



Janet T. Mills
GOVERNOR

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Bruce A. Van Note
COMMISSIONER

May 29, 2019
Subject: Bridge Rail & Post Replacement
State WIN: 024246.00
Location: **Waterville & Benton**
Amendment No. 3

Dear Sir/Ms.:

Please make the following changes to the Bid Documents:

In the Bid Book:

CHANGE on page 11, NOTICE TO CONTRACTORS, the bid opening date in the first paragraph from "May 29, 2019" to read, "**June 5, 2019**". Make this change in pen and ink.

Bids will be accepted on either the Schedule of Items contained in the original Bid Book or the one contained in this amendment. However, the original contract amount will be calculated based on the quantities in the attached, revised Schedule of Items.

REMOVE page 13, Proposal Schedule of Items, 1 page, dated 4/24/2019, and **REPLACE** with the attached, revised Proposal Schedule of Items, 1 page, dated 5/28/ 2019.

REMOVE pages 29-31, Plans, 3 pages, and **REPLACE** with the attached, Revised Plans, 4 pages, dated 05/28/2019.

The following question has been received:

Question: The Department included a parts schedule for each bridge. Waterville has 114 HSS 12 X 8 Guardrail Brackets and Benton has 96, for a total of 200 Brackets. I believe this must be incorrect, plans call out for 1,754 LF of Thrie Beam with guardrail brackets spaced at a maximum of 6.25'.

Response: See the attached, revised plans for corrected quantities.

Consider these changes and information prior to submitting your bid on **June 5, 2019**.

Sincerely,

A handwritten signature in black ink, appearing to read "Geo M A Macdougall", followed by the word "For" in a similar cursive style.

George M. A. Macdougall P.E.
Contracts & Specifications Engineer

5/28/2019

Maine Department of Transportation

Proposal Schedule of Items

Page 1 of 1

Proposal ID: 024246.00

Project(s): 024246.00

SECTION: 1 PROJECT ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0010	202.134 REMOVING EXISTING RAILINGS (RETAINED BY DEPARTMENT)	LUMP SUM				
0020	606.366 GUARDRAIL, REMOVE & RESET TYPE 3C	200.000 LF				
0030	606.70 TRANSITION SECTION THRIE BEAM	8.000 EA				
0040	606.73 GUARDRAIL, THRIE BEAM, SINGLE RAIL, BRIDGE MOUNTED	1,754.000 LF				
0050	652.39 WORK ZONE TRAFFIC CONTROL	LUMP SUM				
0060	659.10 MOBILIZATION	LUMP SUM				
Section: 1			Total:			
			Total Bid:			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

2014 MaineDOT Standard Specifications with Updates
2014 MaineDOT Standard Details with Updates

TRAFFIC DATA

Current (2017) AADT Br#5812 2,000
Current (2017) AADT Br#5994 640

MATERIALS

Structural Steel:
Rail Posts ASTM A 500, Grade C
All Material (except as noted) ASTM A 709, Grade 50
High Strength Bolts, Unless Noted Otherwise ASTM A325 or A449
Galvanized, ASTM 153
Hex Nuts and Heavy Hex Nuts Galvanized, ASTM A153

BASIC DESIGN STRESSES

Structural Steel:
ASTM A 709, Grade 50 F_y = 50,000 psi
ASTM A 709, Grade 36 F_y = 36,000 psi
ASTM A449 or A325 F_u = 120,000 psi

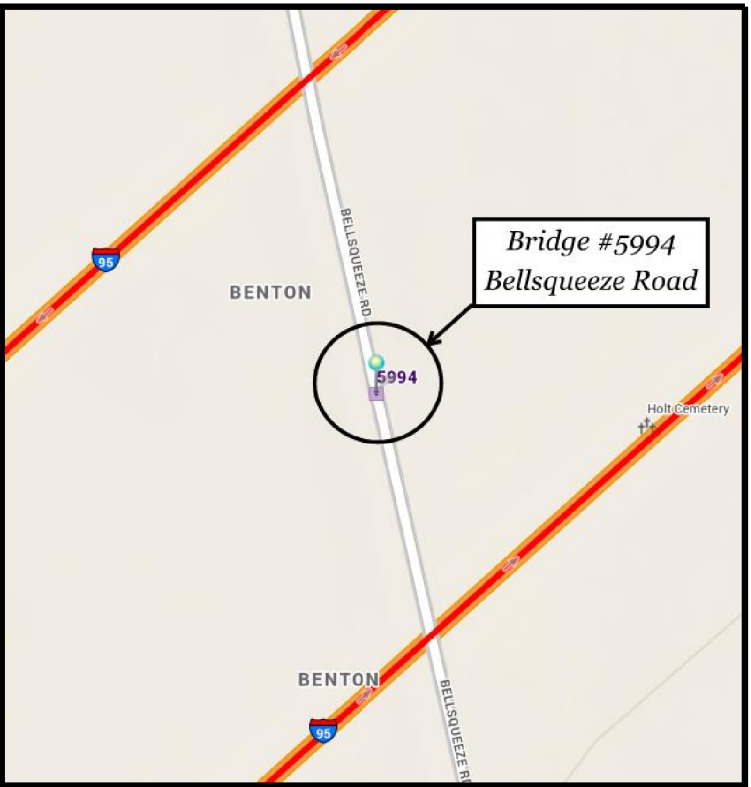
LIST OF DRAWINGS

Title Sheet 1
Plans, Elevations & Details 2-3
Steel Details, Estimated Quantities and Hardware Schedules 4

BRIDGE RAIL AND POST REPLACEMENT
KENNEBEC COUNTY

TRAFTON ROAD BRIDGE (BR#5812) &
BELLSQUEEZE ROAD BRIDGE (BR#5994)
OVER
INTERSTATE 95
WR#35374
WIN 24246.00

PROJECT LENGTH - Less Than 0.10 mi.



Revised Plans
05/28/2019

MAINTENANCE OF TRAFFIC

Maintain one 11'-0" minimum wide lane of alternating one - way traffic per MaineDOT Section 652 - Maintenance of Traffic specification.

PROJECT LOCATION	On Trafton Road over I-95 in Waterville and Bellsqueeze Road in Benton BR#5812 (Trafton Road) ~ Lat./Long. 44°30'29.7" N 69°42'11.6" W BR#5994 (Bellsqueeze Road) ~ Lat./Long. 44°37'29.4" N 69°32'45.1" W
PROGRAM AREA	Bridge Maintenance
OUTLINE OF WORK	Replace existing Bridge Rail with new Steel tube and Thrie Beam system.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
	COMMISSIONER:	
	CHIEF ENGINEER:	

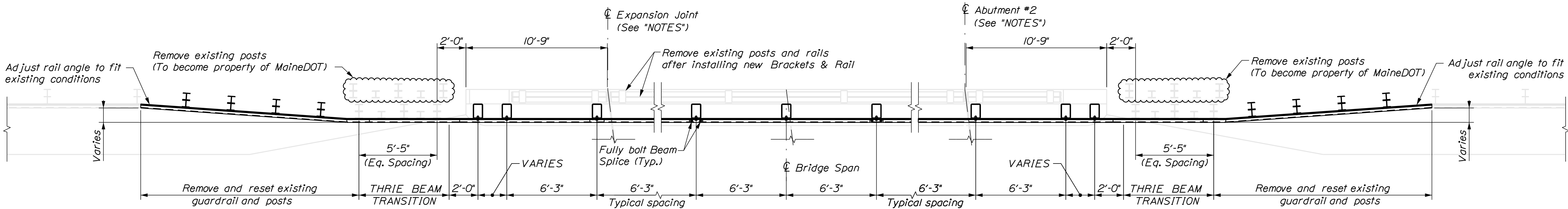
PROJECT INFORMATION	Bridge & Structure Maintenance	Cy Adams	G. Lobby	SIGNATURE	
				P.E. NUMBER	
				DATE	

PROGRAM	PROJECT MANAGER	DESIGNER	CONSULTANT	PROJECT RESIDENT	CONTRACTOR	PROJECT COMPLETION DATE

24246.00 WIN 24246.00

WATERVILLE and BENTON Trafton Road & Bellsqueeze Road	TITLE SHEET

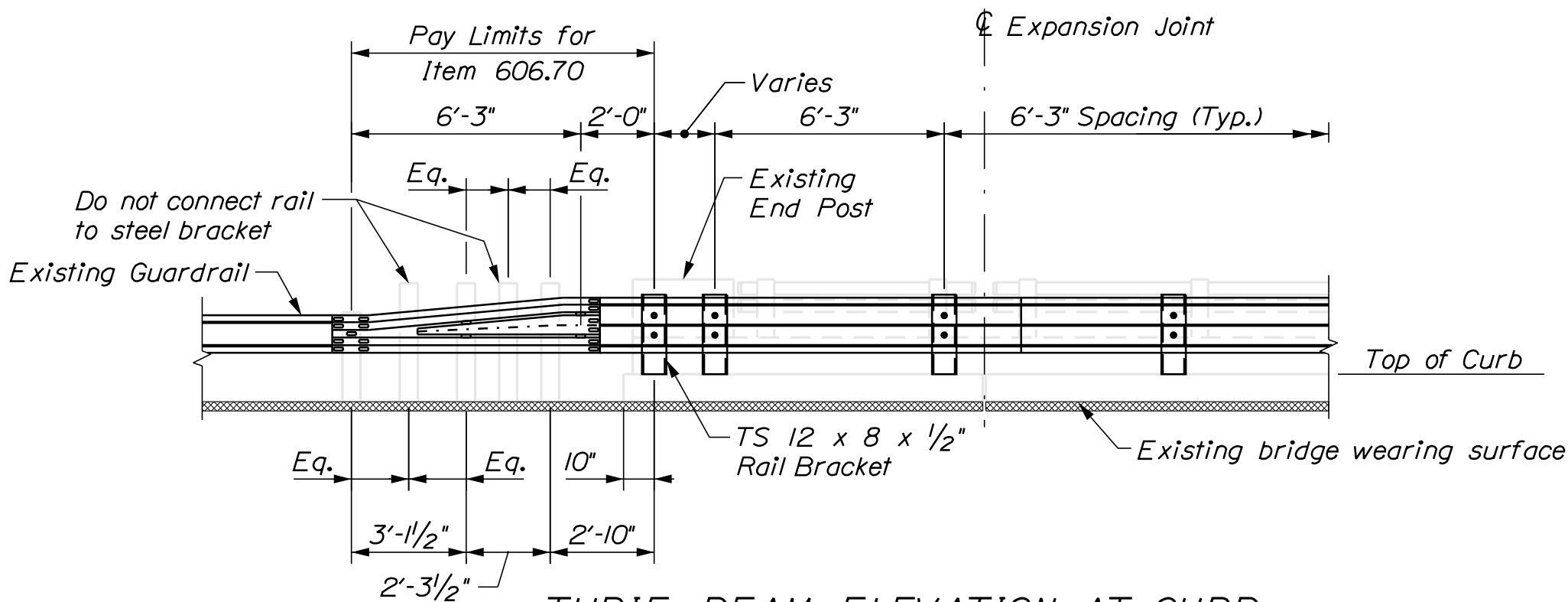
SHEET NUMBER
1
OF 4



BRIDGE RAIL LAYOUT FOR TRAFTON ROAD (BR#5812)
(North Side As Detailed; Southern Side ~ Opposite Hand)

- NOTES:
1. Refer to 'BRIDGE INFORMATION CHART' for bridge skew, number and location of joints, parapet height and width, and bridge length.
 2. Thrie Beam splices shall be bolted with 12 ~ 7/8" ϕ x 3/4" Long Galvanized Bolts as recommended by the manufacture and as directed by the Project Manager.

Revised Plans
05/28/2019



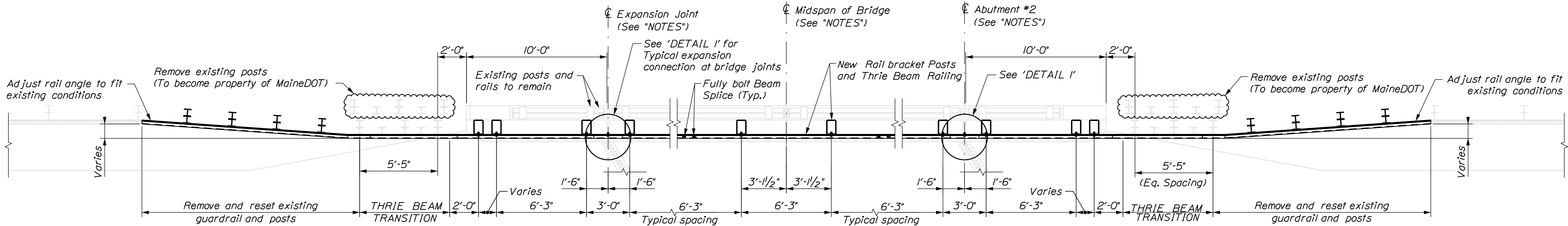
THRIE BEAM ELEVATION AT CURB
FOR BRIDGE #5812 - WATERVILLE

BRIDGE INFORMATION CHART							
BRIDGE #	TOWN	SKEW	# EXP. JNTS	LOCATION	PARAPET HT.	PARAPET WTH.	LENGTH (c/c of Abutments)
5812	WATERVILLE	6°58'	4	4-MS	1'-0"	1'-0"	345'-6"
5994	BENTON	29°17'	2	2-AB	1'-6" (VIF)	1'-0"	478'-0"

Note:
~ MS = Midspan
~ AB = Abutments
~ VIF = Verify in Field

- CONSTRUCTION NOTES:
1. Additional holes in the Thrie Beam and the Type 3 Guardrail panels may be made by drilling, punching or any other method that produces a neat, clean hole of the desired size. Burning of these holes will not be allowed. Paint the cut ends of the cut panels and all new holes with an approved Galvanizing Repair Paint from the MaineDOT QPL. All labor, materials, and incidentals needed to complete guardrail modifications shall be considered incidental to guardrail pay items.
 2. The Contractor shall verify all field dimensions required for fabrication of guardrail items.
 3. Modifications to new or existing Type 3 Guardrail shall include adding holes as required for conformance to standard details and providing panels of 10 gage thickness. These modifications shall be incidental to Item 606.70 - Transition Section Thrie Beam.
 4. Threaded rod shall be ASTM A449 or approved equal.
 5. Hardware for threaded rod connections shall be:
~ ASTM A563 for 7/8" ϕ Heavy Hex nuts
~ ASTM F436 for 7/8" ϕ Hardware washers
~ ASTM A36 for 3" x 3" Plate washers
 6. All associated hardware, including bolts, threaded rods, washers, nuts and plates shall be Hot Dipped Galvanized after fabrication. Galvanizing shall conform to the requirements of ASTM A153.
 7. Holes through existing concrete parapet walls for 7/8" ϕ threaded rods are to be cored. No drilling of holes will be permitted.
 8. Once installation of Thrie Beam is complete, upset threads of all 7/8" ϕ rods on each end and paint with a Galvanizing Repair Paint from the MaineDOT QPL.
 9. All labor, equipment and material necessary to install the Thrie Beam Guardrail shall be incidental to Item 606.73.
 10. Drilling and anchoring of new anchor bolts for the Thrie Beam rail installation on the bridge shall be done in accordance with Special Provision Section 606 - Thrie Beam - Single Rail Bridge Mounted.
 11. All existing Bridge Rail shall be removed after installation of new Thrie Beam guardrail and become the property of the Maine Department of Transportation. All removed Bridge Rail and posts shall be placed on pallets and wrapped as directed by the Inspector on site. All salvaged posts and rails shall be delivered to MaineDOT Maintenance Camp at 131 Skowhegan Ave., Fairfield, Maine 04937 Attn. - Cy Adams, Region 2 Bridge Transportation Operations Manager (TOM) per Item 202.134 - Removing Existing Railing (Retained by the Department).
 12. All materials and listed pay item quantities, including lump sum quantities are provided by MaineDOT for informational purposes only.

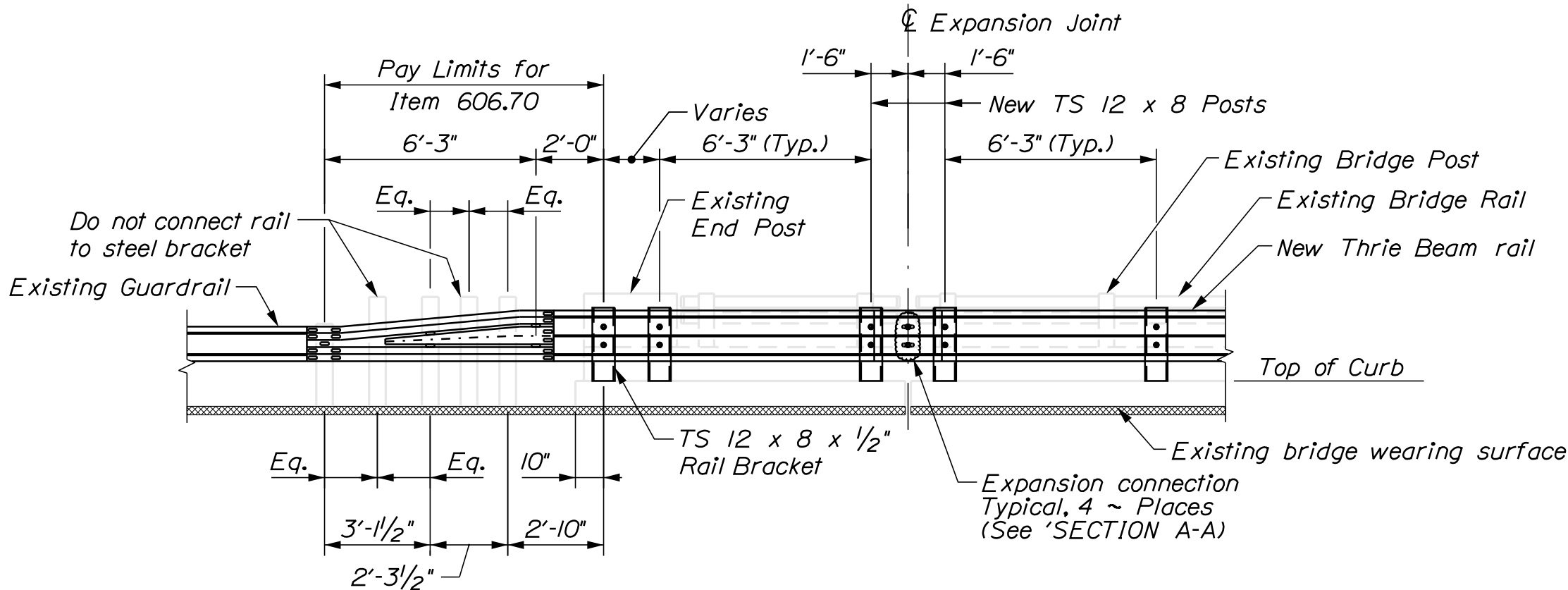
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	BRIDGE RAIL REPLACEMENT		BRIDGE #5812 & #5994		WIN	24246.00	PLANS
	TRAFTON ROAD and BELLSQUEEZE ROAD over I-95 WATERVILLE and BENTON KENNEBEC						
	PLANS, ELEVATIONS and DETAILS						
SHEET NUMBER							
2							
OF 4							



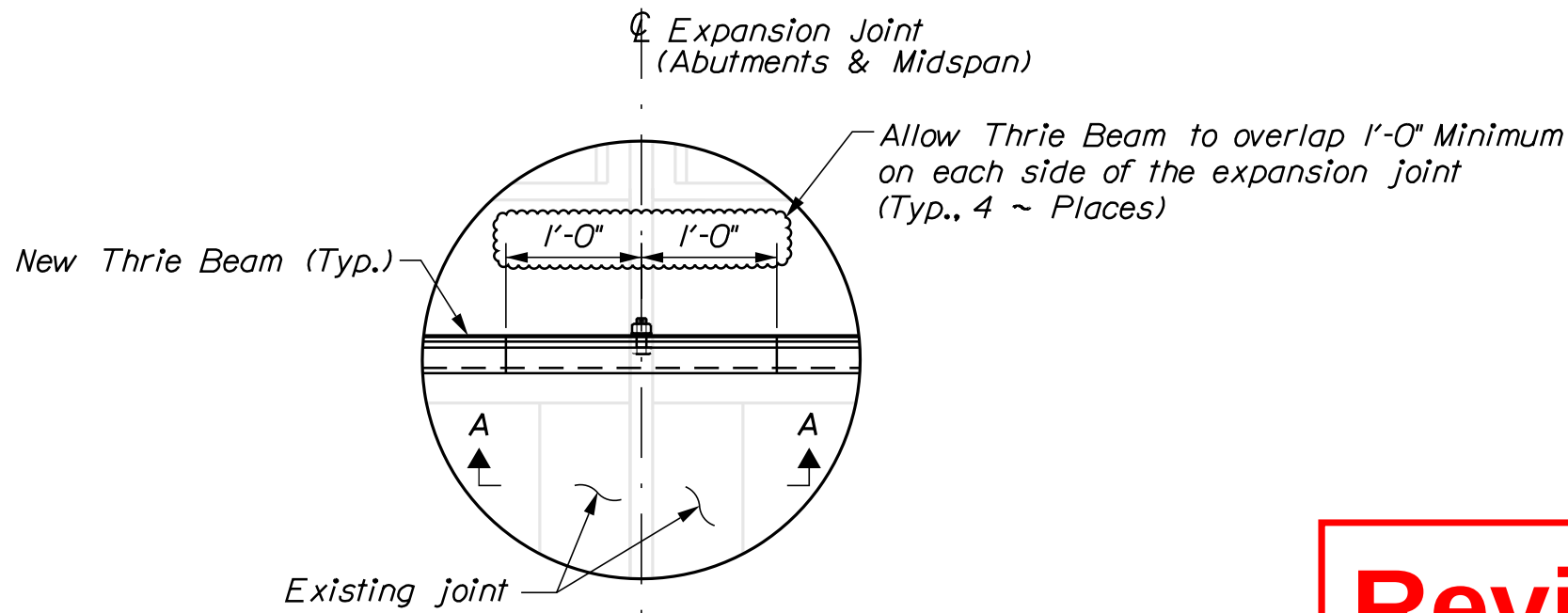
BRIDGE RAIL LAYOUT FOR BELLSQUEEZE ROAD (BR#5994)

NOTES:

1. Refer to 'BRIDGE INFORMATION CHART' for bridge skew, number and location of joints, parapet height and width, and bridge length.
2. Thrie Beam splices shall be bolted with 12 ~ 7/8" ϕ x 3/4" Long Galvanized Bolts as recommended by the manufacture and as directed by the Project Manager.

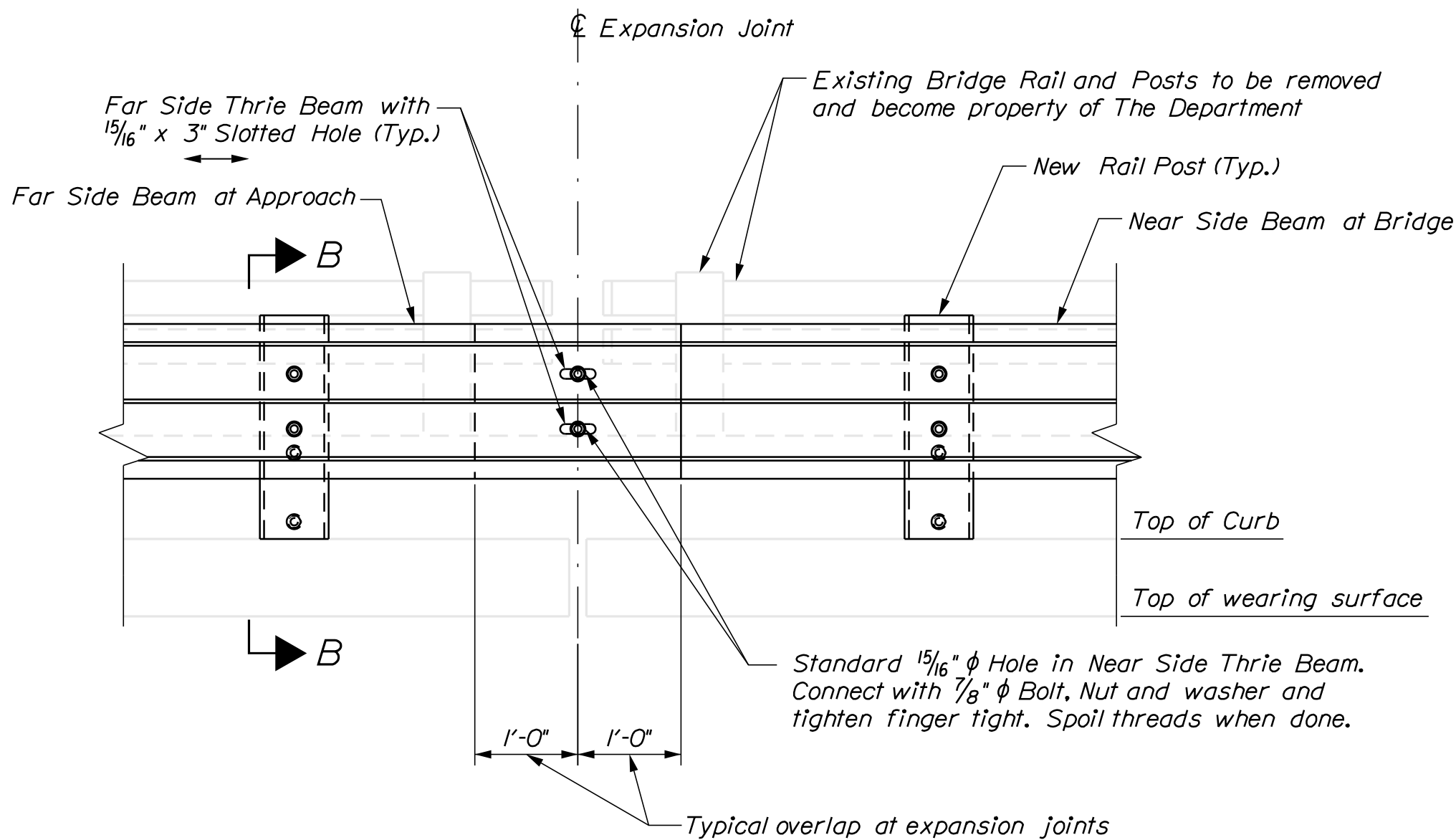


THRIE BEAM ELEVATION AT CURB
FOR BRIDGE #5994 - BELLSQUEEZE ROAD

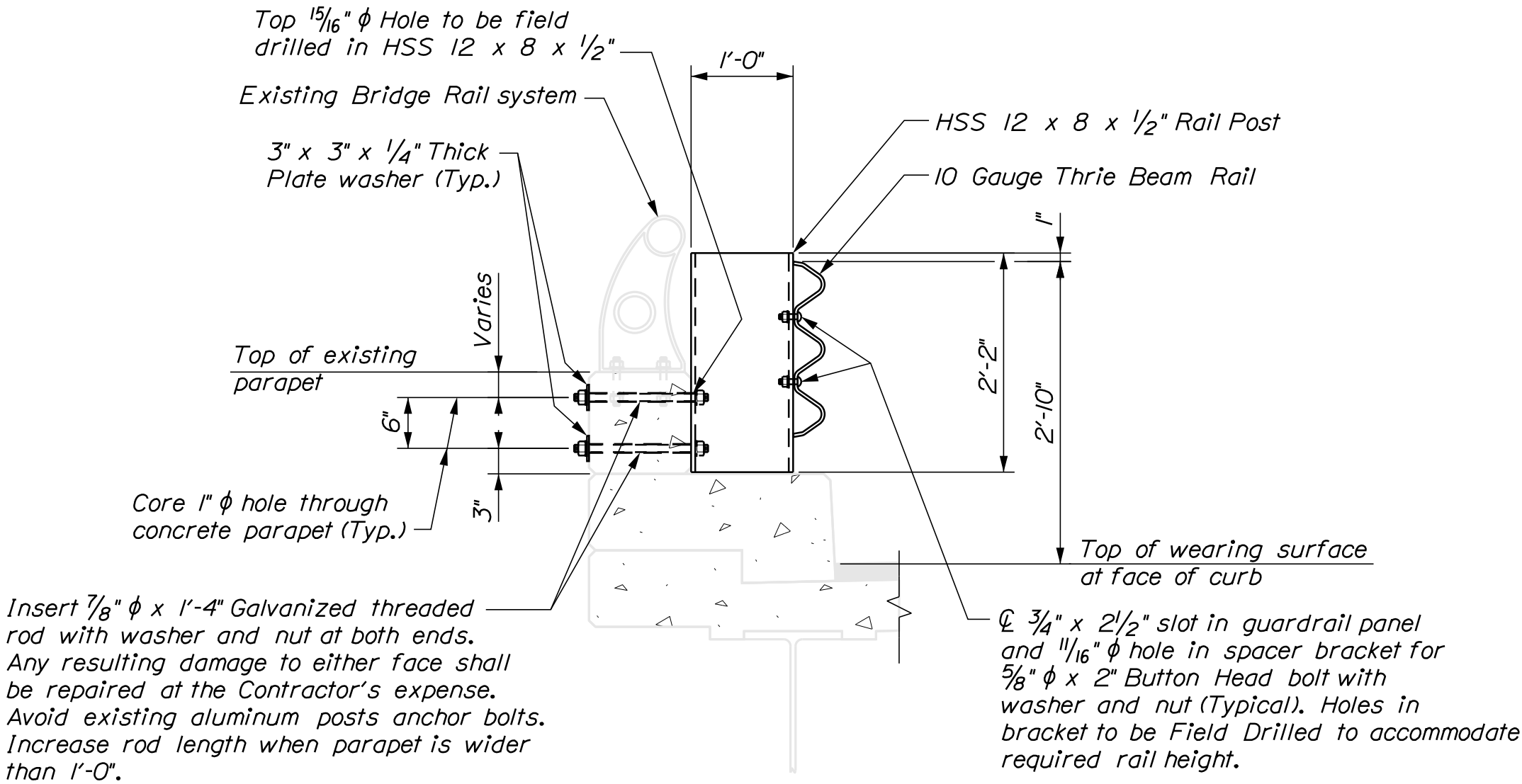


DETAIL 'I'

Revised Plans
05/28/2019



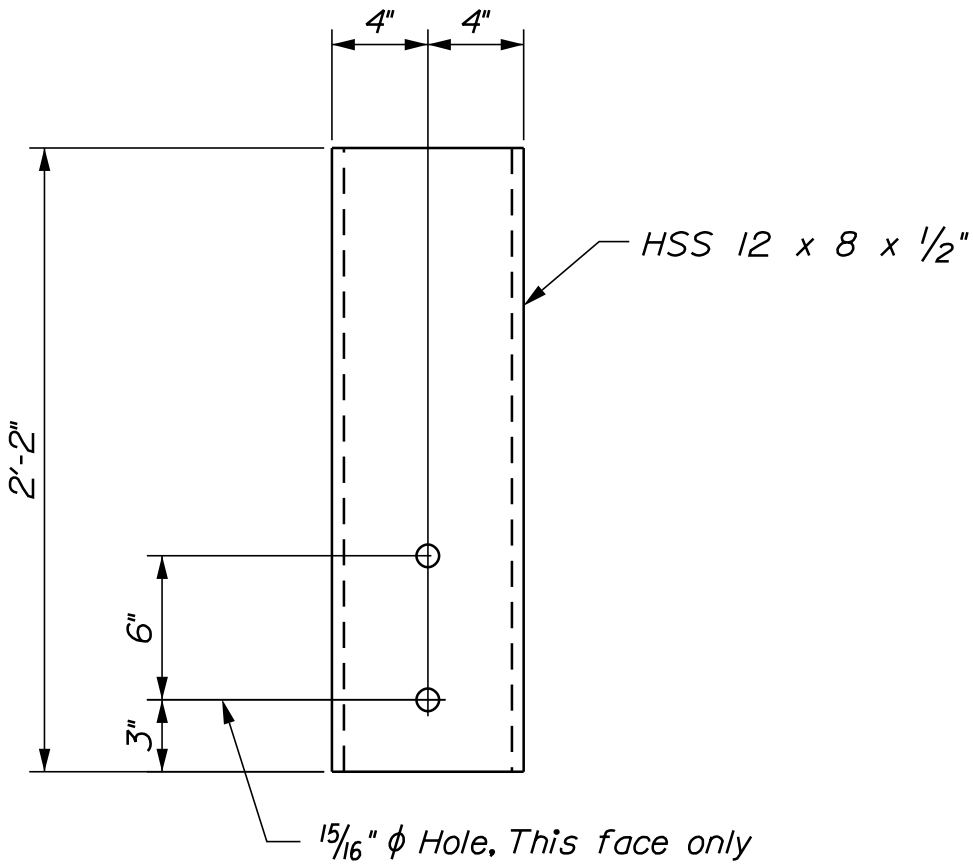
SECTION A - A



SECTION B - B

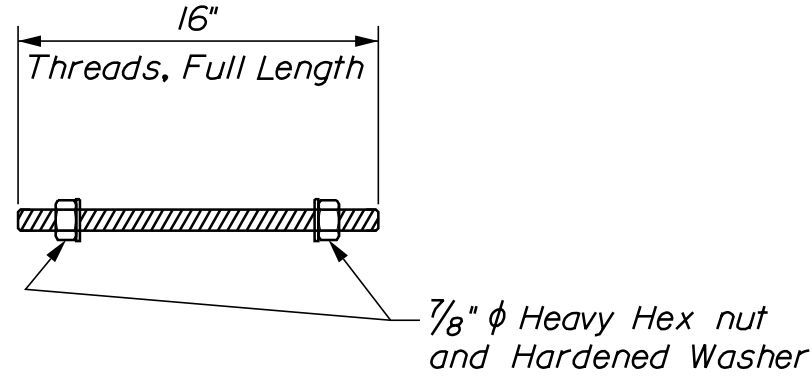
- Note:
- ~ All Hardware to be Galvanized
 - ~ Curb reveal is 9" $\pm$ at BR#5994 & BR#5812. Verify in field prior to fabricating Rail Brackets.

TRAFTON ROAD and BELLSQUEEZE ROAD over I-95 WATERVILLE and BENTON		PROJ. MANAGER		Cy Adams	BY	DATE	STATE OF MAINE		
		DESIGN-DETAILED		G. Libby	C. Libby	MAY 2019	DEPARTMENT OF TRANSPORTATION		
PLANS, ELEVATIONS and DETAILS		CHECKED-REVIEWED		J. Velleux	J. Velleux		SIGNATURE		
		DESIGN-DETAILED					P.E. NUMBER		
		REVISIONS 1		Quantities Revised & Sheet Added				DATE	
		REVISIONS 2							
		REVISIONS 3							
		REVISIONS 4					BRIDGE #5812 & #5994		
		FIELD CHANGES					WIN 24246.00		
							PLANS		



DETAIL OF RAIL BRACKET

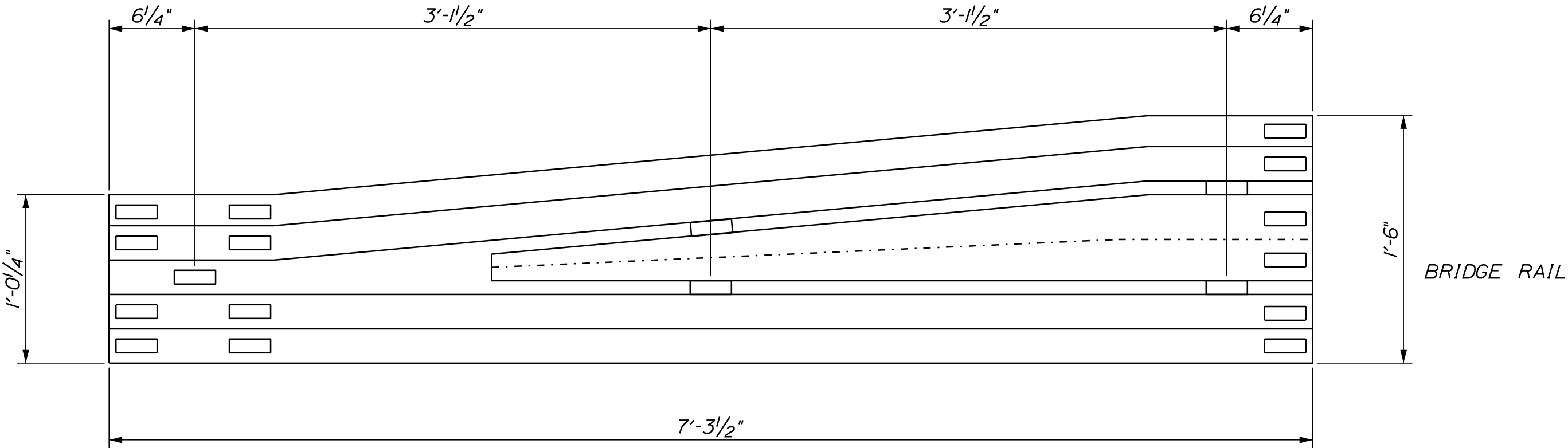
Note:
~ Galvanize to ASTM A153



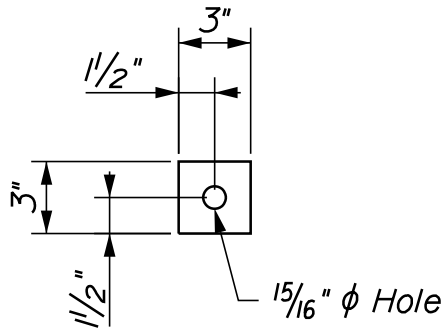
DETAIL OF THREADED ROD

Notes:
~ Rods to be cut in field according to existing conditions
~ All Hardware to be Galvanized to ASTM A153
~ 7/8" Rod - ASTM A449
~ 7/8" Heavy Hex nuts - A563
~ 7/8" Hardened Washer - F436

APPROACH RAIL



THRIE BEAM TRANSITION



DETAIL OF PLATE WASHER

Note:
~ Galvanize to ASTM A153

PARTS SCHEDULE for BR*5812 (WATERVILLE)			
QUANTITY	DESCRIPTION	LENGTH	REMARKS
124	HSS 12 x 8 x 1/2"	2'-2"	Guardrail Brackets - ASTM A500, Galvanized
250	7/8" Threaded Rod	1'-4"	Thread, Full Length - ASTM A449, Galvanized
500	7/8" Heavy Hex nut	NA	ASTM A563, Galvanized
500	7/8" Hardened Washer	NA	ASTM F436, Galvanized
250	3" x 3" x 1/4" Plate Washer	NA	ASTM A36, Galvanized
250	5/8" Button Head Bolts	2"	1 - Hex Nut (A563) and 1 - Hardened Washer (A436), Galvanized

Notes:
1) All hardware and materials shall be Galvanized to ASTM A153.
2) Guardrail Brackets and Threaded Rods to be cut in field to match existing conditions.

PARTS SCHEDULE for BR*5994 (BENTON)			
QUANTITY	DESCRIPTION	LENGTH	REMARKS
168	HSS 12 x 8 x 1/2"	2'-2"	Guardrail Brackets - ASTM A500, Galvanized
340	7/8" Threaded Rod	1'-4"	Thread, Full Length - ASTM A449, Galvanized
680	7/8" Heavy Hex nut	NA	ASTM A563, Galvanized
680	7/8" Hardened Washer	NA	ASTM F436, Galvanized
340	3" x 3" x 1/4" Plate Washer	NA	ASTM A36, Galvanized
8	3/4" Button Head Bolts	1 3/4"	For Expansion Joint; 1 - Hex Nut (A563) and 1 - Hardened Washer (A436), Galvanized
340	5/8" Button Head Bolts	2"	1 - Hex Nut (A563) and 1 - Hardened Washer (A436), Galvanized

Notes:
1) All hardware and materials shall be Galvanized to ASTM A153.
2) Guardrail Brackets and Threaded Rods to be cut in field to match existing conditions.

ESTIMATED QUANTITIES					
ITEM NO.	DESCRIPTION	QUANTITY BR*5812	QUANTITY BR*5994	TOTAL	UNIT
202.134	Remove Existing Railing (Retained by Department) (1754 LF)	.5	.5	1	LS
606.366	Guardrail, Removed and Reset, Type 3c	100	100	200	LF
606.70	Transition Section - Thrie Beam	4	4	8	EA
606.73	Guardrail Thrie Beam - Single Rail Bridge Mounted	746	1008	1754	LF
652.39	Work Zone Traffic Control	.5	.5	1	LS
659.10	Mobilization	.5	.5	1	LS

NOTES:
1. All materials and listed pay item quantities, including lump sum quantities, are provided by MaineDOT for informational purposes only.
2. All quantities are estimated from existing plans. Dimensions and actual quantities shall be determined from field verifications.

Revised Plans
05/28/2019

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE RAIL REPLACEMENT

WIN
24246.00
BRIDGE #5812 & #5994

PLANS

TRAFTON ROAD and BELLSQUEEZE ROAD
over I-95
WATERVILLE and BENTON

KENNEBEC

DETAILS and PARTS SCHEDULES

PROJ. MANAGER	Cy Adams	BY	DATE
DESIGN-DETAILED	G. Libby	G. Libby	MAY 2019
CHECKED-REVIEWED	J. Velleux	J. Velleux	
DESIGNS DETAILLED			
REVISIONS 1	Quantities Revised & Sheet Added		05/28/19
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
SIGNATURE			
P.E. NUMBER			
DATE			

SHEET NUMBER
4
OF 4