COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
www.transportation.ky.gov/

Andy Beshear
GOVERNOR

Jim Gray
SECRETARY

November 23, 2020

CALL NO. 110
CONTRACT ID NO. 205171
ADDENDUM # 1

Subject: ELLIOTT COUNTY, STP BRZ 9030 (267)
Letting December 11, 2020

(1)Added - Bridge Rehabilitation Plans- Pages 1-13 of 13

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

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

Sincerely,

Rachel Mills

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

RM:mr
Enclosures

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

BRIDGE REHABILITATION PLANS

LOCATION MAP

INDEX OF SHEETS

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SPECIAL NOTES

- Joint Seal Replacement
- Bridge Overlay Approach Pavement
- Concrete Coating
- Erosion Prevention and Sediment Control
- Traffic Control on Bridge Repair Projects
- Structural Steel Repair
- Concrete Sealing
- Utilities and Rail Certification
- Heat Straightening
- Cleaning and Painting
- Concrete Patching Repair
- Bridging Kentucky Project Stencil

STANDARD DRAWINGS

RBI-001-12	Typical Guardrail Installations
RBR-001-13	Steel Beam Guardrail "W" Beam
RBR-005-11	Guardrail Components
RBR-010-06	Guardrail Terminal Sections
RBR-015-06	Steel Guardrail Posts
RBR-016-05	Timber Guardrail Posts
RBR-050-08	Guardrail End Treatment Type 7
RBR-055-01	Delineators for Guardrail
BHS-007-08	Railing System Type II Guardrail Treatment
BJE-001-14	Armored Edges
BJE-003	Expansion Joint Replacement 1"-3"
BJE-005	Expansion Joint Replacement General Notes
BJE-006	Expansion Joint Replacement 4" & 5"

SPECIFICATIONS

Standard Specifications for Road and Bridge Construction (Current Edition)

AASHTO LRFD Bridge Construction Specifications with Current Interims.

STATE OF KENTUCKY
TRAVIS M. BAKER
27019
LICENSED PROFESSIONAL ENGINEER

REVISION	DATE

DATE: 11-3-20	CHECKED BY
DESIGNED BY: K. Compton	T. Baker
DETAILED BY: J. Corley	K.Compton

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **ELLIOTT**

ROUTE: **CR-1206** CROSSING: **LITTLE SANDY RIVER**

TITLE & LOCATION MAP

BRIDGE NUMBER: **032C00032N**

PREPARED BY: AECOM

BRIDGING KENTUCKY

SHEET NO. 1 OF 13

DRAWING NO. 28188

LETTING DATE

CONSTRUCTION PROJECT NO.

FILE NAME: ...\Drawing\Working\S001_Title.dgn

USER: john.corley
DATE PLOTTED: 11/4/2020 7:18:10 AM

E-SHEET NAME:

Power GEOPAK v8.11.9.832

STEEL REPAIR LOCATION TABLE

Repair	Location	Quantity
A1	US L2 Splice (T, B, IB Int.)	3
A2	US L3 Splice (T&B)	2
A3	US L3' Splice (T&B)	2
A4	US L2' Splice (T, B, OB Int., IB Int., OB Ext.)	5
A5	DS L2 Splice (T, B, OB Ext.)	3
A6	DS L3 Splice (T, B, IB Int., OB Int.)	4
A7	DS L3' Splice (T&B)	2
A	Contingency	2
Repair A Total Count		23
Repair A Total Weight (Lbs.)		1035
B1	L0-L1 Stringer 5 at FB1	1
B2	L1-L2 Stringer 5 at FB1	1
B3	L2-L3 Stringer 5 at FB3	1
B4	L3-L4 Stringer 5 at FB3	1
B5	L4-L3' Stringer 5 at FB3'	1
B6	L3'-L2' Stringer 1 at FB3'	1
B7	L3'-L2' Stringer 4 at FB3'	1
B8	L3'-L2' Stringer 5 at FB3'	1
B9	L2'-L1' Stringer 2 at FB1'	1
B10	L2'-L1' Stringer 3 at FB1'	1
B11	L2'-L1' Stringer 5 at FB1'	1
B12	L1'-L0' Stringer 1 at FB1'	1
B13	L1'-L0' Stringer 5 at FB1'	1
B	Contingency	4
Repair B Total Count		17
Repair B Total Weight (Lbs.)		3227
C	Multiple Locations	200
Repair C Total Count		200
Repair C Total Weight (Lbs.)		N/A
D1	US L0-L1 Tie Plate 1 (T&B)	2
D2	US L2-L3 Tie Plate 1 (T&B)	2
D3	US L3-L4 Tie Plate 1 (T&B)	2
D4	US L3-L4 Tie Plate 7 (B)	1
D5	US L4-L3' Tie Plate 1 (T&B)	2
D6	US L4-L3' Tie Plate 7 (T&B)	2
D7	US L3'-L2' Tie Plate 5 (T&B)	2
D8	US L1'-L0' Tie Plate 4 (B)	1
D9	US L1'-L0' Tie Plate 6 (T)	1
D10	DS L1-L2 Tie Plate 4 (B)	1
D11	DS L1-L2 Tie Plate 5 (B)	1
D12	DS L2-L3 Tie Plate 1 (T&B)	2
D13	DS L3-L4 Tie Plate 1 (T&B)	2
D14	DS L3-L4 Tie Plate 6 (B)	1
D15	DS L3-L4 Tie Plate 7 (T&B)	2
D16	DS L4-L3' Tie Plate 1 (T&B)	2
D17	DS L4-L3' Tie Plate 7 (T)	1
D18	DS L3'-L2' Tie Plate 5 (T&B)	2
D19	DS L2'-L1' Tie Plate 3 (B)	1
D20	DS L1'-L0' Tie Plate 5 (T)	1
D21	DS L1'-L0' Tie Plate 6 (T&B)	2
D22	DS Railing Tie Plates at DS L0-U1 (U&L)	2
D23	DS Railing Tie Plates at DS U1'-L0' (U&L)	2
D	Contingency	4
Repair D Total Count		41
Repair D Total Weight (Lbs.)		1253
E1	US L3 LLB (N)	1
E2	US L3' LLB (S&N)	2
E3	US L1' LLB (S&N)	2
E4	DS L1 LLB (S&N)	2
E5	DS L2 LLB (S&N)	2
E6	DS L3 LLB (S&N)	2
E7	DS L3' LLB (S)	1
E8	DS L1' LLB (S)	1
E	Contingency	4
Repair E Total Count		17
Repair E Total Weight (Lbs.)		1837
F	South Portal Lower Horizontal Strut	1
Repair F Total Count		1
Repair F Total Weight (Lbs.)		338
G1	U2 Lower Sway Bracing Strut	1
G2	U3 Lower Sway Bracing Strut	1
G3	U4 Lower Sway Bracing Strut	1
Repair G Total Count		3
Repair G Total Weight (Lbs.)		N/A
H	Railing	2
Repair H Total Count		2
Repair H Total Weight (Lbs.)		N/A
I	Railing	130
Repair I Total Count		130
Repair I Total Weight (Lbs.)		548

STEEL REPAIR LOCATION LEGEND

T = Top
B = Bottom
S = South Side
N = North Side
LLB = Lower Lateral Bracing
US = Upstream
DS = Downstream
IB = Inboard
OB = Outboard
Int. = Interior
Ext. = Exterior
U = Upper
L = Lower

GENERAL NOTES

SPECIFICATIONS: References to the Specifications are to the current Edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction including any current supplemental Specifications. All references to the AASHTO Specifications are to the current edition of the AASHTO LRFD Bridge Construction Specifications, with Interims.

ON-SITE INSPECTION: Each Contractor submitting a bid for this work shall make a thorough inspection of the project site prior to submitting a bid and shall be thoroughly familiarized with existing conditions so that work can expeditiously performed after a Contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. All claims resulting from the site conditions will not be honored by the Department of Highways.

VERIFYING FIELD CONDITIONS: The Contractor is not to order any materials, produce any shop drawings, or begin any construction activities until after verifying dimensions and conditions in the field. Dimensions and details shown on these Plans in relation to the existing structure shall be considered approximate. Existing plans, if available, shall not be considered accurate. It shall be the Contractor's responsibility to verify such dimensions and details in the field and to notify the Project Engineer and the Designer of any differences. Failure to notify either may delay drawing and other approvals. Thereafter make the necessary approved adjustments prior to construction or ordering materials. All Specification requirements shall remain in effect. Any variations shall not be cause for additional compensation for a change in the scope of work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work. In addition, the overrun and underrun formulas may be applied to appropriate repairs provided that the requirement of Article 104.02.02 of the Standard Specifications is satisfied. The cost of all labor, equipment, surveying, and materials necessary to verify field dimensions shall be included in the lump sum price for 'Staking'.

PLANS OF EXISTING STRUCTURE: Plans of the existing structure are not available. Existing truss superstructure is assumed to be constructed according to Standard Drawing S-70 and this drawing set has been included in the bid package as a reference. The completeness of these drawings is not guaranteed and no responsibility is assumed for their accuracy.

CONSTRUCTION LOAD: Prior to completion of Steel Repair A, the total weight of personnel, equipment, materials, tools, etc. on Span 02 shall be limited to 3 tons. Once all splice plate repairs have been completed, the total weight on Span 02 shall be limited to 15 tons. Storage of material on the bridge shall be prohibited.

CONSTRUCTION IDENTIFICATION: The following stencils shall be imprinted in new concrete (or painted on steel) in accordance with the guidance outlined in the Special Note for Bridging Kentucky Project Stencil:

- Bridging Kentucky Logo
- Year
- Drawing Number
- Contractor

The Contractor shall furnish all plans, equipment, and labor necessary to do the work for which no direct payment will be made.

UTILITIES: Before beginning work, locate all existing utilities. Consider location of utilities shown on the drawings to be approximate and for informational purposes only. The Department does not warrant the locations and assumes no responsibility for the accuracy or completeness. The Contractor must make his own determination. Except as shown on the Plans, work around and do not disturb existing utilities.

DAMAGE OUTSIDE ENVIRONMENTALLY-CLEARED AREA: Any area used outside the environmentally-cleared area shall obtain full environmental approvals prior to use. Once cleared, any area that is disturbed outside of the modified environmentally-cleared area during the life of the project shall be repaired by the Contractor at his expense, should any damage result from the Contractor's actions.

DIMENSIONS: Dimensions are for a normal temperature of 60 degrees fahrenheit. Layout dimensions are horizontal dimensions.

DAMAGE TO THE STRUCTURE: The Contractor shall bear full responsibility and expense for repair of any and all damage to the structure, should such damage result from the Contractor's actions. The Contractor is completely responsible for the stability of the structure from the time of mobilization until after the bridge has been reopened to normal traffic following completion of all work required in the Contract. After completion of all operations, the structure and site shall be left in a condition that is in accordance with Section 105.12 of the Specifications.

WELDING REINFORCEMENT: The welding and welding material shall conform to the 'Recommended Practices for Welding Reinforcing Steel', American Welding Society Specifications, Current Edition. No direct payment shall be made for welding or weld material, but the cost of these items shall be included in the unit price bid for the repair being completed.

DISPOSAL OF MATERIALS: All materials and debris removed from or beneath the bridge shall become the property of the Contractor and shall be removed from the right-of-way.

COMPLETION OF THE STRUCTURE: The Contractor is required to complete the structure in accordance with the Plans and Specifications. Material, labor, or construction operations, not otherwise specified, are to be included in the bid item most appropriate for the work involved and otherwise considered incidental to the Contract. This may include cofferdams, shoring, excavations, backfilling, removal of all or parts of the existing structure, phase construction, incidental materials, labor, or anything else required to complete the structure.

BEFORE YOU DIG: The Contractor shall be responsible for all requirements and conformation with the Underground Facility Damage Prevention Act of 1994. The Contractor will be responsible for locating any utilities on this project. If underground utilities shall be located prior to construction. Any utilities disturbed or damaged as a result of the Contractor's operations will be repaired to the satisfaction of the utility owner at the Contractor's expense. The Contractor is advised to call (800) 752-6007 a minimum of two working days prior to excavation for information on the location of some, but not necessarily all underground utilities.

MATERIALS FOR DESIGN SPECIFICATIONS:

For Class "A" Concrete:	F'C = 3,500 psi
For Class "M" Concrete:	F'C = 4,000 psi
For Steel Reinforcement:	FY = 60,000 psi

The Specifications, Current Edition, as designated below shall govern the following materials furnished:

Material	Specification
Structural Steel	AASHTO M270 or ASTM A709, Grade 50
Bolts	F3125 Grade A325
Grout	C1107

CONCRETE: Class "A" concrete is to be used in the cheek walls.

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Any reinforcing bars designated by suffix 'e' in the plans shall be epoxy coated in accordance with section 811.10 of the Standard Specifications. Any reinforcing bars designated by suffix 's' in a Bill of Reinforcement shall be considered a stirrup for purposes of bend diameters.

EXISTING STEEL REINFORCEMENT: The cost of cutting, bending, and cleaning existing steel reinforcement shall be incidental to the repair item being completed.

BEVELED EDGES: Bevel all exposed edges ¾" unless otherwise noted.

CONCRETE COATING: Concrete coating is estimated at 1,358 SF. It is the responsibility of the Contractor to verify this estimate and bid appropriately. No payment adjustments will be made if the actual quantity is different than the estimate.

CONCRETE SEALING: Apply concrete sealing in accordance with the Special Note for Concrete Sealing.

SHOP DRAWINGS: The fabricator shall submit all required shop plans, by email to SHOP_XXXXxxxxxxN@docs.e-Builder.net, for review. These submissions shall depict the shop plans in .PDF format, as either 11"x17" or 22"x36" sheets. Designers will make review comments on these electronic submissions as needed and, if required, shall return them to the fabricator for corrections and resubmittal. Upon acceptable reconciliation of all comments, files shall be sent to the Bridging Kentucky Shop Plan Coordinator for distribution. Only plans submitted directly to the Shop Plan Coordinator will be distributed. Additionally, only plans electronically stamped 'Distributed by The Bridging Kentucky Program Team' are to be used for fabrication. While this process does not require the submission of paper copies, the Engineer of Record reserves the right to require such copies on a case by case basis.
When any changes to the design plans are proposed, the shop drawings reflecting these changes shall be submitted through the process above.

Note: The designation in the email XXXXxxxxxN refers to the Bridge ID number which is located on the Title Sheet, SI of the Bridge Plans. Example: SHOP_042B00019IN@docs.e-Builder.net

LEAD PAINT (RESIDUAL): The Contractor is advised to take all necessary protective measures, including worker safety and environmental regulations, when performing surface preparation and/or removal work. The Department will not consider any claims on residual lead paint.

STRUCTURAL STEEL REPAIRS: Repairs shall be completed in accordance with the attached special note and the notes and details on each plan sheet. Locations, quantities, and estimated weights (where applicable) for each repair are shown in the table on this sheet. Locations of contingency repairs will be as directed by the Engineer.

REVISION	DATE

DATE: 11-3-20	CHECKED BY
DESIGNED BY: K. Compton	T. Baker
DETAILED BY: J. Corley	K. Compton

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: ELLIOTT
ROUTE: CR-1206
CROSSING: LITTLE SANDY RIVER

GENERAL NOTES

BRIDGE NUMBER: 032C00032N

PREPARED BY: AECOM

BRIDGING KENTUCKY

SHEET NO. 5 OF 13
DRAWING NO. 2888

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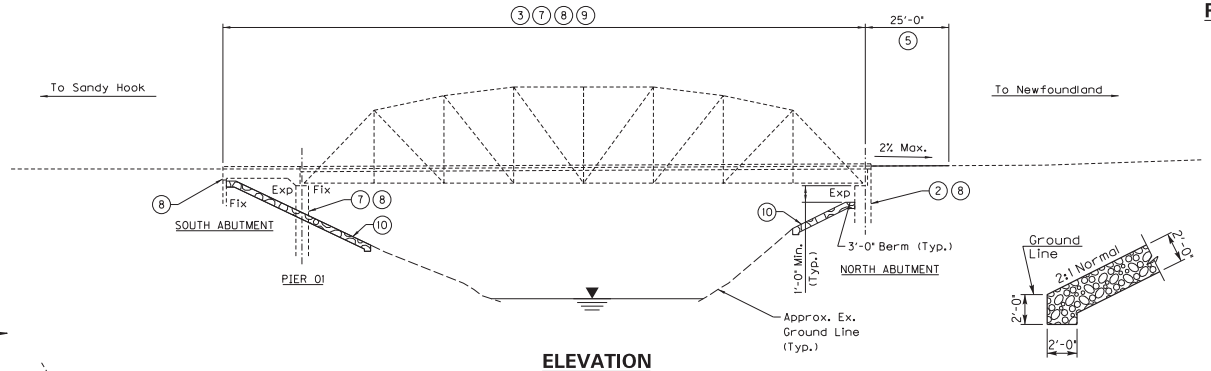
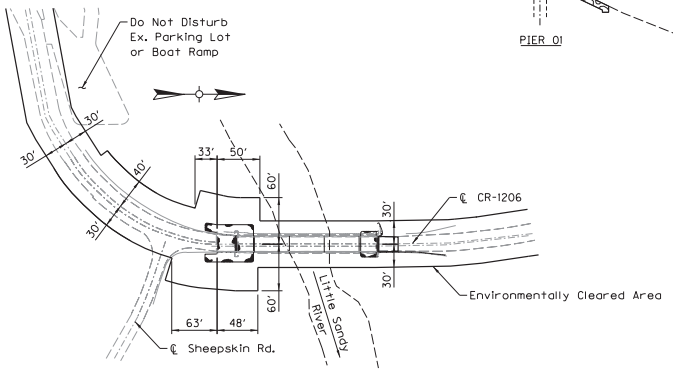


ELEVATION

TOE OF SLOPE DETAIL

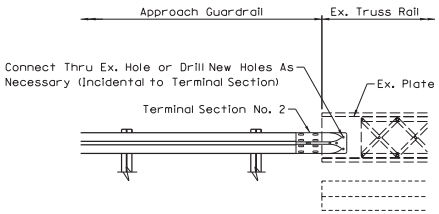
REPAIRS

Repair No.	Description
1	Clearing and Grubbing (see Note 2)
2	Perform Substructure Modifications
3	Structural Steel Repair
4	Replace Expansion Joints at Pier 1 and North Abutment. Replace Joint Seals at Interior Floorbeams in Span 02
5	Place Bridge Overlay Approach Pavement
6	Install Approach Guardrail and Terminations
7	Patch Concrete (See Note 4)
8	Concrete Coating and Sealing
9	Clean and Paint Steel
10	Place Geotextile Fabric and Rip Rap (See Note 5)



ENVIRONMENTALLY CLEARED AREA

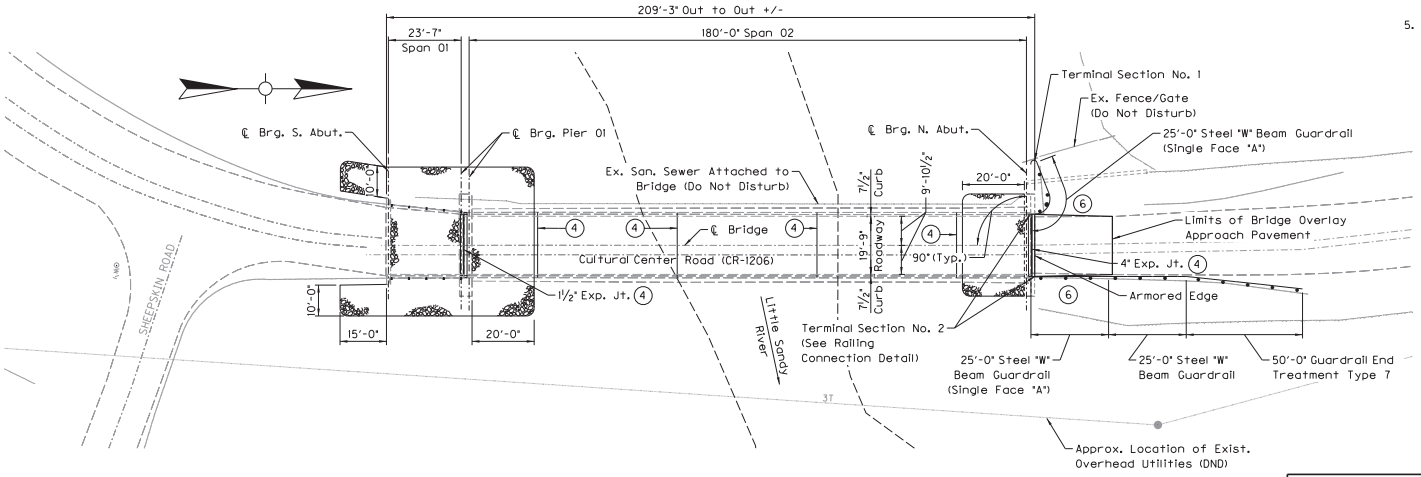
(Environmentally Cleared Area is Based on the Existing Right-of-Way Plans From 1930. Contractor is Advised to Verify Existing Right of Way.)



RAILING CONNECTION DETAIL

NOTES

1. For Guardrail Transition details, see Std. Dwg. RBR-018.
2. Perform Clearing and Grubbing within the area bounded by a perimeter measuring 10' from the outermost edges of the bridge. Cut all vegetation level with the ground surface and remove all vegetation/vines attached to the bridge and apply approved herbicide. Remove all debris from top of pier/abutment caps and from around bearings.
3. Widen shoulders and provide extra-long guardrail posts as directed by the Engineer to install new guardrail. The estimated quantities include contingency quantities of 16 Extra Long Guardrail Posts and 14 C.Y. Granular Embankment to be used for this purpose, as directed by the Engineer.
4. Perform Concrete Patching on Curbs in Locations as Directed by the Engineer. Estimated Quantity is 50 Sq. Ft.
5. Place Dry Cyclopean Stone Rip Rap underlain with Geotextile Fabric Class I (Incidental) at a minimum thickness of 2'-0".



PLAN

REVISION	DATE

DATE: 11-3-20	CHECKED BY
DESIGNED BY: K. Compton	T. Baker
DETAILED BY: J. Corley	K. Compton

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: ELLIOTT

ROUTE: CR-1206 | CROSSING: LITTLE SANDY RIVER

LAYOUT

PREPARED BY: AECOM

BRIDGING KENTUCKY

SHEET NO. 3 | DRAWING NO. 2888

BRIDGE NUMBER: 032C00032N

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DATE PLOTTED: 11/4/2020 7:43:28 AM
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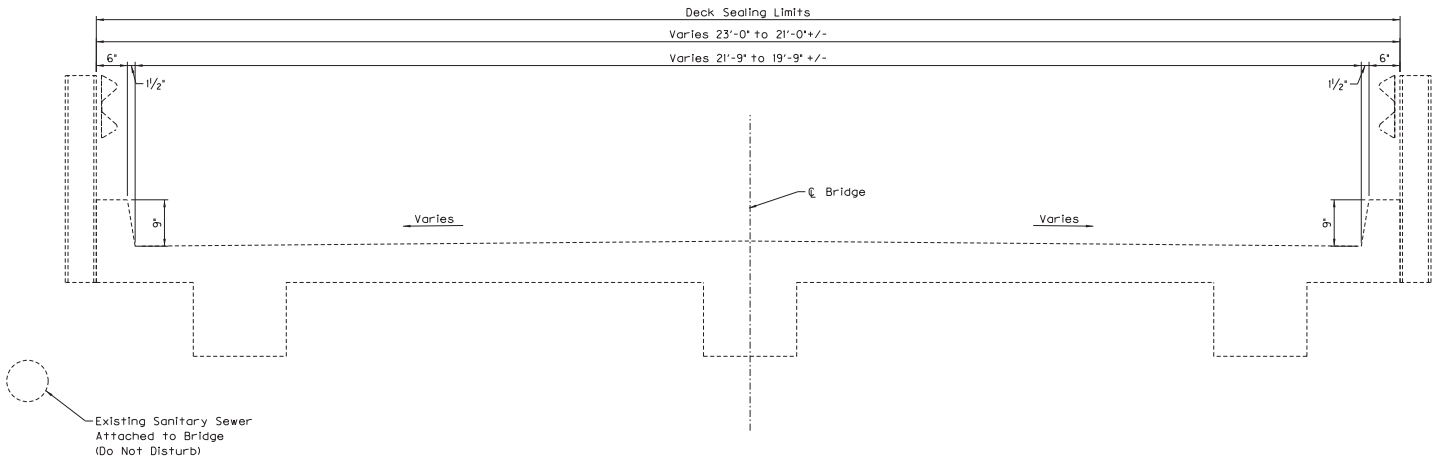
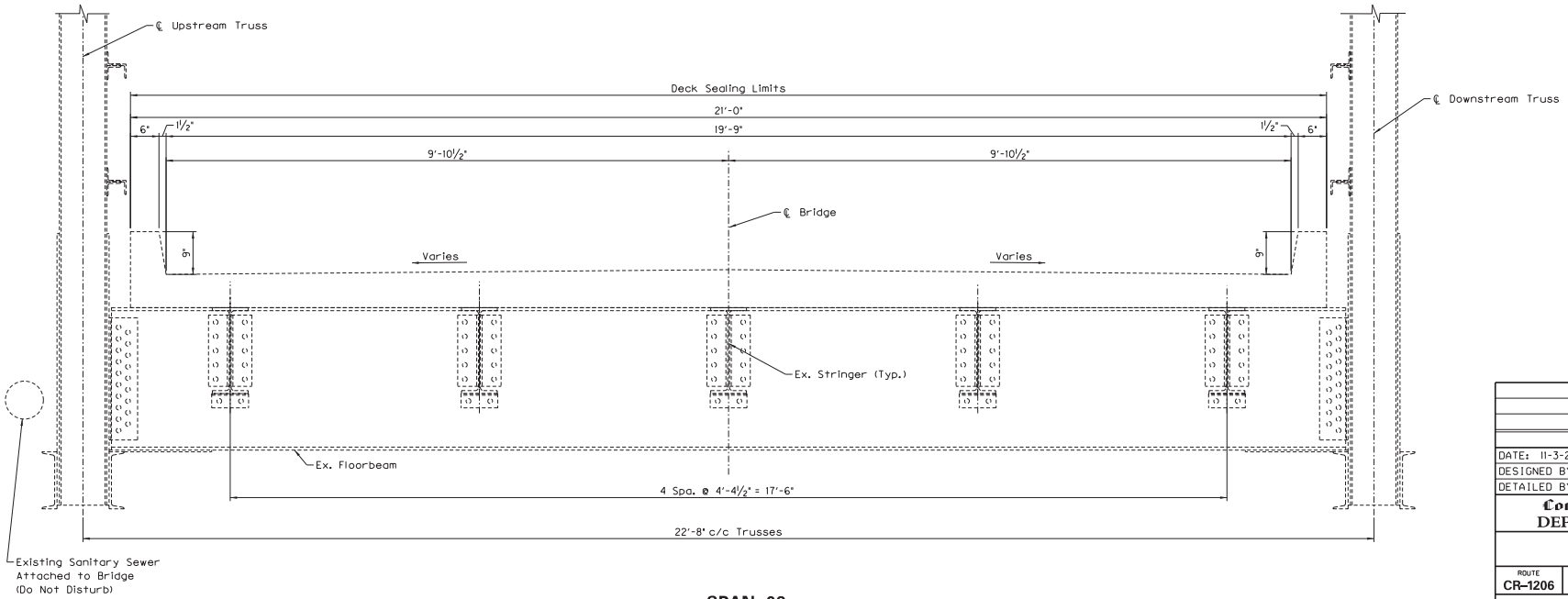


SPAN 01



SPAN 02

REVISION	DATE

DATE: 11-3-20	CHECKED BY
DESIGNED BY: K. Compton	T. Baker
DETAILED BY: J. Corley	K. Compton

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: ELLIOTT

ROUTE: CR-1206 | CROSSING: LITTLE SANDY RIVER

TYPICAL SECTIONS

PREPARED BY: AECOM

BRIDGING KENTUCKY

SHEET NO. 24 | DRAWING NO. 28888

BRIDGE NUMBER
032C00032N

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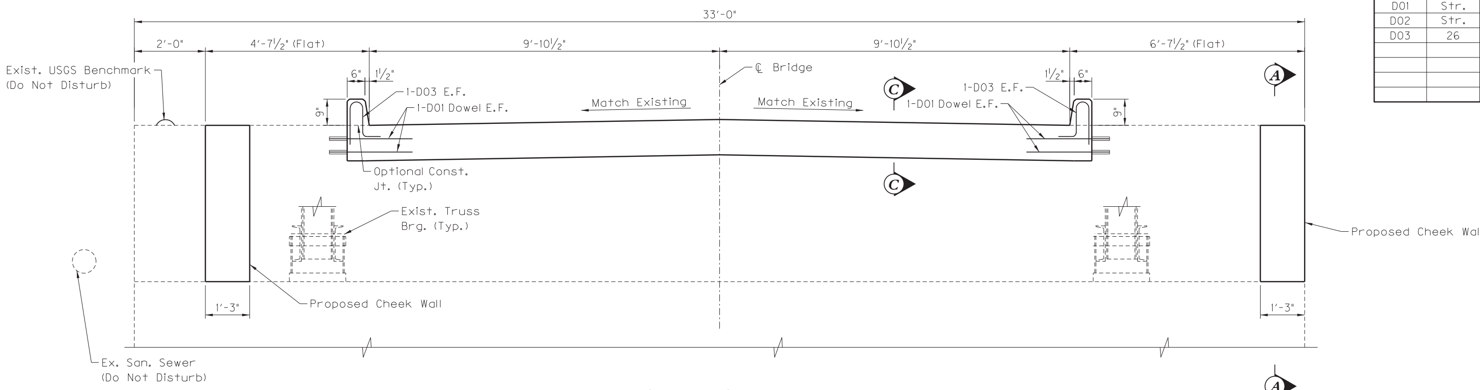
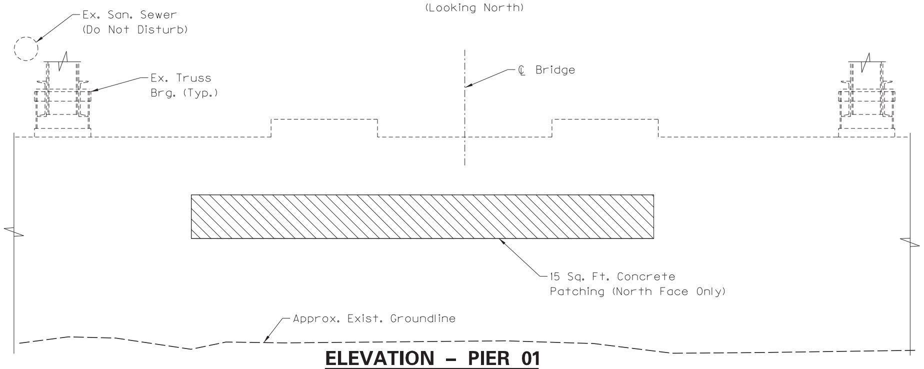
USER: john.corley
DATE PLOTTED: 11/4/2020 7:45:33 AM
E-SHEET NAME:
Power GEOPAK v8.11.9.832

BILL OF REINFORCEMENT – SUBSTRUCTURE

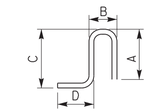
MARK	TYPE	SIZE	NO.	LENGTH FT.	LENGTH IN.	LOCATION	A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.
D01	Str.	5	28	2	3	NORTH ABUTMENT								
D02	Str.	5	12	4	9	NORTH ABUTMENT								
D03	26	4	4	3	2	NORTH ABUTMENT	1	3	0	4	0	11	0	8



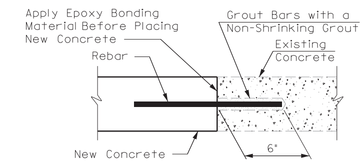
ELEVATION – NORTH ABUTMENT
(Proposed)
(Looking North)



ELEVATION – PIER 01
(Looking North)

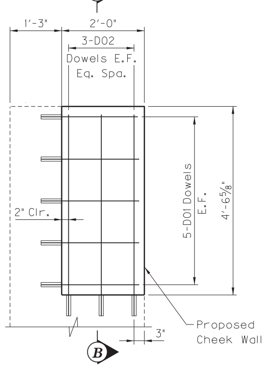


TYPE 26

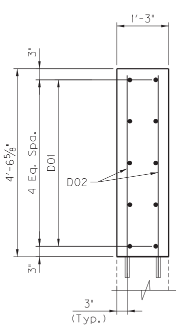


DOWEL DETAIL

Note: The cost of drilling holes, grouting, and epoxy bonding material shall be incidental to the cost of Steel Reinforcement.



SECTION A–A



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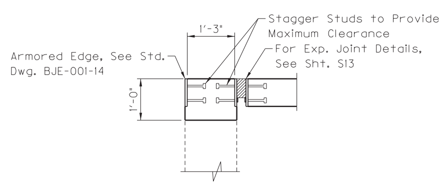

SECTION C–C

NOTES

1. Coat Pier and both Abutments according to the Special Note for Concrete Coating.
2. See Sheet S13 for Partial Section At Expansion Joint.

REVISION	DATE

DATE: 11-3-20	CHECKED BY
DESIGNED BY: K. Compton	T. Baker
DETAILED BY: J. Corley	K. Compton

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
ELLIOTT

ROUTE CR-1206 | CROSSING LITTLE SANDY RIVER

SUBSTRUCTURE DETAILS

PREPARED BY AECOM

BRIDGE NUMBER
032C00032N

SHEET NO. S5
DRAWING NO. 28188

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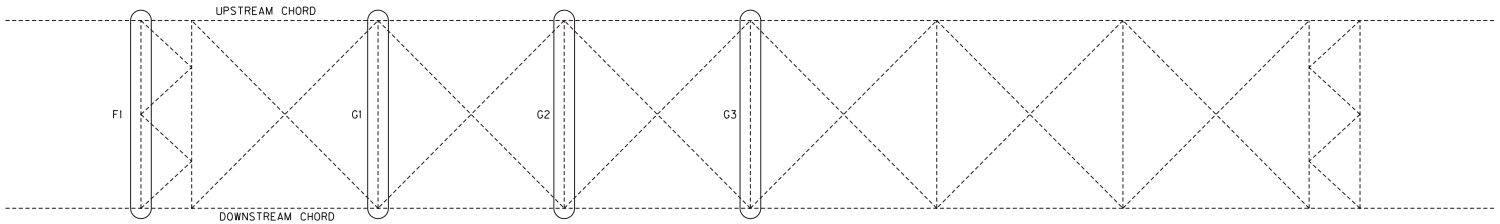
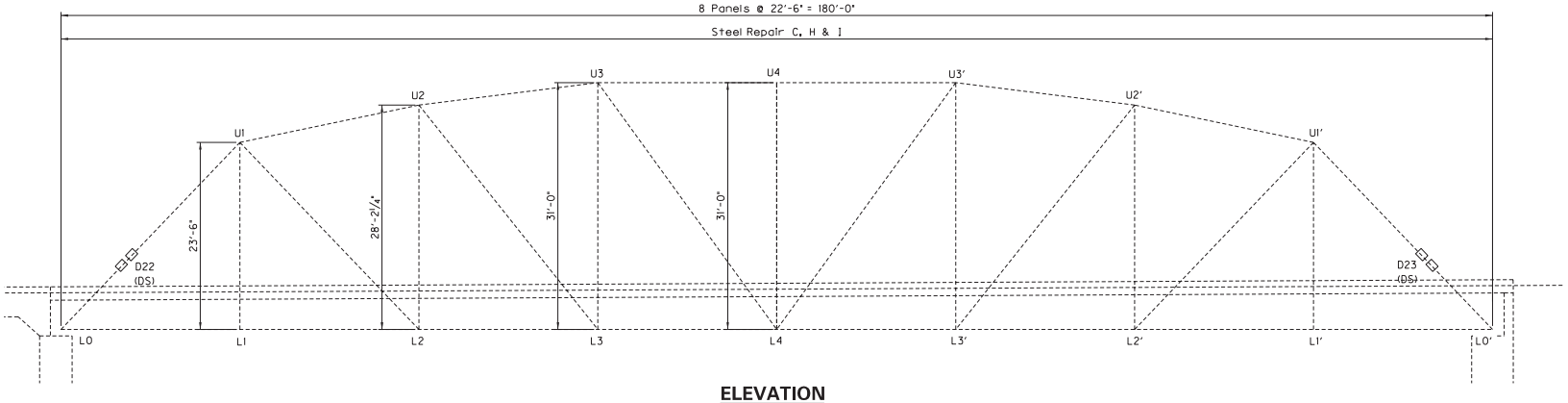
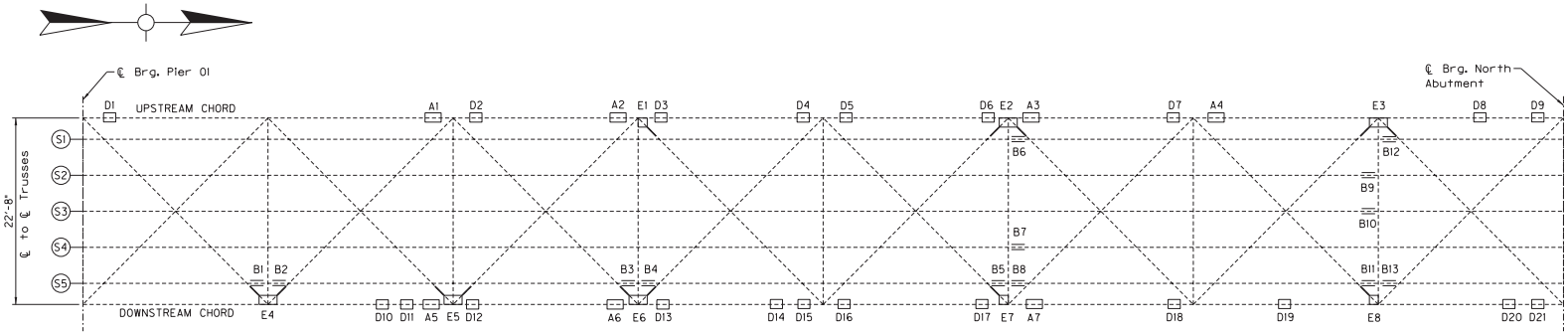


PLAN – PORTALS AND UPPER LATERAL BRACING



ELEVATION

SPAN 02



PLAN – LOWER LATERAL BRACING AND FLOOR SYSTEM

SPAN 02 SEQUENCE OF CONSTRUCTION

1. Complete Steel Repair A at the following locations, in the following order:
   - i. DS L3, Top & Bottom
   - ii. DS L3, Inboard & Outboard Interior
   - iii. US L3, Top and Bottom
   - iv. US L3', Top and Bottom
   - v. DS L3', Top and Bottom
2. Complete Steel Repair A at all remaining locations
3. Complete Steel Repair B at all locations

All other Steel Repairs may be completed at any time following Step 2. See details of individual repairs for restrictions on completing certain repairs simultaneously or in multiple locations. See General Notes for construction weight restrictions.

STEEL REPAIR NOTES

1. Clean and paint all steel truss members according to the Special Notes for Cleaning and Painting.
2. For additional information on steel repair locations and quantities, See Sheet S2.

STEEL REPAIR LEGEND

- A - Steel Splice Plate Replacement
- B - Stringer Repair
- C - Bolt / Rivet Replacement
- D - Steel Tie Plate Replacement
- E - Lower Lateral Bracing Repair
- F - Portal Repair
- G - Sway Bracing Repair
- H - Steel Railing Straightening
- I - Steel Lacing Bar Replacement

REVISION	DATE

DATE: 11-3-20	CHECKED BY
DESIGNED BY: K. Compton	T. Baker
DETAILED BY: J. Corley	K. Compton

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: ELLIOTT

ROUTE: CR-1206 | CROSSING: LITTLE SANDY RIVER

TRUSS

BRIDGE NUMBER: 032C00032N

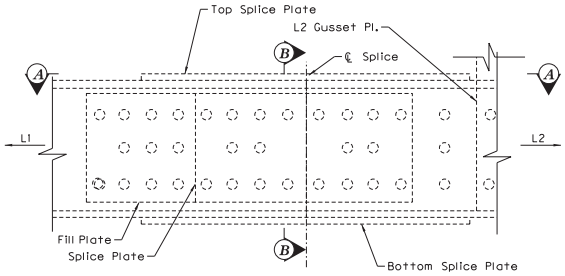
PREPARED BY: AECOM

BRIDGING KENTUCKY

SHEET NO. S2

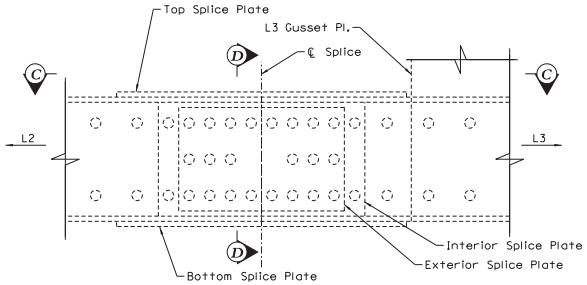
DRAWING NO. 2888

FILE NAME: ...\Working\S006_Steel1.dgn
USER: john.corley
DATE PLOTTED: 11/4/2020 7:50:30 AM
E-SHEET NAME:
Power GEOPAK v8.11.9.832



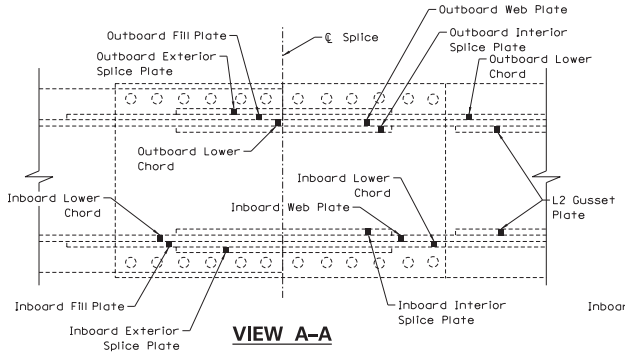
L2 / L2' SPLICE ELEVATION

(Existing L2 Upstream Splice Shown, Others Similar)

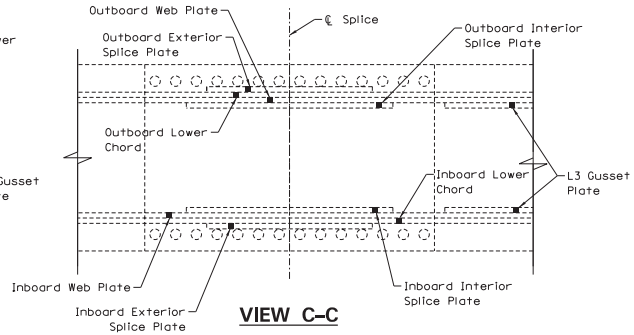


L3 / L3' SPLICE ELEVATION

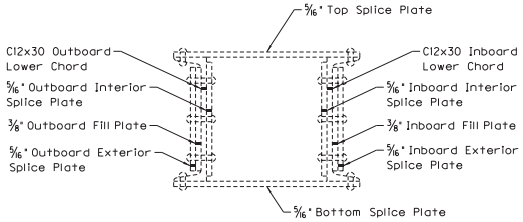
(Existing L3 Upstream Splice Shown, Others Similar)



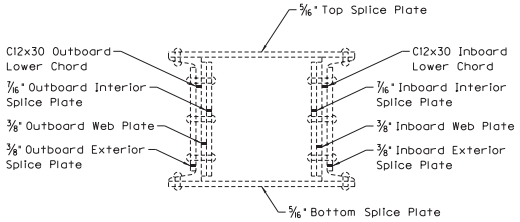
VIEW A–A



VIEW C–C



SECTION B–B



SECTION D–D

STEEL REPAIR A – STEEL SPLICE PLATE REPLACEMENT

This repair shall consist of replacement of a lower chord splice plate, in the locations noted and in accordance with the Special Note for Structural Steel Repair. Plates to be replaced are listed in the Steel Repair Table. Additional plates may be designated for repair by the Engineer in the field. One splice plate shall be completely removed and replaced prior to removal of any other rivets connecting any splice plate on the bridge. All existing fill plates shall be reused. See the General Notes for weight restrictions. Unit bid price for "Steel Splice Plate Replacement" shall include the cost of all materials, labor, falsework, equipment, and incidentals to remove and replace existing plates.

REVISION	DATE

DATE: 11-3-20	CHECKED BY
DESIGNED BY: K. Compton	T. Baker
DETAILED BY: J. Corley	K. Compton

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: ELLIOTT

ROUTE: CR-1206 | CROSSING: LITTLE SANDY RIVER

STEEL REPAIR A

BRIDGE NUMBER: 032C00032N

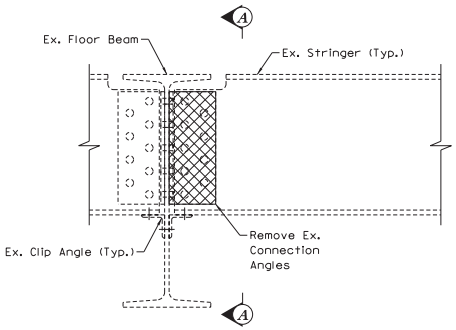
PREPARED BY: AECOM

BRIDGING KENTUCKY

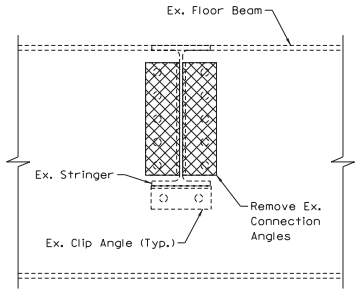
SHEET NO. 37 OF 38

DRAWING NO. 28188

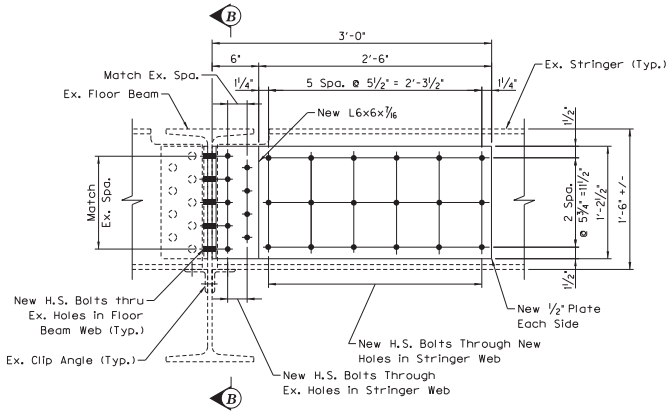
FILE NAME: ...\Working\S007_Steel 2.dgn
USER: john.corley
DATE PLOTTED: 11/4/2020 7:51:55 AM
E-SHEET NAME:
Power GEOPAK v8.11.9.832



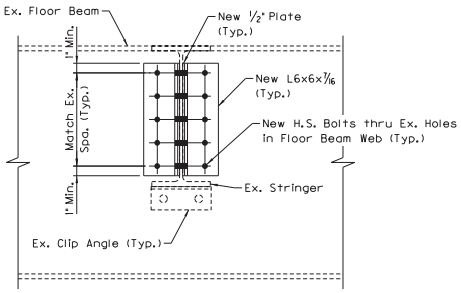
SECTION THRU FLOORBEAM
(Existing)



SECTION A–A



SECTION THRU FLOORBEAM
(Proposed)



SECTION B–B

LEGEND

Denotes member or connection to be removed and/or replaced

STEEL REPAIR B – STRINGER REPAIR

This repair shall consist of repairing a stringer end as shown, in the locations noted and in accordance with the Special Note for Structural Steel Repair. Existing clip angles may not be able to temporarily support stringer ends while connection angles are removed. The contractor shall provide supplemental temporary support for the stringers as needed to complete repair and maintain stability of the stringer and cost shall be incidental to stringer repair. Locations to be repaired are listed in the Steel Repair Table on Sheet S2. The Engineer may designate additional locations to be repaired in the field. The unit bid price for "Stringer Repair" shall include the cost of all materials, labor, equipment, tools, falsework, and incidentals to remove the existing web connection angles and install the proposed web connection angles and plates.

REVISION	DATE

DATE: 11-3-20	CHECKED BY
DESIGNED BY: K. Compton	T. Baker
DETAILED BY: J. Corley	K. Compton

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: ELLIOTT

ROUTE: CR-1206 | CROSSING: LITTLE SANDY RIVER

STEEL REPAIR B

PREPARED BY: AECOM

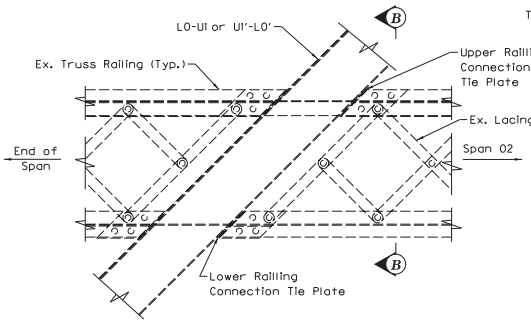
BRIDGING KENTUCKY

SHEET NO. S3

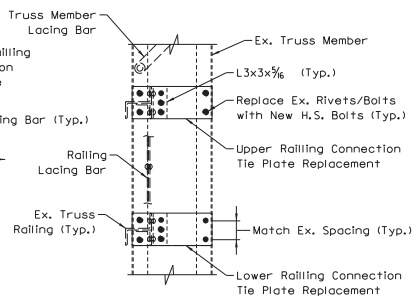
DRAWING NO. 2888

BRIDGE NUMBER
032C00032N

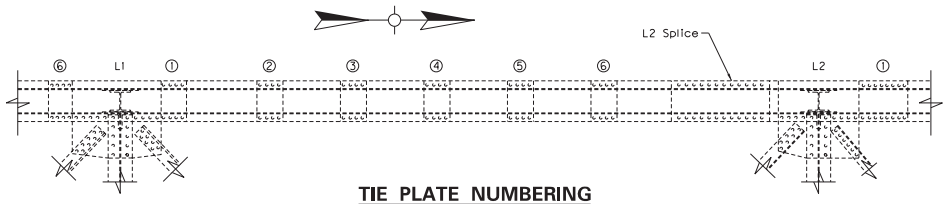
FILE NAME: ...\Working\S008_Steel 3.dgn
USER: john.corley
DATE PLOTTED: 11/4/2020 7:56:54 AM
E-SHEET NAME:
Power GEOPAK v8.11.9.832



TYPICAL RAILING CONNECTION TO END POST

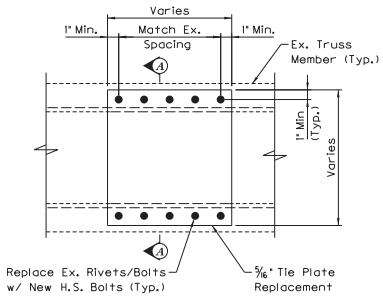


SECTION B–B

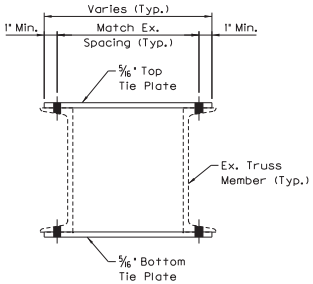


TIE PLATE NUMBERING

(Upstream L1-L2 Shown, Other Panels Similar)



TYPICAL TIE PLATE REPAIR PLAN



SECTION A–A

STEEL REPAIR D – STEEL TIE PLATE REPLACEMENT

This repair shall consist of replacing a truss member tie plate, in the locations noted and in accordance with the Special Note for Structural Steel Repair. Locations to be repaired are listed in the Steel Repair Table on Sheet S2. Tie plates are numbered South to North between panel points (see Tie Plate Numbering Detail). The Engineer may designate additional locations to be repaired in the field. The contractor shall remove and fully replace one tie plate prior to removing another within 25 feet. The unit bid rice for 'Steel Tie Plate Replacement' shall include the cost of all materials, labor, equipment, tools, falsework, and incidentals to remove and replace the existing plates.

STEEL REPAIR C – BOLT / RIVET REPLACEMENT

This repair shall consist of replacing all loose, significantly deteriorated, or missing rivets or bolts throughout the truss span (Span 02), in kind (size and length) with new H.S. bolts as directed by the Engineer. This work is for the replacement of bolts and rivets that are not included with other repair details. The approximate number of existing rivets and bolts to be replaced is 200.

The Engineer shall designate all rivet or bolt replacement locations in the field. This work shall be bid with the contingency that quantities may be increased or decreased by the Engineer.

The unit price bid for each rivet or bolt replacement as described above shall include the cost of all materials, labor, access, falsework, equipment, and incidentals to complete the work.

The contractor shall remove and fully replace one bolt or rivet prior to removing another within 25 feet.

REVISION	DATE

DATE: 11-3-20	CHECKED BY
DESIGNED BY: K. Compton	T. Baker
DETAILED BY: J. Corley	K. Compton

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: ELLIOTT

ROUTE: CR-1206 | CROSSING: LITTLE SANDY RIVER

STEEL REPAIRS C & D

BRIDGE NUMBER: 032C00032N

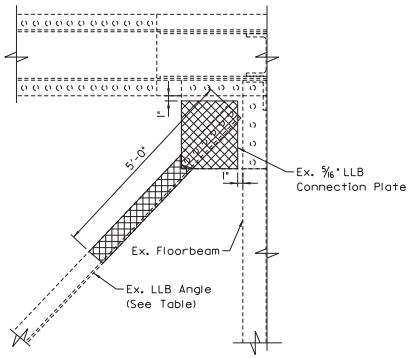
PREPARED BY: AECOM

BRIDGING KENTUCKY

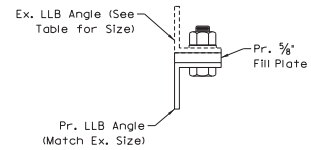
SHEET NO. S3

DRAWING NO. 2888

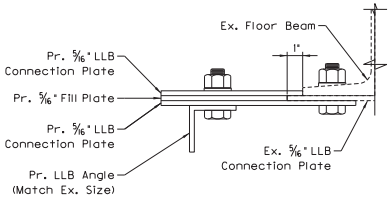
FILE NAME: ...\Working\S009_Steel 4.dgn
USER: john.corley
DATE PLOTTED: 11/4/2020 8:01:30 AM
E-SHEET NAME:
Power GEOPAK v8.11.9.832



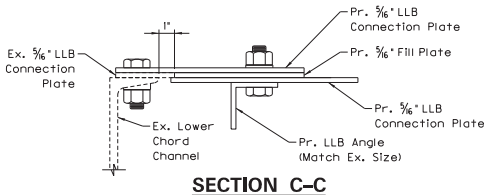
LOWER CHORD PANEL CONNECTION
(Existing)



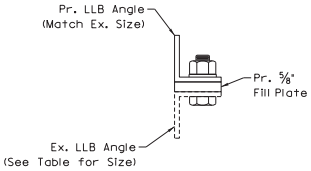
SECTION A–A



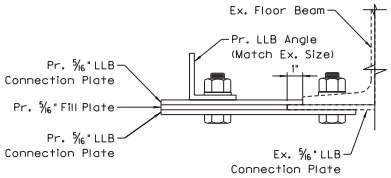
SECTION B–B



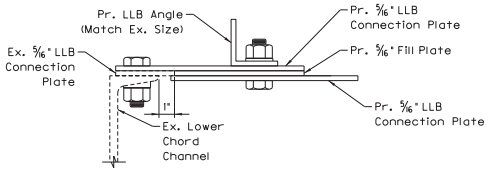
SECTION C–C



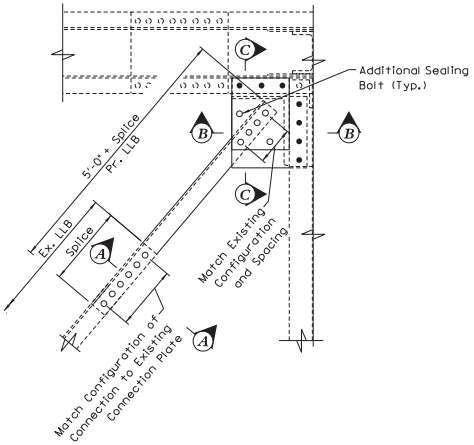
SECTION D–D



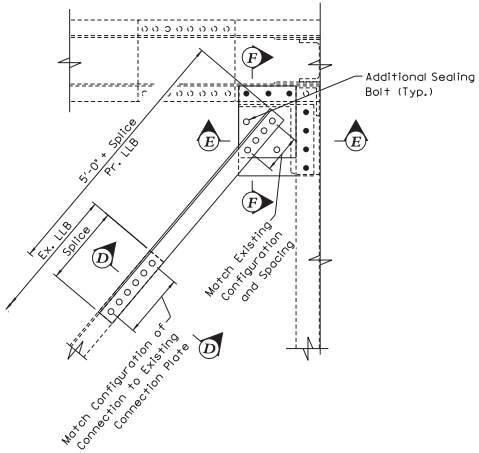
SECTION E–E



SECTION F–F



LOWER CHORD PANEL CONNECTION
(Locations with Ex. LLB Angle Oriented Up)
(Proposed)



LOWER CHORD PANEL CONNECTION
(Locations with Ex. LLB Angle Oriented Down)
(Proposed)

NOTES

1. LLB = Lower Lateral Bracing
2. LLB angle sizes and number of connectors per connection from LLB to connection plate varies per panel point. Location with 3" LLB and 4 connectors shown. See LLB Angle Table for information on other locations.

LLB Angle Table

Panel	Ex. LLB Angle Size	Connector Rows	Connectors Per Row
L0-L1	L5x3½x7/16	2•	8
L1-L2	L5x3x3/8	2•	7
L2-L3	L3½x3x3/8	1	6
L3-L4	L3x3x5/16	1	4
L4-L3'	L3x3x5/16	1	4
L3'-L2'	L3½x3x3/8	1	6
L2'-L1'	L5x3x3/8	2•	7
L1'-L0'	L5x3½x7/16	2•	8

• Staggered Rows

LEGEND

- ○ Indicates New H.S. Bolts in New Shop or Field drilled Holes
- ● Indicates New H.S. Bolts in Existing holes
- Denotes removal

STEEL REPAIR E – LOWER LATERAL BRACING REPAIR

This repair shall consist of replacement of portions of the lower lateral bracing angles and connection plates, in the locations noted and in accordance with the Special Note for Structural Steel Repair. Locations to be repaired are listed in the Steel Repair Table on Sheet S2. The Engineer may designate additional locations to be repaired in the field. Repairs at multiple panel points shall not be performed simultaneously or in conjunction with Steel Repairs F or G. Repairs shall not be performed if wind speeds are anticipated to be greater than 20 mph. The unit bid price for "Lower Lateral Bracing Repair" shall include the cost of all materials, labor, falsework, equipment, and incidentals to remove the existing portions of the lower lateral bracing and connection plate and install the proposed plates and angles.

REVISION	DATE

DATE: 11-3-20	CHECKED BY
DESIGNED BY: K. Compton	T. Baker
DETAILED BY: J. Corley	K. Compton

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: ELLIOTT

ROUTE: CR-1206 | CROSSING: LITTLE SANDY RIVER

STEEL REPAIR E

BRIDGE NUMBER: 032C00032N

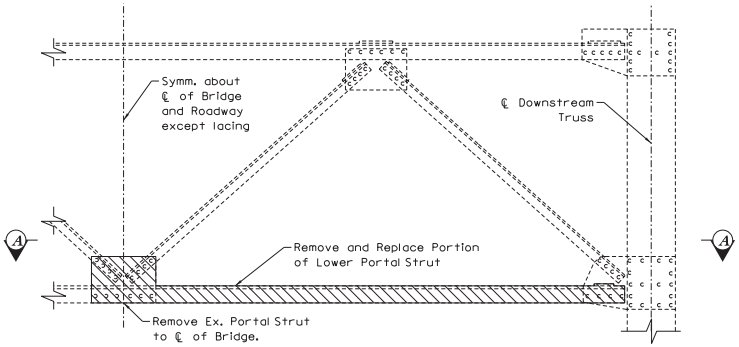
PREPARED BY: AECOM

BRIDGING KENTUCKY

SHEET NO. S10

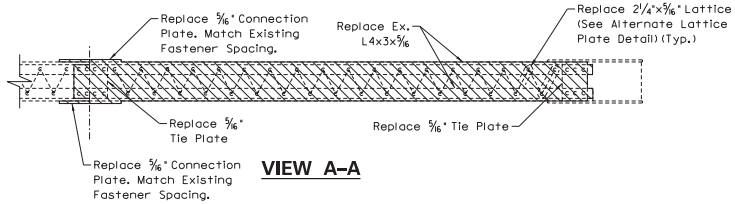
DRAWING NO. 28188

FILE NAME:
USER:
DATE PLOTTED:
E-SHEET NAME:
Power GEOPAK v8.11.9.832

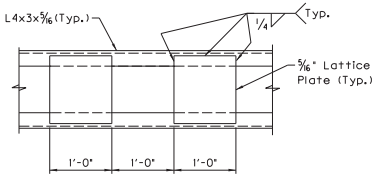


SOUTH PORTAL STRUT ELEVATION

(Looking North)



VIEW A–A

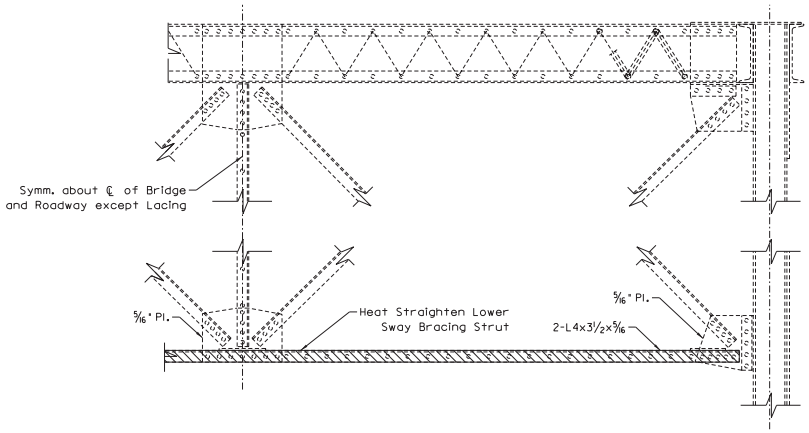


ALTERNATE LATTICE PLATE DETAIL

Contractor may replace lattice bars in-kind or use the alternate lattice plate detail. See Special Note for Structural Steel Repair.

STEEL REPAIR F – PORTAL REPAIR

This repair shall consist of removing and replacing damaged portions of the south portal strut in kind and in accordance with the Special Note for Structural Steel Repair. Repair shall not be performed in conjunction with Repairs E or G. Repair shall not be performed if wind speeds are anticipated to be greater than 20 mph. The unit bid price for "Steel Repair - Portal Repair" shall include the cost of all materials, labor, equipment, tools, falsework, and incidentals to complete the work.



SWAY BRACING ELEVATION

STEEL REPAIR G – SWAY BRACING REPAIR

This repair shall consist of heat straightening distorted sway bracing struts in accordance with the Special Note for Heat Straightening. Repairs at multiple panel points shall not be performed simultaneously or in conjunction with Repairs E or F. Repair shall not be performed if wind speeds are anticipated to be greater than 20 mph. The unit bid price for "Steel Repair - Sway Bracing Repair" shall include the cost of all materials, labor, equipment, tools, falsework, and incidentals to complete the work.

LEGEND

Denotes member or connection to be repaired and/or replaced

REVISION	DATE

DATE: 11-3-20	CHECKED BY
DESIGNED BY: K. Compton	T. Baker
DETAILED BY: J. Corley	K. Compton

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: ELLIOTT

ROUTE: CR-1206 | CROSSING: LITTLE SANDY RIVER

STEEL REPAIRS F & G

BRIDGE NUMBER: 032C00032N

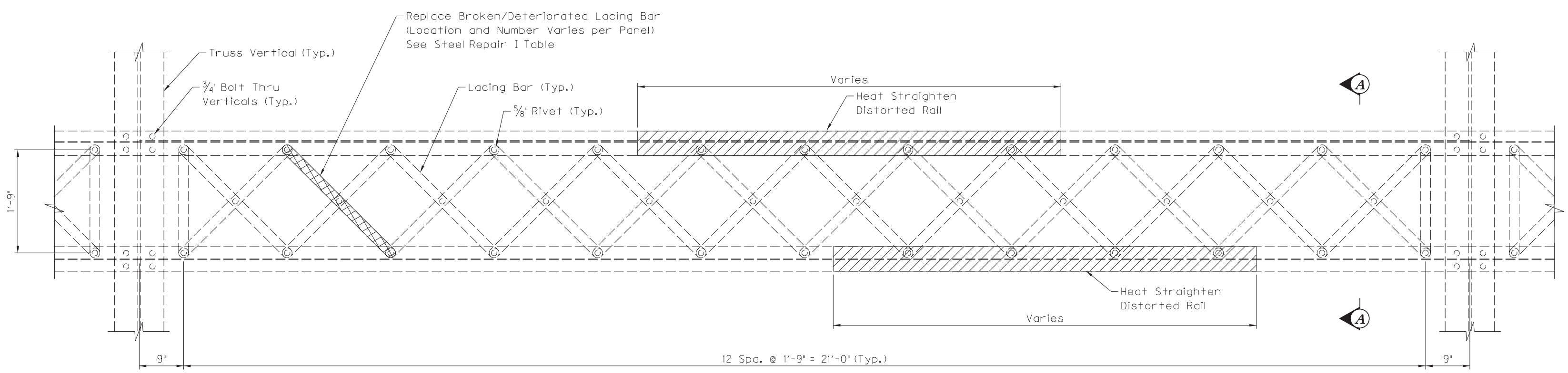
PREPARED BY: AECOM

BRIDGING KENTUCKY

SHEET NO. S11

DRAWING NO. 28888

USER: john.corley
DATE PLOTTED: 11/4/2020 8:14:40 AM
FILE NAME: ...\Working\SOIL_Steel 6 .dgn
E-SHEET NAME:
Power GEOPAK v8.11.9.832

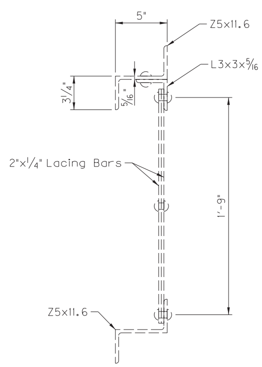


TYPICAL RAILING PANEL ELEVATION

STEEL REPAIR I DATA

Panel	Approx. No. Required	
	DS	US
L0-L1	7	4
L1-L2	12	1
L2-L3	14	7
L3-L4	14	5
L4-L3'	12	3
L3'-L2'	5	6
L2'-L1'	13	11
L1'-L0'	8	8
Total	130	

Note: Location and number show in table is an approximate. Actual location and number of repairs shall be designated by the Engineer in the field.



SECTION A–A

STEEL REPAIR H – STEEL RAILING STRAIGHTENING

This repair shall consist of straightening a deformed truss railing as shown and in accordance with the Special Note for Heat Straightening. Areas to be repaired shall be designated by the Engineer in the field. The unit bid price for "Steel Railing Straightening" shall include the cost of all materials, labor, equipment, tools, falsework, and incidentals to heat straighten one rail section (top or bottom) between panel points.

STEEL REPAIR I – STEEL LACING BAR REPLACEMENT

This repair shall consist of replacing a steel lacing bar in the truss railing as shown and in accordance with the Special Note for Structural Steel Replacement. Areas to be repaired shall be designated by the Engineer in the field. The unit bid price for "Steel Lacing Bar Replacement" shall include the cost of all materials, labor, equipment, tools, falsework, and incidentals to remove and replace one lacing bar.

LEGEND

Denotes location of Steel Railing Straightening

Denotes location of Steel Lacing Bar Replacement

REVISION	DATE
DATE: 11-3-20	CHECKED BY
DESIGNED BY: K. Compton	T. Baker
DETAILED BY: J. Corley	K. Compton

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: ELLIOTT

ROUTE: CR-1206 | CROSSING: LITTLE SANDY RIVER

STEEL REPAIR H & I

PREPARED BY: AECOM

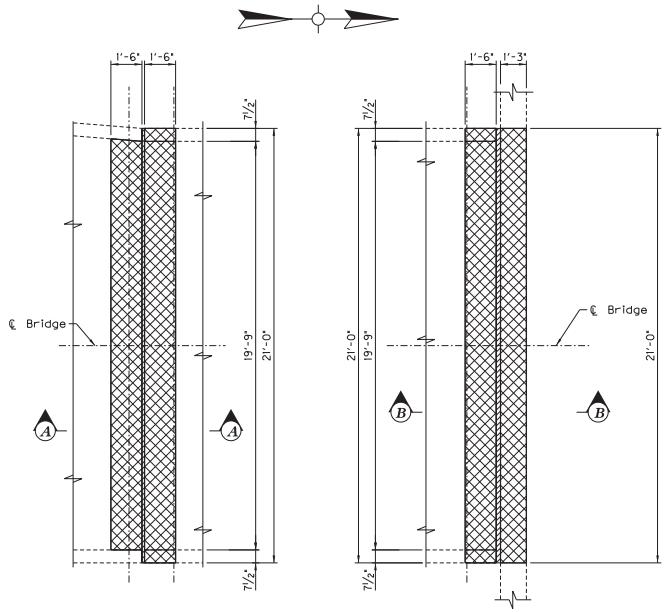
BRIDGING KENTUCKY

SHEET NO. S12

DRAWING NO. 28188

BRIDGE NUMBER: 032C00032N

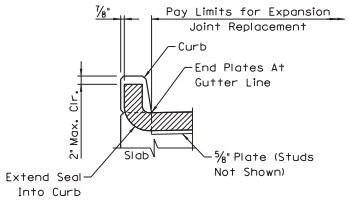
Power GEOPAK v8.11.9.832 | E-SHEET NAME: | USER: john.corley DATE PLOTTED: 11/4/2020 8:17:05 AM | FILE NAME: ...\Working\S012_Steel 7.dgn



AT PIER 01

AT NORTH ABUTMENT

EXPANSION JOINT REPLACEMENT PLAN



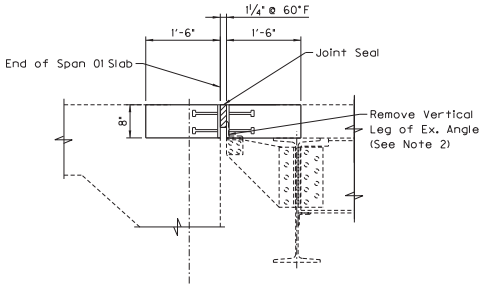
PARTIAL SECTION THRU EXPANSION JOINT AT CURB

LEGEND

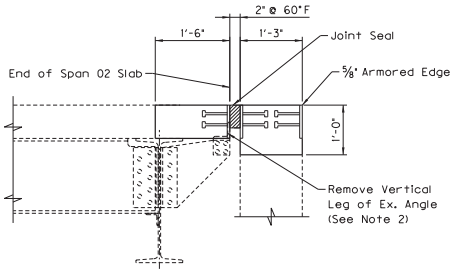
Limits of Remove and Replacement, See Note 2

NOTES

1. For additional notes and details, see Std. Dwgs. BJE-001-14, BJE-003, BJE-005, and BJE-006.
2. Reseal joints in truss deck over interior floorbeams in accordance with the Special Note for Joint Seal Replacement.



SECTION A–A



SECTION B–B

REVISION	DATE

DATE: 11-3-20	CHECKED BY
DESIGNED BY: K. Compton	T. Baker
DETAILED BY: J. Corley	K. Compton

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: ELLIOTT

ROUTE: CR-1206 | CROSSING: LITTLE SANDY RIVER

EXPANSION JOINT DETAILS

BRIDGE NUMBER	PREPARED BY	SHEET NO.
032C00032N	AECOM	S13
		DRAWING NO. 2888

BRIDGING KENTUCKY

FILE NAME: ...\Working\S013_Exp Jt.dgn
USER: john.corley
DATE PLOTTED: 11/4/2020 8:35:15 AM
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Power GEOPAK v8.11.9.832