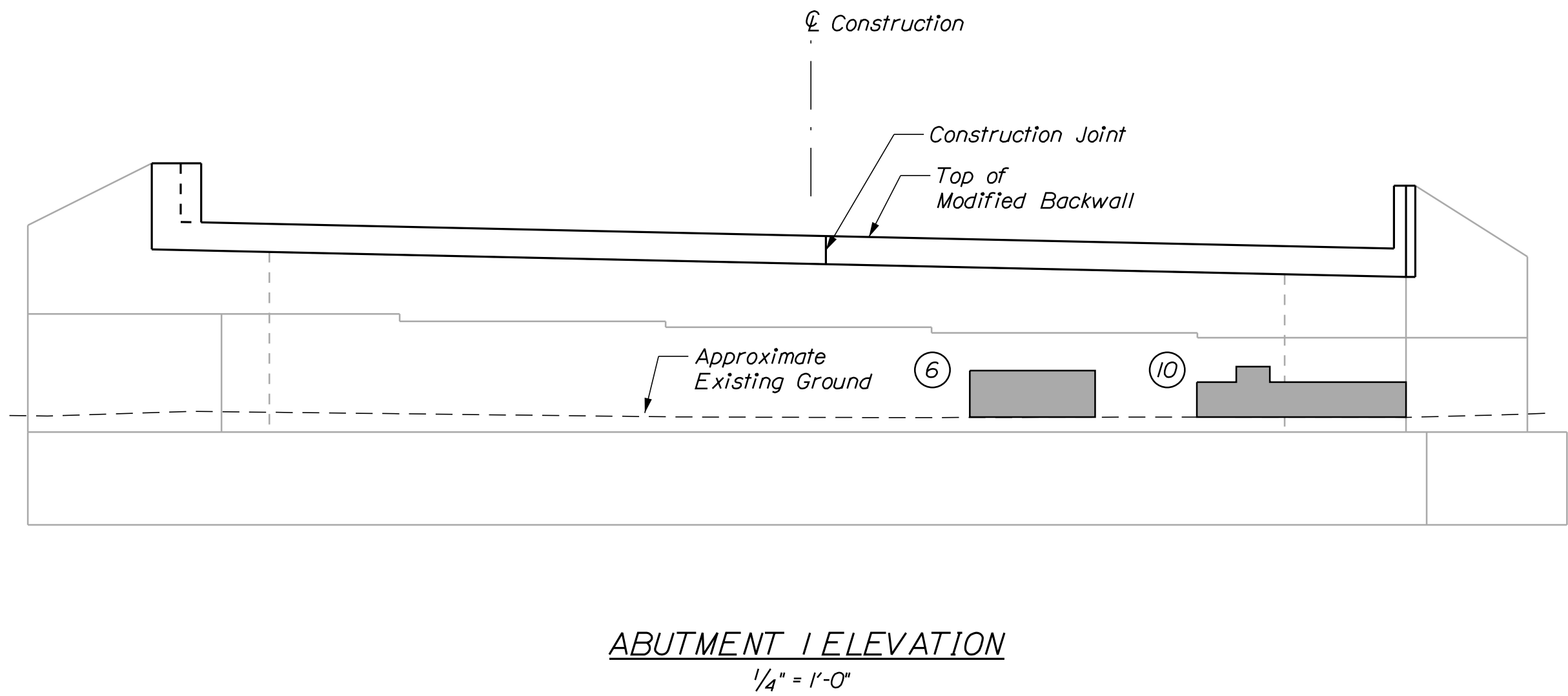
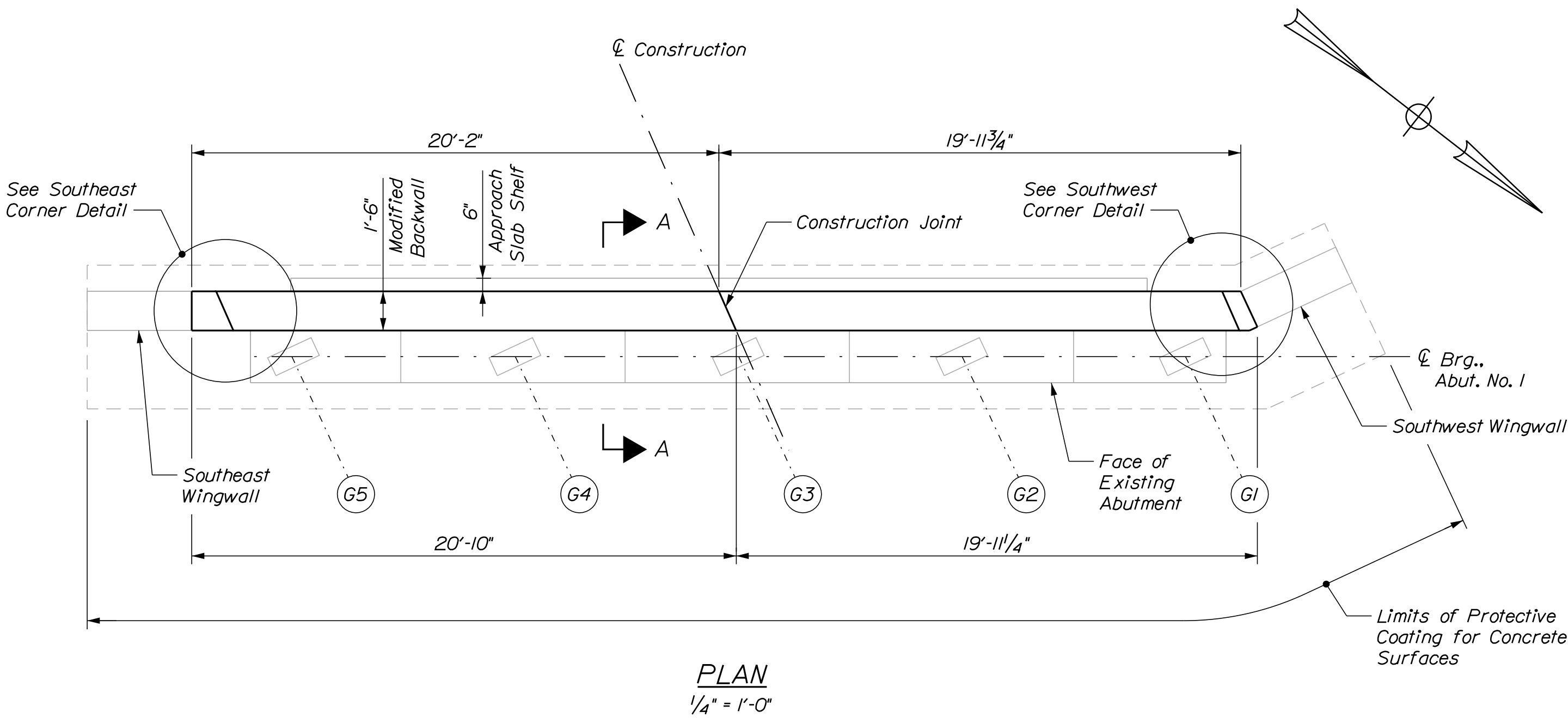
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4
OF 16

Date:11/25/2020

Username: kwentworth

Division: HIGHWAY

Filename: 005_Abut1_Repairs.dgn



NOTES

1. Construct Inside Face of Backwall Extension to Leave 1" Gap Between Proposed Bridge Fascia and Face of Backwall Extension. Seal 1" Gap with Expansion Device - Silicone Coated and Pre-Compressed Foam.
2. Top of Proposed Backwall Extension elevation shall match existing top of wingwall elevation.

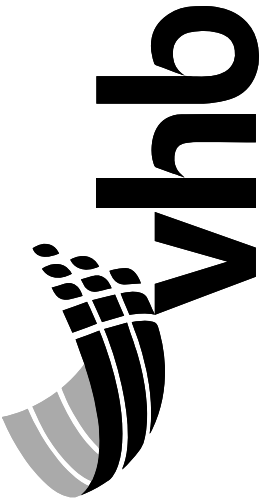
ESTIMATED REPAIR QUANTITIES (SF)

Abutment Surface Patch Repairs 20

KEY

- Approximate Areas of Expected Repair of Vertical Surfaces
- Square Foot Area of Repair

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
2365100	
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23651.00	
BRIDGE NO. 2822	
BRIDGE PLANS	



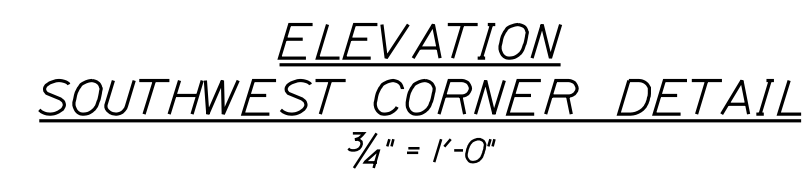
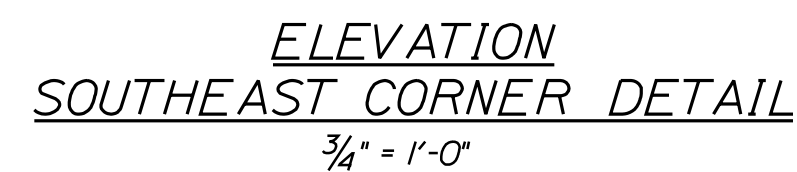
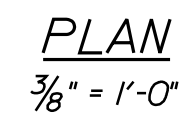
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CHECKED-REVIEWED	GME		RSB	11/25/20
DESIGN-DETAILED	2			
DESIGN-DETAILED	3			
DESIGN-DETAILED	4			
DESIGN-DETAILED	5			
DESIGN-DETAILED	6			
DESIGN-DETAILED	7			
DESIGN-DETAILED	8			
DESIGN-DETAILED	9			
DESIGN-DETAILED	10			
DESIGN-DETAILED	11			
DESIGN-DETAILED	12			
DESIGN-DETAILED	13			
DESIGN-DETAILED	14			
DESIGN-DETAILED	15			
DESIGN-DETAILED	16			
DESIGN-DETAILED	17			
DESIGN-DETAILED	18			
DESIGN-DETAILED	19			
DESIGN-DETAILED	20			

SUNDAY RIVER BRIDGE	OXFORD COUNTY
OVER SUNDAY RIVER	
BETHEL ME	
ABUTMENT NO. 1	
REPAIRS AND MODIFICATIONS	

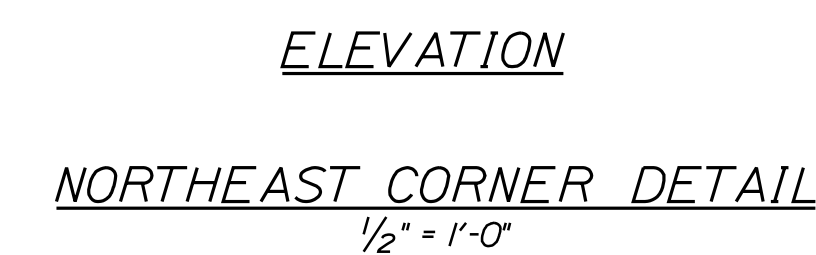
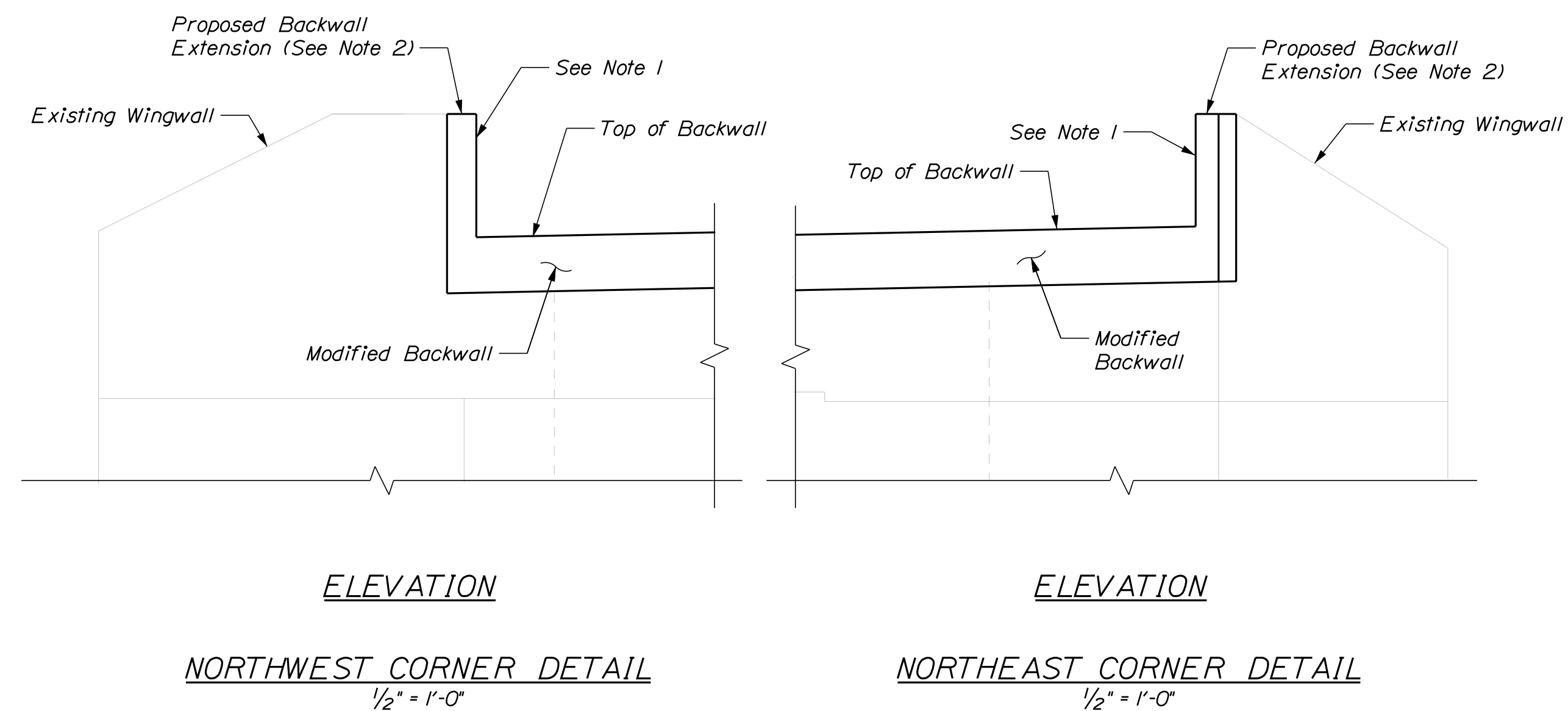
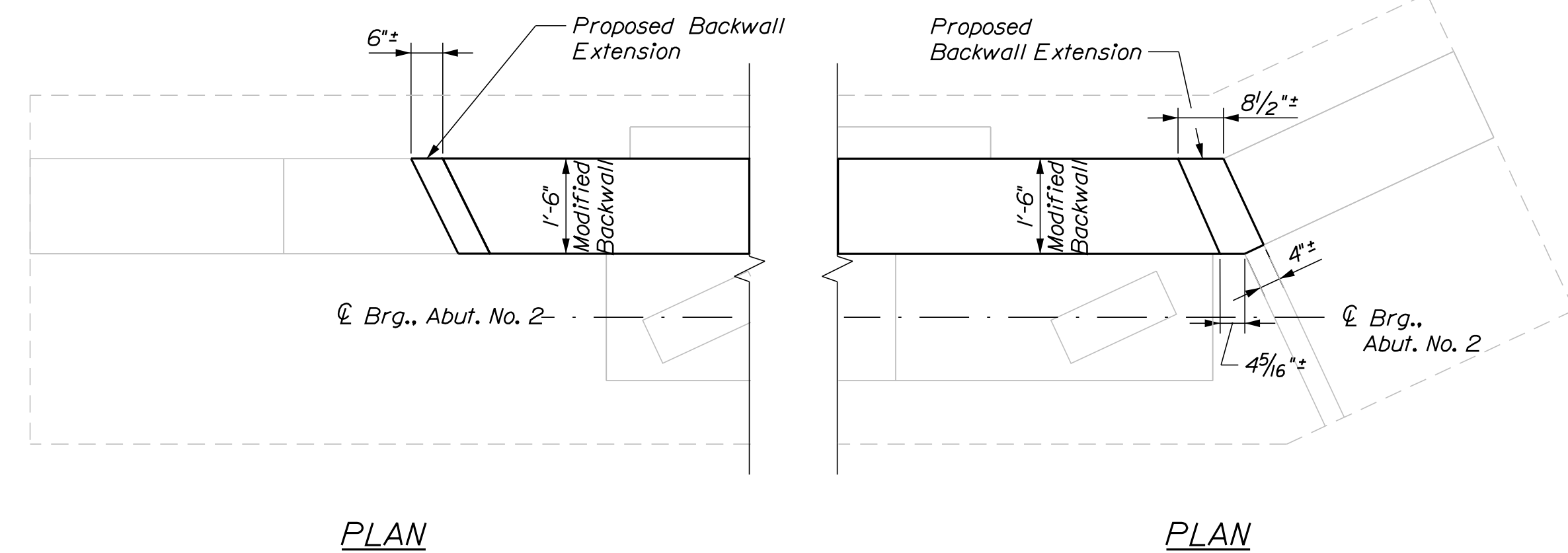
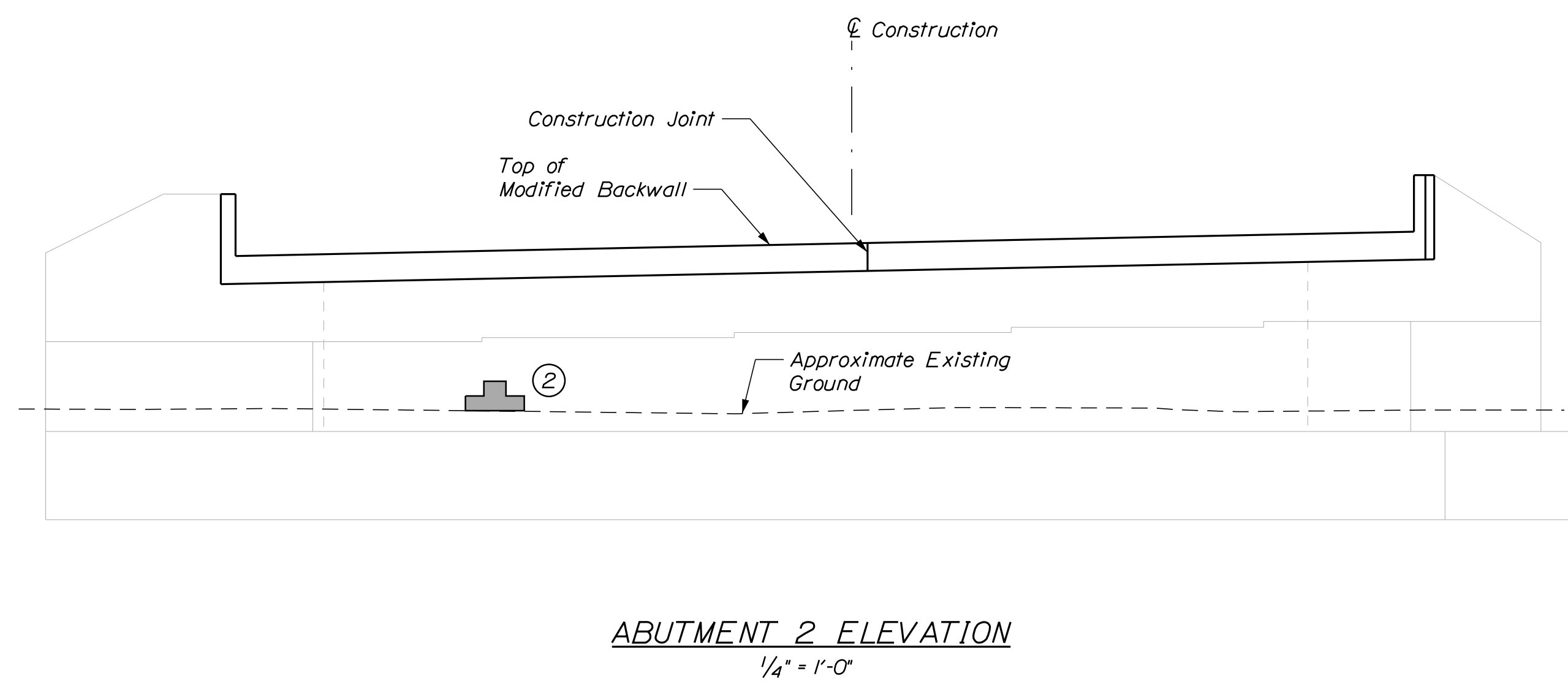
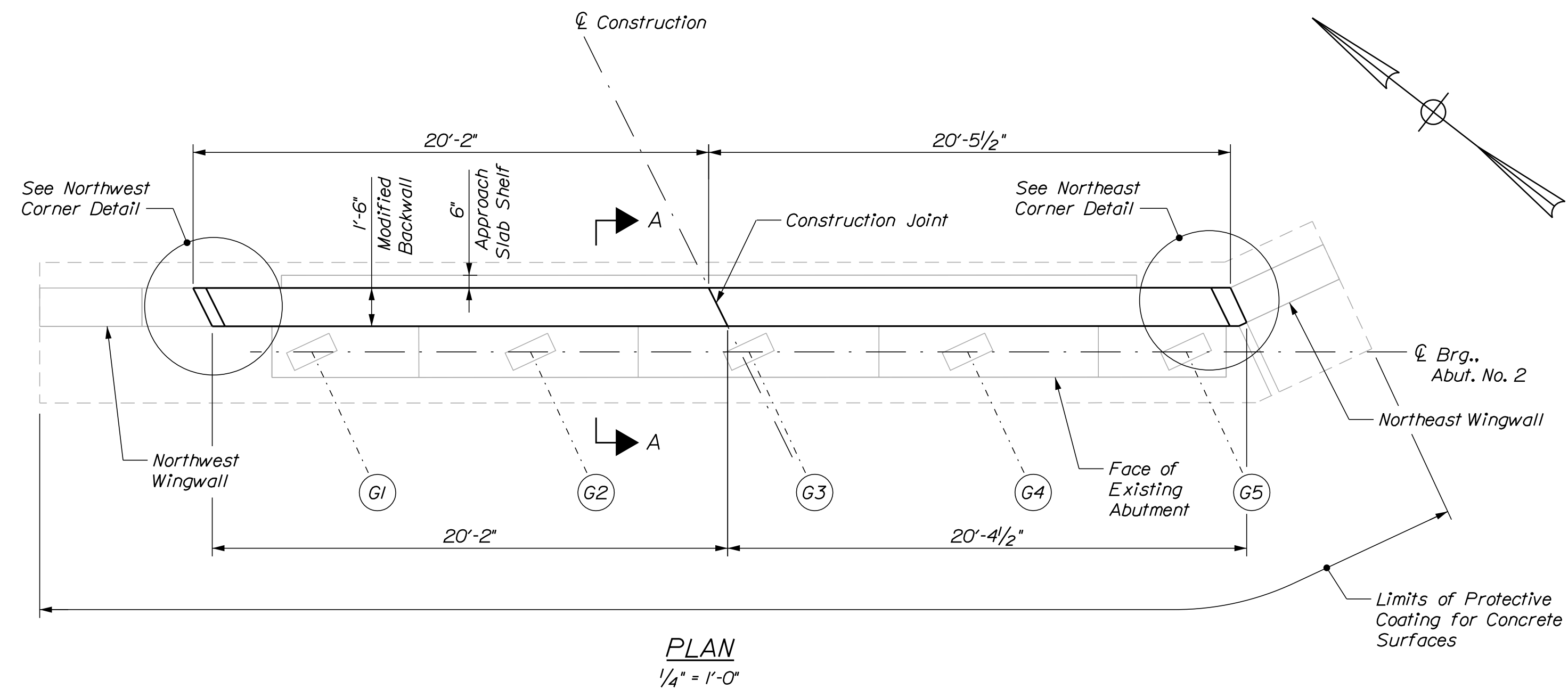
SHEET NUMBER

5

OF 16



N.F. = Near Face
F.F. = Far Face
E.F. = Each Face
▲ = Cut in Field



NOTES

1. Construct Inside Face of Backwall Extension to Leave 1" Gap Between Proposed Bridge Fascia and Face of Backwall Extension. Seal 1" Gap with Expansion Device - Silicone Coated and Pre-Compressed Foam.

2. Top of Proposed Backwall Extension elevation shall match existing top of wingwall elevation.

ESTIMATED REPAIR QUANTITIES (SF)

Abutment Surface Patch Repairs

5

KEY

 Approximate Areas of Expected Repair of Vertical Surfaces

(#) *Square Foot Area of Repair*



PROJ. MANAGER	JASON	STETSON	BY	DATE
DESIGN-DETAILED	WEB		DPD	11/25/20
CHECKED-REVIEWED	CME		RSB	11/25/20
DESIGN2-DETAILED				
DESIGN3-DETAILED				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

SUNDAY RIVER BRIDGE OVER SUNDAY RIVER	OXFORD COUNTY
BETHEL ME	
ABUTMENT NO. 2	
REPAIRS AND MODIFICATIONS	

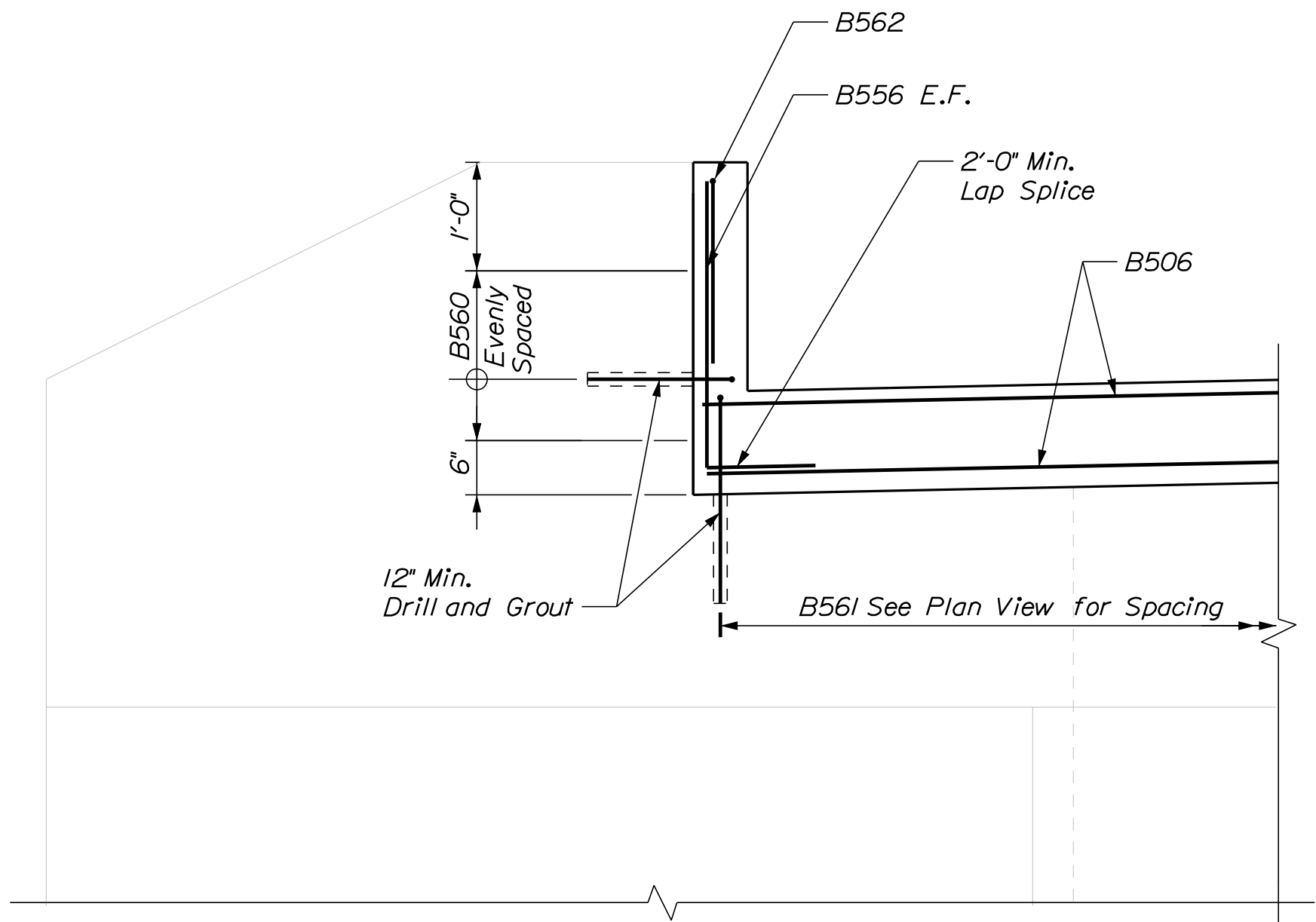
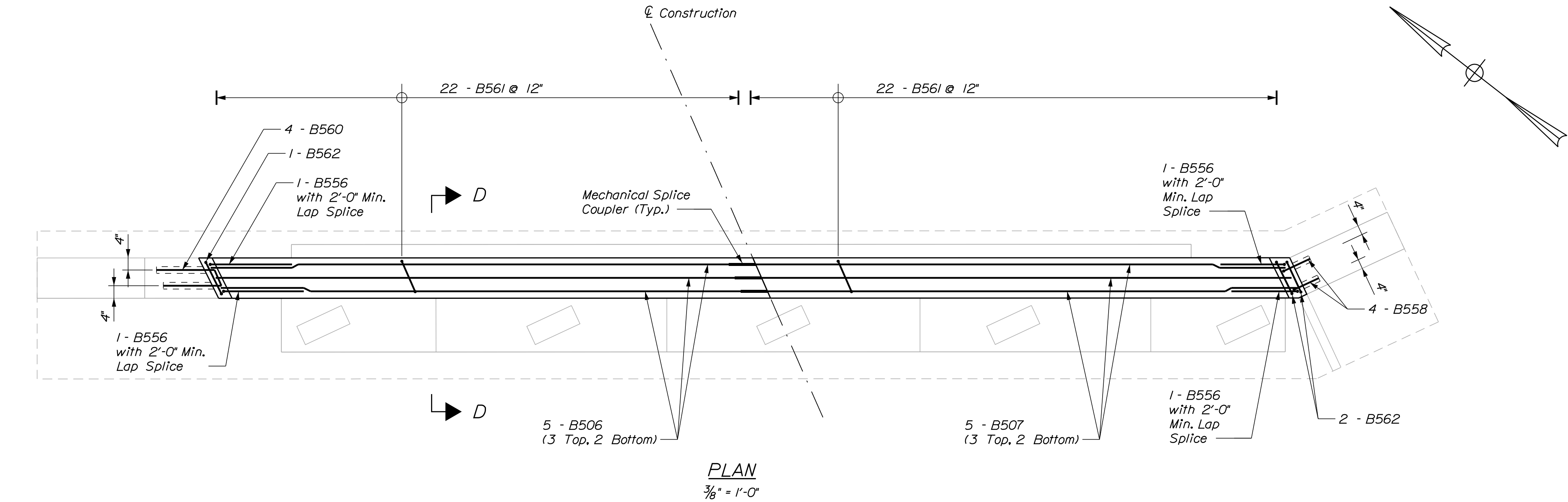
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Date:11/25/2020

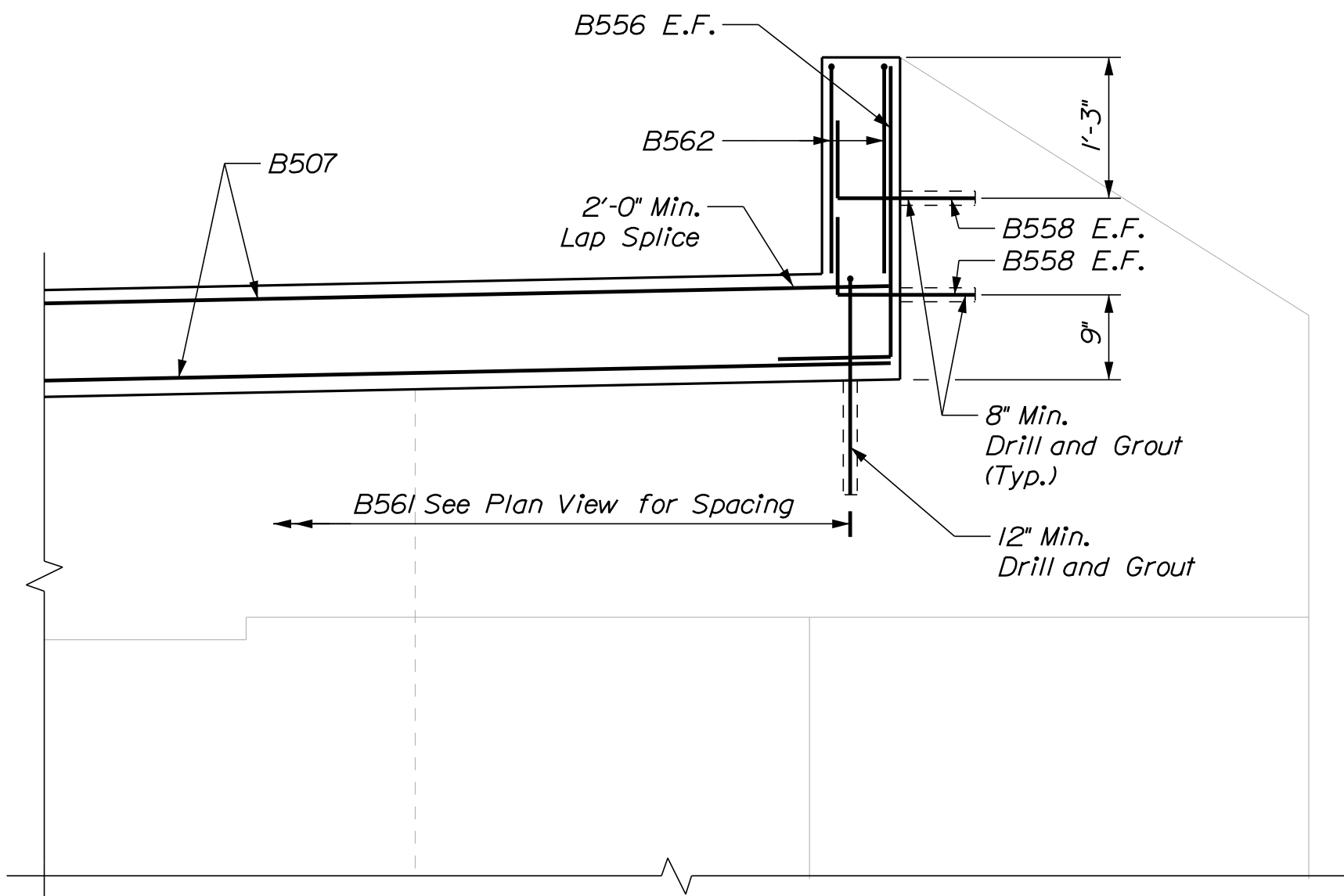
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Division: HIGHWAY

Filename: 008_Abut2_Reinf_1.dgn



ELEVATION
 NORTHWEST CORNER DETAIL
 3/4" = 1'-0"



ELEVATION
 NORTHEAST CORNER DETAIL
 3/4" = 1'-0"

NOTES:

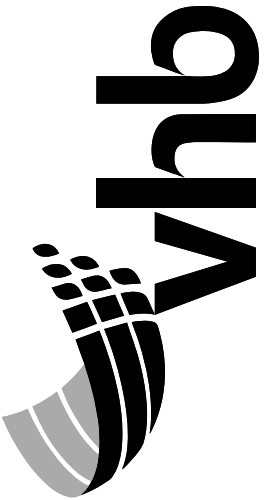
1. B506 shall be the female connector and B507 shall be the male connector.
2. At the Contractor's option, the dowel bar splice may be separated from bars B506 and B507 and lapped to those bars. The lap length shall be 2'-0" minimum.
3. Reinforcing steel shall have 2-inches of clear cover unless otherwise noted.

SHEET NOTE

1. See Deck Repairs and Modifications (2 of 2) Sheet for Section D-D.

REINFORCING KEY

N.F. = Near Face
 F.F. = Far Face
 E.F. = Each Face
 ▲ = Cut in Field



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

2365100

BRIDGE NO. 2822
 WIN
 23651.00
 BRIDGE PLANS

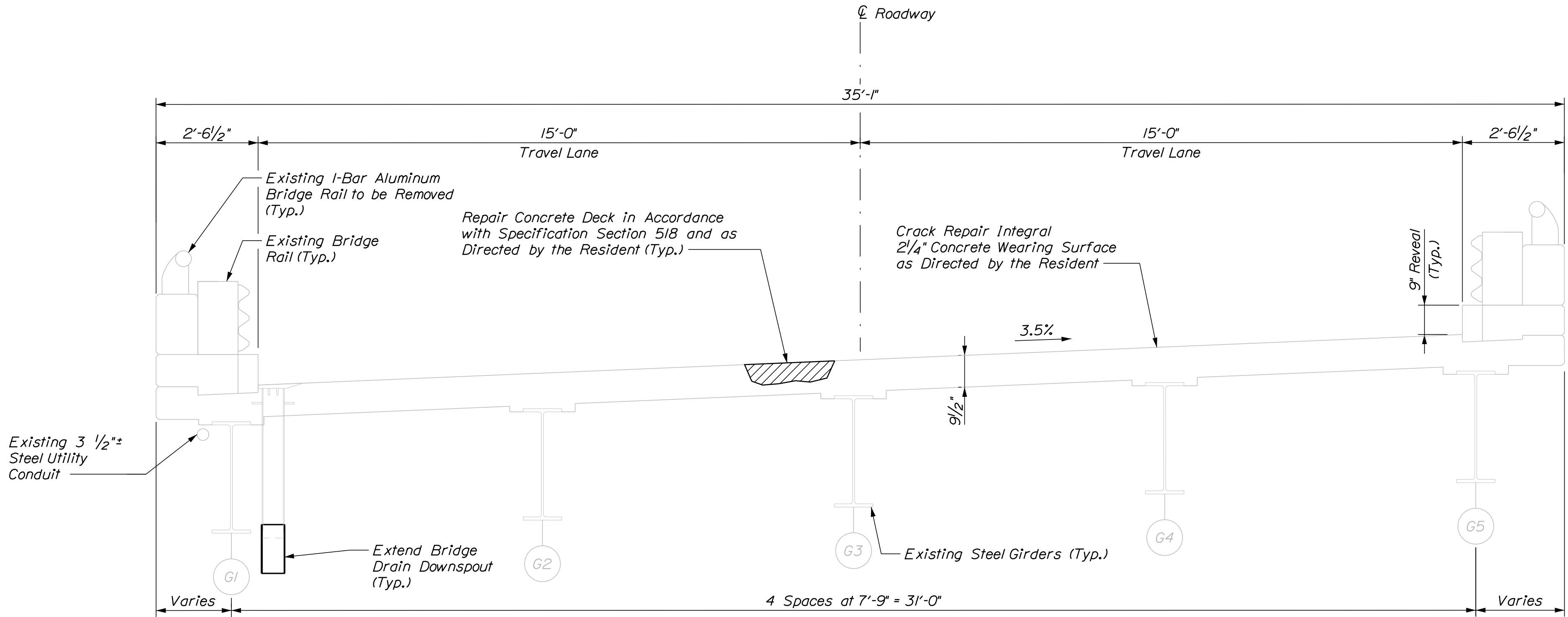
SUNDAY RIVER BRIDGE
 OVER SUNDAY RIVER
 OXFORD COUNTY

ABUTMENT NO. 2
 REINFORCING

SHEET NUMBER

8

OF 16



TYPICAL SECTION

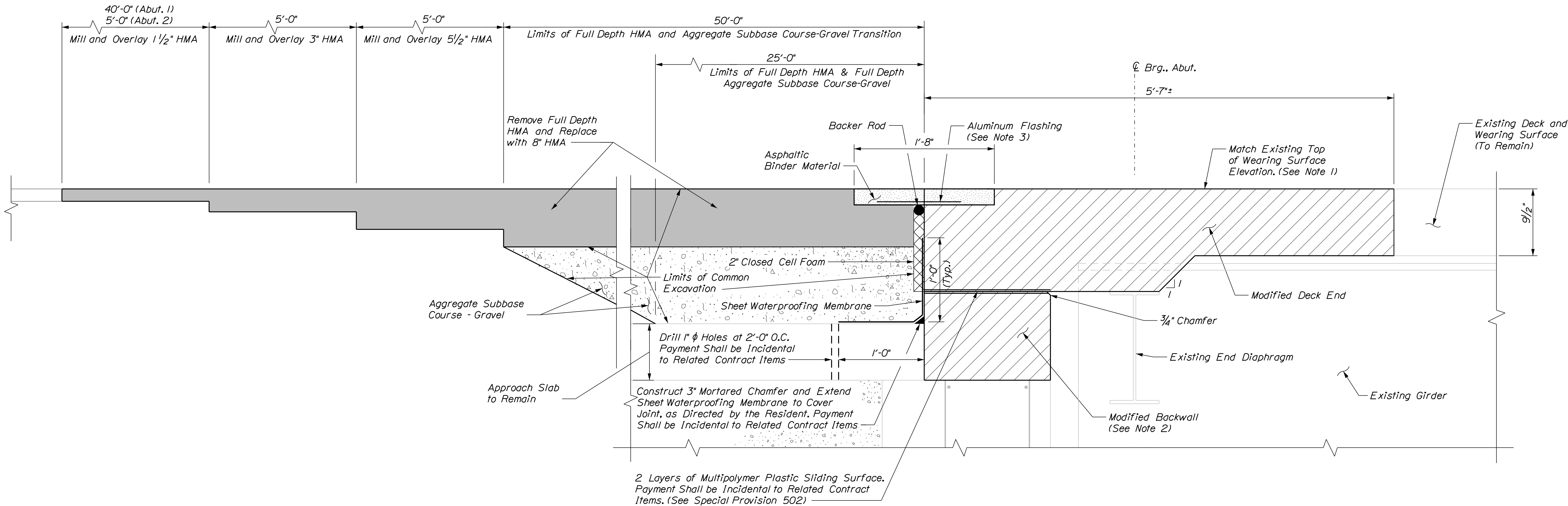
Scale: 1/2" = 1'-0"

NOTES

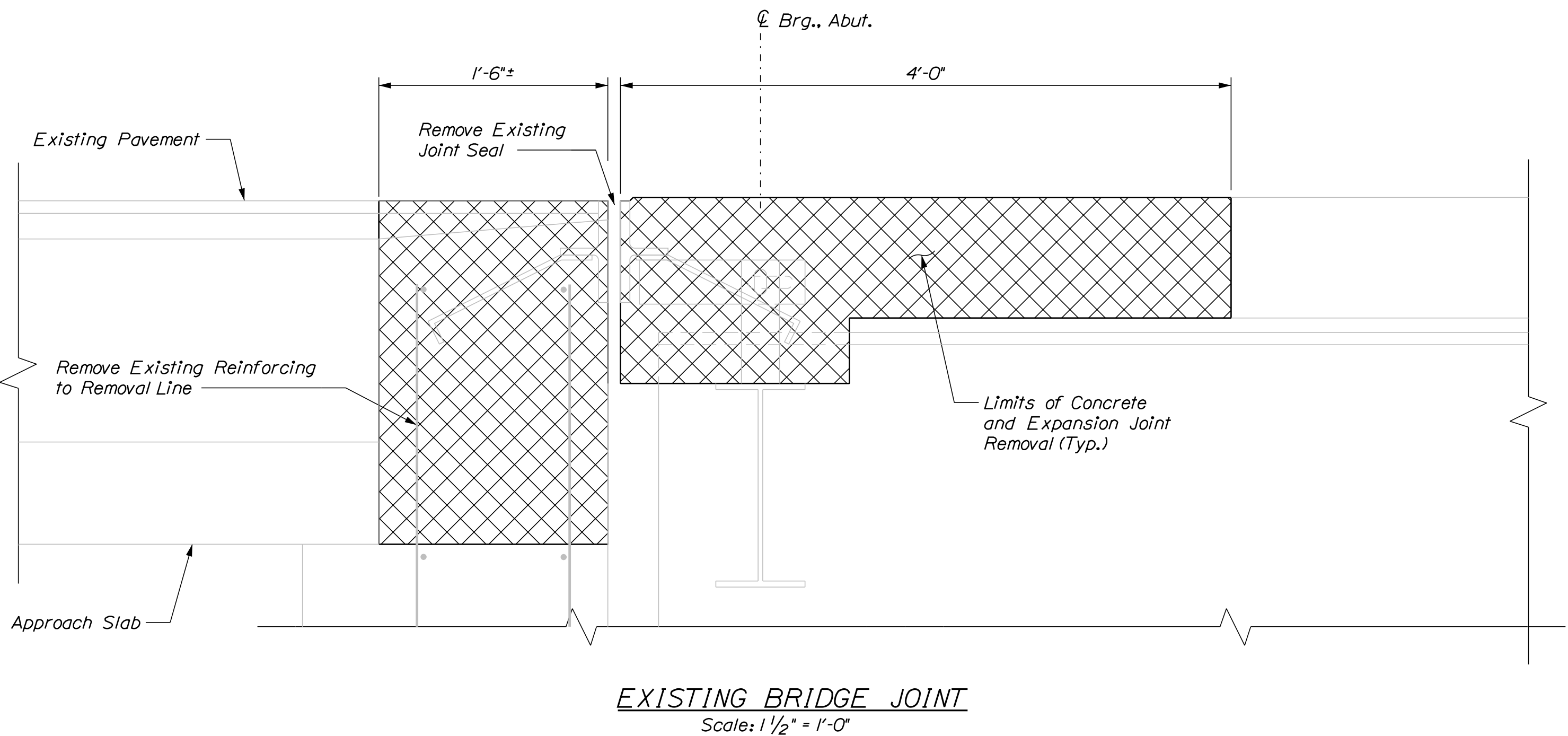
1. The Contractor shall saw cut transverse grooves into the entire wearing surface in accordance with the Standard Specification.



PROJ. MANAGER	JASON STETSON	BY	DATE
DESIGN-DETAILED	WEB	DPD	11/25/20
CHECKED-REVIEWED	GME	RSB	11/25/20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



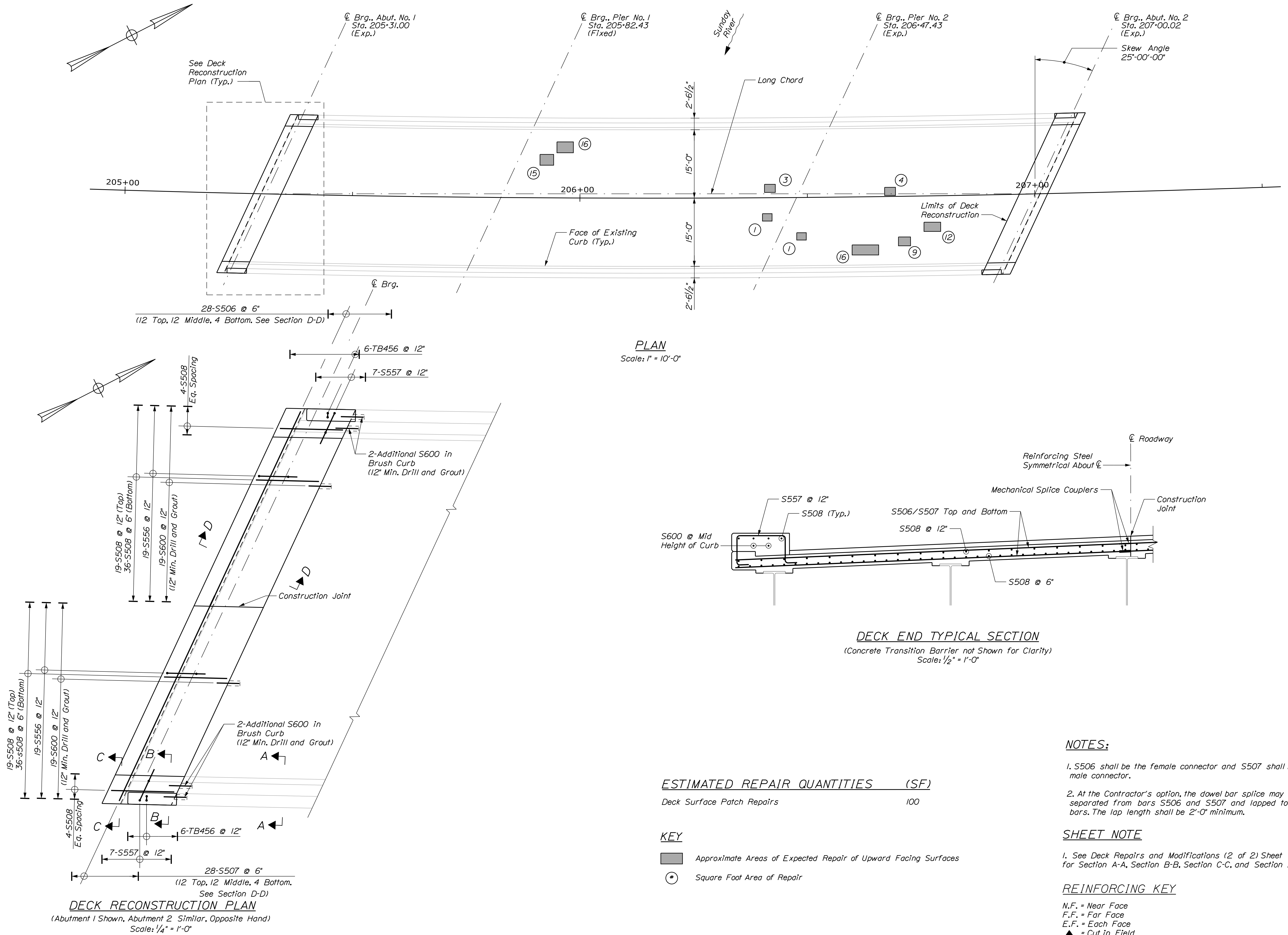
PROPOSED TYPICAL SECTION
AT EXPANSION JOINTS AT ABUTMENTS
Scale: 1 1/2" = 1'-0"



EXISTING BRIDGE JOINT
Scale: 1 1/2" = 1'-0"

NOTES

1. Topographic survey was not completed at this location. The limits and dimensions of backwall reconstruction are based on field inspection and other information available at the time of project development. Prior to any wearing surface removal, the Contractor shall establish the existing Finish Grade elevations. Actual field conditions may require modification to the details, dimensions, and quantities as directed by the Resident.
2. The modified backwall is anticipated to be approximately 11'± tall. The final backwall height shall be determined in the field based on the elevation of the existing end diaphragm and required deck end haunch.
3. Aluminum flashing shall be used in place of a 1/4" steel bridging plate.



STATE OF MAINE
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2365100

BRIDGE NO. 2822

WIN

23651.00

BRIDGE PLANS

PROJ. MANAGER	JASON	STATION	DATE	BY
DESIGN-DETAILED	WEB	DPD	11/25/20	
CHECKED-REVIEWED	GME	RSB	11/25/20	
DESIGN-DETAILED	DESIGN-DETAILED			
DESIGN-DETAILED	DESIGN-DETAILED			
REVISIONS	1			
REVISIONS	2			
REVISIONS	3			
REVISIONS	4			
FIELD	CHANGES			

SUNDAY RIVER BRIDGE
OVER SUNDAY RIVER

BETHEL ME

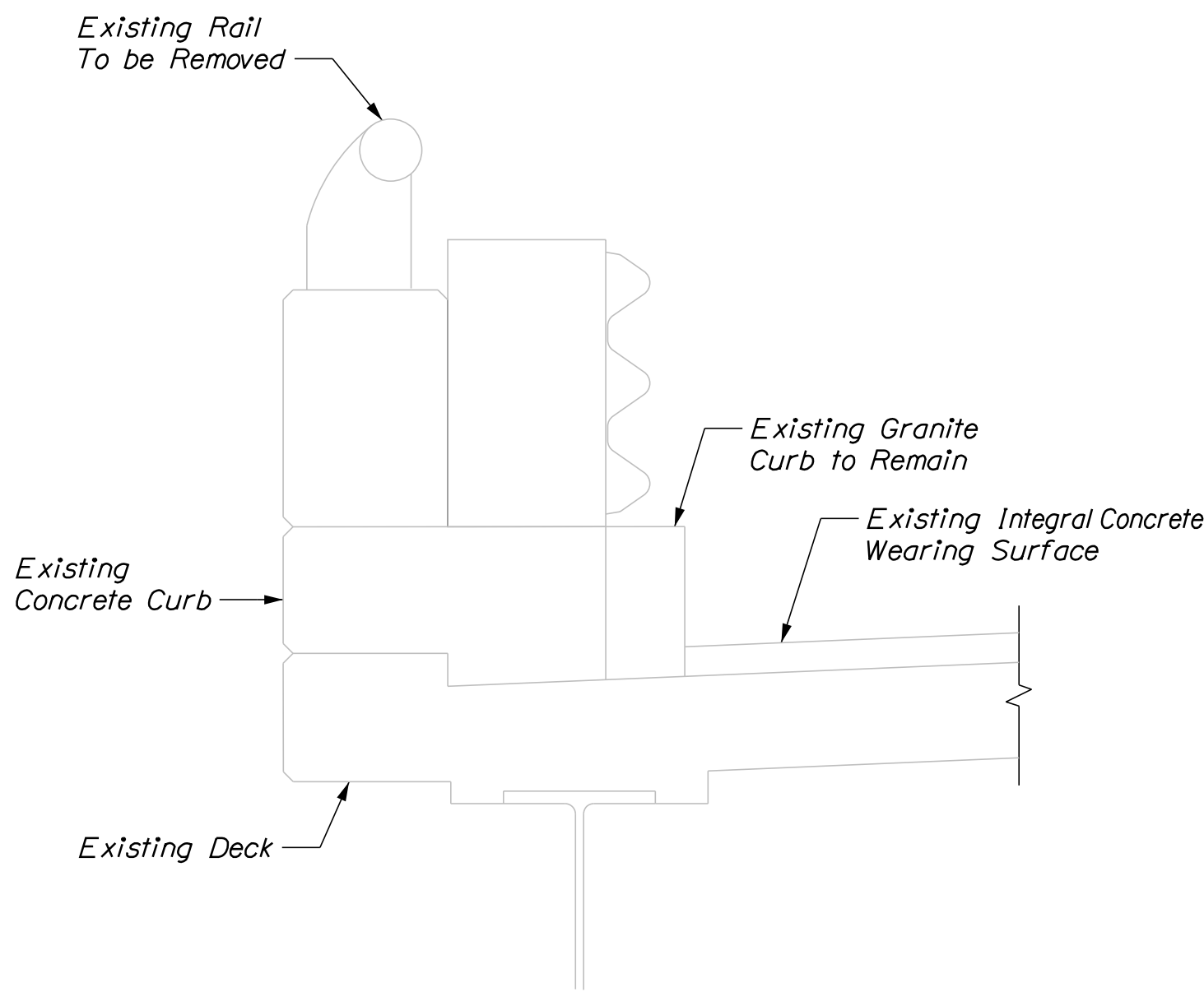
OXFORD COUNTY

DECK REPAIRS AND
MODIFICATIONS (1 OF 2)

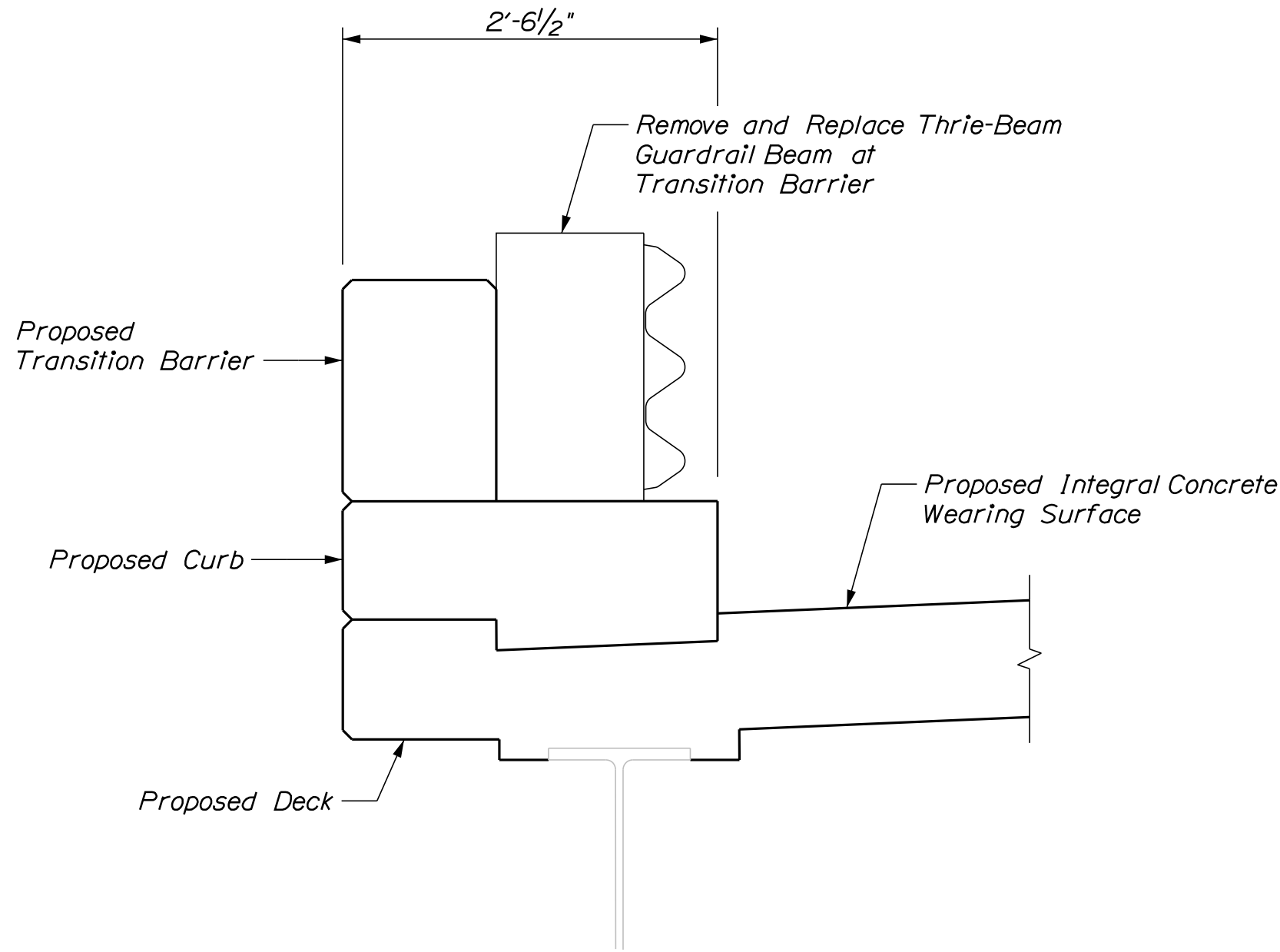
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11

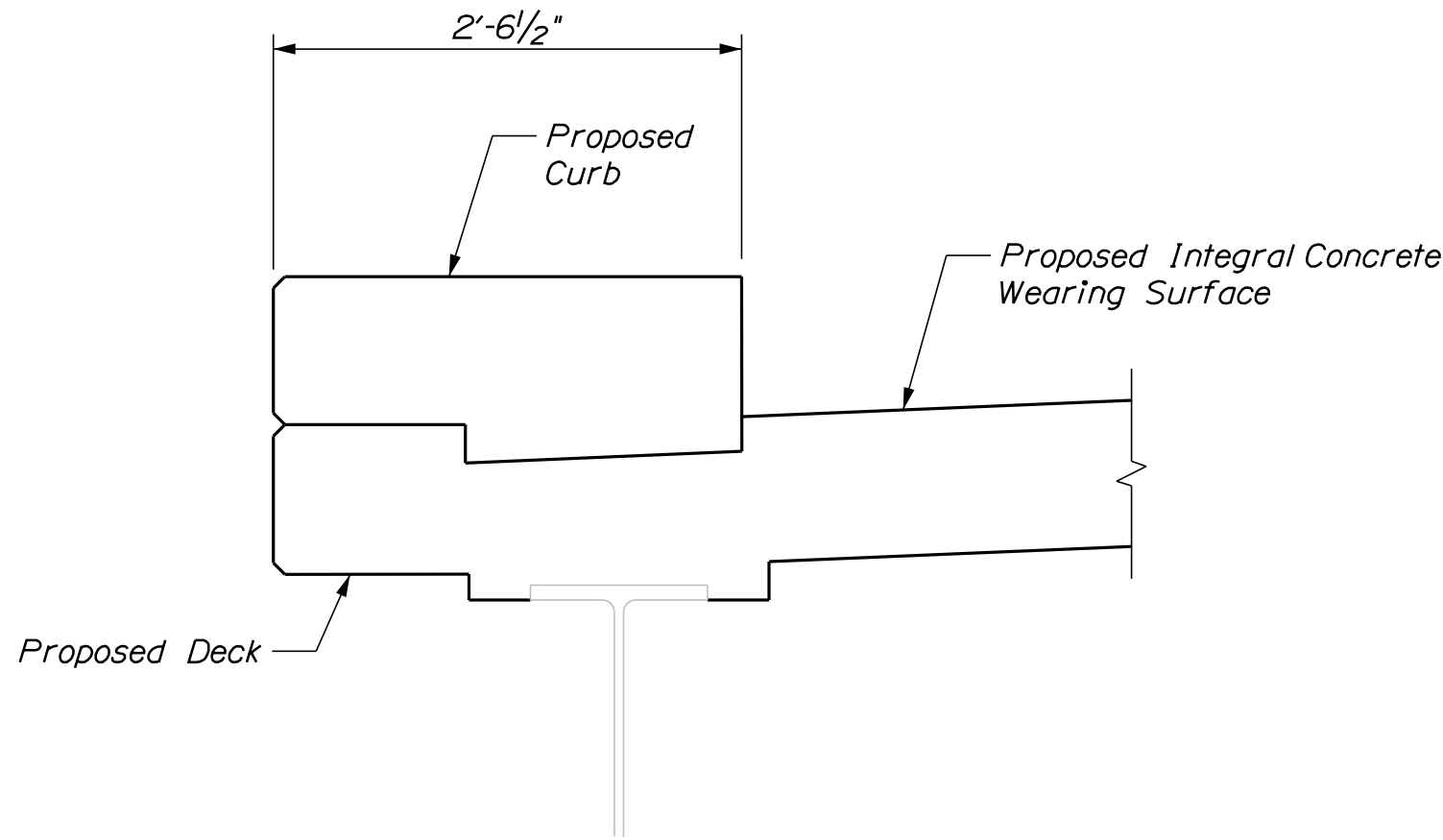
OF 16



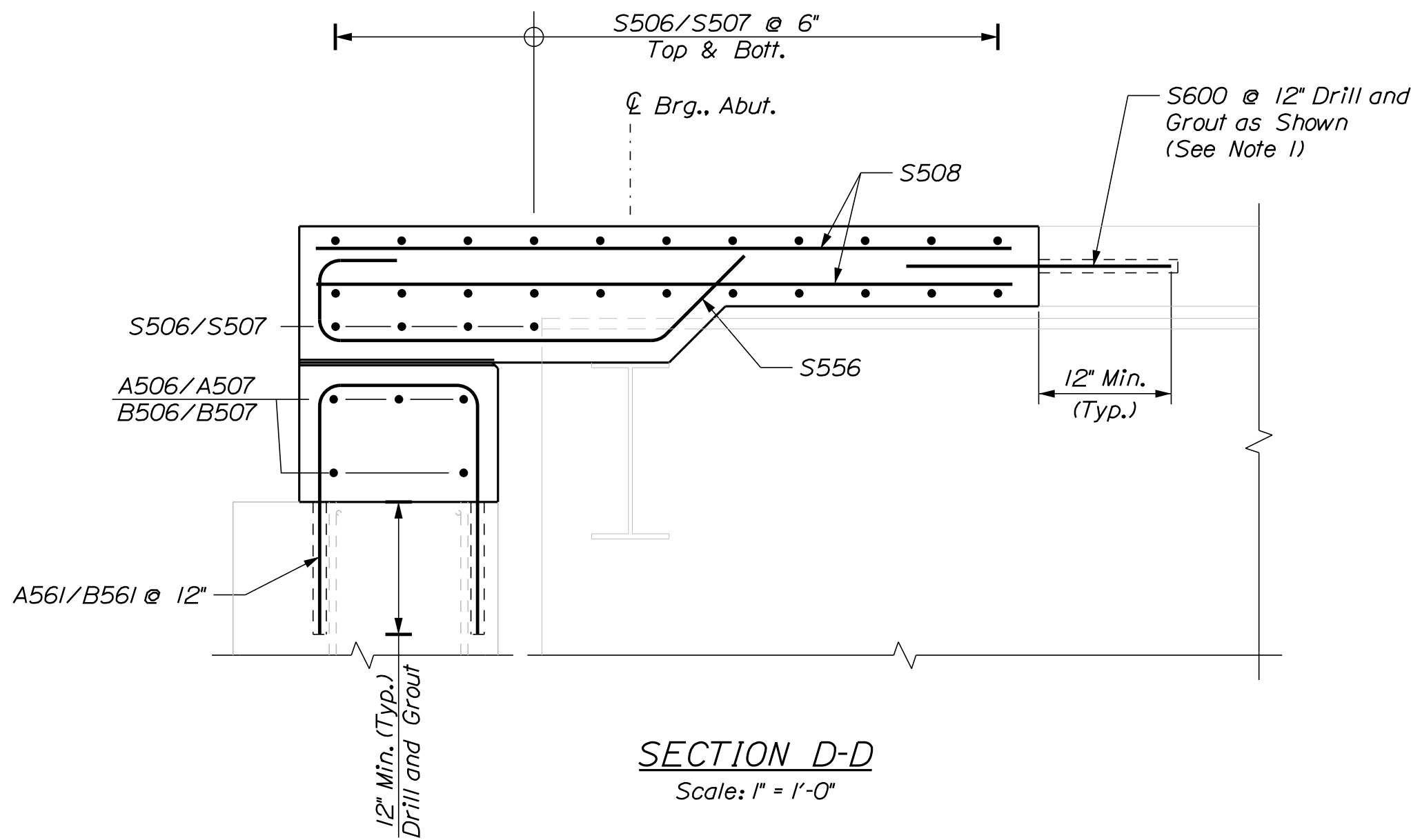
SECTION A-A
(East Fascia Shown, West Fascia Similar)
(Existing Curb and Deck Reinforcing not Shown)
Scale: 1" = 1'-0"



SECTION B-B
(East Fascia Shown, West Fascia Similar)
Scale: 1" = 1'-0"



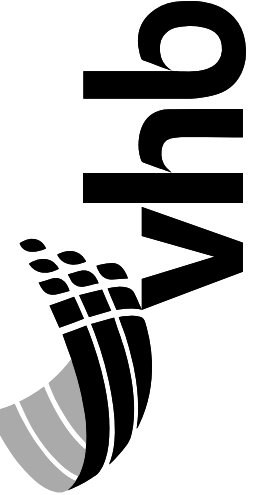
SECTION C-C
(East Fascia Shown, West Fascia Similar)
Scale: 1" = 1'-0"



SECTION D-D
Scale: 1" = 1'-0"

NOTE

1. The existing longitudinal deck reinforcing may be retained, cleaned, and straightened in lieu of drilling and grouting #6 bars into the existing deck in accordance with Specification Section 518 and as directed by the Resident.

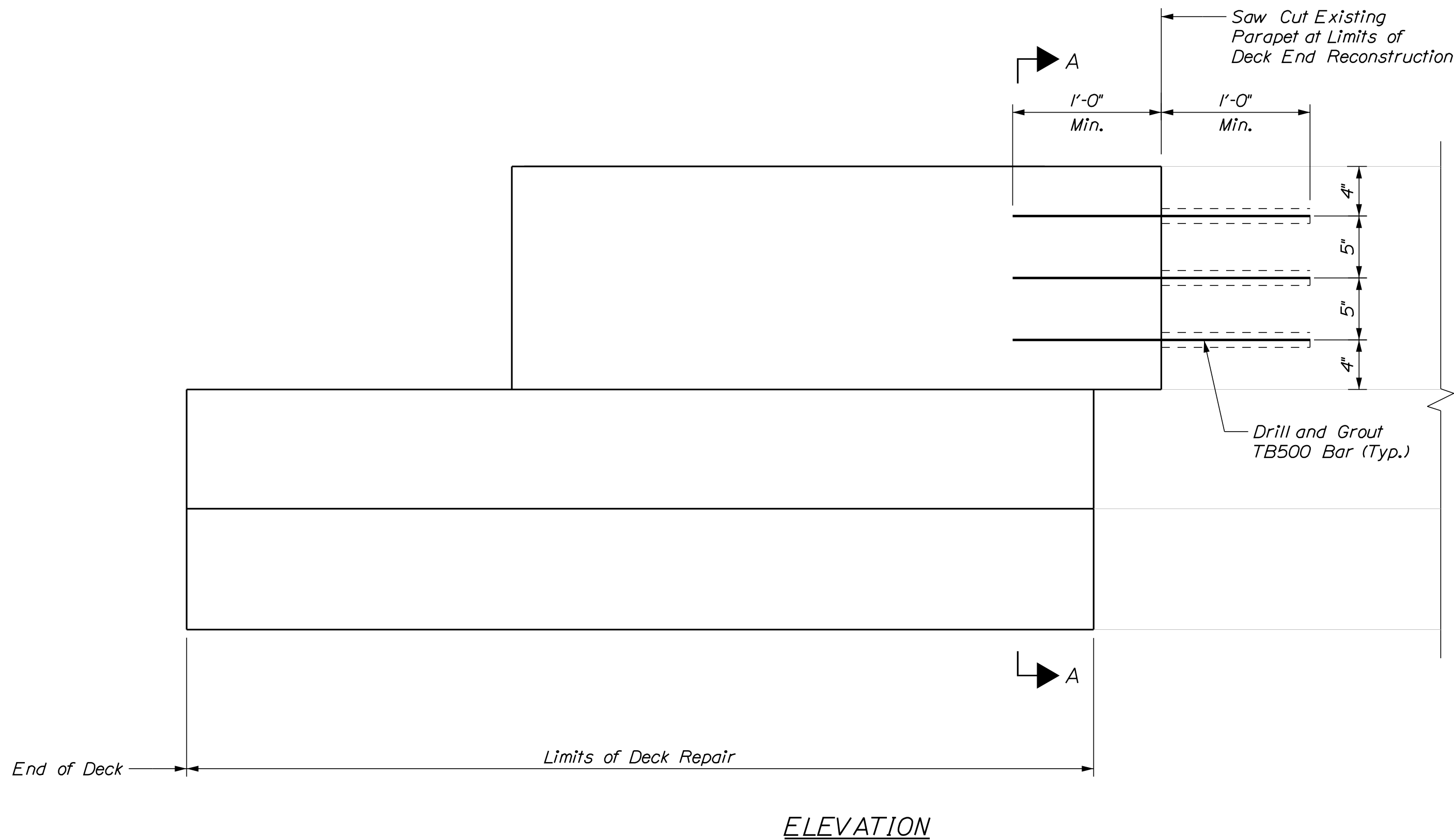
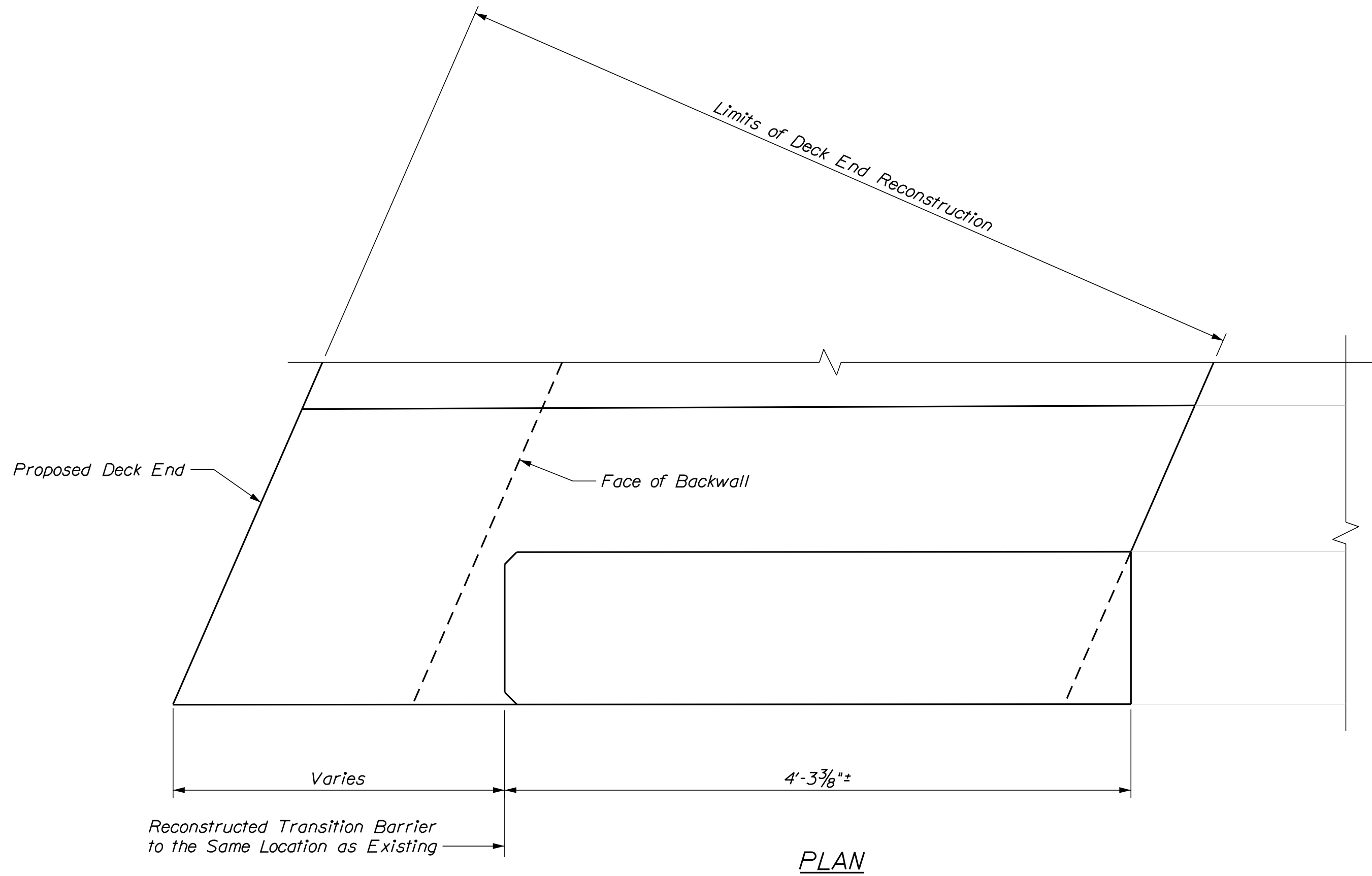
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2365100		BRIDGE NO. 2822		WIN 23651.00		BRIDGE PLANS	
									
PROJ. MANAGER	JASON	STATION	DATE	BY	DATE				
DESIGN-DETAILED	WEB	MEB	11/25/20	DPD	11/25/20				
CHECKED-REVIEWED	ONE	RSB	11/25/20	RSB	11/25/20				
DESIGN2-DETAILED2									
DESIGN3-DETAILED3									
REVISIONS	1								
REVISIONS	2								
REVISIONS	3								
REVISIONS	4								
FIELD CHANGES									
SUNDAY RIVER BRIDGE OVER SUNDAY RIVER BETHEL ME									
OXFORD COUNTY									
DECK REPAIRS AND MODIFICATIONS (2 OF 2)									
SHEET NUMBER									
12									
OF 16									

Date:11/25/2020

Username: kventworth

Division: HIGHWAY

Filename: 013_Barrier.dgn



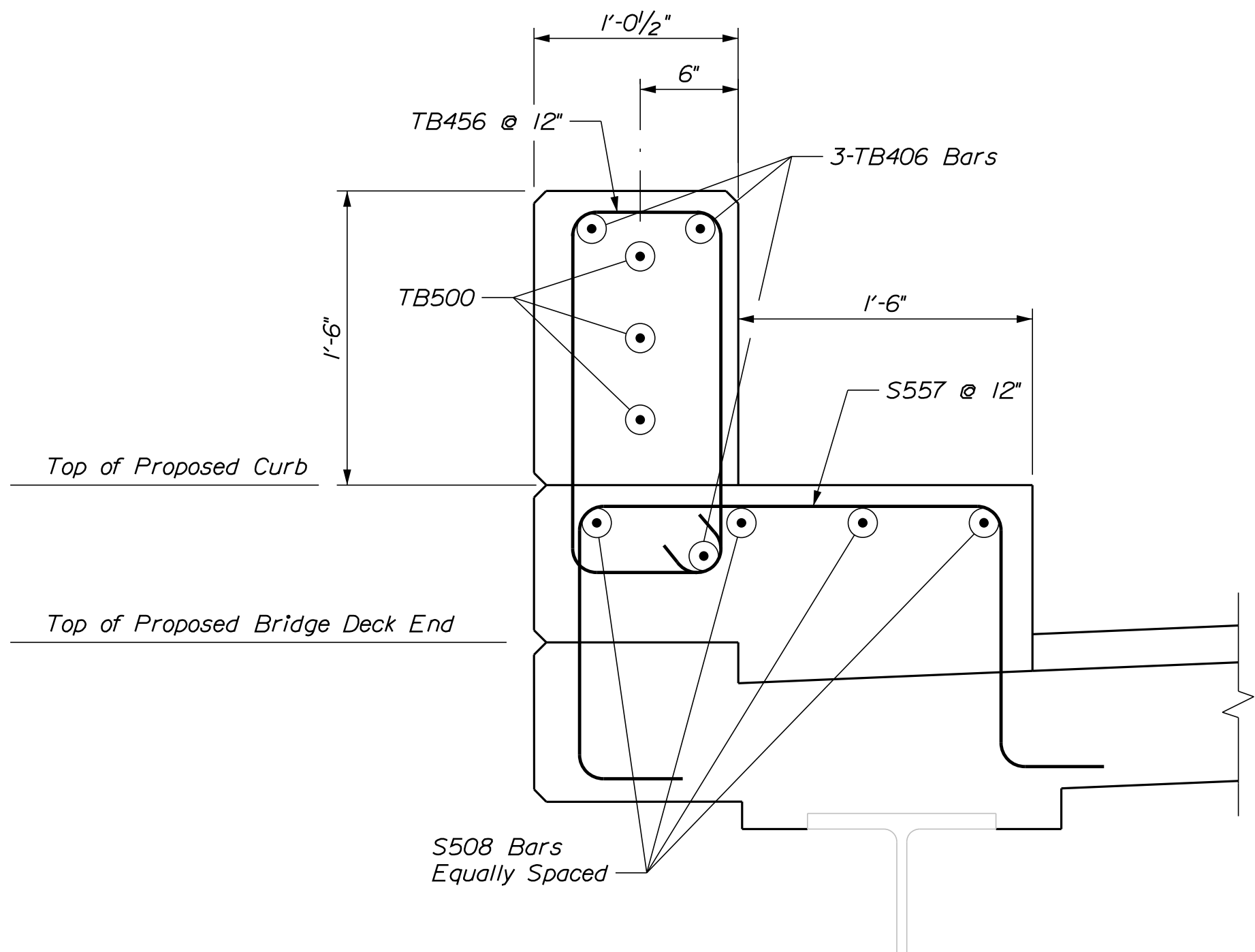
ELEVATION

TRANSITION BARRIER RECONSTRUCTION DETAILS

(Thrie-Beam Guardrail not Shown for Clarity)
 (SW/NE Corners Shown, SE/NW Corners Similar, Opposite Hand)
 Scale: 1 1/2" = 1'-0"

TRANSITION BARRIER NOTES

1. The concrete transition barrier shall be replaced as shown in the same location as the existing concrete transition barrier. Prior to removal of the deck ends, the Contractor shall take sufficient measurements of the existing concrete transition barrier to ensure that it can be reconstructed as shown. For additional details not shown on this sheet, see the existing bridge plans.
2. Prior to removal of the deck end, at the Northwest, Southeast and Southwest corners of the bridge, the Contractor shall remove and dispose of two thrie-beam sections that are bolted to the existing transition barrier. At the Northeast corner, the Contractor shall remove and dispose of one thrie-beam guardrail beam section and remove and reset one thrie-beam guardrail section as shown on the Plan and Elevation Sheet. Costs for the removal and disposal of the thrie-beam guardrail beam sections shall be incidental to related Contract Items.
3. At the completion of transition barrier reconstruction, the Contractor shall supply and install new thrie-beam guardrail beam sections to replace the removed thrie-beam guardrail beam sections at the locations shown on the Plan and Elevation Sheet. All costs for supplying and installing the new thrie-beam guardrail beam sections shall be included in Item 606.63 - Thrie Beam Rail Beam.

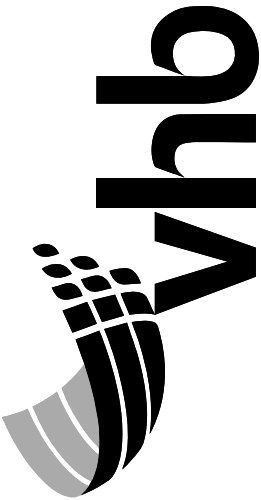


SECTION A-A

(Deck End Reinforcing not Shown for Clarity)

REINFORCING KEY

N.F. = Near Face
 F.F. = Far Face
 E.F. = Each Face
 ▲ = Cut in Field



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

2365100

WIN

23651.00

BRIDGE NO. 2822

BRIDGE PLANS

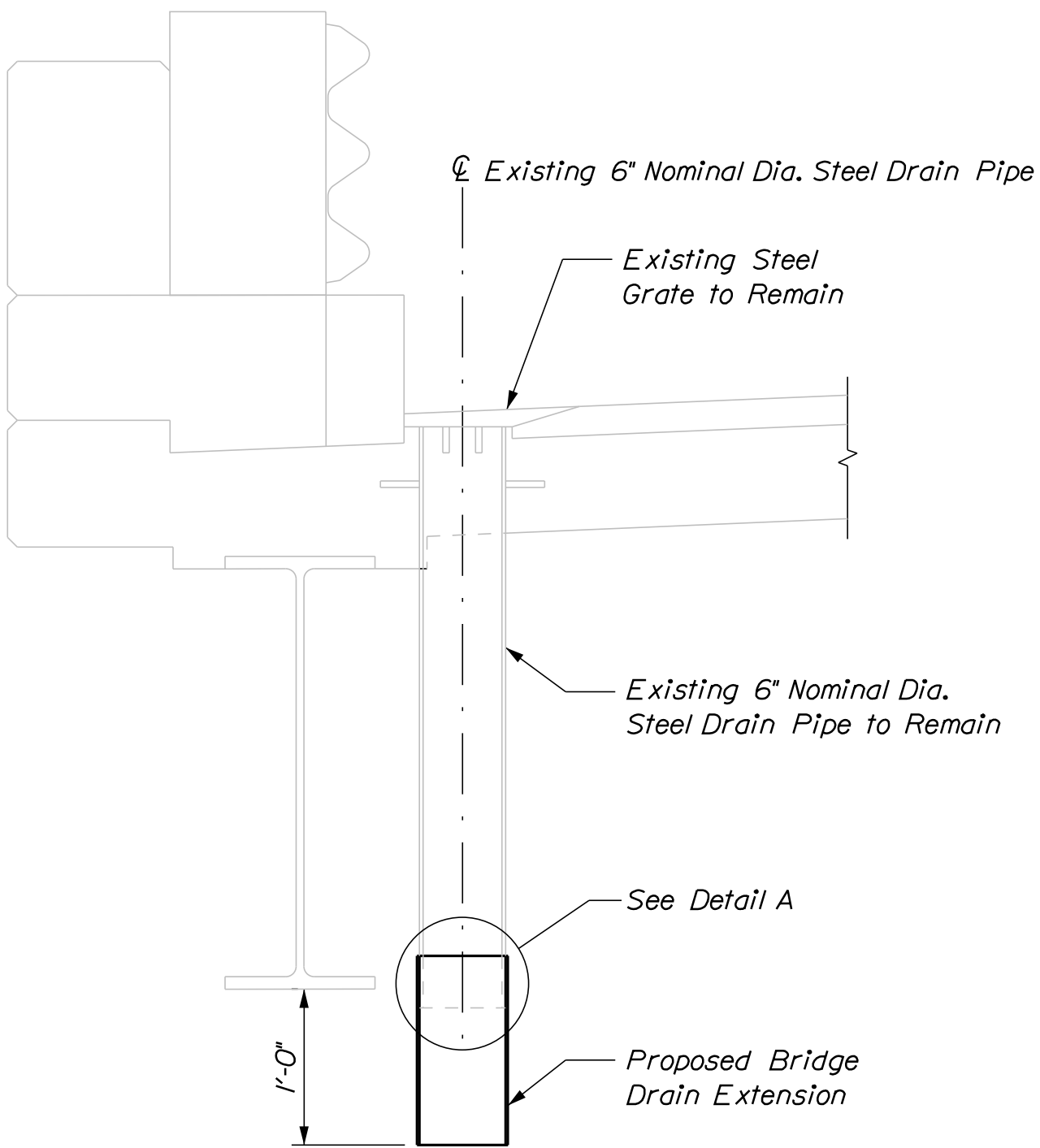
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CHECKED-REVIEWED	OME		RSB	11/25/20
DESIGN-DETAILED	OME			
DESIGN-DETAILED	OME			
REVISIONS	1			
REVISIONS	2			
REVISIONS	3			
REVISIONS	4			
FIELD CHANGES				

SUNDAY RIVER BRIDGE
 OVER SUNDAY RIVER
 BETHEL ME
 OXFORD COUNTY
 CONCRETE TRANSITION BARRIER
 DETAILS AND REINFORCING

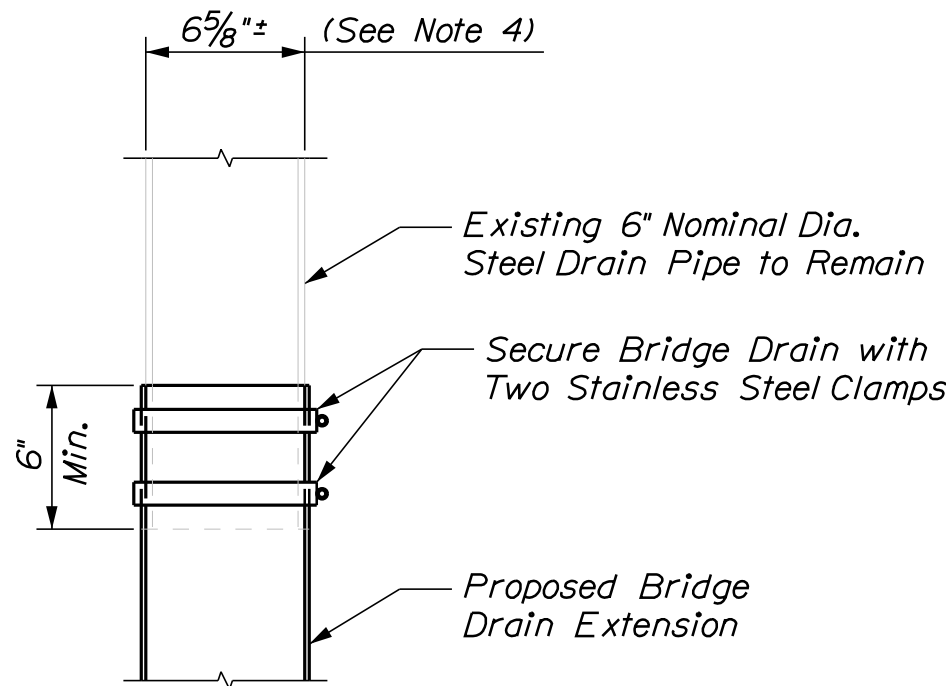
SHEET NUMBER

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TYPICAL BRIDGE DRAIN SECTION
Scale: 1" = 1'-0"



DETAIL A
Scale: 1 1/2" = 1'-0"

BRIDGE DRAIN MODIFICATION NOTES

1. Install Bridge Drain Extensions on the end of each steel drain pipe. Pipe surface preparation prior to installation is not required.
2. Secure each Bridge Drain Extension to drain pipe with two stainless steel clamps.
3. All costs for Bridge Drain Extension shall be included in Item 502.71, Bridge Drain Extensions.
4. Contractor shall field verify diameter of Bridge Drain Extension prior to ordering extensions.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365100

BRIDGE NO. 2822WIN23651.00

BRIDGE PLANS

PROJ. MANAGER	JASON	STATION	DATE
DESIGN-DETAILED	WEB	DPD	11/25/20
CHECKED-REVIEWED	GME	RSB	11/25/20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SUNDAY RIVER BRIDGE
OVER SUNDAY RIVER

BETHEL ME

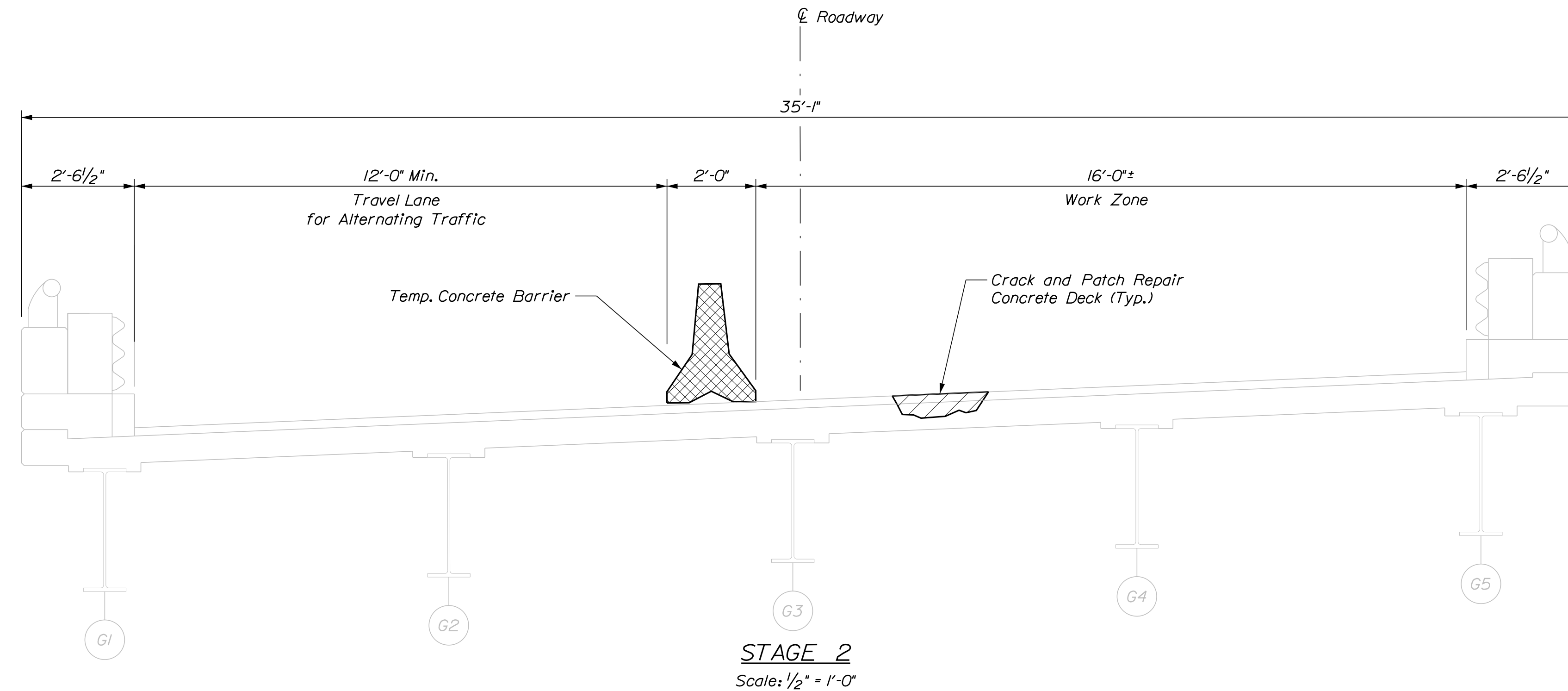
OXFORD COUNTY

BRIDGE DRAIN MODIFICATIONS

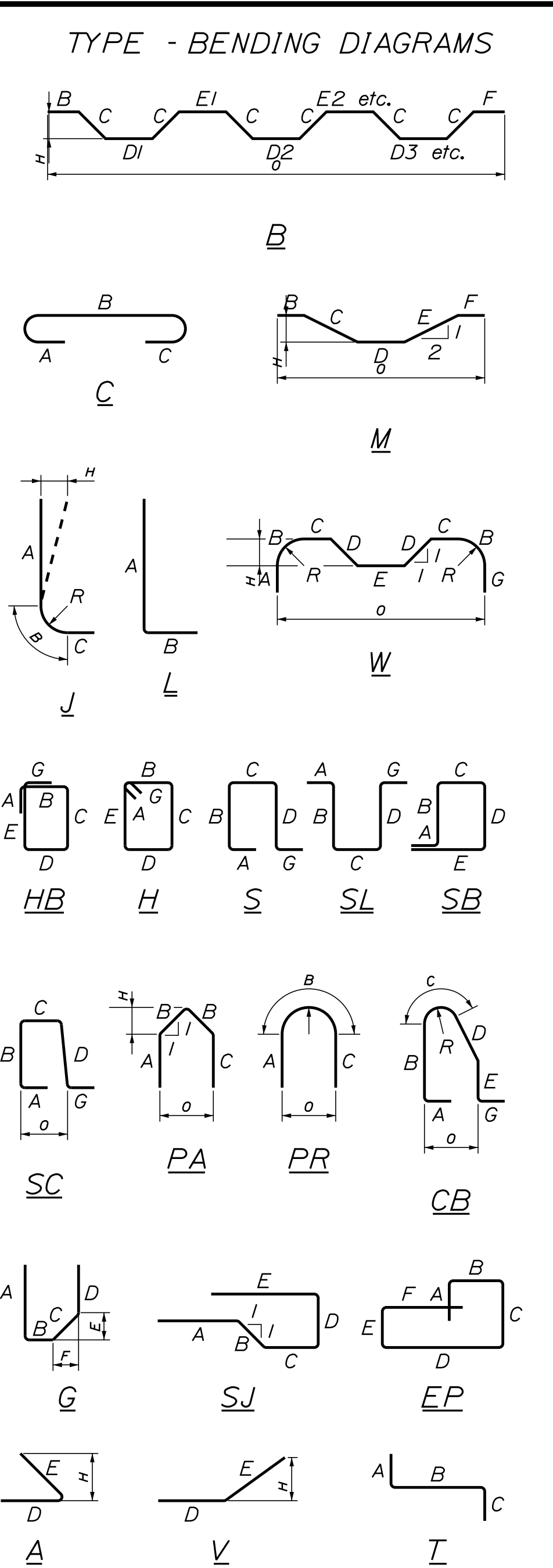
SHEET NUMBER

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OF 16



- 1. The backwall and deck modification, curbs, transition barriers and deck repairs on the Route 2, 5 & 26 bridge over Sunday River (Bridge #2822) are proposed to be conducted in two stages. The traffic will be maintained along the bridge as alternating one-way traffic using temporary traffic signals.*
- 2. The travel lane for the alternating traffic pattern shall be a minimum of 12'-0" wide.*
- 3. All traffic control equipment and layouts shall conform to the latest edition of the Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices (MUTCD), Chapter 6. Temporary traffic signal equipment and design shall conform to the MUTCD, Chapter 4.*
- 4. All traffic control signs, sign support structures, temporary signal equipment, channelizing devices, flashing arrow panels (FAP), and other traffic control equipment along the roadside shall meet or exceed NCHRP 350 test level 3 (TL-3) requirements regardless of where implemented on the project. If the equipment has been manufactured since 1999, the equipment shall meet Manual on Safety Hardware (MASH) requirements.*
- 5. Any signs, equipment, or devices found to be damaged or unserviceable shall be replaced at the Contractor's expense.*

[illegible]

All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.

Reinforcing Bar: ASTM A 615/A 615M, Grade 60

GENERAL NOTES

1. The first two digits following the letter(s) of the mark indicate the size of the bar:

Mark "A502" = bar size #5
Mark "P805" = bar size #8
Mark "S650" = bar size #6