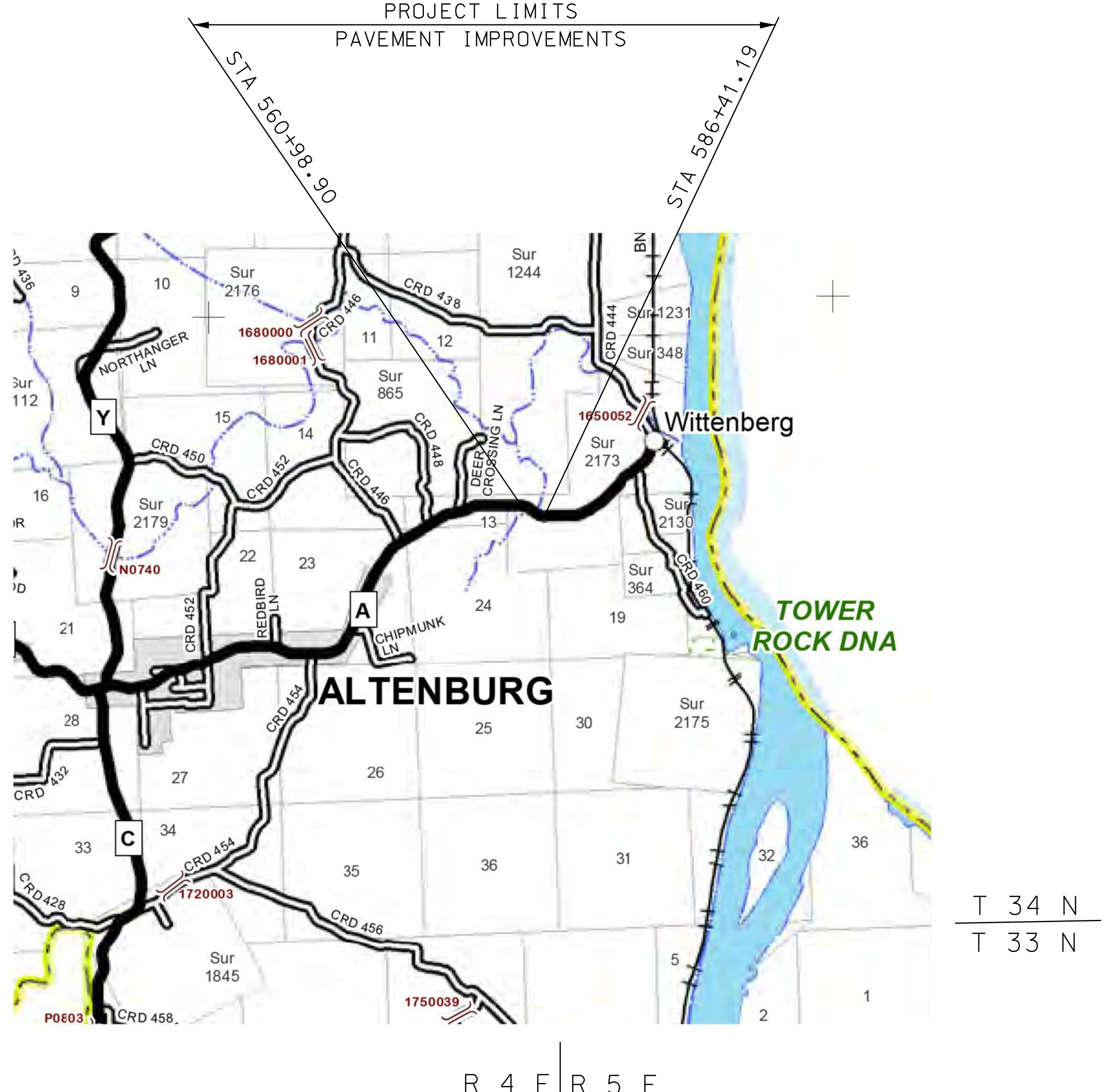
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
PLANS FOR PROPOSED
STATE HIGHWAY

PERRY COUNTY

DESIGN DESIGNATION

AADT - 2022 = 847
AADT - 2042 = 935
DHV = 11%
T = 11%
V = 45 MPH
D = 51%
FUNCTIONAL CLASSIFICATION- MINOR COLLECTOR

NORMAL ACCESS



CONVENTIONAL SYMBOLS
(USED IN PLANS)

	EXISTING	NEW
BUILDINGS AND STRUCTURES		
GUARD RAIL		
GUARD CABLE		
CONCRETE RIGHT-OF-WAY MARKER		
STEEL RIGHT-OF-WAY MARKER		
LOCATION SURVEY MARKER		
UTILITIES		
FIBER OPTICS	-FO-	-FO-
OVERHEAD CABLE TV	-OTV-	-OTV-
UNDERGROUND CABLE TV	-UTV-	-UTV-
OVERHEAD TELEPHONE	-OT-	-OT-
UNDERGROUND TELEPHONE	-UT-	-UT-
OVERHEAD POWER	-OE-	-OE-
UNDERGROUND POWER	-UE-	-UE-
SANITARY SEWER	-S-	-S-
STORM SEWER	-SS-	-SS-
GAS	-G-	-G-
WATER	-W-	-W-
MANHOLE	SAN	
FIRE HYDRANT	HYD	
WATER VALVE	WV	
WATER METER	WM	
DROP INLET	DI	
DITCH BLOCK		
GROUND MOUNTED SIGN	SIGN	
LIGHT POLE		
H-FRAME POWER POLE		
TELEPHONE PEDESTAL	PED	
FENCE		
CHAIN LINK	-V-	
WOVEN WIRE	-X-	
GATE POST		
BENCHMARK	BM	
REMOVAL	R	
REMOVAL BY OTHERS	(R)	

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS SHOWN ON THE PLANS, ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION. IT IS, THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, LOCATION AND STATUS OF ANY FACILITY. SUCH VERIFICATION INCLUDES DIRECT CONTACT WITH THE LISTED UTILITIES.

INDEX OF SHEETS

LENGTH OF PROJECT

BEGINNING OF PROJECT	STA 560+98.90	
END OF PROJECT	STA 586+41.19	
APPARENT LENGTH	2542.29	FEET
EQUATIONS AND EXCEPTIONS:		
TOTAL CORRECTIONS	2542.29	FEET
NET LENGTH OF PROJECT	2542.29	FEET
STATE LENGTH	0.481	MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	6	ACRES

STATE OF MISSOURI
JESSE BENJAMIN PHILPOT
NUMBER PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	8/2/2021
ROUTE	A
STATE	MO
DISTRICT	SE
SHEET NO.	1
COUNTY	PERRY
JOB NO.	J9S3499
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

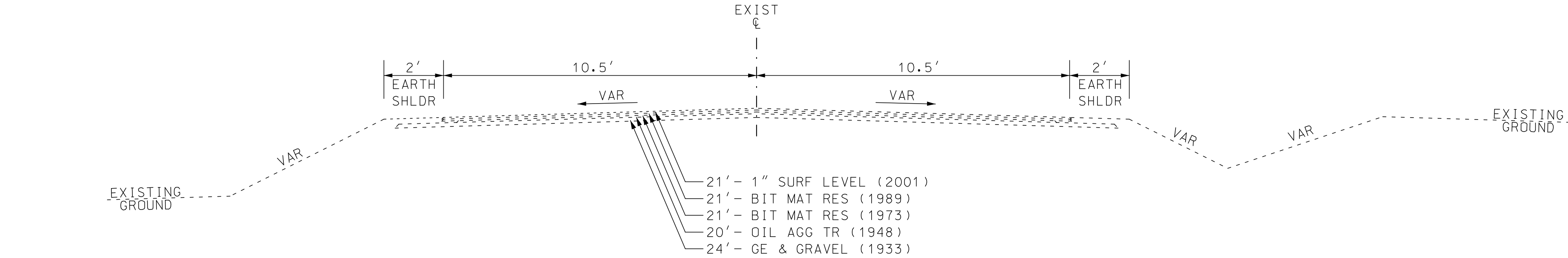
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

MoDOT

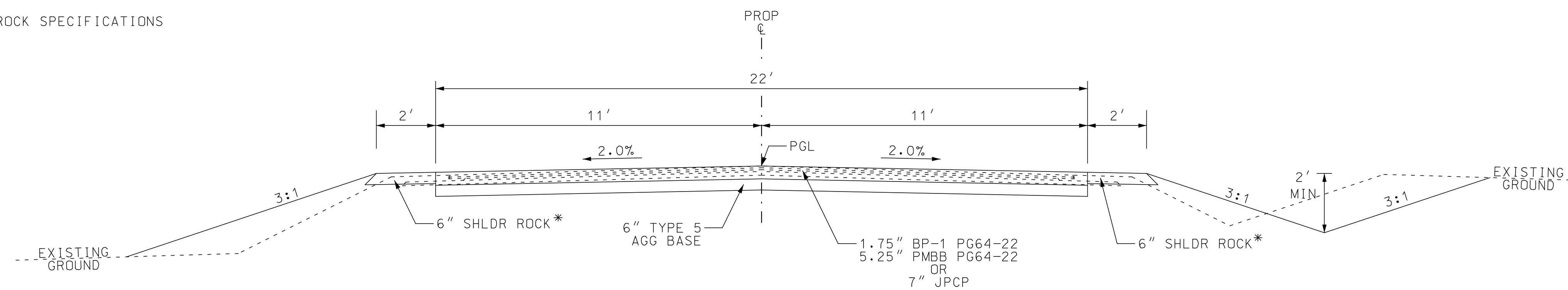
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

REV.



EXISTING SECTION
ROUTE A

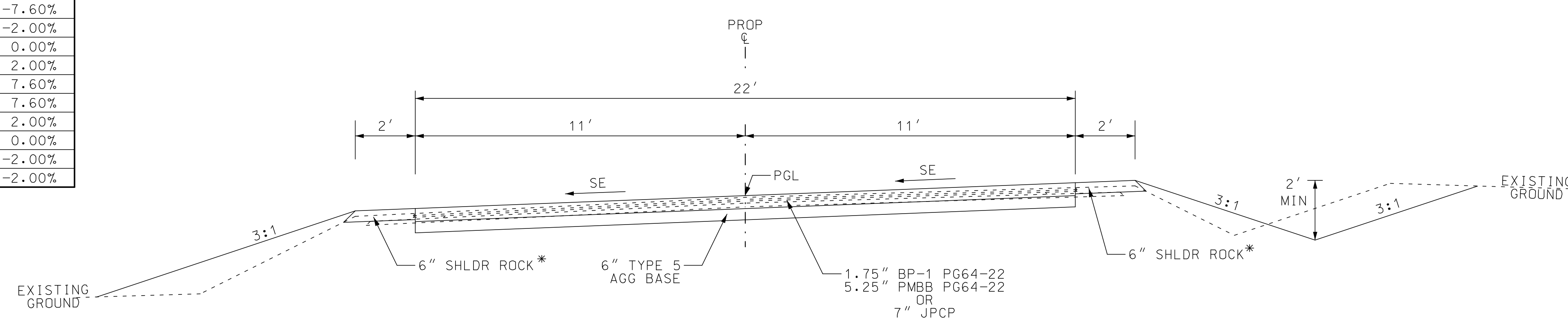
*SEE JSP'S FOR SHLDR ROCK SPECIFICATIONS



SECTION ON TANGENT
ROUTE A

STA 562+60.62 TO STA 586+41.19

SUPERELEVATION TABLE		
STA	LT	RT
560+98.90	-2.00%	-2.00%
571+86.94	-2.00%	-2.00%
572+36.58	0.00%	-2.00%
572+86.42	2.00%	-2.00%
574+25.68	7.60%	-7.60%
576+57.53	7.60%	-7.60%
578+96.27	2.00%	-2.00%
578+46.53	0.00%	0.00%
577+96.79	-2.00%	2.00%
580+35.53	-7.60%	7.60%
583+87.93	-7.60%	7.60%
585+27.19	-2.00%	2.00%
585+76.93	-2.00%	0.00%
586+26.67	-2.00%	-2.00%
586+41.19	-2.00%	-2.00%



SECTION ON SUPERELEVATED CURVE
ROUTE A

STA 562+60.62 TO STA 586+41.19

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

STATE OF MISSOURI
JESSIE BENJAMIN PHILPOT
NUMBER
PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
5/13/2021	
ROUTE: A	STATE: MO
DISTRICT: SE	SHEET NO.: 2
COUNTY: PERRY	
JOB NO.: J9S3499	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TYPICAL SECTION
SHEET 1 OF 1

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

REV.

REMOVAL OF IMPROVEMENTS - LUMP SUM 1

SHEET	STA	STA	LOC	DESCRIPTION	REMARKS
4	563+27	568+60	LT&RT	FENCING	533'
4	568+60	569+02	LT	18" DW PIPE	42'
4	572+39	572+83	LT	42" DW PIPE	45'
5	574+50	575+00	LT	MISC SLOPE PROTECTION	
5	577+81	577+89	LT	18" PIPE	58'
5	580+22	580+51	LT	6'X6' BOX & WINGS	68'
5	584+43	585+01	RT	15" DW PIPE	59'
4-5	562+61	586+41	LT&RT	MISC SIGNS & FTGS	

LOCATIONS AND QUANTITIES ARE APPROXIMATE FOLLOW SEC 202.30.
NO DIRECT PAYMENT WILL BE MADE FOR SAW CUTS REQUIRED FOR REMOVAL.

OPTIONAL PAVEMENT

SHEET	STA	STA	LOC	LENGTH FT	WIDTH FT	OPT PVMT FOR MAINLINE SY	OPT PVMT FOR TEMP WIDENING SY	REMARKS
4-5	562+60.62	586+41.19	℄	2380.57	22.00	5819.2		
10	561+50	567+52	LT	602	VAR		255.6	STAGE 1A - EXIST RTEA
10	581+50	588+00	LT	623	VAR		232.4	STAGE 1A - EXIST RTEA
10	562+00	562+60	RT	60	2		13.3	STAGE 1B - EXIST RTEA
10	562+61	567+00	RT	439	2		97.6	STAGE 1B
10	581+77	586+41	RT	464	2		103.1	STAGE 1B
10	587+05	588+00	RT	95	VAR		27.0	STAGE 1B - EXIST RTEA
					TOTAL	5819.2	729.0	

CLEARING AND GRUBBING

SHEET	STA	STA	LOC	UNITS	REMARKS
4-5	562+61	586+41	LT&RT	210	
			TOTAL	210	
			USE	3	ACRES

INCLUDES ALL TREES, STUMPS AND SCRUB BRUSH WITHIN EXIST & PROP
RW OR ESMT UNLESS OTHERWISE NOTED.
CLEARING BUT NO GRUBBING SHALL BE REQUIRED NEAR CHANNEL BANKS.

AGGREGATE

SHEET	STA	STA	LOC	LENGTH FT	WIDTH FT	6" TYPE 5 AGG BASE SY	REMARKS
4-5	562+60.62	586+41.19	℄	2380.57	22.00	5819.2	
					TOTAL	5820	

CONTRACTOR FURNISHED SURVEYING AND STAKING - LUMP SUM 1

MISC SHOULDER ROCK, FURNISHING AND PLACING

SHEET	STA	STA	LOC	LENGTH FT	WIDTH FT	DEPTH IN	SHLDR ROCK TON	REMARKS
4-5	562+60.62	586+41.19	LT&RT	4761.14	2	6	308.59	SEE JSP
						TOTAL	308.6	

MOBILIZATION - LUMP SUM 1

ADDITIONAL MOBILIZATION FOR SEEDING - 4 OCCURRENCES

EARTHWORK

SHEET	STA	STA	LOC	APPROX EARTHWORK CUT CY	APPROX EARTHWORK FILL CY	CLASS A EXCAVATION CY	COMPACTING EMBANKMENT CY	EMBANKMENT IN PLACE CY	COMPACTING IN CUT STA	LINEAR GRADING CLASS 2 STA	REMARKS
4-5	562+61	586+41	℄	15098	18578	15098	12582	5996	8.59		
4-5	564+49	584+20	℄	2000	0					19.71	
					TOTAL	15098	12582	5996	8.6	19.8	

LINEAR GRADING CLASS 2 IS ASSUMED TO REMOVE EXISTING PVMT AND CROSSROAD CULVERTS INCLUDING DITCH REGRADE SHOWN IN SPECIAL SHEETS.

STATE OF MISSOURI
JESSIE BENJAMIN PHILPOT
NUMBER
PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	5/13/2021
ROUTE	A
STATE	MO
DISTRICT	SE
SHEET NO.	3
COUNTY	PERRY
JOB NO.	J9S3499
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

SUMMARY OF QUANTITIES
SHEET 1 OF 3

REV.

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

TEMPORARY SHORING - LUMP SUM 1
MAY BE REQUIRED FOR STAGED CONSTRUCTION OF BOX CULVERTS. EXACT LOCATIONS AS APPROVED BY ENGINEER.

TEMPORARY EROSION CONTROL

SHEET	SILT FENCE LF	ROCK DITCH CHECK LF	SEDIMENT TRAP EXCAVATION CY	SEDIMENT REMOVAL CY	FLOCCULANT SOCK EACH	TEMP SEEDING AND MULCHING AC	REMARKS
12	570	1207	156	184	27	2.84	
TOTAL	570	1207	156	184	27	2.9	

BOX CULVERT

SHEET	STA	SKEW	FILL FT	SIZE	LENGTH FT	CL B-1 CONC CY	REINF STEEL LBS	CL 4 EXC CY	GRANULAR BACKFILL EST @ 12" CY	REMARKS
5	580+55	20° RA	14	8'X 7'	128	138.5	25810	682	74.1	
					TOTAL	138.5	25810	682	NO DIRECT PAY	

SEEDING

SHEET	STA	STA	LOC	SEEDING COOL SEASON ACRES	REMARKS
4-5	562+61	586+41	LT&RT	5.67	
			TOTAL	5.7	

ROCK BLANKET & ROCK LINER

					TYPE 1 ROCK		TYPE 2 ROCK					
					DITCH LINER		BLANKET		DITCH LINER			
SHEET	SECTION	DEPTH FT	AVG WIDTH FT	LENGTH FT	FURNISH CY	PLACE CY	FURNISH CY	PLACE CY	FURNISH CY	PLACE CY	GEOTEXTILE FABRIC SY	REMARKS
8	A-A TO B-B	2	12.6	603.2					563.0	563.0	1119.9	
8	C-C TO D-D	2	23.3	46.1			79.6	79.6			145.9	
8	D-D TO E-E	2	33.8	24.3			23.8	23.8			46.5	MINUS BOX
8	E-E TO F-F	2	23.3	51.0			88.0	88.0			160.8	
8	G-G TO H-H	2	88.4	30.0			159.4	159.4			273.0	MINUS BOX
8	H-H TO I-I	2	77.4	57.8			331.4	331.4			522.8	
8	I-I TO J-J	2	67.7	116.3			583.2	583.2			942.5	
8	K-K TO L-L	2	12.6	105.0					98.0	98.0	201.0	
8	M-M TO N-N	2	16.6	58.3					71.7	71.7	142.6	
8	O-O TO P-P	2	20.2	23.2			34.7	34.7			67.8	
8	P-P TO Q-Q	2	25.3	10.1			7.1	7.1			15.1	MINUS BOX
8	Q-Q TO R-R	2	18.7	31.0			42.9	42.9			83.2	
8	S-S TO T-T	2	30.6	30.3			68.7	68.7			131.9	
8	U-U TO V-V	2	12.7	298.6					280.9	280.9	561.5	
8	W-W TO X-X	2	11.8	162.7	142.2	142.2					292.7	
8	Y-Y TO Z-Z	2	11.6	130.1					111.8	111.8	232.4	
				TOTAL	143	143	1419	1419	1126	1126	4940	

ROCK QUANTITY MAY BE OBTAINED FROM REMOVED BOX CULVERTS IF BROKEN OR CRUSHED TO MEET SPECIFICATIONS WITH NO EXPOSED REBAR OR FROM CLEAN ROCK DITCH CHECK MATERIAL AS APPROVED BY ENGINEER.

TEMPORARY PAVEMENT MARKING AND REMOVAL

	TEMP REMOVABLE MARKING TAPE			PVMT MARKING REMOVAL		
SHEET	WHITE 4" LF	YELLOW 4" LF	WHITE 24" LF	PAINT LF	TAPE LF	REMARKS
10	3683	600	20	6029		STAGE 1A
10	3553				118	STAGE 1B
10-11					4273	STAGE 2
TOTAL	7236	600	20	10420		

QUANTITY FOR STOP BAR REMOVAL IS (6 X LENGTH).

PAVEMENT MARKING

	STANDARD WATERBORNE WITH TYPE P BEADS			
	WHITE	YELLOW		
SHEET	4" SOLID LF	4" SOLID LF	4" INTER LF	REMARKS
10	6084	4385	425	
TOTAL	6084	4810		

MATCH EXIST PASSING ZONES AS DIRECTED BY ENGINEER.

DRIVEWAYS

												GROUP C				APPROX EARTHWORK				
SHEET	STA	LOC	TYPE	SKEW	WIDTH FT	APRON LENGTH FT	GRAVEL LENGTH FT	GRADE	"L" FT	FILL HT FT	BEVEL SLOPE	18"(18") LF	24"(24") LF	48"(48") LF	LINEAR GRADING CLASS 2 STA	CUT CY	FILL CY	OPT PVMT FOR DRIVEWAY SY	4" GRAVEL A OR CRUSHED STONE B TON	REMARKS
4	568+80	LT	I	5°RA	20	11	42	-12.5%	39	3	3:1	35.0			0.5	2	75	30.31	18.2	
4	568+80	RT	I		20	10	24	+12.0%	13	4	3:1		45.0		0.3	3	33	27.78	10.4	
4	572+60	LT	I		20	32	68	-8.5%	76	7	3:1			70.0	1.0	4	315	127.36	29.2	
5	579+98	RT	I	25°RA	15	14	89	-13.5%	65	11	3:1		90.0		1.0	2	587	31.88	28.7	
5	581+45	RT	I	5°RA	20	24	90	-15.0%	57	11	3:1		90.0		1.1	2	675	80.11	38.9	
5	584+73	RT	I	15°RA	20	18	6	+9.0%	9	3	3:1		48.0		0.3	3	20	55.14	2.5	
											TOTAL	35	273	70	4.2			352.6	128	

OPTIONAL PAVEMENT FOR DRIVEWAY SHALL BE COMPOSED OF 5.75" PMBB OR 5.75" NRPCCP. SEE SPECIAL SHEETS FOR ADDITIONAL DRIVEWAY DETAIL.

STATE OF MISSOURI
JESSIE BENJAMIN PHILPOT
NUMBER PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
5/13/2021	
ROUTE: A	STATE: MO
DISTRICT: SE	SHEET NO.: 3
COUNTY: PERRY	
JOB NO.: J9S3499	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

SUMMARY OF QUANTITIES
SHEET 2 OF 3

REV.

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

EFFECTIVE: 04-01-2021

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
WARNING SIGNS								
W01-1L	48X48	16.00						TURN (SYMBOL LEFT ARROW)
W01-1R	48X48	16.00						TURN (SYMBOL RIGHT ARROW)
W01-2L	48X48	16.00						CURVE (SYMBOL LEFT ARROW)
W01-2R	48X48	16.00						CURVE (SYMBOL RIGHT ARROW)
W01-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT ARROW)
W01-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT ARROW)
W01-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT ARROW)
W01-4R	**48X48**	**16.00**	**1**	**16.00**				**REVERSE CURVE (SYMBOL RIGHT ARROW)**
W01-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
W01-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
W01-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
W01-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
W01-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)
W01-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)
W01-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
W01-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)
W01-8	18X24	3.00						CHEVRON (SYMBOL)
W01-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
W03-1	48X48	16.00						STOP AHEAD (SYMBOL)
W03-2	48X48	16.00						YIELD AHEAD (SYMBOL)
W03-3	**48X48**	**16.00**	**2**	**32.00**				**SIGNAL AHEAD (SYMBOL)**
W03-4	48X48	16.00						BE PREPARED TO STOP
W03-5	**48X48**	**16.00**	**2**	**32.00**				**SPEED LIMIT AHEAD**
W04-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)
W04-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)
W04-1aL	48X48	16.00						MERGE (ARROW SYMBOL)
W04-1aR	48X48	16.00						MERGE (ARROW SYMBOL)
W05-1	**48X48**	**16.00**	**1**	**16.00**				**ROAD/BRIDGE/RAMP NARROWS**
W05-3	48X48	16.00						ONE LANE BRIDGE
W05-5	48X48	16.00						NARROW LANES
W06-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
W06-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
W06-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)
W07-3a	30X24	5.00						NEXT XX MILES (PLAQUE)
W08-1	48X48	16.00						BUMP
W08-2	48X48	16.00						DIP
W08-3	48X48	16.00						PAVEMENT ENDS
W08-4	48X48	16.00						SOFT SHOULDER
W08-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)
W08-6	48X48	16.00						TRUCK CROSSING (WITH FLAGS)
W08-6c	48X48	16.00						TRUCK ENTRANCE
W08-7	36X36	9.00						LOOSE GRAVEL
W08-7a	36X36	9.00						FRESH OIL/LOOSE GRAVEL
W08-9	48X48	16.00						LOW SHOULDER
W08-11	48X48	16.00						UNEVEN LANES
W08-12	48X48	16.00						NO CENTER LINE
W08-15	48X48	16.00						GROOVED PAVEMENT
W08-15P	30X24	5.00						MOTORCYCLE (PLAQUE)
W08-17	48X48	16.00						SHOULDER DROP-OFF (SYMBOL)
W08-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)
W10-1	42RND.	9.62						RAILROAD CROSSING
W012-1	24X24	4.00						DOUBLE DOWN ARROW (SYMBOL)
W012-2	48X48	16.00						LOW CLEARANCE (SYMBOL)
W012-2X	24X18	3.00						LOW CLEARANCE (PLAQUE)
W012-2a	84X24	14.00						OVERHEAD LOW CLEARANCE (FEET AND INCHES)
W012-4	120X60	50.00						LOW CLEARANCE XX FT XX IN XX MILES AHEAD
W012-5	120X60	50.00						WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD
W013-1	30X30	6.25						ADVISORY SPEED (PLAQUE)
W016-2	30X24	5.00						XXX FEET (PLAQUE)
W016-3	30X24	5.00						X MILE (PLAQUE)
W020-1	**48X48**	**16.00**	**2**	**32.00**				**ROAD/BRIDGE/RAMP WORK AHEAD**
W020-2	48X48	16.00						DETOUR AHEAD
W020-3	48X48	16.00						ROAD CLOSED AHEAD
W020-4	**48X48**	**16.00**	**2**	**32.00**				**ONE LANE ROAD AHEAD**
W020-5	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED AHEAD
W020-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
W020-6a	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED
W020-7a	**48X48**	**16.00**	**2**	**32.00**				**FLAGGER (SYMBOL, WITH FLAGS)**
W021-2	36X36	9.00						FRESH OIL
W021-5	**48X48**	**16.00**	**2**	**32.00**				**SHOULDER WORK AHEAD**
W022-1	48X48	16.00						BLASTING ZONE AHEAD
W022-2	42X36	10.50						TURN OFF 2-WAY RADIO AND PHONE
W022-3	42X36	10.50						END BLASTING ZONE
G022-1	21X15	2.19						WET PAINT (ARROW PIVOTS)

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
GUIDE SIGNS								
E05-1	36X48	12.00						GORE EXIT
E05-2	48X36	12.00						EXIT OPEN
E05-2a	48X36	12.00						EXIT CLOSED
G020-1	60X24	10.00						ROAD WORK NEXT XX MILES
G020-2	**48X24**	**8.00**	**2**	**16.00**				**END ROAD WORK**
G020-4	36X18	4.50						PILOT CAR FOLLOW ME
G020-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW
G020-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
G020-5aP	36X24	6.00						WORK ZONE (PLAQUE)
M04-8a	24X18	3.00						END DETOUR
M04-9L	48X36	12.00						DETOUR (LEFT ARROW)
M04-9R	48X36	12.00						DETOUR (RIGHT ARROW)
M04-9P	48X12	4.00						STREET NAME (PLAQUE)
M04-10L	48X18	6.00						DETOUR (ARROW LEFT)
M04-10R	48X18	6.00						DETOUR (ARROW RIGHT)
REGULATORY SIGNS								
R1-1	48X48	13.25						STOP
R1-2	48TRI.	6.93						YIELD
R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)
R1-3P	30X12	2.50						ALL WAY (PLAQUE)
R2-1	**36X48**	**12.00**	**4**	**48.00**				**SPEED LIMIT XX**
R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00						NO TURNS
R3-4	48X48	16.00						NO U-TURN (SYMBOL)
R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00						DO NOT PASS
R4-2	36X48	12.00						PASS WITH CARE
R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)
R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)
R5-1	30X30	6.25						DO NOT ENTER
R5-1a	36X24	6.00						WRONG WAY
R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)
R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00						ONE WAY (LEFT)
R6-2R	24X30	5.00						ONE WAY (RIGHT)
R9-9	24X12	2.00						SIDEWALK CLOSED
R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE
R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE
R10-6	**24X36**	**6.00**	**2**	**12.00**				**STOP HERE ON RED (45° ARROW)**
R11-2	48X30	10.00						ROAD CLOSED
R11-3a	60X30	12.50						ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50						ROAD CLOSED TO THRU TRAFFIC
CONST-3A	60X48	20.00						FINE SIGN
CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)
MISCELLANEOUS SIGNS								
CONST-5	48X36	12.00						POINT OF PRESENCE
CONST-5	96X48	32.00						POINT OF PRESENCE
CONST-7	48X24	8.00						RATE OUR WORK ZONE
CONST-7	**72X36**	**18.00**	**2**	**36.00**				**RATE OUR WORK ZONE**
CONST-8	**48X36**	**12.00**	**2**	**24.00**				**WORK ZONE NO PHONE ZONE**

	TOTAL
616-10.05 CONSTRUCTION SIGNS	360
616-10.10 RELOCATED SIGNS	*

*** NO DIRECT PAY FOR RELOCATING TEMPORARY TRAFFIC CONTROL SIGNS OR DEVICES.**

ITEM NUMBER	TOTAL QTY	DESCRIPTION
6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)
6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)
6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)
6122012	**4**	**IMPACT ATTENUATOR 55 MPH (SAND BARRELS)**
6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)
6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)
6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)
6122020	**5**	**REPLACEMENT SAND BARREL**
6122030	**4**	**IMPACT ATTENUATOR (RELOCATION)**
6123000A		TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
6161008	**2**	**ADVANCED WARNING RAIL SYSTEM**
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161025	**50**	**CHANNELIZER (TRIM LINE)**
6161030	**4**	**TYPE III MOVEABLE BARRICADE**
6161033		DIRECTION INDICATOR BARRICADE
6161040		FLASHING ARROW PANEL
6161047		TYPE III OBJECT MARKER
6161051		WARNING LIGHT, TYPE A
6161052		WARNING LIGHT, TYPE B
6161053		WARNING LIGHT, TYPE C
6161055		SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A	**2**	**CHANGEABLE MESSAGE SIGN W/O COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED**
6161099		CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED
6162000A	**1**	**WORK ZONE TRAFFIC SIGNAL SYSTEM**
6162002	**4**	**TEMPORARY LONG-TERM RUMBLE STRIPS**
6162004		TEMPORARY SHORT-TERM RUMBLE STRIPS
6173600D	**888**	**TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/RETAINED**
6173602B		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION
6175010A	**888**	**RELOCATING TEMPORARY TRAFFIC BARRIER**
6176000B		TEMPORARY TRAFFIC BARRIER COMMISSION FURNISHED/RETAINED
6177000B		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION COMMISSION FURNISHED/RETAINED
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400		TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING

STATE OF MISSOURI
JESSIE BENJAMIN PHILPOT
NUMBER PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
5/13/2021	
ROUTE A	STATE MO
DISTRICT SE	SHEET NO. 3
COUNTY PERRY	
JOB NO. J9S3499	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)
MoDOT

SUMMARY OF QUANTITIES
SHEET 3 OF 3

REV.

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

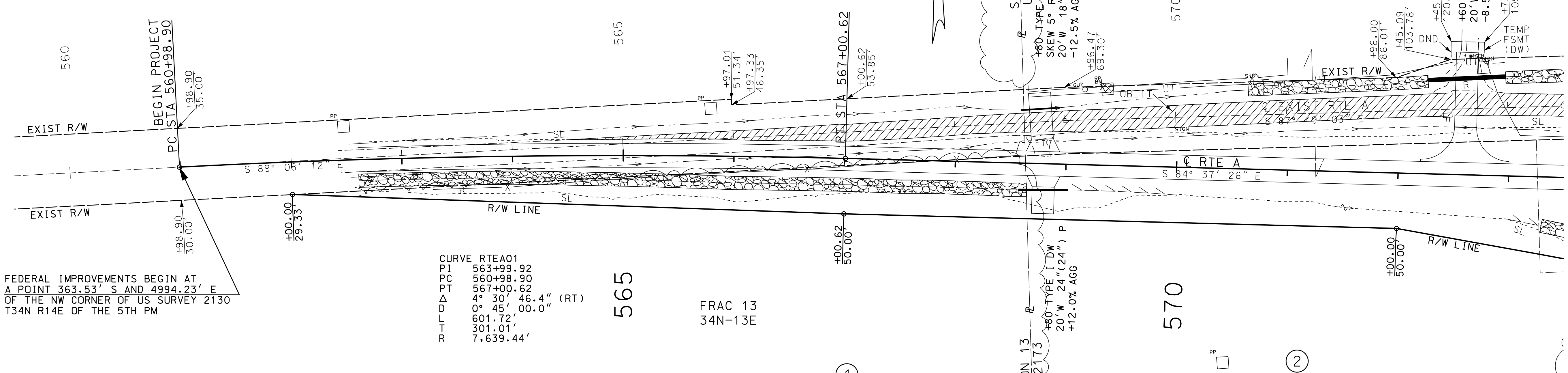
SEE THE JOB SPECIAL PROVISIONS FOR A LIST OF UTILITY COMPANIES ON OR WITHIN THE VICINITY OF THE PROJECT.

RIGHT OF WAY LIMITS FOR THIS PROJECT EXTEND FROM STA 562+00.00 TO STA 585+10.96 A DISTANCE OF 0.44 MILES.

ANY WORK INDICATED ON THE PLANS THAT EXTENDS BEYOND THE PROJECT LIMITS IS CONSIDERED INCIDENTAL TO AND A PART OF THE CONSTRUCTION OF THIS PROJECT.

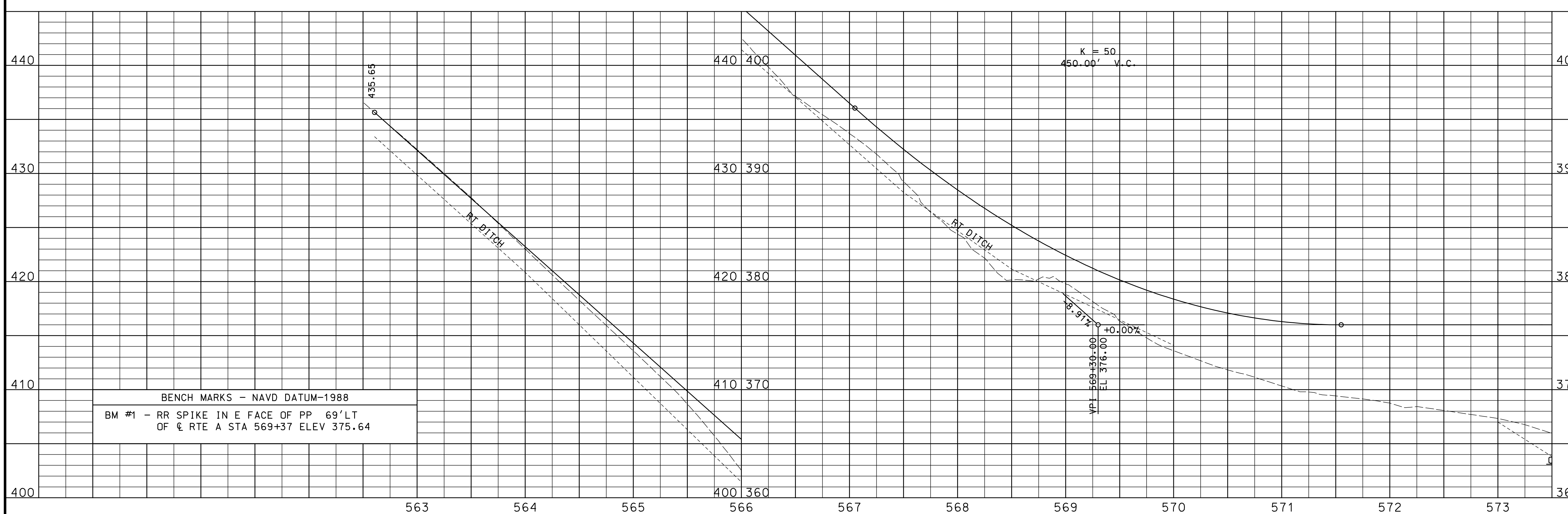
ALL BEARINGS BASED ON GRID NORTH, MISSOURI COORDINATE SYSTEM OF 1983, EAST ZONE.

PROPERTY LINE LOCATIONS ARE APPROXIMATE ONLY.



CERTIFIED LAND CORNER
STATION 560+98.90 CENTERLINE ROUTE A IS S85°50'12"W, 5007.44 FEET FROM THE NW CORNER OF US SURVEY 2130 T34N R14E OF THE 5TH PM. CORNER MARKED BY MLS ALUMINUM MONUMENT AS DESCRIBED BY K G BAER, MO PLS 1904, IN MLS DOC 600-48871

SCALE
0 50 100 150



BENCH MARKS - NAVD DATUM-1988
BM #1 - RR SPIKE IN E FACE OF PP 69'LT OF ℄ RTE A STA 569+37 ELEV 375.64

STATE OF MISSOURI
JESSIE BENJAMIN PHILPOT
NUMBER PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
5/13/2021	
ROUTE A	STATE MO
DISTRICT SE	SHEET NO. 4
COUNTY PERRY	
JOB NO. J9S3499	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION

DATE

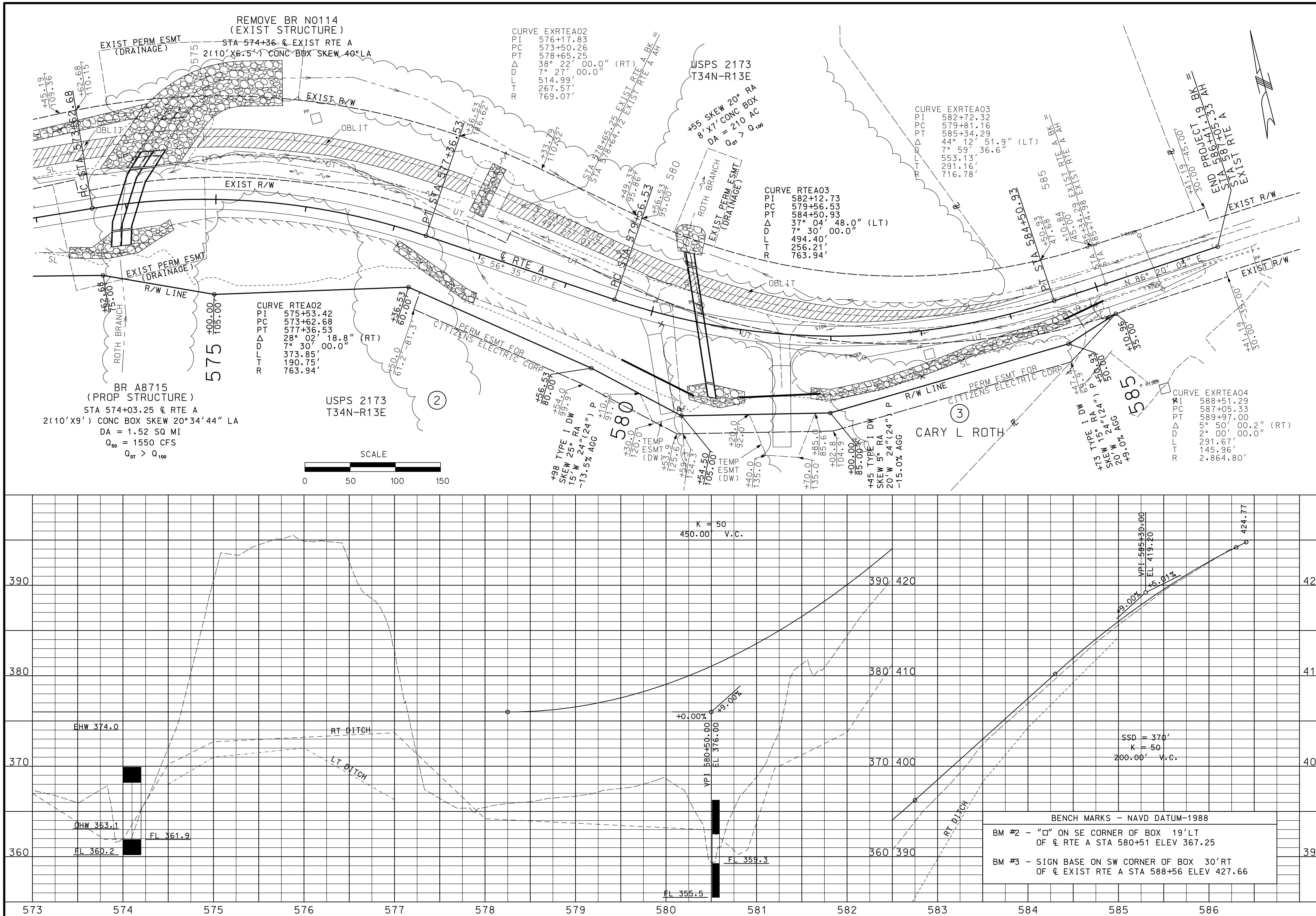
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

PLAN-PROFILE
SHEET 1 OF 2

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

REV.



STATE OF MISSOURI
JESSIE BENJAMIN PHILPOT
NUMBER PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	5/13/2021
ROUTE A	STATE MO
DISTRICT SE	SHEET NO. 5
COUNTY	PERRY
JOB NO.	J9S3499
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

PLAN-PROFILE
SHEET 2 OF 2

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

REV.

ALL PROJECT COORDINATES HAVE BEEN PROJECTED FROM THE MISSOURI STATE PLANE COORDINATE (SPC) SYSTEM OF 1983 USING AN AVERAGE PROJECT PROJECTION (GRID TO GROUND) FACTOR. TO GET BACK TO STATE PLANE COORDINATES, MULTIPY THE PROJECT COORDINATES BY THE AVERAGE GRID FACTOR AS SHOWN IN THE "REFERENCE CONTROL INFORMATION" PORTION OF THIS TABLE.

PROJECT COORDINATE INFORMATION

COORDINATE SYSTEM	MO SPC 1983
HORIZONTAL DATUM	MODOT GNSS NETWORK
VERTICAL DATUM	NGVD 88
GEOID MODEL	12A
ELEVATIONS DETERMINED BY	DIFFERENTIAL LEVELING
PROJECT PROJECTION FACTOR	1.00000000

REFERENCE CONTROL INFORMATION

COORDINATE SYSTEM	MO SPC 1983
CONTROL STATION	MOJK
DESIGNATION	MODOT JACKSON CORS ARP
CORS_ID	MOJK
PID	DL6890
LATITUDE	893900.2212
LONGITUDE	372444.4584
NORTHING (M)	175551.7720
EASTING (M)	325239.6700
ZONE	MO E
PROJECT AVERAGE GRID FACTOR	1.00000000

EXAMPLE OF PROJECT COORDINATE TO S.P.C.

PROJECT NORTHING X AVERAGE GRID FACTOR
= STATE PLANE NORTHING
PROJECT EASTING X AVERAGE GRID FACTOR
= STATE PLANE EASTING

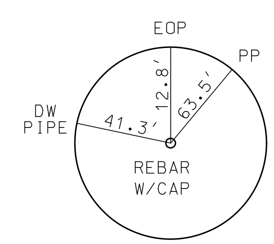
EXAMPLE: CONTROL POINT #100
N 661433.82 X 1.00000000 = N 661433.82
N 1096830.87 X 1.00000000 = N 1096830.87

LINEAR UNIT CONVERSION

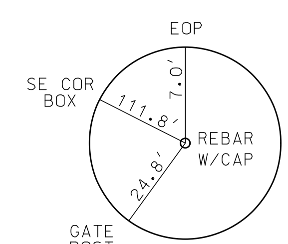
1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT LISTING

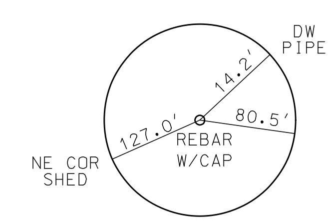
SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND) NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)	DESCRIPTION	GPK POINT ID
PROJECT CONTROL POINTS								
4	569+00.97	LT	16.11	661433.82	1096830.87	376.95	3/8" REBAR W PLASTIC CAP	CP100
5	581+64.50	LT	8.67	661049.07	1098011.40	383.34	3/8" REBAR W PLASTIC CAP	CP101
5	586+08.15	RT	24.19	660991.66	1098449.78	423.60	3/8" REBAR W PLASTIC CAP	CP102
ALIGNMENTS								
	554+77.83			661420.74	1095415.18		PC BEGIN CHAIN EXRTEA	CURVE EXRTEA01
	556+24.75			661476.50	1095551.11		PI	CURVE EXRTEA01
	557+67.65			661474.28	1095698.01		PT	CURVE EXRTEA01
	569+00.00			661457.22	1096830.23		POT	EXRTEA01
	573+50.26			661440.08	1097280.16		PC	CURVE EXRTEA02
	576+17.83			661429.89	1097547.53		PI	CURVE EXRTEA02
	578+65.25			661255.94	1097750.85		PT STA EQUATION BK	CURVE EXRTEA02
	578+64.72			661255.94	1097750.85		POT STA EQUATION AH	EXRTEA02
	579+81.16			661180.24	1097839.32		PC	CURVE EXRTEA03
	582+72.32			660990.96	1098060.56		PI	CURVE EXRTEA03
	585+34.29			661009.58	1098351.12		PT STA EQUATION BK	CURVE EXRTEA03
	585+74.98			661009.58	1098351.12		POT STA EQUATION AH	EXRTEA03
	587+05.33			661017.91	1098481.21		PC	CURVE EXRTEA04
	588+51.29			661027.24	1098626.87		PI	CURVE EXRTEA04
	589+97.00			661021.72	1098772.73		PT END CHAIN EXRTEA	CURVE EXRTEA04
	560+98.90			661469.29	1096029.22		PC BEGIN CHAIN RTEA	CURVE RTEA01
	563+99.92			661464.76	1096330.20		PI	CURVE RTEA01
	567+00.62			661436.55	1096629.89		PT	CURVE RTEA01
	573+62.68			661374.52	1097289.04		PC	CURVE RTEA02
	575+53.42			661356.65	1097478.95		PI	CURVE RTEA02
	577+36.53			661251.61	1097638.16		PT	CURVE RTEA02
	579+56.53			661130.46	1097821.80		PC	CURVE RTEA03
	582+12.73			660989.37	1098035.65		PI	CURVE RTEA03
	584+50.93			661005.75	1098291.33		PT	CURVE RTEA03
	586+41.19			661017.91	1098481.21		POT END CHAIN RTEA	RTEA01



CONTROL PT #100
X = 1096830.87 STA 569+00.97
Y = 661433.82 OFF 16.11' LT
Z = 376.96



CONTROL PT #101
X = 1098011.40 STA 581+64.50
Y = 661049.07 OFF 8.67'LT
Z = 383.34



CONTROL PT #102
X = 1098449.78 STA 586+08.15
Y = 660991.66 OFF 24.19'RT
Z = 423.60

STATE OF MISSOURI
JESSIE BENJAMIN PHILPOT
NUMBER PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	7/28/2021
ROUTE	A
STATE	MO
DISTRICT	SE
SHEET NO.	6
COUNTY	PERRY
JOB NO.	J9S3499
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

REFERENCE & COORDINATE POINTS
SHEET 1 OF 1

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

REV.

NOTES:

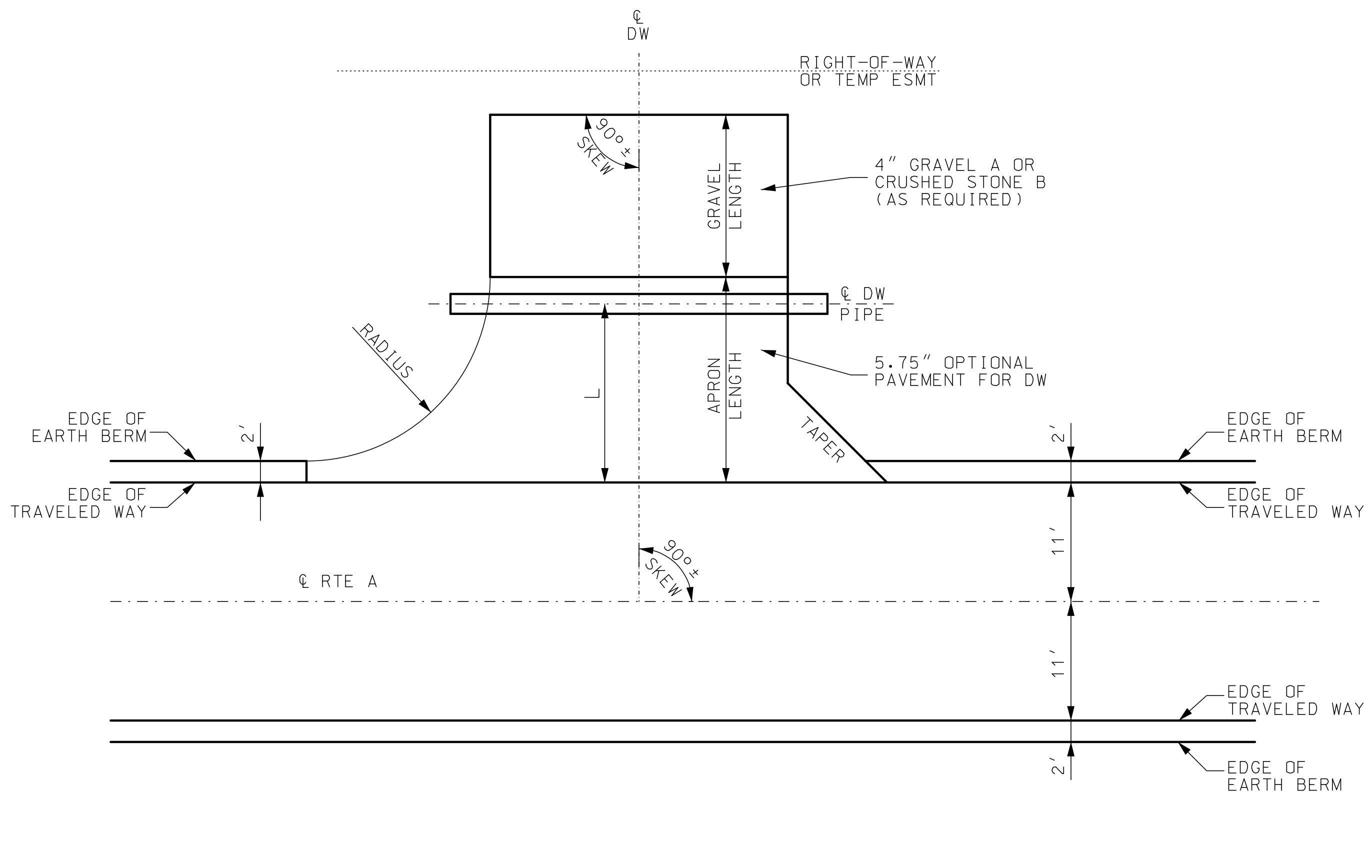
ALL DRIVEWAY LENGTHS ARE MEASURED ALONG ℄ DW

DRIVEWAY SIDE SLOPES MATCH BEVEL SLOPES SHOWN IN QUANTITIES AND ARE 3:1 UNLESS OTHERWISE NOTED

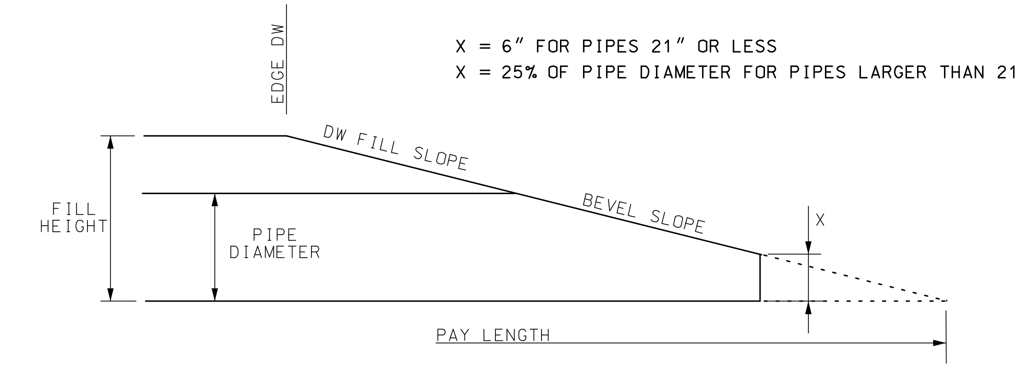
SEE XS'S FOR DRIVEWAY PROFILES

OPTIONAL PAVEMENT FOR DRIVEWAY SHALL BE COMPOSED OF 5.75" NRPCCP OR 5.75" PMBB UNLESS OTHERWISE SPECIFIED IN THE QUANTITIES AND IS INTENDED TO MEET OR EXCEED EXISTING SURFACE

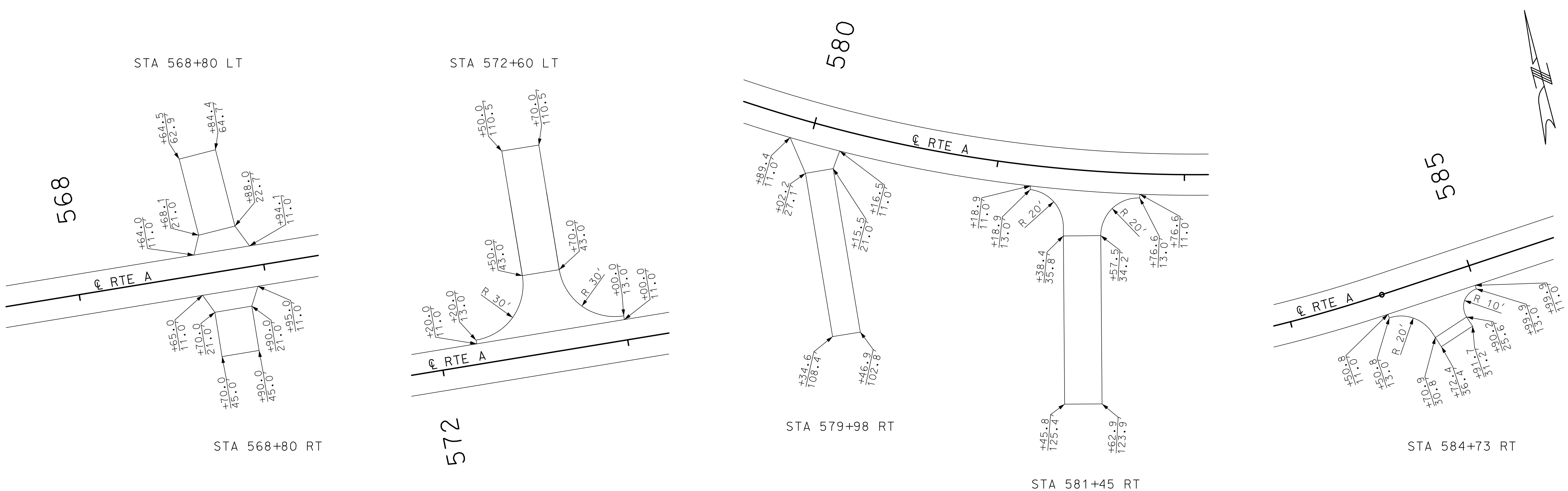
APRON LENGTH SHALL BE A MINIMUM OF 10' UNLESS OTHERWISE SHOWN IN QUANTITIES. NO DIRECT PAYMENT WILL BE MADE FOR ANY SAW CUTS AS REQUIRED TO PLACE APRON



PLAN



PIPE



GEOMETRICS

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

STATE OF MISSOURI
JESSIE BENJAMIN PHILPOT
NUMBER PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
5/13/2021	
ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	7
COUNTY	
PERRY	
JOB NO.	
J9S3499	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION

DATE

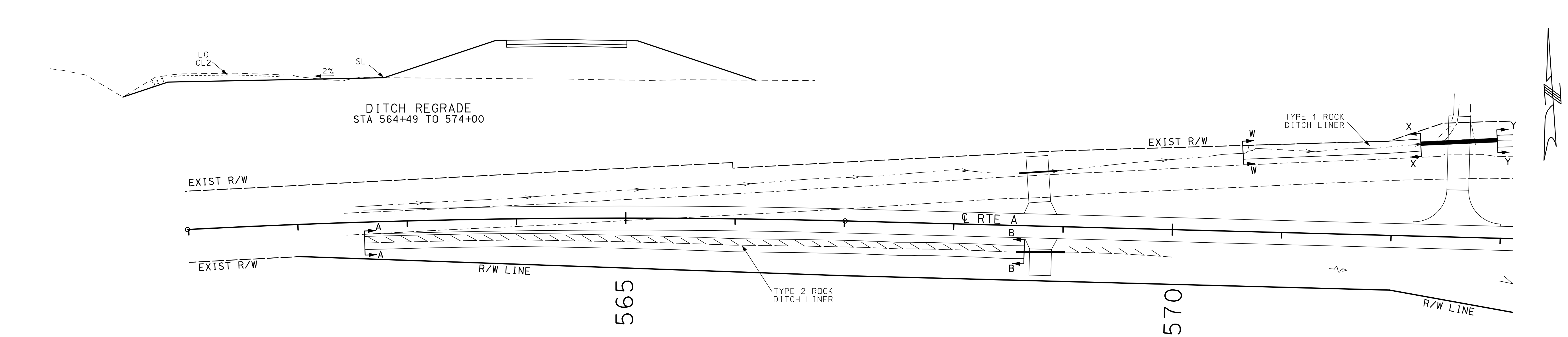
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

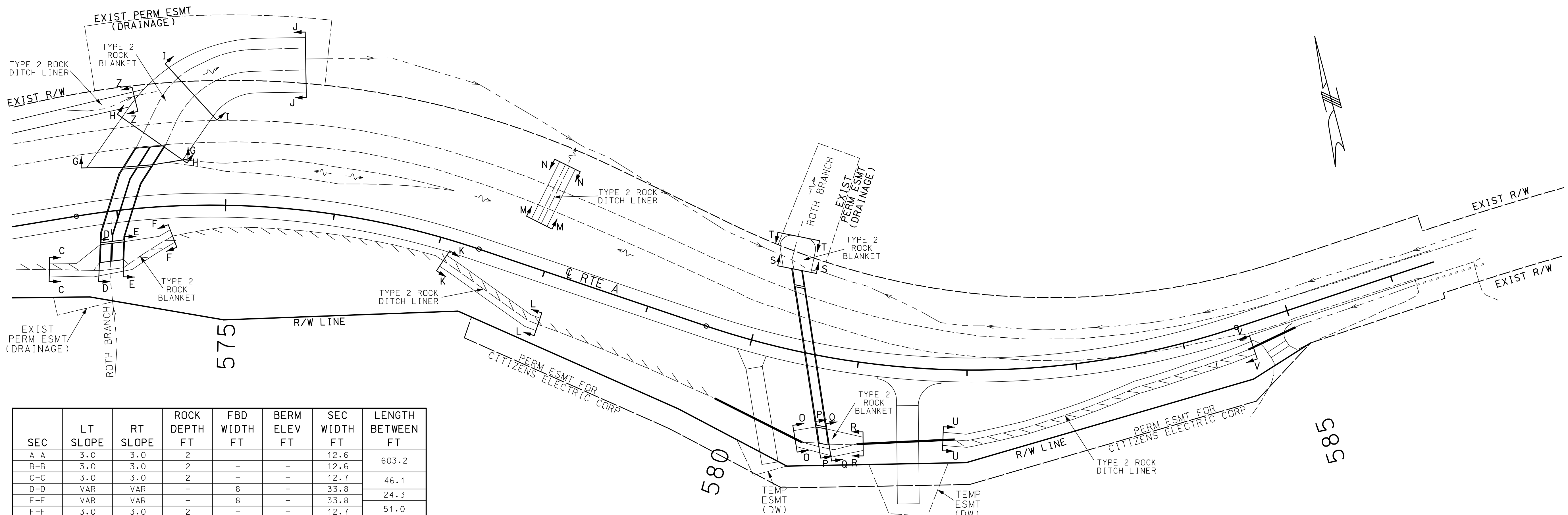
DRIVEWAY DETAIL
SPECIAL SHEET 1 OF 2

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

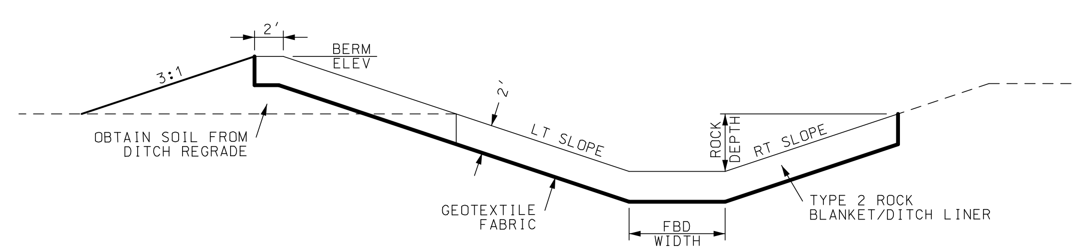
REV.



DITCH REGRADE
STA 564+49 TO 574+00



SEC	LT SLOPE	RT SLOPE	ROCK DEPTH FT	FBD WIDTH FT	BERM ELEV FT	SEC WIDTH FT	LENGTH BETWEEN FT
A-A	3.0	3.0	2	–	–	12.6	603.2
B-B	3.0	3.0	2	–	–	12.6	
C-C	3.0	3.0	2	–	–	12.7	46.1
D-D	VAR	VAR	–	8	–	33.8	24.3
E-E	VAR	VAR	–	8	–	33.8	51.0
F-F	3.0	3.0	2	–	–	12.7	
G-G	VAR	VAR	–	–	370.0	96.9	30.0
H-H	3.0	3.0	7	22	369.8	79.9	57.8
I-I	2.0	2.5	VAR	20	369.5	74.8	116.3
J-J	2.3	5.3	4	20	369.0	60.6	
K-K	3.0	3.0	2	–	–	12.6	105.0
L-L	3.0	3.0	2	–	–	12.6	
M-M	3.0	3.0	2	4	–	16.6	58.3
N-N	3.0	3.0	2	4	–	16.6	
O-O	VAR	VAR	–	–	–	15.0	23.2
P-P	VAR	VAR	–	4	–	25.3	10.1
Q-Q	VAR	VAR	–	4	–	25.3	31.0
R-R	VAR	VAR	–	–	–	12.1	
S-S	VAR	VAR	–	–	–	26.1	30.3
T-T	VAR	VAR	–	–	–	35.0	
U-U	3.0	3.0	2	–	–	12.7	298.6
V-V	3.0	3.0	2	–	–	12.7	
W-W	VAR	3.0	2	–	–	12.6	162.7
X-X	VAR	3.0	2	–	–	11.0	
Y-Y	VAR	3.0	2	–	–	10.9	130.1
Z-Z	VAR	3.0	2	–	–	12.2	



ROCK BLANKET/DITCH LINER

NOTE: DITCH REGRADE AND ANY SOIL RELOCATION SHALL BE CONSIDERED INCIDENTAL TO THE LINEAR GRADING CLASS 2 QU PROVIDED FOR REMOVAL OF EXIST PVMT & CULVERTS

SLOPES & DISTANCES ARE APPROXIMATE AND MAY BE ADJUSTED TO MATCH FIELD CONDITIONS AS APPROVED BY ENGINEER

SEE QUANTITY SHEETS FOR ROCK CALCULATION DATA

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

STATE OF MISSOURI
JESSIE BENJAMIN PHILPOT
NUMBER PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	5/13/2021
ROUTE	A
STATE	MO
DISTRICT	SE
SHEET NO.	8
COUNTY	PERRY
JOB NO.	J9S3499
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

MoDOT

DITCH REGRADE & ROCK DETAIL
SPECIAL SHEET 2 OF 2

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

REV.

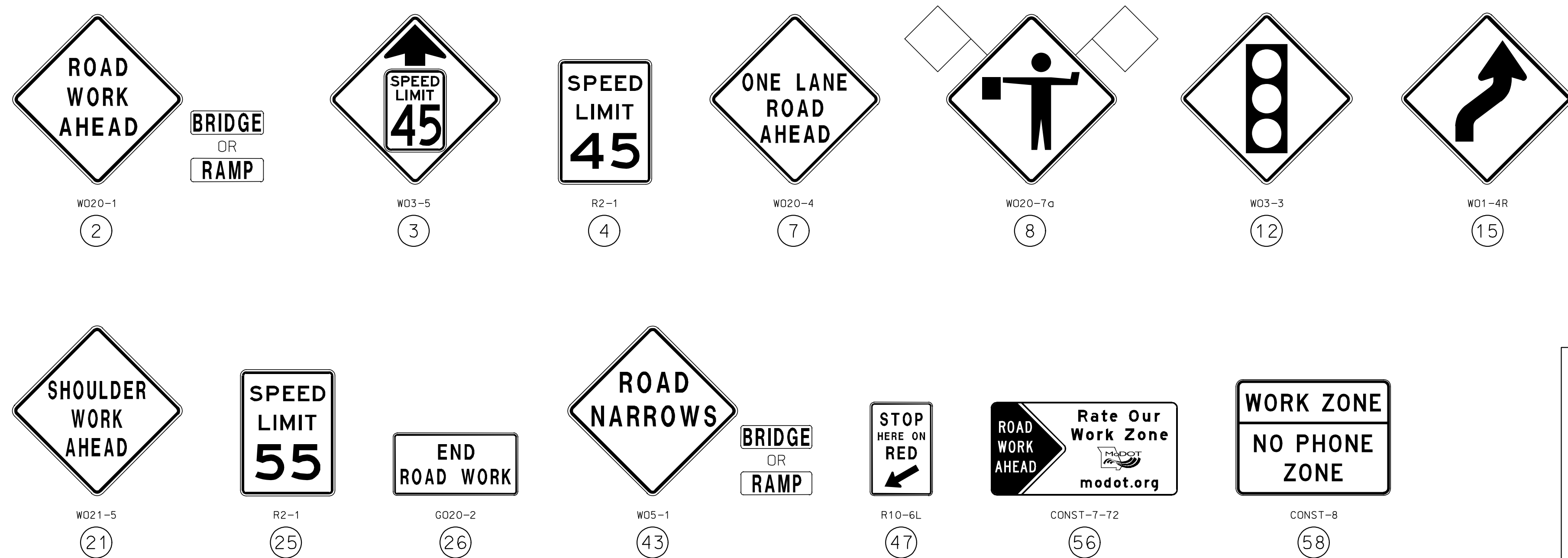
NOTES

SIGNING INSTALLATION IS REQUIRED PRIOR TO ANY DISRUPTION IN TRAFFIC DUE TO CONSTRUCTION OPERATIONS.

ALL STATIONS, SPACING, AND DISTANCES OF TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND MAY BE REVISED AS DIRECTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

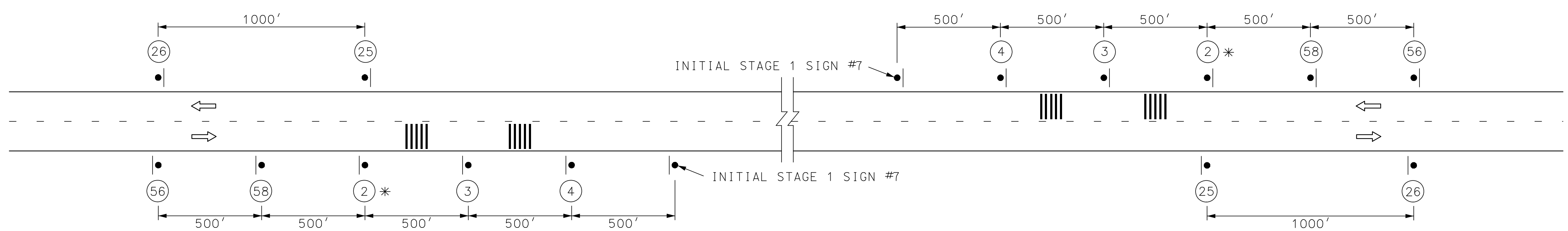
ANY EXISTING SIGNS, SIGNALS OR PAVEMENT MARKING THAT CONFLICT WITH THIS TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED.

ALL SIGNS SHOWN ON THE TRAFFIC CONTROL PLAN SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE OR AS DIRECTED BY THE ENGINEER.

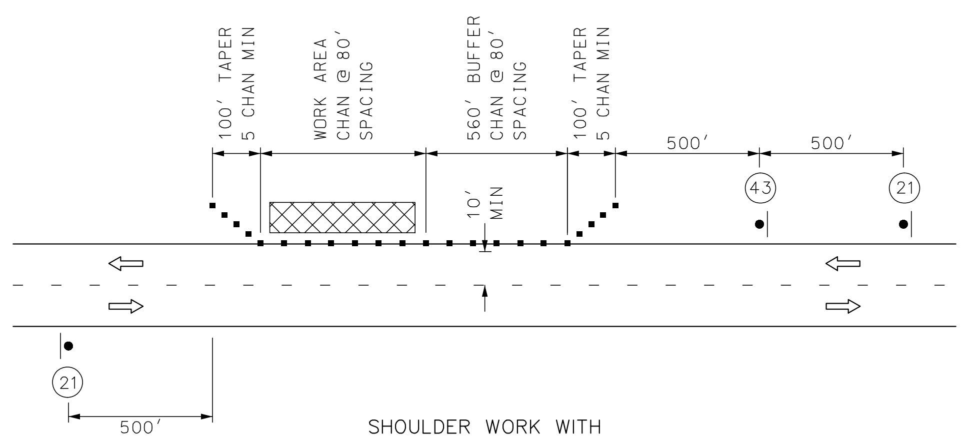


TRAFFIC CONTROL LEGEND

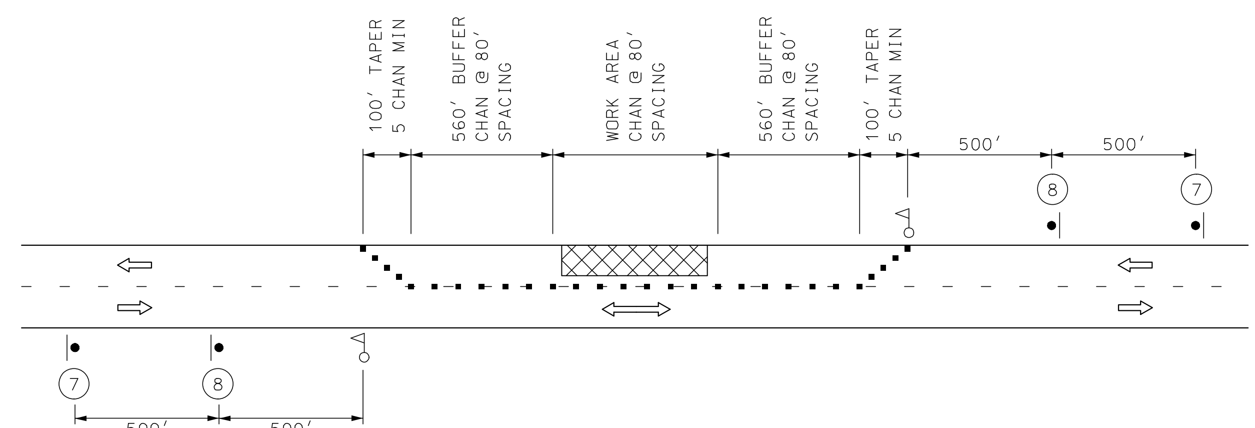
•	SIGN (SINGLE SIDED)	■	CHANNELIZER
E	BARRICADE		FLAGGER
	IMPACT ATTENUATOR		ADVANCE WARNING RAIL SYSTEM (AWRS) ✳
	PORTABLE TRAFFIC SIGNAL AND LUMINAIRE		LONG-TERM RUMBLE STRIPS



BEGIN & END OF PROJECT SIGNING



SHOULDER WORK WITH
MINOR ENCROACHMENT



LANE CLOSURE ON
TWO LANE ROAD USING FLAGGERS

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

STATE OF MISSOURI
JESSIE BENJAMIN PHILPOT
NUMBER PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	5/13/2021
ROUTE A	STATE MO
DISTRICT SE	SHEET NO. 9
COUNTY	PERRY
JOB NO.	J9S3499
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TRAFFIC CONTROL
SHEET 1 OF 3

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

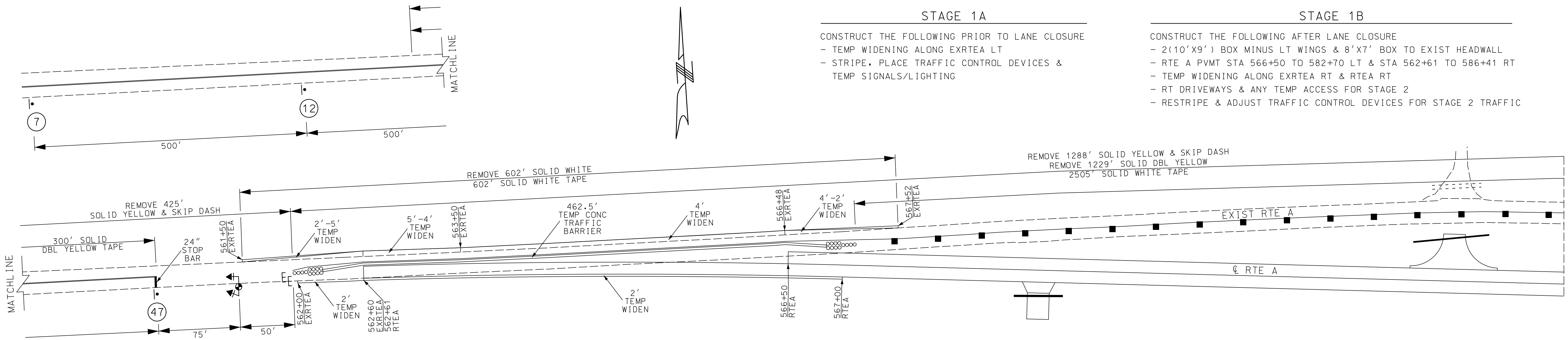
REV.

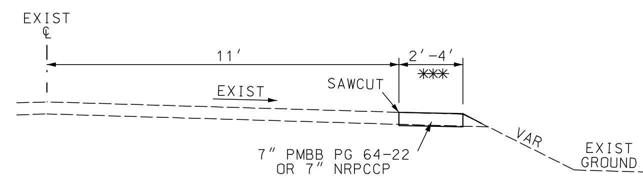
STAGE 1A

CONSTRUCT THE FOLLOWING PRIOR TO LANE CLOSURE
- TEMP WIDENING ALONG EXRTEA LT
- STRIPE, PLACE TRAFFIC CONTROL DEVICES & TEMP SIGNALS/LIGHTING

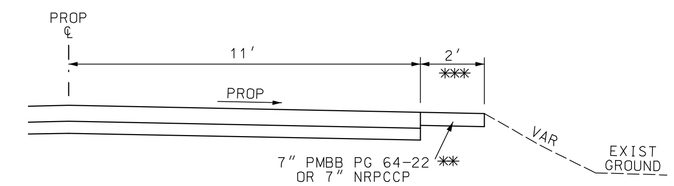
STAGE 1B

CONSTRUCT THE FOLLOWING AFTER LANE CLOSURE
- 2(10'X9') BOX MINUS LT WINGS & 8'X7' BOX TO EXIST HEADWALL
- RTE A PVMT STA 566+50 TO 582+70 LT & STA 562+61 TO 586+41 RT
- TEMP WIDENING ALONG EXRTEA RT & RTEA RT
- RT DRIVEWAYS & ANY TEMP ACCESS FOR STAGE 2
- RESTRIPE & ADJUST TRAFFIC CONTROL DEVICES FOR STAGE 2 TRAFFIC

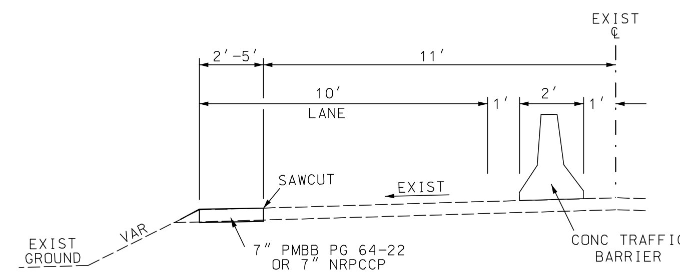




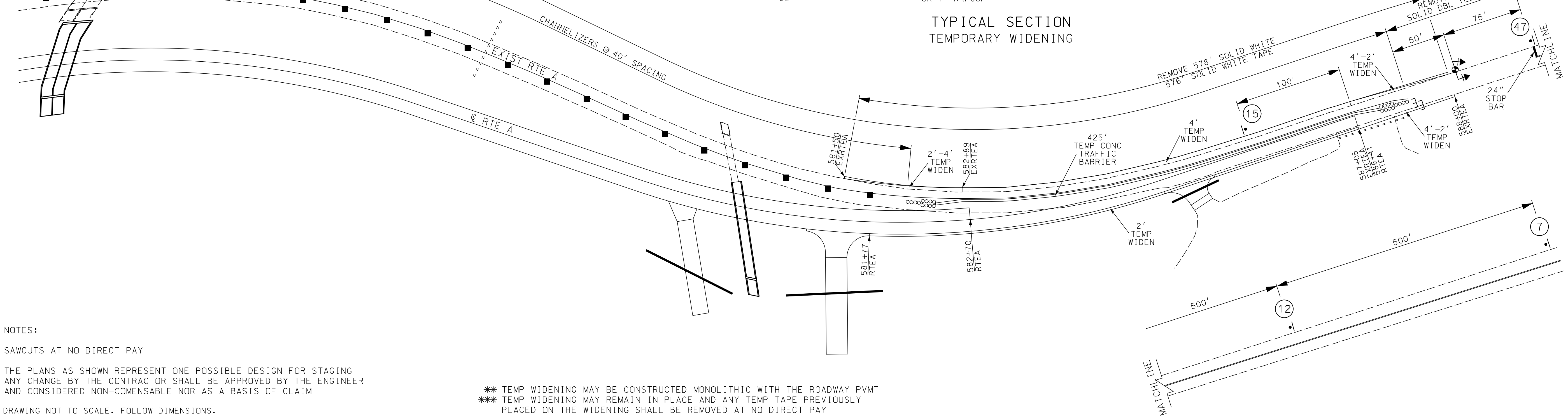
TYPICAL SECTION
TEMPORARY WIDENING



TYPICAL SECTION
TEMPORARY WIDENING



TYPICAL SECTION
TEMPORARY WIDENING



NOTES:

SAWCUTS AT NO DIRECT PAY

THE PLANS AS SHOWN REPRESENT ONE POSSIBLE DESIGN FOR STAGING ANY CHANGE BY THE CONTRACTOR SHALL BE APPROVED BY THE ENGINEER AND CONSIDERED NON-COMENSABLE NOR AS A BASIS OF CLAIM

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

** TEMP WIDENING MAY BE CONSTRUCTED MONOLITHIC WITH THE ROADWAY PVMT
*** TEMP WIDENING MAY REMAIN IN PLACE AND ANY TEMP TAPE PREVIOUSLY PLACED ON THE WIDENING SHALL BE REMOVED AT NO DIRECT PAY

STATE OF MISSOURI
JESSIE BENJAMIN PHILPOT
NUMBER PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
5/13/2021	
ROUTE: A	STATE: MO
DISTRICT: SE	SHEET NO.: 10
COUNTY: PERRY	
JOB NO.: J9S3499	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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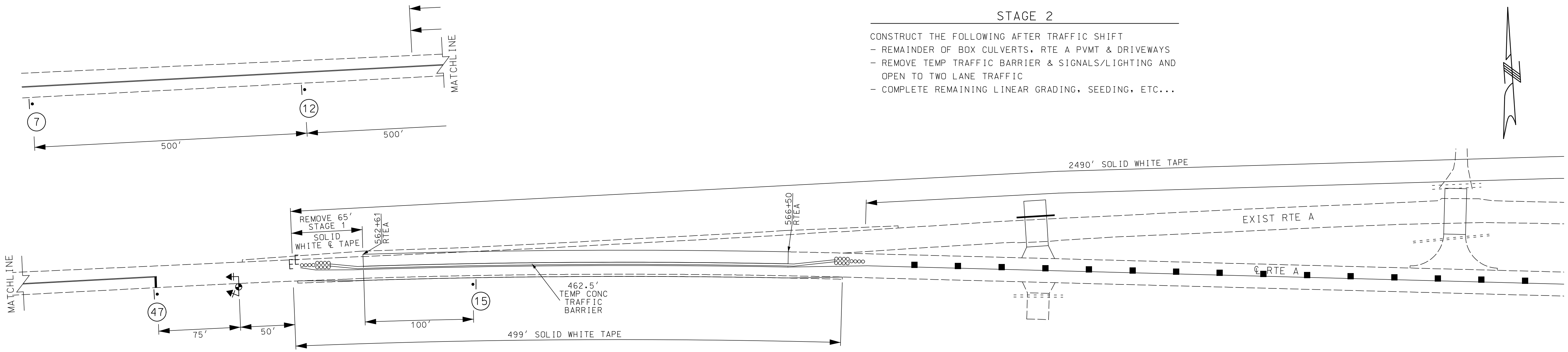
TRAFFIC CONTROL
SHEET 2 OF 3

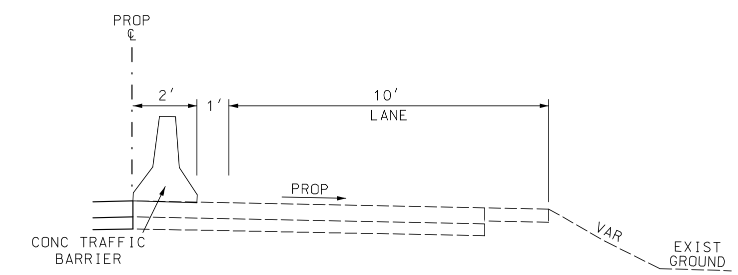
REV.

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

STAGE 2

CONSTRUCT THE FOLLOWING AFTER TRAFFIC SHIFT
- REMAINDER OF BOX CULVERTS, RTE A PVMT & DRIVEWAYS
- REMOVE TEMP TRAFFIC BARRIER & SIGNALS/LIGHTING AND OPEN TO TWO LANE TRAFFIC
- COMPLETE REMAINING LINEAR GRADING, SEEDING, ETC...





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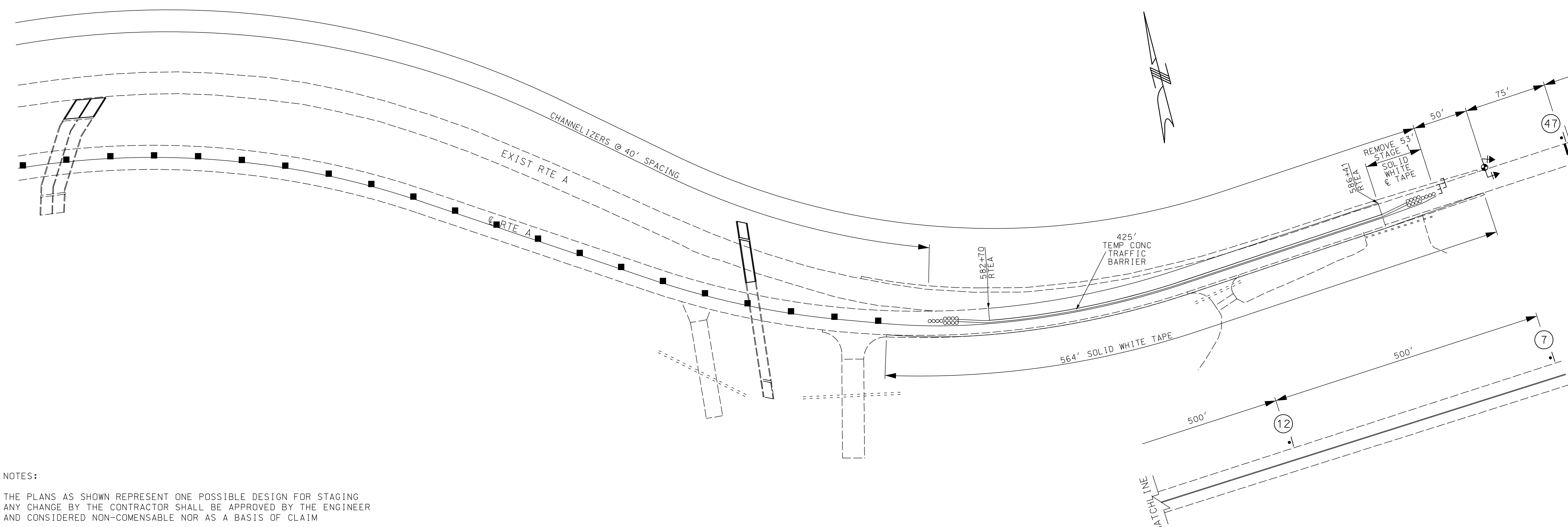

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STATE OF MISSOURI
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DATE PREPARED	5/13/2021
ROUTE	A
STATE	MO
DISTRICT	SE
SHEET NO.	11
COUNTY	PERRY
JOB NO.	J9S3499
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE | DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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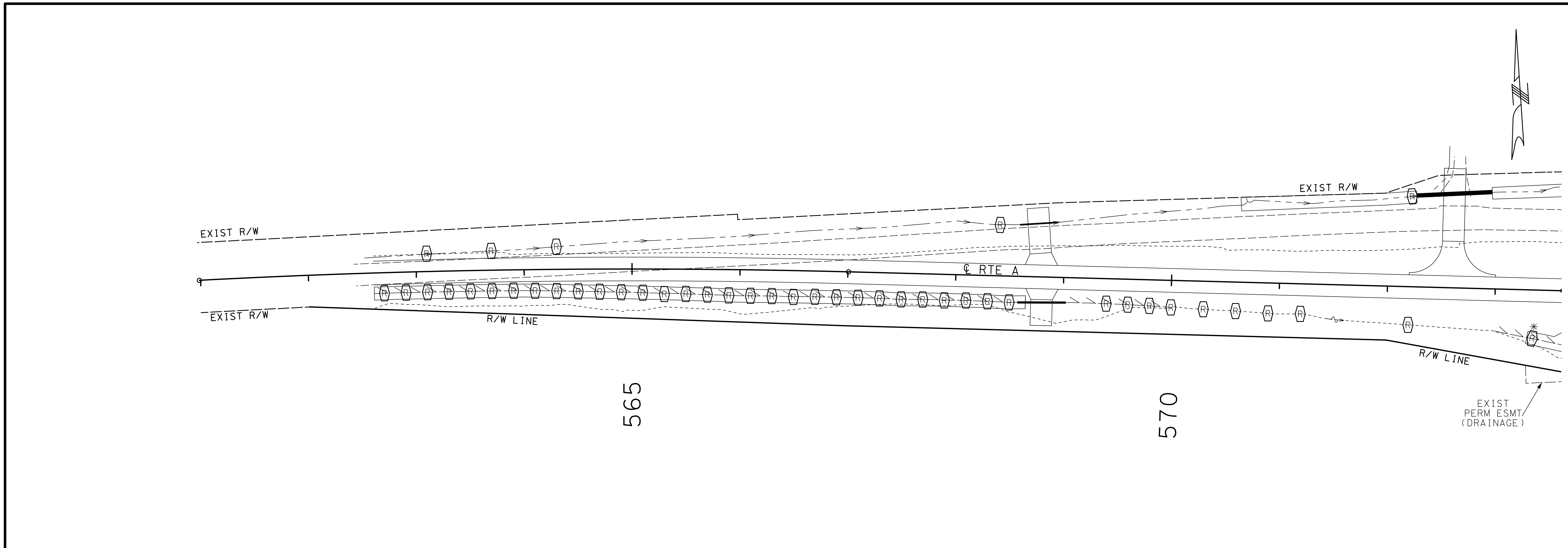
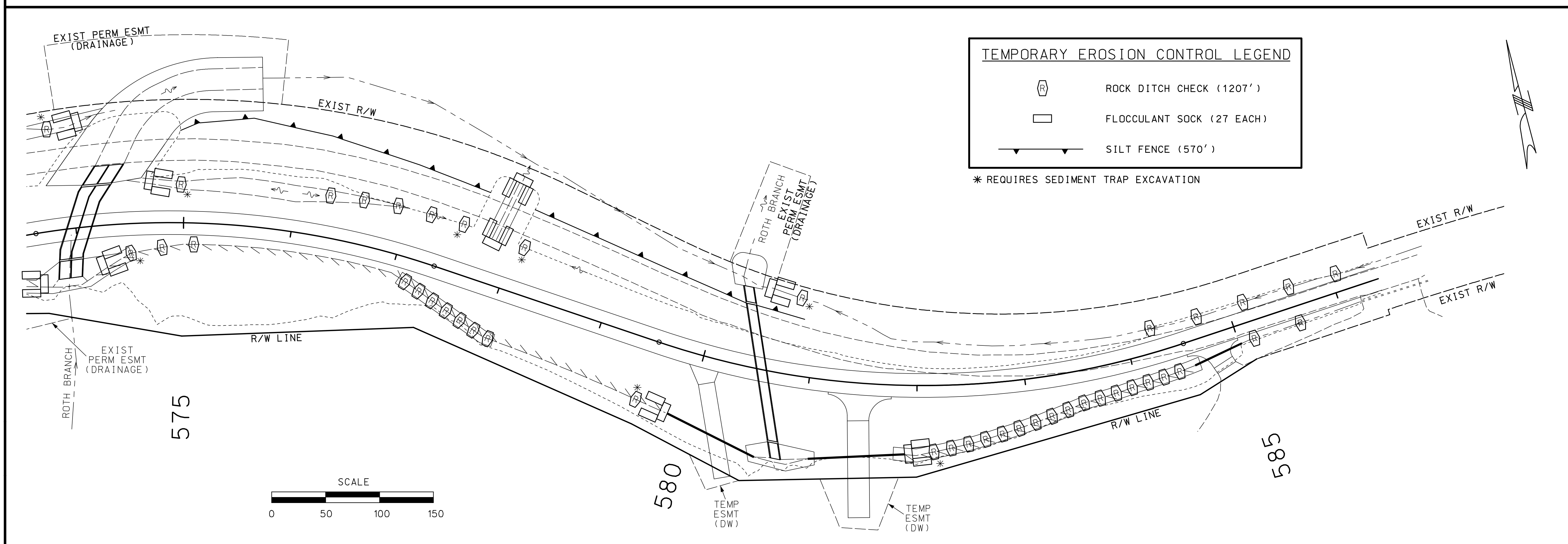
TRAFFIC CONTROL
SHEET 3 OF 3

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

REV.





STATE OF MISSOURI
JESSIE BENJAMIN
PHILPOT
NUMBER
PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	5/13/2021
ROUTE	A
STATE	MO
DISTRICT	SE
SHEET NO.	12
COUNTY	PERRY
JOB NO.	J9S3499
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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EROSION CONTROL
SHEET 1 OF 1

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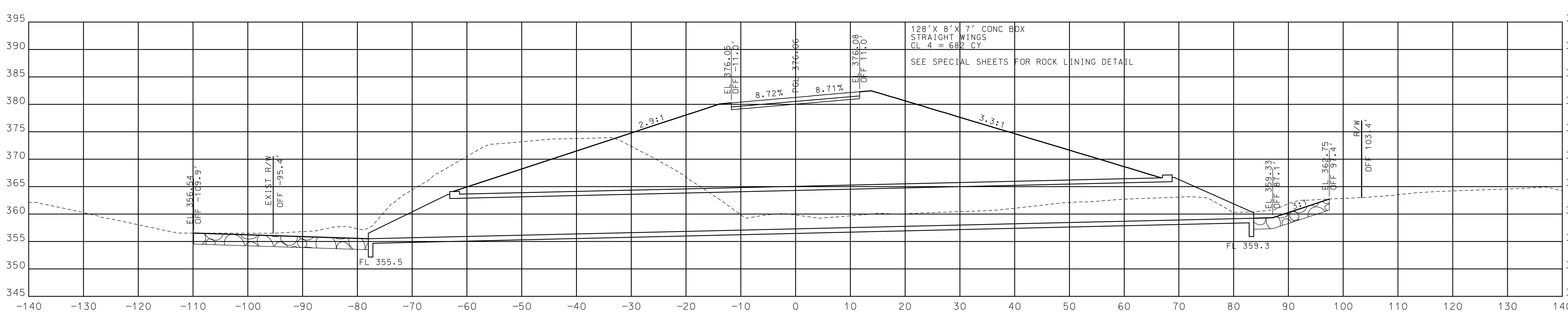
REV.



STA 580+55.00
SKEW 20° RA

STATE OF MISSOURI
JESSIE BENJAMIN PHILPOT
NUMBER PE-2016017665
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
5/13/2021	
ROUTE: A	STATE: MO
DISTRICT: SE	SHEET NO.: 13
COUNTY: PERRY	
JOB NO.: J9S3499	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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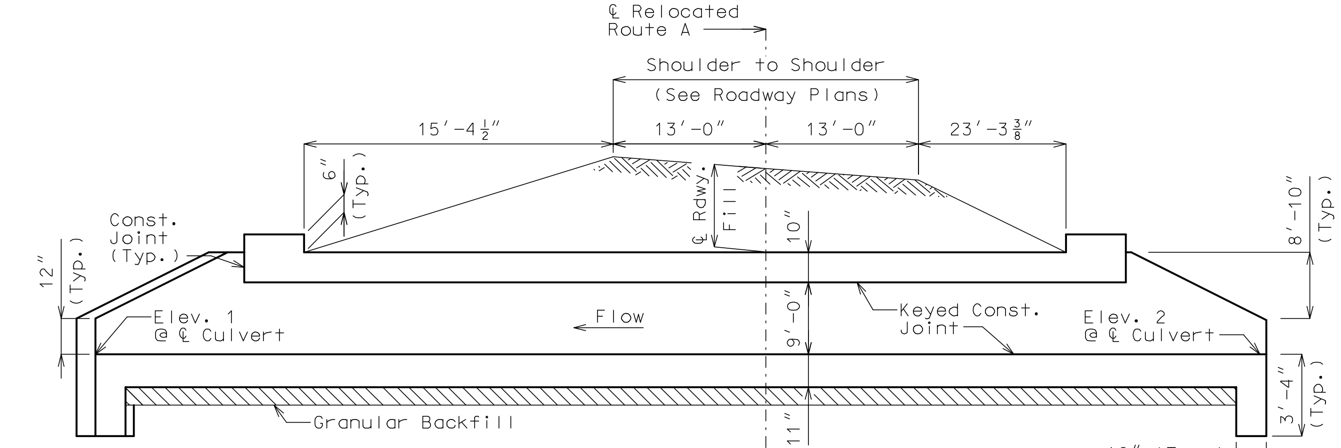
CULVERT SECTIONS
SHEET 1 OF 1

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

REV.

2(10'x 9') CONCRETE BOX CULVERT

SEC/SUR 2173	TWP 34N	RGE 13E



Construction joint key not shown for clarity, see standard plans for details.

GENERAL ELEVATION A-A

If any part of the barrel is exposed, the roadway fill shall be warped to provide 12 inches minimum cover. (Roadway Item)

If unsuitable material is encountered, excavation of unsuitable material and furnishing and placing of granular backfill shall be in accordance with Sec 206.

For location of General Elevation A-A, see Sheet No. 2

Hydrologic Data
Drainage Area = 1.5 mi^2
Design Flood Frequency = 50 years
Design Flood Discharge = 1,550 cfs
Design Flood (D.F.) Elevation = 371.2
Base Flood (100-year)
Base Flood Elevation = 373.3
Base Flood Discharge = 1,850 cfs
Estimated Backwater = 4.67 ft
Outlet Velocity = 11.60 ft/s
Roadway Overtopping
Overtopping Flood Discharge = 1,960 cfs
Overtopping Flood Frequency ~ 150 years
Overtopping Flood Elevation = 376.0

General Notes:

Design Specifications:
2010 AASHTO LRFD Bridge Design Specifications and 2010 Interim Revisions

Design Loading:
Vehicular = HL-93 minus lane load, Earth = 120 lb/cf
Equivalent Fluid Pressure = 30 lb/cf (min.), 60 lb/cf (max.)

Design Unit Stresses:
Class B-1 Concrete (Box Culvert) f'c = 4,000 psi
Reinforcing Steel (Grade 60) fy = 60,000 psi

Standard Plans:
703.37, 703.44, 703.46, 703.47

Miscellaneous:
MoDOT Construction personnel will indicate the type of box culvert constructed:
☐ Precast Concrete Box used
☐ Cast-in-Place Concrete Box used

When alternate precast concrete box sections are used, the minimum distance from inside face of headwalls to precast sections measured along the shortest wall shall be 3 feet. Reinforcement and dimensions for wings and headwalls shall be in accordance with Missouri Standard Plans.

Channel bottom shall be graded within the right of way for transition of channel bed to culvert openings. Channel banks shall be tapered to match culvert openings. (Roadway Item)

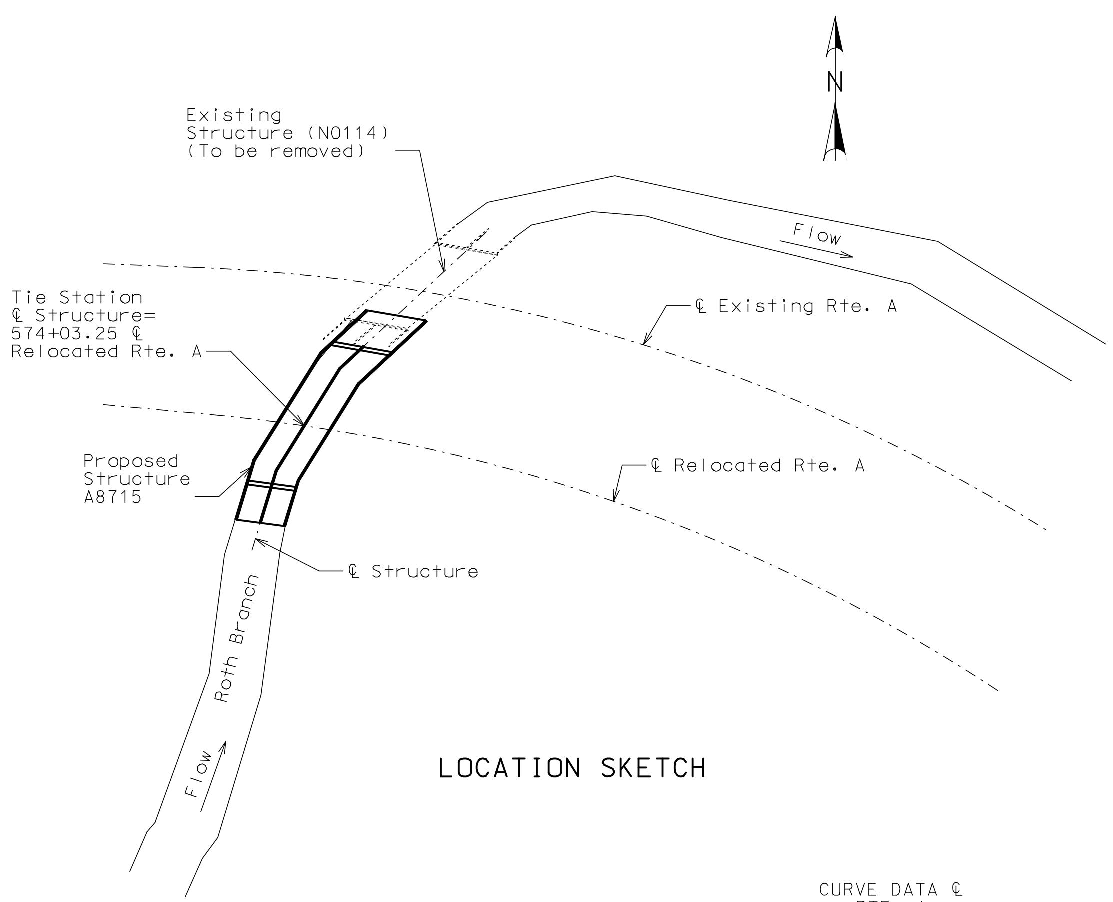
Traffic Handling:
Structure to be closed during construction.
See roadway plans for traffic control.

Elevations
Downstream (Elev. 1) = 359.20
Upstream (Elev. 2) = 360.90
Pr. Gr. at Tie Sta. = 376.00

Fill Heights
℄ Rdwy at ℄ Culvert = 6.00 ft
Design (All units) = 6.00 ft

Dimensions are based on end units.
Fill heights are measured from the top of top slab to the top of earth fill or roadway.

Estimated Quantities			Final
Class 4 Excavation	cu. yard	390	
Dewatering	lump sum	1	
Removal of Bridges (N0114)	lump sum	1	
Class B-1 Concrete (Culverts-Bridge)	cu. yard	220	
Reinforcing Steel (Culverts-Bridge)	pound	31610	



LOCATION SKETCH

CURVE DATA ℄ RTE. A

PI	575+53.42
PC	573+62.68
PT	577+36.53
Δ	28°2'18.8" (RT)
D	7°30'0.00"
L	373.85'
T	190.75'
R	763.94'

BENCH MARKS (NAVD 88 DATUM)

B.M. #1 - RR SPIKE IN E FACE OF PP 69.49' LT OF ℄ RTE A STA 569+36.51 ELEV 375.64

B.M. #2 - "☐" ON SE CONER OF BOX 18.50' LT OF ℄ RTE A STA 580+51.01 ELEV 367.25

CULVERT-BRIDGE: ROUTE A (MINOR) OVER ROTH BRANCH OF BRAZEAU CREEK

ROUTE A FROM WITTENBERG TO ALTENBURG
ABOUT 1.25 MILES WEST OF WITTENBERG
TIE STATION 574+03.25

Detailed Dec. 2020
Checked Mar. 2021

Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TED S. KOESTER
NUMBER PE-2013000591
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

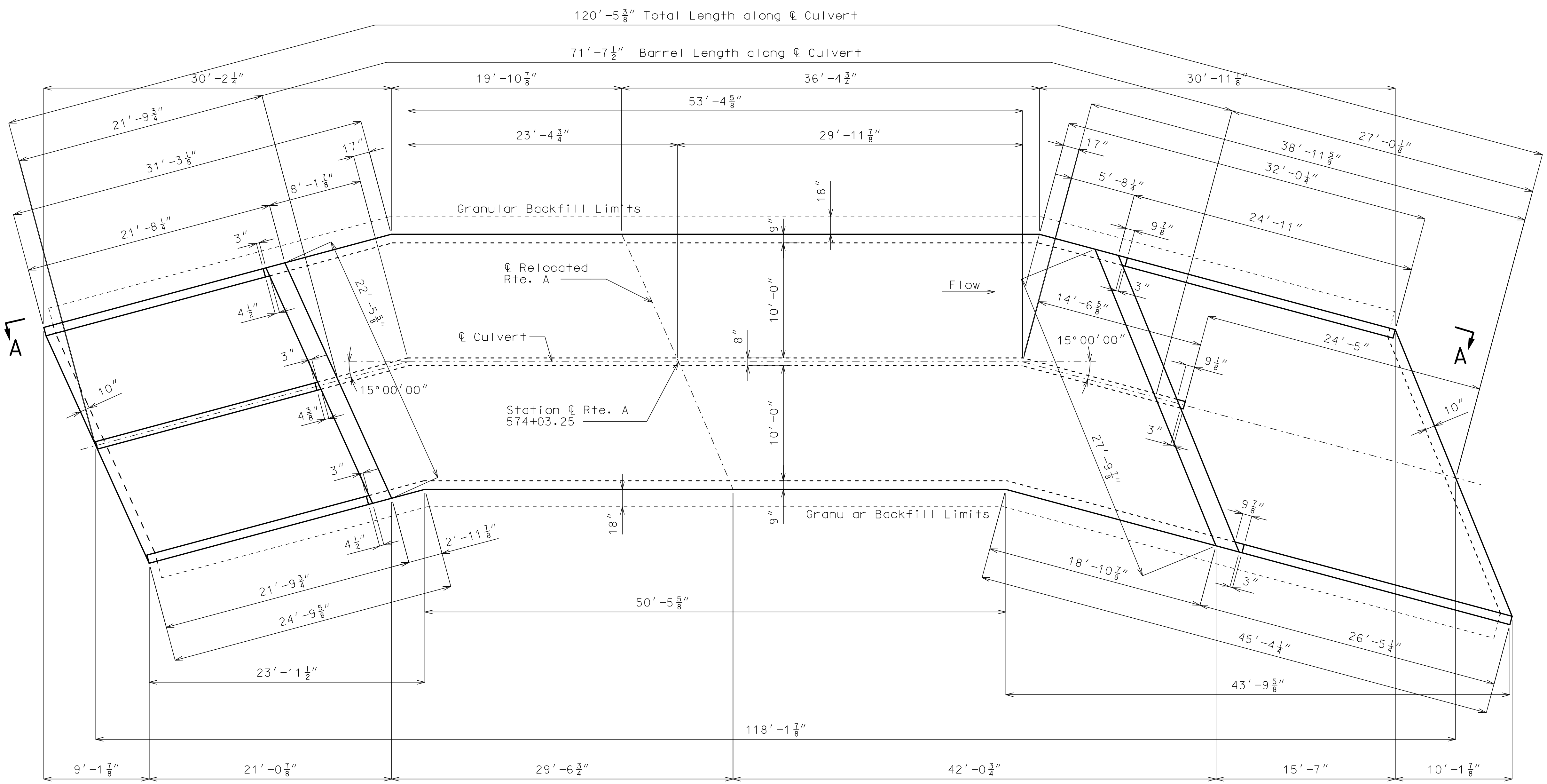
DATE PREPARED	
7/29/2021	
ROUTE A	STATE MO
DISTRICT BR	SHEET NO. 1
COUNTY PERRY	
JOB NO. J9S3499	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A8715	

DESCRIPTION
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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

$FILE$ $TIME$ 7/29/2021



PLAN OF LAYOUT DIMENSIONS

STATE OF MISSOURI
TED S. KOESTER
NUMBER PE-2013000591
PROFESSIONAL ENGINEER
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DATE PREPARED	7/29/2021
ROUTE	A
STATE	MO
DISTRICT	BR
SHEET NO.	2
COUNTY	PERRY
JOB NO.	J9S3499
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	A8715

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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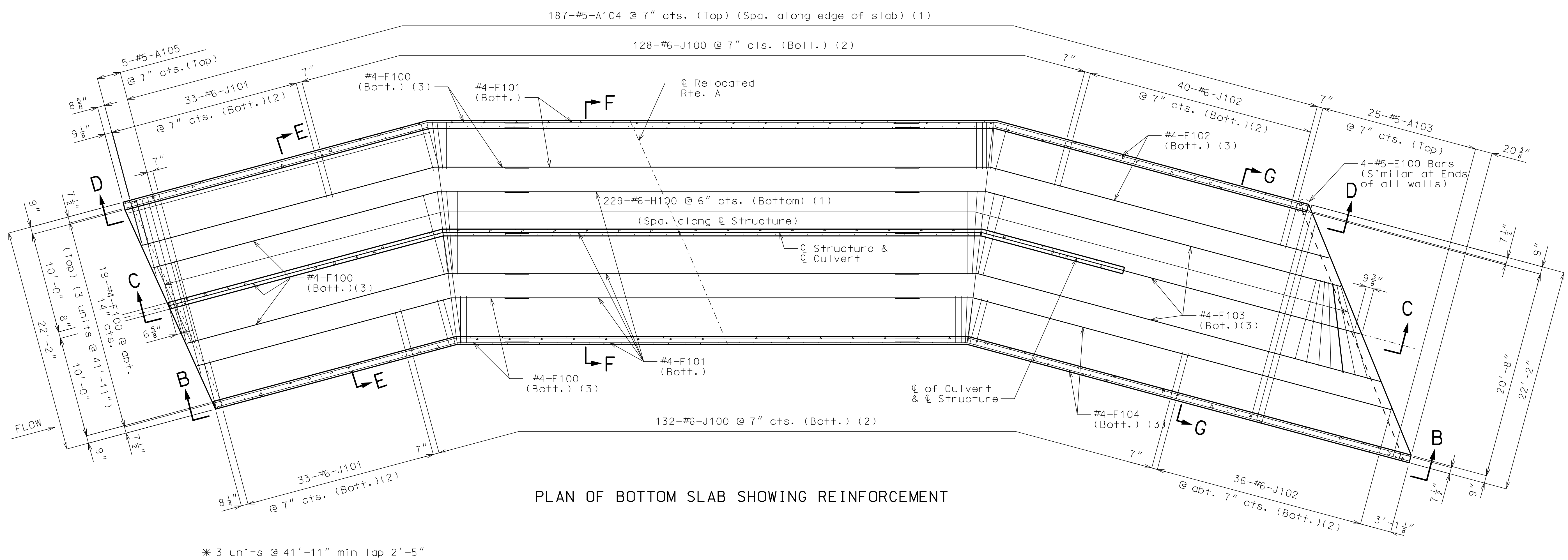

PLAN OF BOTTOM SLAB SHOWING REINFORCEMENT

✱ 3 units @ 41'-11" min lap 2'-5"

Notes:

Lap all lagitudinal bars a minimum of 2'-5" at splices.

(1) Fan A bars and H bars as necessary to conform to structure alignment. Maintain 5" minimum spacing.

(2) Spaced along outside edge of slab. Fan horizontal leg of J bars as necessary to conform to structure alignment. Maintain 5" minimum spacing.

(3) Bend in field.

For Developed Elevation B-B and Developed Section C-C, see Sheet No. 5.

For Developed Section D-D, see Sheet No. 6.

For Sections E-E, F-F & G-G, see Sheet No. 7.

The #6-H100 bars shall be centered under the interior wall.

Minimum clearance to reinforcing steel shall be 1 1/2".

Detailed Dec. 2020
Checked Mar. 2021

Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TED S. KOESTER
NUMBER PE-2013000591
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
7/29/2021	
ROUTE: A	STATE: MO
DISTRICT: BR	SHEET NO.: 3
COUNTY: PERRY	
JOB NO.: J9S3499	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.: A8715	

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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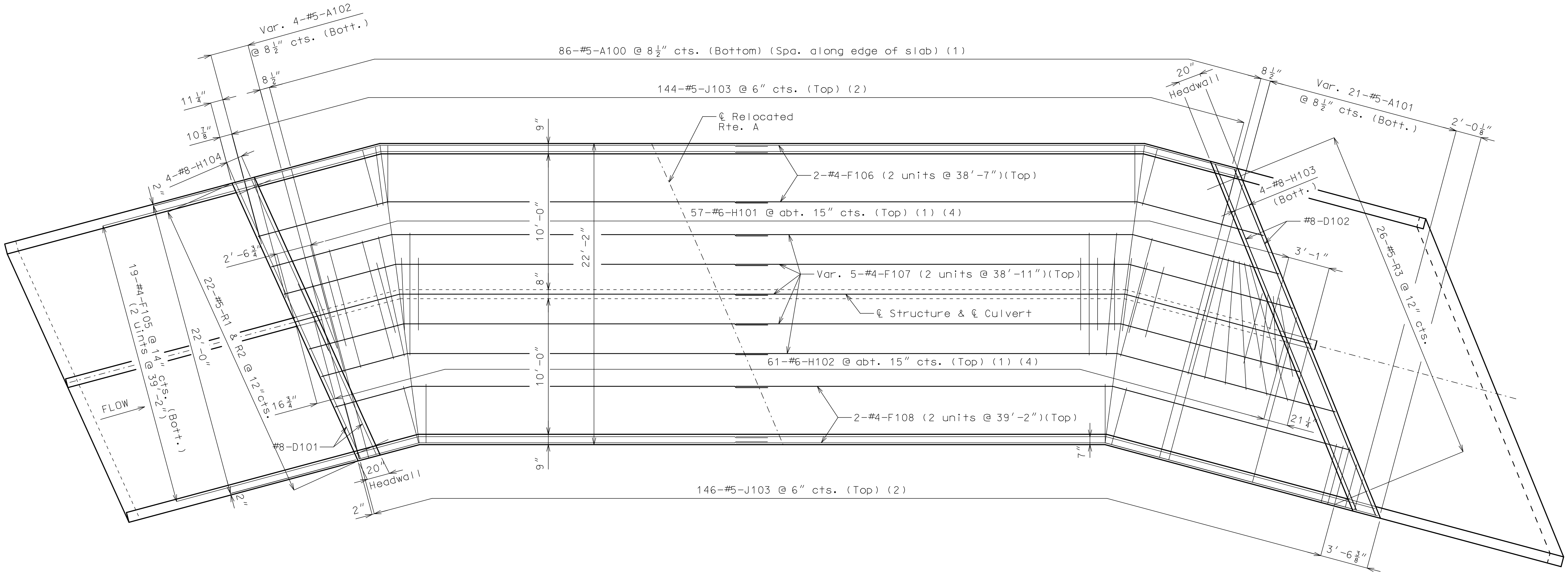

PLAN OF TOP SLAB SHOWING REINFORCMENT

Notes:

Lap all longitudinal bars a minimum of 2'-5" at splices.

The #6-H101 and H102 bars shall be centered over the interior wall.

(1) Fan A bars and H bars as necessary to conform to structure alignment. Maintain 4" minimum spacing.

(2) Spaced along outside edge of slab. Fan Horizontal Leg of J bars as necessary to conform to structure alignment.

(3) Bend in field.

(4) Spaced along ℄ Structure.

Detailed Dec. 2020
Checked Mar. 2021

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STATE OF MISSOURI
TED S. KOESTER
NUMBER PE-2013000591
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	7/29/2021
ROUTE	A
STATE	MO
DISTRICT	BR
SHEET NO.	4
COUNTY	PERRY
JOB NO.	J9S3499
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	A8715

DESCRIPTION

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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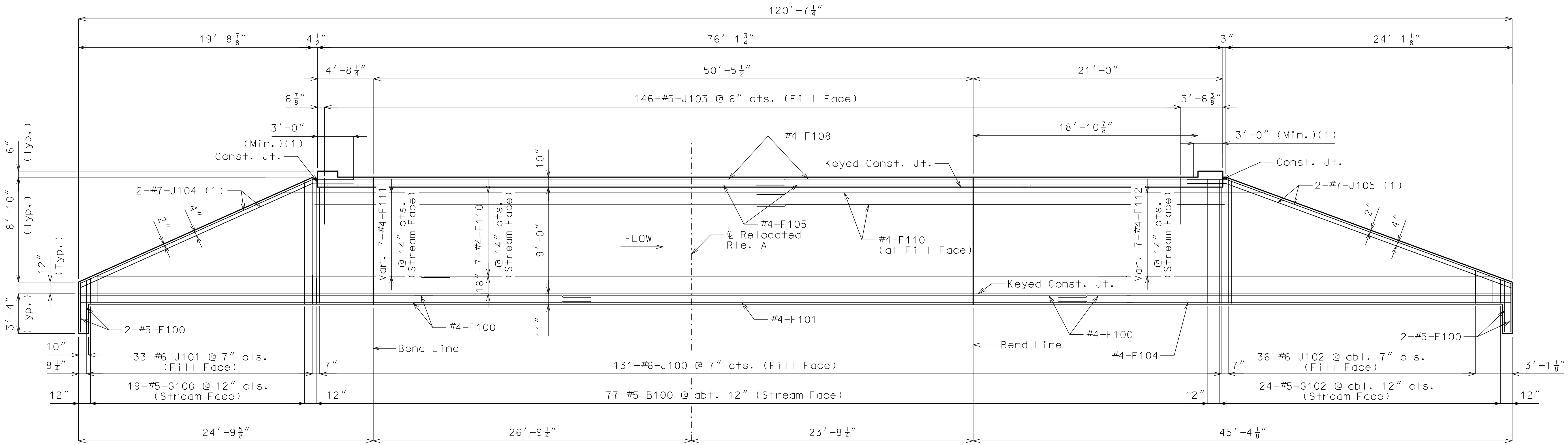
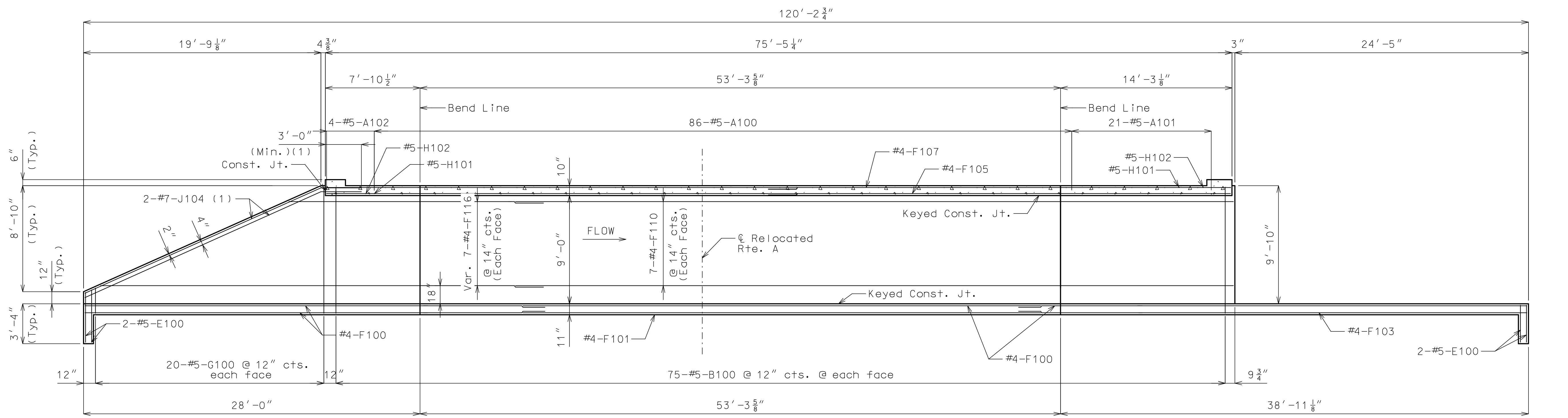


DEVELOPED ELEVATION B-B

Longitudinal dimensions are taken along outside face of wall.



DEVELOPED SECTION C-C

Longitudinal dimensions are taken along ℄ Interior wall.

Notes:

(1) Bend in field.

Construction joint keys not shown for clarity.

For location of Developed Elevation B-B and Developed Section C-C, see Sheet No. 3.

(2) Lap all longitudinal bars a minimun of 2'-5" at splices.

Work this sheet with Sheets No. 3 & 4.

For detail of Keyed Construction Joints, see Sheet 7.

Detailed Dec. 2020
Checked Mar. 2021

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STATE OF MISSOURI
TED S. KOESTER
NUMBER PE-2013000591
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DATE PREPARED	7/29/2021
ROUTE A	STATE MO
DISTRICT BR	SHEET NO. 5
COUNTY	PERRY
JOB NO.	J9S3499
CONTRACT ID.	
PROJECT NO.	
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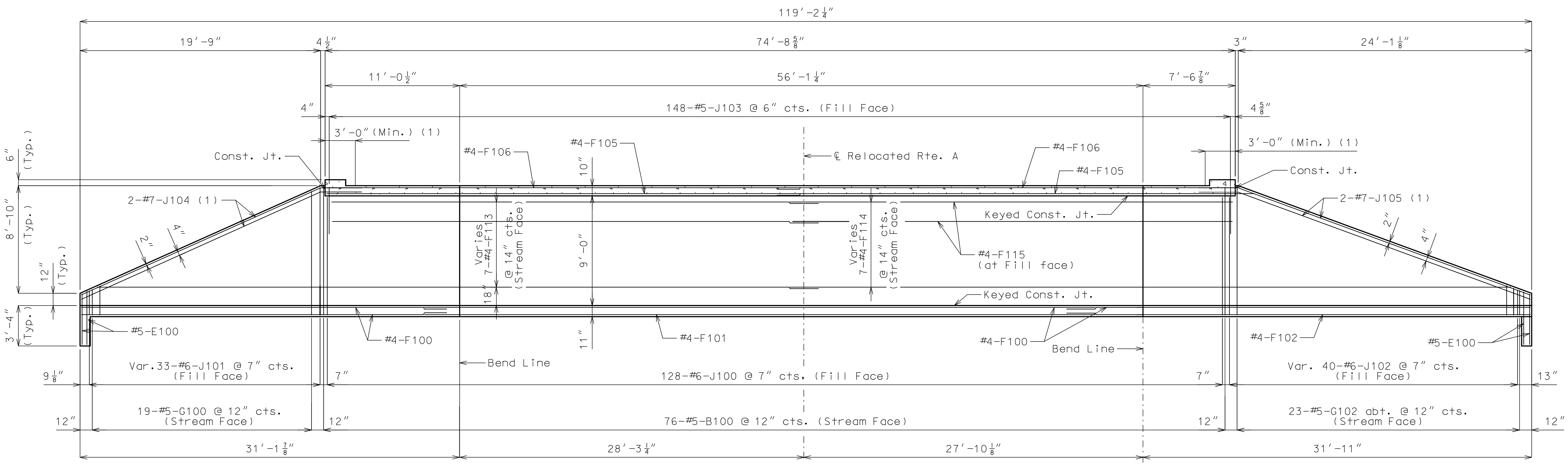

DEVELOPED SECTION D-D

Longitudinal dimensions are taken along inside face of wall.

Notes:

(1) Bend in field.

Construction joint keys not shown for clarity.

For location of Developed Section D-D, see Sheet No. 3.

Lap all longitudinal bars a minimun of 2'-5" at splices.

Detailed Dec. 2020
Checked Mar. 2021

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STATE OF MISSOURI
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DATE PREPARED	7/29/2021
ROUTE	A
STATE	MO
DISTRICT	BR
SHEET NO.	6
COUNTY	PERRY
JOB NO.	J9S3499
CONTRACT ID.	
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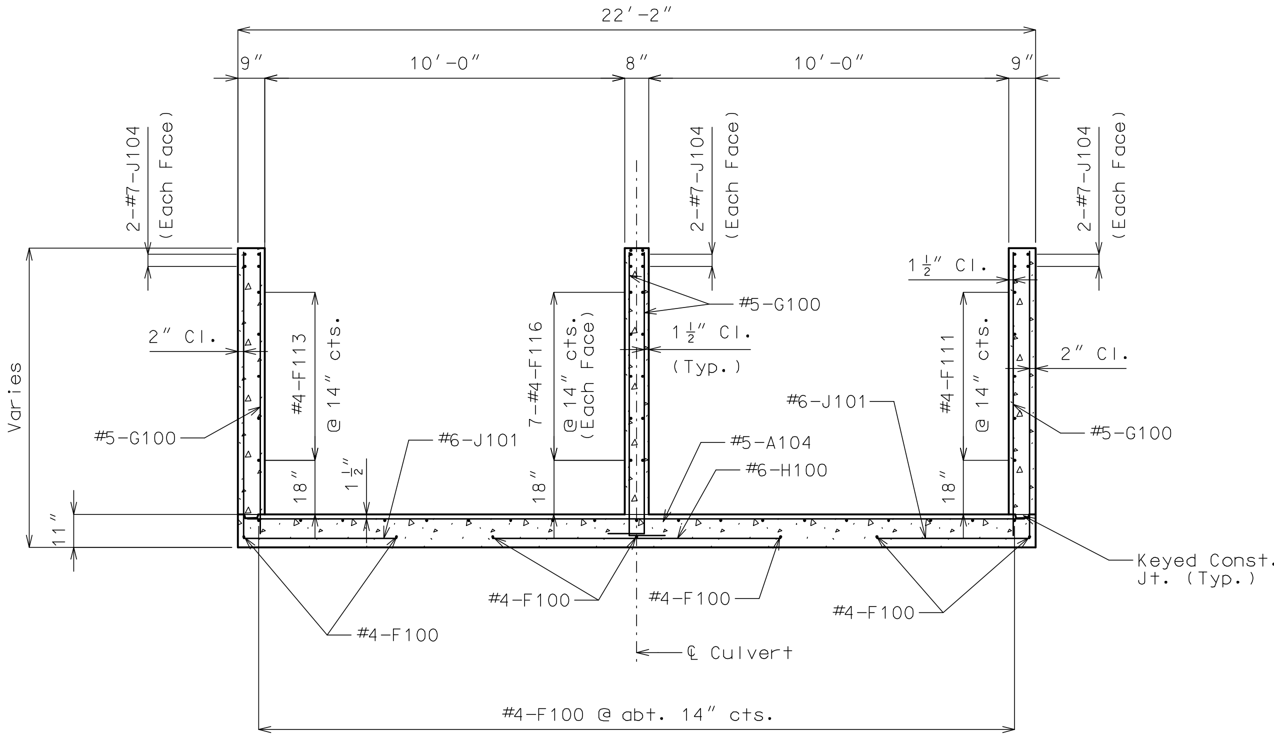
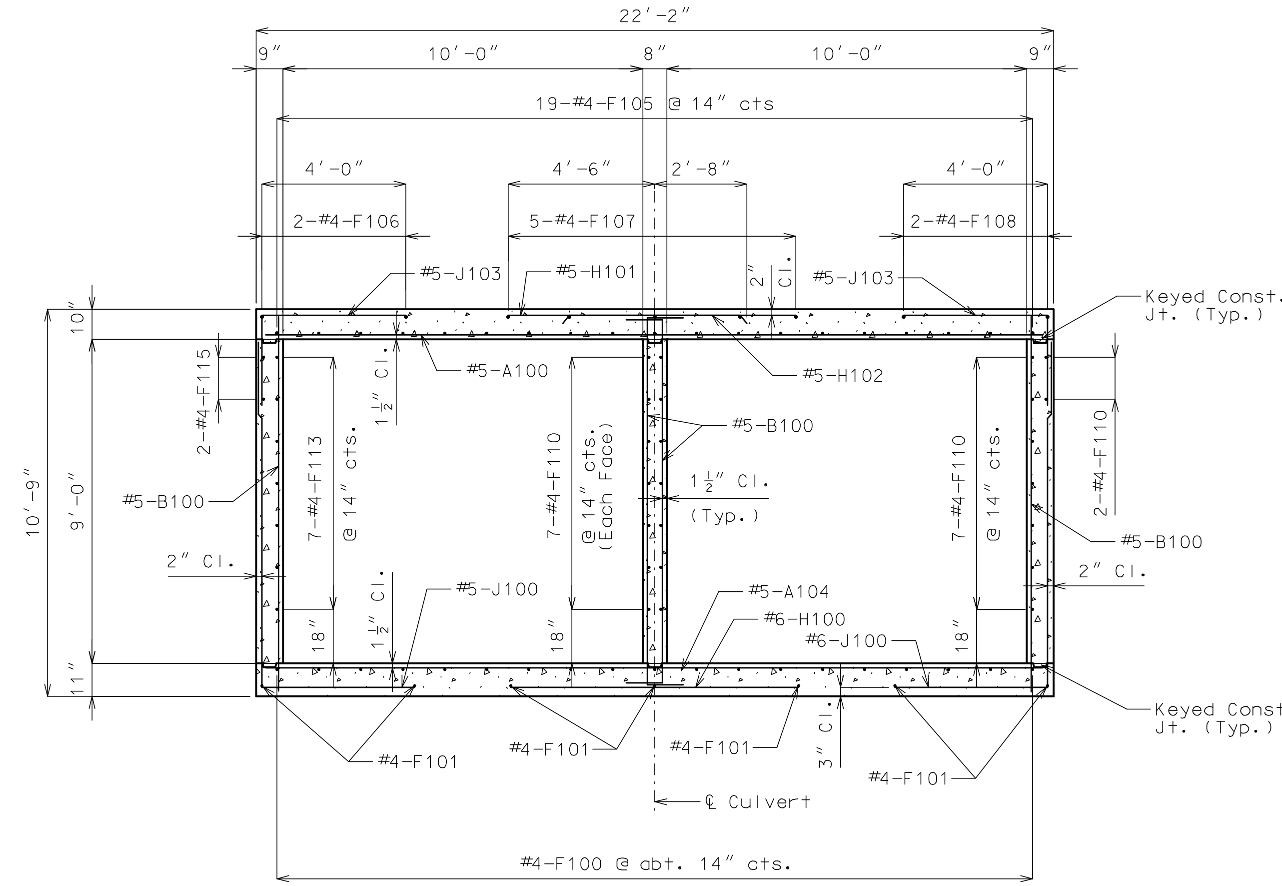
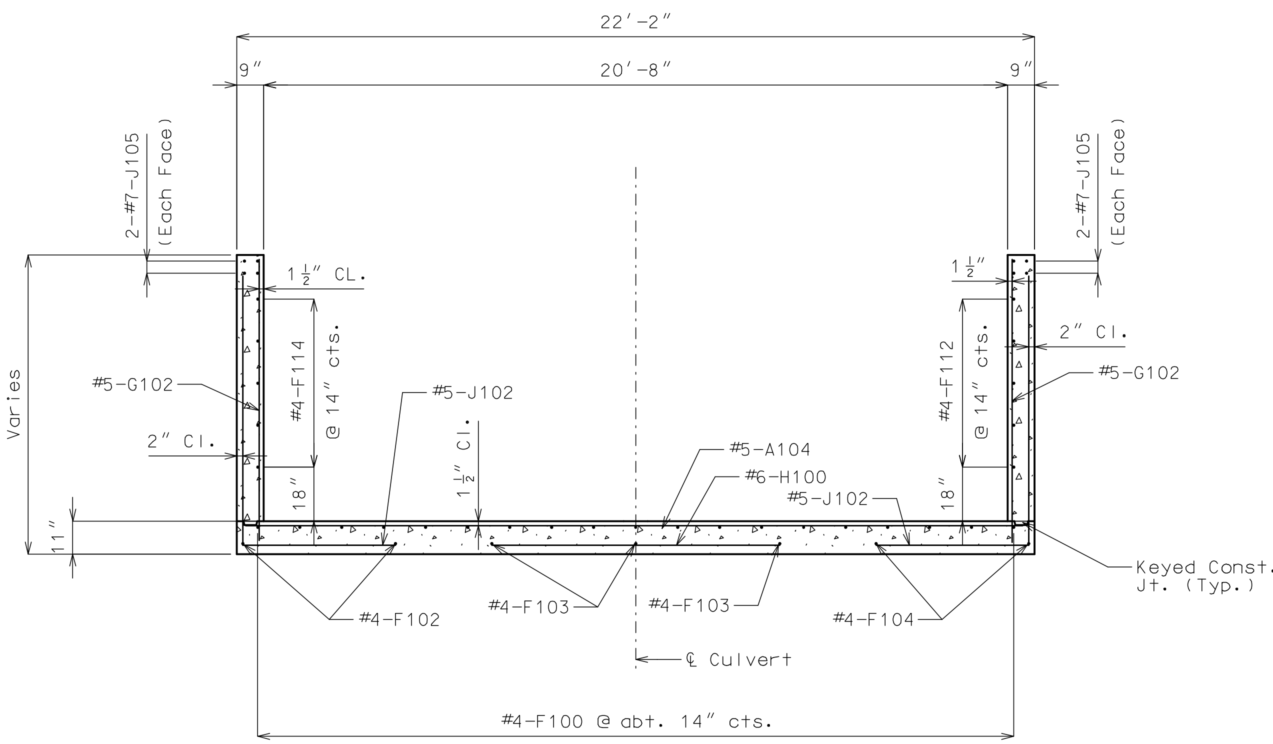


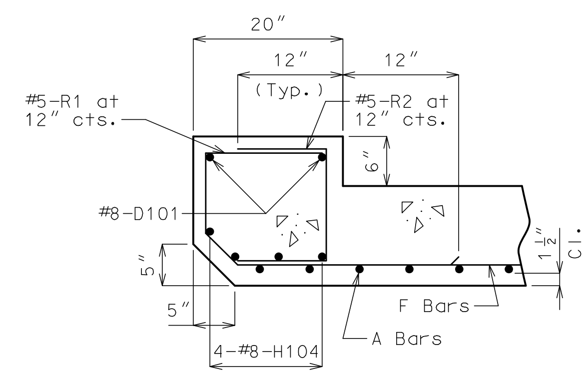
SECTION E-E
UPSTREAM WINGS REINFORCEMENT



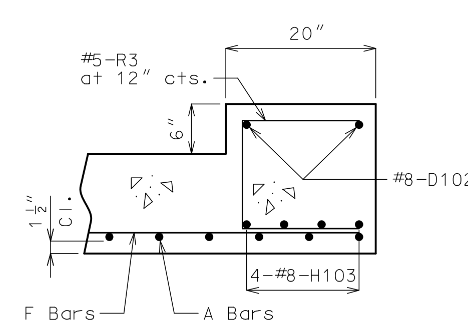
SECTION F-F
BARREL REINFORCEMENT



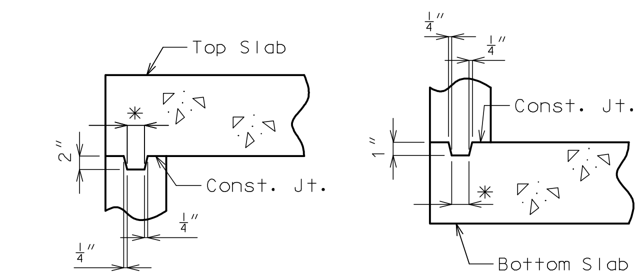
SECTION G-G
DOWNSTREAM WINGS REINFORCEMENT



SECTION THRU
UPSTREAM HEADWALL



SECTION THRU
DOWNSTREAM HEADWALL



KEYED CONSTRUCTION JOINTS

Exterior wall shown, interior wall similar

✻ Approximately one third of wall thickness

Note:

For location of Sections E-E, F-F, and G-G, see Sheet No. 3.

Detailed Dec. 2020
Checked Mar. 2021

Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TED S. KOESTER
NUMBER PE-2013000591
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	7/29/2021
ROUTE	A
STATE	MO
DISTRICT	BR
SHEET NO.	7
COUNTY	PERRY
JOB NO.	J9S3499
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	A8715

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

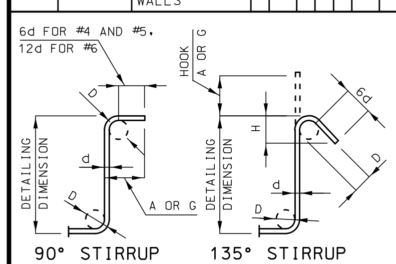
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE	MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	H FT. IN.	K FT. IN.	NOMINAL LENGTH FT. IN.	ACTUAL LENGTH FT. IN.	WEIGHT LBS.
			BOTTOM SLAB																
25	5	A103	BOTTOM SLAB	E	20			V	1	21 1.000							21 1	21 1	
			INCREMENT =							2 8.000							2 8	2 8	310
			9.250 INCH																
187	5	A104	BOTTOM SLAB	E	20					21 10.000							21 10	21 10	4258
5	5	A105	BOTTOM SLAB	E	20			V	1	18 4.000							18 4	18 4	
			INCREMENT =							4 3.000							4 3	4 3	59
			42.250 INCH																
64	4	F100	BOTTOM SLAB	E	20					41 11.000							41 11	41 11	1792
7	4	F101	BOTTOM SLAB	E	20					41 2.000							41 2	41 2	192
2	4	F102	BOTTOM SLAB	E	20					42 0.000							42 0	42 0	56
3	4	F103	BOTTOM SLAB	E	20					38 8.000							38 8	38 8	77
2	4	F104	BOTTOM SLAB	E	20					52 5.000							52 5	52 5	70
228	6	H100	BOTTOM SLAB	E	20					8 4.000							8 4	8 4	2854
260	6	J100	BOTTOM SLAB		19	S				10 6.000	4 6.875						15 1	14 11	5825
66	6	J101	BOTTOM SLAB		19	S				10 6.000	4 6.875						15 1	14 11	1479
76	6	J102	BOTTOM SLAB		19	S				10 6.000	4 6.875						15 1	14 11	1703
			TOP SLAB																
86	5	A100	TOP SLAB	E	20					21 10.000							21 10	21 10	1958
21	5	A101	TOP SLAB	E	20			V	1	21 0.000							21 0	21 0	
			INCREMENT =							2 4.000							2 4	2 4	256
			11.250 INCH																
4	5	A102	TOP SLAB	E	20			V	1	21 10.000							21 10	21 10	
			INCREMENT =							4 9.000							4 9	4 9	55
			68.375 INCH																
2	8	D101	TOP SLAB	E	20					22 3.000							22 3	22 3	119
2	8	D102	TOP SLAB	E	20					27 6.000							27 6	27 6	147
38	4	F105	TOP SLAB	E	20			V	1	39 2.000							39 2	39 2	
			INCREMENT =							38 5.000							38 5	38 5	985
			0.250 INCH																
4	4	F106	TOP SLAB	E	20					38 7.000							38 7	38 7	103
10	4	F107	TOP SLAB	E	20			V	1	44 10.000							44 10	44 10	
			INCREMENT =							33 1.000							33 1	33 1	260
			15.625 INCH																
4	4	F108	TOP SLAB	E	20					39 2.000							39 2	39 2	105
57	6	H101	TOP SLAB	E	20					9 0.000							9 0	9 0	771
61	6	H102	TOP SLAB	E	20					5 4.000							5 4	5 4	489
4	8	H103	HEADWALL	E	20					27 6.000							27 6	27 6	294
4	8	H104	HEADWALL	E	20					22 3.000							22 3	22 3	238
290	5	J103	TOP SLAB	E	20					4 4.000							4 4	4 4	1311
6	7	J104	TOP SLAB	E	20					23 0.000							23 0	23 0	282
4	7	J105	TOP SLAB	E	20					28 6.000							28 6	28 6	233
			HEADWALL																
22	5	R1	HEADWALL		27	S				17.000	8.875	5.875	2 2.375		4.125	4.125	4 10	4 8	107
22	5	R2	HEADWALL		10	S					10.500	13.000					2 10	2 8	61
26	5	R3	HEADWALL		10						17.000	13.000					3 11	3 8	99
			WALLS																

BILL OF REINFORCING STEEL

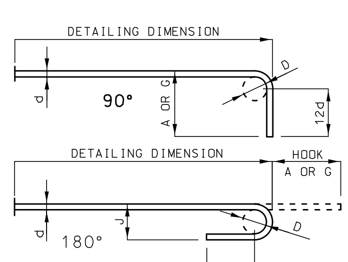
NO. REQ'D.	MARK NO. SIZE	MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	H FT. IN.	K FT. IN.	NOMINAL LENGTH FT. IN.	ACTUAL LENGTH FT. IN.	WEIGHT LBS.
23	4	F110	WALLS	E	20					59 10.000							59 10	59 10	919
7	4	F111	WINGS	E	20			V	1	29 2.000							29 2	29 2	
			INCREMENT =							13 7.000							13 7	13 7	100
			31.125 INCH																
7	4	F112	WINGS	E	20			V	1	33 1.000							33 1	33 1	
			INCREMENT =							14 0.000							14 0	14 0	110
			38.125 INCH																
7	4	F113	WALLS	E	20			V	1	59 3.000							59 3	59 3	
			INCREMENT =							43 7.000							43 7	43 7	240
			31.375 INCH																
7	4	F114	WALLS	E	20			V	1	29 2.000							29 2	29 2	
			INCREMENT =							40 1.000							40 1	40 1	162
			21.875 INCH																
4	4	F115	WALLS	E	20					37 4.000							37 4	37 4	100
14	4	F116	WALLS	E	20			V	1	36 11.000							36 11	36 11	
			INCREMENT =							21 3.000							21 3	21 3	272
			14.500 INCH																
78	5	G100	WINGS	E	20			V	1	10 6.000							10 6	10 6	
			INCREMENT =							2 1.000							2 1	2 1	512
			1.250 INCH																
47	5	G102	WINGS	E	20			V	1	10 1.000							10 1	10 1	
			INCREMENT =							2 0.000							2 0	2 0	296
			2.125 INCH																
228	5	B100	WALLS	E	20					10 5.000							10 5	10 5	2477
			TOE WALL																
20	5	E100	TOE WALL	E	20					4 1.000							4 1	4 1	85
			TOTALS																
	4			E															5543
	5																		267
	5			E															11577
	6																		9007
	6			E															4114
	7			E															515
	8			E															798
			TOTAL																9274
			TOTAL	E															22547



STIRRUP HOOK DIMENSIONS

GRADES 40 - 50 - 60 KSI				
BAR SIZE	D (IN.)	90° HOOK: HOOK A OR G	135° HOOK: HOOK A OR G	135° HOOK: APPROX. H
#4	2″	4 1/2″	4 1/2″	3″
#5	2 1/2″	6″	5 1/2″	3 3/4″
#6	4 1/2″	12″	8″	4 1/2″

NOTE: UNLESS OTHERWISE NOTED, DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.



END HOOK DIMENSIONS

BAR SIZE	D (IN.)	ALL GRADES: 180° HOOKS A OR G	ALL GRADES: 180° HOOKS J	ALL GRADES: 90° HOOKS A OR G
#3	2 1/4″	5″	3″	6″
#4	3″	6″	4″	8″
#5	3 3/4″	7″	5″	10″
#6	4 1/2″	8″	6″	12″
#7	5 1/4″	10″	7″	14″
#8	6″	11″	8″	16″
#9	9 1/2″	15″	11 3/4″	19″
#10	10 3/4″	17″	13 1/4″	22″
#11	12″	19″	14 3/4″	2′-0″
#14	18 1/4″	2′-3″	21 3/4″	2′-7″

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEGREE ARE TO BE BENT WITH SAME PROCEDURE AS FOR 90 DEGREE STANDARD HOOKS.

HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.

E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.

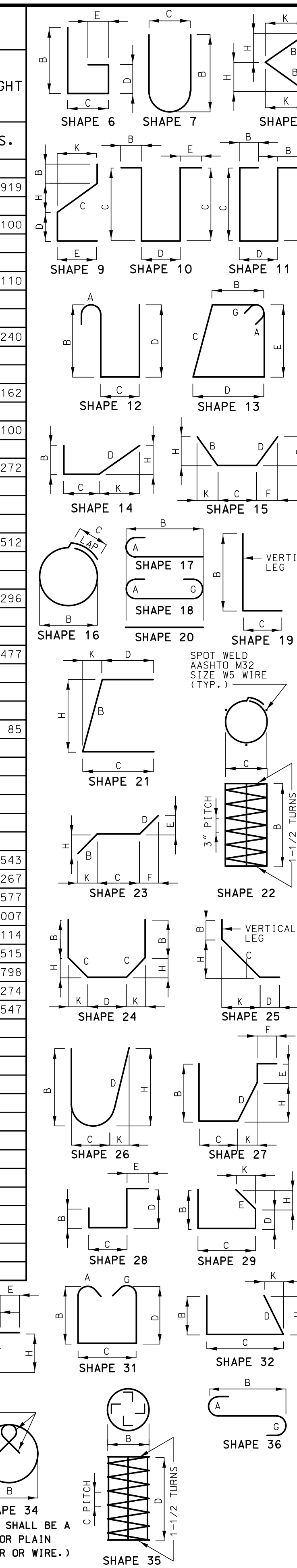
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATORS USE. (NEAREST INCH)

ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.

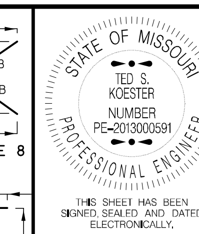
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.

FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.

REINFORCING STEEL (GRADE 60) FY = 60,000 PSI.



BENDING DIAGRAMS



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
7/29/2021	
ROUTE: A	STATE: MO
DISTRICT: BR	SHEET NO.: 8
COUNTY: PERRY	
JOB NO.: J9S3499	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.: A8715	

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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

Detailed Dec. 2021
Checked Mar. 2021

Note: This drawing is not to scale. Follow dimensions.