

CONVENTIONAL SIGNS

- SURVEY LINE
- GRADE LINE
- GROUND LINE
- COUNTY LINE
- CORPORATE LIMITS
- EXIST. PROPERTY LINE
- EXIST. RIGHT OF WAY & PROPERTY LINE
- PROPOSED RIGHT OF WAY
- RIGHT OF WAY MONUMENT
- BENCH MARK
- EXISTING R/W MARKER
- RIGHT OF WAY MONUMENT EXISTING/PROPOSED
- UTILITY TEST HOLE
- EXISTING ROAD
- RAILROAD
- FENCE (CONTROLLED ACCESS)
- FENCE (EXCEPT STONE AND HEDGE)
- TREE LINE
- TREES
- PIPE CULVERT
- CULVERT
- BRIDGE
- BUILDINGS
- GUARDRAIL
- LIGHTING POLE
- POWER POLE
- JOINT POWER & TELEPHONE POLE
- TELEPHONE & TELEGRAPH POLE
- ANCHOR, POWER OR TELEPHONE
- STUB POWER
- STUB TELEPHONE
- WATER MAIN
- GAS MAIN
- TELEPHONE DUCT
- ELECTRIC DUCT
- DIRECT BURIAL TV CABLE
- SANITARY SEWER (WITH MANHOLE)
- STORM SEWER (WITH MANHOLE)
- DIRECT BURIAL ELECTRIC CABLE
- DIRECT BURIAL TELEPHONE CABLE
- OVERHEAD WIRE
- TRAFFIC LIGHTS
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- STONE FENCE
- HEDGE FENCE
- SWAMP OR MARSH
- SPRINGS
- SINKHOLE
- QUARRY SITE
- BLUE LINE STREAM
- INTERMITTENT STREAM OR DITCH
- LAKES OR PONDS
- REGULATED FLOODWAY
- NORTH POINT

TYPICAL SECTIONS SLICK ROCK ROAD

FULL-DEPTH MAINLINE, SHOULDER & ENTRANCE PAVEMENT RECONSTRUCTION
TRAFFIC LANES, SHOULDERS AND ENTRANCES:
DENSE GRADED AGGREGATE 8" DEPTH

- NOTES:
- GEOTEXTILE FABRIC CLASS 2 (SEPARATION) SHALL BE INCIDENTAL TO DGA.
 - GRANULAR EMBANKMENT FOR NECESSARY WIDENING AT LOCATIONS AS APPROVED BY ENGINEER. MATERIAL NEEDED FOR SHOULDERS OUTSIDE OF PAVED AREA WILL BE MEASURED AND PAID AS GRANULAR EMBANKMENT.

GRANULAR EMBANKMENT SHALL BE USED FOR ROADWAY FILL MATERIAL. SLOPES SHALL BE CAPPED WITH A MINIMUM OF 6 INCHES OF TOPSOIL STRIPPED FROM THE PROJECT SITE DISTURB LIMITS. THIS APPLICATION SHALL BE INCIDENTAL TO THE PLACEMENT OF GRANULAR EMBANKMENT.

MAINTENANCE OF TRAFFIC NOTE:
THE CONTRACTOR IS TO MAINTAIN TRAFFIC ALONG SLICK ROCK ROAD AT ALL TIMES. THE EXISTING BRIDGE IS TO REMAIN OPEN UNTIL THE PROPOSED BRIDGE IS CONSTRUCTED AND TRAFFIC ROUTED TO THE NEWLY CONSTRUCTED BRIDGE ACCORDINGLY. THE SPECIAL NOTE FOR TRAFFIC CONTROL ON BRIDGE REPAIR CONTRACTS SHALL BE IMPLEMENTED.

ALL LABOR AND MATERIALS NECESSARY FOR CONSTRUCTION AND MAINTENANCE OF TRAFFIC CONTROL DEVICES.

ALL FLAGPERSONS AND TRAFFIC CONTROL DEVICES SUCH AS, BUT NOT LIMITED TO, FLASHERS, BARRICADES, AND VERTICAL PANELS, PLASTIC DRUMS (STEEL DRUMS WILL NOT BE PERMITTED) AND CONES NECESSARY FOR THE CONTROL AND PROTECTION OF VEHICULAR AND PEDESTRIAN TRAFFIC AS SPECIFIED IN THESE NOTES, THE MUTCD, OR THE ENGINEER.

ANY TEMPORARY TRAFFIC CONTROL ITEMS, DEVICES, MATERIALS, AND INCIDENTALS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR WHEN NO LONGER NEEDED.

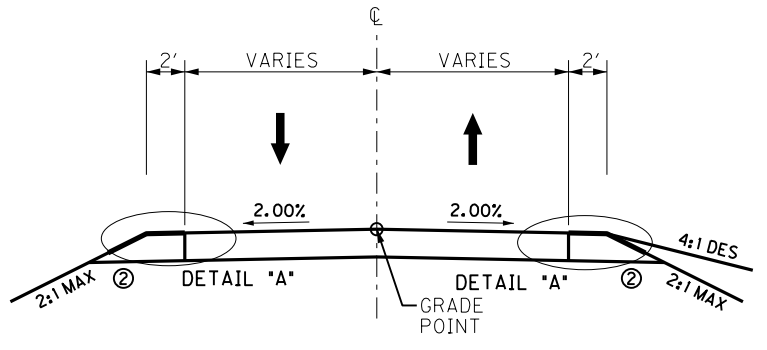
ALL TEMPORARY SIGNAGE SHALL BE INCIDENTAL TO BID ITEM 'MAINTAIN AND CONTROL TRAFFIC'

GENERAL SUMMARY

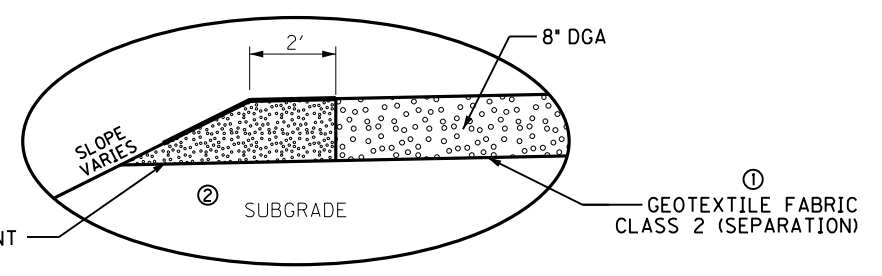
ITEM	DESCRIPTION	UNIT	PROJECT TOTAL
1987	DELINEATORS FOR FOR GUARDRAIL BI DIR.-WHITE	EACH	4
2200	ROADWAY EXCAVATION	CUYD	178
2223	GRANULAR EMBANKMENT	CUYD	105
2360	GUARDRAIL TERMINAL SECTION NO. 1	EACH	4
2545	CLEARING AND GRUBBING	LS	1
2568	MOBILIZATION	LS	1
2569	DEMobilIZATION	LS	1
2650	MAINTAIN AND CONTROL TRAFFIC	LS	1
2671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	2
2726	STAKING	LS	1
2731	REMOVE STRUCTURE	LS	1
5985	SEEDING AND PROTECTION	SQYD	1567
21415ND	EROSION CONTROL	LS	1

PAVING SUMMARY

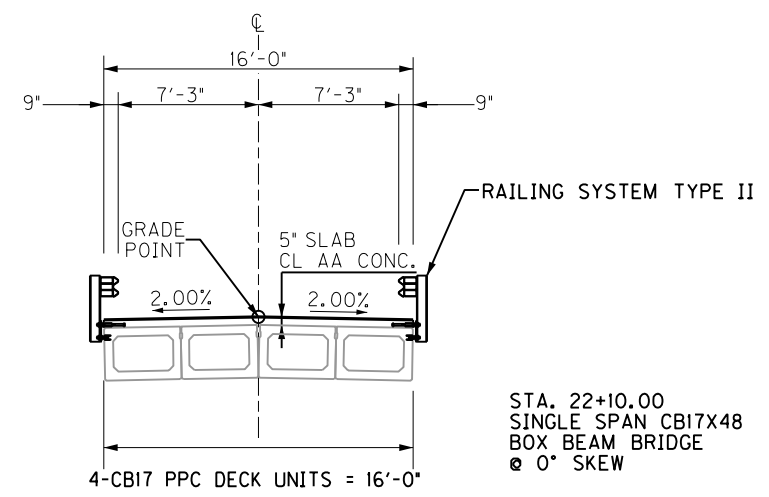
ITEM	DESCRIPTION	UNIT	TOTAL
1	DGA	TON	178



**ROADWAY TYPICAL SECTION
SLICK ROCK ROAD**



**DETAIL "A"
FULL-DEPTH MAINLINE & SHOULDER
PAVEMENT RECONSTRUCTION
NOT TO SCALE**

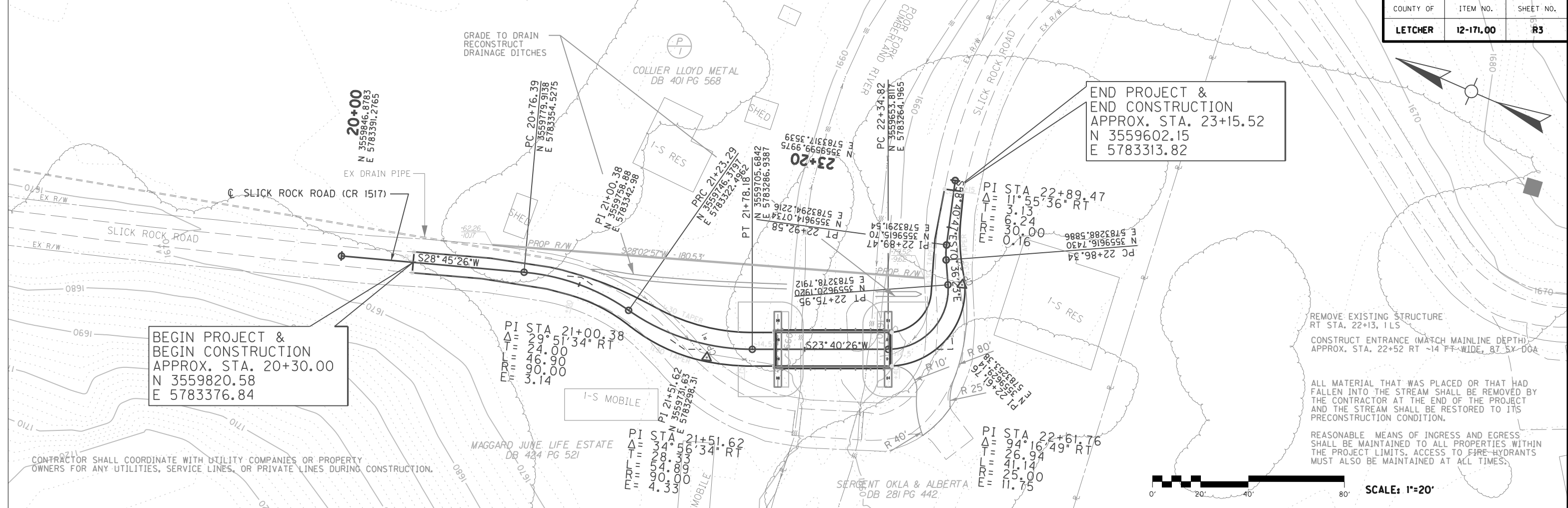
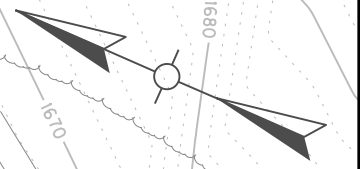


**BRIDGE TYPICAL SECTION
SLICK ROCK ROAD**



SLICK ROCK ROAD (CR 1517)
OVER POOR FORK CUMBERLAND RIVER
TYPICAL SECTIONS & LEGEND

FILE NAME: \$DONSPEC\$
 USER: \$USER\$ DATE PLOTTED: \$DATE\$ \$TIME\$
 MicroStation v8.11.9.919 E-SHEET NAME:



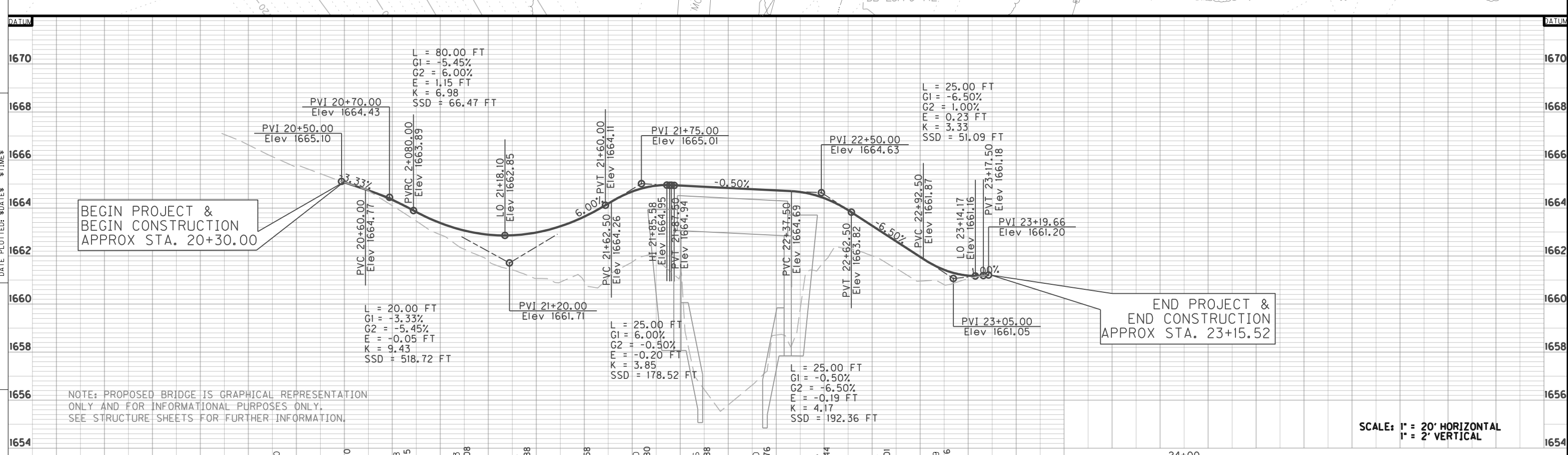
BEGIN PROJECT &
BEGIN CONSTRUCTION
APPROX. STA. 20+30.00
N 3559820.58
E 5783376.84

END PROJECT &
END CONSTRUCTION
APPROX. STA. 23+15.52
N 3559602.15
E 5783313.82

REMOVE EXISTING STRUCTURE
RT STA. 22+13, ILS
CONSTRUCT ENTRANCE (MATCH MAINLINE DEPTH)
APPROX. STA. 22+52 RT -14 FT WIDE, 87.5X DGA

ALL MATERIAL THAT WAS PLACED OR THAT HAD
FALLEN INTO THE STREAM SHALL BE REMOVED BY
THE CONTRACTOR AT THE END OF THE PROJECT
AND THE STREAM SHALL BE RESTORED TO ITS
PRECONSTRUCTION CONDITION.

REASONABLE MEANS OF INGRESS AND EGRESS
SHALL BE MAINTAINED TO ALL PROPERTIES WITHIN
THE PROJECT LIMITS. ACCESS TO FIRE-HYDRANTS
MUST ALSO BE MAINTAINED AT ALL TIMES.



BEGIN PROJECT &
BEGIN CONSTRUCTION
APPROX STA. 20+30.00

END PROJECT &
END CONSTRUCTION
APPROX STA. 23+15.52

SCALE: 1" = 20' HORIZONTAL
1" = 2' VERTICAL

NOTE: PROPOSED BRIDGE IS GRAPHICAL REPRESENTATION
ONLY AND FOR INFORMATIONAL PURPOSES ONLY.
SEE STRUCTURE SHEETS FOR FURTHER INFORMATION.

MicroStation v8.11.9.919 E-SHEET NAME: USER: \$USER\$ DATE PLOTTED: \$DATE\$ \$TIME\$ FILE NAME: \$DONSPEC\$

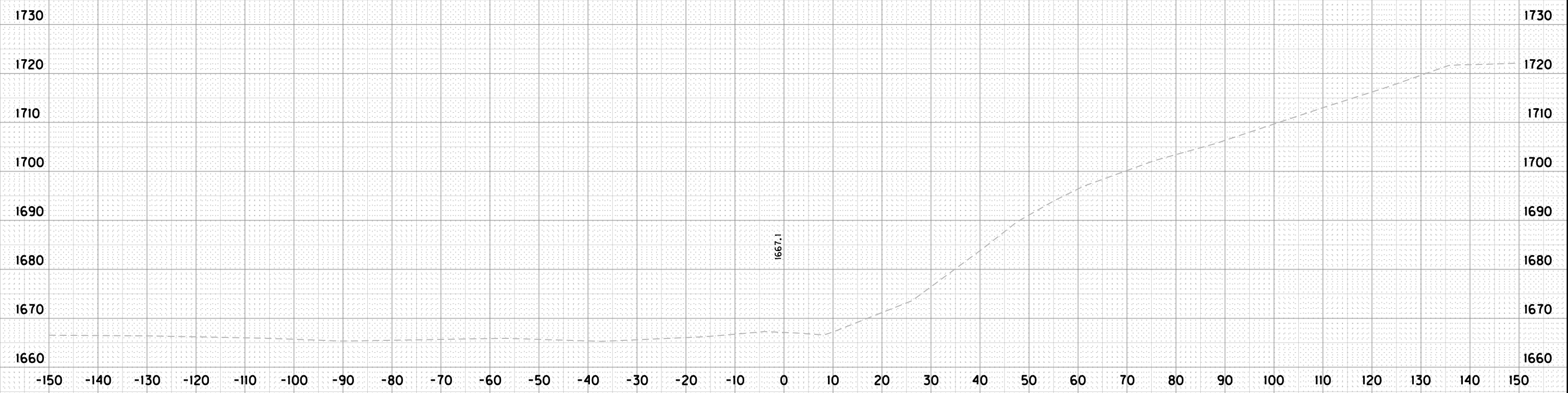
24+00	PREPARED BY AECOM	SLICK ROCK ROAD (CR 1517) OVER POOR FORK CUMBERLAND RIVER PLAN AND PROFILE SHEET
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COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-171.00	XI

VOLUME (CUBIC YARDS)

COM
0

EMB
0



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

SLICK ROCK ROAD (CR 1517)
OVER POOR FORK CUMBERLAND RIVER
STA.20+00 TO STA.20+00

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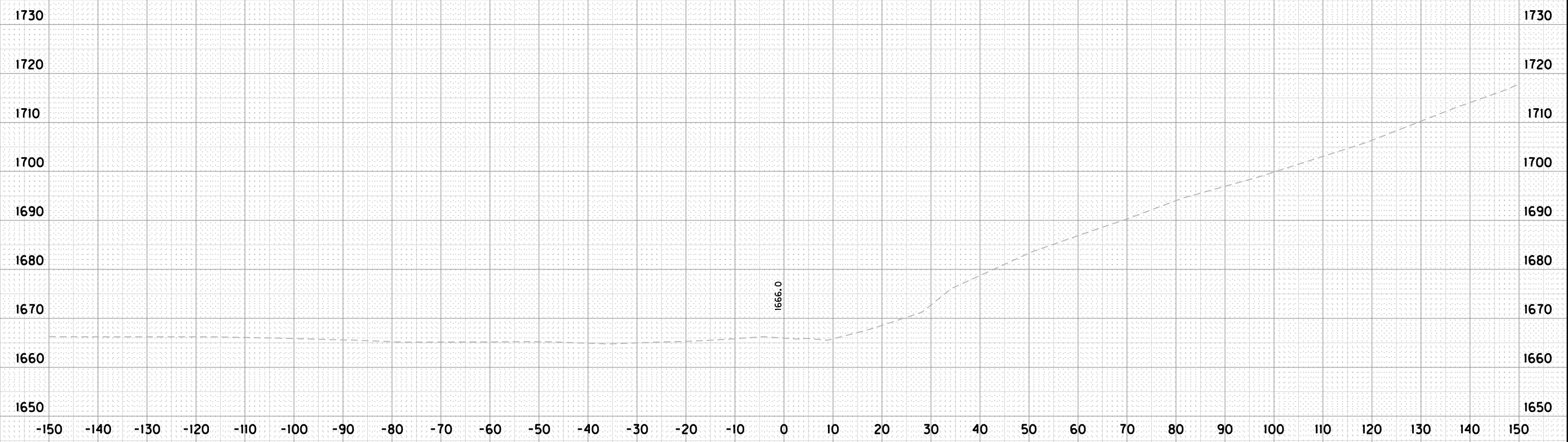
USER: *****
DATE PLOTTED: May 8, 2023

E-SHEET NAME:

MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-171.00	X2

VOLUME (CUBIC YARDS)
COM 5 EMB 0



20+25

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

SLICK ROCK ROAD (CR 1517)
OVER POOR FORK CUMBERLAND RIVER
STA. 20+25 TO STA. 20+25

FILE NAME: C:\PWORKING\USKY\DM505375\X1.DGN

USER: *****
DATE PLOTTED: May 8, 2023

E-SHEET NAME:

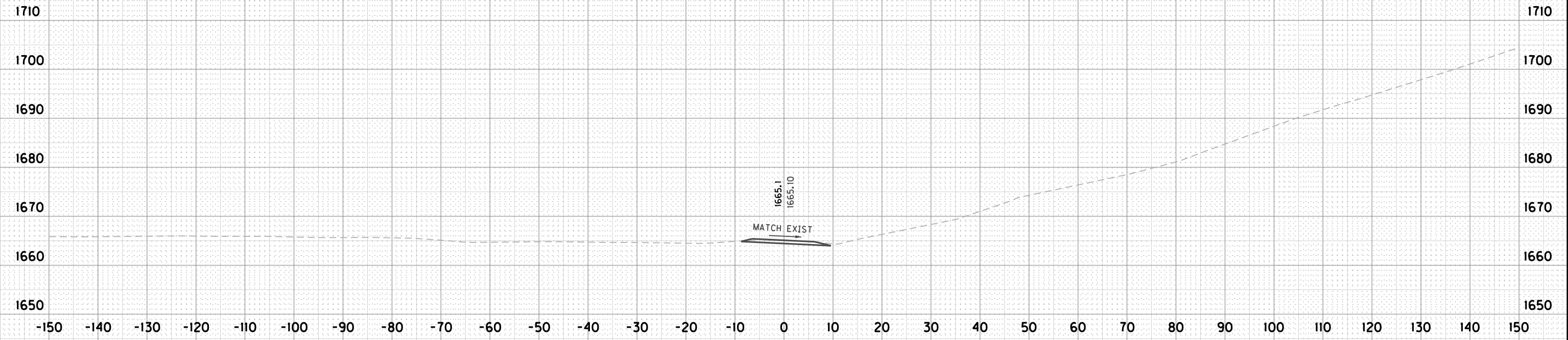
MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-171.00	X3

VOLUME (CUBIC YARDS)

COM
8

EMB
0



FILE NAME: C:\PWORKING\USKY\DM505375\X1.DGN

USER: *****
DATE PLOTTED: May 8, 2023

E-SHEET NAME:

MicroStation v8.11.9.919

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

SLICK ROCK ROAD (CR 1517)
OVER POOR FORK CUMBERLAND RIVER
STA.20+50 TO STA.20+50

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-171.00	X4

VOLUME (CUBIC YARDS)

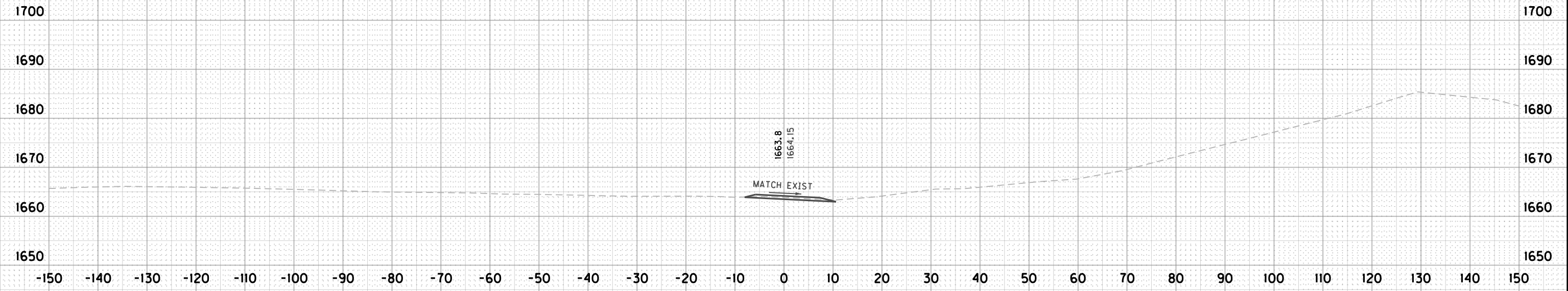
COM 5
EMB 1

FILE NAME: C:\PWORKING\USKY\DM505375\X1.DGN

USER: *****
DATE PLOTTED: May 8, 2023

E-SHEET NAME:

MicroStation v8.11.9.919



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

SLICK ROCK ROAD (CR 1517)
OVER POOR FORK CUMBERLAND RIVER
STA. 20+75 TO STA. 20+75

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-171.00	X5

VOLUME (CUBIC YARDS)

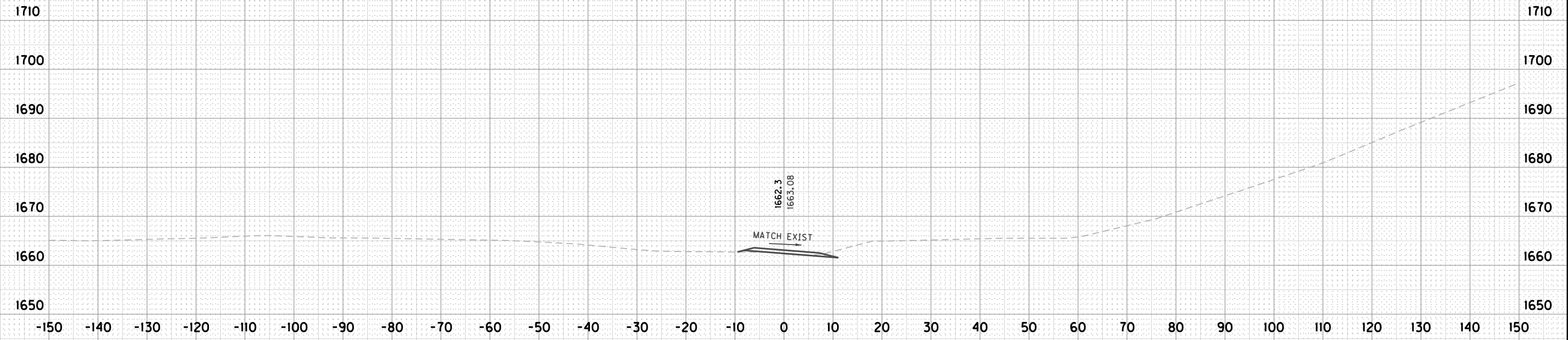
COM 2 EMB 5

FILE NAME: C:\PWORKING\USKY\DM505375\X1.DGN

USER: *****
DATE PLOTTED: May 8, 2023

E-SHEET NAME:

MicroStation v8.11.9.919

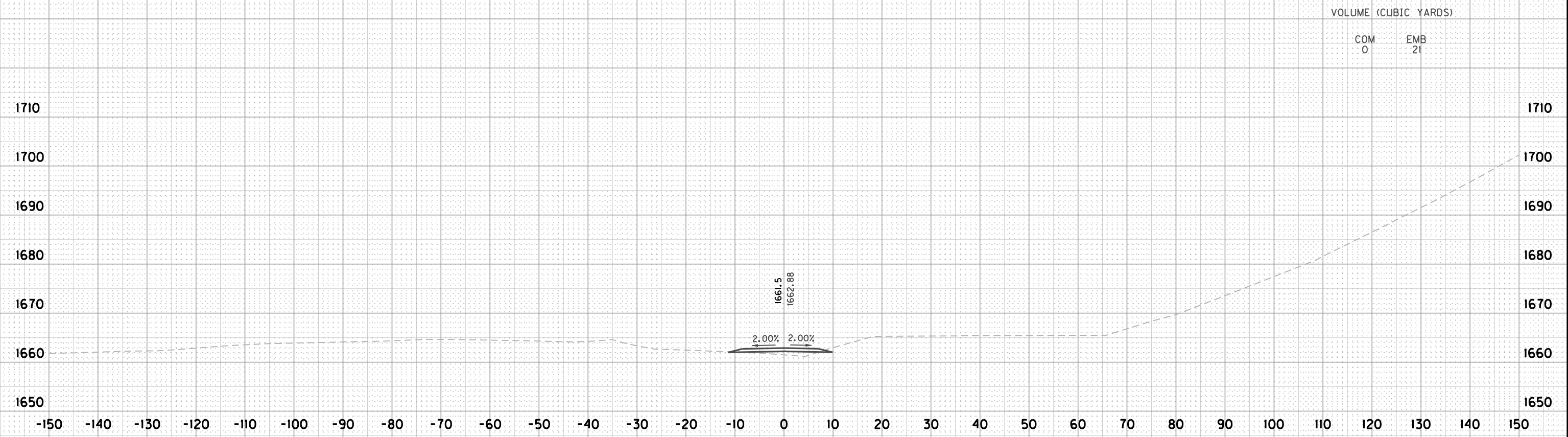
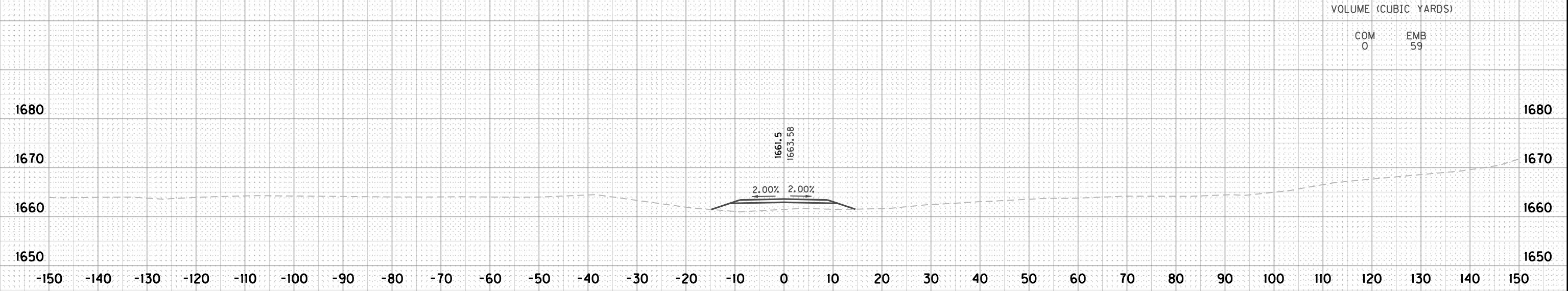


21+00

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

SLICK ROCK ROAD (CR 1517)
OVER POOR FORK CUMBERLAND RIVER
STA. 21+00 TO STA. 21+00

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-171.00	X6



FILE NAME: C:\PWORKING\USKY\DM505375\X1.DGN

USER: *****
 DATE PLOTTED: May 8, 2023

E-SHEET NAME:

MicroStation v8.11.9.919

SCALE: 1" = 10' HORIZONTAL
 1" = 10' VERTICAL

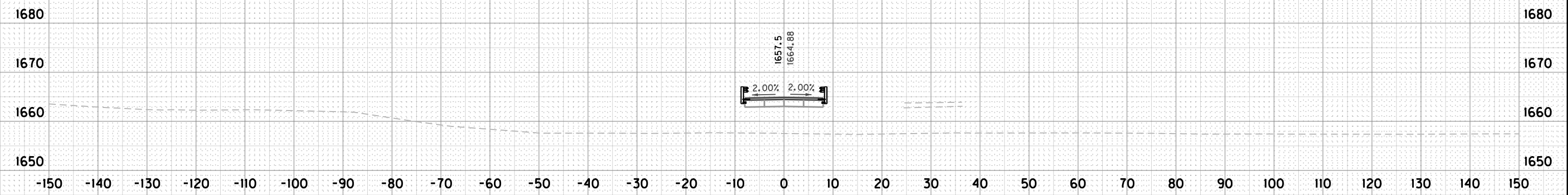
SLICK ROCK ROAD (CR 1517)
 OVER POOR FORK CUMBERLAND RIVER
 STA. 21+25 TO STA. 21+50

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-171.00	X7

VOLUME (CUBIC YARDS)

COM
0

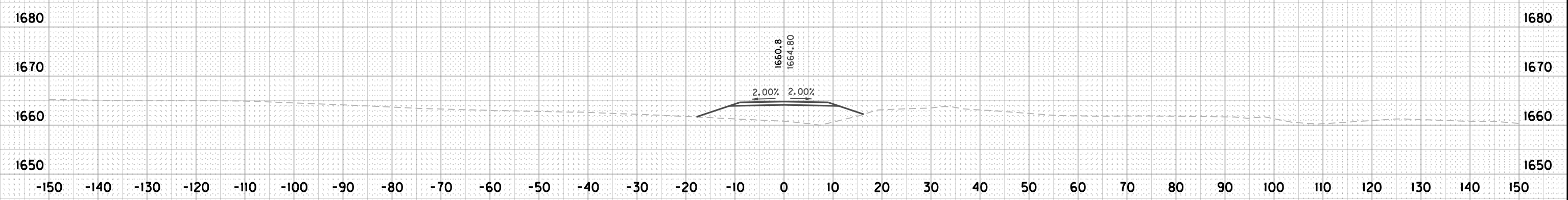
EMB
0



VOLUME (CUBIC YARDS)

COM
0

EMB
42



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

SLICK ROCK ROAD (CR 1517)
OVER POOR FORK CUMBERLAND RIVER
STA. 21+75 TO STA. 22+00

FILE NAME: C:\PWORKING\USKY\DM505375\X1.DGN

USER: *****
DATE PLOTTED: May 8, 2023

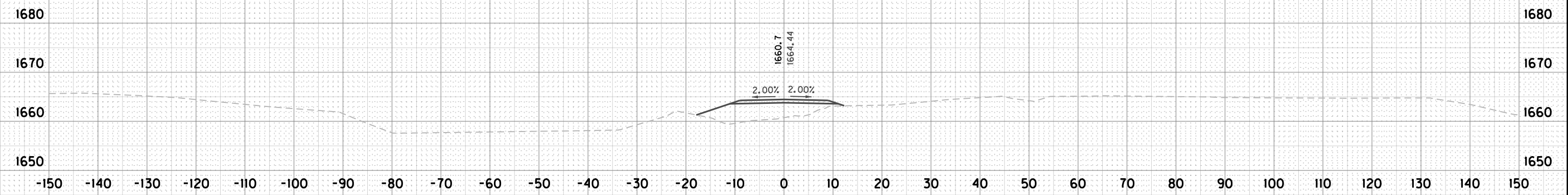
E-SHEET NAME:

MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-171.00	X8

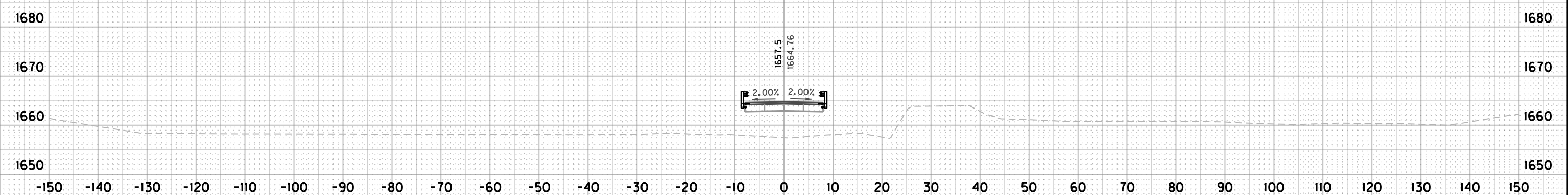
VOLUME (CUBIC YARDS)

COM 0
EMB 38



VOLUME (CUBIC YARDS)

COM 0
EMB 34



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

SLICK ROCK ROAD (CR 1517)
OVER POOR FORK CUMBERLAND RIVER
STA. 22+25 TO STA. 22+50

FILE NAME: C:\PWORKING\USKY\DM505375\X1.DGN

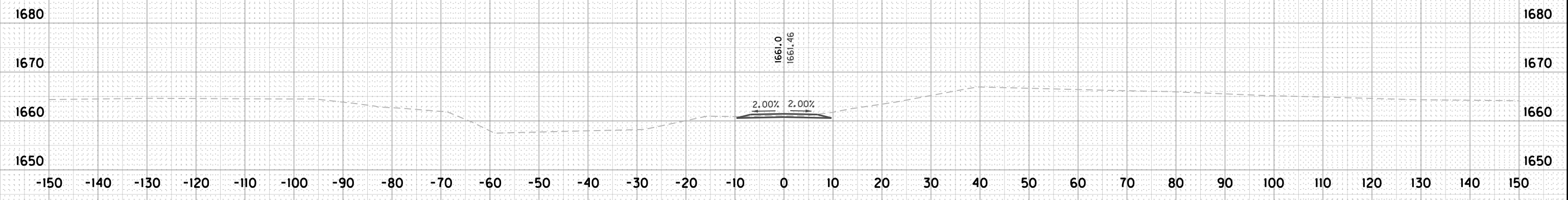
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DATE PLOTTED: May 8, 2023

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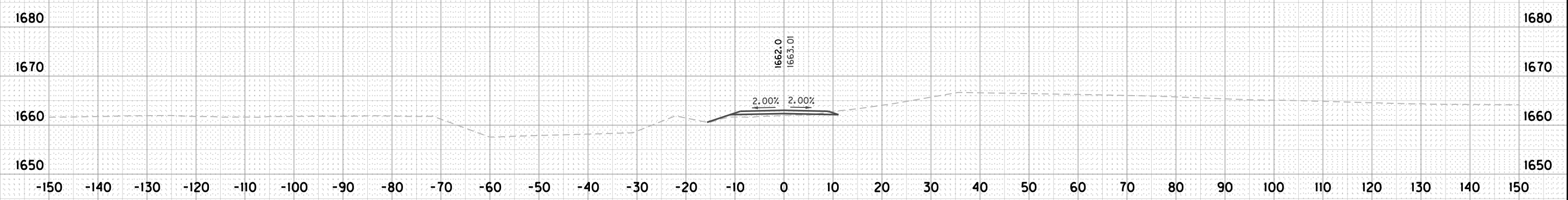
MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-171.00	X9

VOLUME (CUBIC YARDS)
COM 4 EMB 0



VOLUME (CUBIC YARDS)
COM 4 EMB 4



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

SLICK ROCK ROAD (CR 1517)
OVER POOR FORK CUMBERLAND RIVER
STA. 22+75 TO STA. 23+00

FILE NAME: C:\PWORKING\USKY\DM505375\X1.DGN

USER: *****
DATE PLOTTED: May 8, 2023

E-SHEET NAME:

MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-171.00	X10

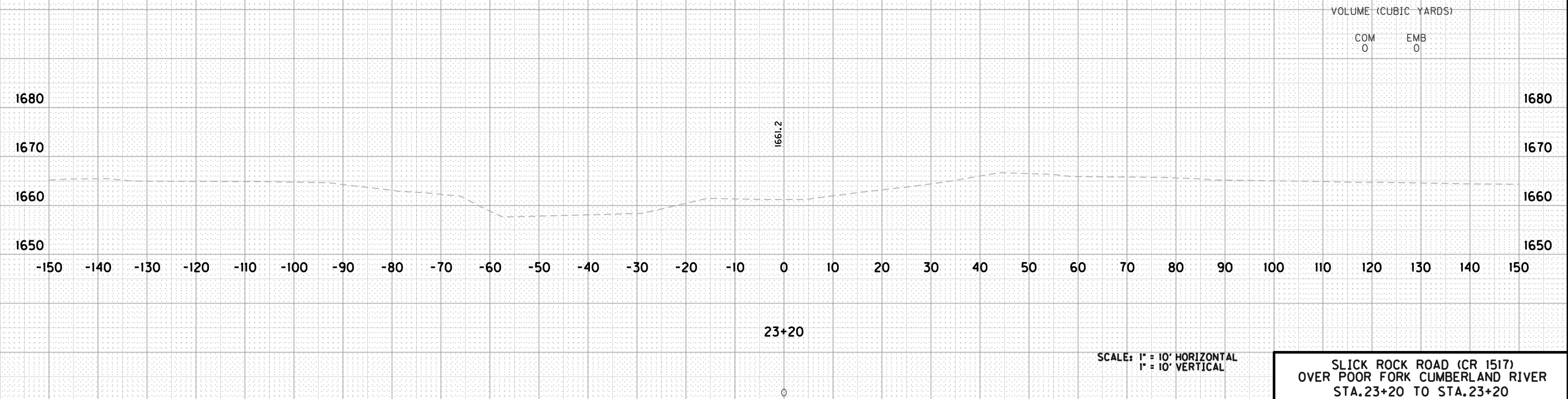
	VOLUME (CUBIC YARDS)	
	COM	EMB
PROJECT TOTAL	27	205

FILE NAME: C:\PWORKING\USKY\DM505375\X1.DGN

USER: *****
DATE PLOTTED: May 8, 2023

E-SHEET NAME:

MicroStation v8.11.9.919



SLICK ROCK ROAD (CR 1517)
OVER POOR FORK CUMBERLAND RIVER
STA.23+20 TO STA.23+20

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.

Design Load: This bridge is designed for KYHL-93 live load, (i.e., 1.25x AASHTO HL93 live load). This bridge is designed for a future wearing surface of 15 psf.

Design Method: All reinforced concrete members are designed to be equivalent or greater than the load and resistance factor design method as specified in the current AASHTO Specifications.

Materials Design Specifications:

For Class 'A' Reinforced Concrete f'c = 3500 psi
 For Class 'AA' Reinforced Concrete f'c = 4000 psi
 For Steel Reinforcement fy = 60000 psi

Material Specifications: AASHTO Specifications or ASTM, current edition, as designated below shall govern the materials furnished.

AASHTO M153 Premolded Cork Filler, Type II

AASHTO M-31 Deformed and Plain Billet-Steel for Concrete Reinforcement, Grade 60

Preformed Cork Expansion Joint Material: Preformed Cork Expansion Joint Material shall conform to subsection 807.04.02 (Type II) of the Kentucky Department of Highways Standard Specifications.

Concrete: Class 'AA' Concrete is to be used throughout the superstructure and in the portions of the substructure above the tops of caps. Class 'A' concrete is to be used in the substructure below the caps. Prestressed beam concrete shall be in accordance with the plans and Specifications.

Reinforcement: Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Clear distance to face of concrete is 2" unless otherwise noted. 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.

Construction Identification: The names of the Prime Contractor and any Subcontractor shall be imprinted in the concrete with one inch letters at a location designated by the Engineer. The Contractor shall furnish all Plans, equipment, and labor necessary to do the work for which no direct payment will be made. See Standard Drawing BGX-006, c.e.

Beveled Edges: All exposed edges shall be beveled $\frac{3}{4}$ ", unless otherwise shown.

Slope Protection: Slope Protection at abutments shall be dry cyclopean stone riprap in accordance with the plans and Specifications. Geotextile Fabric, Class 1 shall be placed between the embankment and the slope protection in accordance with Standard Specifications 214 and 843. Payment for Geotextile Fabric, Class 1, shall be considered incidental to the unit price bid for Dry Cyclopean Stone Riprap.

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 to the work involved and otherwise considered incidental to the Contract. This may include cofferdams, shoring, excavations, backfilling, removal of all or parts of existing structures, phase construction, incidental materials, labor, or anything else required to complete the structure.

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.

Shop Drawings: The fabricator shall submit all required shop plans, by email, to the design consultant, for review. Designers will make review comments on these electronic submissions as needed and return them to the fabricator. Upon reconciliation of the designer's comments, files shall be returned to the designer. Each sheet will be electronically stamped by the designer and plans will be forwarded by email to the KYTC Division of Structural Design's shop plan coordinator for distribution. Only plans submitted directly to the shop plan coordinator will be distributed and only plans containing both the "Distributed by the Division of Structural Design" and the designer review stamp are to be used for fabrication.

Payment for Precast Concrete Beams: The basis of payment for the prestressed concrete beams shall be at the contract unit price per linear foot of beam in accordance with the Specifications.

Verifying Field Conditions: The contractor shall field verify all dimensions before ordering material. New material that is unsuitable because of variations in the existing structure shall be replaced at the contractor's expense.

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

Superstructure Slab: The superstructure slab shall be poured continuously from end to end of slab before the concrete is allowed to set.

Mastic Tape: Mastic Tape used to seal joints is to meet the requirements of ASTM C-877 Type I, II, or III. The joint is to be covered with 12" wide mastic tape. Prior to application, the joint surface shall be clean and free of dirt, debris, or deleterious material. Primer, if required by the tape manufacturer, shall be applied for a minimum width of 9" on each side of the joint.

Mastic Tape shall be either:

EZ-Wrap Rubber by Press-seal Casket Corporation,
 Seal Wrap by Mar Mac Manufacturing Co. Inc.,
 Cadillac by The UP Rubber Co. Inc.
 or approved equal.

Mastic Tape shall cover the joint continuously unless otherwise shown in the plans. Mastic Tape shall be spliced by lapping a minimum of 6" and in accordance with the manufacturer's recommendations with the overlap running downhill.

Additionally, the Contractor shall place Mastic Tape along vertical joints between the Concrete Box Beams. The vertical joints should be covered after the abutment seat interface, in the same manner as outlined above.

The cost of labor, materials, and incidental items for furnishing and installing Mastic Tape shall be considered incidental to the unit price bid for Concrete Class 'AA' and no separate measurement of payment shall be made.

Temporary Supports: Temporary Supports or shoring will not be permitted under the beams when pouring the concrete deck slab or when taking 'top of beam' elevations.

Armored Edge: Fabricate armored edge to match cross slope and parabolic crown at each end of bridge.

Foundation Preparation: Foundation Preparation shall be in accordance with Section 603 of the Specifications.

Foundation excavations should be properly braced/shored to provide adequate safety to persons working in or around excavations. Bracing should be performed in accordance with applicable federal, state and local guidelines.

Temporary shoring, sheeting, cofferdams, and/or dewatering methods may be required to facilitate foundation construction. It should be anticipated that groundwater will be encountered at foundation locations within the flood plain.

Temporary shoring, bracing, sheeting, coffer dams and dewatering shall be included in the lump sum bid for Foundation Preparation.

Structural Granular Backfill: The estimated quantity of Structure Granular Backfill is 130 c.y., and materials for Structure Granular Backfill shall be in accordance with Section 805 of the Specifications.

Contrary to the Specifications, Structure Granular Backfill will not be measured for payment but shall be included in the lump sum bid for Foundation Preparation.

Embankments: Construct the embankments in accordance with Special Provision 69.

Concrete Sealer: Apply concrete sealer in accordance with the Special Note Concrete Sealing.

Geotextile Fabric: Geotextile Fabric shall conform to the Standard Specifications. Geotextile Fabric Class 1 is to be placed between the embankment and slope protection at locations where Cyclopean Stone Rip-Rap is specified. Payment for fabric is to be incidental to the slope protection. Geotextile Fabric Class 2 is to be placed around the Structure Granular Backfill as shown on standard drawing RGX-105 and in accordance with Special Provision 69. Payment for fabric is to be incidental to the Structural Granular Backfill.

Piling: Piling shall be driven to practical refusal as defined on the pile record sheet.

Test piles shall be driven where designated on the plans to determine the length of pile required.

All test piles shall be accurately located so that they may be used in the finished structure.

Contrary to the standard drawings for steel piling, mill test reports are not required to be notarized.

Pile Points: Provide pile points for all piles. Pile points shall be in accordance with Section 604 of the Specifications and of the type shown on the pile record sheet.

Pre-drilling Piles: Where pre-drilling is necessary for pile installation, holes shall be drilled into solid rock. Minimum distance between bottom of cap or pile bent and pile tip shall be 10'-0". Backfill the holes with sand or pea gravel after the pile is placed in the hole. A temporary casing may be required to prevent collapse of the hole. If used, remove the casing as the hole is backfilled. Drive piles to refusal after backfill operations are complete. Include the cost of all materials, labor, and equipment needed to pre-drill, backfill the holes, and drive the piles to refusal in the price per linear foot for "Pre-drilling for Piles".



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



REVISION	DATE

PREPARED BY
AECOM

DATE: 9/15/2022
 DESIGNED BY: J. ZHOU
 DETAILED BY: J. ZHOU

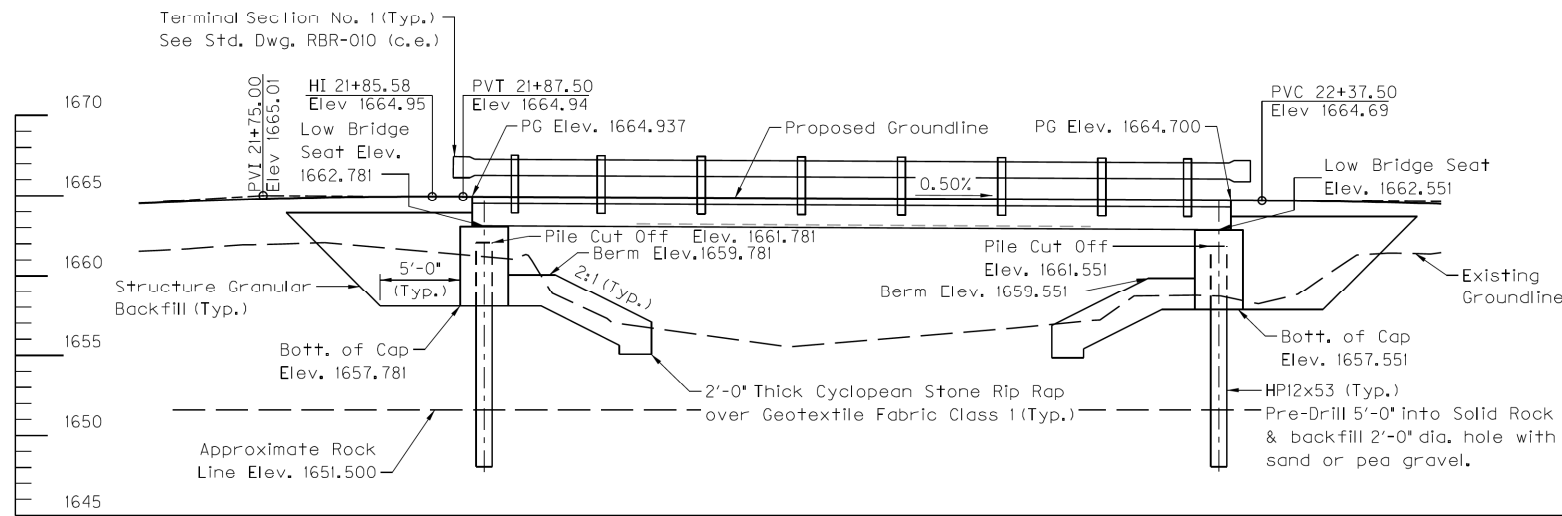
CHECKED BY
 J. WHELAN
 J. WHELAN

GENERAL NOTES
 CROSSING
POOR FORK CUMBERLAND RIVER

ROUTE
CR 1517

ITEM NO.
12-171
 SHEET NO.
S02

COUNTY OF
LETCHER
 DRAWING NUMBER
28575

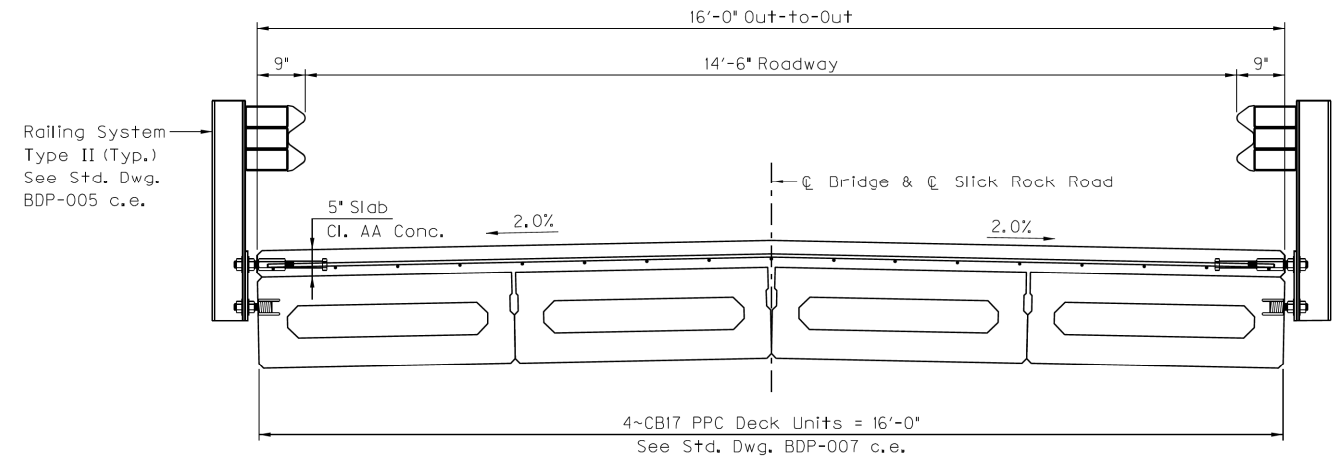


END BENT 1
FIX

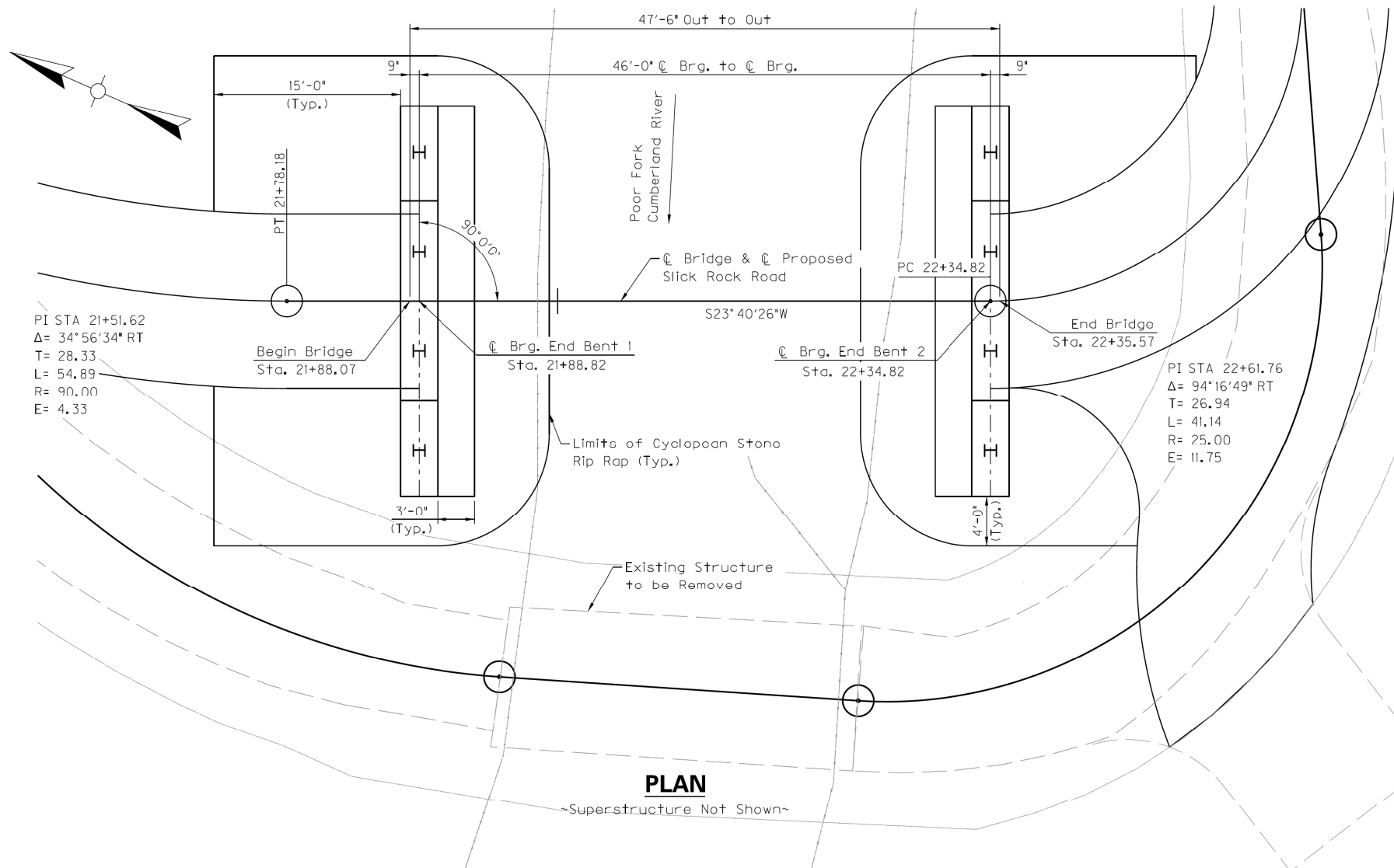
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FIX

ELEVATION

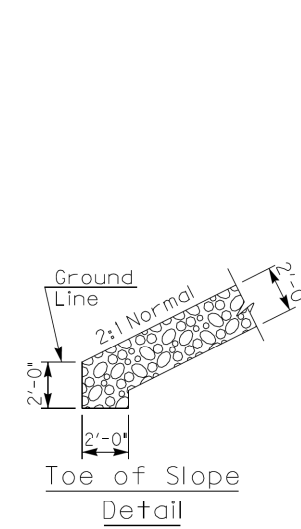
46'-0" Simple Span ~ CB17x48 Box Beams
HL93x125% Live Load ~ 14'-6" Roadway Width ~ 0° Skew ~ 2:1 Fill Slopes



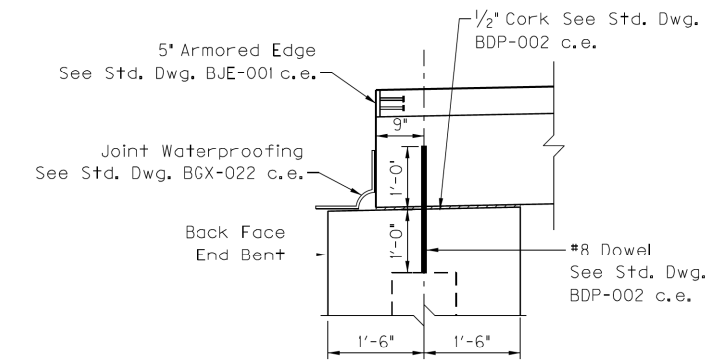
TYPICAL SECTION



PLAN



Toe of Slope Detail



BEAM END DETAIL

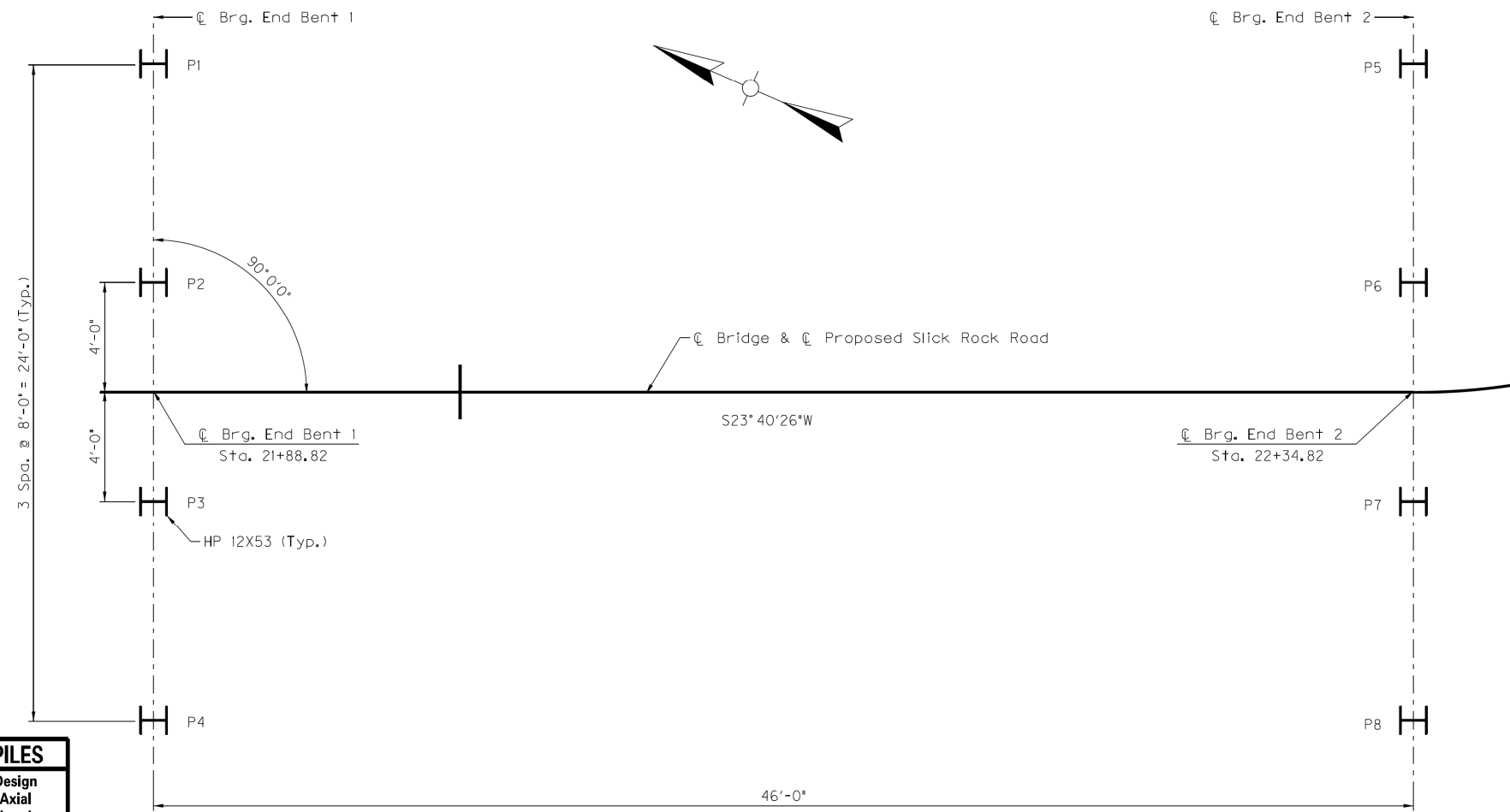
NOTE:
Place Object Marker Type 2 at all four corners. See Std. Dwg. RBR-060 c.e. for details.

Existing Bridge ID. : 067C018

	REVISION	DATE	PREPARED BY	DATE: 9/16/2022	CHECKED BY	LAYOUT CROSSING POOR FORK CUMBERLAND RIVER	ROUTE	ITEM NO.	COUNTY OF
				DESIGNED BY: J. ZHOU	J. WHELAN		CR 1517	12-171	LETCHER
				DETAILED BY: J. ZHOU	J. WHELAN		SHEET NO.	DRAWING NUMBER	
							S03	28575	

Notes

1. A diesel pile driving hammer with a rated energy between 13 foot-kips and 27 foot-kips will be required to drive 12x53 steel H-piles to practical refusal without encountering excessive blow counts or damaging the piles. The Contractor shall submit the proposed pile driving system to the Engineer for approval prior to the installation of the first pile. Approval of the pile driving system by the Engineer will be subject to satisfactory field performance of the pile driving procedures.
2. If hard driving is encountered because of dense strata or an obstruction, such as a boulder before the pile is advanced to the depth anticipated, the Engineer will determine if more blows than the average driving resistance specified for practical refusal is required to further advance the pile. Drive additional production and test piles if directed by the Engineer.
3. The installation of the pile foundations should conform to current AASHTO LRFD Bridge Design Specifications, and Section 604 of the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction.
4. Temporary casing will be required to prevent the collapse of the hole pre-drilled for the H-pile. The holes shall be backfilled with sand or pea gravel once the pile is in place. The casing shall be removed, as the hole is being backfilled. Piles shall then be driven to refusal. Include the cost of all materials, labor, and equipment needed to pre-drill, backfill the holes, and drive the piles to refusal in the price per linear foot for Pre-drilling Piles.
5. As an alternate to striking the pile once placed inside the pre-drilled holes, the Contractor may include shear resisting devices on the piles. See the Special Note for Pile Strike Alternate for details.



PILE RECORD FOR POINT BEARING PILES				
Pile No.	Pile Cut-off Elevation	Pile Length In Place	Point of Pile Elevation As Driven	Design Axial Load
	FEET	FEET	FEET	TONS
1	1661.781			79
2	1661.781			79
3	1661.781			79
4	1661.781			79
5	1661.551			79
6	1661.551			79
7	1661.551			79
8	1661.551			79
9				
10				

Definitions of Terms

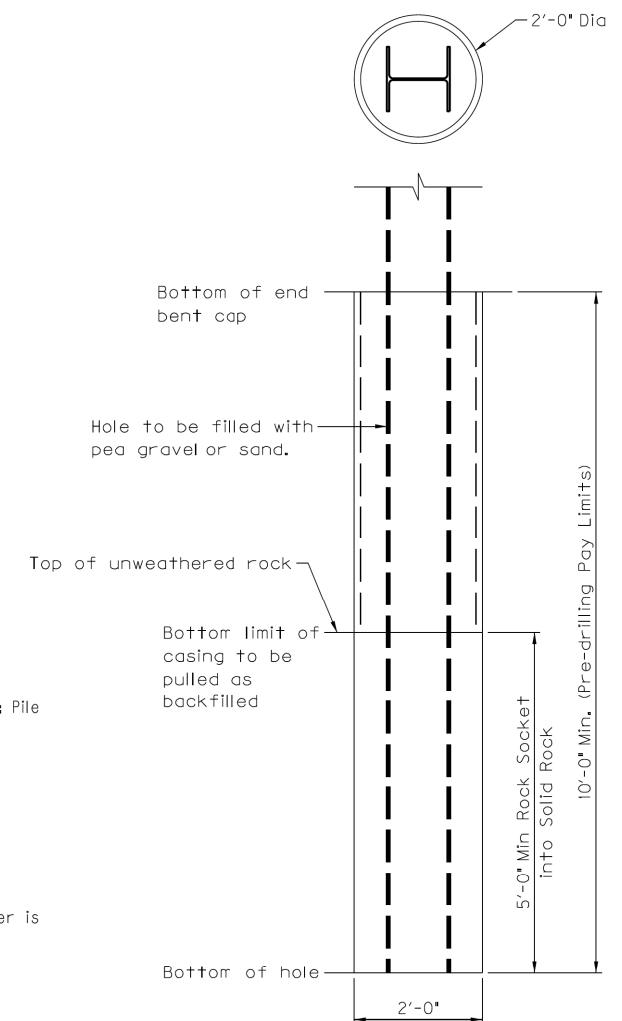
PILE CUT-OFF ELEVATION: Elevation of the top of pile in the finished structure.
PILE LENGTH IN PLACE: Actual pile length below the Pile Cut-Off Elevation in the finished structure.
POINT OF PILE ELEVATION AS DRIVEN: Actual point of pile elevation in the finished structure.
DESIGN AXIAL LOAD: Load carried by each pile as estimated from structural design calculations for Factored LRFD Loadings.
CALCULATED FIELD BEARING: Contrary to Section 604.03.07 of the Standard Specifications, in place bearing values are not required for piles bearing on rock when driven to practical refusal.

Driving Criteria

DRIVING CRITERIA: Drive point bearing piles to practical refusal.
PRACTICAL REFUSAL (Case 2): For this project minimum blow requirements are reached after total penetration becomes 1/2" or less for 10 consecutive blows, practical refusal is obtained after the pile is struck an additional 10 blows with total penetration of 1/2" or less. Advance the production piling to the driving resistances specified above and to depths determined by test pile(s) and subsurface data sheet(s). Immediately cease driving operations if the pile visibly yields or becomes damaged during driving. If hard driving is encountered because of dense strata or an obstruction, such as a boulder before the pile is advanced to the depth anticipated, the Engineer will determine if more blows than the average driving resistance specified for practical refusal is required to further advance the pile. Drive additional production and test piles if directed by the Engineer.

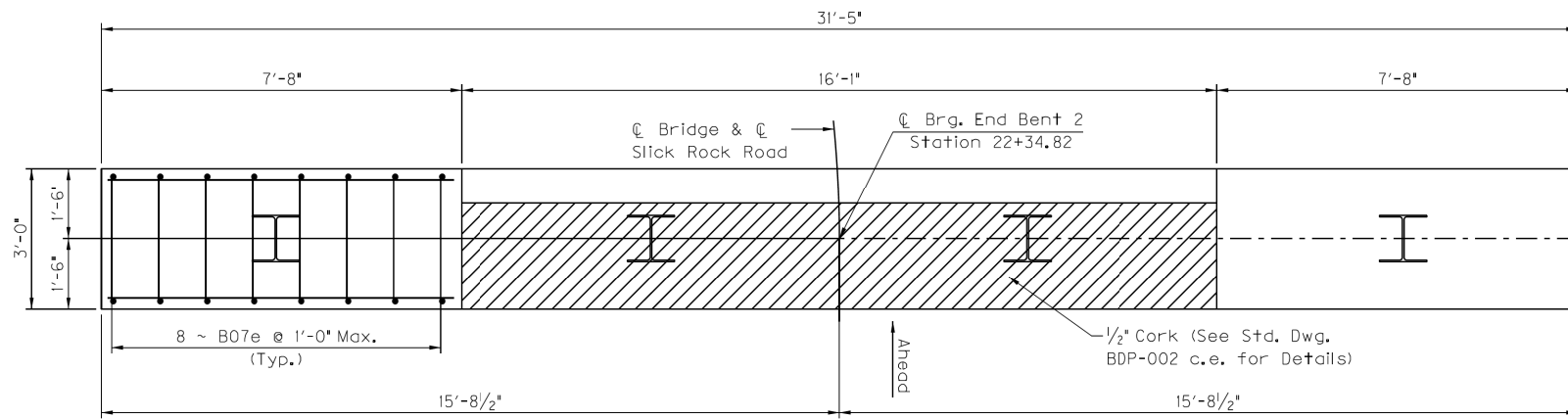
Field Data

For each pile, the Project Engineer shall record the following on this sheet: Pile Length in Place and Point of Pile Elevation as Driven.
 Submit this record to:
 Kentucky Transportation Cabinet
 Director, Division of Structural Design
 3rd Floor East
 200 Mero Street
 Frankfort, KY 40622
 This pile record does not replace other pile records the Project Engineer is required to keep and submit.
 Use HP 12x53 in accordance with BPS-003, c.e.



PRE-DRILLING DETAIL

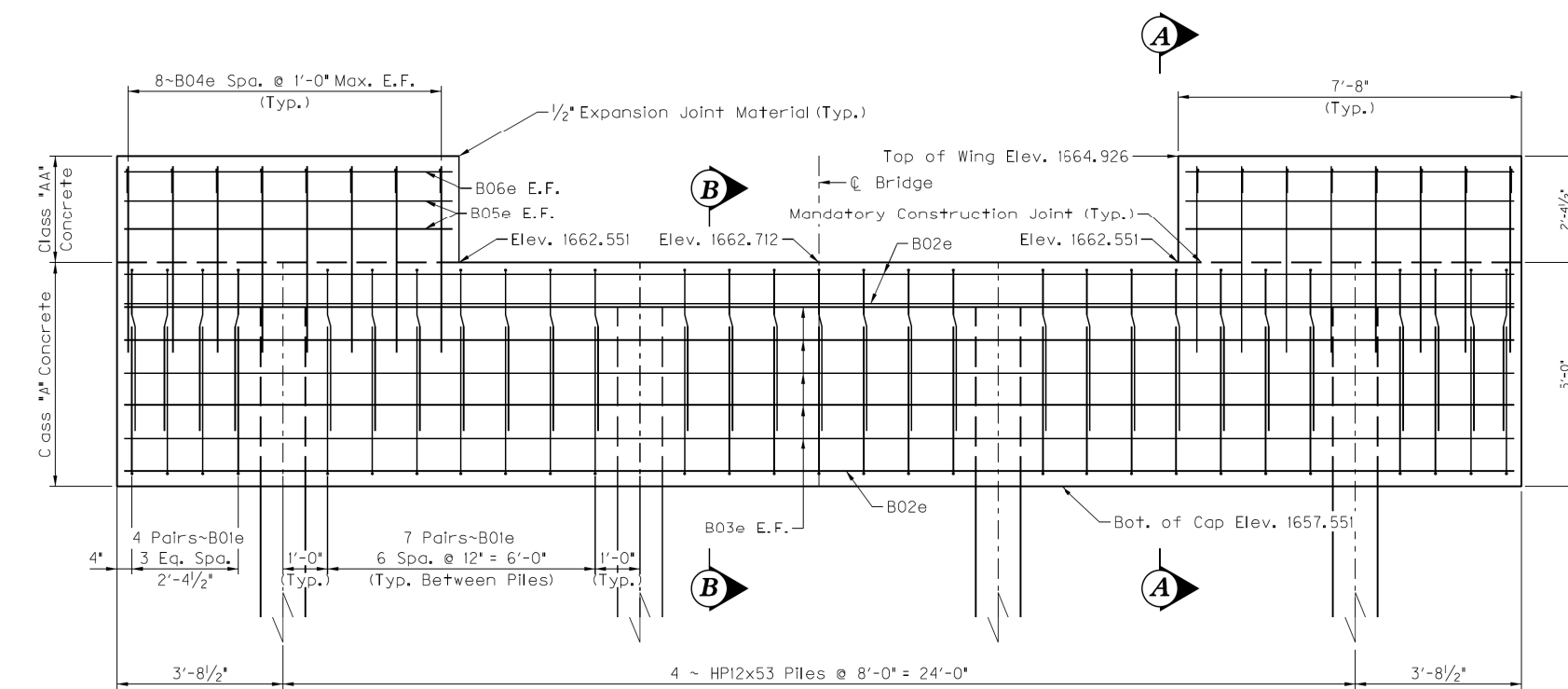
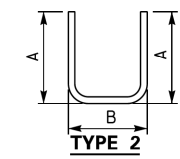
Note: Maintain 5'-0" min. rock socket into solid unweathered bedrock, and 10'-0" min. pile length below bottom of end bent cap.



PLAN

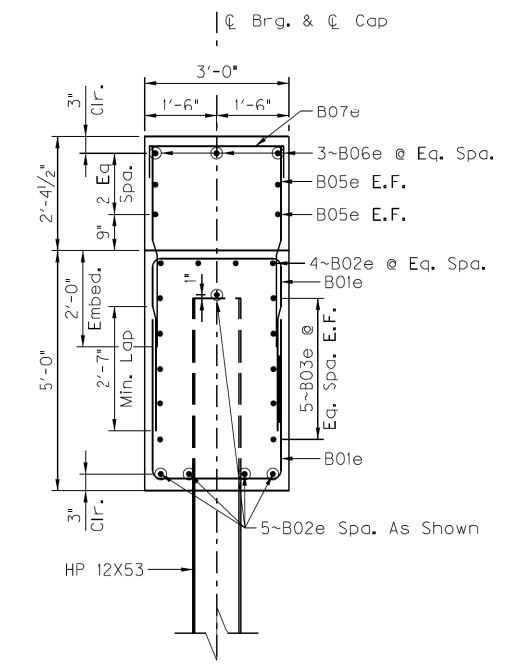
Reinforcement Symmetrical About \varnothing Bridge

BILL OF REINFORCEMENT – END BENT 2														
MARK	TYPE	SIZE	NO.	LENGTH		LOCATION	A		B		C		D	
				FT.	IN.		FT.	IN.	FT.	IN.	FT.	IN.		
B01e	2	5	58	9	10	Cap	3	7	2	8				
B02e	Str.	8	9	31	1	Cap								
B03e	Str.	5	10	31	1	Cap								
B04e	Str.	5	32	4	2	Wings								
B05e	Str.	5	8	7	4	Wings								
B06e	Str.	6	6	7	4	Wings								
B07e	2	5	16	3	8	Wings	0	6	2	8				

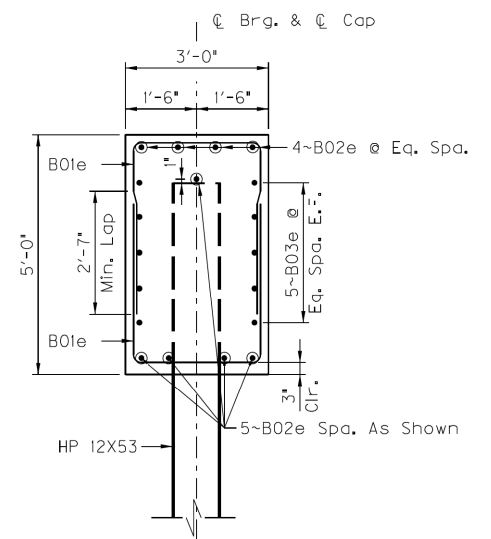


ELEVATION

Reinforcement Symmetrical About \varnothing Bridge



SECTION A-A



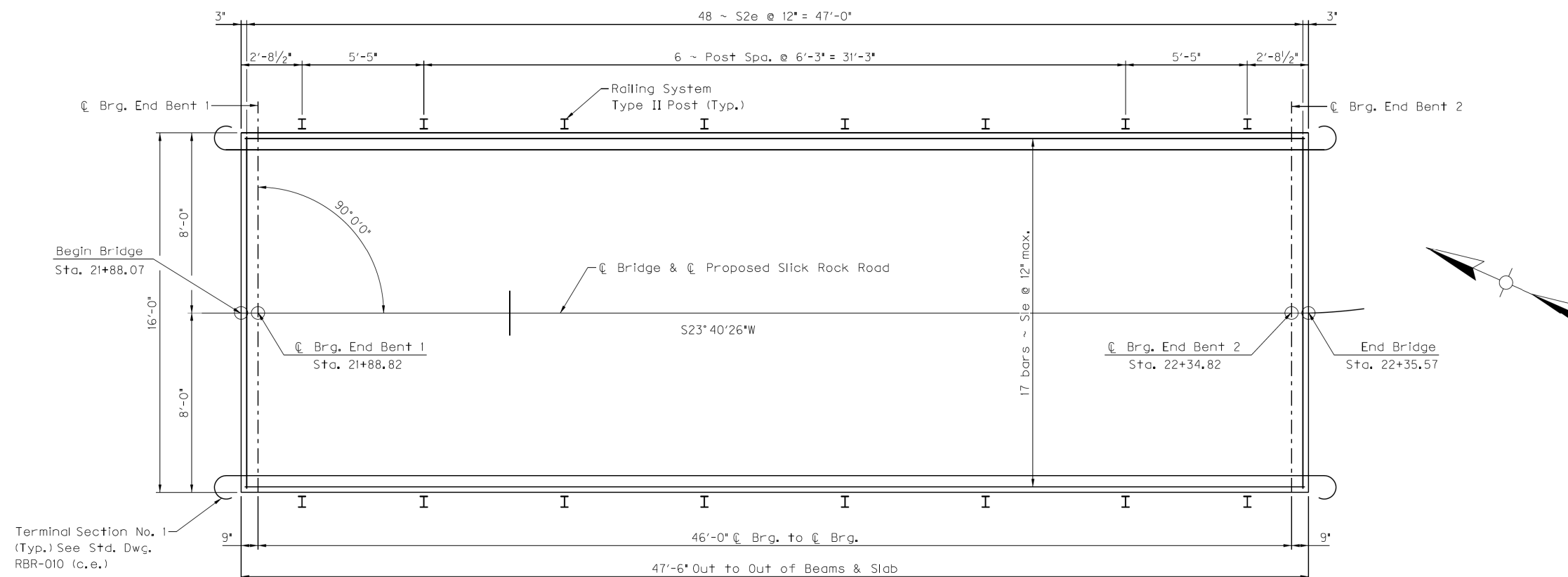
SECTION B-B

Note: Wings shall be poured after beams are set and tensioning rods are tightened. Typ each wing.

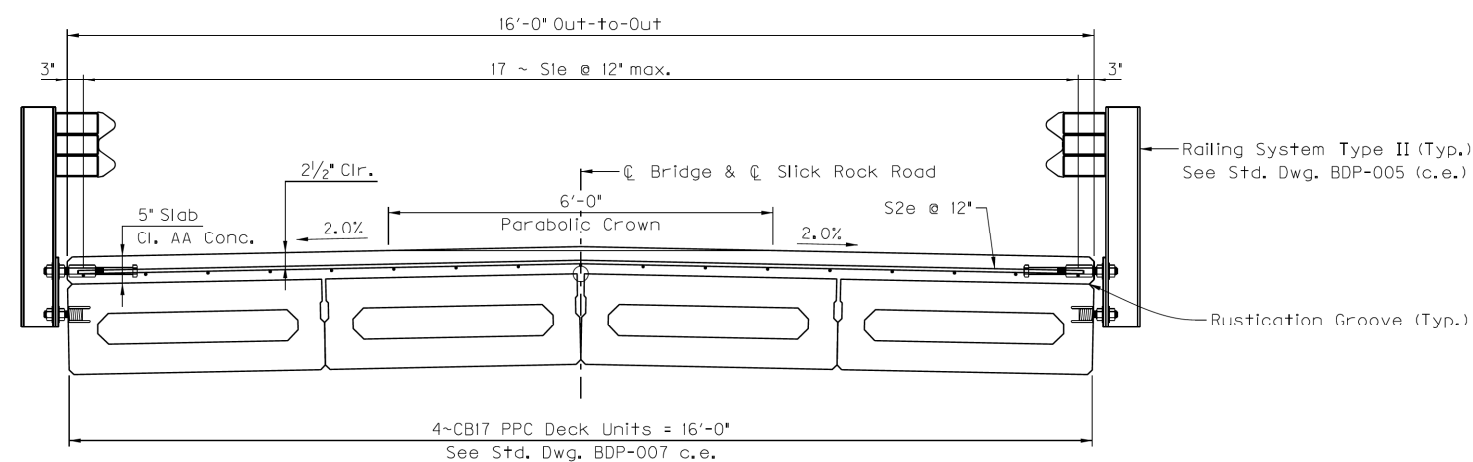
BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH
S1e	Str.	17	5	47'-2"
S2e	Str.	48	5	15'-8"

All reinforcement designated with suffix "e" shall be Epoxy coated.

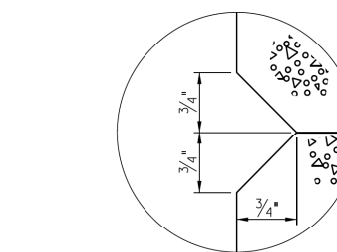


SLAB PLAN



TYPICAL DECK SECTION

All slab reinforcement to be epoxy coated



RUSTICATION GROOVE DETAIL



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



REVISION	DATE

PREPARED BY
AECOM

DATE: 9/16/2022

DESIGNED BY: J. ZHOU

DETAILED BY: J. ZHOU

CHECKED BY

J. WHELAN

J. WHELAN

SUPERSTRUCTURE

CROSSING
POOR FORK CUMBERLAND RIVER

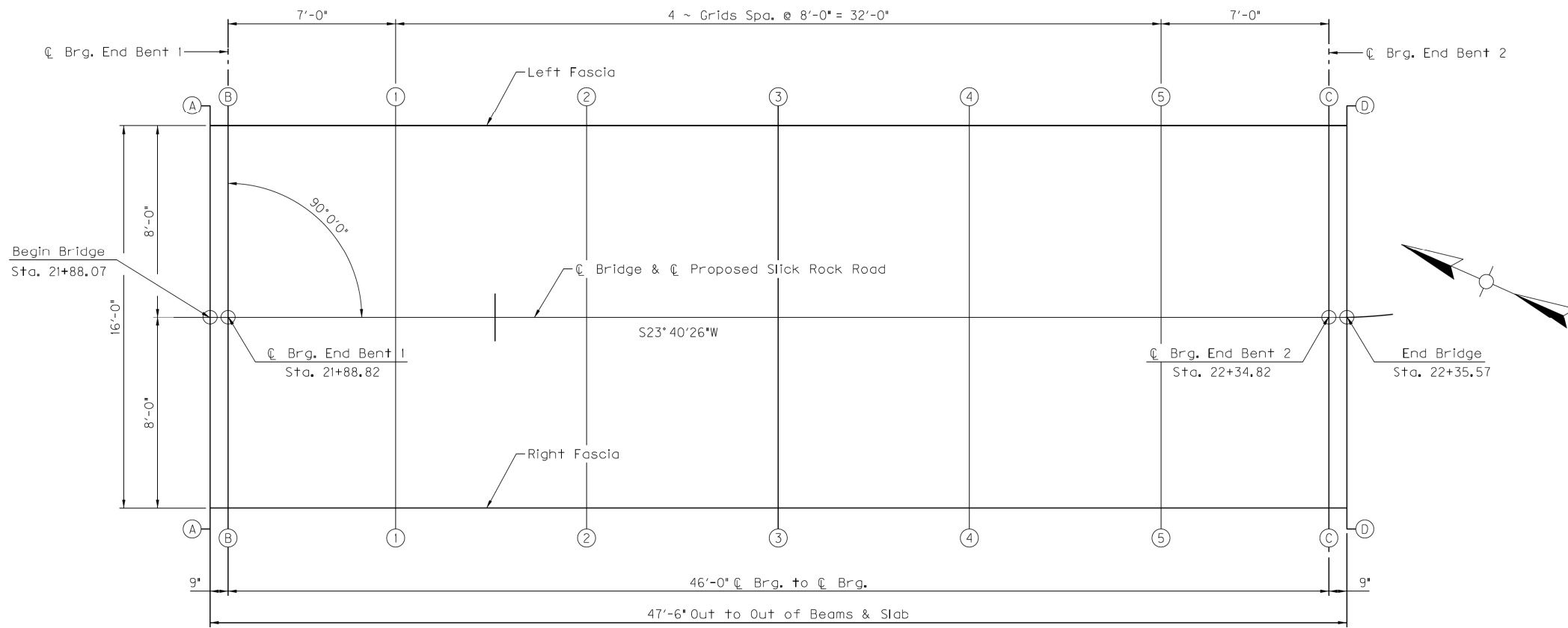
ROUTE
CR 1517

ITEM NO.
12-171

SHEET NO.
S07

COUNTY OF
LETCHER

DRAWING NUMBER
28575



GRID LAYOUT

NOTES FOR ELEVATIONS TAKEN ON PRESTRESSED CONCRETE BOX BEAMS

Take elevations on top of beam at points indicated after the beams have been laterally tensioned and grouted. The beam elevations are to be read to three decimal places and entered in tables under 'Top of Beam' elevations.

Compute dimension 'X' as follows: 'Construction Elevation' minus 'Top of Beam' elevation equals dimension 'X'. Construction Elevations include camber due to weight of the concrete slab and barrier. Measuring of dimension 'X' gives the final check on beam tolerances for camber, beam damage, and errors in erection that produce reverse cambers, sags, and unsightly fascia beams.

For setting templates, measure dimension 'X' above top of beams for top of template. Do not set template by elevations.

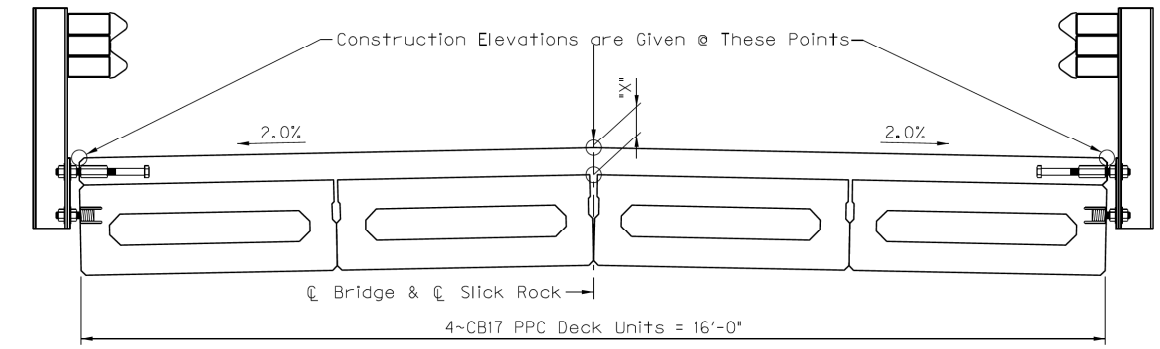
Temporary supports or shoring will not be permitted under the girders when pouring the concrete floor slab or when taking 'Top of Beam' elevations.

Note: The elevations at centerline of bridge do not include the 3/8" deduction for parabolic crown.

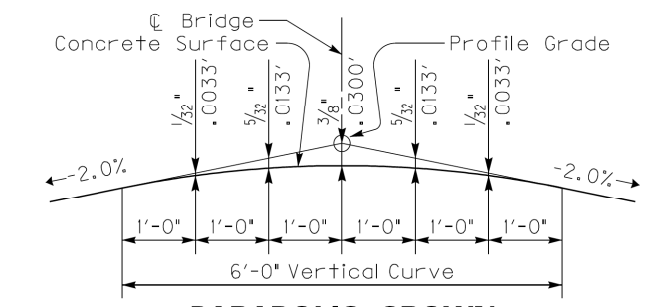
Note: Contrary to the Standard Drawings (5" thickness), the construction elevations will cause the slab to be approximately 6 3/8" thick at each end and go to approximately 5" thick at the center of the span. This is how the quantity of Class 'AA' concrete was calculated. Any additional concrete required above the plan quantity, due to beam camber being different from the designer's assumptions, is the contractor's responsibility and at no cost to the department.

CONSTRUCTION ELEVATIONS

	LEFT FASCIA			PROFILE GRADE & CENTERLINE OF BRIDGE			RIGHT FASCIA		
	CONST. ELEV.	TOP OF BEAM	DIM. "X"	CONST. ELEV.	TOP OF BEAM	DIM. "X"	CONST. ELEV.	TOP OF BEAM	DIM. "X"
LINE A-A	1664.777			1664.937			1664.777		
LINE B-B	1664.773			1664.933			1664.773		
1 - 1	1664.754			1664.914			1664.754		
2 - 2	1664.727			1664.887			1664.727		
3 - 3	1664.692			1664.852			1664.692		
4 - 4	1664.647			1664.807			1664.647		
5 - 5	1664.594			1664.754			1664.594		
LINE C-C	1664.543			1664.703			1664.543		
LINE D-D	1664.540			1664.700			1664.540		



TYPICAL SECTION



PARABOLIC CROWN