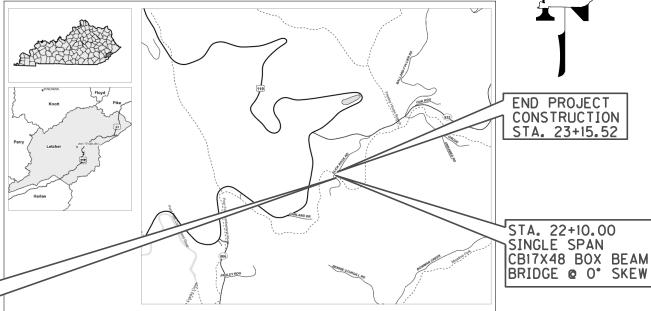
R-001-13 R-005-11 R-010-06 R-060 M-110-07 -040-01 R-220-05 R-225-01 R-230-01 R-001-07 R-001-06 R-010-04	STEEL GUARDRAIL ("W" BEAM) GUARDRAIL COMPONENTS GUARDRAIL TERMINAL SECTIONS DELINEATORS FOR AT NARROW SHOULDER BRIDGES APPROACHES, ENTRANCES, AND MAILBOX TURNOUT EROSION CONTROL BLANKET SLOPE INSTALLATION TEMPORARY SILT FENCE SILT TRAP TYPE A SILT TRAP TYPE B SILT TRAP TYPE C CURVE WIDENING AND SUPERELEVATION TRANSITIONS MISCELLANEOUS STANDARDS TYPICAL EMBANKMENT FOUNDATION BENCHES ONE POINT PROCTOR FAMILY OF CURVES	
2-010-06 2-060 4-110-07 -040-01 2-210-03 2-220-05 2-225-01 2-230-01 3-001-07 3-001-06 3-010-04	GUARDRAIL TERMINAL SECTIONS DELINEATORS FOR AT NARROW SHOULDER BRIDGES APPROACHES, ENTRANCES, AND MAILBOX TURNOUT EROSION CONTROL BLANKET SLOPE INSTALLATION TEMPORARY SILT FENCE SILT TRAP TYPE A SILT TRAP TYPE B SILT TRAP TYPE C CURVE WIDENING AND SUPERELEVATION TRANSITIONS MISCELLANEOUS STANDARDS TYPICAL EMBANKMENT FOUNDATION BENCHES	
2-060 4-110-07 -040-01 3-210-03 3-220-05 3-225-01 3-230-01 3-001-07 3-001-06 3-010-04	DELINEATORS FOR AT NARROW SHOULDER BRIDGES APPROACHES, ENTRANCES, AND MAILBOX TURNOUT EROSION CONTROL BLANKET SLOPE INSTALLATION TEMPORARY SILT FENCE SILT TRAP TYPE A SILT TRAP TYPE B SILT TRAP TYPE C CURVE WIDENING AND SUPERELEVATION TRANSITIONS MISCELLANEOUS STANDARDS TYPICAL EMBANKMENT FOUNDATION BENCHES	
1-110-07 -040-01 1-210-03 1-220-05 1-225-01 1-230-01 1-001-07 1-001-06 1-010-04	APPROACHES, ENTRANCES, AND MAILBOX TURNOUT EROSION CONTROL BLANKET SLOPE INSTALLATION TEMPORARY SILT FENCE SILT TRAP TYPE A SILT TRAP TYPE B SILT TRAP TYPE C CURVE WIDENING AND SUPERELEVATION TRANSITIONS MISCELLANEOUS STANDARDS TYPICAL EMBANKMENT FOUNDATION BENCHES	
-040-01 -210-03 -220-05 -225-01 -230-01 -001-07 -001-06 -010-04	EROSION CONTROL BLANKET SLOPE INSTALLATION TEMPORARY SILT FENCE SILT TRAP TYPE A SILT TRAP TYPE B SILT TRAP TYPE C CURVE WIDENING AND SUPERELEVATION TRANSITIONS MISCELLANEOUS STANDARDS TYPICAL EMBANKMENT FOUNDATION BENCHES	
2-210-03 2-220-05 2-225-01 2-230-01 3-001-07 3-001-06 3-010-04	TEMPORARY SILT FENCE SILT TRAP TYPE A SILT TRAP TYPE B SILT TRAP TYPE C CURVE WIDENING AND SUPERELEVATION TRANSITIONS MISCELLANEOUS STANDARDS TYPICAL EMBANKMENT FOUNDATION BENCHES	
-220-05 -225-01 -230-01 -001-07 -001-06 -010-04	SILT TRAP TYPE A SILT TRAP TYPE B SILT TRAP TYPE C CURVE WIDENING AND SUPERELEVATION TRANSITIONS MISCELLANEOUS STANDARDS TYPICAL EMBANKMENT FOUNDATION BENCHES	
2-225-01 3-230-01 3-001-07 3-001-06 3-010-04	SILT TRAP TYPE B SILT TRAP TYPE C CURVE WIDENING AND SUPERELEVATION TRANSITIONS MISCELLANEOUS STANDARDS TYPICAL EMBANKMENT FOUNDATION BENCHES	
-230-01 -001-07 -001-06 -010-04	SILT TRAP TYPE C CURVE WIDENING AND SUPERELEVATION TRANSITIONS MISCELLANEOUS STANDARDS TYPICAL EMBANKMENT FOUNDATION BENCHES	
-001-07 -001-06 -010-04	CURVE WIDENING AND SUPERELEVATION TRANSITIONS MISCELLANEOUS STANDARDS TYPICAL EMBANKMENT FOUNDATION BENCHES	
:-001-06 :-010-04	MISCELLANEOUS STANDARDS TYPICAL EMBANKMENT FOUNDATION BENCHES	
-010-04	TYPICAL EMBANKMENT FOUNDATION BENCHES	
:-200-01	ONE POINT PROCTOR FAMILY OF CURVES	

TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS LETCHER COUNTY SLICK ROCK RD (CR 1517) OVER POOR FORK CUMBERLAND RIVER STA. 22+10.00



R3 PLAN & PROFILE SHEET XI-XIO CROSS SECTIONS SPECIAL NOTES

LETCHER

INDEX OF SHEETS

R2A RIGHT OF WAY SUMMARY & COORDINATE CONTROL

RI TITLE & LOCATION MAP
R2 TYPICAL SECTION & LEGEND

12-171.00

TRAFFIC CONTROL ON BRIDGE REPAIR CONTRACTS
SEDIMENT PREVENTION AND EROSION CONTROL
CONTRACT COMPLETION DATE AND LIQUIDATED DAMAGES
ON BRIDGE REPAIR CONTRACTS
TREE CLEARING RESTRICTIONS

ADDITIONAL ENVIRONMENTAL COMMITMENTS

SPECIAL PROVISIONS

SPECIFICATIONS

Standard Specifications For Road And Bridge Construction, Current Edition

ROADWAY SHEETS RI-XIO Aashto Lrfd Bridge Construction Specifications With Current Interims.

REVISION	DATE

Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS COUNTY OF

LETCHER

>	JTEM NO.	12-17	1.00				
	DRAWING	NO	28575				
	PROJECT						
	NUMBER:						
	LETTING	DATE	:				
4	RECOMMENDED	BY:					
				PROJECT	MANAGER	DATE:	

LAN APPROVED BY: _

LOCATION MAP

BEFORE YOU DIG	П
The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be place a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coo excavation with the utility owners, including those whom do not subscribe to KY 811. may be necessary for the contractor to contact the County Court Clerk to determine wutility companies have facilities in the area.	ed ne oe rdinate

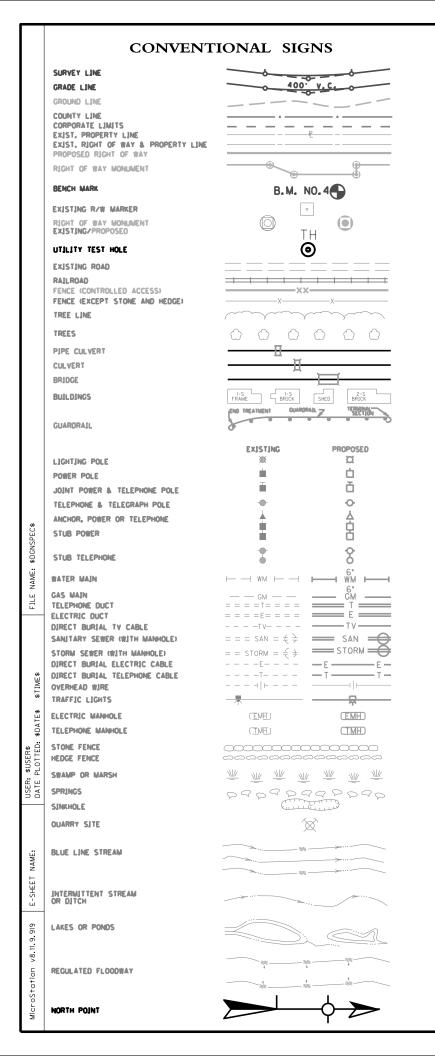
BEGIN PROJECT CONSTRUCTION STA. 20+30.00

	REV. NO.	SHEETS REVISED	DATE
		TABLE OF REVISIONS	
EXISTING BRIDGE		PREPARED BY	
ID 067C018		AECOM	

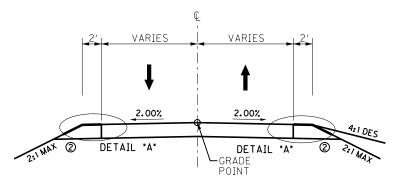
DESIGN CRITERIA
CLASS OF HIGHWAY RURAL LOCAL TYPE OF TERRAIN DESIGN SPEED REQUIRED NPSD REQUIRED PSD LEVEL OF SERVICE ADT FUTURE () DHY D % T % "
GEOGRAPHIC COORDINATES LATITUDE 37 DEGREES 03 MINUTES 42 SECONDS NORT LONGITUDE 82 DEGREES 47 MINUTES 44 SECONDS WEST
DESIGNED
% RESTRICTED SD

LEVEL OF SERVICE

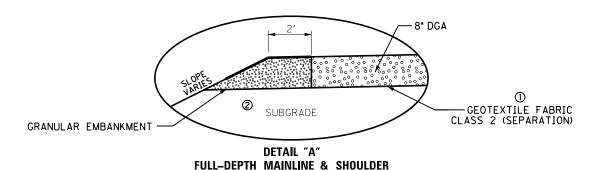
MAX. DISTANCE W/O PASSING



TYPICAL SECTIONS SLICK ROCK ROAD

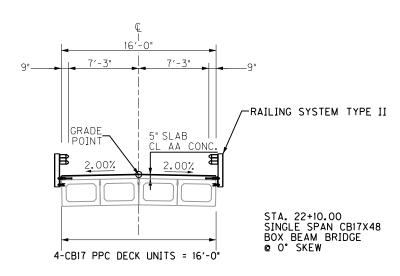


ROADWAY TYPICAL SECTION SLICK ROCK ROAD



PAVEMENT RECONSTRUCTION

NOT TO SCALE



BRIDGE TYPICAL SECTION
SLICK ROCK ROAD

COUNTY OF ITEM NO. SHEET NO.

LETCHER 12-171.00 R2

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.
- ② 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,

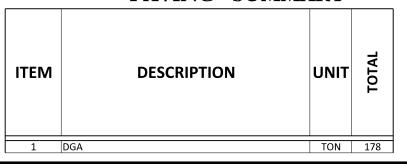
ANY TEMPORARY TRAFFIC CONTROL ITEMS, DEVICES, MATERIALS, AND INCIDENTALS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR WHEN NO LONGER NEEDED.

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 DIRWHITE	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



AECOM

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

RIGHT OF WAY SUMMARY & COORDINATE CONTROL

							EASE	MENTS		AREA S	EVERED							SEWE	R		
PARCEL NO.	OWNER(S)	AREA OBTAINED BY		AREA OF TRACT	PERMANE	NT R/W ACQUIRED	PERMANENT	TEMPORARY	LEF	-T	RIG	энт	EXCES	S PURCHASED	PORTIO	N REMAINING	SEWER SYSTEM TYPE	SYSTE AFFECT BY PROJ	ER BUILDING EM ACQUIRE TED NUMBE	SOURCE OF TITL	E REMARKS
			ACRES	SQ. FT.	ACRES	SQ. FT.	SQ. FT.	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.		YES N	NO C R F	s	
1 COLLIER LLOYD META	L	В	7.00	304920	0.126	5494			6.87	299426					6.87	299426	1		х	DB 403 PG 274	
																			\longrightarrow		
																		\vdash	+++		
										-	-	+	1		 		-	\vdash	+++		
					 							+			1				++++		
															1				$\overline{}$		
																		\vdash	\longrightarrow		
												+	-		1			\vdash	+++		
 															1			\vdash	+++		
												+	 		1			\vdash	+++		
												1	<u> </u>						$\overline{}$		
						•															
																		$\sqcup \bot$	\perp		
												1					1	\vdash	\longrightarrow		
												+	-		 			\vdash	+++		
		1			1			I		l	1	1	1		1 1		1	1 1		1 1	

NOTE: PERMANENT R/W ACQUIRED + AREA SEVERED = TOTAL AREA OF TRACT

AREA OBTAINED BY

(A) - DEEL

(B) - PVA (C) - CALCULATED

(C) - CALCULA (D) - PLAT TYPE SEWER SYSTEM

1. PRIVATE - INDIVIDUAL

2. PRIVATE - MULTI PARTY

3. PUBLIC

4. NONE

4. NONE 5. NOT APPLICABLE BUILDINGS ACQUIRED CODE

- COMMERCIAL

R - RESIDENTIAL

F -FARM S - STORAGE

5 -

PROJECT COORDINATES

Coordinates for horizontal control were obtained by redundant GPS observations using Trimble 12A GNSS receivers on the NAD83(2011) Kentucky State Plane Coordinate System (Single Zone), US Survey Feet utilizing the KYCORS RTN GPS Network on August 29, 2022. Coordinates shown are State Plane Coordinates, US Survey Feet. No project datum factor was calculated or used for this project.

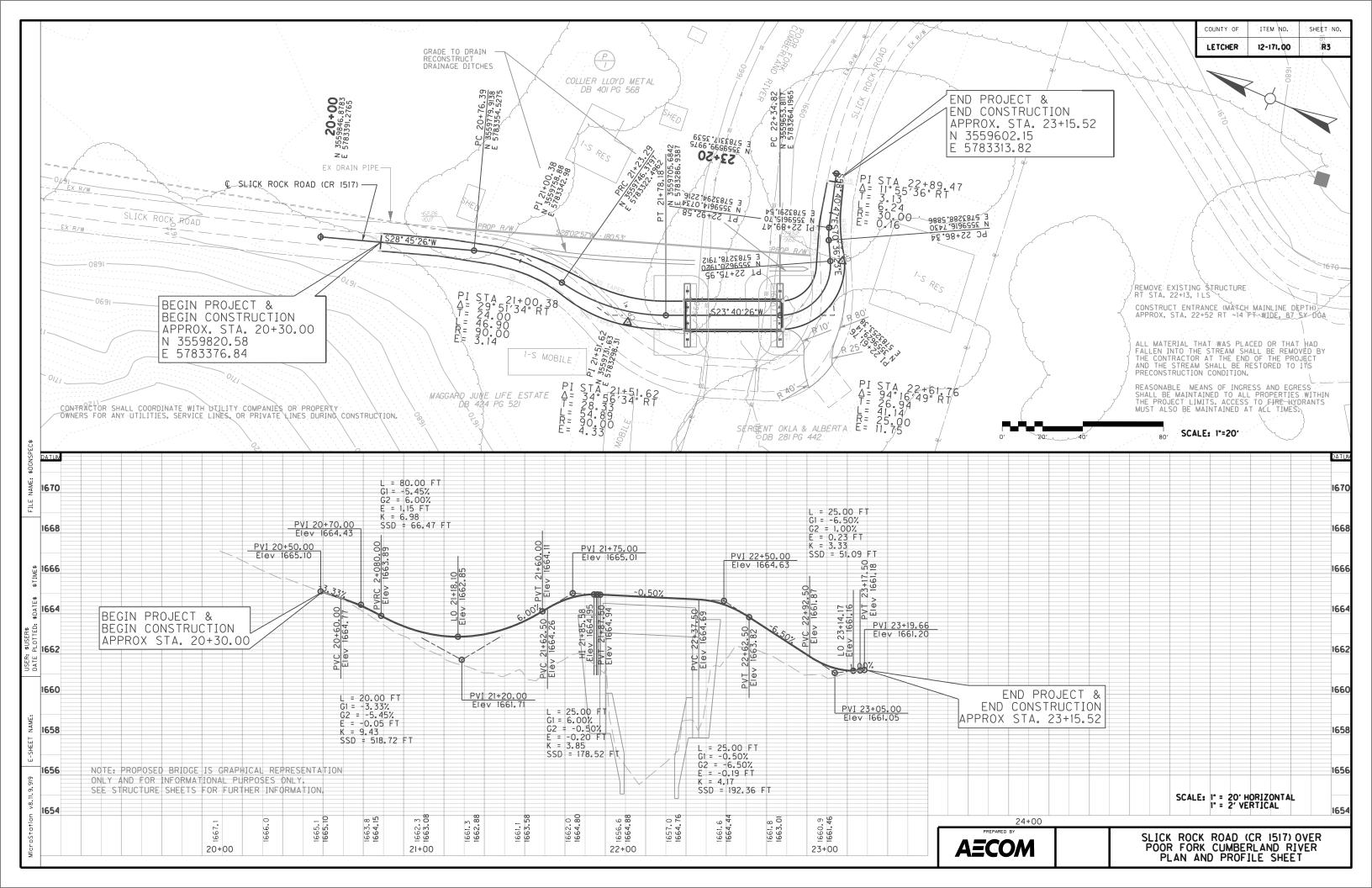
BASIS OF ELEVATIONS

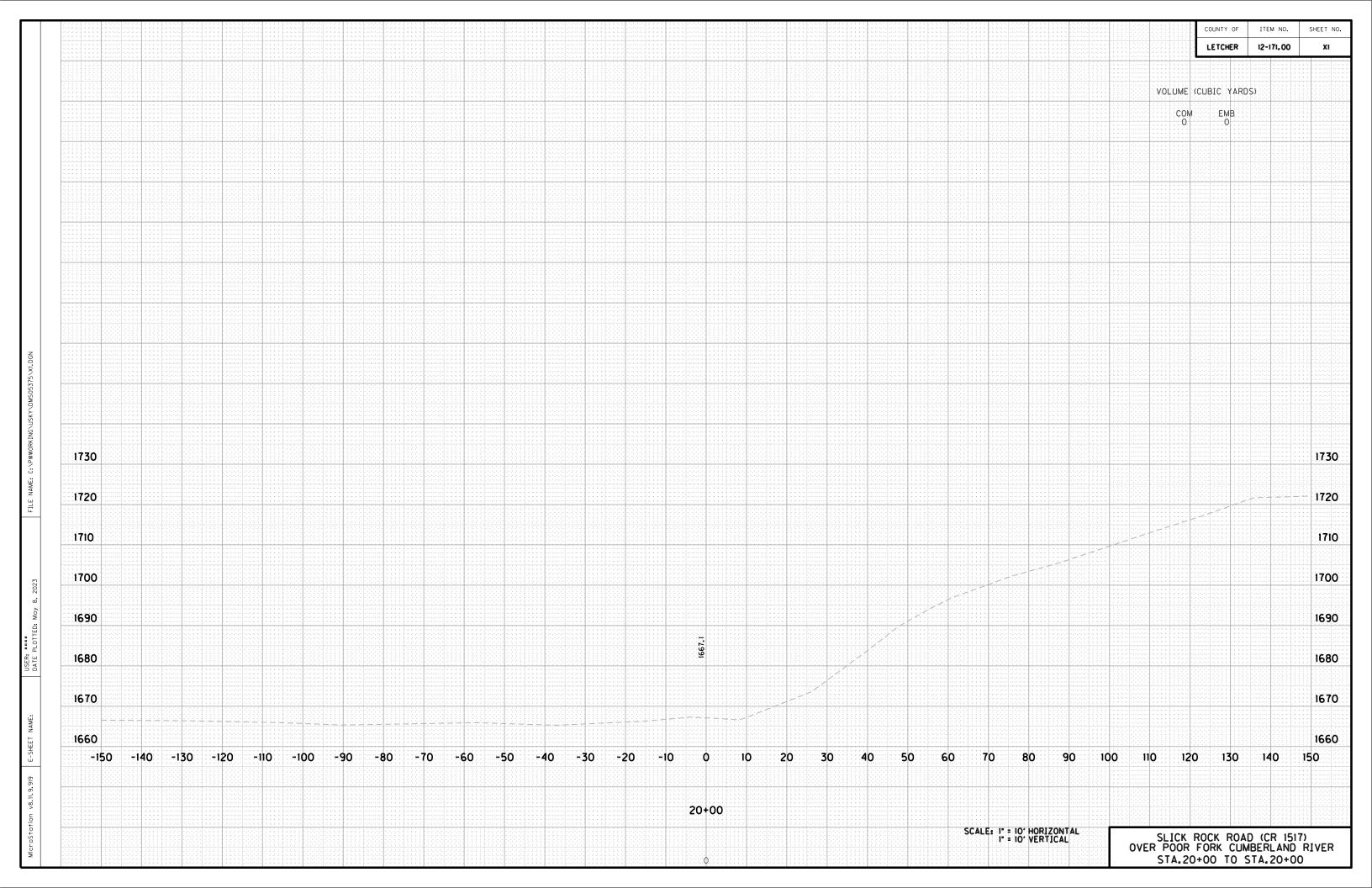
Elevations were established by redundant GPS observations using Trimble 12A GNSS receivers on the NAVD88 vertical datum, GEOID18 utilizing the KYCORS RTN Network on August 29, 2022 and were adjusted by a correctly weighted least squares adjustment.

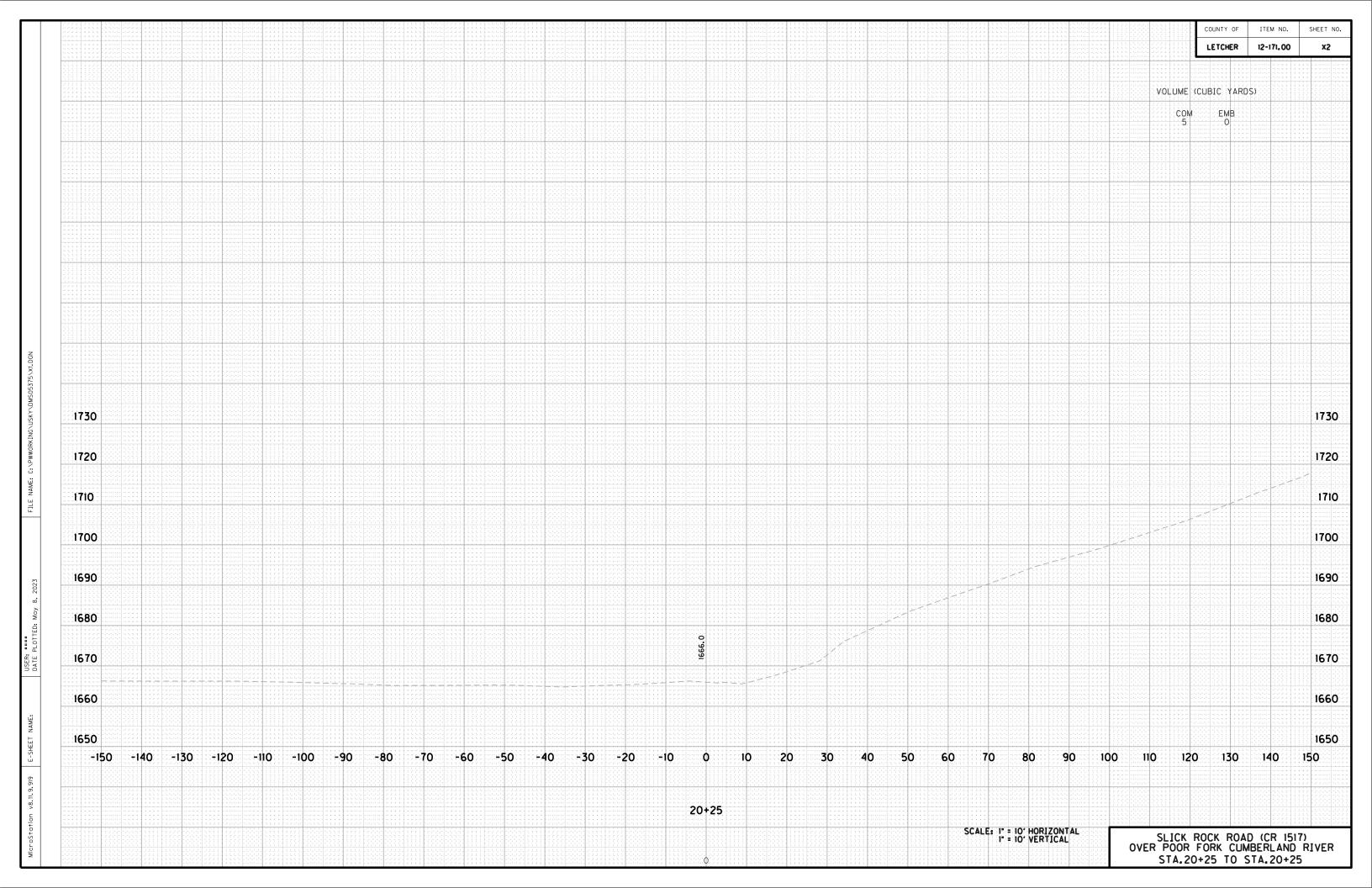
Slick Rock Road Poor Fork Cumberland River Bridge #067C018

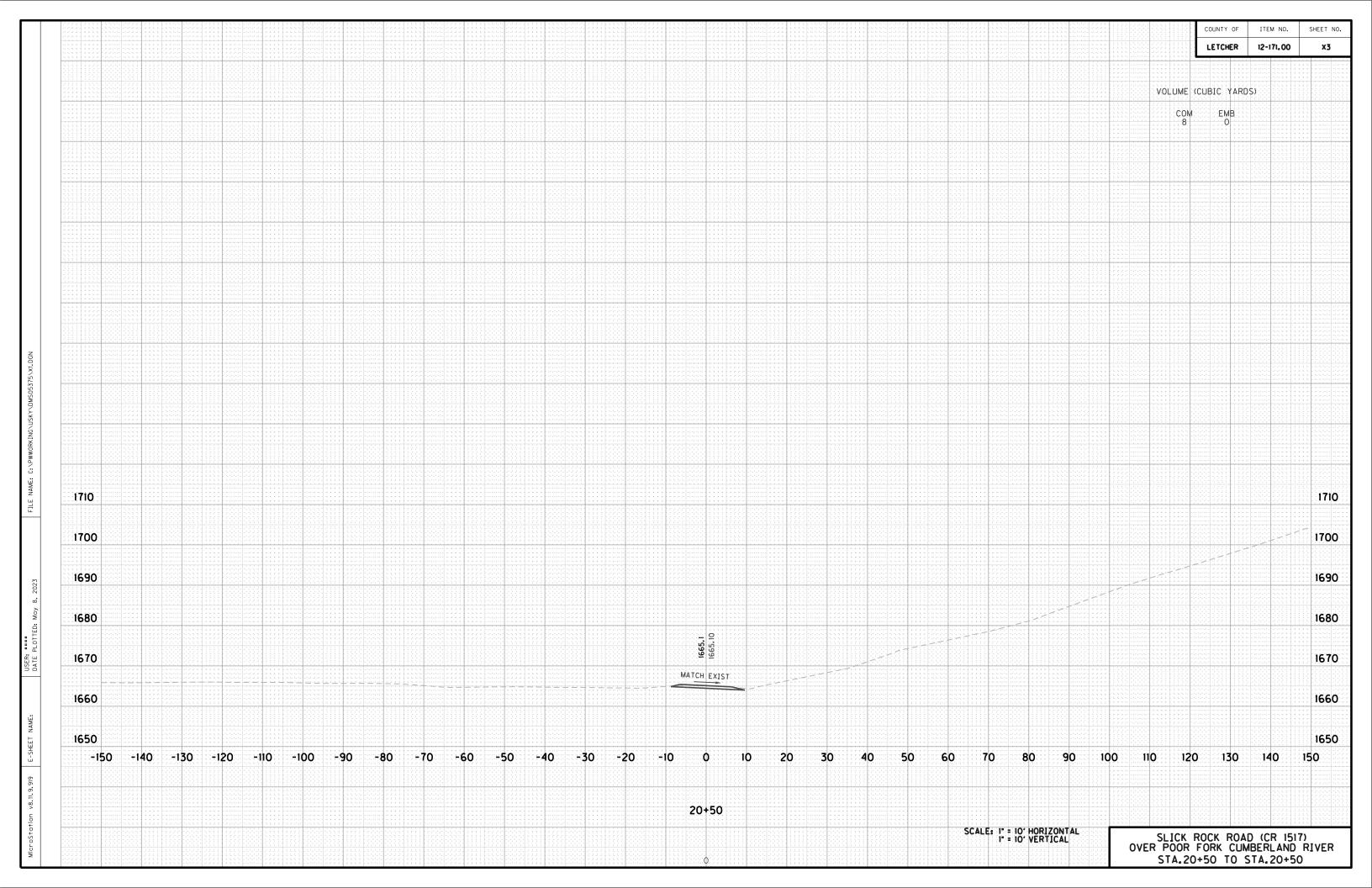
	COORDI	NATE C	ONTRO	L POIN	NTS	
DOINE	DECCRIPTION	State	Plane Coord	inates	STATION	OFFER
POINT	DESCRIPTION	NORTH (Y)	EAST (X)	ELEV. (Z)	STATION	OFFSET
CP 101	IPC	3559724.444	5783291.456	1661.884	21+60.12	5.31' RT
CP 102	IPC	3559614.836	5783276.400	1662.041	22+75.57	5.85' RT



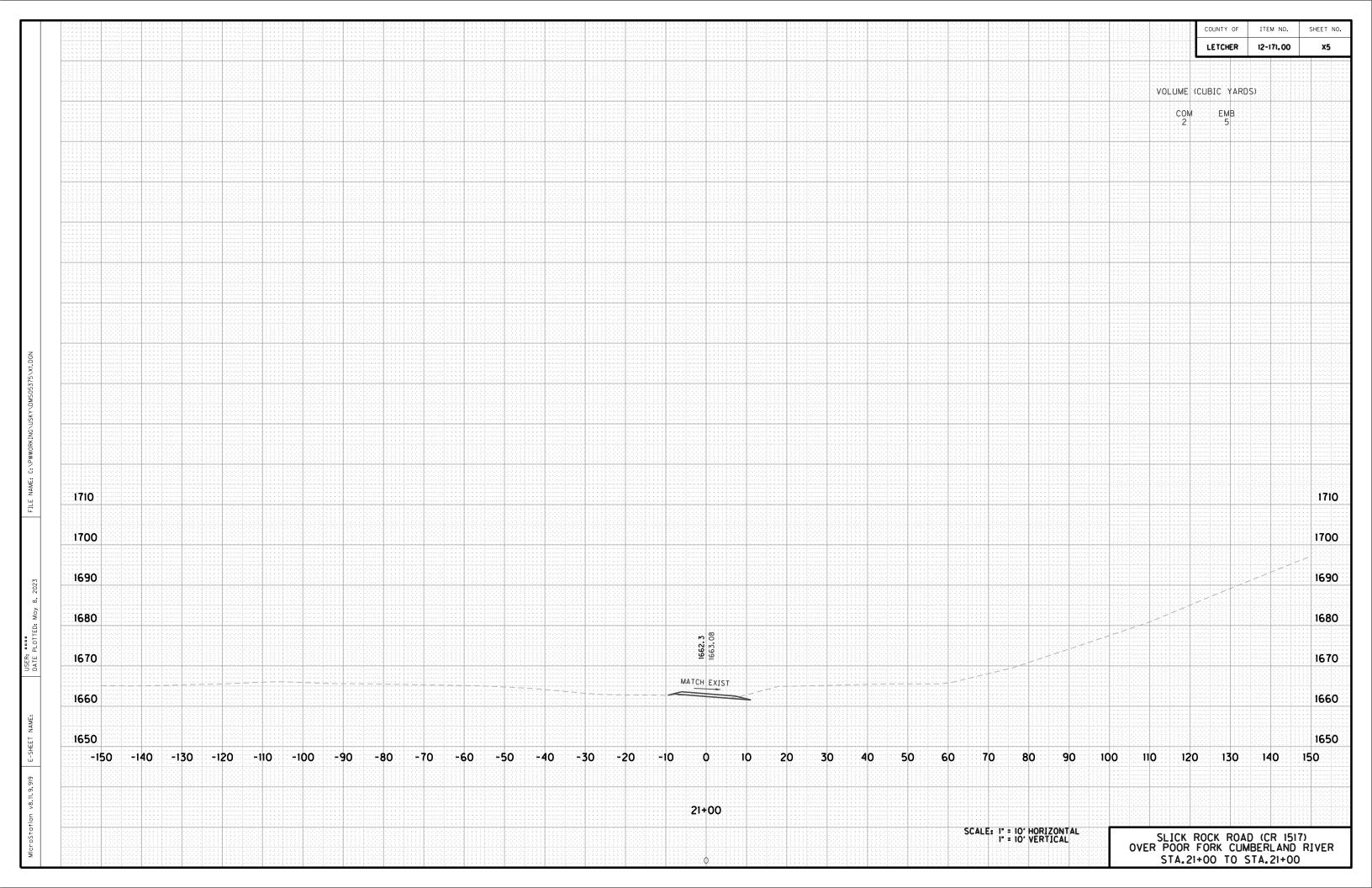


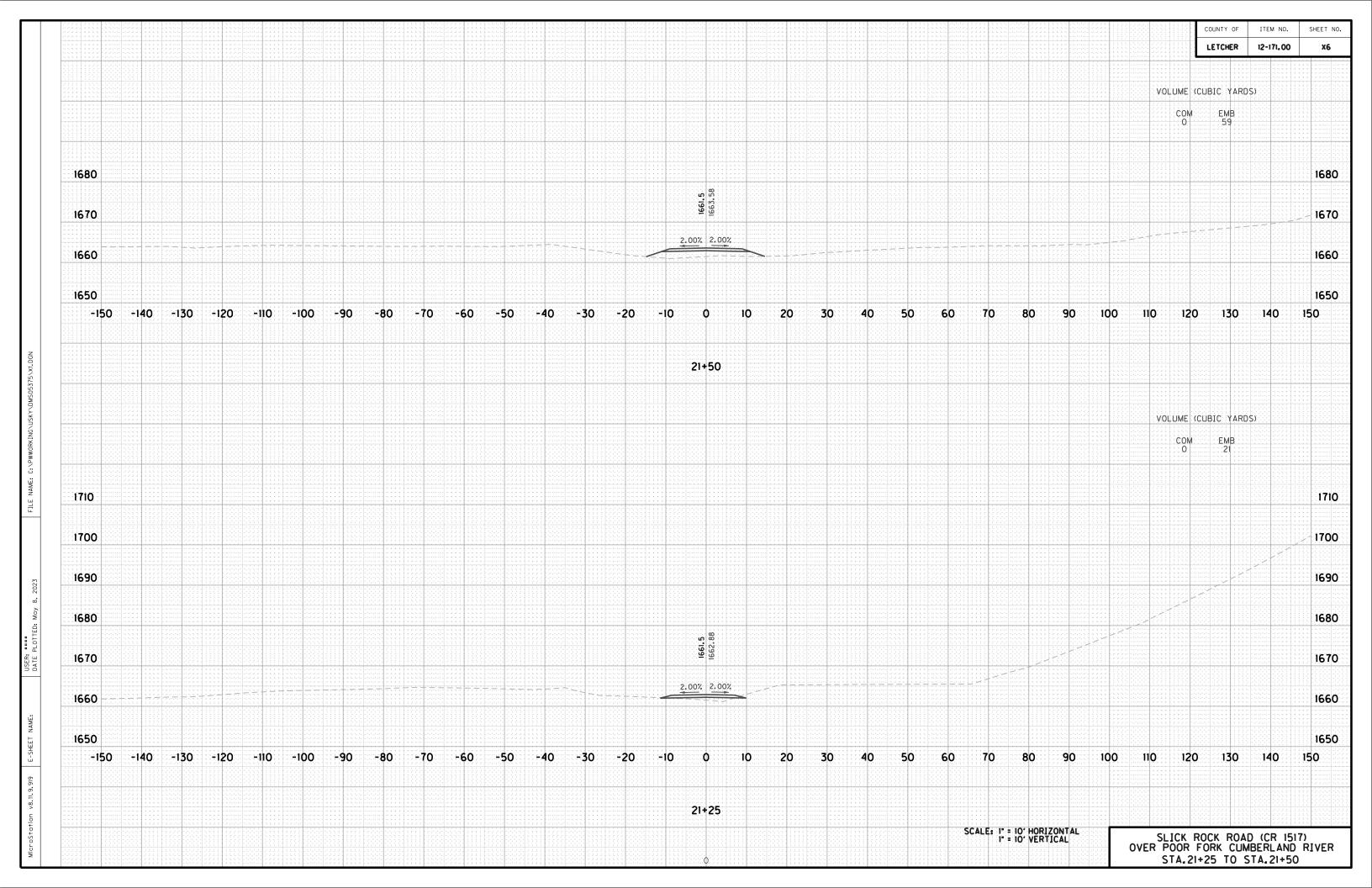


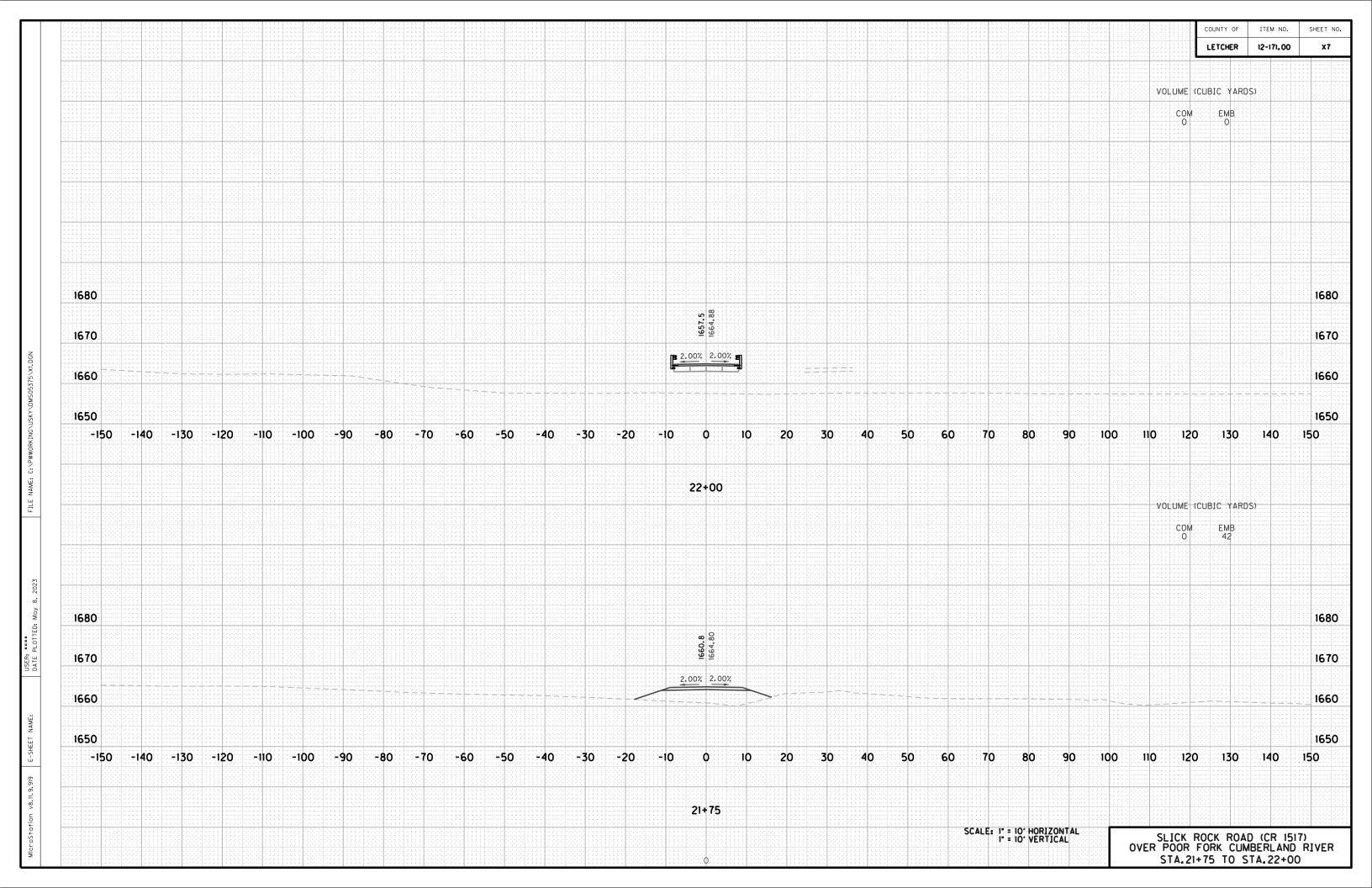


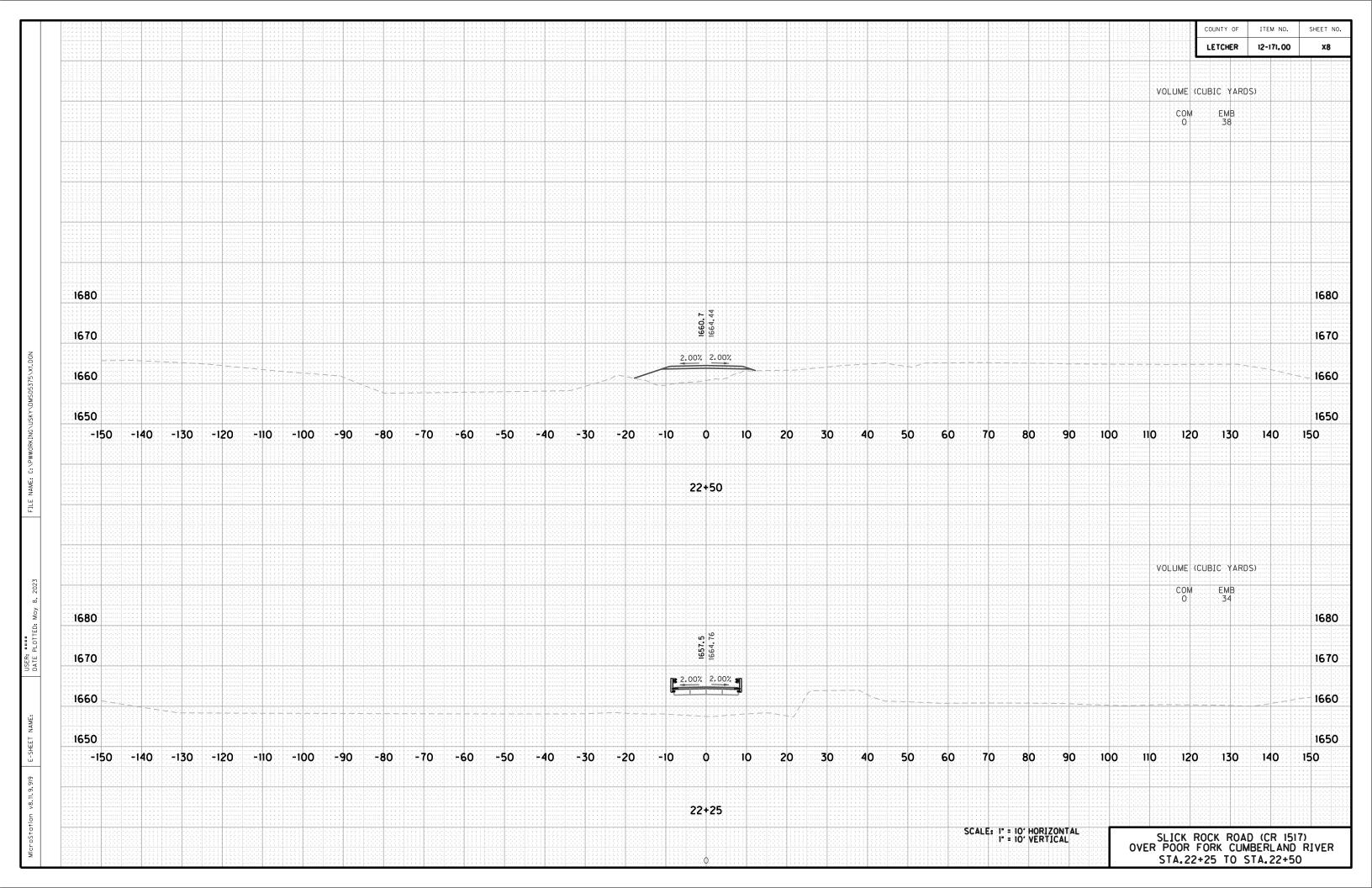


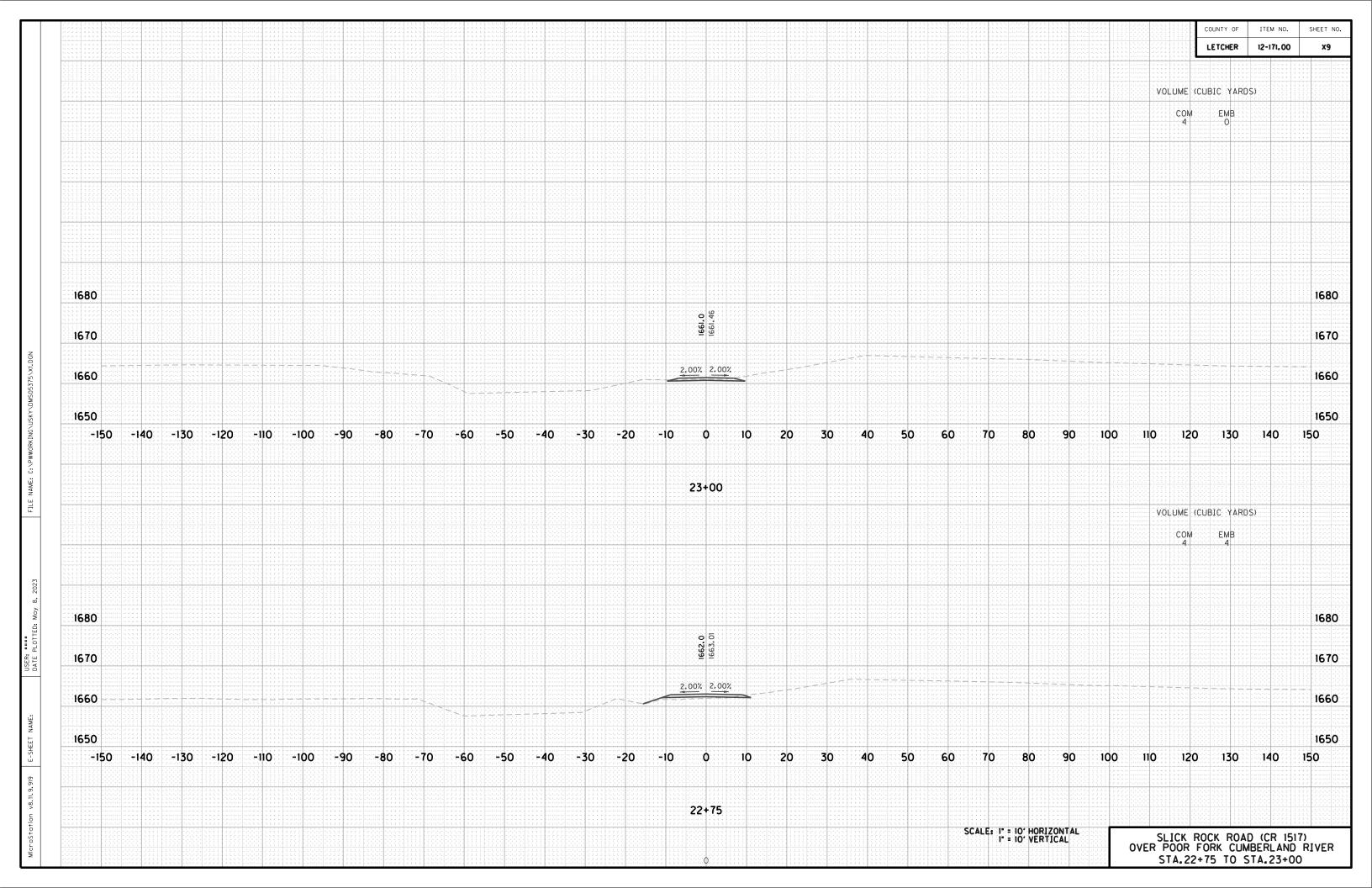
22221111													111 - 555																					cc	OUNTY OF	ITEM NO	. SHE
											r r r r r r r r r r																							L	LETCHER	12-171.0	0
																																	111111111111	* * * * * * * * * * * * * * * * * * *			
																																	νοι	UME (CUB	3IC YAR	DS)	
777777777	1-	1				4 4 4 6 - 10 10 10 10 10 10 10 10 10 10 10 10 10		1 1 1 1 1 1 1 1 1 1									10 10 10 10 10 10 10 10 10 10 10 10 10 1				F F F F F F F F F F F F F F F F F F F			3 3 4 6 6 6 6		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	* * * * * * * * * * * * * * * * * * *			-1-1-1			СОМ	EMB		
																																	-1	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6			
33331111111																					1000000			33311100													
	1-	1			-1	4		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			F F F F F F F F F F F F F F F F F F F		F F F F F F F F F F F F F F F F F F F				1-1-1-1-1-1-1-1				A 10 10 10 10 10 10 10 10 10 10 10 10 10				- 1-1-1-1 1-1-1-1		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	* * * - 1-1-1-									
333311666																																					
																																	2222222		3331 111		
								111			L L L - I - I - I - I - I																										
																					2222 200											1000000			3333		
																																100000					
				111111111				111.000													6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6							1 1 0 1 0 0 0									
3333 7000		111111						111													a care trains							110 000						and the second			J. 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
																																		the end of the country			
3333		3 1111	and the second s																		to the facilities					7 1 1 1 1 1 1 1		110.000									
111111111111								337 2000													1122							Tre cees									
7777 1000 7777 77	2002																5555 555				1111							111.555									
	1-1-1-1-1-1-1							111				10000					1-						- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1-		- 1-1-1-11 -1 -1 -1		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1					100000			3333		
3333-7666								111 1000													7 6 6 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6			333 7666												1-1-1-1-1-1-1-1	
333333333																	2000 3333 2000 3333				11111111111111111111111111111111111111	111111 111111											222222	100000000000000000000000000000000000000			
	1-1-1-1																										- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1-										
333311666	2001 201	111111						111 (66)					1001000				0000 0000		200 2002		6666566							1101000			33313111	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2					
1700																	1886 1886 1888 1886															12222					
		1 1111						2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2																				111111									
222600		3 1 7 7 7 7		111111111				111 000													1000000			333 7000		1111111		110.000				1000000			23334	100000000000000000000000000000000000000	
1690																																10000					
								111 1111									1222 3333				1000000							111.000									
1680		1 11111						1111000		221111														3337777				********								100000000	
	1999 1999 1999 1999										222 2333 222 2333						2222 2222 2006 5555		8	1664.15																	
1670								111 000									000000000000000000000000000000000000000			13333								11111111			33313111 33313111					<u> </u>	
		11111						111		77111									MATCH									*******									
1660	<u>valatai (533)</u> Valatai (533)																											111 222			20010111 20010111				3333		
																					1166 1166 1166 1166 1166 1166 1166 116							111 333									
1650		1 1 1 1 1 1																										112.22									1
3331175-15	50 - -	140	-130	-120	: :::::i(O -1	00	-90	===	30	-70	-60)	50 -	40	-30	-20	-10		0	10	20	30	333 1534	10	50	60	70	80	90	<u> </u>	00	110	120	130	140	150
																																1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2					
		11111						311 000											20	+75								1 1 0 0 0 0 0									
		11111						111												1111	1111	2222		333777				111	- 10, HUD.	I ZONT A	I	18888			3331111		
BESSELLE B																								3313111	H		30	ALC: I	= 10' HOR!	TICAL			SL	ICK ROC	CK ROA	ND (CR 1 MBERLAN STA.20-	1517)









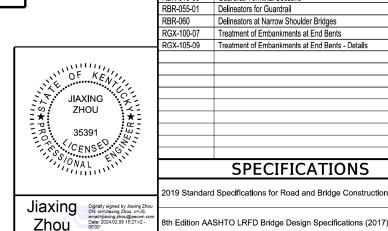


										11111																						COUN	NTY OF	ITEM NO.	SHE
		1111										11111000					100000000000000000000000000000000000000									313111000				1111111111		LET	TCHER	12-171.00	
																														0000000	E (CUBIC)	V 10000			
												1000 000							55 5511	1000			111111111111111111111111111111111111111					111 0000		VOLUME	- (COBIC	CO	221 1 1 1 1 1 1 1 1 1	EMB	
	-1											* * * * * * * * * * * * * * * * * * *														PRO	OJECT	TOTAL	-1				7	205	
																							100000000000000000000000000000000000000												
																			5515111 5515111											10000000		21222123	331 1100	2001 2001	11111
	-1											1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				2 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5												4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6				\$1000000000000000000000000000000000000			
		11111111														11111111111			2212211	100000000			10001000000			11111111111		11112222		10000000		0 00000000 0 0000000000	333111111		
										1										1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1															1111
	100013333	1111						1000000								1111 (00)	3333131		3313311	100000000			100000000000000000000000000000000000000		200 333	31311111000		111 (0000)							
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																																	
		110000					00010111												3313111				100000000000000000000000000000000000000			111111111111111111111111111111111111111		11112222				1- 1-1-1-11-1	1 3 3 4 6 6 6 6		
		1 6 6 6 6 6 6												a a a a a a a tarter		2 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6																			
																												111 2000		1000000				and the second	
																																			1111
												10000000				2 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5							1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0												
		1111								1000																		11111111111				<u> </u>		2001 2333 . 2001 2333 .	
	100000000000000000000000000000000000000							Trees to								111111111				10000000	31 3 3 3 3 1				<u> </u>	31311111111		1111222							
																	10000111		3313311 3313311	10000000	94 94 94 94 56 55 55 51		100000000000000000000000000000000000000												
		1 6 6 6 - 6 6									-1-1-11-1-1					4 + + + - 1- 1- 1- 1									1-1-11-1-1										
																														1000000					
																																		1-	
		1100.00					333311	10000			331	1000.000		110 00		1111 200				1000000	313311				355 555				333311						
														* * * * * * * * * * * * * * * * * * *	1-11-1-1-1-1	* * * * * * * * * * * * * * * * * * *									1-1-1-1-1-1	3 1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		* * * * * * * * * * * * * * * * * * *					733 1100		
																							111111111111111111111111111111111111111												
												1				4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4									1-1-11-1-1			4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6			VOLUM	E (CUBIC	C YARDS) ::::::::::::::::::::::::::::::::::::	
								14446															1666183333333					11110000			CC)M	EMB 0		1111
																				10000000					868 888					10000000		2000000	1311111111		11111
16.00		1100.00				- 2 2 2 2 2 2 2													55-55-5							1:1111:122						1 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 -			
1680		110000				100000		100000		100000						1100000			221211	10000000	2122111					1111111111		11110000		10000000				00001 000 0 1 00001 000 0 1	
								1333333							21 22 2 1 22 3 3 3 3 4 1	111112000 1111-0000			1661.2	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	\$1 \$ \$ \$ \$ \$ \$ \$- \$ \$ \$ \$ \$ \$				201 101 201 103			11112222							
1670		1111										11111				1111111111			. *	10000000			100000000000000000000000000000000000000			311111111111		111 1				2 2 2 3 3 3 3 3 3 3			
																1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																			
1660		1111				1222				40000	TT 333							reference no		45-			100000000000000000000000000000000000000			311111111111111111111111111111111111111		111 0000			33311.00		777 1000		1111
																														100000000000000000000000000000000000000			11111111		
1650		1 5 6 6 1 6 6																																	
1111111111	50 -14	40	-130 -	120	-110	-10	O -	90	-80	-70) - (- 60	50	-40	3	O -	20	-10	0	10	20	30	40	50	60	70	80	90) 10	,o	110 1	20	130	140	150
																				Tallia.															
																														1111111111					
																			3+20							3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4									
		1111111				1111111		1111111		1111111										11111111					194 (194)	SCALE: 1"	= 10' H	ORIZONTA	400 000 0		SI ICI	- POCh	POAD	(CD 15	
								111111					special:				pessió		2012/06/0	11111		900		22 22 11	555 FEE		= 1U. V	EKIJCAL		٥١	LD DOU	R FORI	K CLIME	(CR 15 BERLANI	n Ri

TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

LETCHER COUNTY CR 1517 (SLICK ROCK ROAD) OVER POOR FORK CUMBERLAND RIVER STA. 22+11.82

				E	S	ΤI	M	A	ΓΕ))	- (Qι	JΑ	N	T	[T]	Œ	S				
BID ITEM CODE	02568	08100	08104	08151	08019	02360	08662	08003	03299	23378EC	08046	08039	02565	08801									
BID ITEM	Mobilization - For Concrete Sealing	Concrete Class "A"	Concrete Class "AA"	Steel Reinforcement, Epoxy Coated	Cyclopean Stone Rip Rap	Guardrail Terminal Section No 1	Precast PC Box Beam CB17-48	Foundation Preparation	Armored Edge for Concrete	Concrete Sealing	PILES-STEEL HP12X53	PRE-DRILLING FOR PILES	bject M Type	Guardrail-Steel W Beams - S Face BR									
UNIT		C.Y.	C.Y.	LBS.	Tons	Each	L.F.	L.S.	L.F.	S.F.	L.F.	L.F.	Each	L.F.									
End Bent 1		18	5	2000	125					245	61	45											
2 End Bent 2		18	5	2000	105					245	61	45											
<u></u>																							
ž																							
st																							
ğ n																							
รั																							
Superstructure			16	1700		4	190		32	1050			4	95									
BRIDGE TOTALS	1	36	26	5700	230	4	190	1	32	1540	122	90	4	95									



SPECIFICATIONS

INDEX OF SHEETS

SPECIAL NOTES

SPECIAL PROVISIONS

STANDARD DRAWINGS

69 Embankment at Bridge End Bent Structures

BDP-001-06 Box Beam General Notes and References BDP-002-03 Box Beam Bearing Details BDP-003-03 Box Beam Miscellaneous Details BDP-004-04 Box Beam Tension Rod Details BDP-005-06 Railing System Type II

Box Beam B17 & CB17 Details

Delineators at Narrow Shoulder Bridges Treatment of Embankments at End Bents

BGX-006-10 Stencils for Structures

Joint Waterproofing Armored Edges BPS-003-09 HP12x53 Steel Pile RBR-001-13 Steel Guardrail ("W" Beam Guardrail Components Guardrail Terminal Sections Delineators for Guardrail

BGX-022

Description

Sheet No.

S05

S01 Title Sheet S02 | General Notes S03 Layout

Sealing Bridge Decks Pile Strike Alternate

S04 | Foundation Layout

Construction Elevations

End Bent 1 S06 End Bent 2 S07 | Superstructure

8th Edition AASHTO LRFD Bridge Design Specifications (2017)

COMMONWEALTH OF KENTUCKY (K) DEPARTMENT OF HIGHWAYS

REVISION DATE

DATE: 2/8/2024 CHECKED BY DESIGNED BY: J. ZHOU J. WHELAN DETAILED BY: J. ZHOU J. WHELAN

TITLE SHEET POOR FORK CUMBERLAND RIVER

LETCHER 12-171 CR 1517 28575

USER: \$\$\$\$USER\$\$\$\$

DATE PLOTTED: \$\$\$\$DATE\$\$\$\$

FILE NAME: \$\$\$\$design\$file\$specifications\$\$\$\$

<u>Specifications</u>: 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.

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

<u>Design Method:</u> 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

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

AASHTO MI53 Premolded Cork Filler, Type II

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

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

<u>Concrete</u>: 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.

<u>Construction Identification</u>: 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 I shall be placed between the embankment and the slope protection in accordance with Standard Specifications 214 and 843. Payment for Geotextile Fabric, Class I, shall be considered incidental to the unit price bid for Dry Cyclopean Stone Riprap.

<u>Completion of the Structure:</u> 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.

<u>Utilities</u>: 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 consulstant, 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.

<u>Payment for Precast Concrete Beams:</u> 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.

General Notes

<u>Verifying Field Conditions:</u> 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.

<u>Dimensions:</u> Dimensions are for a normal temperature of 60 degrees fahrenheit. Layout dimensions are horizontal dimensions.

 $\underline{\text{Superstructure Slab:}} \ \text{The superstructure slab shall be poured continuously from end to} \\ \text{end of slab before the concrete is allowed to set.}$

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., Cadilloc by The UP Rubber Co. Inc.

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.

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

<u>Foundation Preparation:</u> 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, sheeling, 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, cofferdams and dewatering shall be included in the lump sum bid for Foundation Preparation.

<u>Structural Granular Backfill:</u> 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.

FILE NAME: \$\$\$\$design\$file\$specifications\$\$\$\$

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 I 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-IO5 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.

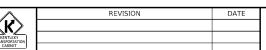
Test piles shall be driven where designated on the plans to determine the length of pile required.

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.

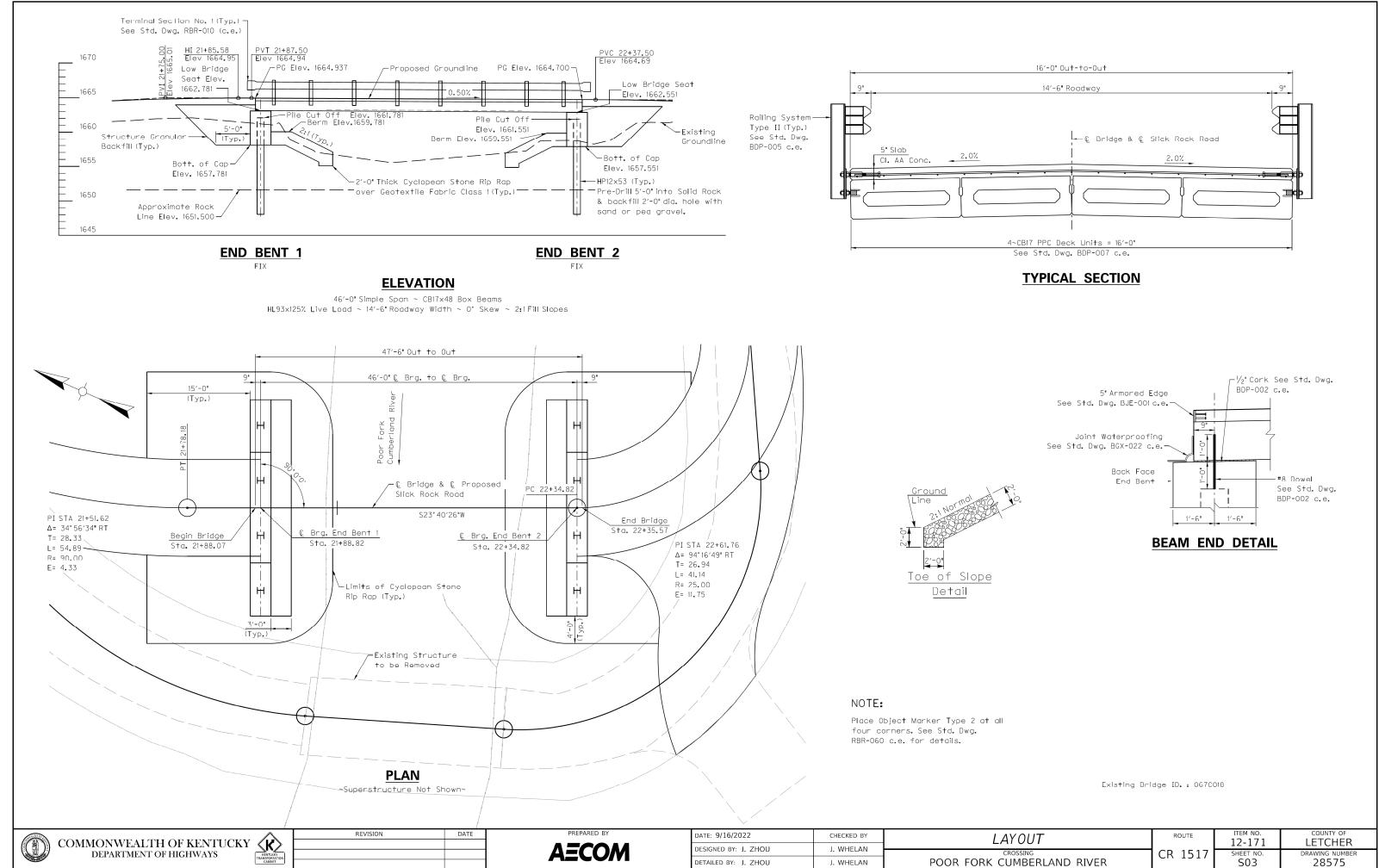
<u>Pilo Points:</u> Provido pilo points for all pilos. Pilo points shall be in accordance with Section 604 of the Specifications and of the type shown on the pile record sheet.

<u>Pre-drilling Piles:</u> 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".



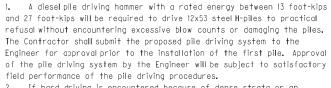
PREPARED BY

DATE: 9/15/2022	CHECKED BY	
DESIGNED BY: J. ZHOU	J. WHELAN	_
DETAILED BY: L ZHOU	I WHELAN	

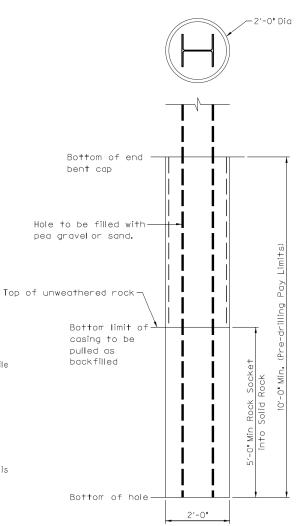


MicroStation v8.11.9.931

Notes

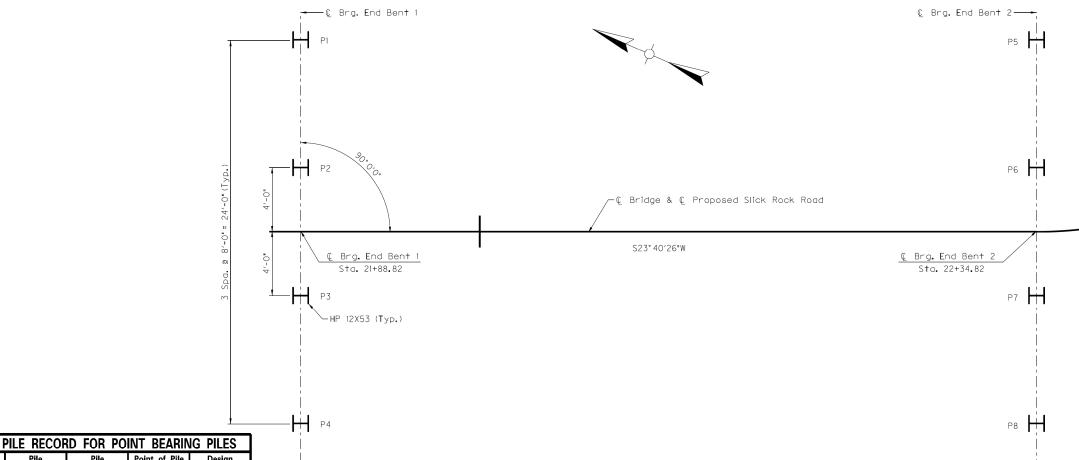


- 2. If hard driving is encountered because of dense strata or an obstruction, such as a boulder before the pile is advanced to the depth anticipated, the Engineer will determine if more blows than the average driving resistance specified for practical refusal is required to further advance the pile. 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.



PRE-DRILLING DETAIL

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



Point of Pile Cut-off Elevation Axial Lenath Elevation In Place As Driven Load FFFT FFFT TONS 1661.781 1661.781 79 1661, 781 1661.781 79 1661.551 1661.551 79 1661.551 79 79

FOUNDATION LAYOUT

46'-0"

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

POINT OF PILE ELEVATION AS DRIVEN: Actual point of pile elevation in the finished

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

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 $\frac{1}{2}$ or loss for 10 consecutive blows, practical refusal is obtained after the pile is struck an additional 10 blows with total penetration of $\frac{1}{2}$ 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 cose 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.

COMMONWEALTH OF KENTUCKY (K) DEPARTMENT OF HIGHWAYS

MicroStation v8.11.9.931

1661, 551

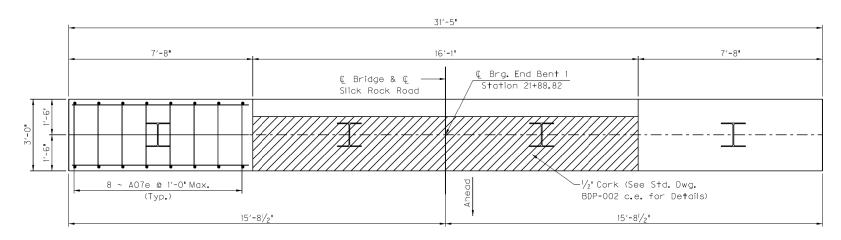
REVISION DATE

DATE: 2/8/2024 CHECKED BY DESIGNED BY: J. ZHOU J. WHELAN DETAILED BY: J. ZHOU J. WHELAN

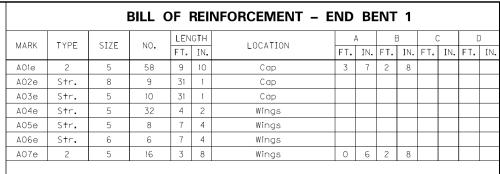
FOUNDATION LAYOUT CR 1517 POOR FORK CUMBERLAND RIVER

12-171 LETCHER S04 28575

FILE NAME: \$\$\$\$design\$file\$specifications\$\$\$\$ USER: \$\$\$\$USER\$\$\$\$ DATE PLOTTED: \$\$\$\$DATE\$\$\$\$



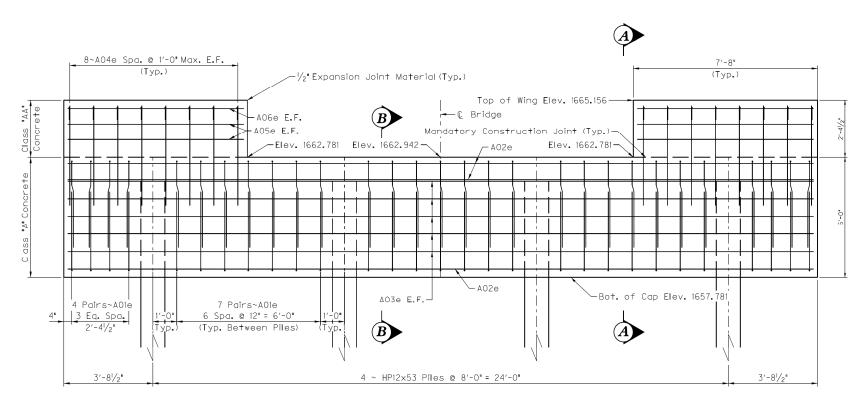


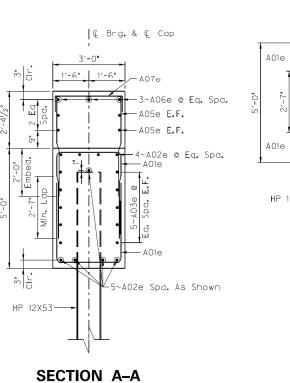


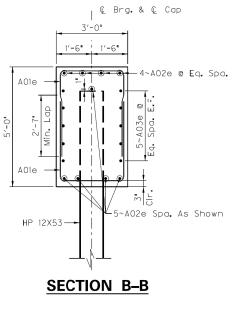


PLAN

Reinforcement Symetrical About © Bridge







ELEVATION

Reinforcement Symetrical About © Bridge

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

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS

REVISION DATE

REVISION

R

PREPARED BY

 DATE: 9/15/2022
 CHECKED BY

 DESIGNED BY: J. ZHOU
 J. WHELAN

 DETAILED BY: J. ZHOU
 J. WHELAN

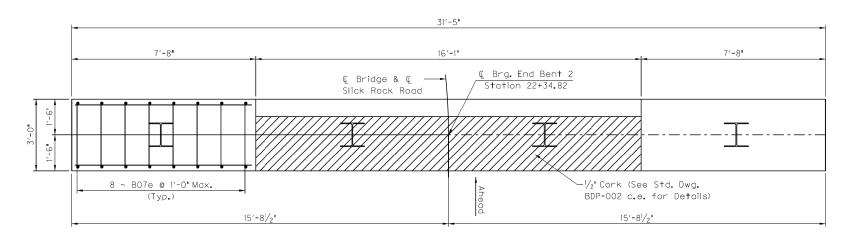
END BENT 1ROUTEITEM NO.
12-171COUNTY OF
LETCHERCR 1517CR 1517SHEET NO.
S05DRAWING NUMBER

FILE NAME: \$\$\$\$design\$file\$specifications\$\$\$\$

MicroStation v8.11.9.931

USER: \$\$\$\$USER\$\$\$\$

DATE PLOTTED: \$\$\$\$DATE\$\$\$\$

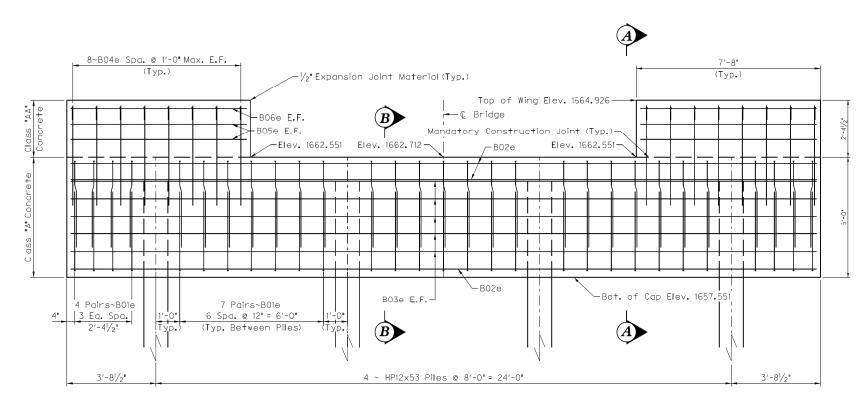


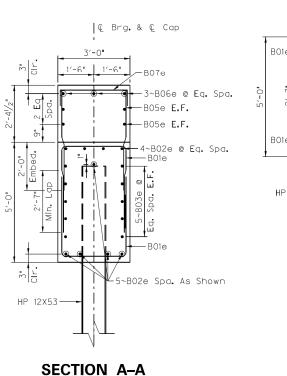


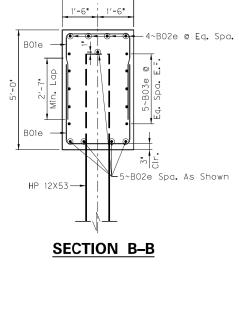


PLAN

Reinforcement Symetrical About © Bridge







LETCHER

28575

© Brg. & © Cap

3'-0"

ELEVATION

Reinforcement Symetrical About © Bridge

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

COMMONWEALTH OF KENTUCKY COMMONWEALTH OF HIGHWAYS	KENTL
---	-------

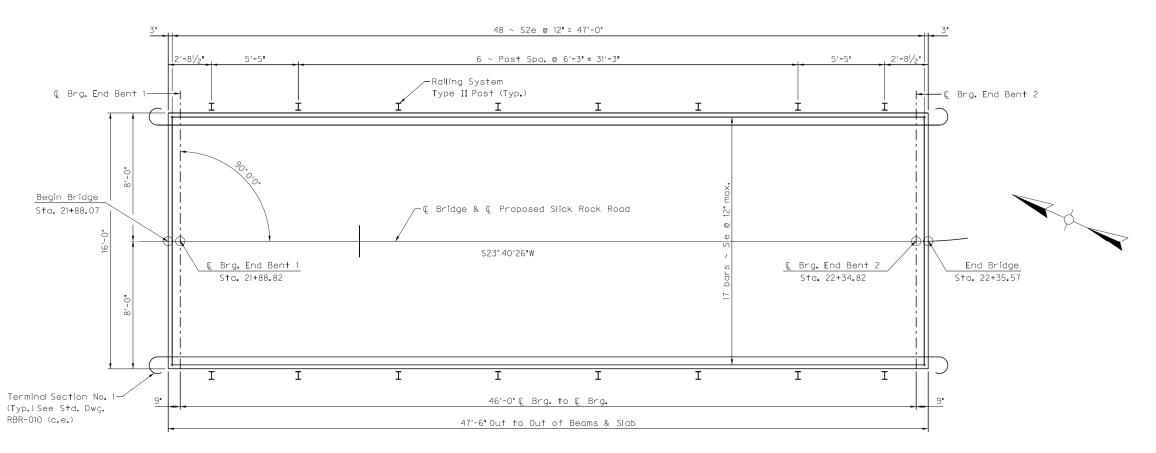
\sim	REVISION	DATE
(K)		
KENTUCKY TRANSPORTATION		
CABINET		



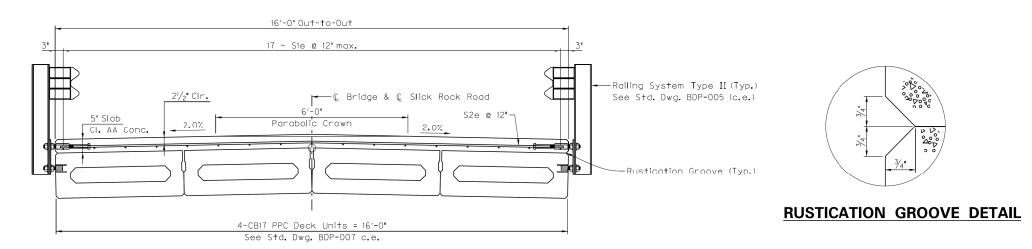
DATE: 9/15/2022	CHECKED BY	FND BENT 2	ROUTE	ITEM NO. 1 7 1 7 1	ĺ
DESIGNED BY: J. ZHOU	J. WHELAN			12-1/1	L
DESIGNED BT. J. ZHOO	J. WHELAN	CROSSING	l CR 1517	SHEET NO.	Ī
DETAILED BY: J. ZHOU	J. WHELAN	POOR FORK CUMBERLAND RIVER		S06	l

BILL OF REINFORCEMENT								
MARK	TYPE	NO.	SIZE	LENGTH				
Sle	Str.	17	5	47′ - 2 "				
S2e	Str.	48	5	15′-8"				

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

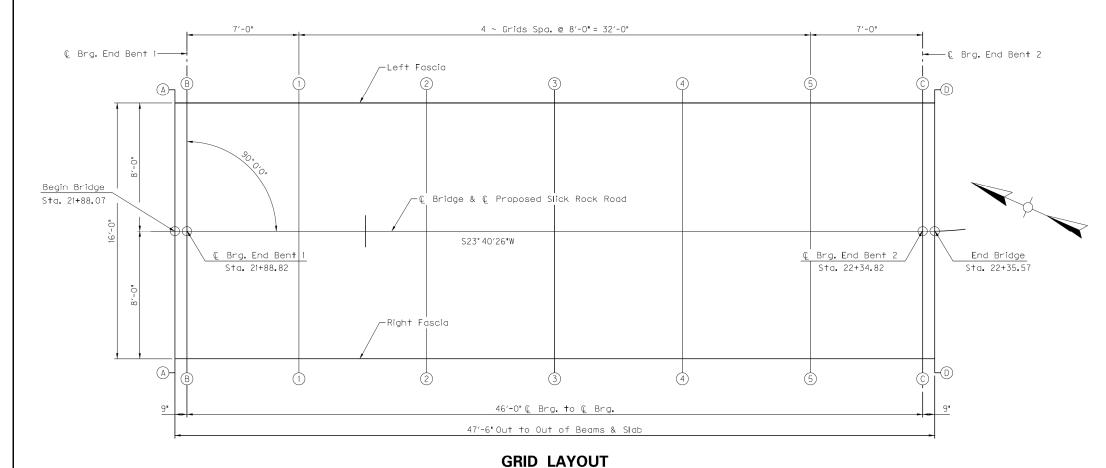


SLAB PLAN



TYPICAL DECK SECTION

All slab reinforcement to be epoxy coated



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.

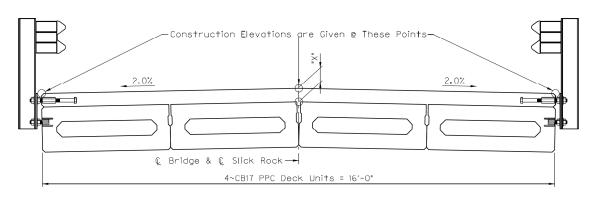
Temporary supports or shoring will not be permitted under the girders when pouring the concrete floor slab or when taking "Top of Beam" elevations.

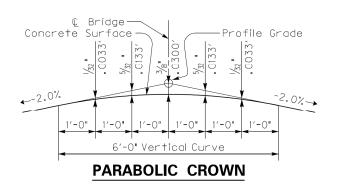
Note: The elevations at centerline of bridge do not include the $\frac{3}{8}$ " deduction for parabolic crown.

Note: Contrary to the Standard Drawings (5" thickness), the construction elevations will cause the slab to be approximately $6\frac{3}{8}$ " 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				FILE GRADE RLINE OF BI		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

	REVISION	DATE	PREPARED BY	DATE: 9/15/2022	CHECKED BY	CONSTRUCTION ELEVATIONS	ROUTE	ITEM NO.	COUNTY OF
COMMONWEALTH OF KENTUCKY K			A = COA4	DESIGNED BY: 1 7HOLL	I WHELAN	CONSTRUCTION ELEVATIONS		12-171	LETCHER
DEPARTMENT OF HIGHWAYS KENTUCKY TRANSPORTATION			A=COM	DESIGNED BY: J. ZHOU	J. WHELAN	CROSSING	CR 1517	SHEET NO.	DRAWING NUMBER
CABINET			<i>/</i> • • <i>/</i> • <i>/</i> • · · · · · · · · · · · · · · · · · ·	DETAILED BY: J. ZHOU	J. WHELAN	POOR FORK CUMBERLAND RIVER		508	28575

USER: \$\$\$\$USER\$\$\$\$ DATE PLOTTED: \$\$\$\$DATE\$\$\$\$ MicroStation v8.11.9.931

FILE NAME: \$\$\$\$design\$file\$specifications\$\$\$\$