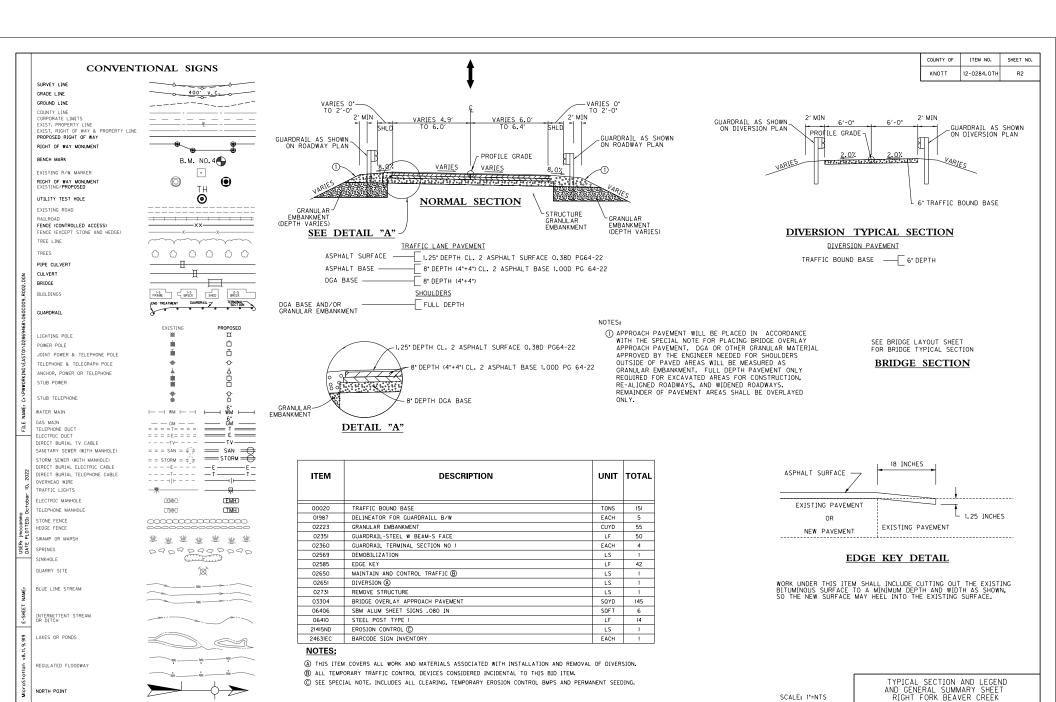
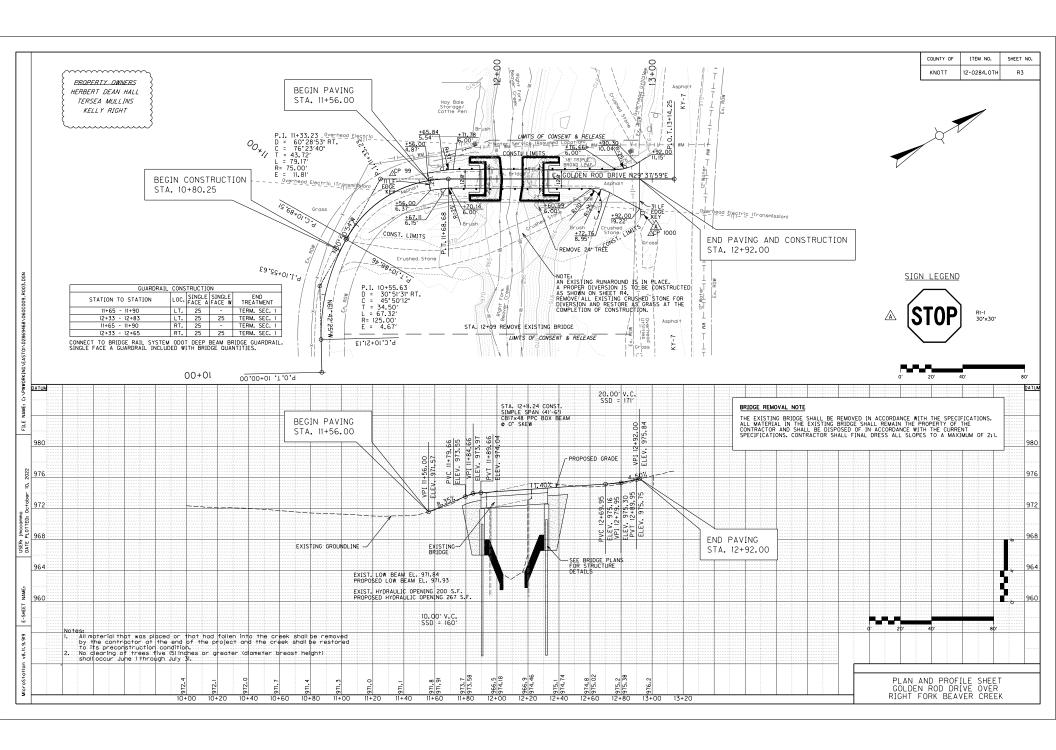
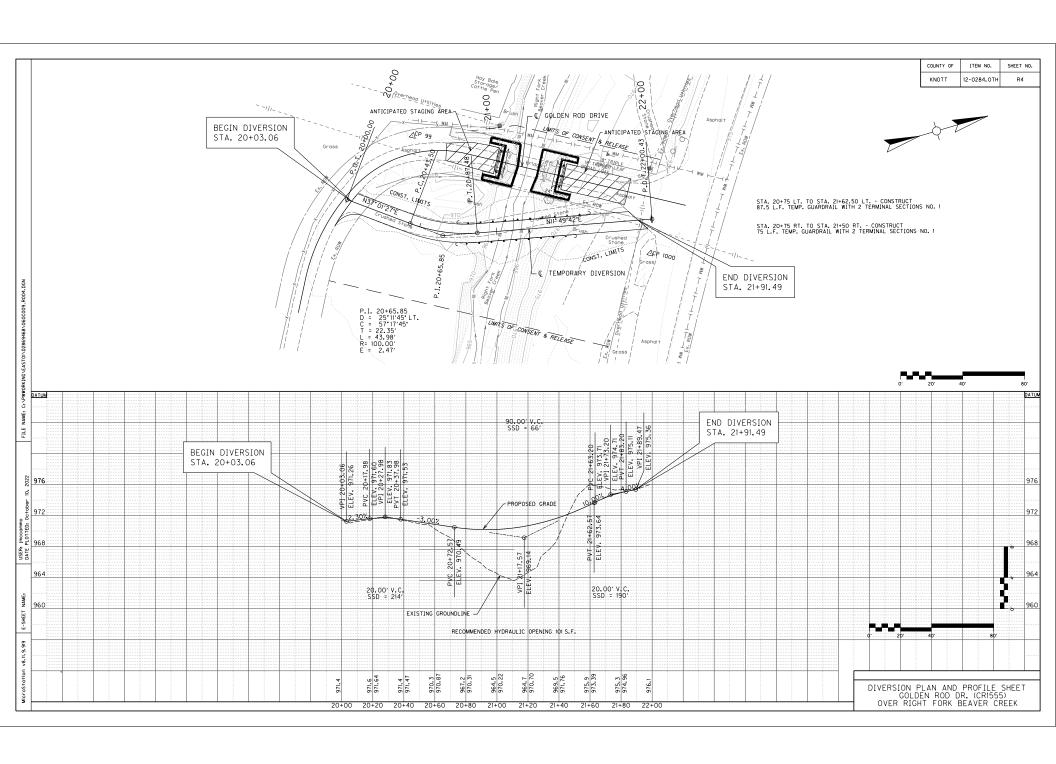
	STANDARD DRAWINGS			COUNTY OF	ITEM NO.	SHEET NO.
	RBI-001-12 TYPICAL GUARDRAIL INSTALLATIONS RBR-001-13 STEEL BEAM GUARDRAIL "W BEAM	TRANSPORTATION CABINET		KNOTT	12-0284.0TH	RI
	RBR-005- GUARDRAIL COMPONENTS			OF SHEE	TS	
	NER-016-05	DEPARTMENT OF HIGHWAYS	RI LAYOUT SHEET	Description		
	RBR-055-01 DELINEATORS FOR GUARDRAIL RDI-040-01 EROSION CONTROL BLANKET SLOPE INSTALLATION		R2 TYPICAL SECTION / R3 PLAN AND PROFILE R4 DIVERSION PLAN AN	SHEET		IARY SHEET
	RDX-210-03	KNOTT COUNTY	R5 MOT PLAN SHEET A XI-X2 DIVERSION CROSS	AND COORDINATE	CONTROL DATA	
1 .	RDX-225-01	COLDEN DOD DDIVE (OD 4FFF)	SI TITLE SHEET			
	RGX-005-06 RIGHT OF WAY MONUMENTS RGX-200-01 ONE POINT PROCTOR FAMILY OF CURVES	GOLDEN ROD DRIVE (CR 1555)	S2 GENERAL NOTES S3 LAYOUT	_		
	TTC-100-05 LANE CLOSURE TWO-LANE HIGHWAY TTC-110-04 LANE CLOSURE USING TRAFFIC SIGNALS		S5 END BENT =1(1 OF 2 S6 END BENT =1(2 OF	2)		
	TTC-135-03 SHOULDER CLOSURE TTC-150-04 ROAD CLOSURE WITH DIVERSION	OVER RIGHT FORK BEAVER CREEK	\$7 END BENT *2 (1 OF \$8 END BENT *2 (2 OF	2)		
		CTA 12 11 24	S9 SUPERSTRUCTURE SIO CONSTRUCTION ELE			
		STA. 12+11.24	SII ODOT DEEP BEAM E SI2 SEPIA OOI - RAILIN SI3 SUBSURFACE DATA	G SYSTEM TYPE		TREATMENT
				PECIAL N	OTES	
	ACTIVE SEPIAS		EROSION CONTROL BRIDGE OVERLAY APPROACH PAVE			
	N/A		BRIDGE OVERLAT AFFROACH FAVE	WEMI		
		FND CONSTRUCTION				
		END CONSTRUCTION STA. 12+92.00				
		CTA 10 H 24 CONSTRUCT				
DGNSPEC		BEGIN CONSTRUCTION STA. 10+80.25 STA. 12+11.24 CONSTRUCT SIMPLE SPAN (41'-6') CBITX-48 PPC BOX BEAM BRIDGE @ 0' SKEW	SPEC	CIAL PRO	VISIONS	
		BRIDGE © 0° SKEW T				
FILE NAME:] /				
L.						
			e.	PECIFICAT	TONE	
STIMES			2019, STANDARD SPE	CIFICATIONS FO		RIDGE
DATE *		LOCATION MAP SCALE: I'=NTS	CONSTRUCTION	N .		
ERS LTED: \$6	DESIGN CRITERIA					
USER: SUS DATE PLOT	CLASS OF HIGHWAY RURAL LOCAL ROAD	BEFORE YOU DIG		REVISION		DATE
N PA	TYPE OF TERRAIN DESIGN SPEED REQUIRED MSD	The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system	Common			
	REQUIRED PSD LEVEL OF SERVICE	The deformation on the location of eighting underground editine. The real life call by special and information on the location of eighting underground editine. The real life call by a location of the call and information of two (2) and no more than ten (10) business days prior to exacation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811. The contractor contraction with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contract the County Court Clerk to determine what	DEPARTM	MENT OF		/AYS
NAME:	ADT FUTURE ()	excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.		KNOT	<u>r </u>	
E-SHEET	DHV	2003	ITEM NO. 12-0284.0T	`H		
	GEOGRAPHIC COORDINATES	10.17.2022	DRAWING NO			
9.919	LATITUDE 37 DEGREES 18 MINUTES 02 SECONDS NORTH LONGITUDE 82 DEGREES 46 MINUTES 32 SECONDS WEST	DELLAND CUEFFO DELLOCO	NUMBER:			
ation ,	DESIGNED % RESTRICTED SD	REV. NO. SHEETS REVISED DATE	RECOMMENDED BY:			
WicroS+	LEVEL OF SERVICE	EXISTING BRIDGE ID # 060C009		PROJECT MANAGER	DATÉ	
لــًــا	MAX. DISTANCE W/O PASSING	859-629-4800	PLAN APPROVED BY:	STATE HIGHWAY ENGIN	ER DATE:	







ROAD

MAY

MO

FILE

USER: jmccomm DATE PLOTTED:

- CONTRACTOR SHALL INVENTORY, REMOVE AND REPLACE EXISTING SIGNS, WITH NEW SIGNS IMPACTED BY THE PROPOSED CONSTRUCTION, OFFICE SIGNS CONFLICTING WITH THE PROPOSED IMPROVEMENTS SHALL BE REMOVED AND REPLACED AT THE DIRECTION OF KYTC.
- CONTRACTOR SHALL COORDINATE WITH LOCAL RESIDENTS AND OFFICIALS PRIOR TO CONSTRUCTION AND ANY TEMPORARY CLOSURES.
- INGRESS AND EGRESS SHALL BE MAINTAINED TO ALL DWELLINGS AFFECTED BY THE PROJECT.
- CLOSURE SIGNS, DETOUR SIGNS AND BI-DIRECTIONAL LANE CLOSURE SIGNS SHOULD BE PLACED NO SOONER THAN TWO WEEKS PRIOR TO THE CLOSUNG OF THE BRIDGE (WHEN APPLICABLE) OR PLACING LANE CLOSURES.
- TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE 2019 KYTC STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE KYTC STANDARD DRAWINGS.
- CONTRARY TO SECTION 106.01, TRAFFIC CONTROL DEVICES USED ON THIS PROJECT MAY BE NEW OR USED IN NEW CONDITION, AT THE BEGINNING OF THE WORK AND MAINTAINED IN LIKE NEW CONDITION UNTIL COMPLETION OF WORK.
- TRAFFIC CONTROL DEVICES SHALL BE PLACED AND MAINTAINED IN THE WORK ZONE IN A MANNER THAT ENSURES THERE IS NO RESTRICTION TO THE VISIBILITY OF APPROACHING TRAFFIC.
- SIGNS NOT APPLICABLE TO CURRENT PHASE OF CONSTRUCTION SHALL BE REMOVED OR COVERED IF LEFT IN PLACE.
- TEMPORARY CLOSURES AND FLAGGERS SHALL BE UTILIZED AS NECESSARY.
- BRIDGE SHALL BE CLOSED AND TRAFFIC DIVERTED AND MAINTAINED ON THE SINGLE LANE 12-FT WIDE DIVERSION AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS. 10.
- TEMPORARY SIGNALS SHALL NOT BE REQUIRED FOR THE ONE-WAY ONE-LANE TEMPORARY DIVERSION.

TRAFFIC ONLY

- ENSURE A MINIMUM OF TWO 4-FT TYPE III BARRICADES ARE USED AT EACH END OF THE BRIDGE FOR A TOTAL OF FOUR TYPE III BARRICADES. CONTRARY TO THE STANDARD SPECIFICATIONS, NO DIRECT PATMENT WILL BE MADE FOR BARRICADES, BUT THEY WILL BE INCIDENTAL TO THE LUMP SUM PRICE FOR MAINTAIN AND CONTROL MAFFIC.
- ROADWAY SHALL REMAIN OPEN DURING CONSTRUCTION AND ALL TRAFFIC SHALL BE PROVIDED ACCESS TO THE DIVERSION DURING CONSTRUCTION. 13.
- THE EASTBOUND LANE OF KY 317 SHALL BE CLOSED WITH ONE-WAY ONE-LANE TRAFFIC MAINTAINED FOR THE CONSTRUCTION OF END BENT *2, BACK APPROACHES, SETTING OF BEAMS, POURING OF COUNCET DECK AND DEMOLITION OF EXISTING BRIDGE FOR A PERIOD OF TIME NOT TO EXCEED THE ACTIVITY DURATIONS OUTLINED IN THE APPROVED SCHEDULE.
- DURING THE LANE CLOSURE OF KY 317 TRAFFIC WILL BE MAINTAINED UTILIZING THREE TEMPORARY SIGNALS WITH THREE PHASES AS SHOWN ON THE MOT PLANS.

MAINTENANCE OF TRAFFIC PHASING:

PHASE 1:

- INSTALL AND MAINTAIN TEMPORARY TRAFFIC CONTROL SIGNS AND DEVICES PER KYTC STANDARD DRAWING TTC-150-04 ALONG CR 1555
- INSTALL AND MAINTAIN TEMPORARY TRAFFIC CONTROL SIGNS AND DEVICES PER KYTC STANDARD DRAWING TTC-135-03 ALONG KY 7
- 3. MAINTAIN TRAFFIC ALONG EXISTING CR 1555
- 4. CONSTRUCT THE TEMPORARY DIVERSION

PHASE 2

Asphalt

0

- INSTALL ALL REMAINING APPLICABLE SIGNS AND DEVICES PER KYTC STANDARD DRAWING TTC-150-04.
- 2. SHIFT TRAFFIC ONTO THE TEMPORARY DIVERSION
- REMOVE THE EXISTING CR 1555 BRIDGE
- 4. CONSTRUCT PROPOSED CR 1555 BRIDGE AND ROADWAY

COUNTY OF ITEM NO. SHEET NO. KNOTT 12-0284.OTH R5

PHASE 3:

- REMOVE ALL APPLICABLE SIGNS AND DEVICES NECESSARY TO SHIFT TRAFFIC TO THE RECONSTRUCTED CR 1555 BRIDGE AND ROADWAY PER KYTC STD. DRAWING TTC-150-04
- SHIFT TRAFFIC ONTO THE NEWLY CONSTRUCTED CR 1555 BRIDGE AND ROADWAY
- 3. REMOVE THE TEMPORARY DIVERSION

PHASE 4:

- INSTALL PERMANENT SIGNS ALONG NEW ROADWAY AND REQUIRED PAVEMENT MARKINGS
- 2. REMOVE ALL TEMPORARY MAINTENANCE OF TRAFFIC DEVICES AND SIGNS

GOLDEN ROD DRIVE (CR 1555) KNOTT COUNTY EXISTING BRIDGE ID #060C009

PROJECT COORDINATES
COORDINATES FOR HORIZONTAL CONTROL WERE OBTAINED BY GPS OBSERVATIONS
ON SEPTEMBER 21, 2022 AND WERE ADJUSTED TO NGS OPUS SOLUTION BASED ON THE
NADS KENTUCKY STATE PLANE COORDINATE SYSTEM, KY SINGLE ZONE, US SURVEY
FEET, COORDINATES SHOWN ARE STATE PLANE COORDINATES, US SURVEY FEET.
NO PROJECT DATUM FACTOR WAS CALCULATED OR USED FOR THIS PROJECT.

BASIS OF ELEVATIONS

LEVATIONS WERE ESTABLISHED BY GPS OBSERVATIONS ON SEPTEMBER 21, 2022 ON THE NAVO88 VERTICAL DATUM, GEOIDIS UTILIZING NGS OPUS SOLUTION AND WERE ADJUSTED BY CLOSED DIFFERENTIAL LEVEL LOOP BASED ON THE ELEVATION OF CP #99 = 971.149'.

COORDINATE CONTROL POINTS													
POINT	DESCRIPTION	STATE PLAN	EAST (X)	STATION	OFFSET								
CP *99	1/2" REBAR W/ HDR CAP	3646710.160	578212.348	971.149	11+36.36	11.05' LT							
CP *1000	1/2" REBAR W/ HDR CAP	3646835.700	5786328.234	976.903	12+99.16	35.47' RT							

CENT		COORD	INATE	DIVERSION CENTERLINE COORDINATE DATA							
	STATION	STATE PLANE COORD	SINGLE ZONE INATES		STATION	STATE PLANE SINGLE ZONE COORDINATES					
POINT	STATION	NORTH (Y)	EAST (X)	POINT	STATION	NORTH (Y)	EAST (X)				
P.O.T.	10+00.00	3646607.3909	5786300.9086	P.O.T.	20+00.00	3646658.0499	5786239.8491				
P.C.	10+21.13	3646617.4070	5786282.3013	P.C.	20+43.50	3646692.7808	5786266.0437				
P.I.	10+55.63	3646633.7592	5786251.9231	P. I.	20+65.85	3646710.6237	5786279.5011				
P. T.	10+88.46	3646663.3781	5786234.2328	P. T.	20+87.48	3646732.4980	5786284.0821				
P.C.	10+89.51	3646664.2861	5786233.6906	P.O.T.	22+00.00	3646843.0514	5786307.2349				
P.I.	11+33.23	3646701.8229	5786211.2713			•					
P. T.	11+68.68	3646739.8267	5786232.8894								
P. O. T.	13+14.25	3646866.3521	5786304.8622								

MOT PLAN SHEET AND COORDINATE CONTROL DATA

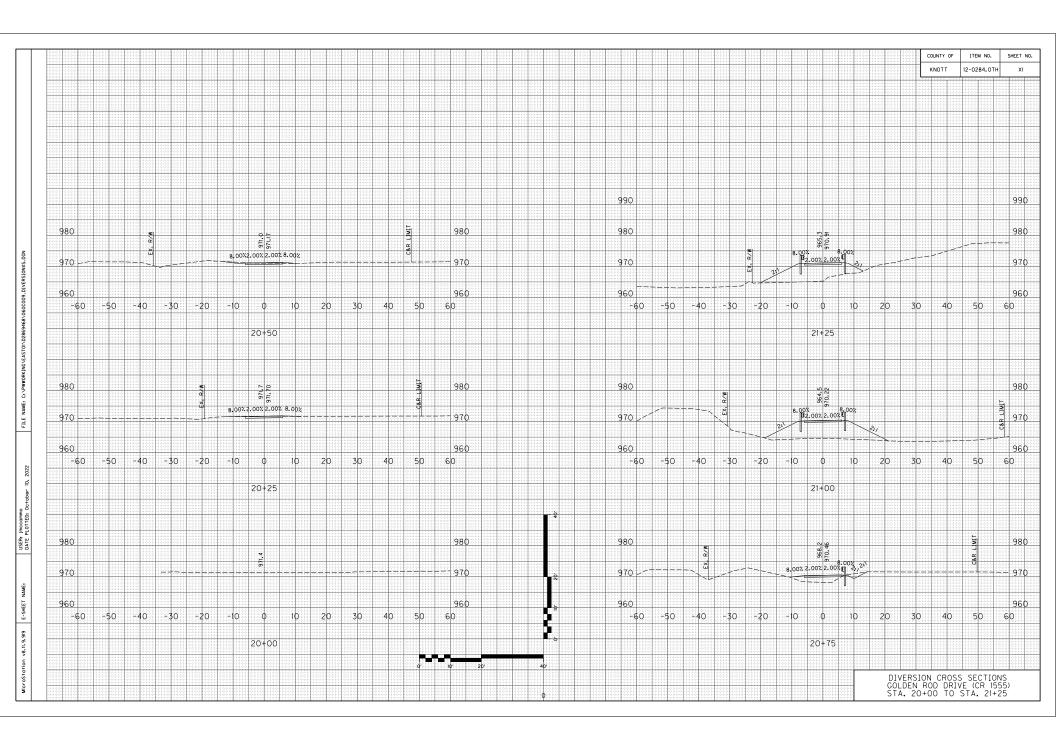
GOLDEN ROD DRIVE (CR 1555)

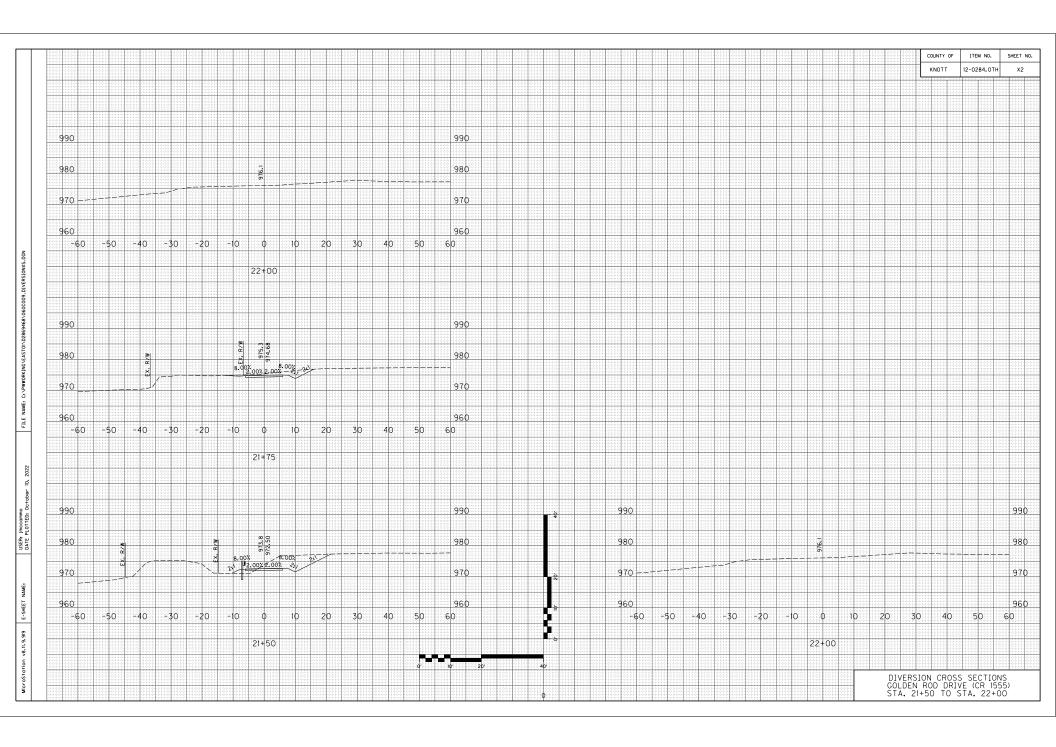
Р		
Р		

30"×30" FLOOD GOLDEN ROD DRIVE (CR 1555) LIMITS OF CONSENT & RELEASE _____Uverhead Utilities PLACE A W8-18 "ROAD MAY FLOOD" SIGN AT EACH END OF THE TEMPORARY DIVERSION, FOR THE ENTIRETY OF THE TEMPORARY DIVERSION USAGE. 18" THEROPED LEAF - CHANNELIZING DEVICE (TYP.) ∆CP 99 Grass ∠Β¦` -111---30"x 30" Brush ACP 1000 CHANNELIZING DEVICE TEMPORARY DIVERSION LIMITS OF CONSENT & RELEASE FOR MAINTENANCE

Hay Bale Storage/ Cattle Per

SCALE: I"=NTS





TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

KNOTT COUNTY GOLDEN ROD DRIVE (CR 1555) RIGHT FORK BEAVER CREEK STA. 12+11.24

					E	ST	-IIV	1 A	TE	Ξ (ЭF	• (2 L	JA	NΊ	ПТ	ΊE	S				
	08100	08104	08101	08170	08150	08151	08003	08019	08662	02231	03299	08051	08039	08801	02355	23378EC						
BID ITEM	Concrete Class "A"	Concrete Class "AA"	Concrete Class "A" Modified	Connectors	Steel Reinforcement	Steel Reinforcement, Epoxy Coated	Foundation Preparation	Cyclopean Stone Rip Rap	Precast Box Beam CB17-48	Structure Granular Backfill	Armored Edge for Concrete	Piles – Steel HP 14 x 89	Predrilling for Piles	Guardrail Steel "W" BEAM (S Face BR)	Guardrail Steel "W" BEAM (S Face A)	Concrete Sealing						
UNIT	C.Y.	C.Y.	C.Y.	L.S.	LBS.	LBS.	L.S.	Tons	L.F.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	S.F.						
End Bent #1	20.3		1.6		2483			51		36		48	36			345						
e End Bent #2	20.3		1.6		2483			64		39		59	47			345						
ļ.																						
on a																						
lt.																						
9																						
8																						
Superstructure		10.2				2084			129.0		24.0			75	100	772						
BRIDGE TOTALS	40.6	10.2	3.2	- 1	4966	2084	1	115	129.0	75	24.0	107	83	75	100	1462						

() Approximate number of Shear Connectors: 72

	INDEX OF SHEETS
Sheet No.	Description
SI	Title Sheet
S2	General Notes
S3	Layout
S4	Foundation Layout
S5	End Bent *1 (1 of 2)
S6	End Bent *1 (2 of 2)
S7	End Bent #2 (I of 2)
S8	End Bent *2 (2 of 2)
S9	Superstructure
S10	Construction Elevations
S11	ODOT Deep Beam Bridge Guardrail
S12	Sepia 001 - Railing System Type II Guardrail Treatment
S13	Subsurface Data

SPECIAL NOTES

Special Note for Concrete Sealing

SPECIAL PROVISIONS

69 Embankment at Bridge End Bent Structures

KALC STANDARD DEVININGS

KYI	C STAINDARD DRAWINGS
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-007-05	Box Beam BI7 & CBI7 Details
BGX-006-10	Stencils for Structure
BGX-022	Joint ∎aterproofing
BJE-001-14	Armored Edges
BPS-011-04	HPI4x89 Steel Pile

SPECIFICATIONS

2019 KYTC Standard Spec's, for Road and Bridge Construction (w/ current supplemental specifications)

2020 AASHTO LRFD Bridge Design

PLANS PREPARED BY HDR ENGINEERING, INC.

WESLEY W. HAGERMAN, PE







Ī	DATE: October, 2022	CHECKED BY					
	DESIGNED BY: M. Purcell	A. Cole	H				
	DETAILED BY: M. Purcell	A. Cole					

GENERAL NOTES

SPECIFICATIONS: References to the specifications are to the 2019 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 2020 AASHTO LRFD Bridge Design Specifications, 9th edition,

DESIGN LIVE LOAD: This bridge is designed for KY HL-93 live load. The KY HL-93 live load is arrived at by increasing the standard HL-93 trucks and lane loads as specified in the AASHTO specifications by 25%.

FUTURE WEARING SURFACE: This bridge is designed for a future wearing surface of 15 psf with a 1.50 load factor at the Strength I limit state.

DESIGN METHOD: All structural members are designed to have a capacity equivalent or greater than the load and resistance factor design method, as specified in the referenced ASHTO Specifications.

MATERIALS DESIGN SPECIFICATIONS: For Class "A" Reinforced Concrete For Class "A" Modified Concrete For Class "AA" Reinforced Concrete f'c = 3.500 psi f'c = 4.000 psi For Steel Reinforcement Fy = 60,000 psi Fy = 50,000 psi

MATERIALS: ASTM or AASHTO Specifications as designated below shall govern the materials furnished.

IINS G 1018 Shear Stud Connectors M 169

PREFORMED CORK EXPANSION JOINT MATERIAL: Cork shall conform to subsection (Type II) of the Kentucky Department of Highways Standard

CONCRETE: Class "AA" Concrete is to be used throughout the superstructure. Class "A" concrete is to be used in the substructure. Class "A" Modified Concrete is to be used in the Rock Socket for Pile Installation. 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. 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. Clear cover shall be 2" unless noted otherwise.

CONSTRUCTION IDENTIFICATION: The names of the Prime Contractor and the Sub-Contractor shall be imprinted in the concrete with 1 inch letters at a location designated by the engineer. The contractor shall furnish all plansequipment and labor necessary to do the work.

BEVELED EDGES: All exposed edges shall be beveled 34", unless otherwise shown.

COMPLETION OF THE STRUCTURE: The contractor is required to complete the structure in accordance with the plans and specifications.

DRAWINGS: Submit shop drawings that are required by the plans and specifications directly to the Engineer of Record via email (wes.hagermaneAdrinc.com). If any changes in the design plans are proposed by a fabricator or supplier, submit those changes to the Consultant through the Contractor. Submit final, approved plans to KYTC Division of Structural Design.

WORKING DRAWINGS: Working drawings for temporary works shall follow the same procedures as outlined above for shop drawings.

When any changes in the design plans are proposed by the fabricator or supplier, the shop drawings reflecting these changes shall be submitted to the Engineer of Record.

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

SUPERSTRUCTURE DECK: The superstructure deck shall be poured continuously from end to end of deck before the concrete is allowed to set.

STRUCTURE GRANULAR BACKFILL: Materials for Structure Granular Backfill shall be in accordance with Section 805 of the Specifications. Geotextile Fabric. Class 2 is incidental to "STRUCTURE GRANULAR BACKFILL".

SCOUR PROTECTION: Scour Protection shall be dry cyclopean stone riprap in accordance with the plans and specifications. Geotextile Fabric, Class 1 shall be placed between the native material and the scour protection in accordance with Standard Specifications 214 and 843. Geotextile Fabric, Class 1 is incidental to "CYCLOPEAN STONE RIP RAP".

MASTIC TAPE: Mastic Tape used to seal joints is to meet the requirements of ASTM C877 Type I, II, or III. The joint is to be covered with a minimum of 12" wide mastic tape. Prior to application, the joint surface shall be clean and free of dirt, debris, or deleterious material. Primer, if required, shall be applied per the manufacturer's recommendations.

Mastic Tape shall be either:

EZ-Wrap Rubber by Press-seal Gasket 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 taping a minimum of 6° and in accordance with the manufacturer's recommendations with the overlap running downhill. The required excess loop shall be prevented from adhering to itself.

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.

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

PRE-DRILLING FOR PILES: Pre-drilling is required for the ROCK SOCKET FOR PILE INSTALLATION method. For this method. 30 inch diameter holes shall be drilled into solid rock a minimum of 3 feet. After the pile is placed in the hole. "CLASS A MODIFIED CONCRETE" shall be placed in the hole up to the top of the rock socket. Backfill the holes with sand or pea gravel after the concrete has set. A temporary casing may be required to prevent collapse of the hole. If used, remove the casing as the hole is backfilled. Include in the unit price of "PRE-DRILLING FOR PILES", the cost of all materials, labor, and equipment to pre-drill and backfill the holes.

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 be expeditiously performed ofter a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department of

REMOVAL OF EXISTING STRUCTURE: Construction of this bridge requires removal of the existing structure. Include in the lump sum bid for "REMOVE STRUCTURE" all costs for material, lobor, and equipment associated with removing and disposing of these items (including any wearing surface) as detailed herein in accordance with Section 203 of the Specifications.

TEMPORARY SHORING: Temporary shoring, sheeting, and/or a dewatering method may be required for the construction. Include the cost of this work, including all labor and materials, in the lump sim bid for "FOUNDATION PREPARATION".

DEWATERING METHOD: A dewatering method may be required. Include in the lump sum bid for "FOUNDATION PREPARATION" all costs for materials, labor, and equipment associated with the dewatering method.

ODOT DEEP BEAM RAIL: This bridge rail is very similar to the KYTC Type II Rail. All labor and materials associated with this rail shall be included in the unit bid price for "STEEL W BEAM SINGLE FACE BR". The measured limits of this pay item shall be from the center of the first post on the bridge to the center of the last post on the bridge.

CONCRETE SEALER: Apply concrete sealer in accordance with the Special Note for

Areas to receive Concrete Sealing:

1. Every exposed surface above a point 6" below ground or fill line of abutments, wing walls, end bent and pier caps, pedestals, back walls, columns, and exposed footings.

All exposed surfaces of concrete deck, barrier walls, parapets, curbs, and Adjacent prestressed concrete composite box beams: full length of the exterior face of all exterior beams from the top of the box beam to 1'-0

underneath the beams.

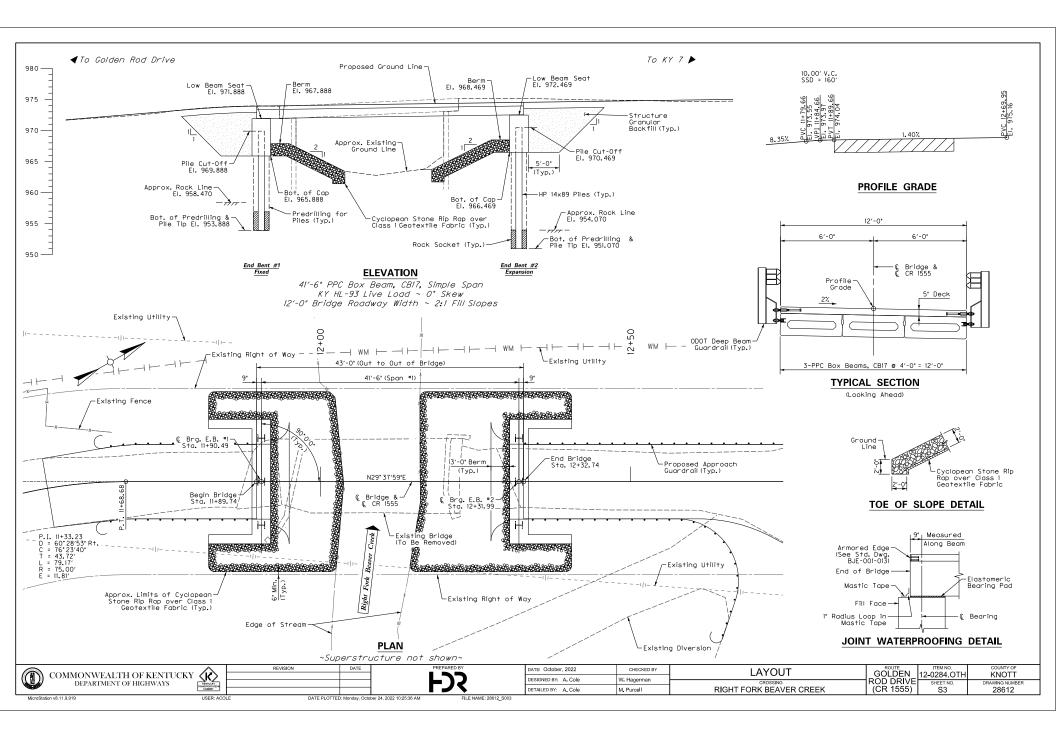
4. If the contract documents include the Special Note for Concrete Coating, do not apply concrete sealer to the areas where Concrete Coating is specified

The following abbreviations may have been used in the preparation of these

\wedge	REVISION	DATE
<k></k>		
KENTUCKY		
CASMET		
USER: ACO	LE DATE PLOTTED	: Monday, Octob

PF	REPARED BY	
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•	_	

DATE: October, 2022	CHECKED BY	OFNEDAL MOTEO	ROUTE	ITEM NO.	COUNTY OF
	01.001.000	GENERAL NOTES	GOLDEN	12-0284.OTH	KNOTT
DESIGNED BY: M. Purcell	A. Cole		ROD DRIVE		
		CROSSING			DRAWING NUMBER
DETAILED BY: M. Purcell	A. Cole	RIGHT FORK BEAVER CREEK	(CR 1555)	S2	28612



	PILE RECORD						
Plle No.	Pile Cut–off Elevation	Pile Length In Place	Bottom of Pile Elevation	Design Axial Load			
	FEET	FEET	FEET	TONS			
		END BEN	T #1				
1	969.888			65.46			
2	969.888			65.46			
3	969.888			65.46			
		END BEN	T #2				
4	970.469			65.46			
5	970.469			65.46			
6	970.469			65.46			

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.

 ${\tt BOTTOM}$ OF PILE ELEVATION: Actual elevation of the bottom of the pile in the finished structure.

<code>DESIGN AXIAL LOAD: Load carried by each pile as estimated from structural design calculations for Factored LRFD Loadings.</code>

Field Data

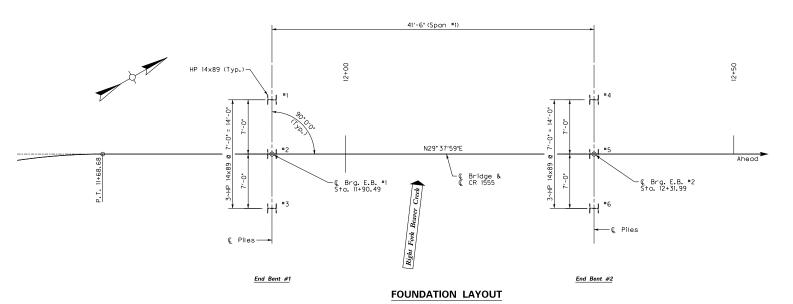
For each pile, the Engineer of Record shall record the following on this sheet: Pile Length in Place and Bottom of Pile Elevations.

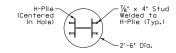
Submit this record to:

Kentucky Transportation Cabinet Director, Division of Structural Design 3rd Floor East 200 Mero Street Frankfort, KY 40622

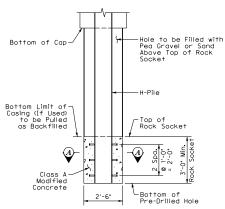
This pile record does not replace other pile records the Project Engineer is required to keep and submit.

Use HP 14x89 in accordance with BPS-011-04.





SECTION A-A



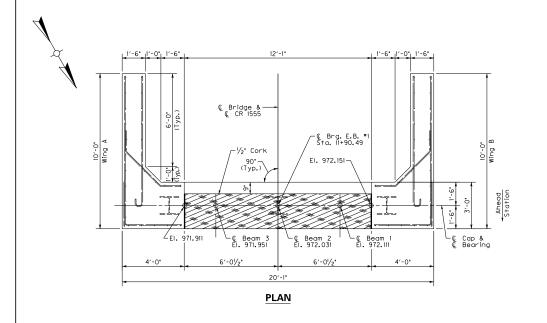
ROCK SOCKET FOR PILE INSTALLATION

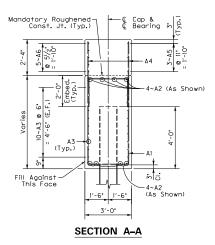
NOTES:

The entire rock socket shall be located in sound

Shear studs to be long-granular or solid-flux filled headed studs. $\ensuremath{\,}^{\circ}$

Δ	REVISION	DATE	PREPARED BY	DATE: October, 2022	CHECKED BY	FOUNDATION LAYOUT	GOLDEN 12	ITEM NO.	COUNTY OF
COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS				DESIGNED BY: M. Purcell	A. Cole	CROSSING	GOLDEN 12-0284 OTH ROD DRIVE SHEET NO.	KNOTT DRAWING NUMBER	
DEFARTMENT OF HIGHWAYS			「フ く	DETAILED BY: A. Cole	M. Purcell	RIGHT FORK BEAVER CREEK	(CR 1555)	S4	28612
MicroStation v8.11.9.919 USER: ACI	DATE PLOTTE	D: Monday, October 24, 2022 10:25:38	AM FILE NAME: 28612 S004	•	•				





NOTES:

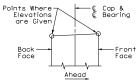
Dowel box beams in accordance with Std. Dwg. $\ensuremath{\mathsf{BDP}}\xspace-002\text{-}003$

For pile location, See FOUNDATION LAYOUT sheet.

Beam seat elevations are given on top of concrete.

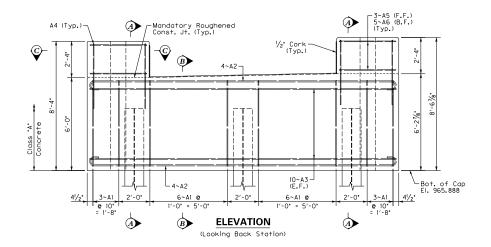
Concrete cover at the top face of the cap is intended to vary under sloped beam seats, but shall be no less than 2'.

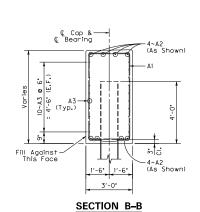
Pour the wings after the beams are tensioned and the deck has been placed. (For a tight sandwich fit of cork between beams & wings.)



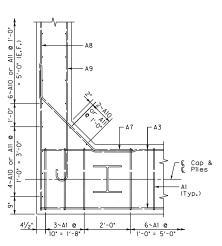
BEARING SLOPE DETAIL

DEAM CE	AT ELEVI	TIONE			
BEAM SEAT ELEVATIONS					
LOCATION	TOP OF	TOP OF CONCRETE			
LUCATION	BACK FACE	FRONT FACE			
Left Fascia	972.128	972.172			
Beam #1	972.088	972.132			
Beam #2	972.008	972.052			
Beam #3	971.928	971.972			
Right Fascia	971,888	971.932			





A. Cole
M. Purcell



DETAIL BELOW SEAT

(Wing A Shown, Wing B Opposite Hand)

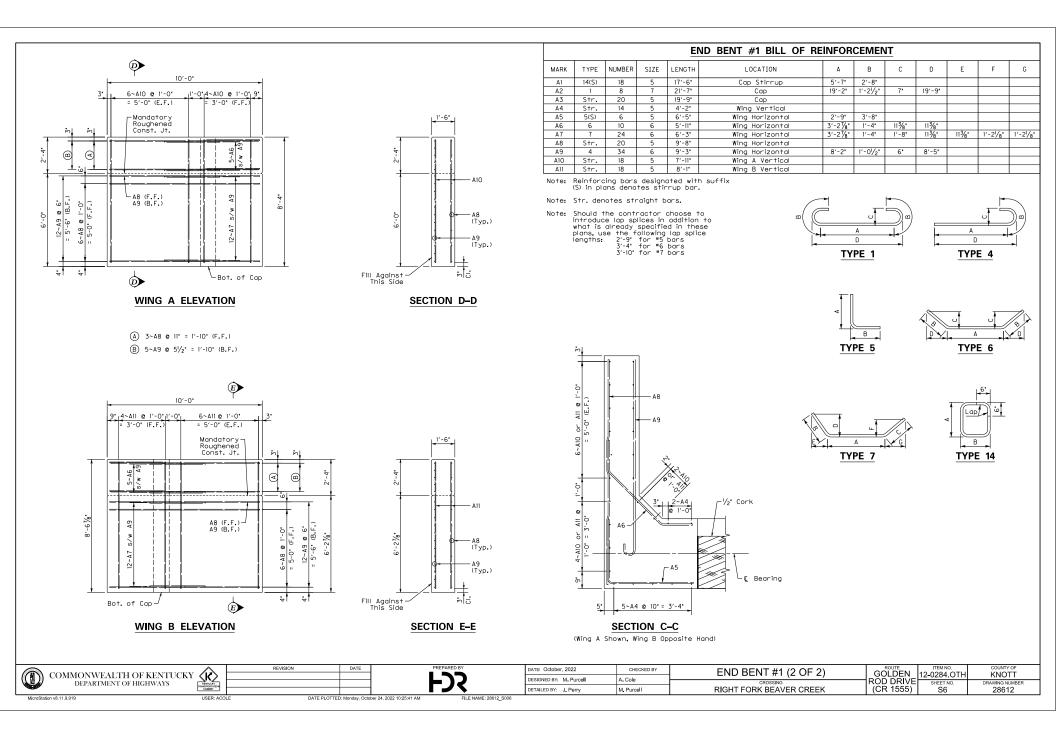
	COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	(
MicroStat	ion v8.11.9.919	

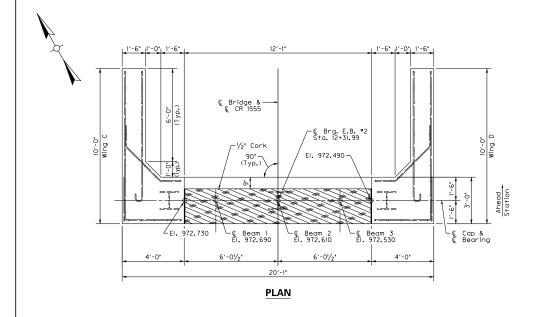
Y K	REVISION	DATE	
			1
USER: ACO	.E DATE PLOTTED	D: Monday, Octo	ber 24, 2022 10:25:40 AM

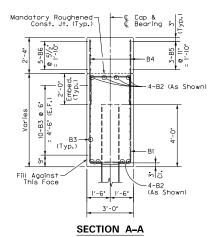
DATE: October, 2022		
DESIGNED BY: M. Purcell		
DETAILED BY: J. Perry		

END BENT #1 (1 OF 2)	GOLDEN
CROSSING RIGHT FORK BEAVER CREEK	ROD DRIV (CR 1555

GOLDEN	12-0284 OTH	KNOTT
ROD DRIVE (CR 1555)	SHEET NO. S5	DRAWING NUMBER 28612







NOTES:

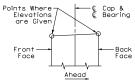
Dowel box beams in accordance with Std. Dwg. $\ensuremath{\mathsf{BDP}}\xspace-002\text{-}003$

For pile location, See FOUNDATION LAYOUT sheet.

Beam seat elevations are given on top of concrete.

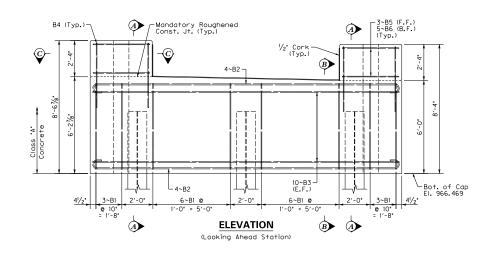
Concrete cover at the top face of the cap is intended to vary under sloped beam seats, but shall be no less than 2'.

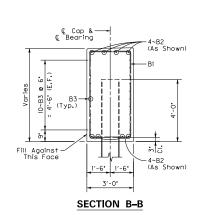
Pour the wings after the beams are tensioned and the deck has been placed. (For a tight sandwich fit of cork between beams & wings.)

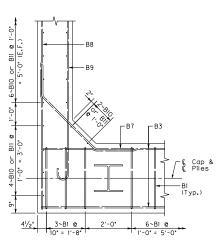


BEARING SLOPE DETAIL

BEAM SE	AT ELEV	TIONS
LOCATION	TOP OF (CONCRETE
LUCATION	FRONT FACE	BACK FACE
Left Fascia	972.709	972.751
Beam #1	972.669	972.711
Beam #2	972.589	972.631
Beam #3	972.509	972.551
Right Fascia	972.469	972.511







DETAIL BELOW SEAT

(Wing C Shown, Wing D Opposite Hand)

	COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	\
MicroStat	ion v8.11.9.919	

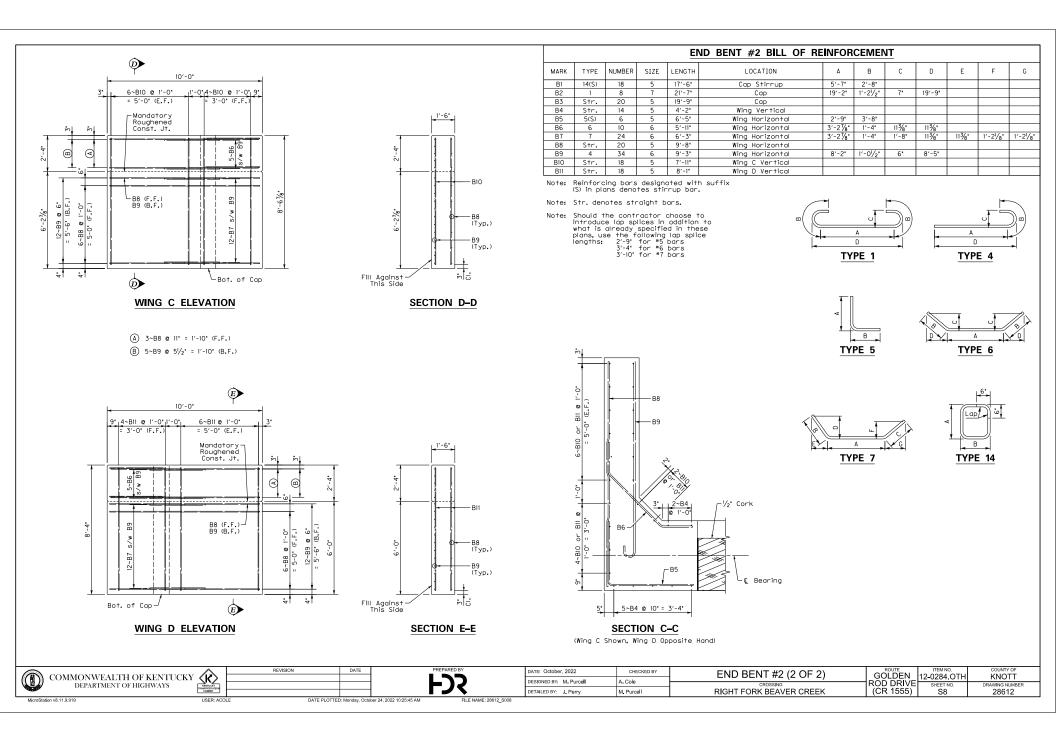
	^	REVISION	DATE	
Y	< K >			
KENTUCKY				
	CAGNET			
	HEED, ACO	E DATE DI OTTER	Manday Ostol	har '

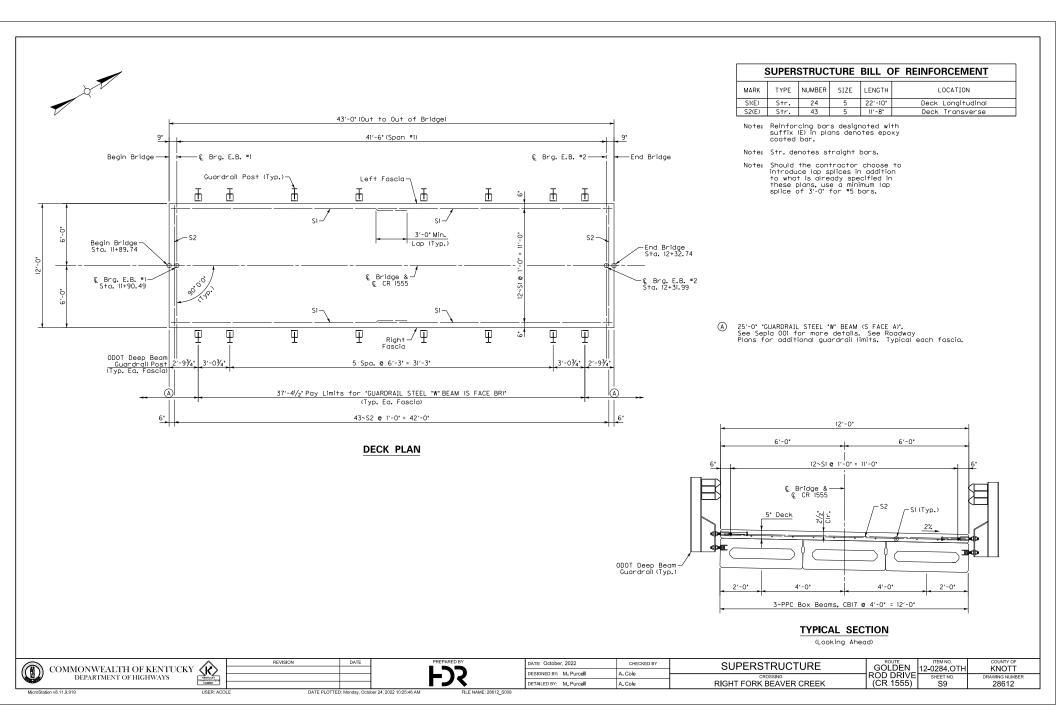
DATE: October, 2022	CHECKED BY
DESIGNED BY: M. Purcell	A. Cole
DETAILED BY: J. Perry	M. Purcell

FJS

END BENT #2 (1 OF 2)		12 - 028
CROSSING	ROD DRIVE	SHE
RIGHT FORK BEAVER CREEK	(CR 1555)	5

	12-0284 OTH	KNOTT
ROD DRIVE (CR 1555)	SHEET NO. S7	DRAWING NUMBER 28612





Location	Left	€ Beam #1			မှ Beam #2			Ç Beam #3			Right
Location	Fascla	Construction Elevation	Top Of Beam	Dimension "X"	Construction Elevation	Top Of Beam	Dimension "X"	Construction Elevation	Top Of Beam	Dimension "X"	Fascla
SKEW LINE AA	974.161	974,121			974.041			973.961			973.921
SKEW LINE BB	974.171	974.131			974.051			973.971			973.931
SKEW LINE CC	974.751	974.711			974.631			974.551			974.511
SKEW LINE DD	974.761	974.721			974.641			974.561			974.521
GRID LINE 1	974.247	974.207			974.127			974.047			974.007
GRID LINE 2	974.370	974.330			974.250			974.170			974.130
GRID LINE 3	974.486	974.446			974.366			974.286			974.246
GRID LINE 4	974.593	974.553			974.473			974.393			974.353
GRID LINE 5	974.693	974.653			974.573			974.493			974.453

NOTES FOR ELEVATIONS TAKEN ON PRESTRESSED CONCRETE BEAMS

Take elevations on top of beam at points indicated by the grid layout. The beam elevations are to be read to three decimals, 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 deck, barrier, and future wearing surface. 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.

The minimum 'X' dimension is that which provides the minimum deck thickness shown in the plans at the controlling edge of the top flange (accounting for the cross-slope of the deck).

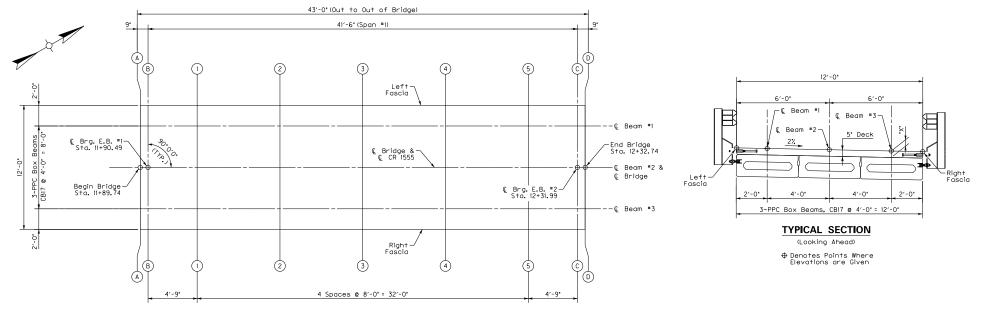
Construct barrier to roadway grade. Do not add camber to the barrier.

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 beams when pouring the concrete floor slab or when taking 'Top of Beam' elevations.

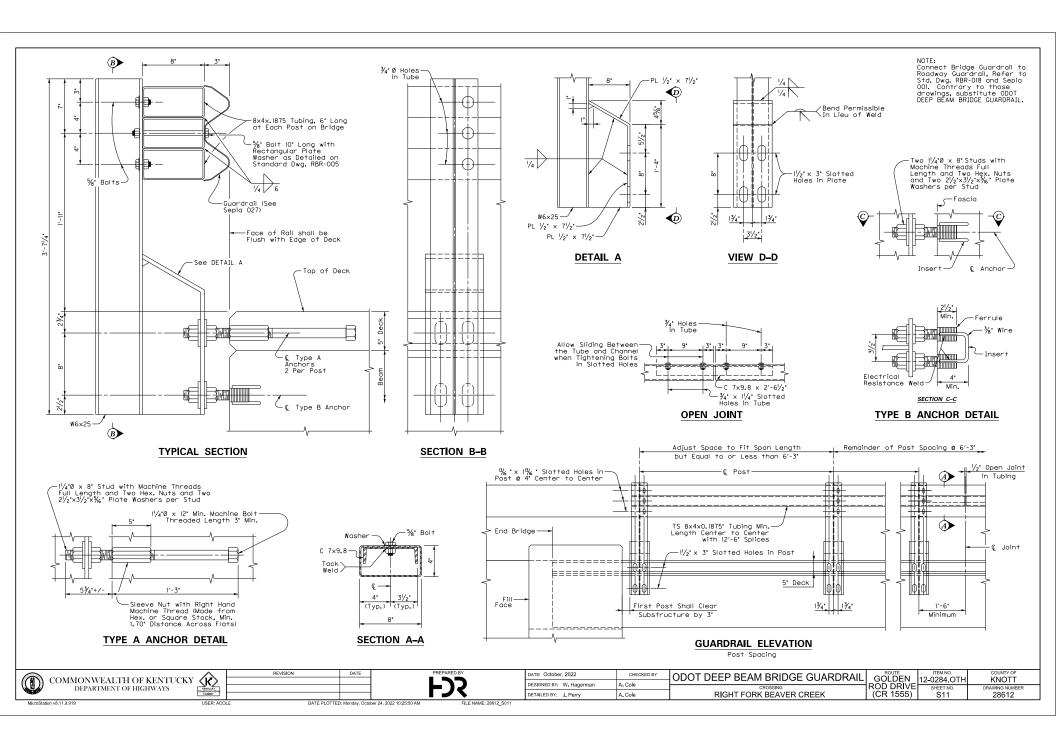
The parabolic crown, if required, has been accounted for in the construction elevations.

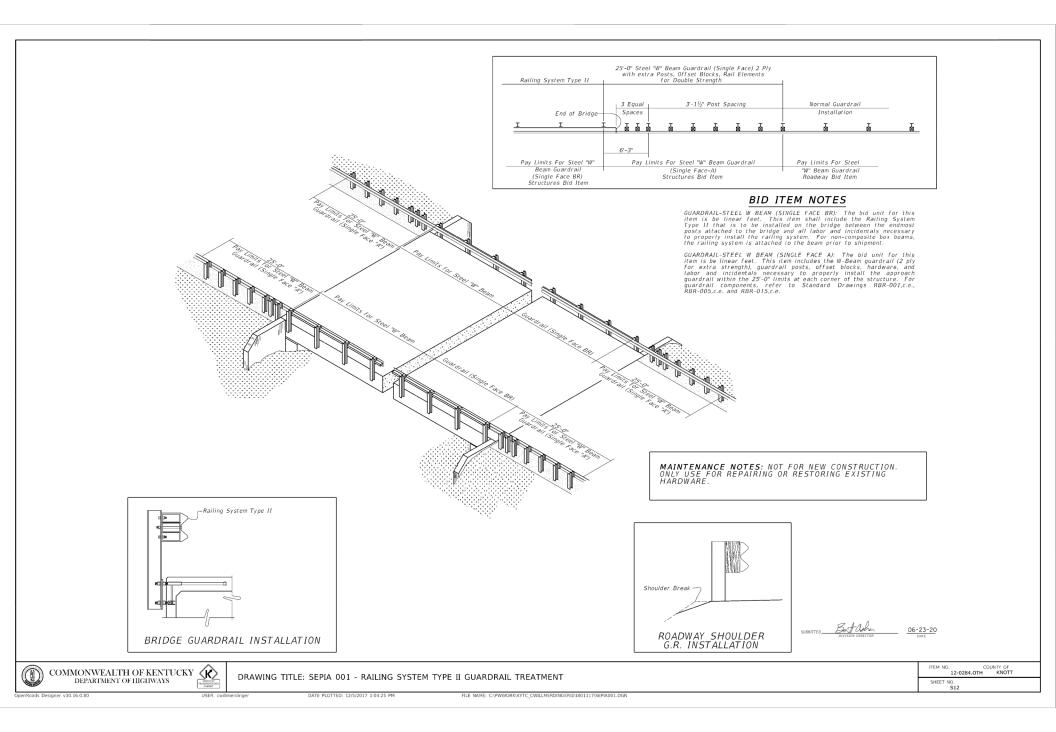
The construction elevation at a given point is the elevation to pour the deck to. This elevation is the sum of two numbers: I) the desired final grade elevation and 2) the anticipated deflection occurring during the deck pour and/or ofter the deck pour.



GRID LAYOUT

COMMONWEALTH OF KENTUCKY (1)	REVISION	DATE	PREPARED BY	DATE: October, 2022	CHECKED BY	CONSTRUCTION ELEVATIONS	GOLDEN	12-0284.OTH	COUNTY OF KNOTT
COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS			FJ3	DESIGNED BY: M. Purcell	A. Cole	CROSSING	ROD DRIVE	SHEET NO.	DRAWING NUMBER
THAMPPORTATION CAMBRET			1 2 \	DETAILED BY: A. Cole	M. Purcell	RIGHT FORK BEAVER CREEK	(CR 1555)	S10	28612
MicroStation v8.11.9.919 USER: ACC	DLE DATE PLOTTE	D: Monday, Octo	ber 24, 2022 10:25:48 AM FILE NAME: 28612 S010						





Drilling Firm: Kentucky Transportation Cabinet For: Division of Structural Design Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Printed: 9/6/22

Page 1 of 1

Project ID: 060C009 Item Number: Hole Number 1 Surface Elevation								Project Type: <u>Structure Bridge</u> Project Manager: _			
			Immediate Water Depth	<u>NA</u>	1	Date <u>09/02/2</u> 0			Hole Type <u>sounding</u> Rig_Number <u></u>		
Total Depth	19.0'		Driller <u>Cody Davidson</u>		Latitud	de(83) <u>37.30</u>	0483				
Location	+ 'Lt.				Longit	tude(83) <u>-82.</u>	775623				
Litholo	рду	Descriptio	on.	Overburden	Sample No.	Depth (ft)	Rec. (ft)	SF Blo	PT ws	Sample Type	Remarks
Elevation	Depth	Боотрио		Rock Core	Std/Ky RQD	Run (ft)	Rec (ft)	Re (%	ec b)	SDI (JS)	
-	_0.4_/		Blacktop.	/							-
- 5_ -											
- - 10 -		Medium st	iff, brown, moist, sandy clay fragments.	with rock							10 -
- - 15	15.5			(Refusal)							- 1 <u>5</u>
-		Har	rd, brown and gray, sandstor	ne.							-
20	19.0										20
-											-
- <u>25</u>			(Bottom of Hole 19.0') (Refusal @ 15.5)								2 <u>5</u>
<u>30</u> - -											<u>30</u> -
- 3 <u>5</u> -											- 3 <u>5</u> -
-											-
<u>40</u> - -											<u>40</u>
- 45 -											4 <u>5</u>
- - 50											- - 50
				END BEN	NT #	1					

Drilling Firm: Kentucky Transportation Cabinet For: Division of Structural Design Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Printed: 9/6/22 Page 1 of 1

Project ID: <u>0</u> Item Number		<u>Knott - Golde</u> <u>Right Fo</u>	nrod Drive (ork Beaver C		<u>55)</u>	Project Type: <u>Structure Bridge</u> Project Manager: _				
Hole Number _2 Surface Elevatio Total Depth _24. Location _ + 'Lt.	o <u>'</u>	Static Water Depth <u>NA</u> Driller <u>Cody Davidson</u>		Start Date <u>09/02/2022</u> End Date <u>09/02/2022</u> Latitude(83) <u>37.300483</u> Longitude(83) <u>-82.7756</u> ;		0 <u>22</u> 0483	Rig_Number			
Lithology	Descriptic	on.	Overburden	Sample No.	Depth (ft)	Rec. (ft)	SPT Blows	Sample Type	Remarks	
Elevation Dept		Blacktop.	Rock Core	Std/Ky RQD	Run (ft)	Rec (ft)	Rec (%)	SDI (JS)		
- - - -										
i <u>o</u>	Medium s	tiff, brown, moist, sandy clay fragments.	with rock							
15 -										
20 21	.2		(Refusal)							
24	.0 Ha	rd, brown and gray, sandsto	ne.						:	
25		(Bottom of Hole 24.0') (Refusal @ 21.2)							:	
35 -										
- 4 <u>0</u> -										
45 - -										
50			END BEN	IT #	<u> </u>					

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	19,400 C

\wedge	REVISION	DATE	
< (<)			
KENTUCKY TRANSPORTATION			
CAGINET			
USER: ACO	LE DATE PLOTTED	: Monday, Octo	ber 24, 2022 10:25:51 AM

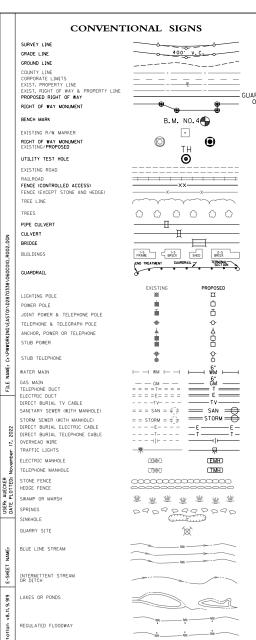


DATE: October, 2022	CHECKED BY		ROUTE	ITEM NO.	COUNTY OF
	01120112001	SUBSURFACE DATA	I GOLDEN	12-0284.OTH	KNOTT
DESIGNED BY:			DOD DON'E		10011
DEGICITED D1.		CROSSING	ROD DRIVE	SHEET NO.	DRAWING NUMBER
DETAILED BY M. Purcell	A. Cole	RIGHT FORK BEAVER CREEK	(CR 1555)	S13	28612
			(1

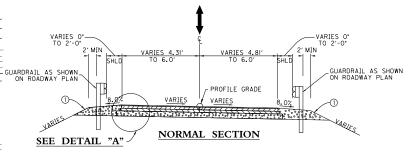
MicroStation v8.11.9.919

FILE NAME: 28612_S013

	STANDARD DRAWINGS RBI-001-12 TYPICAL GUARDRAIL INSTALLATIONS RBR-001-13 STEEL BEAM GUARDRAIL "M" BEAM RBR-005-11 GUARDRAIL COMPONENTS RBR-010-06 GUARDRAIL TERMINAL SECTIONS RBR-015-06 STEEL GUARDRAIL POSTS	TRANSPORTATION CABINET	INDE	COUNTY OF KNOTT 1	2-0285.OTH	SHEET NO.
	RBR-016-05 TJMBER QUARDRAIL POSTS RBR-018 QUARDRAIL SYSTEM TRANSITION RBR-055-01 DELINEATORS FOR GUARDRAIL RDI-040-01 EROSJON CONTROL BLANKET SLOPE INSTALLATION RDX-200-03 TEMPORARY SLIT FENCE	DEPARTMENT OF HIGHWAYS		ON, GENERAL SU RDINATE CONTRO FILE SHEET	IMMARY,	
	ROX-220-05 SILT TRAP TYPE A	KNOTT COUNTY PRATT DRIVE (CR 1111) OVER	SI TITLE SHEET S2 GENERAL NOTE S3 LAYOUT S4 FOUNDATION L S5-S6 ABUTMENT *1	S		
	TTC-150-04 ROAD CLOSURE WITH DIVERSION	LEFT FORK TROUBLESOME CREEK STA. 11+07.62	S7-S8 ABUTMENT *2 S9 SUPERSTRUCTU S10 CONSTRUCTION	ELEVATIONS AM BRIDGE GUAR LING SYSTEM TY		REATMENT
	ACTIVE SEPIAS	BEGIN CONSTRUCTION	SPI EROSION CONTROL BRIDGE OVERLAY APPROAC	ECIAL NO	TES	
FILE NAME: *DGNSPEC*		BEGIN CONSTRUCTION STA. 11+07.62 CONSTRUCT SINGLE - SPAN (32-6") PPC BOX BEAM (32). BRIDGE @ 10° SKEW LT.	SPECI	AL PROVI	SIONS	
\$ \$TIME\$		LOCATION MAP	SPI 2019, STANDARD SPECI	ECIFICATIONS FOR		IDGE
s :D: \$DATE\$		SCALE: I"=NTS				
USER: \$USER: DATE PLOTTE	DESIGN CRITERIA CLASS OF HIGHWAY RURAL LOCAL ROAD TYPE OF TERRAIN DESIGN SPEED N/A ROULIED NPSD	The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system	Commonu	evision realth of	Kentu	DATE CRY
E-SHEET NAME:	REQUIRED NPSD REQUIRED PSD LEVEL OF SERVICE ADT PRESENT () N/A ADT FUTURE () DHV D X	for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and on more than the (10) business days prior to exexation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 on Ince-call Before-Upig (BUD) service. The contractor must coordinate exexuation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contract the County Court Clerk to determine what utility companies have facilities in the area.	DEPARTMI C ITEM NO. 12-0285.0TH DRAWING NO.	KNOTT	OF	AYS
11on v8.11,9,919	GEOGRAPHIC COORDINATES LATITUDE 37 DEGREES 20 MINUTES 48 SECONDS NORTH LONGITUDE 82 DEGREES 57 MINUTES 7 SECONDS WEST DESIGNED	REV. NO. SHEETS REVISED DATE	PROJECT — NUMBER:			
MicroSta	% RESTRICTED SO LEVEL OF SERVICE MAX. DISTANCE W/O PASSING	EXISTING BRIDGE ID # 060C010 This engineering, inc. 251/3 is barton way Lexiston, kY 40509 859-629-4800 ROADWAY P.E. STAMP	PLAN APPROVED BY:ST	PROJECT MANAGER ATE HIGHWAY ENGINEER	DATE:	



NORTH POINT



TRAFFIC LANE PAVEMENT

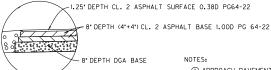
ASPHALT SURFACE 1.25 DEPTH CL. 2 ASPHALT SURFACE 0.38D PG64-22

ASPHALT BASE 8 DEPTH (4*+4*) CL. 2 ASPHALT BASE 1.00D PG 64-22

DGA BASE 8 DEPTH (4*+4*)

SHOULDERS

DGA BASE AND/OR
GRANULAR EMBANKMENT FULL DEPTH



SEE BRIDGE LAYOUT SHEET FOR BRIDGE TYPICAL SECTION

DETAIL "A"

BRIDGE SECTION

① APPROACH PAVEMENT WILL BE PLACED IN ACCORDANCE WITH THE SPECIAL NOTE FOR PLACING BRIDGE OVERLAY APPROACH PAVEMENT. DGA OR OTHER GRANULAR MATERIAL APPROVED BY THE ENGINEER NEEDED FOR SHOULDERS OUTSIDE OF PAVED AREAS WILL BE MEASURED AS GRANULAR EMBANKMENT. FULL DEPTH PAVEMENT ONLY REOUIRED FOR EXCAVATED AREAS FOR CONSTRUCTION, RE-ALIGNED ROADWAYS. AND WIDENED ROADWAYS. REMAINDER OF PAVEMENT AREAS SHALL BE OVERLAYED

ITEM	DESCRIPTION	UNIT	TOTAL
01987	DELINEATOR FOR GUARDRAIL B/W	EACH	4
02223	GRANULAR EMBANKMENT	CUYD	337
02273	FENCE-4 FT CHAIN LINK	LF	75
02360	GUARDRAIL TERMINAL SECTION NO I	EACH	4
02569	DEMOBILIZATION	LS	1
02585	EDGE KEY	LF	21
02650	MAINTAIN AND CONTROL TRAFFIC (B)	LS	- 1
02651	DIVERSION (A)	LS	1
02726	STAKING	LS	1
02731	REMOVE STRUCTURE	LS	- 1
03304	BRIDGE OVERLAY APPROACH PAVEMENT	SOYD	117
21415ND	EROSION CONTROL ©	LS	1

NOTES

- (A) THIS ITEM COVERS ALL WORK AND MATERIALS ASSOCIATED WITH REMOVAL OF EXISTING DIVERSION. DELIVER DIVERSION PIPE TO KYTC'S MAINTENANCE LOT LOCATED AT 5078 KY RT. 1428, ALLEN, KY 41601
- (B) ALL TEMPORARY TRAFFIC CONTROL DEVICES CONSIDERED INCIDENTAL TO THIS BID ITEM.
- © SEE SPECIAL NOTE. INCLUDES ALL CLEARING, TEMPORARY EROSION CONTROL BMPS AND PERMANENT SEEDING

PRATT DRIVE (CR 1111) KNOTT COUNTY EXISTING BRIDGE ID #060C010

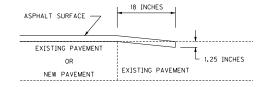
PROJECT COORDINATES
COORDINATES FOR HORIZONTAL CONTROL WERE OBTAINED BY GPS OBSERVATIONS
ON SEPTEMBER 29, 2022 AND WERE ADJUSTED TO NGS OPUS SOLUTION BASED ON THE
NADBS KENTUCKS YSTATE PLANE COORDINATE SYSTEM, KY SINGLE ZONE, US SURYEY
FEET, COORDINATES SHOWN ARE STATE PLANE COORDINATES, US SURVEY FEET.
NO PROJECT DATUM FACTOR WAS CALCULATED OR USED FOR THIS PROJECT.

BASIS OF ELEVATIONS
ELEVATIONS WERE ESTABLISHED BY GPS OBSERVATIONS ON SEPTEMBER 29, 2022 ON
THE NAVDS8 VERTICAL DATUM GEOID 18 UTILIZING NGS OPUS SOLUTION AND WERE
ADJUSTED BY CLOSED DIFFERENTIAL LEVEL LOOP BASED ON THE ELEVATION
OF CP #1 = 1655667.

COORDINATE CONTROL POINTS POINT DESCRIPTION STATE PLANE SINGLE ZONE COORDINATES NORTH (Y) EAST (X) ELEV. (Z) STATION OFFSET CP 1 PK NdII & Washer 3662151.080 5734500.414 1055.667 9 *76.77 14.03* RT. CP 2 PK NAIL & WASHER 3662206.549 5734320.002 1051.963 N/A N/A

CLITI	DA	TA	
POINT	STATION	STATE PLANE COORDI	SINGLE ZONE NATES
POINT	STATION	NORTH (Y)	EAST (X)
P.O.T.	9+60.00	3662167.0400	5734515.3588
P.I.	10+29.50	3662097.6474	5734511.4897
P.C.	11+25.86	3662001.2855	5734510.7786
P. I.	11+51.48	3661975.6748	5734510.5897
P. T.	11+72.43	3661962.7589	5734488.4736
P.1.	11+94.42	3661951.6717	573469.4889
P.O.T.	12+25.60	3661937.7893	5734441.5640

CENTERLINE COORDINATE

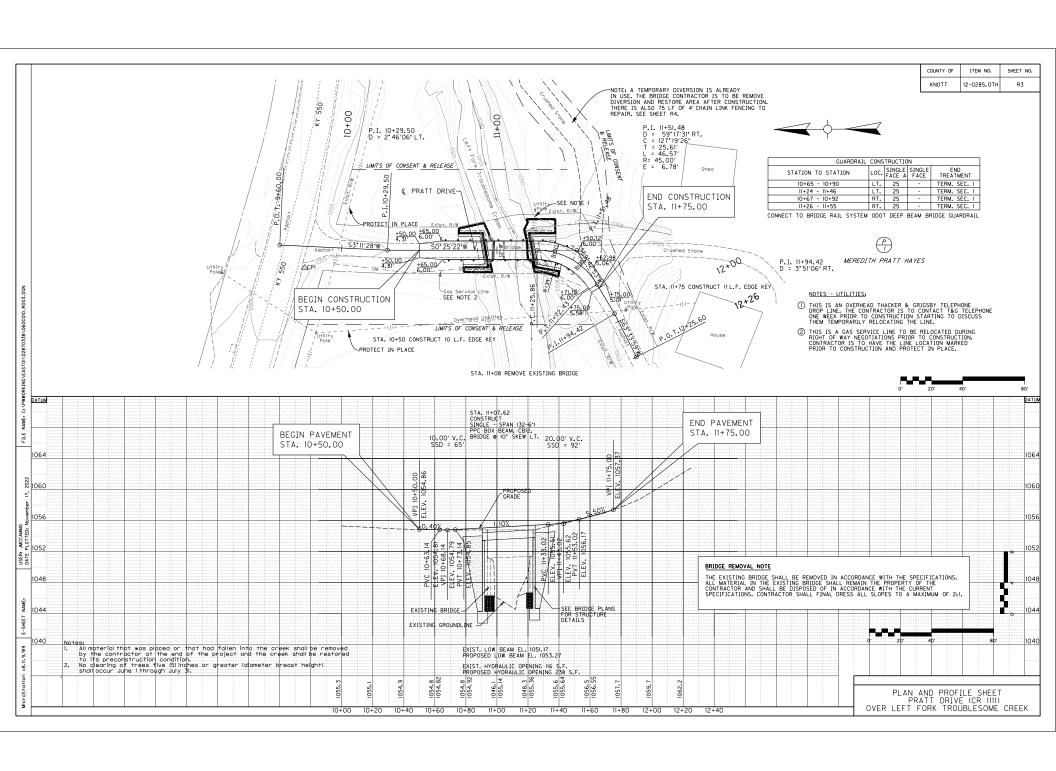


EDGE KEY DETAIL

WORK UNDER THIS ITEM SHALL INCLUDE CUTTING OUT THE EXISTING BITUMINOUS SUFFACE TO A MINIMUM DEPTH AND WIDTH AS SHOWN, SO THE NEW SURFACE MAY HEEL INTO THE EXISTING SURFACE.

TYPICAL SECTION, GENERAL SUMMARY, LEGEND AND COORD. CONTROL SHEET LEFT FORK TROUBLESOME CREEK

SCALE: I"=NTS



PHASE 1:

4.

MAINTENANCE OF TRAFFIC NOTES:

CONTRACTOR SHALL INVENTORY, REMOVE AND REPLACE EXISTING SIGNS, WITH NEW SIGNS IMPACTED BY THE PROPOSED CONSTRUCTION, OFFICE SIGNS CONFLICTING WITH THE PROPOSED IMPROVEMENTS SHALL BE REMOVED AND REPLACED AT THE DIRECTION OF KYTC.

CLOSURE SIGNS, DETOUR SIGNS AND BI-DIRECTIONAL LANE CLOSURE SIGNS SHOULD BE PLACED NO SOONER THAN TWO WEEKS PRIOR TO THE CLOSURG OF THE BRIDGE (WHEN APPLICABLE) OR PLACING LANE CLOSURES.

2. CONTRACTOR SHALL COORDINATE WITH LOCAL RESIDENTS AND OFFICIALS PRIOR TO CONSTRUCTION AND ANY TEMPORARY CLOSURES. INGRESS AND EGRESS SHALL BE MAINTAINED TO ALL DWELLINGS AFFECTED BY THE PROJECT.

TEMPORARY SIGNALS SHALL NOT BE REQUIRED FOR THE ONE-WAY ONE-LANE TEMPORARY DIVERSION.

REVIEW, AND IF NEEDED, INSTALL AND MAINTAIN TEMPORARY TRAFFIC CONTROL SIGNS AND DEVICES PER KYTC STANDARD DRAWING TTC-150-04 ALONG CR 1111

TEMPORARY CLOSURES AND FLAGGERS SHALL BE UTILIZED AS NECESSARY.

- REVIEW, AND IF NEEDED, INSTALL AND MAINTAIN TEMPORARY TRAFFIC CONTROL SIGNS AND DEVICES PER KYTC STANDARD DRAWING TTC-135-03 ALONG KY 550
- MAINTAIN TRAFFIC ALONG THE IN-PLACE TEMPORARY DIVERSION. PRATT DRIVE BRIDGE IS ALREADY CLOSED.
- REVIEW THE IN-PLACE TEMPORARY DIVERSION AND MAKE ANY NECESSARY ADJUSTMENTS FOR THE CONSTRUCTION ZONE.

PHASE 2:

- INSTALL ALL REMAINING APPLICABLE SIGNS, IF NEEDED, AND DEVICES PER KYTC STANDARD DRAWING TTC-150-04.
- MAINTAIN THE TEMPORARY DIVERSION THROUGHOUT CONSTRUCTION
- 3. REMOVE THE EXISTING CR IIII BRIDGE

MAINTENANCE OF TRAFFIC PHASING:

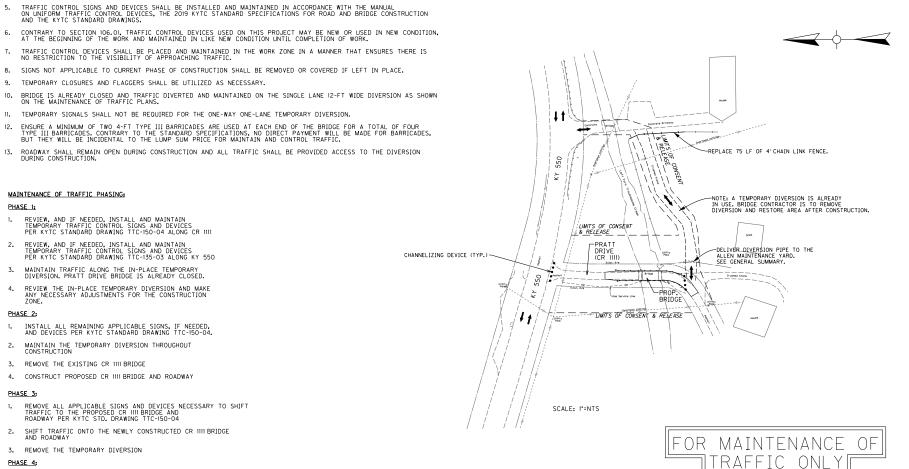
4. CONSTRUCT PROPOSED CR 1111 BRIDGE AND ROADWAY

PHASE 3:

- REMOVE ALL APPLICABLE SIGNS AND DEVICES NECESSARY TO SHIFT TRAFFIC TO THE PROPOSED OR HIMBRIDGE AND ROADWAY PER KYTC STD. DRAWING TTC-150-0-04
- 2. SHIFT TRAFFIC ONTO THE NEWLY CONSTRUCTED CR IIII BRIDGE AND ROADWAY
- 3. REMOVE THE TEMPORARY DIVERSION

PHASE 4:

- INSTALL PERMANENT SIGNS ALONG NEW ROADWAY AND REQUIRED PAVEMENT MARKINGS
- 2. REMOVE ALL TEMPORARY MAINTENANCE OF TRAFFIC DEVICES AND SIGNS



MOT PLAN SHEET PRATT DRIVE (CR 1111) OVER LEFT FORK TROUBLESOME CREEK

TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

KNOTT COUNTY PRATT DRIVE (CR 1111) OVER LEFT FORK TROUBLESOME CREEK STA. 11 + 07.62

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	08100	08104	08150	08151	08003	08002	08019	08661	02231	03299	08801	02355	23378EC								
BID ITEM	Concrete Class "A"	Concrete Class "AA"	Steel ReInforcement	Steel Reinforcement, Epoxy Coated	Foundation Preparation	Structure Excavation - Solid Rock	Cyclopean Stone Rlp Rap	Precast Box Beam CB12-48	Structure Granular Backfill	Armored Edge for Concrete	Guardrall Steel "W" BEAM (S Face BR)	Guardrail Steel "W" BEAM (S Face A)	Concrete Sea i ng								
UNIT	C.Y.	C.Y.	LBS.	LBS.	L.S.	C.Y.	Tons	LF.	C.Y.	L.F.	L.F.	L.F.	S.F.								
Abutment #1	45.9		4943			28	33		52				633								
a Abutment #2	47.8		5256			28	38		57				654								
à																					
9																					
ts at																					
9																					
σ .																					
Superstructure		8.2		833	- 1			102.0		24.4	58	100	584								
BRIDGE TOTALS	93.7	8.2	10199	833	- 1	56	71	102.0	109	24.4	58	100	1871								

S1	Title Sheet
S2	General Notes
S3	Layout
S4	Foundation Layout
S5-S6	Abutment #1
S7-S8	Abutment *2
S9	Superstructure
S10	Construction Elevations
SII	ODOT Deep Beam Bridge Guardrail
S12	Sepia 001 - Railing System Type II Guardrail Treatment
S13	Subsurface Data
	CDECIAL NOTES
	SPECIAL NOTES
pecial	Note for Concrete Sealing
	SPECIAL PROVISIONS
K	YTC STANDARD DRAWINGS
BDP-001-0	6 Box Beam General Notes and References
BDP-002-0	
BDP-003-0	
BDP-004-0	
3DP-006-0	4 Box Ream Tension Rod Details
3GX-006-1	5 Box Beam B12 & CB12 Details
	5 Box Beam B12 & CB12 Details 0 Stencils for Structure
BGX-022-0	15 Box Beam B12 & CB12 Details 0 Stencils for Structure 12 Joint Materproofing
BGX-022-0	15 Box Beam B12 & CB12 Details 0 Stencils for Structure 12 Joint Materproofing
BGX-006-1 BGX-022-0 BJE-001-1	15 Box Beam B12 & CB12 Details 0 Stencils for Structure 12 Joint Materproofing
BGX-022-0	15 Box Beam B12 & CB12 Details 0 Stencils for Structure 12 Joint Materproofing
3GX-022-0	15 Box Beam B12 & CB12 Details 0 Stencils for Structure 12 Joint ■aterproofing

INDEX OF SHEETS

Description

Sheet No.

SPECIFICATIONS

2019 KYTC Standard Spec's, for Road and Bridge Construction (w/ current supplemental specifications:

2020 AASHTO LRFD Bridge Design

PLANS PREPARED BY HDR ENGINEERING, INC.

MACY LUKAS PURCELL, PE



FDS

DATE: November, 2022 CHECKED BY DESIGNED BY: A. Cole M. Purcell

TITLE SHEET LEFT FORK TROUBLESOME CREEK

DRIVE (CR 1111) 12-0285.OTH KNOTT

GENERAL NOTES

SPECIFICATIONS: References to the specifications are to the 2019 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 2020 AASHTO LRFD Bridge Design Specifications, 9th edition.

DESIGN LIVE LOAD: This bridge is designed for KY HL-93 live load. The KY HL-93 live load is arrived at by increasing the standard HL-93 trucks and lane loads as specified in the AASHTO specifications by 25%.

FUTURE WEARING SURFACE: This bridge is designed for a future wearing surface of 15 psf with a 1.50 load factor at the Strength I limit state.

DESIGN METHOD: All structural members are designed to have a capacity equivalent or greater than the load and resistance factor design method, as specified in the referenced ASHTO Specifications.

MATERIALS DESIGN SPECIFICATIONS: For Class "A" Reinforced Concrete For Class "AA" Reinforced Concrete f'c = 3.500 psi f'c = 4.000 psi For Steel Reinforcement Fy = 60.000 psi

PREFORMED CORK EXPANSION JOINT MATERIAL: Cork 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. Class "A" concrete is to be used in the substructure. Prestressed beam concrete shall be in accordance with the plans and specifications.

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to MELINFUNCEMENT: 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 BIII of Reinforcement shall be considered a stirrup for purposes of bend diameters. Clear cover shall be 2" unless noted otherwise.

CONSTRUCTION IDENTIFICATION: The names of the Prime Contractor and the Sub-Contractor shall be imprinted in the concrete with 1 inch letters at a location designated by the engineer. The contractor shall furnish all plans. equipment and labor necessary to do the work.

BEVELED EDGES: All exposed edges shall be beveled 34", unless otherwise shown.

COMPLETION OF THE STRUCTURE: The contractor is required to complete the structure in accordance with the plans and specifications.

SHOP DRAWINGS: Submit shop drawings that are required by the plans and specifications directly to the Engineer (wes.hagermanethdrin.com). If any changes in the design plans are proposed by a fabricator or supplier, submit those changes to the Consultant through the Contractor. Submit final, approved plans to KTIC Division of Structural Design.

When any changes in the design plans are proposed by the fabricator or supplier, the shop drawings reflecting these changes shall be submitted to the Engineer of Record.

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

SUPERSTRUCTURE DECK: The superstructure deck shall be poured continuously from end to end of deck before the concrete is allowed to set.

STRUCTURE GRANULAR BACKFILL: Materials for Structure Granular Backfill shall be in accordance with Section 805 of the Specifications. Geotextile Fabric. Class 2 is incidented to "STRUCTURE GRANULAR BACKFILL".

SCOUR PROTECTION: Scour Protection shall be dry cyclopean stone riprap in accordance with the plans and specifications. Geotextile Fabric. Class 1 shall be placed between the native material and the scour protection in accordance with Standard Specifications 214 and 843. Geotextile Fabric. Class 1 is incidental to "CYCLOPEAN SIONE RIP RAP".

MASTIC TAPE: Mastic Tape used to seal joints is to meet the requirements of ASTM C877 Type I. II. or III. The joint is to be covered with a minimum of 12" wide mastic tape. Prior to application, the joint surface shall be clean and free of dirt, debris, or dejeterious material. Primer, if required, shall be applied per the manufacturer's recommendations.

Mastic Tape shall be either:

EZ-Wrap Rubber by Press-seal Gasket 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 taping a minimum of 6° and in accordance with the manufacturer's recommendations with the overlap running The required excess loop shall be prevented from adhering to itself.

ARMORED EDGE: Fabricate armored edge to match cross slope and parabolic crown

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 be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department of Highways.

SPREAD FOOTING: Solid rock excavation will be required for installation of the substructure's spread footings. The contractor shall take care during blasting and other excavation methods to avoid over-breakage and aamage to the bedrock

Bearing elevation of footings may be adjusted at the discretion of the Engineer if competent, unweathered bedrock is found at a higher elevation than specified for the respective substructure element. At a minimum, 24 inches embedment into bedrock shall be maintained.

Prior to placement of any concrete or reinforcing steel in a foundation excavation, the excavation bottom shall be level and clean and all soft, wet, or lose materials shall be removed. In no case shall concrete be placed upon compressible or water-softened materials. Any clay seams or suspect weak materials at or near the bearing elevation will need to be undercut and replaced with mass concrete.

Concrete placement for footings shall be placed as soon as practical after completion of the footing excavation. If the bedrock becomes oftened at bearing elevation, the softened material shall be undercut to unweathered material prior to placement of reinforcing steel and concrete. Seasonal groundwater fluctuations may cause groundwater infiltration into the footing excavation, and a dewatering method may be necessary.

REMOVAL OF EXISTING STRUCTURE: Construction of this bridge requires removal of the existing structure. Include in the lump sum bid for "REMOVE STRUCTURE" all costs for material. lobor, and equipment associated with removing and disposing of these items (including any wearing surface) as detailed herein in accordance with Section 203 of the Specifications.

TEMPORARY SHORING: Temporary shoring, sheeting, and/or a dewatering method may be required for the construction. Include the cost of this work, including all labor and materials, in the lump sim bid for "FOUNDATION PREPARATION".

DEWATERING METHOD: A dewatering method may be required, include in the lump sum bid for "FOUNDATION PREPARATION" all costs for materials, labor, and equipment associated with the dewatering method.

ODDT DEEP BEAM RAIL: This bridge roll is very similar to the KYTC Type II Roll. All labor and materials associated with this roll shall be included in the unit bid price for "GUARDRAIL STEEL "W" BEAM SINGLE FACE BR". The measured limits of this poy item shall be from the center of the first post on the bridge to the center of the last post on the bridge.

 ${\tt CONCRETE} \ \ {\tt SEALER:} \ \ \ {\tt Apply} \ \ {\tt concrete} \ \ {\tt sealer} \ \ {\tt in} \ \ {\tt accordance} \ \ {\tt with} \ \ {\tt the} \ \ {\tt Special} \ \ {\tt Note}$ for Concrete Sealing.

Areas to receive Concrete Sealing:
1. Every exposed surface above a point 6" below ground or fill line of abutments, wing walls, end bent and pier caps, pedestals, back walls, columns, and exposed footings.

2. All exposed surfaces of concrete deck, barrier walls, parapets, curbs.

and plinths. 3. Adjacent prestressed concrete composite box: full length of the exterior face of all exterior beams from the top of the box beam to 1'-0" underneath the beams

If the contract documents include the Special Note for Concrete Coating. do not apply Concrete Sealer to the areas where Concrete Coating is

The following abbreviations may have been used in the preparation of these plans:

```
b.f.
BOF
             Back Face
             Bottom of Footing
             Bottom
bot.
            Bearing

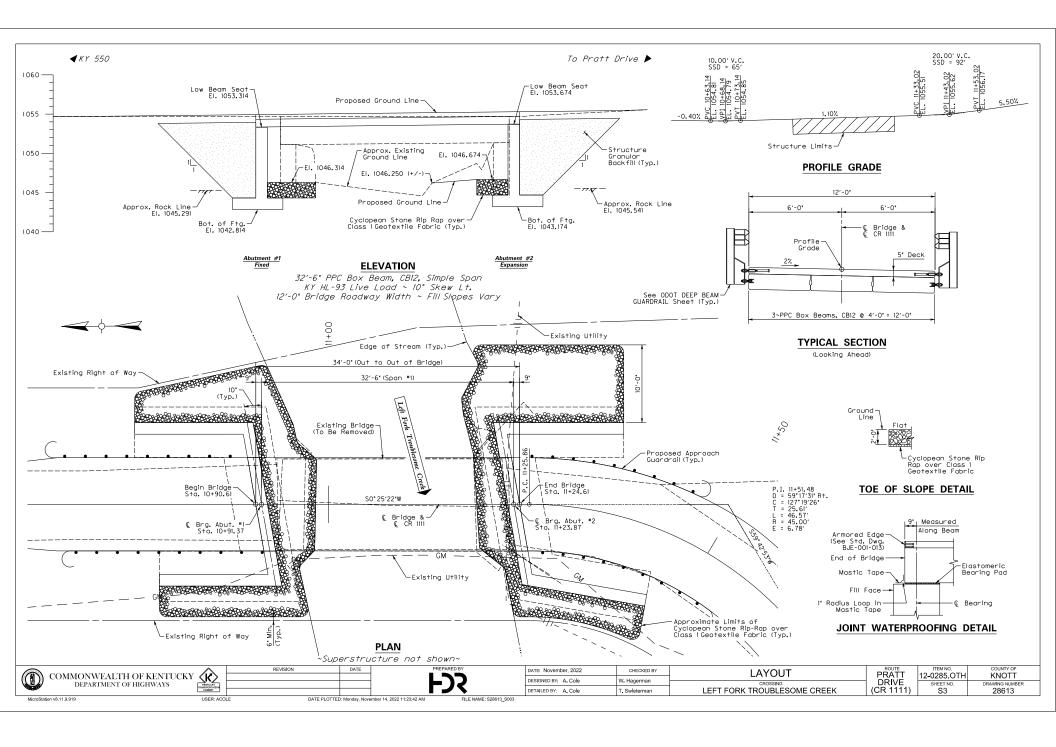
anter to Center
Brg.
C to C
C.Y.
             Cubic Yord
Chd.
             Center Line
             Concrete
Conc.
             Cubic
             Drawing
Dwg.
e.f.
             Fach Face
             Elevation
eq.
             Equal
Ēst.
             Estimate
            Exterior
Face to Face
  to I
            Front Face
Far Side
f.s.
             Front
ft.
I.D.
             Inside Diameter
in.
Int.
             Interior
             left.
             Low Beam Seat
LBS.
             Pounds
             Meter
             Miles per Hour
             Near Side
Opp.
             Opposite
            Point of Curve
Perpendicular
Perp.
             Point of Intersection
            Precast Prestressed Concrete
Precast Prestressed Concrete Deck Unit
PPCDU
            Pounds per Square Inch
Point of Tangent
             Radius
             Reinforced Concrete Box Culvert
RCBC
RCDG
             Reinforced Concrete Deck Girder
Req'd.
             Required
             Railroad
Shid
spa.
Sta.
Std.
             Spaces
             Station
             Standard
Str.
             Straight
Tan
Thru
             Tangent
             Through
TOF
             Top of Footing
Tot.
             Typical
Typ.
Vert.
W.P.
             Working Point
             Yard
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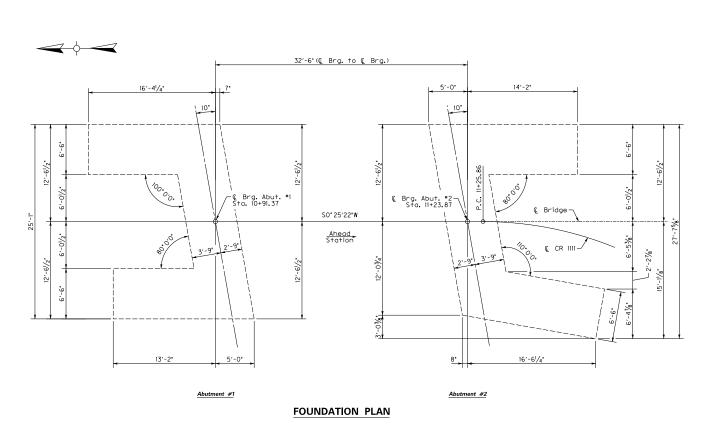


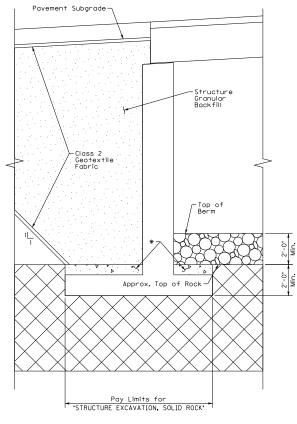


1	DATE: November, 2022	CHECKED BY	
	DESIGNED BY: A. Cole	T. Swleterman	H
	DETAILED BY: A. Cole	T. Swleterman	

FILE NAME: S28613_S002







LIMITS OF EXCAVATION AND STRUCTURE GRANULAR BACKFILL

(Abutment Wall Shown, Wingwalls Similar)

Spread Footing Record Abutment #1

, ,	outilione .	.,
Point	Proposed Bot. of Footing Elevation	As-Built Bot. of Footing Elevation
All Points	1042.814	

A max. factored design pressure of 8.27 ksf is anticipated based on 6.27 KST is anticipated based on design calculations. The factored resistance of the bedrock was assumed to be 10.8 kSf for the Strength I limit state.

The Engineer of Record is to record the "As-Built Footing Elevation" taken at the bottom of footing and submit one copy of this sheet to:

Kentucky Transportation Cabinet Director, Division of Structural Design 200 Mero Street Frankfort, KY 40622

If the spread footing foundation is stepped due to unsuitable material found at the given elevation, record the location and elevation of the step as well.

Spread Footing Record Abutment #2

, ,,	, aciiioiic	<i>,</i> —
Point	Proposed Bot. of Footing Elevation	As-Built Bot. of Footing Elevation
All Points	1043.174	

A max, factored design pressure of 8.27 ksf is anticipated based on design calculations. The factored resistance of the bedrock was assumed to be 10.8 ksf for the Strength I limit state.

NOTES:

Solid Rock Excavation will be required.

Embed the footings a minimum of 2 feet into unweathered bedrock.

* Mass concrete shall be placed in the excavation from the top of the footing to the bedrock surface where the footing does not extend to the bedrock rock surface.

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS

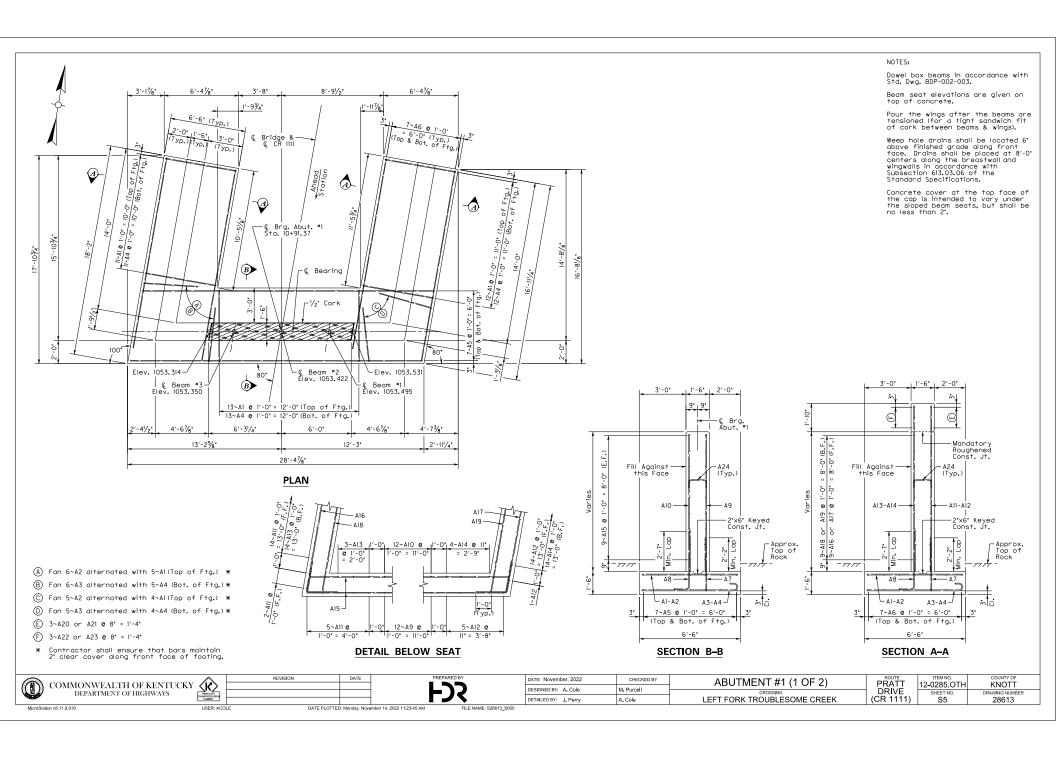


DATE: November, 2022	CHECKED BY
DESIGNED BY: A. Cole	M. Purcell
DETAILED BY: A. Cole	T. Swleterman

FOUNDATION LAYOUT		12-0285.OTH	COUNTY OF KNOTT
CROSSING LEFT FORK TROUBLESOME CREEK	DRIVE (CR 1111)	SHEET NO.	DRAWING NUMBER 28613

USER: ACOLE

DATE PLOTTED: Monday, November 14, 2022 11:23:44 AM

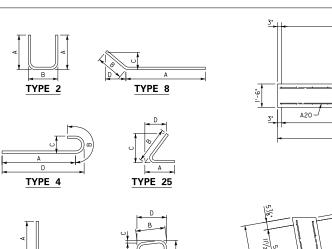


		AE	BUTME	NT #1	BILL OF REINFOR	CEME	NT		
MARK	TYPE	NUMBER	SIZE	LENGTH	LOCATION	А	В	С	D
ΑI	Str.	45	6	6'-2"	Top of Footing				
A2	Str.	- 11	6	4'-8"	Top of Footing				
Α3	4	- 11	6	5′-6"	Bottom of Footing	4'-5"	1'-01/2"	6"	4'-8"
Α4	4	45	6	7'-0"	Bottom of Footing	5'-11"	1'-01/2"	6"	6'-2"
A5	Str.	14	5	25'-1"	Footing				
Α6	Str.	28	5	16'-7"	Footing				
Α7	Str.	53	5	3′-5"	Footing Dowel				
A8	5	47	6	4'-10"	Footing Dowel	3'-10"	1'-0"		
Α9	Str.	12	5	8'-10"	Breastwall				
A10	Str.	12	6	8'-10"	Breastwall				
All	Str.	21	5	10'-8"	Wingwall				
A12	Str.	20	5	10'-10"	Wingwall				
A13	Str.	17	6	10'-8"	Wingwall				
A14	Str.	18	6	10'-10"	Wingwall				
A15	27(S)	18	5	23'-0"	Breastwall	1'-0"	20'-11%"	3'-75%	20'-73/4
A16	25(S)	9	5	16'-4"	Wingwall	15'-4"	1'-0"	111//8"	21/8"
A17	8	9	5	15'-10"	Wingwall	14'-10"	1'-0"	117/8"	21/8"
A18	25(S)	9	5	16'-2"	Wingwall	15'-2"	1'-0"	117/8"	21/8"
A19	8	9	5	16'-1"	Wingwall	15'-1"	1'-0"	111//8"	21/8"
A20	25(S)	3	5	19'-6"	Wingwall	15'-4"	4'-2"	4'-11/4"	85/8"
A21	8	3	5	19'-0"	Wingwall	14'-10"	4'-2"	4'-11/4"	85/8"
A22	25(S)	3	5	17'-3"	Wingwall	14'-2"	3'-1"	3'-01/2"	6%"
A23	8	3	5	17'-1"	Wingwall	14'-0"	3'-1"	3'-01/2"	63/8"
A24	2(S)	10	5	2'-2"	Breastwall/Wingwall	6'	1'-2"		

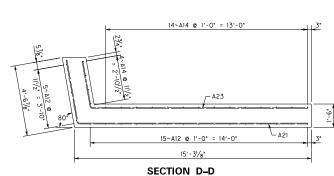
Note: Reinforcing bars designated with suffix (S) in plans denotes stirrup bar.

Note: Str. denotes straight bars.

Note: Should the contractor choose to introduce lap splices in addition to what is already specified in these plans, use the following lap splice lengths: 2'-9' for "5 bars 3'-4' for "6 bars



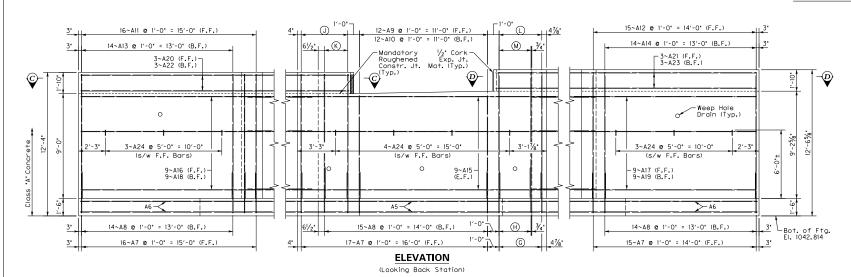
TYPE 27



16~AII @ 1'-0" = 15'-0" 15'-91/2" SECTION C-C

14~A13 @ 1'-0" = 13'-0"

A22 -



G 5~A7 @ II" = 3'-8" (F.F.)

100

- (H) 4~A8 @ II" = 2'-9" (B.F.)
- (J) 5~AII @ I'-0" = 4'-0" (F.F.)
- (K) 3~A13 @ 1'-0" = 2'-0" (B.F.)
- (L) 5~A12 @ 11" = 3'-8" (F.F.)
- M 4~AI4 @ II" = 2'-9" (B.F.)

KNOTT

DRAWING NUMBER

28613



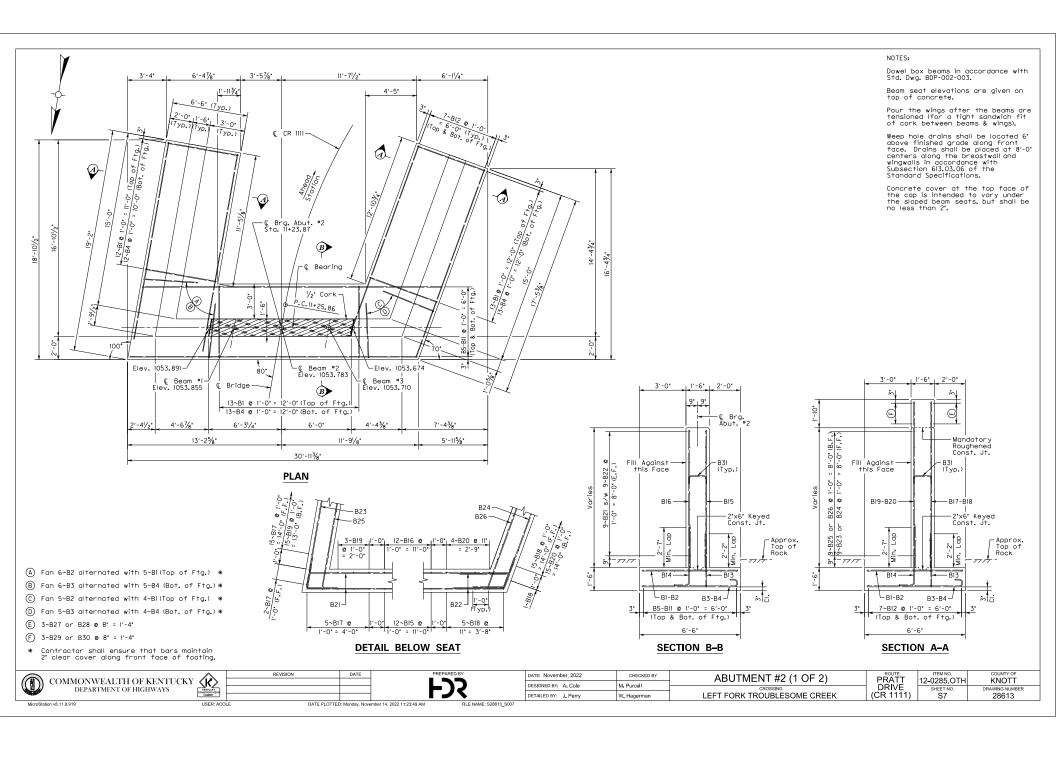


EPARED BY	
כר	
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В TYPE 5

DATE: November, 2022	CHECKED BY	ABUTMENT #1 (2 OF
DESIGNED BY: A. Cole	M. Purcell	CROSSING
DETAILED BY: J. Perry	A. Cole	LEFT FORK TROUBLESOME O

PRATT DRIVE)F 2) 12-0285 OTH CREEK (CR 1111)

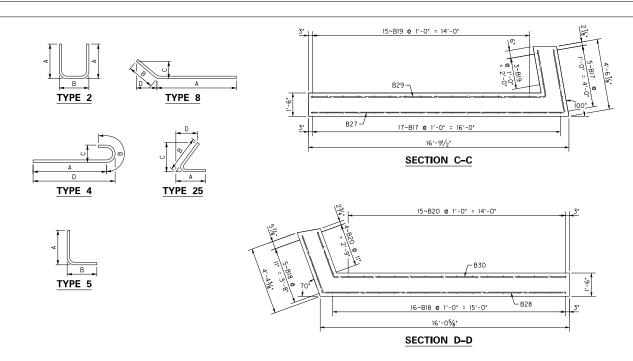


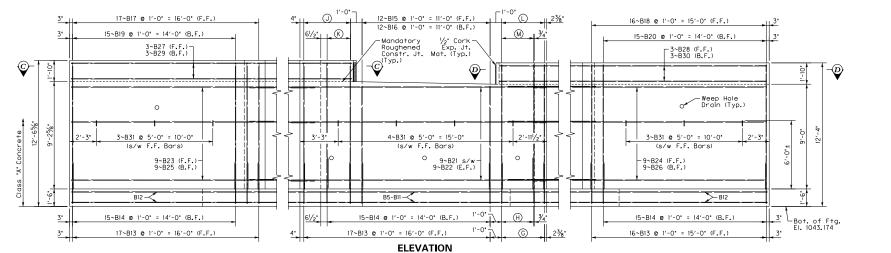
ABUTMENT #2 BILL OF REINFORCEMENT										
MARK	TYPE	NUMBER	SIZE	LENGTH	LOCATION	А	В	С	D	
BI	Str.	47	6	6'-2"	Top of Footing					
B2	Str.	11	6	4'-8"	Top of Footing					
В3	4	- 11	6	5'-6"	Bottom of Footing	4'-5"	1'-01/2"	6"	4'-8"	
В4	4	47	6	7'-0"	Bottom of Footing	5'-11"	1'-01/2"	6"	6'-2"	
B5	Str.	2	5	25'-9"	Footing					
В6	Str.	2	5	25'-7"	Footing					
В7	Str.	2	5	25'-5"	Footing					
В8	Str.	2	5	25'-2"	Footing					
В9	Str.	2	5	25'-0"	Footing					
B10	Str.	2	5	24'-10"	Footing					
BII	Str.	2	5	24'-8"	Footing					
B12	Str.	28	5	17'-2"	Footing					
B13	Str.	55	5	3'-5"	Footing Dowel					
B14	5	49	6	4'-10"	Footing Dowel	3'-10"	1'-0"			
B15	Str.	12	5	8'-10"	Breastwall					
B16	Str.	12	6	8'-10"	Breastwall					
B17	Str.	22	5	10'-10"	Wingwall					
B18	Str.	21	5	10'-8"	Wingwall					
B19	Str.	18	6	10'-10"	Wingwall					
B20	Str.	19	6	10'-8"	Wingwall					
B21	25(S)	18	5	21'-9"	Breastwall	20'-9"	1'-0"	117/8"	21/8"	
B22	8	18	5	4'-2"	Breastwall	3'-2"	1'-0"	111/4"	41/8"	
B23	25(S)	9	5	17'-4"	Wingwall	16'-4"	1'-0"	11 7/8"	21/8"	
B24	8	9	5	16'-8"	Wingwall	15'-8"	1'-0"	111/4"	41/8"	
B25	25(S)	9	5	17'-2"	Wingwall	16'-2"	1'-0"	11 7/8"	21/8"	
B26	8	9	5	17'-1"	Wingwall	16'-1"	1'-0"	111/4"	41/8"	
B27	25(S)	3	5	20'-6"	Wingwall	16'-4"	4'-2"	4'-11/4"	85/8"	
B28	8	3	5	19'-7"	Wingwall	15'-8"	3'-11"	3'-81/8"	1'-41/8'	
B29	25(S)	3	5	18'-3"	Wingwall	15'-2"	3'-1"	3'-01/2"	63/8"	
B30	8	3	5	18'-1"	Wingwall	15'-0"	3'-1"	2'-103/4"	1'-05/8	
B31	2(S)	10	5	2'-2"	Breastwall/Wingwall	6.	1'-2"			

Note: Reinforcing bars designated with suffix (S) in plans denotes stirrup bar.

Note: Str. denotes straight bars.

Note: Should the contractor choose to introduce lap splices in addition to what is already specified in these plans, use the following lap splice lengths: 2'-9' for #5 bars 3'-4' for #6 bars





- G 5~B13 @ 11" = 3'-8" (F.F.)
- (H) 4~B14 @ 11" = 2'-9" (B.F.)
- (J) 5~B17 @ 1'-0" = 4'-0" (F.F.)
- (K) 3~B19 @ 1'-0" = 2'-0" (B.F.)
- (L) 5~BI8 @ II" = 3'-8" (F.F.)
- (M) 4~B20 @ 11" = 2'-9" (B.F.)

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS

DATE

DATE: November, 2022 CHECKED BY DESIGNED BY: A. Cole M. Purcell DETAILED BY: J. Perry

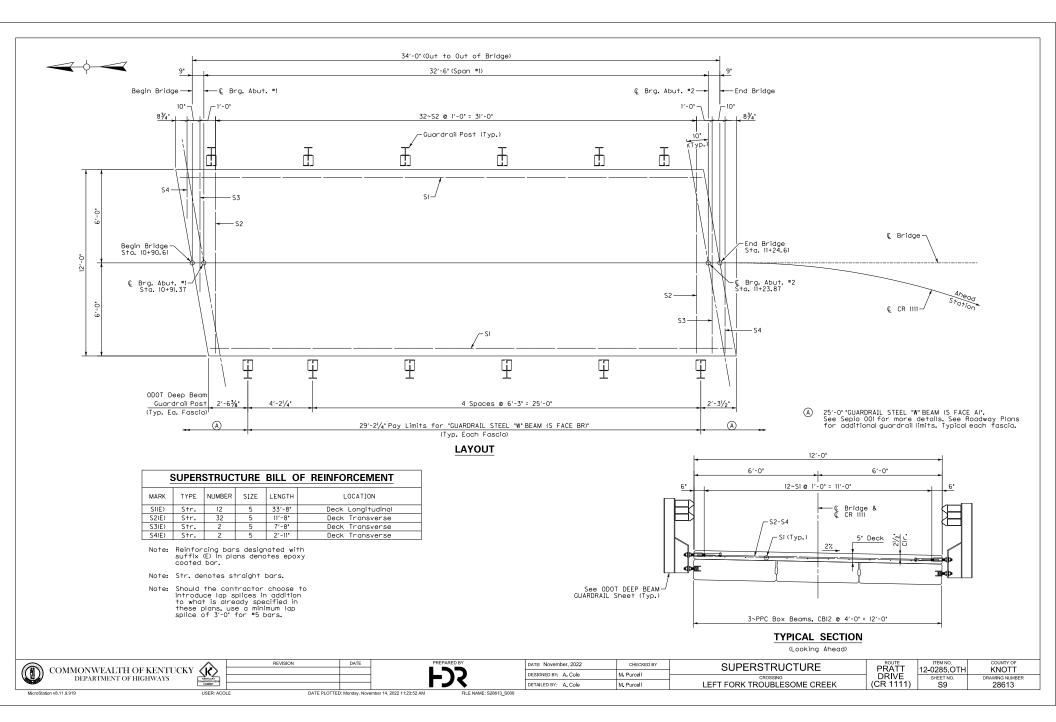
ABUTMENT #2 (2 OF 2) LEFT FORK TROUBLESOME CREEK

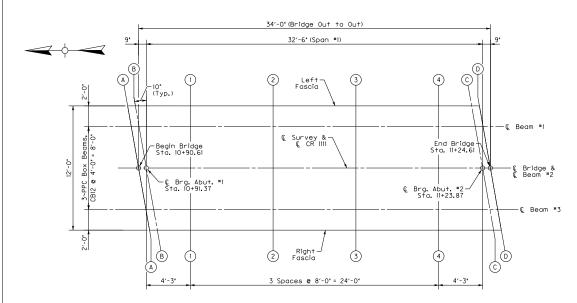
PRATT DRIVE (CR 1111)

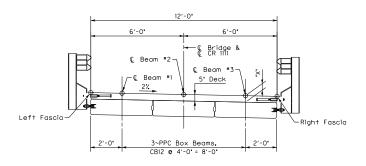
12-0285 OTH KNOTT DRAWING NUMBER 28613

USER: ACOLE

(Looking Ahead Station)







TYPICAL SECTION

(Looking Ahead)

♦ Denotes Points Where Elevations are Given

GRID LAYOUT

14!	Left Fascia	€ Beam #1		Ç Beam #2		Ç Beam #3		Right			
Location		Construction Elevation	Top Of Beam	Dimension "X"	Construction Elevation	Top Of Beam	Dimension "X"	Construction Elevation	Top Of Beam	Dimension "X"	Fascia
SKEW LINE AA	1055.147	1055.111			1055.039			1054.967			1054.931
SKEW LINE BB	1055.156	1055.120			1055.047			1054.975			1054.939
SKEW LINE CC	1055.516	1055.480			1055.408			1055.335			1055.299
SKEW LINE DD	1055.524	1055.488			1055.416			1055.344			1055.308
GRID LINE 1	1055.223	1055.182			1055,101			1055.020			1054.980
GRID LINE 2	1055.320	1055.279			1055.199			1055.119			1055.078
GRID LINE 3	1055.407	1055.367			1055.288			1055.208			1055.168
GRID LINE 4	1055,486	1055.446			1055.367			1055.289			1055.249

NOTES FOR ELEVATIONS TAKEN ON PRESTRESSED CONCRETE BEAMS

Take elevations on top of beam at points indicated by the grid layout. The beam elevations are to be read to three decimals, 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 comber due to weight of the concrete deck, barrier, and future wearing surface. 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 unsignity fascio beams.

The minimum 'X' dimension is that which provides the minimum deck thickness shown in the plans at the controlling edge of the top flange (accounting for the cross-slope of the deck).

Construct barrier to roadway grade. Do not add camber to the barrier.

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 beams when pouring the concrete floor slab or when taking 'Top of Beam' elevations.

The parabolic crown, if required, has been accounted for in the construction elevations.

The construction elevation at a given point is the elevation to pour the deck to. This elevation is the sum of two numbers: 1) the desired final grade elevation and 2) the anticipated deflection occurring during the deck pour and/or after the deck pour.



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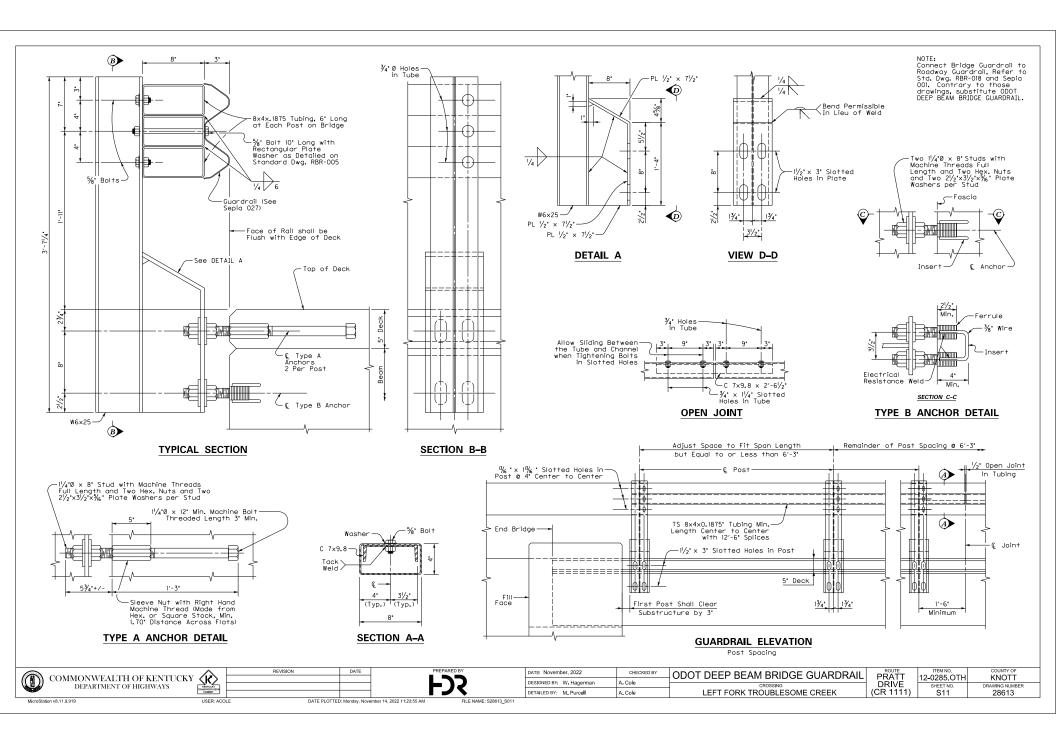
DATE: November, 2022	CHECKED BY
DESIGNED BY: A. Cole	M. Purcell
DETAILED BY: A. Cole	M. Purcell

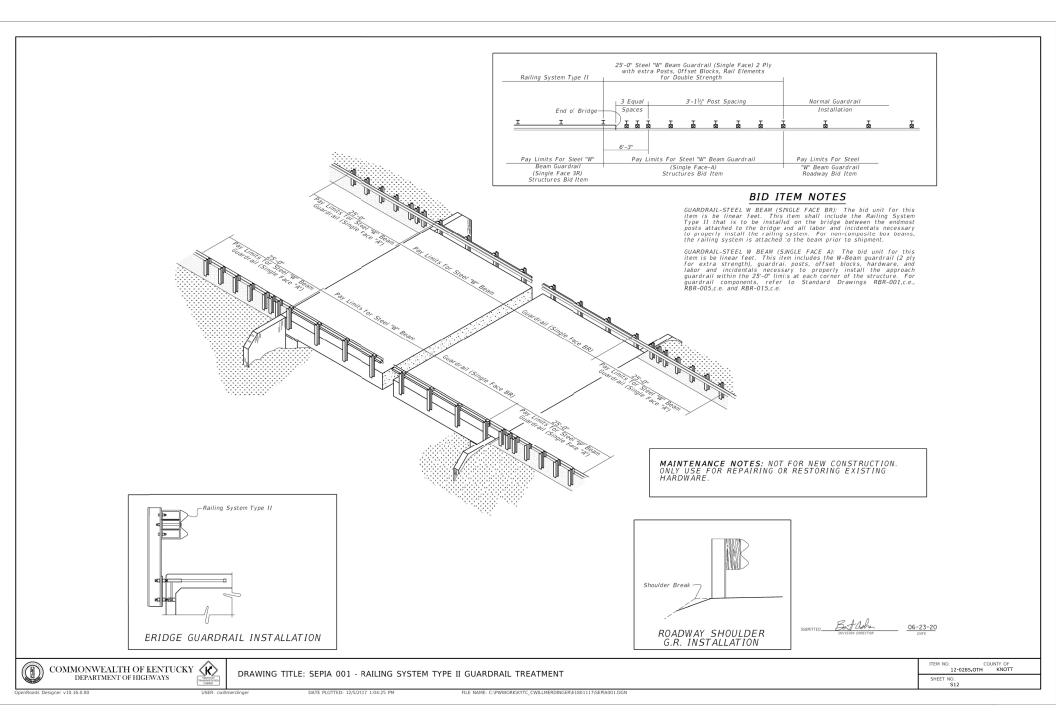
CONSTRUCTION ELEVATIONS	
CROSSING	
LEFT FORK TROUBLESOME CREEK	

PRATT	12-0285.OTH	COUNTY OF KNOTT
DRIVE (CR 1111)	SHEET NO. S10	DRAWING NUMBER 28613

ation v8.11.9.919 USER: ACOLE DATE PLOTTED: Monday, November 14, 2022 11:23:54 AM

FILE NAME: S28613_S010





Drilling Firm: Kentucky Transportation Cabinet For: Division of Structural Design Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Printed: 9/6/22

Page 1 of 1

Project ID: Item Numb		<u>010</u>		tt Drive (CR roublesome			Project Project		: Struct	ture	<u>Bridge</u>
											
Hole Number	_		Immediate Water Depth	<u>NA</u>	1	Date <u>09/01/2</u>		- 1	Hole Type		<u>nding</u>
Surface Eleva			Static Water Depth		1	ate <u>09/01/20</u>			Rig_Numb	oer_	
Total Depth _			Driller <u>Cody Davidson</u>		1	de(83) <u>37.34</u>					
Location _+	'Lt.				Longit	ude(83) <u>-82</u>	<u>.951857</u>				
Lithology	у	Descriptio	ın.	Overburden	Sample No.	Depth (ft)	Rec. (ft)	SP Blov		mple ype	Remarks
Elevation D	Depth	Boompile	Description		Std/Ky RQD	Run (ft)	Rec (ft)	Re (%	c \$	SDI JS)	
5			Limestone gravel fill.								<u>5</u>
<u> </u>	7.3	Medium st	iff, brown, moist, sandy clay	with rock							_
10	9.8	wedium st	fragments.	(Refusal)							<u>10</u>
	11.6	Me	dium hard, gray, sandy sha Hard, gray, sandy shale.	le.							
ł l			riaid, gray, sandy shale.								-
<u>15</u> - -			(Bottom of Hole 11.6') (Refusal @ 9.8)								<u>15</u> - -
<u>20</u> -											2 <u>0</u> -
- <u>25</u> -											<u>-</u> 2 <u>5</u>
<u>30</u>											<u>30</u>
- 3 <u>5</u> -											<u>35</u>
- 4 <u>0</u> -											40 -
- <u>45</u> -											- 4 <u>5</u> -
- 50											- 50
				END BEN	JT #	1					

Drilling Firm: Kentucky Transportation Cabinet For: Division of Structural Design Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Printed: 9/6/22

Page 1 of 1

Project ID: 060C010 Knott - Pratt Drive (CR 1111) Project Type: Struct Left Fork Troublesome Creek Project Manager:						<u>Bridge</u>				
Hole Number _1_ Surface Elevation _' Total Depth _12.0' Location _+ 'Lt.			Immediate Water Depth NA Start Date 09/01/28 Static Water Depth NA End Date 09/01/20 Driller Cody Davidson Latitude(83) 37.34 Longitude(83) -82.		Rig_Number			<u>nding</u>		
Litholo	ogy	Descriptio	20	Overburden	Sample No.	Depth (ft)	Rec. (ft)	SPT Blows	Sample Type	Remarks
Elevation	Depth	Description		Rock Core	Std/Ky RQD	Run (ft)	Rec (ft)	Rec (%)	SDI (JS)	
- - 5 -	1.0	Medium st	Blacktop. Concrete. iff, brown, very moist, sandy rock fragments.	/ clay with						
- 10 -	9.5	Me	dium hard, gray, sandy sha	(Refusal)						1
- 15 -			Hard, gray, sandy shale. (Bottom of Hole 12.0') (Refusal @ 9.5)							1
2 <u>0</u> -										4
<u>25</u> - -										4
30										;
<u>35</u> - -										ş
40 - -										4
45 - -										4
50				END BEN	∟ JT #.	 2				

	COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	Truck,
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DATE: November, 2022	CHECKED BY	OUDOUDEACE DATA	ROUTE	ITEM NO.	COUNTY OF
DATE: 14040HB01, E0EE	ONEONED D1	SUBSURFACE DATA	PRATT	12-0285.OTH	KNOTT
DESIGNED BY:				12-0200.0111	INIOTI
DESIGNED BY.		CROSSING	DRIVE	SHEET NO.	DRAWING NUMBER
DETAILED BY: M. Purcell	A. Cole	LEFT FORK TROUBLESOME CREEK	(CR 1111)	S13	28613
			(,	0.0	20010

USER: ACOLE DATE PLOTTED: Monday, November 14, 2022

FILE NAME: \$28613_\$013

STANDARD	DRAWINGS
NUMBER	
RBR-005-11	
RBR-010-06	
RBR-055-01	
RBR-060	
RDD-040-05	
RDI-003-05	
RDI-040-01	
RDX-210-03	
RDX-220-05	
RDX-225-01	
RFC-001-08	
RFW-001-06	
RGX-001-06	
RGX-100-07	
RGX-105-09	
RGX-200-01	
TCC-150-04	
BGX-006-10	

DESIGN CRITERIA		
CLASS OF HIGHWAY RURAL LOCAL ROAD		
TYPE OF TERRAIN ROLLING		
DESIGN SPEED NO POSTED SPEED		
REQUIRED NPSD		
REQUIRED PSD		
LEVEL OF SERVICE		
ADT PRESENT (-) -		
ADT FUTURE (-)		
DHV		
D %		
Т %		
GEOGRAPHIC COORDINATES		
ATITUDE 37 DEGREES 20 MINUTES 27 SECONDS NORTH		
ONGITUDE 82 DEGREES 52 MINUTES 03 SECONDS WEST	VERNIE MINOR LANE	
DESIGNED	LENGTH 175.00 LIN. FT. 0.033 MILES	LENGTHLIN. FT
DESIGNED	ADDED FOR EQUALITIESLIN. FT.	DEDUCTED FOR EQUALITIES
% RESTRICTED SD	NOT INCLUDED	NOT INCLUDED

RAILROAD CROSSINGS NO. __

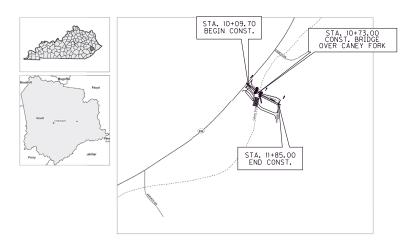
LIN. FT. RAILROAD CROSSINGS NO. _ LIN. FT. BRIDGES

% RESTRICTED SD
LEVEL OF SERVICE
MAX. DISTANCE W/O PASSING

Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS

PROPOSED PROJECT

GRADE, DRAIN & SURFACE WITH STRUCTURE PLANS VERNIE MINOR LANE CR 1564 OVER CANEY FORK 060C012



THIS PROJECT IS OFF THE NH SYSTEM

KNOTT

12-0287.0TH

THE CONTROL OF ACCESS ON THIS PROJECT SHALL BE BY PERMIT

LAYOUT MAP

MILES LENGTH LIN. FT. MILES LENGTH LIN. FT.

LIN. FT. MILES LENGTH LIN. FT. COORDINATING LIN. FT. COORDINATING LIN. FT. COORDINATING LIN. FT. COORDINATING LINE STATE LIN. FT. COORDINATING LINE STATE LIN. FT. COORDINATING LINE STATE LIN. FT. COORDINATING LIN. FT. COORDINATING LINE STATE LIN. FT. COORDINATING LINE STATE LIN. FT. COORDINATING LIN. FT. C

LIN. FT. RAILROAD CROSSINGS NO. LIN. FT. BRIDGES

__LIN. FT. RAILROAD CROSSINGS NO. __ _LIN. FT. BRIDGES ___

Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS COUNTY OF

	ITEM NO. 12-0287.0TH
	060C0I2
	PROJECT NUMBER: D23A 4663-DR
	LETTING DATE:
MILES	
_LIN. FT.	RECOMMENDED BY
_LIN. FT.	PROJECT MANAGER DATE:

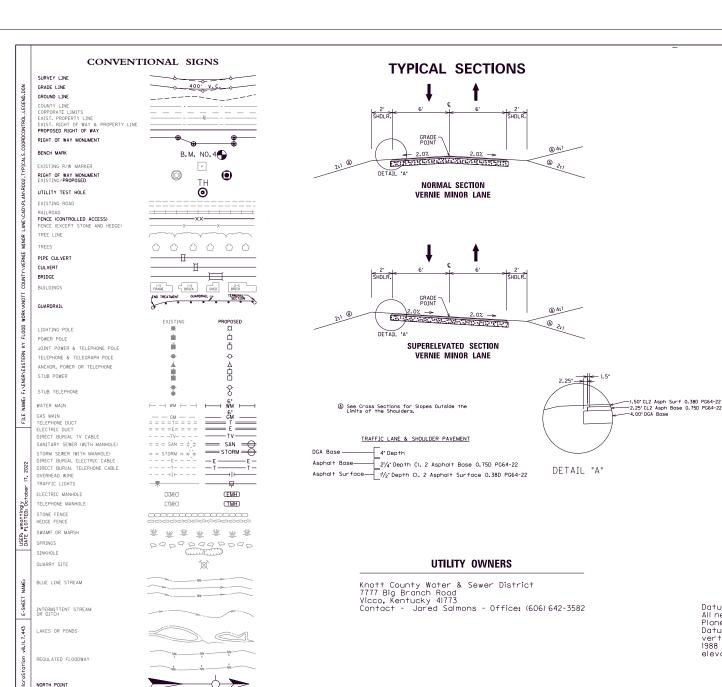




KNOTT 3 HMB Circle Frankfort, KY 4 (502) 695-980

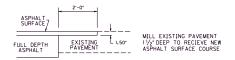
PLANS OF

KNOTT COUNTY

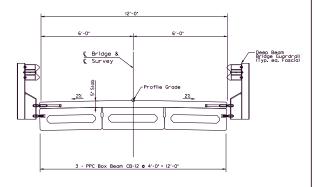


COORDINATE CONTROL POINTS								
State Plane Coordinates								
POINT	DESCRIPTION	N NORTH (Y) EAST (X) ELEV. (Z)			STATION	OFFSET		
CP 1	PK NAIL/WASHER	3715647.4180	5759067.2920	717.38	10+12.73	8.94		

CENTERLINE CONTROL POINTS									
POINT	State Plane Coordinates		DADILIC	LENCTH	TANGENT	STATION	OFFSET		
POINT	NORTHING (Y)	EASTING (X)	KADIUS	LENGIA	TANGENT	STATION	OFFSET		
POB	3660641.2518	5759062.8824				10+00.00	0.00		
PI	3660583.4087	5759135.7204				10+93.01	0.00		
POE	3660537.2366	5759225.7267				11+94.17	0.00		



EDGE KEY DETAIL



NOTE: Roadway Guardrail is Attached to Bridge Barriers. See Roadway Plans.

BRIDGE TYPICAL SECTION VERNIE MINOR LANE

Datum Reference and Final Coordinates
All new horizontal GNSS control is based on the Kentucky State
Plane Coordinate System (Single Zone), referenced to North American
Datum 1983, 2011 adjustment, expressed in U.S. Survey Feet. All
vertical control is based on the North American Vertical Datum of
1988 (NAVD88) with GEOID18 (CONUS) applied to model the
elevations, also expressed in U.S. Survey Feet.

TYPICAL SECTIONS, COORD, CONTROL, AND LEGEND

SCALE: N.T.S

GENERAL SUMMARY

ITEM	DESCRIPTION		UNIT	PROJECT TOTAL
00001	DGA BASE	1	TON	81
00020	TRAFFIC BOUND BASE	00	TON	30
00078	CRUSHED AGGREGATE SIZE NO 2	90	TON	97
00221	CL2 ASPH BASE 0.750D PG64-22		TON	43
00301	CL2 ASPH SURF 0.38D PG64-22		TON	29
01792	ADJUST MANHOLE		EACH	1
02014	BARRICADE - TYPE III		EA	5
02159	TEMP DITCH		LF	175
02160	CLEAN TEMP DITCH		LF	88
02200	ROADWAY EXCAVATION		CUYD	57
02242	WATER	2	MGAL	100
02268	REMOVE & REPLACE FENCE	(11)	LF	165
02360	GUARDRAIL TERMINAL SECTION NO 1		EACH	4
02484	CHANNEL LINING CLASS III	6	TON	162
02545	CLEARING AND GRUBBING	3	LS	1
02562	TEMPORARY SIGNS		SQFT	300
02565	OBJECT MARKER TYPE 2	8	EACH	4
02585	EDGE KEY	_	LF	53
02569	DEMOBILIZATION		LS	1
02603	FABRIC - GEOTEXTILE CLASS 2	9	SQYD	225
02650	MAINTAIN & CONTROL TRAFFIC	(4)	LS	1
02651	DIVERSIONS (BY-PASS DETOURS)		LS	1
02726	STAKING		LS	1
02731	REMOVE STRUCTURE		LS	1
02701	TEMPORARY SILT FENCE		LF	175
02703	SILT TRAP TYPE "A"		EACH	1
02704	SILT TRAP TYPE "B"		EACH	1
02706	CLEAN SILT TRAP TYPE "A"		EACH	1
02707	CLEAN SILT TRAP TYPE "B"		EACH	1
05950	EROSION CONTROL BLANKET		SQYD	755
05952	TEMP MULCH		SQYD	502
05953	TEMP SEEDING AND PROTECTION		SQYD	378
05985	SEEDING AND PROTECTION		SQYD	755
05963	INITIAL FERTILIZER		TON	0.1
05964	MAINTENANCE FERTILIZER		TON	0.1
05992	AGRICULTURAL LIMESTONE		TON	1
06514	PAVE STRIPING - PERM PAINT - 4 IN		LF	350
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING	(5)	TON	0.2
20430ED	SAW CUT		LF	53
20430ED	SAW CUT		LF	5

COUNTY OF	ITEM NO.	SHEET NO.
KNOTT	12-0287.0TH	R2A

NOTES:

ALL ASPHALT MIXTURES SHALL BE ESTIMATED AT 110 LBS. PER SO. YD. PER INCH OF DEPTH, UNLESS NOTED OTHERWISE.

- () ESTIMATED AT 115 LBS. PER SQ. YD. PER INCH OF DEPTH
- ② FOR CONTROLLING DUST CAUSED BY MAINTAINING TRAFFIC ONLY.
- 3 APPROXIMATELY 0.24 ACRES
- 4 LANE & ROAD CLOSURES ARE INCIDENTAL TO MAINTAIN AND CONTROL TRAFFIC
- (5) ESTIMATED AT 0.70 LBS. PER SQ. YD.
- ⑥ 62 TONS TO BE USED AT THE END BENTS 100 TONS TO BE USED AS DIRECTED BY THE ENGINEER TO STABILIZE STREAM BANKS
- 7 TO BE USED AS DIRECTED BY THE ENGINEER TO MAINTAIN ACCESS
- (8) TO BE INSTALLED AT LOCATIONS IDENTIFIED IN STANDARD DRAWING NO. RBR-060
- (9) FOR CONSTRUCTION ENTRANCES
- (1) ESTIMATED AT 1.3 TONS PER CU. YD.
- (1) 105 LF OF REMOVE AND REPLACE EXISTING FENCING. ALSO INCLUDED IN THIS BID ITEM IS THE USE OF 60 LF OF EXISITING FENCE IN THE LOCATION SHOWN ON THE MOT PLANS FOR SECURITY DURING CONSTRUCTION, ANY DAMAGE TO THE FENCE, POSTS, OR HARDWARE WILL BE REPLACED IN KIND BY THE CONTRACTOR AT NO ADDITIONAL COST TO KYTC OR THE OWNER.

GENERAL SUMMARY

SCALE: N.T.S

SPECIAL NOTE FOR FOR NON-TRACKING TACK COAT SPECIAL PROVISION FOR EMBANKMENT AT BRIDGE END BENT STRUCTURES SPECIAL NOTE FOR CONCRETE SEALING

160 N.G.S. (U.S.G.S.) BENCH MARKS

DO NOT DISTURB N.G.S. (U.S.G.S.) BENCH MARKS IN ANY MANNER UNLESS DIRECTED BY THE ENGINEER.

BEFORE YOU DIG

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 PLACED 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 BE MEMBERS OF THE KY 811 ONE-CALL BEFORE-U-DIG (BUD) SERVICE. THE CONTRACTOR MUST COORDINATE
EXCAVATION WITH THE UTILITY OWNERS, INCLUDING THOSE WHOM DO
NOT SUBSCRIBE TO KY BII. IT MAY BE NECESSARY FOR THE CONTRACTOR
TO CONTACT THE COUNTY COURT CLERK TO DETERMINE WHAT UTILITY COMPANIES HAVE FACILITIES IN THE AREA.

429 WINTER CLOSEDOWN

ANY ASPHALT CONCRETE BASE AND/OR SURFACE COURSE USED AS A RIDING SURFACE EXPOSED TO TRAFFIC DURING WINTER CLOSEDOWN PERIODS SHALL CONTAIN NATURAL, CONGLOMERATE, CRUSHED SLAG, CRUSHED GRANITE OR CRUSHED SANDSTONE SAND IN THE PROPORTION OF NO LESS THAN 25% OF THE TOTAL COMBINED COARSE AND FINE AGGREGATE.

448 COMPACTION OF ASPHALT MIXTURES

WILL ACCEPT THE COMPACTION OF ASPHALT MIXTURES FURNISHED ON THIS PROJECT BY OPTION B ACCORDING TO SUBSECTIONS 402.03.02 AND 403.03.10 OF THE

445 EDGE KEY

THIS WORK INCLUDES CUTTING OUT THE EXISTING ASPHALT SURFACE TO A MINIMUM DEPTH AND WIDTH AS DETAILED ELSEWHERE IN THE PLANS SO THAT THE NEW SURFACE MAY HEEL INTO THE EXISTING SURFACE. THE CONTRACT UNIT PRICE BID LINEAR FOOT FOR "EDGE KEY INCLUDES ALL NECESSARY MATERIALS, LABOR AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND DISPOSE OF THE REMOVED ASPHALT MATERIAL.

650 STANDARD DRAWINGS

STANDARD DRAWINGS ARE NOT ATTACHED TO THESE PLANS. A STANDARD DRAWING BOOK AND THE HEADWALL SUPPLEMENTAL BOOK MAY BE OBTAINED FROM THE POLICY SUPPORT BRANCH OF THE DEPARTMENT OF ADMINISTRATIVE SERVICES IN FRANKFORT, KY. AT (502) 564-3670

CONSTRUCTION ENTRANCES

THE CONTRACTOR SHALL CONSTRUCT TEMPORARY CONSTRUCTION VEHICLE ACCESS ENTRANCES INTENDED TO REDUCE OFF- SITE TRACKING / WASHING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY. THESE ENTRANCES SHALL BE CONSTRUCTED AT LOCATIONS APPROVED BY THE ENGINEER AND CONSISTING OF A MINIMUM OF 50 FEET IN LENGTH, 20 FEET IN WIDTH, AND LEOUT DEPTH OF CRUSHED AGGREGATE SIZE NO. 2 AND UNDERLAID WITH GEOTEXTILE FABRIC CLASS 2. QUANTITIES HAVE BEEN INCLUDED FOR TWO TEMPORARY CONSTRUCTION ENTRANCES.

TYPICAL SECTION

DIMENSIONS SHOWN ON THE TYPICAL SECTIONS FOR PAYEMENT WIDTH AND THICKNESS ARE NOMINAL OR TYPICAL DIMENSIONS. THE ACTUAL DIMENSIONS TO BE CONSTRUCTED MAY BE VARIED TO FIT EXISTING CONDITIONS AS DIRECTED OR APPROVED BY THE ENGINEER.

SPECIAL NOTE FOR EROSION PREVENTION AND SEDIMENT CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILING THE KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES) KYRIO PERMIT NOTICE OF INTENT (NOI) WITH THE KENTUCKY DIVISION OF WATER (DOW) AND ANY KPDES LOCAL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PROGRAM THAT HAS JURISDICTION. THE NOI SHALL NAME THE CONTRACTOR AS THE FACILITY OPERATOR AND INCLUDE THE KYTC CONTRACT ID NUMBER (CID) FOR REFERENCE.

THE CONTRACTOR SHALL PERFORM ALL TEMPORARY EROSION/SEDIMENT CONTROL FUNCTIONS INCLUDING: PROVIDING A BEST MANAGEMENT PRACTICE (BMP) PLAN, CONDUCTING REQUIRED INSPECTIONS, MODIFYING THE BMP PLAN DOCUMENTS AS CONSTRUCTION PROGRESSES AND DOCUMENTING THE INSTALLATION AND MAINTENANCE OF BMPS IN CONFORMANCE WITH THE KPDES KYRIO PERMIT DATED SEPTEMBER 30, 2003 OR A PERMIT RE-ISSUED TO REPLACE THE KYRIO PERMIT. THIS WORK SHALL BE CONDUCTED IN CONFORMANCE WITH THE REQUIREMENTS OF SECTION 213 OF KYTC 2008 DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

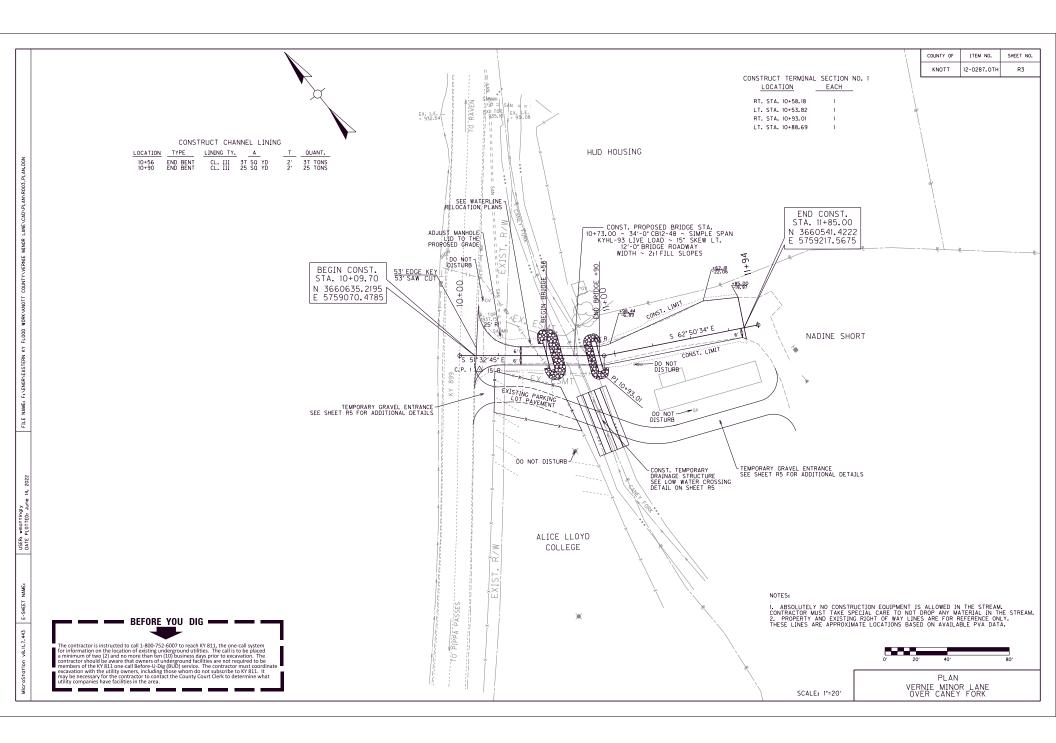
CONTRARY TO SECTION 213.03.03, PARAGRAPH 2, THE ENGINEER SHALL CONDUCT INSPECTIONS AS NEEDED TO VERIFY COMPLIANCE WITH SECTION 213 OF KYTC 2012 DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. THE ENGINEER'S INSPECTIONS SHALL BE PERFORMED A MINIMUM OF ONCE PER MONTH AND WITHIN SEVEN DAYS AFTER A STORM OF 1/2 INCH OR GREATER. COPIES OF THE ENGINEER'S INSPECTIONS SHALL NOT BE PROVIDED TO THE CONTRACTOR UNLESS IMPROVEMENTS TO THE BMP'S ARE REQUIRED. THE CONTRACTOR SHALL INITIATE CORRECTIVE ACTION WITHIN 24 HOURS OF ANY REPORTED DEFICIENCY AND COMPLETE THE WORK WITHIN 5 DAYS. THE ENGINEER SHALL USE FORM TC 63-61 A FOR THIS REPORT. INSPECTIONS PERFORMED BY THE ENGINEER DO NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY FOR COMPLIANCE WITH THE KPDES PERMIT.

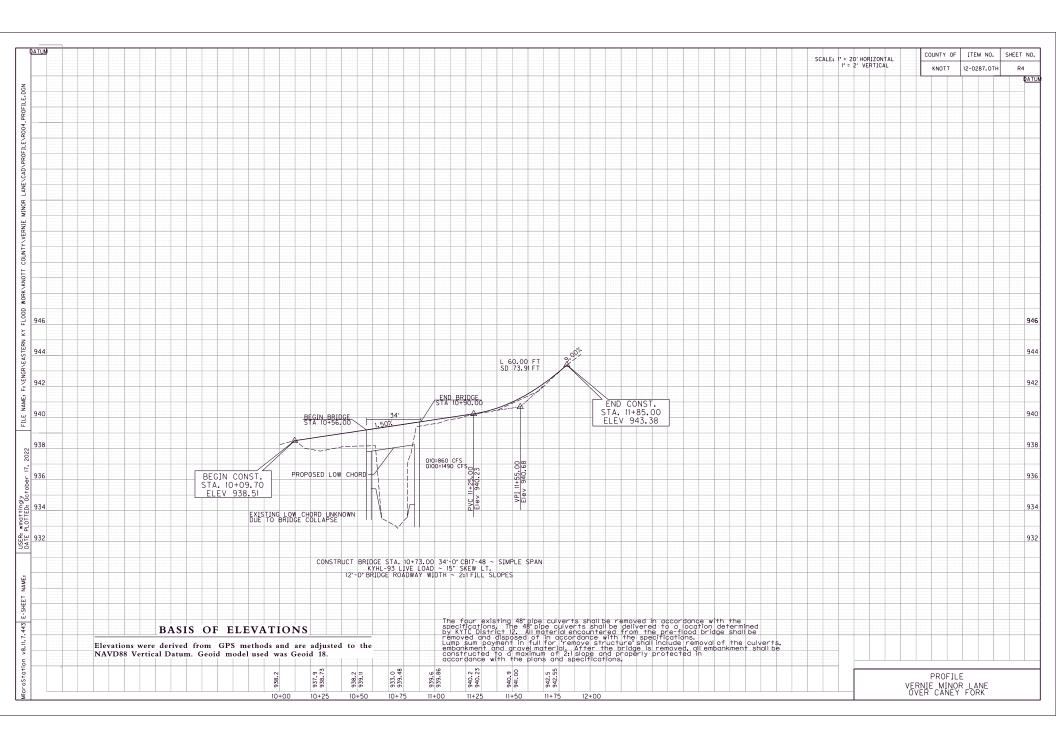
THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING "GOOD ENGINEERING PRACTICES"AS REQUIRED BY THE KPDES PERMIT. THE CONTRACTOR MAY USE ANY TEMPORARY BMPS WITH THE APPROVAL OF THE KYTC ENGINEER.

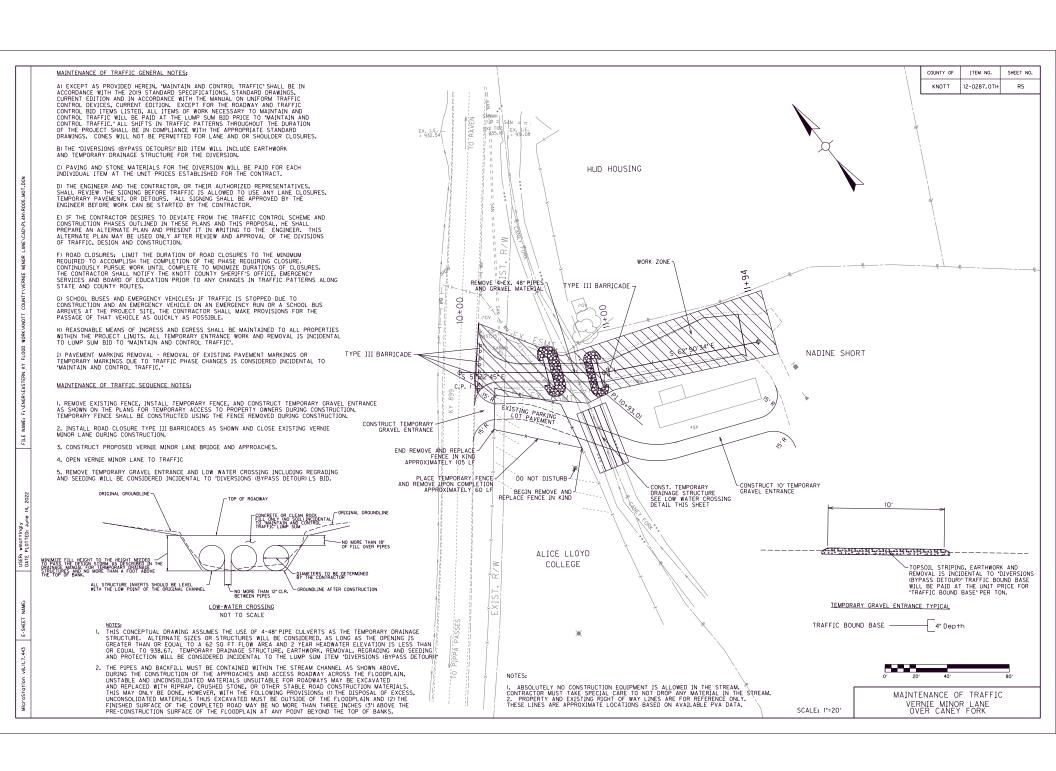
THE CONTRACTOR SHALL PROVIDE THE ENGINEER COPIES OF ALL DOCUMENTS REQUIRED BY THE KPDES PERMIT AT THE TIME THEY ARE PREPARED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXAMINATION OF THE SOILS TO BE ENCOUNTERED AND MAKE HIS OWN INDEPENDENT DETERMINATION OF THE TEMPORARY BMPS THAT WILL BE REQUIRED TO ACCOMPLISH EFFECTIVE EROSION PREVENTION AND SEDIMENT CONTROL.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILING THE KPDES PERMIT NOTICE OF TERMINATION (NOT) WITH THE KENTUCKY DOW AND ANY LOCAL MS4 PROGRAM THAT HAS JURISDICTION. THE NOT SHALL BE FILED AFTER THE ENGINEER AGREES THAT THE PROJECT IS STABILIZED OR THE PROJECT HAS BEEN FORMALLY ACCEPTED.







PAVEMENT CROSS-SECTION

TRAVELED	TYFE OF	NO	N-STATE PR	IMARY RO	STATE PRIMARY ROUTES				
WAY	PAVĒMĒNT STRIPĪNG		< 1000 ADT		>= 1000 ADT		ANY ADT		
2		WIDTH	MATERIAL	WIDTH	MATERIAL	WIDTH	MATERIAL*		
< 16' ④	EDGELINE STRIPES ONLY	4"	PAINT	4"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)		
16' TO < 20'	EDGELINE STRIPES ONLY OR CENTERLINE STRIPE ONLY	4"	PAINT	4"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)		
>=20' ③	CENTERLINE AND EDGELINE STRIPES	4" (S	PAINT	6"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)		

*OTHER DURABLE NON-WATERBORNE MARKINGS MAY BE USED WITH APPROVAL FROM THE DIVISION OF TRAFFIC OPERATIONS.

~ NOTES ~

- 1. INSTALL PAVEMENT STRIPING ON TWO LANE, TWO WAY ROADWAYS AS DETAILED IN THE ABOVE TABLE AND IN ACCORDANCE WITH THE PAVEMENT MARKINGS AND DELINEATION CHAPTER OF THE TRAFFIC OPERATIONS GUIDANCE MANUAL. CONTACT THE DIVISION OF TRAFFIC OPERATIONS FOR ADDITIONAL GUIDANCE IF NECESSARY.
- ② THE TRAVELED WAY IS THE PORTION OF ROADWAY FOR THE MOVEMENT OF VEHICLES, EXCLUSIVE OF THE SHOULDERS.
- 3 ON TWO LANE. TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 20 FT OR GREATER, BUT LESS "HAN 22 FT, EDGELINE RUMBLE STRIPS ARE NOT A STANDARD APPLICATION, BUT THEY MAY BE INSTALLED. THE DIVISION OF TRAFFIC OPERATIONS IS AVAILABLE TO ASSIST WITH THE DETERMINATION OF WHETHER OR NOT TO INSTALL ESGELINE RUMBLE STRIPS ON PAVEMENT WIDTHS LESS THAN 22 FT, AS WELL AS THE DIMENSION AND PLACEMENT DETAILS OF THE RUMBLE STRIPS AND PAVEMENT STRIPING.

ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 22 FT OR GREATER, BUT LESS "HAN 34 FT, INSTALL PAVEMENT STRIPING AS DETAILED IN THE ABOVE TABLE AND IN CONJUNCTION WITH CENTERLINE AND EDGELINE RUMBLE STRIPS AS DETAILED ON TPA-120.

ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 34 FT OR GREATER, INSTALL PAVEMENT STRIPING AS DETAILED IN THE ABOVE TABLE AND IN CONJUCTION WITH CENTERLINE AND SHOULDER RUMBLE STRIPS AS DETAILED ON TPR-125.

- EDGELINES MAY BE OMITTED FROM ROADWAYS WITH A TRAVELED WAY WIDTH LESS THAN 16 FEET WITH THE APPROVAL OF THE DIVISION OF TRAFFIC OPERATIONS.
- (3) EDGELINES MAY BE 3MITTED ON NON-STATE PRIMARY ROUTES WITH A TRAVELED WAY WIDTH GREATER THAN OR EQUAL TO 20 FEET AND AN ADT LESS THAN 1,000.
- 6. EDGELINES MAY BE OMITTED, BASED ON ENGINEERING JUDGMENT, IN AREAS WHERE THE PAVEMENT EDGE IS DELINEATED BY PHYSICAL OBJECTS SUCH AS CURBS, PARKING SPACES, OR OTHER MARKINGS. EDGELINES SHOULD BE INSTALLED ON ROADWAYS WITH CURB AND GUTTER IF THE POSTED SPEED LIMIT IS 45 MMP OR GREATER.

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS.

TPR-120 & TPR-125

SUBMITTED Dim A 06-09-21

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS

DRAWING TITLE: SEPIA 017 - PAVEMENT STRIPING DETAILS FOR TWO LANE TWO WAY ROADWAYS

OpenRoads Designer v10.16.0.80

USER: wmattingly DATE PLOTTED: Oc

USER: cwillmerdinge

DATE PLOTTED: 8/7/2015 9:53:17 AM

FILE NAME: C:\PWWORK\KYTC_CWILLMELDINGER\D1859968\SEPIA017

TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

KNOTT COUNTY CR-1564 (VERNIE MINOR LANE) OVER CANEY FORK STA. 10+73.00

	ESTIMATE OF QUANTITIES													
	BID ITEM CODE	08039	08100	08104	08150	08151	08003	08033	08046	08661	02231	03299	23378EC	23539EC
	BIDITEM	PRE-DRILLING FOR PILES	CONCRETE-CLASS A	CONCRETE-CLASS AA	STEEL REINFORCEMENT	STEEL REINFORCEMENT- EPOXY COATED	FOUNDATION	TEST PILES	PILES-STEEL HP12X53	PRECAST PC BOX BEAM CB12-48	STRUCTURE GRANULAR BACKFILL	ARMORED EDGE FOR CONCRETE	CONCRETE SEAUNG	BRIDGE RAIL
Г	UNIT	LF	CUYD	CUYD	LB	LB	LS	LF	LF	LF	CUYD	LF	SQFT	LF
	END BENT #1	15.0	13.5		1036	107		17	34		37		190	
w	END BENT #2	15.0	16.6		1127	107		18	36		49		226	
SUBSTRUCTURE														
ı														
15														
15														
ľ														
ᆫ														
ᆫ	SUPERSTRUCTURE			6.9		859				102		24	451	68
В	RIDGE TOTALS	30.0	30.1	6.9	2163	1073	1	35	70	102	86	24	867	68

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]	
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	ODEOLAL DDG: #010110
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INDEX OF SHEETS

FEMA Bridge: D023A 4663-DR

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
USER: SUSERS
DATE PLOTTED: SDATES STATES

FILE SPILES

TO MONOWEALTH OF KENTUCKY
DESIGNED BY: L. BOLLER
DATE: 10/15/2022
DATE: 10/15/2022
DATE: 10/15/2022
DATE: 10/15/2022
DATE: 10/15/2022
DATE: 10/15/2022
DESIGNED BY: L. BOLLER
DETAILED BY: L. BOLLE

GENERAL NOTES

SPECIFICATIONS: All references to the Specifications are to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction with current Supplemental Specifications. All references to the AASHTO Specifications are to the current edition of the AASHTO LRFD Bridge Design Specs, with interims.

DESIGN LOAD: This bridge is designed for a KYHL-93 live load. The KYHL-93 live load is arrived at by increasing the standard HL-93 truck and lane loads as specified in the AASHTO Specifications by 25%.

FUTURE WEARING SURFACE: This Structure is designed for a 15 PSF future wearing

DESIGN STRESSES:

Concrete Class "A" ~ f'c = 3500 psi Concrete Class "AA" ~ f'c = 4000 psi Steel Reinforcement ~ Fy = 60,000 psi

DESIGN METHOD: All reinforced concrete members are designed by the load and resistance factor method as specified in the current AASHTO Specifications.

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

UNCOATED SEVEN-WIRE LOW-RELAXATION STRAND FOR PRESTRESSED CONCRETE

STEEL REINFORCEMENT, GRADE 60 STRUCTURAL STEEL, 36,000 PSI MIN. YIELD

AASHTO M-203, GRADE 270 AASHTO M-203, GRADE 270 AASHTO M-270, GRADE 36

PREFORMED 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. Spacing of bars is from center to center of bars. Clear distance to face of concrete is 2', unless otherwise noted. 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 the Sub-Contractor shall be imprinted in the concrete with 1-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.

BEVELED EDGES: Bevel all exposed edges 3/4, unless otherwise noted.

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 specificaitons.

SITE INSPECTION: The contractor shall familiarize themselves with all conditions at the bridge site. Submission of a bid shall be considered evidence that the contractor has performed a site visit and is familiar with all aspects of the existing bridge and requirements in these plans. The cabinet will not consider any claims due to changed site conditions.

DAMAGE TO STRUCTURE: The contractor shall bear all responsibility and expense for any and all damage to the structure during repair work, even to the removal and replacement of the entire structure, should it be damaged by the contractors actions or inaction.

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. 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.

SHOP DRAWINGS: Fabricators shall submit all required shop plans by e-mail to the design engineer for review (xxx@docs.e-builder.net). These submissions shall depict the shop plans in PDF format as either II'x I7' or 22' x 36' sheets. 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 to the Construction Management Team for distribution. Only plans submitted directly to the Construction Management Team will be distributed, and only plans electronically stamped 'Distributed by Construction Management Team are to be used for fabrication. While this process does not require the submission of paper copies. Construction Management Team reserves the right to require such copies on a case by case basis.

When any changes in the design plans are proposed by the fabricator or supplier, the shop drawings reflecting these changes shall be submitted to the consultant through the contractor.

HITH LITES. The contractor shall be responsible for locating any and all existing utilities prior to excavation of material or installation of guardrail or other construction activities that may involve utilities (overhead or underground).

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: Mostic Tape used to seal joints is to meet the requirements of ASTM C-877 Type I, II, and 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: MGSTIC Tape Statute that: EZ-Wrap Rubber by Press-seal Casket Corporation, SealWrap by Mar Mac Manufacturing Co. Inc., Cadilloc 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 taping a minimum of 6' and in accordance with the manufacturer's recommendations with the overlap running

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'

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.

CONCRETE SEALER: Apply concrete sealer in accordance with the Special Note for Concrete Sealing to the superstructure limits shown on the superstructure detail sheet and all exposed surfaces of the end bents to 6" below finished ground line.

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

JOINT WATERPROOFING: In addition to the standard drawing, all joints are to be sealed including those between beams.

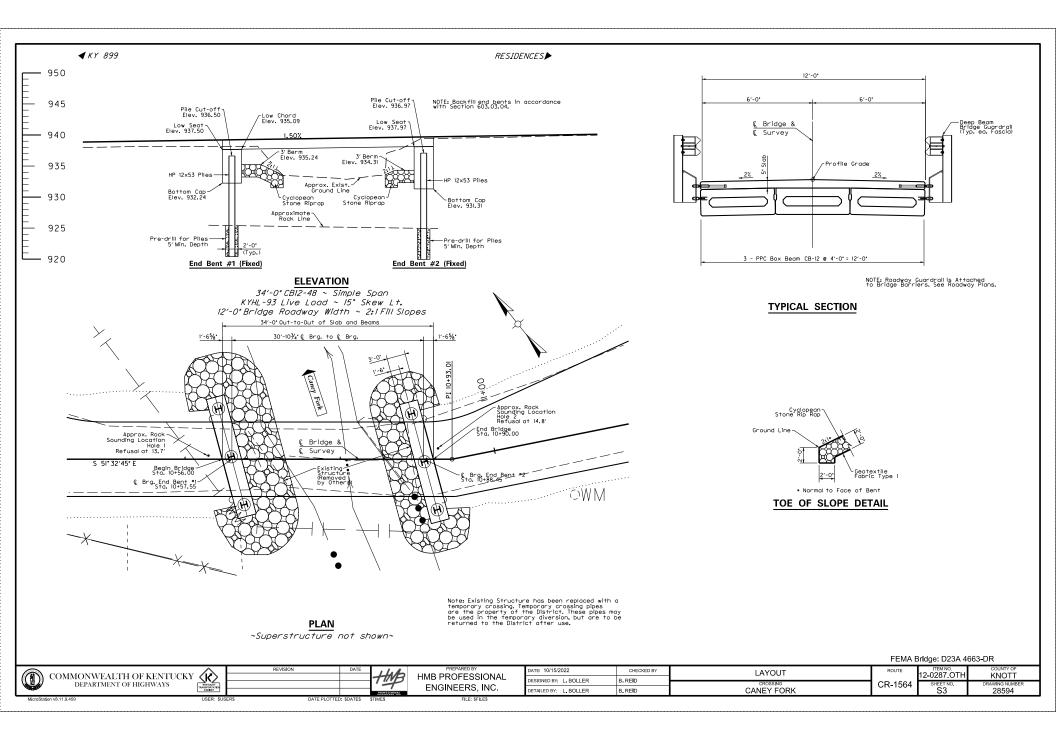
FEMA Bridge: D23A 4663-DR

COMMONWEALTH OF KENTUCKY () DEPARTMENT OF HIGHWAYS

HMB PROFESSIONAL ENGINEERS, INC.

DATE: 10/15/2022 CHECKED BY GENERAL NOTES DESIGNED BY: L. BOLLER . REID DETAILED BY: L. BOLLER B, REID CANEY FORK

2-0287 OT KNOTT CR-1564 S2 28594



Drilling Firm: Kentucky Transportation Cabinet For: Division of Structural Design Geotechnical Branch

Description

Project ID: 060C012

Item Number:

Hole Number 1

Surface Elevation ______

Total Depth 14.5'

Location + 'Lt

Lithology

Depth

1.0

Elevation

DRILLER'S SUBSURFACE LOG

Std/Ky RQD

Start Date <u>08/31/2022</u>

End Date <u>08/31/2022</u>

Latitude(83) 37.340785

Longitude(83) _-82.867364 Depth (ft)

Rec.

Rec (ft)

Knott - Vernie Minor Lane (CR 1564)

Overburden

Rock Core

(Refusal)

mmediate Water Depth ____NA_

Static Water Depth NA

Driller <u>Cody Davidson</u>

Blacktop millings

Loose, brown, moist, sandy clay with sandstone cobbles and boulders.

Medium hard, gray, sandstone Hard, gray, sandstone.

(Bottom of Hole 14.5') (Refusal @ 13.7)

Printed: 9/6/22 Page 1 of 1

Remarks

Project Type: Structure Bridge

Hole Type <u>sounding</u>

Sample Type

SDI (JS)

Rig_Number __

Project Manager:

SPT

Rec (%)

Drilling Firm: Kentucky Transportation Cabinet For: Division of Structural Design Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Printed: 9/6/22

Page 1 of 1

Project I Item Nu	D: <u>060C</u> mber:	:012	Knott - Vernie II	Minor Lane	(CR 15	564)		t Type: <u>St</u> t Manager:		Bridge
Hole Numl Surface El Total Dept Location _	evation <u>'</u> th <u>16.5'</u>		Immediate Water Depth	<u>(A</u>	End D	Date <u>08/31/20</u>	022 10785		Type <u>sou</u> Number	nding
Lithol		Descriptio		Overburden	Sample No.		Rec.	SPT Blows	Sample Type	Remarks
Elevation	Depth	Description		Rock Core	Std/Ky RQD	Run (ft)	Rec (ft)	Rec (%)	SDI (JS)	Nomarks
	96		Limestone gravel fill.							
5										_5
- 10 -		Loose,	brown, moist, sandy clay with fragments.	ı rock						10 -
- - 15	14.8			(Refusal)						. 15
-	16.5	IVI	edium hard, gray, sandstone. Hard, gray, sandstone.							-
<u>20</u> - -			(Bottom of Hole 16.5') (Refusal @ 14.8)							20 -
<u>25</u>										2 <u>5</u>
30 -										3 <u>0</u>
3 <u>5</u>										35
40 -										4 <u>0</u>
45 -										4 <u>5</u>
- 50										50

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS

HENTUCKY TRANSPORTATION CAGINET

HMB PROFESSIONAL ENGINEERS, INC.

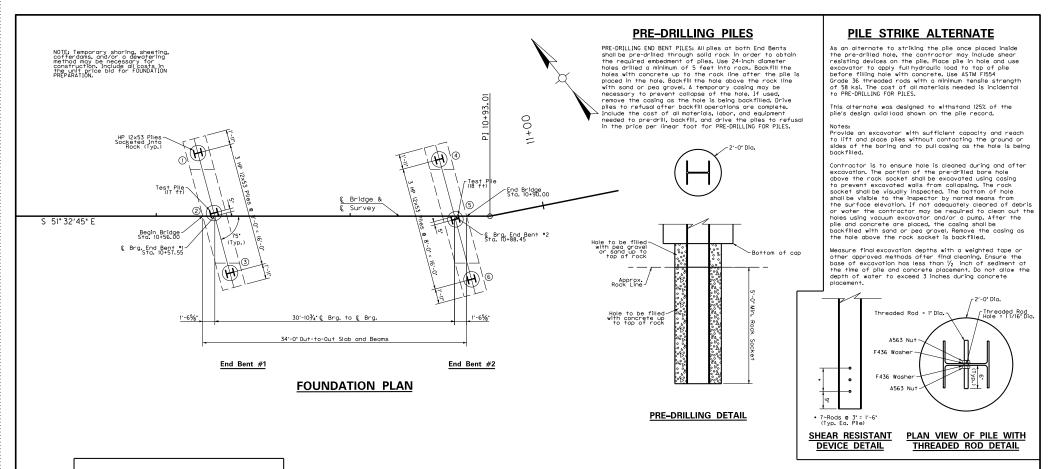
DATE: 10/15/2022 CHECKED BY DESIGNED BY: L. BOLLER B. REID B, REID

FEMA Bridge: D23A 4663-DR SUBSURFACE DATA 2-0287 OTI CR-1564 SHEET NO S4 CANEY FORK

SUBSURFACE DATA

KNOTT

WING NUMBE 28594



PILE RECORD FOR POINT BEARING PILES

PILE NO.	PILE CUT-OFF ELEVATION (FEET)	TIP OF PILE ELEVATION AS DRIVEN (FEET)	LENGTH OF PILE IN PLACE (FEET)	DESIGN AXIAL LOAD (TONS)
-	936.50			95
2	936.50			95
3	936.50			95
4	936.97			95
5	936.97			95
6	936.97			95

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:

DIRECTOR, DIVISION OF STRUCTURAL DESIGN ROOM *322 200 MERO STREET FRANKFORT, KY, 40622-0001

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. USE GRADE 50 STEEL H-PILES WITH PILE POINTS FOR END BEARING PILES.

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: Drive point bearing piles to practical refusal.

PRACTICAL REFUSAL; FOR THIS PROJECT MINIMUM BLOW REQUIREMENTS ARE REACHED AFTER TOTAL PENETRATION BECOMES ½* OR LESS FOR 10 CONSECUTIVE BLOWS. PRACTICAL REFUSAL IS OBTAINED AFTER THE PILE IS STRUCK AN ADDITIONAL 10 BLOWS WITH TOTAL PENETRATION OF ½*, OR LESS. IMMEDIATELY CEASE DRIVING OPERATIONS IF THE PILE VISIBLY YIELDS OR BECOMES DAMAGED DURING DRIVING. DRIVE ADDITIONAL PRODUCTION AND TEST PILES IF DIRECTED BY THE ENGINEER.

FEMA Brldge: D23A 4663-DR

KNOTT

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS

REVISION

DATE

PREPARED BY

HMB PROFESSIONAL

ENGINEERS, INC.

DATE: 10/15/2022

CHECKED BY

DESIGNED BY: L. BOLLER

DETAILED BY: L., BOLLER

B, REID

DETAILED BY: L., BOLLER

DETAILED BY: L., BOLLER

B, REID

DETAILED BY: L., BOLLER

B, REID

DATE: 10/15/2022	CHECKED BY	FOUNDATION LAYOUT	ROUTE	12-0287.OTH
DESIGNED BY: L. BOLLER	B. REID	CROSSING	CR-1564	SHEET NO
DETAILED BY: L. BOLLER	B. REID	CANEY FORK	CIX-1304	S5

DEPARTMENT OF HIGHWAYS

USER SUSERS

DATE PLOTTED: SPATES

ENGINEERS, INC.

DETAILED BY: L, BOLLER

B, REID

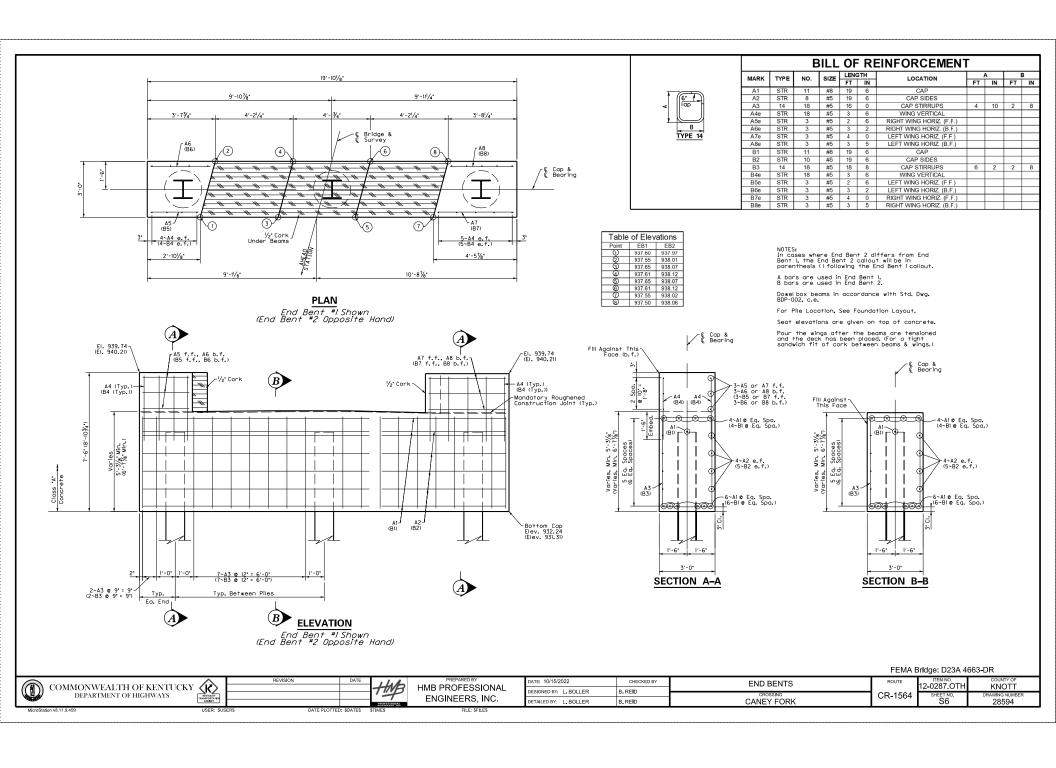
CANEY FORK

CROSSING

CR.-1564

S5

28594



PRECAST PRESTRESSED BOX BEAMS

General Notes

SPECIFICATIONS: All references to the standard Specifications are to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, with current supplemental Specifications. All references to the AASHTO Specifications are to the current edition of the AASHTO LRFD Bridge Design Specifications,

DESIGN LOADS: Beam sections are designed for 1.25*HL93 (KYHL93) Live Load.

DESIGN LOAD DISTRIBUTION: Contrary to AASHTO LRFD Bridge Design Specifications, the design moment and shear distribution for all beams is 0.5 lanes.

FUTURE WEARING SURFACE: These beams are designed for a 15 PSF future wearing

SUBSTRUCTURE DESIGN LOADS: Unfactored design reaction forces per beam end. DC (kips): Beam, Slab (if applicable), and Type II ralling dead loads.

DW (kips): Future wearing surface.

LL (kips): Beam Live Load reaction per lane x Design load distribution.

LL+I (kips): LL with Dynamic load allowance.

DESIGN DEFLECTIONS:

Δd (in.): Sum of the downwards deflections caused by the design 5" deck, railing, and

future wearing surface. (Positive Downwards)

Δc (in.): Upwards midspan camber of the beam caused by prestressing minus the

downward deflection of the beam due to self weight. (Positive Upwards)

MATERIAL DESIGN SPECIFICATIONS:

for Steel Reinforcement FY = 60000 PSI for Prestressed Girder Concrete (Typ. U.N.O.) F'C = 7000 PSI E'CI = 5500 PSI for Class "AA" Concrete for Prestressing Steel F'S = 270000 PSI

DESIGN LENGTH: Beam lengths shown in the Standards represent total beam length. Use the next greater designed section for non-Standard lengths.

CONSTRUCTION METHOD: Transferring bond stress to the concrete will not be allowed, nor releasing of end anchors until the concrete has attained a minimum compressive strength of FCI as shown by standard cylinders made and cured identically with the girders; attain FC at or prior to 28 days. Apply an initial prestress force of 33817 lbs. per low relaxation strand. Beams with honeycomb of such extent as to affect the strength of resistance to deterioration will not be accepted. The allowance of mountain the such as to affect the strength of resistance to deterioration of beams due to shrinkage and elastic change. Furnish shop plans showing a deterioring plan by numbering, in sequence, the strand pattern.

PRESTRESSING STRANDS: Ensure prestressing strands to be b" oversize (0.167 sq. in.) uncoated seven- wire stress relieved, low- relaxation strands conforming to AASHTO M 203, Grade 270. If an alternate strand arrangement or strand type is preferred by the Contractor, the designer that developed the original plans will provide the design and alternate that the contractor expanse. These design and plan modifications will be done at the

CORROSION INHIBITOR: Provide a corrosion inhibitor for B-type (non-composite) beams from the list of approved materials.

BEVELED EDGES: Bevel all exposed edges 5".

BEAM SEALER: For composite box beams (CB Beams), seal the full length of the exterior face of all exterior beams with the extent from the top of the beam to 11-0" underneath the beam. For non-composite box beams (B beams), seal all faces of all beams, except take care to ensure the grout pockets are not sealed. Use an approved slane sealer as specified by the Division of Structural Design.

REINFORCEMENT: Dimensions shown from the face of concrete to reinforcement are clear distances. Spacing of reinforcement is to be epoxy coated in accordance with Section 81.10 of the Specifications. Consider bars marked "C" to be a stirrup for purposes of bend diameters. Non-epoxy reinforcement may be used for fabrication. In the top 5 $\frac{1}{2}$ " of the beam and the location of the steel is indicated on the shop drawings.

FABRICATION: Beams shall not be fabricated more than 120 days before the deck is to be

GROUT: Provide non-shrink grout for anchor dowels, shear keys, and tensioning rod block-outs conforming with Section 601,03,03 of the Specifications. When side by side superstructure is utilized, grouting will be completed after lateral tension rods have been fully tightened and before leveling devices have been removed. Include the cost of furnishing and placing grout in the price of beam.

ITEM	DESCRIPTION	MATERIAL SPECIFICATION	COATING SPECIFICATION
Post	W6x25	ASTM A36 or A572	A123
Channel	C7x9.8	ASTM A36 or A572	A123
Plate	1/3"x 7"	ASTM A36 or A572	A123
Tubing	8x4x0.1875	ASTM A500 or A501	A123
Bolts	%"	ASTM A307	A153
Nuts	for %"	ASTM A563, Grade A or better	A153
Washers	for 5/8"	ASTM A563, Grade A or better	A153
Stud	11/4"	ASTM A108 (1045 C.D. Bar)	B633, Type II, Class 25
Ferru l e	2½"x 5"	ASTM A108 (11L17 Steel)	B633, Type II, Class 25
Wire	3∕8"	ASTM A510 (1018 Steel)	B633, Type II, Class 25
Nut	for 1 1/4" Bolt	ASTM A108 (12L14 Steel)	B633, Type II, Class 25
Nut	for 1 1/4" Stud	ASTM A325M	B633, Type II, Class 25
Washers	for 1 1/4" Stud	ASTM A325M	B633, Type II, Class 25

See Deep Beam Rail Details for materials

Use the current edition of the references listed below with these standards.

STANDARD DRAWINGS

B.IE-001 Armored Edge & Neoprene Joints

SPECIAL NOTES

for Corrosion Inhibitors

FEMA Bridge: D23A 4663-DR

COMMONWEALTH OF KENTUCKY

DEPARTMENT OF HIGHWAYS

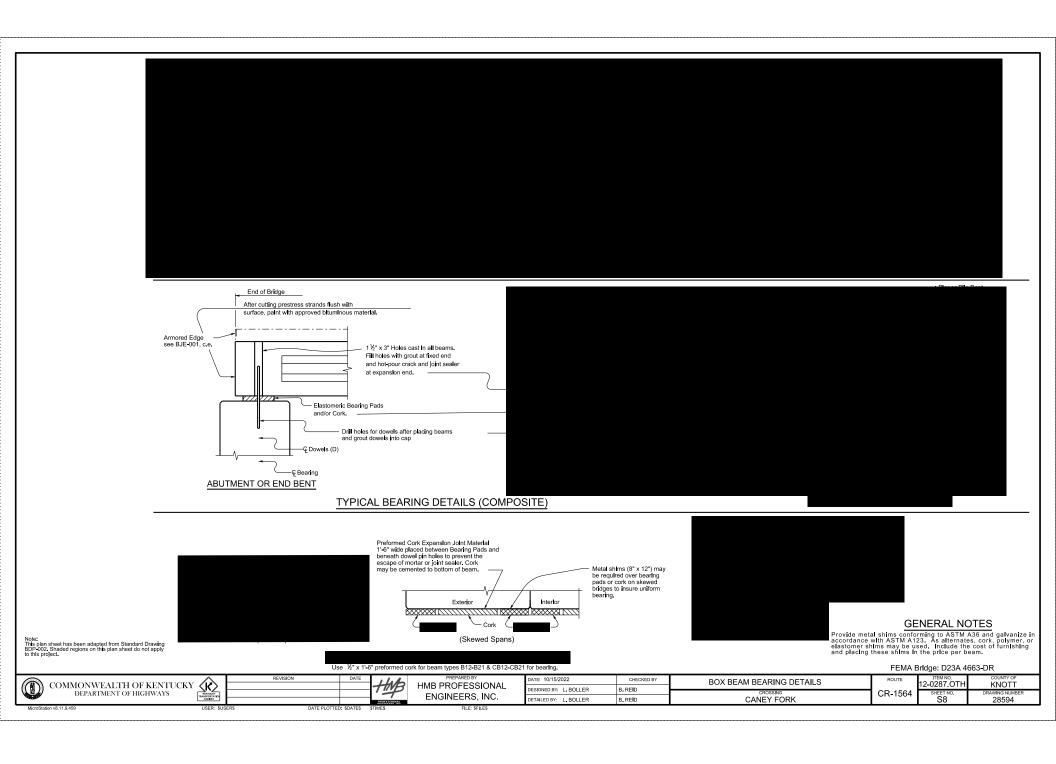
This plan sheet has been adapted from Standard Drawing BDP-001. Shaded regions on this plan sheet do not apply

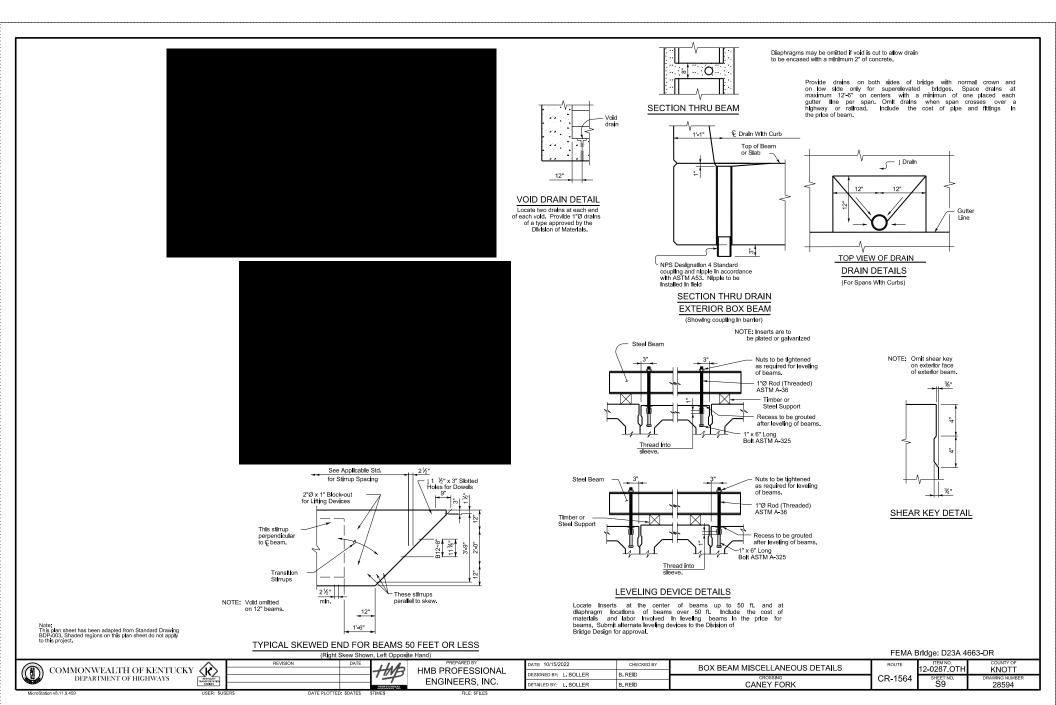
 $\langle k \rangle$ RENTUCKY TRANSPORTATION CASINET

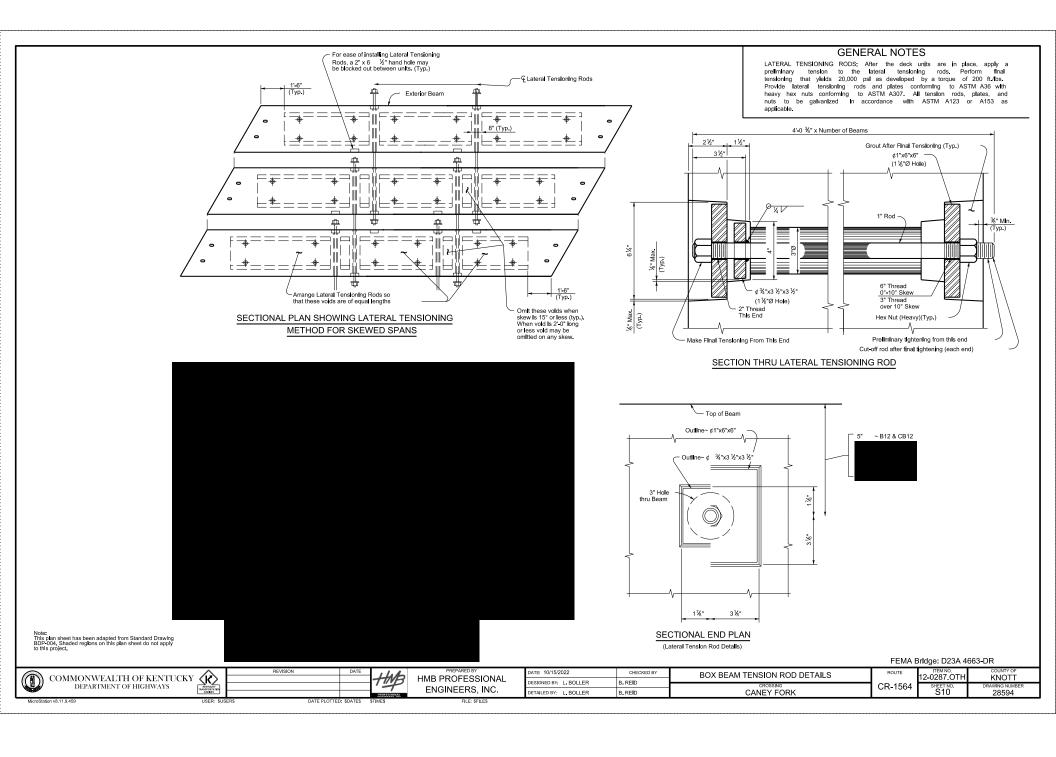
HMB PROFESSIONAL ENGINEERS, INC.

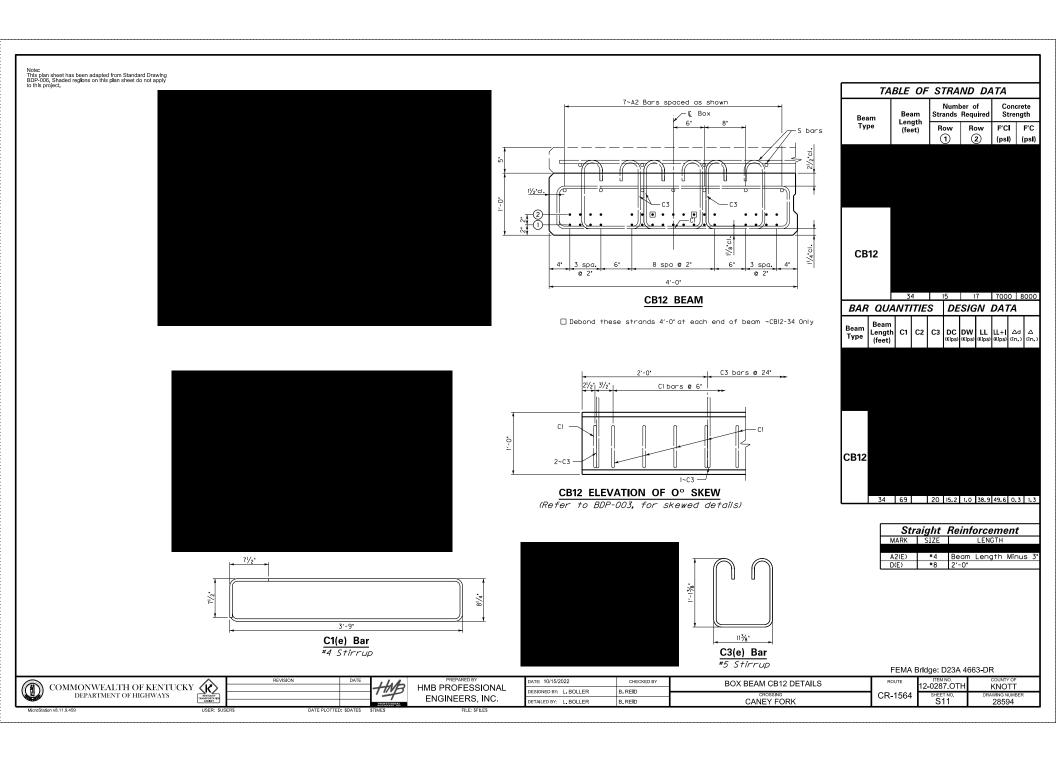
DATE: 10/15/2022 CHECKED BY **BOX BEAMS GENERAL NOTES** DESIGNED BY: L. BOLLER . REID DETAILED BY: L. BOLLER B, REID CANEY FORK

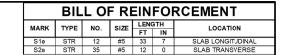
2-0287.OT KNOTT CR-1564 SHEET N 28594

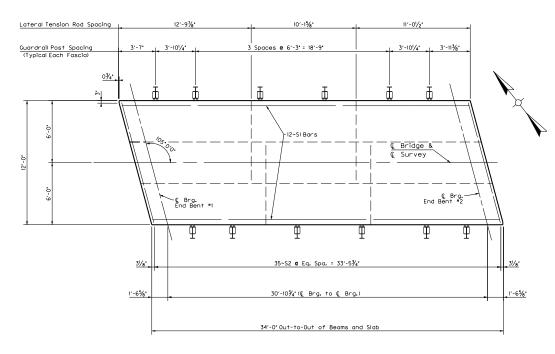










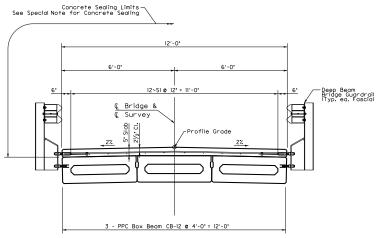


LAYOUT



"V-GROOVE" RUSTICATION

NOTE: The quantity for Class 'AA' Concrete is based on a 5' slab thickness, plus ½' for beam camber afferential at the beam ends and vertical curve in the slab. Any additional concrete required above the plan quantity, due to excessive beam camber is the Contractor's responsibility and at no cost to the Department.

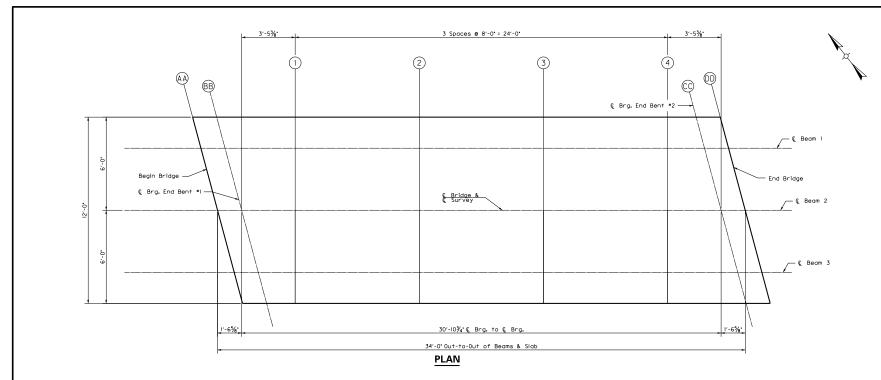


NOTE: Roadway Guardrail is Attached to Bridge Barriers. See Roadway Plans.

TYPICAL SECTION

FEMA Brldge: D23A 4663-DR

DATE: 10/15/2022 CHECKED BY SUPERSTRUCTURE DETAILS COMMONWEALTH OF KENTUCKY 2-0287 OTI HMB PROFESSIONAL KNOTT DESIGNED BY: L. BOLLER B. REID DEPARTMENT OF HIGHWAYS CR-1564 SHEET NO AWING NUMBE 28594 ENGINEERS, INC. DETAILED BY: L. BOLLER B. REID CANEY FORK



NOTES FOR ELEVATIONS TAKEN ON PRESTRESSED CONCRETE BEAMS

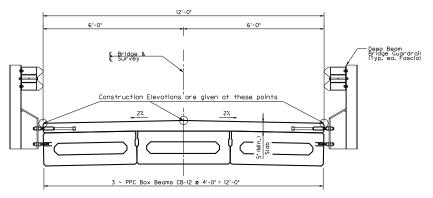
Take elevations on top of beam at points indicated by the grid For setting templates, measure dimension "X" above top of beams layout. The beam elevations are to be read to three decimals, and entered in tables under "Top of Beam" elevations.

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 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.

The minimum allowable dimension "X" or slab thickness is $4\frac{3}{4}$ " (0.395'). If any computed dimension "X" is outside these limits, adjustments need to be made to the dimensions "X" on one or more grid lines at the discretion of the Engineer.



CONSTRUCTION FLEVATIONS

			,,,,,,,,,,	011011		0. 10			
LOCATION	LE	FT FASC	IA	(BRIDGE	Ē.	RI	GHT FASC	ΙA
LOCATION	CONSTR. ELEV.	TOP OF BEAM	DIM.	CONSTR. ELEV.	TOP OF BEAM	DIM.	CONSTR. ELEV.	TOP OF BEAM	DIM.
SKEW LN AA	939.060			939.205			939.109		
SKEW LN BB	939.084			939.228			939.132		
SKEW LN CC	939.547			939.691			939.595		
SKEW LN DD	939.570			939.715			939.619		
GRID LN 01	939.169			939.287			939.165		
GRID LN 02	939.297			939.417			939.296		
GRID LN 03	939.416			939.537			939.417		
GRID LN 04	939.525			939.647			939.532		

TYPICAL SECTION

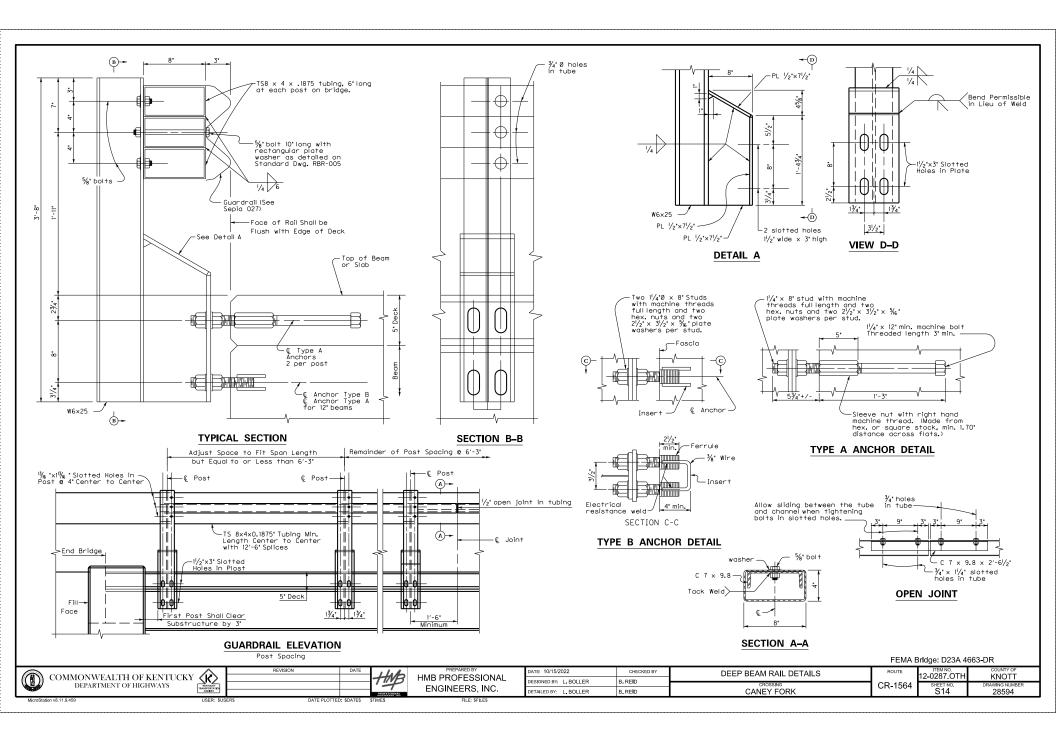
COMMONWEALTH OF KENTUCKY (K) DEPARTMENT OF HIGHWAYS RENTUCKY TRANSPORTATION CASINET

HMB PROFESSIONAL ENGINEERS, INC.

DATE: 10/15/2022 CHECKED BY DECK DETAILS DESIGNED BY: L. BOLLER B. REID DETAILED BY: L. BOLLER B, REID CANEY FORK

FEMA Bridge: D23A 4663-DR

2-0287 OTI KNOTT CR-1564 SHEET NO 28594



COUNTY OF	ITEM NO.	SHEET NO.
KNOTT	12-0287.0TH	U1

UTILITY SUMMARY

ITEM	DESCRIPTION	UNIT	SHEET U3			PROJECT
WATER	LINE SUMMARY					
14003	W CAP EXISTING MAIN	EA	2			2
14004	W DIRECTIONAL BORE	LF	45			45
14012	W ENCASEMENT STEEL OPEN CUT RANGE 1	LF	15			15
14057	W PIPE PVC 03	LF	70			70
14092	W TIE-IN 03 INCH	EA	2			2
14103	W VALVE 03 INCH	EA	2			2
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UTILITY CONSTRUCTION TO BE COMPLETED BY OTHER PRIOR TO CONSTRUCTION. UTILITY PLANS ARE FOR INFORMATION ONLY.

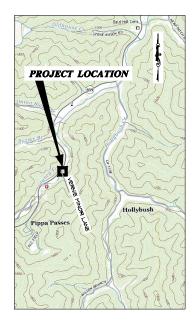
UTILITY SUMMARY VERNIE MINOR LANE OVER CANEY FORK

COUNTY OF	ITEM NO.	SHEET NO.
KNOTT	12-0287.0TH	U2

GENERAL NOTES

- PRIDE TO BEGINNING CONSTRUCTION, THE CONTRACTOR IS TO VERIFY ALL FINISHED GRADES AND DIMENSIONS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
- EFFORTS MAYE BEDS MINE TO DISJOINT THE MOST ACCURATE LIBEATING OF EAST. STREET, PRING MAY WITH THE THE CONTROL OF THE CONTROL
- DIMENSIONS OF EXIST, STRUCTURES AND/OR SIZE RESTRICTIONS ARE APPROXIMATE.
 AL. NICLESSARY DIMENSIONS AND ELEVATIONS OF EXIST, STRUCTURES &
 CONSTRUCTION DEPARTIONS OF THE CONTRACTOR IN THE FIELD PRIOR TO HIS
 CONSTRUCTION DEPARTION.
- THE CONTRACTOR SHALL OBTAIN REQUIRED PERMITS AND GIVE ALL NOTICES REQUIRED FOR EXECUTION OF THE WORK. THE CONTRACTOR SHALL PAY FOR ALL PERMITS AND ANY APPLICABLE SERVICES INSPECTION FEES.
- THE CONTRACTOR'S VORK AND OPERATIONS SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL CODES AND RECEIVE APPROVAL WHERE NECESSARY PRIOR TO COMMENCEMENT OF THE VORK.
- ALL MATERIALS BEING REMOVED AND NOT RE-USED IN THE NEW CONSTRUCTION SHALL BE FIRST OFFERED TO THE OWNER ALL MATERIALS NOT ACCEPTED SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.
- ALL BURIED PIPES SHALL HAVE A MINIMUM OF 3"-6" COVER AS MEASURED VERTICALLY FROM FINISHED GRADE TO THE TOP OF PIPE, UNLESS OTHERVISE MOTED.
- ALL REQUIRED PIPING BENDS MAY NOT BE SHOWN ON THE DRAVINGS. ADDITION BENDS MAY BE NECESSARY TO CONFORM WITH ELEVATIONS SHOWN AND TO MAINTAIN ABEQUATE ORGUNDE COVER. THE COST OF MAY ADDITIONAL BENDS REQUIRED SHALL BE INCLUDED IN THE LUMP SUM OR UNIT BID PRICE.
- THE PROPERTY LINES OR EASEMENTS SHOWN ON THE DRAWINGS SHALL BE THE LIMITS OF CONSTRUCTION. ANY ADDITIONAL EASEMENTS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER BY SUBMITTING A REQUEST FOR SUCH TO THE OWNER.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VORK ALL APPLICABLE BRAWNS AND SPECIFICATIONS AS A UNIT. ANY DHISSIONS, DELETIONS AND/OR COPPLICTS RESING AS A RESULT OF FALURE TO INCORPORATE ALL BRAWNSS AND SPECIFICATIONS WHICH APPLY SHALL BE CORRECTED BY THE CONTRACTOR AT MO ADDITIONAL COST TO THE CONST.

- BOLD STRENGTH LINES REPRESENT PROPOSED WORK, LIGHT/SHADED LINES REPRESENT EXIST. FACILITIES.
- THE ENGINEER RESERVES THE RIGHT TO MAKE MINOR ADJUSTMENTS IN THE WORK IN ORDER TO ACCOMPLISH THE INTENT OF THE DESIGN
- THE CONTRACTOR SHALL PLACE TEMPORARY STORM WATER CONTROL STRUCTURES AND TAKE ALL NECESSARY PRECAUTIONS TO CONTROL STORM WATER ROUNCET AND ENGISION. DO NOT CLOB, BLOCK OR OTHERWISE INTERFERE WITH THE EXISTING STORM WATER SYSTEM. PLACE HAY BALES AND SILT DAMA'S AS NECESSARY TO CONTROL CRISISION.
- GENERALLY SLOPE GRADES UNIFORMLY BETWEEN NOTED GRADE POINTS.
- ALL EARTH FILL TO BE COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONTRACTOR SHALL CLEAN SITE/ROADS VEEKLY, UNLESS REQUESTED MORE FREQUENTLY.
- CONTRACTOR SHALL COORDINATE ANY TIE-INS/SHUT DOWNS WITH DWNERS PERSONNEL WITH A MINIMUM NOTIFICATION OF 7 DAYS.
- ALL PIPE JOINTS AND FITTINGS BELOW STRUCTURES SHALL BE RESTRAINED JOINTS.
- COATING SYSTEMS REQUIRED ON ALL EXPOSED STEEL, DIP VALVES, FITTINGS AND MISC. METALS PER SECTION 09900 OF THE SPECIFICATIONS.
- 23. ALL FLANGED PIPE/FITTING CONNECTIONS SHALL BE PROVIDED WITH TYPE 304 STAINLESS STEEL NUTS AND BOLIS/HARDWARE.
- ALL DUCTILE IRON PIPE AND FITTINGS FOR AIR PIPING SHALL BE UNLINED INCLUDING CEMENT LINING.
- ALL ANCHOR BOLTS AND HARDWARE SHALL BE TYPE 304 STAINLESS STEEL UNLESS OTHERWISE INDICATED.
- INSTALL VALVE BOXES, TRACER WIRE, AND LINE MARKERS PER SPECIFICATIONS.



LOCATION MAP

BEFORE YOU DIG

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 placed minimum of two [2] and no more than the [10] business ddgs pitch to exceed the The properties of the contract of the contract of the contractor of the members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coordinat excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

LEGEND:

EXISTING:

PROPOSED:

— W —

WATER

CONTACT INFORMATION

WATER
KNOTT CO WATER & SEWER DISTRICT
JARED SALMONS, GENERAL MANAGER
777 BIG BRANCH ROAD
VICCO, KY, 41773 (606) 645-3582

INDEX OF SHEETS

KYTC UTILITY SUMMARY

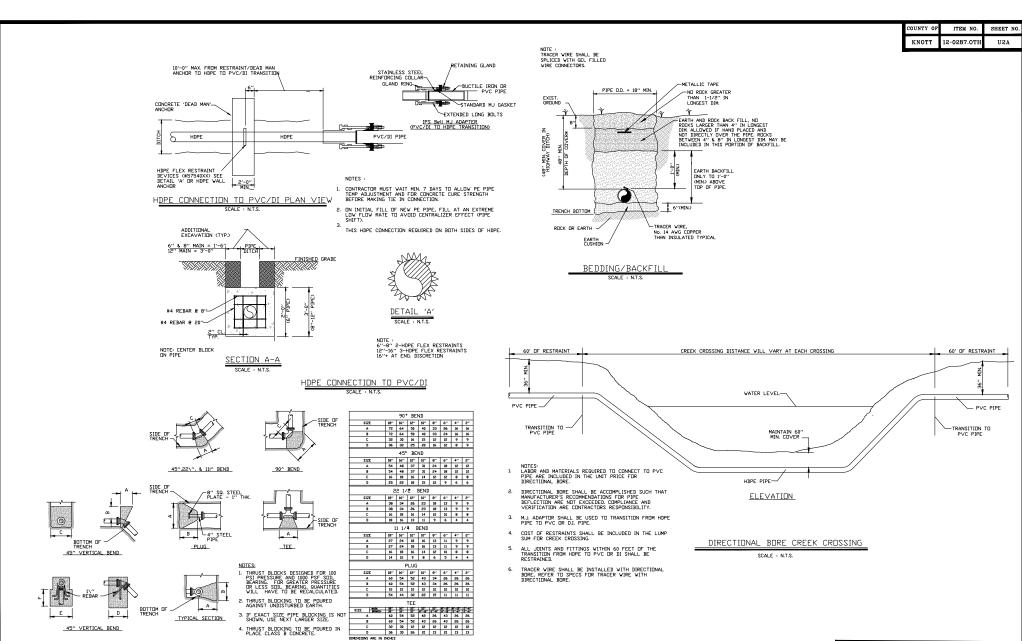
GENERAL NOTES, LOCATION MAP & INDEX OF SHEETS

LIZA STANDARD DETAILS U3

HOLLYBUSH CREEK WATER LINE - PLAN HOLLYBUSH CREEK WATER LINE - PROFILE

> UTILITY CONSTRUCTION TO BE COMPLETED BY OTHERS PRIOR TO CONSTRUCTION, UTILITY PLANS ARE FOR INFORMATION ONLY.

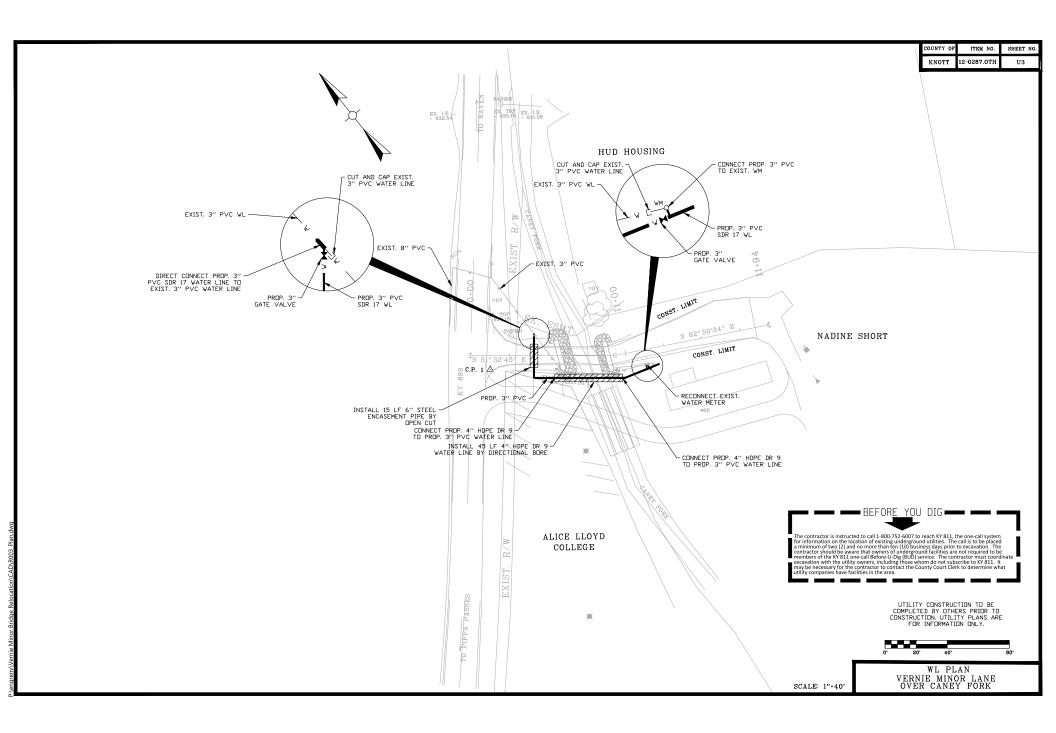
GENERAL NOTES, INDEX, & MAP VERNIE MINOR LANE OVER CANEY FORK



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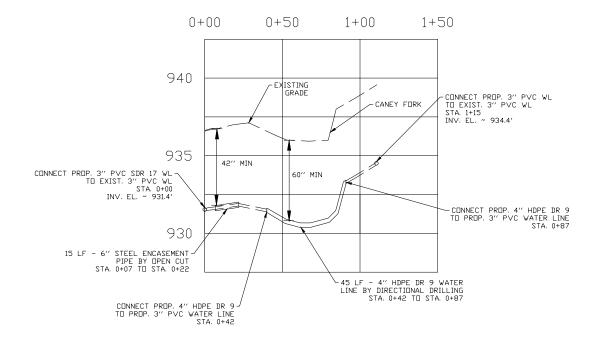
SCALE : N.T.S.

STANDARD DETAILS VERNIE MINOR LANE OVER CANEY FORK



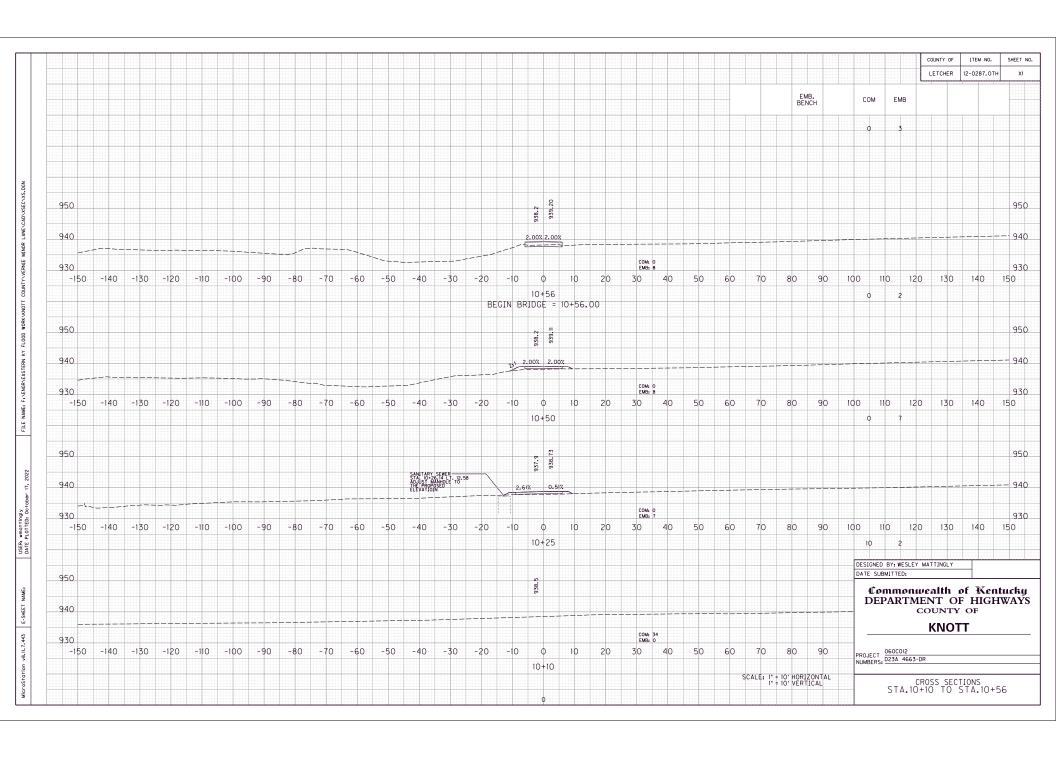
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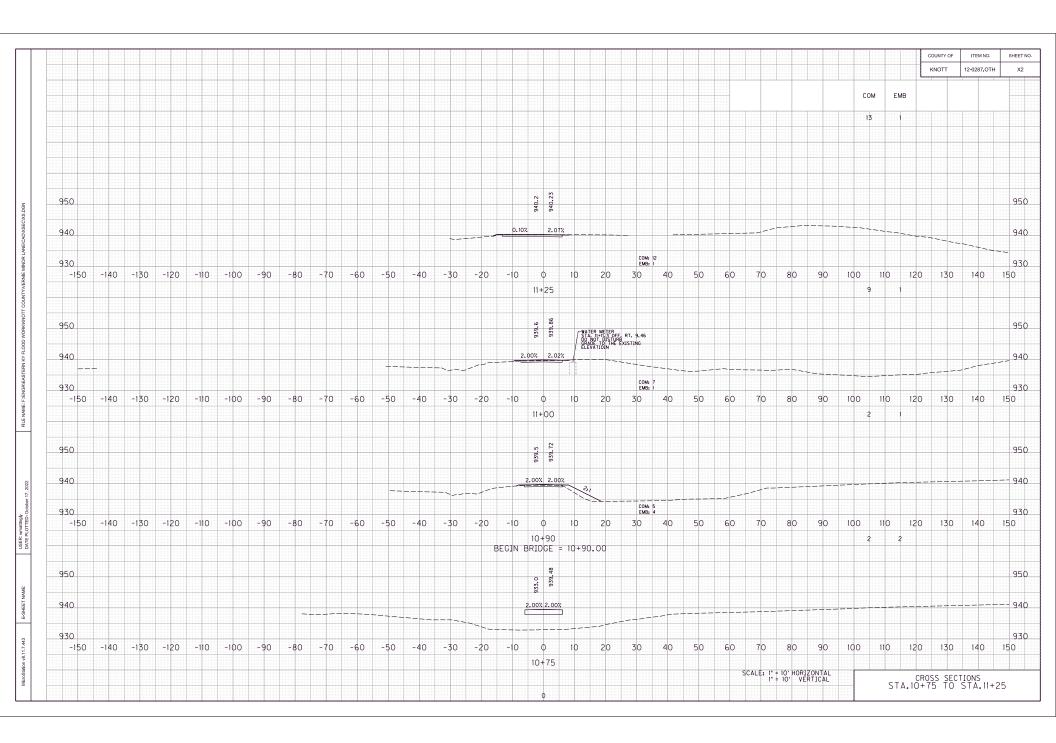
KNOTT 12-0287.OTH U4

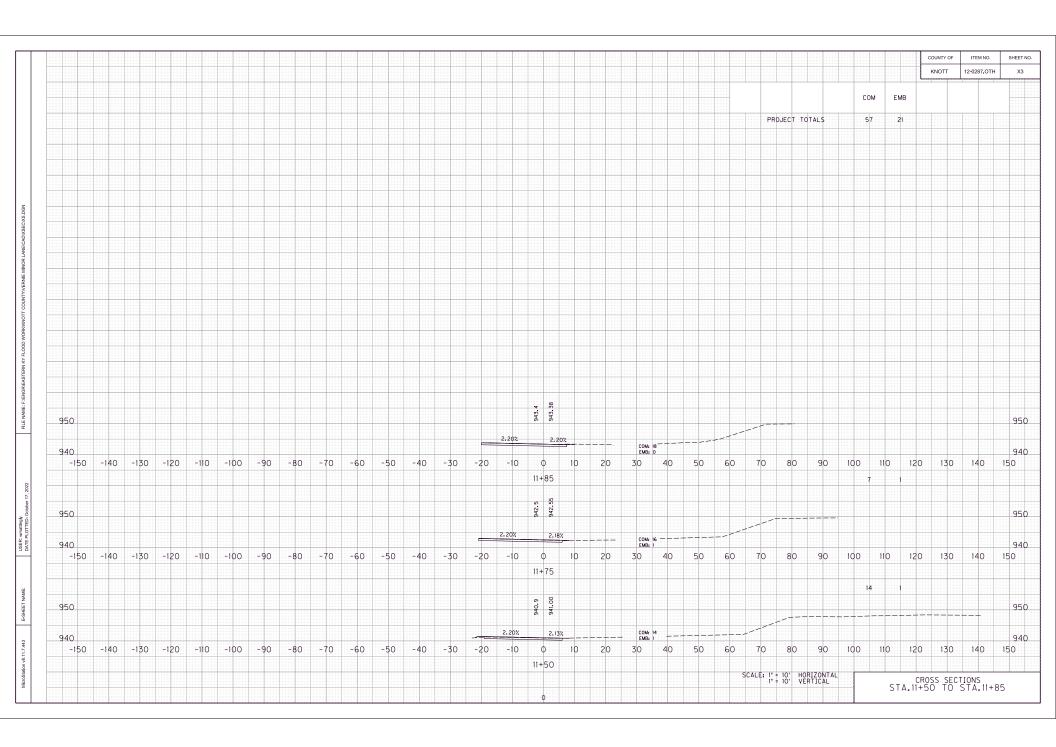


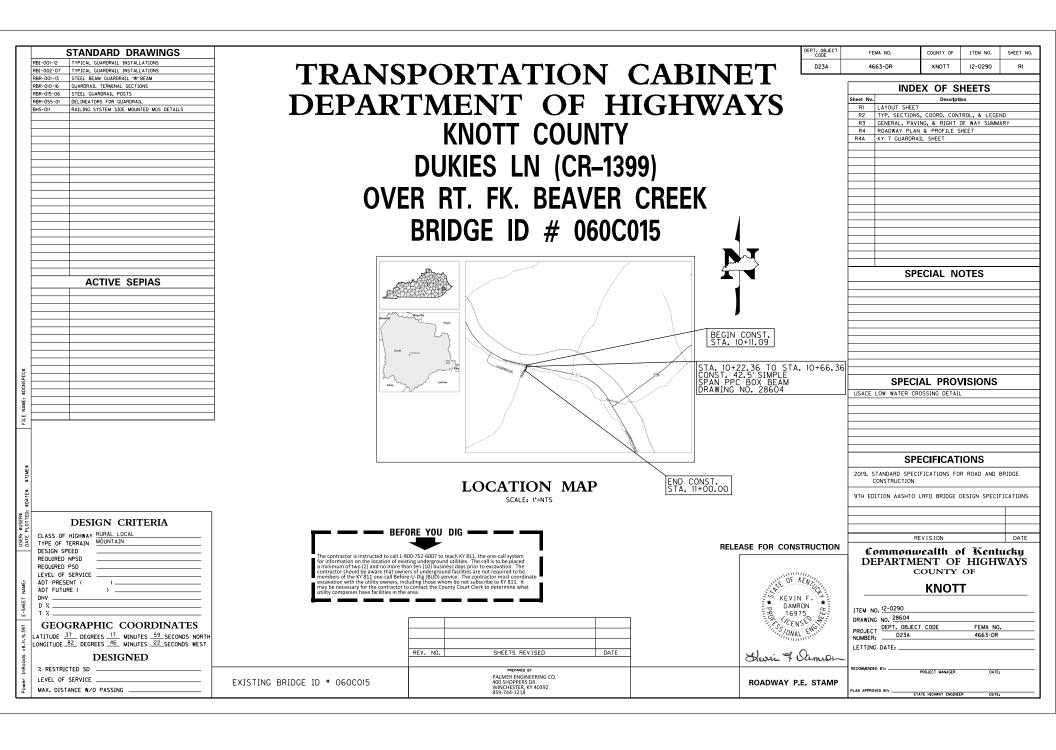
ernie Minor Bridge Relocation\CAD\R003_F

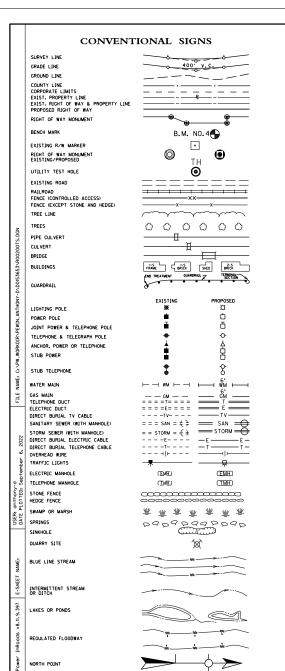
WL PROFILE VERNIE MINOR LANE OVER CANEY FORK

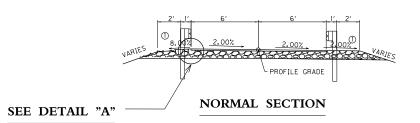


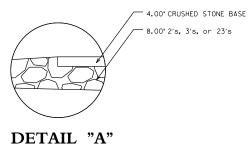












SEE BRIDGE LAYOUT SHEET FOR BRIDGE TYPICAL SECTION

BRIDGE SECTION

COORDINATE CONTROL POINTS									
POINT	DESCRIPTION	inates	STATION	OFFSET					
POINT		NORTH (Y)	EAST (X)	ELEV. (Z)	STATION	OFFSET			
1	CP IPC 1	3680461.970	5704738.529	1005.620	11+32.57	23.64' RT			
2	CP IPC 2	3680389.853	5704811.870	1002.075	12 + 20.95	14.23' LT			
2 6	CP MAG	3680535.350	5704835.287	1018.614	10 + 29.58	9.17' LT			

COUNTY OF	ITEM NO.	SHEET NO.			
KNOTT	12-0290	R2			
DEPT. OBJECT CODE	FEMA NO.				
D23A	4663-DR				

NOTES

1 SEE PLAN SHEETS FOR LOCATIONS.

TRAFFIC LANE & SHOULDER PAVEMENT

TRAFFIC LANE & SHOULDER PAVEMENT OVERLAY

CSB -----VARIABLE DEPTH

BASIS OF COORDINATES

Coordinates for horizontal control were obtained from GPS methods and adjusted to the National NAD83/FBN System.

Coordinate are based on State Plane Coordinate System $\,$ Single Zone and in U.S. SURVEY FEET.

BASIS OF ELEVATIONS

Elevations were derived from GPS methods and are adjusted to the NAVD88 Vertical Datum. Geoid model used was Geoid03.

CENTERLINE COORD. CONTROL							
POINT	STATION						
POINT	DESCRIPTION	NORTH (Y) EAST (X)	STATION				
1	РОВ	3646596.100 5787097.435	10+00.00				
2	PC 1	3646519.192 5787081.466	10 + 78.55				
3	PI 1	3646505.996 5787078.726	10 + 92.03				
4	PT 1	3646494.761 5787071.283	11+05.18				
5	POE	3646458.513 5787047.268	11 + 48.66				

TYPICAL SECTION & LEGEND & COORD. CONTROL SHEET DUKIES LN

GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT	DDUKIES LN		PROJECT TOTAL
1987	DELINEATOR FOR GUARDRAIL	EACH	6		6
2351	GUARDRAIL - STEEL W BEAM - S FACE	LF	587.5		587.5
2360	GUARDRAIL TERMINAL SECTION NO. 1	EACH	2		2
2562	TEMPORARY SIGNS	SF	27		27
2569	DEMOBILIZATION	LS	1		1
2650	MAINTAIN AND CONTROL TRAFFIC ②	LS	1		1
2726	STAKING	LS	1		1
2731	REMOVE STRUCTURE 4	LS	1		1
5952	TEMPORARY MULCH	SY	194		194
5953	TEMP SEEDING AND PROTECTION	SY	145		145
5985	SEEDING AND PROTECTION	SY	16		16
5992	AGRICULTURAL LIMESTONE	TON	.01		.01

PAVING SUMMARY

ITEM CODE	ITEM	TONS		PROJECT TOTAL
3	CRUSHED STONE BASE ①	15		15
80	CRUSHED AGGREGATE NO. 23①	27		27

COUNTY OF	ITEM NO.	SHEET NO.					
KNOTT	12-0290	R3					
DEPT. OBJECT CODE	FEMA NO.						
D23A	4663-DR						

PAVING AREAS

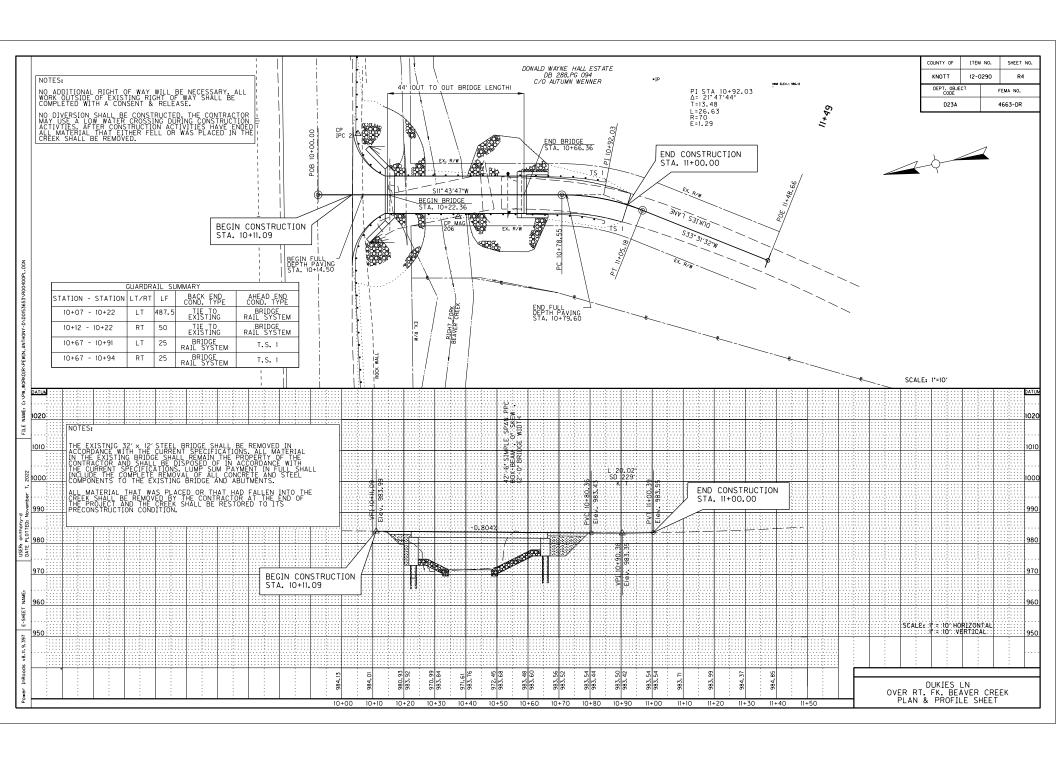
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4.004.001/05/05/05/05/05/05/05/05/05/05/05/05/05/	S C	1	U	Α	H	E	_Y	Α	K		
4.00" CRUSHED STONE BASE	64				_		_		_	64	
8.00" CRUSHED AGGREGATE NO. 23 ③	31									31	
FULL DEPTH CRUSHED AGGREGATE NO. 23 ③	18									18	
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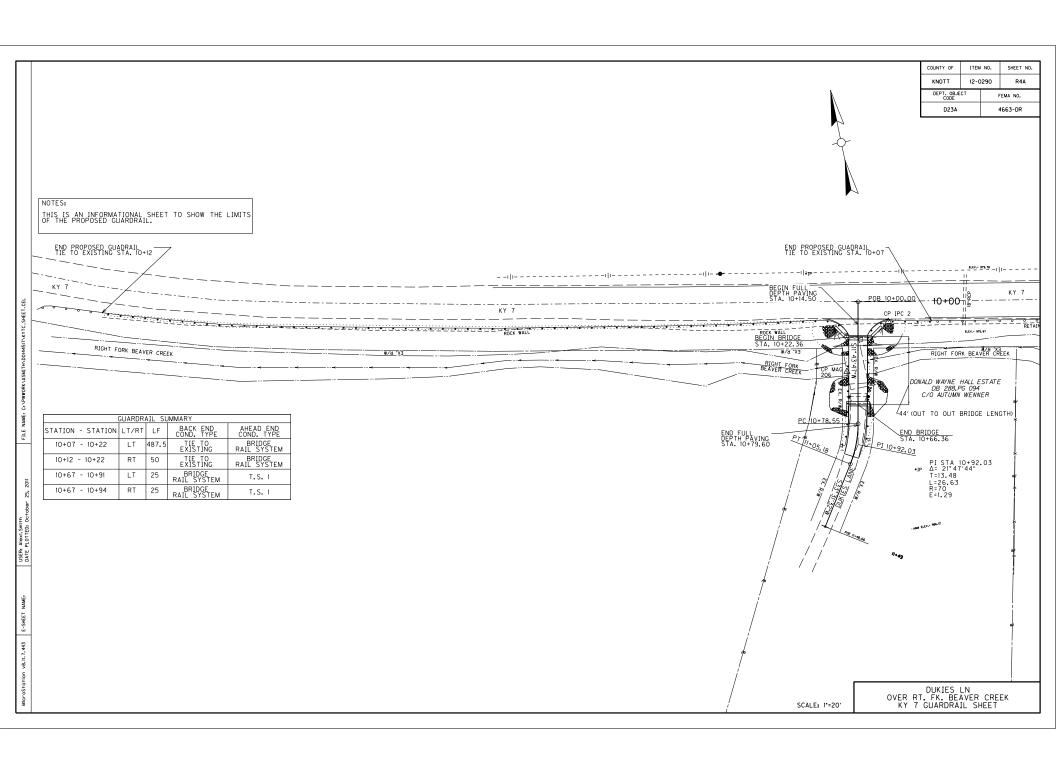
NOTES

① ESTIMATED AT 115 LBS. PER SO. YD. PER INCH OF DEPTH.

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\DOI53653\R00300SU.DGN

- ② THE COST TO CONSTRUCT, MAINTAIN, AND REMOVE THE TEMPORARY DIVERSION SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "MAINTAIN AND CONTROL TRAFFIC".
- ③ CONTRACTOR MAY USE CRUSHED AGGREGATE NO. 2's, NO. 3's, OR NO. 23's.
- REMOVAL OF THE STRUCTURE INCLUDES THE REMOVAL OF THE CONCRETE SLAB, STEEL RAILING, SUPERSTRUCTURE AND ANY FRAMEWOOK IN PLACE. REMOVAL OF THE BRIDGE SHALL INCLUDE THE TRANSPORTATION AND DISPOSAL OF ALL DEMOLISHED MATERIAL, UNLESS OTHER WISE DIRECTED BY THE ENGINEER, ALL MATERIAL REMOVED FROM THE STRUCTURE SHALL BE THE PROPERTY OF THE CONTRACTOR.





TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS **KNOTT COUNTY** CR 1399 - DUKIES LANE OVER RT. FORK OF BEAVER CREEK STA. 10 + 44.36

	ESTIMATE OF QUANTITIES																				
BID ITEM CODE	02231	03299	08001	08019	08033	08039	08051	08095	08100	08104	08151	08170	08662	23378EC	02998	25017ED					
BID ITEM	Structure Granular Backfill	Armored Edge for Concrete	Structure Excavation, Common	Cyclopean Stone P	Test Piles	Pre-drilling for Piles	Piles - Steel HP 14 x 89	Pije Points 14"	Concrete Class "A"	Concrete Class "AA"	Steel Reinforcement, Epoxy Coated	Shear © Connectors	PPC Box Beam CB17-48	Concrete Sealing	Masonry Coating	Rail System Side Mounted MGS					
UNIT	C.Y.	L.F.	C.Y.	TONS	L.F.	L.F.	L.F.	EACH	C.Y.	C.Y.	LBS.	L.S.	L.F.	S.F.	S.Y.	LF.					
End Bent #1	26		57	99	22	36	51		30		5518				37						
p End Bent #2	30		46	89	19	30	29	3	15		2668				23						
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																					\vdash
Superstructure		24								9	977		132	565	14	76					\vdash
BRIDGE TOTALS	56	24	103	188	41	66	80	3	45	9	9163	I	132	565	74	76					

A See note on Sheet SO3.



SPECIFICATIONS

INDEX OF SHEETS Description

SPECIAL NOTES

SPECIAL PROVISIONS 69 Embankment at Bridge End Bent Structures

STANDARD DRAWINGS 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-007-05 Box Beam BI7 & CBI7 Details BGX-006-10 Stencils for Structures

Railing System Side Mounted MGS Details

Special Note for Sealing Bridge Decks

S01 Title Sheet

S07

BHS-011

BJE-001-14 Armored Edges BPS-011-04 HP14x89 Steel Pile RBR-001-13 Steel Beam Guardrail ("W" Beam) RBR-015-06 Steel Guardrail Posts RGX-100-07 Treatments of Embankments at End Bents
RGX-105-09 Treatments of Embankments at End Bents

SO2 General Notes S03 Bridge Layout S04 Foundation Layout S05 End Bent I

End Bent 1 Details

End Bent 2 S08 Deck Details S09 Construction Elevations SIO End Bent Bill of Reinforcement

SII Boring Logs

2019 Standard Specifications for Road and Bridge Construction.

9th Edition AASHTO LRFD Bridge Design Specifications

David E. Rust

TITLE SHEET

Digitally signed by David E. DN: cn=David E. Rust, o, ou, c=US Date: 2022.11.08 17:13:57 -05'00'

	12-0290	DEPT. OBJECT CODE	FEMA BRIDGE 4663-DR
I	ROUTE	060C015	COUNTY OF KNOTT
1	CR 1399	SHEET NO. S01	DRAWING NUMBER 28604

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS



NOVEMBER 2022 CHECKED BY DESIGNED BY: D.E. RUST J.P. MURRIN RT. FORK OF BEAVER CREEK

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B Number of Shear Connectors is 36.

GENERAL NOTES

SPECIFICATIONS:

All references to the Standard Specifications are to the 2019 edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, with current supplemental specifications, All references to the AASHTO Specifications are to the 9th edition of the AASHTO LRFD Bridge Design Specifications.

LIVE LOAD:

This bridge is designed for KYHL-93 which is 1.25 times the HL-93 live load.

FUTURE WEARING SURFACE:

The bridge has been designed for a future wearing surface weight of 15 psf.

For Class "A" Reinforced Concrete: f'c = 3500 PSI For Class "AA" Reinforced Concrete: f'c = 4000 PSI fy = 60,000 PSI For Steel Reinforcement: For Structural Steel Piling: fy = 50,000 PSI

MATERIAL SPECIFICATIONS:

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

Premoided 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.

Class "AA" concrete is to be used throughout the Slab. Prestressed beam concrete shall be in accordance with the Standard Drawing BDP-007-05. All other concrete shall be Class "A" unless otherwise noted.

FOUNDATION DATA:

See Foundation Layout Sheet.

Dimensions are for a normal temperature of 60 degrees F. Layout dimensions are horizontal measurements. Stationing and elevations are in feet.

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. Clear distance to face of concrete is 2 inches unless otherwise noted. Any reinforcing bars designated by suffix (e) in the Plans shall be epoxy coated in accordance with Section 81.10 of the Standard Specifications.

Any reinforcing bars designated by suffix (s) in a Bill of Reinforcement shall be considered a stirrup bar for purposes of bend diameters.

FABRIC GEOTEXTILE CLASS 2:

Fabric Geotextile Class 2 is incidental to Structure Granular Backfill.

BEVELED EDGES:

SLOPE PROTECTION:
Slope protection shall be cyclopean stone rip rap in accordance with the plans and

specifications. Geotextile fabric is incidental to this item.

All exposed edges shall be beveled $\frac{3}{4}$ unless otherwise shown.

TEMPORARY RETAINING STRUCTURE EXCAVATIONS: Temporary sheeting, shoring and/or dewatering methods may be required for the installation of the pile caps. The contractor shall be responsible for the stability and safety of all

COMPLETION OF THE STRUCTURE:

The Contractor is required to complete the structure in occordance 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. This may include cofferadims, shorting, excavations, backfilling, removal of all or parts of existing structures, phase construction, incidental materials, labor, or anything else required to complete the structure.

CONSTRUCTION PHASING AND MAINTENANCE OF TRAFFIC:

The contractor shall arrange to do the work in accordance with the plans and maintenance of traffic notes as shown on the plans during construction of this project.

A masonry coating finish shall be applied in accordance with Section 601.03.18b of the Standard Specifications. This masonry coating shall not be applied until the deck has been completed.

GUARDRAIL:

Side mounted MGS railing system shall be installed per Standard Drawing BHS-OII.

SHOP DRAWINGS:

Submit shop drawings that are required by the plans and specifications directly to the Consultant. If changes in the design plans are proposed by a fabricator or supplier, submit those changes to the Consultant. Submit all final, approved shop drawings to the Division of Structural Design.

CONSTRUCTION IDENTIFICATION:

The names of the prime contractor and the sub-contractor shall be imprinted in the concrete with l'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.

TEMPORARY SUPPORTS:

Temporary supports or shoring will not be permitted under the beams when pouring the concrete floor slab or when taking "top of beam" elevations.

PILING:

See Foundation Layout on sheet SO4 for pile details.

Provide pile points conforming to Section 604 of the Standard Specifications and of the size shown on the Foundation Layout.

CONCRETE SEALING:

Apply Concrete Sealer in accordance with the Special Note for Sealing Bridge Decks.

SPECIFICATIONS CONTRARY TO THE STANDARD DRAWINGS:

Where the plans and specifications $\overline{\text{differ from}}$ the standard drawings, the plans and specifications shall control.

Mastic Tape used to seal joints shall meet the requirements of ASTM C-877 Type I, II, or III. The joint shall 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.

EZ-Wrap Rubber by Press-Seal Corporation Seal Wrap by Mar Mac Manufacturing Co. Inc. Cadiloc 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 tape a minimum of 6° and in accordance with the manufacturer's recommendations with the overlap running downhill.

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

The Contractor shall be responsible for locating any and all existing utilities prior to excavation of material or installation of guardrail or other construction activities that may involve utilities overhead or underground.

				ITEM NO.	DEPT. OBJECT CODE	FEMA BRIDGE
				12-0290	D23A	4663-DR
ATE:	NOVEMBER, 2022	CHECKED BY	GENERAL NOTES	ROUTE	060C015	KNOTT
ESIGNED BY:	D.E. RUST	J.P. MURRIN	CROSSING	CR 1399	SHEET NO.	DRAWING NUMBER
ETAILED BY:	J.A. ROSE	D.E. RUST	RT. FORK OF BEAVER CREEK	017 1000	S02	28604

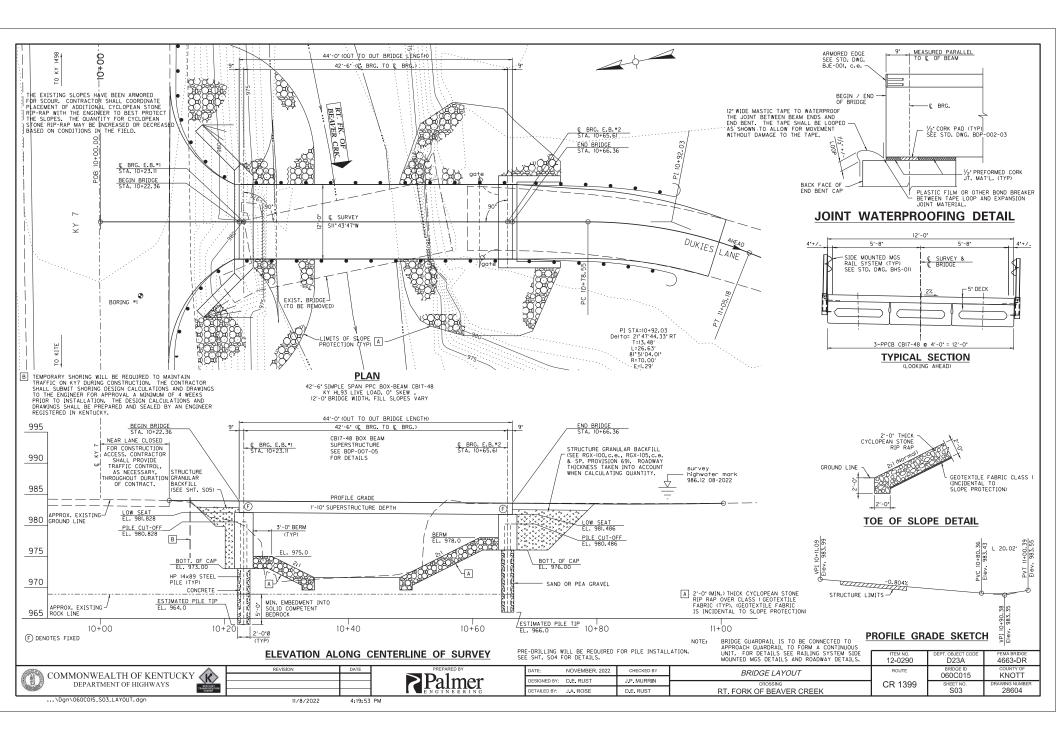
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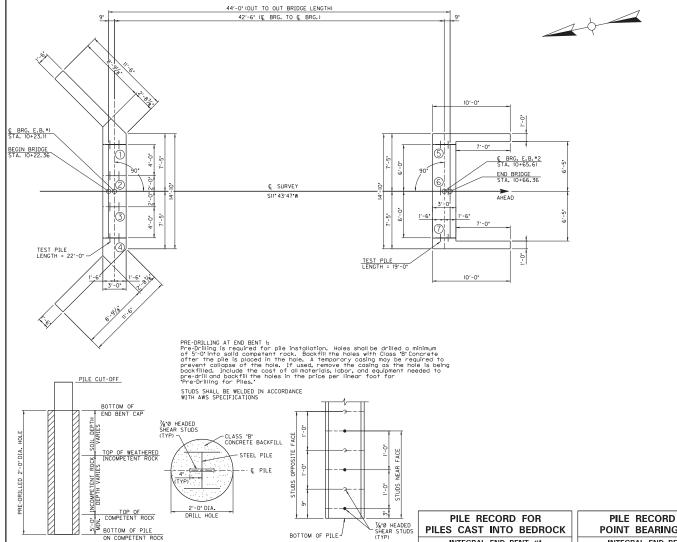
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	INTEGRAL END BENT #1											
Pile No.	Pile Cut-off Elevation	Pile Length In Place	Bottom Of Pile As Drilled	Design Axial Load								
	FEET	FEET	FEET	TONS								
- 1	980.828			51								
2	980.828			51								
3	980.828			51								
4	980.828			51								

PILE RECORD FOR POINT BEARING PILES

		INTEG	RAL END	BENT #2	
	Pile No.	Pile Cut-off Elevation	Pile Length In Place	Point Of Pile Elev. As Driven	Design Axial Load
Ī		FEET	FEET	FEET	TONS
	5	980.486			68
	6	980.486			68
	7	980.486			68

PILE CUT-OFF END BENT CAP -SAND BACKFILL STEEL PILE PRE-DRILLED 2'-0" DIA. 10'-0" MINIMUM BOTTOM OF PILE ON COMPETENT ROCK

PILE PRE-DRILL DETAIL (END BENT 2)

PRE-DRILLING AT END BENT 2:
WHERE PRE-DRILLING IS NECESSARY FOR PILE INSTALLATION, HOLES SHALL BE DRILLED
INTO SOLID ROCK. 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 BEING
BACKFILLED, DRIVE PILES TO REFUSAL AFTER BACKFILL OPPRATIONS ARE COMPLETE.
INCLUDE THE COST OF ALL MATERIALS. LABOR, AND COUPMENT NECEDER COMPLETE.
BACKFILL THE MOLES, AND DRIVE THE PILES TO REFUSAL IN THE PRICE PER LINEAR
FOOT FOR "PRE-DRILLING FOR PILES."

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 14x89, Grade 50, in accordance with BPS-011, C.E.

DEFINITION OF TERMS

Pile Length In Place: Actual pile length below the Pile Cut-Off Elevation in the finished structure.

Pile Cut-Off Elevation: Elevation of the top of pile in the finished structure.

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 loads.

PILE DRIVING NOTES

End Bent I: Use Pre-Drilled steel H-Piles cast into bedrock.

End Bent 2: Use Pre-Drilled point bearing steel H-Piles driven to bedrock.

Practical Refusal: Drive point bearing piles to practical refusal. For this project minimum blow requirements are reached after total penetration becomes "A" inch or less for 5 consecutive blows. Practical refusal is obtained after the pile is struck an additional 5 blows with total penetration of "A" inch or less. Advance the production piling to the driving resistances specified above and to depths determined by test piles and subsurface dard sheetis!, Immediarly cease driving operations if the pile visibly yields or becomes admaged during ariving. If hard also should be provided the piles is advanced to the depth anticipated, the taginger 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.

NOTE:

Stations are taken along & Survey.

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I - Denotes HP 14x89 vertical pile Piles oriented web axis perpendicular to ℚ end bent.

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS

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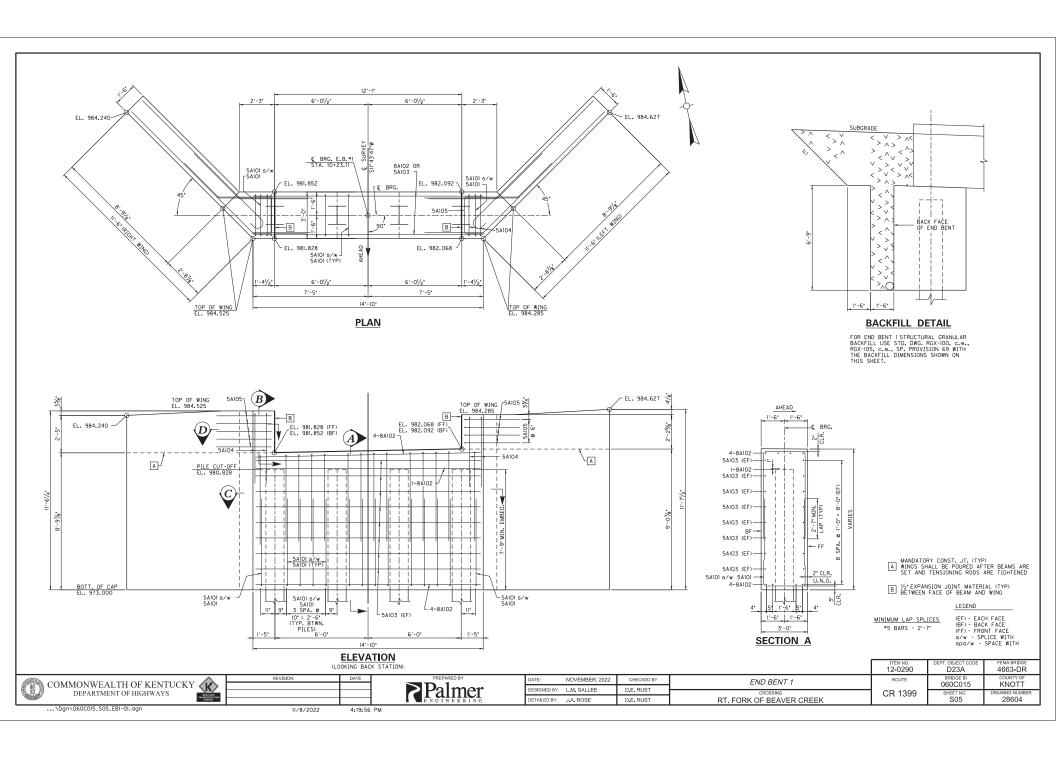
PILE PRE-DRILL DETAIL

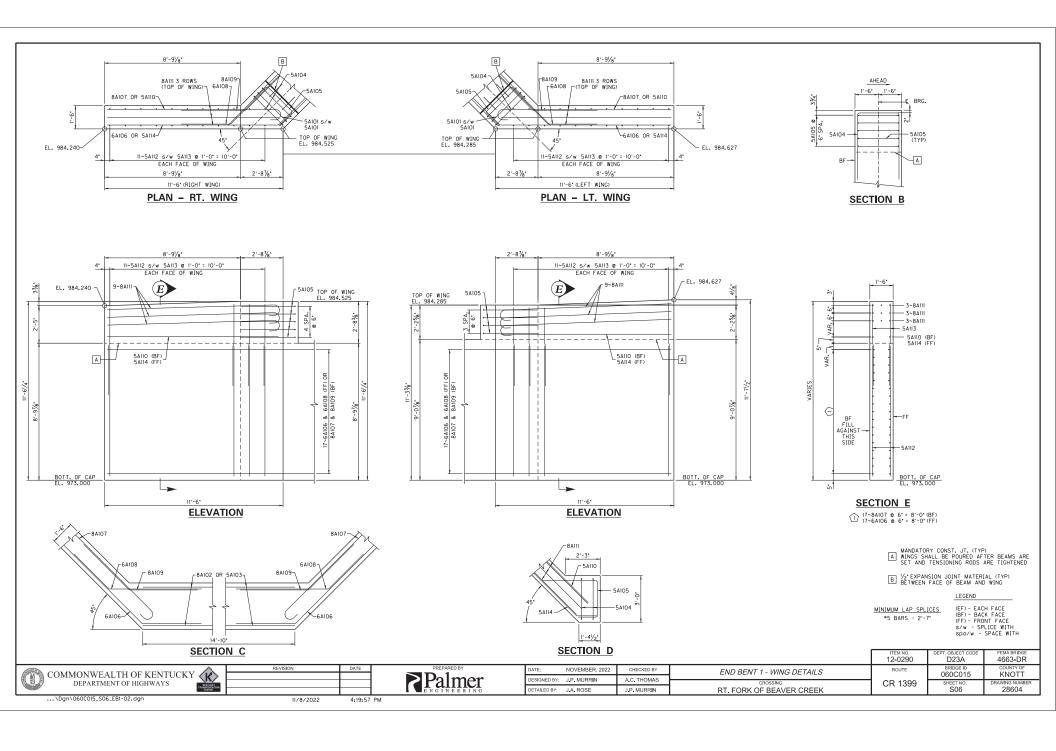
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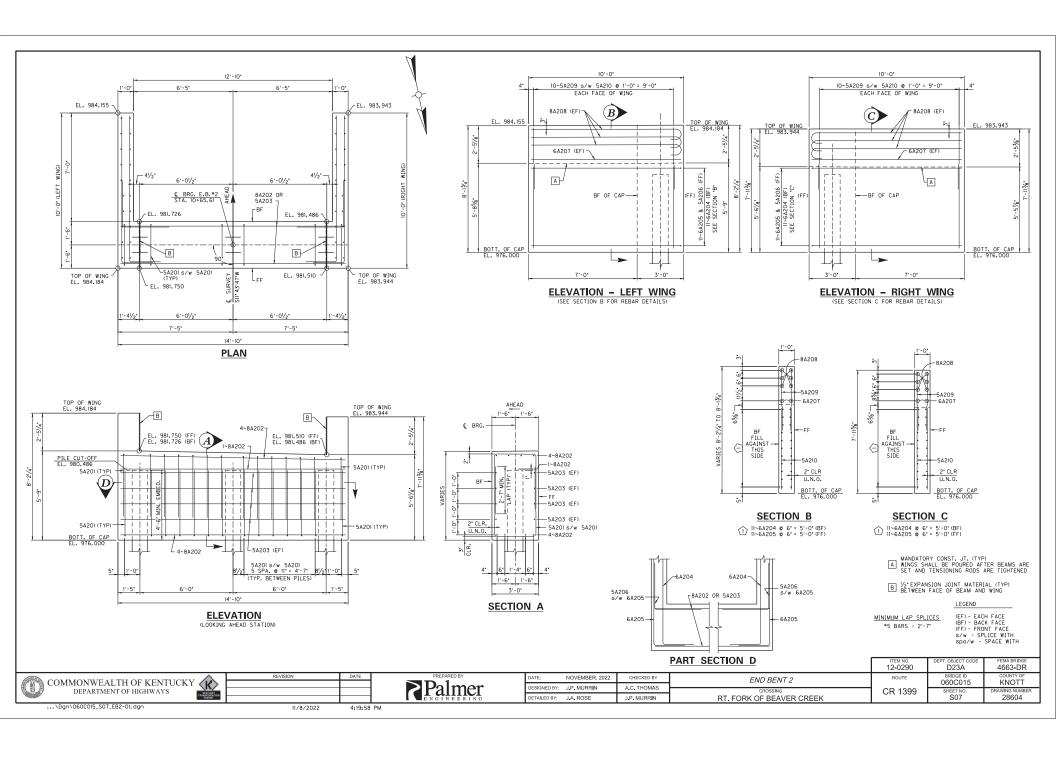
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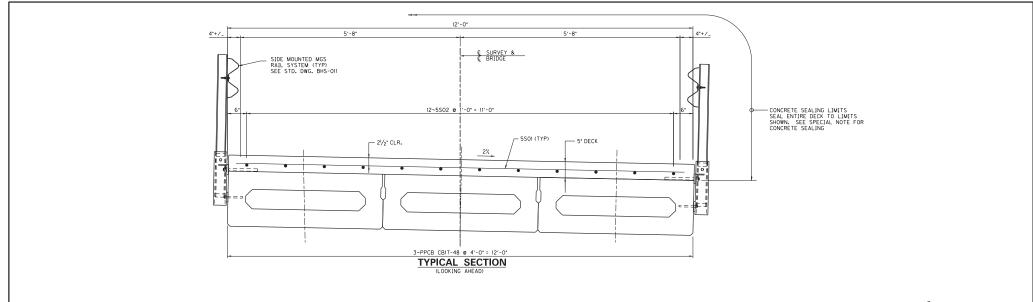
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DATE:	NOVEMBER, 2022	CHECKED BY	FOUNDATION LAYOUT	
DESIGNED BY:	D.E. RUST	J.P. MURRIN	CROSSING	ı
DETAILED BY:	J.A. ROSE	D.E. RUST	RT. FORK OF BEAVER CREEK	L

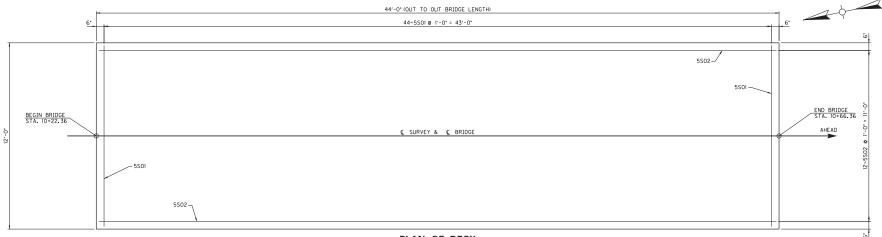
12-0290	DEPT. OBJECT CODE D23A	FEMA BRIDGE 4663-DR
ROUTE	981DGE ID 060C015	COUNTY OF KNOTT
CR 1399	SHEET NO. S04	DRAWING NUMBER 28604











NOTES:

THE ENTIRE DECK SHALL BE POURED CONTINUOUSLY FROM END TO END OF THE SLAB BEFORE THE CONCRETE IS ALLOWED TO SET. THE CONCRETE SHALL REMAIN PLASTIC THROUGHOUT THE CONCRETE PLACEMENT.

2.	CONTRARY TO THE STANDARD DRAWING (5" THICKNESS), THE CONSTRUCTION ELEVATIONS
	WILL CAUSE THE SLAB TO BE APPROXIMATELY 5.7" THICK AT EACH END AND 5" THICK
	AT THE CENTER OF THE SPAN. THIS IS HOW THE QUANTITY OF CLASS "AA" CONCRETE
	IS CALCULATED. THERE SHOULDN'T BE ANY ADDITIONAL CONCRETE DUE TO THE MAX.
	AND MIN. ALLOWABLE SLAB DEPTHS SHOWN ON THE CONSTRUCTION ELEVATIONS.

PLAN	OF	DECK

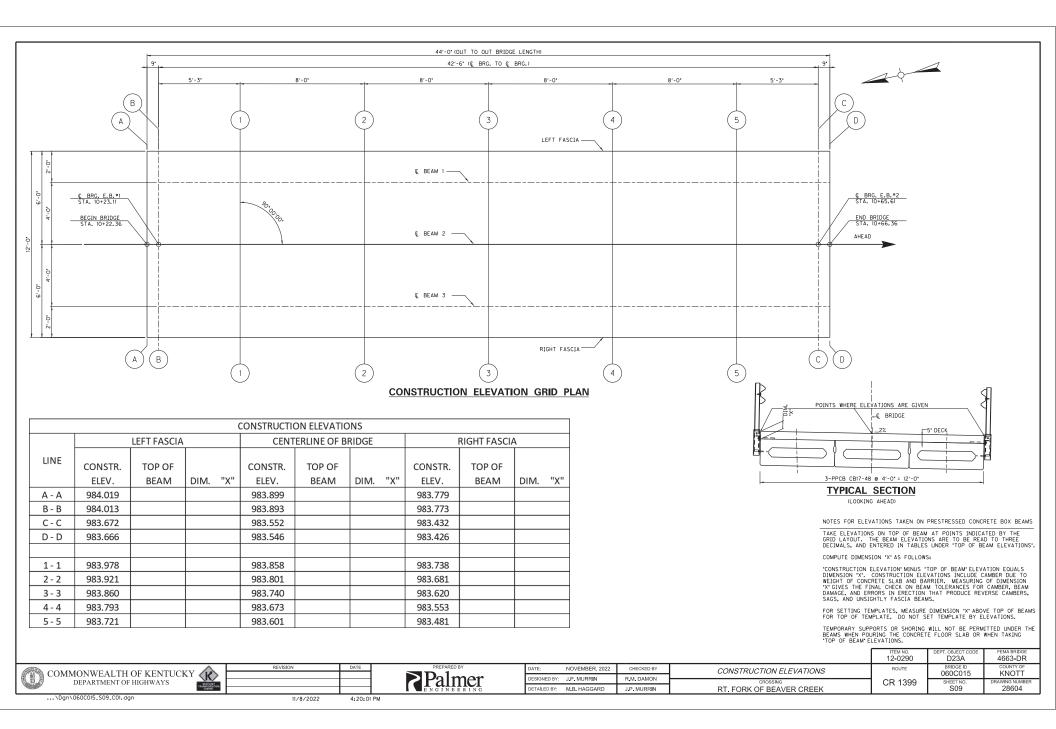
В	BILL OF REINFORCEMENT - DECK										
MARK	TYPE	NUMBER	SIZE	LENGTH	LOCATION						
5S01(E)	STR.	44	#5	11'-8"	DECK						
5S02(E)	STR.	12	#5	43'-8"	DECK						

					12-0290	D23A	4663-DR
PREPARED BY	DATE:	NOVEMBER, 2022	CHECKED BY	DECK DETAILS	ROUTE	BRIDGE ID 060C015	COUNTY OF KNOTT
≥Palmer	DESIGNED BY:	D.E. RUST	J.P. MURRIN	CROSSING	CR 1399	SHEET NO.	DRAWING NUMBER
ENGINEERING	DETAILED BY:	J.A. ROSE	J.P. MURRIN	RT. FORK OF BEAVER CREEK	O11 1000	S08	28604

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS

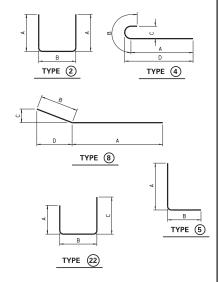
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BILL OF REINFORCEMENT - END BENT 1											
MARK	TYPE	NUMBER	SIZE	LENGTH	LOCATION	a	b	С	d	е	
5A101(S)(E)	2	28	* 5	14'-0"	CAP BEAM	5′-8*	2'-8"				
8A102(E)	STR.	9	* 8	14'-10"	CAP BEAM						
5A103(E)	STR.	16	= 5	14'-10"	CAP BEAM						
5A104(S)(E)	2	4	= 5	11'-8"	WING POST	4'-6"	2'-8"				
A105(S)(E)	22	9	= 5	6'-11"	WING POST	1'-3"	2'-4"	3'-4"			
6A106(E)	8	34	* 6	15'-0"	WINGS	11'-2"	3'-10"	2'-85/8"	2'-85/8"		
8A107(E)	4	34	8	12'-3"	WINGS	10'-10"	1'-5"	8'	11'-2"		
6A108(E)	8	34	* 6	9'-3"	WINGS	6'-0"	3'-3"	2'-31/2"	2'-31/2"		
8A109(E)	8	34	8	8'-7"	WINGS	4'-5"	4'-2"	2'-111/4"	2'-111/4"		
5A110(E)	STR.	2	= 5	11'-9"	WINGS						
8A111(E)	4	18	8	12'-1"	WINGS	10'-8"	1'-5"	8.	11'-0"		
5A112(E)	STR.	44	= 5	8'-6"	WINGS						
5A113(E)	STR.	44	= 5	5'-3"	WINGS						
5A114(E)	8	2	* 5	12'-2"	WINGS	11'-0"	1'-2"	9%.	9%"		
						1					
								_			
						1					
								_			
						_					
								-			
						_					
								I			

MARK			BIL	L OF	REINF	ORCEMENT - E	ND BI	ENT 2			
BAZQQED STR. 9 8 14'-6' CAP BEAM	MARK	TYPE	NUMBER	SIZE	LENGTH	LOCATION	a	b	С	d	е
SAZOJE STR. B * 5 14'-6' CAP BEAM	5A201(S)(E)	2	28	■ 5	11'-2"	CAP BEAM	4'-3'	2'-8'			
GAZQHE 5			9								
6A205(E) 5 22	5A2O3(E)	STR.	8	* 5	14'-6"	CAP BEAM					
5A2OG(E) 5	6A2O4(E)	5		# 6	11'-6"	WINGS	9'-6"	2'-0"			
6A2O7(E) STR, 4	6A205(E)		22				9'-6"	2'-0"			
8A2O8IE) 4 12 * 8 10'-9' WINGS 9'-4' 1'-5' 8' 9'-8' 5A2O9IE) STR, 40 * 5 5'-2' WINGS							3'-0"	3'-0"			
5A209(E) STR, 40 * 5 5'-2* WINGS	6A207(E)	STR.	4	" 6	9'-8"	WINGS					
							9'-4"	1'-5"	8'	9'-8"	
5A2(0(E) STR. 40 * 5 5'-3' WINGS											
	5A210(E)	STR.	40	* 5	5'-3"	WINGS					



NOTE: REINFORCING BARS DESIGNATED WITH SUFFIX (E) IN PLANS SHALL BE EPOXY COATED IN ACCORDANCE WITH THE SPECIFICATIONS.

REINFORCING BARS DESIGNATED WITH THE SUFFIX (S) IN PLANS ARE STIRRUP BARS.

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	<

1	REVISION	DATE

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1	DATE:	NOVEMBER, 2022	CHECKED BY
	DESIGNED BY:	D.E. RUST	J.P. MURRIN
	DETAILED BY:	J.A. ROSE	D.E. RUST

	12-0290	DEPT. OBJECT CODE	FEMA BRIDGE 4663-DR
BILL OF REINFORCEMENT	ROUTE	981DGE ID 060C015	COUNTY OF KNOTT
CROSSING RT FORK OF BEAVER CREEK	CR 1399	SHEET NO. S10	DRAWING NUMBER 28604

Drilling Firm: Kentucky Transportation Cabinet For: Division of Structural Design Geotechnical Branch

Division of Structural Design

DRILLER'S SUBSURFACE LOG

Printed: 9/19/22

Page 1 of 1

Project I Item Nur		<u> 2015</u>	35	ukies Ln (CR Fork Beaver C			Project Project	<u>Bridge</u>				
Hole Numb Surface El Total Dept Location _	levation	983.90	Immediate Water Depth Static Water Depth	_	End D	Date <u>09/15/2</u> ate <u>09/15/2</u> de(83) <u>37.29</u> ude(83) <u>-82</u>	022 99846	e Type <u>sounding</u> _Number				
Lithold				Overburden	Sample No.	Depth (ft)	Rec. (ft)	SPT Blows	Sample Type			
Elevation	Depth	Description	on	Rock Core	Std/Ky RQD	Run (ft)	Rec (ft)	Rec (%)	SDI (JS)	Remarks		
	1.0		Blacktop.		\Box							
-		Madium	iff, brown, moist, sandy cl	an and a second								
<u>)</u>		wedums	fragments.	ay with rock								
5	15.0			(Refusal)								
	16.8		Gray, sandstone.									
<u>)</u>			(Bottom of Hole 16.8') (Refusal @ 15)									
<u>5</u>		Had to drill in the	e road of KY 7. It is 6 feet the road to the hole.	from centerline of	f							
<u>-</u>												
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DATE:	NOVEMBER, 2022	CHECKED BY	BORING LOGS	ROUTE	BRIDGE ID 060C015	COUNTY OF KNOTT
DESIGNED BY:	D.E. RUST	J.P. MURRIN	CROSSING	CR 1399	SHEET NO.	DRAWING NUMBER
DETAILED BY:	J.A. ROSE	D.E. RUST	RT. FORK OF BEAVER CREEK	011 1000	S11	28604

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS

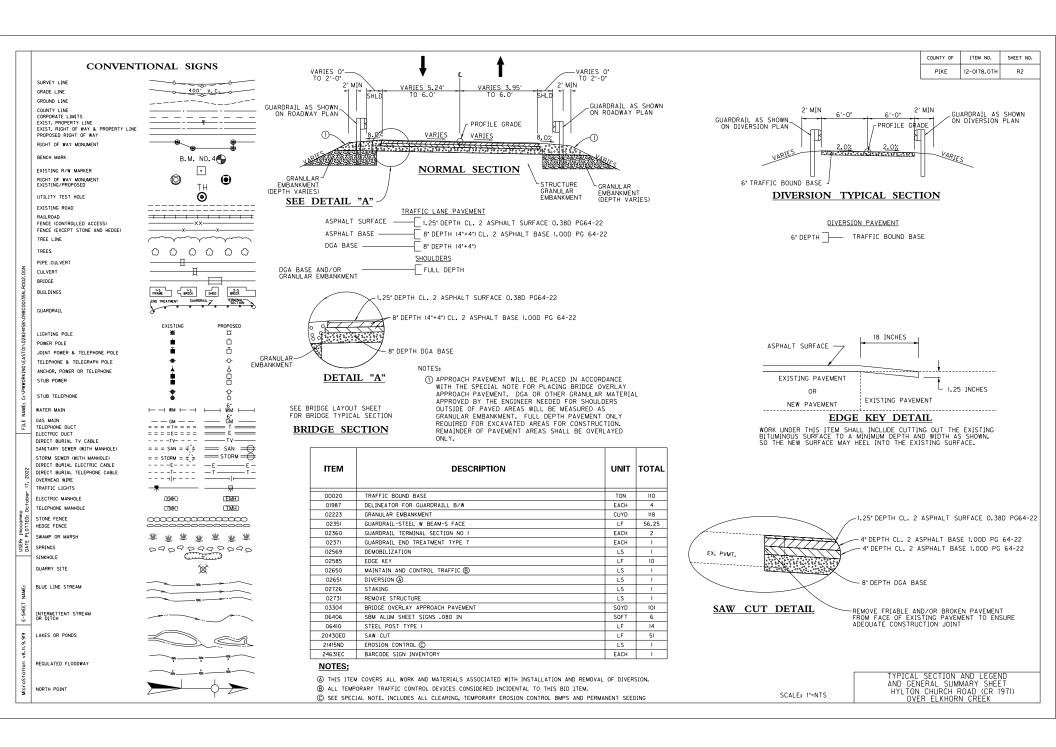
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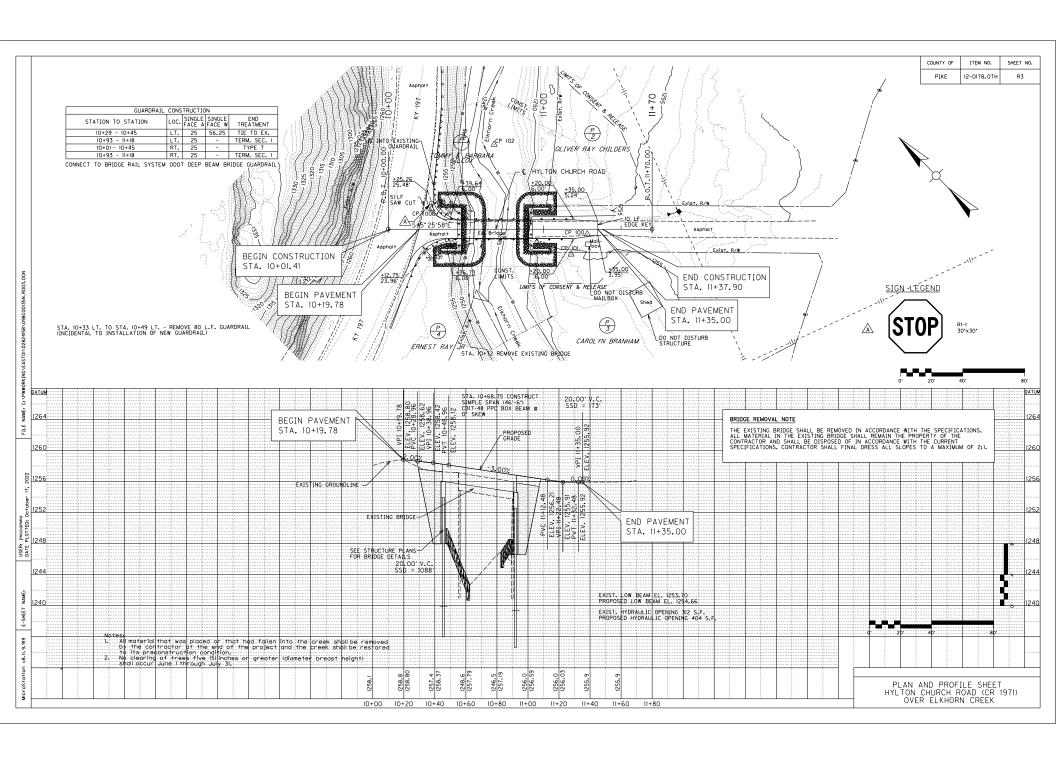
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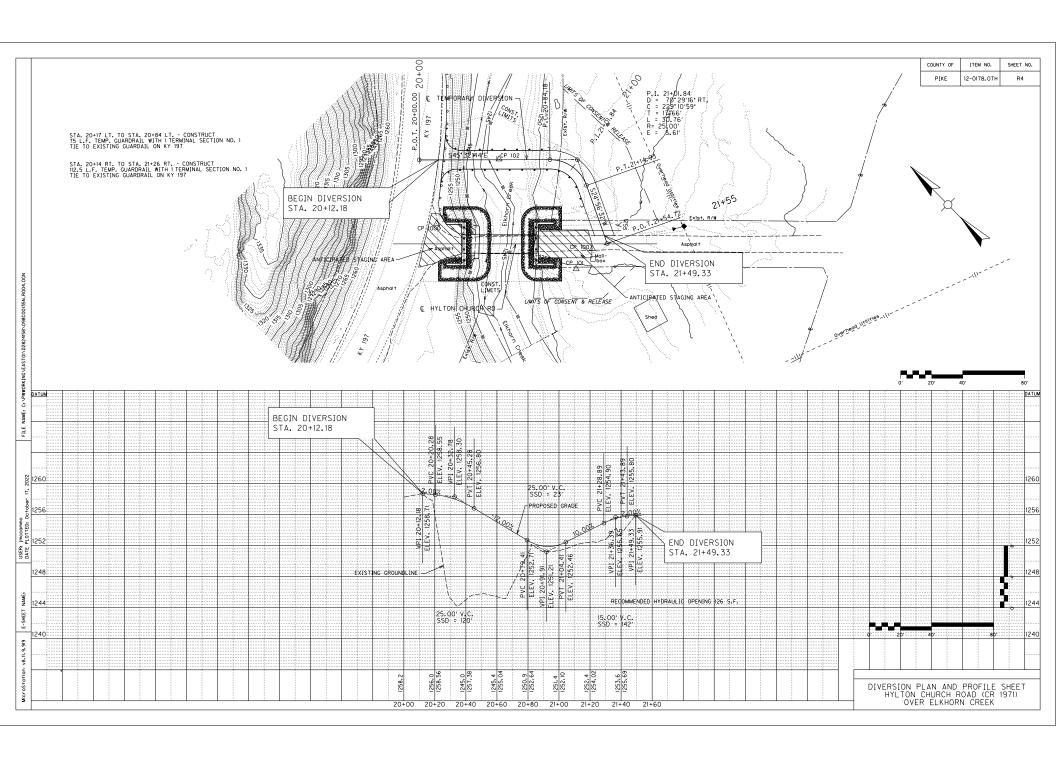
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STANDARD DRAWINGS RBJ-001-12 TYPICAL GUARDRAIL INSTALLATIONS			COUNTY OF	ITEM NO.	SHEET NO.
RBR-001-13 STEEL BEAM GUARDRAIL 'W' BEAM RBR-005-11 GUARDRAIL COMPONENTS	TRANSPORTATION CABINET		PIKE	12-0178.0TH	RI
RBR-010-06 GUARDRAIL TERMINAL SECTIONS		INI	DEX OF S	HEETS	
RBR-015-06 STEEL GUARDRAIL POSTS RBR-016-05 TIMBER GUARDRAIL POSTS	DEPARTMENT OF HIGHWAYS	Sheet No. RI LAYOUT SHEET	Description		
RBR-018 GUARDRAIL SYSTEM TRANSITION RBR-050-08 GUARDRAIL END TREATMENT TYPE 7		R2 TYPICAL SECTION		NERAL SUMMAR	RY SHEET
RBR-051-01 GUARDRAIL END TREATMENT TYPE 7 ALTERNATE ANCHOR RBR-055-01 DELINEATORS FOR GUARDRAIL	PIKE COUNTY	R4 DIVERSION PLAN	ND PROFILE SHE		
RDI-040-01 EROSION CONTROL BLANKET SLOPE INSTALLATION RDX-210-03 TEMPORARY SLLT FENCE	TIKE COOKIT	R5 MOT PLAN SHEET X1-X2 DIVERSION CROSS	SECTION SHEETS	CONTROL DAT	ГА
RDX-220-05 SILT TRAP TYPE A RDX-225-01 SILT TRAP TYPE B	LIVETONE CHUIDCH DD (CD 4074)	SI TITLE SHEET			
RDX-230-01 SILT TRAP TYPE C RGX-001-06 MISCELLANEOUS STANDARDS	HYLTON CHURCH RD (CR 1971)	S2 GENERAL NOTES S3 LAYOUT			
RGX-005-06 RIGHT OF WAY MONUMENTS	,	S4 FOUNDATION LAYO S5 END BENT #1(1 OF			
RGX-200-01 ONE POINT PROCTOR FAMILY OF CURVES TTC-100-05 LANE CLOSURE TWO-LANE HIGHWAY	OVER ELKHORN CREEK	S6 END BENT #1 (2 OF S7 END BENT #2 (1 OF	2)		
TTC-IIO-04 LANE CLOSURE USING TRAFFIC SIGNALS TTC-I35-03 SHOULDER CLOSURE	OVER LEMIORIT ORLER	S8 END BENT #2 (2 0			
TTC-150-04 ROAD CLOSURE WITH DIVERSION	STA. 10 + 68.75	S9 SUPERESTRUCTURE SIO CONSTRUCTION EL			
	SIA. IUTOO./D	SII ODOT DEEP BEAM SI2 SEPIA OOI - RAILI	NG SYSTEM TYP		. TREATMENT
		SI3 SUBSURFACE DATA			
A OTIVE OFFILE		S	PECIAL N	OTES	
ACTIVE SEPIAS		EROSION CONTROL BRIDGE OVERLAY APPROACH PAY	/EMENT		
	BEGIN/CONSTRUCTION)				
	BEGIN/CONSTRUCTION STA, 10+01;41				
	SIA. 10+68. 75 CONSTRUCTION SIMPLE - SPAN (46'-6')				
	STA. 10+68.75 CONSTRUCTION SIMPLE - SPAN (46'-6") (2817-48 PSAN BEAM BRIDGE © 0" SKEW				
		SPE	CIAL PRO	VISIONS	
	END CONSTRUCTION STA. 11+37(90				
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31					
			PECIFICAT	TIONS	
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₩ ₩	LOCATION MAP	CONSTRUCTION			
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BESIGN CRITERIA G	BEFORE YOU DIG				
TYPE OF TERRAIN MOUNTAIN DESIGN SPEED		Camman	REVISION	af Want	DATE
REQUIRED NPSD	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 placed	Common DEPARTN			
REOUIRED PSD LEVEL OF SERVICE	for information in the design of existing an education of the existing and a minimum of two (2) and not more than ten (10) business deep prior to exexavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one call Before-Up (8 UD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contract the County Court Clerk to determine what		COUNTY	OF	
ADT PRESENT ()	excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.		PIKE		
별 DHV	MCCAMON A	ITEM NO. 12-0178.01	'H (D23A 4663	-DP)	
T X	2 Colonia de la	DRAWING NO.	10234, 4003	5107	
GEOGRAPHIC COORDINATES	10-26-2022	PROJECT			
LATITUDE 37 DEGREES 13 MINUTES 47 SECONDS NORTH CONGITUDE 82 DEGREES 31 MINUTES 22 SECONDS WEST	REV. NO. SHEETS REVISED DATE	LETTING DATE:			
DESIGNED	REV. NO. SHEETS REVISED DATE				
% RESTRICTED SD	PREPARED BY HDR ENGINEERING, INC.	RECOMMENDED BY:	PROJECT MANAGER	DATE	
MAX. DISTANCE W/O PASSING	EXISTING BRIDGE ID # 098C00I35N	PLAN APPROVED BY:	STATE HIGHWAY ENGIN	EER DATE:	
1					







MAINTENANCE OF TRAFFIC NOTES:

- CONTRACTOR SHALL INVENTORY, REMOVE AND REPLACE EXISTING SIGNS, WITH NEW SIGNS IMPACTED BY THE PROPOSED CONSTRUCTION. OFFSITE SIGNS CONFLICTING WITH THE PROPOSED IMPROVEMENTS SHALL BE REMOVED AND REPLACED AT THE DIRECTION OF KYTC.
- CONTRACTOR SHALL COORDINATE WITH LOCAL RESIDENTS AND OFFICIALS PRIOR TO CONSTRUCTION AND ANY TEMPORARY CLOSURES.
- 3. INGRESS AND EGRESS SHALL BE MAINTAINED TO ALL DWELLINGS AFFECTED BY THE PROJECT.
- CLOSURE SIGNS, DETOUR SIGNS AND BI-DIRECTIONAL LANE CLOSURE SIGNS SHOULD BE PLACED NO SOONER THAN
 TWO WEEKS PRIOR TO THE CLOSING OF THE BRIDGE (WHEN APPLICABLE) OR PLACING LANE CLOSURES.
- TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE 2019 KYTC STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE KYTC STANDARD DRAWINGS.
- 5. CONTRARY TO SECTION 106.01, TRAFFIC CONTROL DEVICES USED ON THIS PROJECT MAY BE NEW OR USED IN NEW CONDITION, AT THE BEGINNING OF THE WORK AND MAINTAINED IN LIKE NEW CONDITION UNTIL COMPLETION OF WORK.
- TRAFFIC CONTROL DEVICES SHALL BE PLACED AND MAINTAINED IN THE WORK ZONE IN A MANNER THAT ENSURES THERE IS NO RESTRICTION TO THE VISIBILITY OF APPROACHING TRAFFIC.
- 8. SIGNS NOT APPLICABLE TO CURRENT PHASE OF CONSTRUCTION SHALL BE REMOVED OR COVERED IF LEFT IN PLACE.
- 9. TEMPORARY CLOSURES AND FLAGGERS SHALL BE UTILIZED AS NECESSARY.
- 10. BRIDGE SHALL BE CLOSED AND TRAFFIC DIVERTED AND MAINTAINED ON THE SINGLE LANE 12-FT WIDE DIVERSION AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS.
- II. TEMPORARY SIGNALS WILL BE UTILIZED AS SHOWN BELOW FOR THE ONE-WAY ONE-LANE TEMPORARY DIVERSION.
- ENSURE A MINIMUM OF TWO 4-FT TYPE III BARRICADES ARE USED AT EACH END OF THE BRIDGE FOR A TOTAL OF FOUR
 TYPE III BARRICADES, CONTRARY TO THE STANDARD SPECIFICATIONS, NO DIRECT PAYMENT WILL BE MADE FOR BARRICADES,
 BUT THEY WILL BE INCIDENTAL TO THE LUMP SUM PRICE FOR MAINTAIN AND CONTROL TRAFFIC.
- ROADWAY SHALL REMAIN OPEN DURING CONSTRUCTION AND ALL TRAFFIC SHALL BE PROVIDED ACCESS TO THE DIVERSION
 DIRING CONSTRUCTION.
- 14. THE NORTHBOUND LANE OF KY 197 SHALL BE CLOSED WITH ONE-WAY ONE-LANE TRAFFIC MAINTAINED FOR THE CONSTRUCTION OF END BENT *1, BACK APPROACHES, SETTING OF BEAMS, POURING OF CONCRETE DECK AND DEMOLITION OF EXISTING BRIDGE FOR A PERIOD OF TIME NOT TO EXCEED THE ACTIVITY DURATIONS OUTLINED IN THE APPROVED SCHEDULE.
- 15. DURING THE LANE CLOSURE OF KY 197 TRAFFIC WILL BE MAINTAINED UTILIZING THREE TEMPORARY SIGNALS WITH THREE PHASES AS SHOWN ON THE MOT PLANS.

MAINTENANCE OF TRAFFIC PHASING:

PHASE 1:

- I. INSTALL AND MAINTAIN TEMPORARY TRAFFIC CONTROL SIGNS AND DEVICES PER KYTC STANDARD DRAWING TTC-150-03 ALONG CR 1971
- INSTALL AND MAINTAIN TEMPORARY TRAFFIC CONTROL SIGNS AND DEVICES PER KYTC STANDARD DRAWING TTC-IIO-04 ALONG KY 197
- THREE-PHASE TEMPORARY SIGNALS SHALL BE INSTALLED AS PER THE MAINTENANCE OF TRAFFIC PLANS
- 4. MAINTAIN TRAFFIC ALONG EXISTING CR 1971
- 5. CONSTRUCT THE TEMPORARY DIVERSION

PHASE 2:

- INSTALL ALL REMAINING APPLICABLE SIGNS AND DEVICES PER KYTC STANDARD DRAWING TTC-150-04 AND TTC-110-04.
- 2. SHIFT TRAFFIC ONTO THE TEMPORARY DIVERSION
- 3. REMOVE THE EXISTING CR 1971 BRIDGE
- CONSTRUCT PROPOSED CR 1971 BRIDGE AND ROADWAY AND PERMANENT GUARDRAIL UP TO THE DIVERSION LOCATION.

POINT

DESCRIPTION

PHASE 3:

- REMOVE ALL APPLICABLE SIGNS AND DEVICES NECESSARY TO SHIFT TRAFFIC TO THE PROPOSED CR 1971 BRIDGE AND ROADWAY PER KYTIC STD. DRAWING TITC-150-04 AND TITC-110-04
- . SHIFT TRAFFIC ONTO THE NEWLY CONSTRUCTED CR 1971 BRIDGE AND ROADWAY
- 3. REMOVE THE TEMPORARY DIVERSION AND INSTALL THE REMAINING PERMANENT GUARDRAIL

PHASE 4

- INSTALL PERMANENT SIGNS ALONG NEW ROADWAY AND REQUIRED PAVEMENT MARKINGS
- 2. REMOVE ALL TEMPORARY MAINTENANCE OF TRAFFIC DEVICES AND SIGNS

HYLTON CHURCH ROAD (CR 1971) PIKE COUNTY EXISTING BRIDGE ID #098C00135N

PROJECT COORDINATES
COORDINATES FOR HORIZONTAL CONTROL WERE OBTAINED BY GPS OBSERVATIONS
ON AUGUST 29, 2022 AND WERE ADJUSTED TO NGS OPUS SOLUTION BASED ON THE
ADABS KENTUCKY STATE PLANE COORDINATES SYSTEM, KY SINGLE ZONE, US SURVEY
FEET. 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 GPS OBSERVATIONS ON AUGUST 29, 2022 ON
THE NAVDSS VERTICAL DATUM, GEOIDIS UTILIZING NGS OPUS SOLUTION AND WERE
ADJUSTED BY CLOSED DIFFERENTIAL LEVEL LOOP BASED ON THE ELEVATION
OF CP #1000 = 1258.09°.

NORTH (Y)

COORDINATE CONTROL POINTS

3623469.8490 5860602.4680

EAST (X)

TEMPORARY 24" STOP BAR-TEMPORARY DIVERSION TEMPORARY SIGNAL LOCATIONS CONSENT & ROAD MAY FLOOD △CP 102 PLACE A W8-18 "ROAD MAY FLOOD" SIGN AT EACH END OF THE TEMPORARY DIVERSION, FO ENTIRETY OF THE TEMPORARY DIVERSION USAGE TEMPORAR SIGNAL LOCATIONS Asphal Asphal t CHANNELIZING DEVICE Asphalt CP 101 CHANNELIZING DEVICE (TYP.) Asphalt LIMITS OF CONSENT & RELEASE -HYLTON CHURCH ROAD (CR 1971) TEMPORARY SIGNAK LOKATIONS EMPORARY 24 STOP BAR

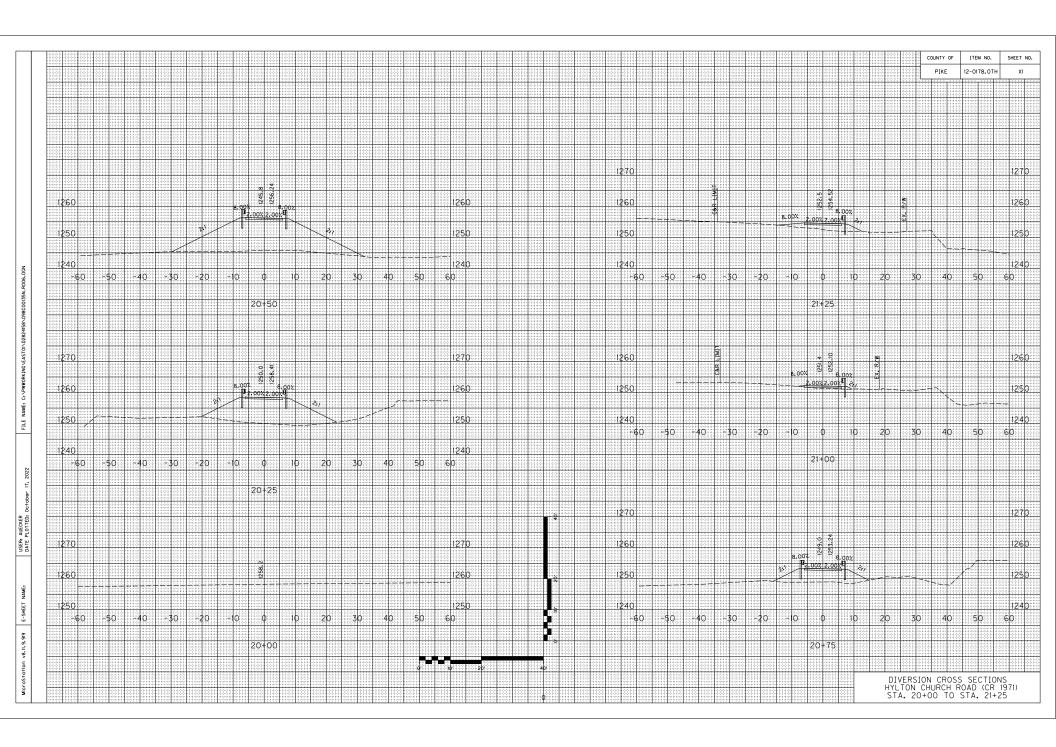
CP 102	MAG	HUB	3623471.2157	5860660.3399	1245.84	10+68.15	54.56 LT.				
CP 101	MAG	нив	3623385.9803	5860646.0534	1254.67	11+17.78	16.19 RT.				
CP 100	мас	нив	3623387.9160	5860662.6030	1255.68	11+28.22	3.19 RT.				
CENT		COORD:	NATE			CENTERI TE DAT					
	STATION	STATE PLANE COORD	SINGLE ZONE		STATION	STATE PLANE SINGLE ZONE COORDINATES					
POINT	STATION	NORTH (Y)	EAST (X)	POINT	STATION	NORTH (Y)	EAST (X)				
P.O.B.	10+00.00	3623480.1665	5860573.5005	P.O.B.	20+00.00	3623506.9743	5860623.3505				
P. O. E.	11+70.00	3623360.8697	5860694.6132	P.C.	20+84.18	3623448.0218	5860683.4362				
	•			P.I.	21+01.84	3623435.6508	5860696.0450				
				P.T.	21+14.93	3623419.6340	5860688.5959				
				P. O. F.	21+54.72	3623383.5553	5860671.8164				

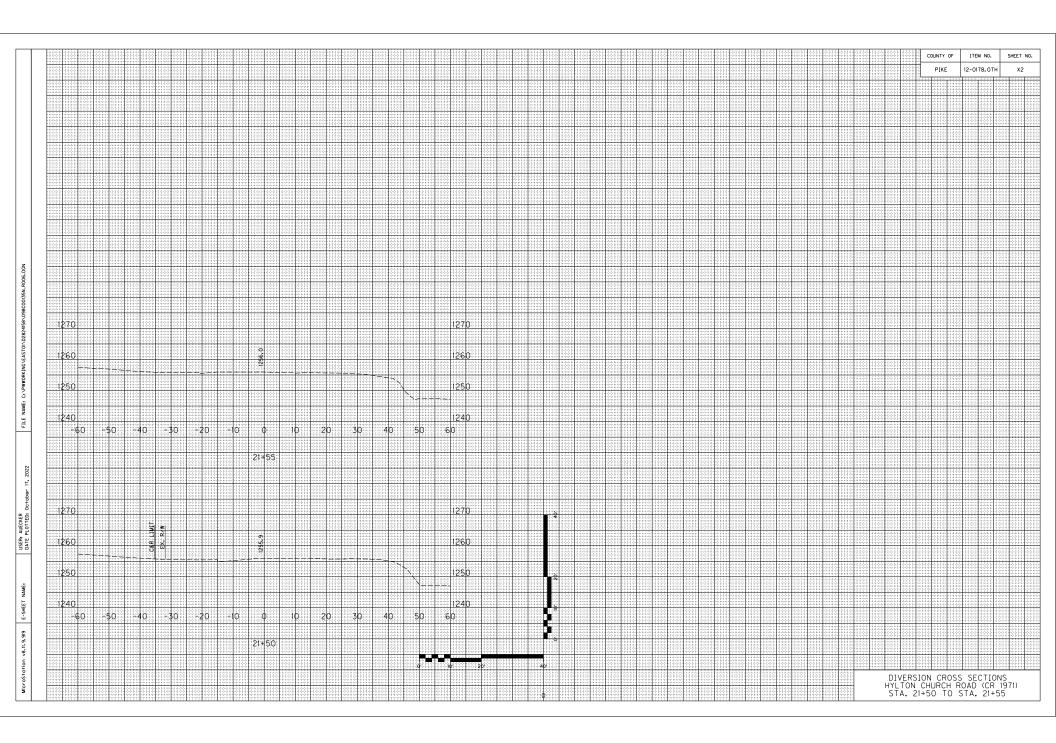
MOT PLAN SHEET AND COORDINATE CONTROL DATA HYLTON CHURCH ROAD OVER ELKHORN CREEK

STATION

10+27.88

OFFSET





TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

PIKE COUNTY **HYLTON CHURCH ROAD (CR 1971) OVER ELKHORN CREEK** STA. 10 + 68.75

					Е	ST	·IIV	1Α	TE	Ε (OF	• (2 L	JΑ	N	ГΙΤ	ΊE	S				
	08100	08104	08150	08151	08003	08019	08662	02231	03299	08033	08039	08051	08095	08801	02355	23378EC						
BID ITEM	Concrete Class "A"	Concrete Class "AA"	Steel ReInforcement	Steel Reinforcement, Epoxy Coated	Foundation Preparation	Cyclopean Stone Rip Rap	Precast Box Beam CB17-48	Structure Granular Backfill	Armored Edge for Concrete	Test Piles	Pre-Drilling for Piles	Piles – Steel HP 14 x 89	Pile Points 14 in.	Guardrail Steel "W" BEAM (S Face BR)	Guardrail Steel "W" BEAM (S Face A)	Concrete Sealing						
UNIT	C.Y.	C.Y.	LBS.	LBS.	L.S.	Tons	L.F.	C.Y.	L.F.	LF.	L.F.	L.F.	Each	L.F.	L.F.	S.F.						
End Bent #1	37.4		3585			142		86		23	48	57	4			572						
e End Bent #2	37.4		3585			92		80		23	48	57	4			572						
ž																						
n n																						
tt.																						
9																						
S																						
Superstructure		12.2		1181			144.0		24.0					85	100	868						
BRIDGE TOTALS	74.8	12.2	7170	1181	- 1	234	144.0	166	24.0	46	96	114	8	85	100	2012						

	INDEX OF SHEETS									
Sheet No.	Description									
S1	Title Sheet									
S2	General Notes									
S3	Layout									
S4	Foundation Layout									
S5	End Bent *1 (1 of 2)									
S6	S6 End Bent *1(2 of 2)									
S7	S7 End Bent *2 (1 of 2)									
S8	End Bent *2 (2 of 2)									
S9	Superstructure									
S10	Construction Elevations									
S11	ODOT Deep Beam Bridge Guardrail									
S12	Sepia 001 - Railing System Type II Guardrail Treatment									
S13	Subsurface Data									
	SPECIAL NOTES									
Special	Note for Concrete Sealing									
	•									

SPECIAL PROVISIONS

69 Embankment at Bridge End Bent Structures

KALC STANDARD DEVININGS

KYI	C STANDARD DRAWINGS
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-007-05	Box Beam BI7 & CBI7 Details
BGX-006-10	Stencils for Structure
BGX-022	Joint Materproofing
BJE-001-14	Armored Edges
BPS-011-04	HP14x89 Steel Pile

SPECIFICATIONS

2019 KYTC Standard Spec's, for Road and Bridge Construction (w/ current supplemental specifications)

2020 AASHTO LRFD Bridge Design

PLANS PREPARED BY HDR ENGINEERING, INC.

WESLEY W. HAGERMAN, PE

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS

FDS

DATE: October, 2022 CHECKED BY DESIGNED BY: M. Purcell R. Shaw

TITLE SHEET ELKHÖRN CREEK HYLTON CHURCH ROAD

12-0178.OTH PIKE

GENERAL NOTES

SPECIFICATIONS: References to the specifications are to the 2019 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 2020 AASHTO LRFD Bridge Design Specifications, 9th edition,

DESIGN LIVE LOAD: This bridge is designed for KY HL-93 live load. The KY HL-93 live load is arrived at by increasing the standard HL-93 trucks and lane loads as specified in the AASHTO specifications by 25%.

FUTURE WEARING SURFACE: This bridge is designed for a future wearing surface of 15 psf with a 1.50 load factor at the Strength I limit state.

DESIGN METHOD: All structural members are designed to have a capacity equivalent or greater than the load and resistance factor design method, as specified in the referenced AASHTO Specifications.

MATERIALS DESIGN SPECIFICATIONS: For Class "A" Reinforced Concrete For Class "AA" Reinforced Concrete f'c = 3.500 psi f'c = 4.000 psi Fy = 60.000 psi For Steel Reinforcement For Steel Piling

PREFORMED CORK EXPANSION JOINT MATERIAL: Cork 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. Class "A" concrete is to be used in the substructure. 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. 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. Clear cover shall be 2" unless noted otherwise.

CONSTRUCTION IDENTIFICATION: The names of the Prime Contractor and the Sub-Contractor shall be imprinted in the concrete with 1 inch letters at a location designated by the engineer. The contractor shall furnish all plans. location designated by the engineer. The equipment and labor necessary to do the work.

BEVELED EDGES: All exposed edges shall be beveled 34", unless otherwise shown.

COMPLETION OF THE STRUCTURE: The contractor is required to complete the structure in accordance with the plans and specifications.

SHOP DRAWINGS: Submit shop drawings that are required by the plans and specifications directly to the Engineer of Record via email (wes.hagerman@hdrin.com). If any changes in the design plans are proposed by a fabricator or supplier, submit those changes to the Consultant through the Contractor. Submit final, approved plans to KYIC Division of Structural Design.

WORKING DRAWINGS: Working drawings for temporary works shall follow the same procedures as outlined above for shop drawings.

When any changes in the design plans are proposed by the fabricator or supplier, the shop drawings reflecting these changes shall be submitted to the Engineer of Record.

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

SUPERSTRUCTURE DECK: The superstructure deck shall be poured continuously from end to end of deck before the concrete is allowed to set.

STRUCTURE GRANULAR BACKFILL: Materials for Structure Granular Backfill shall be in accordance with Section 805 of the Specifications. Geotextile Fabric. Class 2 is incidental to "STRUCTURE GRANULAR BACKFILL".

SCOUR PROTECTION: Scour Protection shall be dry cyclopean stone riprap in accordance with the plans and specifications. Geotextile Fabric. Class 1 shall be placed between the native material and the scour protection in accordance with Standard Specifications 214 and 843. Geotextile Fabric. Class 1 is incidental to "CYCLOPEAN STONE RIP RAP".

MASTIC TAPE: Mastic Tape used to seal joints is to meet the requirements of ASTM C877 Type I, II. or III. The joint is to be covered with a minimum of 12" wide mastic tape. Prior to application, the joint surface shall be clean and free of dirt, debris, or deleterious material. Primer, if required, shall be applied per the manufacturer's recommendations.

Mastic Tape shall be either:

EZ-Wrap Rubber by Press-seal Gasket 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 taping a minimum of 6° and in accordance with the manufacturer's recommendations with the overlap running The required excess loop shall be prevented from adhering to itself.

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.

PILING: Piling shall be driven to practical refusal as defined on the FOUNDATION LATOUT 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 for incorporation into the finished structure.

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

PRE-DRILLING FOR PILES: The piles can be driven to bedrock if a minimum penetration of 12 feet below the bottom of the pile cap can be accomplished. If the depth to bedrock is less than 12 feet below the bottom of the pile cap. pre-drilling into the bedrock shall be used to attain this required penetration depth in order to adequately seat the piles. Pre-drilling is anticipated to be necessary at all proposed pile locations.

Where pre-drilling is necessary for pile installation. 24 inch diameter holes shall be drilled into solid rock to an elevation 12 feet below the proposed bottom of cop. Bockfill the holes with sand or pea grovel ofter the pile is placed in the hole. A temporary cosing may be required to prevent collapse of the hole. If used, remove the casing as the hole is backfilled. Drive piles to practical refusal after backfill operations are complete. Include in the unit price of "PRE-DRILLING FOR PILLS", the cost of all materials, labor, and equipment to pre-drill and backfill the holes.

PILE POINTS: Provide pile points as required on the LAYOUT sheet. Pile points shall be in accordance with Section 604 of the specifications and of the type shown on the FOUNDATION LAYOUT sheet.

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 be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department of

REMOVAL OF EXISTING STRUCTURE: Construction of this bridge requires removal of the existing structure. Include in the lump sum bid for "REMOVE STRUCTURE" all costs for material. labor, and equipment associated with removing and disposing of these items (including any wearing surface) as detailed herein in accordance with Section 203 of the Specifications.

TEMPORARY SHORING: Temporary shoring, sheeting, and/or a dewatering method may be required for the construction. Include the cost of this work, including all labor and materials, in the lump sim bid for "FOUNDATION PREPARATION".

DEWATERING METHOD: A dewatering method may be required, include in the lump sum bid for "FOUNDATION PREPARATION" all costs for materials, labor, and equipment associated with the dewatering method.

ODDT DEEP BEAM RAIL: This bridge rail is very similar to the KYTC Type II Rail. All labor and materials associated with this rail shall be included in the unit bid price for "GUARDRAIL STEEL "W" BEAM (S FACE BR)". The measured limits of this pay item shall be from the center of the first post on the bridge to the center of the lost post on the bridge.

CONCRETE SEALER: Apply concrete sealer in accordance with the Special Note

Areas to receive Concrete Sealing:

1. Every exposed surface above a point 6" below ground or fill line of abutments, wing walls, end bent and pier caps, pedestals, back walls, columns, and exposed footings.

2. All exposed surfaces of concrete deck, barrier walls, parapets, curbs,

and plinths. 3. Adjacent prestressed concrete composite box beams: full length of the exterior face of all exterior beams from the top of the box beam to 1'-0"

underneath the beams.

4. If the contract documents include the Special Note for Concrete Coating. do not apply Concrete Sealing where Concrete Coating is specified.

The following abbreviations may have been used in the preparation of these

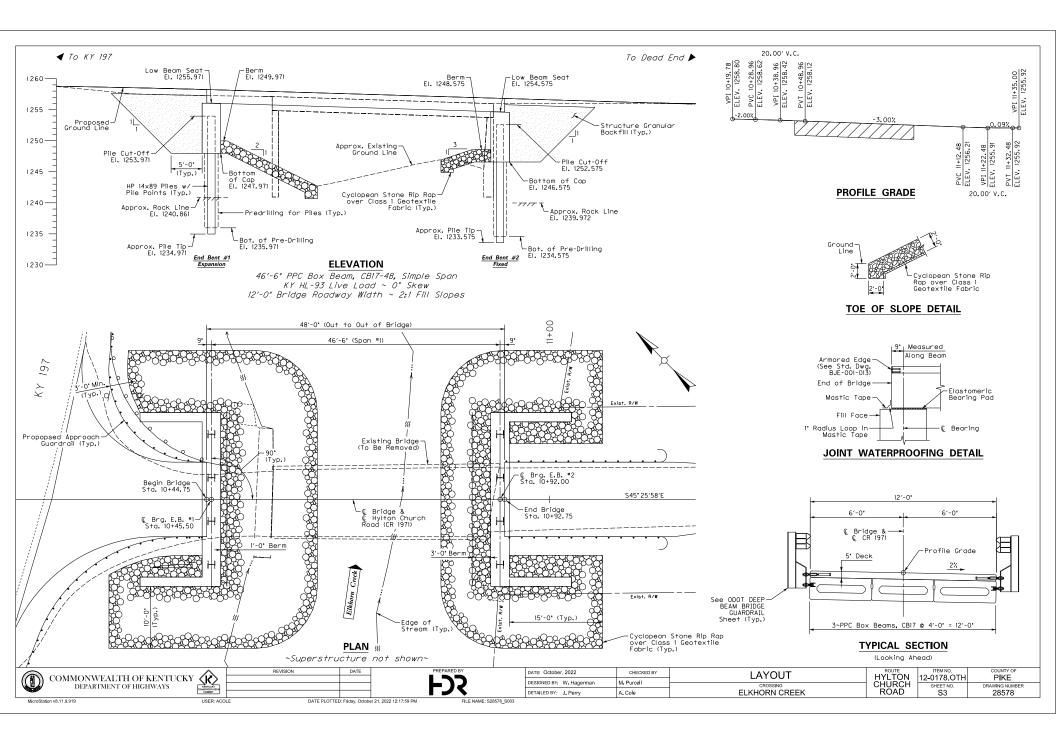
Back Face b.f. BOF Bottom of Footing bot. Bottom Bearing Center to Center Brg. C to C Current Edition Cubic Yard Chd. Chord Center Line Concrete Conc. Cubic Drawing Each Face levation Equal Est. Estimate Exterior Face to Face F to F Front Face Far Side f.s. Front I.D. Inside Diameter in. Int. Interior left LBS Low Beam Seat LBS. Pounds Miles per Hour Near Side Outside Diameter Opp. Opposite Point of Curve Perpendicular Perp. Point of Intersection Precast Prestressed Concrete
Precast Prestressed Concrete Deck Unit PPCDU Pounds per Square Inch Point of Tangent Radius Right
Reinforced Concrete Box Culvert RCDG Reinforced Concrete Deck Girder Required Railroad Shou I de spa. Spaces Station Standard Str. Straight Tangent Thru Through TOF Top of Footing Total Tot. Typical Vertical Typ. Vert.

Working Point

COMMONWEALTH OF KENTUCKY (K) DEPARTMENT OF HIGHWAYS



DATE: October, 2022	CHECKED BY	GENERAL NOTES
DESIGNED BY: M. Purcell	R. Shaw	CROSSING
DETAILED BY: M. Purcell	R. Shaw	ELKHORN CREEK



	PILE RECORD										
Pile No.	Pile Cut−off Elevation	Pile Length In Place	Bottom of Pile Elevation As Driven	Design Axial Load							
	FEET	FEET	FEET	TONS							
	END BENT #1										
1	1253.971			68.76							
2	1253.971			68.76							
3	1253.971			68.76							
4	1253.971			68.76							
		END BEN	T #2								
5	1252.575			68.76							
6	1252.575			68.76							
7	1252.575			68.76							
8	1252.575			68.76							

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.

 ${\tt BOTTOM}$ OF PILE ELEVATION AS <code>DRIVEN:</code> Actual elevation of the bottom of the pile in the finished structure.

<code>DESIGN AXIAL LOAD: Load carried by each pile as estimated from structural design calculations for Factored LRFD Loadings.</code>

CALCULATED FIELD BEARING: Bearing values are not required for piles bearing on rock and driven to practical refusal.

Driving Criteria

DRIVING CRITERIA: Drive point or end bearing piles to practical refusal.

PRACTICAL REFUSAL (Case 2): Drive point or end bearing piles to practical refusal. For this project minimum blow requirements are reached after total penetration becomes 1/2 inch 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 inch 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.

PILE POINTS: Use reinforced pile points capable of penetrating boulders and keying into sloping bedrock surfaces.

Field Data

For each pile, the Engineer of Record shall record the following on this sheet: Pile Length in Place and Bottom of Pile Elevations as Driven.

Submit this record to:

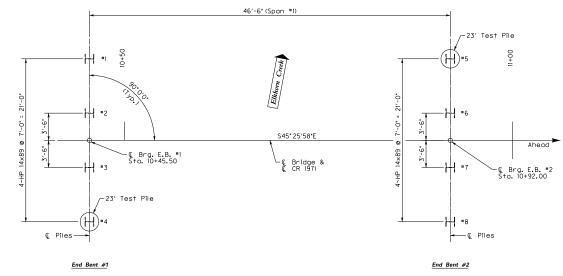
Kentucky Transportation Cabinet Director, Division of Structural Design 3rd Floor East 200 Mero Street Frankfort, KY 40622

This pile record does not replace other pile records the Project Engineer is required to keep and submit.

Use HP 14x89 in accordance with BPS-011-04.

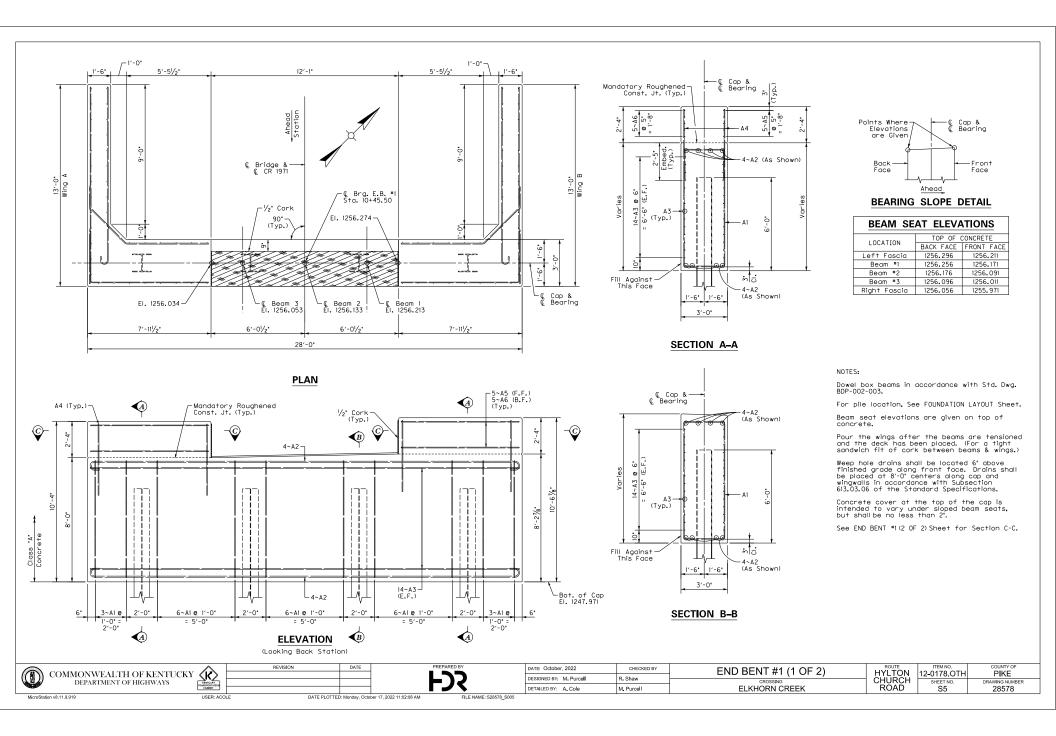
Additional Pile Driving Notes

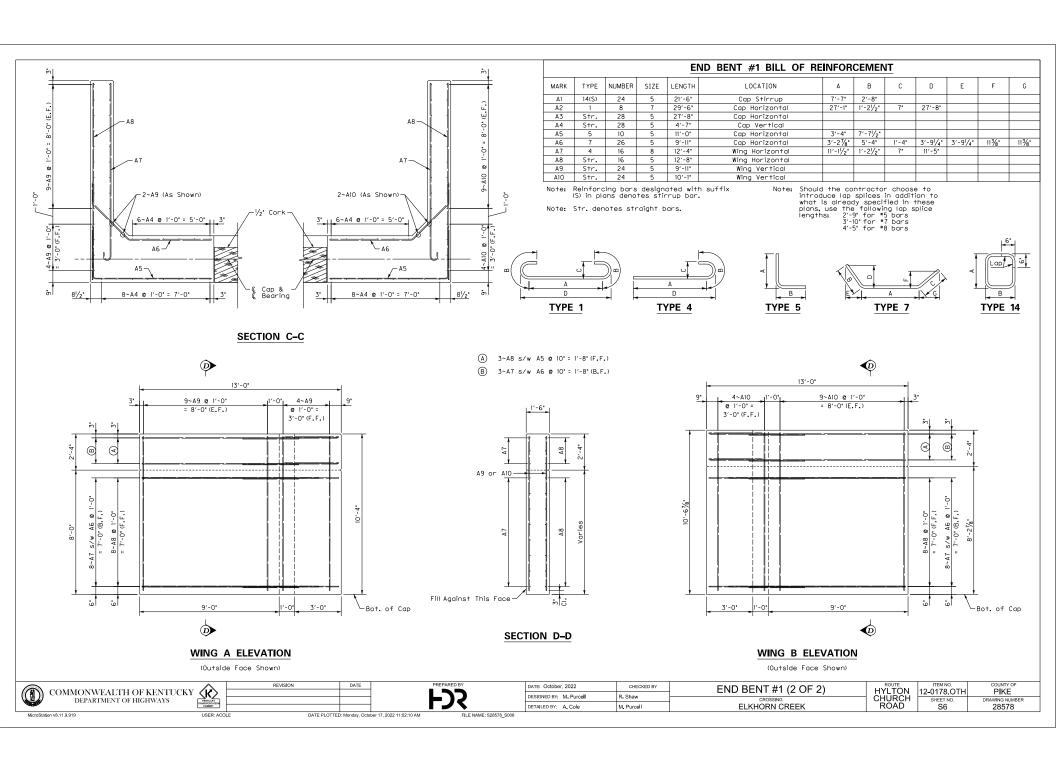
HAMMER CRITERIA: A hammer with a rated energy of between 10 and 20 kip-ft will be required to drive the H-piles to practical refusal without encountering excessive blow counts or damaging the pile. The contractor shall submit the proposed pile driving system to the Department for approval prior to the installation of the tirst pile. Approval of the pile driving system by the Engineer will be subject to the satisfactory field performance of the pile driving procedures.

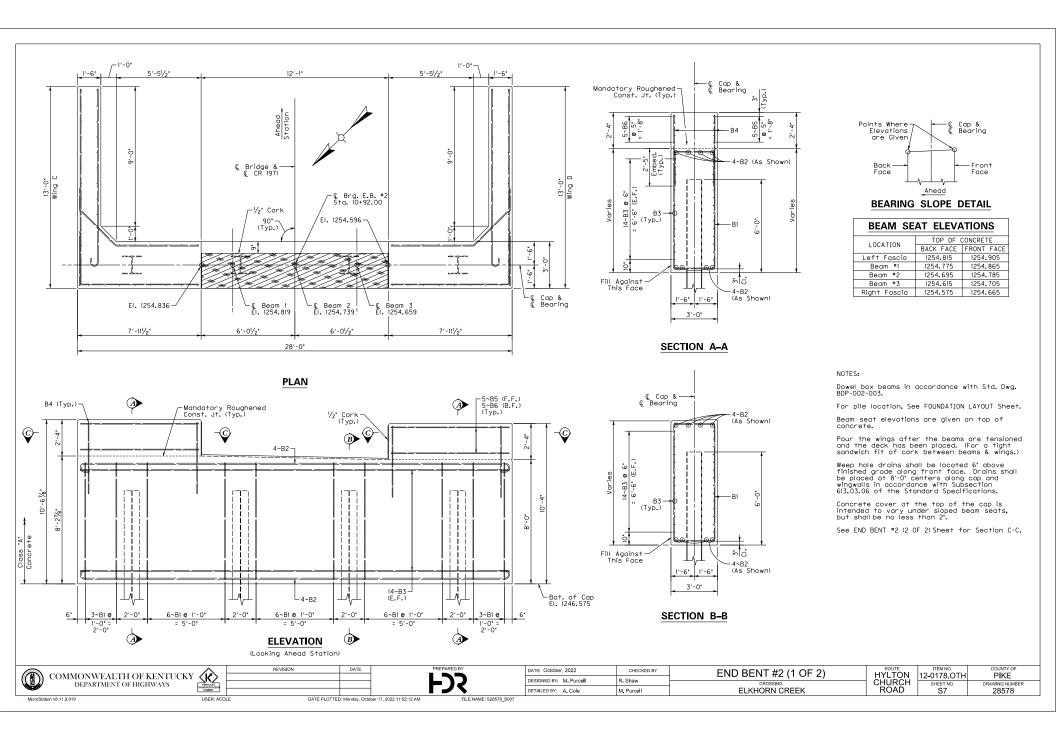


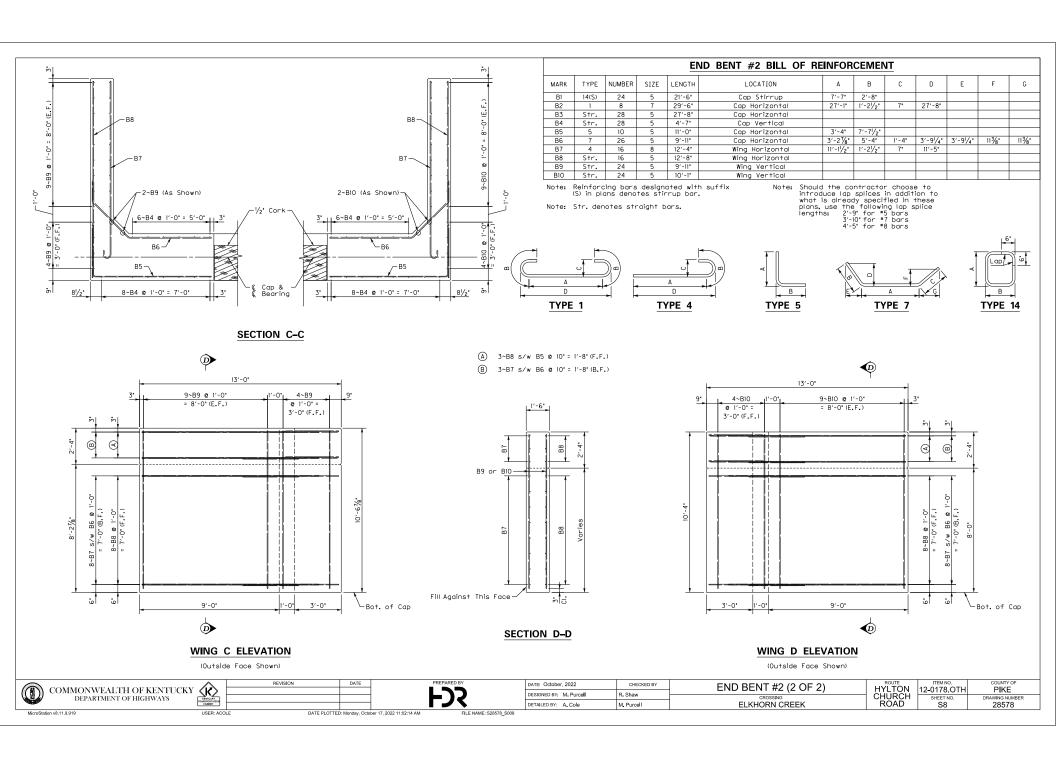


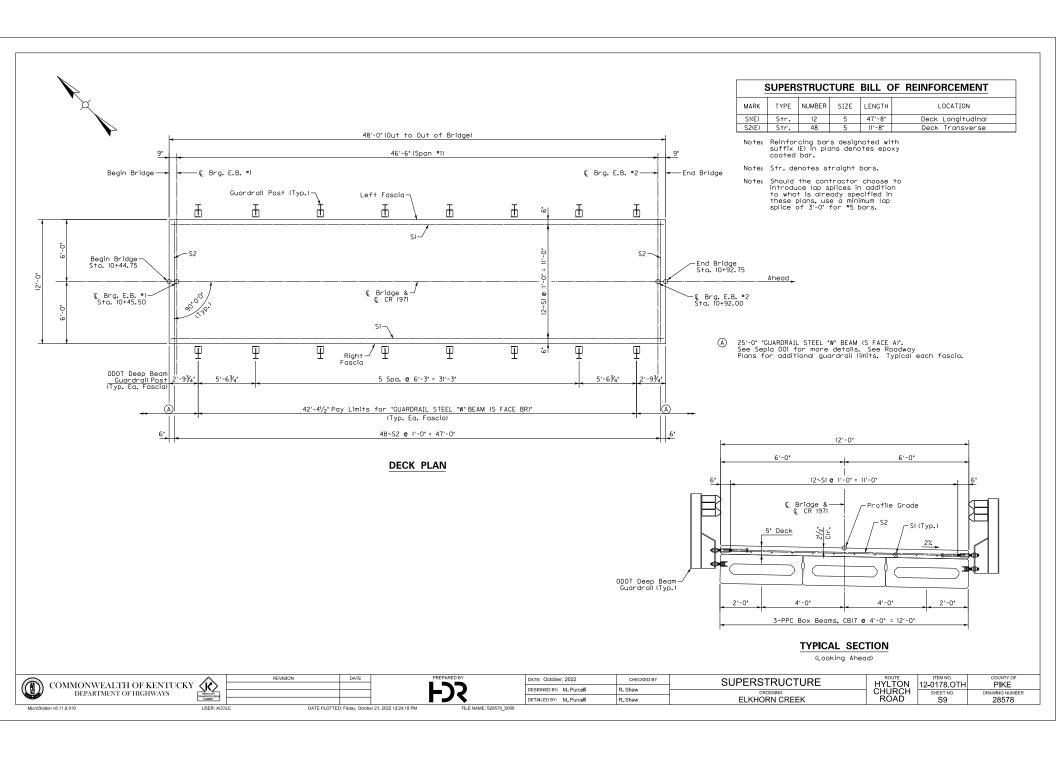
COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	<i>></i>	REVISION DATE	P	PREPARED BY	DATE: October, 2022	CHECKED BY	FOUNDATION LAYOUT	HYLTON	12-0178.OTH	COUNTY OF PIKE
COMMONWEALTH OF KENTUCKY	<> ∟				DESIGNED BY: M. Purcell	R. Shaw	1 OONDATION EATOOT	CHILDON		
DEPARTMENT OF HIGHWAYS	JEKY			- 1/	DEGIGNED DT. WILT GICEN	IV. OHAW	CROSSING	CHURCH	SHEET NO.	DRAWING NUMBER
THAT CAS	NET TECH				DETAILED BY: M. Purcell	R. Shaw	ELKHORN CREEK	ROAD	S4	28578
MicroStation v8.11.9.919 USI	R: ACOLE	DATE PLOTTED: Monday, Octo	ber 17, 2022 11:02:05 AM	FILE NAME: \$28578_\$004			·			











Location	Left Ç Beam #1		မြ Beam #2			(Right				
	Fascla	Construction Elevation	Top Of Beam	Dimension "X"	Construction Elevation	Top Of Beam	Dimension "X"	Construction Elevation	Top Of Beam	Dimension "X"	Fascla
SKEW LINE A-A	1258.362	1258.322			1258.242			1258.162			1258.122
SKEW LINE B-B	1258.341	1258.301			1258.221			1258.141			1258.101
SKEW LINE C-C	1256.947	1256.907			1256.827			1256.747			1256.707
SKEW LINE D-D	1256.924	1256.884			1256.804			1256.724			1256.684
GRID LINE I	1258.253	1258.213			1258.133			1258.053			1258.013
GRID LINE 2	1258.027	1257.987			1257.907			1257.827			1257.787
GRID LINE 3	1257.796	1257.756			1257.676			1257.596			1257.556
GRID LINE 4	1257.556	1257.516			1257.436			1257.356			1257.316
GRID LINE 5	1257.307	1257.267			1257.187			1257.107			1257.067
GRID LINE 6	1257.051	1257.011			1256.931			1256.851			1256.811

NOTES FOR ELEVATIONS TAKEN ON PRESTRESSED CONCRETE BEAMS

Take elevations on top of beam at points indicated by the grid layout. The beam elevations are to be read to three decimals, 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 deck, borrier, and future wearing surface. 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.

The minimum "X" dimension is that which provides the minimum deck thickness shown in the plans at the controlling edge of the top flange (accounting for the cross-slope of the deck).

USER: ACOLE

DEPARTMENT OF HIGHWAYS

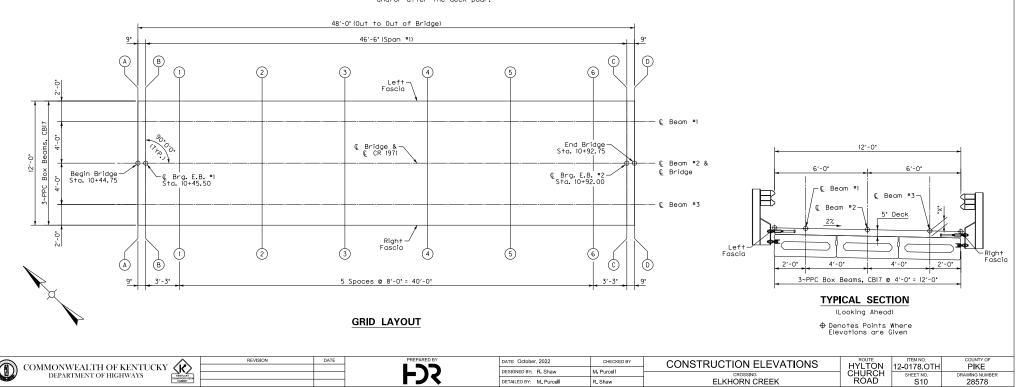
Construct barrier to roadway grade. Do not add camber to the barrier.

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 beams when pouring the concrete floor slab or when taking 'Top of Beam' elevations.

The parabolic crown, if required, has been accounted for in the construction

The construction elevation at a given point is the elevation to pour the deck to. This elevation is the sum of two numbers: 1) the desired final grade elevation and 2) the anticipated deflection occurring during the deck pour and/or after the deck pour.



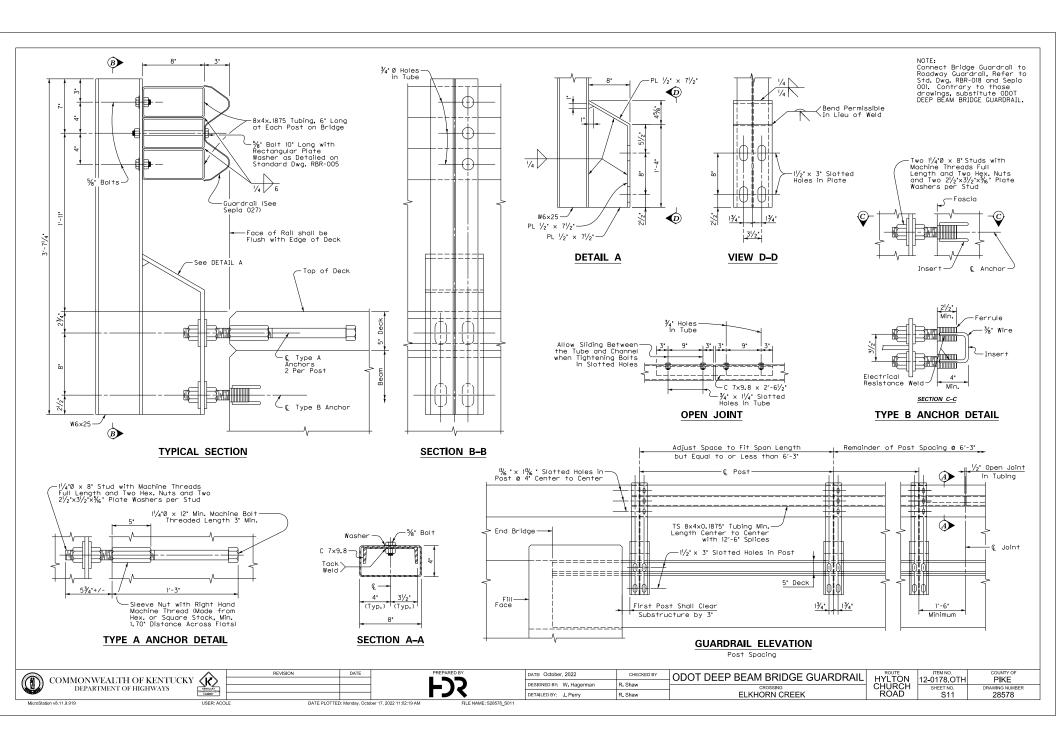
DESIGNED BY: R. Shaw

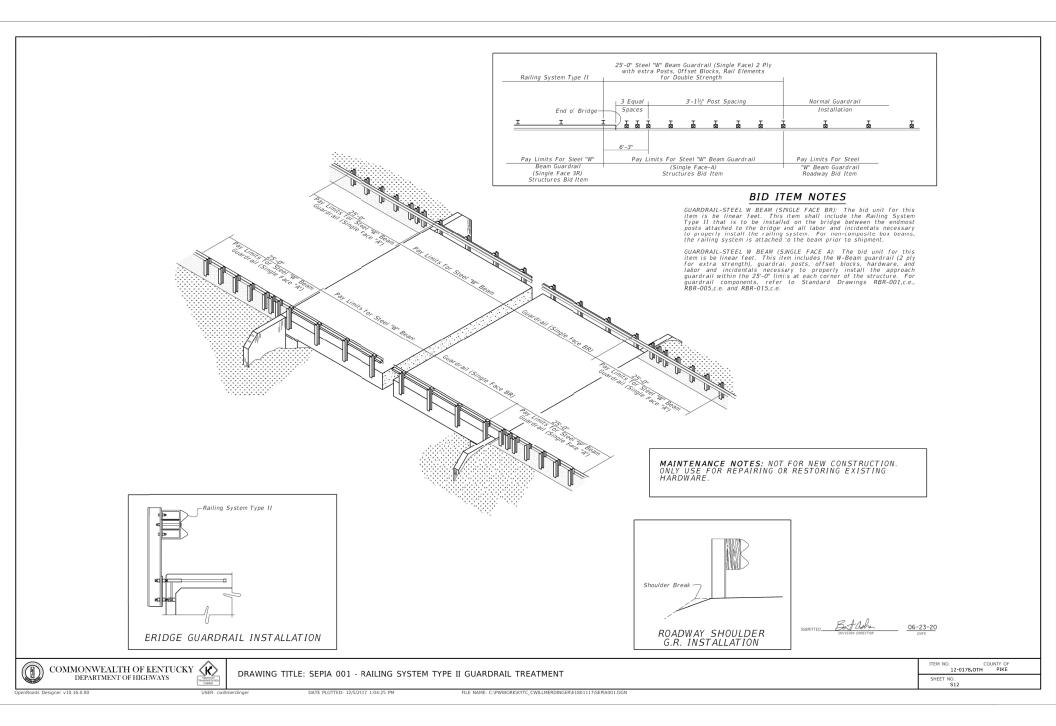
M. Purcell

ELKHORN CREEK

AWING NUMBER

28578





Drilling Firm: Kentucky Transportation Cabinet For: Division of Structural Design Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Printed: 8/22/22

Page 1 of 1

Project ID: <u>098C00135N</u> Item Number:		<u>Pike - Hylton Church Rd</u> <u>Elkhorn Creek</u>				Project Type: Struct Project Manager:				<u>Bridge</u>	
Hole Numb	per _2_		Immediate Water Depth	<u>va</u>	Start [Date <u>08/20/2</u>	022		Hole -	Гуре <u>sou</u>	nding
Surface Ele	evation	•	Static Water Depth <u>NA</u>		End D	ate <u>08/20/20</u>	022		Rig_N	lumber	
Total Depti	h <u>17.3'</u>		Driller <u>Joshua Smallwood</u>	L	Latitud	de(83) <u>37.22</u>	9634				
Location _	+ 'Lt.				Longit	tude(83) <u>-82.</u>	.522885				
Litholo	ogy			Overburden	Sample No.	Depth (ft)	Rec. (ft)	SI Blo	PT ows	Sample Type	Damada
Elevation	Depth	Description	n	Rock Core	Std/Ky RQD	Run (ft)	Rec (ft)	R (9	ec %)	SDI (JS)	Remarks
-	_0.3/	\	Blacktop.								-
- - 5_											
į.											
- 10		Soft, bro	wn, very moist, sandy clay wi fragments.	ith rock							- 10
											-
<u>15</u> _	16.4			(Refusal)							<u>15</u>
-	17.3	Me	dium hard, gray, sandy shale Hard, gray, sandy shale.								_
20_			, ,								20
-			(Bottom of Hole 17.3') (Refusal @ 16.4)								-
<u>25</u>											2 <u>5</u>
-											-
3 <u>0</u>											30
į.											
- 3 <u>5</u>											3 <u>5</u>
Ė											-
4 <u>0</u>											<u>40</u>
-											
<u>45</u>											<u>45</u>
[-
- 50											50
			<u> </u>	END BE	NT #	1					

Drilling Firm: Kentucky Transportation Cabinet For: Division of Structural Design Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Printed: 8/22/22 Page 1 of 1

	<u>Pike - Hylton Church Rd</u> <u>Elkhorn Creek</u>			Project Type: <u>Structure Bridge</u> Project Manager: _				
Hole Number <u>1</u> Surface Elevation <u>'</u> Total Depth <u>16.6'</u> Location <u>+ 'Lt.</u>	Immediate Water Depth <u>NA</u> Static Water Depth <u>NA</u> Driller <u>Joshua Smallwood</u>		Start Date <u>08/20/2022</u> End Date <u>08/20/2022</u> Latitude(83) <u>37.229634</u> Longitude(83) <u>-82.522888</u>		Rig_		ole Type <u>sounding</u> g_Number <u> </u>	
Lithology Description	Overburden	Sample No.	Depth (ft)	Rec. (ft)	SP [*] Blov		nple /pe	Remarks
Elevation Depth	Rock Core	Std/Ky RQD	Run (ft)	Rec (ft)	Re (%	c S) (J	DI IS)	
	Blacktop							.± 19
5 16.0 16.6 M	(Refusal) odium hard, gray, sandy shale.							<u>15</u>
<u>o</u>	Hard, gray, sandy shale. (Bottom of Hole 16.6') (Refusal @ 16)							2 <u>.</u>
5								2
<u>o</u>								3_
<u>5</u>								3_
0								4
<u>5</u>								4
0	END BEN		_					5

	COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	< ====================================
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DATE: October, 2022	CHECKED BY	SUBSURFACE DATA	ROUTE	ITEM NO.	COUNTY OF
		SUBSURFACE DATA	HYLTON	12-0178.OTH	PIKE
DESIGNED BY:		CROSSING	CHURCH	SHEET NO.	DRAWING NUMBER
DETAILED BY: M. Purcell	R. Shaw	ELKHORN CREEK	ROAD	S13	28578

MicroStation v8.11.9.919 USER: ACOLE DATE PLOTTED: Monday, Colober 17, 2022 11:02:20 AM

FILE NAME: \$28578_\$013