

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Ninth Edition 2020.

DESIGN LOADING

Live Load HL - 93 Modified for Strength I

TRAFFIC DATA

Current (2019) AADT	2620
Future (2039) AADT	2880
DHV - % of AADT	12
Design Hour Volume	346
Heavy Trucks (% of AADT)	7
Heavy Trucks (% of DHV)	7
Directional Distribution (% of DHV)	55
18 kip Equivalent P 2.0	118
18 kip Equivalent P 2.5	112
Design Speed (mph)	25

MATERIALS

Concrete: Unless Noted Otherwise Class "A"
Reinforcing Steel ASTM A 615/A 615M, Grade 60

BASIC DESIGN STRESSES

Concrete f 'c = 4000 psi
Reinforcing Steel f y = 60,000 psi

CHERRYFIELD
WASHINGTON COUNTY
COVERED BRIDGE
OVER
NARRAGUAGUS RIVER
U.S. ROUTE 1
FEDERAL PROJECT 2229400
PROJECT LENGTH 0.049 mi.
BRIDGE NO. 2192

LIST OF DRAWINGS

Title Sheet	1
Est. Quantities, Gen. Const. Notes & Rebar Schedule	2
General Plan	3
Profile	4
Superstructure Repair Plan	5
Superstructure Details	6
Approach Railing Repair; Sheet 1 of 2	7
Approach Railing Repair; Sheet 2 of 2	8
Staged Construction Section	9
Staged Construction Plan; Stage 1	10
Staged Construction Plan; Stage 2	11
Right of Way Map	12

UTILITIES

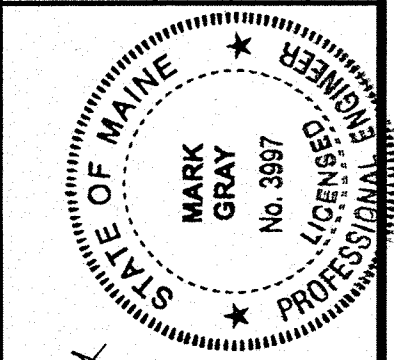
Charter Communications
Emera Maine
Fairpoint Communications - Northern
New England Telephone Operations LLC

MAINTENANCE OF TRAFFIC

Maintain one lane of alternating one - way traffic using traffic signals.

PROJECT LOCATION	Covered Bridge over the Narraguagus River. Located 0.03 of a mile west of Main Street. Lat./Long. 44°35'52.2" N 67°55'30.4" W
PROGRAM AREA	Highway Bridges-Traditional
OUTLINE OF WORK	Deck Seal Installation Concrete Repair and Crack Sealing

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER: <i>[Signature]</i>		8-31-2020
CHIEF ENGINEER: <i>[Signature]</i>		8-31-2020



<i>[Signature]</i>	SIGNATURE
3997	P.E. NUMBER
8-12-2020	DATE

PROJECT INFORMATION	PROGRAM	PROJECT MANAGER	DESIGNER	CONSULTANT	PROJECT RESIDENT	CONTRACTOR	PROJECT COMPLETION DATE
BRIDGE	MARK PARLIN	MARK GRAY	N/A				

CHERRYFIELD COVERED BRIDGE	TITLE SHEET
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SHEET NUMBER
1
OF 12

Date:8/12/2020

Username: Richard.Moyer

Division: BRIDGE

Filename:\00\BRIDGE\MSTA\001_Title.dgn

WIN 022294.00

2229400

[illegible]

GENERAL CONSTRUCTION NOTES

J. For easements, construction limits and right of way lines, refer to Right of Way Map.

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

3. Protective Coating for Concrete Surfaces (Item 515.21) shall be applied to the following areas:

Concrete bridge railing.
Concrete sidewalk railing.

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

5. 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.

6. The bridge deck evaluation report of the existing bridge may be accessed at the MaineDOT web address. The report contains visual inspection information and deck core data of the bridge. There is no assurance that the information or data is a true representation of the conditions of the entire deck.

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.

REINFORCEMENT BAR SCHEDULE

STRAIGHT BARS				BENT BARS									
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	H	R	LOCATION
Abutment No. 1				Abutment No. 1									
A500	3	13'-3"	Abut. No. 1	A550	24	2'-3"	J	1'-6"	3/4"	5/2"	4"	1/4"	Abut. No. 1
A501	3	11'-9"	Abut. No. 1										
				Abutment No. 2									
B500	3	13'-3"	Abut. No. 2	B550	24	2'-3"	J	1'-6"	3/4"	5/2"	4"	1/4"	Abut. No. 2
B501	3	11'-9"	Abut. No. 2										
				Piers 1 & 2									
				P550	96	1'-11"	J	1'-6"	3/4"	2"	4"	1/4"	Piers 1 & 2
Approach Slab													
AS500	10	13'-3"	Approach Slab										
AS501	10	11'-9"	Approach Slab										
AS502	48	3'-6"	Approach Slab										
Piers 1 & 2													
P500	12	13'-3"	Piers 1 & 2										
P501	12	11'-9"	Piers 1 & 2										
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	H	R	LOCATION

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

2. All dimensions are out-to-out of bar.

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

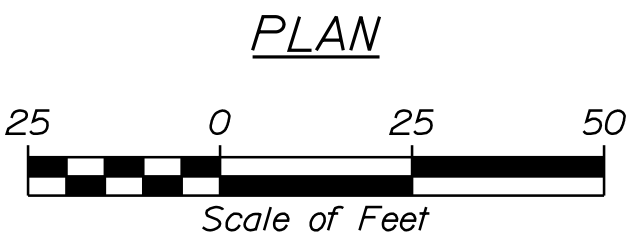
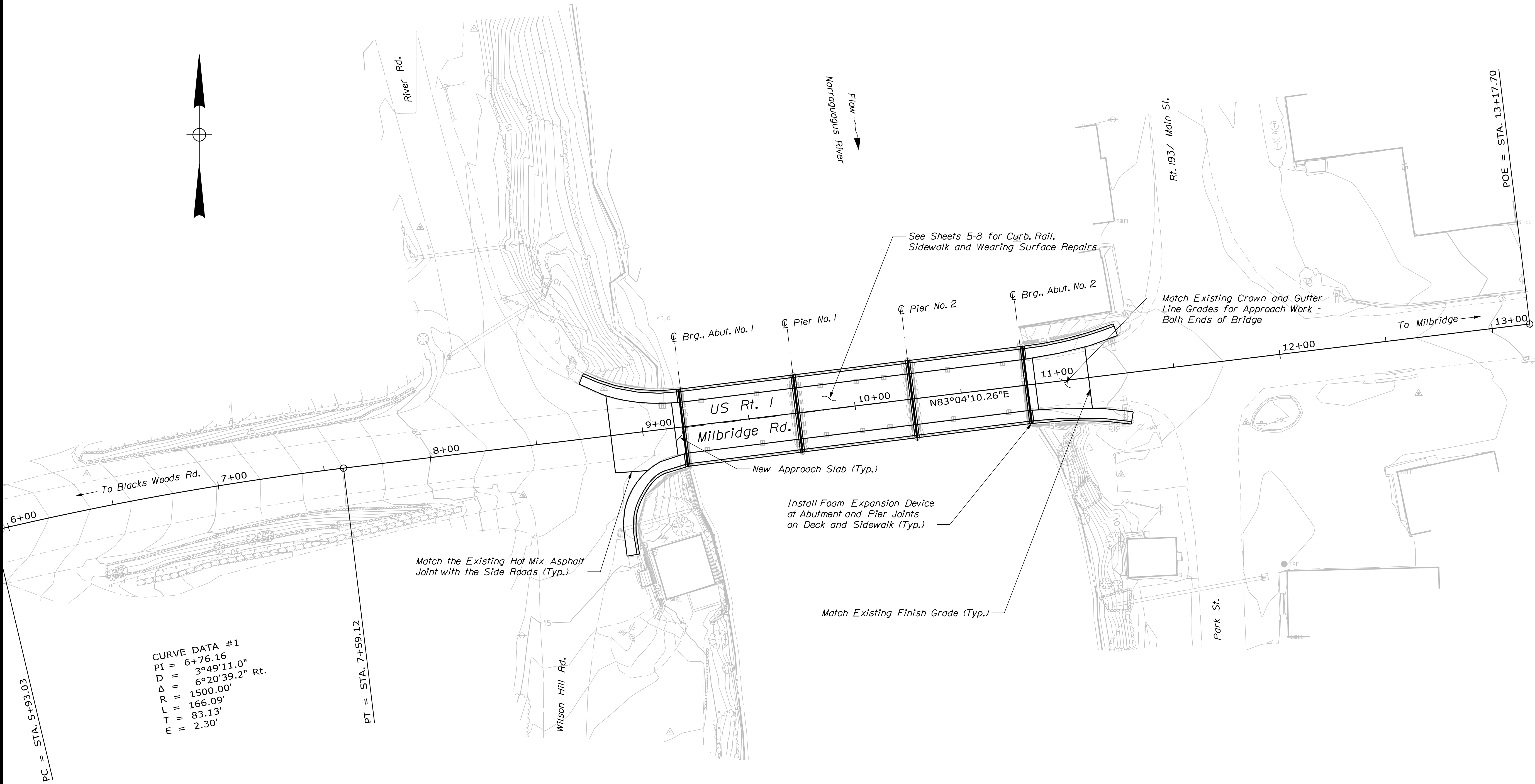
4. Reinforcing Bar: ASTM A 615/A 615M, Grade 60

8. Winter sand and grass/weeds up against the concrete sidewalk, including in the approaches to the bridge, shall be removed and disposed of as directed by the Resident. This work will be paid for using equipment and labor bid items.

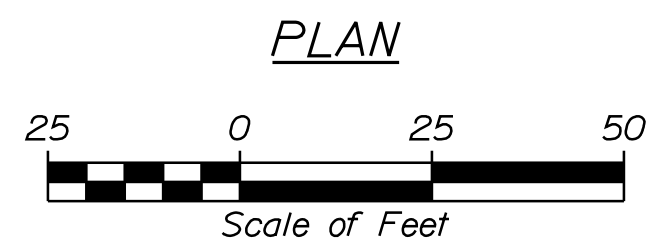
9. Installation of Item 520.233 Expansion Device - Silicone Coated Precompressed Foam, shall occur after placement of Item 424.304 High Molecular Weight Methacrylate Crack Sealer.

10. Temporary pavement ramps shall be constructed at a length of four feet per inch of transition depth. Materials, placement, maintenance and removal shall be incidental to other contract items.

OF 12	SHEET NUMBER	2	COVERED BRIDGE NARRAGUAGUS RIVER CHERRYFIELD WASHINGTON COUNTY	PROJ. MANAGER				STATE OF MAINE DEPARTMENT OF TRANSPORTATION
				DESIGN-DETAILED	M. GRAY	BY	DATE	
				CHECKED-REVISED	R. MAYER	JULY 2020	SIGNATURE	
				DESIGN2-DETAILED2				
				DESIGN3-DETAILED3				
				REVISIONS 1				
				REVISIONS 2			P.E. NUMBER	
				REVISIONS 3				
				REVISIONS 4				
				FIELD CHANGES				
				DATE	BRIDGE NO. 2192	WIN 022294.00	BRIDGE PLANS	



COVERED BRIDGE NARRAGAGUS RIVER CHERRYFIELD WASHINGTON COUNTY	PROJ. MANAGER		M. PARLIN	BY	DATE
	DESIGN-DETAILED		M. GRAY	R. MAYER	JULY 2020
	CHECKED-REVIEWED				
	DESIGN2-DETAILED2				SIGNATURE
	DESIGN3-DETAILED3				
GENERAL PLAN	REVISIONS 1				P.E. NUMBER
	REVISIONS 2				
	REVISIONS 3				
	REVISIONS 4				DATE
	FIELD CHANGES				
SHEET NUMBER					
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OF 12					



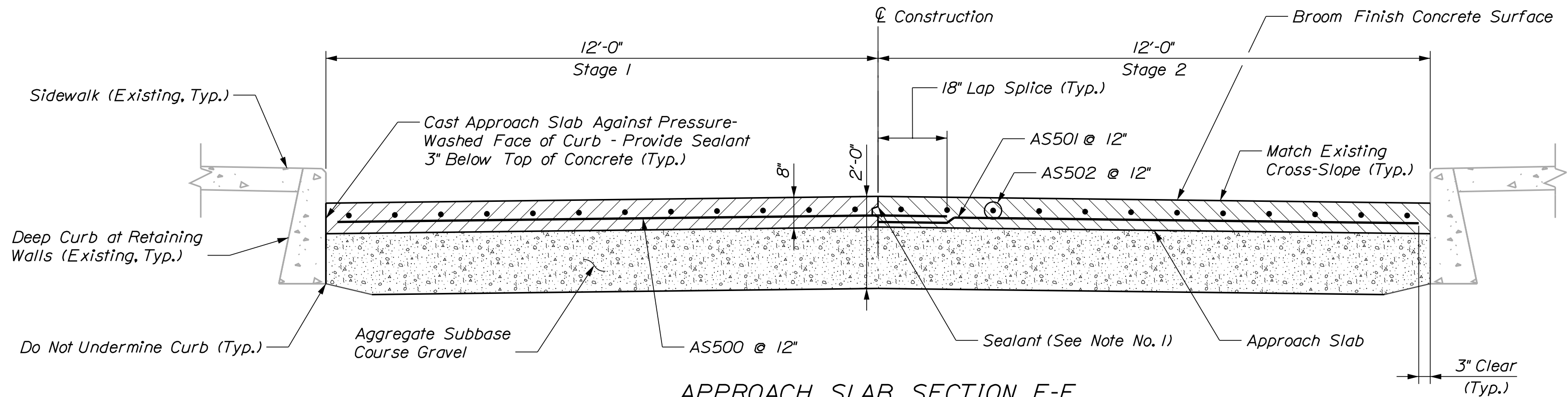
5. Apply Item 424.304 High Molecular Weight Methacrylate Crack Sealer to sidewalks and concrete curb (both bridge and approach sections), concrete wearing surface and new approach slabs. Apply to curb faces with a brush.

Date:8/11/2020

Username: Richard.Mayer

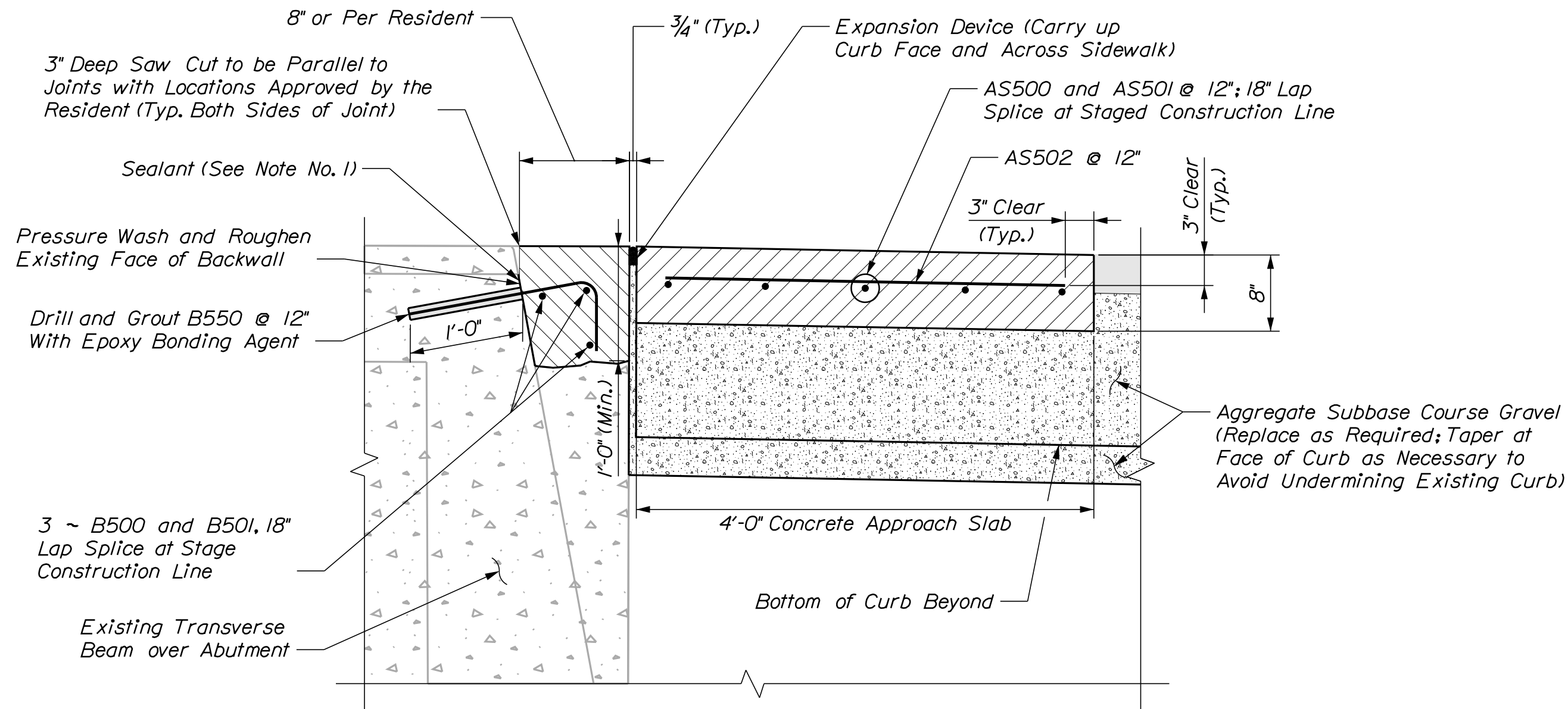
Division: BRIDGE

Filename: ... \006_Superstructure_Details.dgn



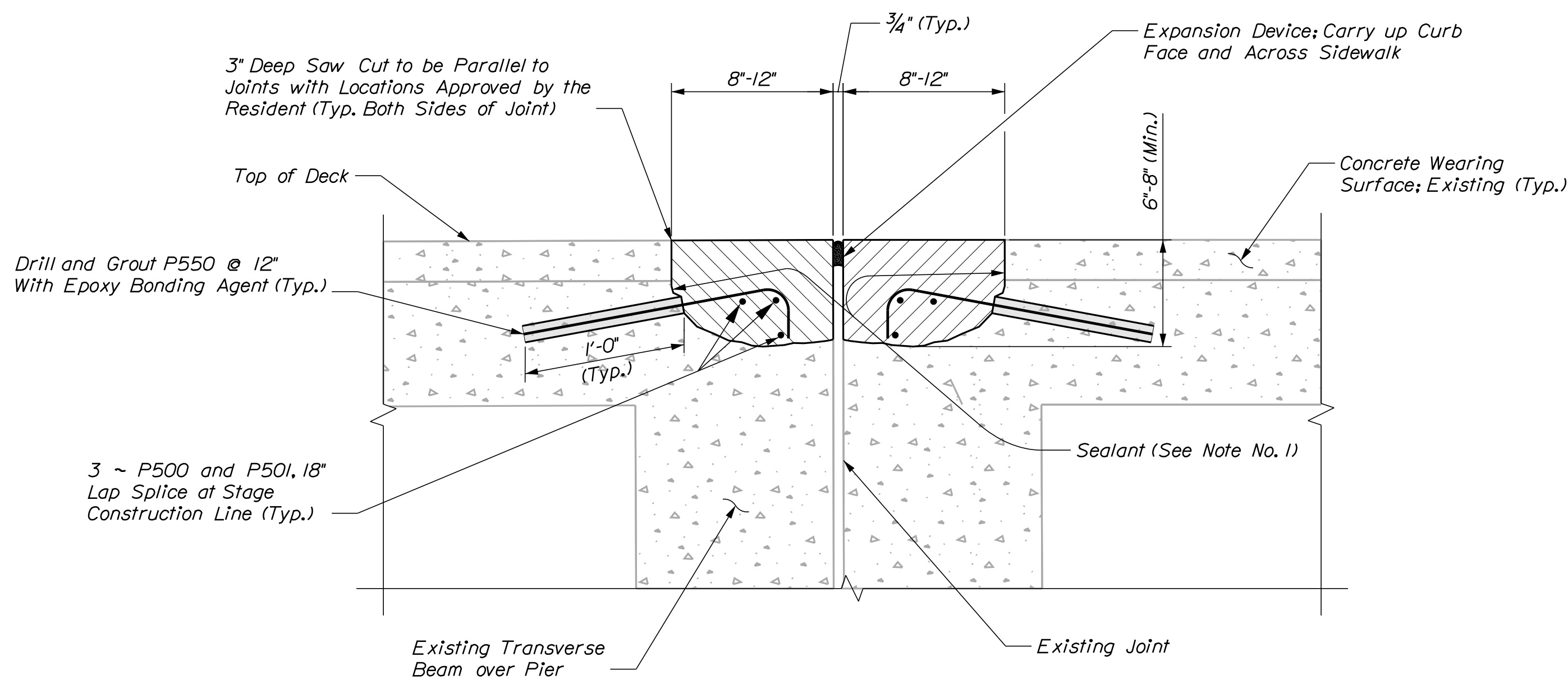
APPROACH SLAB SECTION E-E

Abutment No. 2 Shown, Abutment No. 1 Similar



ABUTMENT DECK SEAL SECTION A-A

Abutment No. 2 Shown, Abutment No. 1 Similar

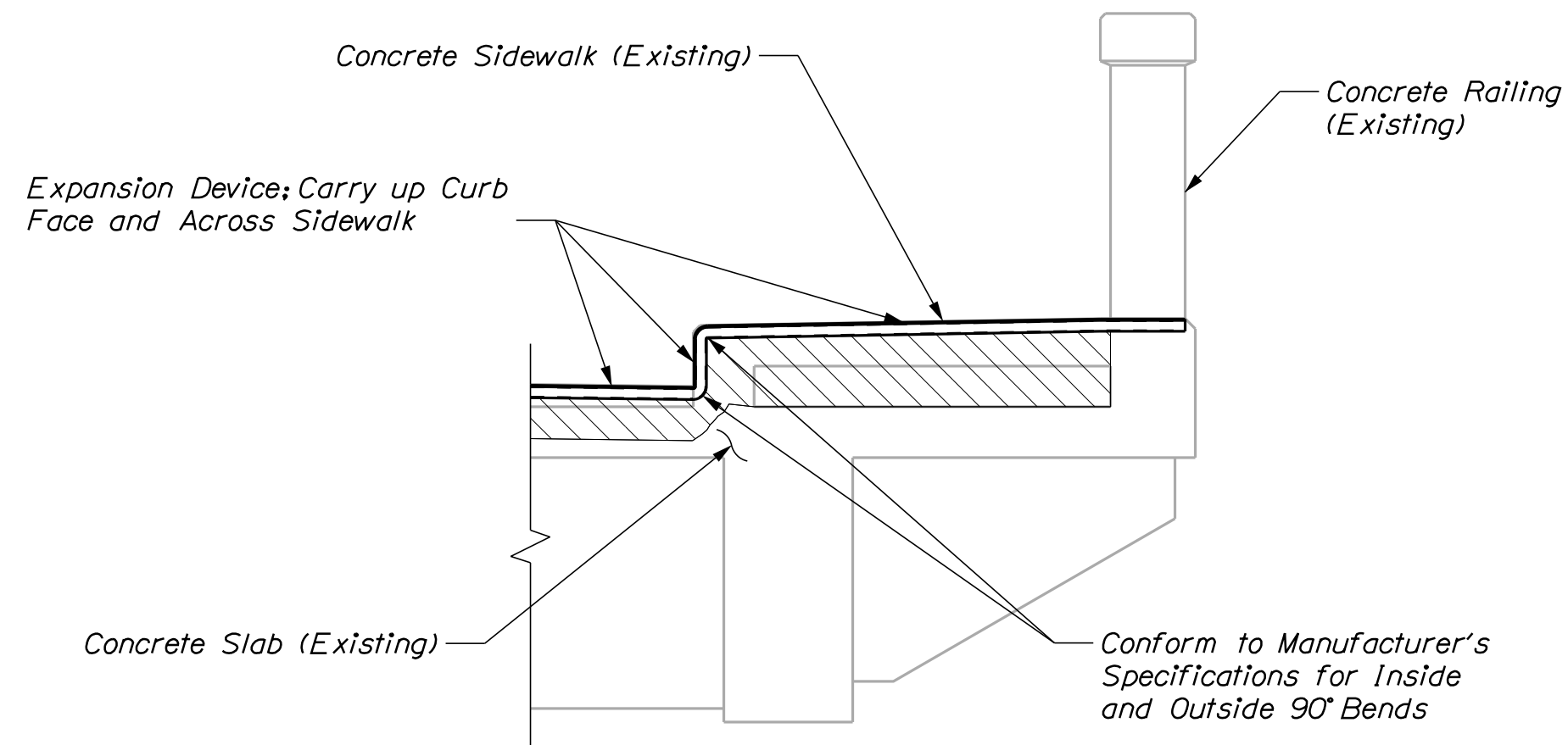


PIER DECK SEAL SECTION B-B

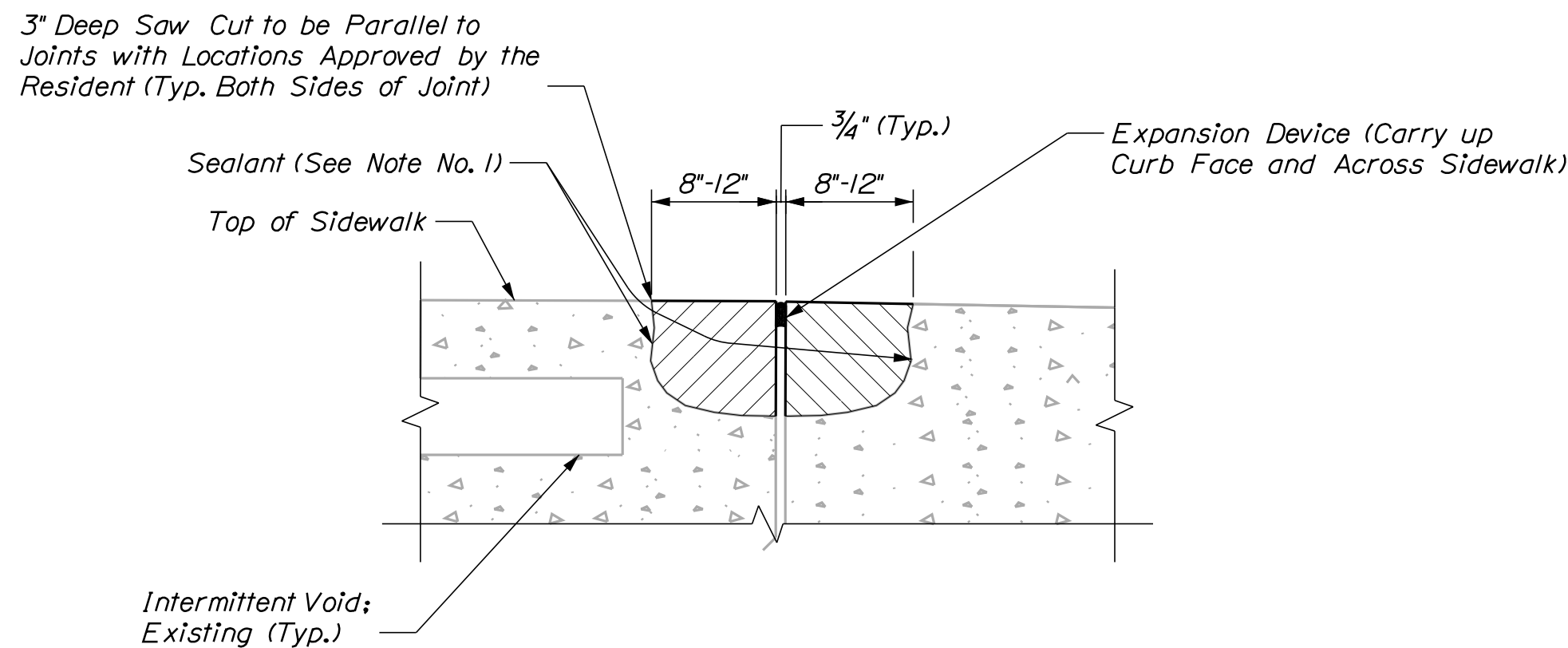
Pier No. 2 Shown, Pier No. 1 Similar

NOTES:

1. Sealant to be applied immediately before concrete placement 3" from top of finished concrete surface in continuous bead. Sealant to be Sika Leakmaster LV-Z or equivalent. Install per manufacturer's instructions. Bead to be 5x20mm (3/16" x 3/4"). This work is incidental to other contract items.
2. Payment for Item 502.45 Structural Concrete Approach Slabs shall include the concrete on the roadway approach side of both expansion devices at both abutments and between the existing curb faces at these locations.
3. Payment for all concrete removal and repair associated with installation of expansion devices at both piers and both abutments shall be paid for under Item 518.52 Repair of Upward Facing Surfaces >= 8 inches, per cubic yard, regardless of the depth of repair.

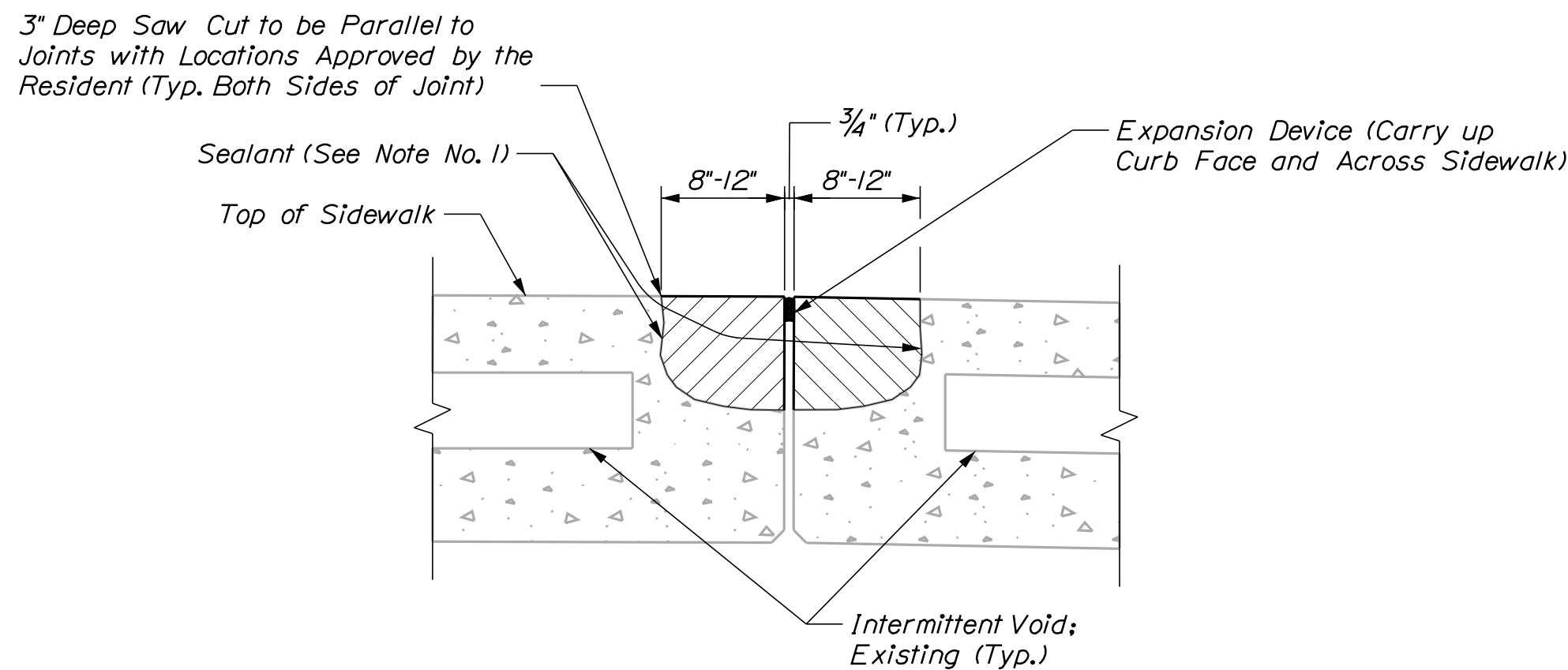


EXPANSION DEVICE AT CURB



ABUTMENT SIDEWALK SEAL SECTION D-D

Abutment No. 2 Shown, Abutment No. 1 Similar



PIER SIDEWALK SEAL SECTION C-C

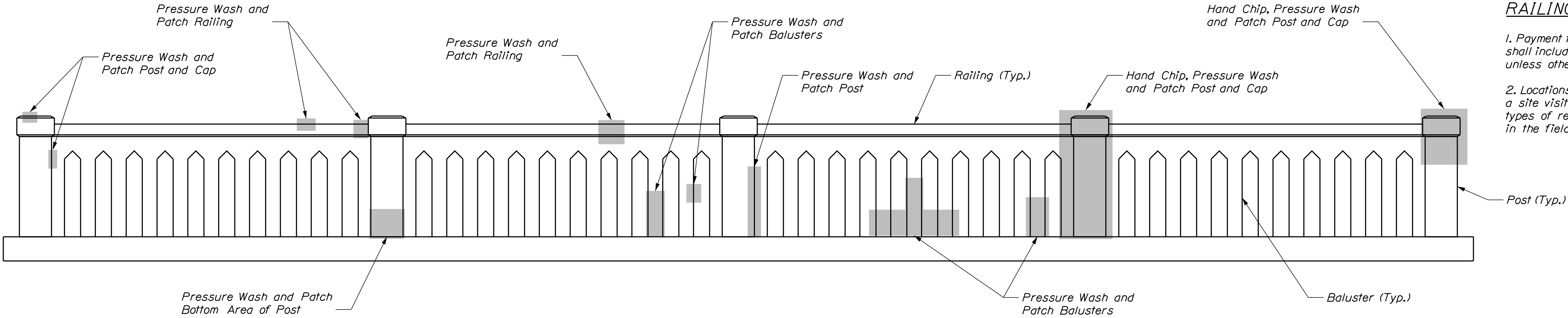
Pier No. 2 Shown, Pier No. 1 Similar

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
2229400	
WIN	022294.00
BRIDGE NO. 2192	BRIDGE PLANS

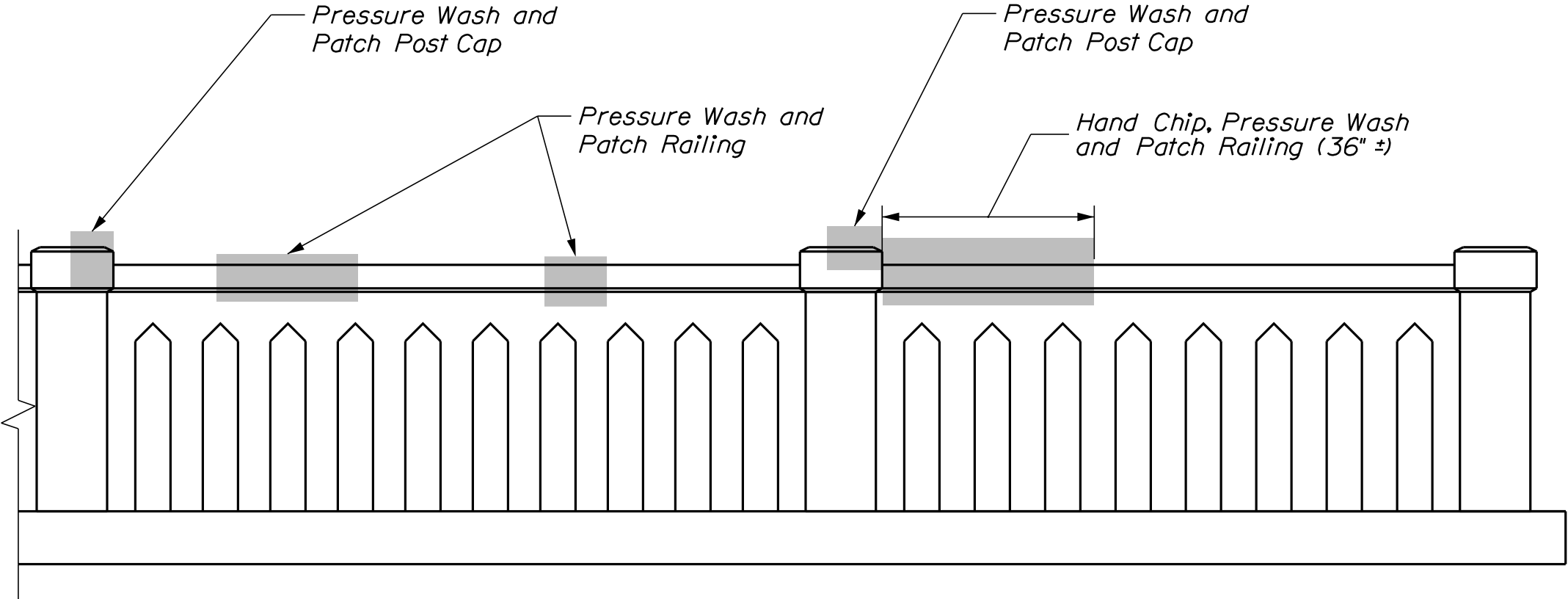
PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGN-DETAILED	DESIGN-DETAILED	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES
M. PARLIN	M. GRAY	R. MAYER							
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
JULY 2020									
SIGNATURE									
P.E. NUMBER									
DATE									

COVERED BRIDGE	
NARRAGANAGUS RIVER	
CHERRYFIELD WASHINGTON COUNTY	
SUPERSTRUCTURE DETAILS	

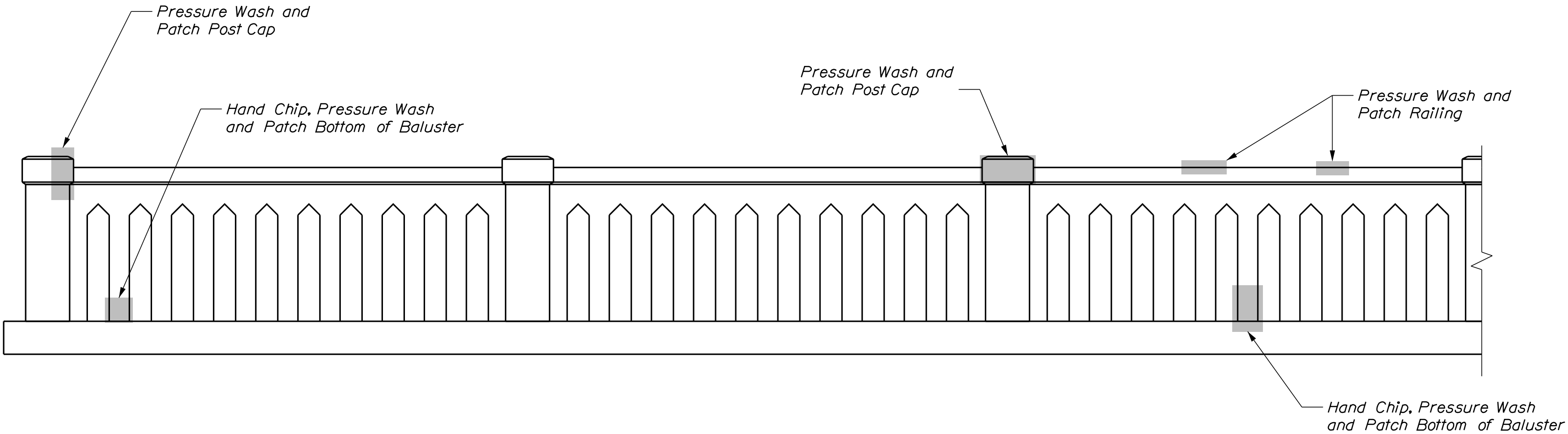
SHEET NUMBER
6
OF 12



APPROACH RAILING ELEVATION F-F
 NORTHWEST



APPROACH RAILING ELEVATION G-G
 SOUTHWEST



APPROACH RAILING ELEVATION H-H
 SOUTHWEST

RAILING NOTES

1. Payment for Item 518.60 Repair of Vertical Surfaces < 8" shall include all concrete rail repairs including the top rail, unless otherwise noted.
 2. Locations and types of repair were determined from a site visit in July 2020. Final repair locations and types of repair shall be determined and agreed upon in the field by the Contractor and the Resident.

COVERED BRIDGE NARRAGUAGUS RIVER CHERRYFIELD WASHINGTON COUNTY										PROJ. MANAGER M. PARLIN		BY R. MAYER		DATE JULY 2020		STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
APPROACH RAILING REPAIR; SHEET 1 OF 2										DESIGN-DETAILED		CHECKED-REVIEWED		SIGNATURE		2229400	
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										DESIGN3-DETAILED3							
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										FIELD CHANGES							
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OF 12																	

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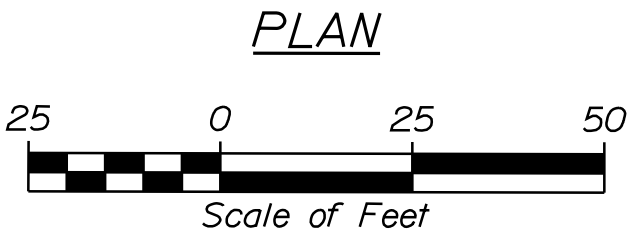
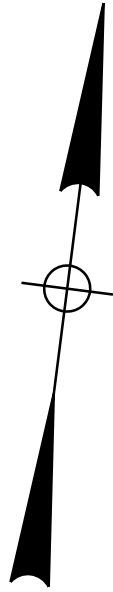
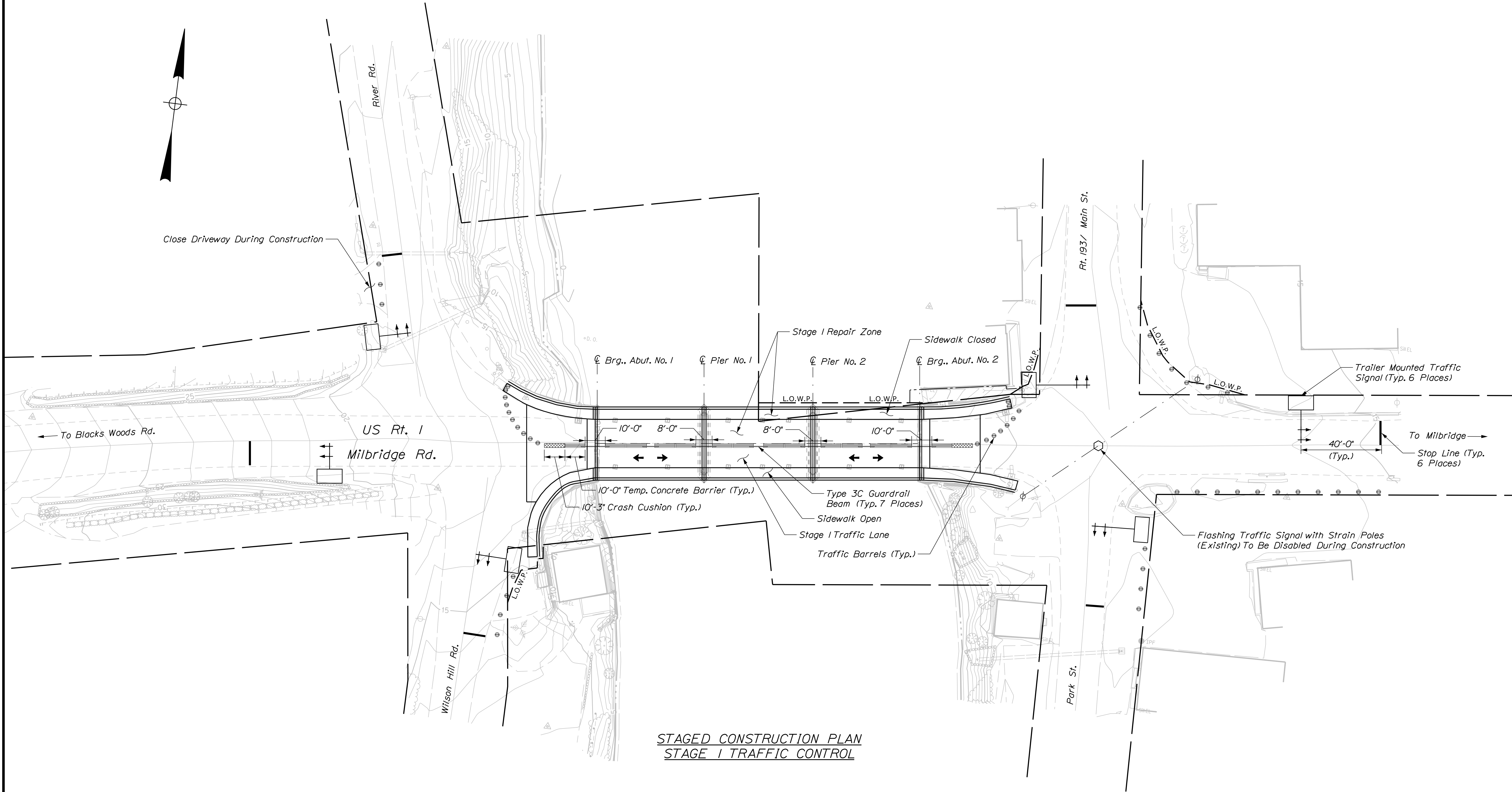
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<div> <div>OF 12</div> <div>8</div> </div>	SHEET NUMBER	COVERED BRIDGE NARRAGUAGUS RIVER CHERRYFIELD WASHINGTON COUNTY				PROJ. MANAGER M. PARLIN	BY R. MAYER	DATE JULY 2026	STATE OF MAINE DEPARTMENT OF TRANSPORTATION
		DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED2 DESIGN-DETAILED3 REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	SIGNATURE P.E. NUMBER DATE		2229400	WIN 022294.00	BRIDGE NO. 2192	BRIDGE PLANS	



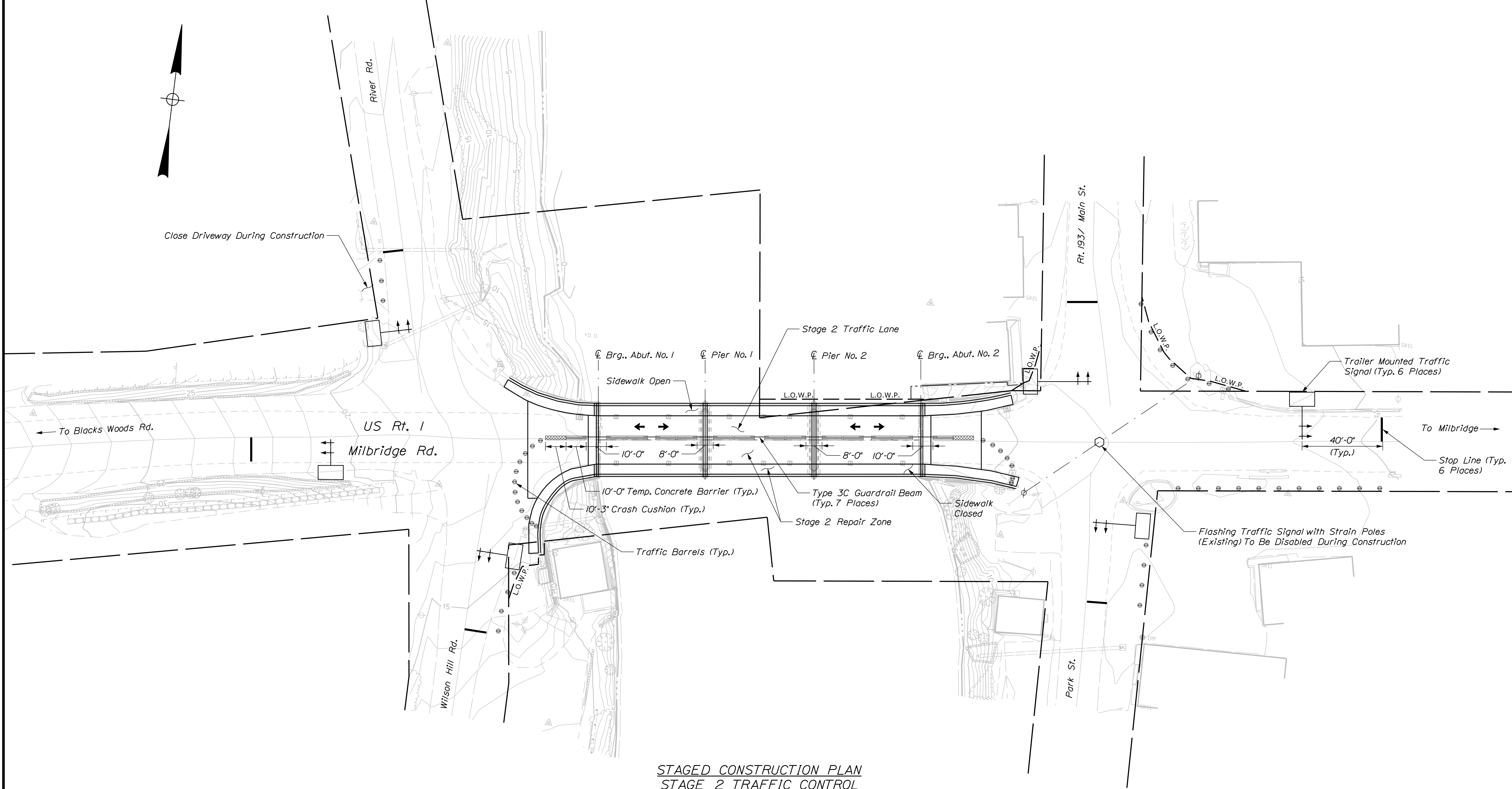
2. Spaces between Temporary Concrete Barrier spanned with guardrail beam will be paid under Item 526.30 Temporary Concrete Barrier Type 1

9 OF 12		SHEET NUMBER	COVERED BRIDGE NARRAGUAGUS RIVER CHERRYFIELD WASHINGTON COUNTY					PROJ. MANAGER	M. PARLIN	BY	DATE
			STAGED CONSTRUCTION SECTION					DESIGN-DETAILED	M. GRAY	R. MAYER	JULY 2022
CHECKED-REVIEWED									SIGNATURE		
DESIGN2-DETAILED2											
DESIGN3-DETAILED3											
REVISIONS 1										P.E. NUMBER	
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					REVISIONS 3						
					REVISIONS 4					DATE	
					FIELD CHANGES						
			STATE OF MAINE DEPARTMENT OF TRANSPORTATION 2229400 WIN 022294.00 BRIDGE NO. 2192 BRIDGE PLANS								

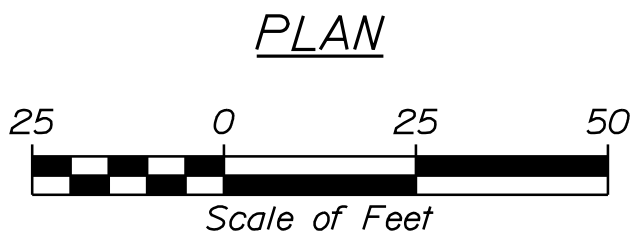


STAGED CONSTRUCTION PLAN
STAGE I TRAFFIC CONTROL

COVERED BRIDGE NARRAGUAGUS RIVER CHERRYFIELD WASHINGTON COUNTY				PROJ. MANAGER		M. PARLIN		BY		DATE	
STAGED CONSTRUCTION PLAN; STAGE 1				DESIGN-DETAILED		M. GRAY		R. MAYER		JULY 2020	
				CHECKED-REVIEWED							
				DESIGN2-DETAILED2							
				DESIGN3-DETAILED3							
				REVISIONS 1							
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STAGED CONSTRUCTION PLAN
 STAGE 2 TRAFFIC CONTROL



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
2229400		2229400	
WIN		022294.00	
BRIDGE NO. 2192		BRIDGE PLANS	
COVERED BRIDGE		NARRAGUAGUS RIVER	
CHERRYFIELD		WASHINGTON COUNTY	
STAGED CONSTRUCTION		PLAN; STAGE 2	
SHEET NUMBER		11	
OF 12			
PROJ. MANAGER	M. PARLIN	BY	R. MAYER
CHECKED-REVIEWED	M. GRAY	DATE	JULY 2020
DESIGN-DETAILED		SIGNATURE	
DESIGN-DETAILED		P.E. NUMBER	
REVISIONS 1		DATE	
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

