

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 (2020) AADT 17490 EB/ 17280 WB
 Future (2030) AADT 19240 EB/ 19010 WB
 DHV - % of AADT 10% EB/ 10% WB
 Design Hour Volume 1924 EB/ 1901 WB
 Heavy Trucks (% of AADT) 11% EB/ 11%WB
 Heavy Trucks (% of DHV) 7% EB/ 7%WB
 Directional Distribution (% of DHV) 100% EB/ 100% WB
 18 kip Equivalent P 2.0 1473 EB/ 1444 WB
 18 kip Equivalent P 2.5 1403 EB/ 1376 WB
 Design Speed (mph) 60

MATERIALS

Reinforcing Steel ASTM A 615/A 615M, Grade 60
 Structural Steel:
 All Material (except as noted) ASTM A 709, Grade 50W (unpainted)
 High Strength Bolts (except as noted) ASTM A 325, Type 3

BASIC DESIGN STRESSES

Concrete $f'c = 4000$ psi
 Reinforcing Steel $f_y = 60,000$ psi
 Structural Steel:
 ASTM A 709, Grade 50W $F_y = 50,000$ psi
 ASTM A 709, Grade 36 $F_y = 36,000$ psi

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BANGOR-BREWER PENOBSCOT COUNTY VETERANS REMEMBRANCE BRIDGE OVER PENOBSCOT RIVER\SO. MAIN STREET INTERSTATE 395 FEDERAL AID PROJECT NO. 2227800 PROJECT LENGTH 0.294 mi. BRIDGE NO. 1558

UTILITIES

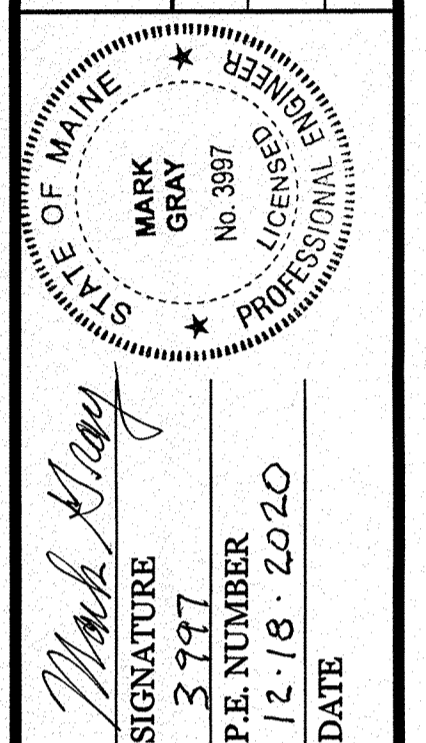
Maine DOT
 Springfield Terminal Railway
 Bangor Gas Company
 Brewer Water Department
 Charter Communications
 Consolidated Communications
 Firstlight
 Versant Power
 City of Brewer

MAINTENANCE OF TRAFFIC

See Special Provision Section 105 General
 Scope of Work (Traffic Control)

PROJECT LOCATION	Carrying both east and west bound lanes of Interstate 395 over the Penobscot River and South Main Street in Brewer between Bangor and Brewer Lat./Long. 44°47'03.24" N 68°46'28.95" W
PROGRAM AREA	Bridge Program
OUTLINE OF WORK	Bridge Rehabilitation: New finger-joint troughs at Abut#2 and Pier#2, high performance coating of substructure tops, bearing repair/replacement, silane treatment of exposed concrete, Abut#2 slope repair

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
COMMISSIONER: <i>[Signature]</i>
CHIEF ENGINEER: <i>[Signature]</i>
DATE: 12-22-2020
12-21-2020



PROJECT INFORMATION
PROGRAM: Bridge
PROJECT MANAGER: Michael Wight
DESIGNER: Mark Gray
CONSULTANT:
PROJECT RESIDENT:
CONTRACTOR:
PROJECT COMPLETION DATE:

BANGOR-BREWER VETERANS REMEMBRANCE BRIDGE
TITLE SHEET

SHEET NUMBER
1
OF 20

WIN 22278.00

Date: 12/17/2020
 Username: Richard.Mayer
 Division: BRIDGE
 Filename: \\00\BRIDGE\MSTA\001_Title.dgn

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
502.565	CONCRETE FILL	97	CY
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	100	LB
503.13	REINFORCING STEEL, PLACING	150	LB
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (495 SY)	1	LS
515.201	PIGMENTED CONCRETE PROTECTIVE COATING	695	SY
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (8382 SY)	1	LS
518.50	REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL < 8 IN.	158	SF
518.51	REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL < 8 IN.	10	SF
518.52	REPAIR OF UPWARD FACING SURFACES >= 8 IN	5	CY
518.60	REPAIR OF VERTICAL SURFACES < 8 IN.	1244	SF
518.61	REPAIR OF VERTICAL SURFACES >= 8 IN.	4	CY
518.70	REPAIR OF OVERHEAD SURFACES < 8 IN.	40	SF
521.52	TROUGH SYSTEM FOR FINGER JOINT (2 EA)	1	LS
523.52	BEARING INSTALLATION	86	EA
523.5551	POT OR DISC BEARINGS, FIXED	6	EA
523.5552	POT OR DISC BEARINGS, EXPANSION	80	EA
524.301	TEMPORARY STRUCTURAL SUPPORT	1	LS
526.301	TEMPORARY CONCRETE BARRIER TYPE I (450 LF)	1	LS
527.33	TRUCK MOUNTED ATTENUATOR	1	EA
610.08	PLAIN RIPRAP	23	CY
610.18	STONE DITCH PROTECTION	14	CY
619.14	EROSION CONTROL MIX	10	CY
620.58	EROSION CONTROL GEOTEXTILE	45	SY
627.75	WHITE OR YELLOW PAVEMENT & CURB MARKING	1350	SF
627.77	REMOVING PAVEMENT MARKINGS	1350	SF
627.78	TEMPORARY 4 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	1800	LF
629.05	HAND LABOR, STRAIGHT TIME	80	HR
631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	40	HR
631.11	AIR TOOL (INCLUDING OPERATOR)	40	HR
631.112	WELDING MACHINE (INCLUDING OPERATOR)	20	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	40	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	40	HR
631.21	ROAD BROOM (INCLUDING OPERATORS AND HAULER)	10	HR
639.18	FIELD OFFICE TYPE A	1	EA
652.312	TYPE III BARRICADE	4	EA
652.33	DRUM	25	EA
652.34	CONE	50	EA
652.35	CONSTRUCTION SIGNS	400	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LS
652.38	FLAGGER	200	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

GENERAL CONSTRUCTION NOTES

1. Protective Coating for Concrete Surfaces shall be applied to all exposed concrete surfaces not otherwise coated with high performance waterproofing membrane or pigmented concrete protective coating, excepting the concrete deck slab soffit, deck, fascia, median barrier, curbs and exposed deck concrete. Surfaces to be coated include abutments, wingwalls and piers from ground or water level up to the interface with other coatings.

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

3. 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. The following additional information may be accessed at the Maine DOT web address:

- Bearing shop drawings from the 1986 construction
- Structural steel shop drawings from the 1986 construction
- Record contract drawings from the 1986 construction
- Record contract drawings from the 2011 construction
- 7/2018 Photographs of existing pot bearings

Contractor may not rely on the above information and must confirm information presented with actual field measurements and observations.

4. Concrete cores were extracted and tested for all substructures of the existing bridge. A file containing the test results of those cores may be accessed at the MaineDOT web address. There is no assurance that the information or data is a true representation of the conditions of the individual substructures.

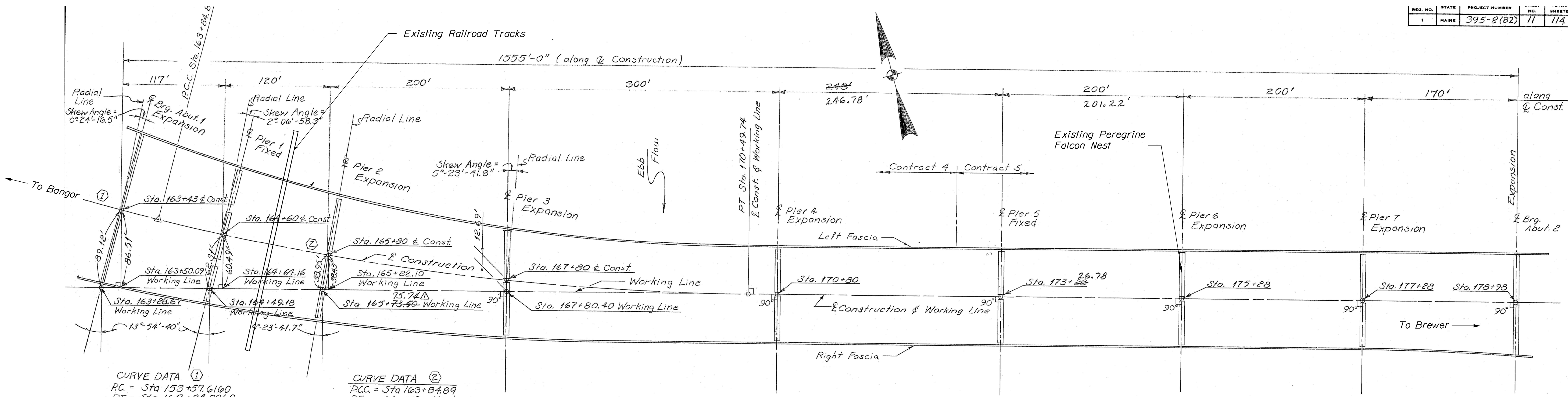
5. Quantities included for pay items measured and paid for by Lump Sum are estimated quantities and are provided by MaineDOT for informational purposes only. Lump Sum pay items will be paid for at the Contract Bid amount, with no addition or reduction in payment to the Contractor if the actual final 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.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
WIN 022278.00		BRIDGE NO. 1556	
BRIDGE PLANS		22278.00	
PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN-DETAILED	M. GRAY	R. MAYER	NOV 2020
CHECKED-REVIEWED	R. MYERS	M. GRAY	NOV 2020
DESIGNS-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
VETERANS REMEMBRANCE BRIDGE PENOBSCOT RIVER\SO. MAIN STREET BANGOR-BREWER PENOBSCOT COUNTY ESTIMATED QUANTITIES & GENERAL CONSTRUCTION NOTES			
SHEET NUMBER			
2			
OF 20			

GENERAL NOTES

1. THIS DRAWING IS PROVIDED FOR GENERAL ORIENTATION. IT IS REPRODUCED FROM THE ORIGINAL CONSTRUCTION PLAN SET AND MAY NOT BE REPRESENTATIVE OF CURRENT CONDITIONS.



REG. NO.	STATE	PROJECT NUMBER	NO.	SHEETS
1	MAINE	395-8(82)	11	114

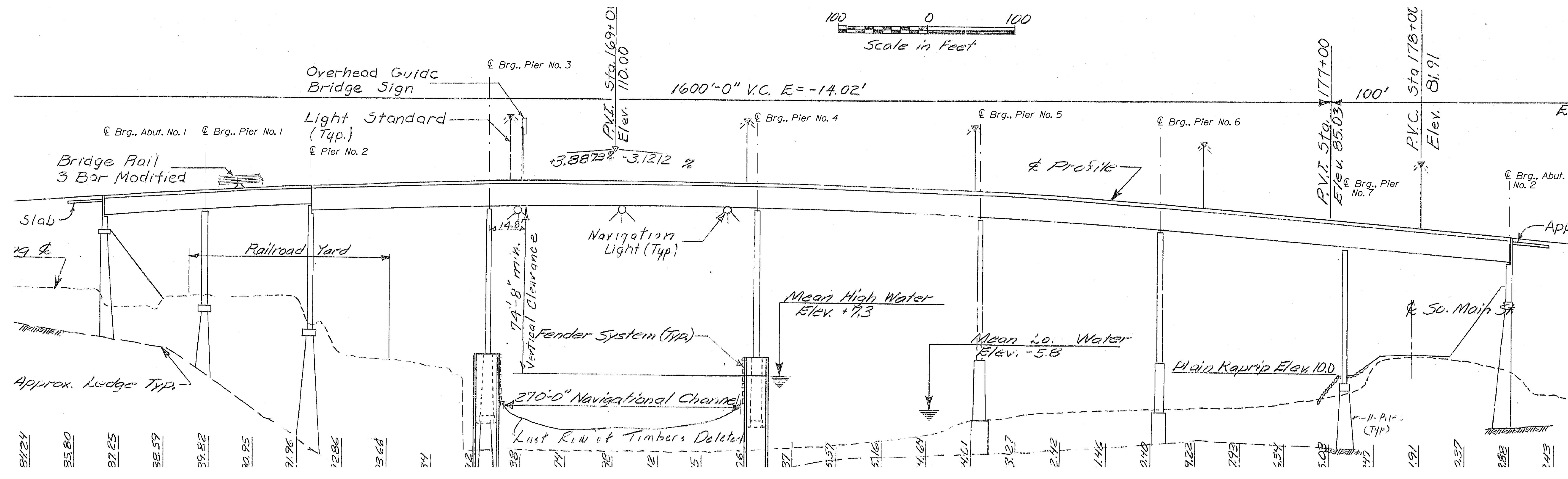
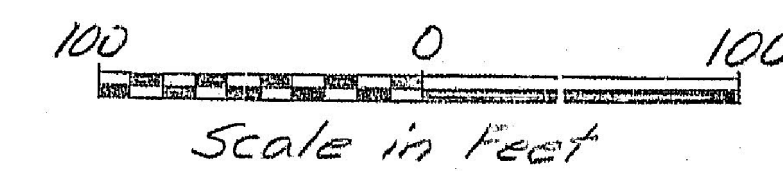
CURVE DATA ①

PC = Sta 153+57.6160
 PT = Sta 163+84.8960
 PI = Sta 158+71.5960
 Δ = 5°08'11.1" Lt.
 D = 0°30'
 T = 513.98'
 R = 11459.156'
 L = 1027.28'

CURVE DATA ②

PCC = Sta 163+84.89
 PT = Sta 170+49.74
 PI = Sta 167+18.819
 Δ = 13°17'49.4" Lt.
 D = 2°00'
 T = 333.93'
 R = 2864.789'
 L = 664.85'

SUBSTRUCTURE LAYOUT



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WIN 022278.00

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER\SO. MAIN STREET
BANGOR-BREWER PENOBSCOT COUNTY

EXISTING PLAN & PROFILE

SHEET NUMBER 3 OF 20

PROJ. MANAGER	DATE	BY	DATE	REVISIONS
M. GRAY	NOV 2020	R. MAYER	NOV 2020	1
M. GRAY	NOV 2020	M. GRAY	NOV 2020	2
R. MYERS				3
				4

BRIDGE NO. 1558
BRIDGE PLANS
WIN 22278.00

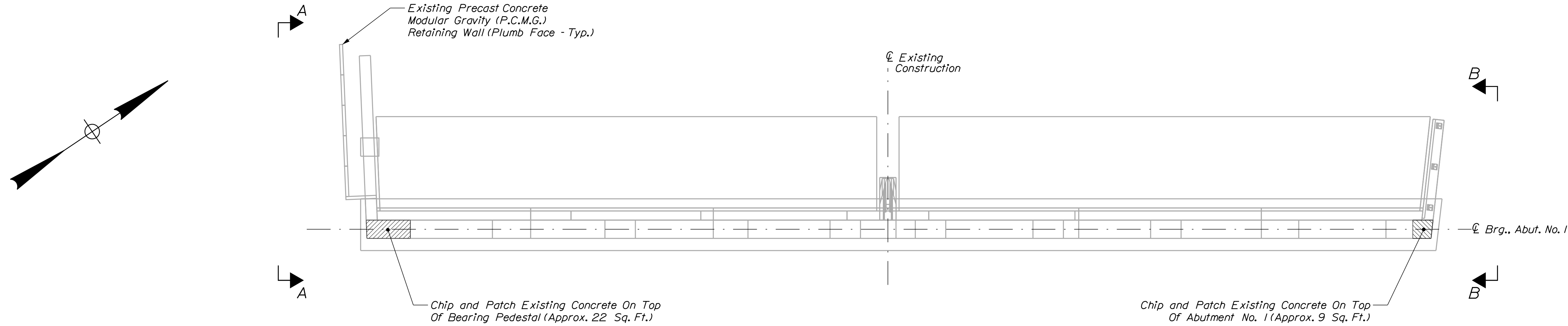
Username: Richard.Mayer Date:12/15/2020
 Filename: ...003_Plan-Profile Record Dwg.dgn Division: BRIDGE

CONCRETE REPAIR NOTES

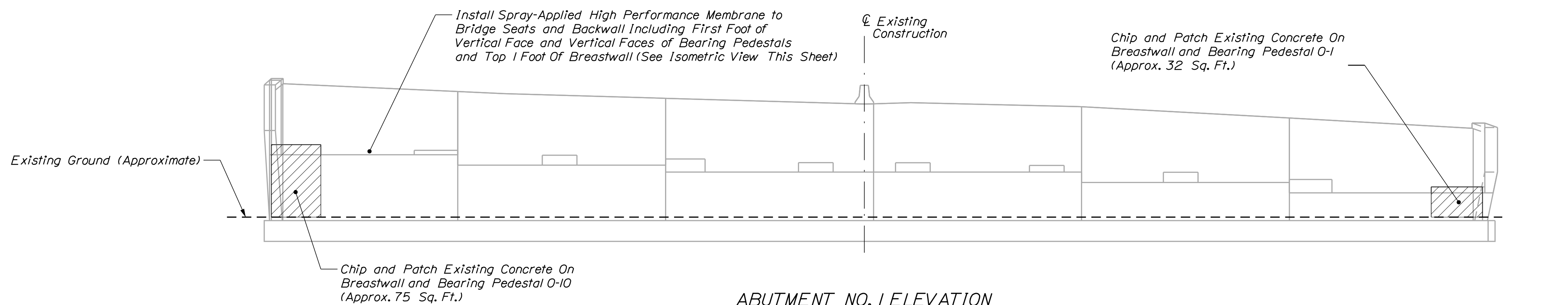
1. The quantities of pier and abutment repairs noted on these drawings are based on a visual inspection. If differences are experienced, the Resident shall be notified and quantities shall be adjusted accordingly. Actual repair areas will be determined and agreed to by the Contractor and Resident during construction.
2. The Resident must approve changes in quantity beyond what is shown or assumed.
3. All broken or corroded reinforcing bars shall be supplemented in accordance with Standard Specification Section 518.04. Supplemental reinforcing shall maintain a clear cover of 2". Payment for supplemental bars shall be included in items 503.12 and 503.13.

CONCRETE REPAIR LEGEND

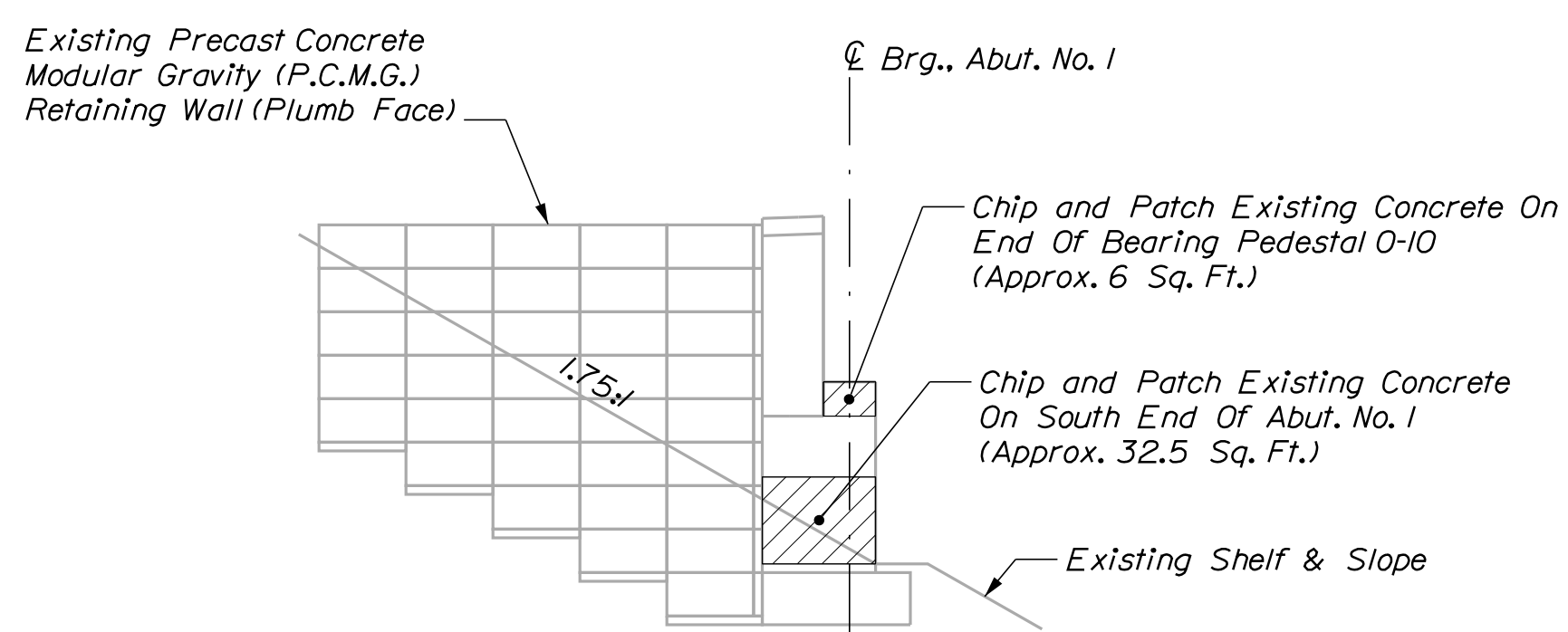
	518.50 REPAIR OF UPWARD FAC SURF - TO RE STEEL
	518.51 REPAIR OF UPWARD FAC SURF-BELOW RE STEEL
	518.52 REPAIR OF UPWARD FACING SURFACES >= 8"
	518.60 REPAIR OF VERTICAL SURFACES < 8 IN.
	518.61 REPAIR OF VERTICAL SURFACES >= 8 IN.



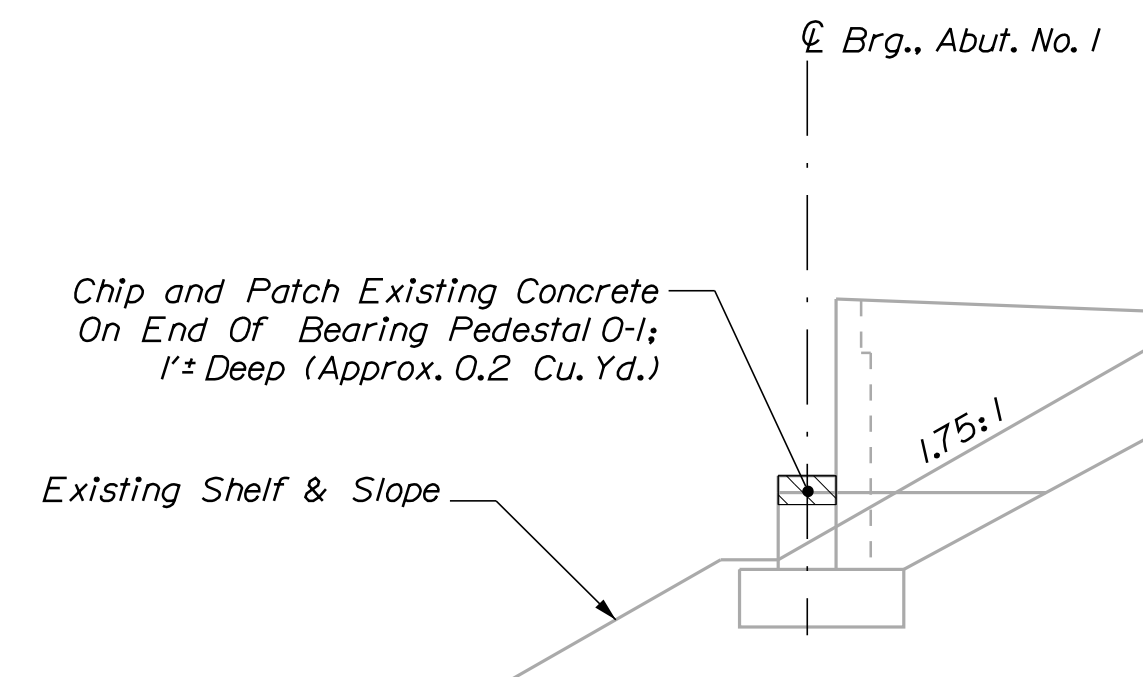
ABUTMENT NO. 1 PLAN



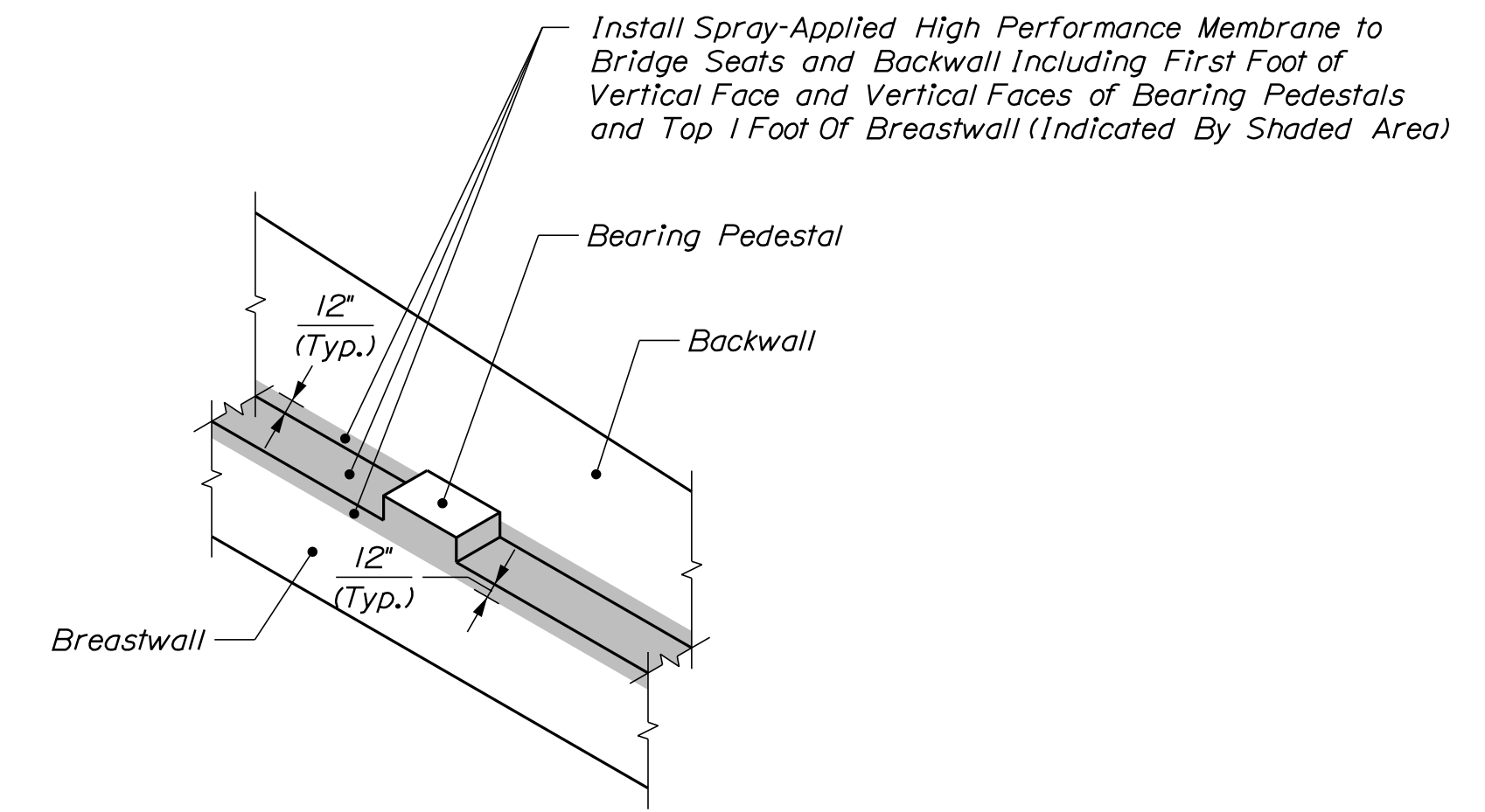
ABUTMENT NO. 1 ELEVATION



SOUTH WING ELEVATION A-A



NORTH WING ELEVATION B-B



ABUTMENT NO. 1 ISOMETRIC VIEW

Date: 12/15/2020

Username: Richard.Mayer

Division: BRIDGE

Filename: ... \MSTAD004_ABUT*1 REPAIR.dgn

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	WIN 022278.00	BRIDGE NO. 1568	BRIDGE PLANS
SIGNATURE	P.E. NUMBER	DATE	
M. WIGHT	M. GRAY	R. MAYER	M. GRAY
DESIGN-DETAILED	M. GRAY	R. MAYER	M. GRAY
CHECKED-REVIEWED	R. MYERS	R. MYERS	M. GRAY
DESIGN-DETAILED	REVISIONS 1	REVISIONS 2	REVISIONS 3
REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4
REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES
REVISIONS 3	VETERANS REMEMBRANCE BRIDGE PENOBSCOT RIVER\SO. MAIN STREET BANGOR-BREWSTER PENOBSCOT COUNTY		
REVISIONS 4	ABUTMENT NO. 1 REPAIR		
FIELD CHANGES	SHEET NUMBER		
	4		
	OF 20		

Date: 12/15/2020

Username: Richard.Mayer






Division: BRIDGE

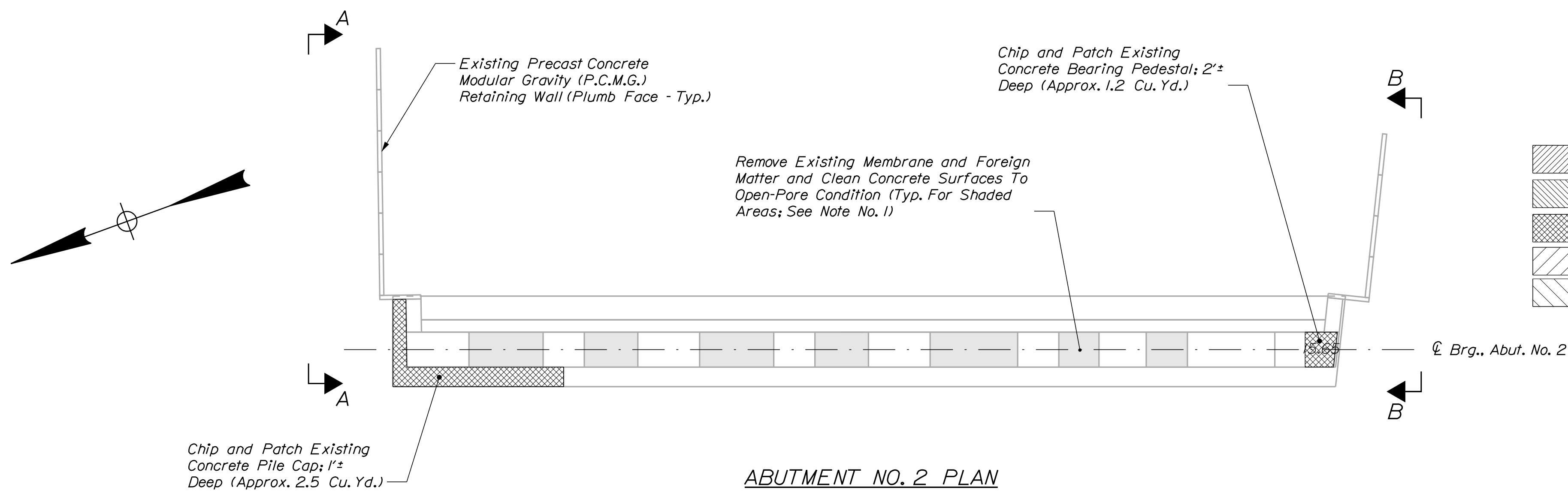
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CONCRETE REPAIR NOTES

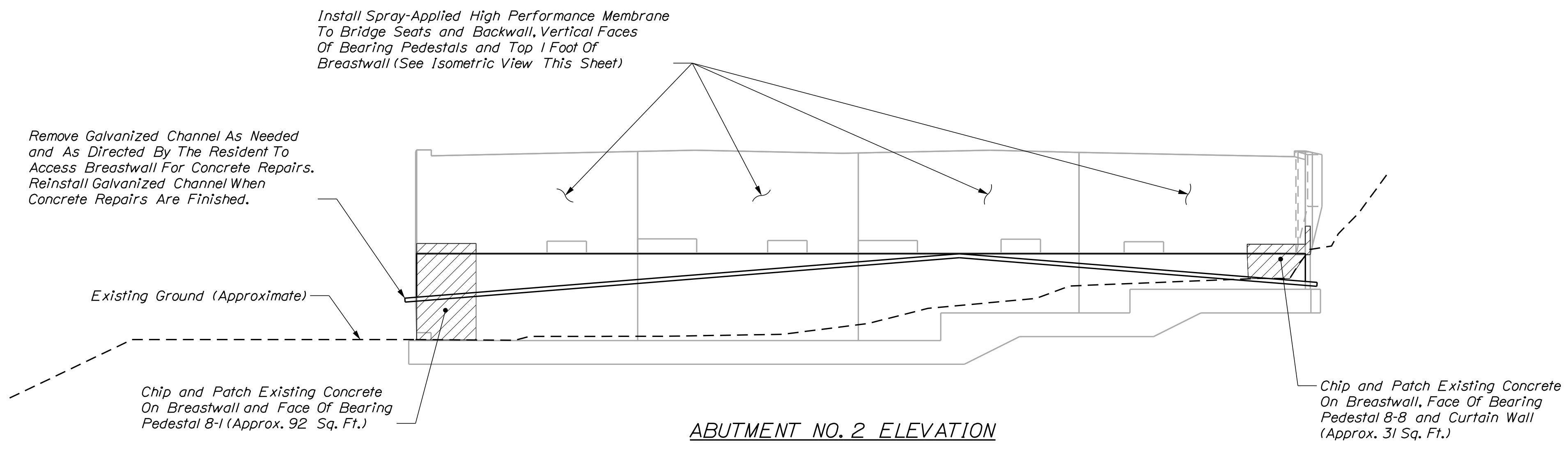
1. Additional concrete repairs may be identified after removing protective membrane and trough system. If additional repairs are identified, the Resident shall be notified and quantities adjusted accordingly. Actual repair areas will be determined and agreed to by the Contractor and Resident during construction.

CONCRETE REPAIR LEGEND

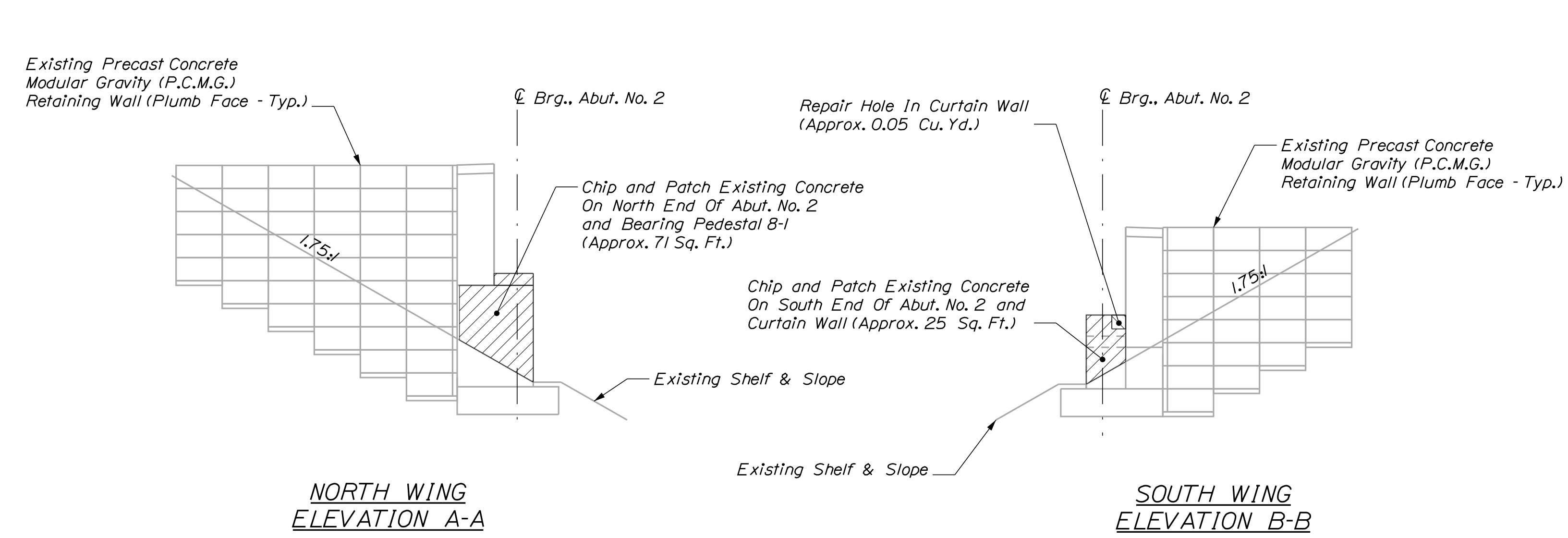
-  518.50 REPAIR OF UPWARD FAC SURF - TO RE STEEL
-  518.51 REPAIR OF UPWARD FAC SURF-BELOW RE STEEL
-  518.52 REPAIR OF UPWARD FACING SURFACES > 8"
-  518.60 REPAIR OF VERTICAL SURFACES < 8 IN.
-  518.61 REPAIR OF VERTICAL SURFACES > 8 IN.



ABUTMENT NO. 2 PLAN

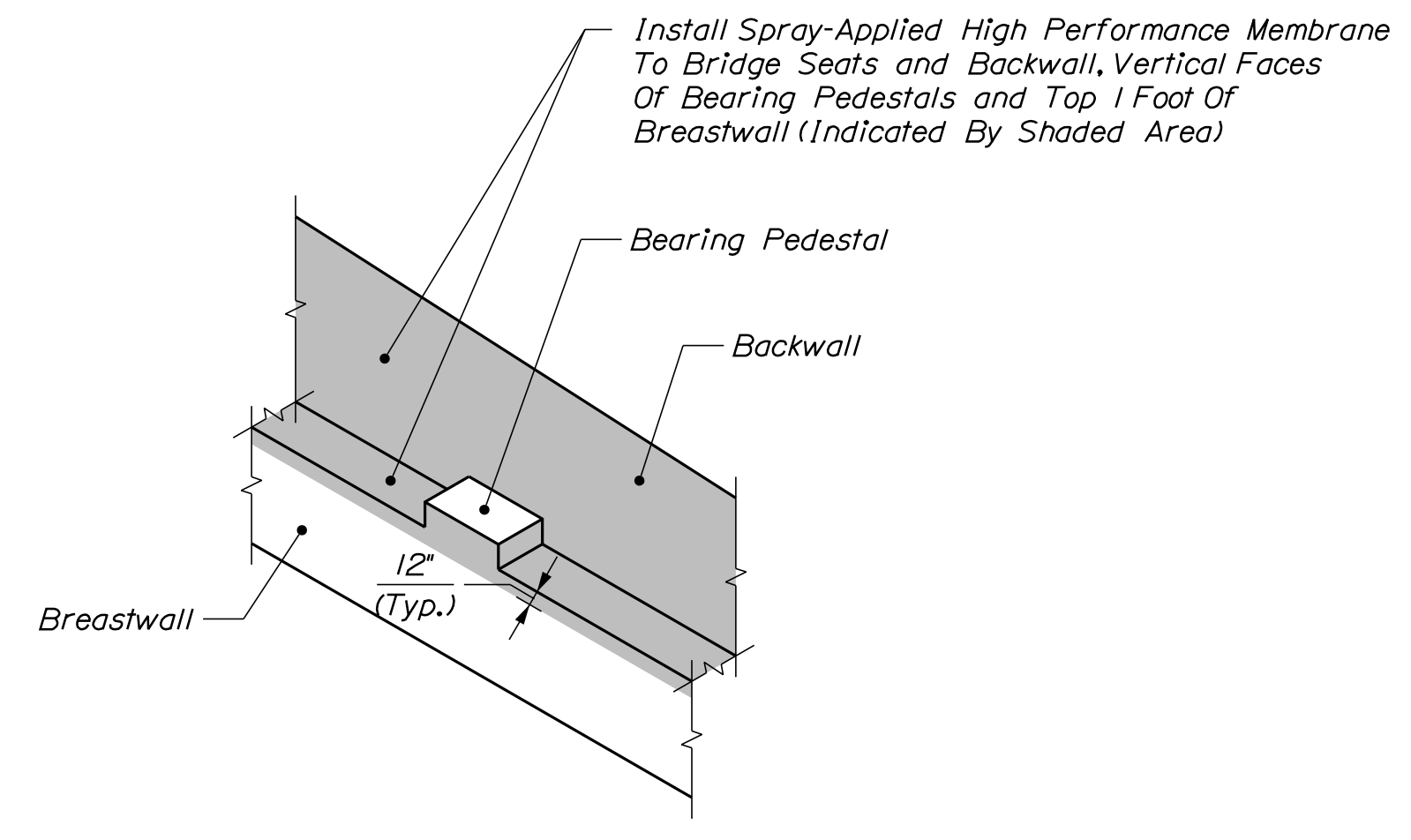


ABUTMENT NO. 2 ELEVATION



NORTH WING ELEVATION A-A

SOUTH WING ELEVATION B-B



ABUTMENT NO. 2 ISOMETRIC VIEW

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WIN 022278.00
BRIDGE NO. 1568
BRIDGE PLANS

PROJ. MANAGER	M. WIGHT	DATE
DESIGN-DETAILED	M. GRAY	NOV 2020
CHECKED-REVIEWED	R. MAYER	NOV 2020
DESIGN-DETAILED	R. MYERS	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE	P.E. NUMBER	DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER\SO. MAIN STREET
BANGOR-BREWSTER PENOBSCOT COUNTY
ABUTMENT NO. 2 REPAIR

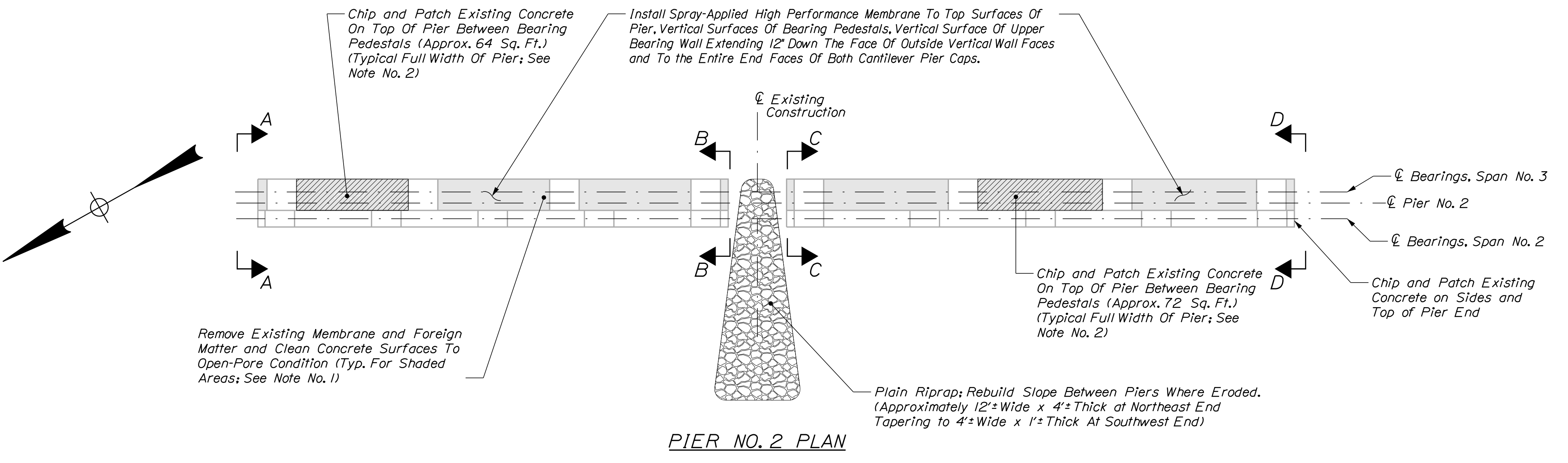
SHEET NUMBER
5
OF 20

Date: 12/15/2020

Username: Richard.Mayer

Division: BRIDGE

Filename: ... \MSTA\006_PIER*2_REPAIR.dgn



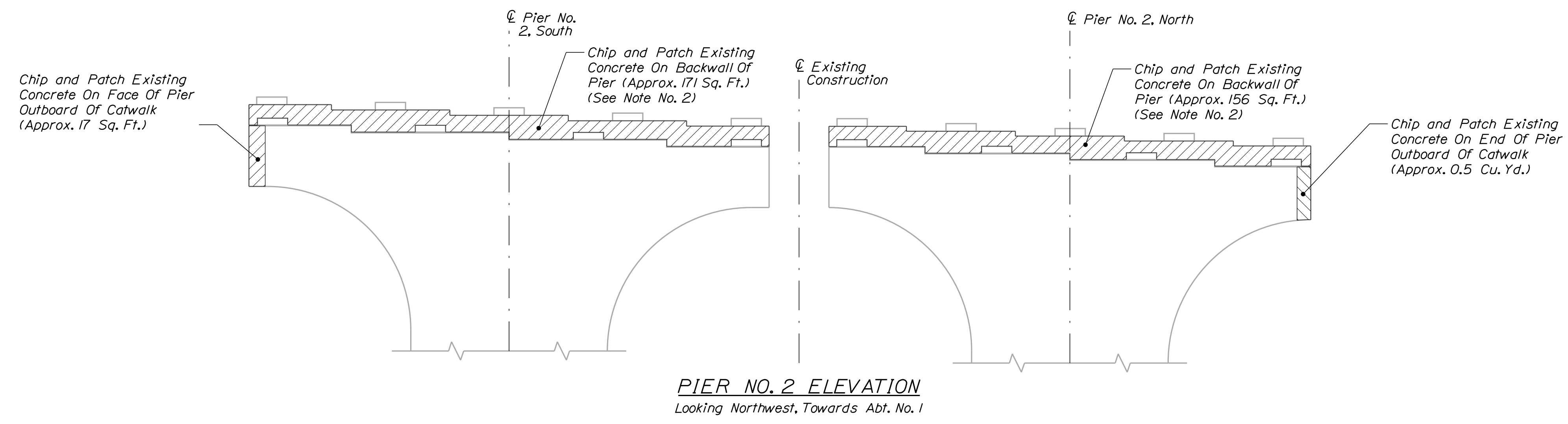
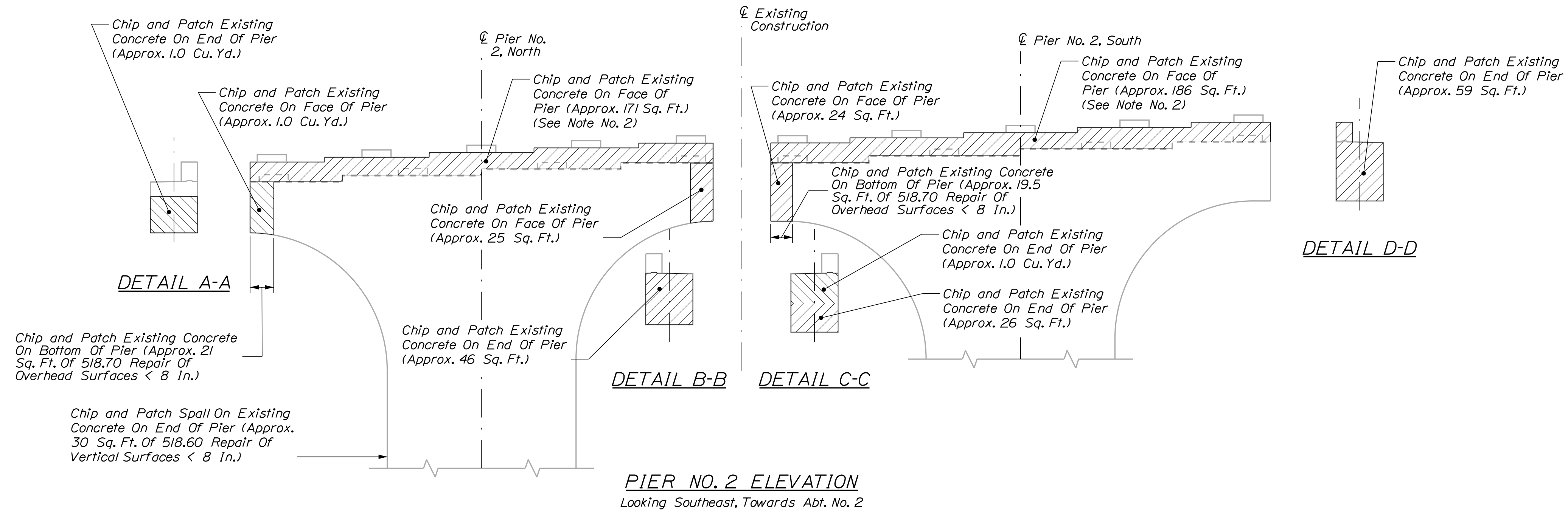
PIER NO. 2 PLAN

CONCRETE REPAIR NOTES

- Additional concrete repairs may be identified after removing protective membrane and trough system. If additional repairs are identified, the Resident shall be notified and quantities adjusted accordingly. Actual repair areas will be determined and agreed to by the Contractor and Resident during construction.
- Where noted on the details, designated areas may need more limited areas of repair. Resident to identify areas to be repaired after surfaces are cleared and pressure washed.
- Remove existing membrane from top surfaces of Pier 2 and Abutment 2. Clean debris from all top surfaces of all substructures and pressure wash prior to performing concrete repairs and applying coatings. Top surfaces of Pier 2 (finger joint), Abutment 2 (finger joint) and Pier 6 (falcon nest) need special attention. This work to be incidental to other contract items.

CONCRETE REPAIR LEGEND

	518.50 REPAIR OF UPWARD FAC SURF - TO RE STEEL
	518.51 REPAIR OF UPWARD FAC SURF-BELOW RE STEEL
	518.52 REPAIR OF UPWARD FACING SURFACES >= 8"
	518.60 REPAIR OF VERTICAL SURFACES < 8 IN.
	518.61 REPAIR OF VERTICAL SURFACES >= 8 IN.



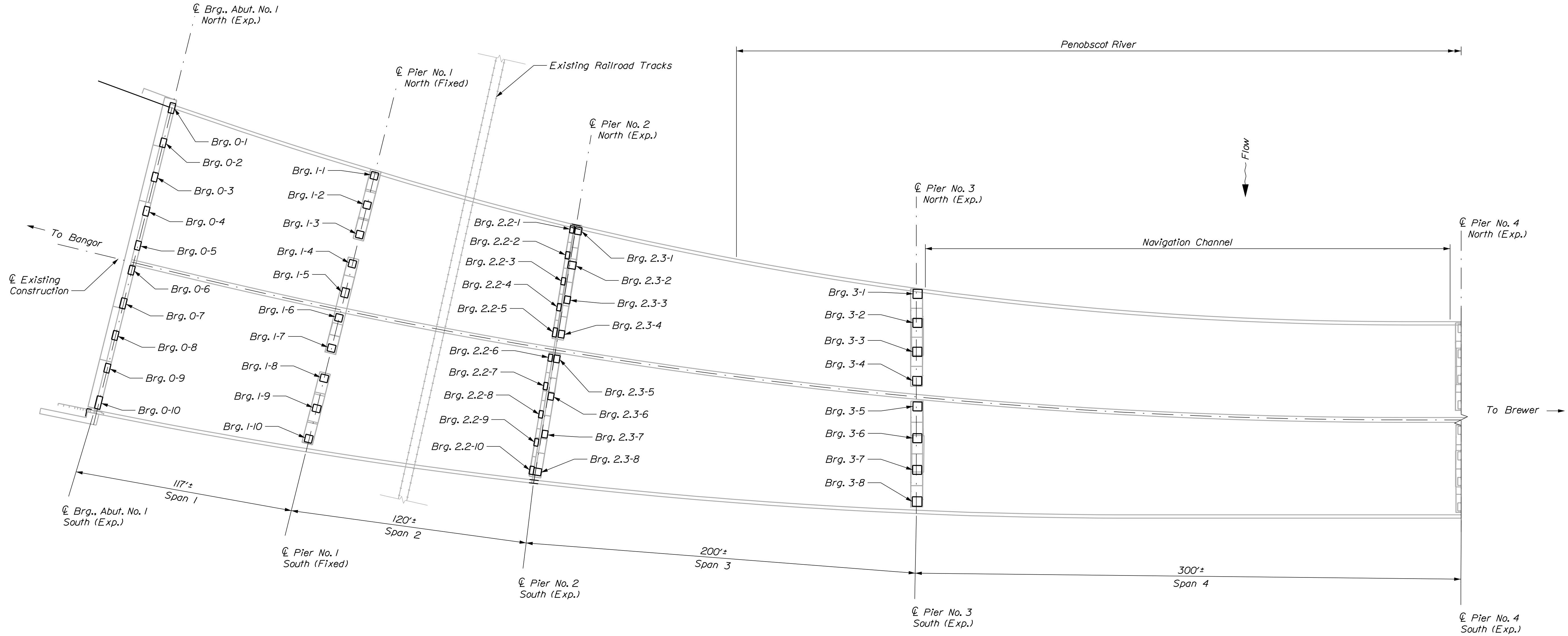
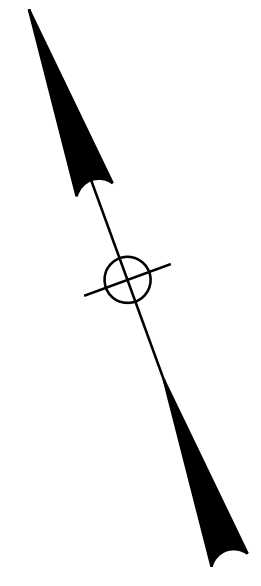
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		WIN 022278.00		BRIDGE NO. 1568		BRIDGE PLANS	
VETERANS REMEMBRANCE BRIDGE		PENOBSCOT RIVER\SO. MAIN STREET		PENOBSCOT COUNTY		PIER NO. 2 REPAIR		SHEET NUMBER	
6		OF 20		DATE		SIGNATURE		P.E. NUMBER	
NOV 2020		NOV 2020		R. MAYER		M. GRAY		DATE	
M. WIGHT		M. GRAY		R. MYERS		REVISIONS 1		REVISIONS 2	
BY		BY		BY		REVISIONS 3		REVISIONS 4	
DESIGN DETAILED		DESIGN DETAILED		DESIGN DETAILED		FIELD CHANGES		FIELD CHANGES	

Date: 12/15/2020

Username: Richard.Mayer

Division: BRIDGE

Filename: ... \MSTA\007_BearingIndexPlan1.dgn



BEARING INDEX PLAN
(Not To Scale)

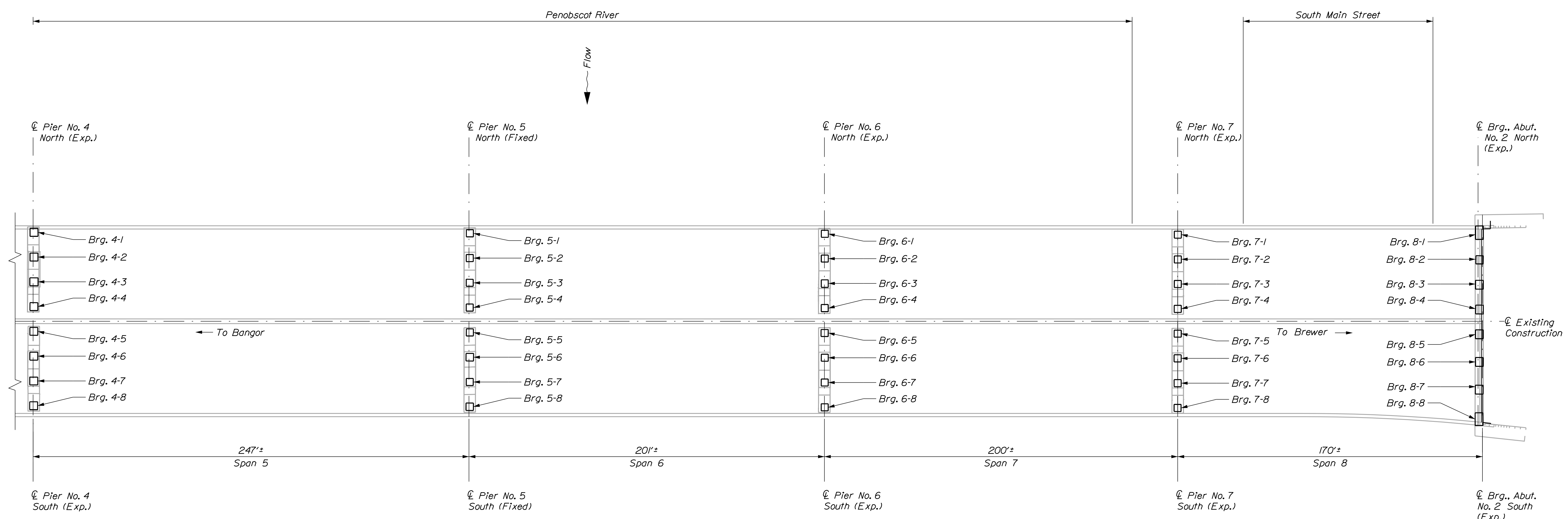
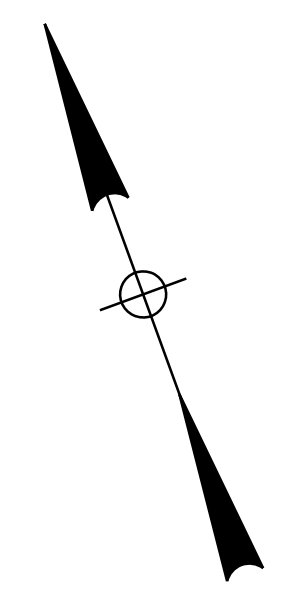
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WIN 022278.00
BRIDGE NO. 1588
WIN 22278.00
BRIDGE PLANS

DESIGNED	DATE	SIGNATURE
CHECKED	NOV 2020	
REVIEWED	NOV 2020	
DESIGNED		P.E. NUMBER
REVISIONS 1		DATE
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGNED	M. GRAY	R. MAYER	NOV 2020
CHECKED	R. GRAY	M. GRAY	NOV 2020
REVIEWED	R. MYERS		
DESIGNED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER\SO. MAIN STREET
BANGOR-BREWSTER PENOBSCOT COUNTY
**BEARING INDEX
PLAN: 1 OF 2**

SHEET NUMBER
2
OF 20



BEARING INDEX PLAN
(Not To Scale)

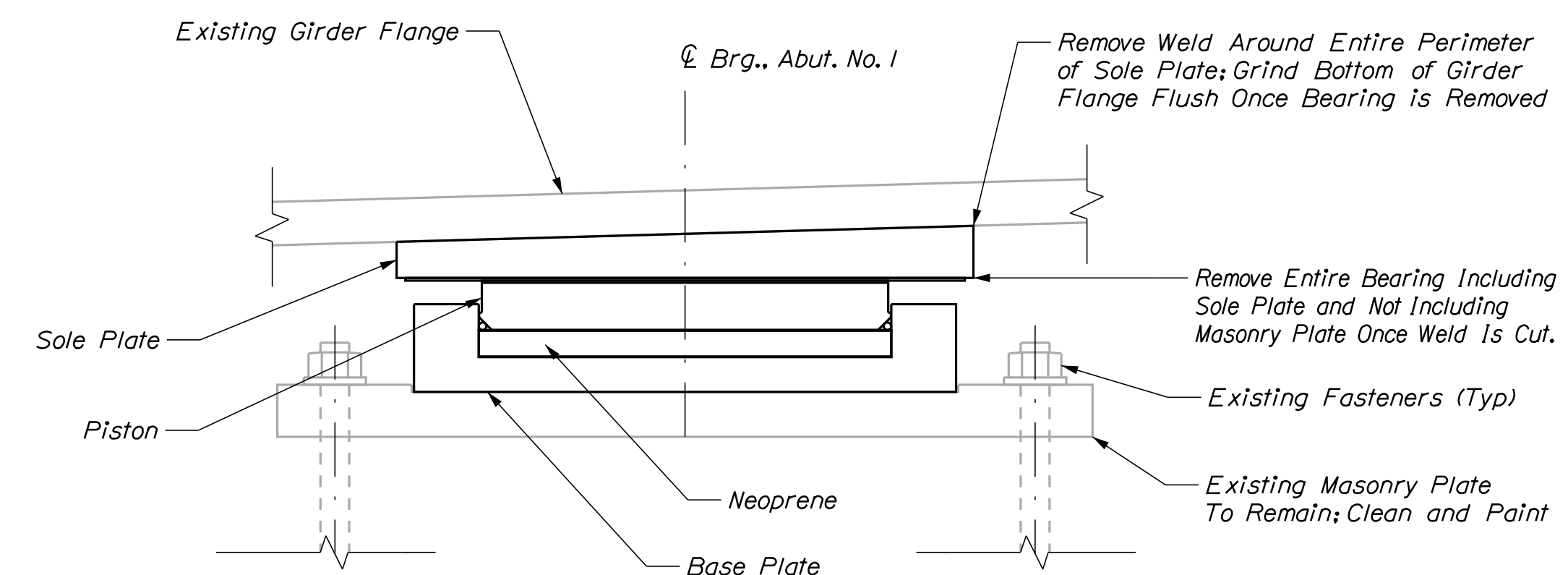
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
WIN 022278.00		BRIDGE NO. 1588	
WIN 22278.00		BRIDGE PLANS	
PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN/DETAILED	M. GRAY	R. MAYER	NOV 2020
CHECKED/REVIEWED	R. MYERS	M. GRAY	NOV 2020
DESIGN/DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
VETERANS REMEMBRANCE BRIDGE PENOBSCOT RIVER\SO. MAIN STREET BANGOR-BREWER PENOBSCOT COUNTY BEARING INDEX PLAN: 2 OF 2			
SHEET NUMBER			
8			
OF 20			

DISC BEARING DESIGN TABLE

STRUCTURE	INDIVIDUAL BEARING NUMBERS - SEE INDEX PLAN	NEW DISC BEARING TYPE	MINIMUM HYDRAULIC JACK CAPACITY PER GIRDER - TONS	VERTICAL LOAD KIPS				HORIZONTAL LOAD KIPS				UPLIFT KIPS	ROTATION RADIANS		MOVEMENT RANGE 150° (INCHES)		SOLE PLATE BEVEL % (FIELD MEASURE) - IS UP IN THE EASTERLY DIRECTION		BEARING HEIGHT - FLANGE TO MASONRY PLATE RECESS INCHES	RECORD DWG. DESIGN LOADS KIPS (FOR REFERENCE ONLY)			
			LRFD 3.4.3.1	DEAD - NOT FACTORED	SERVICE 1	STRENGTH 1	EXTREME 1	SERVICE 1	STRENGTH 1	EXTREME 1	15% OF TOTAL BENT VERT SERVICE OR 0.2 (STATIC μ) x BEARING VERTICAL SERVICE		LONGI-TUDINAL	TRANS-VERSE	LONGI-TUDINAL APPROX	TRANSVERSE	DIMENSION "H" (CONFIRM WITH FIELD MEASURE)	VERTICAL	HORIZ-ONTAL	UPLIFT			
Abutment 1 North	0-1; 0-2; 0-5	Unguided	236	159	356	490	315	0	0	0	71	0	0.015	0.005	1.47	0.49	2.50	Unknown	4.50	356	0	0	
	0-3; 0-4	Guided Longitudinal	236	155	356	428	295	32	49	76	134	0	0.015	0.005	1.47	0.00	2.50	Unknown	4.50	356	40	0	
Abutment 1 South	0-6; 0-9; 0-10	Unguided	236	157	356	488	317	0	0	0	71	0	0.015	0.005	1.47	0.47	2.50	Unknown	4.50	356	0	0	
	0-7; 0-8*	Guided Longitudinal	236	150	356	428	290	28	33	70	134	0	0.015	0.005	1.47	0.00	2.50	Unknown	4.50	356	40	0	
Pier 1 North	1-1; 1-2; 1-5	Guided Trans	600	539	892	1151	899	79	122	134	134	0	0.015	0.005	0.00	0.43	2.50	Unknown	6.53	892	90	0	
	1-3; 1-4	Fixed	600	505	892	982	806	47	70	123	335	0	0.015	0.005	0.00	0.00	2.50	Unknown	6.53 or 5.75	892	90	0	
Pier 1 South	1-6; 1-9; 1-10	Guided Trans	600	573	892	1187	934	72	117	133	134	0	0.015	0.005	0.00	0.43	2.50	Unknown	6.53	892	90	0	
	1-7; 1-8*	Fixed	600	530	892	1019	840	41	63	126	335	0	0.015	0.005	0.00	0.00	2.50	Unknown	6.53 or 5.75	892	90	0	
Pier 2 Span 2 North	2-2-1; 2-2-2; 2-2-5	Unguided	240	149	325	484	314	0	0	0	65	0	0.015	0.005	1.51	0.37	2.30	Unknown	4.48	301	0	0	
	2-2-3; 2-2-4	Guided Longitudinal	240	133	301	386	262	23	31	54	113	0	0.015	0.005	1.51	0.00	2.30	Unknown	4.48	301	35	0	
Pier 2 Span 2 South	2-2-6; 2-2-9; 2-2-10	Unguided	240	161	349	512	329	0	0	0	70	0	0.015	0.005	1.51	0.40	2.20	Unknown	4.48	301	0	0	
	2-2-7; 2-2-8*	Guided Longitudinal	240	144	301	412	280	30	33	63	113	0	0.015	0.005	1.51	0.00	2.20	Unknown	4.48	301	35	0	
Pier 2 Span 3	2-3-1; 2-3-2; 2-3-3; 2-3-6; 2-3-7; 2-3-8	Unguided	346	288	520	723	504	0	0	0	104	45	0.015	0.005	9.41	0.73	1.00	Unknown	5.85	520	0	45	
	2-3-4; 2-3-5	Guided Longitudinal	346	277	520	576	498	56	67	145	312	45	0.015	0.005	9.41	0.00	1.00	Unknown	5.85	520	60	45	
Pier 3	3-1; 3-2; 3-3; 3-6; 3-7; 3-8	Unguided	1000	1142	1715	1977	1747	0	0	0	343	0	0.015	0.005	6.89	0.60	0.60	Unknown	8.39	1715	0	0	
	3-4; 3-5	Guided Longitudinal	1000	1127	1715	1817	1709	58	143	371	1029	0	0.015	0.005	6.89	0.00	0.60	Unknown	8.39	1715	180	0	
Pier 4	4-1; 4-2; 4-3; 4-6; 4-7; 4-8	Unguided	923	963	1420	1860	1531	0	0	0	284	0	0.015	0.005	3.11	0.53	-0.30	Unknown	7.85	1420	0	0	
	4-4; 4-5	Guided Longitudinal	923	980	1420	1651	1496	89	175	444	852	0	0.015	0.005	3.11	0.00	-0.30	Unknown	7.85	1420	150	0	
Pier 5	5-1; 5-2; 5-3; 5-6; 5-7; 5-8	Guided Trans	700	658	1061	1418	1094	52	64	157	159	0	0.015	0.005	0.00	0.53	-1.40	Unknown	7.08	1061	110	0	
	5-4; 5-5	Fixed	700	679	1061	1223	1075	57	104	356	637	0	0.015	0.005	0.00	0.00	-1.40	Unknown	6.17	1061	110	0	
Pier 6	6-1; 6-2; 6-3; 6-6; 6-7; 6-8	Unguided	644	594	952	1314	983	52	94	0	190	0	0.015	0.005	2.52	0.53	-2.40	Unknown	6.65	952	0	0	
	6-4; 6-5	Guided Longitudinal	644	615	952	1125	968	57	70	229	571	0	0.015	0.005	2.52	0.00	-2.40	Unknown	6.65	952	100	0	
Pier 7	7-1; 7-2; 7-3; 7-6; 7-7; 7-8	Unguided	670	640	1022	1341	1025	0	0	0	204	0	0.015	0.005	5.04	0.53	-2.80	Unknown	7.12	1022	0	0	
	7-4; 7-5	Guided Longitudinal	670	662	1022	1163	1017	28	85	178	613	0	0.015	0.005	5.04	0.00	-2.80	Unknown	7.12	1022	110	0	
Abutment 2	8-1; 8-2; 8-3; 8-6; 8-7; 8-8	Unguided	289	198	407	605	369	0	0	0	81	0	0.015	0.005	7.18	0.59	-2.90	Unknown	4.93	369	0	0	
	8-5; 8-6	Guided Longitudinal	289	202	369	481	355	18	42	98	221	0	0.015	0.005	7.18	0.00	-2.90	Unknown	4.93	369	40	0	
	*boundary condition changed from current pot bearing																						

HLMR BEARING NOTES:

1. The actual dimension "H" shall be determined from field measurements by the Contractor at each existing bearing centerline. Dimensions and sizes of plates not shown are dependent on design loads, capacity, and the manufacturer of the bearings. The shop drawings, prepared by the manufacturer, shall provide all pertinent bearing information. New disc bearings shall fit in the space vacated by the existing pot bearings between the existing masonry plate circular depression and the underside of the steel girder measured at the centerline of the masonry plate depression.
2. The Contractor shall be responsible for providing new bearing sole plates, including the design and manufacturing of these plates. Payment will be considered incidental to the disc bearing pay items; no separate payment will be made.
3. Record drawings for existing pot bearings have been provided to the Contractor on the Maine DOT website. Record drawings include design drawings and bearing submittal drawings from the manufacturer/fabricator.
4. Sole plates shall be beveled in both the longitudinal and transverse directions according to the field-measured slope of the girder bottom flange at each bearing by the Contractor. An approximate longitudinal grade is provided for bidding purposes based on record drawings as shown on the Disc Bearing Design Table.
5. The design temperature range shall be 150 °F (-30 °F to 120 °F).
6. Strength Limit State rotations shown in the Disc Bearing Design Table do include an allowance for uncertainties of 0.005 radians, as defined in AASHTO LRFD Bridge Design Specifications, 9th Edition 2020 (LRFD).
7. Longitudinal horizontal forces do include friction forces at the expansion bearings.
8. Average compressive stresses on the elastomer disc shall be calculated using the minimum plan area of the unstressed disc, excluding the area of holes.
9. All bearing steel, unless otherwise specified, shall meet the requirements of ASTM A709, Grade 50. Bearing steel above the sliding surface, or for fixed bearings, above the elastomeric disc, shall be ASTM A709, Grade 50W.
10. All bearing steel located below the nylon sliding surface, and in the case of fixed bearings, below the elastomeric disc, shall be coated in accordance with Standard Specifications Section 506, Shop Applied Protective Coating - Thermal Spray Coating. Other new bearing steel shall be uncoated. Existing masonry plates, anchor rods, washers and nuts shall be cleaned and coated as specified. Payment for coatings will be considered incidental to the disc bearing pay items, no separate payment will be made.
11. All bearings shall be marked prior to shipping. The marks shall include the bearing location on the bridge and a direction arrow that points up-station or to the east. All marks shall be permanent and shall be visible after the bearing is installed.
12. Bearing installation shall be in strict conformance with the Standard Specifications, Special Provisions, and the manufacturer's recommendations.



BEARING DEMOLITION AND REMOVAL DETAIL
Non-Guided Bearing at Abt. No. 1, Girder No. 1 Shown; Others Similar

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	WIN 022278.00	BRIDGE NO. 1556	BRIDGE PLANS
M. WIGHT	DATE	BY	DATE
DESIGN-DETAILED M. GRAY	NOV 2020	R. MAYER	NOV 2020
CHECKED-REVIEWED R. MYERS	NOV 2020	M. GRAY	NOV 2020
DESIGN-DETAILED	SIGNATURE	P.E. NUMBER	DATE
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
VETERANS REMEMBRANCE BRIDGE PENOBSCOT RIVER\SO. MAIN STREET BANGOR-BREWSTER PENOBSCOT COUNTY			
BEARING REPLACEMENT DATA SHEET; 1 OF 2			
SHEET NUMBER			
9			
OF 20			

Date: 12/15/2020

Username: Richard.Mayer

Division: BRIDGE

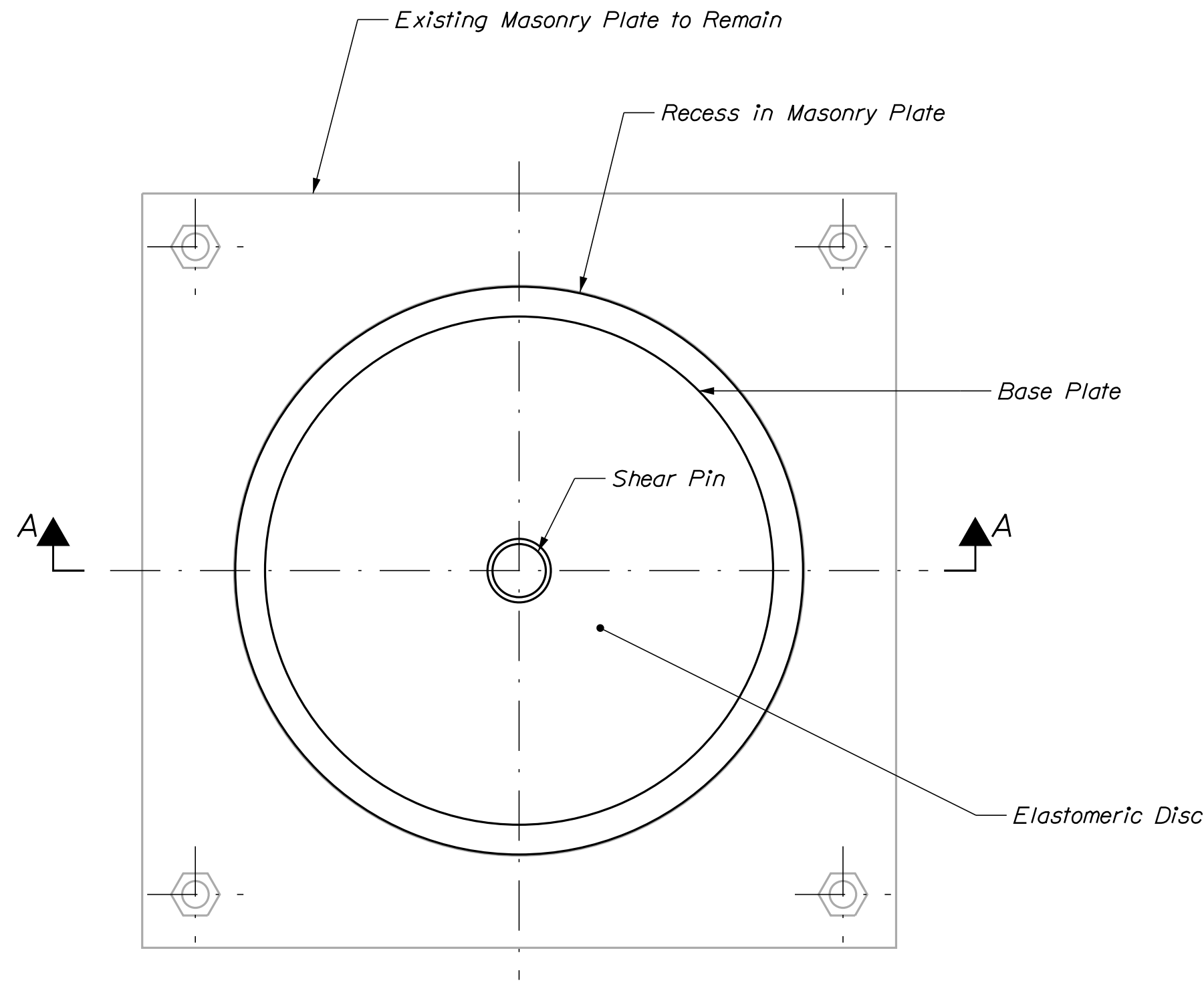
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Date: 12/15/2020

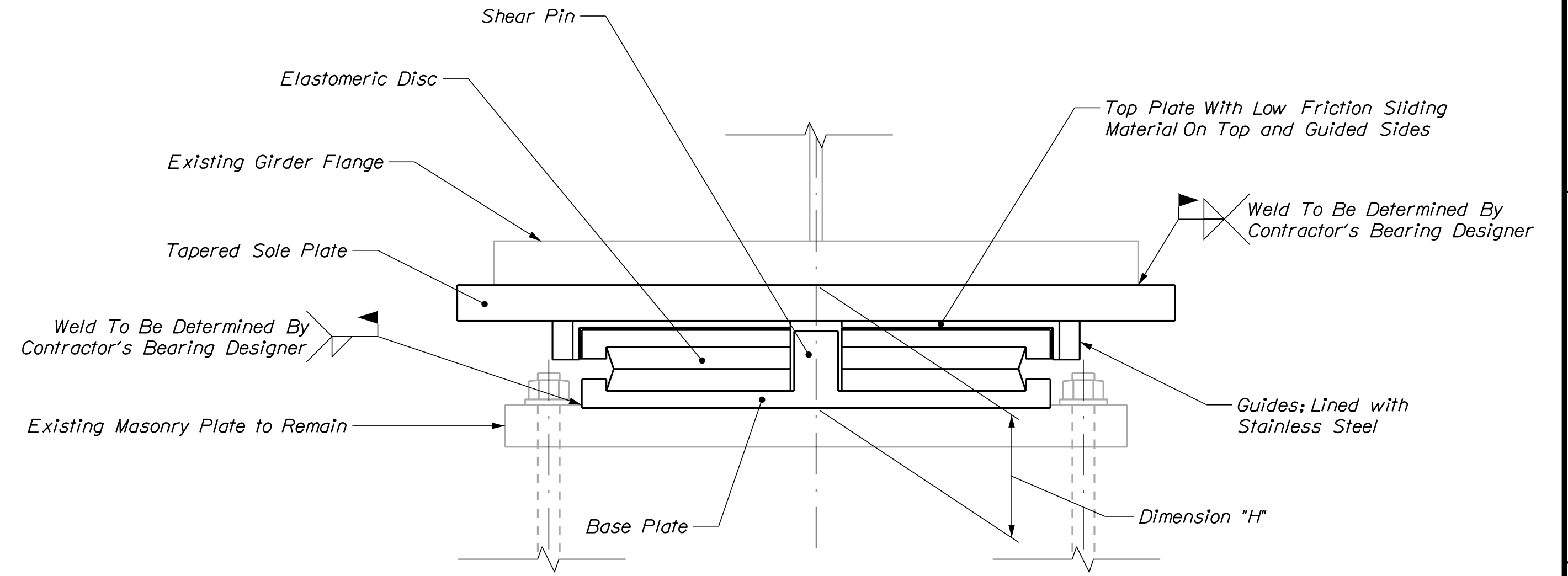
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Division: BRIDGE

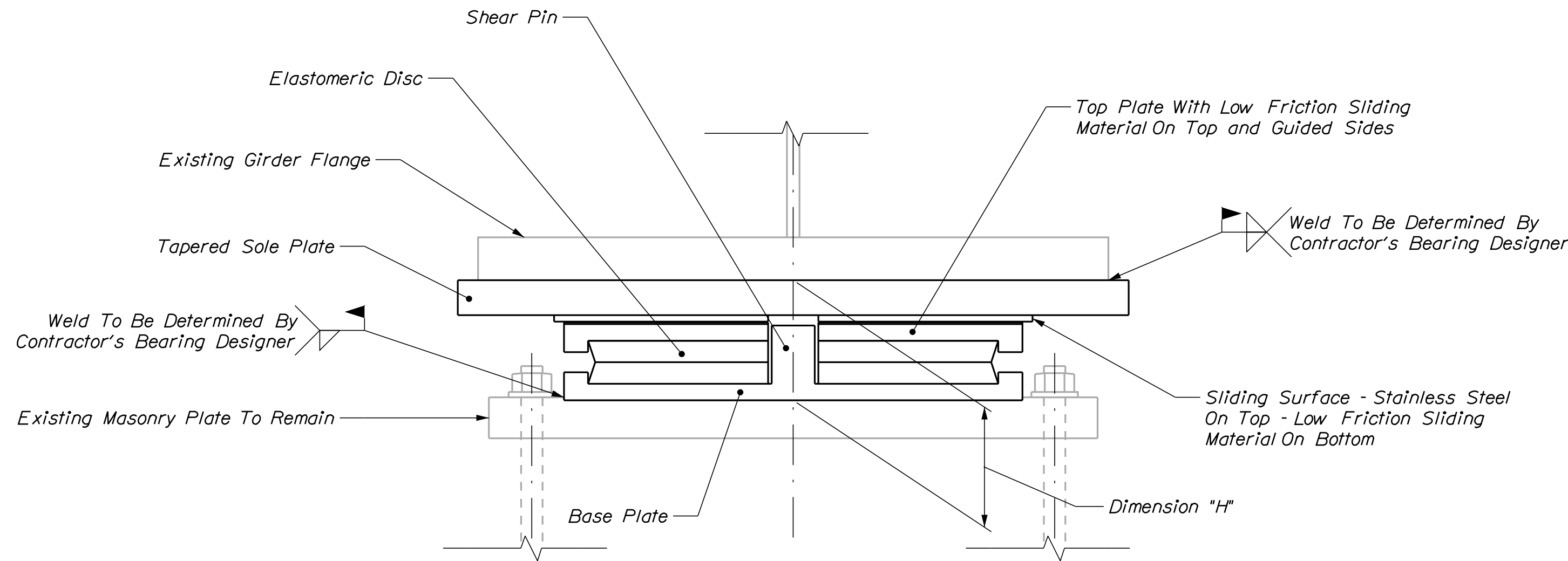
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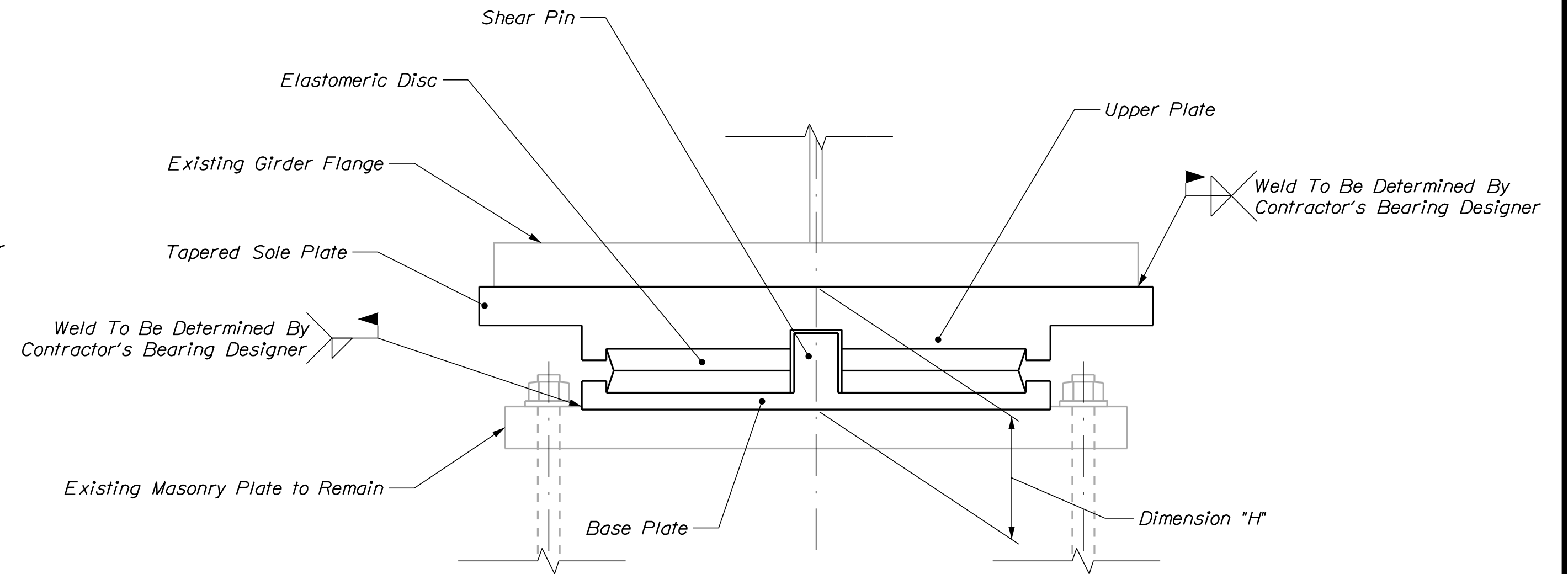
PLAN VIEW; TYPICAL DISC BEARING



GUIDED BEARING; SECTION A-A



UNGUIDED BEARING; SECTION A-A



FIXED BEARING; SECTION A-A

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 022278.00

BRIDGE NO. 1568
WIN 22278.00
BRIDGE PLANS

PROJ. MANAGER	BY	DATE
DESIGN: DETAILED	M. GRAY	NOV 2020
CHECKED: REVIEWED	R. MAYER	NOV 2020
DESIGN: DETAILED	M. GRAY	NOV 2020
DESIGN: DETAILED	R. MYERS	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

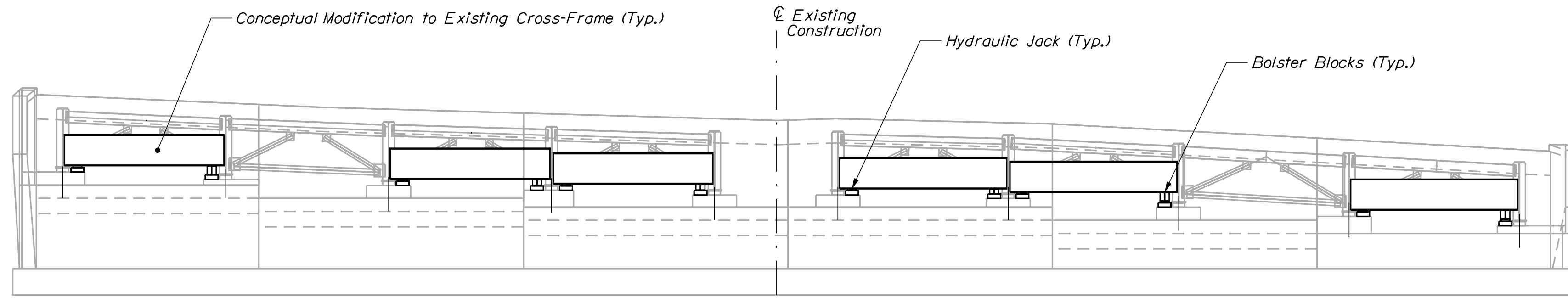
VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER\SO. MAIN STREET
BANGOR-BREWSTER PENOBSCOT COUNTY

BEARING REPLACEMENT
DATA SHEET; 2 OF 2

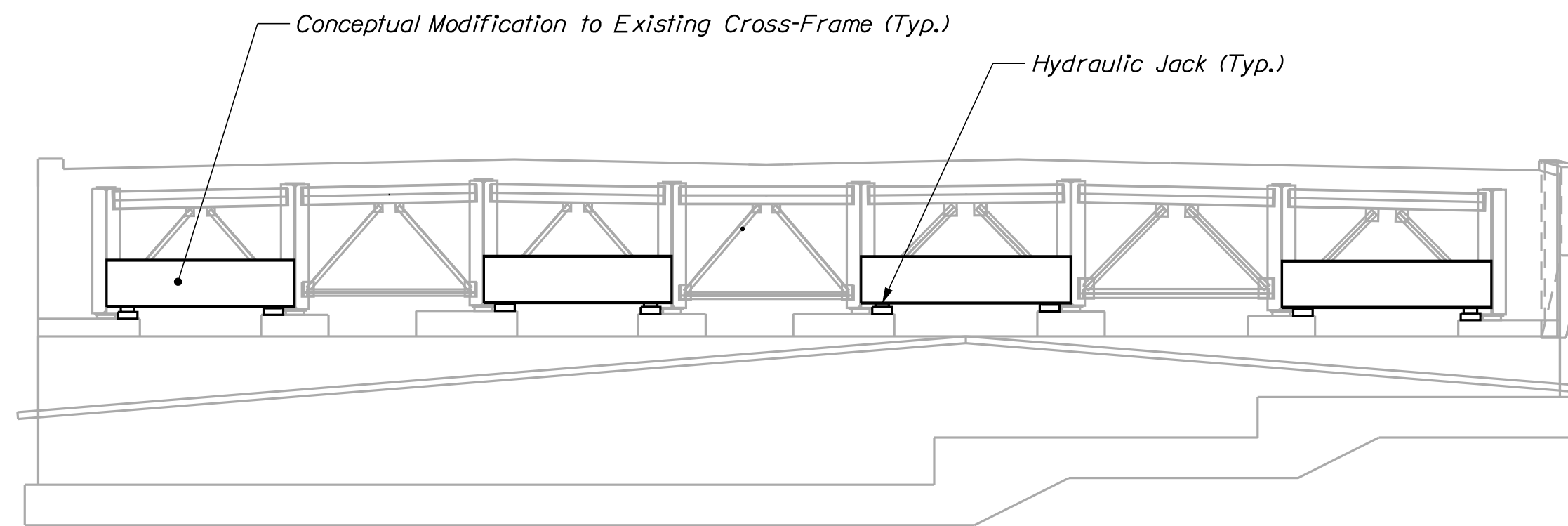
SHEET NUMBER

10

OF 20



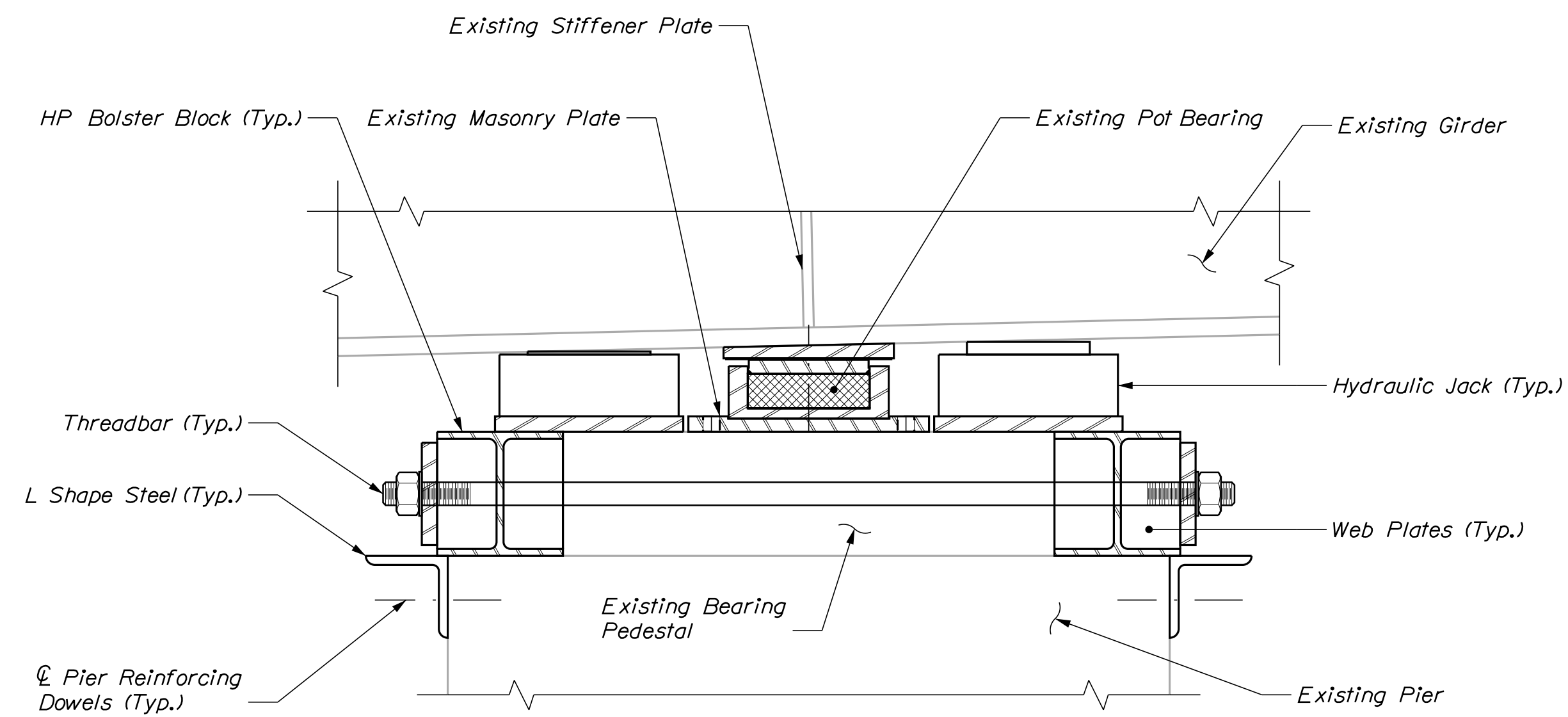
CONCEPTUAL JACKING ELEVATION; ABUTMENT NO. 1
(Deck Not Shown for Clarity)



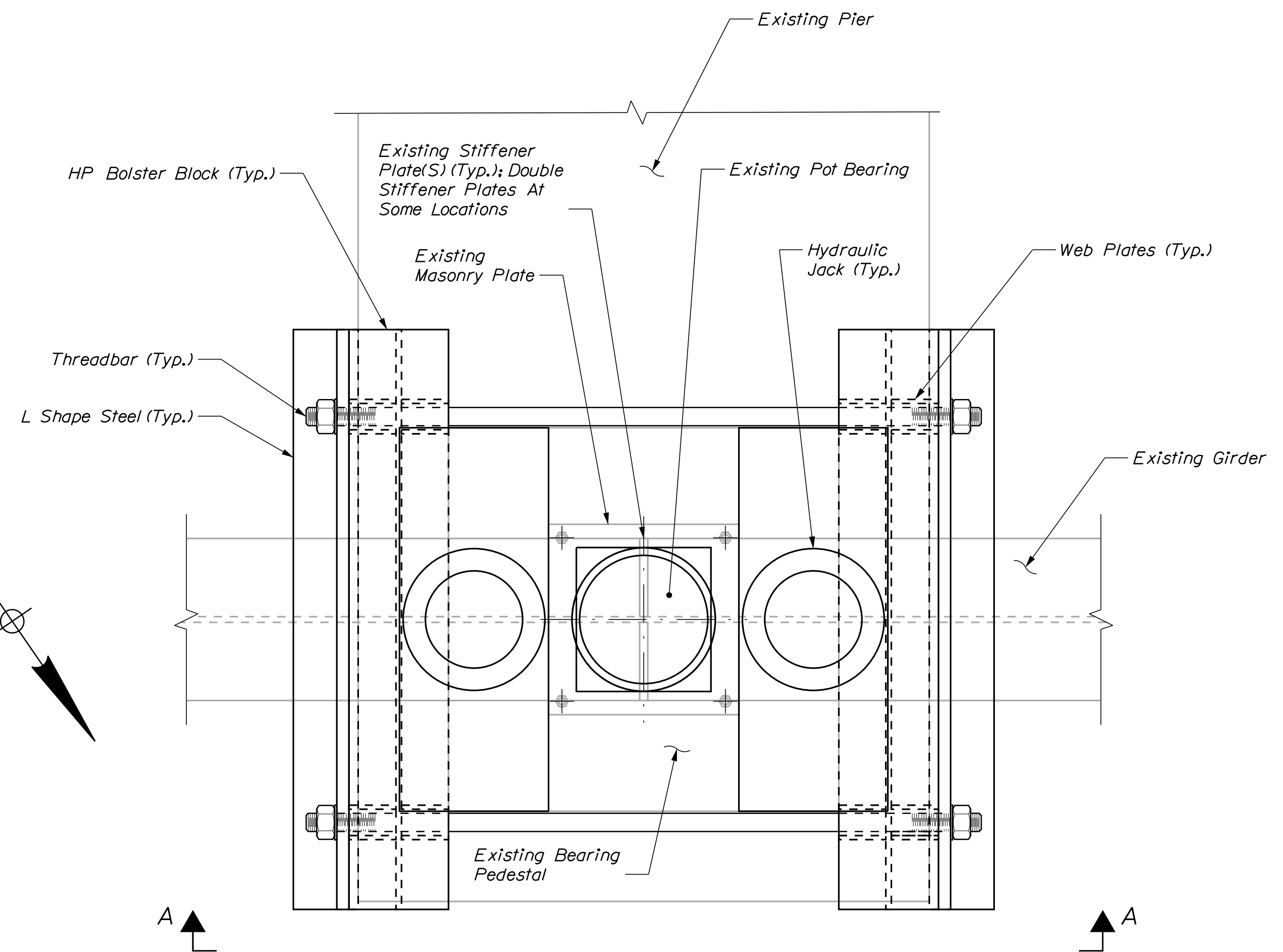
CONCEPTUAL JACKING ELEVATION; ABUTMENT NO. 2
(Deck and Proposed Trough System Not Shown for Clarity)

NOTES

1. Elevations on this and subsequent sheets show conceptual modifications to the existing cross-frames between girders for jacking purposes.
2. Existing cross-frames do not have the strength to support jacking forces intended to raise or unload the existing pot bearings for removal and replacement with new disc bearings.
3. If Contractor chooses to modify cross-frames to support jacking loads using this or some other concept, design drawings and calculations conforming to AASHTO LRFD Bridge Design Specifications 9th Edition 2020 must be developed and submitted for Department review and approval.
4. Design must consider the load path from the existing girder web to the bearing of the hydraulic jack as well as the capacity of the bearing surface to resist the jack reaction.
5. Modified cross-frames so designed and reviewed by the Department may remain after construction activities are complete.
6. Steel used for modified cross-frames shall be grade 50 weathering steel as specified elsewhere.
7. Modified cross-frame design shall consider and be coordinated with new full-width trough systems under the existing finger joints over Pier 2 and Abutment 2.
8. Modified cross-frames may also be considered for remaining piers. An alternate conceptual jacking scheme for Piers 1 and 3-7 is also presented in a detail on this sheet.



CONCEPTUAL JACKING SECTION A-A; PIERS
(PIER NO. 1 SHOWN, 3-7 SIMILAR)
(Section Looking Downstream)



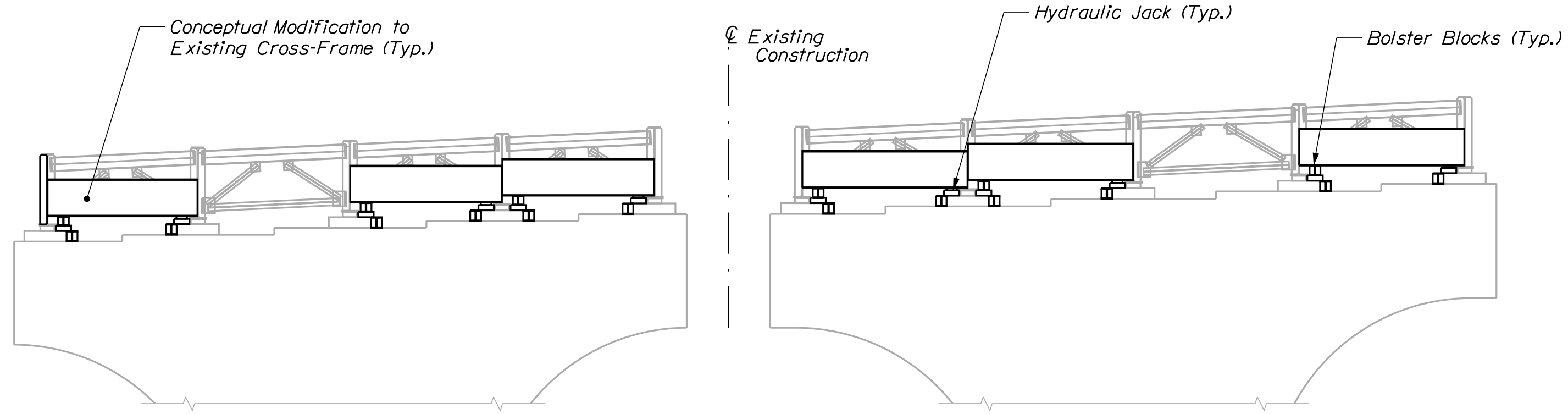
CONCEPTUAL JACKING PLAN; PIERS
(PIER NO. 1 SHOWN, 3-7 SIMILAR)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WIN 022278.00
BRIDGE NO. 1568
BRIDGE PLANS

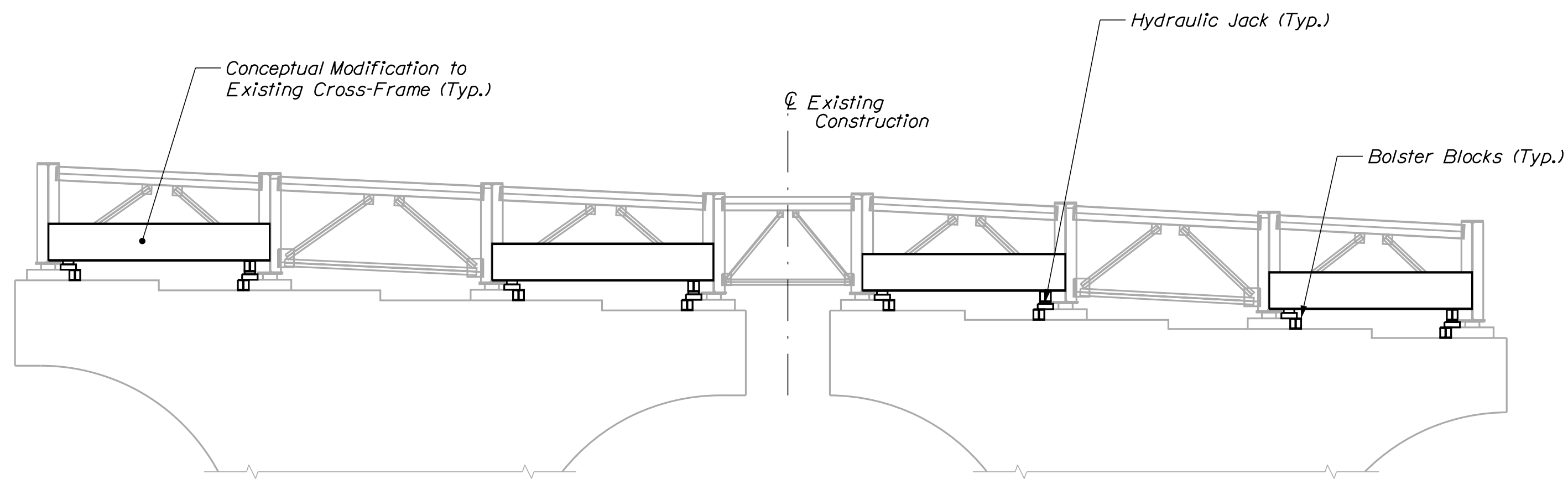
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M. WIGHT	R. MAYER	NOV 2020
DESIGN-DETAILED	M. GRAY	NOV 2020
CHECKED-REVIEWED	R. MYERS	NOV 2020
DESIGN-DETAILED	M. GRAY	NOV 2020
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER\SO. MAIN STREET
BANGOR-BREWSTER PENOBSCOT COUNTY
CONCEPTUAL JACKING PLAN
SHEET 1 OF 2

SHEET NUMBER
11
OF 20



CONCEPTUAL JACKING ELEVATION; PIER NO. 2, SPAN NO. 2
 (Deck and Proposed Trough System Not Shown for Clarity)
 Flow →



CONCEPTUAL JACKING ELEVATION; PIER NO. 2, SPAN NO. 3
 (Deck and Proposed Trough System Not Shown for Clarity)
 ← Flow

NOTES

1. Elevations on this sheet show conceptual modifications to the existing cross-frames between girders for jacking purposes.
2. Existing cross-frames do not have the strength to support jacking forces intended to raise or unload the existing pot bearings for removal and replacement with new disc bearings.
3. If Contractor chooses to modify cross-frames to support jacking loads using this or some other concept, design drawings and calculations conforming to AASHTO LRFD Bridge Design Specifications 9th Edition 2020 must be developed and submitted for Department review and approval.
4. Design must consider the load path from the existing girder web to the bearing of the hydraulic jack as well as the capacity of the bearing surface to resist the jack reaction.
5. Modified cross-frames so designed and reviewed by the Department may remain after construction activities are complete.
6. Steel used for modified cross-frames shall be grade 50 weathering steel as specified elsewhere.
7. Modified cross-frame design shall consider and be coordinated with new full-width trough systems under the existing finger joints over Pier 2 and Abutment 2.

Date: 12/15/2020

Username: Richard.Mayer

Division: BRIDGE

Filename: ... \MSTA\012_Bearings_Jacking2.dgn

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
WIN 022278.00
 WIN 22278.00
 BRIDGE NO. 1588
 BRIDGE PLANS

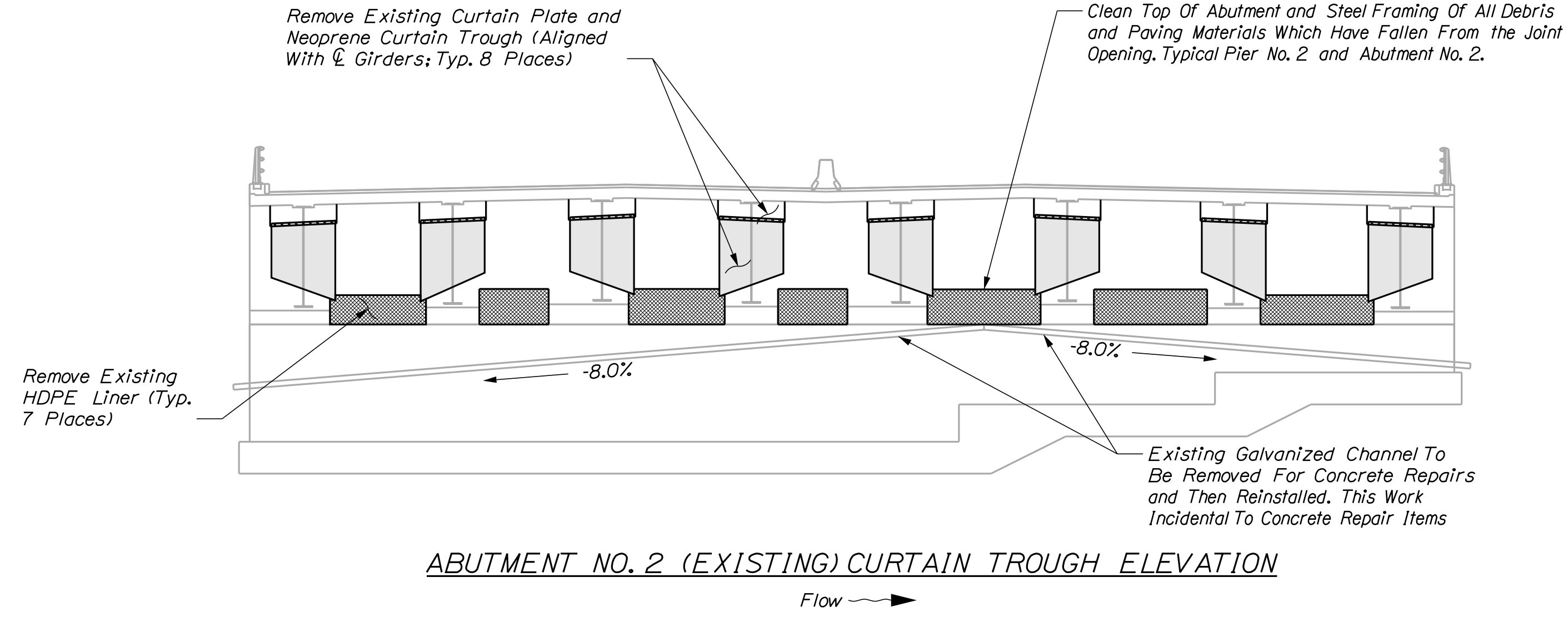
PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN DETAILED	M. GRAY	R. MAYER	NOV 2020
CHECKED-REVIEWED	R. MYERS	M. GRAY	NOV 2020
DESIGN DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

VETERANS REMEMBRANCE BRIDGE
 PENOBSCOT RIVER\SO. MAIN STREET
 BANGOR-BREWER PENOBSCOT COUNTY
CONCEPTUAL JACKING PLAN
SHEET 2 OF 2

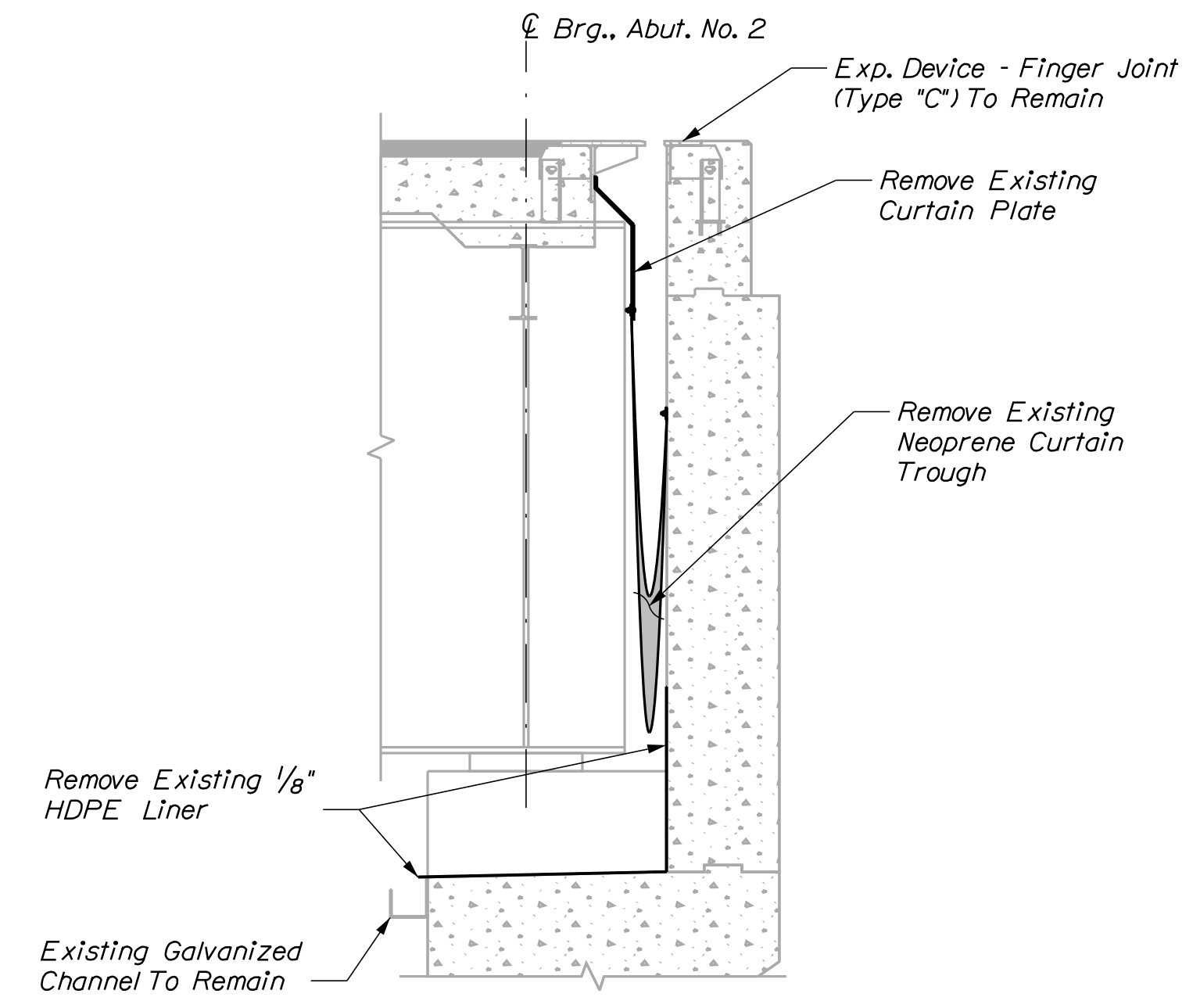
SHEET NUMBER
12
 OF 20

FINGER JOINT TROUGH SYSTEM REMOVAL NOTES

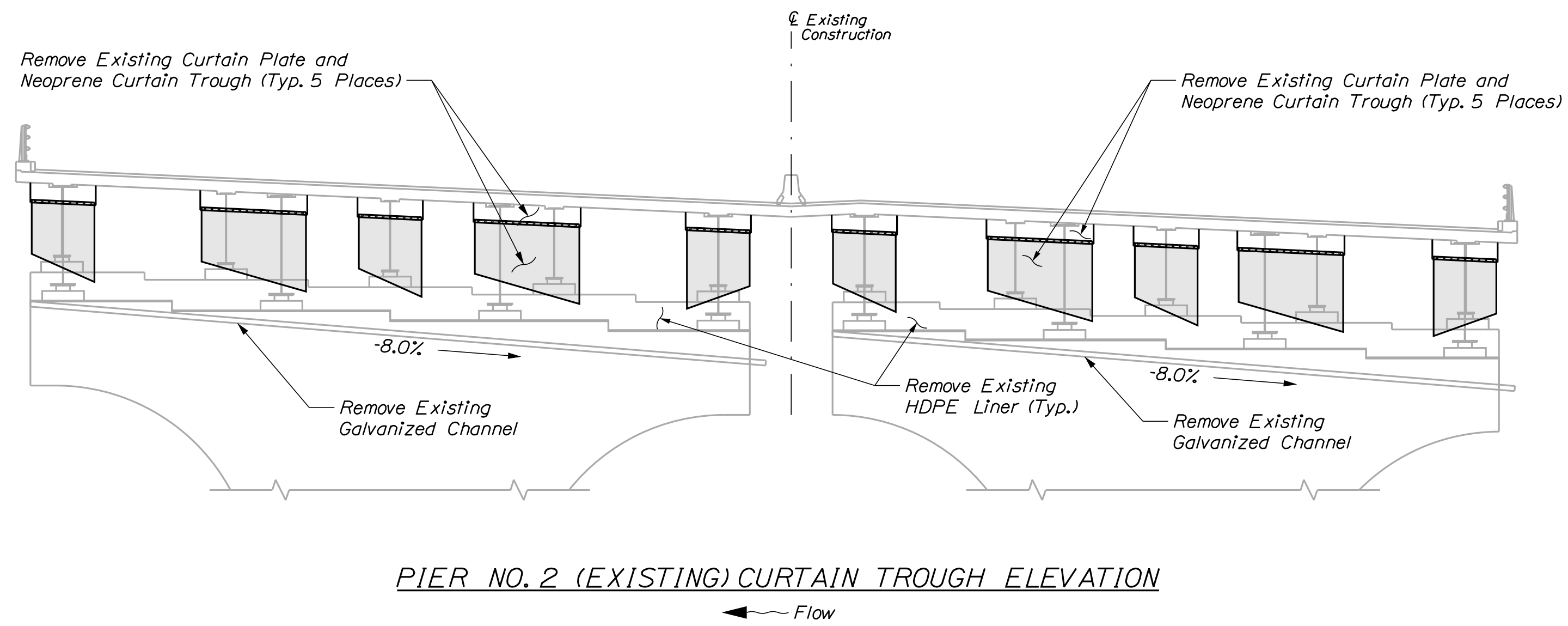
1. Removal and disposal of existing trough system, galvanized channel for Pier 2 and cleaning and disposal of foreign materials is incidental to bid item 521.52 Trough System for Finger Joint.



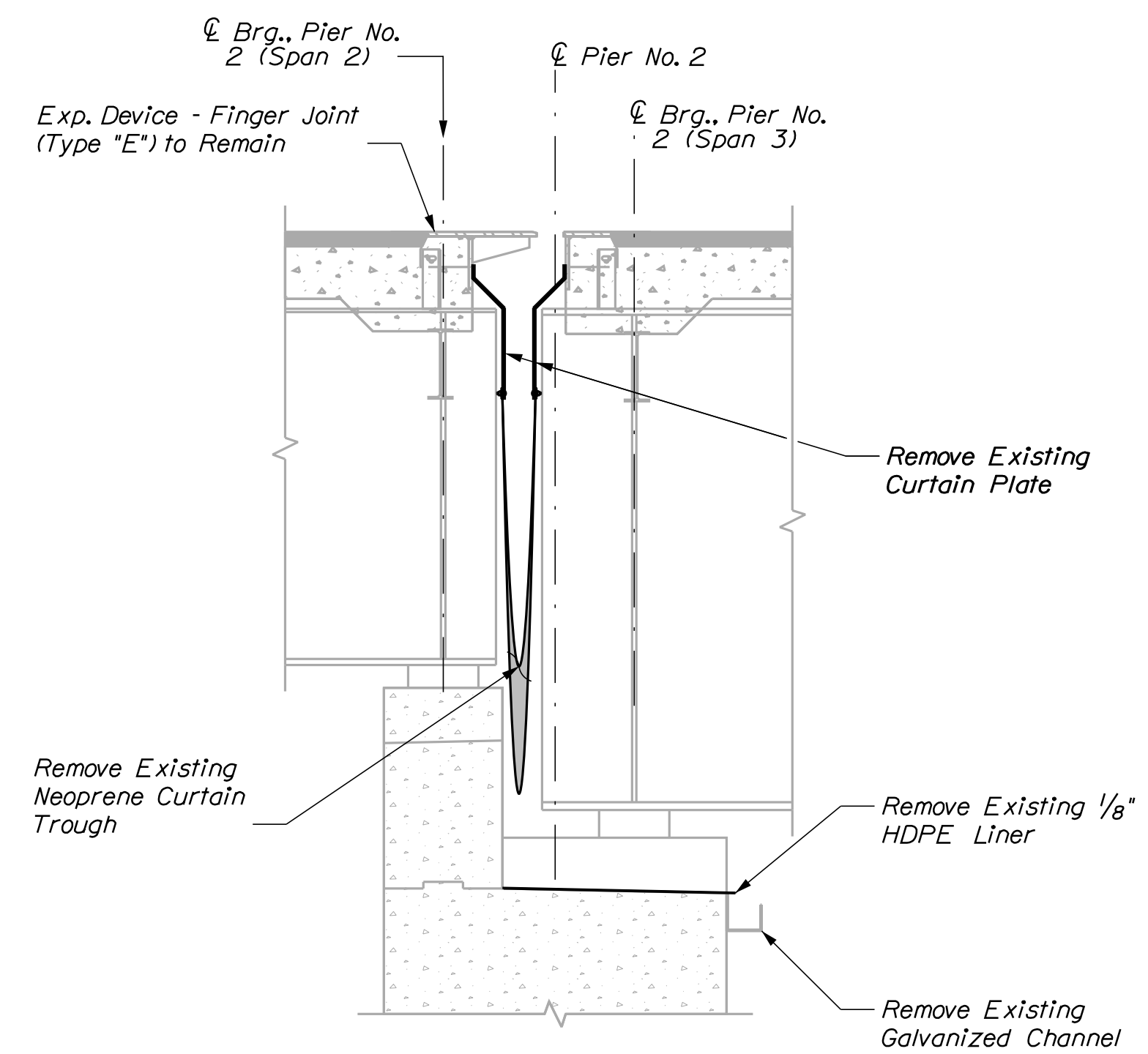
ABUTMENT NO. 2 (EXISTING) CURTAIN TROUGH ELEVATION



ABUTMENT NO. 2 (EXISTING) EXPANSION JOINT SECTION



PIER NO. 2 (EXISTING) CURTAIN TROUGH ELEVATION



PIER NO. 2 (EXISTING) EXPANSION JOINT SECTION

Date: 12/15/2020

Username: Richard.Mayer

Division: BRIDGE

Filename: ... \MSTA\013_Trough_Removal.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WIN 022278.00
BRIDGE NO. 1568
WIN 22278.00
BRIDGE PLANS

DESIGNED	DATE
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DESIGNED	NOV 2020
REVISIONS 1	SIGNATURE
REVISIONS 2	P.E. NUMBER
REVISIONS 3	DATE
REVISIONS 4	
FIELD CHANGES	

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGNED	M. GRAY	R. MAYER	NOV 2020
CHECKED	R. MYERS	M. GRAY	NOV 2020
DESIGNED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER\SO. MAIN STREET
BANGOR-BREWSTER PENOBSCOT COUNTY
FINGER JOINT TROUGH SYSTEM REMOVAL

SHEET NUMBER

13

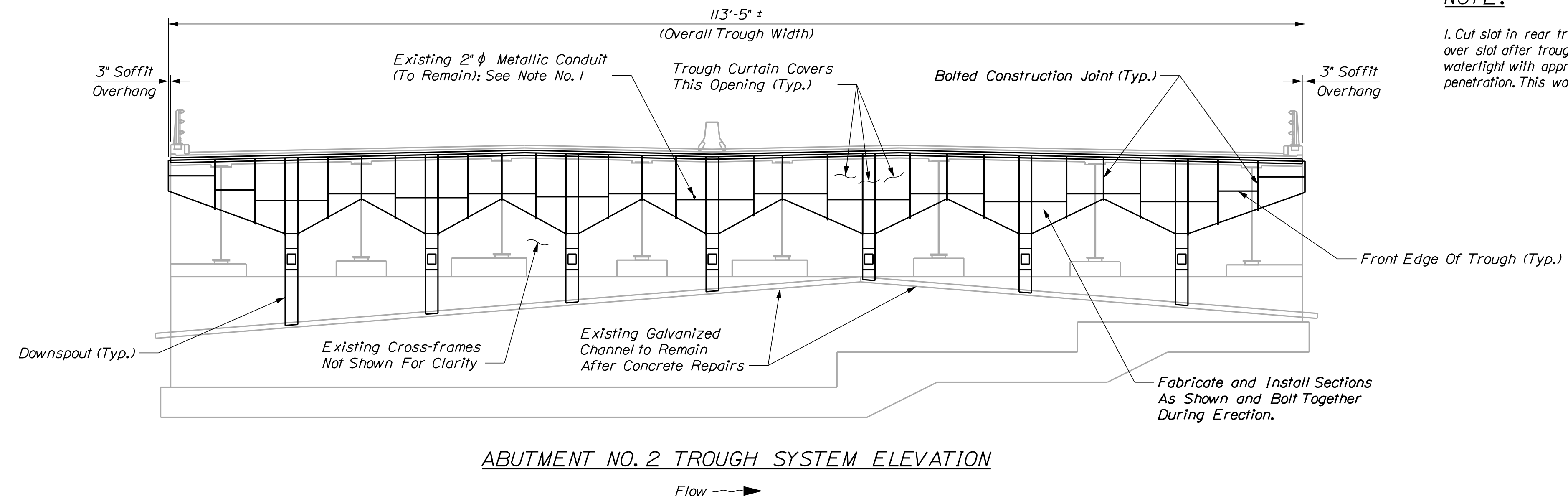
OF 20

Date: 12/15/2020

Username: Richard.Mayer

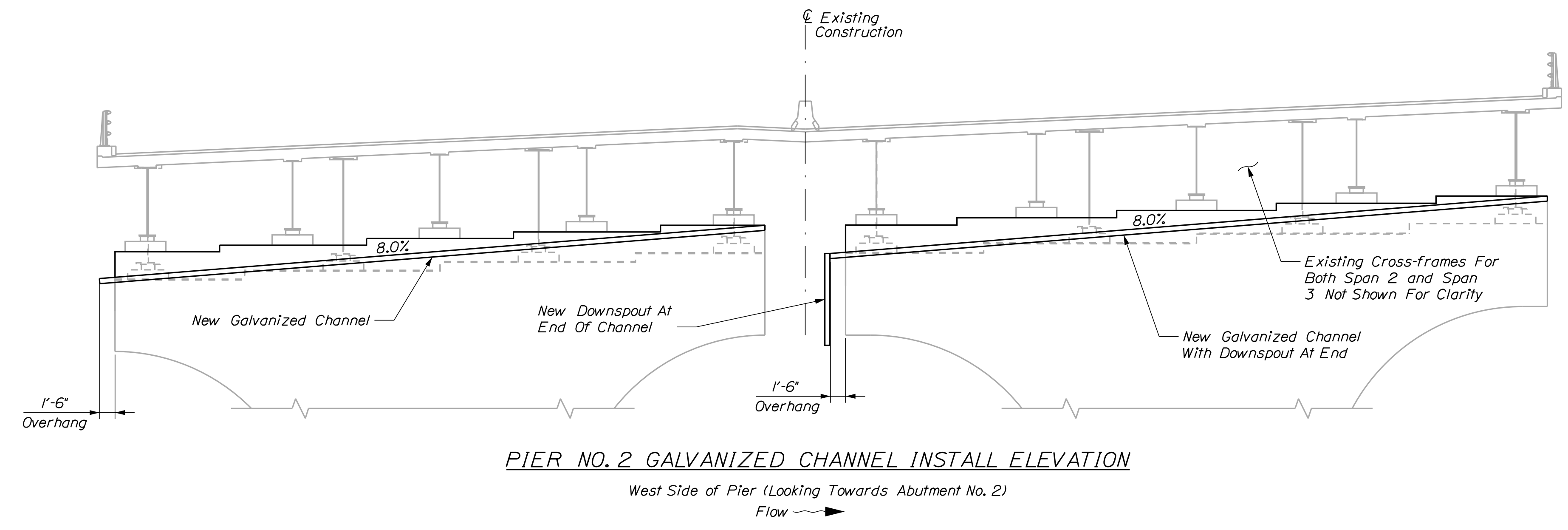
Division: BRIDGE

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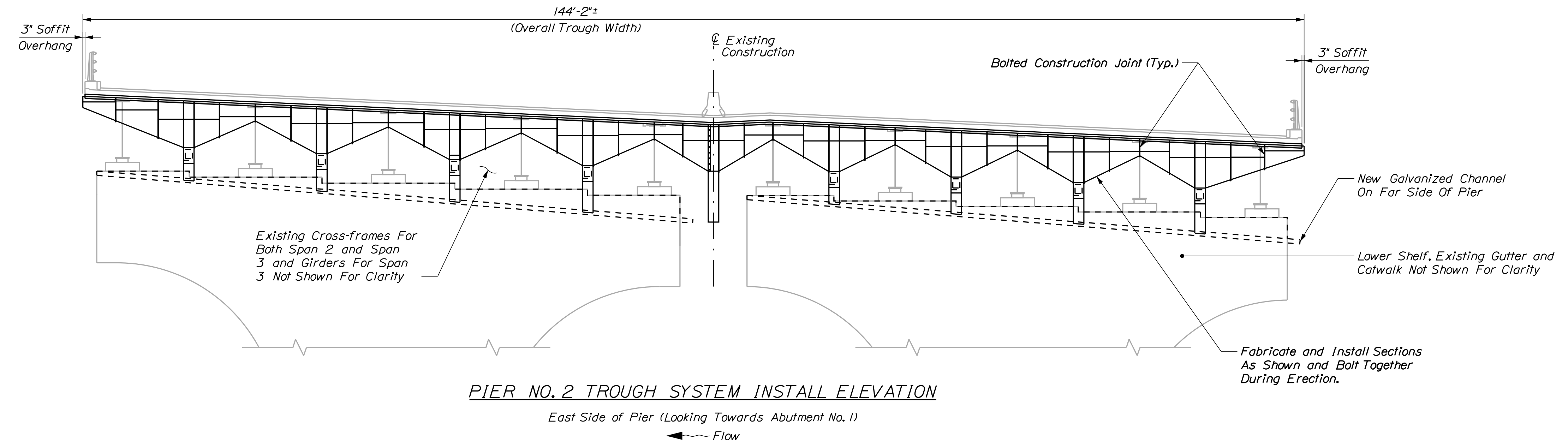


NOTE:
 1. Cut slot in rear trough plate to fit over conduit. Field weld cover plate over slot after trough installation and caulk seams on conduit opening to make watertight with approved caulk. Cut slot in front curtain to allow conduit penetration. This work incidental to item 521.52 Trough System for Finger Joint.

ABUTMENT NO. 2 TROUGH SYSTEM ELEVATION



PIER NO. 2 GALVANIZED CHANNEL INSTALL ELEVATION



PIER NO. 2 TROUGH SYSTEM INSTALL ELEVATION

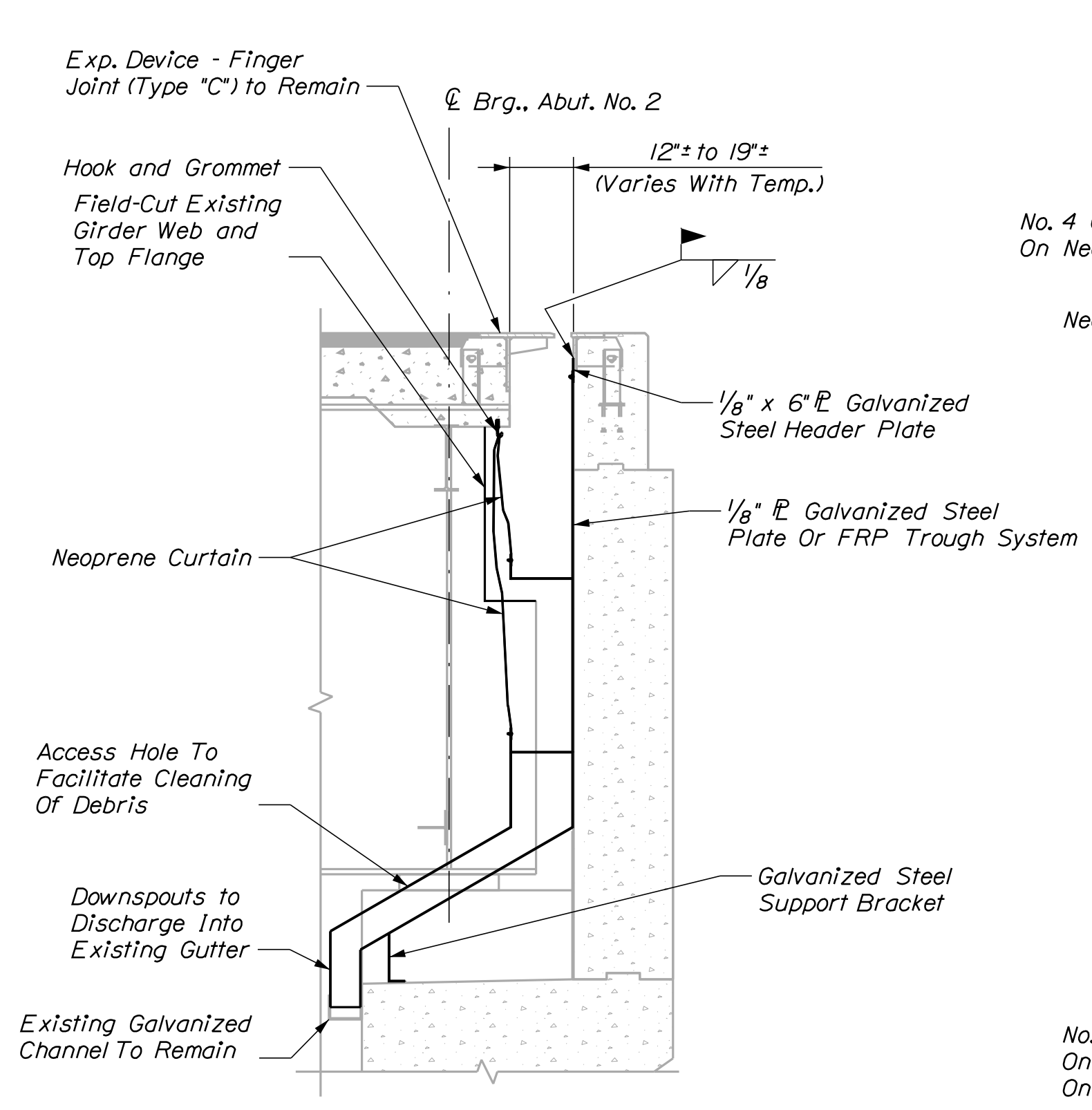
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 1568		BRIDGE PLANS	
VETERANS REMEMBRANCE BRIDGE		PENOBSCOT RIVER\SO. MAIN STREET		BANGOR-BREWER		PENOBSCOT COUNTY	
FINGER JOINT TROUGH		SYSTEM INSTALLATION		WIN 022278.00		WIN 22278.00	
PROJ. MANAGER	M. WIGHT	BY	R. MAYER	DATE	NOV 2020	SIGNATURE	
DESIGN DETAILED	M. GRAY	CHECKED/REVIEWED	R. MYERS		NOV 2020	P.E. NUMBER	
DESIGNS DETAILED		DESIGNS DETAILED				DATE	
REVISIONS 1		REVISIONS 1					
REVISIONS 2		REVISIONS 2					
REVISIONS 3		REVISIONS 3					
REVISIONS 4		REVISIONS 4					
FIELD CHANGES							
SHEET NUMBER				14			
				OF 20			

Date: 12/15/2020

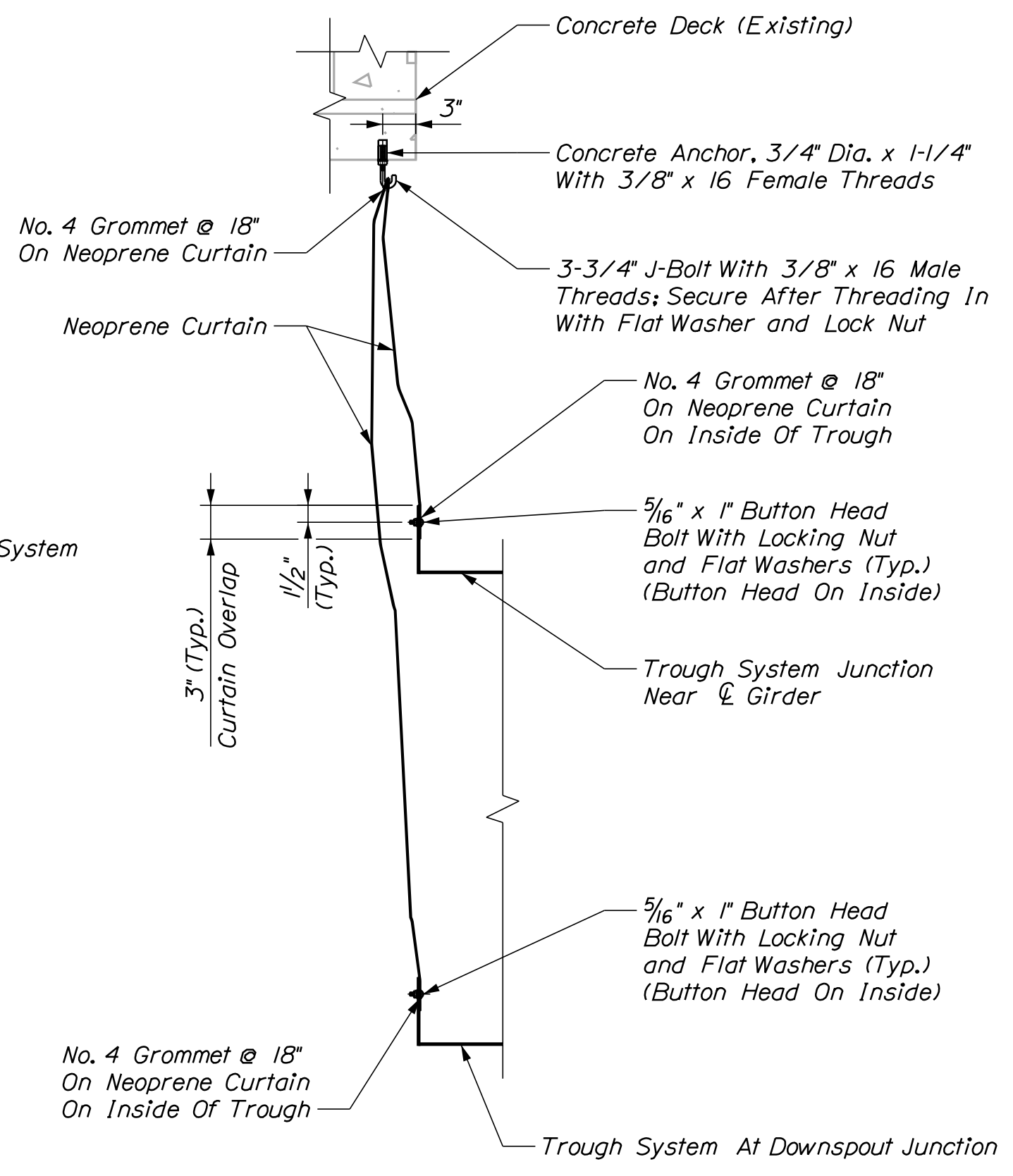
Username: Richard.Mayer

Division: BRIDGE

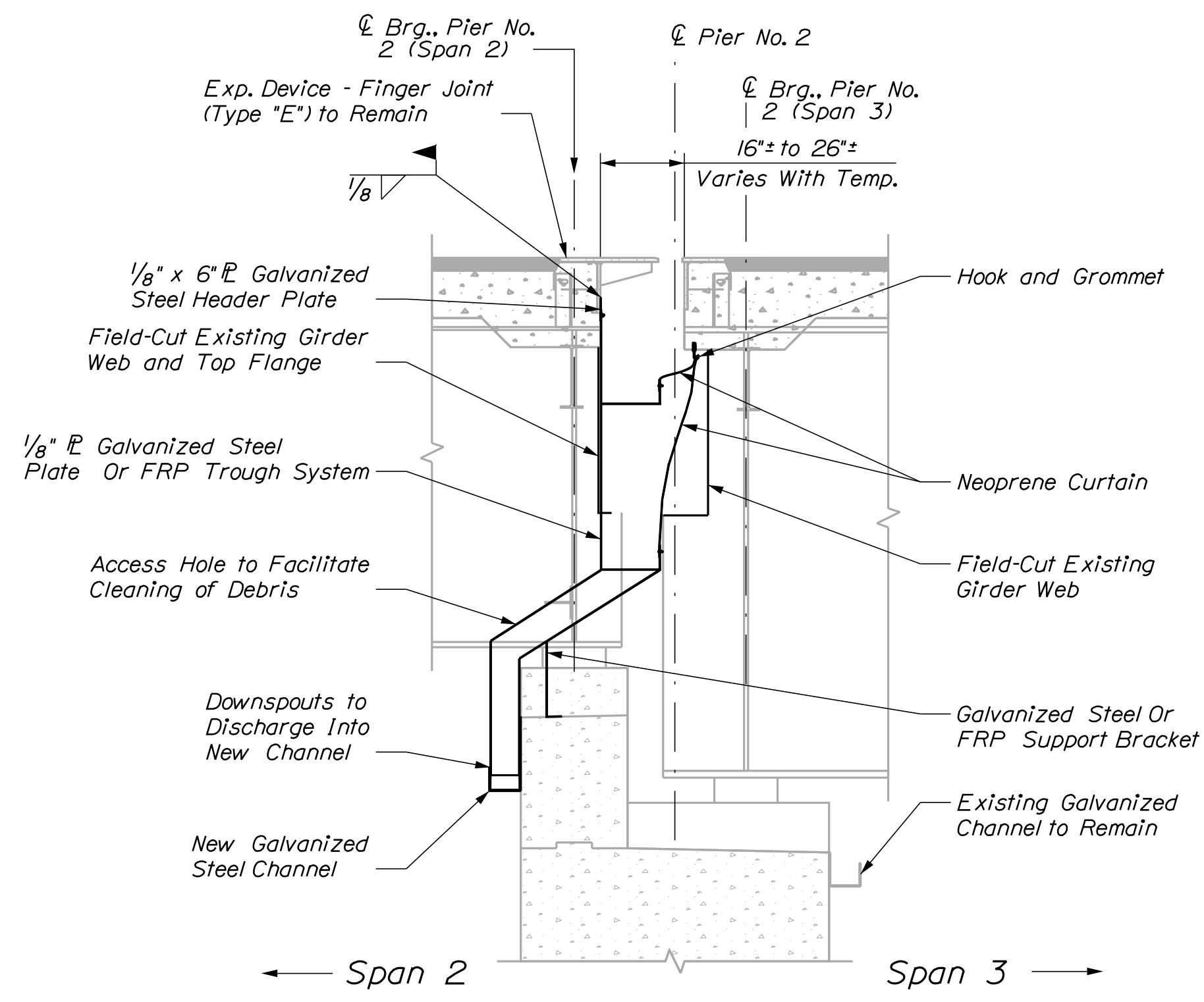
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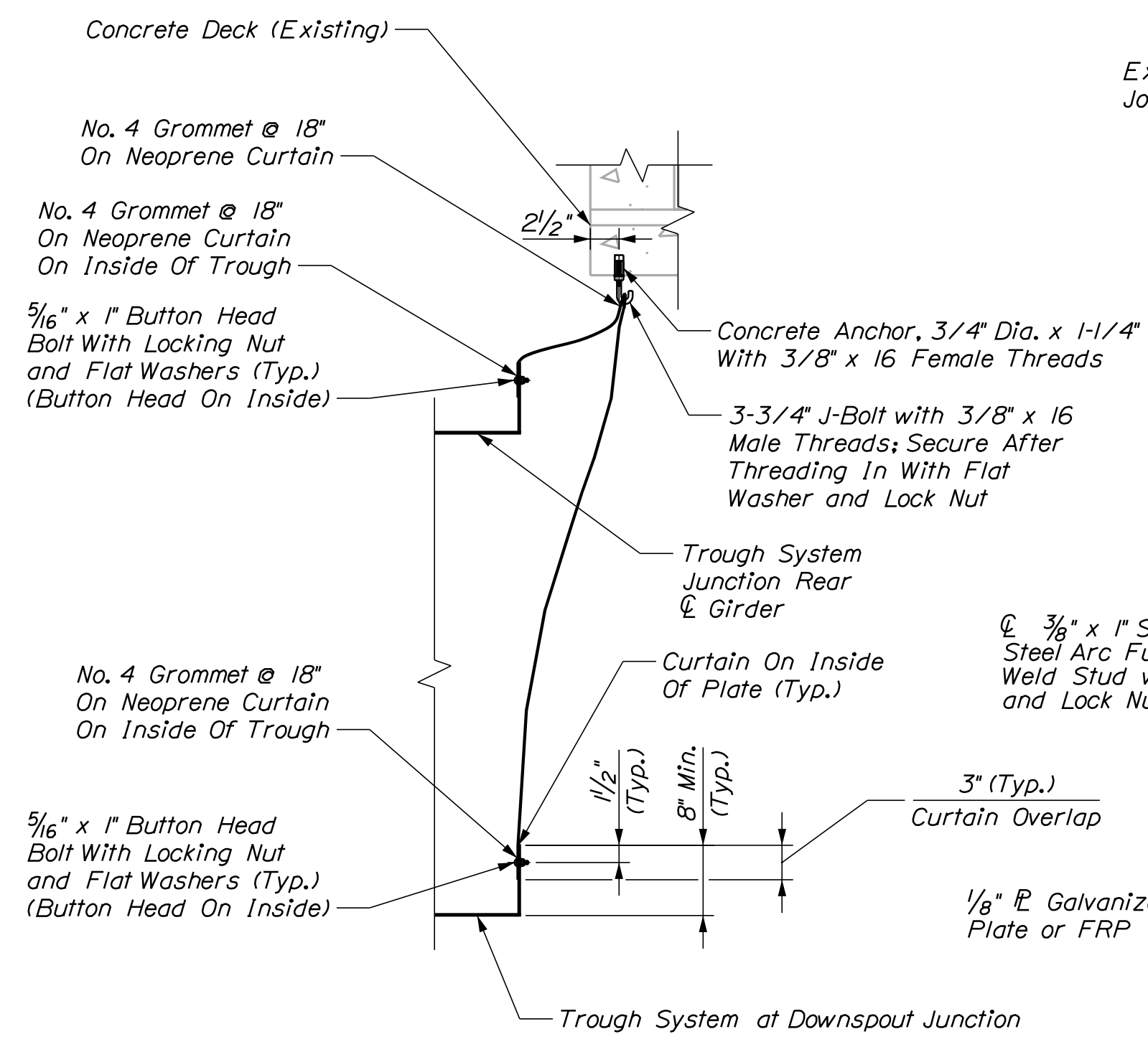
ABUTMENT NO. 2 SECTION TROUGH SYSTEM INSTALL



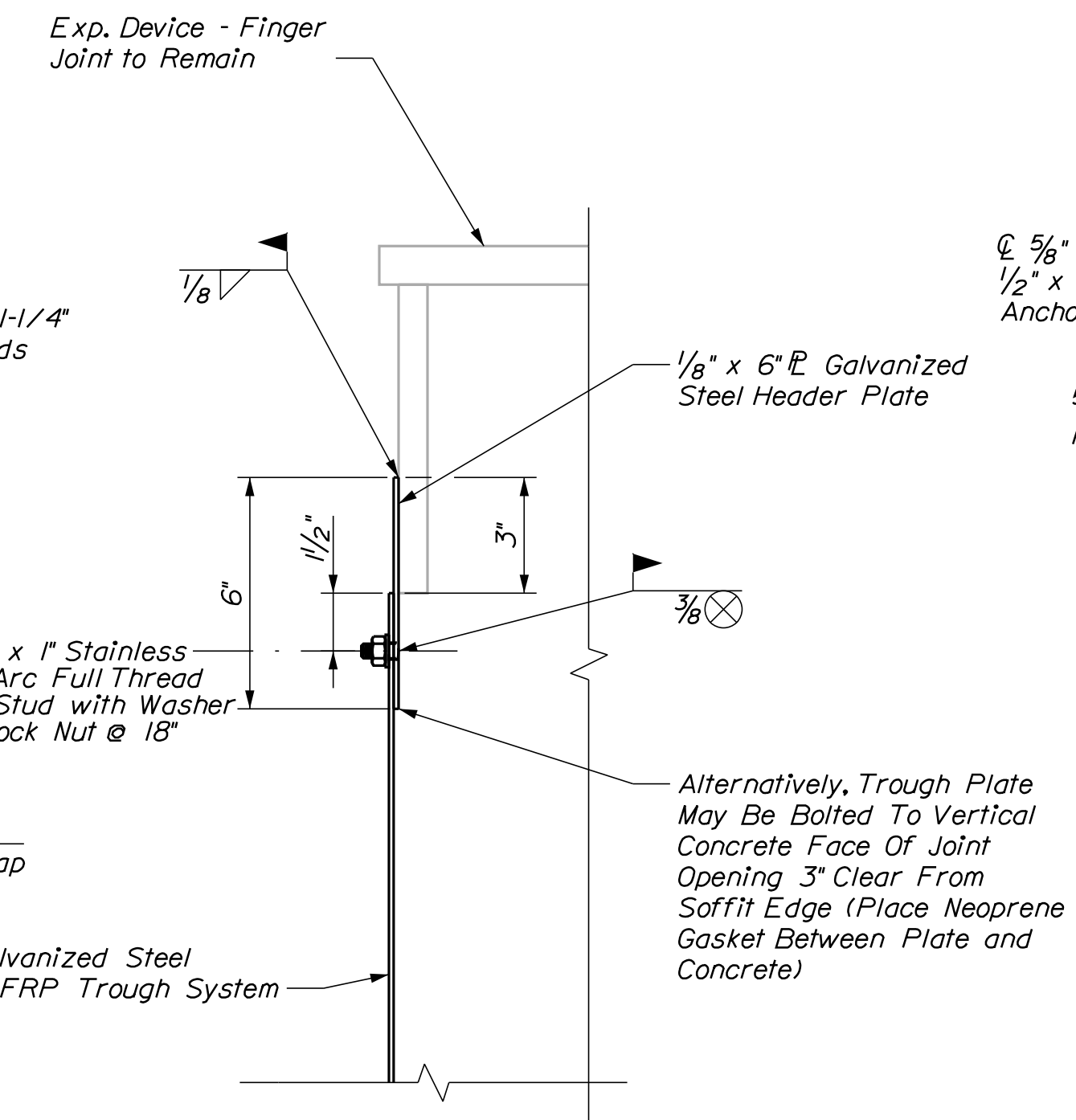
ABUTMENT NO. 2 NEOPRENE CURTAIN ATTACHMENT DETAIL



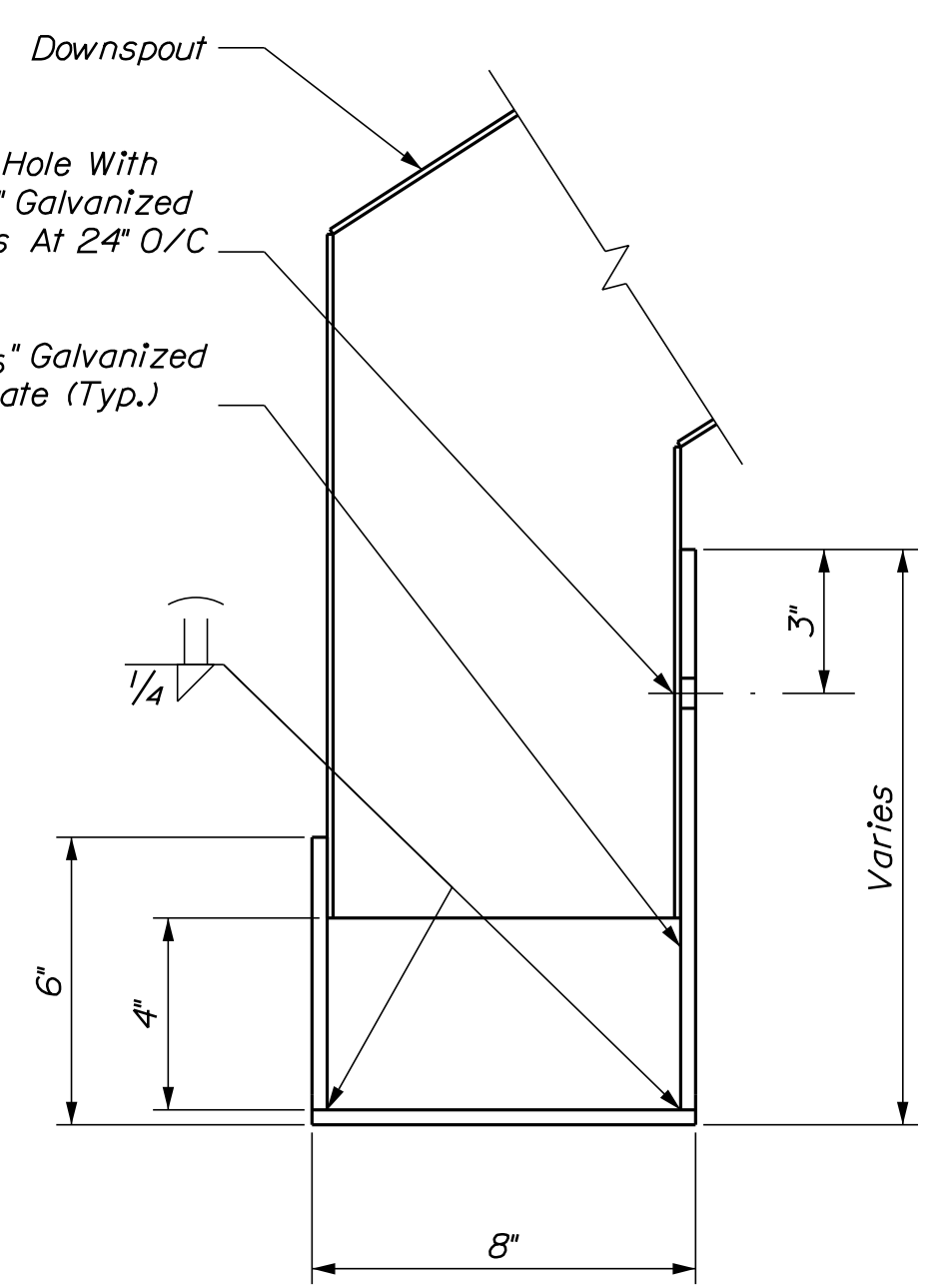
PIER NO. 2 SECTION TROUGH SYSTEM INSTALL



PIER NO. 2 NEOPRENE CURTAIN ATTACHMENT DETAIL



HEADER PLATE BOLTED JOINT DETAIL
Abutment No. 2 Shown, Pier No. 2 Similar



NEW GALVANIZED STEEL CHANNEL SECTION; PIER NO. 2

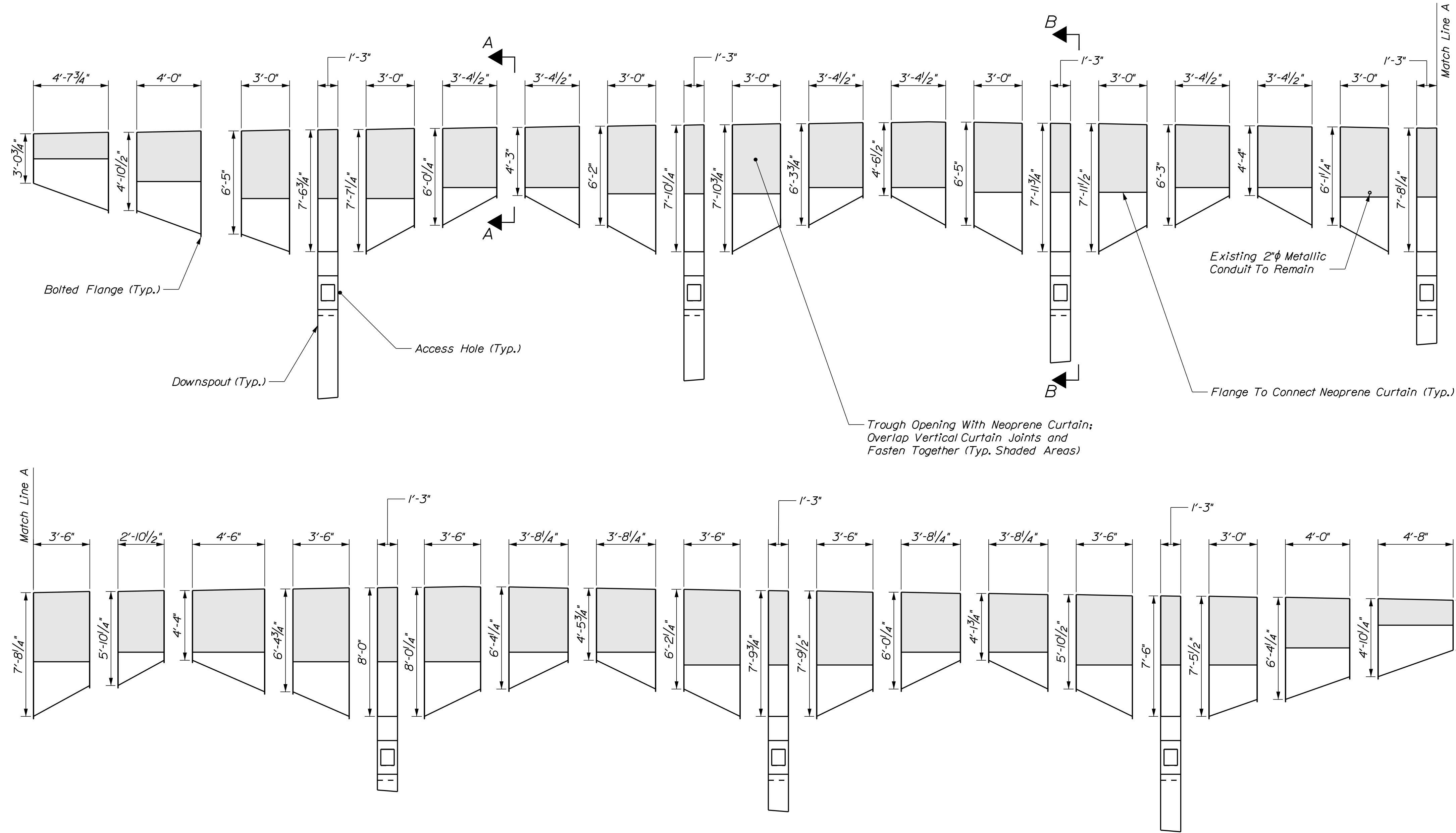
TROUGH NOTES

1. Trough sections are detailed as galvanized steel sections. Contractor may propose changes to the number of sections, joining details or details regarding hanging the trough sections from the deck slab or backwall with his Working Drawing submittals. Trough sections and downspouts may be provided with Fiber Reinforced Polymer materials at the Contractor's option. Refer to the relevant Special Provisions.
2. Downspout sections shall be nominally 15" wide by 7" deep. A 10" by 24" access hole for removing obstructions in the downspout shall be provided as close to the bottom of the top face of the inclined portion of the downspout.
3. The bracket supporting the end of the downspout for Abutment #2 shall be fastened to the top face of abutment seat with two galvanized fasteners. The bracket supporting the end of the downspout for Pier 2 shall be as long as possible to allow it to flex with temperature movement of span 2 and shall not be anchored into the pier seat.
4. Primary support of trough sections shall be from the inside face of the concrete deck opening on the span 2 side of the opening over Pier 2. Primary support of the trough sections shall be from the top of the backwall as close as possible to the embedded steel of the finger joint for Abutment 2. Concrete anchors into vertical concrete faces may be substituted for the welded plates shown on this sheet. The top edge of the hung sections shall be caulked to prevent leakage behind the attached trough. Concrete anchors shall be 1/2" galvanized spaced 24" apart.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		BRIDGE PLANS	
WIN 022278.00		BRIDGE NO. 1568		WIN 22278.00	
PROJ. MANAGER	M. WIGHT	BY	R. MAYER	DATE	NOV 2020
DESIGN-DETAILED	M. GRAY	CHECKED-REVIEWED	R. MYERS	SIGNATURE	
DESIGN-DETAILED		DESIGN-DETAILED		P.E. NUMBER	
REVISIONS 1		REVISIONS 1		DATE	
REVISIONS 2		REVISIONS 2			
REVISIONS 3		REVISIONS 3			
REVISIONS 4		REVISIONS 4			
FIELD CHANGES		FIELD CHANGES			
VETERANS REMEMBRANCE BRIDGE					
PENOBSCOT RIVER\SO. MAIN STREET					
BANGOR-BREWER PENOBSCOT COUNTY					
FINGER JOINT TROUGH SYSTEM					
INSTALLATION DETAILS					
SHEET NUMBER					
15					
OF 20					

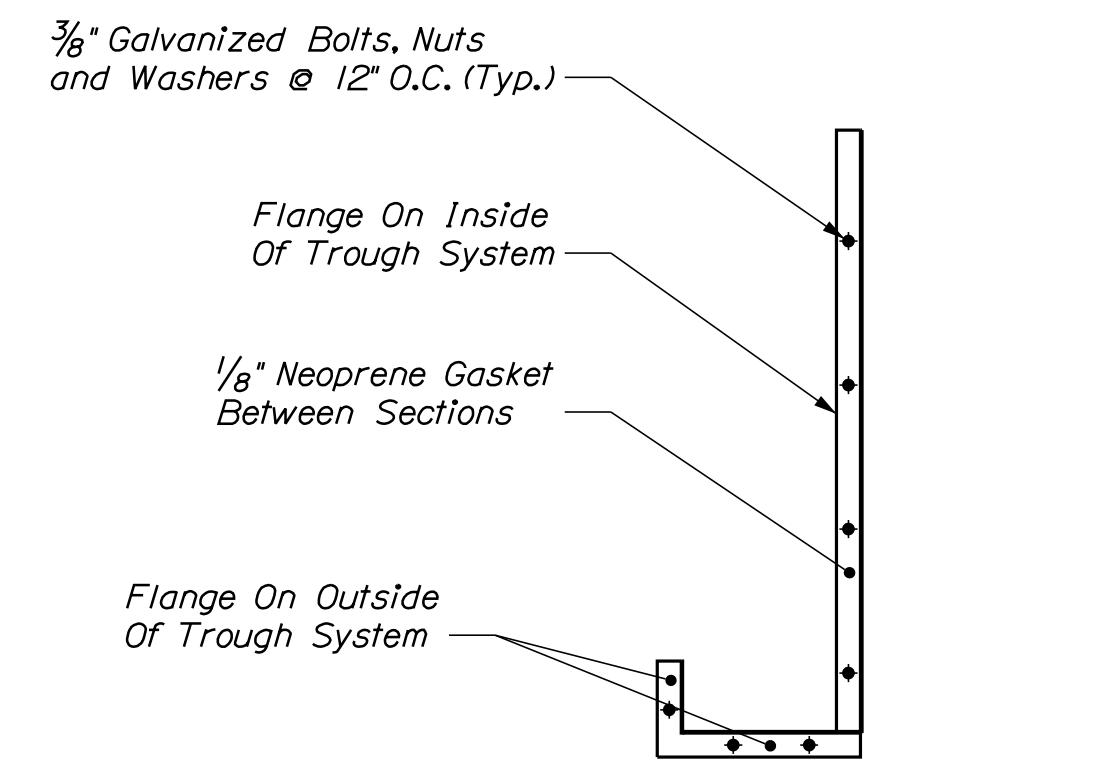
NOTES:

1. Dimensions shown are intended to assist with material take-off and general configuration. Contractor shall obtain field measurements and shall be solely responsible for field fit-up.
2. The configuration of sections and locations of joints are intended to show the general size of practical anticipated trough segments that would be practical to erect between and through existing steel cross-frames and girders. Contractor may elect to modify the number of sections and their configuration while honoring the design intent.
3. The design intent of trough sections assembled into a complete whole is to collect all drainage water falling through the finger joints above and transport it to the galvanized drainage channel mounted on the face of the substructure.
4. Design of trough sections shall be coordinated with the design of new cross-frames that are necessary to provide jacking points for raising the bridge for bearing replacement.

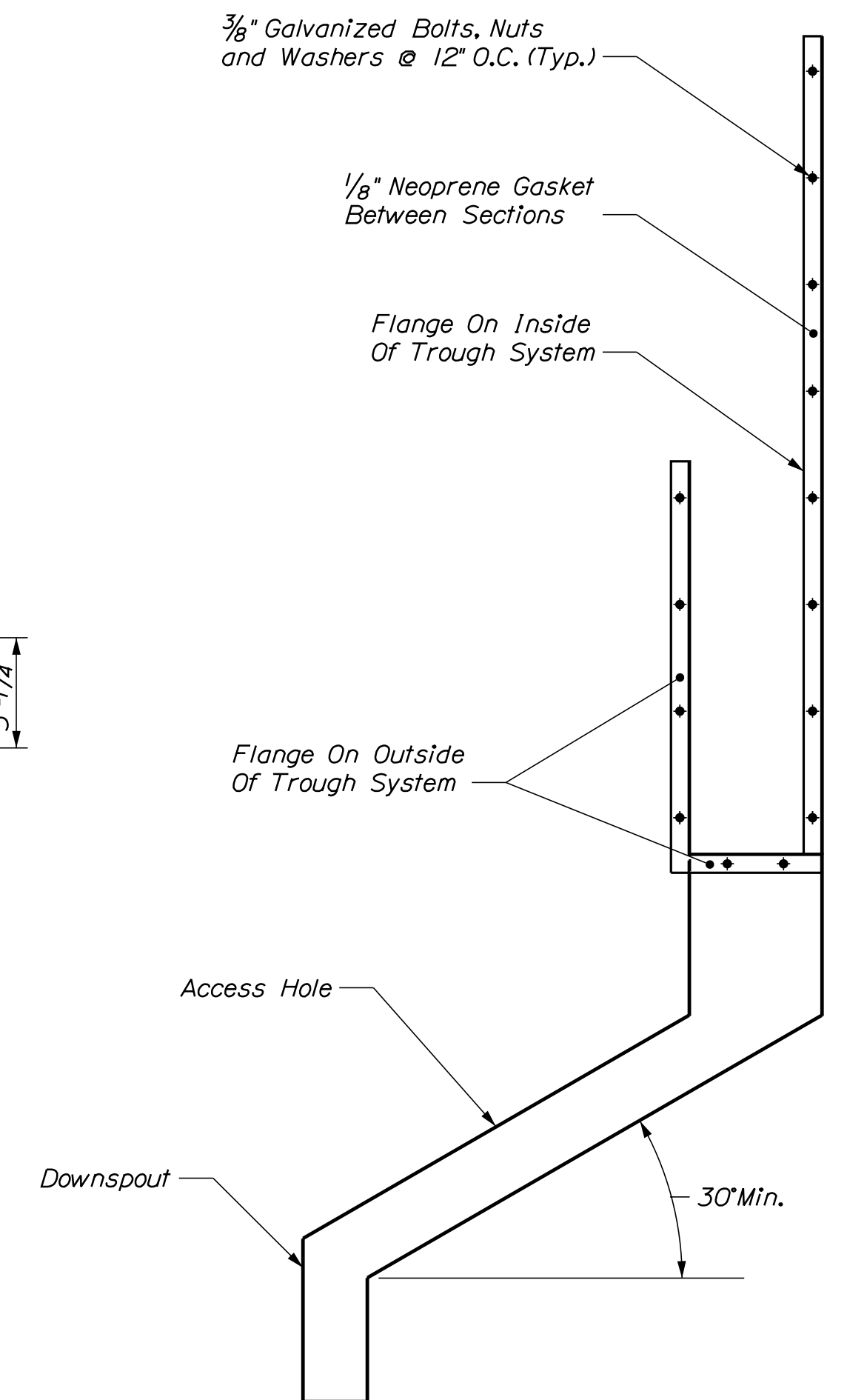


**ABUTMENT NO. 2 TROUGH SYSTEM
CONCEPTUAL DETAIL EXPLODED VIEW**

Flow →



**ABUTMENT NO. 2 TROUGH
SYSTEM SECTION A-A**



**ABUTMENT NO. 2 TROUGH
SYSTEM SECTION B-B**

Date: 12/15/2020

Username: Richard.Mayer

Division: BRIDGE

Filename: ... \016_Ab12TroughSteelDetails.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WIN 022278.00
BRIDGE NO. 1558
BRIDGE PLANS

DESIGN DETAIL	DATE	SIGNATURE
CHECKED/REVIEWED	NOV 2020	
DESIGN DETAIL	NOV 2020	
REVISIONS 1		P.E. NUMBER
REVISIONS 2		DATE
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN DETAIL	M. GRAY	R. MAYER	NOV 2020
CHECKED/REVIEWED	R. MYERS	M. GRAY	NOV 2020
DESIGN DETAIL			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER\SO. MAIN STREET
BANGOR-BREWSTER PENOBSCOT COUNTY
**ABUTMENT NO. 2
TROUGH SYSTEM DETAIL**

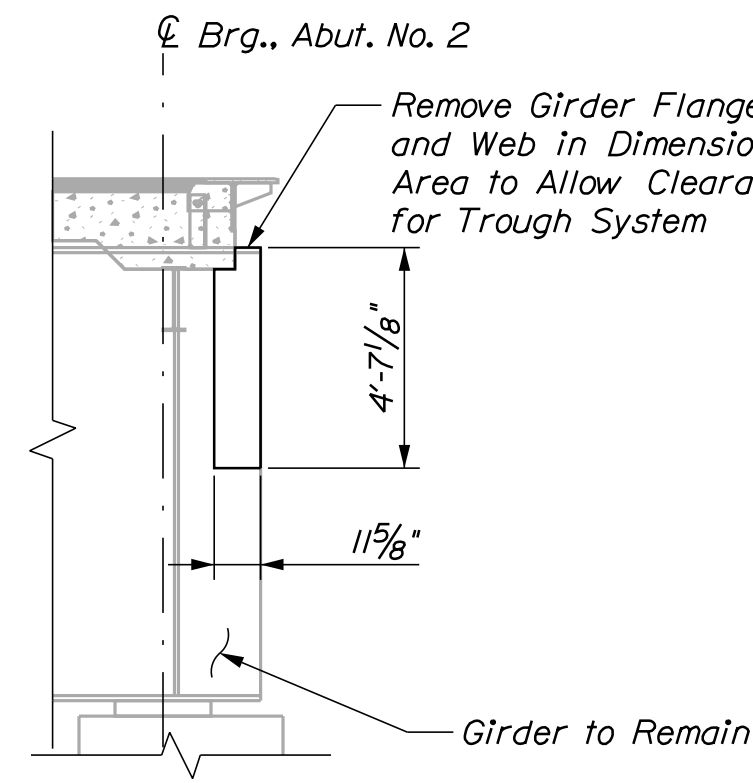
SHEET NUMBER

16

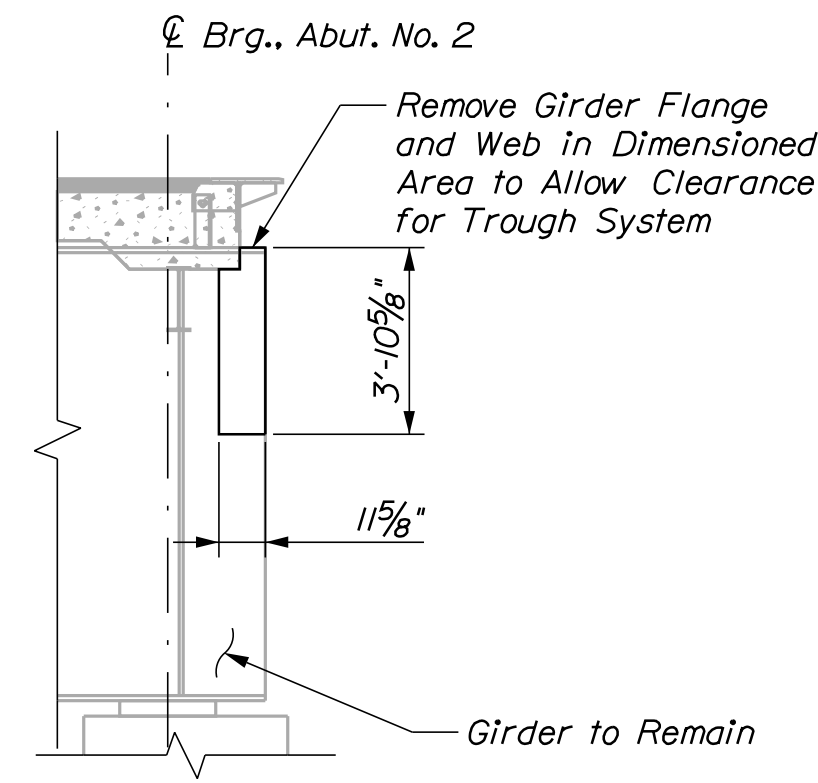
OF 20

GIRDER NOTES

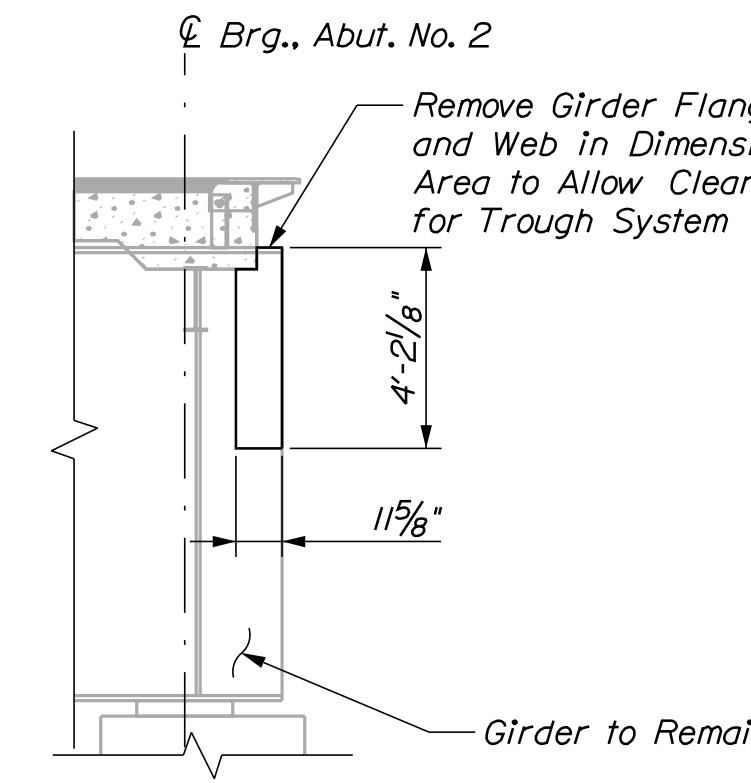
1. Girders are numbered consecutively from the North side of the bridge (Girder No. 1) to the South side of the bridge (Girder No. 8).
2. Contractor to confirm and coordinate cut lines with trough reviewed Working Drawings to assure adequate clearance for trough sections to pass by end of girders.
3. Grind edges and corners of cut edges smooth. Inside corners shall not be overcut.



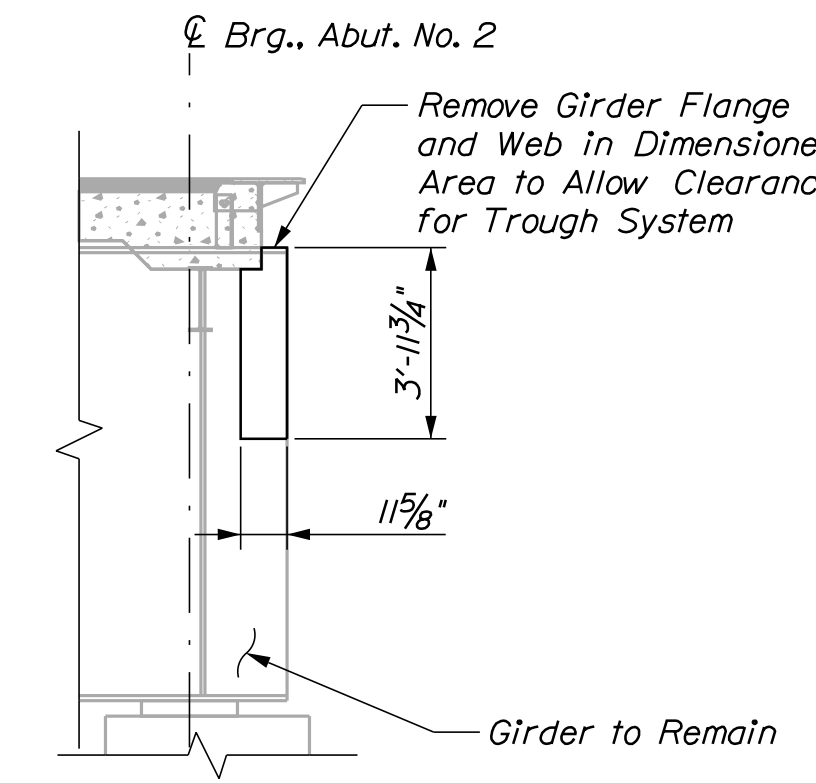
GIRDER NO. 1 CUTOUT



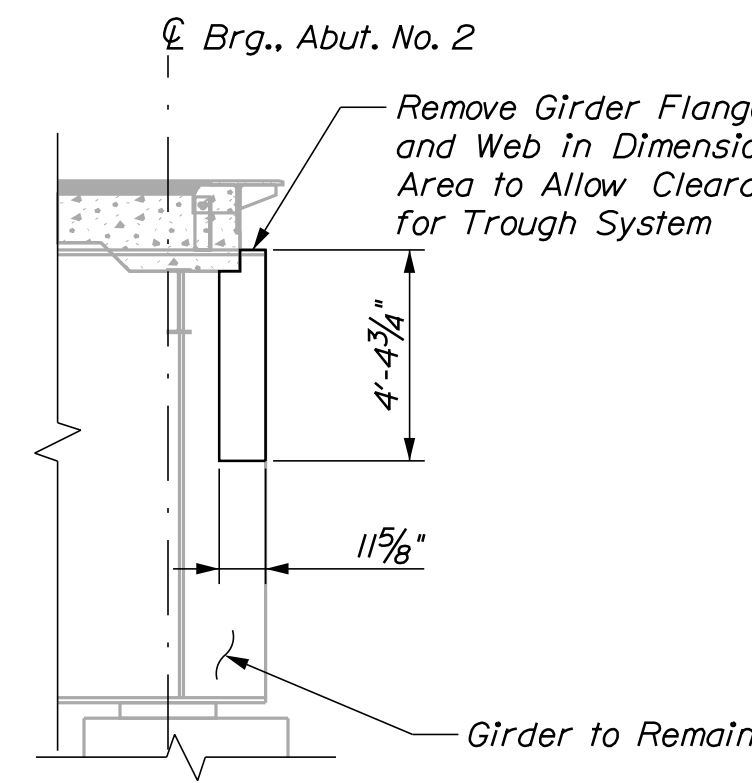
GIRDER NO. 2 CUTOUT



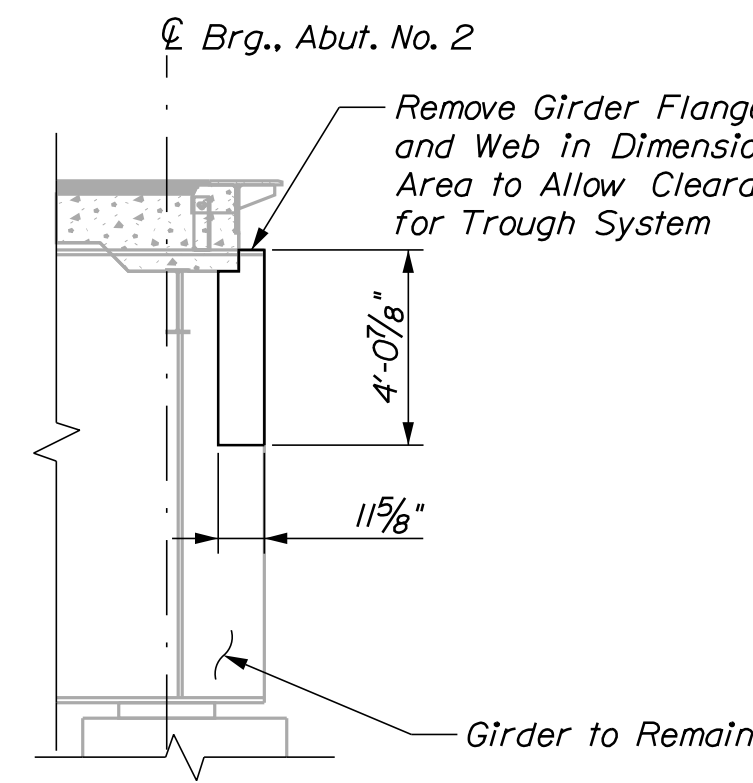
GIRDER NO. 3 CUTOUT



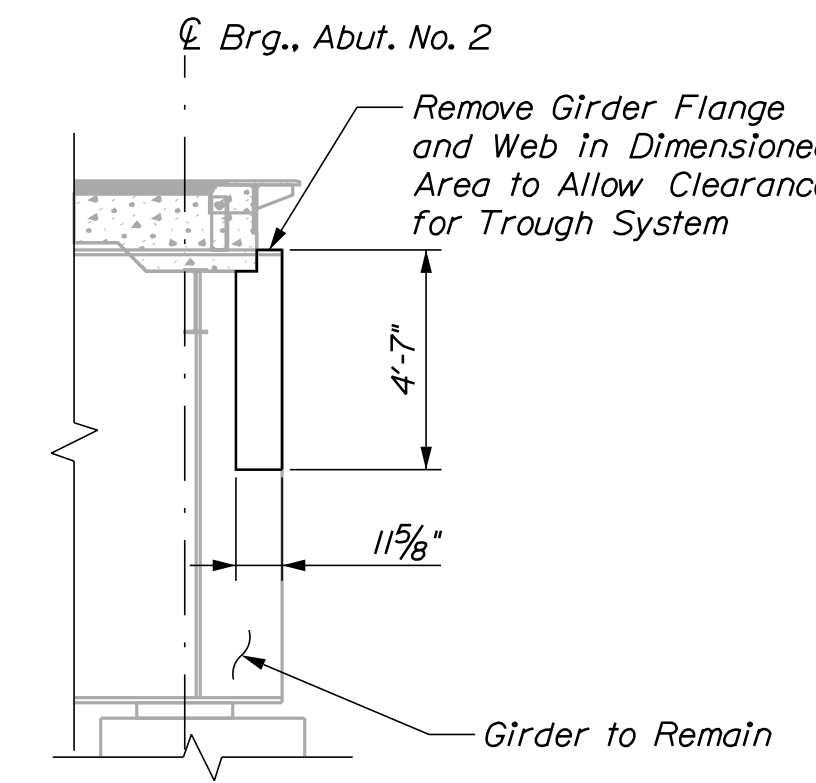
GIRDER NO. 4 & 5 CUTOUT



GIRDER NO. 6 CUTOUT



GIRDER NO. 7 CUTOUT



GIRDER NO. 8 CUTOUT

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 022278.00

BRIDGE NO. 1588
WIN 22278.00
BRIDGE PLANS

DATE

NOV 2020

NOV 2020

NOV 2020

NOV 2020

NOV 2020

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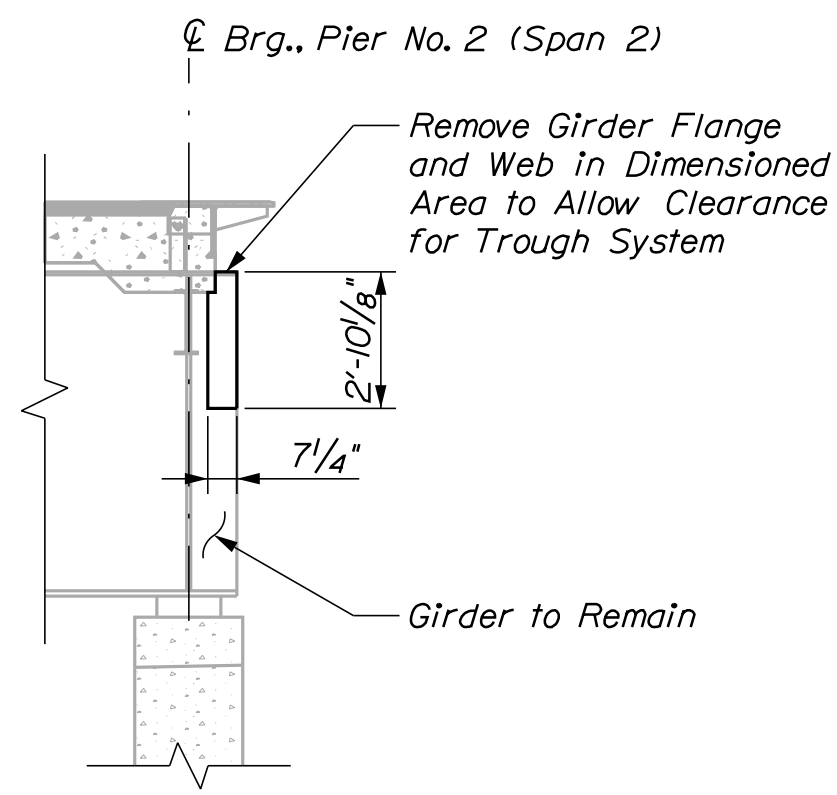
VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER\SO. MAIN STREET
BANGOR-BREWSTER PENOBSCOT COUNTY

ABUTMENT NO. 2 GIRDER
CUTOUT DETAILS

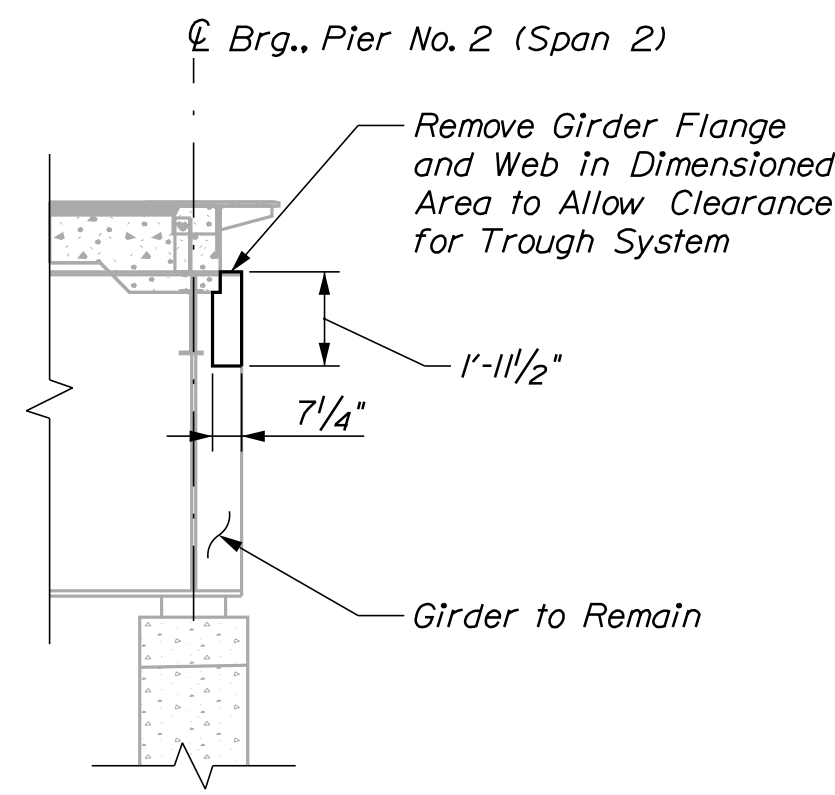
SHEET NUMBER

18

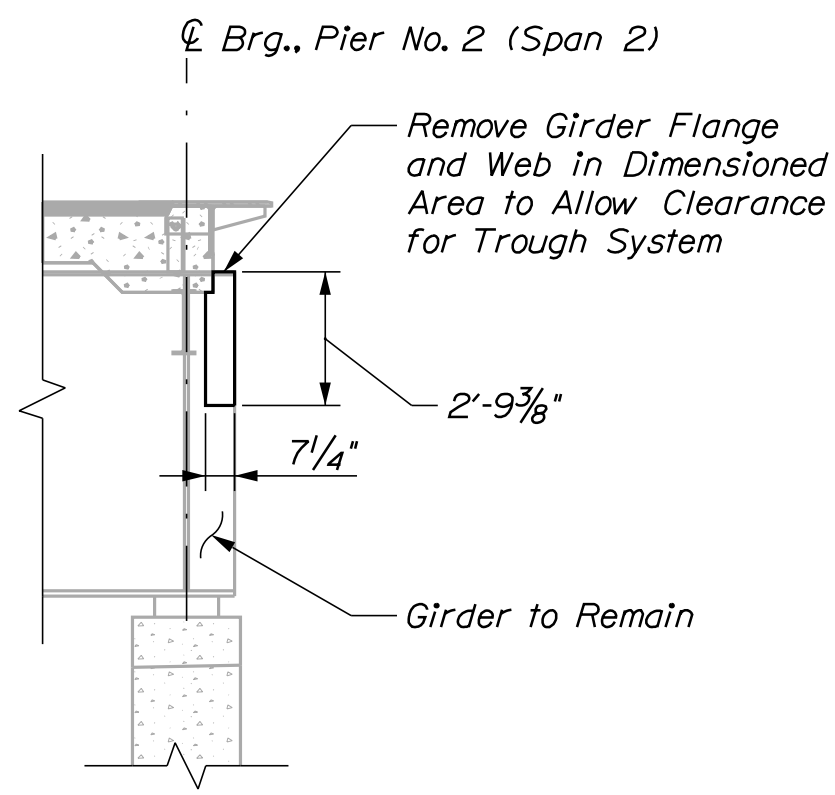
OF 20



SPAN NO. 2, GIRDER NO. 1 CUTOUT



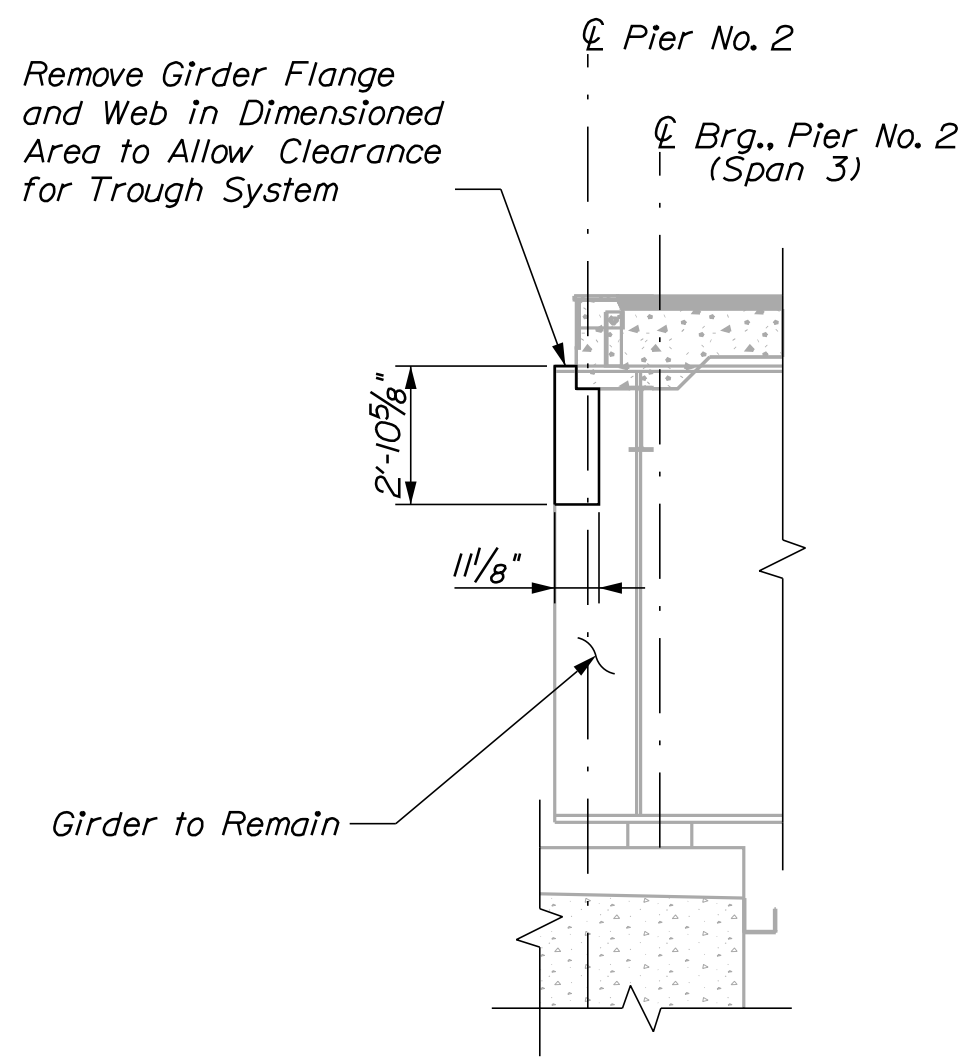
SPAN NO. 2, GIRDERS NO. 2 THROUGH NO. 9 CUTOUT



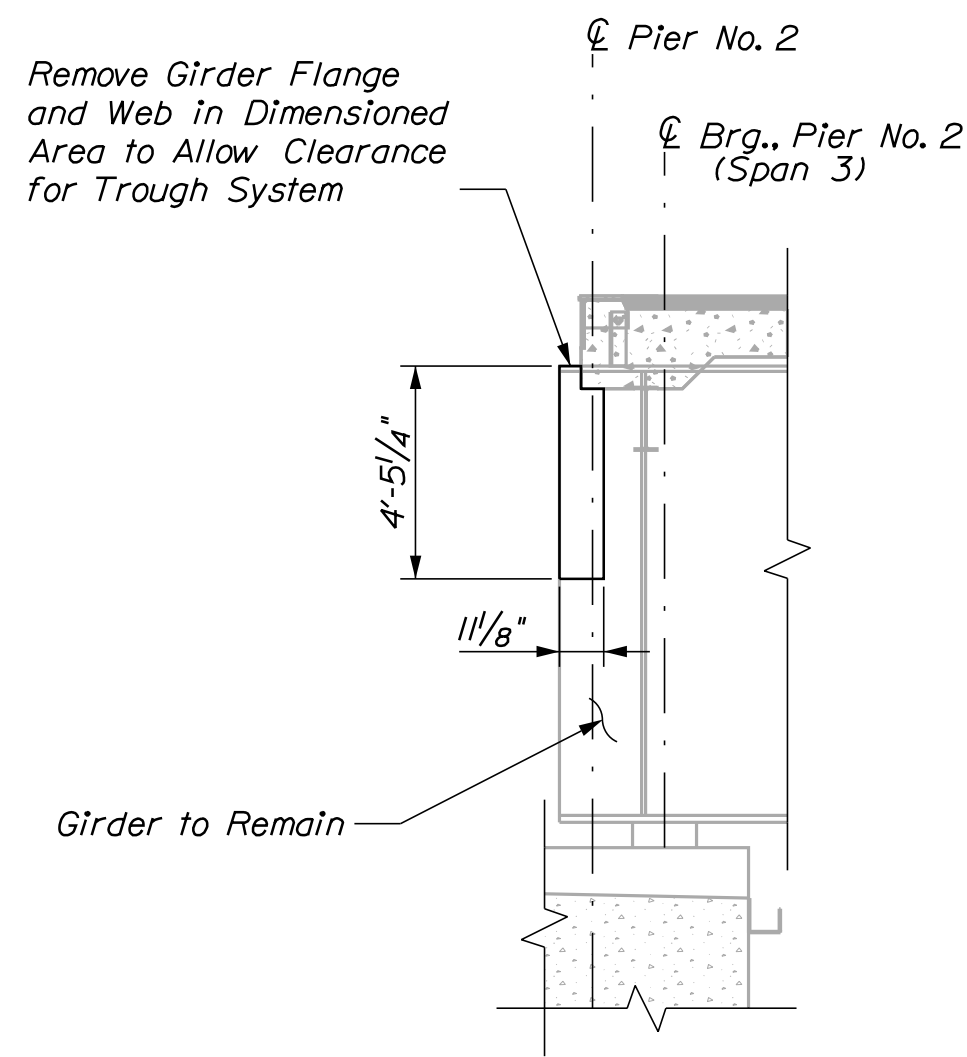
SPAN NO. 2, GIRDER NO. 10 CUTOUT

GIRDER NOTES

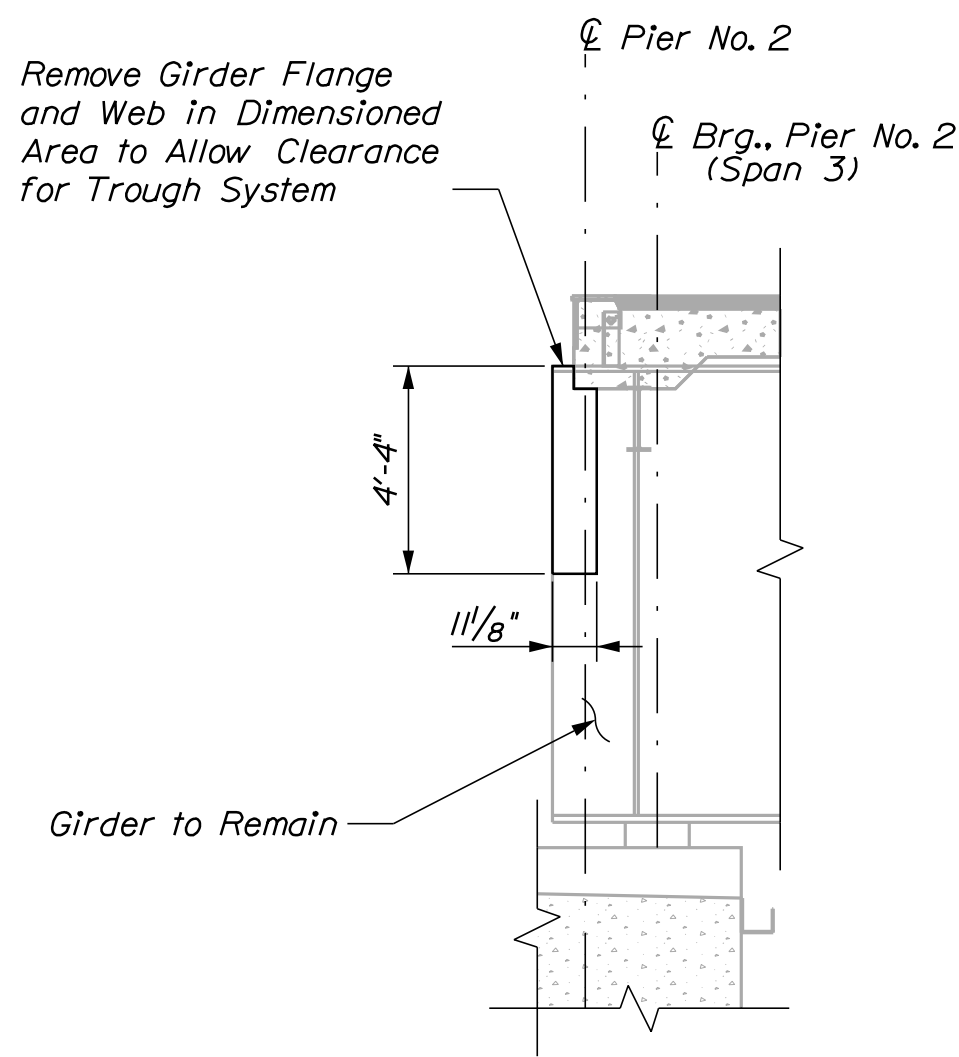
1. Girders are numbered consecutively from the North side of the bridge (Girder No. 1) to the South side of the bridge (Girder No. 8 for Span No. 3 and Girder No. 10 for Span No. 2).
2. Contractor to confirm and coordinate cut lines with trough reviewed Working Drawings to assure adequate clearance for trough sections to pass by end of girders.
3. Grind edges and corners of cut edges smooth.



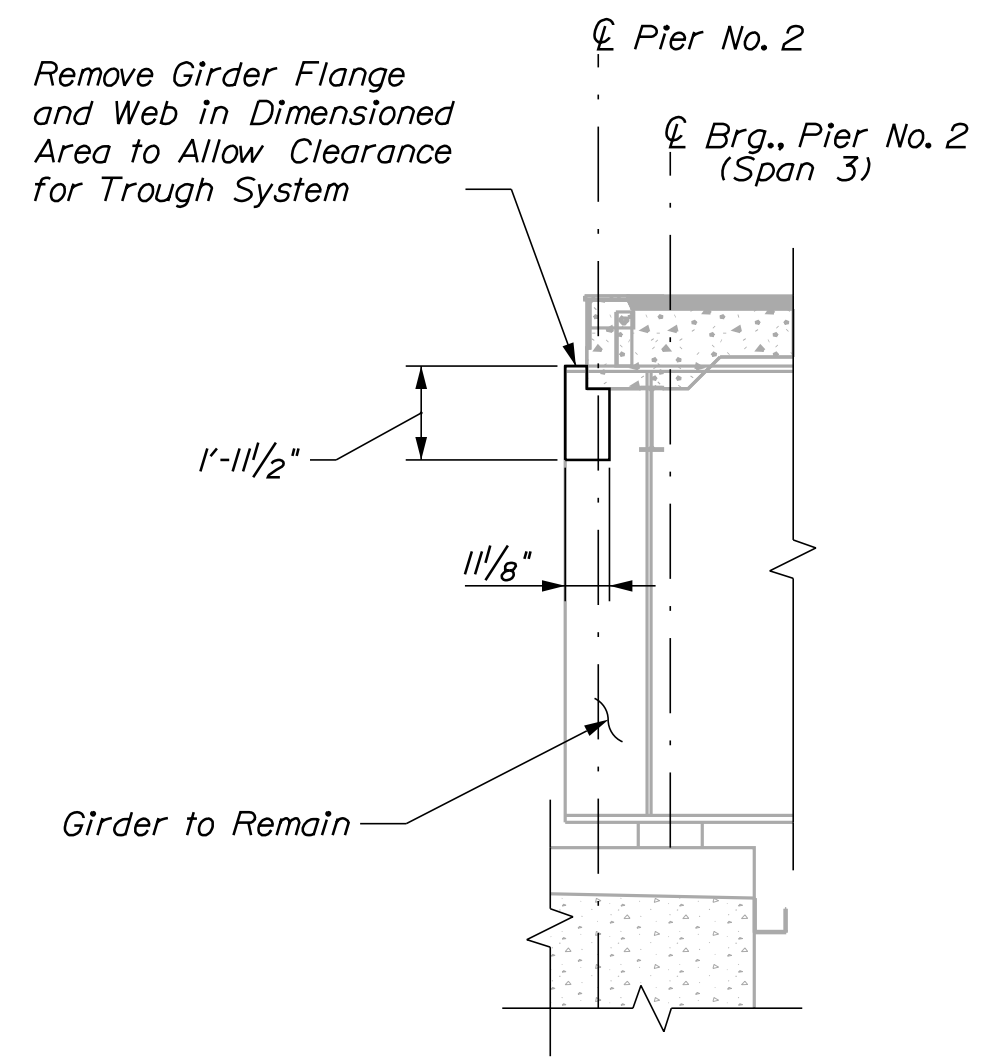
SPAN NO. 3, GIRDER NO. 1 CUTOUT



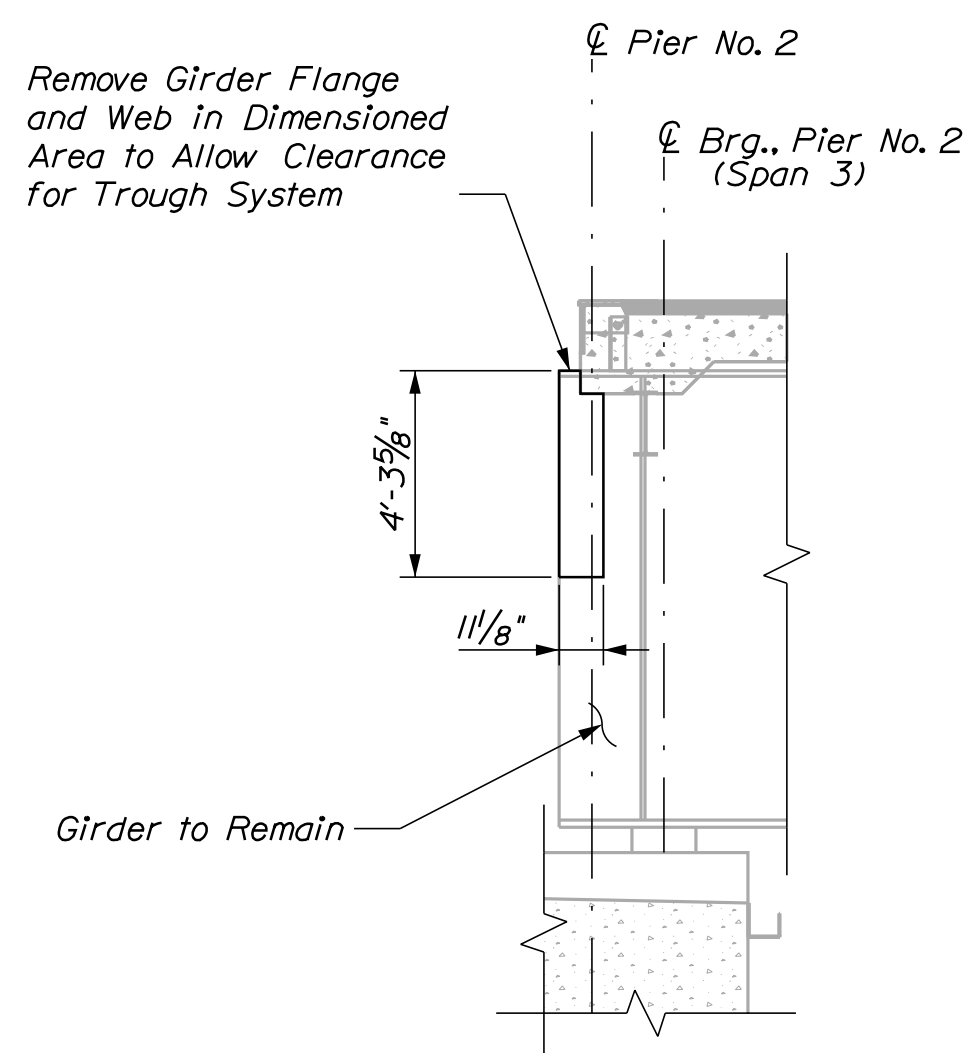
SPAN NO. 3, GIRDER NO. 2 CUTOUT



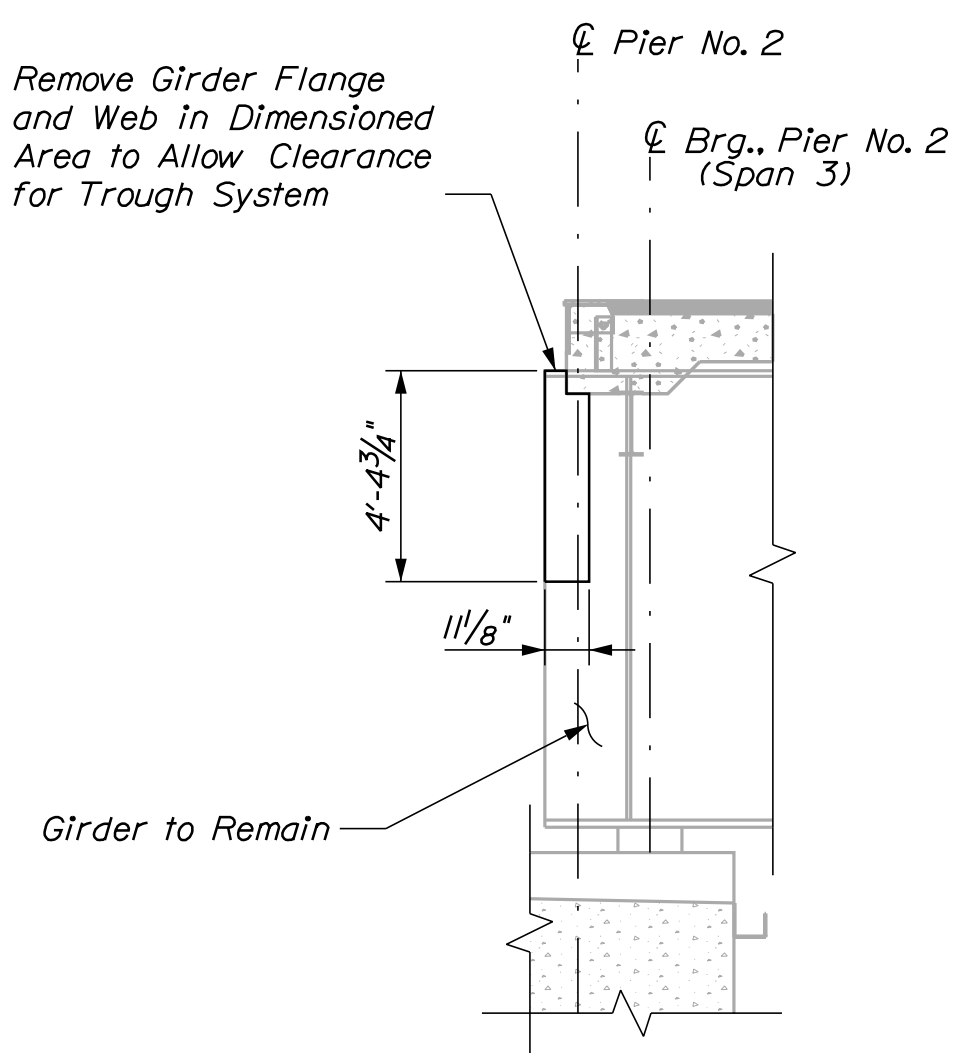
SPAN NO. 3, GIRDER NO. 3 CUTOUT



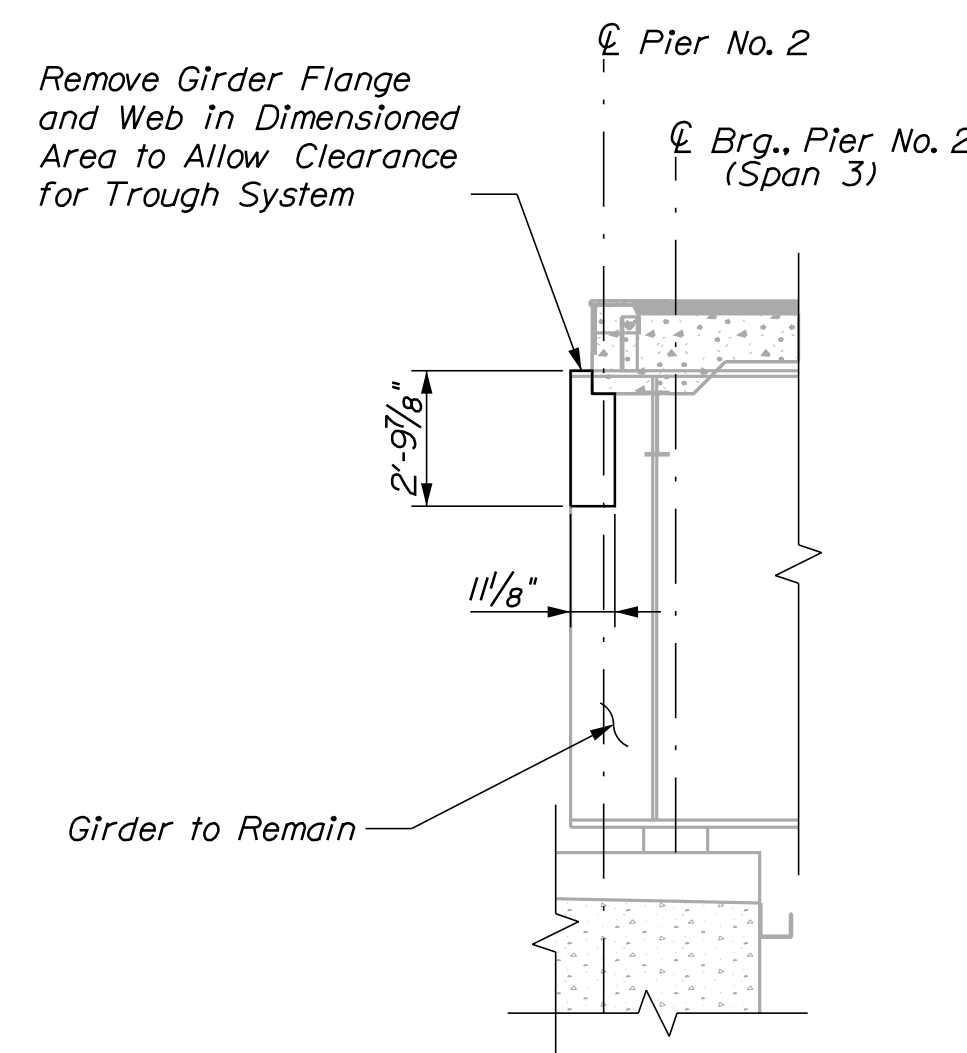
SPAN NO. 3, GIRDER NO. 4 & 5 CUTOUT



SPAN NO. 3, GIRDER NO. 6 CUTOUT



SPAN NO. 3, GIRDER NO. 7 CUTOUT



SPAN NO. 3, GIRDER NO. 8 CUTOUT

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WIN 022278.00
BRIDGE NO. 1558
BRIDGE PLANS

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN DETAILED	M. GRAY	R. MAYER	NOV 2020
CHECKED/REVIEWED	R. MYERS	M. GRAY	NOV 2020
DESIGN DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER\SO. MAIN STREET
BANGOR-BREWSTER PENOBSCOT COUNTY
PIER NO. 2 GIRDER
CUTOUT DETAILS

SHEET NUMBER

19

OF 20

FORE SLOPE REPAIR NOTES

1. Work required to repair the fore slope surfaces of Abutment 2 will be paid for with the following bid items.

- 502.565 Concrete Fill
- 610.18 Stone Ditch Protection
- 629.05 Hand Labor Straight Time
- 631.10 Air Compressor (Including Operator)
- 631.11 Air Tool (Including Operator)
- 631.12 All Purpose Excavator (Including Operator)
- 631.172 Truck Large (Including Operator)

2. Repair areas shown are approximate and may be modified or additional areas added as directed by the Resident.

3. Ditch areas include formed surfaces of shotcrete.

4. Concrete fill placed to repair the existing shotcrete surfaces will be cured with wet burlap and kept moist for 7 days.

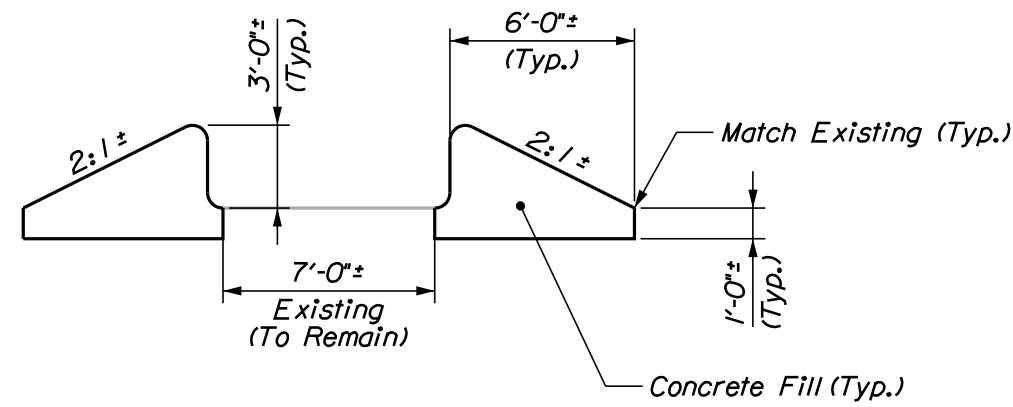
5. Spoil materials from shotcrete removal, ditch cleaning and other work directed by the Resident will be removed and disposed of. Spoil material removal and disposal shall be incidental to bid items listed in Note 1.

6. Fore slope areas damaged as a result of the Contractor's operations for work on and around Abutment 2 including concrete repair, bearing replacement, trough replacement and coating application, will be repaired at the Contractor's expense.

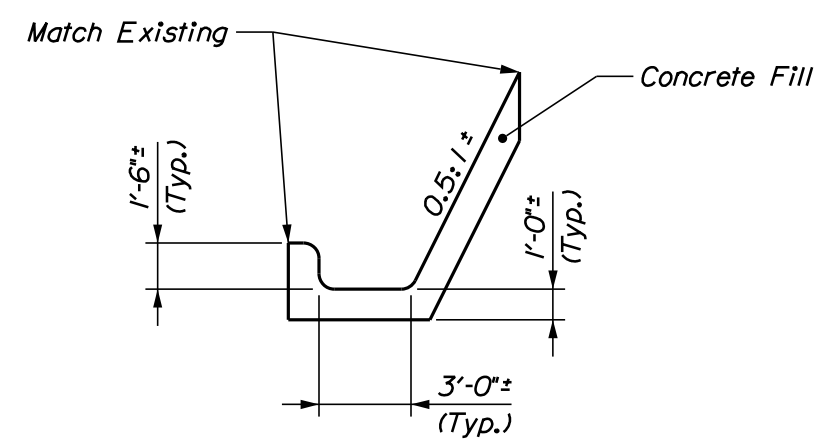
7. 4" and smaller stones are acceptable in concrete fill.

8. Forming, placing/pumping, finishing, and curing concrete repairs on the fore slope as specified within or as directed by the Resident will be considered incidental to the concrete fill item and will not be paid for separately. Removal of existing concrete and preparation for placement of forms and concrete shall be paid for through applicable hourly items.

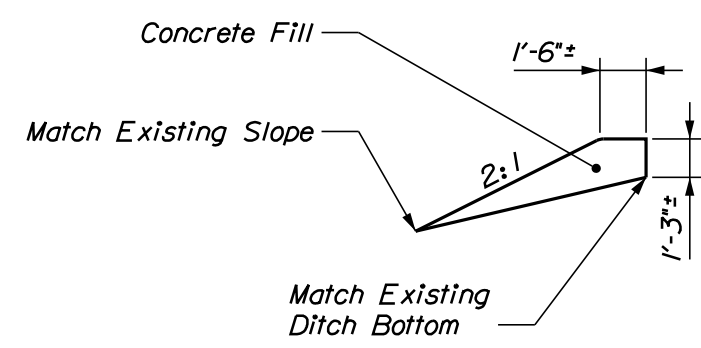
9. Hauling, and placing Stone Ditch Protection shall be considered incidental to the Stone Ditch Protection item and will not be paid for separately. Removal of existing material and bed preparation as specified within or as directed by the Resident will be paid for through applicable hourly items.



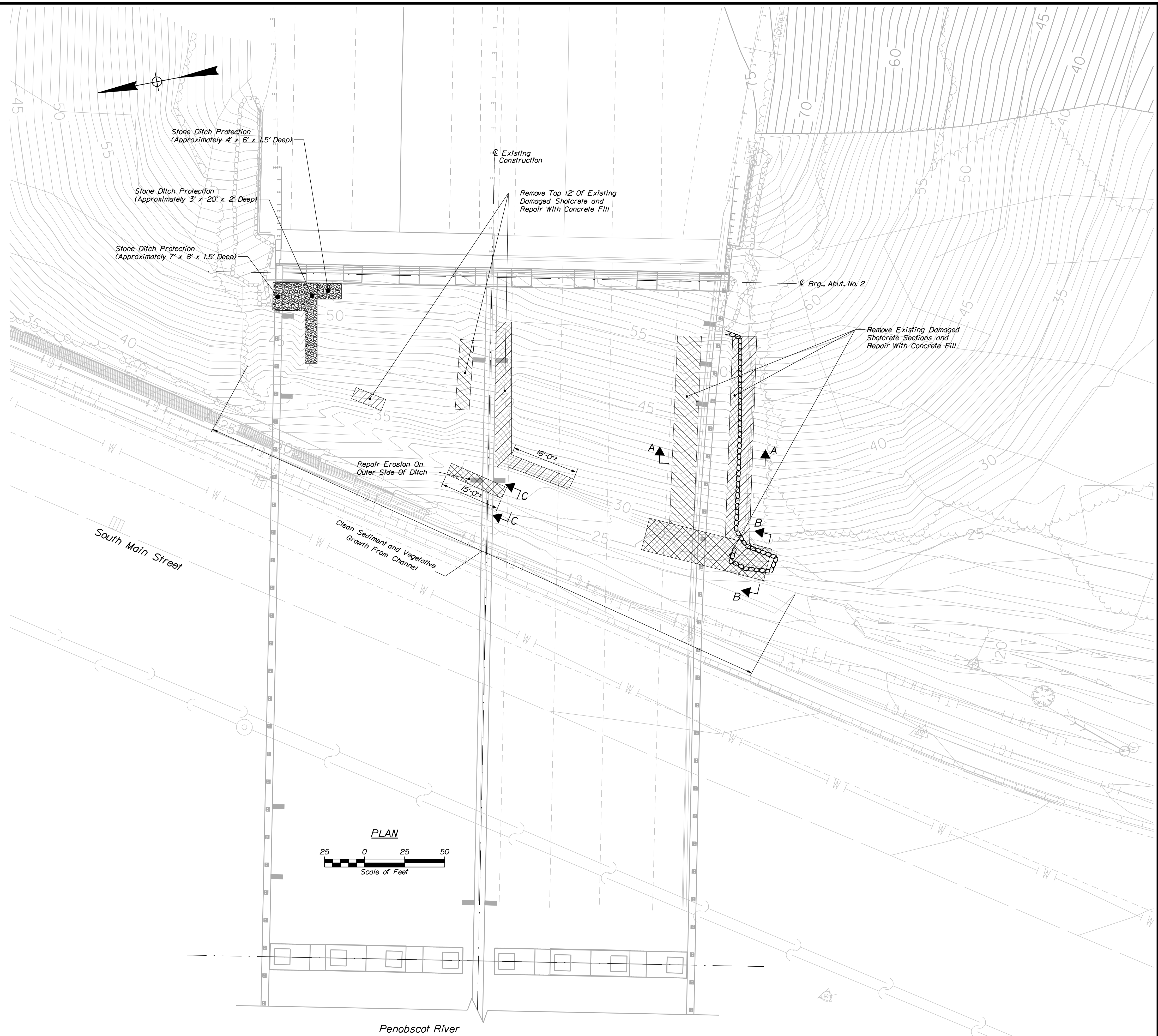
SECTION A-A
(Normal To Foreslope)



SECTION B-B
(Normal To Ditch-Line)



SECTION C-C
(Normal To Ditch-Line)



Date: 12/15/2020

Username: Richard.Mayer

Division: BRIDGE

Filename: ... \020_Abt2ForeSlopePlan1.dgn

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		WIN 022278.00	
VETERANS REMEMBRANCE BRIDGE PENOBSCOT RIVER\SO. MAIN STREET BANGOR-BREWSTER PENOBSCOT COUNTY		BRIDGE NO. 1558	
ABUTMENT NO. 2 FORE SLOPE REPAIR PLAN		BRIDGE PLANS	
SHEET NUMBER		20	
OF 20		WIN 22278.00	

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN DETAILED	M. GRAY	R. MAYER	NOV 2020
CHECKED/REVIEWED	R. MYERS	M. GRAY	NOV 2020
DESIGN DETAILED			
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