Addendum NO 1

ISSUED BY: *Great River Engineering*
2826 S. Ingram Mill Rd.
Springfield, Missouri 65804
(417) 886-7171
(417) 886-7591 --- FAX

DATE: May 11, 2020

FOR: **Pike County BRO-B082(31)**

The attached revisions hereby supersede any and all data with which they may conflict as indicated on the Drawings, Specifications and related documents issued in the original set. Each trade is responsible for changes in its work caused by changes in the work of other trades. This addendum is a part of and shall be attached to the original set of plans and specifications for the work.

Notification: There have been no changes or addendums prior to this addendum.

Changes to:

Contract Documents and Specifications:

Bid Form

Bid Form has been revised to change the Type A Guardrail quantity amount to:

50 Linear Feet

Bid Form has been revised to change the Type A Crashworthy End Terminal quantity amount to:

2 Each

Plans:

Sheet C2

Under Roadway Quantities, the Type A Guardrail quantity has been revised to change the amount to:

50 Linear Feet

Under Roadway Quantities, the Type A Crashworthy End Terminal quantity has been revised to change the amount to:

2 Each

Sheet C4

The Crashworthy End Terminal on the northeast corner of the bridge has been changed to Type A guardrail with an end horn.

Sheet C5

The Crashworthy End Terminal on the northeast corner of the bridge has been changed to Type A guardrail with an end horn.

Sheet S6

The Crashworthy End Terminal on the northeast corner of the bridge has been changed to Type A guardrail with an end horn.

Sheet RW1

Added the Right-of-Way Plan as indicated in the Index of Sheets on Sheet C1.

There are no other clarifications or changes included with this Addendum.

Digitally signed by Jeffrey Allen Banderet
Date: 2020.05.11 08:41:42 -05'00'

GRE
GREAT RIVER ENGINEERING

CONTRACTOR NAME: _____

ADDRESS LINE 1: _____

ADDRESS LINE 2: _____

PHONE NUMBER: _____

EMAIL: _____

Pike County Commission
0540014
BRO-B082(31)

DATE: _____

ITEMIZED BID FORM

LINE	ITEM	DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	AMOUNT
ROADWAY ITEMS						
1	618	MOBILIZATION	L.S.	1		
2	201	CLEARING AND GRUBBING	AC.	0.13		
3	203	UNCLASSIFIED EXCAVATION (ROADWAY)	C.Y.	98		
4	203	EMBANKMENT IN PLACE W/ COMPACTION	C.Y.	58		
5	310	TYPE 1 AGGREGATE FOR BASE (5 IN. THICK)	S.Y.	691		
6	801/805	SEEDING	AC.	0.2		
7	616	TYPE III MOVEABLE BARRICADES	EA.	4		
8	616	CONSTRUCTION SIGNS	S.F.	63		
9	611	TYPE 2 ROCK BLANKET	C.Y.	458		
10	607	ASYMMETRICAL TRANSITION SECTION	EA	4		
11	606	TYPE A CRASHWORTHY END TERMINAL	EA	2		
12	606	TYPE A GUARDRAIL	L.F.	50		
13	806	SILT BARRIER	L.F.	200		
14	806	DITCH CHECK	EA.	2		
					ROADWAY ITEMS SUBTOTAL	
BRIDGE ITEMS						
15	216	REMOVAL OF BRIDGES	L.S.	1		
16	206	UNCLASSIFIED EXCAVATION (STRUCTURE)	CY	107		
17	702	STRUCTURAL STEEL PILES (10 IN.)	L.F.	257.5		
18	702	PILE POINT REINFORCEMENT	EA.	10		
19	703	CLASS B-1 CONCRETE (SUBSTRUCTURE)	CY.	22		
20	703	STANDARD SLAB BEAMS (55'-0")	EA.	8		
21	706	REINFORCING STEEL (BRIDGES)	LBS.	3,960		
22	713	SL-1 BRIDGE RAILING	L.F.	117		
23	716	PLAIN NEOPRENE BEARING PAD	LF	54		
					BRIDGE ITEMS SUBTOTAL	
					TOTAL CONTRACT	

GENERAL NOTES

DESIGN DATA

THE CONTRACTOR SHALL FOLLOW THE JOB SPECIAL PROVISIONS FOR THIS PROJECT. FOR ITEMS NOT DIRECTLY COVERED IN THE JOB SPECIAL PROVISIONS THE CONTRACTOR SHALL FOLLOW THE SPECIFICATIONS AS STATED IN THE "MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION," 2018 EDITION, AND CURRENT SUPPLEMENTAL SPECIFICATION REVISIONS.

EMBANKMENT

ROADWAY FILL SHALL BE COMPLETED TO THE FINAL ROADWAY SECTION AND UP TO THE ELEVATION OF THE BOTTOM OF THE CONCRETE BEAM WITHIN THE LIMITS OF THE STRUCTURE AND FOR NOT LESS THAN 25 FEET IN BACK OF THE FILL FACE OF THE END BENTS BEFORE ANY PILES ARE DRIVEN FOR ANY BENTS FALLING WITHIN THE EMBANKMENT SECTION.

TREES

ALL TREES WITHIN PROPOSED R/W ARE TO BE GRUBBED AFTER NOVEMBER 1, 2016 EXCEPT WHERE DIRECTED BY THE ENGINEER. EXCEPTIONALLY GOOD TREES SHALL BE SPARED BY ADJUSTING THE BACKSLOPE LINES DURING CONSTRUCTION. TREES OUTSIDE THE CONSTRUCTION LIMITS SHALL NOT BE GRUBBED UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

FENCES

FENCES SHALL BE MOVED OR ADJUSTED PRIOR TO CONSTRUCTION AS NECESSARY BY THE CONTRACTOR TO FIT THE NEW CONSTRUCTION. TEMPORARY FENCING SHALL BE PROVIDED WHERE EXISTING FENCING IS REMOVED FOR CONSTRUCTION. TEMPORARY FENCING SHALL CONSIST OF AT LEAST 3-STRAND BARB WIRE WITH METAL "T" POST. WOODEN CORNER POSTS ARE ALLOWED. CONTRACTOR SHALL MAINTAIN TEMPORARY FENCING IN GOOD WORKING CONDITION UNTIL PERMANENT FENCING IS COMPLETED. COST FOR FURNISHING, INSTALLING AND MAINTAINING THE TEMPORARY FENCE SHALL BE CONSIDERED INCIDENTAL TO FENCE CONSTRUCTION OR CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR OTHER ITEMS INCLUDED IN THE CONTRACT.

BROKEN CONCRETE

NO BROKEN CONCRETE IS ALLOWED IN THE ROCK BLANKET. BROKEN CONCRETE FROM THE PROJECT MAY BE USED IN FILL LOCATIONS AS DIRECTED BY THE ENGINEER AND PLACED PER MODOT SPECIFICATIONS AND JOB SPECIAL PROVISIONS. NO BROKEN CONCRETE SHALL BE BROUGHT TO THE PROJECT.

PERMANENT SIGNING & MARKING

ALL ROADSIDE SIGNS, GUIDEPOSTS, AND MARKERS SHALL REMAIN THE PROPERTY OF THE COUNTY AND THOSE REMOVED WITHIN THE PROJECT AREA SHALL BE STACKED ON SITE FOR PICKUP BY COUNTY FORCES.

TEMPORARY SIGNING

TEMPORARY SIGNING AND MARKING SHALL REMAIN IN PLACE AT ALL TIMES DURING CONSTRUCTION. TEMPORARY SIGNING SHALL BE KEPT CLEAN AND VISIBLE THROUGH OUT CONSTRUCTION. FAILURE TO DO SO WILL RESULT IN WORK STOPPAGE.

UTILITIES

PUBLIC AND PRIVATE UTILITY FACILITIES SHALL BE MOVED OR ADJUSTED PRIOR TO CONSTRUCTION AS NECESSARY BY THE OWNERS TO FIT THE CONSTRUCTION UNLESS NOTED ON THE PLANS OR IN THE PROPOSAL.

THE INFORMATION SHOWN ON THE PLANS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

CONTRACTOR SHALL CONTACT MISSOURI ONE CALL AT 1-800-344-7483 (DIG-RITE), 811 OR MO1CALL.COM AT LEAST THREE DAYS PRIOR TO BEGINNING CONSTRUCTION.

DITCHES

DITCHES MUST BE GRADED FOR POSITIVE DRAINAGE AND IN ACCORDANCE WITH PLANS AND SPECIFICATIONS. DITCH FLOW LINES WITHOUT POSITIVE DRAINAGE WILL NOT BE ACCEPTED AND THE CONTRACTOR WILL BE REQUIRED TO REGRADE THE DITCHES TO PROVIDE POSITIVE DRAINAGE.

HYDROLOGIC DATA

DRAINAGE AREA	2.49 = SQ. MI.
DESIGN FLOOD FREQUENCY	500 = YEARS
DESIGN FLOOD DISCHARGE	3,050 = CFS
DESIGN FLOOD (D.F.) ELEVATION	>526.61 = FEET
BASE FLOOD (100-YEAR)	
BASE FLOOD ELEVATION	525.97 = FEET
BASE FLOOD DISCHARGE	2.280 = CFS
ESTIMATED BACKWATER	0.00 = FEET
AVERAGE VELOCITY THRU OPENING	8.71 = FT/S
FREEBOARD	
FREEBOARD	= 0.0 FEET
ROADWAY OVERTOPPING	
OVERTOPPING FLOOD DISCHARGE	>3,050 = CFS
OVERTOPPING FLOOD FREQUENCY	>500 = YEARS
OVERTOPPING FLOOD ELEVATION	>526.61 = FEET

PILE DATA

BENT NO.			1	2
LOAD BEARING PILE	PILE TYPE AND SIZE		HP10x42	HP10x42
	NUMBER	EA	5	5
	APPROXIMATE LENGTH PER EACH	FT	22.5	29.0
	PILE DRIVING VERIFICATION METHOD		DF	DF
	MINIMUM NOMINAL AXIAL COMPRESSIVE RESISTANCE	KIP	365	365
	HAMMER ENERGY REQUIRED	FT-LB	11,700	11,700

MANUFACTURED PILE POINT REINFORCEMENT SHALL BE USED ON ALL PILES IN THIS STRUCTURE AT BENTS NO. 1 AND 2.

MINIMUM ENERGY REQUIRED OF HAMMER IS BASED ON PLAN LENGTH AND MINIMUM NOMINAL AXIAL COMPRESSIVE RESISTANCE.

DF = FHWA-MODIFIED GATES DYNAMIC FORMULA

MINIMUM NOMINAL AXIAL COMPRESSIVE RESISTANCE = MAXIMUM FACTORED LOADS/0.4

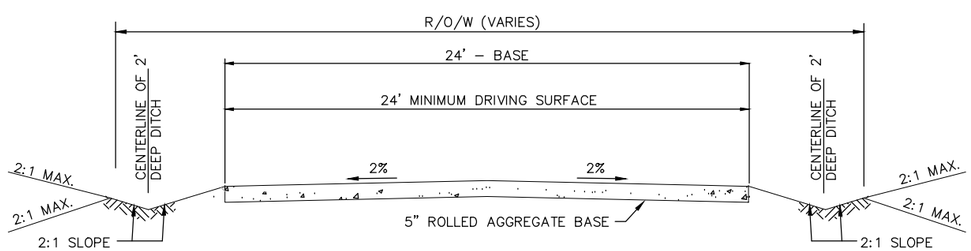
ROADWAY QUANTITIES

ITEM	TOTAL	UNITS
CLEARING AND GRUBBING	0.13	ACRE
UNCLASSIFIED EXCAVATION (ROADWAY)	98	CU. YARD
EMBANKMENT IN PLACE WITH COMPACTION	58	CU. YARD
TYPE 1 AGGREGATE FOR BASE (5 IN. THICK)	691	SQ. YARD
ASYMMETRICAL TRANSITION SECTION	4	EACH
TYPE A CRASHWORTHY END TERMINAL	2	EACH
TYPE A GUARDRAIL	50	LIN. FOOT
TYPE 2 ROCK BLANKET	458	CU. YARD
CONSTRUCTION SIGNS	63	SQ. FOOT
TYPE III MOVEABLE BARRICADE	4	EACH
MOBILIZATION	1	LUMP SUM
SEEDING	0.2	ACRE
SILT BARRIER	200	LIN. FOOT
DITCH CHECK	2	EACH

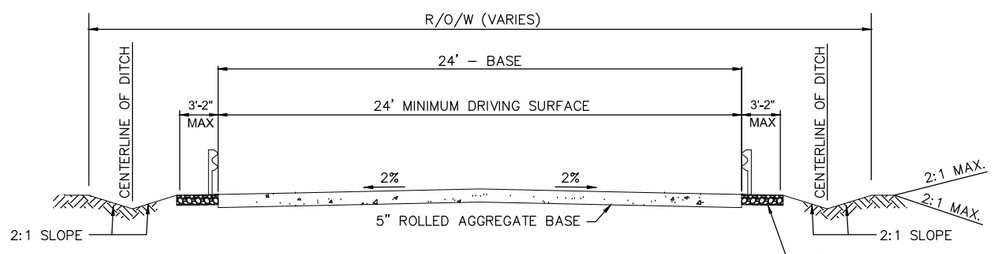
1

BRIDGE QUANTITIES

ITEM	SUBSTR.	SUPERSTR.	TOTAL	UNIT
UNCLASSIFIED EXCAVATION (STRUCTURE)	107			CU. YARD
REMOVAL OF BRIDGES			1	LUMP SUM
STRUCTURAL STEEL PILES (10 IN.)	257.5		257.5	LIN. FOOT
PILE POINT REINFORCEMENT	10		10	EACH
STANDARD SLAB BEAMS (55'-0")			8	EACH
SL-1 BRIDGE RAILING		117	117	LIN. FOOT
PLAIN NEOPRENE BEARING PAD		54	54	LIN. FOOT
CLASS B-1 CONCRETE (SUBSTRUCTURE)	22		22	CU. YARD
REINFORCING STEEL (BRIDGES)	3,960		3,960	POUNDS



TYPICAL SECTION



TYPICAL SECTION W/ GUARDRAIL

GREAT RIVER ENGINEERING

Great River Engineering • Missouri State Certificate of Authority Numbers: Engineering: 2000156985, Land Surveying: 2001011476, Landscape Architecture: 2007013873

No.	Revision/Issue	Date
1	ADDENDUM #1	5/8/20

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

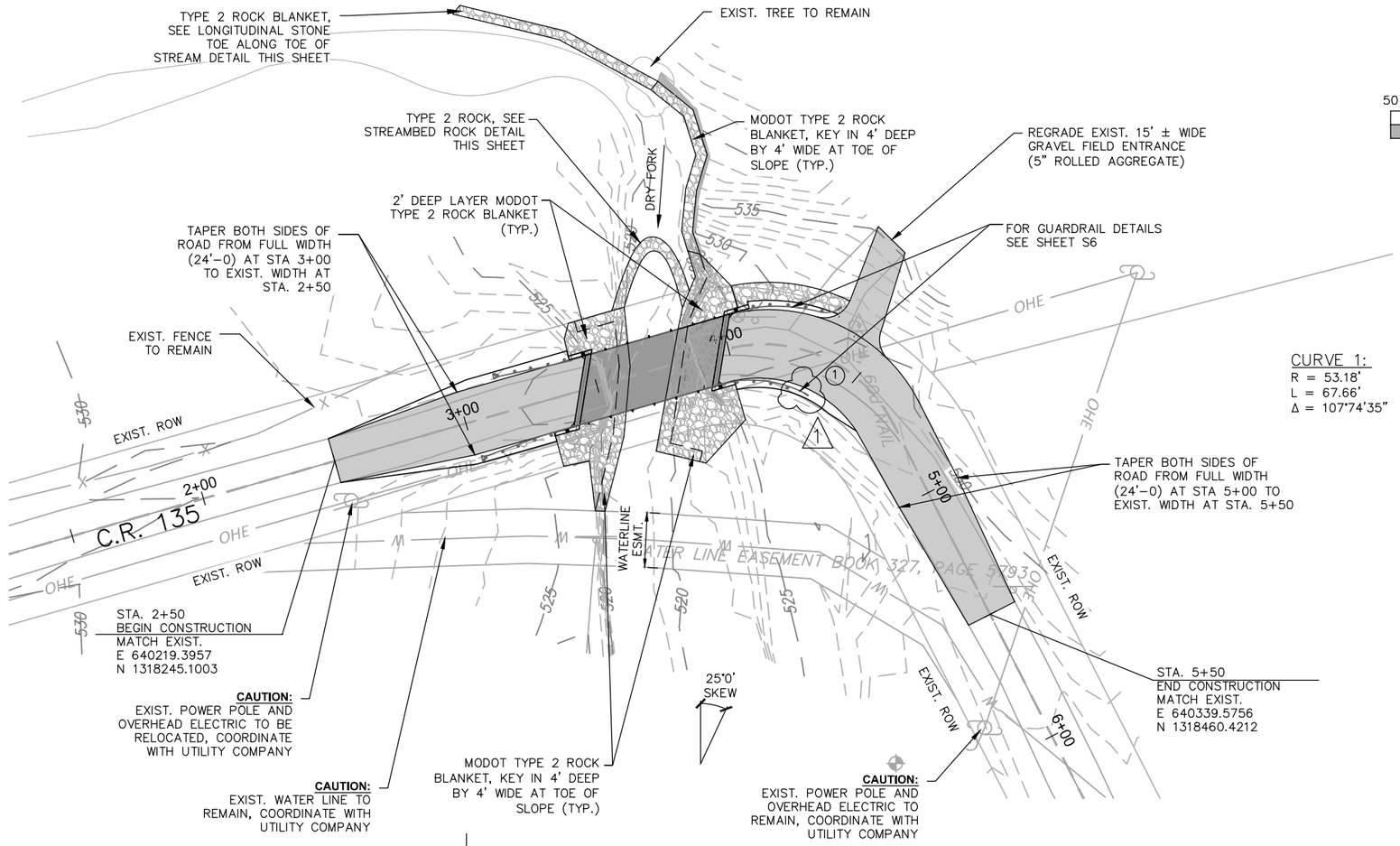
STATE OF MISSOURI JEFFREY A. BANDERET, JR. NUMBER E-2017030568 REGISTERED PROFESSIONAL ENGINEER

JEFFREY A. BANDERET, JR. - ENGINEER
MO# PE-2017030568

C.R. 135 BRIDGE #0510014 (BRO-B082(31)
PIKE COUNTY, MISSOURI

GENERAL NOTES, QUANTITIES & TYP. DETAILS

CHECKED BY:	JAB
DRAWN BY:	KFB
JOB NUMBER:	3936
FILE NAME:	3936_CIVIL
SCALE:	NO SCALE
ISSUE DATE:	01.08.2020
SHEET NUMBER:	C2



GRE GREAT RIVER ENGINEERING
Great River Engineering • Missouri State Certificate of Authority Numbers: Engineering: 2000156985, Land Surveying: 2001011476, Landscape Architecture: 2007013873

No.	Revision/Issue	Date
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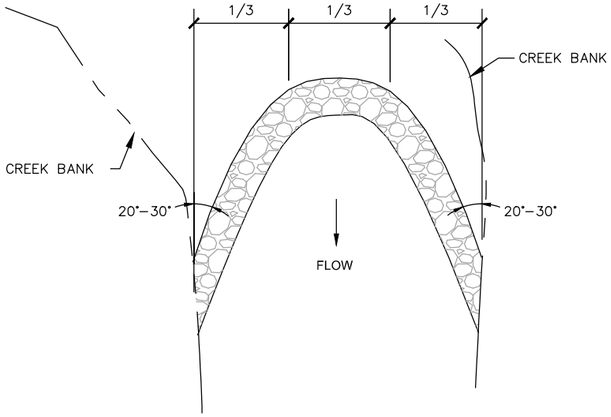
STATE OF MISSOURI JEFFREY A. BANDERET, JR. NUMBER E-2017030568 REGISTERED PROFESSIONAL ENGINEER

JEFFREY A. BANDERET, JR. - ENGINEER
MO# PE-2017030568

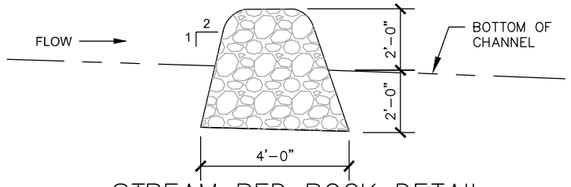
C.R. 135 BRIDGE #0510014 (BRO-B082(31)
PIKE COUNTY, MISSOURI

ROADWAY PLAN & PROFILE (55' BRIDGE)

CHECKED BY:	JAB
DRAWN BY:	KFB
JOB NUMBER:	3936
FILE NAME:	3936_CIVIL
SCALE:	NO SCALE
ISSUE DATE:	01.08.2020
SHEET NUMBER:	C4

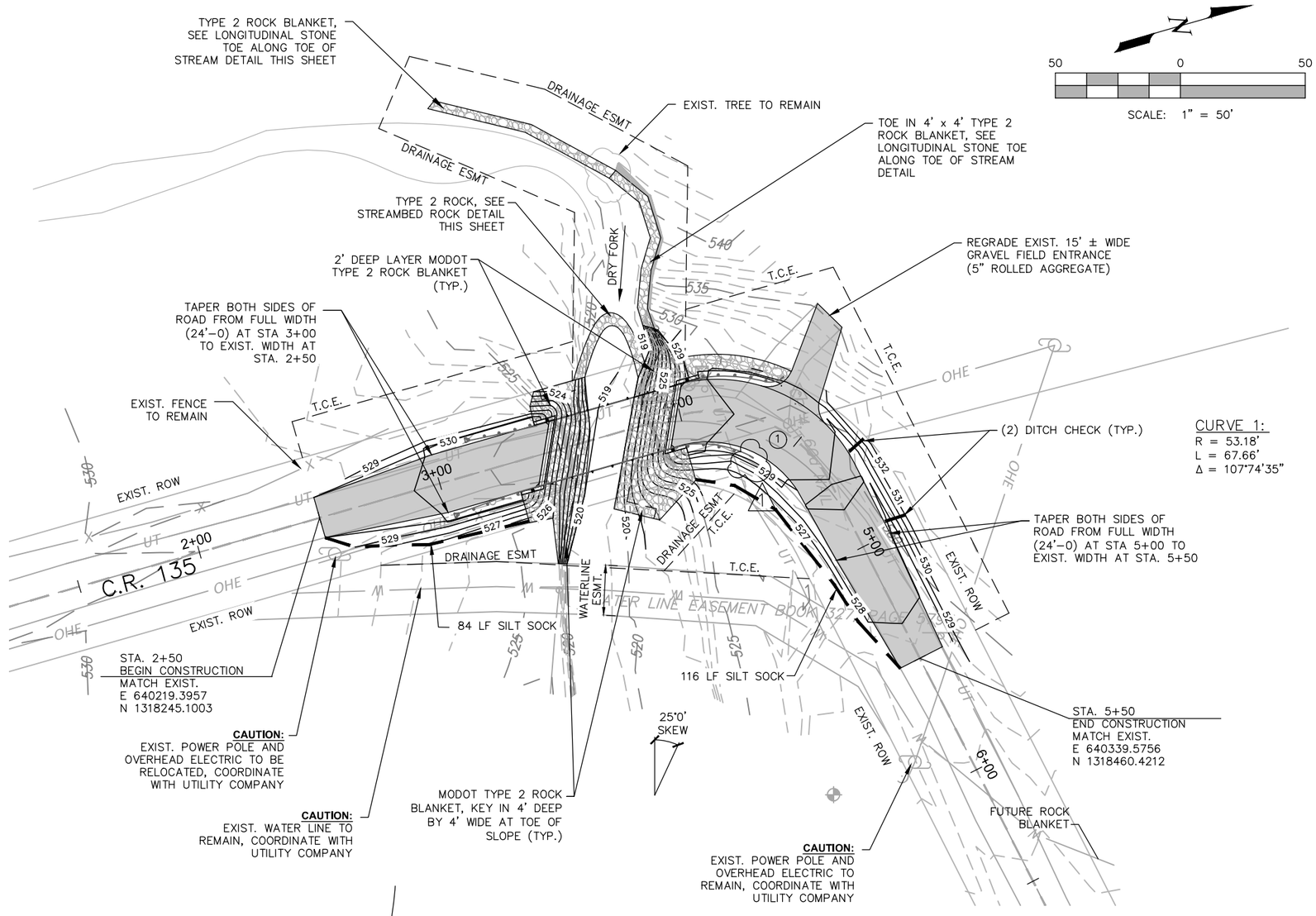


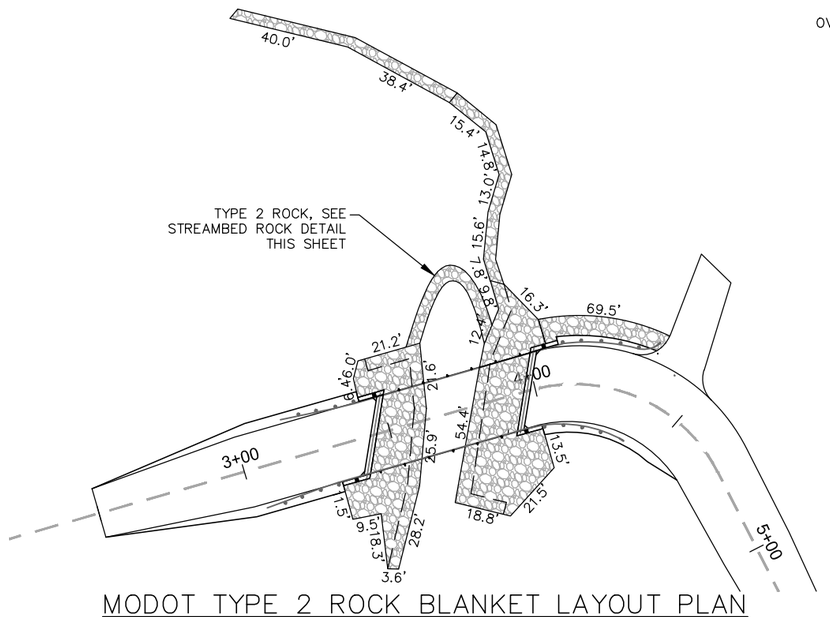
STREAM BED ROCK PLAN VIEW



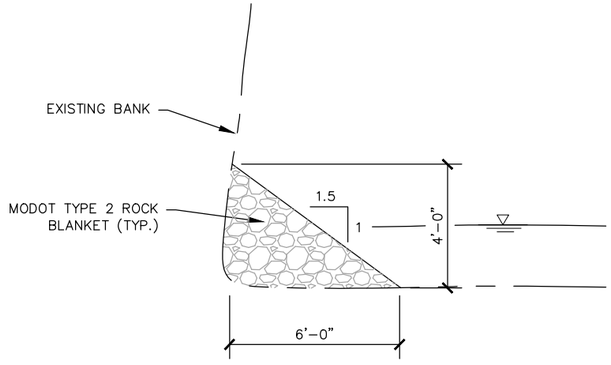
STREAM BED ROCK DETAIL

NOTE:
TYPE 2 ROCK, 4' WIDE x 4' TALL 2' ABOVE STREAM BED (2' EMBEDDED). ROCK TO EXTEND FROM TOE TO TOE OF STREAM BED PER ROCK BLANKET LAYOUT PLAN

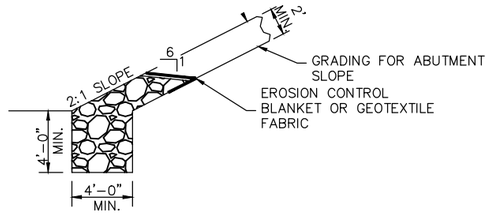




MODOT TYPE 2 ROCK BLANKET LAYOUT PLAN



TYPICAL LONGITUDINAL STONE TOE ALONG TOE OF STREAM PER ROCK BLANKET LAYOUT PLAN



ROCK BERM

NOTES:

BERM SHALL BE BUILT TO HANDLE SIGNIFICANT RUN–OFF EVENTS.

ROCK BERM SHALL BE PLACED AT THE BEGINNING OF CONSTRUCTION AND WILL BE INCORPORATED INTO THE ROCK BLANKET. COST SHALL BE INCLUDED IN THE UNIT PRICE FOR TYPE 2 ROCK BLANKET.

PRIOR TO FINAL PLACEMENT OF TYPE 2 ROCK BLANKET, CONTRACTOR SHALL REMOVE GEOTEXTILE FABRIC AND ANY SILT BUILDUP ALONG TOP OF ROCK BERM. ALL WORK NECESSARY FOR REMOVAL SHALL BE INCIDENTAL TO BID ITEM TYPE 2 ROCK BLANKET.

GRE GREAT RIVER ENGINEERING

Great River Engineering • Missouri State Certificate of Authority Numbers: Engineering: 2000156985, Land Surveying: 2001011476, Landscape Architecture: 2007013873

No.	Revision/Issue	Date
1	ADDENDUM #1	5/8/20

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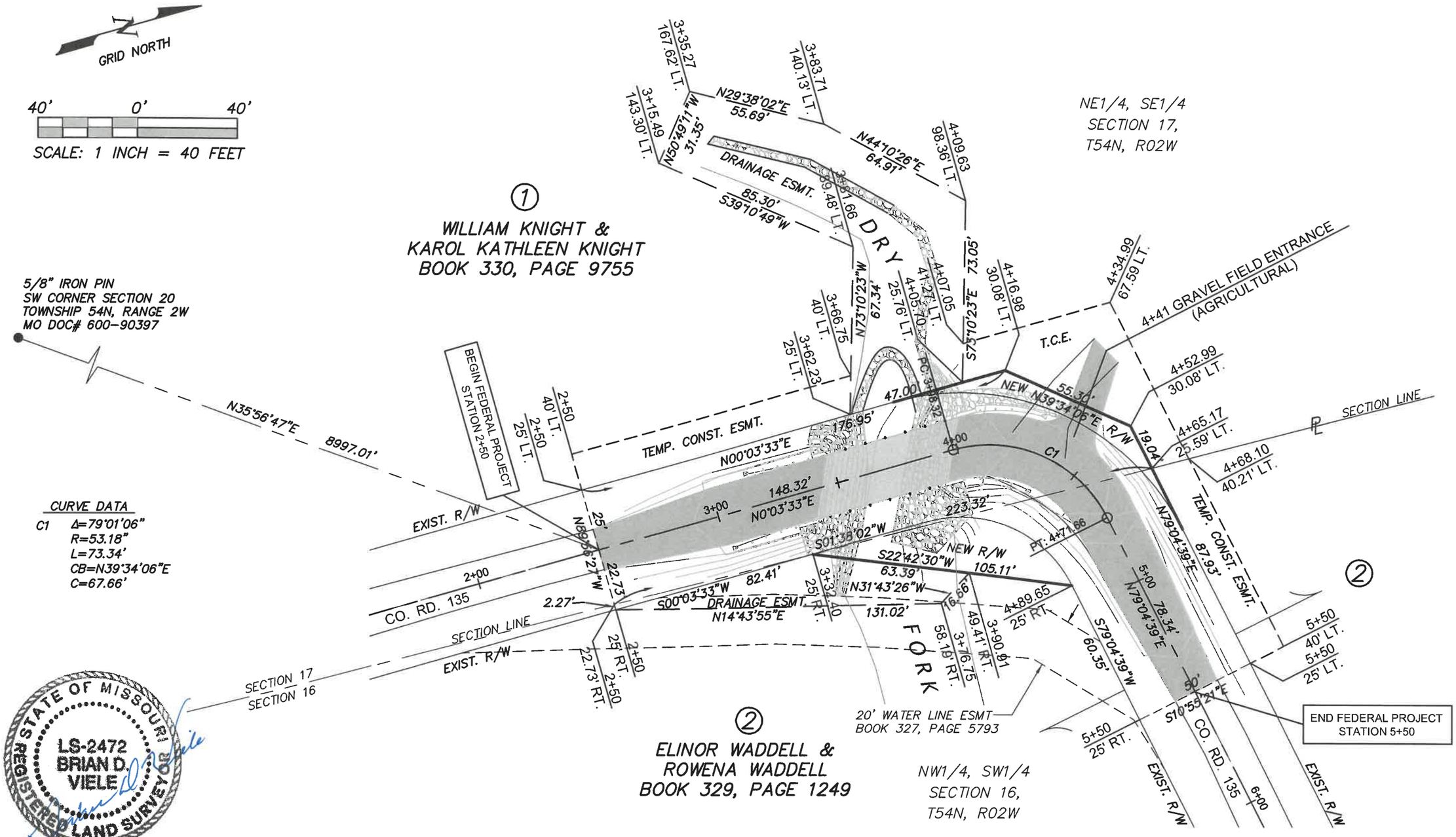
STATE OF MISSOURI JEFFREY A. BANDERET, JR. NUMBER E-2017030568 REGISTERED PROFESSIONAL ENGINEER

JEFFREY A. BANDERET, JR. - ENGINEER
MO# PE-2017030568

C.R. 135 BRIDGE #0510014 (BRO-B082(31)
PIKE COUNTY, MISSOURI

GRADING PLAN & ROCK BLANKET LAYOUT

CHECKED BY: JAB
DRAWN BY: KFB
JOB NUMBER: 3936
FILE NAME: 3936_CIVIL
SCALE: NO SCALE
ISSUE DATE: 01.08.2020
SHEET NUMBER: C5



STATE OF MISSOURI
LS-2472
BRIAN D. VIELE
REGISTERED LAND SURVEYOR

08/15/2019

TRACT NO.	OWNER	MAILING ADDRESS	SOURCE OF TITLE	EXISTING TRACT AREA	NEW RIGHT OF WAY (R/W) AREA	TEMPORARY CONSTRUCTION EASEMENT (T.C.E.) AREA	DRAINAGE EASEMENT AREA	REMAINING TRACT AREA
1	WILLIAM KNIGHT & KAROL KATHLEEN KNIGHT	320 MARYS DRIVE LOUISIANA, MO 63353	BOOK 330, PAGE 9755	115.00 ACRES	683 SQ. FT. = 0.016 ACRE ±	4,150 SQ. FT. = 0.095 ACRE ±	6,977 SQ. FT. = 0.160 ACRE ±	114.984 ACRES
2	ELINOR WADDELL & ROWENA WADDELL	17808 PIKE 135 LOUISIANA, MO 63353	BOOK 329, PAGE 1249	74.80 ACRES	37 SQ. FT. = 0.001 ACRE ± (LEFT) 1,423 SQ. FT. = 0.033 ACRE ± (RIGHT)	1,294 SQ. FT. = 0.029 ACRE ±	1,797 SQ. FT. = 0.041 ACRE ±	74.766 ACRES

GRE GREAT RIVER ENGINEERING

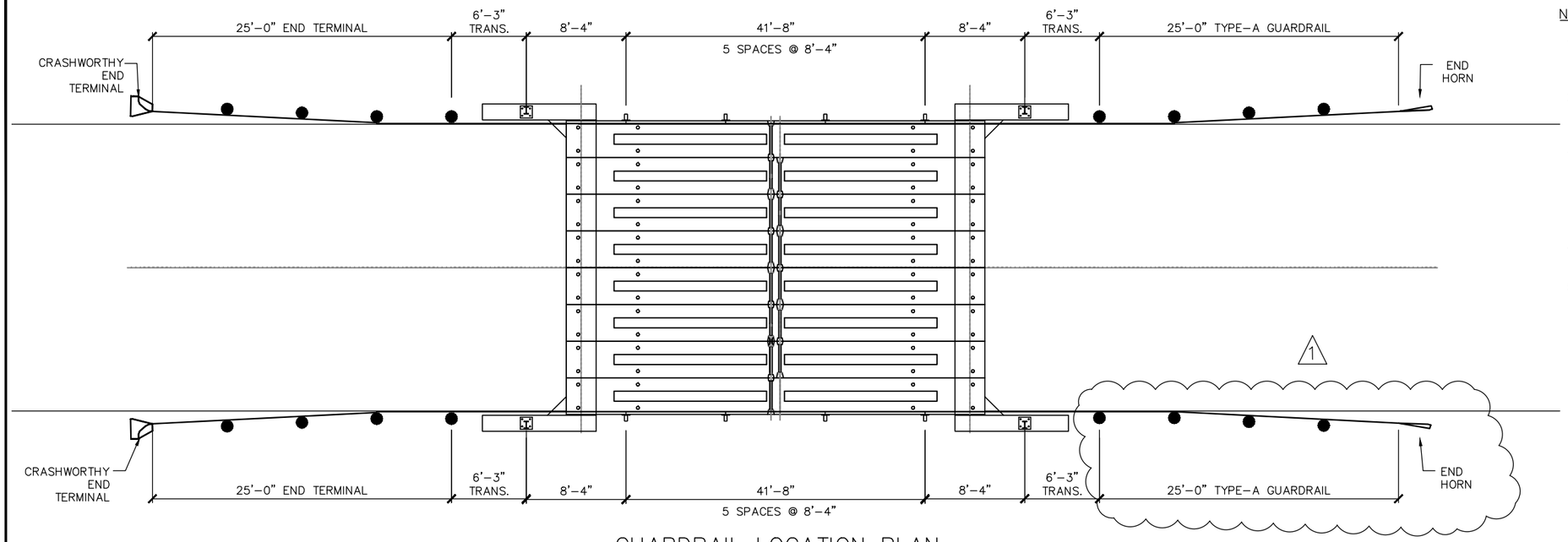
Great River Engineering - Missouri State Certificate of Authority Numbers: Engineering: 2000105885, Land Surveying: 2001011476, Landscape Architecture: 2007013573

No.	Revision/Issue	Date

C.R. 135 BRIDGE #0510014 (BRO-B0B2(31)
PIKE COUNTY, MISSOURI

RIGHT-OF-WAY PLAN

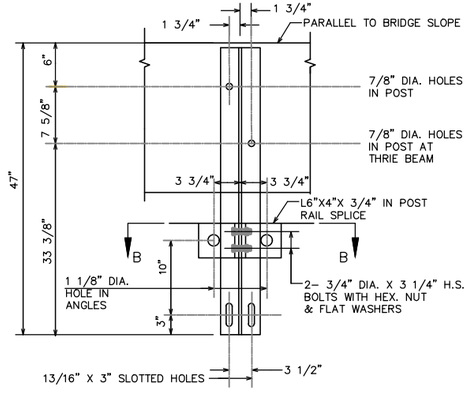
CHECKED BY: BDV
DRAWN BY: JMW
JOB NUMBER: 3936
FILE NAME: 3936_ROW
SCALE: NO SCALE
ISSUE DATE: 2019.07.25
SHEET NUMBER: RW1



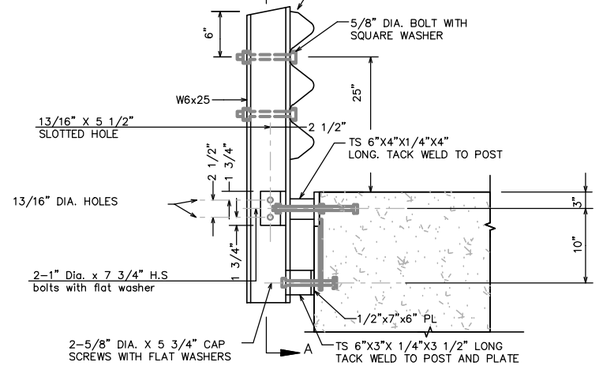
GUARDRAIL LOCATION PLAN

NOTES:

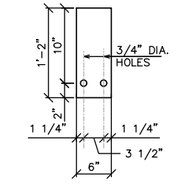
1. ALL RAILING PARTS SHALL BE GALVANIZED ACCORDING TO SECTION 1040 OF MISSOURI STANDARD SPECIFICATIONS.
2. RAILING POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTIONS.
3. WASHERS SHALL BE USED AT ALL POST BOLTS (BETWEEN BOLT HEAD AND BEAM). THEY SHALL BE RECTANGULAR IN SHAPE (3"x1 3/4" x 3/16 MIN.) AND FLAT, OR WHEN NECESSARY OF SHAPE AS TO GET THE CONTOUR OF THE BEAM. WASHERS SHALL HAVE A 11/16" x 1" SLOTTED HOLE.
4. ALL LAP SPLICED SHALL BE MADE IN THE DIRECTION OF TRAFFIC.
5. THE BEARING PLATE AND BASE PLATE SHALL BE FABRICATED FROM A36 STEEL AND GALVANIZED



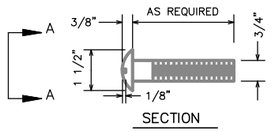
SECTION A–A



SECTION AT RAIL



1/4" SHIM PLATE



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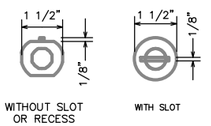
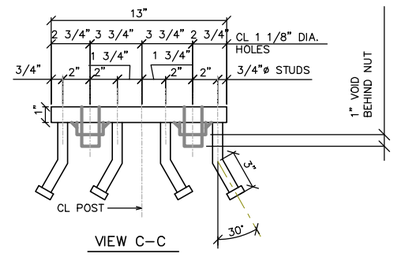


VIEW A–A

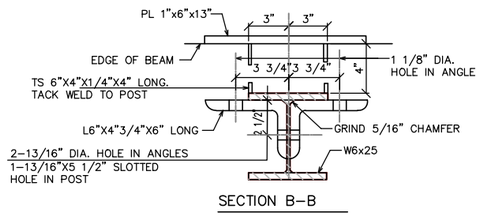
ROUND HEAD BOLT



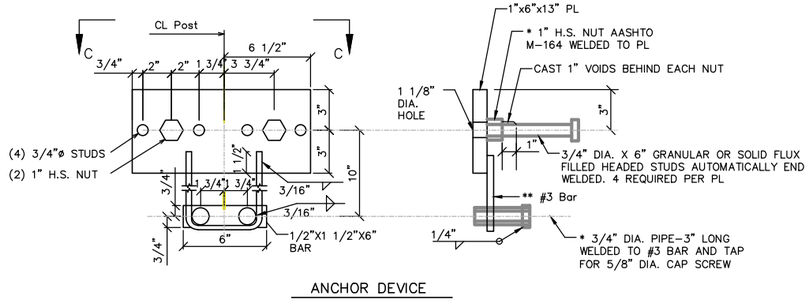
VIEW C–C

** WHENEVER THE INSERT ASSEMBLIES INTERFERE WITH STRAND LOCATION, THE #3 BARS SHALL BE CUT AND ADJUSTED IN ORDER TO ALLOW RAISING OR LOWERING OF THE LOWER INSERTS. MAXIMUM ADJUSTMENT NOT TO EXCEED 1/2"

* THREADED AREAS SHALL BE PLUGGED OR BLOCKED OFF DURING CASTING OF BEAM



SECTION B–B



ANCHOR DEVICE

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

GREAT RIVER ENGINEERING
2626 S. NATIONAL AVE. ROAD, SPRINGFIELD, MO 65804
PHONE: (417) 886–7171 FAX: (417) 886–7591
www.greatriverengineering.com
Great River Engineering - Missouri State Certificate of Authority Numbers: Engineering: 2000156885, Land Surveying: 2001011476, Landscape Architecture: 2007013673

No.	Revision/Issue	Date
1	ADDENDUM #1	5/8/20

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

STATE OF MISSOURI
JEFFREY A. BANDERET, JR.
NUMBER E-2017030568
REGISTERED PROFESSIONAL ENGINEER

JEFFREY A. BANDERET, JR. - ENGINEER
MO# PE-2017030568

PIKE COUNTY STANDARD BRIDGE PLANS
PIKE COUNTY, MISSOURI

BRIDGE RAILING AND DETAILS

CHECKED BY: JAB
DRAWN BY: KFB
JOB NUMBER: 3936
FILE NAME:
SCALE: NO SCALE
ISSUE DATE: 01.08.2020
SHEET NUMBER: S6