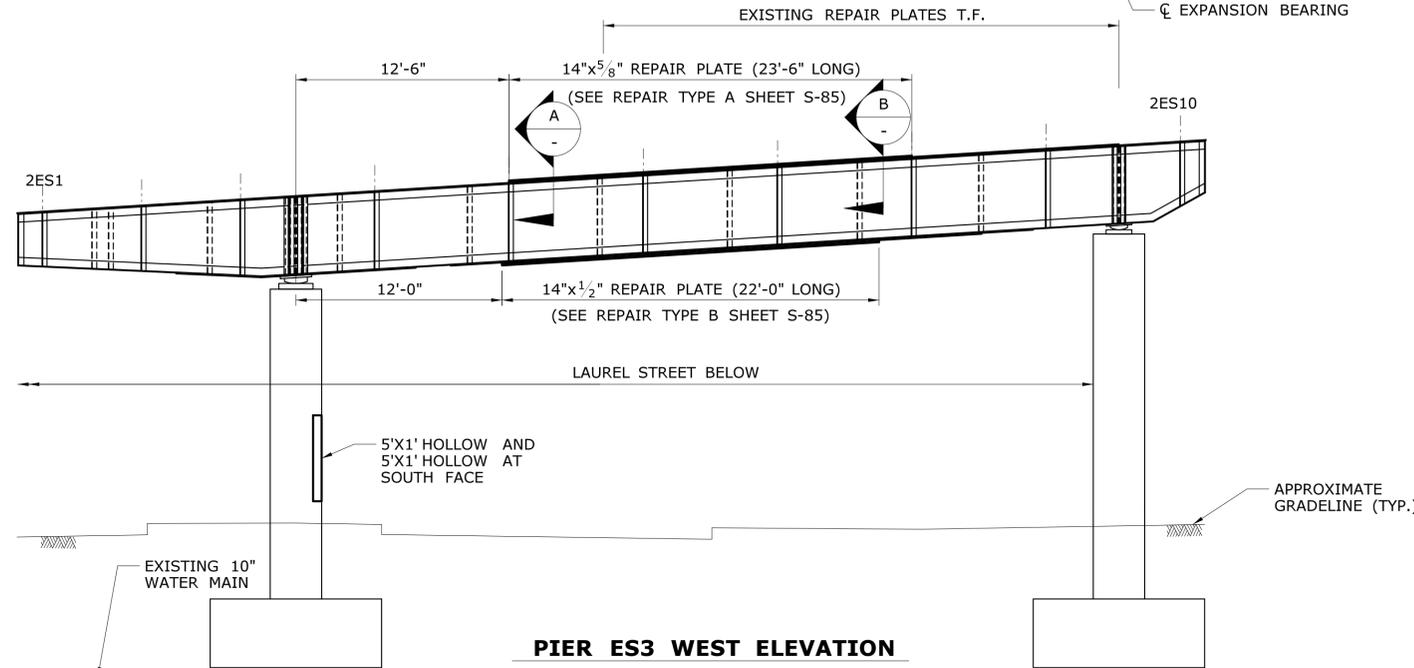


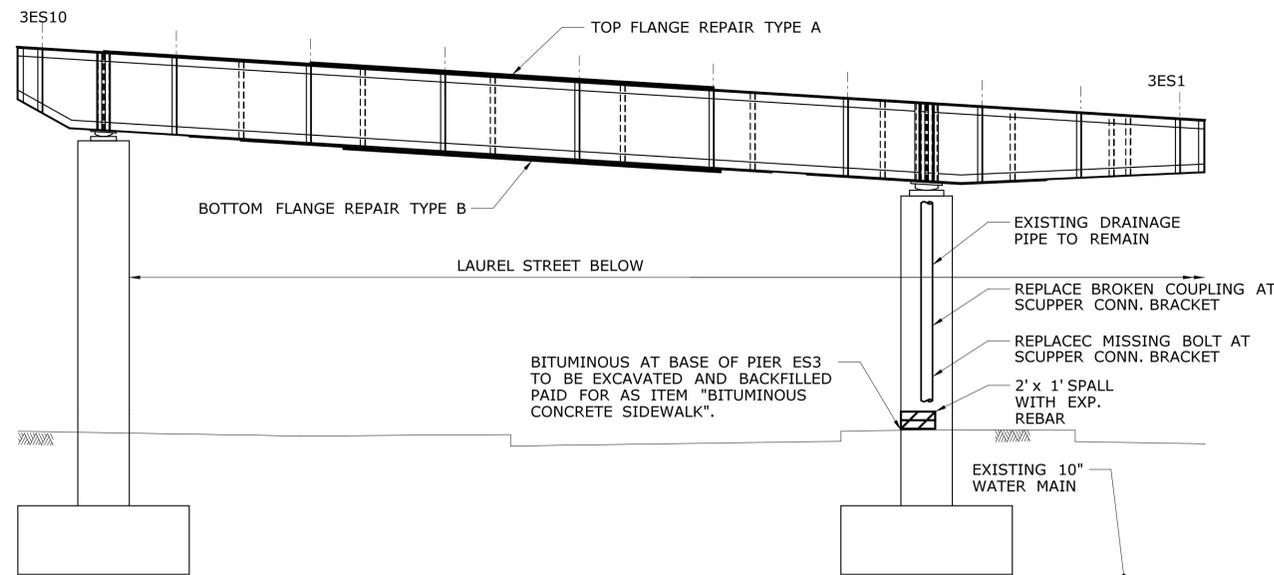
**PIER ES3 PLAN**

SCALE: 3/16" = 1'-0"



**PIER ES3 WEST ELEVATION**

SCALE: 3/16" = 1'-0"



**PIER ES3 EAST ELEVATION**

SCALE: 3/16" = 1'-0"

**REFERENCES**

- 1) SEE SHEET S-09 FOR STRUCTURAL NOTES
- 2) SEE SHEETS S-83 AND S-84 FOR SUBSTRUCTURE REPAIR DETAILS
- 3) SEE SHEET S-85 FOR STEEL REPAIR DETAILS
- 4) SEE SHEETS S-120 AND S-121 FOR DRAINAGE REPAIR NOTES
- 5) REPLACEMENT OF DRAINAGE SUPPORT COMPONENTS SHALL BE INCLUDED IN THE ITEM "9" PIPE FOR BRIDGE DRAINAGE (FIBERGLASS)"

DESIGNED BY:  
HARDESTY & HANOVER, LLC  
NEW HAVEN, CT

**ADDENDUM NO. 1**

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
1	9/29/16	PLOT LIMIT MODIFICATION	01.08.059

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 9/29/2016

DESIGNER/DRAFTER: **EB**  
CHECKED BY: **BSH**  
SCALE AS NOTED



SIGNATURE/BLOCK:  
Hardesty & Hanover, LLC  
59 Elm Street  
New Haven, CT 06510

PROJECT TITLE:  
**BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

TOWN: **HARTFORD**  
DRAWING TITLE:  
**SUBSTRUCTURE REPAIR - BRIDGE 3160B PIER NO. ES3**

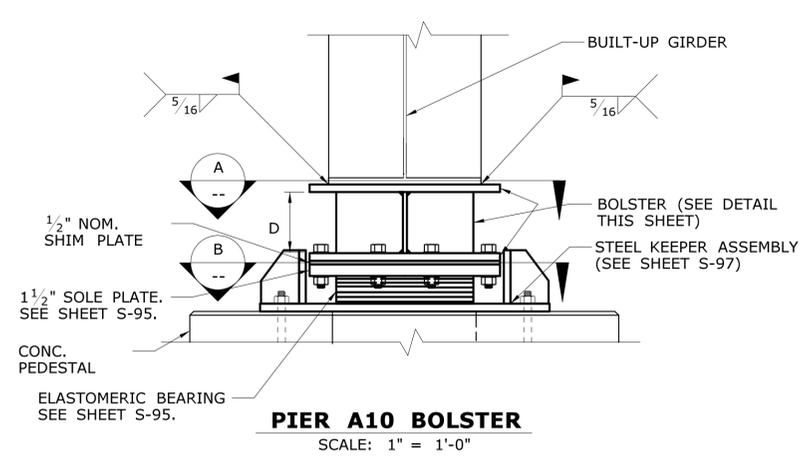
PROJECT NO. **63-699**  
DRAWING NO. **S-55**  
SHEET NO. **01.08.059.A1**

**SUGGESTED BEARING REPLACEMENT SEQUENCE**

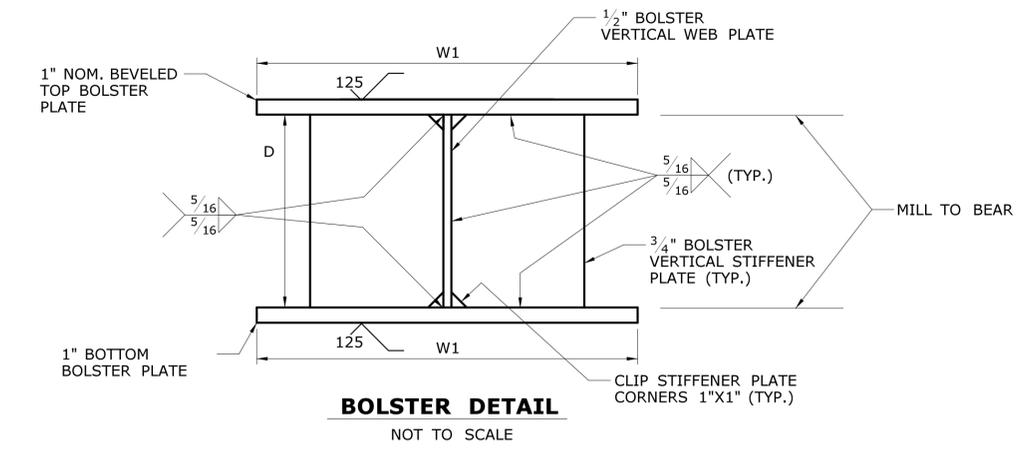
- INSTALL JACKING STIFFENERS AS REQUIRED TO SUPPORT JACKING LOADS. SEE SHEET S-98 FOR JACKING REQUIREMENT.
- BRACE ROCKER AGAINST ROTATION PRIOR TO JACKING.
- INSTALL JACKS AND RAISE SUPERSTRUCTURE UNTIL LOAD IS REMOVED FROM EXISTING STEEL BEARINGS. ALL BEARINGS ALONG A BEARING LINE TO BE JACKED AT ONCE.
- REMOVE WELDS BETWEEN BOTTOM FLANGE AND BEARING SOLE PLATE.
- REMOVE AND LIFT BEARING ASSEMBLY AND CUT EXISTING ANCHOR BOLTS BELOW THE SURFACE OF PEDESTAL AND GROUT.
- PROVIDE A CLEAN LEVEL BEARING SURFACE IN ACCORDANCE WITH THE SPECIAL PROVISION "BEARING REPLACEMENT WITH ELASTOMERIC BEARINGS".
- PLACE BOLSTER AND ELASTOMERIC PAD ASSEMBLY SO THAT IT IS CENTERED UNDER CENTERLINE OF BEAM AND CENTERLINE OF BEARING STIFFENER (CENTERED ON PAIR IF MULTIPLE). ADD SHIMS AS NECESSARY AND INSTALL BOLTS BETWEEN BOLSTER AND LOAD PLATE.
- LOWER JACK AND TRANSFER LOAD TO THE NEW BEARING PADS.
- WELD BEVELED SOLE PLATE TO THE BEAM BOTTOM.

**NOTES:**

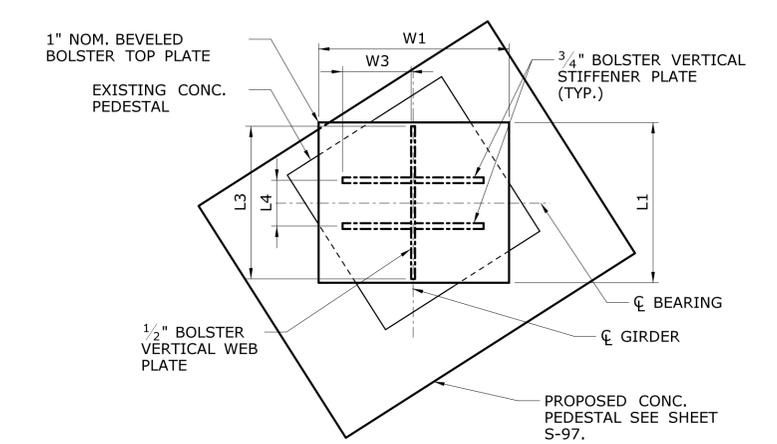
- SEE SHEET S-09 FOR STRUCTURAL NOTES & LEGEND.
- REMOVAL OF PAINT IN VICINITY OF EXISTING BOTTOM FLANGE FOR THE REMOVAL OF EXISTING BEARING ASSEMBLY AND SOLE PLATE SHALL BE PAID UNDER THE ITEM "ABRASIVE BLAST CLEANING AND FIELD PAINTING OF BEAM ENDS" (SITE NO. 1) SEE SPECIAL PROVISIONS.
- EXISTING BEARINGS HAVE LEAD BASED PAINT ADJACENT TO WELDS INTENDED FOR REMOVAL.
- STEEL BOLSTERS, INCLUDING BEVELED SOLE PLATE, SHALL BE PAID FOR AS ITEM "STRUCTURAL STEEL REPAIRS (SITE NO. 1)".
- STEEL BOLSTERS, BOLSTER PLATES, SOLE PLATE, AND LOAD PLATES SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123.
- MACHINING OF SOLE PLATE AND BOLSTER PLATE SURFACES SHALL BE PERFORMED AFTER GALVANIZING. MACHINED SURFACE SHALL RECEIVE A PRIME COAT AFTER MACHINING.
- FURNISH EXTERNAL LOAD PLATES SHOP VULCANIZED TO ELASTOMERIC BEARING PADS. LOAD PLATES INCLUDED FOR PAYMENT UNDER THE ITEM "BEARING REPLACEMENT WITH ELASTOMERIC BEARING PADS".
- ALL H.S BOLTS SHALL MEET THE REQUIREMENTS OF ASTM A325.



**PIER A10 BOLSTER**  
SCALE: 1" = 1'-0"

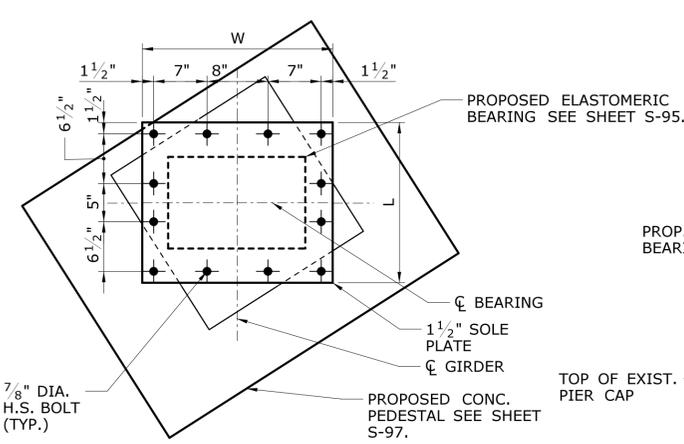


**BOLSTER DETAIL**  
NOT TO SCALE



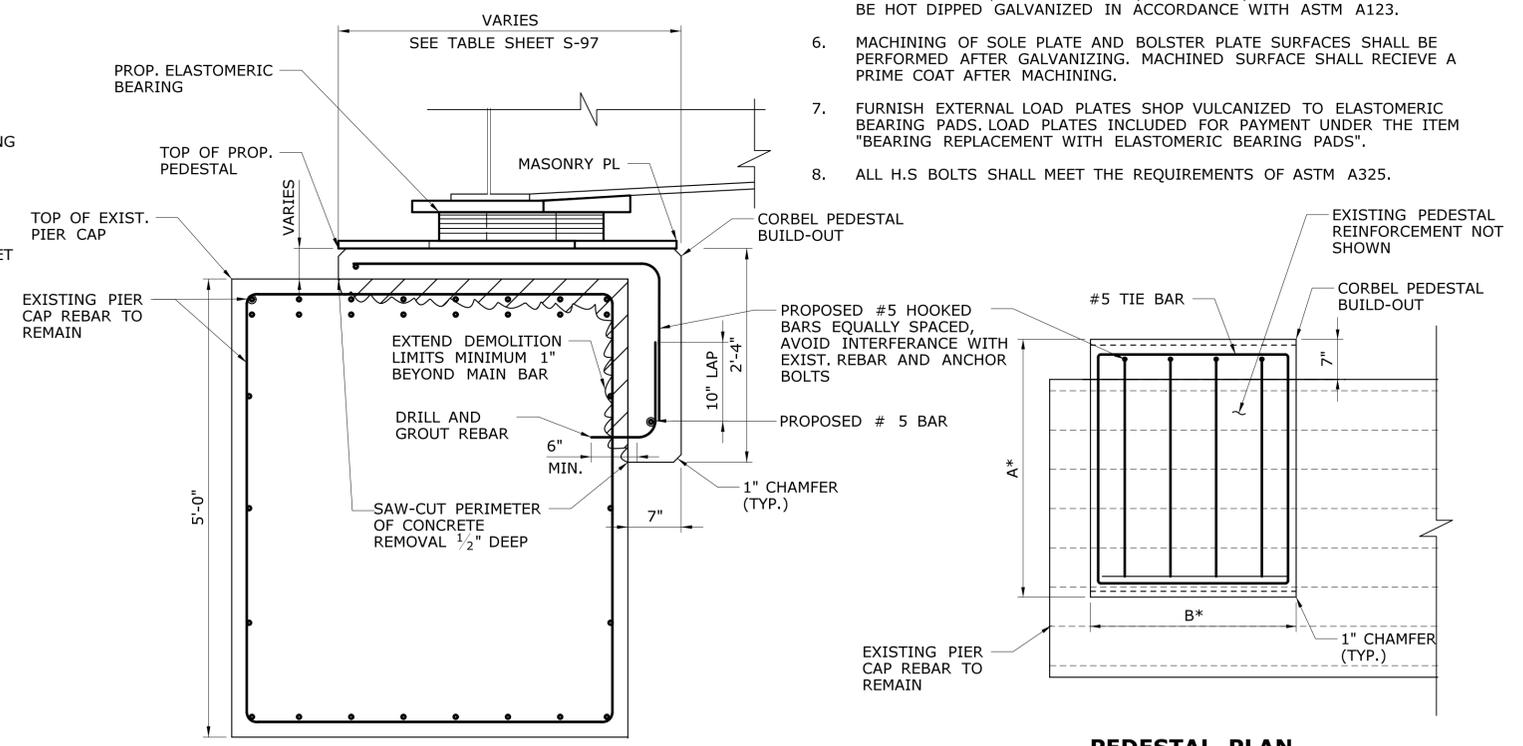
**SECTION\* A**  
SCALE: 1" = 1'-0"

\* STEEL KEEPER ASSEMBLY NOT SHOWN FOR CLARITY. SEE SHEET S-97 FOR DETAILS.



**SECTION\* B**  
SCALE: 1" = 1'-0"

\* STEEL KEEPER ASSEMBLY NOT SHOWN FOR CLARITY. SEE SHEET S-97 FOR DETAILS.



**CORBEL PEDESTAL DETAIL**  
SCALE: 1" = 1'-0"  
(PIER A10 SHOWN)

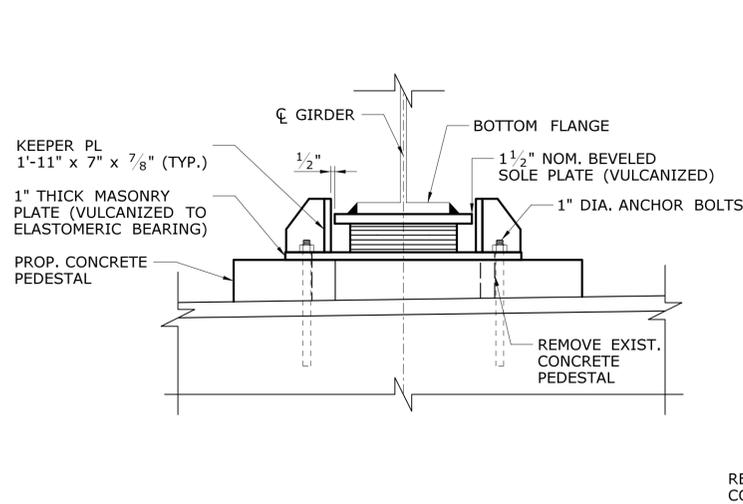
**PEDESTAL PLAN**  
SCALE: 1" = 1'-0"  
(PIER A10 SHOWN)  
\* SEE TABLE ON SHEET S-97 FOR DIMENSION "A" AND "B"

*PROPOSED BOLSTERS										
LOCATION	GIRDER NO	1 1/2" SOLE PLATE		BOTTOM AND TOP BOLSTER PLATES		BOLSTER VERTICAL WEB PLATE		BOLSTER VERTICAL STIFFENERS*		
		L (IN)	W (IN)	L1 (IN)	W1 (IN)	L3 (IN)	D (IN)	W3 (IN)	D (IN)	L4 (IN)
PIER A10 WEST	9A1- 9A4	21	25	21	25	20	8	9	8	6

\* 4 VERTICAL STIFFENER PLATES SHALL BE USED PER BOLSTER ASSEMBLY

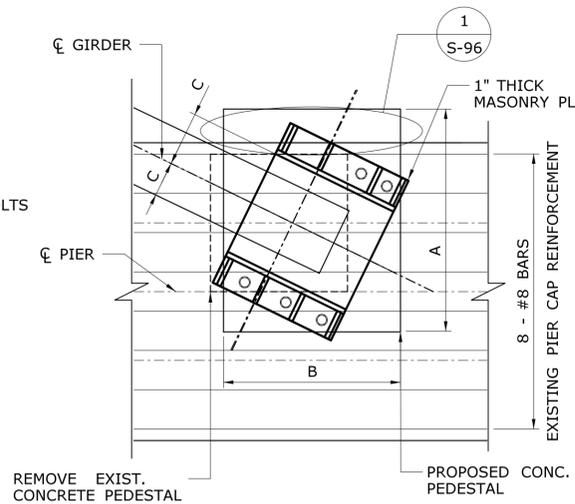
DESIGNER/DRAFTER: <b>NMG</b> CHECKED BY: <b>BSH</b>		<b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b>		SIGNATURE/BLOCK: 		PROJECT TITLE: <b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b>		TOWN: <b>HARTFORD</b>		PROJECT NO.: <b>63-699</b>	
REV. DATE: 1 9/29/16 SHEET NUMBER REVISION REVISION DESCRIPTION: REVISION DESCRIPTION		SCALE AS NOTED		FILENAME: ...\\SB_MST_BR3160_063_699_Bearing_02.dgn		DRAWING NO.: <b>S-96</b>		SHEET NO.: <b>01.08.100.A1</b>		<b>EXPANSION BEARING REPLACEMENT - 2</b>	

**ADDENDUM NO. 1**



**KEEPER ANGLE ASSEMBLY**

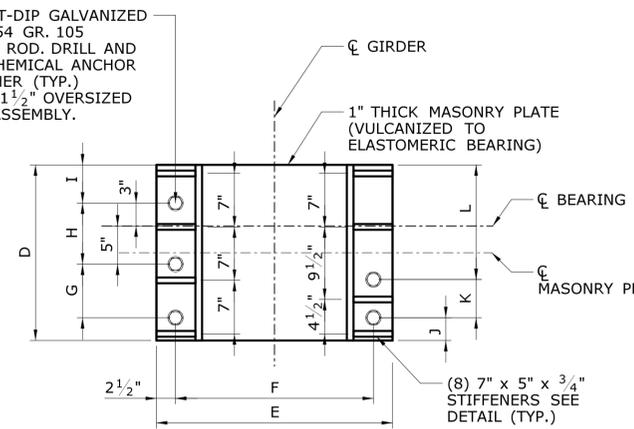
SCALE: 1" = 1'-0"  
(PIER A9 SHOWN, PIER A8 SIMILAR)



**KEEPER ANGLE ASSEMBLY PLAN**

SCALE: 3/4" = 1'-0"  
(PIER A9 SHOWN, PIER A8 SIMILAR)

1" DIA. HOT-DIP GALVANIZED ASTM F1554 GR. 105 THREADED ROD. DRILL AND INSTALL CHEMICAL ANCHOR AND WASHER (TYP.) THROUGH 1 1/2" OVERSIZED HOLE IN ASSEMBLY.

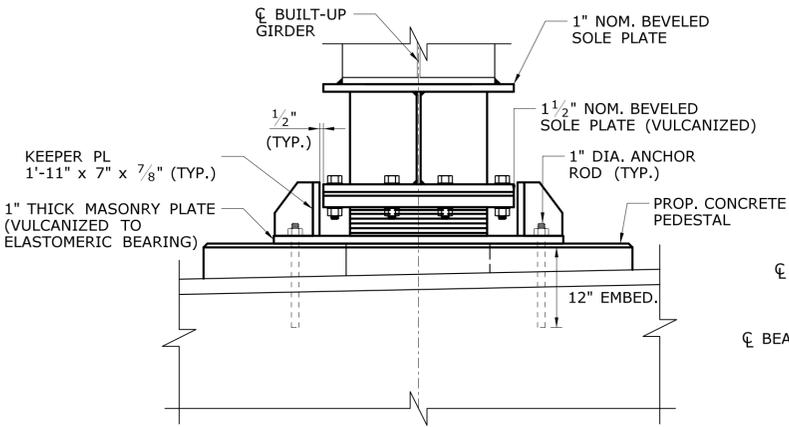


**KEEPER ANGLE ASSEMBLY DETAIL**

SCALE: 1" = 1'-0"

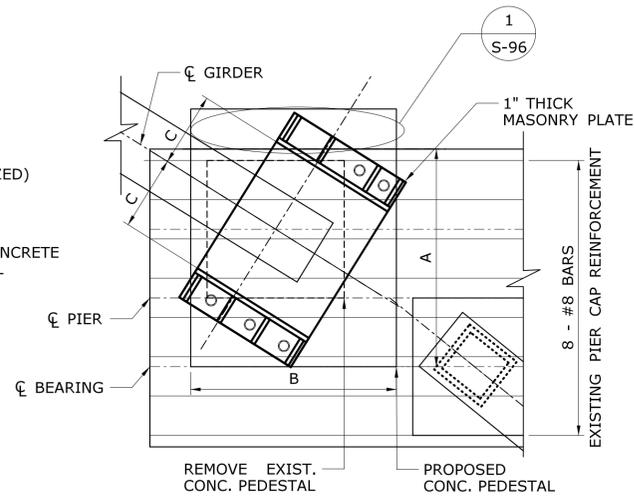
**NOTES:**

- INSTALL STEEL KEEPER CONCURRENTLY WITH BEARING REPLACEMENT.
- DRILLED AND GROUTED BARS SHALL BE EMBEDDED SUFFICIENT DEPTH TO DEVELOP THE YIELD STRENGTH OF THE BAR.
- CONTRACTOR SHALL MEET THE MANUFACTURERS INSTALLATION, SPACING, AND EDGE DISTANCE REQUIREMENTS FOR SELECTED BAR ANCHORING PRODUCT. IN THE EVENT THAT THE PIER CAP LAYOUT DOES NOT ALLOW FOR THE LAYOUT AND EMBEDMENT SHOWN, THE CONTRACTOR MAY ADJUST REINFORCEMENT WITH APPROVAL OF THE ENGINEER.
- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGING EXISTING REINFORCEMENT. CONTRACTOR SHALL USE A PACHOMETER PRIOR TO DRILLING TO VERIFY THAT NO EXISTING REINFORCEMENT IS IN PLACE THAT MAY INTERFERE WITH HOLE PLACEMENT.
- ROUGHEN THE SURFACE OF THE EXISTING PIER OR ABUTMENT INCLUDING PEDESTAL PRIOR TO PLACEMENT OF NEW CONCRETE.
- EDGES OF KEEPER BLOCKS SHALL BE CHAMFERED 1"X1".
- EXISTING WELDS AT KEEPERS, WHICH ARE TO BE REMOVED WHERE NECESSARY, SHALL BE REMOVED BY GRINDING. EXISTING STRUCTURAL STEEL PIER CAP GIRDERS SHALL NOT BE DAMAGED DURING WELD REMOVAL.
- REPLACEMENT STEEL KEEPERS SHALL BE DETAILED TO SUIT REPAIRS AT PIER CAP GIRDERS.
- SEE SHEETS S-10 TO S-82 FOR BEAM SKEWS.
- SEE SHEET S-07 FOR GENERAL NOTES.
- SEE SHEET S-09 FOR STRUCTURAL NOTES.
- SEE FRAMING PLAN SHEETS S-87 TO S-92 FOR LOCATIONS.
- SEE SHEET S-119 FOR STEEL CLEANING & PAINTING NOTES AND REQUIREMENTS.



**KEEPER ANGLE ASSEMBLY (PIER A10)**

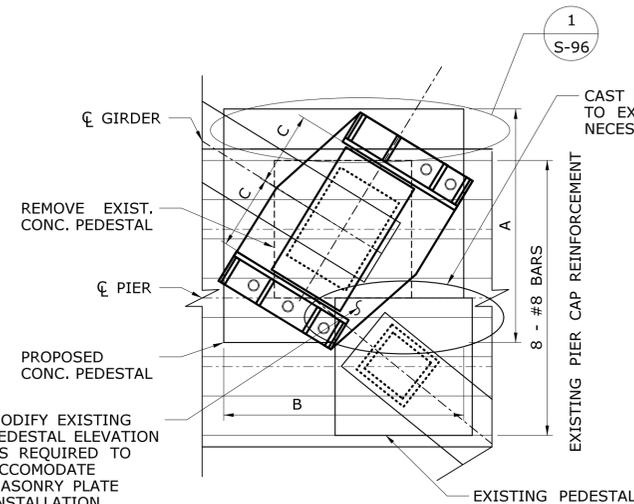
SCALE: 3/4" = 1'-0"



**KEEPER ANGLE ASSEMBLY (PIER A10) PLAN**

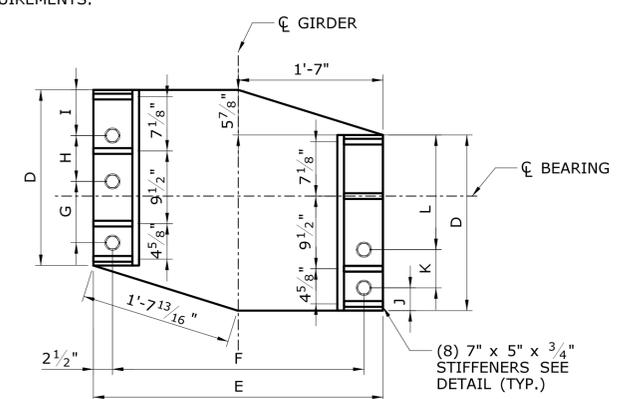
SCALE: 3/4" = 1'-0"

MODIFY EXISTING PEDESTAL ELEVATION AS REQUIRED TO ACCOMMODATE MASONRY PLATE INSTALLATION



**KEEPER ANGLE ASSEMBLY PIER A10 GIRDER 9A5**

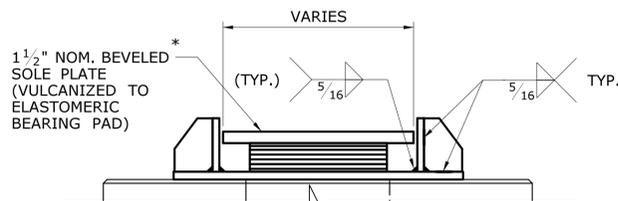
SCALE: 3/4" = 1'-0"



**KEEPER ANGLE ASSEMBLY SPECIAL DETAIL PIER A10 GIRDER 9A5**

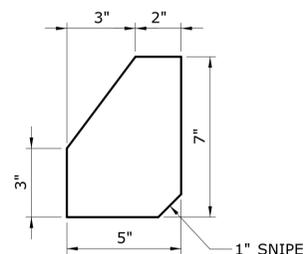
SCALE: 1" = 1'-0"

\*\* STIFFENER SPACING SHOWN BASED ON EXPECTED RANGE OF ANCHOR BOLT SPACING. FIELD VERIFY ANCHOR LOCATION PRIOR TO FABRICATION.



**STEEL KEEPER - FEMALE SIDE**

SCALE: 1" = 1'-0"



**STIFFENER DETAIL**

SCALE: 3" = 1'-0"

\*STEEL KEEPER ASSEMBLY DIMENSIONS

LOCATION	GIRDER NO.	A	B	C	D	E	F	G	H	I	J	K	L
PIER A8 WEST	7A6-7A9	3'-3"	2'-10"	9 1/2"	1'-11"	2'-7"	2'-2"	5"	8"	4 1/2"	3"	5"	1'-3"
PIER A9 WEST	8A1-8A4	3'-3"	2'-7"	9 1/2"	1'-11"	2'-7"	2'-2"	7"	8"	5"	3"	5"	1'-3"
PIER A10 WEST	9A1, 9A2, 9A4	3'-9"	3'-0"	1'-1"	1'-11"	3'-2"	2'-9"	7"	8"	5"	3"	5"	1'-3"
PIER A10 WEST	9A3	3'-4 3/4"	3'-6"	1'-1"	1'-11"	3'-2"	2'-9"	8"	6"	6"	3"	5"	1'-3"

\*ANCHOR BOLT SPACING SHOWN BASED ON EXISTING REINFORCEMENT PER THE ORIGINAL PLANS. FIELD VERIFY PRIOR TO KEEPER DEVICE FABRICATION AND INSTALLATION.

**ADDENDUM NO. 1**

REV.	DATE	SHEET NUMBER REVISION	REVISION DESCRIPTION	SHEET NO.
1	9/29/16	SHEET NUMBER REVISION		01.08.101

DESIGNER/DRAFTER: **NMG**  
 CHECKED BY: **BSH**  
 SCALE AS NOTED

STATE OF CONNECTICUT  
 DEPARTMENT OF TRANSPORTATION

Plotted Date: 9/30/2016

SIGNATURE/BLOCK: [Signature]

Hardesty & Hanover, LLC  
 59 Elm Street  
 New Haven, CT 06510

PROJECT TITLE:  
**BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

TOWN: **HARTFORD**  
 DRAWING TITLE:  
**EXPANSION BEARING REPLACEMENT - 3**

PROJECT NO.: **63-699**  
 DRAWING NO.: **S-97**  
 SHEET NO.: **01.08.101.A1**

JACKING LOADS - UNFACTORED*						
LOCATION		MINIMUM JACKING DESIGN LOADS			HORIZONTAL BRACING LOADS	
		DC (KIP)	DW (KIP)	LL + I (KIP)	LATERAL (KIP)	LONGITUDINAL (KIP)
PIER A1 EAST	INT	44.91	6.05	89.70	3.45	11.98
	EXT	40.54	6.05	57.27	3.45	11.98
PIER A3 WEST	INT	50.73	6.06	88.62	3.45	11.98
	EXT	45.73	6.06	56.85	3.45	11.98
PIER A4 WEST	INT	50.73	6.67	91.21	3.80	14.70
	EXT	41.34	6.67	56.85	3.80	14.70
PIER A5 WEST	INT	46.19	6.08	88.08	3.48	12.04
	EXT	41.18	6.08	54.31	3.48	12.04
PIER A8 WEST	INT	55.54	7.01	88.47	3.71	14.40
	EXT	52.48	7.01	53.56	3.71	14.40
PIER A9 WEST	INT	34.68	6.22	96.03	3.10	14.36
	EXT	38.12	6.22	66.95	3.10	14.36
PIER A10 WEST	INT	90.49	11.09	135.62	6.67	24.66
	EXT	90.46	11.09	111.95	6.67	24.66

JACKING LOADS - UNFACTORED*						
LOCATION		MINIMUM JACKING DESIGN LOADS			HORIZONTAL BRACING LOADS	
		DC (KIP)	DW (KIP)	LL + I (KIP)	LATERAL (KIP)	LONGITUDINAL (KIP)
PIER A11 WEST	INT	42.31	6.23	103.46	3.78	11.98
	EXT	45.62	6.23	72.75	3.78	11.98
PIER A12 WEST	INT	54.84	7.35	102.14	3.11	17.36
	EXT	57.98	7.35	67.35	3.11	17.36
PIER F1 WEST	INT	46.62	6.298	95.01	3.78	13.68
	EXT	49.44	6.298	61.36	3.78	13.68
PIER F2 WEST	INT	42.9	5.83	92.78	3.50	13.68
	EXT	42.85	5.83	60.02	3.50	13.68
PIER WE6 EAST	INT	32.17	5.81	79.40	3.15	16.62
	EXT	29.38	5.81	47.40	3.15	16.62
PIER E1 EAST	INT	30.72	5.62	77.18	3.07	17.98
	EXT	28.28	5.62	47.43	3.07	17.98
ABUTMENT F	INT	30.70	5.62	77.18	3.50	17.98
	EXT	23.31	5.62	47.43	3.50	17.98

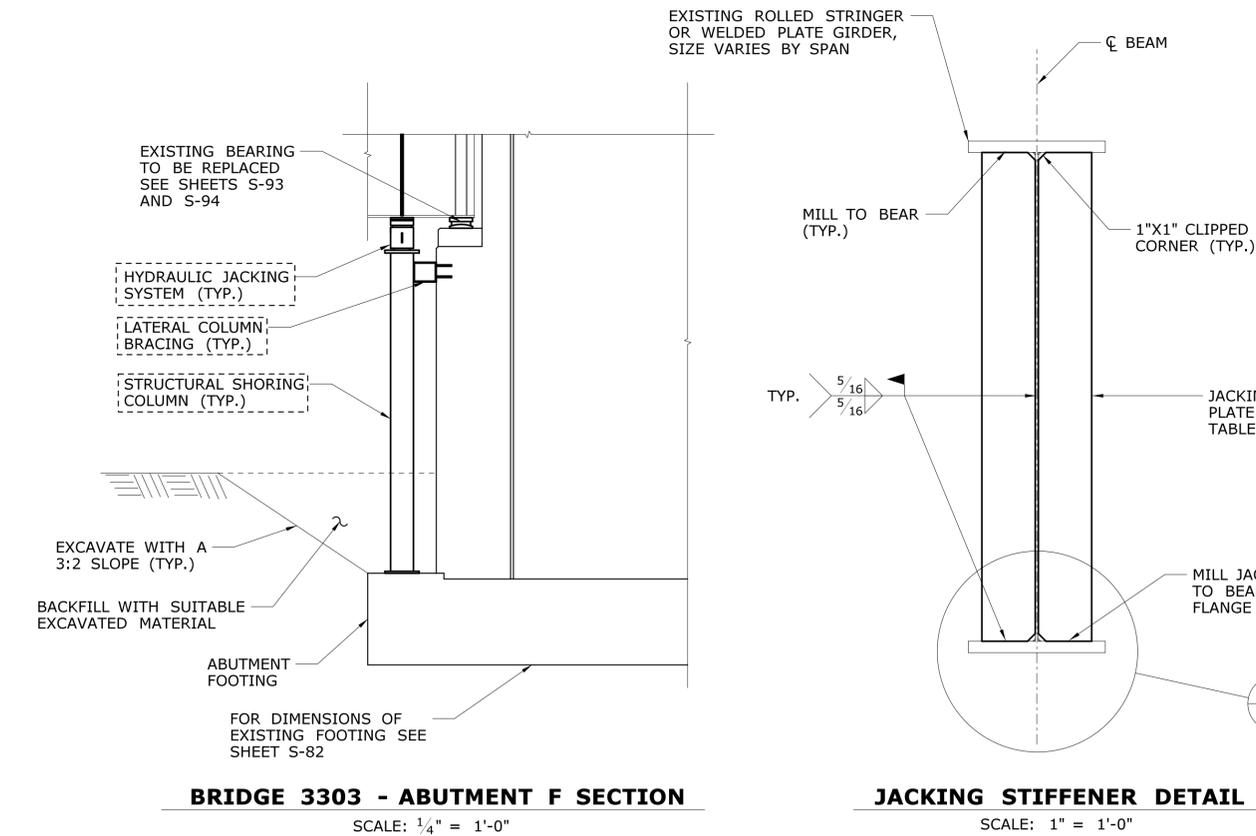
TEMPORARY SUPPORT BEAM DESIGN MOMENTS								
LOCATION	GIRDERS	MAX. POSITIVE MOMENTS			MAX. NEGATIVE MOMENTS			JACKING TYPE**
		DC (KIP*FT)	DW (KIP*FT)	LL + I (KIP*FT)	DC (KIP*FT)	DW (KIP*FT)	LL + I (KIP*FT)	
PIER A1 EAST	1A1 - 1A5	81.54	11.19	153.84	-110.05	-16.89	-158.11	A
		81.63	11.18	156.50	-108.20	-16.48	-152.09	A
PIER A3 WEST	2A1 - 2A5	81.63	11.18	156.50	-108.20	-16.48	-152.09	A
		84.84	11.69	144.87	-143.89	-24.44	-208.53	A
PIER A4 WEST	3A1 - 3A5	84.84	11.69	144.87	-143.89	-24.44	-208.53	A
		77.94	10.47	139.92	-146.36	-21.55	-192.29	A
PIER A8 WEST	7A6 - 7A9	37.79	5.71	66.29	-249.77	-49.47	-447.71	A
		107.74	12.84	124.74	-944.52	-119.37	-1204.94	A
PIER A9 WEST	8A6 - 8A10	107.74	12.84	124.74	-944.52	-119.37	-1204.94	A
		146.22	17.89	181.67	-660.90	-84.29	-850.92	A
PIER A10 WEST	9A3 - 9A6	146.22	17.89	181.67	-660.90	-84.29	-850.92	A
		21.49	3.62	41.94	-164.70	-22.75	-262.71	A
PIER A11 WEST	10A4 - 10A7	21.49	3.62	41.94	-164.70	-22.75	-262.71	A
		25.24	3.83	57.56	-186.06	-23.57	-216.08	A
PIER F1 WEST	12A6 - 12A9	20.50	3.09	40.12	-99.68	-14.90	-146.04	A
		15.56	2.11	28.69	-99.68	-10.38	-106.44	A
PIER F2 WEST	1F1 - 1F4	15.56	2.11	28.69	-99.68	-10.38	-106.44	A
		-	-	-	-124.77	-22.51	-307.96	B
PIER WE6 EAST	2F1 - 2F4	-	-	-	-124.77	-22.51	-307.96	B
		34.02	5.90	100.58	-73.41	-17.71	-149.34	B
PIER E1 EAST	1E1 - 1E12	34.02	5.90	100.58	-73.41	-17.71	-149.34	B

- JACKING FOR BEARING REPLACEMENT NOTES:**
1. THE PLANS DEPICT A CONCEPTUAL METHOD TO HYDRAULICALLY LIFT (JACK) THE BEAMS FOR REPLACING ALL EXPANSION BEARINGS. THE CONTRACTOR MAY SUBMIT ALTERNATE MEANS AND METHODS TO THE ENGINEER FOR REVIEW AND APPROVAL.
  2. ALL WORK ASSOCIATED WITH SUPPORT STRUCTURES NECESSARY FOR BEARING REPLACEMENT SHALL BE PAID FOR AS "TEMPORARY SUPPORT ASSEMBLY".
  3. THE WORK TO DESIGN THE TEMPORARY JACKING SYSTEM, DEVELOP THE JACKING CONSTRUCTION PROCEDURE, FURNISH, INSTALL, AND REMOVE THE NECESSARY HYDRAULIC LIFTING COMPONENTS AND PERFORM THE HYDRAULIC LIFTING OPERATION FOR BEARING REPLACEMENT SHALL BE PAID FOR UNDER THE ITEM "JACKING FOR BEARING REPLACEMENT". SEE SPECIAL PROVISIONS.
  4. BEARINGS SHALL BE REMOVED AND REPLACED ONE FOR ONE ON A SINGLE SUBSTRUCTURE UNIT AT A TIME. ALL BEAMS ALONG A SINGLE SUBSTRUCTURE UNIT SHALL BE JACKED SIMULTANEOUSLY DURING THE LIFTING OPERATIONS.
  5. SEE SHEET S-96 FOR SUGGESTED EXPANSION BEARING REPLACEMENT PROCEDURE.
  6. WORK THE LOAD TABLES ON THIS SHEET WITH THE SUGGESTED TEMPORARY SUPPORT ASSEMBLIES SHOWN ON SHEET S-99.

- JACKING AND TEMPORARY SUPPORT NOTES:**
1. THE FOLLOWING PAY ITEMS ARE APPLICABLE TO HYDRAULIC LIFTING (JACKING) AND TEMPORARY SUPPORT OF THE STRUCTURES.
    - A. THE ITEM "JACKING EXISTING STRINGERS" SHALL GOVERN THE WORK TO HYDRAULICALLY LIFT THE STRUCTURE TO PERFORM STRUCTURAL STEEL REPAIRS. THIS ITEM SHALL INCLUDE TEMPORARY ELEMENTS. SEE DRAWING S-100.
    - B. THE ITEM "JACKING EXISTING SUPERSTRUCTURE" SHALL GOVERN THE WORK TO HYDRAULICALLY LIFT THE STRUCTURE TO PERFORM CONCRETE SUBSTRUCTURE REPAIRS.
    - C. THE ITEMS "TEMPORARY SUPPORT ASSEMBLY" AND "JACKING FOR BEARING REPLACEMENT" SHALL GOVERN THE WORK TO HYDRAULICALLY LIFT THE STRUCTURE TO REPLACE BEARINGS.
  2. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF ALL TEMPORARY SUPPORT ELEMENTS AND ANY TEMPORARY STRUCTURES REQUIRED TO ACCESS AND PERFORM THE WORK. THE CONTRACTOR SHALL SUBMIT WORKING DRAWINGS AND COMPUTATIONS PREPARED, SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF CONNECTICUT, TO THE ENGINEER FOR REVIEW AND APPROVAL.
  3. JACKING OPERATIONS SHALL BE PERFORMED UNDER LIVE TRAFFIC. THE CONTRACTOR SHALL DESIGN THE JACKING SUPPORT STRUCTURE FOR THE SPECIFIED BEAM END REACTIONS TABULATED ON THIS SHEET. THE CONTRACTOR MUST ENSURE THAT TRAVEL LANES ARE OPEN TO TRAFFIC IN ACCORDANCE WITH THE SPECIAL PROVISIONS "PROSECUTION AND PROGRESS".
  4. WHERE TEMPORARY STRUCTURES ARE INCIDENTAL TO THE JACKING ITEMS, THEIR DESIGN, CONSTRUCTION, AND REMOVAL SHALL BE INCLUDED WITH THE APPROPRIATE ITEM.
  5. THE DESIGN OF SUPPLEMENTAL STRUCTURAL ELEMENTS TO STRENGTHEN EXISTING MEMBERS PRIOR TO HYDRAULIC LIFTING IS INCIDENTAL TO THE JACKING ITEMS.
  6. THE DESIGN, FURNISHING, INSTALLATION AND REMOVAL OF OSHA COMPLIANT WORK PLATFORM AND RAILING IS INCIDENTAL TO THE JACKING ITEMS.
  7. VERTICAL JACKING DIFFERENTIAL BETWEEN ADJACENT SPANS IS LIMITED TO 1/2".
  8. WHERE EXISTING DOWNSPOUTS AND LEADERS INTERFERE WITH THE JACKING OR SUPPORT ELEMENTS THEY SHALL BE REMOVED AND REPLACED. PAY FOR UNDER THE ITEMS "REMOVE EXISTING BRIDGE DRAINAGE SYSTEM" AND "8" PIPE FOR BRIDGE DRAINAGE". (FIBERGLASS)
  9. THE USE OF A TEMPORARY SPREAD FOOTING IS PERMITTED AS AN ALTERNATE MEANS OF SUPPORT FOUNDATION. SEE NOTES ON SHEET S-99 FOR REQUIREMENTS. THE DESIGN AND INSTALLATION OF SPREAD FOOTING SHALL BE INCLUDED IN THE APPROPRIATE ITEM.

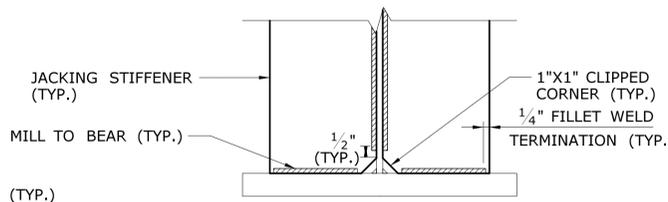
\*UNFACTORED JACKING LOADS SHOWN ABOVE ARE TAKEN AT THE EXISTING BEARING LOCATION FOR EACH BEAM. JACKING LOADS SHALL NOT EXCEED 50% OF THE LOAD CAPACITY OF THE JACKS.

\*\* SEE SHEET S-99 FOR JACKING TYPE



**LEGEND**

XXXXXX - DENOTES CONTRACTOR DESIGNED ELEMENTS



**WELD TERMINATION DETAIL**

\*WELDED PLATE GIRDER SHOWN ROLLED GIRDER SIMILIAR

PROPOSED JACKING STIFFENER DIMENSIONS		
PIER/ABUTMENT	WIDTH (IN.)	THICKNESS (IN.)
PIER A1 WEST	5 1/2	1 1/4
PIER A3 WEST	5 1/2	3/4
PIER A4 WEST	5 1/2	3/4
PIER A5 WEST	5 1/2	3/4
PIER A8 WEST	5 1/2	3/4
PIER A9 WEST	9	1 1/4
PIER A11 WEST	5 1/2	3/4
PIER A12 WEST	5 1/2	3/4
PIER F1 WEST	5 1/2	3/4
PIER F2 WEST	5 1/2	3/4
PIER WE6 EAST	5 1/2	3/4
PIER E1 EAST	5 1/2	3/4
ABUT. F	5 1/2	3/4

**ADDENDUM NO. 1**

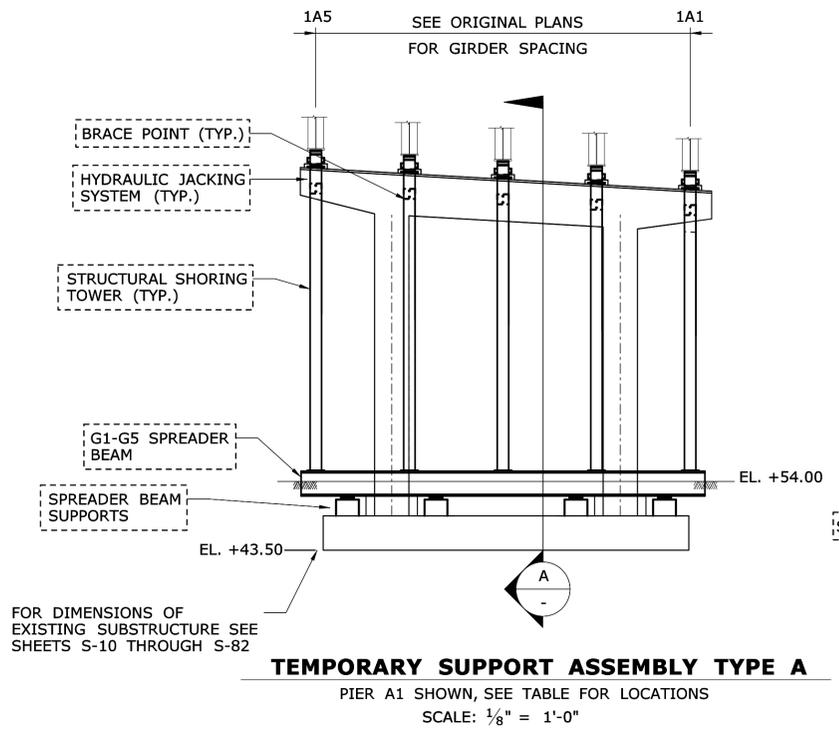
DESIGNER/DRAFTER: <b>NMG</b> CHECKED BY: <b>BSH</b> SCALE AS NOTED	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SIGNATURE/BLOCK: Hardesty & Hanover, LLC 59 Elm Street New Haven, CT 06510	PROJECT TITLE: <b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b>	TOWN: <b>HARTFORD</b> DRAWING TITLE: <b>TEMPORARY SUPPORT OF STRUCTURE - 1</b>	PROJECT NO.: <b>63-699</b> DRAWING NO.: <b>S-98</b> SHEET NO.: <b>01.08.102.A1</b>
1 9/29/16 SHEET NUMBER REVISION REV. DATE REVISION DESCRIPTION SHEET NO.	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	Plotted Date: 9/30/2016	Filename: ...\\SB_MST_BR3160_063_699_Temporary_Support_01.dgn		

**NOTICE TO CONTRACTOR:**

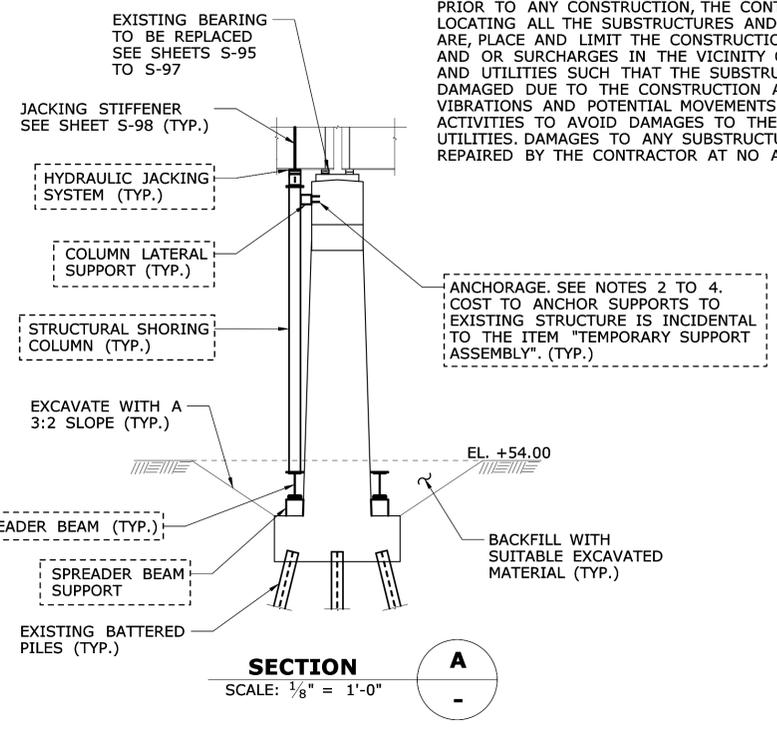
PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL THE SUBSTRUCTURES AND UTILITIES WITHIN THE WORKING ARE, PLACE AND LIMIT THE CONSTRUCTION EQUIPMENT, CONSTRUCTION LOADS AND OR SURCHARGES IN THE VICINITY OF THE IDENTIFIED SUBSTRUCTURES AND UTILITIES SUCH THAT THE SUBSTRUCTURES AND UTILITIES ARE NOT DAMAGED DUE TO THE CONSTRUCTION ACTIVITY. MONITOR AND CONTROL VIBRATIONS AND POTENTIAL MOVEMENTS CAUSED BY ANY CONSTRUCTION ACTIVITIES TO AVOID DAMAGES TO THE ADJACENT SUBSTRUCTURES AND UTILITIES. DAMAGES TO ANY SUBSTRUCTURE AND UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CLIENT.

**ALTERNATE SPREAD FOOTING NOTES**

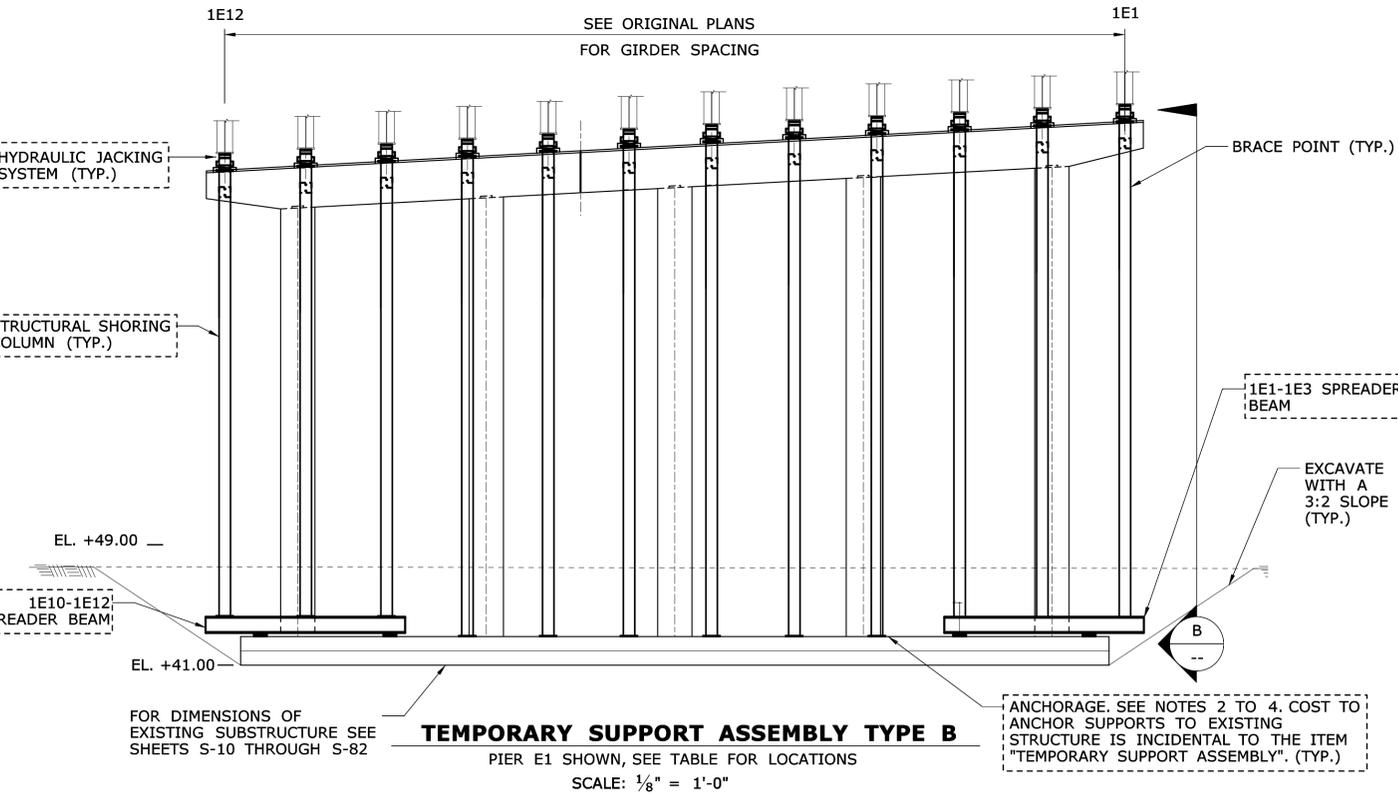
1. THE DEPARTMENT DOES NOT GUARANTEE THE DETAILS PERTAINING TO BORINGS, AS SHOWN ON ANY DOCUMENTS SUPPLIED BY THE DEPARTMENT, TO BE MORE THAN A GENERAL INDICATION OF THE MATERIALS LIKELY TO BE FOUND ADJACENT TO HOLES BORED AT THE SITE OF THE WORK, APPROXIMATELY AT THE LOCATIONS INDICATED. CONTRACTOR SHALL EXAMINE BORING DATA, WHERE AVAILABLE, AND MAKE THEIR OWN INTERPRETATION OF THE SUBSOIL INVESTIGATIONS AND OTHER PRELIMINARY DATA AND SHALL BASE HIS BID ON HIS OWN OPINION OF THE CONDITIONS LIKELY TO BE ENCOUNTERED.
2. TEMPORARY FOOTINGS ARE ANTICIPATED TO SETTLE ON LOADING. THE CONTRACTOR SHALL TAKE BORINGS AT ALL LOCATIONS WHERE A SPREAD FOOTING IS TO BE USED AND SUBMIT SETTLEMENT VALUES. ALL DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. THE COST OF BORING AND LABORATORY SOIL TEST IS INCIDENTAL TO THE ITEM "TEMPORARY JACKING ASSEMBLY".
3. TEMPORARY FOOTINGS SHALL BE CONTINUOUSLY MONITORED FOR SETTLEMENT AND OBSERVED SETTLEMENT MUST BE COMPENSATED BY JACK ADJUSTMENTS.
4. PRIOR TO THE PLACEMENT OF THE TEMPORARY FOOTING, OVER EXCAVATE COHESIVE SOIL, IF ANY, WITHIN THE UPPER FIVE FEET FROM THE PROPOSED BOTTOM OF THE TEMPORARY FOOTING ELEVATION AND REPLACEMENT WITH ENGINEERED FILL AS PER CONNDOT REQUIREMENTS.
5. THE GROUND WHERE THE TEMPORARY FOOTING IS SEATED SHALL BE LEVEL.
6. TIMBER MATS SHALL BE BOLTED TOGETHER.
7. SEE SUBSET 01.11 FOR SOIL BORING REFERENCE DATA.



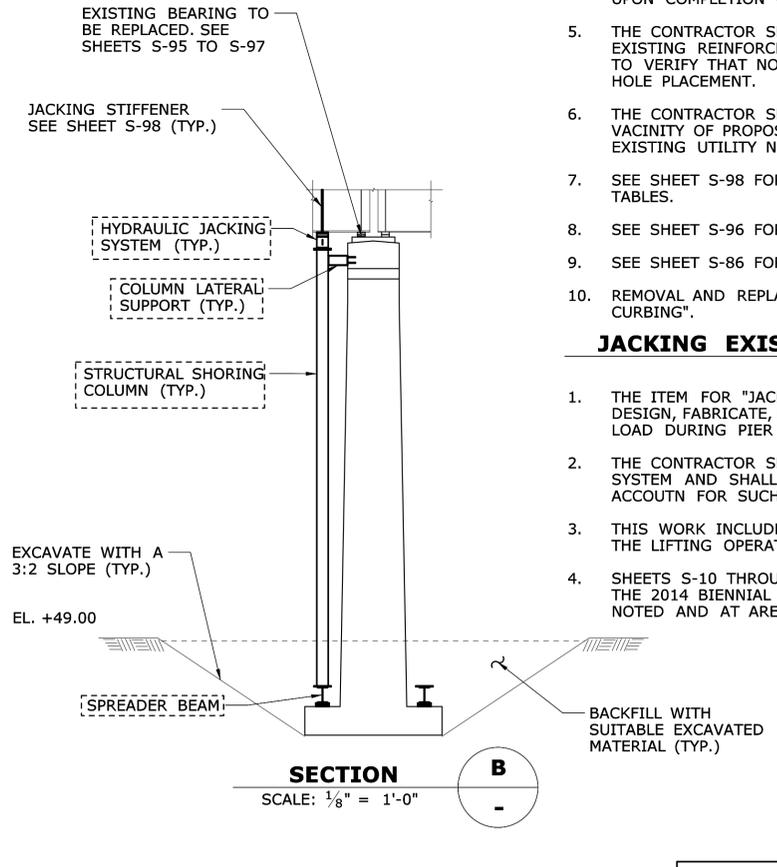
**TEMPORARY SUPPORT ASSEMBLY TYPE A**  
PIER A1 SHOWN, SEE TABLE FOR LOCATIONS  
SCALE: 1/8" = 1'-0"



**SECTION A**  
SCALE: 1/8" = 1'-0"



**TEMPORARY SUPPORT ASSEMBLY TYPE B**  
PIER E1 SHOWN, SEE TABLE FOR LOCATIONS  
SCALE: 1/8" = 1'-0"



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

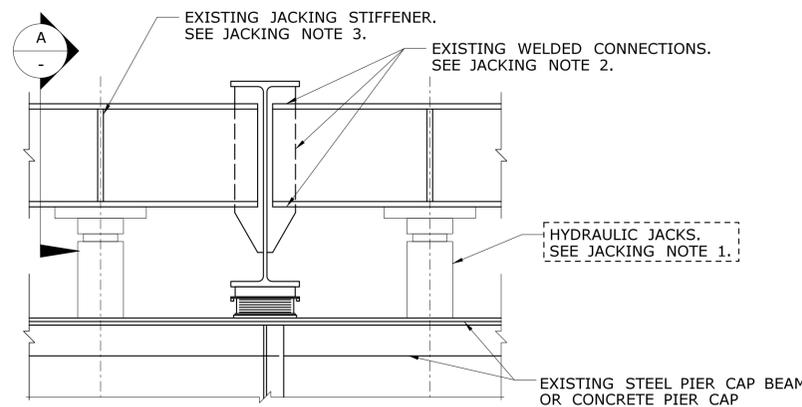
**JACKING EXISTING SUPERSTRUCTURE NOTES**

1. THE ITEM FOR "JACKING EXISTING SUPERSTRUCTURE" SHALL GOVERN THE WORK TO DESIGN, FABRICATE, ERECT AND REMOVE A TEMPORARY MEANS OF SUPPORT TO RELIEVE LOAD DURING PIER CONCRETE REHABILITATION.
2. THE CONTRACTOR SHALL DETERMINE THE LOADS APPLIED TO THE TEMPORARY SUPPORT SYSTEM AND SHALL PROVIDE A MEANS TO SUPPORT THE LIFTING OPERATION TO ACCOUTN FOR SUCH FORCES.
3. THIS WORK INCLUDES FURNISHING LIFTING APPARATUS AND THE WORK TO PERFORM THE LIFTING OPERATION.
4. SHEETS S-10 THROUGH S-82 DOCUMENT THE EXTENT OF PIER DETERIORATION BASED ON THE 2014 BIENNIAL INSPECTION REPORTS. JACKING SHALL BE PERFORMED AT LOCATIONS NOTED AND AT AREAS IDENTIFIED BY THE ENGINEER.

**LEGEND**  
[Dashed Box] - DENOTES CONTRACTOR DESIGNED ELEMENTS

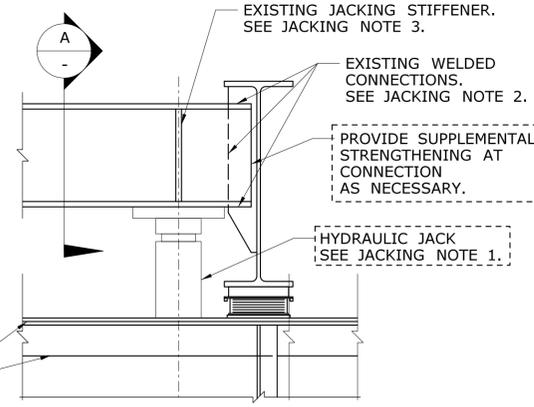
**ADDENDUM NO. 1**

DESIGNER/DRAFTER: <b>NMG</b> CHECKED BY: <b>BSH</b> SCALE AS NOTED		<b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b> Filename: ...SB_MST_BR3160_063_699_Temporary_Support_02.dgn		SIGNATURE/BLOCK: Hardesty & Hanover, LLC 59 Elm Street New Haven, CT 06510 		PROJECT TITLE: <b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b>		TOWN: <b>HARTFORD</b> DRAWING TITLE: <b>TEMPORARY SUPPORT OF STRUCTURE - 2</b>		PROJECT NO.: <b>63-699</b> DRAWING NO.: <b>S-99</b> SHEET NO.: <b>01.08.103.A1</b>	
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		SHEET NUMBER REVISION 1 9/29/16 SHEET NUMBER REVISION 01.08.103 REV. DATE REVISION DESCRIPTION SHEET NO. Plotted Date: 9/26/2016									



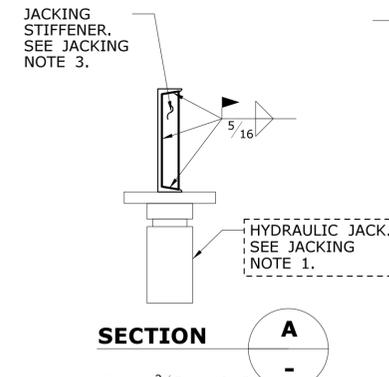
**INTERIOR BEAM JACKING (FOR BEAM END REPAIRS)**

SCALE: 3/4" = 1'-0"



**FASCIA BEAM JACKING (FOR BEAM END REPAIRS)**

SCALE: 3/4" = 1'-0"



**SECTION A**

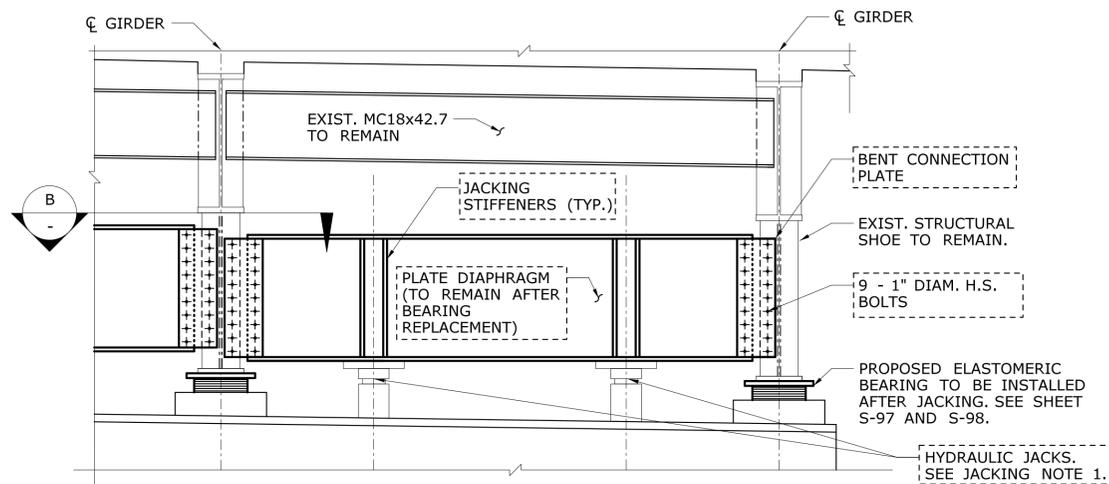
SCALE: 3/4" = 1'-0"

**JACKING EXISTING STRINGERS FOR BEAM END REPAIR NOTES**

1. HYDRAULIC JACKS FOR BEAM END REPAIR SHALL BE SIZED AS NOTED ON THE BEAM REPAIR TABLES. JACK FORCE SHALL BE ADEQUATE TO RELIEVE BEARING LOAD WITHOUT EXCESSIVE VERTICAL LIFT. PAID AS "JACKING EXISTING STRINGERS".
2. EXISTING WELDS SHALL BE VERIFIED FOR CAPACITY. ADDITIONAL AND EXISTING WELDS SHOULD BE A MINIMUM OF 1/4". ALL WELDS OF INSUFFICIENT SIZE SHALL BE REPAIRED AND ADDITIONAL SUPPLEMENTAL WELDS SHALL BE PROVIDED UNDER THE PAY ITEM FOR "JACKING EXISTING STRINGERS".
3. WHERE EXISTING JACKING STIFFENER HAS NOT BEEN PREVIOUSLY INSTALLED, PROVIDE NEW STIFFENERS PAID FOR AS "STRUCTURAL STEEL REPAIRS (SITE NO. 1)". WHERE A NEW STIFFENER IS TO BE PROVIDED, SPACING SHOULD BE AS CLOSE AS POSSIBLE TO THE BEAM FOR WHICH JACKING IS TO BE PROVIDED.

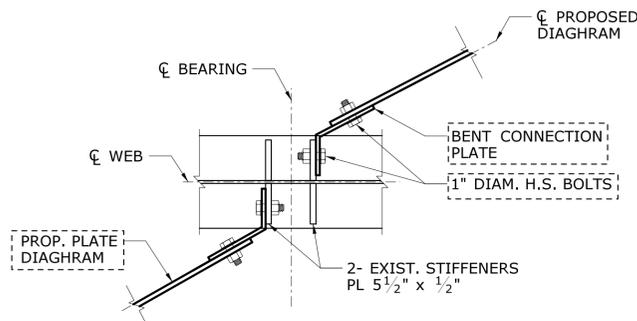
**JACKING FOR BEARING REPLACEMENT NOTES**

1. WORK THIS SHEET WITH THE DETAILS SHOWN ON SHEETS S-98 AND S-99.
2. PIER A9 AND PIER A10 JACKING DIAPHRAGMS TO BE PAID FOR AS "STRUCTURAL STEEL REPAIRS (SITE NO. 1)". JACKING DIAPHRAGMS SHALL BE PAINTED.
3. REMOVAL OF CROSS FRAMES PAID AS "STRUCTURAL STEEL REPAIRS (SITE NO. 1)".
4. HIGH STRENGTH BOLTS SHALL MEET THE REQUIREMENTS OF ASTM A325.



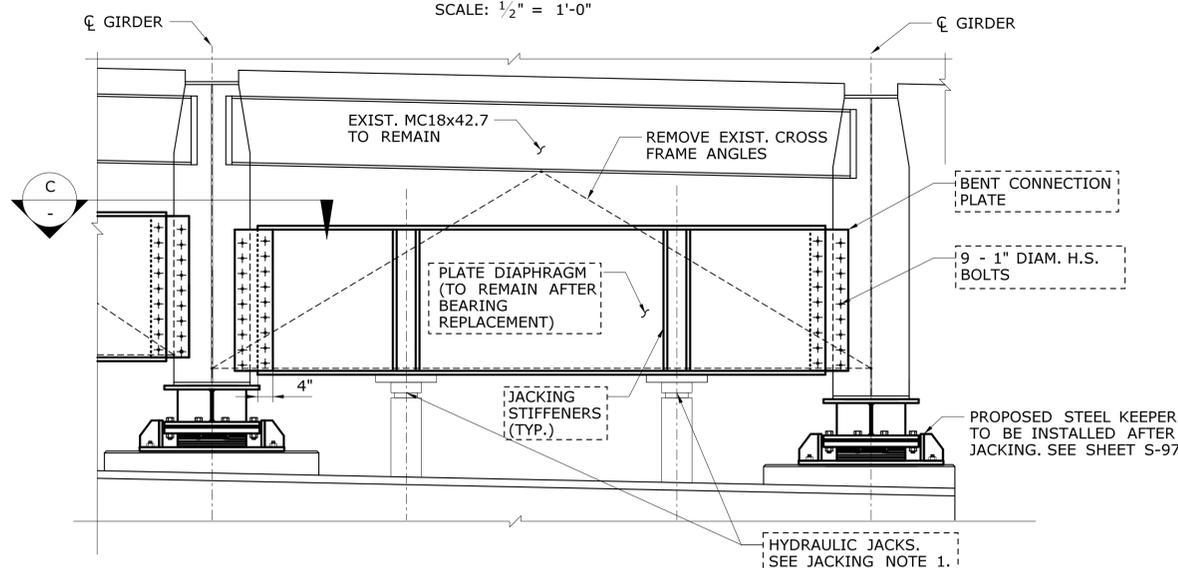
**PIER A9 DIAPHRAGM JACKING FOR BEARING REPAIRS**

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



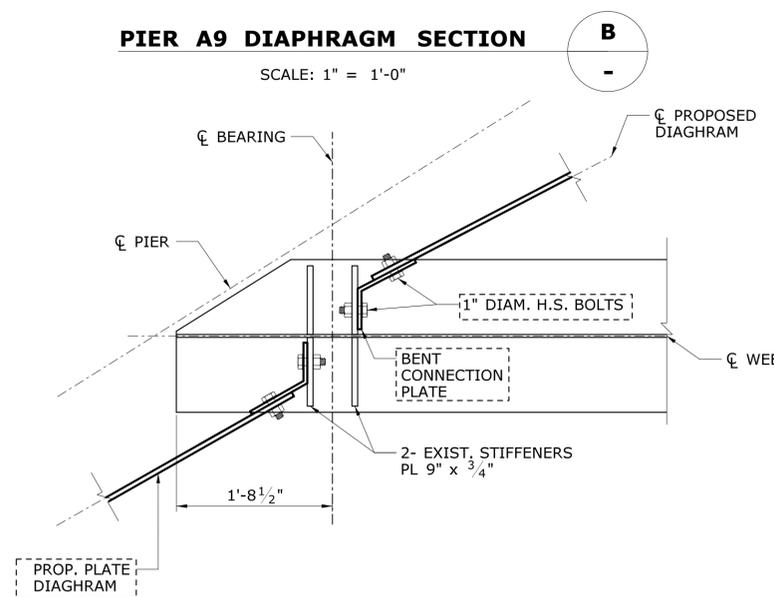
**PIER A9 DIAPHRAGM SECTION**

SCALE: 1" = 1'-0"



**PIER A10 DIAPHRAGM JACKING FOR BEARING REPAIRS**

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



**PIER A10 DIAPHRAGM SECTION**

SCALE: 1" = 1'-0"

**LEGEND**

XXXXXX - DENOTES CONTRACTOR DESIGNED ELEMENTS

**ADDENDUM NO. 1**

1	9/29/16	SHEET NUMBER REVISION	01.08.104
REV.	DATE	REVISION DESCRIPTION	SHEET NO.

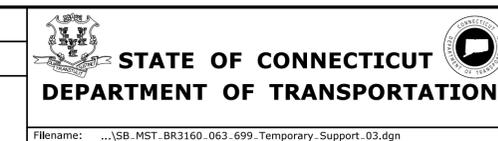
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 9/26/2016

DESIGNER/DRAFTER: **NMG**

CHECKED BY: **BSH**

SCALE AS NOTED



SIGNATURE/BLOCK:

Hardesty & Hanover, LLC  
59 Elm Street  
New Haven, CT 06510

PROJECT TITLE:

**BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

TOWN: **HARTFORD**

DRAWING TITLE:

**TEMPORARY SUPPORT OF STRUCTURE - 3**

PROJECT NO. **63-699**

DRAWING NO. **S-100**

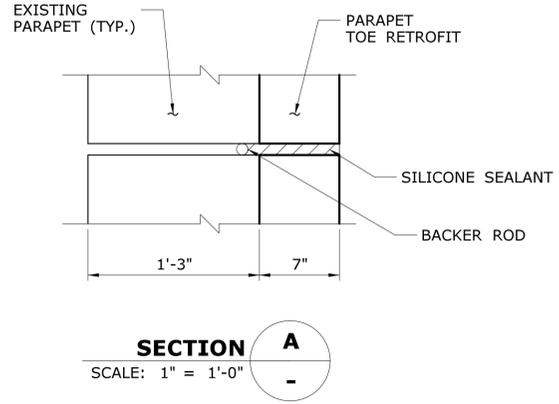
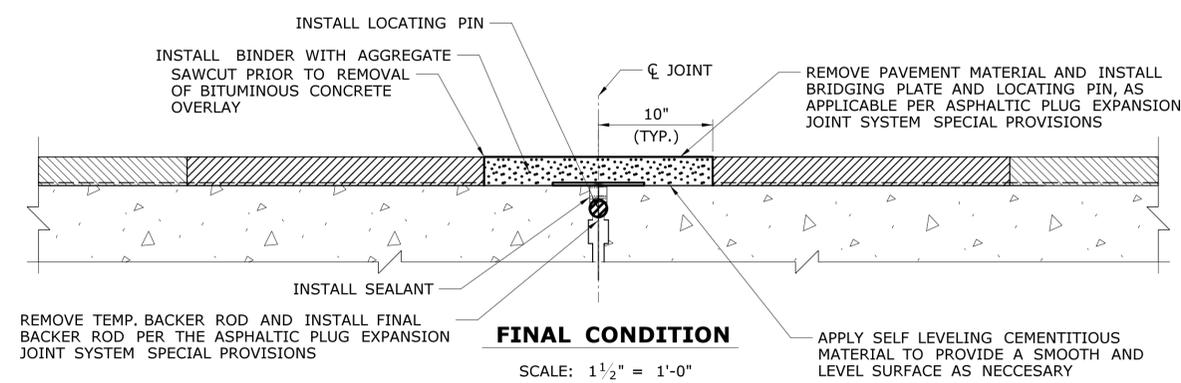
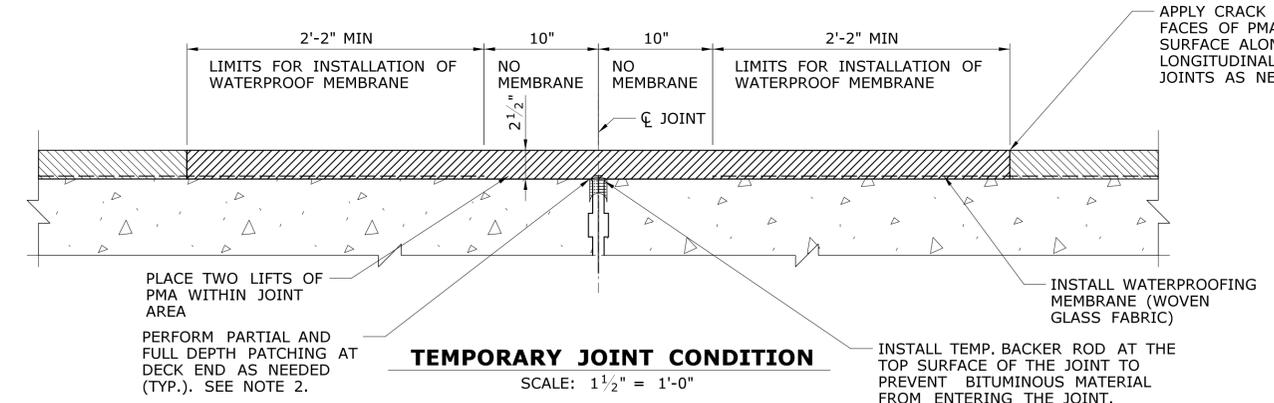
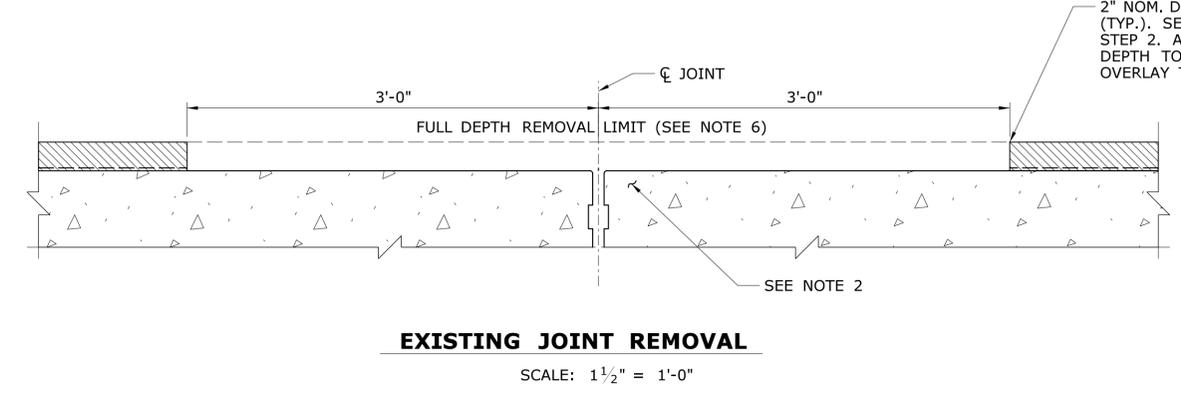
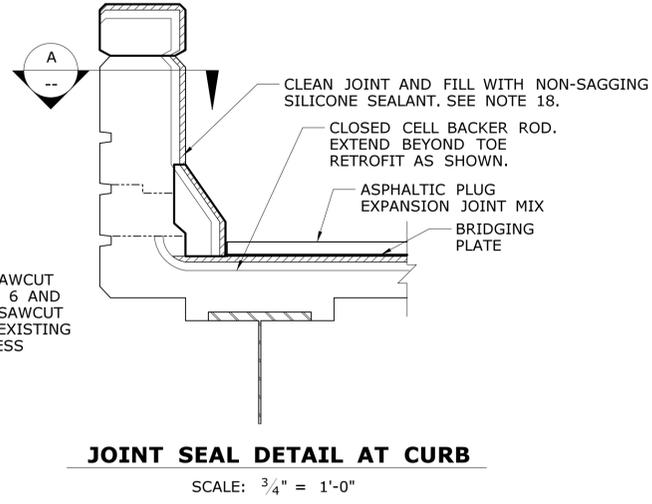
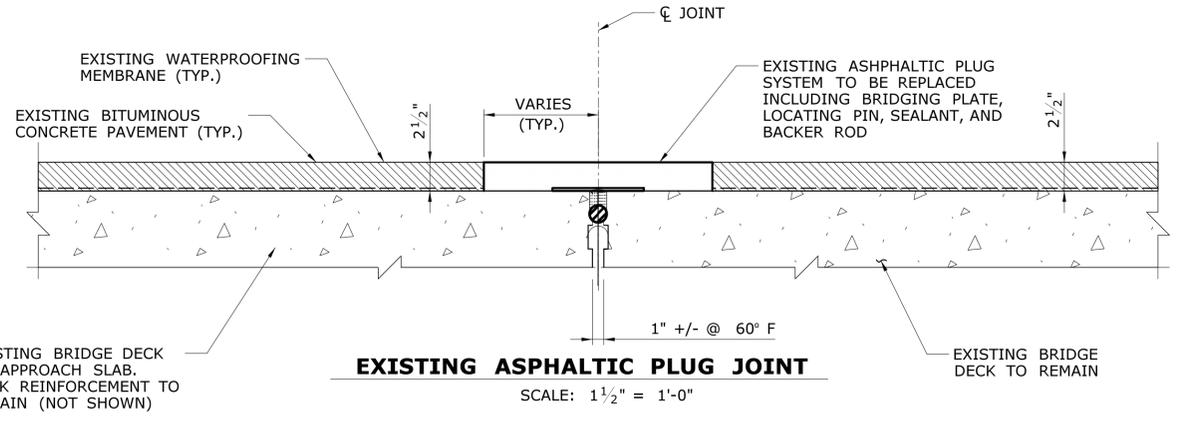
SHEET NO. **01.08.104.A1**

**ASPHALTIC PLUG EXPANSION JOINT SYSTEM NOTES**

- EXISTING ASPHALTIC PLUG JOINTS AT ABUTMENT AND PIER SHALL BE REPLACED FROM GUTTER LINE TO GUTTER LINE.
- UNSOUD CONCRETE IN BRIDGE DECK, IF ANY, AS DETERMINED BY THE ENGINEER NEEDED TO BE REMOVED AND REPAIRED WILL BE PAID UNDER ITEMS "PARTIAL DEPTH PATCH" OR "FULL DEPTH PATCH (HIGH EARLY STRENGTH CONCRETE)." SEE SHEET S-103 FOR DETAILS.
- A BRIDGING PLATE SHALL BE USED TO SPAN THE GAP BETWEEN TWO DECK ENDS OR THE JOINT BETWEEN A DECK END AND A CONCRETE APPROACH SLAB.
- AT ABUTMENT JOINTS, DISCONTINUE THE INSTALLATION OF THE BACKER ROD, BRIDGING PLATE AND LOCATING PIN WHERE THE APPROACH SLAB IS DISCONTINUED (TYPICALLY IN THE ROADWAY SHOULDERS.) SEE ASPHALTIC PLUG EXPANSION JOINT SYSTEM SPECIAL PROVISION.
- NEW STEEL BRIDGING PLATES SHALL HAVE A MINIMUM THICKNESS OF 1/4" FOR JOINT OPENINGS THAT EXCEED 3" BY 3/8" THICK BY 12" WIDE PLATE WILL BE REQUIRED.
- SAWCUTS MADE 3' EACH SIDE OF CENTERLINE OF JOINT WILL BE PAID AS "CUT BITUMINOUS CONCRETE PAVEMENT."
- INSTALLATION OF MEMBRANE WITHIN THE LIMITS SHOWN TO BE PAID UNDER THE ITEMS, "MEMBRANE WATERPROOFING (WOVEN GLASS FABRIC)."
- THE FURNISHING AND PLACING OF BITUMINOUS OVERLAY TO BE INCLUDED FOR PAYEMENT UNDER THE ITEMS "PMA S0.25" AND "PMA S0.5".
- ASPHALTIC PLUG EXPANSION JOINT SYSTEMS MAY BE INSTALLED ONLY WITHIN THE TEMPERATURE RANGE SPECIFIED IN THE SPECIAL PROVISIONS "ASPHALTIC PLUG EXPANSION JOINT SYSTEM," REFERENCE TABLE D FOR "BRIDGE SUPERSTRUCTURE SURFACE TEMPERATURE" RANGE IN THE SPECIAL PROVISIONS.
- EXPLORATION OF PAVEMENT THICKNESS AND JOINT LOCATION TO BE INCLUDED AS INCIDENTAL TO THE ITEM "REMOVAL OF EXISTING WEARING SURFACE."
- BRIDGING PLATE ONLY USED AT JOINTS AT HANGER AND EAST ABUTMENT. THE STEEL PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36. THE STEEL PLATES AND WELDED STUDS SHALL BE HOT DIPPED GALVANIZED IN CONFORMANCE WITH ASTM A123 AFTER FABRICATION.
- THE REMOVAL OF ALL EXISTING JOINT SYSTEMS AND BITUMINOUS CONCRETE WITHIN THE LIMITS SHOWN SHALL BE PAID FOR UNDER THE ITEM "REMOVAL OF EXISTING WEARING SURFACE".
- CRACK SEALANT PLACED ALONG VERTICAL FACES OF THE SAW-CUT PAVEMENT AND ON SURFACE AT JOINTS SHALL BE PAID UNDER THE ITEM "ASPHALTIC PLUG EXPANSION JOINT SYSTEM."
- REFER TO SPECIAL PROVISIONS FOR ASPHALTIC PLUG JOINT SYSTEM FOR INSTALLATION RESTRICTIONS.
- SEALING OF PARAPET JOINTS IS PAID FOR UNDER THE ITEM "ASPHALTIC PLUG EXPANSION JOINT SYSTEM."
- THE CLOSED CELL BACKER ROD SHALL BE PLACED A MINIMUM OF 2" FROM THE OUTSIDE FACE OF PARAPETS AND MEDIAN BARRIERS, CLOSED CELL BACKER ROD DIAMETER, SHALL BE DETERMINED AFTER MEASURING THE JOINT OPENING, AND SHALL BE 25% LARGER THAN THE JOINT OPENING.
- THE NON-SAGGING SILICONE SEALANT SHALL BE REPLACED ON THE BACKER ROD 1/2" THICK. AT THE GUTTER, THE SILICONE SEALANT SHALL BE PLACED FLUSH WITH THE OUTSIDE FACE OF CONCRETE.
- PRIOR TO INSTALLING THE SILICONE SEALANT, CLEAN JOINT SIDES BY SANDBLASTING. DUST SHALL BE REMOVED BY THE METHOD APPROVED BY THE ENGINEER. THIS WORK SHALL BE PAID FOR UNDER THE ITEM "ASPHALTIC PLUG EXPANSION JOINT SYSTEM"
- SEE GENERAL PLAN SHEET S-02 TO S-06 FOR ASPHALTIC PLUG JOINT LOCATIONS.

**ASPHALTIC PLUG EXPANSION JOINT SYSTEM - SUGGESTED SEQUENCE OF WORK:**

- CONTACTOR SHALL PERFORM AN EXPLORATION AT THE GUTTERLINE TO DETERMINE THE DEPTH OF PAVEMENT AND THE LOCATION OF THE DECK END (CENTERLINE OF PROPOSED JOINT) BEFORE PROCEEDING TO STEP 2.
- SAWCUT BITUMINOUS PAVEMENT ON BOTH SIDES OF EXISTING JOINT FOR PAVEMENT CUT-OUT. EACH SAWCUT LINE SHALL BE 3' FROM THE CENTERLINE OF THE EXISTING JOINT, UNLESS NOTED OTHERWISE. SAWCUT SHALL NOT DAMAGE THE BRIDGE DECK OR APPROACH SLAB.
- REMOVE THE EXISTING PAVEMENT MATERIAL AND THE JOINT MATERIAL WITHIN THE LIMITS SHOWN.
- INSTALL TEMPORARY BACKER ROD FLUSH WITH THE BRIDGE DECK AND APPROACH SLAB.
- REPAIR DETERIORATED CONCRETE AS NEEDED TO BE PAID UNDER "PARTIAL DEPTH PATCH" AND "FULL DEPTH PATCH (HIGH EARLY STRENGTH CONCRETE)." ITEMS.
- INSTALL WATERPROOFING MEMBRANE (WOVEN GLASS FABRIC) TO THE TOP OF THE DECK AND APPROACH SLAB WITHIN THE LIMITS SHOWN, WHEN REQUIRED.
- PLACE CRACK SEALANT ON VERTICAL EDGE OF PAVEMENT ALONG SAWCUT LINES.
- PLACE PMA S0.25 AND PMA S0.50 IN THE JOINT CUT-OUT (REFER TO BITUMINOUS CONCRETE PLACEMENT REQUIREMENTS NOTES ON S-07.
- CUT PAVEMENT FULL DEPTH AT 10" FROM THE CENTER OF THE JOINT (BOTH SIDES OF JOINT) AND REMOVE ALL PAVEMENT MATERIAL BETWEEN SAWCUTS.
- INSTALL FINAL ASPHALTIC PLUG EXPANSION JOINT SYSTEM.



**ADDENDUM NO. 1**

<p><b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b></p>	<p><b>TOWN: HARTFORD</b></p>	<p><b>PROJECT NO. 63-699</b></p>
<p><b>DECK JOINT SEAL DETAILS - 1</b></p>	<p><b>DRAWING TITLE:</b></p>	<p><b>DRAWING NO. S-101</b></p>
		<p><b>SHEET NO. 01.08.105.A1</b></p>

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
1	9/29/16	SHEET NUMBER REVISION	01.08.105
		Plotted Date: 9/26/2016	

DESIGNER/DRAFTER: **NMG**  
 CHECKED BY: **BSH**  
 SCALE AS NOTED

**STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION**

Filename: ...\\SB\_MST\_BR3160\_063\_699\_Aspaltic Plug Joint.dgn

SIGNATURE/BLOCK:

Hardesty & Hanover, LLC  
 59 Elm Street  
 New Haven, CT 06510

Hardesty & Hanover

PROJECT TITLE:

**BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

TOWN: **HARTFORD**

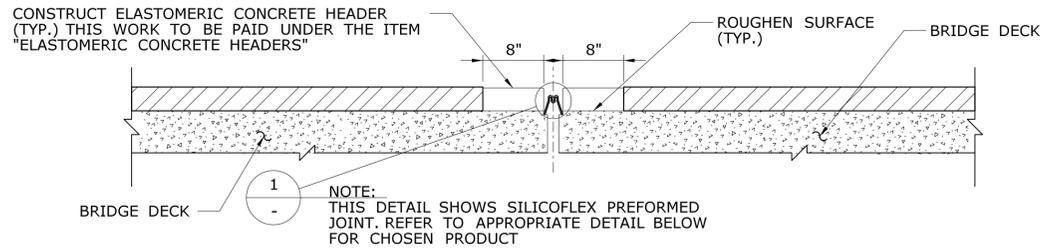
DRAWING TITLE:

**DECK JOINT SEAL DETAILS - 1**

PROJECT NO. **63-699**

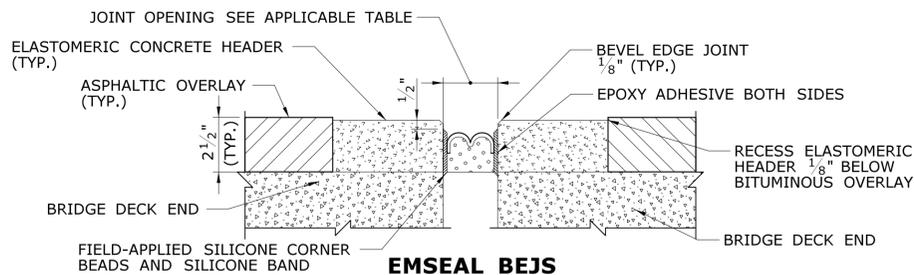
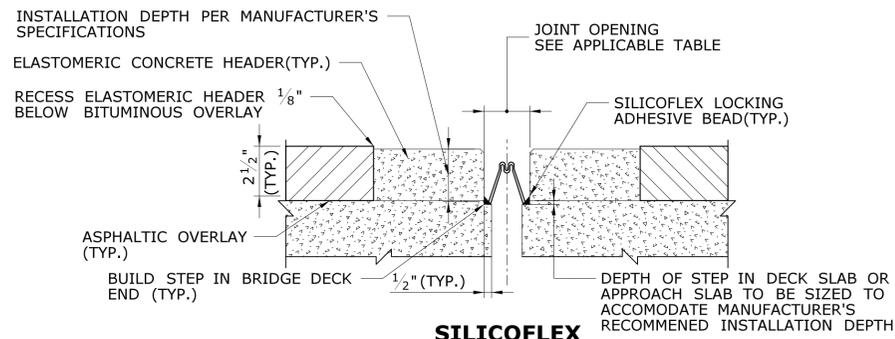
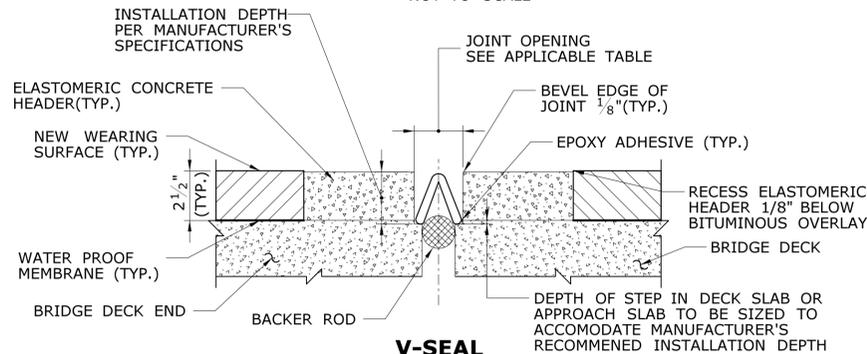
DRAWING NO. **S-101**

SHEET NO. **01.08.105.A1**



**JOINT TREATMENT AT EXPANSION JOINTS**

NOT TO SCALE

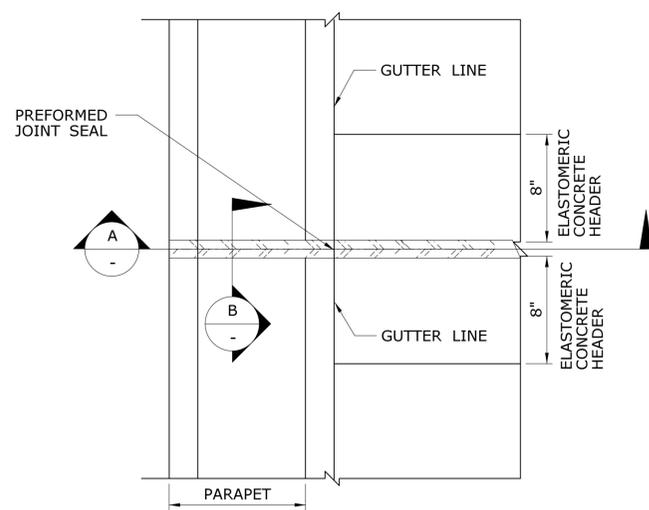


**PREFORMED JOINT SEAL DETAIL 1**

NOT TO SCALE

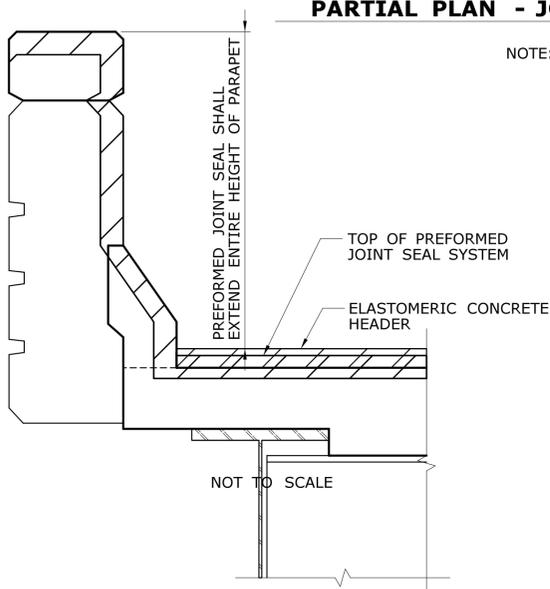
**NOTES**

1. THE ELASTOMERIC CONCRETE HEADER AND PREFORMED SILICONE JOINT SEAL SHALL BE INSTALLED AFTER THE PAVEMENT HAS BEEN PLACED ON THE BRIDGE AND THE DESIGNATED AREA HAS BEEN SAW CUT AND REMOVED.
2. THE ELASTOMERIC CONCRETE HEADER SHALL BE BEVELED 1/8" BELOW THE BITUMINOUS OVERLAY.
3. GAP WIDTHS (EXCLUDING 12M HINGE) DETERMINED AS FOLLOWING:
  - SILICOFLEX: ASSUMED THE USE OF SF400
  - V-SEAL: ASSUMED THE USE OF V-400
  - EMSEAL: ASSUMED THE USE OF 3" BEJS (DEFORMATION +/- 50% NOM. SIZE)
4. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL GAP WIDTH NECESSARY TO ACCOMMODATE THE PRODUCT OF CHOICE.
5. JOINT OPENINGS FOR NEW DECK ENDS ASSUME A 1/2" STEP IN DECK END CONCRETE PER SILICOFLEX AND V-SEAL MANUFACTURER RECOMMENDATIONS. DECK END TO DECK END JOINT OPENING IS 1" NARROWER THAN TABLE VALUE. ALL OTHER JOINT OPENINGS ARE BASED ON AS-BUILT CONDITIONS AND DO NOT INCLUDE A STEP.
6. WORK THIS SHEET WITH THE DECK END REPAIR SHOWN ON SHEETS S-104 THROUGH S-106
7. JOINT SEAL AND INSTALLATION PAID FOR AS "PREFORMED JOINT SEAL".



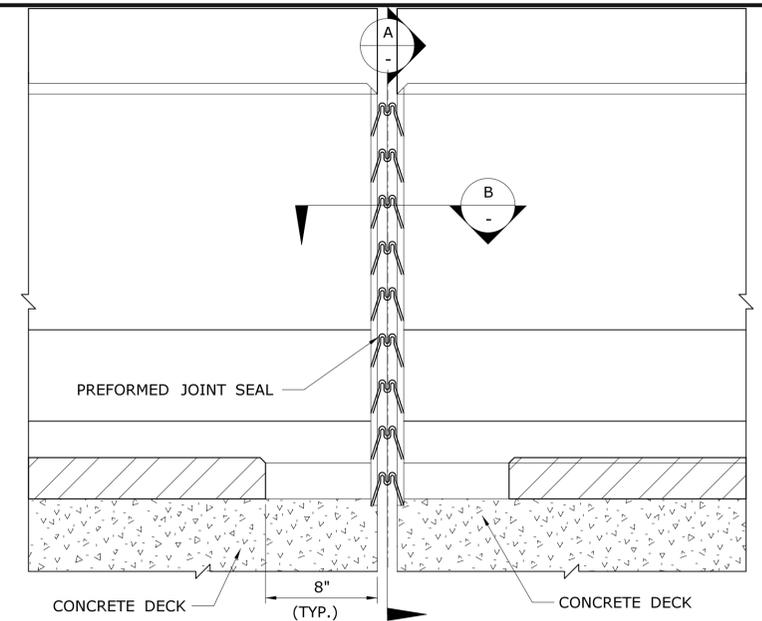
**PARTIAL PLAN - JOINT TREATMENT IN PARAPET**

NOT TO SCALE  
NOTE: SILICOFLEX SHOWN



**SECTION THROUGH PARAPET A**

NOT TO SCALE



**ELEVATION - JOINT TREATMENT IN PARAPET**

NOT TO SCALE  
NOTE: SILICOFLEX SHOWN

**JOINT OPENING CHART - 3160A**

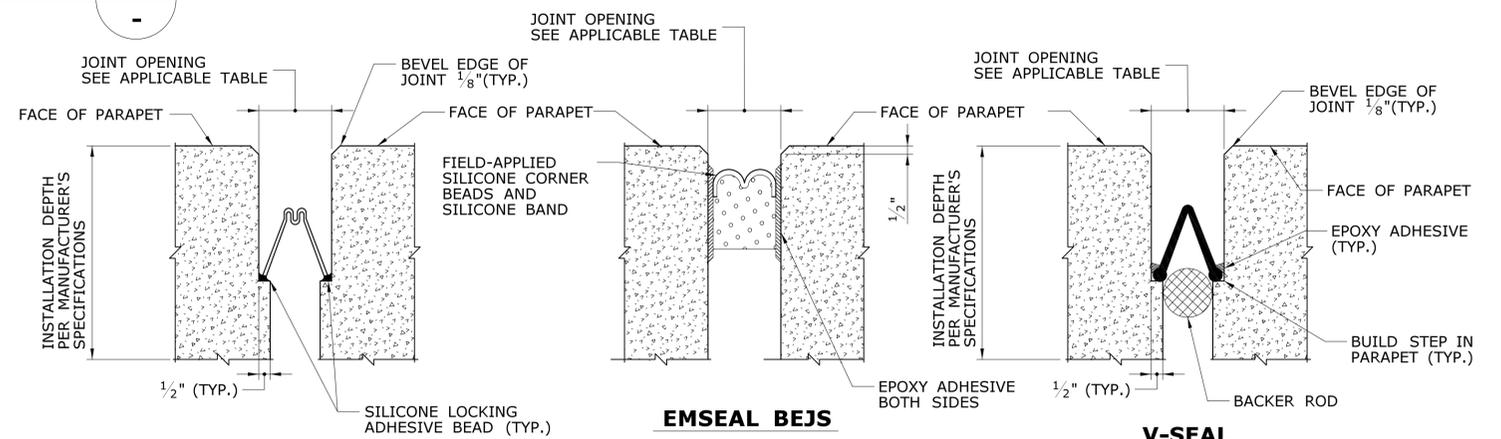
TEMP.(F)	ML-11**					SPAN 12M HANGER (NEAR ML-12)**					SPAN 12M HINGE (NEAR ML-13)*				
	40	50	60	70	80	40	50	60	70	80	40	50	60	70	80
GAP WIDTH (IN.)	3 1/8"	3"	2 7/8"	2 3/4"	2 5/8"	3 1/8"	3"	2 7/8"	2 13/16"	2 11/16"	1"	1"	1"	1"	1"

**JOINT OPENING CHART - 3160B**

TEMP.(F)	ML-11**					SPAN 12M HANGER (NEAR ML-12)**					SPAN 12M HINGE (NEAR ML-13)*				
	40	50	60	70	80	40	50	60	70	80	40	50	60	70	80
GAP WIDTH (IN.)	3 1/8"	3"	2 7/8"	2 11/16"	2 9/16"	3 1/8"	3"	2 7/8"	2 3/4"	2 5/8"	1"	1"	1"	1"	1"

\* EXISTING DECK JOINT OPENING REMAINS. PROVIDE SF150 OR SIMILAR SIZE SEAL.

\*\* SEE SHEETS S-104 THROUGH S-106 FOR REPLACEMENT DETAILS



**ADDENDUM NO. 1**

REV.	DATE	SHEET NUMBER REVISION	REVISION DESCRIPTION	SHEET NO.
1	9/29/16	SHEET NUMBER REVISION		01.08.106
		REVISION DESCRIPTION		

DESIGNER/DRAFTER: **MSF**

CHECKED BY: **BSH**

SCALE AS NOTED

STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION

Plotted Date: 9/26/2016

SIGNATURE/BLOCK:

Hardesty & Hanover, LLC  
59 Elm Street  
New Haven, CT 06510

Hardesty & Hanover

PROJECT TITLE:

**BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

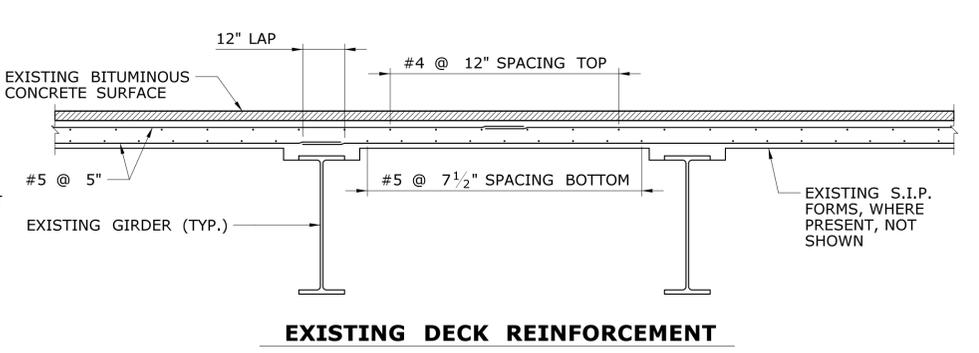
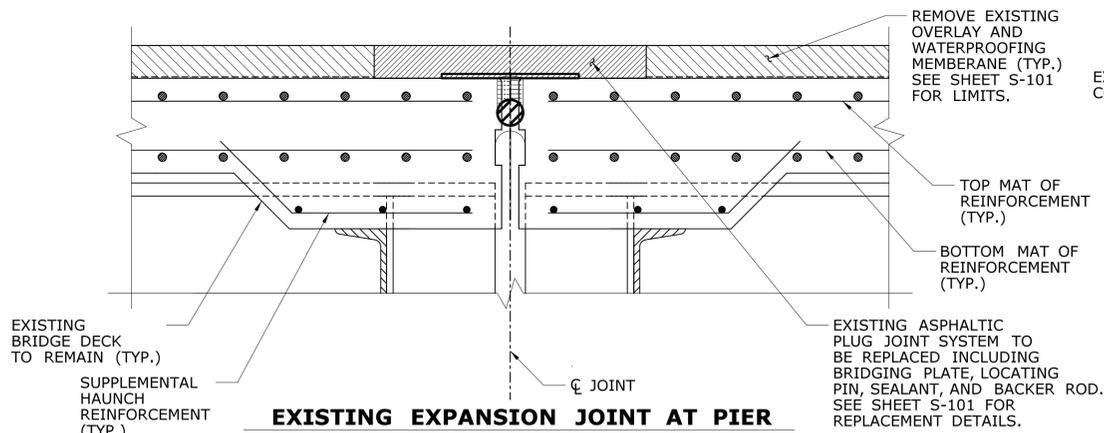
TOWN: **HARTFORD**

DRAWING TITLE: **DECK JOINT SEAL DETAILS - 2**

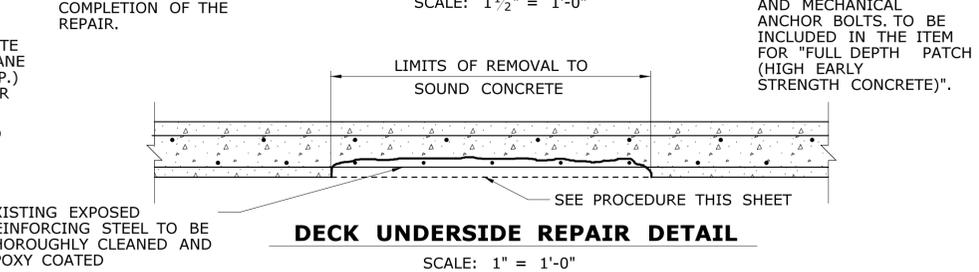
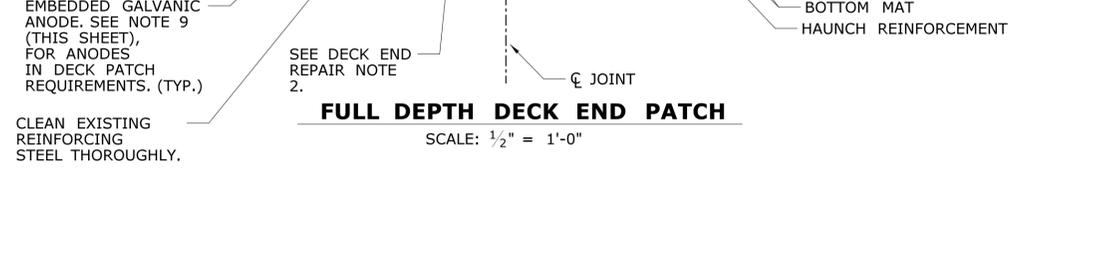
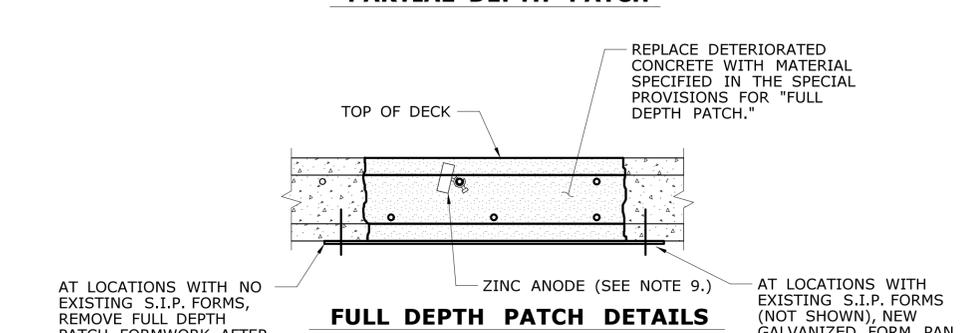
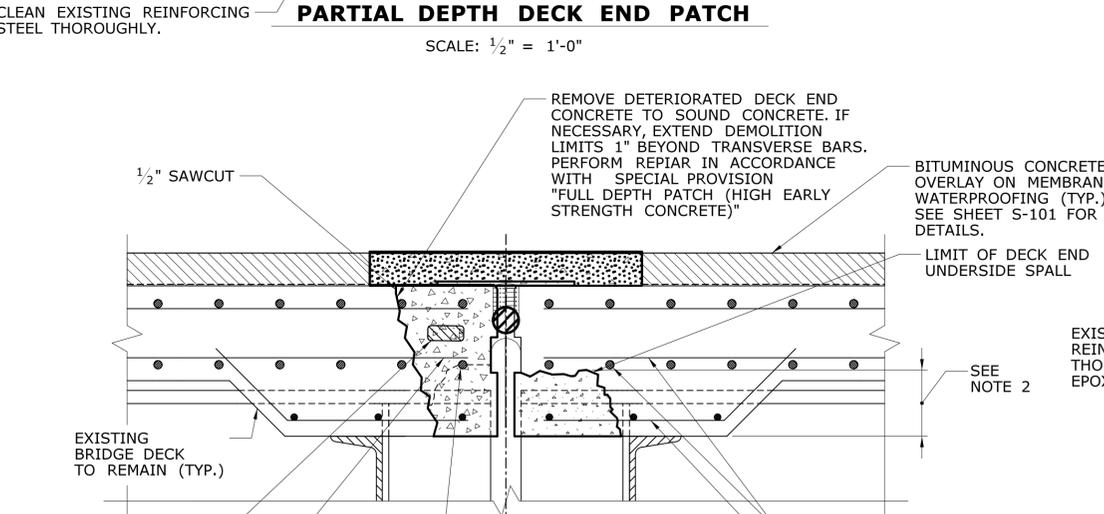
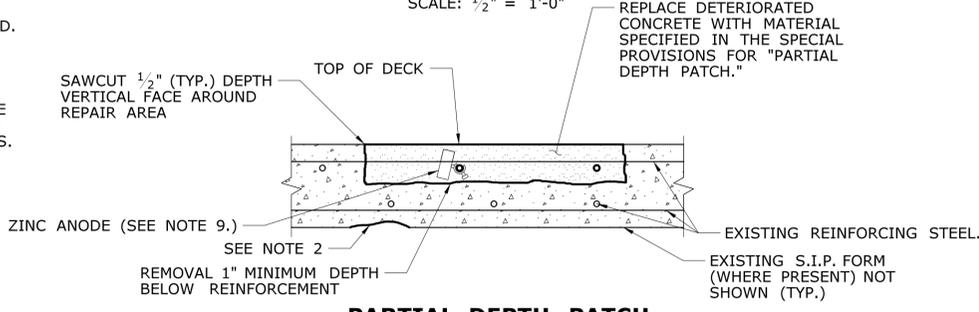
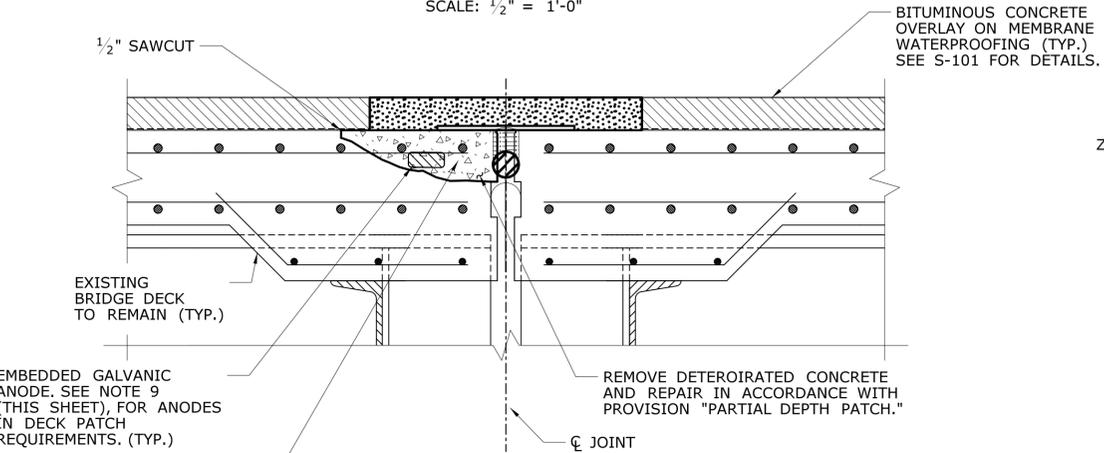
PROJECT NO. **63-699**

DRAWING NO. **S-102**

SHEET NO. **01.08.106.A1**



- CONCRETE PATCHING NOTES**
- IF, AFTER CONCRETE REMOVAL, THE REINFORCING STEEL HAS AT LEAST ONE HALF OF ITS SURFACE AREA EXPOSED, THE CONCRETE SHALL BE FURTHER REMOVED TO A DEPTH OF 1" BELOW THE STEEL IN AREAS WHERE REINFORCING STEEL IS ONLY PARTIALLY EXPOSED. AFTER REMOVAL OF DETERIORATED CONCRETE, THE REINFORCEMENT SHALL BE COATED WITH EPOXY BONDING COMPOUND (SEE SPECIAL PROVISIONS) BEFORE PLACING "PARTIAL DEPTH PATCH" MATERIAL.
  - SPALLED, DELAMINATED OR OTHERWISE DETERIORATED CONCRETE FROM THE UNDERSIDE OF DECK SHALL BE REMOVED. EXPOSED REINFORCING STEEL AND CONCRETE SHALL BE CLEANED AND COATED WITH EPOXY WITHIN SPALLS. THIS WORK SHALL BE PAID FOR UNDER THE ITEM "CLEAN AND COAT EXPOSED REINFORCING STEEL."
  - ADDITIONAL CONCRETE REMOVAL REQUIRED FOR THE REPAIR OF THE REINFORCING STEEL SHALL BE PAID FOR UNDER ITEM "PARTIAL DEPTH PATCH".
  - IF REMOVAL OF DETERIORATED CONCRETE FOR "PARTIAL DEPTH PATCH" EXCEEDS TWO-THIRDS OF THE TOTAL THICKNESS OF THE SLAB, REMOVE THE REMAINDER OF THE CONCRETE TO THE BOTTOM OF THE SLAB AND PERFORM "FULL DEPTH PATCH." FINAL PAYMENT SHALL BE MADE AS "FULL DEPTH PATCH (HIGH EARLY STRENGTH CONCRETE)" ONLY. SEE SPECIAL PROVISIONS.
  - AT LOCATIONS WHERE SPALLS OR DELAMINATED CONCRETE ON THE UNDERSIDE OF THE DECK ARE DEEPER THAN HALF THE SLAB THICKNESS, OR IF THERE ARE LARGE AREAS OF UNCONFINED REBAR AFTER CONCRETE REMOVAL (>10 SF), REMOVE THE BITUMINOUS OVERLAY, MEMBRANE AND SLAB CONCRETE FULL DEPTH AND REPAIR AS A "FULL DEPTH PATCH (HIGH EARLY STRENGTH CONCRETE)."
  - INSTALL PROTECTIVE SHIELDING UNDER SPANS OVER ROADWAYS, SIDEWALKS, PARKING LOTS AND RAILROAD TRACKS TO PROTECT TRAFFIC FROM POSSIBLE FALLING DEBRIS. THE COST OF WHICH SHALL BE INCLUDED IN THE CONCRETE REPAIR ITEMS. DEBRIS SHIELDS CONSTRUCTED OVER THE RAILROAD SHALL MEET THE REQUIREMENTS OF AMTRAK. SEE SPECIAL PROVISIONS.
  - DECK PATCHING WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISIONS "MAINTENANCE AND PROTECTION OF TRAFFIC" AND "PROSECUTION AND PROGRESS".
  - FINAL PAVING SHALL NOT BE PERFORMED UNTIL DECK REPAIRS HAVE BEEN COMPLETED ON BOTH TOP AND BOTTOM SURFACE.
  - ZINC ANODES SHALL BE INSTALLED IN ALL PARTIAL AND FULL DEPTH DECK PATCHES. ANODES SHALL BE PAID FOR UNDER ITEM "EMBEDDED GALVANIC ANODES". ANODES SHALL BE INSTALLED PER THE REQUIREMENTS OF THE SPECIAL PROVISIONS. IN REPAIRS WITH MULTIPLE MATS OR REINFORCING STEEL, ELECTRICAL CONTINUITY SHALL BE ESTABLISHED BY TYING DISCONTINUOUS STEEL TO CONTINUOUS STEEL USING STEEL TIE WIRE. MAXIMUM ANODE SPACING FOR DECK REPAIRS IS 20 INCHES.
  - TEMPORARY PATCHES MAY BE REQUIRED AFTER THE COMPLETION OF PATCHING AND PRIOR TO OPENING THE ROADWAY TO TRAFFIC AS DIRECTED BY THE ENGINEER TO ENSURE A CLEAR ROADWAY, SAFE FOR TRAVEL. SEE SPECIAL PROVISIONS ITEM "SURFACE PATCH (TEMPORARY)".



- DECK END REPAIR NOTES:**
- PARTIAL DEPTH DECK END PATCH SHALL BE PAID FOR UNDER THE ITEM "PARTIAL DEPTH PATCH". SEE THIS SHEET AND SPECIAL PROVISION FOR PATCHING DETAILS AND PROCEDURE.
  - AT SPALL LOCATIONS WHERE UNDERSIDE DECK END DETERIORATION EXPOSES THE BOTTOM MAT OF BARS, REPAIR AS FULL DEPTH PATCH.
  - AT OVERHEAD SPALL LOCATIONS WHERE UNDERSIDE DECK END DETERIORATION EXPOSES THE BOTTOM MAT OF BARS, REPAIR DECK END FULL DEPTH.
  - FULL DEPTH DECK END PATCH SHALL BE PAID FOR UNDER THE ITEM "FULL DEPTH PATCH (HIGH EARLY STRENGTH CONCRETE)". SEE THIS SHEET AND SPECIAL PROVISION FOR PATCHING DETAILS AND PROCEDURE.
  - ANY DECK PATCHING AT DECK ENDS MUST BE COORDINATED WITH PARAPET AND CURB MODIFICATIONS. SEE SHEET S-107 FOR PARAPET RETROFIT DETAILS.
  - REPAIRED DECK END WIDTH SHALL BE COORDINATED WITH THE PREFORMED ASPHALTIC PLUG JOINT SYSTEM SELECTED. SEE SHEET S-101 FOR DETAILS.
  - REMOVE AND REPLACE ANY CORRODED REINFORCEMENT EXPOSED DURING DEMOLITION.
  - APPLY PRIME COAT TO ANY STRUCTURAL STEEL EXPOSED DURING DEMOLITION.

- DECK UNDERSIDE REPAIR PROCEDURE**
- REMOVE DETERIORATED S.I.P. FORM, IF PRESENT, BY MECHANICAL MEANS.
  - IF CONCRETE THAT WAS PREVIOUSLY COVERED WITH S.I.P. IS DETERIORATED, THEN REMOVE THE CONCRETE TO SOUND CONCRETE.
  - IF THE CONCRETE DECK IS NOT COVERED BY S.I.P. FORM, THEN REMOVE DETERIORATED CONCRETE TO SOUND CONCRETE.
  - IF REINFORCING STEEL IS EXPOSED, THEN CLEAN BY MECHANICAL CLEANING METHODS. WHERE ACTIVE CORROSION HAS OCCURRED THAT WOULD INHIBIT BONDING, SANDBLAST STEEL TO WHITE METAL FINISH.
  - CLEAN THE SOUND CONCRETE SURFACE AREA OF ALL DIRT, DUST, LOOSE PARTICLES OR OTHER BOND INHIBITING MATTER BY AN APPROVED METHOD.
  - AT LOCATIONS WHERE SPALLS OR DELAMINATED CONCRETE ON THE UNDERSIDE OF DECK ARE DEEPER THAN HALF THE SLAB THICKNESS, REMOVE THE SLAB CONCRETE FULL DEPTH AND REPAIR AS "FULL DEPTH PATCH (HIGH EARLY STRENGTH CONCRETE)". IF LESS THAN 50% OF THE DIAMETER OF ANY REINFORCING BAR IS EXPOSED OR IF THE BAR HAS LESS THAN 1 FOOT IN LENGTH WITH MORE THAN 50% OF ITS DIAMETER EXPOSED, THE BAR SHALL BE CLEANED IN ACCORDANCE WITH THE ITEM "CLEAN AND COAT EXPOSED REINFORCING STEEL".
  - IF ANY BAR IS EXPOSED GREATER THAN THE PARAMETERS STATED IN PROCEDURE NOTE F, OR IF THE BARS EXHIBIT GREATER THAN 25% LOSS OF DIAMETER SECTION, THE AREA SHALL BE REPAIRED IN ACCORDANCE WITH THE PROCEDURE FOR "FULL DEPTH PATCH (HIGH EARLY STRENGTH CONCRETE)".

**ADDENDUM NO. 1**

PROJECT TITLE: **BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

TOWN: **HARTFORD**

DRAWING TITLE: **DECK END REPAIR DETAILS - 1**

PROJECT NO.: **63-699**

DRAWING NO.: **S-103**

SHEET NO.: **01.08.107.A1**

DESIGNER/DRAFTER:	<b>AJA</b>
CHECKED BY:	<b>BSH</b>
SCALE AS NOTED	

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 9/26/2016

REV.	DATE	SHEET NUMBER REVISION	REVISION DESCRIPTION	SHEET NO.
1	9/29/16			01.08.107

DESIGNER/DRAFTER: **AJA**

CHECKED BY: **BSH**

SCALE AS NOTED

**STATE OF CONNECTICUT**  
**DEPARTMENT OF TRANSPORTATION**

Signature/Block:

PROJECT TITLE: **BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

TOWN: **HARTFORD**

DRAWING TITLE: **DECK END REPAIR DETAILS - 1**

PROJECT NO.: **63-699**

DRAWING NO.: **S-103**

SHEET NO.: **01.08.107.A1**

DESIGNER/DRAFTER: **AJA**

CHECKED BY: **BSH**

SCALE AS NOTED

**STATE OF CONNECTICUT**  
**DEPARTMENT OF TRANSPORTATION**

Signature/Block:

PROJECT TITLE: **BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

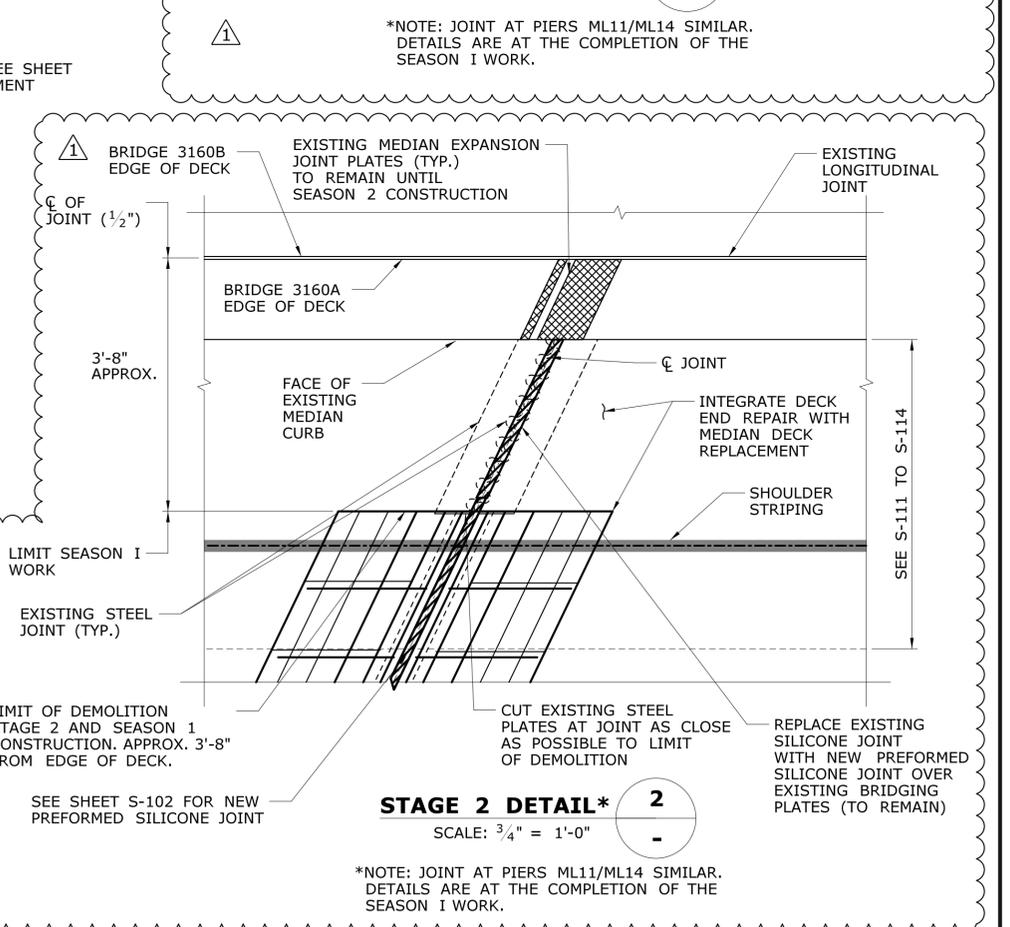
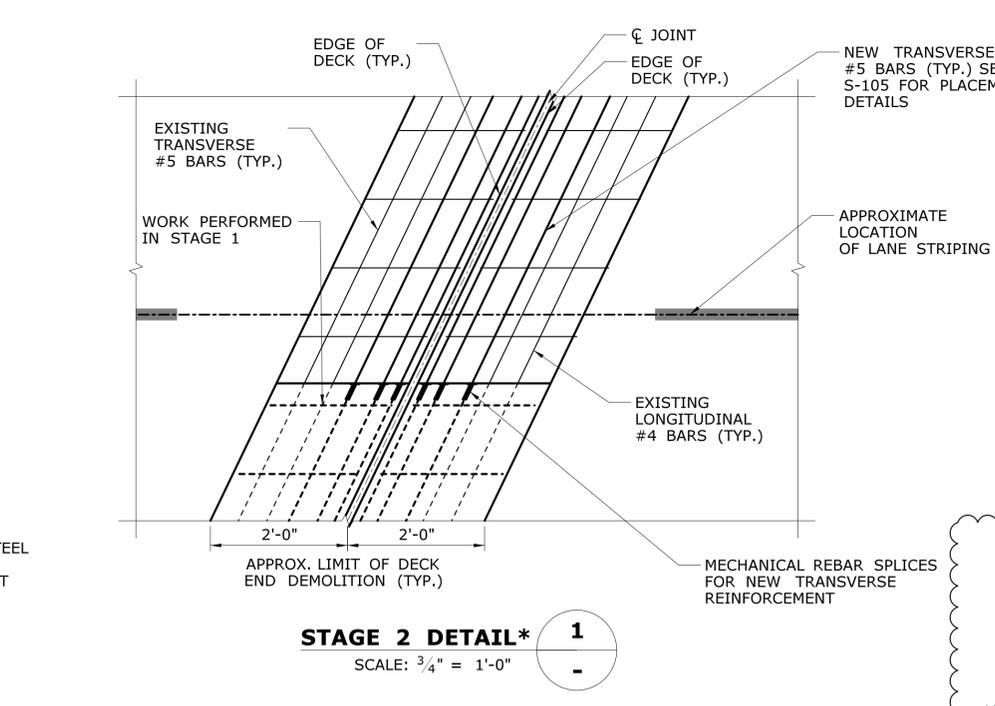
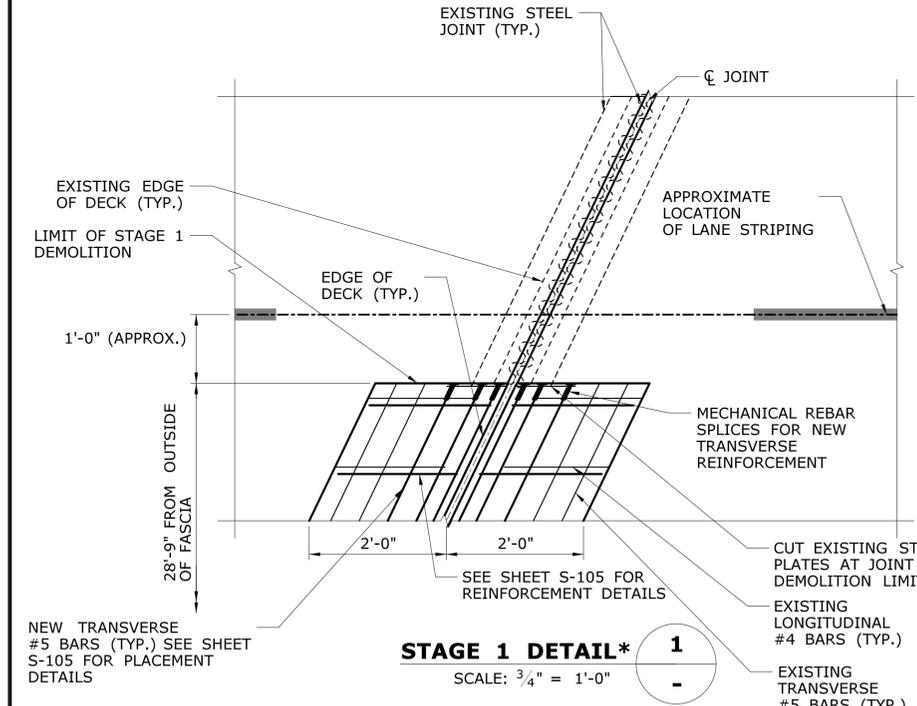
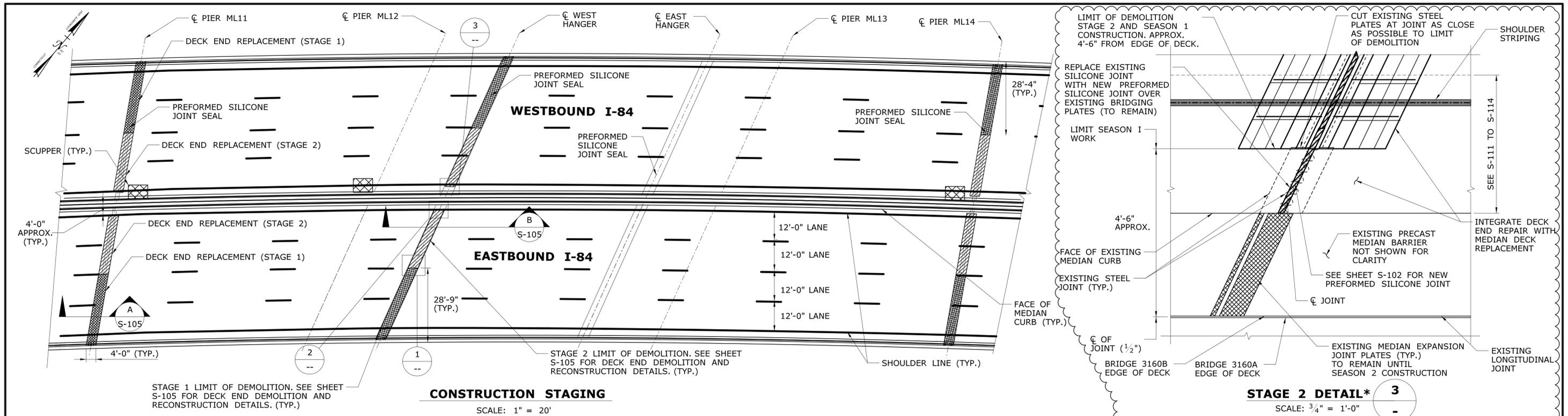
TOWN: **HARTFORD**

DRAWING TITLE: **DECK END REPAIR DETAILS - 1**

PROJECT NO.: **63-699**

DRAWING NO.: **S-103**

SHEET NO.: **01.08.107.A1**



**NOTES:**

- REMOVAL AND RECONSTRUCTION BEYOND THE STAGE 2 LIMIT OF DEMOLITION TO BE PERFORMED UNDER MEDIAN REPLACEMENT.
- FOR ADDITIONAL CONSTRUCTION STAGING SEE SHEET STG-02 THROUGH STG-05.
- SEE SHEET S-105 FOR SECTIONS "A" AND "B".
- CONSTRUCTION STAGING SHOWN ON THIS SHEET SHALL BE COORDINATED WITH PROJECTS 63-700 AND 63-701.
- EASTBOUND AND WESTBOUND WORK SHALL NOT BE SIMULTANEOUS.

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
1	9/29/16	REVISED STAGING DETAILS	10.08.108
		REVISION DESCRIPTION	

Plotted Date: 9/26/2016

DESIGNER/DRAFTER: **AJA**  
CHECKED BY: **BSH**

STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION

SIGNATURE/BLOCK: [Signature]

PROJECT TITLE: **BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

TOWN: **HARTFORD**

PROJECT NO.: **63-699**

DRAWING NO.: **S-104**

SHEET NO.: **01.08.108.A1**

ADDENDUM NO. 1

ADDENDUM NO. 1

PROJECT TITLE: **BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

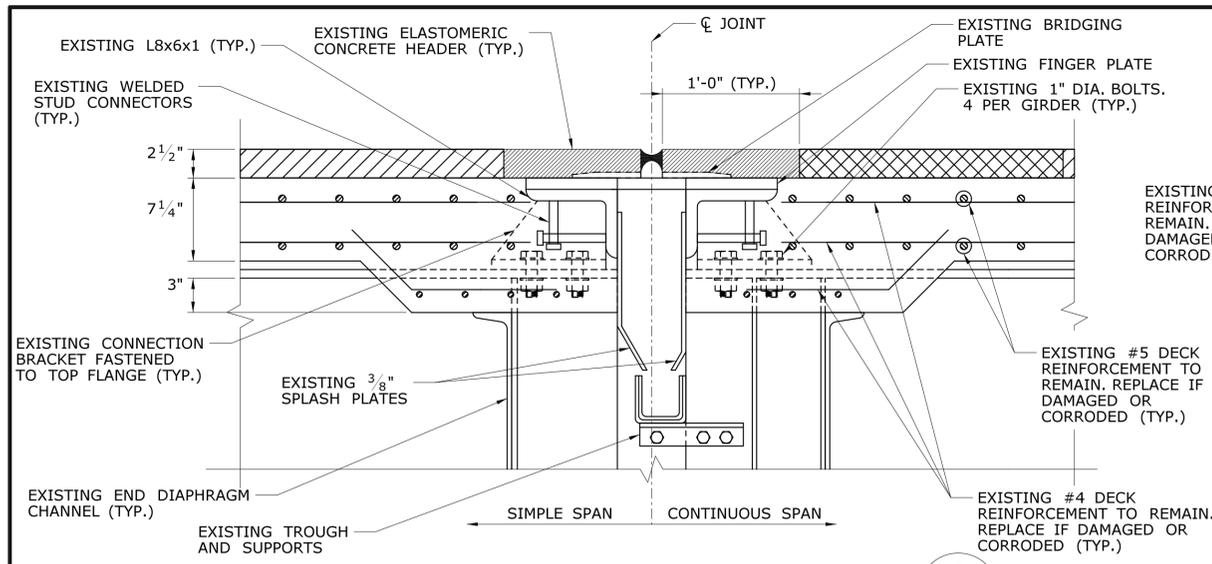
TOWN: **HARTFORD**

PROJECT NO.: **63-699**

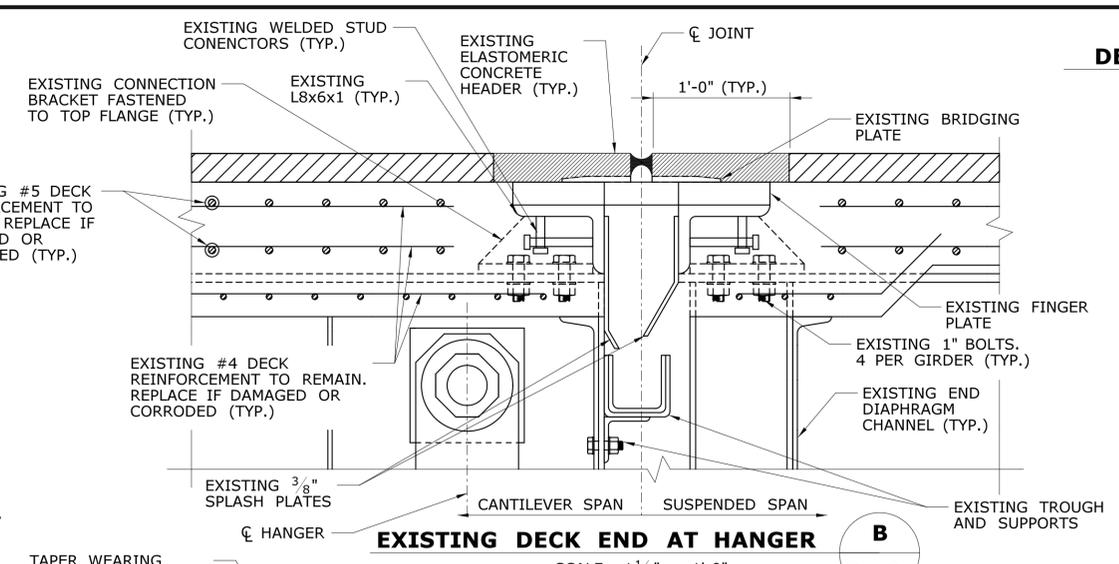
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SHEET NO.: **01.08.108.A1**

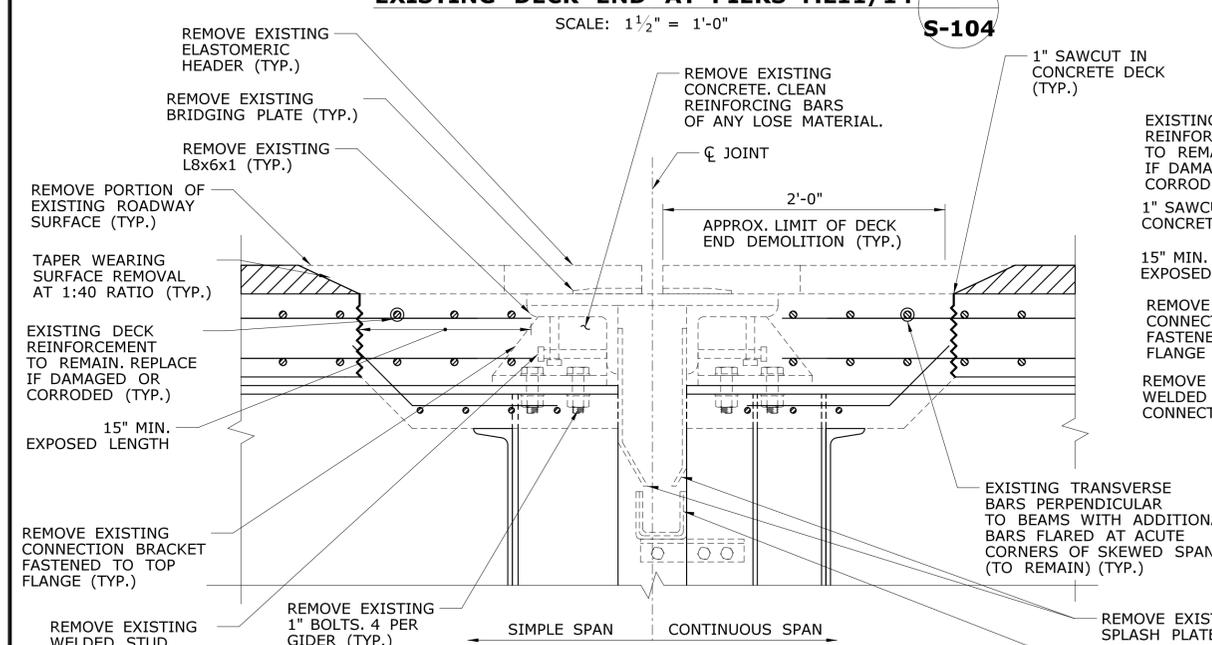
ADDENDUM NO. 1



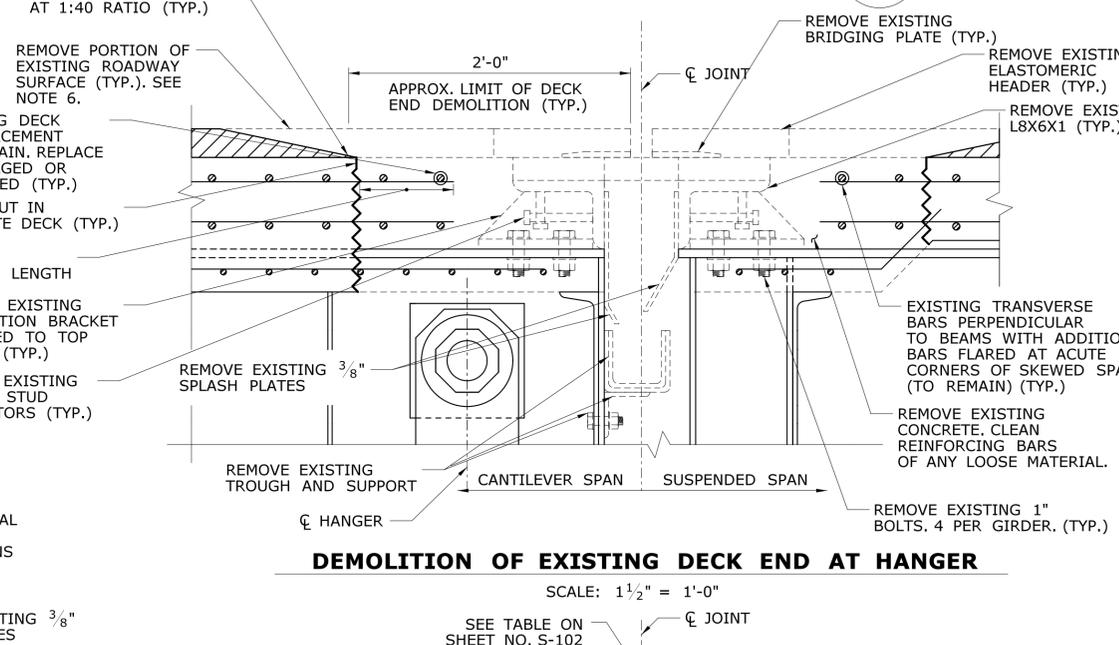
**EXISTING DECK END AT PIERS ML11/14**  
SCALE: 1 1/2" = 1'-0"



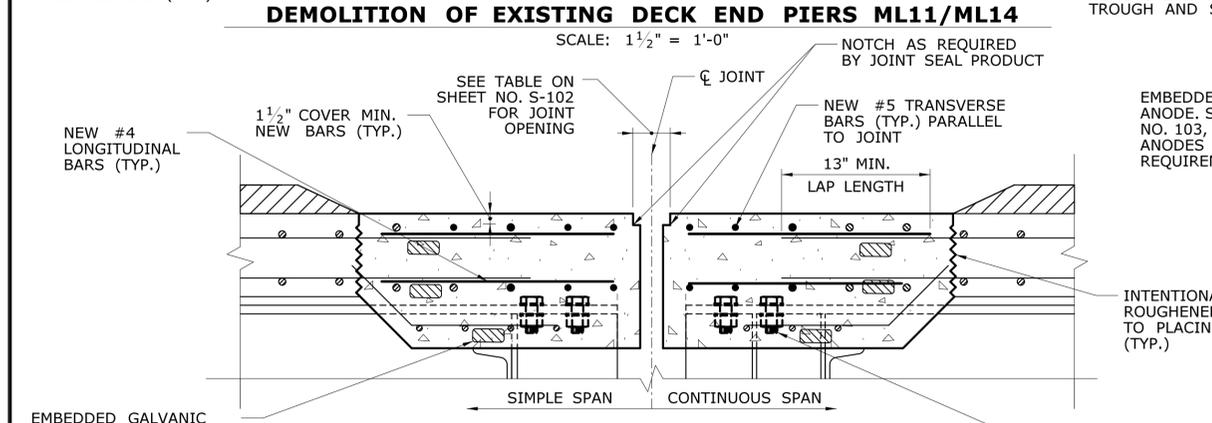
**EXISTING DECK END AT HANGER**  
SCALE: 1 1/2" = 1'-0"



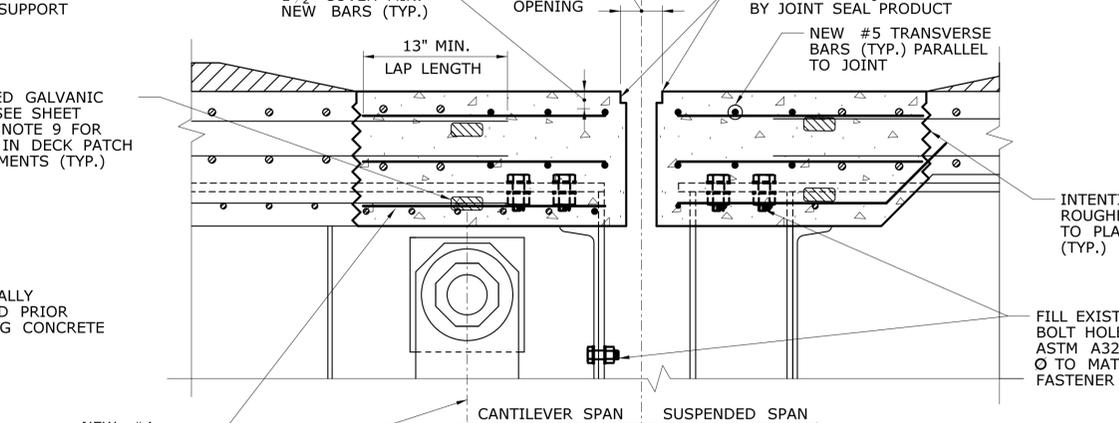
**DEMOLITION OF EXISTING DECK END PIERS ML11/ML14**  
SCALE: 1 1/2" = 1'-0"



**DEMOLITION OF EXISTING DECK END AT HANGER**  
SCALE: 1 1/2" = 1'-0"



**DECK END RECONSTRUCTION PIERS ML11/ML14**  
SCALE: 1 1/2" = 1'-0"



**DECK END RECONSTRUCTION AT HANGER**  
SCALE: 1 1/2" = 1'-0"

**DECK END RECONSTRUCTION PROCEDURE**

- A. DECK END DEMOLITION AND RECONSTRUCTION TO OCCUR AFTER EXISTING WEARING SURFACE AND ELASTOMERIC CONCRETE HEADERS HAVE BEEN MILLED TO EXPOSE THE DECK SURFACE.
- B. REMOVE EXISTING DECK END CONCRETE, STEEL JOINT PLATES, DRAINAGE TROUGHS AND SUPPORTS. SAWCUT CONCRETE DECK 1" AT THE LIMITS SHOWN IN THE "DECK END DEMOLITION" DETAIL (THIS SHEET). LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO REMOVE UNSOUND CONCRETE AND/OR CLEAN EXISTING REINFORCING TO LAP TO. THE CONTRACTOR MAY REMOVE AND REINSTALL TRANSVERSE REINFORCING BARS TO SIMPLIFY DEMOLITION AND REMOVAL.
- C. INSTALL NEW REINFORCING STEEL ON THE SUSPENDED SPAN SIDE OF THE JOINT WHERE THE DECK END IS EXTENDED TO MEET THE EXISTING JOINT LOCATION. MATCH THE EXISTING REINFORCING STEEL SIZE AND SPACING (AS SHOWN IN THE "DECK END RECONSTRUCTION" DETAIL (THIS SHEET)). PLACE NEW CONCRETE, SETTING THE JOINT WIDTH TO THE APPLICABLE SIZE SHOWN IN THE JOINT TABLE ON SHEET S-102. COORDINATE DECK END RECONSTRUCTION WITH THE APPLICABLE PARAPET AND CURB RECONSTRUCTION DETAILS SHOWN ON SHEET S-106.
- D. PLACE WATERPROOFING MEMBRANE AND BITUMINOUS CONCRETE OVERLAY. PROVIDE MEANS TO PREVENT OVERLAY MATERIAL FROM FALLING THROUGH OPEN JOINT.
- E. CUT BITUMINOUS CONCRETE OVERLAY AND REMOVE TO THE LIMITS SHOWN IN THE "ELASTOMERIC HEADER INSTALLATION" DETAIL SHEET S-106. INSTALL NEW ELASTOMERIC HEADERS PER THE MANUFACTURER'S SPECIFICATIONS AND THE DETAILS SHOWN ON SHEET S-102.
- F. ALLOW ELASTOMERIC CONCRETE HEADERS TO CURE AND INSTALL PERFORMED SILICONE JOINT SEAL.
- G. PLACE WATERPROOF MEMBRANE AND BITUMINOUS OVERLAY

**NOTES:**

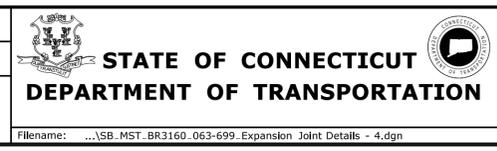
1. DECK END RECONSTRUCTION IS APPLICABLE AT THE JOINTS ABOVE THE EXPANSION HANGER BETWEEN PIERS ML12 AND ML13 AND JOINTS AT PIERS ML11 AND ML14. SEE GENERAL PLAN SHEET S-03 FOR LOCATION.
3. ALL DECK REMOVAL AND REPLACEMENT WORK INCLUDED IN THE ITEM "FULL DEPTH PATCH (HIGH EARLY STRENGTH)".
4. PREFORMED SILICONE JOINT SEAL INCLUDED IN THE ITEM "PREFORMED JOINT SEAL", HEADERS INCLUDED IN THE ITEM "ELASTOMERIC CONCRETE HEADER".
5. WORK THIS SHEET WITH THE PARAPET AND CURB RECONSTRUCTION DETAILS ON SHEET S-106 AND THE JOINT SEAL DETAILS ON SHEET S-102.
6. FOR MILLING AND PAVING LIMITS SEE SHEET HWY-02 IN THE HIGHWAY SUBSET 01.04.

**ADDENDUM NO. 1**

1	9/29/16	SHEET NUMBER REVISION	01.08.109
REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER: **AJA**  
CHECKED BY: **BSH**  
SCALE AS NOTED

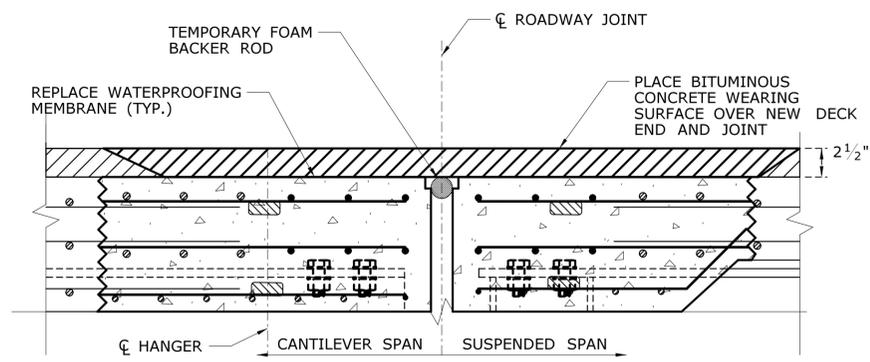


SIGNATURE/BLOCK: **Hardesty & Hanover, LLC**  
59 Elm Street  
New Haven, CT 06510

PROJECT TITLE: **BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

TOWN: **HARTFORD**  
DRAWING TITLE: **DECK END REPAIR DETAILS - 3**

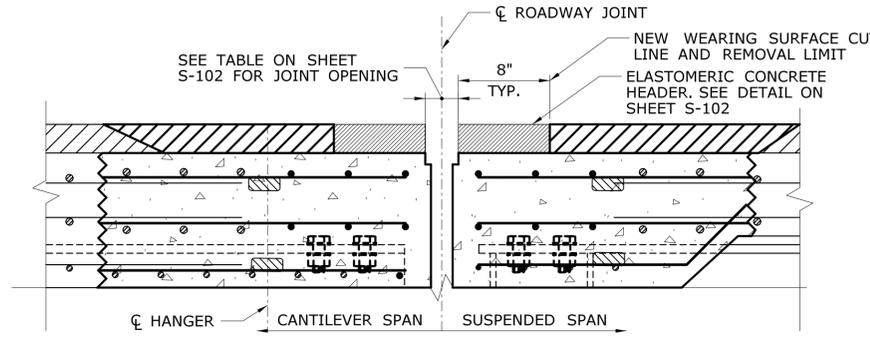
PROJECT NO.: **63-699**  
DRAWING NO.: **S-105**  
SHEET NO.: **01.08.109.A1**



**BITUMINOUS OVERLAY APPLICATION\***

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

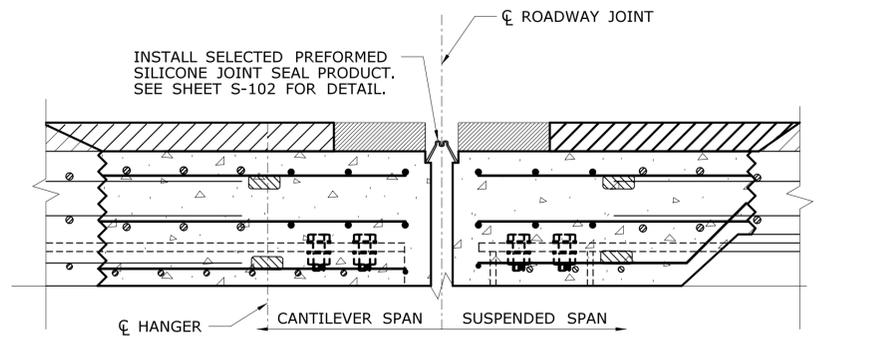
NOTE: JOINT DETAIL AT SPAN ML12 WEST HANGER SHOWN. JOINT ML11 AND ML14 SIMILAR.



**ELASTOMERIC HEADER INSTALLATION\***

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

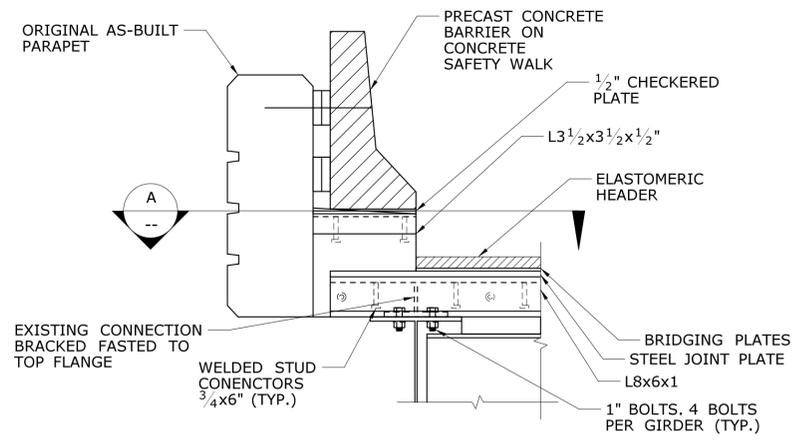
NOTE: JOINT DETAIL AT SPAN ML12 WEST HANGER SHOWN. JOINT ML11 AND ML14 SIMILAR.



**JOINT SEAL INSTALLATION\***

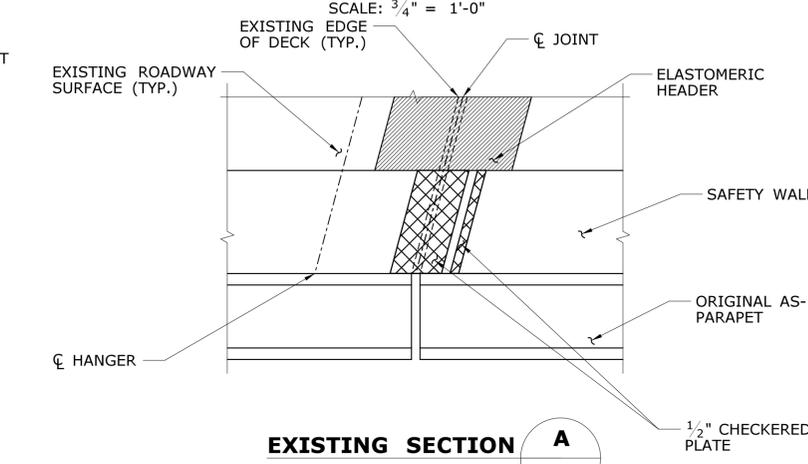
SCALE: 1 1/2" = 1'-0"

NOTE: JOINT DETAIL AT SPAN ML12 WEST HANGER SHOWN. JOINT ML11 AND ML14 SIMILAR.



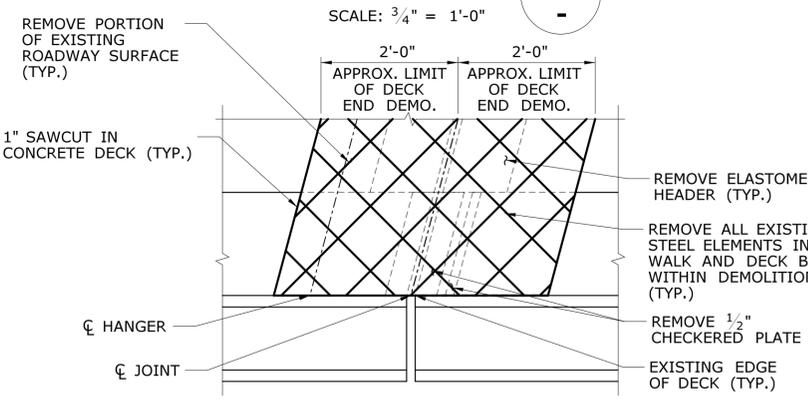
**EXISTING PARAPET AT JOINT**

SCALE: 3/4" = 1'-0"



**EXISTING SECTION A**

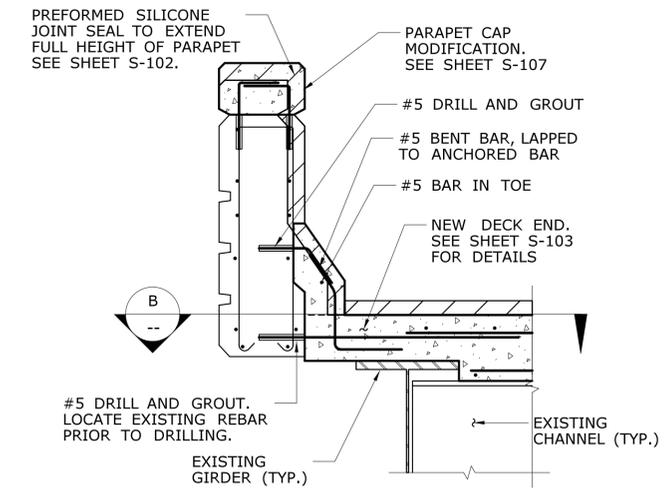
SCALE: 3/4" = 1'-0"



**CURB/PARAPET DEMOLITION PLAN\***

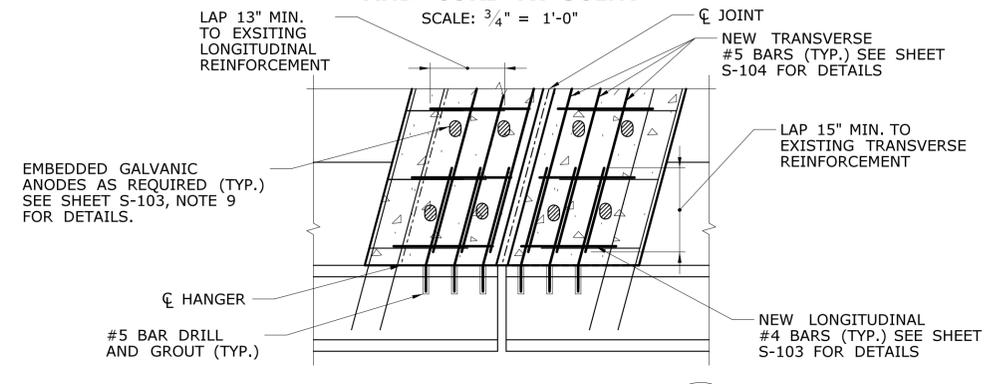
SCALE: 3/4" = 1'-0"

NOTE: WORK THIS DETAIL WITH THE DEMOLITION DETAILS ON SHEET S-104 AND S-105



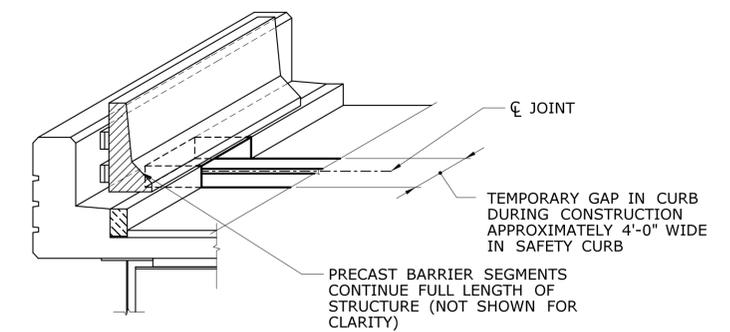
**RECONSTRUCTION OF PARAPET AND CURB AT JOINT**

SCALE: 3/4" = 1'-0"



**RECONSTRUCTION SECTION B**

SCALE: 3/4" = 1'-0"



**TEMPORARY PROTECTION OF PARAPET**

FOR INFORMATION ONLY

**STAGE 1 SUGGESTED SEQUENCE:**

1. REMOVE PRECAST BARRIER FROM SAFETY WALK AT JOINT.
2. DEMOLISH SAFETY WALK TO THE LIMITS SHOWN AND REMOVE ALL STEEL CURB PLATES. WORK MAY BE PERFORMED DURING AN ADVANCE STAGE.
3. REPOSITION TEMPORARY PRECAST BARRIER ACROSS OPEN SAFETY WALK AND CURB JOINT. SEE "TEMPORARY PROTECTION OF PARAPET" DETAIL THIS SHEET.

**STAGE 2 SUGGESTED SEQUENCE:**

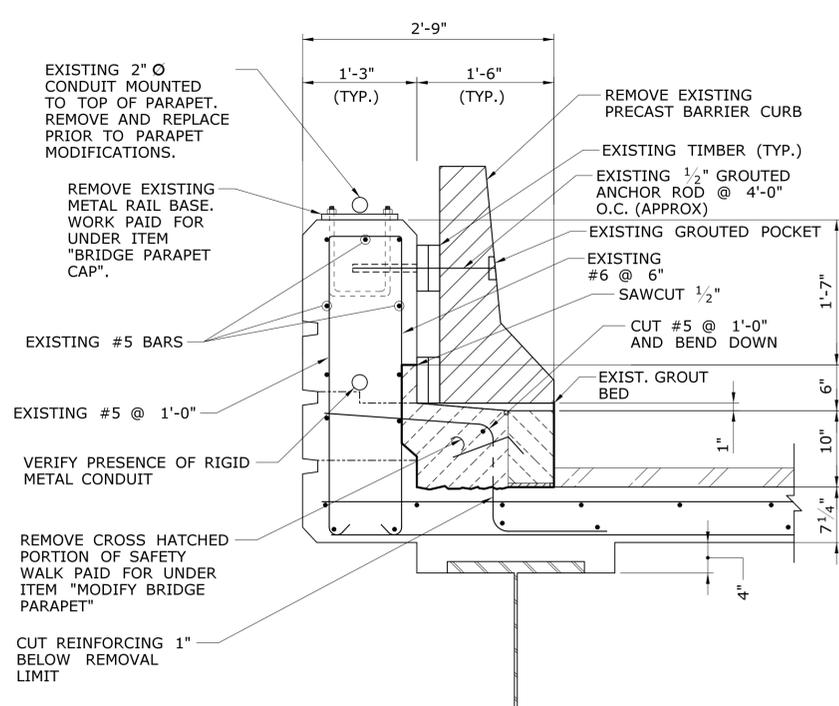
1. DURING EXTENDED CLOSURE, DEMOLISH EXISTING STEEL JOINT ELEMENTS AND CONCRETE DECK ENDS TO THE LIMITS SHOWN ON SHEET S-104, IF REQUIRED.
2. REMOVE PRECAST BARRIER FROM SAFETY WALK AT JOINT.
3. FILL IN SIDEWALK/CURB VOID AS SHOWN IN THE DETAILS. WHERE DECK ENDS ARE RECONSTRUCTED, PLACE PARAPET MODIFICATION CONCRETE MONOLITHICALLY WITH DECK ENDS. COORDINATE RECONSTRUCTION WITH ADJACENT PARAPET MODIFICATIONS.

**NOTES:**

1. REMOVAL OF CURB PLATES, DEMOLITION OF CONCRETE SAFETY WALK, AND RECONSTRUCTION OF CURB SHALL BE PAID FOR UNDER THE ITEM "MODIFY BRIDGE PARAPET".
2. PARAPET CAP ON EXISTING PARAPET PAID FOR AS "BRIDGE PARAPET CAP".

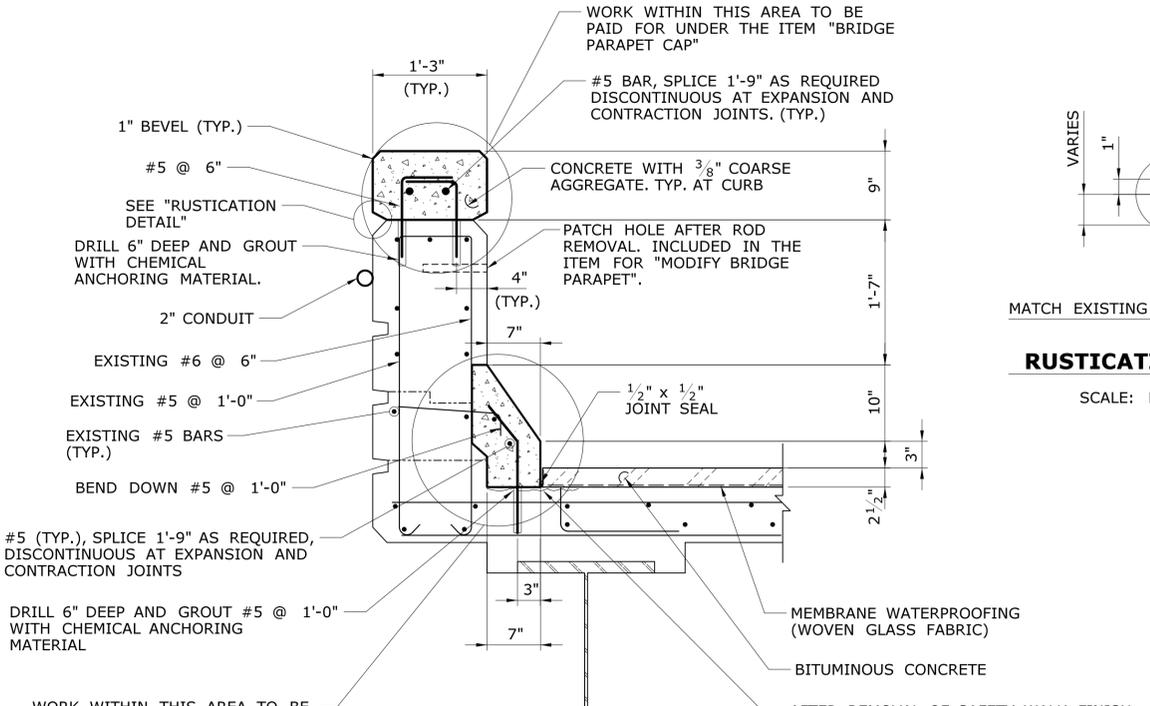
**ADDENDUM NO. 1**

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: <b>AJA</b> CHECKED BY: <b>BSH</b> SCALE AS NOTED	<b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b>	SIGNATURE/BLOCK: Hardesty & Hanover, LLC 59 Elm Street New Haven, CT 06510	PROJECT TITLE: <b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b>	TOWN: <b>HARTFORD</b>	PROJECT NO.: <b>63-699</b>
REV. DATE 1 9/29/16 SHEET NUMBER REVISION REVISION DESCRIPTION	SHEET NO. 01.08.110	Plotted Date: 9/26/2016	FILENAME: ...\\SB_MST_BR3160_063-699_Expansion Joint Details - 5.dgn	DRAWING NO.: <b>S-106</b>	SHEET NO.: <b>01.08.110.A1</b>	<b>DECK END REPAIR DETAILS - 4</b>	



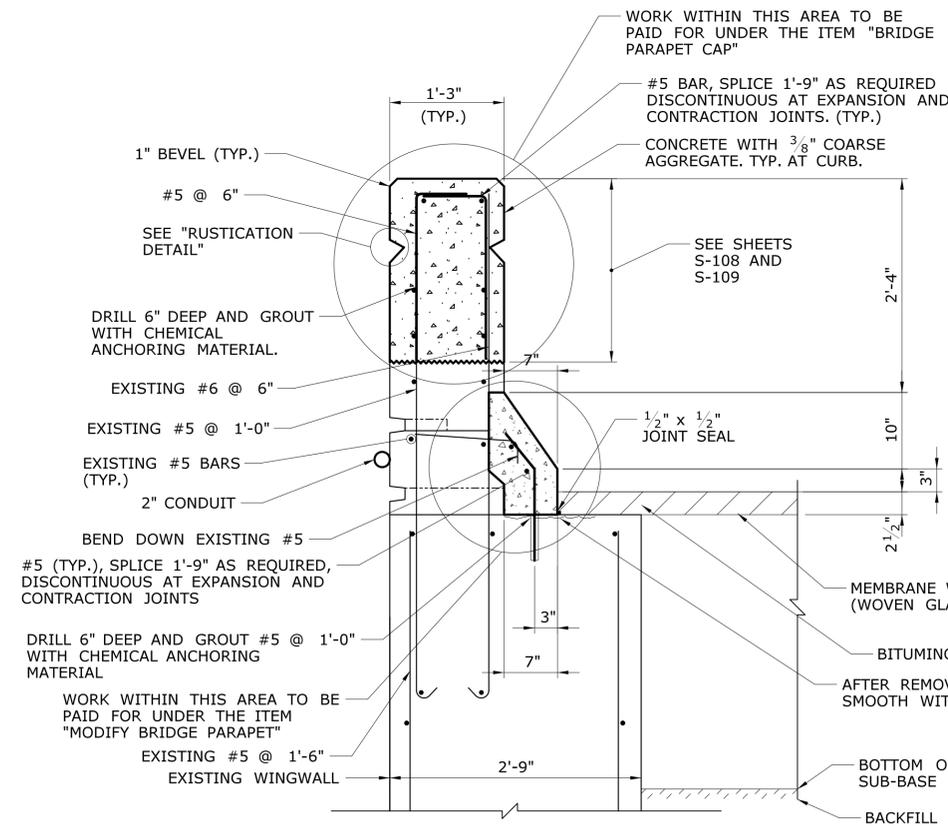
**EXISTING PARAPET**

SCALE: 1" = 1'-0"



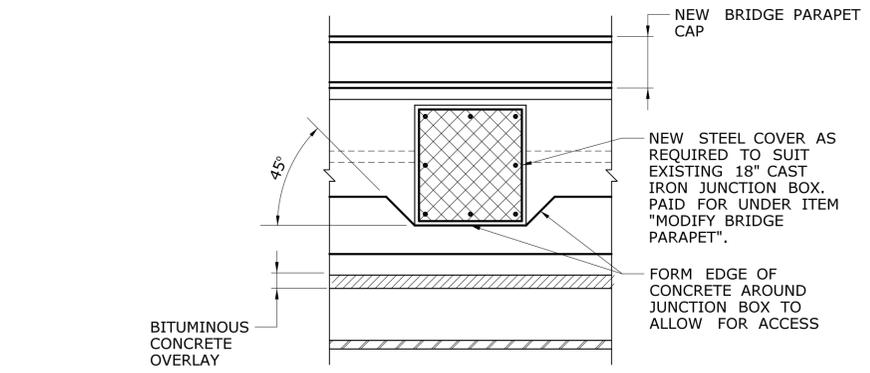
**PARAPET MODIFICATION DETAILS**

SCALE: 1" = 1'-0"



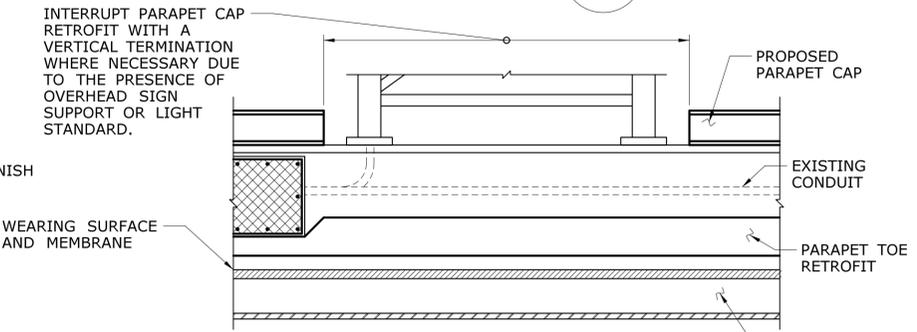
**PARAPET MODIFICATION DETAILS AT WINGWALL**

SCALE: 1" = 1'-0"



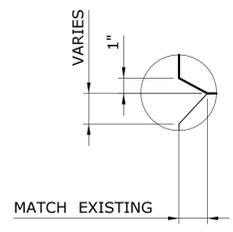
**SECTION A**

SCALE: 3/4" = 1'-0"



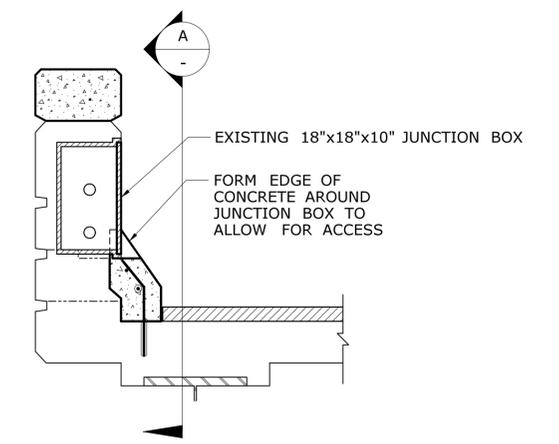
**PARAPET AT SIGN SUPPORT**

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



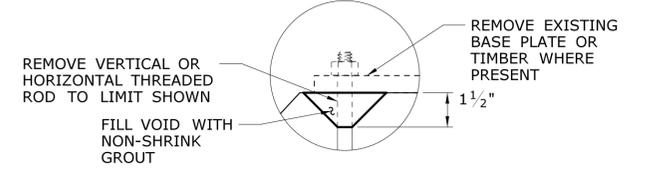
**RUSTICATION DETAIL**

SCALE: N.T.S



**RECONSTRUCTED PARAPET SECTION THROUGH JUNCTION BOX**

SCALE: 3/4" = 1'-0"



**THREADED ROD REMOVAL\***

SCALE: 3" = 1'-0"

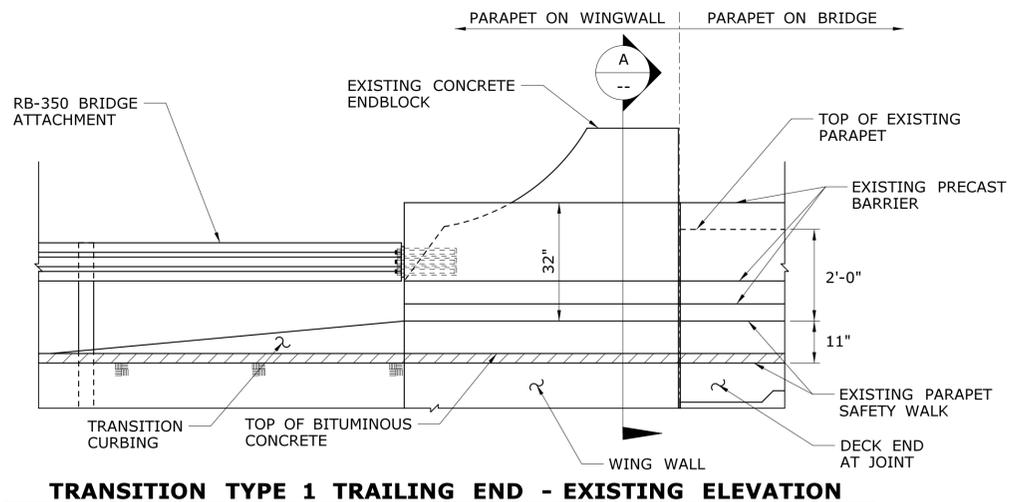
\* THIS DETAIL ONLY APPLIES TO AREAS STILL EXPOSED TO THE WEATHER AFTER CUTTING AND THE CONSTRUCTION OF THE PARAPET CAP RETROFIT

**NOTES:**

1. THE CONCRETE FOR THE PARAPET MODIFICATIONS SHALL BE A PORTLAND CEMENT CONCRETE WITH A MINIMUM  $f_c = 4000$ psi, AND SHALL BE DESIGNED BY THE CONTRACTOR.
2. THE REINFORCEMENT SHALL BE UNCOATED AND SHALL CONFORM TO THE ASTM A615, GRADE 60.
3. JOINTS SHALL BE FORMED IN THE SLOPED CURB AND THE PARAPET CAP AT THE JOINTS BETWEEN THE BRIDGE DECK AND WINGWALL PARAPETS, AT EXPANSION JOINTS IN THE BRIDGE DECK, AT THE EXPASION AND CONTRACTION JOINTS IN THE WINGWALL. THE JOINT WIDTH SHALL MATCH THAT OF THE EXISTING ADJACENT JOINT. NO REINFORCEMENT SHALL PASS THROUGH EXPANSION OR CONTRACTION JOINTS. SEE SHEETS S-101 AND S-102 FOR JOINT SEAL DETAILS.
4. THE REMOVAL OF PRECAST BARRIER, CONCRETE SAFETY CURB, CAST IN PLACE TRANSITION BARRIERS, DRILLING AND GROUTING DOWELS, FURNISHING AND PLACING REINFORCEMENT AND PLACING AND FINISHING CONCRETE FOR THE RECONSTRUCTED CURBS SHALL BE PAID FOR UNDER THE ITEM "MODIFY BRIDGE PARAPET".
5. THE REMOVAL AND SALVAGE OF METAL BRIDGE RAIL (IF SPECIFIED FOR SALVAGE), DRILLING AND GROUTING DOWELS INTO THE TOP OF CONCRETE PARAPETS, FURNISHING AND PLACING OF REINFORCEMENT AND PLACING CONCRETE FOR THE RECONSTRUCTED PARAPET CAPS SHALL BE PAID FOR UNDER THE ITEM " BRIDGE PARAPET CAP".
6. DIAMETER OF THE DRILLED HOLES SHALL BE PER THE ANCHOR MANUFACTURER'S REQUIREMENTS.
7. REMOVAL OF ANY EXISTING CURB PLATES IN THE SAFETY WALK SHALL BE PAID FOR UNDER THE ITEM "MODIFY BRIDGE PARAPET". SEE SHEET S-106 FOR CURB MODIFICATION DETAILS.

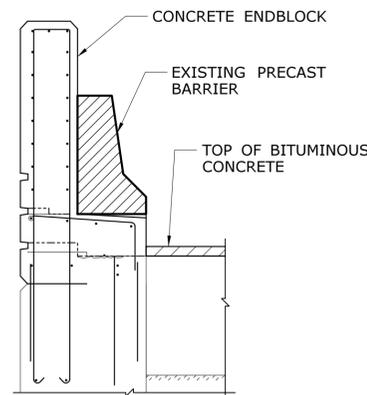
**ADDENDUM NO. 1**

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: <b>MSF</b> CHECKED BY: <b>BSH</b>		SIGNATURE/BLOCK:  Hardesty & Hanover, LLC 59 Elm Street New Haven, CT 06510	PROJECT TITLE: <b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b>	TOWN: <b>HARTFORD</b>	PROJECT NO.: <b>63-699</b>
REV. DATE 1 9/29/16 SHEET NUMBER REVISION REV. DATE REVISION DESCRIPTION	SHEET NO.: <b>01.08.111</b>	SCALE AS NOTED					



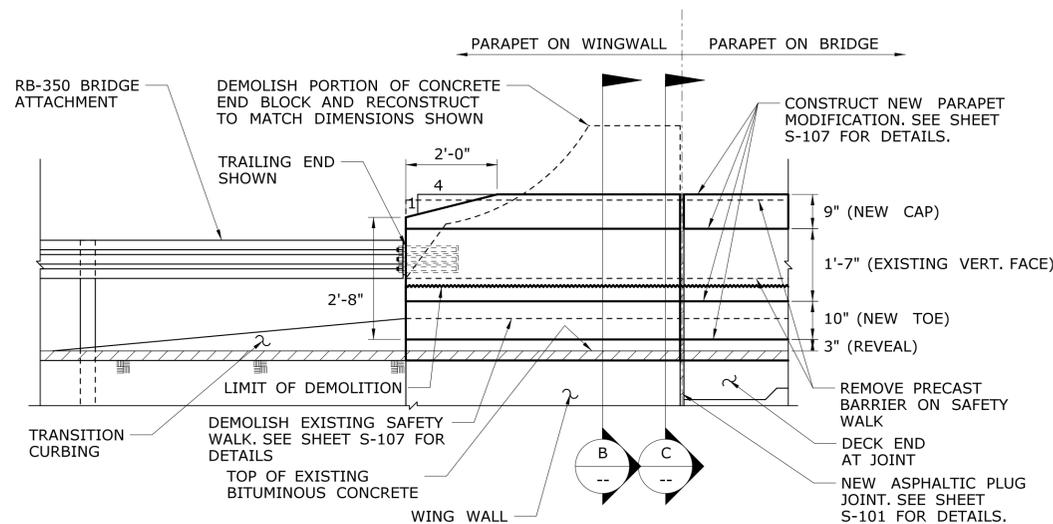
**TRANSITION TYPE 1 TRAILING END - EXISTING ELEVATION**

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



**SECTION A**

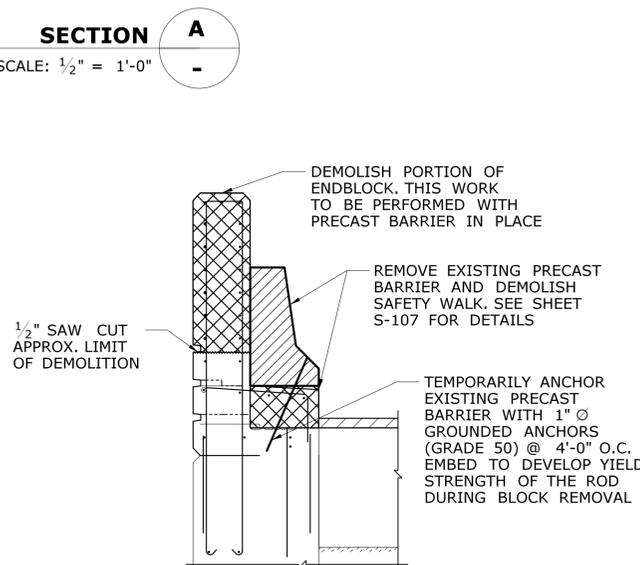
SCALE: 1/2" = 1'-0"



**TRANSITION TYPE 1 TRAILING END - NEW ENDBLOCK ON WINGWALL\***

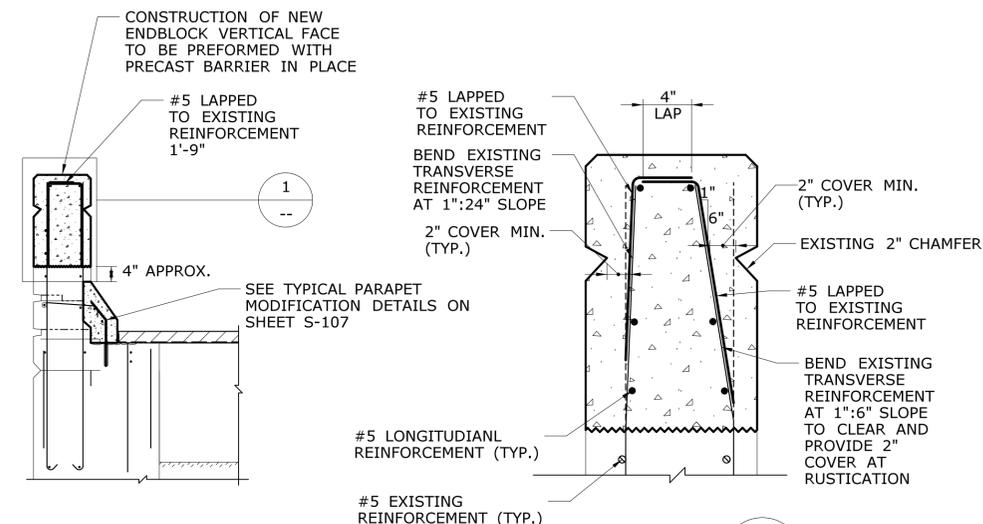
SCALE: 1/2" = 1'-0"

\* WORK THIS DETAIL WITH CTDOT STANDARD SHEET HW-910.07 FOR LEADING ENDS AND SHEET HW-910.08 FOR TRAILING ENDS



**DEMOLITION SECTION B**

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

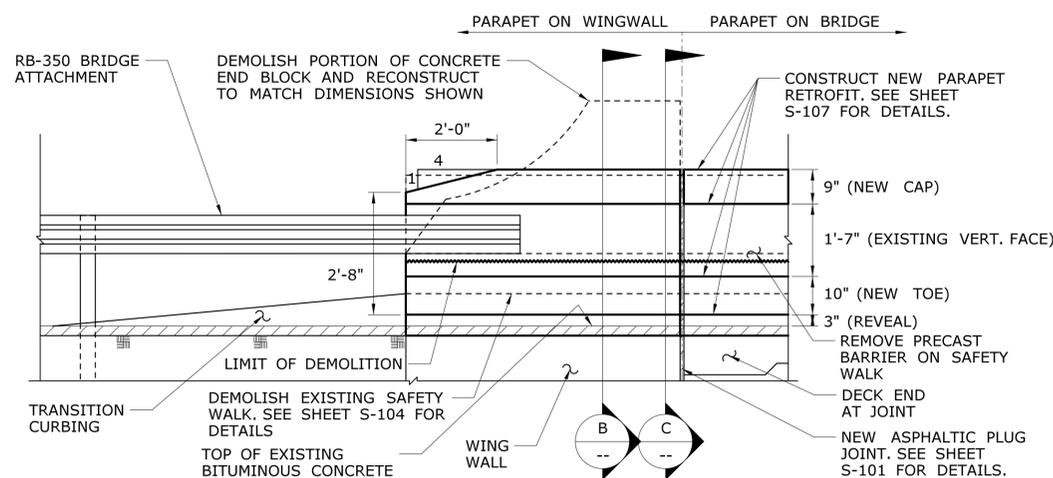


**CONSTRUCTION SECTION C**

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

**DETAIL 1**

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



**TRANSITION TYPE 1 LEADING END - NEW ENDBLOCK ON WINGWALL\***

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

\* WORK THIS DETAIL WITH CTDOT STANDARD SHEET HW-910.07 FOR LEADING ENDS AND SHEET HW-910.08 FOR TRAILING ENDS

- NOTES:**
1. ANY EXISTING REINFORCEMENT EXPOSED DURING DEMOLITION AND RECONSTRUCTION THAT IS DAMAGED OR CORRODED TO BE REPLACED. ALL EXISTING EXPOSED REINFORCEMENT TO BE BLAST CLEANED.
  2. COORDINATE TRANSITION DETAILS WITH TYPICAL PARAPET MODIFICATION DETAILS SHOWN ON SHEET S-107 AND JOINT SEAL DETAILS SHEET S-101 TO S-102.
  3. SEE GENERAL PLAN SHEETS S-02 THROUGH S-06 FOR DETAILS AND LOCATIONS.

**ADDENDUM NO. 1**

<p><b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b></p>	<p><b>TOWN: HARTFORD</b></p>	<p><b>PROJECT NO. 63-699</b></p>
<p><b>PARAPET TRANSITION - 1</b></p>	<p><b>DRAWING NO. S-108</b></p>	<p><b>SHEET NO. 01.08.112.A1</b></p>

REV.	DATE	SHEET NUMBER REVISION	REVISION DESCRIPTION	SHEET NO.
1	9/29/16			01.08.112

DESIGNER/DRAFTER: **MSF**

CHECKED BY: **BSH**

**STATE OF CONNECTICUT**  
**DEPARTMENT OF TRANSPORTATION**

SCALE AS NOTED

Plotted Date: 9/26/2016

SIGNATURE/BLOCK:

Hardesty & Hanover, LLC  
59 Elm Street  
New Haven, CT 06510

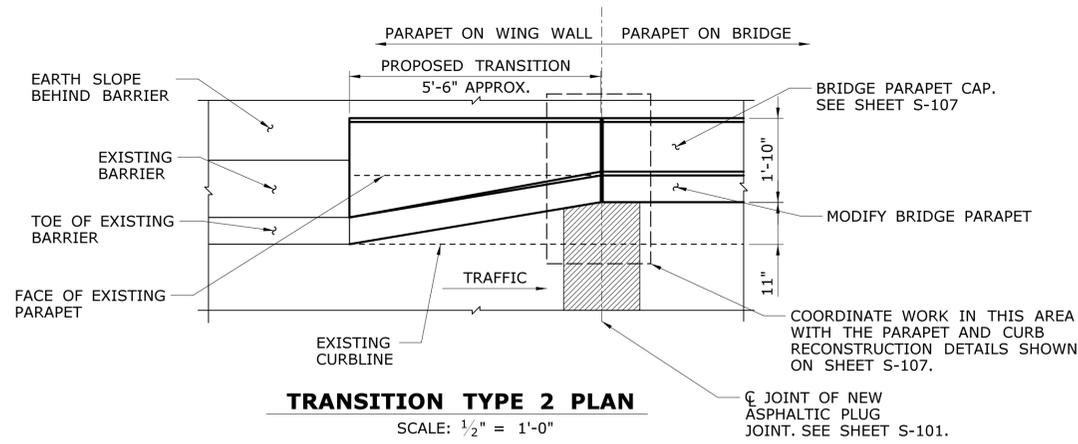
Hardesty & Hanover

PROJECT TITLE: **BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

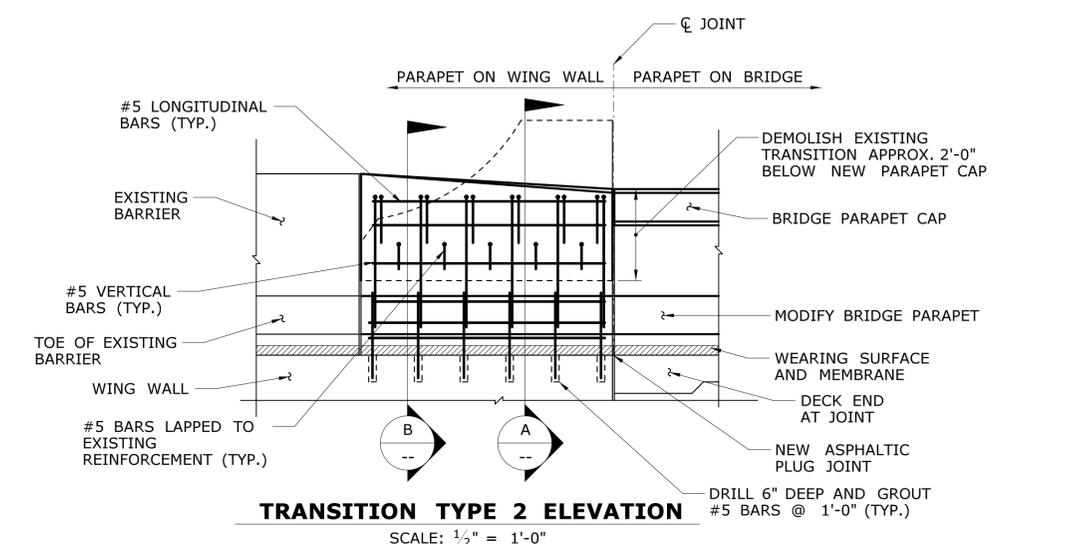
TOWN: **HARTFORD**

DRAWING NO.: **S-108**

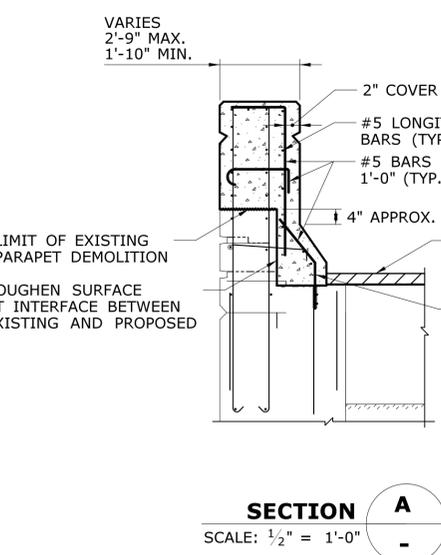
SHEET NO.: **01.08.112.A1**



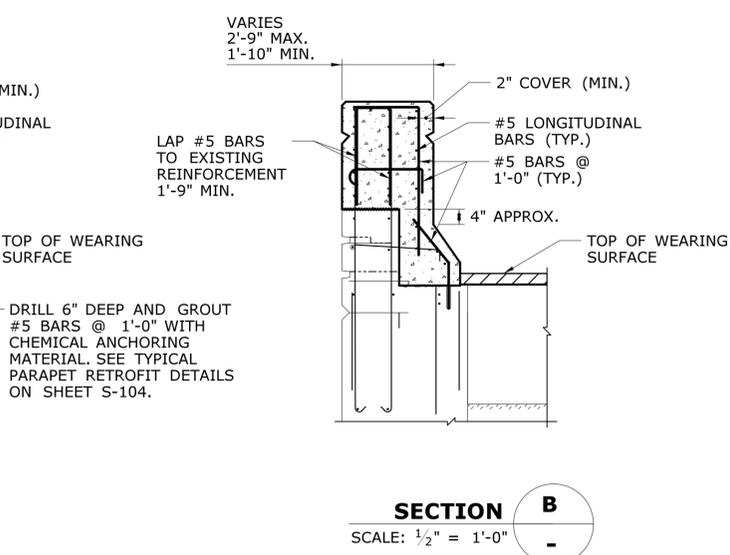
**TRANSITION TYPE 2 PLAN**  
SCALE: 1/2" = 1'-0"



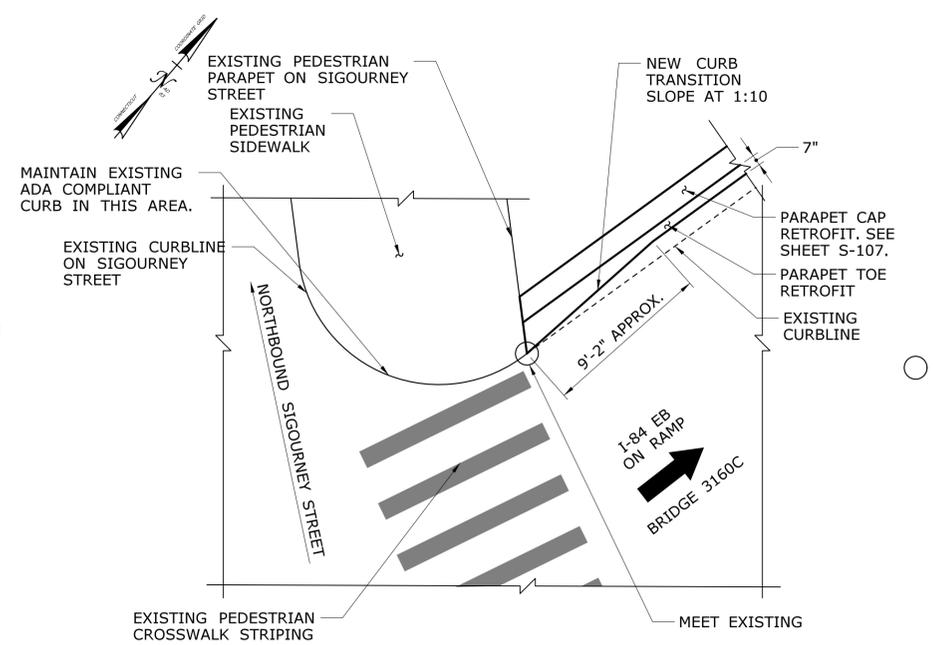
**TRANSITION TYPE 2 ELEVATION**  
SCALE: 1/2" = 1'-0"



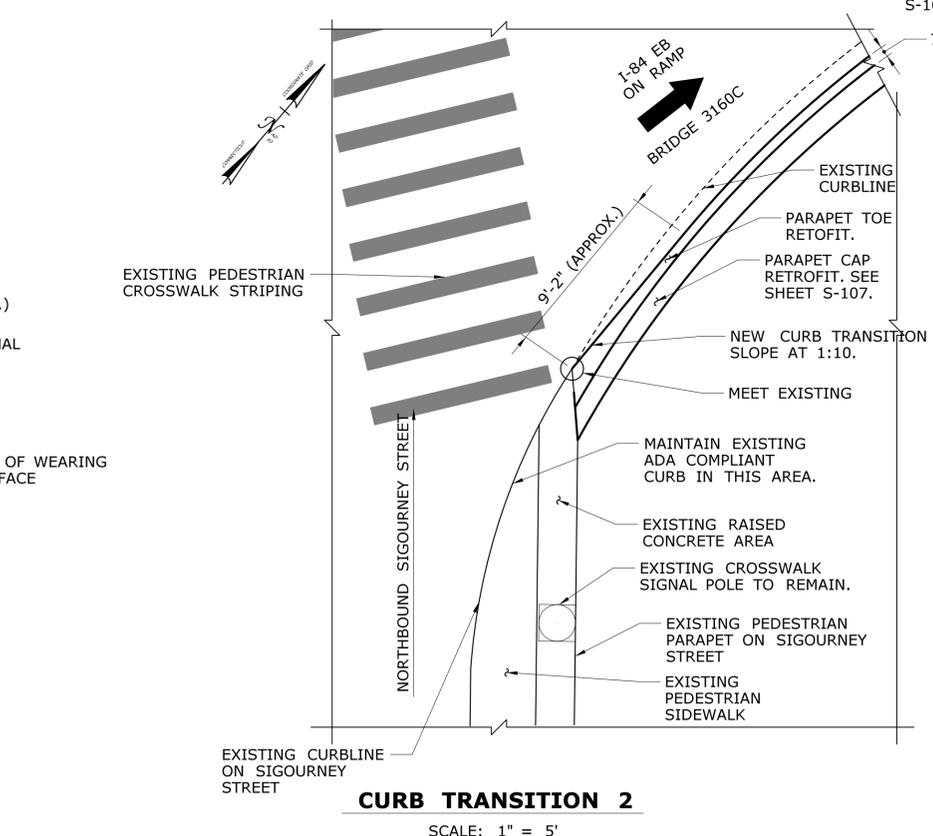
**SECTION A**  
SCALE: 1/2" = 1'-0"



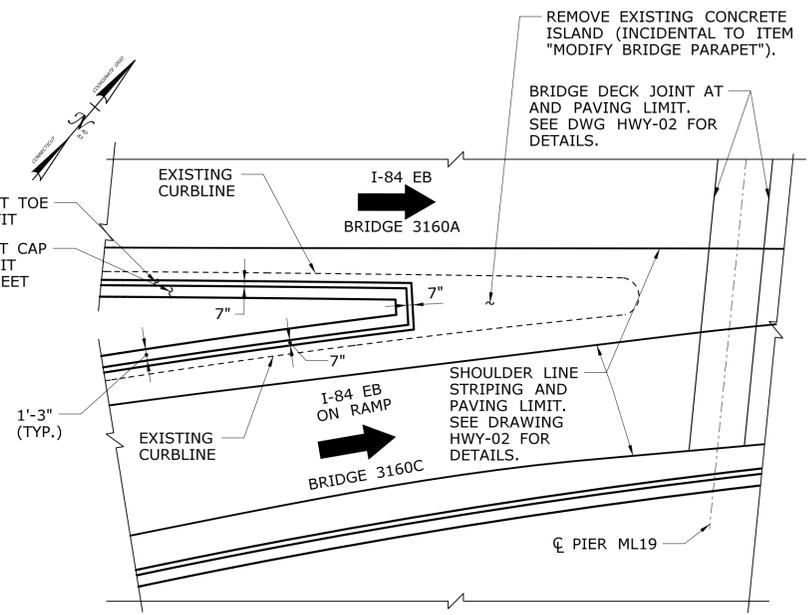
**SECTION B**  
SCALE: 1/2" = 1'-0"



**CURB TRANSITION 1**  
SCALE: 1" = 5'



**CURB TRANSITION 2**  
SCALE: 1" = 5'



**CURB TRANSITION 3**  
SCALE: 1" = 10'

**NOTES:**

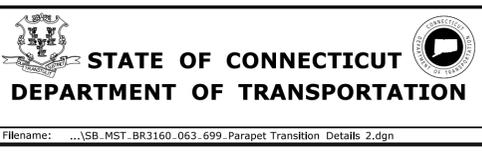
1. ANY EXISTING REINFORCEMENT EXPOSED DURING DEMOLITION AND RECONSTRUCTION THAT IS DAMAGED OR CORRODED TO BE REPLACED. ALL EXISTING EXPOSED REINFORCEMENT TO BE BLAST CLEANED.
2. COORDINATE TRANSITION DETAILS WITH TYPICAL PARAPET RETROFIT DETAILS SHOWN ON SHEET S-107 AND JOINT SEAL DETAILS SHEET S-101 TO S-102.

**ADDENDUM NO. 1**

REV.	DATE	SHEET NUMBER REVISION	REVISION DESCRIPTION	SHEET NO.
1	9/29/16			

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DESIGNER/DRAFTER: **MSF**  
CHECKED BY: **BSH**  
SCALE AS NOTED

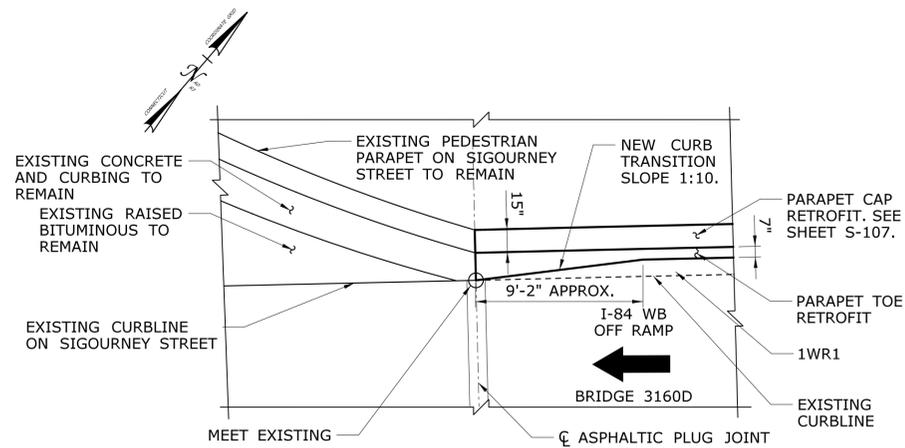


SIGNATURE/BLOCK: [Signature]  
Hardesty & Hanover, LLC  
59 Elm Street  
New Haven, CT 06510

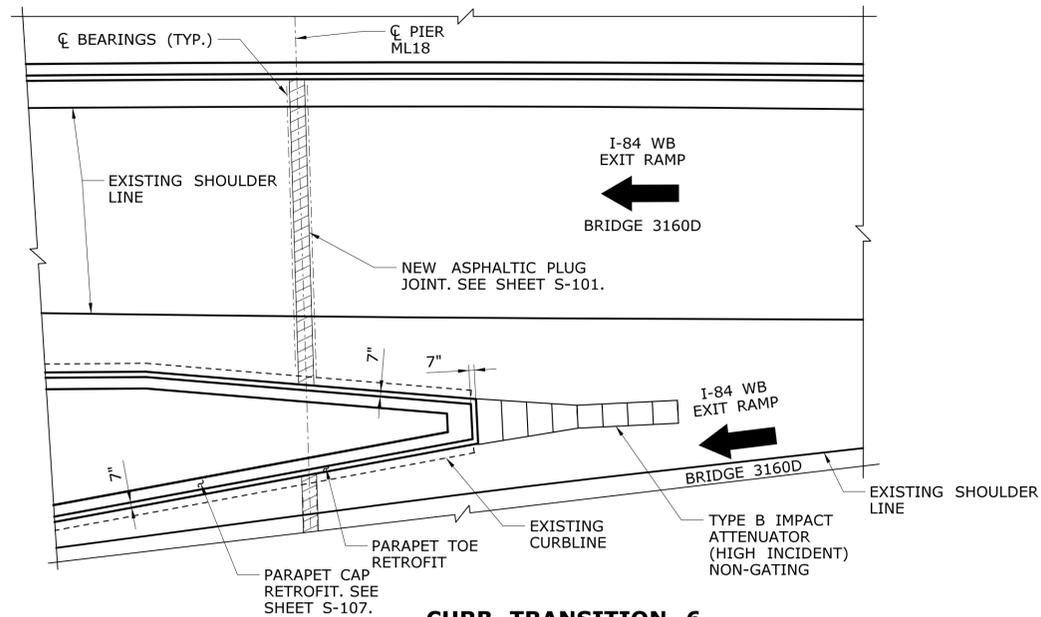
PROJECT TITLE:  
**BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

TOWN: **HARTFORD**  
DRAWING TITLE:  
**PARAPET TRANSITION - 2**

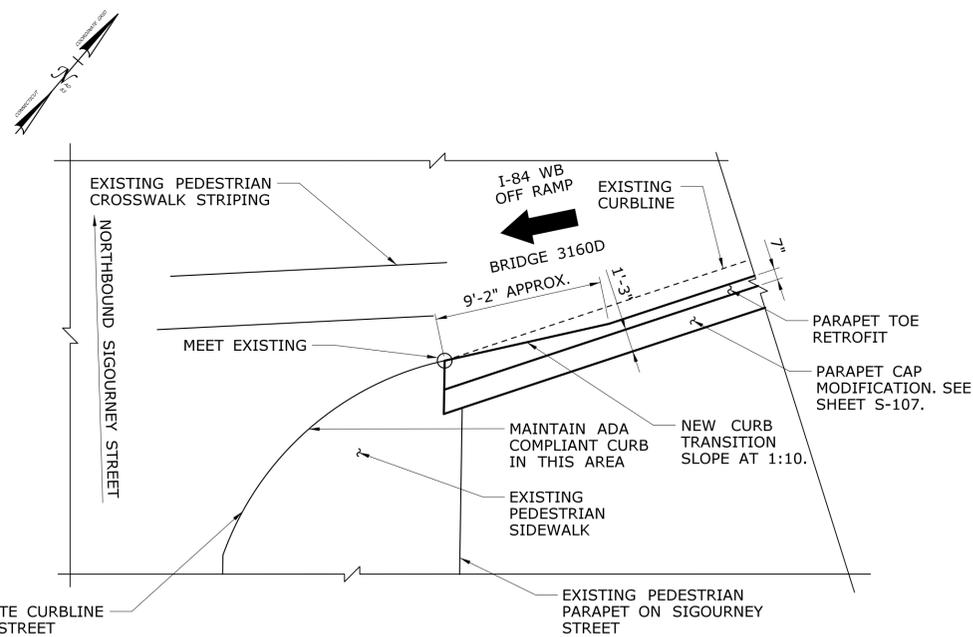
PROJECT NO.: **63-699**  
DRAWING NO.: **S-109**  
SHEET NO.: **01.08.113.A1**



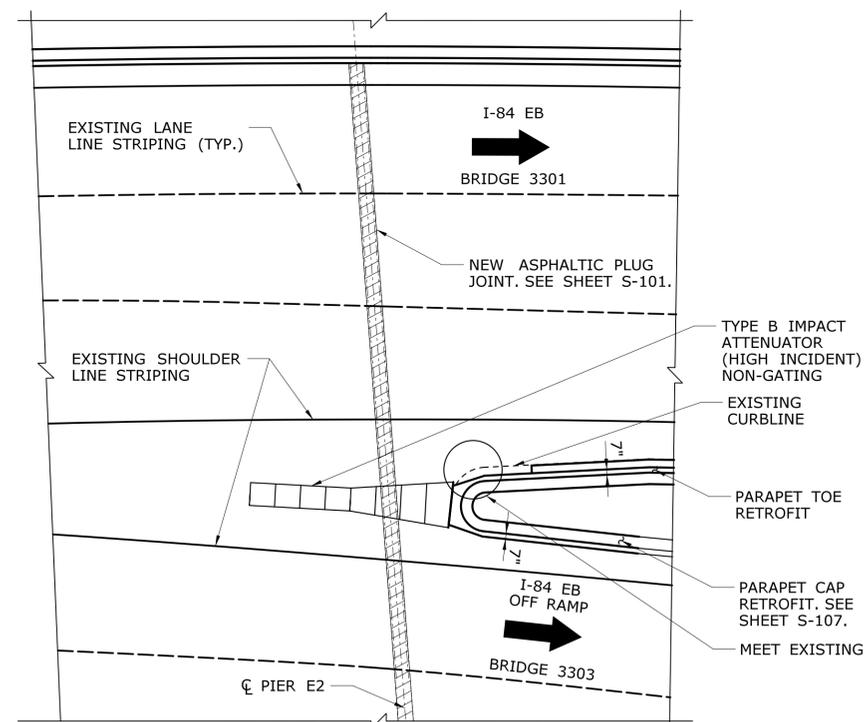
**CURB TRANSITION 4**  
SCALE: 1" = 5'



**CURB TRANSITION 6**  
SCALE: 1" = 10'



**CURB TRANSITION 5**  
SCALE: 1" = 5'



**CURB TRANSITION 7**  
SCALE: 1" = 10'

**NOTES:**

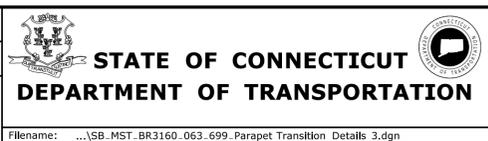
1. SEE SHEET S-107 FOR PARAPET RETROFIT DETAILS
2. IMPACT ATTENUATOR SHALL BE PLACED AT ROADWAY LEVEL. REMOVE RAISED CURB BELOW INTENDED INSTALLATION LOCATION.
3. REMOVAL OF EXISTING SAND BARRIER ATTENUATORS SHALL BE INCLUDED FOR PAYMENT AS "REMOVE IMPACT ATTENUATOR (SAND BARREL MODULE)".

**ADDENDUM NO. 1**

REV.	DATE	SHEET NUMBER REVISION	REVISION DESCRIPTION	SHEET NO.
1	9/29/16	SHEET NUMBER REVISION		01.08.114

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

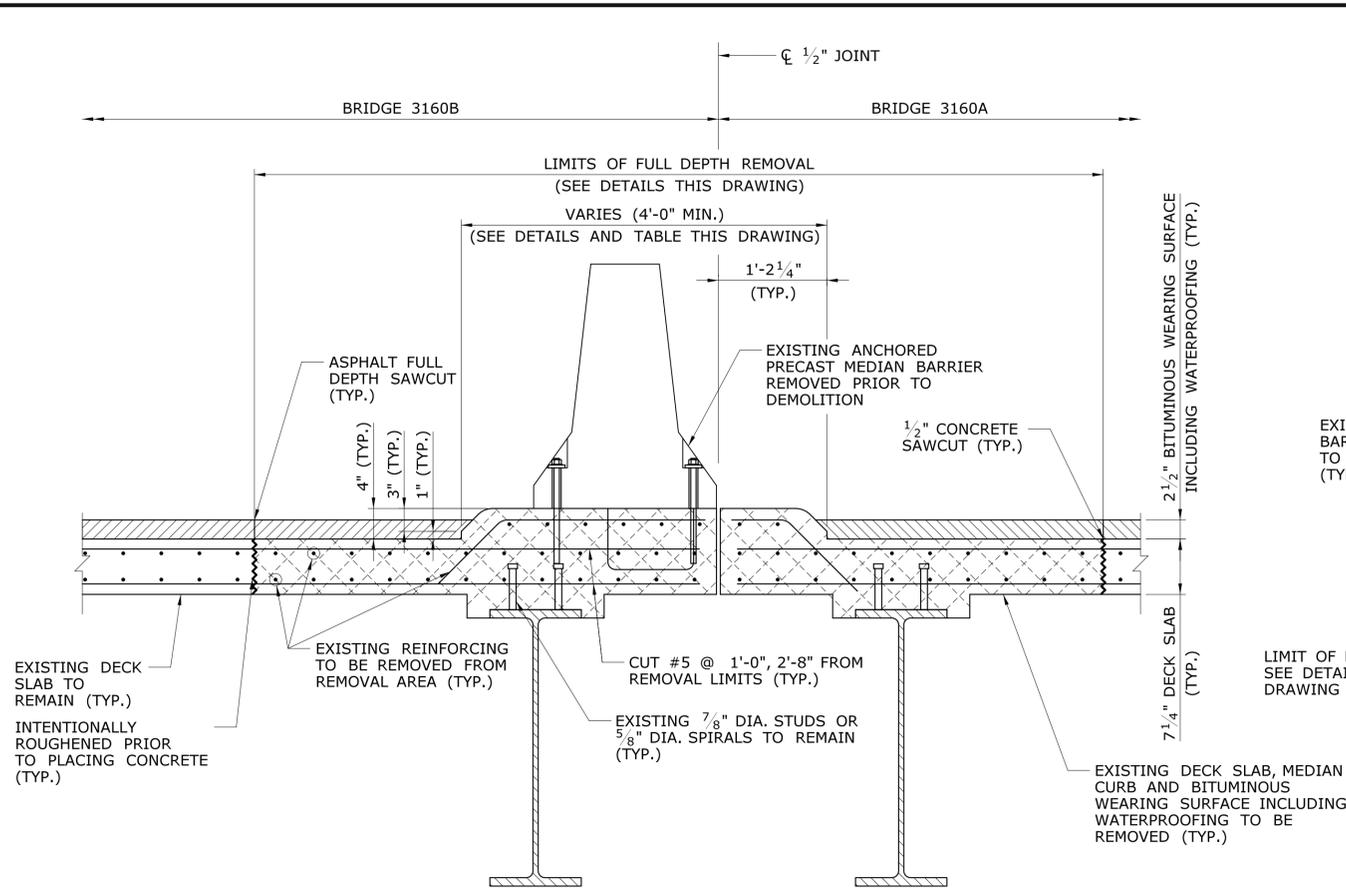
DESIGNER/DRAFTER: **MSF**  
CHECKED BY: **BSH**  
SCALE AS NOTED



SIGNATURE/BLOCK:  
Hardesty & Hanover, LLC  
59 Elm Street  
New Haven, CT 06510

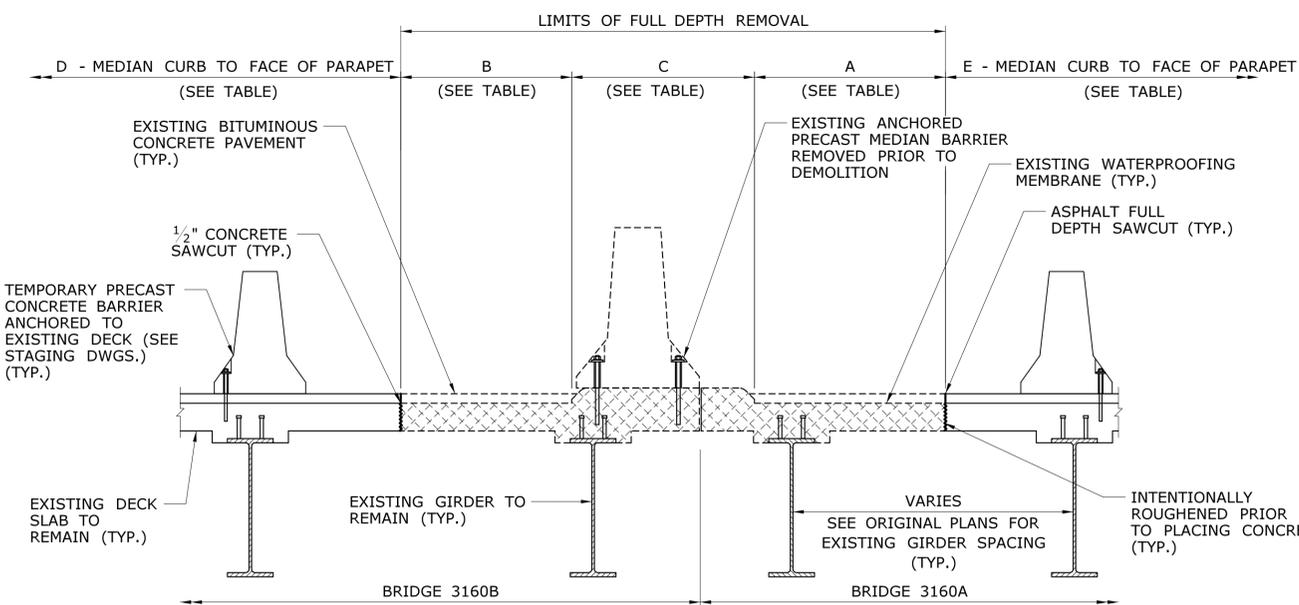
PROJECT TITLE:  
**BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

TOWN: **HARTFORD**  
DRAWING TITLE: **PARAPET TRANSITION - 3**  
PROJECT NO.: **63-699**  
DRAWING NO.: **S-110**  
SHEET NO.: **01.08.114.A1**



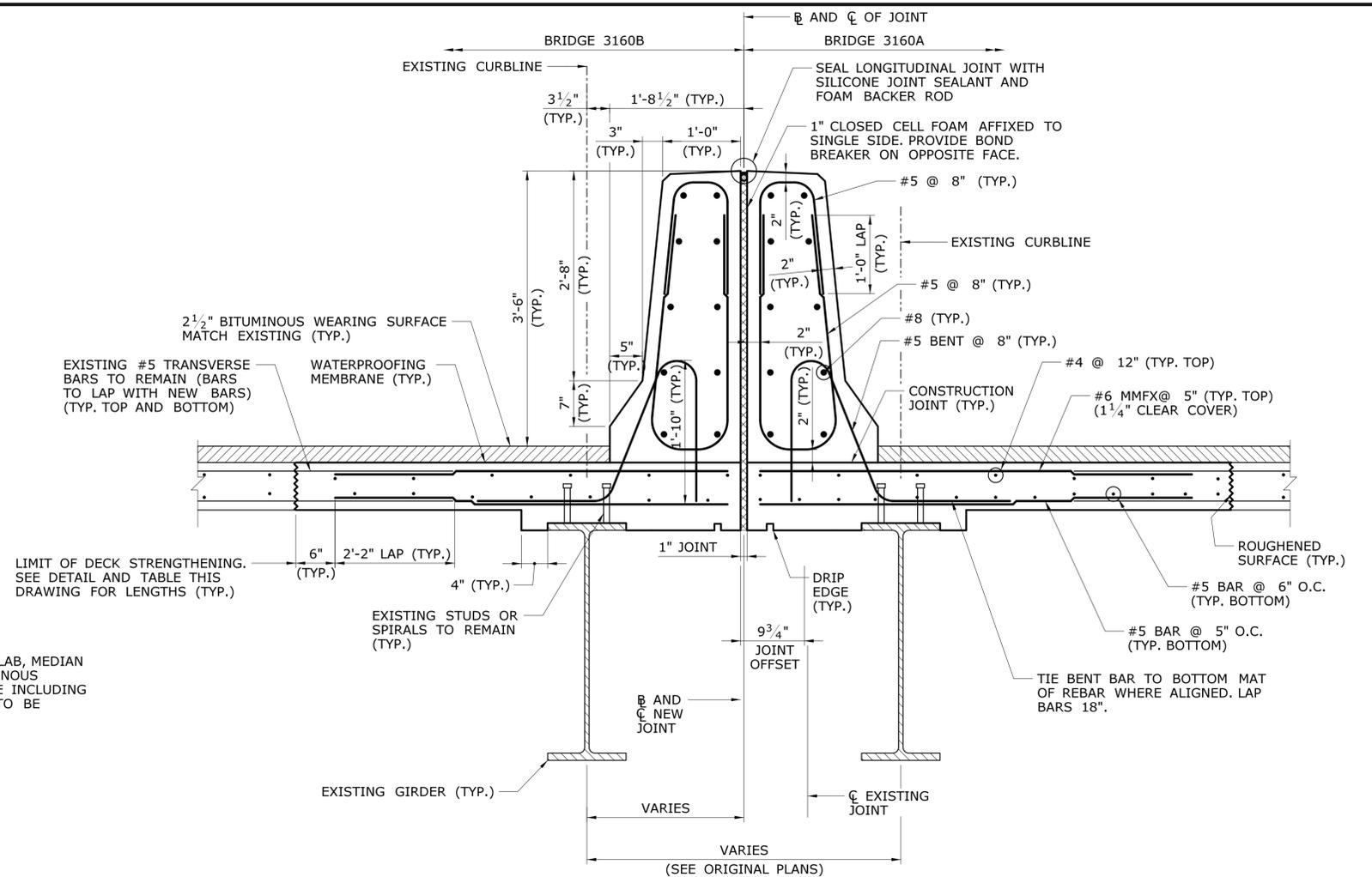
**TYPICAL EXISTING MEDIAN DETAILS**

SCALE: 1" = 1'-0"



**MEDIAN DEMOLITION LIMITS**

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



**MEDIAN BARRIER DETAILS AT STA. 916+18.20 TO STA. 931+39.20**

SCALE: 1" = 1'-0"

DECK SLAB AND MEDIAN CURB FULL DEPTH REMOVAL LIMITS					
PIER	A	B	C*	D**	E**
START	END	(FT)	(FT)	(FT)	(FT)
ML6	ML7	4.5	4.5	VARIES	55.5
ML7	ML8	4.5	4.5	VARIES	55.5
ML8	ML9	4.5	4.5	VARIES	55.5
ML9	ML10	4.5	4.5	VARIES	55.5
ML10	ML11	4.5	4.5	4.00	55.5
ML11	ML14	5.75	4.5	4.00	55.45
ML14	ML15	4.75	4.5	4.00	60.15
ML15	ML16	4.75	4.5	4.00	55.85
ML16	ML17	4.75	4.5	4.00	55.85
ML17	ML18	4.75	4.5	4.00	55.85
ML18	ML19	4.75	3.75	4.00	57.25
ML19	ML20	4.75	3.75	4.00	91.25
ML20	ML21	4.75	3.75	4.00	82.25
ML21	ML22	4.75	3.75	4.00	76.25
ML22	ML23	4.5	4.25	4.00	71.5
ML23	ML24	4.5	4.25	4.00	69.5
ML24	ML25	4.5	4.25	4.00	68.5
ML25	ML26	4.5	3.75	4.00	67.5
ML26	ML27	4.5	3.75	4.00	67.5
ML27	ML28	4.5	3.75	4.00	67.5
ML28	ML29	4.5	3.75	VARIES	67.5
ML29	ML30	4.5	3.75	VARIES	67.5
ML30	ML31	4.5	3.75	VARIES	67.5

\* FIELD VERIFY

\*\* MEASURED ALONG JOINT (FIELD VERIFY)

**NOTES**

- DEMOLITION OF EXISTING CONCRETE DECK AND MEDIAN CURBS SHALL BE PAID FOR UNDER THE ITEM "REMOVAL OF EXISTING BRIDGE DECK". THE COST TO REMOVE THE EXISTING PRECAST MEDIAN BARRIER IS INCIDENTAL TO THE DECK DEMOLITION ITEM.
- FULL DEPTH SAWCUTS IN BITUMINOUS CONCRETE PAVEMENT SHALL BE PAID UNDER THE ITEM "CUT BITUMINOUS CONCRETE PAVEMENT."
- REMOVAL OF EXISTING BITUMINOUS CONCRETE PAVEMENT AND WATERPROOFING MEMBRANE SHALL BE PAID FOR UNDER THE ITEM "REMOVAL OF EXISTING WEARING SURFACE".
- BRIDGE DECK CONCRETE SHALL BE PAID FOR UNDER THE ITEM "BRIDGE DECK CONCRETE". BRIDGE DECK REINFORCEMENT SHALL BE PAID FOR UNDER THE ITEMS "DEFORMED STEEL BARS" AND "DEFORMED STEEL BARS (HIGH STRENGTH)".
- MEDIAN BARRIER CONCRETE SHALL BE PAID FOR UNDER THE ITEM "CLASS 'F' CONCRETE". MEDIAN BARRIER REINFORCEMENT SHALL BE PAID FOR UNDER THE ITEM "DEFORMED STEEL BARS".
- LONGITUDINAL JOINT SEAL AND CLOSED CELL FOAM SHALL BE INCIDENTAL TO THE WORK FOR MEDIAN BARRIER CONCRETE AND SHALL BE PAID FOR UNDER THE ITEM "CLASS 'F' CONCRETE". MATERIAL SPECIFICATIONS CAN BE FOUND IN M.03.08 OF FORM 816.
- FOR PAVING LIMITS, SEE HIGHWAY PLANS, SUBSET 1.04.

**ADDENDUM NO. 1**

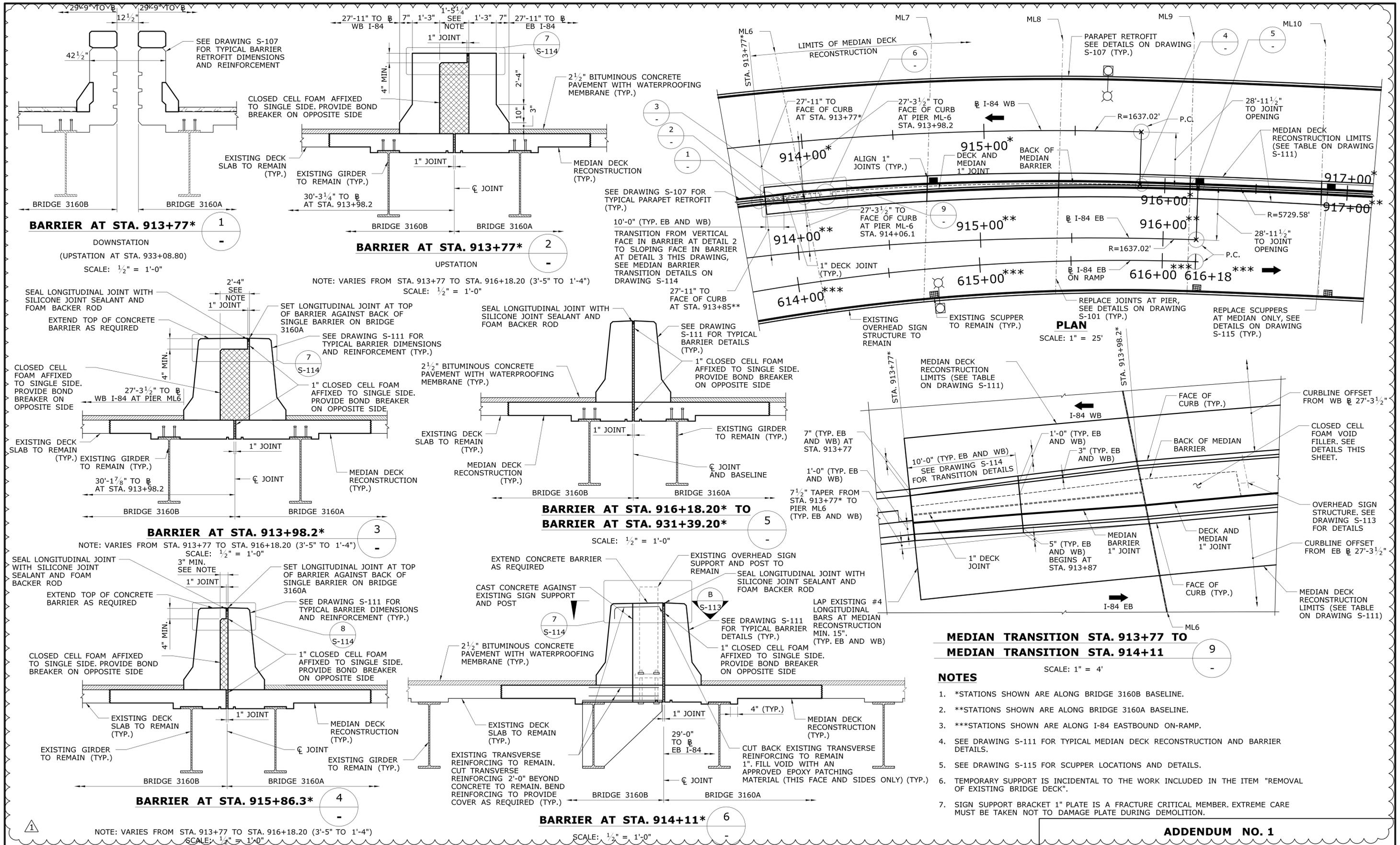
<p>DESIGNER/DRAFTER: <b>BG</b></p> <p>CHECKED BY: <b>JL</b></p> <p>SCALE AS NOTED</p>	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p> <p>Signature/Block: </p>	<p>PROJECT TITLE: <b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b></p>	<p>TOWN: <b>HARTFORD</b></p> <p>DRAWING TITLE: <b>MEDIAN DETAILS - 1</b></p>	<p>PROJECT NO.: <b>63-699</b></p> <p>DRAWING NO.: <b>S-111</b></p> <p>SHEET NO.: <b>01.08.115.A1</b></p>
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REV.	DATE	REVISION DESCRIPTION	SHEET NO.
1	9/29/16	REVISED MEDIAN REMOVAL LIMITS	01.08.115

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 9/26/2016

File name: ... \SB\_MST\_BR3160\_063\_699\_MedianBarrier.dgn



**BARRIER AT STA. 913+77\***  
 DOWNSTATION  
 (UPSTATION AT STA. 933+08.80)  
 SCALE: 1/2" = 1'-0"

**BARRIER AT STA. 913+77\***  
 UPSTATION  
 NOTE: VARIES FROM STA. 913+77 TO STA. 916+18.20 (3'-5" TO 1'-4")  
 SCALE: 1/2" = 1'-0"

**BARRIER AT STA. 913+98.2\***  
 NOTE: VARIES FROM STA. 913+77 TO STA. 916+18.20 (3'-5" TO 1'-4")  
 SCALE: 1/2" = 1'-0"

**BARRIER AT STA. 916+18.20\* TO  
 BARRIER AT STA. 931+39.20\***  
 SCALE: 1/2" = 1'-0"

**BARRIER AT STA. 915+86.3\***  
 NOTE: VARIES FROM STA. 913+77 TO STA. 916+18.20 (3'-5" TO 1'-4")  
 SCALE: 1/2" = 1'-0"

**BARRIER AT STA. 914+11\***  
 SCALE: 1/2" = 1'-0"

**MEDIAN TRANSITION STA. 913+77 TO  
 MEDIAN TRANSITION STA. 914+11**  
 SCALE: 1" = 4'

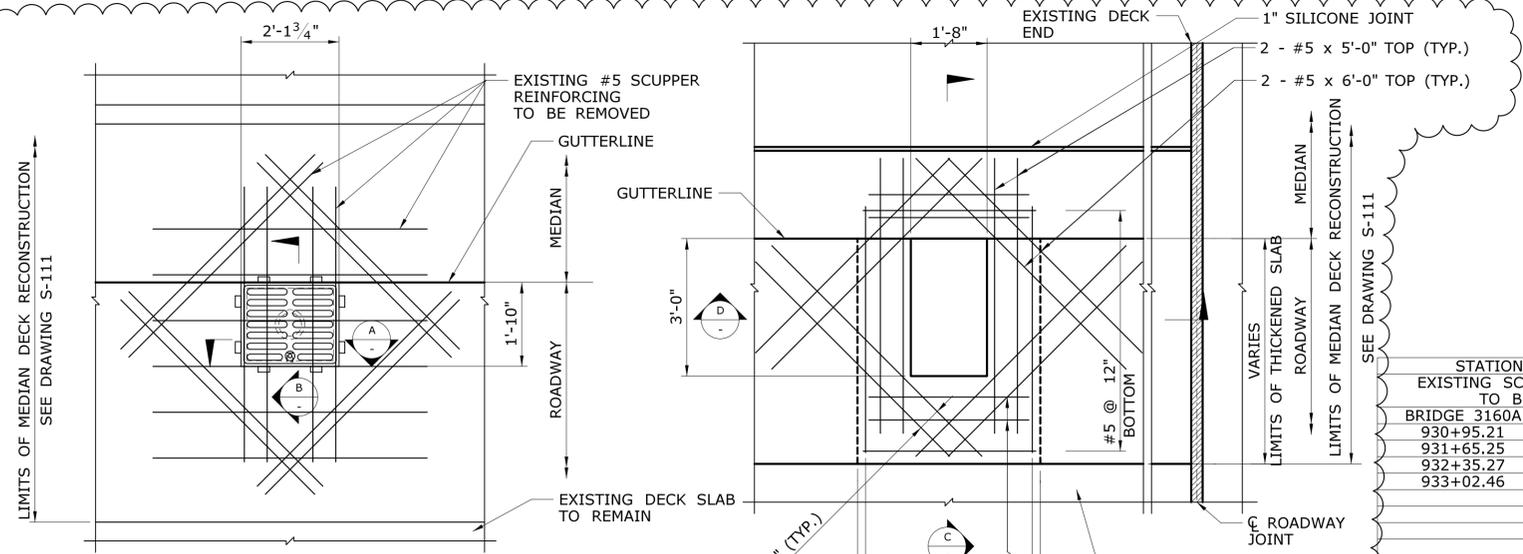
- NOTES**
- \*STATIONS SHOWN ARE ALONG BRIDGE 3160B BASELINE.
  - \*\*STATIONS SHOWN ARE ALONG BRIDGE 3160A BASELINE.
  - \*\*\*STATIONS SHOWN ARE ALONG I-84 EASTBOUND ON-RAMP.
  - SEE DRAWING S-111 FOR TYPICAL MEDIAN DECK RECONSTRUCTION AND BARRIER DETAILS.
  - SEE DRAWING S-115 FOR SCUPPER LOCATIONS AND DETAILS.
  - TEMPORARY SUPPORT IS INCIDENTAL TO THE WORK INCLUDED IN THE ITEM "REMOVAL OF EXISTING BRIDGE DECK".
  - SIGN SUPPORT BRACKET 1" PLATE IS A FRACTURE CRITICAL MEMBER. EXTREME CARE MUST BE TAKEN NOT TO DAMAGE PLATE DURING DEMOLITION.

**ADDENDUM NO. 1**

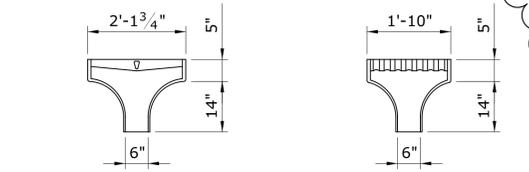
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: <b>BG</b> CHECKED BY: <b>JL</b>	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SIGNATURE/BLOCK: 	PROJECT TITLE: <b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b>	TOWN: <b>HARTFORD</b>	PROJECT NO.: <b>63-699</b>
REV. DATE 1 9/29/16 REVISED MEDIAN TRANSITION	SHEET NO. 01.08.116	SCALE AS NOTED		FILENAME: ...USB_MST_BR3160_063_699_MedianBarrier.dgn	DRAWING TITLE: <b>MEDIAN DETAILS - 2</b>	DRAWING NO.: <b>S-112</b>	SHEET NO.: <b>01.08.116.A1</b>



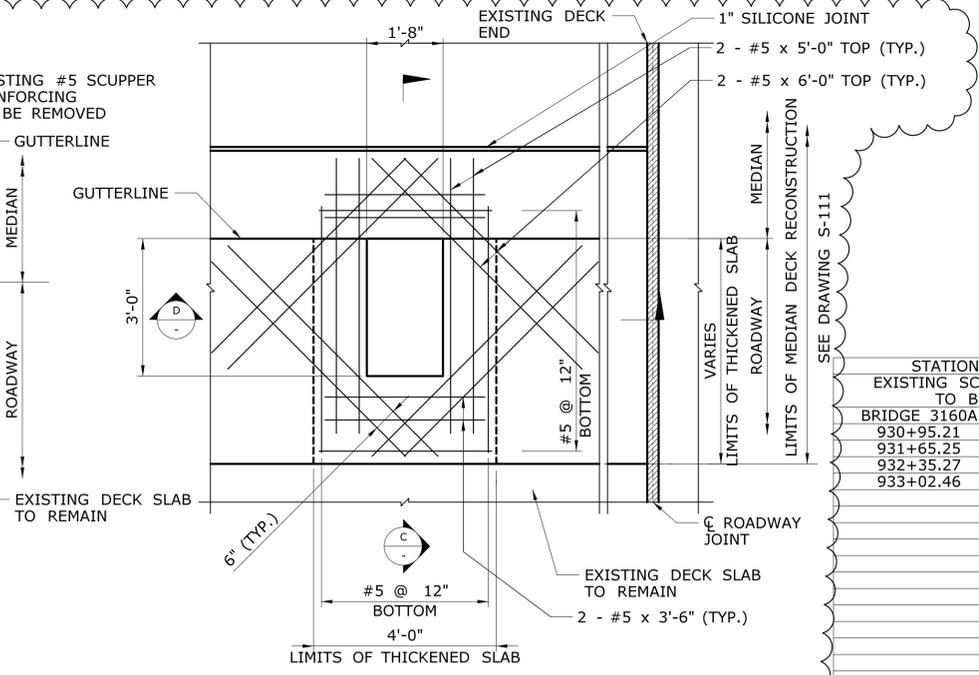




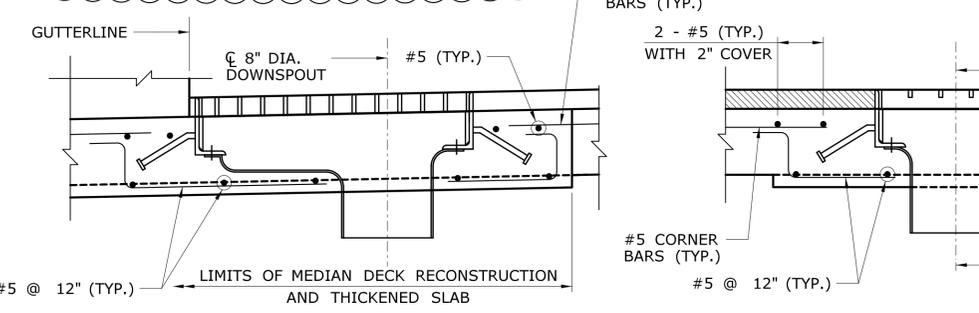
**EXISTING DECK SCUPPER PLAN**  
 EXISTING DECK REINFORCING NOT SHOWN FOR CLARITY.  
 EXISTING TRANSVERSE REINFORCING TO REMAIN, SEE  
 DETAILS ON DRAWING S-111.  
 SCALE: 1/2" = 1'-0"



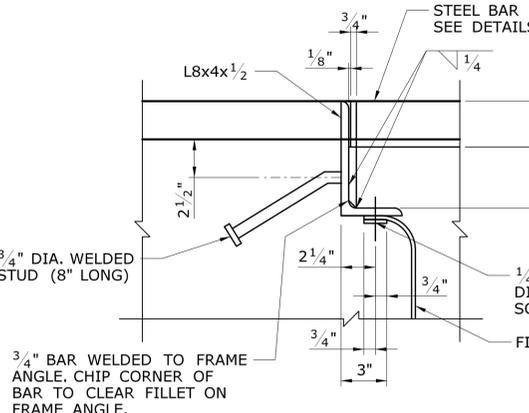
**SECTION A-A** **SECTION B-B**  
**EXISTING SCUPPERS AT MEDIAN  
 TO BE REPLACED**  
 SCALE: 1/2" = 1'-0"



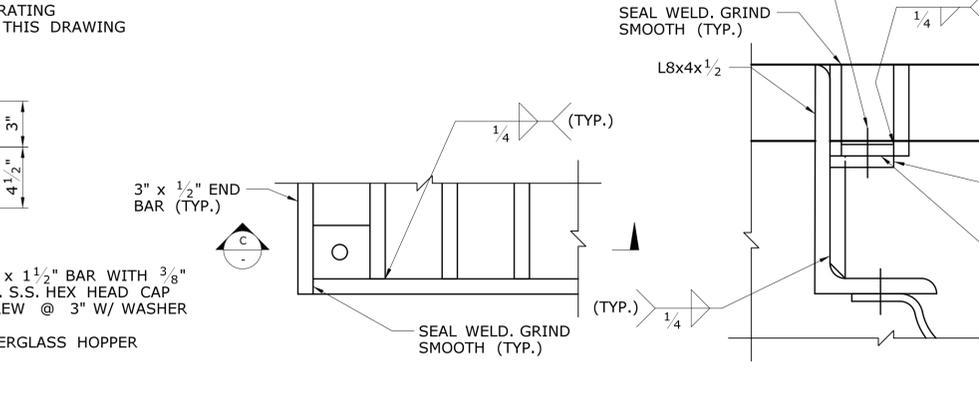
**NEW DECK SCUPPER PLAN**  
 DECK SLAB REINFORCING NOT SHOWN FOR CLARITY.  
 CUT TOP REINFORCING TO ACCOMMODATE SCUPPERS  
 ONLY AS REQUIRED.  
 SCALE: 1/2" = 1'-0"



**SECTION C-C**  
 SCALE: 1" = 1'-0"

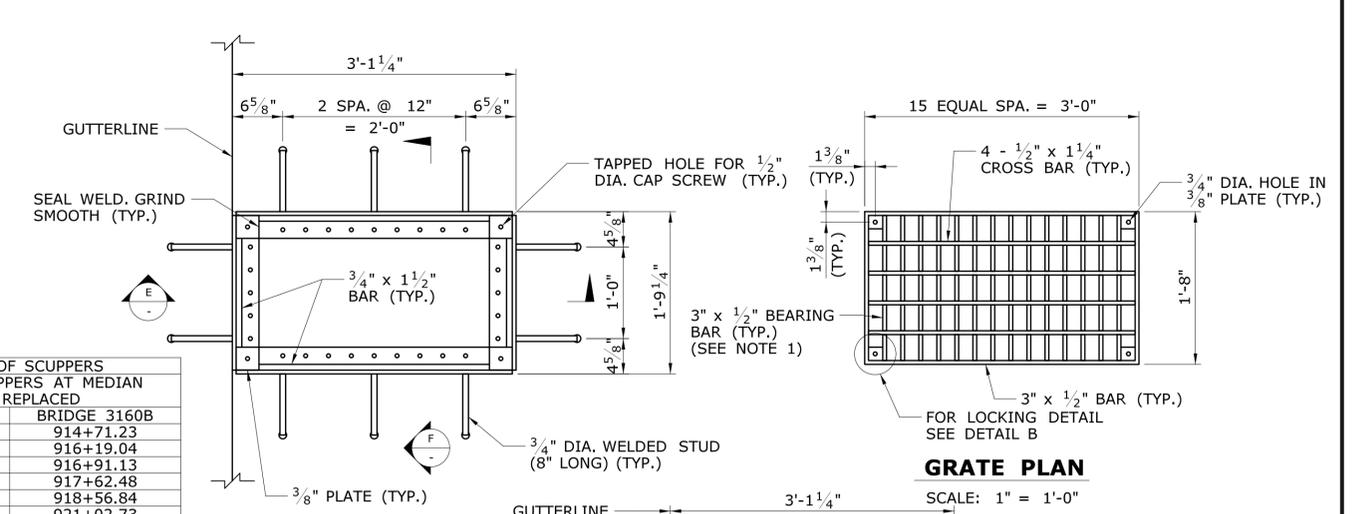


**DETAIL A**  
 SCALE: 1 1/2" = 1'-0"

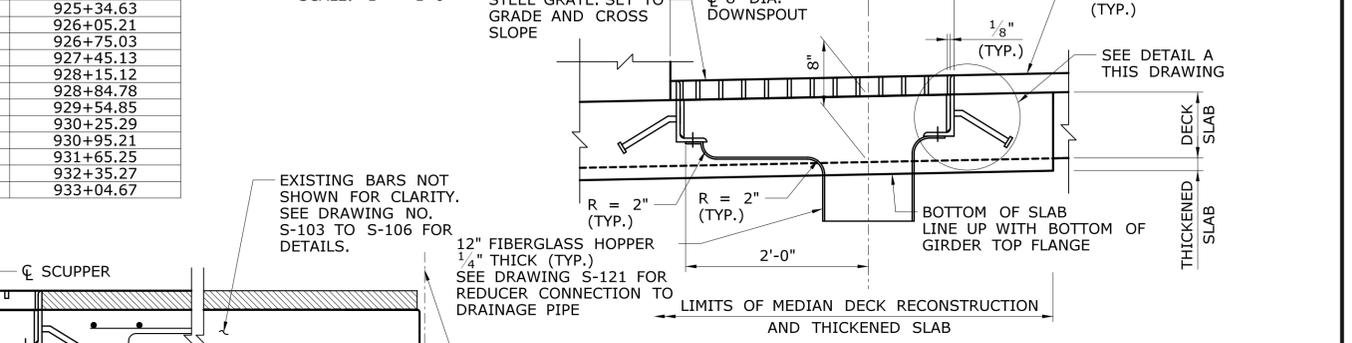


**PLAN** **SECTION C-C**  
**DETAIL B**  
 SCALE: 3" = 1'-0"

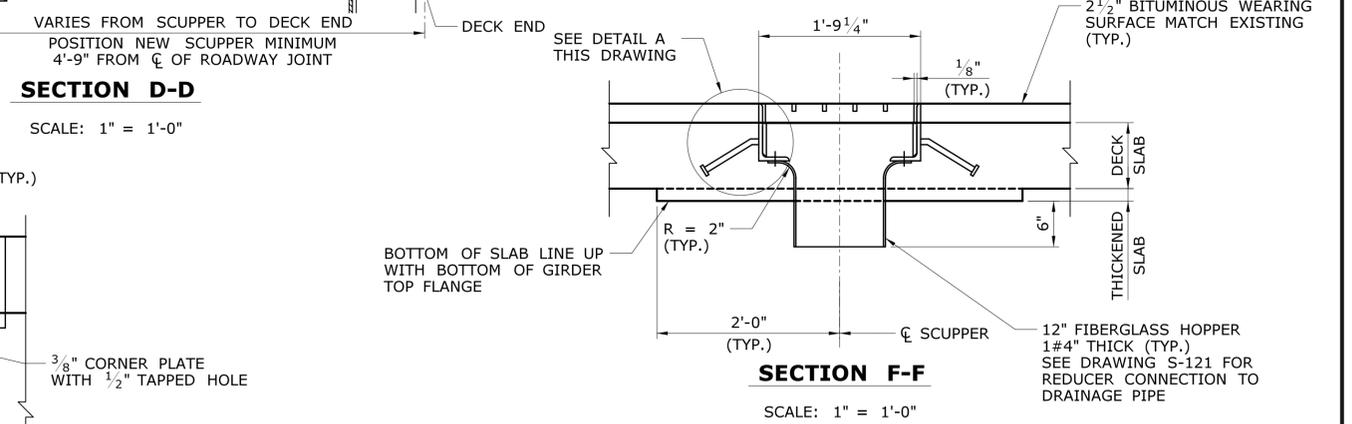
STATION OF SCUPPERS EXISTING SCUPPERS AT MEDIAN TO BE REPLACED	
BRIDGE 3160A	BRIDGE 3160B
930+95.21	914+71.23
931+65.25	916+19.04
932+35.27	916+91.13
933+02.46	917+62.48
	918+56.84
	921+02.73
	921+83.47
	922+53.81
	923+24.32
	923+94.44
	924+64.78
	925+34.63
	926+05.21
	926+75.03
	927+45.13
	928+15.12
	928+84.78
	929+54.85
	930+25.29
	930+95.21
	931+65.25
	932+35.27
	933+04.67



**PLAN @ FRAME**  
 SCALE: 1" = 1'-0"



**SECTION E-E**  
 SCALE: 1" = 1'-0"

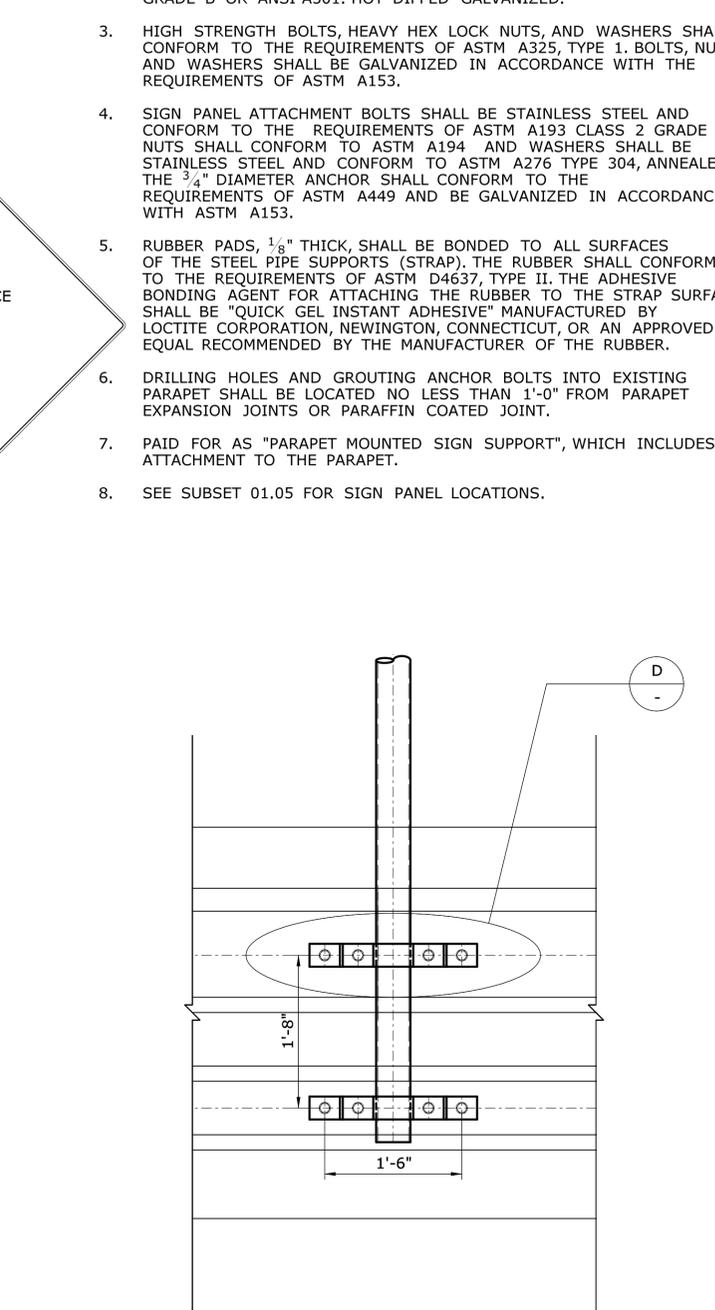
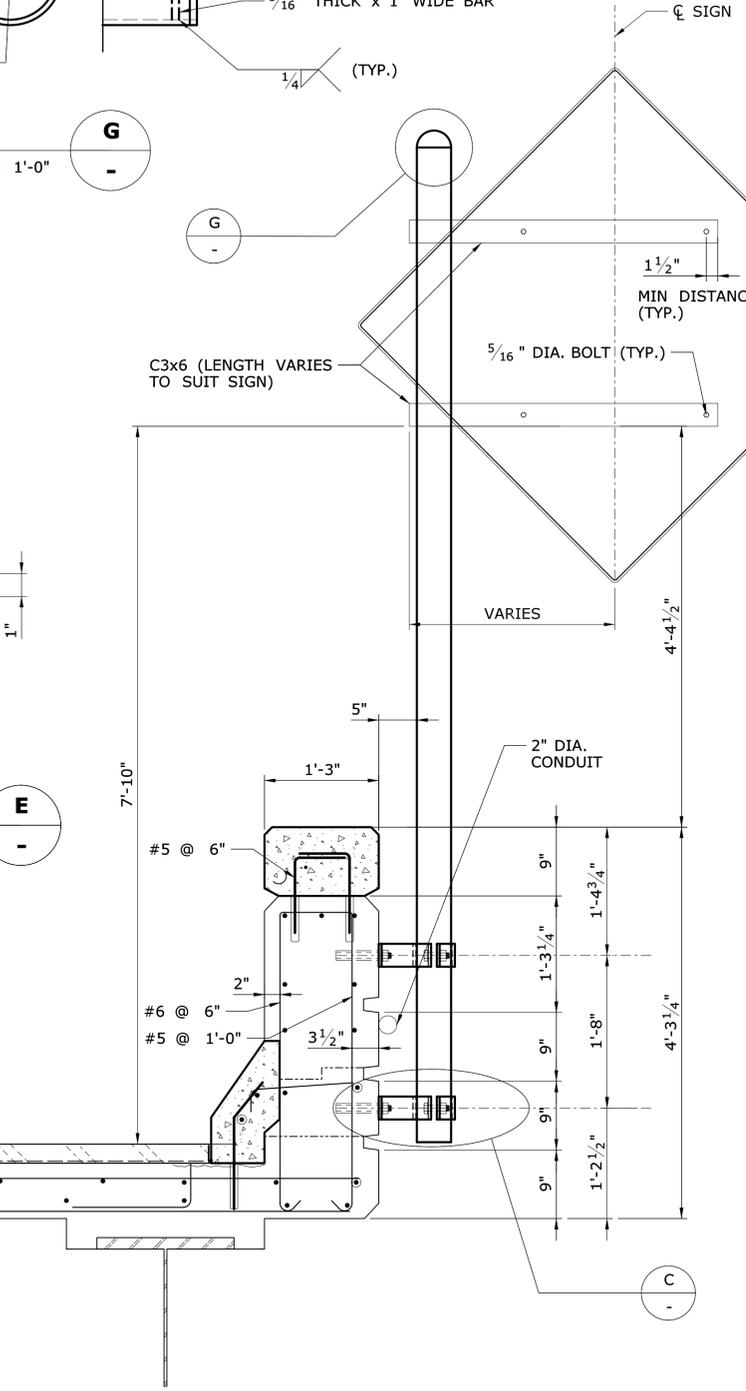
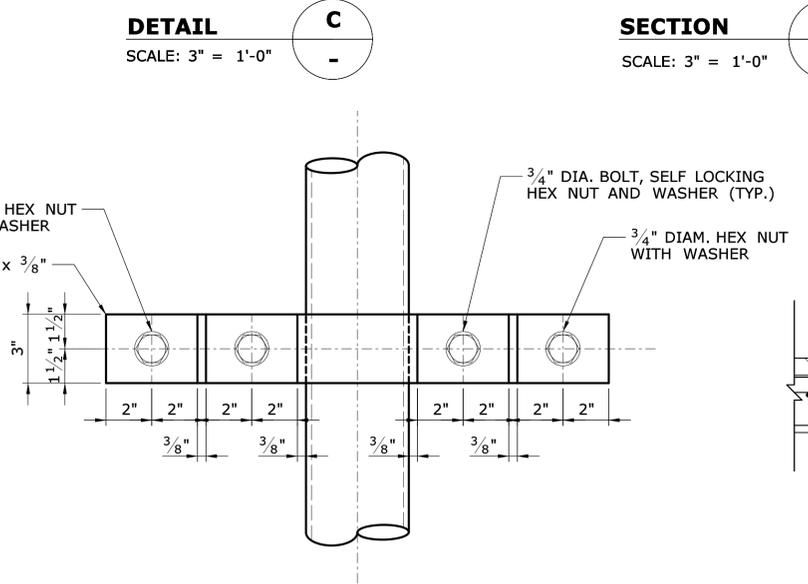
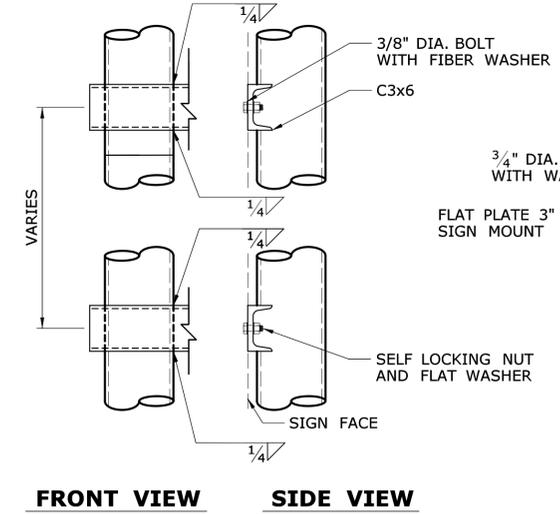
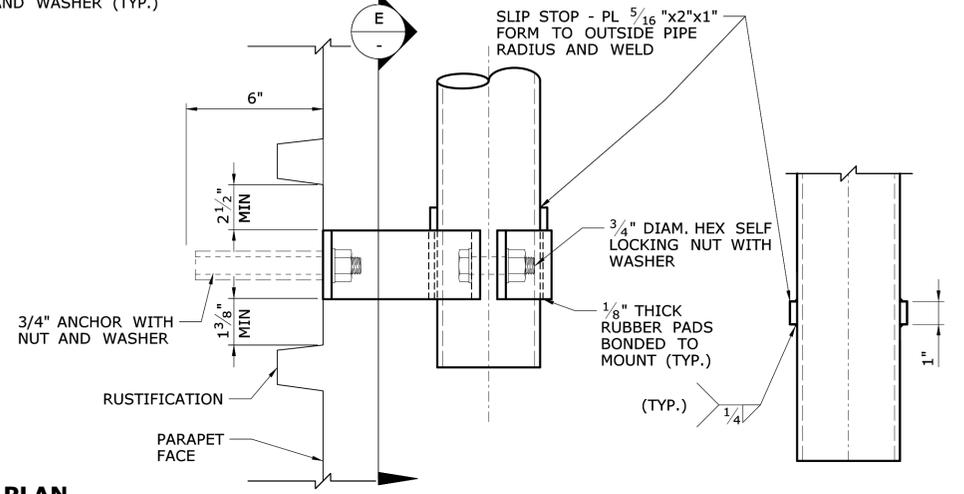
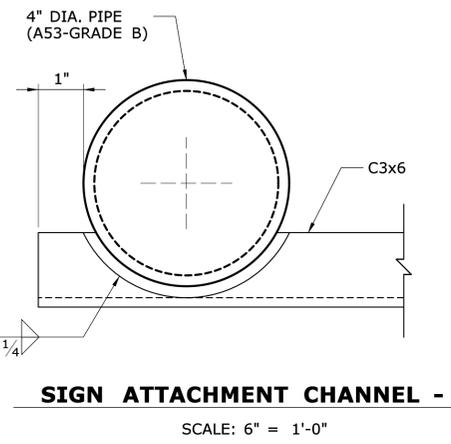
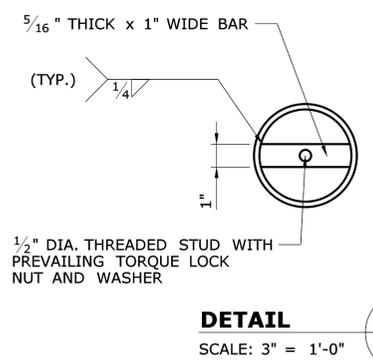
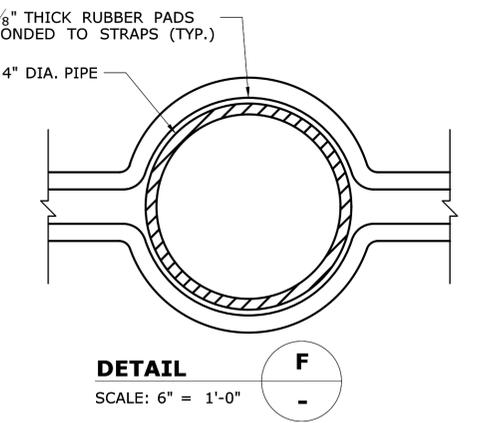
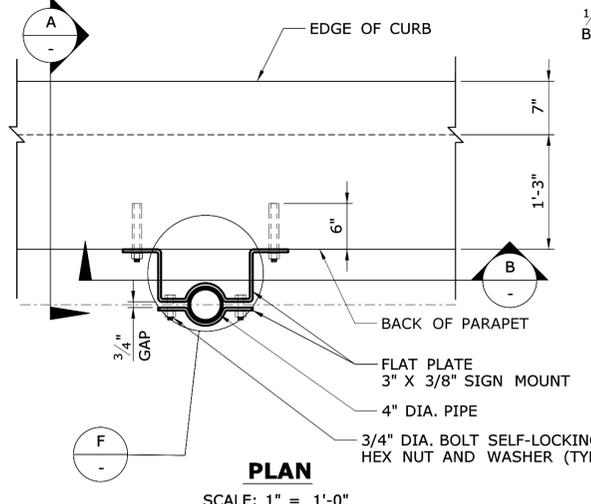


**SECTION F-F**  
 SCALE: 1" = 1'-0"

- NOTES**
1. BEARING BARS TO BE NOTCHED 1 1/4" AND WELDED AT ALL INTERSECTIONS.
  2. FOR SCUPPER LOCATIONS, SEE DRAWINGS S-112 TO S-114.
  3. NEW SCUPPERS SHALL BE SET TO GRADE AND CROSS-SLOPE.
  4. REINFORCEMENT SHOWN IN NEW DECK SCUPPER PLAN SHALL BE ASTM A615 (GRADE 60) AND SHALL BE PLACED IN ADDITION TO DECK SLAB REINFORCEMENT.

**ADDENDUM NO. 1**

DESIGNER/DRAFTER: <b>BG</b>		SIGNATURE/BLOCK: 	PROJECT TITLE: <b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b>	TOWN: <b>HARTFORD</b>	PROJECT NO. <b>63-699</b>
CHECKED BY: <b>JL</b>					
SCALE AS NOTED	FILENAME: ...\\SB_MST_BR3160_063_699_MedianBarrier.dgn	HARDESTY & HANOVER 59 Elm Street New Haven, CT 06510	<b>MEDIAN DETAILS - 5</b>	SHEET NO. <b>01.08.119.A1</b>	
1 9/29/16 REVISED SCUPPER DETAILS AND NOTES REV. DATE REVISION DESCRIPTION SHEET NO.	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	Plotted Date: 9/26/2016	ADDENDUM NO. 1	01.08.119	63-699



- NOTES:**
- DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2014, AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL, 2003 AND AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 2015.
  - STRUCTURAL STEEL SHAPES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GRADE 50T2. STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B OR ANSI A501. HOT DIPPED GALVANIZED.
  - HIGH STRENGTH BOLTS, HEAVY HEX LOCK NUTS, AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325, TYPE 1. BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A153.
  - SIGN PANEL ATTACHMENT BOLTS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM A193 CLASS 2 GRADE B8. NUTS SHALL CONFORM TO ASTM A194 AND WASHERS SHALL BE STAINLESS STEEL AND CONFORM TO ASTM A276 TYPE 304, ANNEALED. THE 3/4" DIAMETER ANCHOR SHALL CONFORM TO THE REQUIREMENTS OF ASTM A449 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A153.
  - RUBBER PADS, 1/8" THICK, SHALL BE BONDED TO ALL SURFACES OF THE STEEL PIPE SUPPORTS (STRAP). THE RUBBER SHALL CONFORM TO THE REQUIREMENTS OF ASTM D4637, TYPE II. THE ADHESIVE BONDING AGENT FOR ATTACHING THE RUBBER TO THE STRAP SURFACE SHALL BE "QUICK GEL INSTANT ADHESIVE" MANUFACTURED BY LOCTITE CORPORATION, NEWINGTON, CONNECTICUT, OR AN APPROVED EQUAL RECOMMENDED BY THE MANUFACTURER OF THE RUBBER.
  - DRILLING HOLES AND GROUTING ANCHOR BOLTS INTO EXISTING PARAPET SHALL BE LOCATED NO LESS THAN 1'-0" FROM PARAPET EXPANSION JOINTS OR PARAFFIN COATED JOINT.
  - PAID FOR AS "PARAPET MOUNTED SIGN SUPPORT", WHICH INCLUDES ATTACHMENT TO THE PARAPET.
  - SEE SUBSET 01.05 FOR SIGN PANEL LOCATIONS.

**ADDENDUM NO. 1**

DESIGNER/DRAFTER: <b>NMG</b>	CHECKED BY: <b>KZS</b>	SCALE AS NOTED	SIGNATURE/ BLOCK: 	PROJECT TITLE: <b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b>	TOWN: <b>HARTFORD</b>	PROJECT NO. <b>63-699</b>
DATE: 9/29/16	SHEET NUMBER REVISION: 01.08.120	Plotted Date: 9/26/2016		<b>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</b>	DRAWING TITLE: <b>PARAPET MOUNTED SIGN SUPPORT</b>	SHEET NO. <b>S-116</b> 01.08.120.A1

REV.	DATE	SHEET NUMBER REVISION	REVISION DESCRIPTION	SHEET NO.
1	9/29/16	01.08.120		

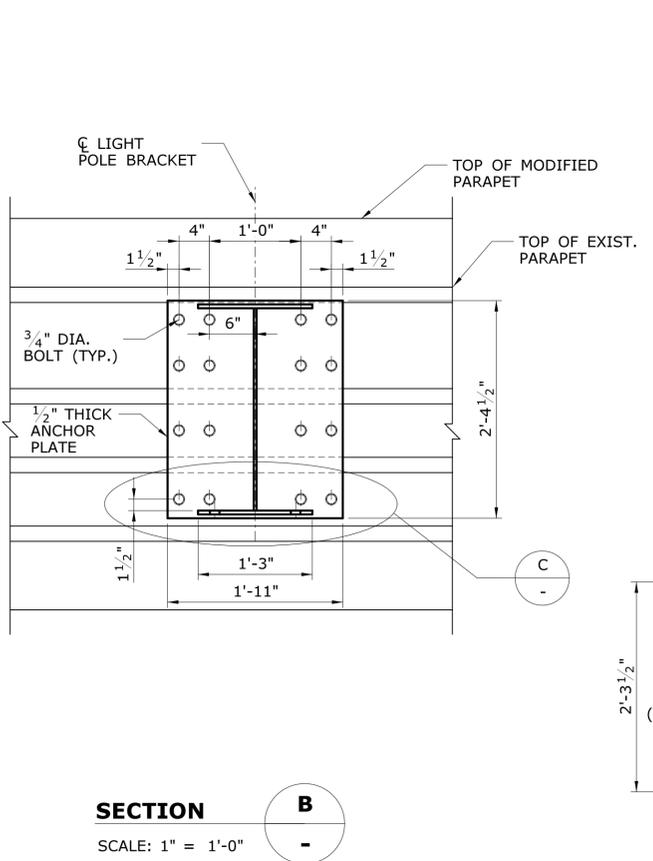
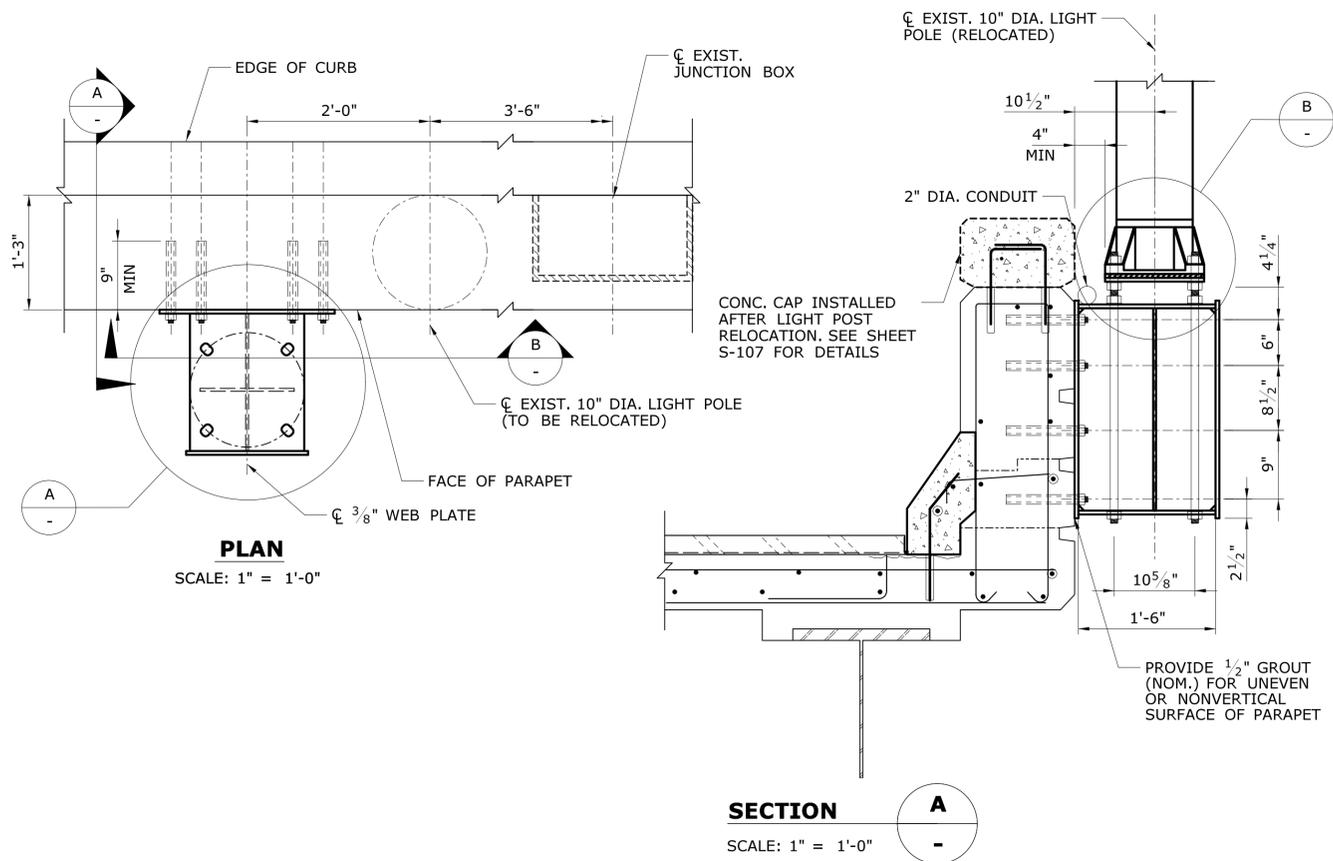
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER: **NMG**  
CHECKED BY: **KZS**  
SCALE AS NOTED

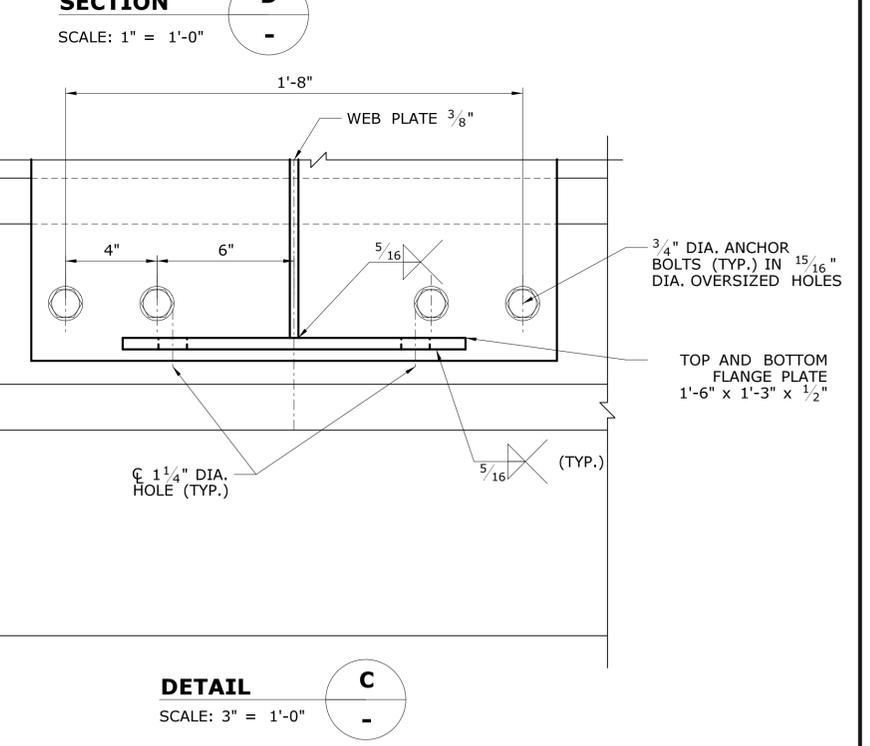
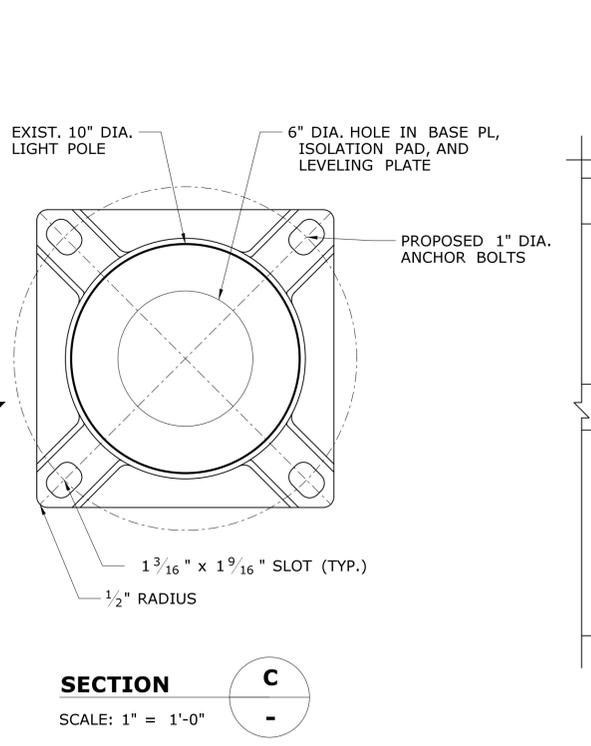
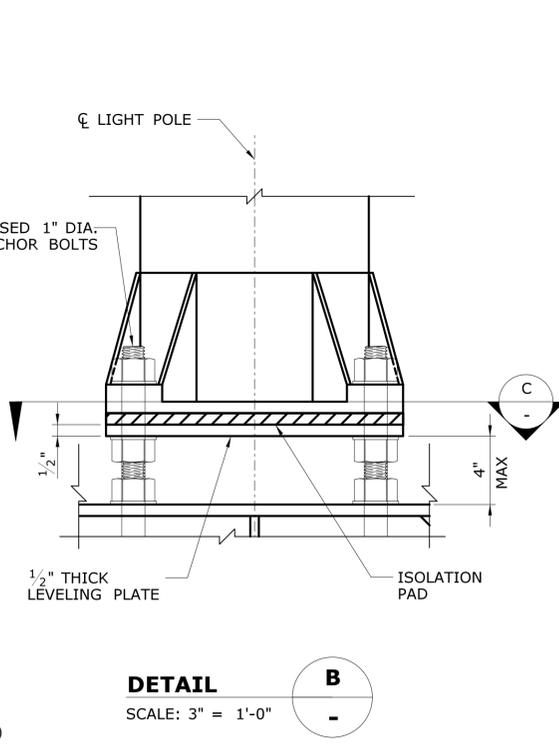
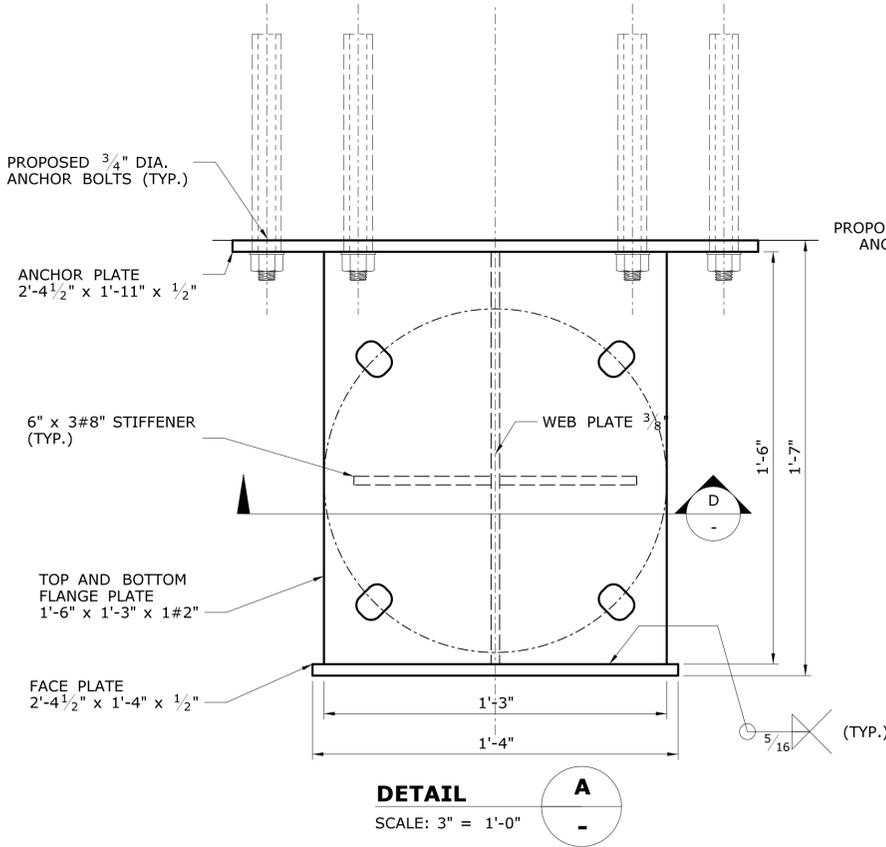
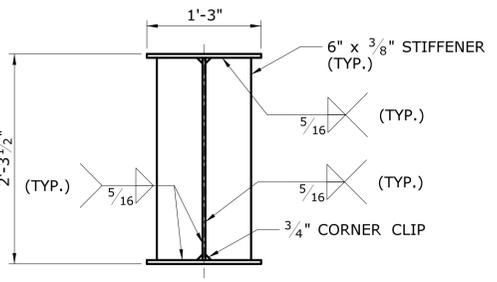
SIGNATURE/  
BLOCK:

PROJECT TITLE:  
**BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

TOWN: **HARTFORD**  
PROJECT NO.: **63-699**  
SHEET NO.: **S-116**  
01.08.120.A1



- NOTES:**
- DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2014, AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL, 2003 AND AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 2015.
  - STRUCTURAL STEEL SHAPES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GRADE 50T2. STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B OR ANSI A501.
  - HIGH STRENGTH BOLTS, HEAVY HEX LOCK NUTS, AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325, TYPE 1. ANCHOR BOLTS SHALL MEET ASTM F1554 GR 55. BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A153.
  - DRILLING HOLES AND GROUTING ANCHOR BOLTS INTO EXISTING PARAPET SHALL BE LOCATED NO LESS THAN 1'-0" FROM PARAPET EXPANSION JOINTS OR PARAFFIN COATED JOINT.
  - PAID FOR AS "LIGHT STANDARD ACHORAGE" WHICH INCLUDES ATTACHMENT TO THE PARAPET.
  - WORK TO INSTALL LIGHT STANDARDS ON THE ANCHORAGE SHALL BE PAID FOR AS "REMOVE AND REINSTALL LIGHT STANDARD."
  - SEE SUBSET 01.10 FOR ILLUMINATION DETAILS.



**ADDENDUM NO. 1**

REV.	DATE	SHEET NUMBER	REVISION DESCRIPTION	SHEET NO.
1	9/29/16		SHEET NUMBER REVISION	01.08.121
			REVISION DESCRIPTION	

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 9/26/2016

DESIGNER/DRAFTER: **NMG**  
 CHECKED BY: **KZS**  
 SCALE AS NOTED

**STATE OF CONNECTICUT**  
**DEPARTMENT OF TRANSPORTATION**

Signature/Block: *[Signature]*

Signature/Block: *[Signature]*

Hardesty & Hanover, LLC  
 59 Elm Street  
 New Haven, CT 06510

PROJECT TITLE:  
**BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

TOWN: **HARTFORD**  
 DRAWING TITLE:  
**LIGHT STANDARD SUPPORT**

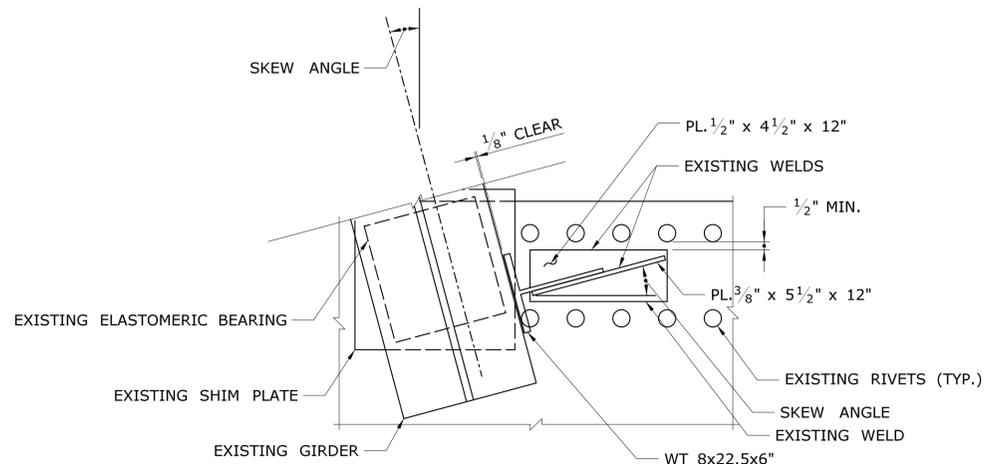
PROJECT NO.: **63-699**  
 DRAWING NO.: **S-117**  
 SHEET NO.: **01.08.121.A1**

**NOTES**

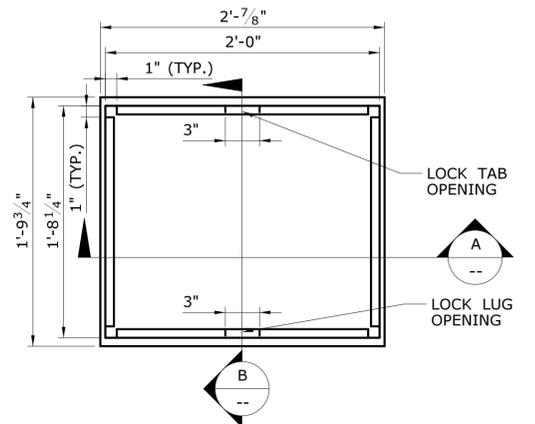
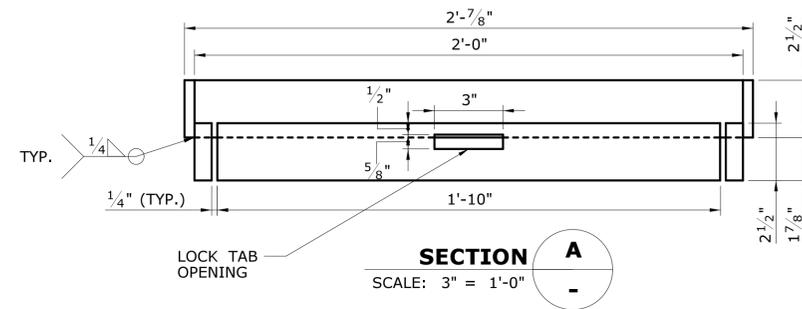
- SEE S-119 FOR STEEL CLEANING & PAINTING NOTES AND REQUIREMENTS.
- SEE S-07 FOR GENERAL NOTES.
- SEE S-09 FOR STRUCTURAL NOTES.
- EXISTING WELDS AT KEEPERS, WHICH ARE TO BE REMOVED WHERE NECESSARY, SHALL BE REMOVED BY GRINDING. EXISTING STRUCTURAL STEEL PIER CAP GIRDERS SHALL NOT BE DAMAGED DURING WELD REMOVAL.
- REPLACEMENT KEEPERS SHALL BE DETAILED TO SUIT REPAIRS AT PIER CAP GIRDERS.

**SCUPPER EXTENSION FRAME NOTES**

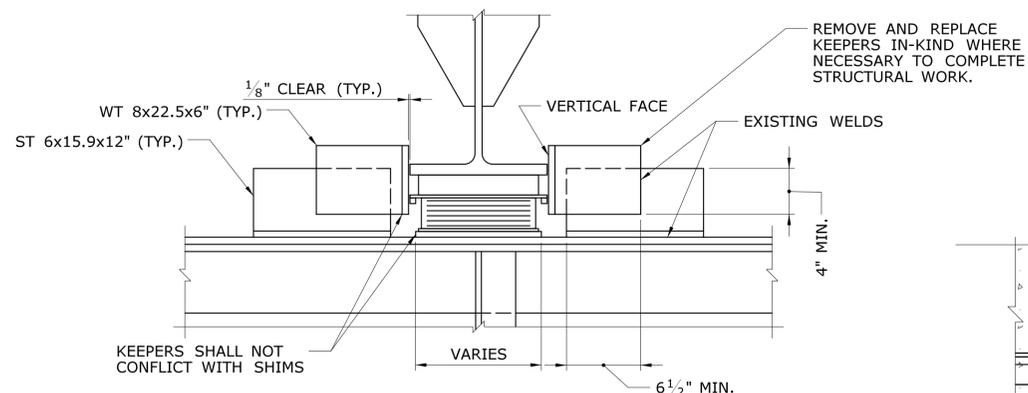
- EXISTING SCUPPER GRATES SHALL BE SALVAGED FOR REUSE.
- AFTER REMOVAL OF BITUMINOUS CONCRETE AND PRIOR TO PLACING THE SCUPPER EXTENSION FRAME, THE CONTRACTOR SHALL PLACE SEALANT AROUND THE PERIMETER OF THE EXISTING SCUPPER INTERFACE WITH THE BRIDGE DECK.
- BOND THE SCUPPER EXTENSION FRAME TO THE EXISTING SCUPPER USING A TWO PART EPOXY.
- PAID FOR AS "MODIFY SCUPPER"
- FABRICATE FROM ASTM A709 GRADE 50 STEEL. HOT DIPPED GALVANIZED AS PER ASTM A123.
- STRESS RELIEVE WELDMENTS PRIOR TO HOT DIP GALVANIZING.
- FIELD MEASURE PRIOR TO FABRICATION.



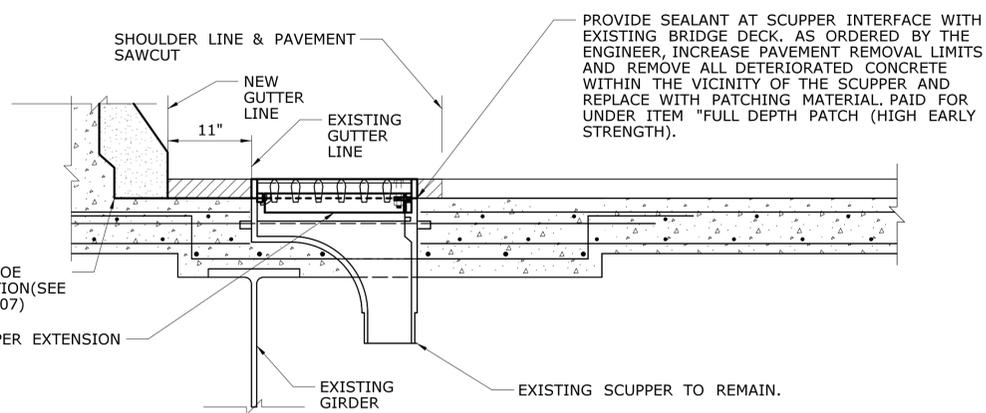
**STEEL KEEPERS AT SKEWED GIRDERS**  
SCALE:  $1\frac{1}{2}$ " = 1'-0"



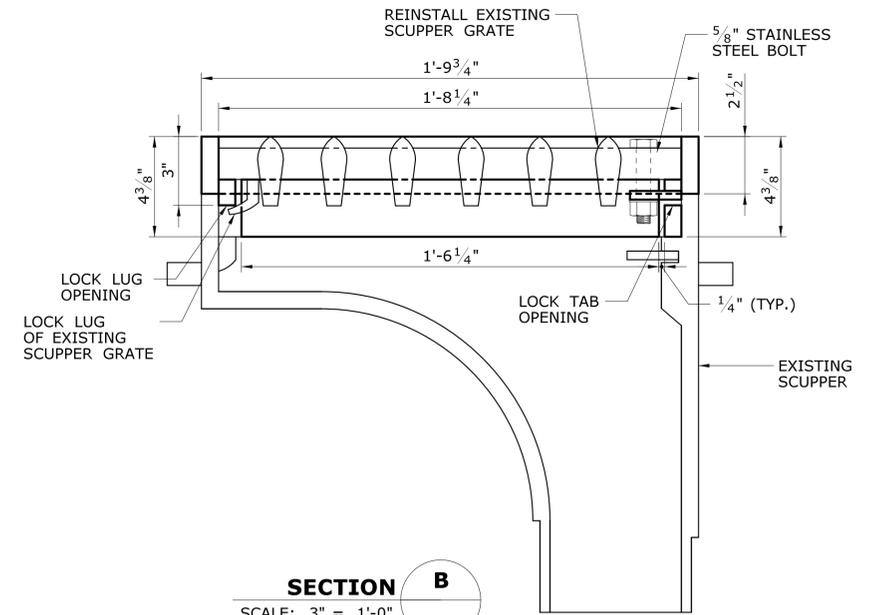
**BRIDGE SCUPPER EXTENSION FRAME**  
SCALE:  $1\frac{1}{2}$ " = 1'-0"



**EXISTING STEEL KEEPERS**  
SCALE:  $1\frac{1}{2}$ " = 1'-0"

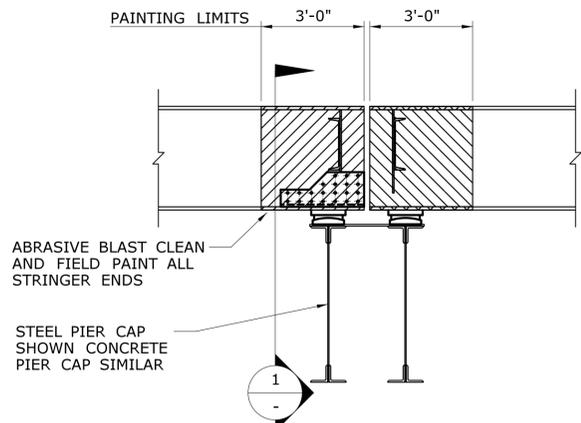


**REPAIR AT SCUPPERS**  
SCALE: 1" = 1'-0"



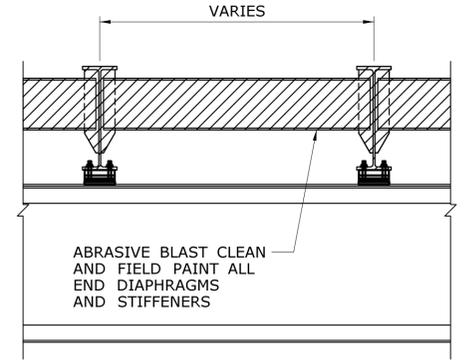
**ADDENDUM NO. 1**

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: <b>MSF</b> CHECKED BY: <b>BSH</b> SCALE AS NOTED	<b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b> Filename: ..._SB_MST_BR3160_063-699_Miscellaneous.dgn	SIGNATURE/BLOCK:  Hardesty & Hanover, LLC 59 Elm Street New Haven, CT 06510	PROJECT TITLE: <b>BRIDGE NO 3160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b>	TOWN: <b>HARTFORD</b> DRAWING TITLE: <b>MISCELLANEOUS DETAILS</b>	PROJECT NO.: <b>63-699</b> DRAWING NO.: <b>S-118</b> SHEET NO.: <b>01.08.122.A1</b>
1 9/29/16 SHEET NUMBER REVISION REV. DATE REVISION DESCRIPTION SHEET NO.	01.08.122 Plotted Date: 9/26/2016						



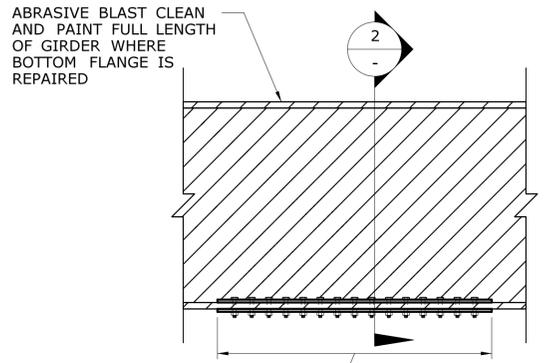
**BEAM END PAINTING LIMITS**

SCALE: 3/8" = 1'-0"



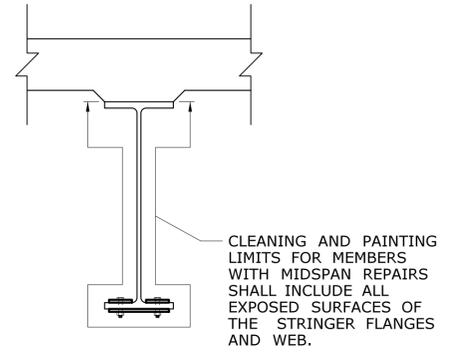
**SECTION 1**

SCALE: 3/8" = 1'-0"



**FLANGE REPAIR PAINTING LIMITS**

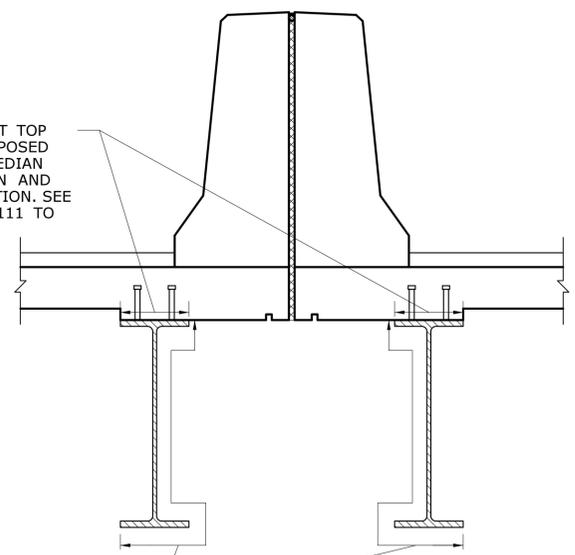
SCALE: 3/4" = 1'-0"



**SECTION 2**

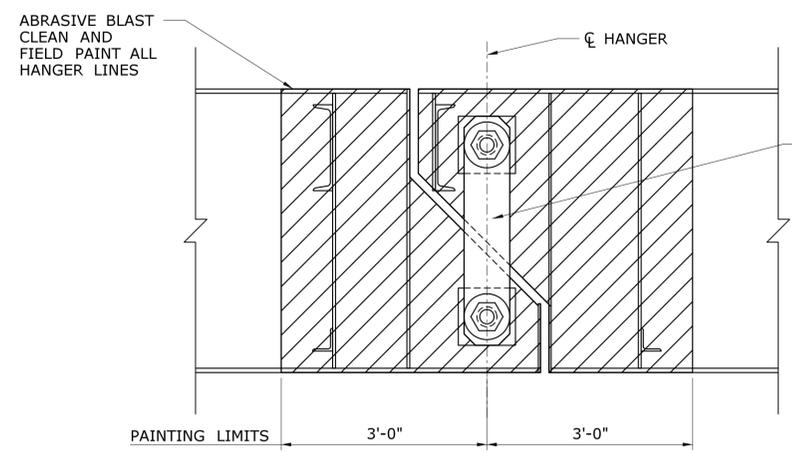
SCALE: 3/4" = 1'-0"

PRIME COAT TOP FLANGE EXPOSED DURING MEDIAN DEMOLITION AND CONSTRUCTION. SEE SHEETS S-111 TO S-115.



**MEDIAN BEAM PAINTING LIMITS**

SCALE: 3/4" = 1'-0"



**PIN AND HANGER PAINTING LIMITS**

SCALE: 3/4" = 1'-0"

DO NOT CLEAN AND PAINT STAINLESS STEEL COMPONENTS. PROTECT PIN AND COMPONENT INTERFACES FROM BLAST GRIT CONTAMINATION.

FULL LENGTH MEDIAN BEAM CLEANING AND PAINTING LIMITS SHALL INCLUDE ALL EXPOSED SURFACES OF THE STRINGER FLANGES AND WEB.

**WORK SHIELDING AND PLATFORM NOTES:**

1. THE CONTRACTOR SHALL PROVIDE PROTECTIVE BARRIERS FOR ALL WORK ABOVE ACTIVE ROADWAYS, SIDEWALKS, PARKING AREAS, AND AMTRAK RAILROAD.
2. WORK OVER THE RAILROAD SHALL BE STAGED IN COMPLIANCE WITH A SITE SPECIFIC WORK PLAN PREPARED BY THE CONTRACTOR FOR THE APPROVAL OF THE RAILROAD. WHERE WORK IS STAGED FROM RIGID WORK PLATFORMS AND CONTAINMENT THAT IS CONNECTED TO THE STRUCTURE ABOVE, SUCH PLATFORMS SHALL MEET THE RAILROAD'S REQUIREMENTS AND SHALL BE SUBMITTED FOR THE RAILROAD'S APPROVAL.
3. THE CONTRACTOR'S WORKING DRAWINGS FOR SHIELDS OVER THE RAILROAD SHALL INCLUDE ALL MINIMUM PROPOSED VERTICAL CLEARANCES TO THE TOP OF RAIL. IN ADDITION, PROVIDE MINIMUM HORIZONTAL DISTANCES FROM PROPOSED WORK AND TEMPORARY BARRIERS TO AMTRAK PROPERTY LINE AND TRACK CENTERLINE. THESE MUST BE SUBMITTED TO AMTRAK FOR REVIEW AND APPROVAL PRIOR TO PERFORMING THE WORK.
4. WORK OVER AREAS OTHER THAN THE RAILROAD SHALL BE STAGED IN ACCORDANCE WITH WORK PLANS DEVELOPED FOR THE REVIEW AND APPROVAL OF THE RESIDENT ENGINEER. SEE SPECIAL PROVISIONS FOR REQUIREMENTS.
5. TEMPORARY PROTECTIVE BARRIERS OVER THE RAILROAD SHALL BE CONSIDERED INCIDENTAL TO WORK NECESSARY. THESE BARRIERS SHALL MEET THE RAILROAD'S REQUIREMENTS FOR HORIZONTAL AND VERTICAL SHIELDING. SEE SPECIAL PROVISIONS.
6. TEMPORARY PROTECTIVE BARRIERS ARE INCIDENTAL TO THE WORK FOR WHICH THEY ARE REQUIRED.
7. WHERE ABRASIVE BLAST CLEANING AND FIELD PAINTING IS TO BE PERFORMED, THE PLATFORMS SHALL SATISFY THE REQUIREMENTS FOR "CLASS 1 CONTAINMENT AND COLLECTION OF SURFACE PREPARATION DEBRIS (SITE No. 1)", AND SHALL BE INCLUDED FOR PAYMENT AS NOTED THEREIN. WHERE THE WORK IS TO BE PERFORMED OVER THE RAILROAD, THE PLATFORMS SHALL MEET ADDITIONAL HORIZONTAL AND VERTICAL SHIELDING REQUIREMENTS AS IDENTIFIED IN THE SPECIAL PROVISIONS.

**ABRASIVE BLAST CLEANING AND FIELD PAINTING NOTES:**

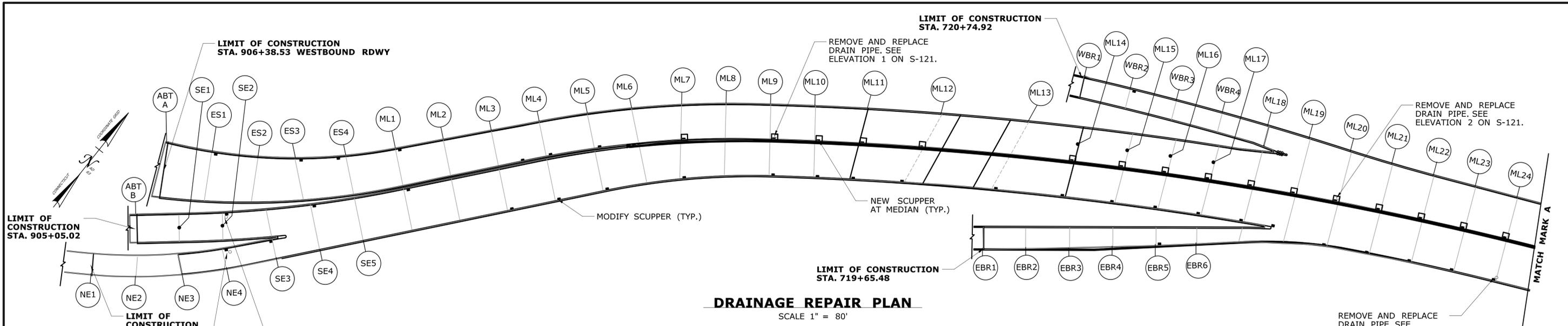
1. THIS STRUCTURE WAS ORIGINALLY COATED WITH A LEAD BASED PAINT SYSTEM.
2. THE EXISTING COATING SHALL BE REMOVED IN THE AREAS NOTED PRIOR TO THE APPLICATION OF THE NEW COATING SYSTEM.
3. REMOVAL OF THE EXISTING LEAD BASED PAINT SYSTEM REQUIRES WORK PLATFORMS MEETING THE REQUIREMENTS IN THE SPECIAL PROVISION FOR "CLASS 1 CONTAINMENT AND COLLECTION OF SURFACE PREPARATION DEBRIS".
4. ABRASIVE BLAST CLEANING, FIELD PAINTING, AND DISPOSAL OF LEAD DEBRIS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
5. THE CONTRACTOR SHALL IMPLEMENT A SITE SPECIFIC LEAD COMPLIANCE PLAN PREPARED BY A CERTIFIED INDUSTRIAL HYGIENIST IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
6. AFTER ABRASIVE BLAST CLEANING AND BEFORE THE APPLICATION OF THE PRIME COAT, THE CONTRACTOR SHALL PROVIDE ACCESS TO THE ENGINEER FOR THE INSPECTION OF THE EXISTING STEEL TO DETERMINE REMAINING THICKNESS.
7. THIS WORK SHALL BE GOVERNED BY THE SPECIAL PROVISION FOR "ABRASIVE BLAST CLEANING AND PAINTING OF BEAM ENDS (SITE No. 1)".
8. THE SPECIAL PROVISION FOR "LOCALIZED PAINT REMOVAL & FIELD PAINTING OF EXISTING STEEL" SHALL GOVERN ADDITIONAL AREAS WHERE PAINT REMOVAL AND RECOATING IS INCIDENTAL TO OTHER WORK ITEMS.

**CONTAINMENT NOTES:**

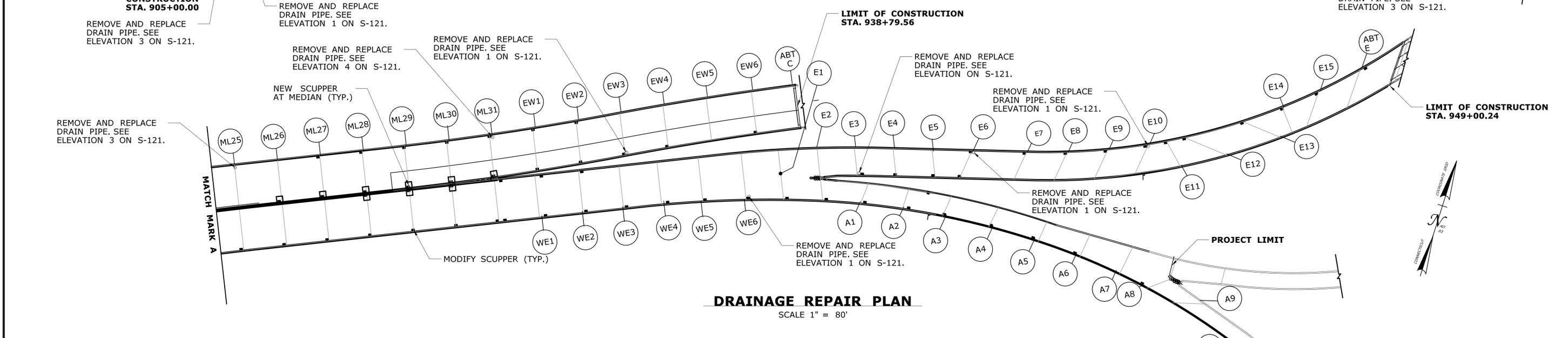
1. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE PLATFORMS IN COMPLIANCE WITH THE RAILROAD'S SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT, FOR RAILROAD APPROVAL, CALCULATIONS AND DETAILED WORKING DRAWINGS FOR THE CONTAINMENT SYSTEM. DESIGN CALCULATIONS OF THE WORK PLATFORM SHALL INCLUDE LOCATION OF PLATFORM SUPPORTS AND LOADING WHICH SHALL NOT PRODUCE A LOADING CONDITION THAT MAY OVERSTRESS THE STRUCTURE. SEE SPECIAL PROVISIONS.
2. DESIGN LOADS SHALL BE GOVERNED BY THE RAILROAD REQUIREMENTS (I&C SPECIFICATION 01520A-1 SECTION 3.1E). DESIGN WIND LOAD IS 30 PSF.
3. THE CONTRACTOR IS RESPONSIBLE FOR LABOR AND EXPENSES RELATED TO COORDINATION WITH THE RAILROAD DURING ALL FIELD ACTIVITIES, INCLUDING THE WORK TO SECURE ACCESS PERMITS AND FLAG PROTECTION DURING THE PERIODS THAT THE CONTAINMENT IS IN PLACE AND OCCUPIED.
4. RIGID CONTAINMENT OCCUPANCY SHALL BE GOVERNED BY THE RAILROAD REQUIREMENTS.
5. WHEN WIND SPEED EXCEEDS 30 MPH ALL WORK SHALL STOP. DUST AND SAND SHALL BE REMOVED FROM THE PLATFORM. WHEN WIND SPEED EXCEEDS 40 MPH, ALL ENCLOSURE CONTAINMENT AND TARPS SHALL BE REMOVED FROM THE PLATFORMS.
6. ABRASIVE AND WASTE DEBRIS SHALL BE REMOVED AS REQUIRED AND/OR ON A DAILY BASIS SO AS NOT TO EXCEED THE CAPACITY OF THE STRUCTURE OR PLATFORM.
7. CONSTRUCTION AND ERECTION OF THE WORK PLATFORM AND CONTAINMENT STRUCTURE SHALL BE SCHEDULED TO COMPLY WITH RAILROAD REQUIREMENTS.
8. CONTAINMENT INCLUDED FOR PAYMENT UNDER THE ITEM "ABRASIVE BLAST CLEANING AND FIELD PAINTING OF BEAM ENDS (SITE No. 1)".

**ADDENDUM NO. 1**

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: <b>DLF</b> CHECKED BY: <b>BSH</b>	<b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b>	SIGNATURE/BLOCK:  Hardesty & Hanover, LLC 59 Elm Street New Haven, CT 06510	PROJECT TITLE: <b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b>	TOWN: <b>HARTFORD</b> DRAWING TITLE: <b>PAINTING &amp; CONTAINMENT</b>	PROJECT NO.: <b>63-699</b> DRAWING NO.: <b>S-119</b> SHEET NO.: <b>01.08.123.A1</b>
1 9/29/16 REVISED WORK SHIELDING AND PLATFORM NOTES REV. DATE REVISION DESCRIPTION	01.08.123 SHEET NO. Plotted Date: 9/26/2016	SCALE AS NOTED Filename: ...\\SB_MST_BR3160_063_699_Paint_Containment.dgn					



**DRAINAGE REPAIR PLAN**  
SCALE 1" = 80'



**DRAINAGE REPAIR PLAN**  
SCALE 1" = 80'

PIER	REMOVALS		NEW	
	PVC/STEEL (FT.)	FRP (FT.)	PVC/STEEL (FT.)	FRP (FT.)
ABT F	15	15		
E3	30	30		
E6	20	20		
E10	20	20		
EW3	15	15		
ML9	25	25		
ML20	40	40		
ML24	30	30		
ML25	40	40		
ML31	20	20		
NE4	30	30		
SE2	20	20		
WE6	30	30		
<b>TOTAL</b>	<b>320</b>	<b>320</b>		

**DRAIN PIPE QUANTITIES**

**NOTES**

- SEE DRAWING NO. S-07 FOR GENERAL NOTES.
- SEE DRAWING NO. S-09 FOR STRUCTURAL NOTES.
- ALL DRAINAGE PIPE AND SUPPORT REPLACEMENT WORK SHALL BE INCLUDED IN THE PAY ITEM FOR "8" PIPE FOR DRAINAGE (FIBERGLASS)".
- SEE DRAWING NO. S-121 FOR DETAIL ELEVATIONS.
- SEE DRAWING NO. S-115 FOR SCUPPER DETAILS.

**LEGEND**

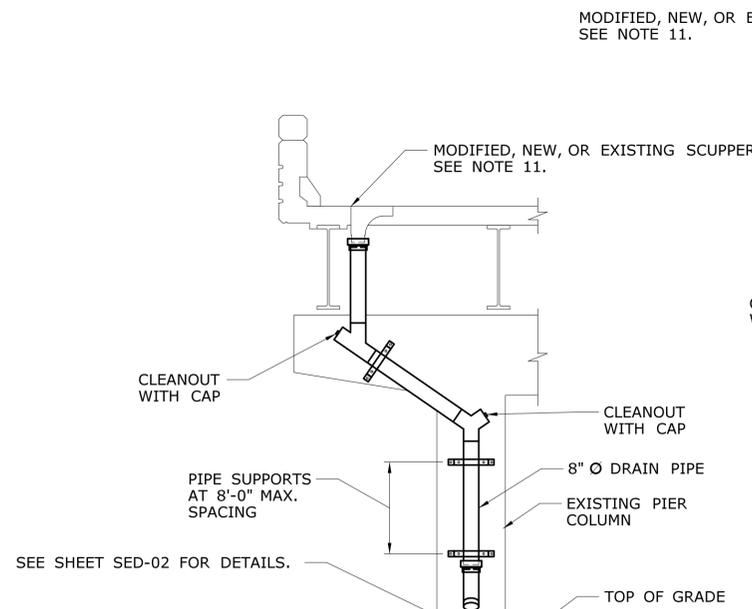
-  MODIFY SCUPPER (SEE SHEET S-118)
-  NEW SCUPPER AT MEDIAN (25 REQUIRED) (SEE SHEET S-115)

**ADDENDUM NO. 1**

DESIGNER/DRAFTER: <b>AJA</b> CHECKED BY: <b>BSH</b> SCALE AS NOTED	 <b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b> <small>Filename: ...\\SB_MST_BR3160_063-699_Drainage.dgn</small>	SIGNATURE/ BLOCK:  <small>Hardesty &amp; Hanover, LLC 59 Elm Street New Haven, CT 06510</small>	<b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b>	PROJECT TITLE: <b>BRIDGE NO. 03160A-D, 3301 &amp; 3303 I-84 EB/WB OVER AMTRAK &amp; LOCAL ROADS (AETNA VIADUCT)</b>	TOWN: <b>HARTFORD</b> DRAWING TITLE: <b>DRAINAGE REPAIR PLAN</b>	PROJECT NO. <b>63-699</b> DRAWING NO. <b>S-120</b> SHEET NO. <b>01.08.124.A1</b>
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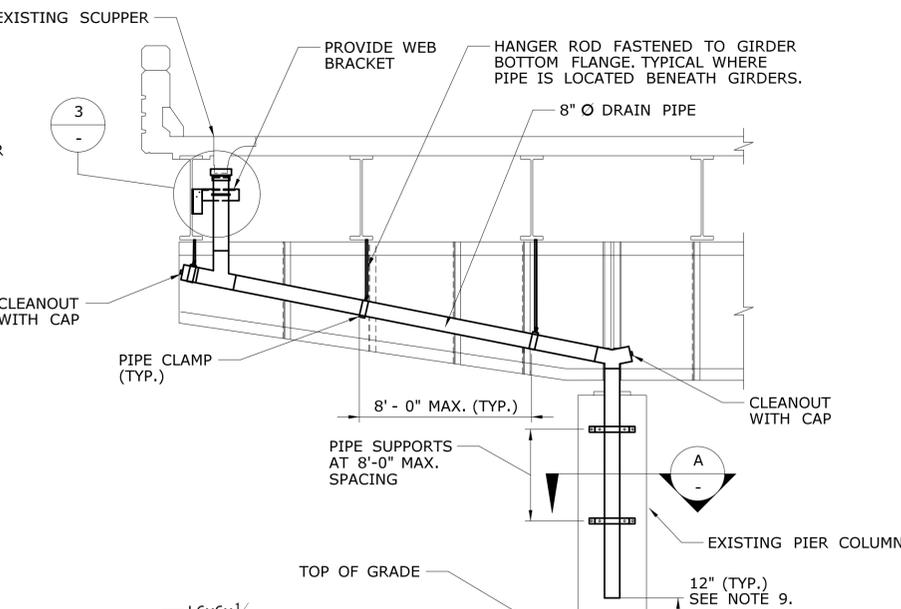
REV.	DATE	SHEET NUMBER	REVISION DESCRIPTION	SHEET NO.
1	9/29/16		SHEET NUMBER REVISION	01.08.124
			REVISION DESCRIPTION	

Plotted Date: 9/26/2016



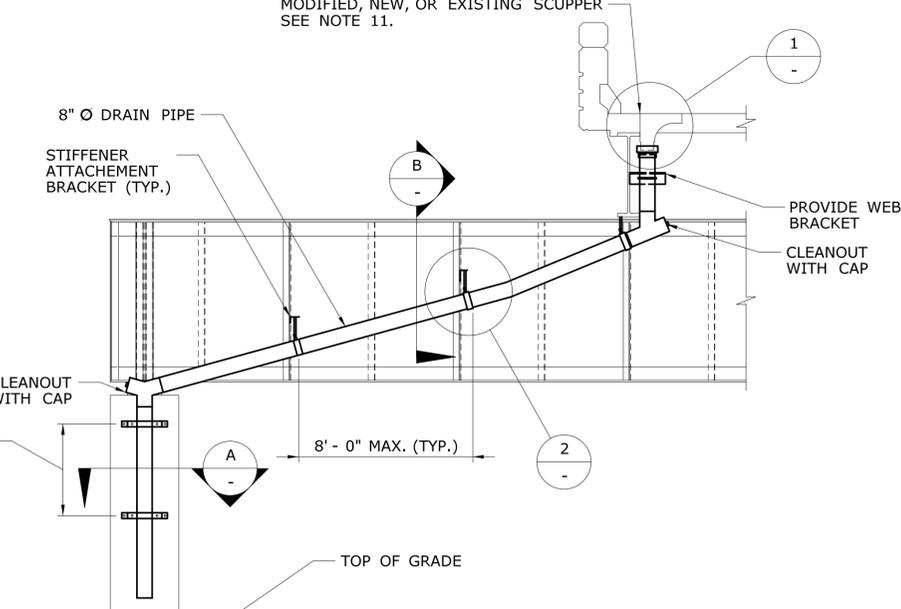
**ELEVATION 1**

SCALE: 1/4" = 1.0"



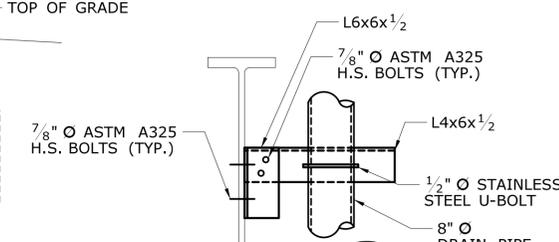
**ELEVATION 2**

SCALE: 1/4" = 1.0"



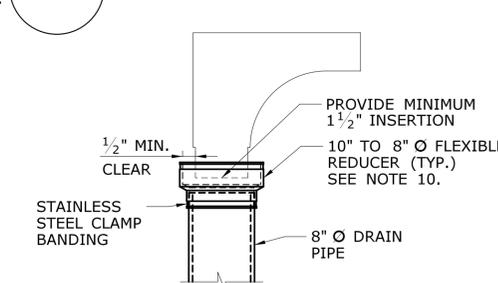
**ELEVATION 3**

SCALE: 1/4" = 1.0"



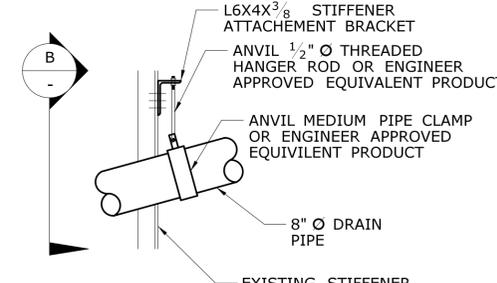
**DETAIL 3**

SCALE: N.T.S.



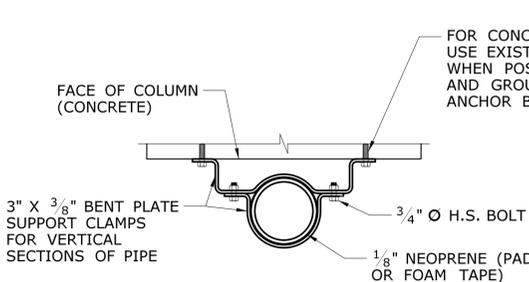
**DETAIL 1**

SCALE: N.T.S.



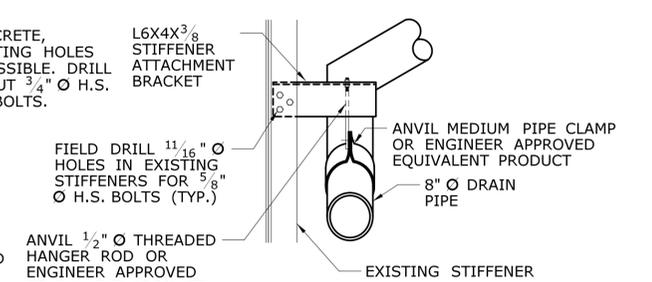
**DETAIL 2**

SCALE: N.T.S.



**SECTION A**

SCALE: N.T.S.



**SECTION B**

SCALE: N.T.S.

**NOTES**

- ELEVATIONS SHOWN ARE PERMISSIBLE CONFIGURATIONS FOR DRAINAGE PIPING. THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS OF ALL DRAINAGE PIPING, INCLUDING PIPE LENGTHS, SLOPES, SUPPORT POINTS AND TYPES FOR APPROVAL PRIOR TO FABRICATION AND ERECTION.
- WHERE SLOPED SECTIONS OF DRAIN PIPE ARE REQUIRED, THE CONTRACTOR SHALL PROVIDE A CONTINUOUS ASSEMBLY TO THE CLOSEST PIER COLUMN TO PRODUCE THE STEEPEST SLOPE POSSIBLE (8% MINIMUM).
- ALL FIBERGLASS DRAIN PIPE SHALL BE CLASSIFIED AS RTRP AND CONFORM TO ASTM D 2996. ALL FIBERGLASS FITTINGS, COUPLINGS, AND ELBOWS SHALL CONFORM TO THE REQUIREMENTS OF ASTM D 3840.
- ALL DRAIN PIPE SHALL BE SECURELY SUPPORTED BY THE SUPERSTRUCTURE EVERY 8'-0" (MAX) ALONG ITS LENGTH. SEE THIS SHEET FOR STIFFENER ATTACHMENT BRACKET DETAILS.
- FASTENERS SHALL BE GALVANIZED IN ACCORDANCE WITH ARTICLE M.06.03
- ALL ATTACHMENT DEVICES SHALL BE INCLUDED IN THE PAY ITEM "8" PIPE FOR BRIDGE DRAINAGE (FIBERGLASS)".
- CLEANOUTS SHALL BE LOCATED AND POSITIONED TO ACCOMMODATE PROBABLE CLEANING METHODS.
- ATTACHMENTS SHALL BE HOT DIPPED GALVANIZED.
- DOWNSPOUTS SHALL DISCHARGE ABOVE GROUND. DISCHARGE SHALL BE DIRECTED BY SURFACE FLOW TOWARDS RECEIVING DRAINAGE STRUCTURES.
- ALIGN NEW DRAINAGE PIPE TO EXISTING SCUPPER TO ALLOW A MINIMUM OF 1/2" CLEAR BETWEEN THE REDUCER AND THE SCUPPER OUTLET. STAINLESS STEEL CLAMP BANDING AT THE 10" SECTION SHALL NOT BE INSTALLED.
- SEE S-118 FOR EXISTING SCUPPER MODIFICATIONS. SEE S-115 FOR NEW SCUPPER DETAILS BETWEEN ML6-ML31.
- REMOVAL OF EXISTING DRAINAGE COMPONENTS, TO ALLOW INSTALLATION OF NEW, SHALL BE PAID FOR AS "REMOVAL OF EXISTING BRIDGE DRAINAGE SYSTEM".
- CONTRACTOR SHALL RECONFIGURE DRAINAGE OUTFALL AT PIER ML-25 AND ANY OTHER NEW DRAINAGE SYSTEM REPLACED AS A PART OF THIS PROJECT TO PREVENT DISCHARGE TO AMTRAK ROW.

**ADDENDUM NO. 1**

1	9/29/16	REVISED GENERAL NOTES	01.08.125
2		REVISION DESCRIPTION	

DESIGNER/DRAFTER: **AJA**  
 CHECKED BY: **BSH**  
 SCALE AS NOTED

**STATE OF CONNECTICUT**  
**DEPARTMENT OF TRANSPORTATION**

File name: ... \SB\_MST\_BR3160\_063-699\_Drainage.dgn

SIGNATURE/BLOCK:

Hardesty & Hanover, LLC  
 59 Elm Street  
 New Haven, CT 06510

PROJECT TITLE:  
**BRIDGE NO. 03160A-D, 3301 & 3303 I-84 EB/WB OVER AMTRAK & LOCAL ROADS (AETNA VIADUCT)**

TOWN: **HARTFORD**  
 DRAWING TITLE: **DRAINAGE DETAILS**

PROJECT NO.: **63-699**  
 DRAWING NO.: **S-121**  
 SHEET NO.: **01.08.125.A1**