

MAINE TURNPIKE AUTHORITY

ADDENDUM NO. 1

CONTRACT 2015.10

LUNT'S HILL ROAD UNDERPASS BRIDGE (MM 99.0)

**Make the following changes to the bid documents:**

In the Contract Plans, **REMOVE** sheets 2, 34, 59 and 60 and **REPLACE** with the attached revised sheets 2, 34, 59 and 60.

In the Contract Documents, Part 2 – Special Provisions, Section 202 REMOVING STRUCTURES AND OBSTRUCTIONS (Removing Existing Bridge), on Page SP-21 completely **REPLACE** the second paragraph in subsection 202.01 Description that begins “The Contractor shall submit a demolition plan” with the following:

Prior to starting any demolition work, the Contractor shall submit a demolition plan to the Resident for approval. The demolition plan shall be stamped by a Professional Engineer licensed in the State of Maine. The demolition plan shall consider the effect of construction equipment, methods of operation, and sequence of work on the capacity and stability of the bridge. The capacity of the structure shall be calculated to demonstrate the proposed work activities will not result in unacceptable overstress in the structure.

In the Contract Documents, Part 2 – Special Provisions, Section 401 HOT MIX ASPHALT PAVEMENT on Page SP-28 **REMOVE** the first table and **REPLACE** with:

<b>Desc. of Course</b>	<b>Grad. Design</b>	<b>Item Number</b>	<b>Bit Cont. % of Mix</b>	<b>Total Thick</b>	<b>No. Of Layers</b>	<b>Comp. Notes</b>
<b><u>Lunt's Hill Road Underpass Bridge</u></b>						
<u>Wearing</u>	9.5 mm	403.210	N/A	1-1/2 in.	1	A, B, C, D, F, L
<u>Base</u>	9.5 mm	403.210	N/A	1-1/2 in.	1	A, B, C, D, F
<b><u>Bridge Approaches</u></b>						
<u>Wearing</u>	9.5 mm	403.210	N/A	1-1/2 in.	1	A, B, D, F, L
<u>Base</u>	12.5 mm	403.213	N/A	2-1/2 in.	1	A, B, D, F

**Questions:**

**The following questions were submitted to the Maine Turnpike Authority in writing. Answers to the questions are noted below. Bidders shall utilize this information in preparing their bid.**

Question 1: The contract drawings show two (2) field bolted splices in the plate girders. Can we eliminate one (1) splice?

Response: *Yes, the bolted field splice closest to Pier 1 shown on Contract Plan Sheet 49 may be eliminated at the Contractor's option.*

Question 2: If we eliminate one (1) splice, can the only remaining splice be located 14'-0" west of pier 2 instead of 12'-0" as shown? (This will mean there will be four (4) girders @ 114'-8" OAL and four (4) @ 86'-8" OAL)

Response: *No, the bolted field splice has been designed for the location shown on Contract Plan Sheet 49. Relocating the bolted field splice would require a redesign of the bolted field splice.*

Notes: The above items shall be considered as part of the bid submittal.

A Pre-Bid Conference was held on January 6, 2015 at 10:00AM at the Maine Turnpike Authority for this project. The attached agenda, sign-in sheets, and Pre-Bid Conference Questions and Responses are included.

The total number of pages included with this addendum is ten (10) and four (4) revised Contract Plan sheets.

All bidders are requested to acknowledge the receipt of the Addendum No. 1 by signing below and faxing this sheet to Nate Carll, Purchasing Department, (207) 871-7739. Bidders are also required to acknowledge receipt of this Addendum No. 1 on Page P-9 of the bid package.

\_\_\_\_\_  
Business Name

\_\_\_\_\_  
Print Name and Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

January 12, 2015

Very truly yours,

MAINE TURNPIKE AUTHORITY

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Purchasing Manager  
Maine Turnpike Authority

**MAINE TURNPIKE AUTHORITY**

**Pre-Bid Conference Questions and Responses (1-6-2015)**

CONTRACT 2015.10

LUNT'S HILL ROAD UNDERPASS BRIDGE (MM 99.0)

- 1) Question: Where is the Temporary Concrete Barrier used?  
*Response: Temporary Concrete Barrier shall be used for Mainline Shoulder Closures, as shown on sheet 30 of the Contract Plans.*
  
- 2) Question: In Special Provision Section 401, Note L is typically only used for base pavement. Please clarify.  
*Response: Note L has been removed from the base pavement for the Lunt's Hill Road Underpass Bridge and Bridge Approaches, as shown in Addendum 1.*
  
- 3) Question: Please clarify the type of material to be used for the Closed Cell Foam behind and under the curtain walls at the abutments.  
*Response: The Closed Cell Foam shall be one of the following materials:*  

<b><u>Manufacturer:</u></b>	<b><u>Product:</u></b>
Dow Building Solutions	STYROFOAM
GreenGuard	Extruded Polystyrene Insulation Board
Owens Corning	Foamular 250
  
- 4) Question: Can the steel girders be constructed of two sections (using only one field splice) rather than the three sections currently shown?  
*Response: Yes, see Addendum 1 for additional requirements.*
  
- 5) Question: Can the pay limits of the Steel Bridge Railing and Bridge Rail to W-Beam transition be revised? One fabricator will fabricate all parts made of tubular steel and a different fabricator will fabricate the thrie beam and w-beam sections.  
*Response: See the revised plan sheets in Addendum 1 that show the revised pay limits for Item 507.0821 – Steel Bridge Railing, 3 Bar and for Item 606.1728 – W-Beam to 3-Bar Bridge Rail Transition.*
  
- 6) Question: It is typically difficult to properly seat the Bearing Plate in the Asphaltic Plug Joint on pavement and it may cause a future maintenance issue. Can the detail be modified to eliminate the Bearing Plate?  
*Response: See the revised plan sheet in Addendum 1 that shows the revised Asphaltic Plug Joint Detail, in which the Continuous Bearing Plate has been removed.*

**MAINE TURNPIKE AUTHORITY**

Pre-Bid Conference

CONTRACT 2015.04

**Southerly Bridge Repairs**

Route 1 On-Ramp (Ramp H) Underpass Bridge (MM 1.8)

Route 1 SB Over I-95 NB In-Ramp (Ramp M) Bridge

Mountain Road Underpass Bridge (MM 10.6)

Clay Hill Road Underpass Bridge (MM 11.9)

Cape Neddick River Culvert (MM 9.6)

Josias River Culvert (MM 11.8)

and

CONTRACT 2015.10

**Superstructure Replacement**

Lunt's Hill Road Underpass Bridge (MM 99.0)

January 6, 2015 10:00 AM

**Both Projects**

- 1) Bid:
  - a) All bid and contractual questions shall be directed to Purchasing Department, Phone No. (207) 871-7771, Ext. 115.
  - b) All questions on plans and specifications shall be in writing and shall be directed (faxed) to Purchasing Department, of the Maine Turnpike Authority. Fax No. (207) 871-7739.
- 2) Notification:
  - a) Contractor shall notify and obtain approval from the Authority prior to visiting the Project site for field inspection. The contact person is Mr. Steve Tartre at (207) 871-7771, ext. 144.
- 3) Maine Department of Labor – Fair Hourly Wages (Special Provision 104.3.8)
  - a) Heavy and Bridge wages
  - b) Highway and Earthwork wages
- 4) Lead Paint (Special Provision 105.2.4.2):
  - a) Contractor to acknowledge the potential presence of lead paint and associated precautions thereto.
- 5) General Requirements
  - a) U-Turns at toll plazas and median openings not allowed. (General Provision 105.5.1)
  - b) Contractor access to and from the mainline shall not negatively impact mainline traffic flow. The Contractor may be required to establish lane closures to provide for safe access. Refer to Special Provision 652, Specific Project Maintenance of Traffic Requirements, for lane closure requirements and restrictions.

- c) All vehicles used on the Project, including concrete delivery trucks, shall be equipped with amber flashing beacons in accordance with the General Provision 652.61.
  - d) Class III safety vests must be worn at all times in accordance with Special Provision 652.2.5
- 6) Permit Requirements (Special Provision 105.8.2)
- a) The Project is subject to the requirements of the Maine Pollutant Discharge Elimination System (MPDES) General Permit for Stormwater Discharge from Construction Activity
  - b) A Notice of Intent (NOI), accompanied by a Limit of Disturbance (LOD) is not anticipated to be required.
  - c) Compliance with the erosion and sedimentation control requirements outlined in this Contract is required by the Contractor.
  - d) MaineDOT Best Management Practices.
- 7) Traffic Control (Special Provision Section 652):
- a) Contractor is responsible for supplying all traffic control devices.
  - b) Contractor is responsible for placement, relocation, removal and maintenance of traffic control devices. Maintenance of traffic control devices is a 24-hour a day, seven day per week, responsibility. Contractor shall inspect devices as required.
  - c) Turnpike Lane closures
    - i) One lane of traffic flowing in each direction at all times. Minimum traveling width of 14' required.
    - ii) Requests for temporary lane closures shall be submitted a minimum of two working days in advance of scheduled closure. Requests are subject to approval by MTA.
  - d) Stoppages of traffic for moving heavy or slow equipment across or on the travel lanes (stoppages less than five minutes)
    - i) Fee of \$500 per five minutes in excess of the five minute allowance.
    - ii) Requests shall be submitted two working days in advance of scheduled stoppage. Request subject to approval by MTA.
  - e) All signs, which do not apply to current construction activity, shall be 100% covered or removed in accordance with the plans. This includes any speed limit signs when work zone speed is in operation.
  - f) Traffic control devices shall be NCHRP 350 compliant.

**Southerly Bridge Repairs**

8) Location:

The general limits of work for the Southerly Bridge Repairs are as shown in the contract plans.

9) General Description:

The work consists of general repairs and modifications at Route 1 On-Ramp (Ramp H) Underpass Bridge (MM 1.8), Route1 SB Over I-95 On-Ramp (Ramp M) Bridge, Mountain Road Underpass Bridge (MM 10.6), Clay Hill Road Underpass Bridge (MM 11.9), Cape Neddick River Culvert (MM 9.6) and Josias River Culvert (MM 11.8) for the Maine Turnpike Authority.

The work includes pavement and waterproofing membrane replacement, concrete deck, fascia, fascia overhang, pier, and abutment repairs; cleaning and painting of girder bearings; concrete box culvert

repairs; end post replacement; bridge joint modifications; bridge drain repairs; fabric trough and hopper construction; application of protective coatings; slope erosion repairs; maintenance of traffic; installation of permanent snow fence; and all other work incidental thereto in accordance with the Plans and Specifications.

10) Bid:

- a) January 13, 2015 at 11:00 A.M. at MTA headquarters 2360 Congress Street, Portland.

11) Construction Schedule/Prosecution of Work:

- a) February 5, 2015 Contract Start
- b) Topside work requiring lane closures at Clay Hill Road must be completed by May 21, 2015. Per Subsection 107.4.6, supplemental liquidated damages of \$1000 per calendar day for each calendar day that Clay Hill Road is not fully opened to bidirectional traffic including shoulders by May 21, 2015.
- c) Liquidated damages assessed in accordance with Subsection 107.7.2 for each calendar day substantial completion is not achieved.
- d) November 13, 2015 Contract Completion Date

12) Permit Requirements (Special Provision 105.8.2)

- a) Cape Neddick River and Josias River are being permitted through the US Army Corps of Engineers Programmatic General Permit. The permit requirements restrict in-stream work to July 15 to October 1. Army Corps permit is included in Appendix A.
- b) Compliance with the Maine Pollutant Discharge and Elimination System (MPDES) General Permit for the Discharge of Stormwater from MTA's Municipal Separate Storm Sewer Systems (MS4) requirements outlined in this Contract is required by the Contractor.

13) Traffic Control (Special Provision Section 652):

- a) Clay Hill Road will be closed to through traffic between Logging Hill Road and North Village Road. A temporary detour shall be established and maintained at all times in accordance with the details shown on the Plans.

14) Specific Contract Items

- a) Section 107 – Time
  - i) Schedule of Liquidated Damages (subsection 107.7.2) updated.
- b) Section 502
  - i) SP added for Bridge Drain Grate Modification.
- c) Section 506 – Painting Structural Steel (Field Painting of Existing Structural Steel)
  - i) Contains the requirements for coating existing structural steel with a high-ratio calcium sulfonate paint system.
- d) Section 507
  - i) SP added for Aluminum Bridge Railing – Rail Section Replace and Furnishing Aluminum Bridge Railing Components
- e) Section 518
  - i) SP added for Special Crack Repair, Miscellaneous Culvert Concrete Repairs and Full Depth Concrete Repairs.
- f) Section 526 – Concrete Barrier (Temporary Concrete Barrier Type I – Supplied by Authority)
  - i) The concrete barrier sections are stored at the I-95 SB Kennebunk Services and shall be returned to Crosby Maintenance Yard at MM 46 SB.

g) Section 607 – Fences (Snow Fence)

- i) The work shall include the installation of snow fence on the bridge within the limits locations shown on the Plans.

15) Questions on Southerly Bridge Repairs:

**Lunt's Hill Road Underpass Bridge Superstructure Replacement**

16) Location:

The general limits of work are as shown in the contract plans. The Lunt's Hill Road Underpass Bridge is located near Mile 99.0 of the Maine Turnpike.

17) General Description:

The work consists of replacing Lunt's Hill Road bridge superstructure over the Maine Turnpike in the Town of Litchfield, Maine. The work includes concrete deck and steel girder replacement, concrete substructure modifications and repairs, approach work and paving, guardrail, bridge rail, maintenance of traffic and all other work incidental thereto in accordance with the Plans and Specifications.

18) Bid:

- a) January 15, 2015 at 11:00 A.M. at MTA headquarters 2360 Congress Street, Portland.

19) Construction Schedule/Prosecution of Work:

- a) February 5, 2015 Contract Start  
b) October 31, 2015 Contract Substantial Completion Date  
c) June 15, 2016 Contract Completion Date  
d) Liquidated damages assessed in accordance with Subsection 107.7.2 for each calendar day substantial completion is not achieved.

20) Traffic Control (Special Provision Section 652):

- a) Lunt's Hill Road will be closed to through traffic between Stevenstown Road and Pond Road. A temporary detour shall be established and maintained at all times in accordance with the details shown on the Plans.  
b) Stoppages of traffic for erection or removal of structural steel  
i) Fee of \$2,500 per five minute period for each roadway (northbound and southbound) if the complete stoppage of traffic exceeds 25 minutes  
ii) Requests shall be submitted five days in advance of schedule stoppage. Request subject to approval of MTA.

21) Specific Contract Items

- a) Section 107 – Time  
i) Schedule of Liquidated Damages (subsection 107.7.2) updated.  
b) Section 506 – Painting Structural Steel (Zinc-Rich Coating System (Shop Applied))  
i) Contains the requirements for coating the ends of the proposed steel girders with a zinc-rich paint system.  
c) Section 518 – Structural Concrete Repair (Pier Repairs) (Epoxy Injection Crack Repair)  
i) SP added for concrete patch repairs and epoxy injection crack repairs at the existing piers.  
d) Section 520 – Expansion Devices – Non-modular (Asphaltic Plug Joint)  
i) SP added for asphaltic plug joint at each abutment.

- e) Section 526 – Concrete Barrier (Temporary Concrete Barrier Type I – Supplied by Authority)
  - i) The concrete barrier sections are stored at the Crosby Maintenance Yard at MM 46 SB and shall be returned there.
- f) Section 607 – Fences (Snow Fence)
  - i) The work shall include the installation of snow fence on the bridge within the limits locations shown on the Plans.

22) Lunt's Hill Road Underpass Bridge Superstructure Replacement Questions:

MAINE TURNPIKE AUTHORITY

CONTRACT 2015.04

Southerly Bridge Repairs

Route 1 On-Ramp (Ramp H) Underpass Bridge (MM 1.8)

Route 1 SB Over I-95 NB On-Ramp (Ramp M) Bridge

Mountain Road Underpass Bridge (MM 10.6)

Clay Hill Road Underpass Bridge (MM 11.9)

Cape Neddick River Culvert (MM 9.6)

Josias River Culvert (MM 11.8)

and

CONTRACT 2015.10

Superstructure Replacement

Lunt's Hill Road Underpass Bridge (MM 99.0)

**PRE-BID CONFERENCE JANUARY 6, 2015 10:00 AM**

ATTENDANCE SHEET

ORGANIZATION	NAME	PHONE	EMAIL
VHB	Tim Bryant	207-889-3103	tbryant@vhb.com
VHB	Kim Smith	603-391-3945	ksmith@vhb.com
VHB	Gordon Edington	603-391-3918	gedington@vhb.com
MTA	Ralph Norwood	207-871-7771	rnorwood@maineturnpike.com
MTA	Nate Carll	207-871-7771	necarll@maineturnpike.com
LANE	Chris Webber	751-0839	cwebber@laneconstruct.com
CPM	JAKE ADAMS	865-0000	JWADAMS@CPMCONSTRUCTORS.COM
New England Infrastructure	Jason Mauro	978-293-3535	Jmauro@NEInfrastructure.com
Scott Construction Corp	GREG SCOTT	632-0521	gscott207@gmail.com
W&S	BRIAN MacFARLAN	737-4471	bmacfarlan@pugmanandson.com
Glidden	Todd Griffith	256-9990	toddegliddenpaving.com
K&K EXCAVATION	BOB LEVESQUE	754-0539	blevsque@kkexcavation.com
MTA	Scott Warchol	871-7771	swarchol@maineturnpike.com
MTA	Steve Tartre	871-7771 ext 144	startre@maineturnpike.com

Date: 1/7/2015

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.10	Removing Existing Superstructure - Property of Contractor	1	LS
202.17	Removing Existing Structural Concrete (35 CY)*	1	LS
202.202	Removing Pavement Surface	140	SY
203.20	Common Excavation	845	CY
203.24	Common Borrow	930	CY
203.25	Granular Borrow	80	CY
304.10	Aggregate Subbase Course - Gravel	330	CY
403.210	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size	170	TON
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size, Base	130	TON
409.15	Bituminous Tack Coat, Applied	40	GAL
419.30	Sawing Bituminous Pavement	55	LF
502.21	Structural Concrete, Abutments and Retaining Walls	31	CY
502.23	Structural Concrete Piers	22	CY
502.26	Structural Concrete Superstructure Slab on Steel Bridges (157 CY)*	1	LS
502.49	Structural Concrete Curbs and Sidewalk (31 CY)*	1	LS
503.12	Reinforcing Steel, Fabricated and Delivered	500	LB
503.13	Reinforcing Steel, Placing	500	LB
503.14	Epoxy-Coated Reinforcing Steel, Fabricated and Delivered	64,100	LB
503.15	Epoxy-Coated Reinforcing Steel, Placing	64,100	LB
504.702	Structural Steel Fabricated and Delivered, Welded (101,300 LB)*	1	LS
504.71	Structural Steel Erection (101,300 LB)*	1	LS
505.09	Stud Welded Shear Connectors (2,632 EA)*	1	LS
506.9102	Zinc-Rich Coating System (Shop Applied)	1	LS
507.0821	Steel Bridge Railing, 3 bar (505 LF)*	1	LS
508.13	Membrane Waterproofing (68 SY)*	1	LS
508.14	High Performance Waterproofing Membrane (545 SY)*	1	LS
514.06	Curing Box for Concrete Cylinders	1	EA
515.201	Pigmented Protective Coating for Concrete Surfaces	300	SY
515.202	Clear Protective Coating for Concrete Surfaces	400	SY
518.20	Pier Repairs	360	SF
518.41	Epoxy Injection Crack Repair	7	LF
520.232	Expansion Device - Asphaltic Plug Joint	48	LF
523.52	Bearing Installation	20	EA
523.5402	Laminated Elastomeric Bearings, Expansion	8	EA
523.5404	PTFE Elastomeric Bearings, Expansion	12	EA
524.40	Protective Shielding - Steel Girders	870	SY
526.306	Temporary Concrete Barrier, Type 1 - Supplied by Authority (460 LF)*	1	LS
527.34	Work Zone Crash Cushions - TL-3	2	UNIT
606.1728	W-Beam to 3-Bar Bridge Rail Transition	4	EA
606.244	Guardrail Type 3d - Single Rail, 7' Posts	1,563	LF
606.356	Permanent Flexible Delineator Post	4	EA
606.78	Low Volume Guardrail End - Type 3	4	EA
607.1631	Snow Fence	224	LF
607.17	Chain Link Fence - 6 ft	452	LF
607.23	Chain Link Fence Gate	2	EA
607.32	Bracing Assembly Type I - Metal Posts	18	EA
607.33	Bracing Assembly Type II - Metal Posts	8	EA
609.11	Vertical Curb Type I	121	LF
610.08	Plain Riprap	215	CY
610.18	Stone Ditch Protection	75	CY
613.319	Erosion Control Blanket	820	SY
615.07	Loam	190	CY
618.1411	Seeding Method Number 3, Plan Quantity	16	UNIT
619.1201	Mulch, Plan Quantity	16	UNIT
619.1202	Temporary Mulch	1	LS
620.58	Erosion Control Geotextile	435	SY
620.625	Cellular Confinement System	400	SY
627.712	4 Inch White or Yellow Pavement Marking Line	550	LF
629.05	Hand Labor, Straight Time	60	HR
631.12	All Purpose Excavator (Including Operator)	10	HR
631.171	Truck - Small (Including Operator)	20	HR
631.36	Foreman	20	HR
639.18	Field Office, Type A	1	EA
645.116	Reinstall Regulatory, Warning, Confirmation and Route Marker Assembly Sign	2	EA
645.135	Bridge Overpass Mounted Sign Support	2	EA
652.30	Flashing Arrow	2	EA
652.312	Type III Barricades	4	EA
652.33	Drum	132	EA
652.34	Cone	25	EA
652.35	Construction Signs	1,446	SF
652.361	Maintenance of Traffic Control Devices	1	LS
652.41	Portable-Changeable Message Sign	4	EA
652.45	Truck Mounted Attenuator	20	CD
656.50	Baled Hay, in place	10	EA
656.632	30 inch Temporary Silt Fence	2,830	LF
659.10	Mobilization	1	LS

\* Quantities are Estimated Only

△

EARTHWORK SUMMARY - LUNT'S HILL ROAD

COMMON EXCAVATION FOR ESTIMATE

	Lunt's Hill Road
Common Excavation	155 CY
Grubbing in Fill	535 CY
Pavement Removal	155 CY
<b>Subtotal</b>	<b>845 CY</b>
<b>Total Common Excavation</b>	<b>845 CY</b>

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

	Lunt's Hill Road
(1) Total Common Excavation	845 CY
Deductions:	
Grubbing	535 CY
Existing Pavement Removal	155 CY
<b>(2) Total Deductions:</b>	<b>690 CY</b>
<b>Total Available Common Excavation</b>	<b>155 CY</b>
<b>Total Available Structural Excavation</b>	<b>63 CY</b>
<b>Total Available Non-Rock Excavation</b>	<b>218 CY</b>

FILL FOR BORROW CALCULATIONS

	Lunt's Hill Road
Common Fill (From Cross Section)	930 CY
<b>Subtotal</b>	<b>930 CY</b>
<b>Total Fill</b>	<b>930 CY</b>

COMPUTATION OF COMMON BORROW FOR ESTIMATE

	Lunt's Hill Road
(3) Total Fill	930 CY
<b>Total Available Non-Rock Excavation</b>	<b>185 CY</b>
<b>(4) Total Available Excavation</b>	<b>185 CY</b>
<b>(5) Total Deficit</b>	<b>745 CY</b>

Filename: ...\\cad\st\plan\set\002\_gnty\_01.dgn

Scale: AS NOTED			
No.	Revision	By	Date
△	Addendum No. 1	TSB	1/15

Designed by:

**VHB Vanasse Hangen Brustlin, Inc.**

CONSULTANT PROJECT MANAGER: T. Bryant

Designed	GME	12/14	Checked	LSC	12/14
Drawn	CMD	12/14	In Charge of	TSB	12/14

VANASSE HANGEN BRUSTLIN, INC.  
 500 Southborough Dr.  
 Suite 105B  
 South Portland, ME 04106  
 TEL (207) 889-3150  
 FAX (207) 253-5596

**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

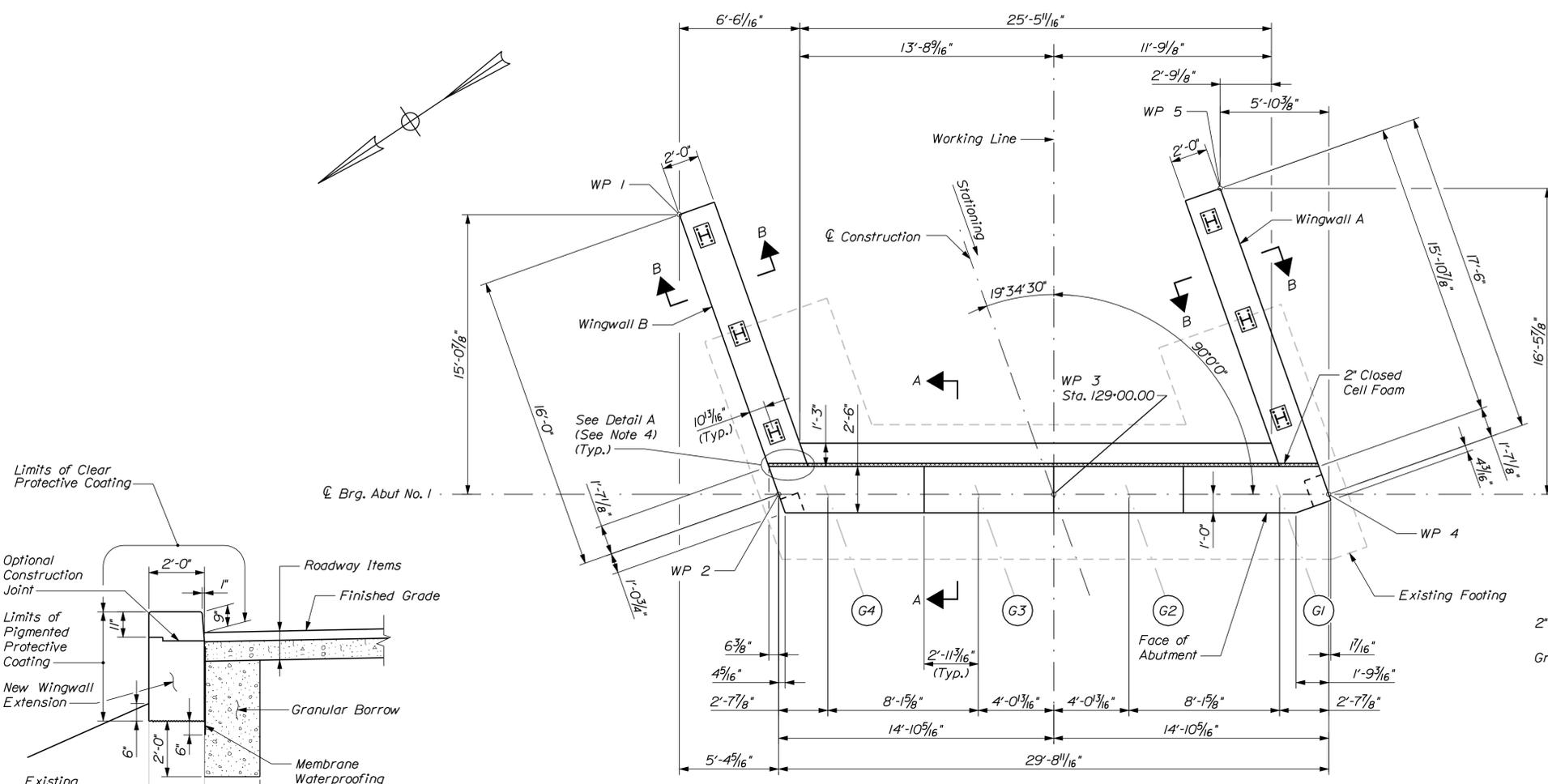
MTA PROJECT MANAGER: Ralph Norwood

SUPERSTRUCTURE REPLACEMENT  
 LUNT'S HILL ROAD UNDERPASS  
 ESTIMATED QUANTITIES  
 AND EARTHWORK

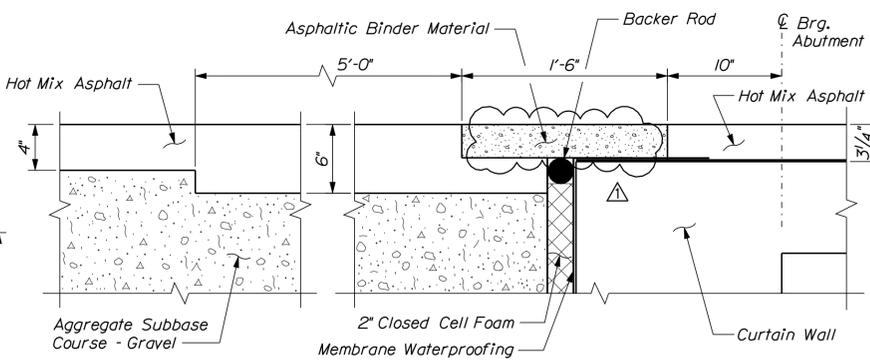
VHB: 55041.00 SHEET NUMBER: 2  
 CONTRACT: 2015.10 2 OF 76

Date: 1/7/2015

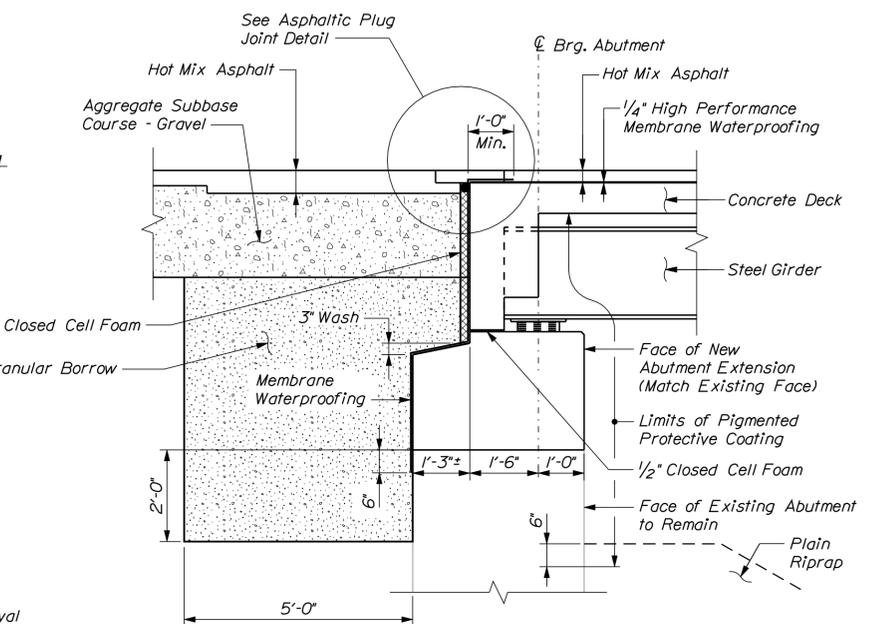
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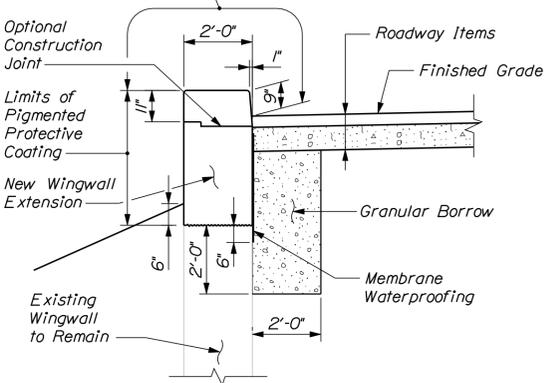
**PLAN**  
Scale: 1/4" = 1'-0"



**ASPHALTIC PLUG JOINT DETAIL**  
Scale: 1/2" = 1'-0"



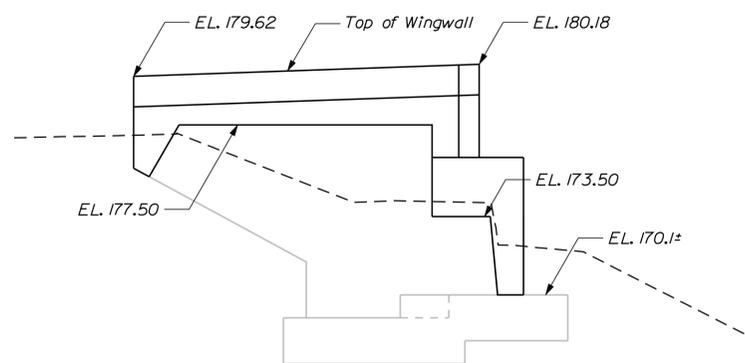
**SECTION A-A**  
Scale: 1/2" = 1'-0"



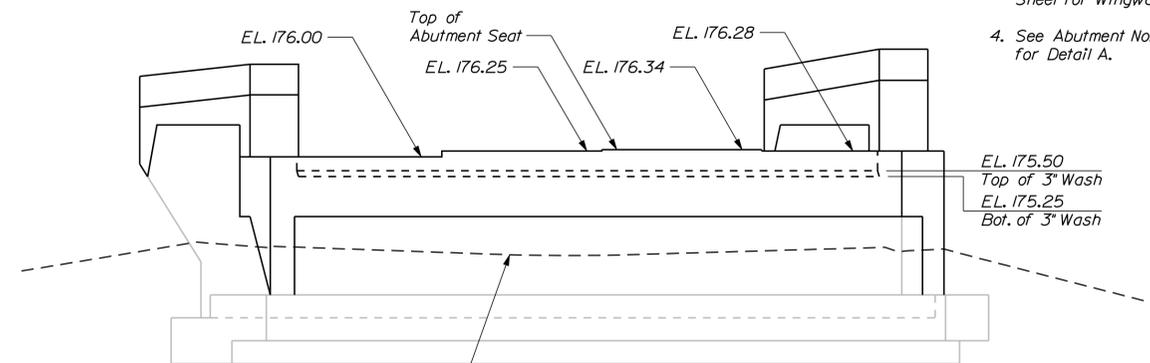
**SECTION B-B**  
Scale: 3/8" = 1'-0"

**SHEET NOTES**

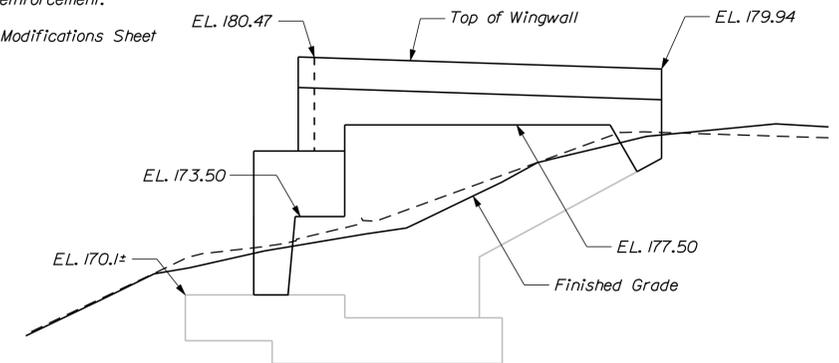
1. See Abutment No. 1 Removal Sheet for Abutment Removal Notes.
2. See Abutment No. 1 Reinforcement Sheet for Abutment Construction Notes.
3. See Abutment Wingwalls Reinforcement Sheet for Wingwall Reinforcement.
4. See Abutment No. 2 Modifications Sheet for Detail A.



**ELEVATION WINGWALL B**  
Scale: 1/4" = 1'-0"



**ELEVATION**  
Scale: 1/4" = 1'-0"



**ELEVATION WINGWALL A**  
Scale: 1/4" = 1'-0"

Scale:		Designed by:	
No.	Revision	By	Date
▲	Addendum No. 1	TSB	1/15

**VHB Vanasse Hangen Brustlin, Inc.**

CONSULTANT PROJECT MANAGER: T. Bryant

Designed	GME	12/14	Checked	LSC	12/14
Drawn	CMD	12/14	In Charge of	TSB	12/14

VANASSE HANGEN BRUSTLIN, INC.  
500 Southborough Dr.  
Suite 105B  
South Portland, ME 04106  
TEL (207) 889-3150  
FAX (207) 253-5596

**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph Norwood

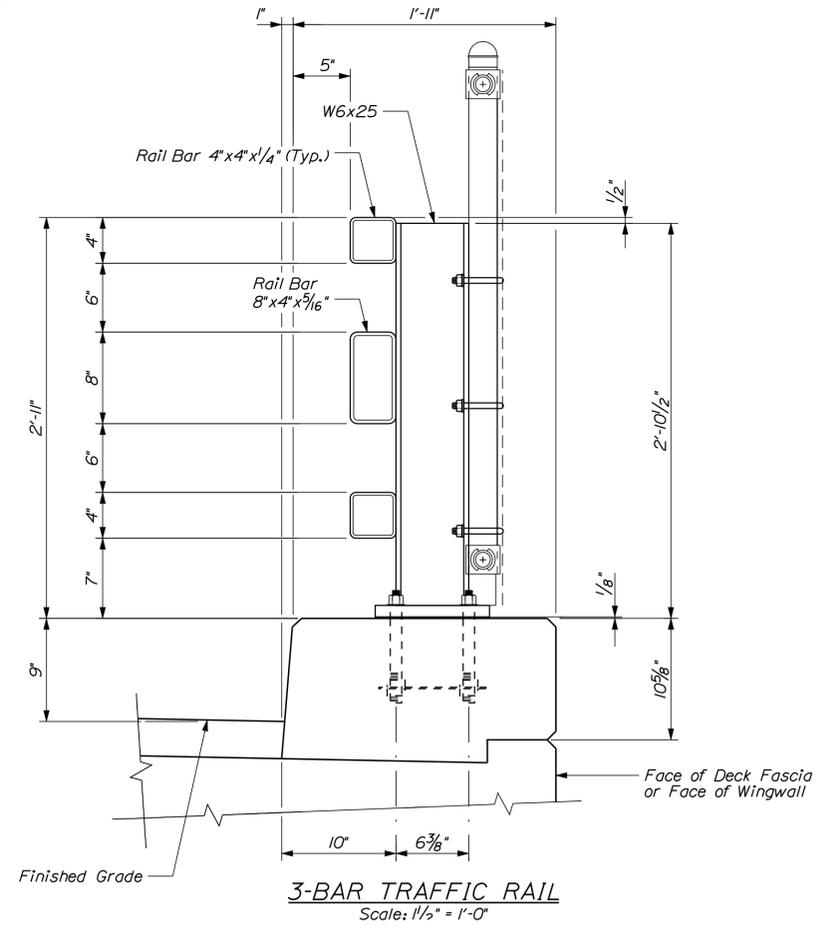
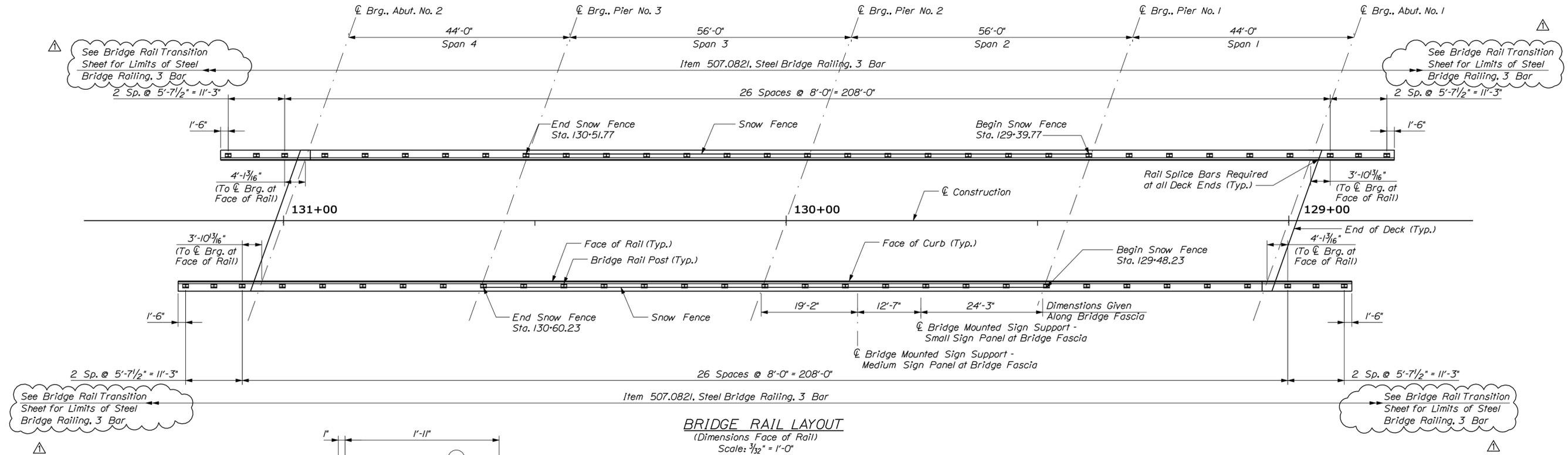
**SUPERSTRUCTURE REPLACEMENT  
LUNT'S HILL ROAD UNDERPASS  
ABUTMENT NO. 1  
MODIFICATIONS**

VHB: 55041.00  
CONTRACT: 2015.10

SHEET NUMBER: 34  
34 OF 76

Date: 1/7/2015

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- BRIDGE RAIL MATERIAL NOTES:**
- Structural tubing shall conform to the requirements of ASTM A500, Grade B, Structural Tubing. Rail tubing shall meet the longitudinal charpy v-notch requirements of 15 ft. Lbs. At 0 degrees F. For ASTM A500, Grade B. The test samples shall be taken after forming the tubes.
  - Rail posts and base plates shall conform to the requirements of ASTM A572 Grade 50, except anchor plates may be ASTM A36.
  - Bolts and matching nuts for rail-to-post attachment shall conform to ASTM A307 or A449. All other bolts and nuts shall conform to ASTM 307 and ASTM 563 Grade A respectively or better, except ASTM A307 nuts may be used on the bottom of anchor assembly. Washers shall be hardened steel commercial Type A plain wide washers and shall meet dimensional requirements of A.N.S.I. B18.22. Anchor rods shall conform to ASTM A449.
  - All steel components (except stainless) shall be galvanized after fabrication in conformance to AASHTO M232 (ASTM A153) and AASHTO M111 (ASTM A123). The galvanizing kettle shall have 0.05 to 0.09 percent nickel. Galvanizing surfaces shall have a uniform appearance and galvanizing material shall be properly stored.
  - Preformed bearing pads (1/8" thick) shall conform to AASHTO M251.
  - See MaineDOT Standard Details of Steel Bridge Railing for notes and other information not shown.

Scale: AS NOTED

No.	Revision	By	Date
1	Addendum No. 1	TSB	1/15

Designed by:

**VHB Vanasse Hangen Brustlin, Inc.**

CONSULTANT PROJECT MANAGER: T. Bryant

	By	Date	By	Date	
Designed	GME	12/14	Checked	LSC	12/14
Drawn	CMD	12/14	In Charge of	TSB	12/14

VANASSE HANGEN BRUSTLIN, INC.  
500 Southborough Dr.  
Suite 105B  
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph Norwood

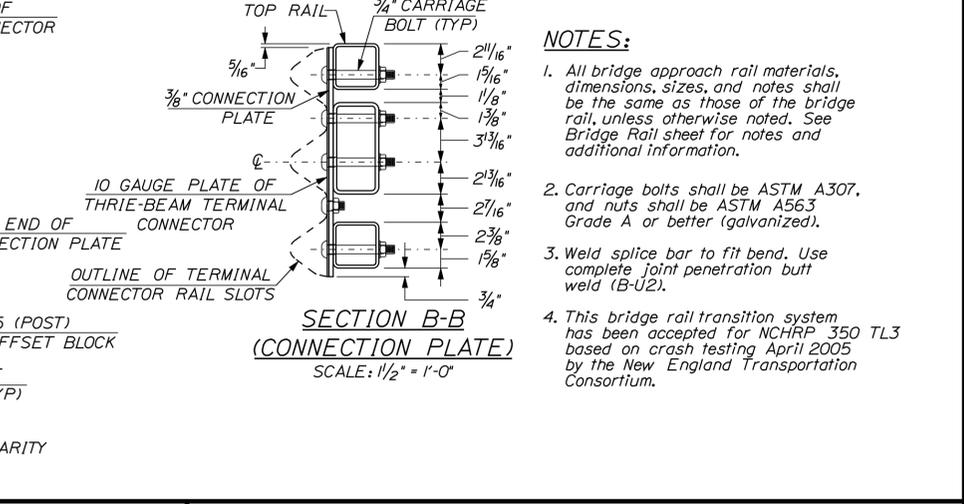
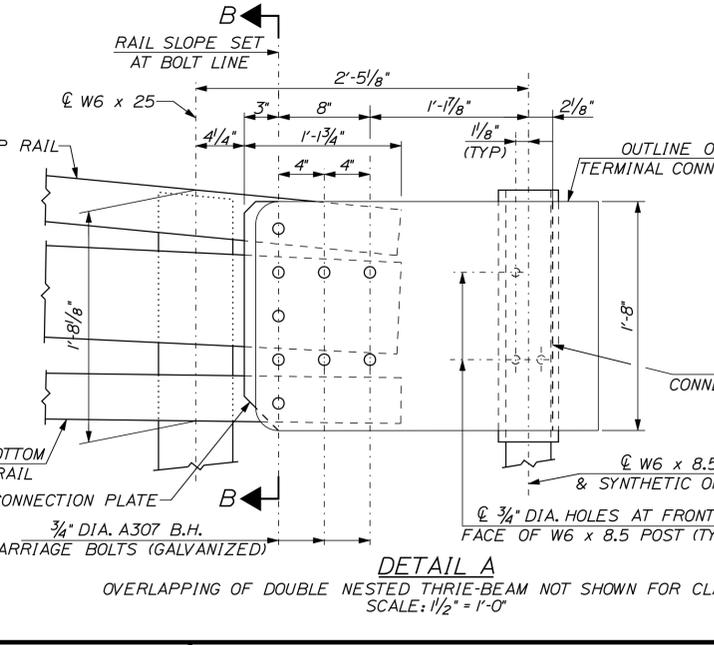
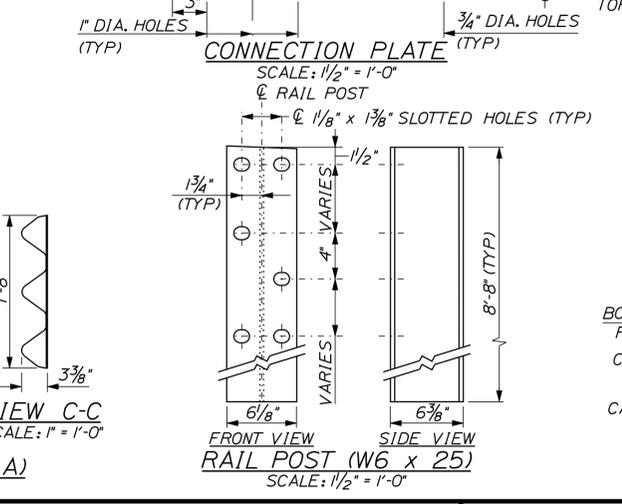
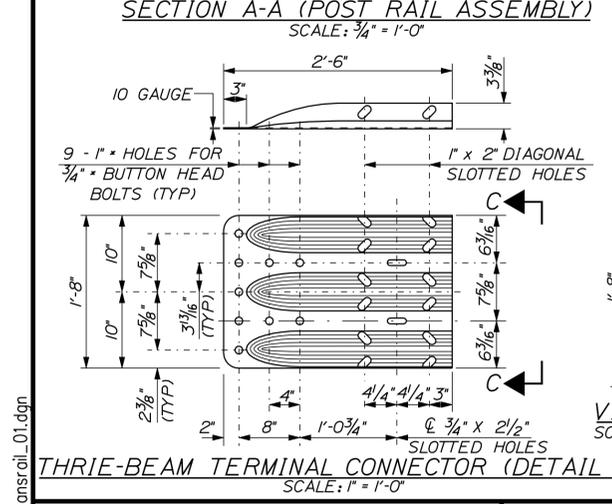
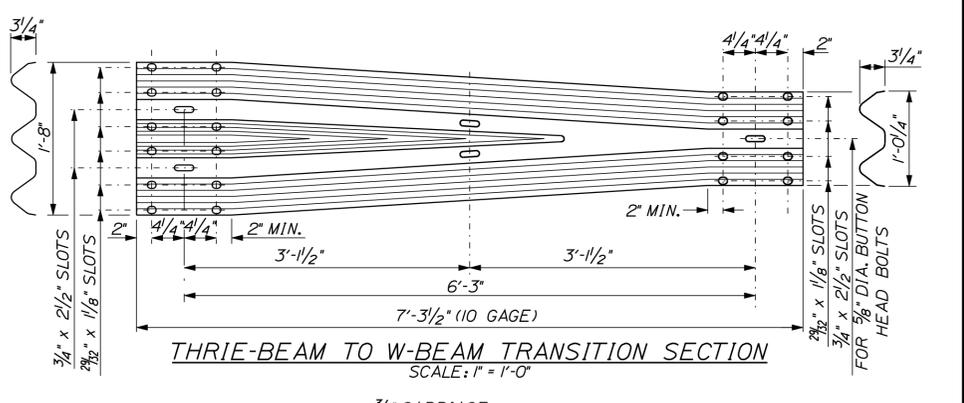
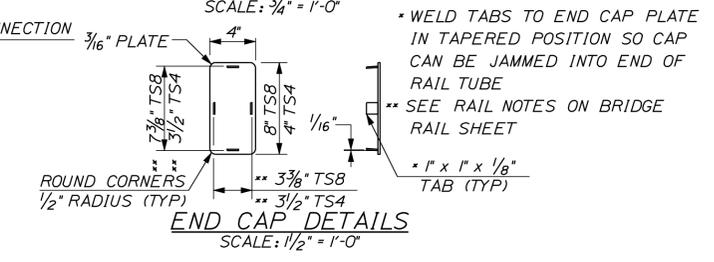
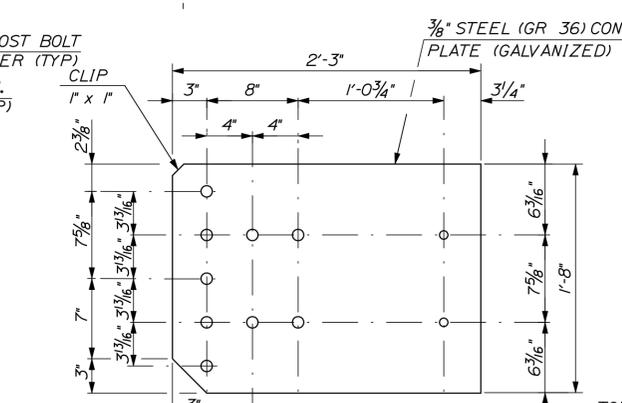
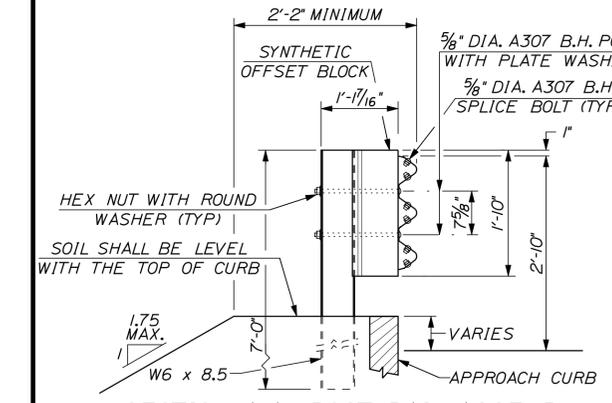
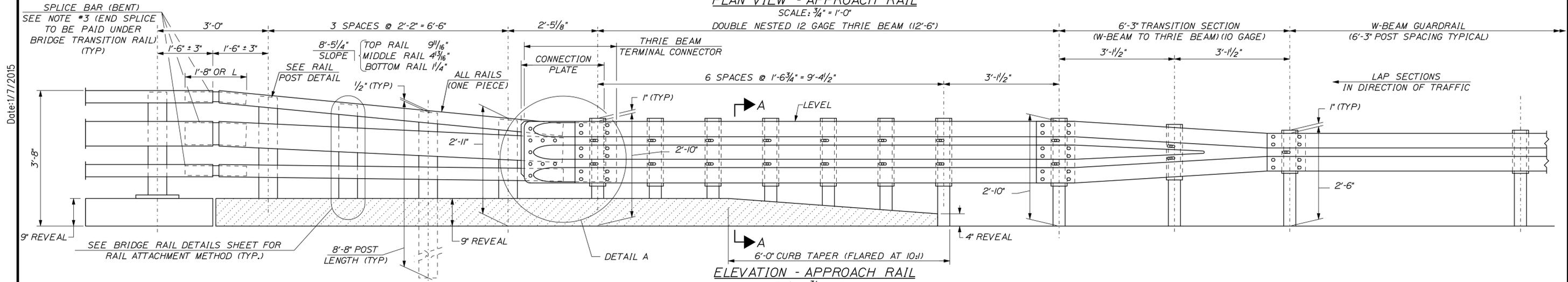
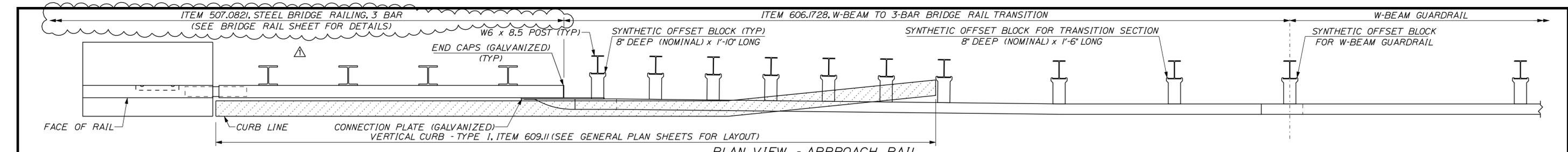
SUPERSTRUCTURE REPLACEMENT  
LUNT'S HILL ROAD UNDERPASS

BRIDGE RAIL DETAILS

VHB: 55041.00  
CONTRACT: 2015.10

SHEET NUMBER: 59  
59 OF 76

Date: 1/7/2015



- NOTES:**
- All bridge approach rail materials, dimensions, sizes, and notes shall be the same as those of the bridge rail, unless otherwise noted. See Bridge Rail sheet for notes and additional information.
  - Carriage bolts shall be ASTM A307, and nuts shall be ASTM A563 Grade A or better (galvanized).
  - Weld splice bar to fit bend. Use complete joint penetration butt weld (B-U2).
  - This bridge rail transition system has been accepted for NCHRP 350 TL3 based on crash testing April 2005 by the New England Transportation Consortium.

Scale: AS NOTED

No.	Revision	By	Date
1	Addendum No. 1	TSB	1/15

Designed by:

**VHB Vanasse Hangen Brustlin, Inc.**

CONSULTANT PROJECT MANAGER: T. Bryant

By	Date	By	Date
Designed	GME 12/14	Checked	LSC 12/14
Drawn	CMD 12/14	In Charge of	TSB 12/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph Norwood

SUPERSTRUCTURE REPLACEMENT  
 LUNT'S HILL ROAD UNDERPASS  
 BRIDGE RAIL TRANSITION

VHB: 55041.00  
 CONTRACT: 2015.10

SHEET NUMBER: 60  
 60 OF 76

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