



**COMMONWEALTH OF KENTUCKY  
TRANSPORTATION CABINET**

Frankfort, Kentucky 40622  
www.transportation.ky.gov/

**Matthew G. Bevin**  
Governor

**Greg Thomas**  
Secretary

January 22, 2019

CALL NO. 301  
CONTRACT ID NO. 195036  
ADDENDUM # 1

Subject: BELL COUNTY, FD04 007 2011 006-007  
Letting January 25, 2019

- (1) Revised - Plan Sheets - Pages 10-15 of 55
- (2) Added - Plan Sheets - Pages 15(a)-15(b) of 55
- (3) Added - Special Notes - Pages 1-8 of 8

Proposal revisions are available at <http://transportation.ky.gov/Construction-Procurement/>.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

A handwritten signature in cursive script that reads "Rachel Mills".

Rachel Mills, P.E.  
Director  
Division of Construction Procurement

RM:mr  
Enclosures

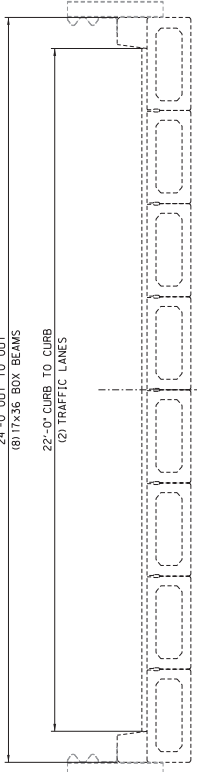


An Equal Opportunity Employer M/F/D

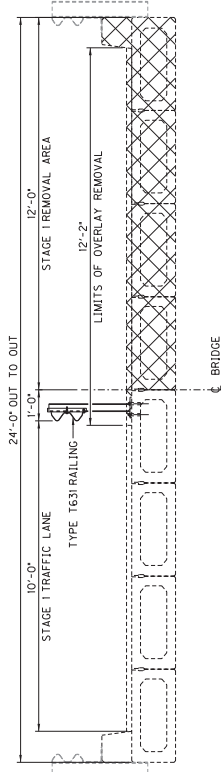






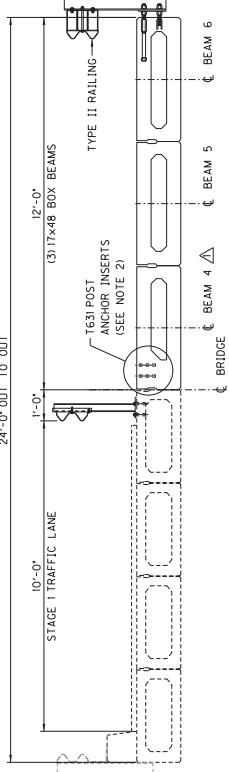


**TYPICAL SECTION - EXISTING**



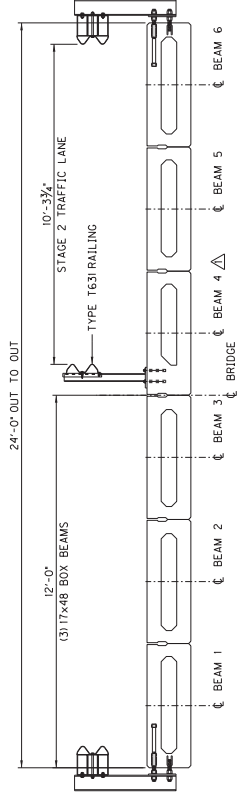
**TYPICAL SECTION - STAGE 1 REMOVAL**

1. REMOVE EXISTING ASPHALT OVERLAY
2. INSTALL TYPE T631 RAILING PER STANDARD DRAWING BHS-000-0111111 SHEET S7 (TYP.)
3. REMOVE EXISTING BEAMS 5-8



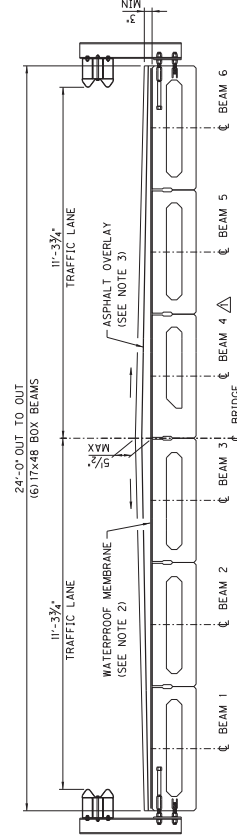
**TYPICAL SECTION - STAGE 1 CONSTRUCTION**

1. SET BEAMS 4-6
2. BEAMS 4-6 BE FABRICATED W/ T631 POST ANCHOR INSERTS, SO AS TO AVOID FIELD INSTALLATION.



**TYPICAL SECTION - STAGE 2 CONSTRUCTION**

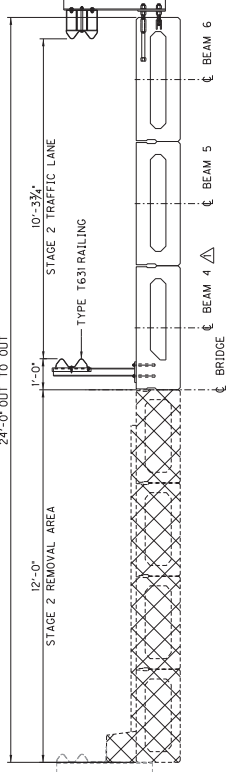
1. SET BEAMS 1-3
2. STAGE 2 CONSTRUCTION TRAFFIC LANE CAN BE USED AS STAGE 1 OVERLAY TRAFFIC LANE



**TYPICAL SECTION - FINAL**

(BEAM REINFORCEMENT AND LATERAL TENSION ROD NOT SHOWN FOR CLARITY)

1. CONTRACTOR MAY USE SIMILAR PHASING (IN REVERSE ORDER) FOR WATERPROOF MEMBRANE AND ASPHALT OVERLAY INSTALLATION FOR STAGE 2. USE TRAFFIC CONES INSTEAD OF A T631 RAILING. TO REMOVE T631 RAILING, FIELD CUT ANCHORS ALONG TOP FACE OF BEAMS PRIOR TO WORK.
2. APPLY WATERPROOF MEMBRANE (IN PHASES) PER GENERAL NOTE ON SHEET S2.
3. APPLY ASPHALT OVERLAY (IN PHASES) IN TWO LIFTS:  
LIFT 1: LEVELING & WEDGING P1664-22 (1.5' @ EDGE OF DECK AND 4" AT CROWN)  
LIFT 2: CL 2 ASPH SURF .0380 PG 64-22 (1.5')



**TYPICAL SECTION - STAGE 2 REMOVAL**

1. INSTALL TYPE T631 RAILING
2. REMOVE EXISTING BEAMS 1-4 AND EXISTING OVERLAY

MODIFIED BOX BEAM	REVISION	DATE
		1/18/19
DESIGNED BY: C. ELLISON	CHECKED BY:	
DETAILED BY: S. FOY	M. FASANO	

City of **BELL**  
Department of **Kentucky**  
**DEPARTMENT OF HIGHWAYS**

ROUTE: KY 2011  
CROSSING: RED BIRD CREEK

PREPARED BY: **Stantec**

TYPICAL SECTIONS

SHEET NO. 27 OF 33

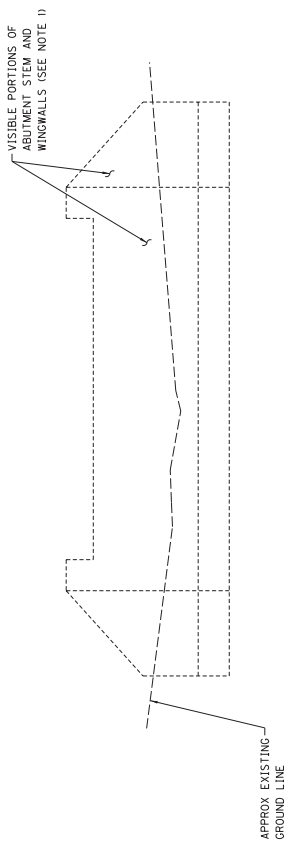
BRIDGE NUMBER	007B00071N
---------------	------------

BOX BEAM NOTES:

1. BOX BEAMS SHALL BE FABRICATED IN ACCORDANCE WITH STANDARD DRAWING BDP-007-04 AS TABULATED FOR BITX28' LENGTH, EXCEPT THAT THE SPAN LENGTH SHALL MATCH EXISTING CONDITIONS.
2. BOX BEAMS SHALL BE INSTALLED AS SHOWN AND IN COMPLIANCE WITH STANDARD DRAWINGS BDP-007-05, BDP-002-03, BDP-003-03, BDP-004-03 AND BDP-005-05.

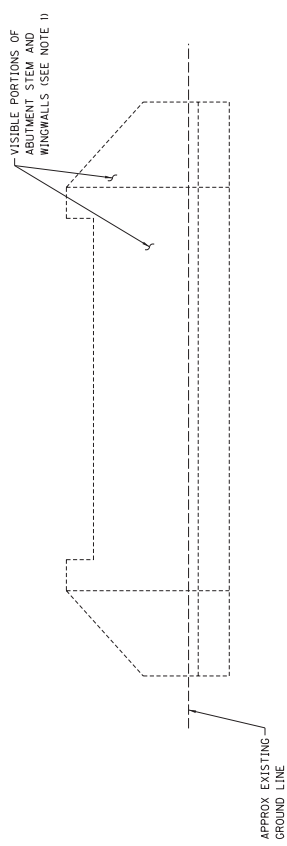
NOTES:

- 1 APPLY CONCRETE SEALING TO VISIBLE PORTION OF THE SUBSTRUCTURE UNITS, PER SPECIAL NOTE.
- 2 INSTALL BEARING PADS IN ACCORDANCE WITH STANDARD DRAWING BBP-003-02. SET PADS AND CORK IN ACCORDANCE WITH STANDARD DRAWING BDP-002-03.
- 3 INSTALL WATERPROOFING MEMBRANE IN COMPLIANCE WITH SECTION 808.06 OF THE STANDARD SPECIFICATIONS AND IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. THIS ITEM SHALL BE INCIDENTAL TO THE BID ITEM FOR PRECAST PC BOX BEAM B17-48.
- 4 12" WIDE MASTIC TAPE TO WATERPROOF THE JOINT BETWEEN THE BEAM AND THE ABUTMENT. THE TAPE SHALL BE LOOPED AS SHOWN TO ALLOW FOR MOVEMENT WITHOUT DAMAGE TO THE TAPE. INSTALL PLASTIC FILM OR OTHER BOND BREAKER BETWEEN TAPE LOOP AND EXPANSION JOINT.
- 5 REFER TO SPECIAL NOTE FOR BRIDGE OVERLAY APPROACH PAVEMENT.



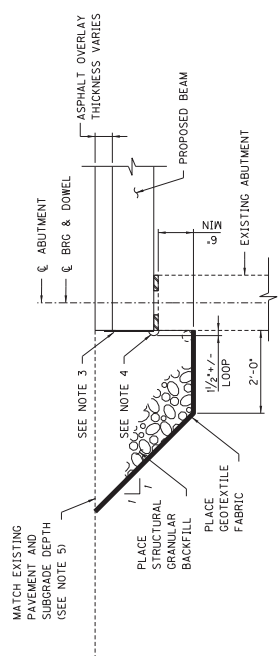
**ABUTMENT 1**

(NOT TO SCALE)  
(SUPERSTRUCTURE NOT SHOWN FOR CLARITY)



**ABUTMENT 2**

(NOT TO SCALE)  
(SUPERSTRUCTURE NOT SHOWN FOR CLARITY)



**SECTION AT ABUTMENT**

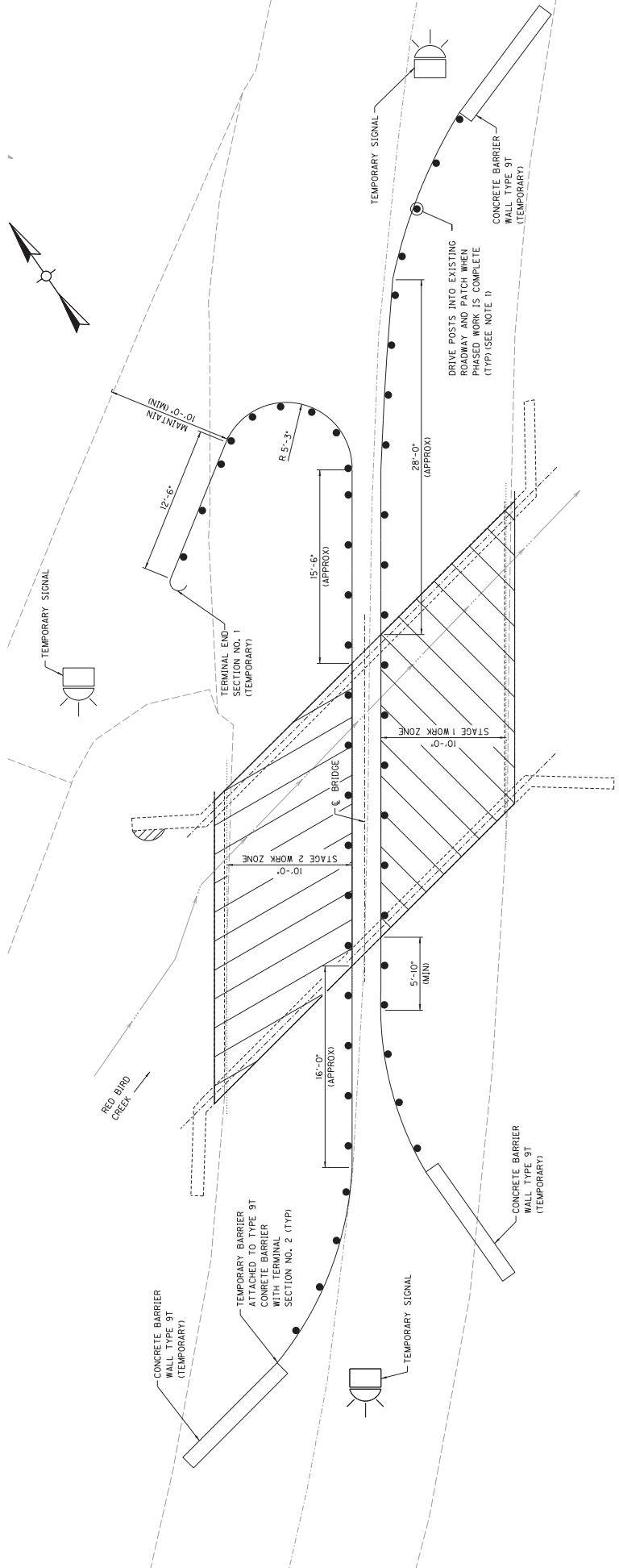
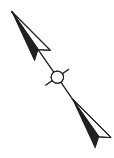
(DOWEL DETAILS NOT SHOWN FOR CLARITY)

DATE: 12/07/2018	DESIGNED BY: M. FASANO	DETAILED BY: S. FOY
REVISION	CHECKED BY	
<b>Commonwealth of Kentucky</b> DEPARTMENT OF HIGHWAYS		
COUNTY <b>BELL</b>		
ROUTE KY 2011		
CROSSING RED BIRD CREEK		
PREPARED BY <b>SUBSTRUCTURE</b>		
SHEET NO. 12783		

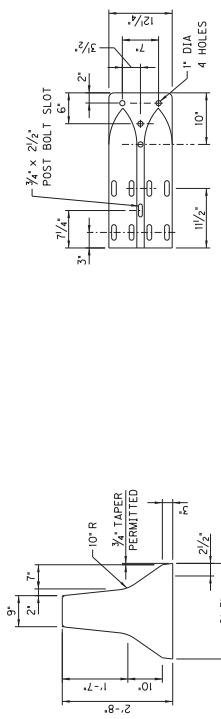
BRIDGE NUMBER  
**007B00071N**

PREPARED BY  
**Stantec**

NOTES:  
1 ALL WORK RELATED TO THE WORK ZONE PLAN SHALL BE INCIDENTAL TO MAINTENANCE OF TRAFFIC.



**WORK ZONE PLAN**  
(63' RAILING SHOWN)



**CONCRETE BARRIER  
WALL TYPE 9T (TEMPORARY)**

**TERMINAL SECTION NO. 2**

DATE: 12/07/2018	CHECKED BY: M. FASANO
DESIGNED BY: C. ELLISON	M. FASANO
DETAILED BY: S. FOY	M. FASANO
<b>Commonwealth of Kentucky</b> DEPARTMENT OF HIGHWAYS	
COUNTY: <b>BELL</b>	
ROUTE: <b>KY 2011</b>	
CROSSING: <b>RED BIRD CREEK</b>	
PROJECT: <b>WORK ZONE PLAN</b>	
PREPARED BY: <b>Stantec</b>	

BRIDGE NUMBER  
**007B00071N**

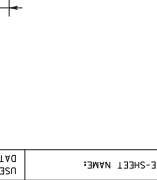
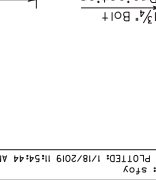
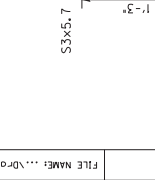
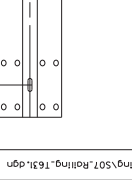
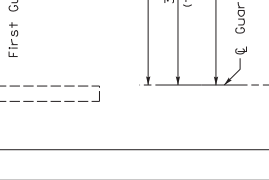
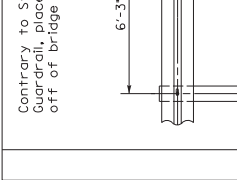
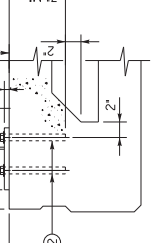
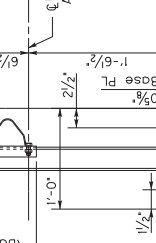
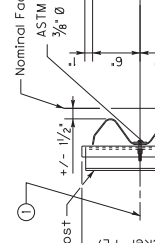
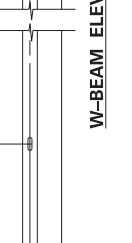
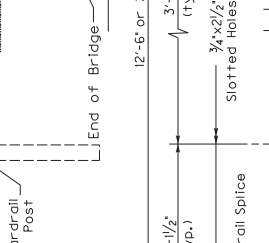
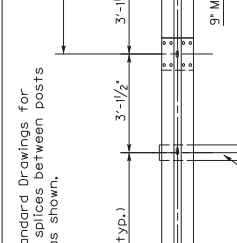
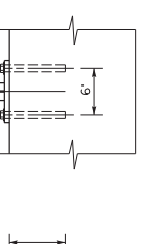
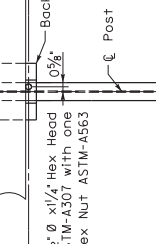
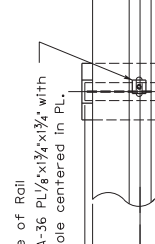
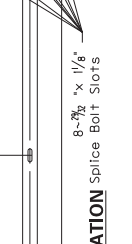
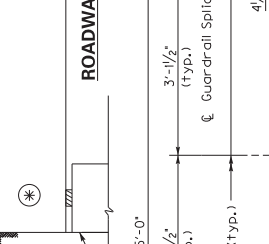
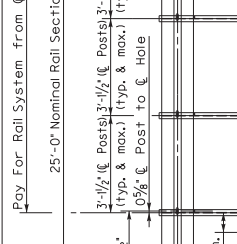
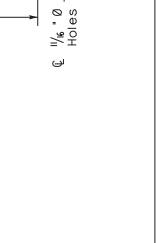
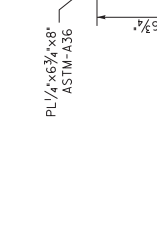
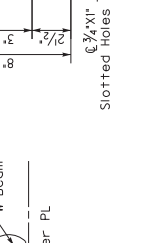
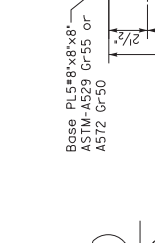
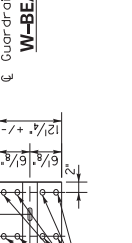
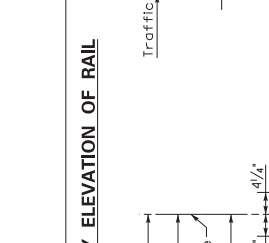
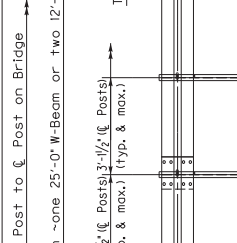
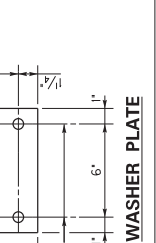
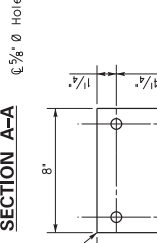
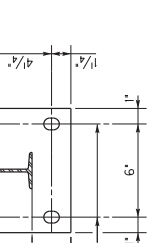
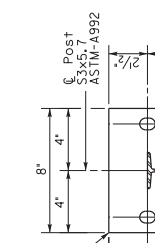
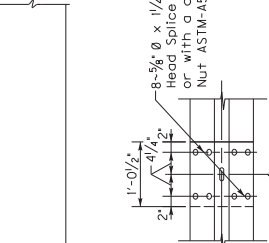
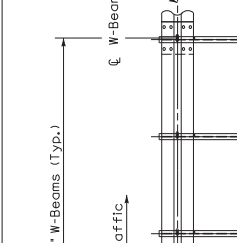
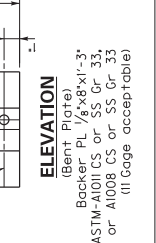
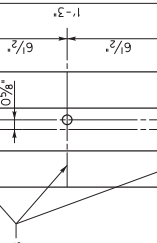
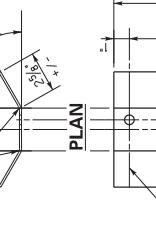
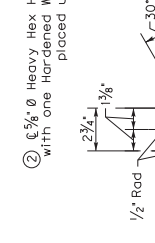
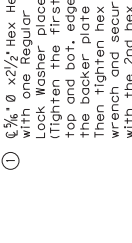
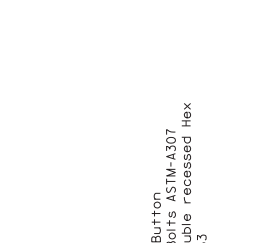
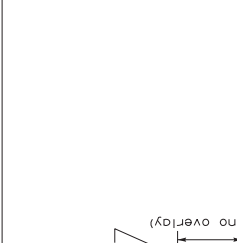
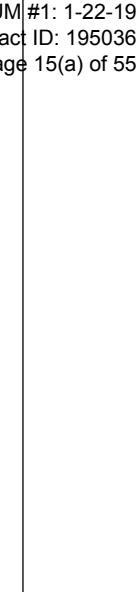
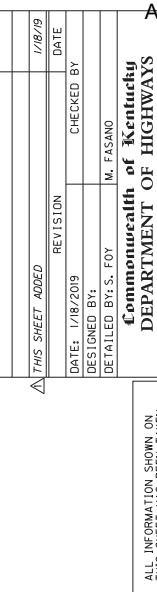
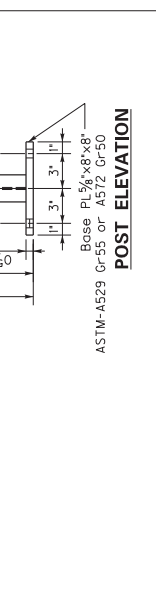
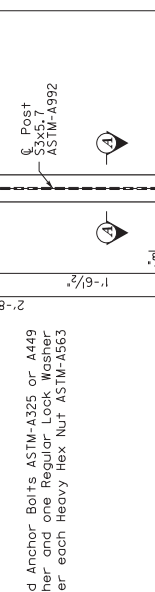
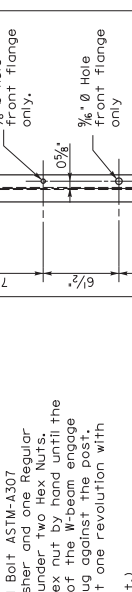
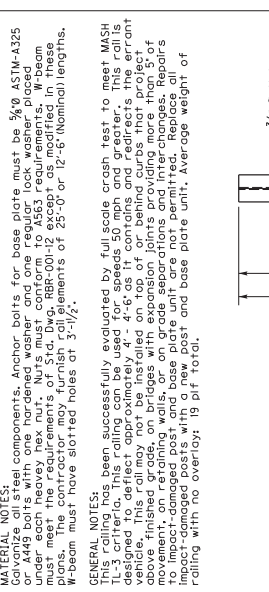


**TRANSITION AND END TREATMENT NOTES:**  
This traffic railing must be anchored by a minimum of 25 feet of pay item to the W-Beam, S Face (7 Foot Post) or 21802EN. This 25 feet of pay item of the bridge is to be paid with the roadway plans. This traffic railing shall be installed in accordance with the Standard Specifications for the State of Kentucky, Section 21802EN, "Guardrail, Steel W-Beam, Single Face." Contrary to the standard drawings, transition the guardrail down 2" in the last post on the bridge. This is 1/2 per post so it transitions 25' from the last post on the bridge.

**CONSTRUCTION NOTES:**  
Face of rail post must be plumb unless otherwise approved by the Engineer. Post must be perpendicular to adjacent roadway grade. Use epoxy mortar with Type III binder conforming to Section 886 and ASTM C881 under post base plates. Each end of rail post must be embedded in concrete to a depth of 25' from each end of rail. Typical guard-rail construction as indicated above and not bridge rail transition or bridge end connector. It is recommended that the posts and backer plate to be installed in concrete by grinding. Shop drawings are not required.

**MATERIAL NOTES:**  
Anchor bolts for base plate must be 3/4" ASTM-A325 or A449 bolts with one hardened washer and one regular lock washer placed under each nut. The contractor may furnish rail elements of 25'-0" or 12'-6" (Nominal) lengths. W-beam must have slotted holes at 3'-1/2'.

**GENERAL NOTES:**  
Railing has been successfully evaluated by full scale crash tests to meet MASH TL-3 criteria. This railing can be used for speeds 50 mph and greater. This rail is designed to deflect approximately 4' - 4'-6" as it contains and redirects the errant vehicle. This railing may not be installed on top of behind curbs or other structures. Railing shall be installed on retaining walls, or on grade separations and interchanges. Repairs to impact-damaged post and base plate unit are not permitted. Replace all impact-damaged post and base plate unit as one replacement unit. Average weight of railing with no overlay: 19 lbs total.



Contrary to Standard Drawings for Guardrail, place splices between posts off of bridge as shown.

Pay For Rail System from  $\varnothing$  Post to  $\varnothing$  Post on Bridge

25'-0" Nominal Rail Section - one 25'-0" W-Beam or two 12'-6" W-Beams (Typ.)

3'-1/2' (typ.)  $\varnothing$  Post to  $\varnothing$  Hole

3'-1/2' (typ.)  $\varnothing$  Post to  $\varnothing$  Post

3'-1/2' (typ.)  $\varnothing$  Post to  $\varnothing$  Post

3'-1/2' (typ.)  $\varnothing$  Post to  $\varnothing$  Post

3'-1/2' (typ.)  $\varnothing$  Post to  $\varnothing$  Post

6'-3" (typ.)

9" Min.

12'-6" or 25'-0"

3'-1/2' (typ.)

3'-1/2' (typ.)

3'-1/2' (typ.)

3'-1/2' (typ.)

3'-1/2' (typ.)

End of Bridge

Guardrail Post

Guardrail Splice

Guardrail Splice

Guardrail Splice

Guardrail Splice

Guardrail Splice

Guardrail Splice

8-7/8" x 1/8"

8-5/8"  $\varnothing$  x 1/4" Button Head Splice Bolts ASTM-A307 or with a double recessed Hex Nut ASTM-A563

1'-0/2"

1'-0/2"

1'-0/2"

1'-0/2"

1'-0/2"

1'-0/2"

W-BEAM ELEVATION

W-BEAM ELEVATION

W-BEAM ELEVATION

W-BEAM ELEVATION

W-BEAM ELEVATION

W-BEAM ELEVATION

W-BEAM ELEVATION

W-BEAM ELEVATION

TRAFFIC VIEW

TRAFFIC VIEW

TRAFFIC VIEW

TRAFFIC VIEW

TRAFFIC VIEW

TRAFFIC VIEW

TRAFFIC VIEW

TRAFFIC VIEW

X-SECTION VIEW (BIT BOX BEAM SHOWN)

X-SECTION VIEW (BIT BOX BEAM SHOWN)

X-SECTION VIEW (BIT BOX BEAM SHOWN)

X-SECTION VIEW (BIT BOX BEAM SHOWN)

X-SECTION VIEW (BIT BOX BEAM SHOWN)

X-SECTION VIEW (BIT BOX BEAM SHOWN)

X-SECTION VIEW (BIT BOX BEAM SHOWN)

X-SECTION VIEW (BIT BOX BEAM SHOWN)

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

PLAN

PLAN

PLAN

PLAN

PLAN

PLAN

PLAN

PLAN

ELEVATION

ELEVATION

ELEVATION

ELEVATION

ELEVATION

ELEVATION

ELEVATION

ELEVATION

WASHER PLATE

WASHER PLATE

WASHER PLATE

WASHER PLATE

WASHER PLATE

WASHER PLATE

WASHER PLATE

WASHER PLATE

POST ELEVATION

POST ELEVATION

POST ELEVATION

POST ELEVATION

POST ELEVATION

POST ELEVATION

POST ELEVATION

POST ELEVATION

TEMPORARY ANCHORAGE

TEMPORARY ANCHORAGE

TEMPORARY ANCHORAGE

TEMPORARY ANCHORAGE

TEMPORARY ANCHORAGE

TEMPORARY ANCHORAGE

TEMPORARY ANCHORAGE

TEMPORARY ANCHORAGE

BRIDGE NUMBER

BRIDGE NUMBER

BRIDGE NUMBER

BRIDGE NUMBER

BRIDGE NUMBER

BRIDGE NUMBER

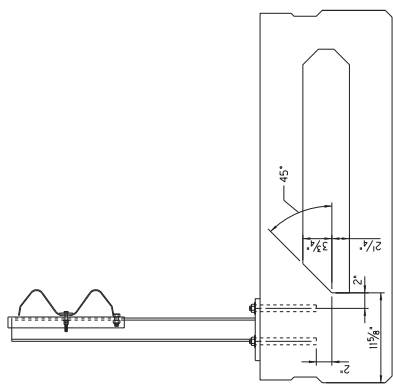
BRIDGE NUMBER

</



MODIFIED BOX BEAM NOTES:

- 1 CONTRACTOR TO FABRICATE BEAM 4 PER STANDARD DRAWING BDP-009-04, BUT MODIFY THE VOID SECTION AS SHOWN.



**MODIFIED BOX BEAM**  
(BEAM 4 ONLY)

THIS SHEET ADDED	1/18/19
DATE	1/18/2019
DESIGNED BY:	M. FASANO
DETAILED BY:	S. FOY
CHECKED BY:	
<b>Commonwealth of Kentucky</b> DEPARTMENT OF HIGHWAYS	
COUNTY <b>BELL</b>	
CROSSING RED BIRD CREEK	
ROUTE KY 2011	
PREPARED BY <b>Stantec</b>	
BRIDGING KENTUCKY BRIDGING KENTUCKY BRIDGING KENTUCKY	

BRIDGE NUMBER	007B000071
---------------	------------

## SPECIAL NOTE FOR CONCRETE COATING

### I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highways 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the Contract Documents. Section references are to the Standard Specifications.

This work consists of the following:

1. Furnish all labor, materials, tools, equipment, and incidental items necessary to complete the work.
2. Provide safe access to the bridge, in accordance with Section 107.01.01, for the Engineer to sound possible repair areas and for workers to complete the construction.
3. Repair cracks as applicable in accordance with the Special Note for Epoxy Injection Crack Repair.
4. Repair delaminated or spalled areas as applicable in accordance with the Special Note for Concrete Patching.
5. Apply Ordinary Surface Finish
6. Prepare the surfaces to receive coating.
7. Apply concrete coating.
8. Any other work as specified as part of this contract.

### II. MATERIALS

One of the following coating systems shall be used:

<u><i>Manufacturer</i></u>	<u><i>Prime Coat</i></u>	<u><i>Finish Coat</i></u>
Sherwin Williams	Macropoxy 646	Acrolon 218 HS
PPG	Amerlock 2	Devoe Devflex HP
Carboline	Carboguard 890	Carbothane 133 HB
Tnemec	Elastogrip 151	Envirocrete 156

The finish product shall be opaque and satin or semi-gloss. The contractor must apply sufficient coats as required to achieve this goal. The finish coat shall be gray and will meet the following values:

	<u>L*</u>	<u>a*</u>	<u>b*</u>
Gray	74.94	-1.54	3.92

Furnish to the Engineer copies of the manufacturer's technical data sheets, installation guidelines, material safety data sheets, and other pertinent data at least two (2) days prior to beginning the work.

### III. CONSTRUCTION

- A. Perform Concrete Repairs.** Repair concrete surface in accordance with the Special Note for Epoxy Injection Crack Repair and/or the Special Note for Concrete Patching Repair if included in the contract documents.
- B. Apply Ordinary Surface Finish.** Areas receiving epoxy injection, concrete patching, and other surface imperfections, including areas of minor cracking, should receive Ordinary Surface Finish in accordance with Section 601.03.18 of the Standard Specifications. Use mortar of the same cement and fine aggregate as the concrete patching, or as directed by the Engineer. Payment will be incidental to Concrete Sealing.
- C. Areas to Receive Concrete Coating:**
1. Every exposed surface above a point 6" below ground or fill line of abutments, wing walls, end bent and pier caps, pedestals, back walls, columns, and exposed footings.
  2. All exposed surfaces of concrete barrier walls, parapets, curbs, and plinths. Do not apply to the riding surface of the concrete deck.
  3. The underneath surfaces of slab overhangs outside of exterior girders and to the exterior side and bottom of exterior concrete girders, beams, and box beams.
- D. Prepare Concrete Surfaces for Repair.** All areas specified shall be pressure washed. Equip the pressure washers with calibrated gages and pressure regulators to ascertain and regulate water pressure. All equipment for pressure washing shall be operated at a minimum pressure of up 3,500 to 4,500 psi with 0 degree spinner tip and/or fan tips as determined by the engineer at the working location with a minimum flow rate of 3.5 gal/minute provided that these pressures do not damage any components of the structure. Pressure and flow rates shall be reduced to a level satisfactory to the Engineer should any damage occur due to power washing procedures. The washing wand must be approximately perpendicular to the washed surface and within a maximum of 12 inches of the surface. Wand extensions greater than 36 inches will be subject to Division of Construction approval. Pressure washing of any bridge element will proceed from top of wash area to bottom of wash area. Perform all pressure washing at temperatures above 40 degrees Fahrenheit.
- E. Apply Concrete Coating.** All areas specified shall have concrete coating applied to as specified after debris removal and power washing. New concrete shall be allowed to properly cure in accordance with the manufacturer's recommendations prior to application. Use compressed air to remove any loose debris from the surfaces that are to be coated after power washing. All coatings shall be applied within manufacturers recommended dry film thickness range. Comply with KYTC "Standard Specifications for Road and Bridge Construction" Section 614.03.02 and coatings supplier recommended conditions for application. Allow the surfaces to be coated to dry a minimum of 24 hours before any coating is applied. The coating must be applied with 72 hours of pressure washing. The coating must be applied to a clean and dry surface.

All coating application shall be executed using brushes, rollers, etc. No spray application will be permitted.

The Department requires acceptance testing of samples obtained on a per-lot basis per-shipment. The Division of Materials shall perform acceptance testing. Test samples shall be taken at the Contractor’s paint storage site. Department personnel shall perform sampling. Allow (10) working days for testing and approval of the sampled paint. It is the Contractor’s responsibility to maintain an adequate inventory of approved paint. The Department shall assume no responsibility for lost work due to rejection of paint or approved paint subsequently found to be defective during the application process. Perform all concrete coating application at temperatures above 40 degrees Fahrenheit or in accordance with manufactures specifications.

**IV. MEASUREMENT**

The Department will measure the quantity in square feet. The Department will not measure preparation of the site for the Engineer’s access or removal and reapplication of coatings that do not satisfy the Engineer’s approval for payment and will consider them incidental to “Concrete Coating”.

**V. PAYMENT.**

The Department will make payment for the completed and accepted quantities of concrete coating under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
23378EC	Concrete Sealing	Square Foot

The Department will consider payment as full compensation for all work required as described in this note.

## SPECIAL NOTE FOR PLACING BRIDGE OVERLAY APPROACH PAVEMENT

### I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the Contract Documents. Section references are to the Standard Specifications.

This work consists of the following:

1. Furnish all labor, materials, tools, and equipment.
2. Removal of existing abutment backfill, if needed.
3. Structural Granular Backfill, as needed.
4. Mill the existing pavement.
5. Place new DGA, asphalt base, and asphalt surface
6. Repair the roadway shoulders, if needed.
7. Provide Pavement Markings if needed.
8. Any other work specified as part of this contract.

### II. MATERIALS

**A. Structural Granular Backfill.** See Section 8.05.11

**B. DGA.** See Section 302.

**C. Tack Coat.** This material shall be in accordance with the Standard Specifications.

**D. CL2 ASPH BASE 1.0D PG 64-22.** See Standard Specifications

**E. ASPHALT LEVEL AND WEDGE.** See Standard Specifications

**F. CL2 ASPH SURF 0.38D PG 64-22.** This material shall be in accordance with the Standard Specifications.

**G. GRANULAR EMBANKMENT.** This material shall be in accordance with the Standard Specifications.

**H. Pavement Striping.** See Section 713.

### III. CONSTRUCTION – DECK, SUPERSTRUCTURE, AND FULL BRIDGE REPLACEMENTS

**A. Foundation Preparation.** For projects involving the removal and replacement of the asphalt and backfill behind the existing abutments and new abutments or end bents, the required excavation, Type IV geotextile fabric, 4" perforated pipe, and new Structural Granular Backfill as shown in Figure 1 as well as any excavation and grading needed to shape the bridge approaches to match the existing roadway template, will be paid for by the bid item for Foundation Preparation. See Special Provision 69 and the Standard Drawings regarding additional construction details as required.

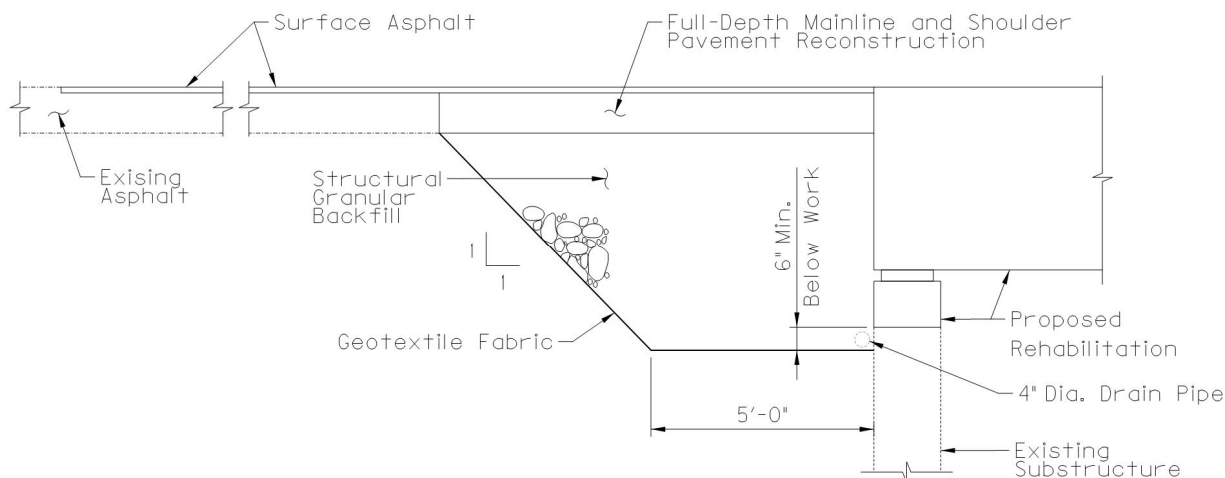


Figure 1: Detail showing proposed work for deck and superstructure replacements

- B. Remove Existing Asphalt Surface.** Remove the existing pavement material beyond the limits of full depth asphalt replacement to provide for a minimum of 1¼” new pavement surface from the bridge end extending approximately 25 feet, or as shown in the plans, into the approach pavement and across the width of the approach pavement. The Engineer shall determine the actual length and width of the milling depending on site conditions at each bridge approach. Mill the existing surface so that the new asphalt surface will match the elevation of the end of the full depth asphalt replacement and the bridge end. The Engineer shall approve the Contractor’s plan for restoring the approach grade prior to the removal of the existing surface. Dispose of all removed material entirely away from the job site or as directed by the Engineer.
- C. Produce and Place New Asphalt Base.** Replace any full depth mainline and shoulder pavement removed as part of bridge backwall construction, superstructure replacement, or other work (if included in the Contract Documents) with a minimum of 8 inches of DGA, placed in two lifts of 4 inches each compacted and 8 inches of CL2 ASPH BASE 1.0D PG 64-22, placed in two lifts of 4 inches each compacted. Final elevation of the Asphalt Base at the approaches to match the width and new elevation of the riding surface on the bridge less the New Asphalt Surface to be placed. Shoulders shall receive identical treatment to the mainline pavement.
- D. Produce and Place New Asphalt Surface.** Apply an asphalt tack coat in accordance with Section 406. Produce and place the new 1 ¼” Asphalt Surface in accordance with Section 403 and compact under Option B. The new asphalt surface mixture required for this project shall be “CL2 ASPH SURF 0.38D PG 64-22”. Place the new asphalt surface to smoothly connect the existing roadway grade at the end of the project, and/or the new abutment backwall.

- E. Granular Embankment for Guardrails.** When necessary to ensure compliance with standards, widen shoulders behind guardrail with granular embankment as directed by the Engineer. Remove existing topsoil as needed and place embankment in a manner to ensure proper compaction.
- F. Pavement Markings.** Pavement striping will be required to match the existing pavement striping on both approaches and the structure. Pavement striping shall be in accordance with applicable sections of the Standard Specifications and shall be incidental to the work. Raised pavement markers within the limits of the “Bridge Overlay Approach Pavement” shall be removed prior to the milling operation. The marker castings shall be cleaned and returned to the Engineer.

#### IV. CONSTRUCTION – OVERLAY PROJECTS

- A. Remove Existing Materials.** Remove the existing pavement material to provide for a minimum of 1¼” new pavement surface from the bridge end extending approximately 25 feet, or as shown in the plans, into the approach pavement and across the width of the approach pavement. The Engineer shall determine the actual length and width of the milling depending on site conditions at each bridge approach. Mill the existing surface so that the new asphalt surface will tie into the new armored edge, if applicable, and matches the elevation of the bridge end. The Engineer shall approve the Contractor’s plan for restoring the approach grade prior to the removal of the existing surface. Dispose of all removed material entirely away from the job site or as directed by the Engineer.
- B. Mainline and Shoulder Reconstruction.** Replace shoulders in kind at the approaches to match the width and new elevation of the riding surface on the bridge. Shoulders shall receive identical treatment to the mainline pavement.
- C. Produce and Place New Asphalt Surface.** Apply an asphalt tack coat in accordance with Section 406. Produce and place the new 1 ¼” Asphalt Surface in accordance with Section 403 and compact under Option B. The new asphalt surface mixture required for this project shall be “CL2 ASPH SURF 0.38D PG 64-22”. Place the new asphalt surface to smoothly connect the existing roadway grade at the end of the project and the bridge end.

For bridge decks specified to receive a new asphalt overlay as part of the work, place asphalt level and wedge and CL2 ASPH SURF 0.38D PG 64-22 as detailed in the plans to smoothly connect to the bridge approaches. If plans call for use of a waterproof membrane, this shall be addressed as a separate bid item.

- D. Granular Embankment for Guardrails.** When necessary to ensure compliance with standards, widen shoulders behind guardrail with granular embankment as directed by the Engineer. Remove existing topsoil as needed and place



embankment in a manner to ensure proper compaction.

**E. Pavement Markings.** Pavement striping will be required to match the existing pavement striping on both approaches and the structure. Pavement striping shall be in accordance with applicable sections of the Standard Specifications and shall be incidental to the work. Raised pavement markers within the limits of the “Bridge Overlay Approach Pavement” shall be removed prior to the milling operation. The marker castings shall be cleaned and returned to the Engineer.

**V. MEASUREMENT**

- A. Granular Embankment: The Department will measure the quantity in cubic yards. The Department will measure along the centerline to determine a linear foot of placement multiplied by a theoretical cross section of 12 square feet to achieve the quantity per side of the roadway.
- B. Bridge Overlay Approach Pavement: The Department will measure the quantity of in square yards. The Department will measure along the centerline from each end of the limits of the work as detailed on the plans to the point where the new pavement ties into the exiting pavement and across the width of the new pavement perpendicular to the centerline of the roadway.
- C. Foundation Preparation: See Section 603.

**VI. PAYMENT**

- A. Granular Embankment: Payment at the contract unit price per cubic yard of granular embankment is full compensation for widening the shoulder for guardrail as directed. Variance of actual cross sectional quantities versus theoretical quantities will not be considered for additional payment.
- B. Bridge Overlay Approach Pavement: Payment at the contract unit price per square yard of is full compensation for removing existing pavement markers, mobilization of milling equipment, removing specified existing pavement material, reconstruct shoulders as needed, furnishing and installing the asphalt tack coat, producing and placing the new asphalt, and all incidental items necessary to complete the work within the specified pay limits as specified by this note and as shown in the Contract Documents.
- C. Foundation Preparation: See Section 603. Payment for Structural Granular Backfill to be incidental to Foundation Preparation.

<i>Code</i>	<i>Pay Item</i>	<i>Pay Unit</i>
02223	Granular Embankment	Cubic Yards
03304	Bridge Overlay Approach Pavement	Square Yards
08803	Foundation Preparation	Lump Sum

The Department will consider payment as full compensation for all work required.