

**DESIGN DESIGNATION**

A.A.D.T.(WB ROUTE 36) - 2020 = 8,694  
 A.A.D.T.(WB ROUTE 36) - 2040 = 11,642  
 T = 39.6%  
 V = 65 MPH  
 FUNCTIONAL CLASSIFICATION - RURAL MINOR ARTERIAL  
 A.A.D.T.(ROUTE 13) - 2020 = 2,213  
 A.A.D.T.(ROUTE 13) - 2040 = 2,445  
 T = 18.7%  
 V = 35 MPH  
 FUNCTIONAL CLASSIFICATION - MINOR PRINCIPAL ARTERIAL

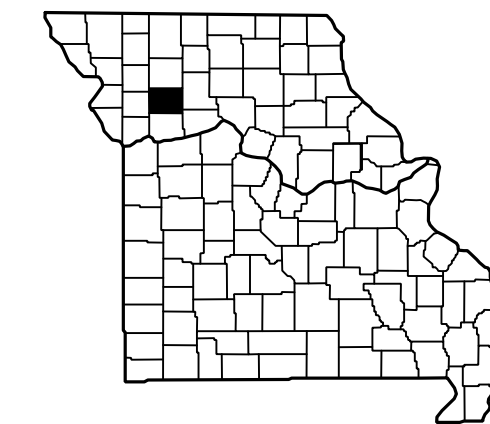
**NO RIGHT-OF-WAY REQUIRED**

**CONVENTIONAL SYMBOLS**  
(USED IN PLANS)

	EXISTING	NEW
BUILDINGS AND STRUCTURES		
GUARD RAIL		
CONCRETE RIGHT-OF-WAY MARKER		
STEEL RIGHT-OF-WAY MARKER		
LOCATION SURVEY MARKER		
SILT FENCE		
UTILITIES		
FIBER OPTICS		
OVERHEAD TELEPHONE		
UNDERGROUND TELEPHONE		
OVERHEAD POWER		
UNDERGROUND POWER		
GAS		
WATER		
POWER/TELEPHONE/CABLE POLE		
MAILBOX		
GUY WIRE		
MANHOLE		
FIRE HYDRANT		
WATER VALVE		
WATER METER		
DROP INLET		
DITCH BLOCK		
GROUND MOUNTED SIGN		
LIGHT POLE		
H-FRAME POWER POLE		
TELEPHONE PEDESTAL		
FENCE		
CHAIN LINK		
WOVEN WIRE		
GATE POST		
BENCHMARK		

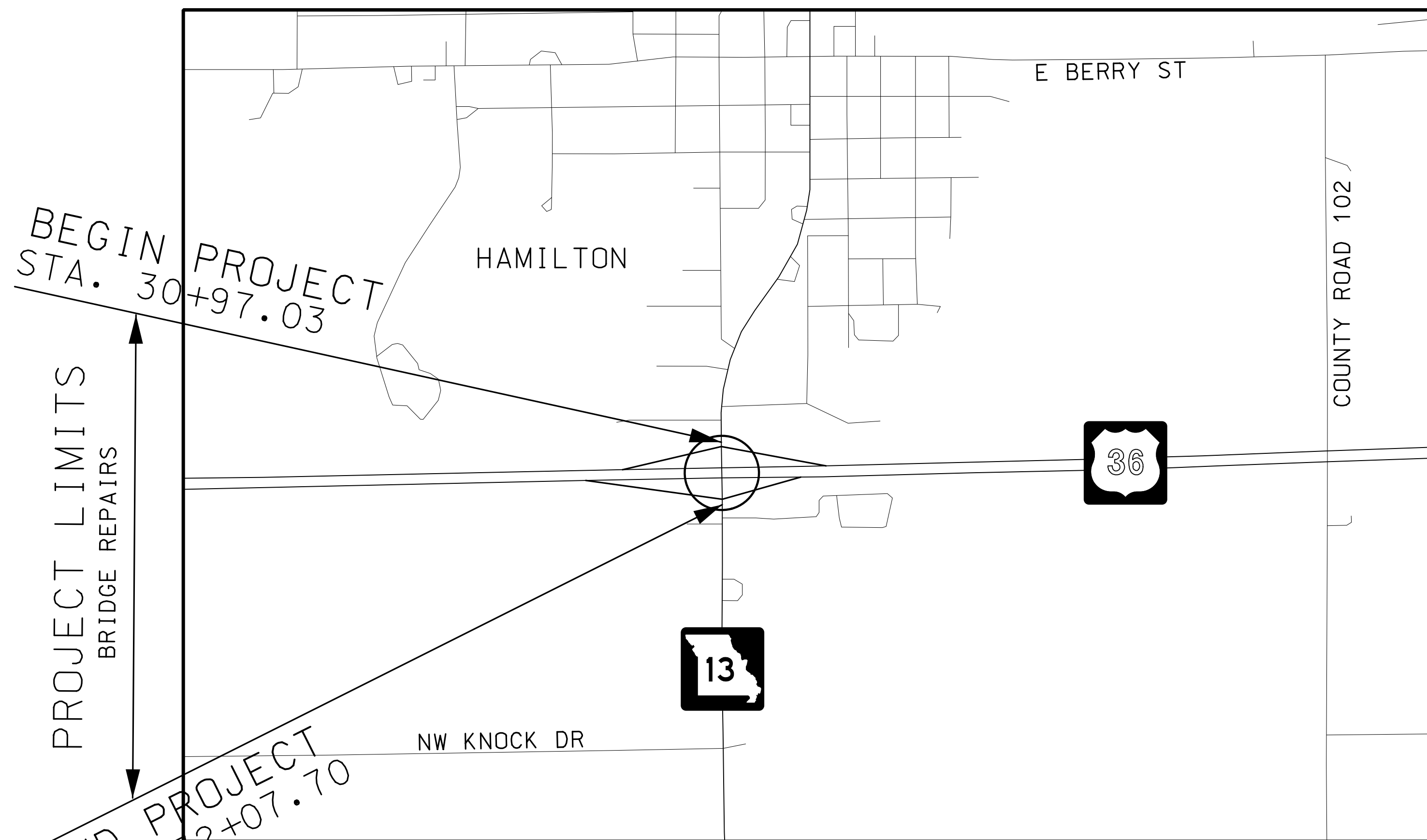
NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  
 PLANS FOR PROPOSED  
 STATE HIGHWAY  
 CALDWELL COUNTY



KEY MAP  
SHOWING LOCATION OF COUNTY

S24 T57N R28W



NOT TO SCALE

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.

DISCLAIMER  
 THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) SPECIFICATION, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.

**INDEX OF SHEETS**

DESCRIPTION	SHEET NUMBER
TITLE SHEET -----	1
QUANTITIES (QU) (1 SHEET)-----	2
PLAN SHEET (P) -----	3
TRAFFIC CONTROL (TC)-----	4-13
PAVEMENT MARKING (PM)-----	14
SIGNING (SN)-----	15-16
BRIDGE PLANS (B)-----	1-12



4/9/2020  
 DATE PREPARED  
 1/10/2020  
 ROUTE 13 STATE MO  
 DISTRICT NW SHEET NO. 1  
 COUNTY CALDWELL  
 JOB NO. J1S3359  
 CONTRACT ID.  
 PROJECT NO.  
 BRIDGE NO. A00102

DESCRIPTION	DATE

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

HORNER SHIFRIN  
 401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103  
 314-531-4321 - FAX 314-531-6896  
 WWW.HORNERSHIFRIN.COM  
 DISCIPLINE: PROFESSIONAL ENGINEERING  
 EXPIRATION DATE: DECEMBER 31, 2020

TITLE SHEET  
 ROUTE 13  
 SHEET 1 OF 1

**LENGTH OF PROJECT**  
 ROUTE 13

BEGINNING OF PROJECT	STA. 30+97.03
END OF PROJECT	STA. 32+07.70
APPARENT LENGTH	110.7 FEET
EQUATIONS AND EXCEPTIONS:	NONE
BRIDGE EXCEPTIONS	0.0 FEET

TOTAL CORRECTIONS	NONE
TOTAL BRIDGE EXCEPTIONS	0.0 FEET
NET LENGTH OF PROJECT	0.0 FEET
STATE LENGTH	0.021 MILES

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

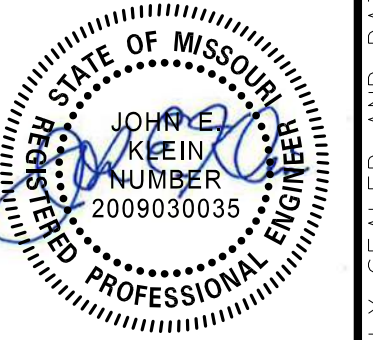
SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
<b>WARNING SIGNS</b>								
W01-1L	48X48	16.00						TURN (SYMBOL LEFT ARROW)
W01-1R	48X48	16.00						TURN (SYMBOL RIGHT ARROW)
W01-2L	48X48	16.00						CURVE (SYMBOL LEFT ARROW)
W01-2R	48X48	16.00						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	1	16.00			15	REVERSE CURVE (SYMBOL LEFT ARROW)
W01-4R	48X48	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						SIGNAL AHEAD (SYMBOL)
W03-4	48X48	16.00						BE PREPARED TO STOP
W03-5	48X48	16.00						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	1	16.00			6B	MERGE (ARROW SYMBOL)
W04-1aR	48X48	16.00	1	16.00			6A	MERGE (ARROW SYMBOL)
W05-1	48X48	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
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	1	6.25			44	ADVISORY SPEED (PLAQUE)
W016-2	30X24	5.00						XXX FEET (PLAQUE)
W016-3	30X24	5.00						X MILE (PLAQUE)
W020-1	48X48	16.00	4	64.00			2	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			7	ONE LANE ROAD AHEAD
W020-5	48X48	16.00	2	32.00			5	RIGHT/CENTER/LEFT LANE CLOSED AHEAD
W020-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
W020-6a	48X48	16.00	1	16.00			6	RIGHT/CENTER/LEFT LANE CLOSED
W020-7a	48X48	16.00	2	32.00			8	FLAGGER (SYMBOL) WITH FLAGS
W021-2	36X36	9.00						FRESH OIL
W021-5	48X48	16.00						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 AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
<b>GUIDE SIGNS</b>								
E05-1	36X48	12.00	1	12.00			49	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						END ROAD WORK
G020-4	36X18	4.50						PILOT CAR FOLLOW ME
G020-4a	42X30	8.75						PLEASE WAIT FOR PILOT CAR
G020-5aP	36X24	6.00	3	18.00			54	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					9	STREET NAME (PLAQUE)
M04-10L	48X18	6.00					5	DETOUR (ARROW LEFT)
M04-10R	48X18	6.00						DETOUR (ARROW RIGHT)
<b>REGULATORY SIGNS</b>								
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			4/4A/25	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						NO U-TURN
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	2	4.00			55	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						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)
<b>MISCELLANEOUS SIGNS</b>								
CONST-5	48X36	12.00						POINT OF PRESENCE
CONST-4	96X48	32.00						POINT OF PRESENCE
CONST-7	48X24	8.00						RATE OUR WORK ZONE
CONST-7	72X36	18.00						RATE OUR WORK ZONE
CONST-8	48X36	12.00						WORK ZONE NO PHONE ZONE
<b>TOTAL</b>								
616-10.05 CONSTRUCTION SIGNS				312				
616-10.10 RELOCATED SIGNS				0				

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		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		REPLACEMENT SAND BARREL
6122030		IMPACT ATTENUATOR (RELOCATION)
6123000A		TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
6161007		SPEED LIMIT AND STROBE LIGHT ASSEMBLY
6161008	9	ADVANCED WARNING RAIL SYSTEM
6161009	5	FLAG ASSEMBLY
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161024		CHANNELIZER (TRIM LINE) WITH LIGHT
6161025	70	CHANNELIZER (TRIM LINE)
6161030	2	TYPE III MOVEABLE BARRICADE
6161031		TYPE III MOVEABLE BARRICADE WITH LIGHTS
6161033	19	DIRECTION INDICATOR BARRICADE
6161034		DIRECTION INDICATOR BARRICADE, WITH LIGHT
6161040	1	FLASHING ARROW PANEL
6161047		TYPE III OBJECT MARKER
6161052		WARNING LIGHT, TYPE B
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		WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002		TEMPORARY LONG-TERM RUMBLE STRIPS
6162004		TEMPORARY SHORT-TERM RUMBLE STRIPS
6173600D	181	TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/RETAINED
6173602B		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED
6174000A	2	TEMP. TRAFFIC BARRIER HEIGHT TRANSITION
6175010A	181	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
6205303B	533	PREFORMED REMOVABLE MARKING TAPE 4 IN., YELLOW
6207001	333	PAVEMENT MARKING REMOVAL
6206000C	266	4IN. WHITE STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS
6206001C	67	4IN. YELLOW STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS

DISCLAIMER  
 THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) SPECIFICATION, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.

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.



DATE PREPARED  
1/10/2020

ROUTE 13	STATE MO
DISTRICT NW	SHEET NO. 3
COUNTY CALDWELL	
JOB NO. J1S3359	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A00102	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

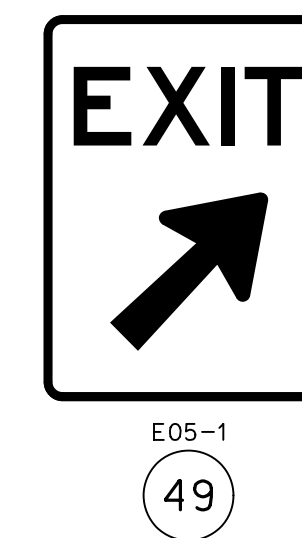
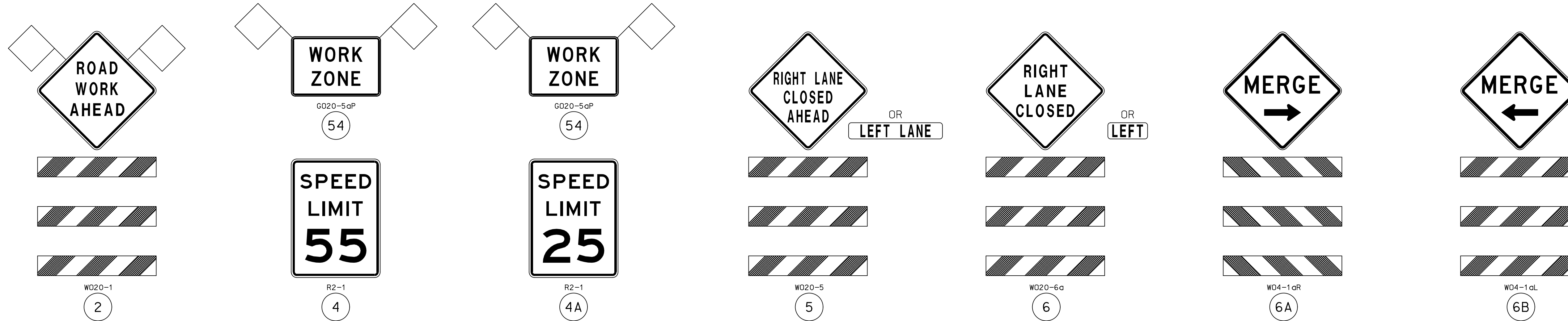
105 WEST CAPITOL  
 JEFFERSON CITY, MO 65102  
 1-888-ASK-MODOT (1-888-275-6636)

**HORNER SHIFRIN**

401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103  
 314-531-4321 - FAX 314-531-6886  
 WWW.HORNERSHIFRIN.COM  
 DISCIPLINE: PROFESSIONAL ENGINEERING  
 EXPIRATION DATE: DECEMBER 31, 2020

PLAN SHEET  
 ROUTE 13  
 SHEET 1 OF 1

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



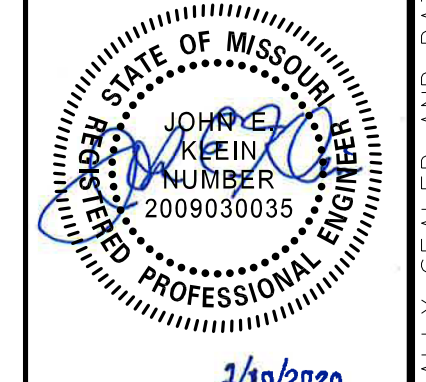
**GENERAL NOTES:**

- 1) ALL SIGNING AND ANY REQUIRED TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 2) SIGN LOCATIONS TO BE APPROVED BY ENGINEER.
- 3) DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS WITH PERMISSION OF THE ENGINEER.
- 4) ANY EXISTING SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COVERED OR REMOVED.
- 5) ALL TRAFFIC CONTROL ITEMS WHICH ARE NOT INCLUDED IN THE PAY ITEMS ARE TO BE CONSIDERED INCIDENTAL.
- 6) NO DIRECT PAYMENT WILL BE MADE FOR RELOCATION OF TCP SIGNS AND DEVICES.

**DISCLAIMER**  
 THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) SPECIFICATION, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.

**TRAFFIC CONTROL LEGEND**

- SIGN (SINGLE SIDED)
- WORK AREA
- CHANNELIZER (TRIM-LINE) WITH LIGHT
- FLASHING ARROW PANEL
- DIRECTIONAL INDICATOR BARRICADES
- FLAGGER
- TYPE III MOVEABLE BARRICADE



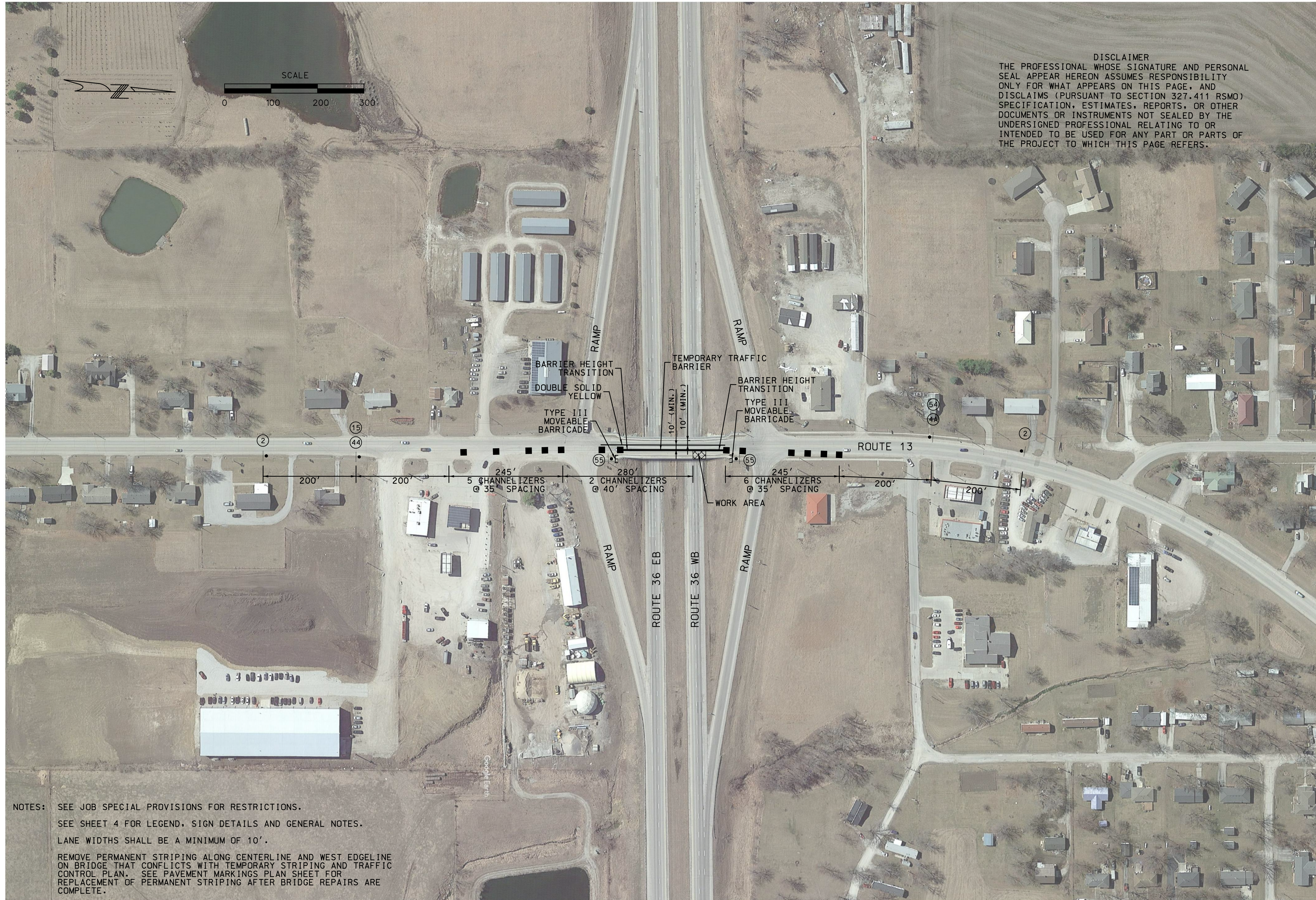
DATE PREPARED: 1/10/2020  
 ROUTE: 13 STATE: MO  
 DISTRICT: NW SHEET NO.: 4  
 COUNTY: CALDWELL  
 JOB NO.: J1S3359  
 CONTRACT ID.:  
 PROJECT NO.:  
 BRIDGE NO.: A00102

DATE	DESCRIPTION

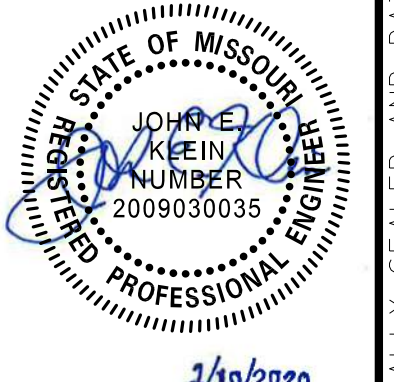
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  
**MODOT**  
 105 WEST CAPITOL JEFFERSON CITY, MO 65102  
 1-888-ASK-MODOT (1-888-275-6636)

**HORNER SHIFRIN**  
 401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103  
 314-531-4321 - FAX 314-531-6886  
 WWW.HORNERSHIFRIN.COM  
 DISCIPLINE: PROFESSIONAL ENGINEERING  
 EXPIRATION DATE: DECEMBER 31, 2020

**TRAFFIC CONTROL PLAN**  
**DETAILS**  
 SHEET 1 OF 1



DISCLAIMER  
 THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) SPECIFICATION, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.



DATE PREPARED 1/10/2020	
ROUTE 13	STATE MO
DISTRICT NW	SHEET NO. 5
COUNTY CALDWELL	
JOB NO. J1S3359	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A00102	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

**HORNER SHIFRIN**

401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103  
 314-531-4321 - FAX 314-531-6886  
 WWW.HORNERSHIFRIN.COM  
 DISCIPLINE: PROFESSIONAL ENGINEERING  
 EXPIRATION DATE: DECEMBER 31, 2020

TRAFFIC CONTROL PLAN  
 ROUTE 13  
 SHEET 1 OF 2

NOTES: SEE JOB SPECIAL PROVISIONS FOR RESTRICTIONS.  
 SEE SHEET 4 FOR LEGEND, SIGN DETAILS AND GENERAL NOTES.  
 LANE WIDTHS SHALL BE A MINIMUM OF 10'.  
 REMOVE PERMANENT STRIPING ALONG CENTERLINE AND WEST EDGELINE ON BRIDGE THAT CONFLICTS WITH TEMPORARY STRIPING AND TRAFFIC CONTROL PLAN. SEE PAVEMENT MARKINGS PLAN SHEET FOR REPLACEMENT OF PERMANENT STRIPING AFTER BRIDGE REPAIRS ARE COMPLETE.

STAGE 1: LANE SHIFT ON ROUTE 13 FOR BRIDGE REPAIRS

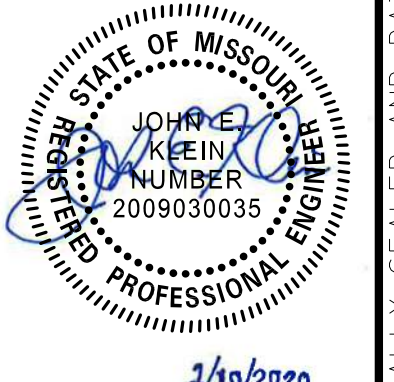
LANE SHIFT ON ROUTE 13

ROUTE 13 STAGE 1 SHEET 1 OF 1

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



**DISCLAIMER**  
 THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) SPECIFICATION, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.



DATE PREPARED 1/10/2020	
ROUTE 13	STATE MO
DISTRICT NW	SHEET NO. 6
COUNTY CALDWELL	
JOB NO. J1S3359	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A00102	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

**HORNER SHIFRIN**

401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103  
 314-531-4321 - FAX 314-531-6896  
 WWW.HORNERSHIFRIN.COM  
 DISCIPLINE: PROFESSIONAL ENGINEERING  
 EXPIRATION DATE: DECEMBER 31, 2020

**TRAFFIC CONTROL PLAN**  
**ROUTE 13**  
**SHEET 2 OF 2**

NOTES: USE STAGE 2 SINGLE SHARED LANE PLAN FOR ROUTE 36 AS NEEDED AND DIRECTED BY ENGINEER.  
 SEE JOB SPECIAL PROVISIONS FOR RESTRICTIONS.  
 SEE SHEET 4 FOR LEGEND, SIGN DETAILS AND GENERAL NOTES.  
 LANE WIDTHS SHALL BE A MINIMUM OF 10'.

STAGE 2: LEFT LANE CLOSURE ON ROUTE 13 FOR BRIDGE REPAIRS

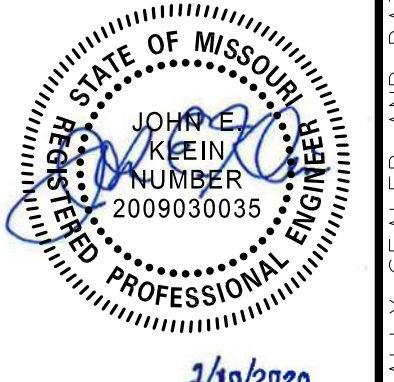
SINGLE SHARED LANE ON ROUTE 13

ROUTE 13 STAGE 2  
 SHEET 1 OF 1

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



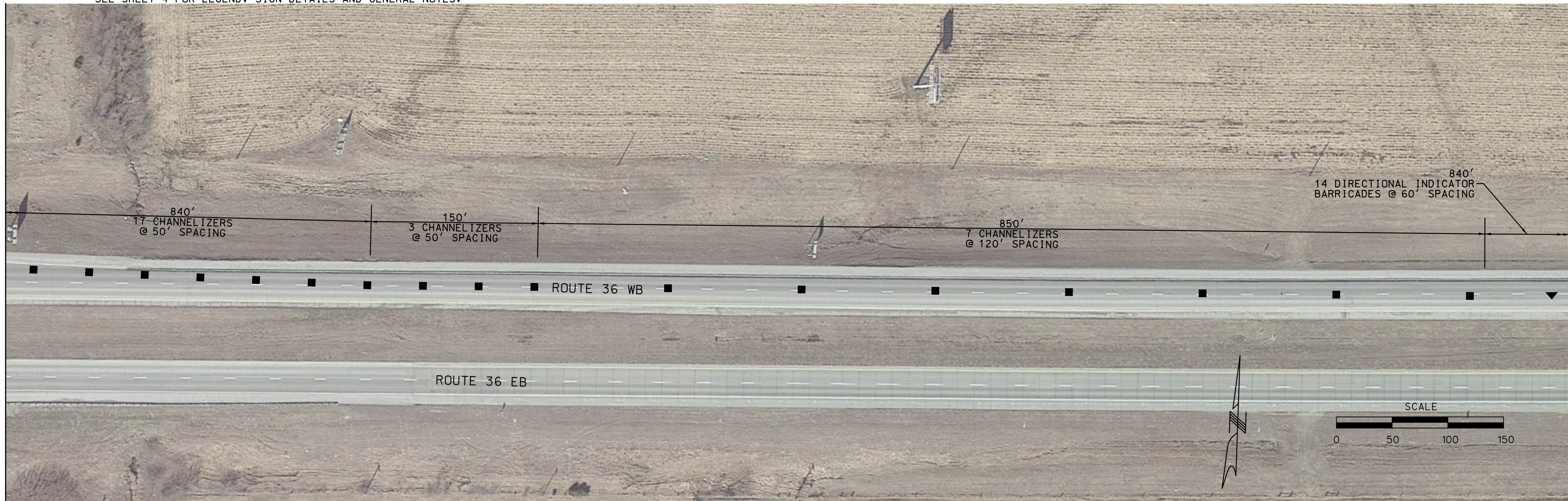
DISCLAIMER  
 THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) SPECIFICATION, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.



DATE PREPARED 1/10/2020	
ROUTE 13	STATE MO
DISTRICT NW	SHEET NO. 7
COUNTY CALDWELL	
JOB NO. J1S3359	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A00102	

DESCRIPTION	DATE

NOTES: ANY WORK REQUIRING FULL CLOSURE OF ROUTE 36, SUCH AS GIRDER REPLACEMENT, SHALL BE DONE DURING WEEKENDS AND AS DIRECTED BY THE ENGINEER.  
 SEE JOB SPECIAL PROVISIONS FOR RESTRICTIONS.  
 SEE SHEET 4 FOR LEGEND, SIGN DETAILS AND GENERAL NOTES.



STAGE 1: OUTSIDE LANE CLOSURE ON WB ROUTE 36 FOR BRIDGE REPAIRS

OUTSIDE LANE CLOSURE ON WB ROUTE 36

ROUTE 36 STAGE 1 SHEET 1 OF 4

MATCHLINE SEE ABOVE

MATCHLINE SEE SHEET 8

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

**HORNER SHIFRIN**

401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103  
 314-531-4321 • FAX 314-531-6886  
 WWW.HORNERSHIFRIN.COM  
 DISCIPLINE: PROFESSIONAL ENGINEERING  
 EXPIRATION DATE: DECEMBER 31, 2020

TRAFFIC CONTROL PLAN  
 ROUTE 36  
 SHEET 1 OF 7

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







DISCLAIMER  
 THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) SPECIFICATION, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.

MATCHLINE SEE SHEET 9

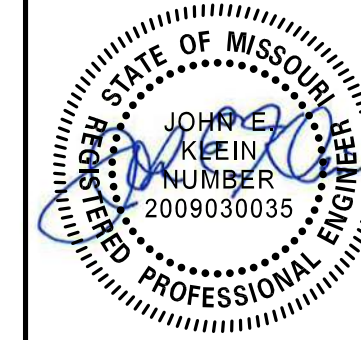


NOTES: ANY WORK REQUIRING FULL CLOSURE OF ROUTE 36, SUCH AS GIRDER REPLACEMENT, SHALL BE DONE DURING WEEKENDS AND AS DIRECTED BY THE ENGINEER.  
 SEE JOB SPECIAL PROVISIONS FOR RESTRICTIONS.  
 SEE SHEET 4 FOR LEGEND, SIGN DETAILS AND GENERAL NOTES.

STAGE 1: OUTSIDE LANE CLOSURE ON WB ROUTE 36 FOR BRIDGE REPAIRS

OUTSIDE LANE CLOSURE ON WB ROUTE 36

ROUTE 36 STAGE 1 SHEET 4 OF 4



DATE PREPARED 1/10/2020	
ROUTE 13	STATE MO
DISTRICT NW	SHEET NO. 10
COUNTY CALDWELL	
JOB NO. J1S3359	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A00102	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

**HORNER SHIFRIN**

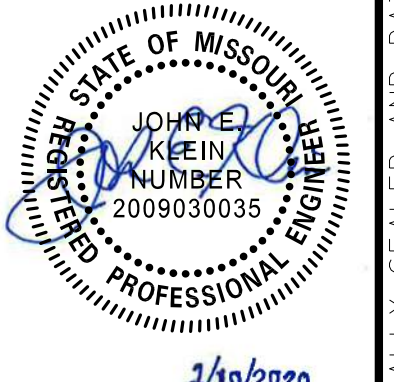
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103  
 314-531-4321 - FAX 314-531-6886  
 WWW.HORNERSHIFRIN.COM  
 DISCIPLINE: PROFESSIONAL ENGINEERING  
 EXPIRATION DATE: DECEMBER 31, 2020

TRAFFIC CONTROL PLAN  
 ROUTE 36  
 SHEET 4 OF 7

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



DISCLAIMER  
 THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) SPECIFICATION, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.



DATE PREPARED 1/10/2020	
ROUTE 13	STATE MO
DISTRICT NW	SHEET NO. 11
COUNTY CALDWELL	
JOB NO. J1S3359	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A00102	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

**HORNER SHIFRIN**

401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103  
 314-531-4321 • FAX 314-531-6886  
 WWW.HORNERSHIFRIN.COM  
 DISCIPLINE: PROFESSIONAL ENGINEERING  
 EXPIRATION DATE: DECEMBER 31, 2020

TRAFFIC CONTROL PLAN  
 ROUTE 36  
 SHEET 5 OF 7

MATCHLINE SEE BELOW

NOTES: ANY WORK REQUIRING FULL CLOSURE OF ROUTE 36, SUCH AS GIRDER REPLACEMENT, SHALL BE DONE DURING WEEKENDS AND AS DIRECTED BY THE ENGINEER.  
 SEE JOB SPECIAL PROVISIONS FOR RESTRICTIONS.  
 SEE SHEET 4 FOR LEGEND, SIGN DETAILS AND GENERAL NOTES.



STAGE 2: INSIDE LANE CLOSURE ON WB ROUTE 36 FOR BRIDGE REPAIRS

INSIDE LANE CLOSURE ON WB ROUTE 36

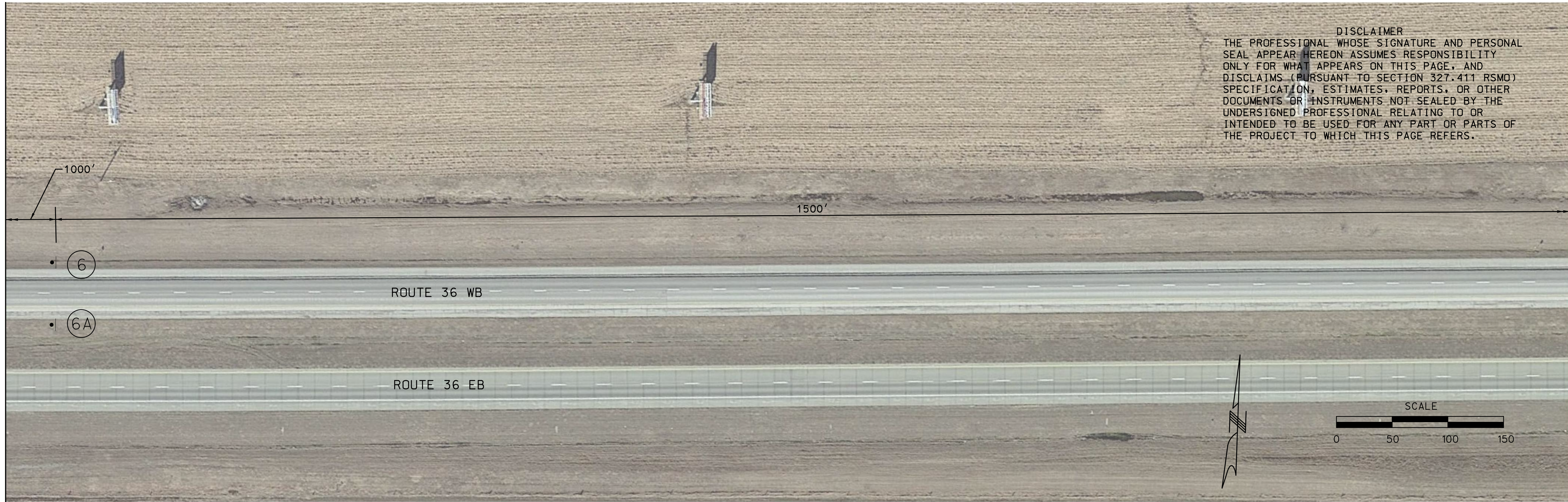
ROUTE 36 STAGE 2 SHEET 1 OF 3

MATCHLINE SEE ABOVE

MATCHLINE SEE SHEET 12

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

MATCHLINE SEE SHEET 11



DISCLAIMER  
 THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) SPECIFICATION, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.



DATE PREPARED	
1/10/2020	
ROUTE	STATE
13	MO
DISTRICT	SHEET NO.
NW	12
COUNTY	
CALDWELL	
JOB NO.	
J1S3359	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
A00102	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

HORNER SHIFRIN

401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103  
 314-531-4321 - FAX 314-531-6996  
 WWW.HORNERSHIFRIN.COM  
 DISCIPLINE: PROFESSIONAL ENGINEERING  
 EXPIRATION DATE: DECEMBER 31, 2020

TRAFFIC CONTROL PLAN

ROUTE 36  
 SHEET 6 OF 7

MATCHLINE SEE ABOVE



STAGE 2: INSIDE LANE CLOSURE ON WB ROUTE 36 FOR BRIDGE REPAIRS

INSIDE LANE CLOSURE ON WB ROUTE 36

ROUTE 36 STAGE 2 SHEET 2 OF 3

MATCHLINE SEE BELOW

MATCHLINE SEE SHEET 13

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

DISCLAIMER  
 THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) SPECIFICATION, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.

MATCHLINE SEE SHEET 12



NOTES: ANY WORK REQUIRING FULL CLOSURE OF ROUTE 36, SUCH AS GIRDER REPLACEMENT, SHALL BE DONE DURING WEEKENDS AND AS DIRECTED BY THE ENGINEER.

SEE JOB SPECIAL PROVISIONS FOR RESTRICTIONS.

SEE SHEET 4 FOR LEGEND, SIGN DETAILS AND GENERAL NOTES.

STAGE 2: INSIDE LANE CLOSURE ON WB ROUTE 36 FOR BRIDGE REPAIRS

INSIDE LANE CLOSURE ON WB ROUTE 36

ROUTE 36 STAGE 2 SHEET 3 OF 3



4/9/2020

DATE PREPARED  
1/10/2020

ROUTE 13 STATE MO

DISTRICT NW SHEET NO. 13

COUNTY CALDWELL

JOB NO. J1S3359

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A00102

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

**HORNER SHIFRIN**

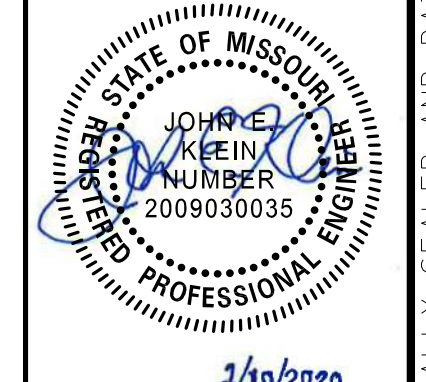
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103  
 314-531-4321 - FAX 314-531-6996  
 WWW.HORNERSHIFRIN.COM  
 DISCIPLINE: PROFESSIONAL ENGINEERING  
 EXPIRATION DATE: DECEMBER 31, 2020

TRAFFIC CONTROL PLAN  
 ROUTE 36  
 SHEET 7 OF 7

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



DISCLAIMER  
 THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) SPECIFICATION, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.



DATE PREPARED  
 1/10/2020

ROUTE 13 STATE MO  
 DISTRICT NW SHEET NO. 14  
 COUNTY CALDWELL  
 JOB NO. J1S3359  
 CONTRACT ID.  
 PROJECT NO.  
 BRIDGE NO. A00102

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

**HORNER SHIFRIN**

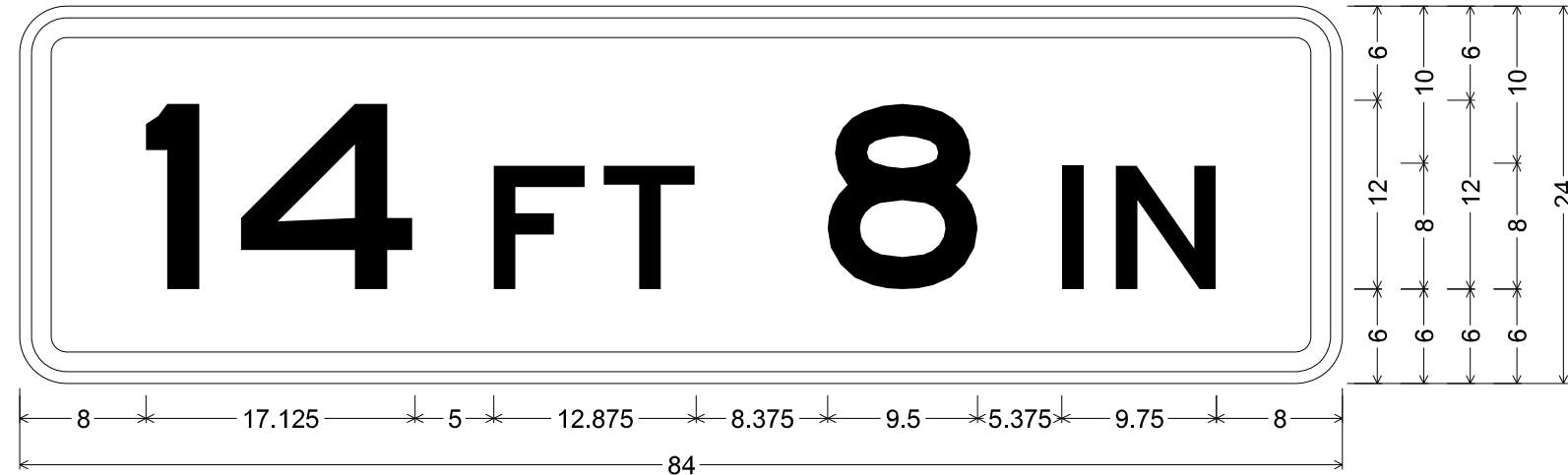
401 S. 88TH ST., STE. 400 ST. LOUIS, MO 63103  
 314-531-4321 - FAX 314-531-6886  
 WWW.HORNERSHIFRIN.COM  
 DISCIPLINE: PROFESSIONAL ENGINEERING  
 EXPIRATION DATE: DECEMBER 31, 2020

PAVEMENT MARKING PLAN  
 ROUTE 13  
 SHEET 1 OF 1

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

SIGN NO.	W12 - 2A - 84
STATION	.
ROADWAY	ROUTE 36 WB

SIGN NO.	.
STATION	.
ROADWAY	.



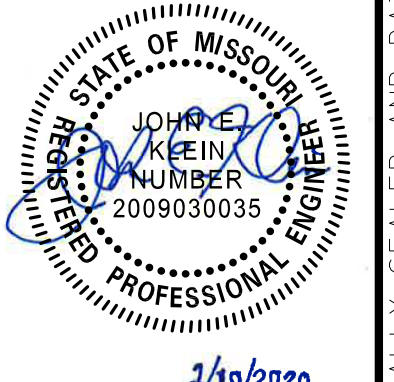
W12-2a-84 SHF-FLAT SHEET FLUORESCENT;  
 3.000" Radius, 1.250" Border, 0.750" Indent, Black on Yellow;  
 [14 FT 8 IN] E;

Table of letter and object lefts.

1	4	F	T	8	I	N
8.000	14.000	30.125	37.125	51.375	66.125	69.625

SIGN NO.	.
STATION	.
ROADWAY	.

SIGN NO.	.
STATION	.
ROADWAY	.



DATE PREPARED	1/10/2020		
ROUTE	13	STATE	MO
DISTRICT	NW	SHEET NO.	15
COUNTY	CALDWELL		
JOB NO.	J1S3359		
CONTRACT ID.	.		
PROJECT NO.	.		
BRIDGE NO.	A00102		

DESCRIPTION	DATE
.	.
.	.
.	.
.	.
.	.
.	.
.	.
.	.
.	.
.	.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

**HORNER SHIFRIN**

401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103  
 314-531-4321 - FAX 314-531-6896  
 WWW.HORNERSHIFRIN.COM  
 DISCIPLINE: PROFESSIONAL ENGINEERING  
 EXPIRATION DATE: DECEMBER 31, 2020

SIGN DETAILS  
 ROUTE 36  
 SHEET 1 OF 2

D-31

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







Estimated Quantities		
Item		Total
Partial Removal and Storage of Pedestrian Fence	linear foot	64
* Partial Removal of Superstructure	sq. foot	608
Re-installation of Pedestrian Fence	linear foot	64
Class B-2 Concrete	cu. yard	13.2
** Safety Barrier Curb	linear foot	64
Pedestrian Curb	linear foot	64
Mechanical Bar Splice	each	314
Reinforcing Steel (Epoxy Coated)	pound	5,780
Fabricated Sign Support Brackets	lump sum	1
Fabricated Structural Low Alloy Steel (Misc.)	pound	10,700
Surface Preparation for Recoating Structural Steel	lump sum	1
Field Application of Inorganic Zinc Primer	lump sum	1
Intermediate Field Coat (System G)	lump sum	1
Finish Field Coat (System G)	lump sum	1
Heat Straightening of Existing Beam	lump sum	1
Temporary Support	lump sum	1
Reset Bearing	lump sum	1

\* The cost of removing safety barrier curb, pedestrian curb, structural steel, and slab to the limits shown in the plans will be considered completely covered by the contract unit price for Partial Removal of Superstructure. See Special Provisions.

\*\* Safety Barrier Curb shall be cast-in-place option or slip form option.

Payment for slab forms will be considered completely covered by the contract unit price for the Class B-2 Concrete.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703. All hardware for forming the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and a finish type I, II or III.

Slab shall be cast-in-place with conventional forms or stay-in-place forms. Precast prestressed panels will not be permitted.

Bridge deck surface may be finished with a vibratory screed.

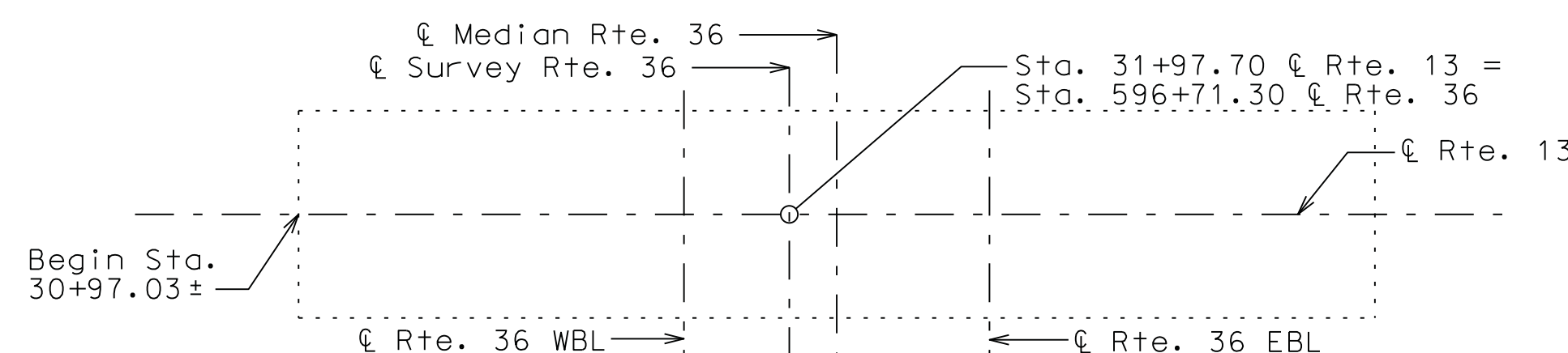
Stay-In-Place Corrugated Steel Forms: Corrugated steel forms, supports, closure elements and accessories shall be in accordance with grade requirement and coating designation G165 of ASTM A653. Complete shop drawings of the permanent steel deck forms shall be required in accordance with Sec 1080.

Corrugations of stay-in-place forms shall be filled with an expanded polystyrene material. The polystyrene material shall be placed in the forms with an adhesive in accordance with the manufacturer's recommendations.

Form sheets shall not rest directly on the top of beam flanges. Sheets shall be securely fastened to form supports with a minimum bearing length of one inch on each end. Form supports shall be placed in direct contact with the flange. Welding on or drilling holes in the beam flanges will not be permitted. All steel fabrication and construction shall be in accordance with Sec 1080 and 712. Certified field welders will not be required for welding of the form supports.

The design of stay-in-place corrugated steel forms is per manufacturer which shall be in accordance with Sec 703 for false work and forms. Maximum actual weight of corrugated steel forms allowed shall be 4 psf assumed for girder beam loading.

For slip-formed option, all sides of the safety barrier curb shall have a vertically broomed finish and the curb top shall have a transversely broomed finish.



LOCATION SKETCH

Designed: CBW  
Detailed: CAB  
Checked: TPL

GENERAL NOTES:

Design Specifications:

2002 AASHTO LFD (17th Ed.) Standard Specifications  
Seismic Performance Category A

Design Loading:

H20-44 (1953), HS20-44 (2010 & New Construction)  
Future Wearing Surface = 35 lb/sf  
Earth = 120 #/Cu. Ft.  
Equivalent Fluid Pressure = 45#/Cu. Ft.(min.)  
Fatigue Stress - Case II

Design Unit Stresses:

Class B-2 Concrete (Superstructure, except Safety Barrier Curb, Pedestrian Curb)  $f'c = 4,000$  psi  
Class B-1 Concrete (Safety Barrier Curb & Pedestrian Curb)  $f'c = 4,000$  psi  
Reinforcing Steel (Grade 60)  $fy = 60,000$  psi  
Structural Steel (ASTM A709 Grade 50)  $fy = 50,000$  psi

Fabricated Steel Connections:

Field connections shall be made with 3/4" diameter high strength bolts and 13/16" diameter holes, except as noted

Joint Filler:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

MBS refers to mechanical bar splices. Mechanical bar splices shall be in accordance with Sec 706 or 710.

All reinforcing steel shall be epoxy coated.

Structural Steel Protective Coatings:

Protective Coating: System G in accordance with Sec 1081 for new steel and areas of existing steel where existing paint system is compromised during construction of this project.

Surface Preparation: Surface preparation of the existing steel shall be in accordance with Sec 1081 for Recoating of Structural Steel (System G). The cost of surface preparation will be considered completely covered by the contract lump sum price for Surface Preparation for Recoating Structural Steel.

Prime Coat (Existing Steel): The cost of the prime coat will be considered completely covered by the contract lump sum price for Field Application of Inorganic Zinc Primer. Tint of the prime coat for System G shall be similar to the color of the field coat to be used.

Structural Steel Protective Coatings (cont.):

Prime Coat (New Steel): The cost of the prime coat will be considered completely covered by the contract unit price for the fabricated structural steel. Tint of the prime coat for System G shall be similar to the color of the field coat to be used.

Field Coat(s): The color of the field coat(s) shall be Gray (Federal Standard #26373). The cost of the intermediate field coat will be considered completely covered by the contract lump sum price for Intermediate Field Coat (System G). The cost of the finish field coat will be considered completely covered by the contract lump sum price for Finish Field Coat (System G).

Limits of Paint Overlap: System G shall overlap the existing coating between 6 inches and 12 inches in order to achieve maximum coverage at the paint limit of each complete system. The final field coating shall be masked to provide crisp, straight lines and to prevent overspray beyond the overlap required.

At the option of the contractor, the intermediate field coat and finish field coat may be applied in the shop for new steel. The contractor shall exercise extreme care during all phases of loading, hauling, handling, erection and pouring of the slab to minimize damage and shall be fully responsible for all repairs and cleaning of the coating systems as required by the engineer.

Traffic Handling:

Maintain existing vertical clearance during construction.

Maintain one lane on WB Rte. 36 and one shared lane on Rte. 13 during active construction. No permanent lane restrictions. See Roadway Plans.

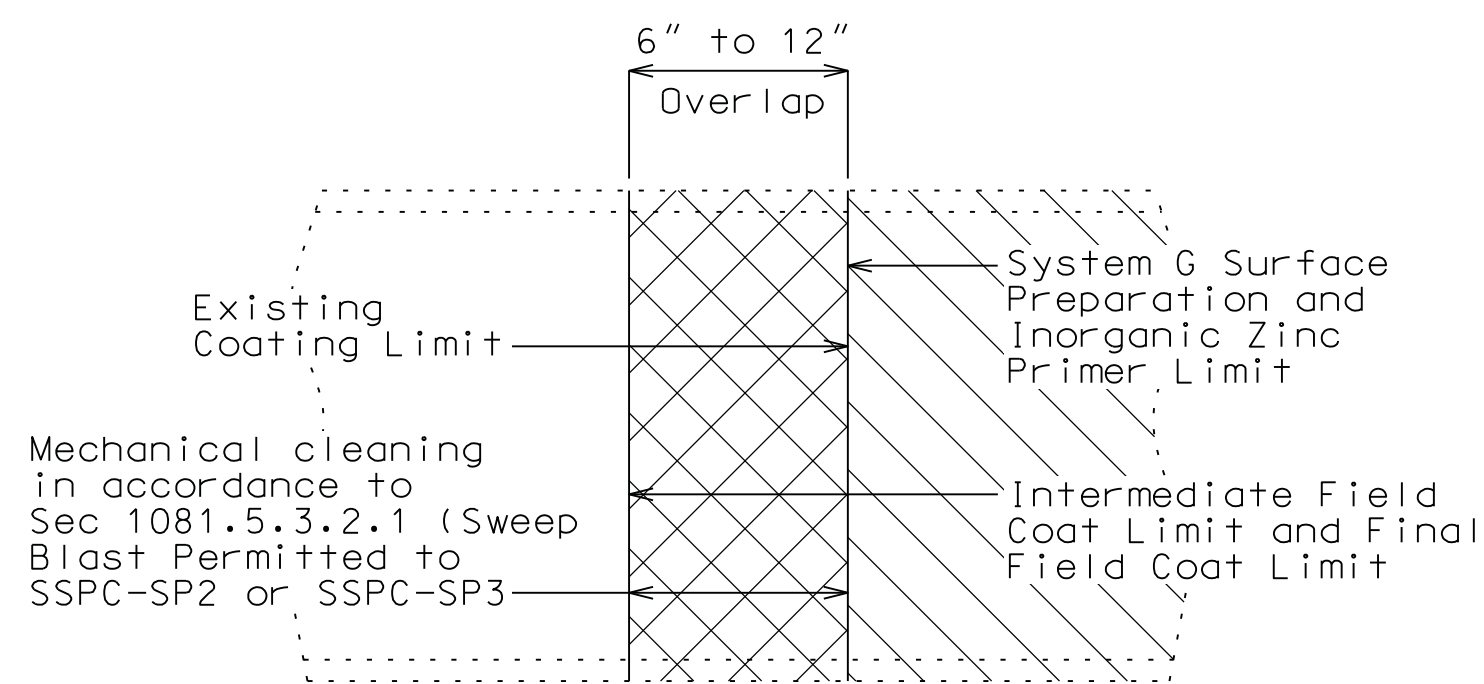
Miscellaneous:

High strength bolts, nuts and washers will be sampled for quality assurance as specified in Sec 106.

Outline of old work is indicated by light dashed lines. Heavy lines indicate new work.

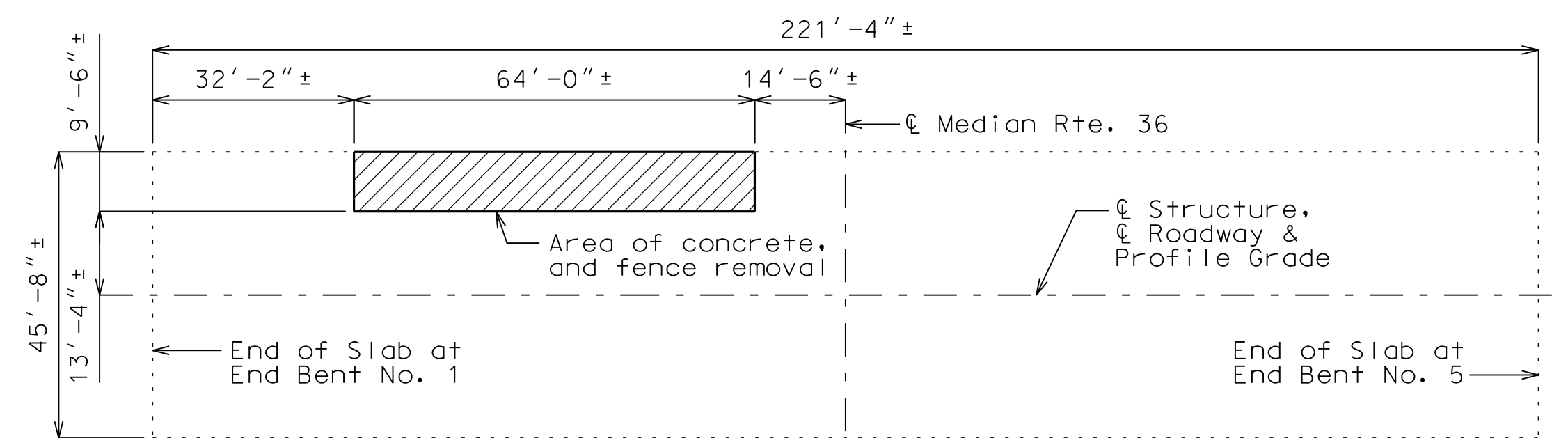
The Contractor shall verify all dimensions in field before ordering new material.

The Temporary Support shall be designed to support 23 kips, unfactored dead load. See Special Provisions.



PART ELEVATION SHOWING LIMITS OF PAINT OVERLAP

(Vertical or horizontal paint limit. Horizontal limit shown)



SLAB PLAN SHOWING AREA OF CONCRETE REMOVAL

Notes:

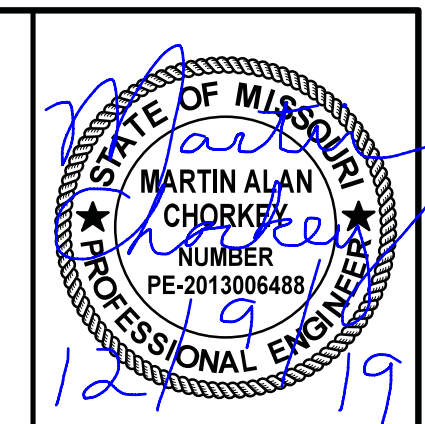
The contractor shall saw cut 1" deep along limits of removal to create a clean break line.

All dimensions are horizontal.

The removal of the concrete slab and concrete barrier to the limits shown will be considered completely covered by the contract unit price for Partial Removal of Superstructure. See Special Provisions.

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

Sheet No. 2 of 12



DATE PREPARED 12/9/2019	
ROUTE 13	STATE MO
DISTRICT BR	SHEET NO. 2
COUNTY CALDWELL	
JOB NO. J1S3359	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A00102	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

HORNER SHIFRIN

402 S. SEPTI<sup>TH</sup> ST., STE. 400 SAINT LOUIS, MO 63103-2296  
314-831-8321 FAX 314-534-6966 WWW.HORNERSHIFRIN.COM  
LICENSED PROFESSIONAL ENGINEERS  
STATE OF MISSOURI  
EXPIRATION DATE: DECEMBER 31, 2020

RTE. 13 OVER RTE. 36

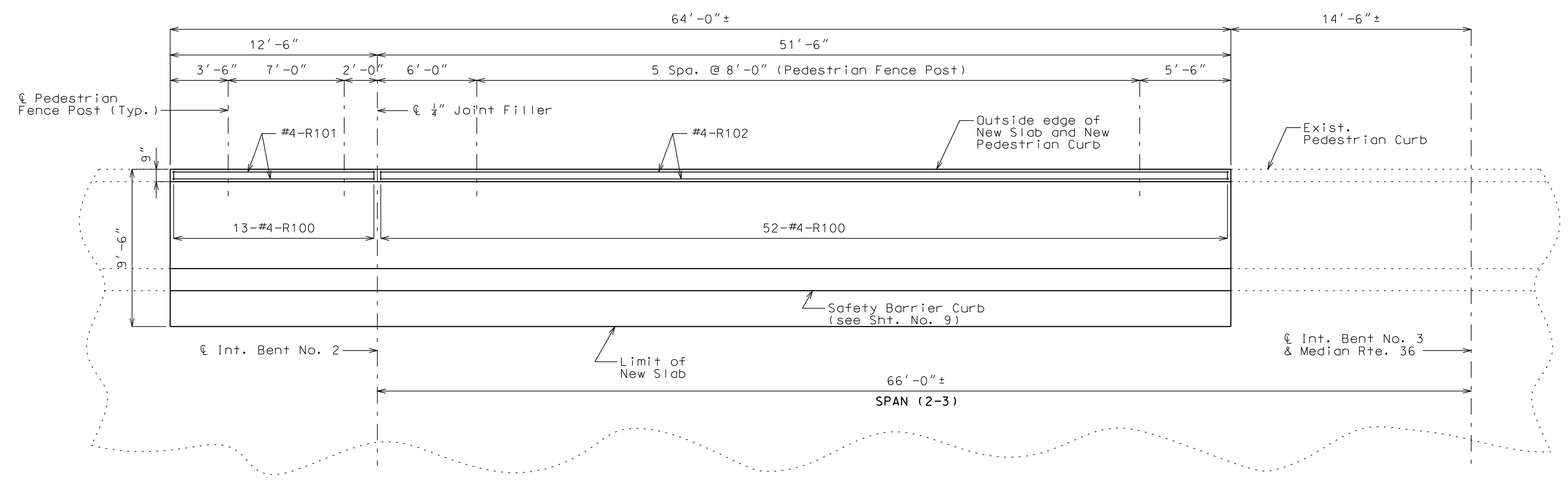
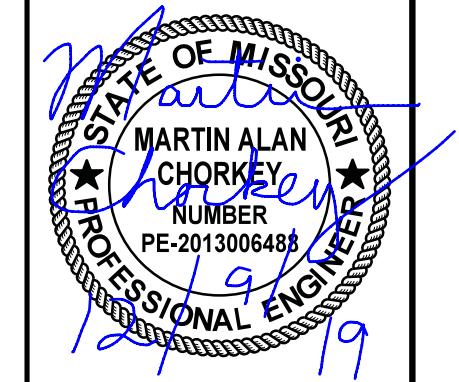
GENERAL NOTES



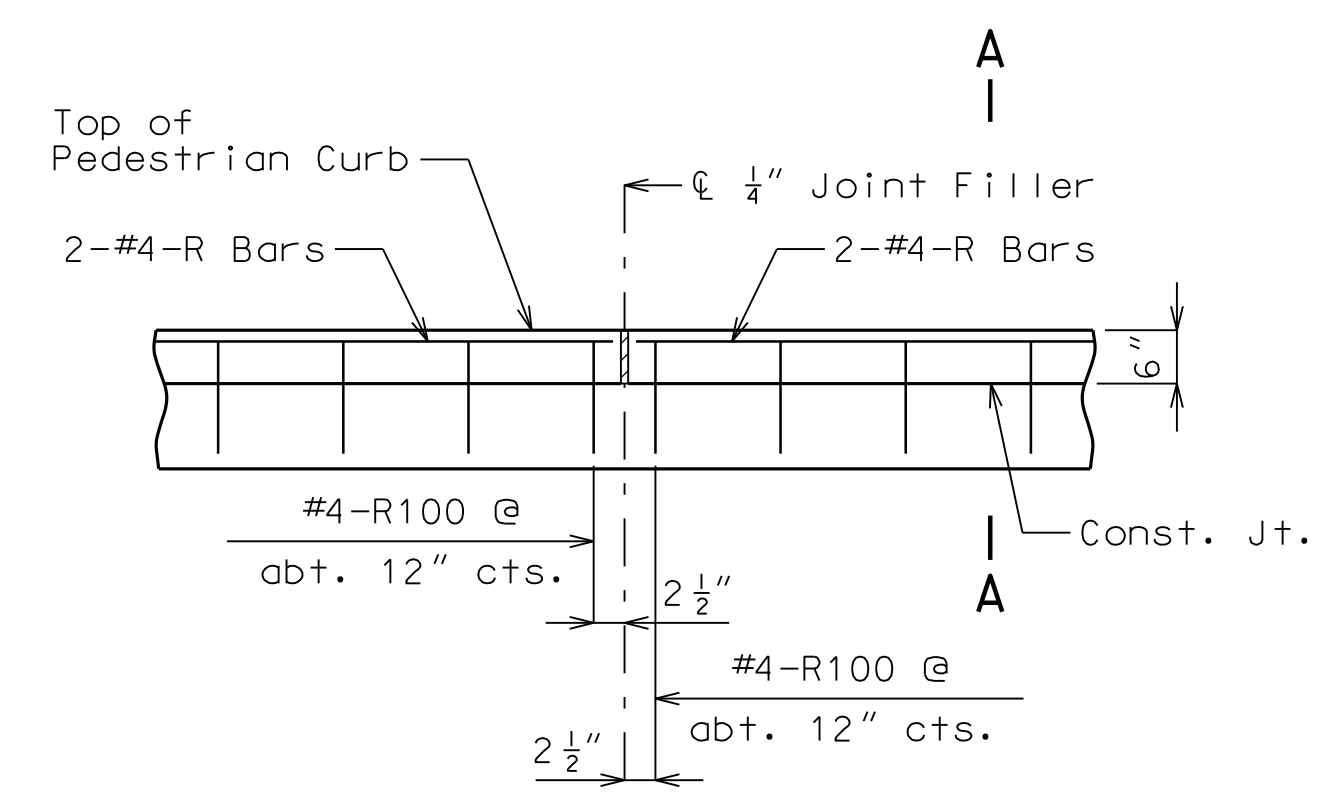
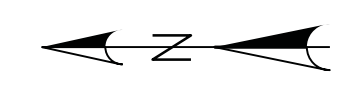




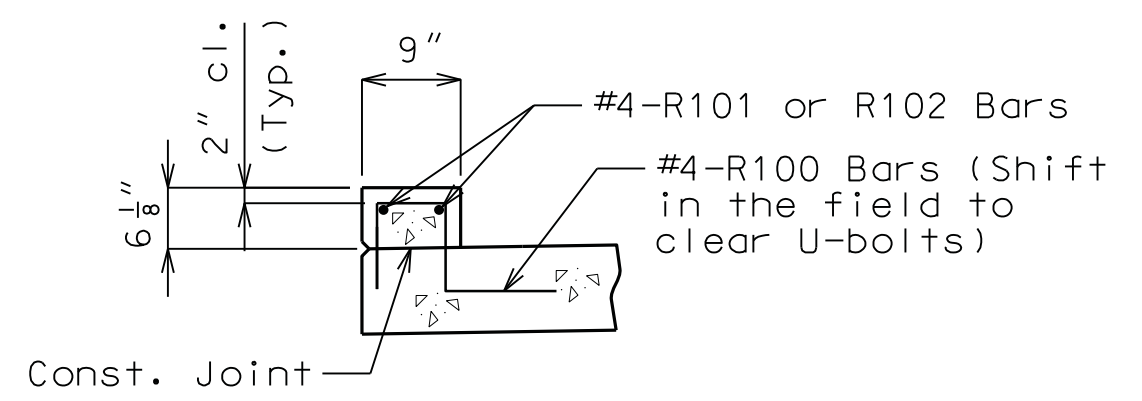




**PART PLAN SHOWING PEDESTRIAN CURB & FENCE POST SPACING**  
(Longitudinal dimensions are horizontal.)



**PART ELEVATION OF PEDESTRIAN CURB ON SLAB**



**SECTION A-A**

Note: The cross-sectional area above the slab = 0.38 sq. ft.

**Pedestrian Curb Notes:**

- Top of pedestrian curb shall be built parallel to grade with curb joints normal to grade.
- All exposed edges of the pedestrian curb shall have either a 1/2-inch radius or a 3/8-inch bevel, unless otherwise noted.
- Payment for all concrete, reinforcement, complete in place, will be considered completely covered by the contract unit price for Pedestrian Curb.
- Concrete in the pedestrian curb shall be Class B-1.
- Measurement of the pedestrian curb is to the nearest linear foot, measured along the outside top of slab from end of new curb to end of new curb.
- The curb shall be cured by application of Type 1-D or Type 2 Liquid Membrane-Forming Compound in accordance with Sec 1055. Surface sealing for concrete in accordance with Sec 703 will not be permitted.

DATE PREPARED		12/6/2019	
ROUTE	STATE	ROUTE	STATE
13	MO	13	MO
DISTRICT	SHEET NO.	DISTRICT	SHEET NO.
BR	7	BR	7
COUNTY			
CALDWELL			
JOB NO.			
J1S3359			
CONTRACT ID.			
PROJECT NO.			
BRIDGE NO.			
A00102			

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

**HORNER SHIFRIN**

401 S. SEPT ST., STE. 400 SAINT LOUIS, MO 63103-2296  
314-831-8221 • FAX 314-534-6966 • WWW.HORNERSHIFRIN.COM  
CERTIFICATE OF AUTHORITY: 000139  
EXPIRATION DATE: DECEMBER 31, 2020

RTE. 13 OVER RTE. 36

PEDESTRIAN CURB DETAILS

Designed: CBW  
Detailed: CAB  
Checked: TPL

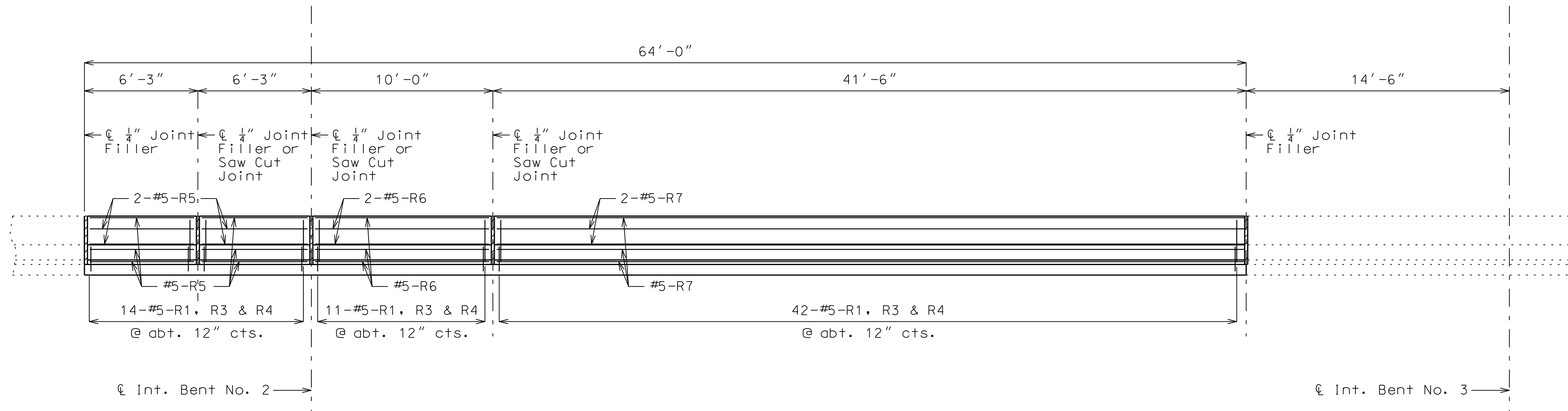
**PEDESTRIAN CURB DETAILS**

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

Sheet No. 7 of 12

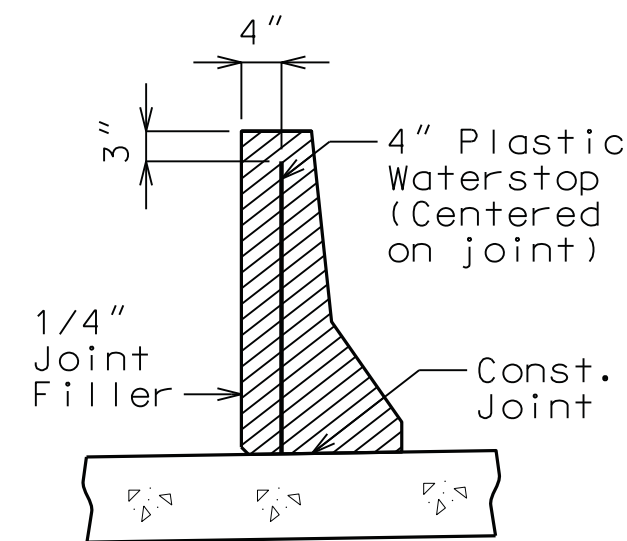






**ELEVATION OF LEFT SAFETY BARRIER CURB**

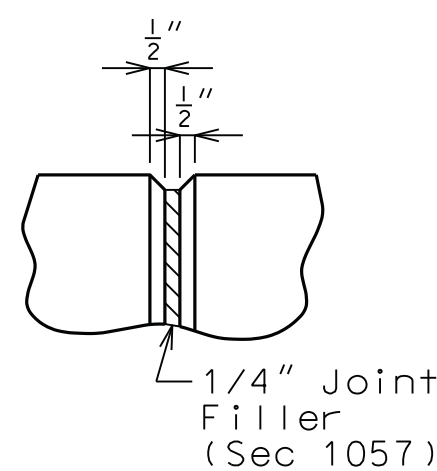
Longitudinal dimensions are horizontal.



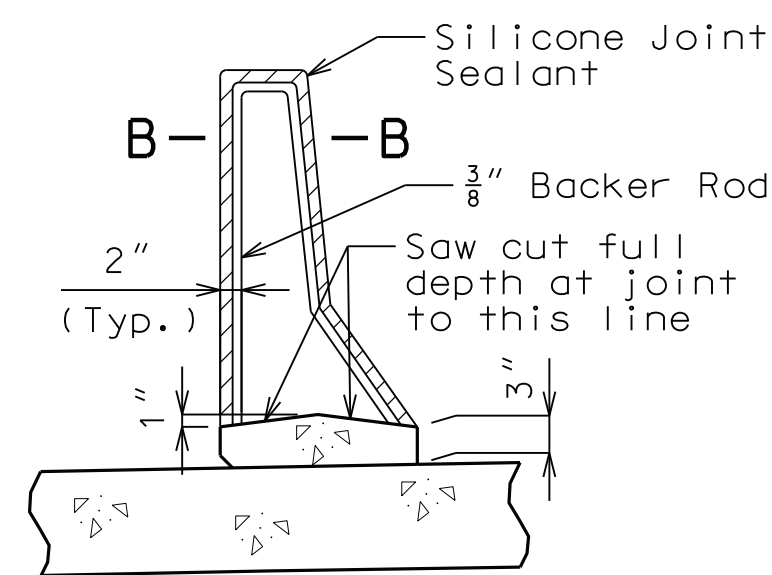
**WATERSTOP DETAIL**

Plastic waterstop shall be placed in all formed joints, except structures with superelevation, use on lower joints only.

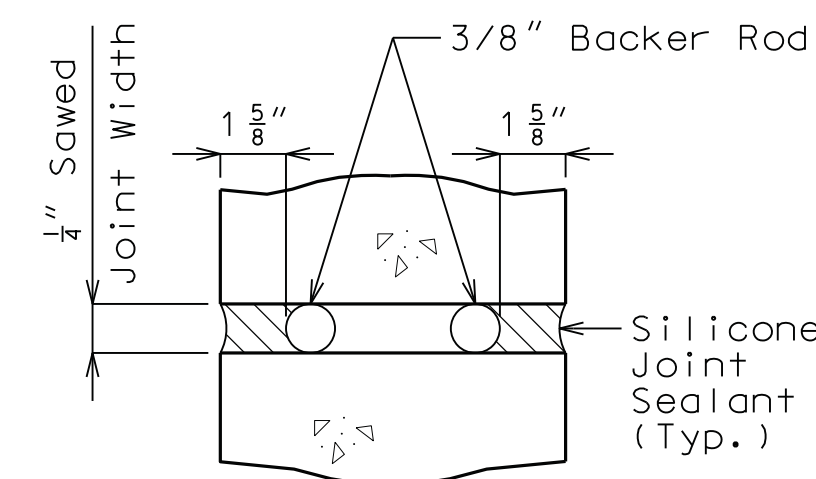
Cost of plastic waterstop, complete in place, will be considered completely covered by the contract unit price for Safety Barrier Curb.



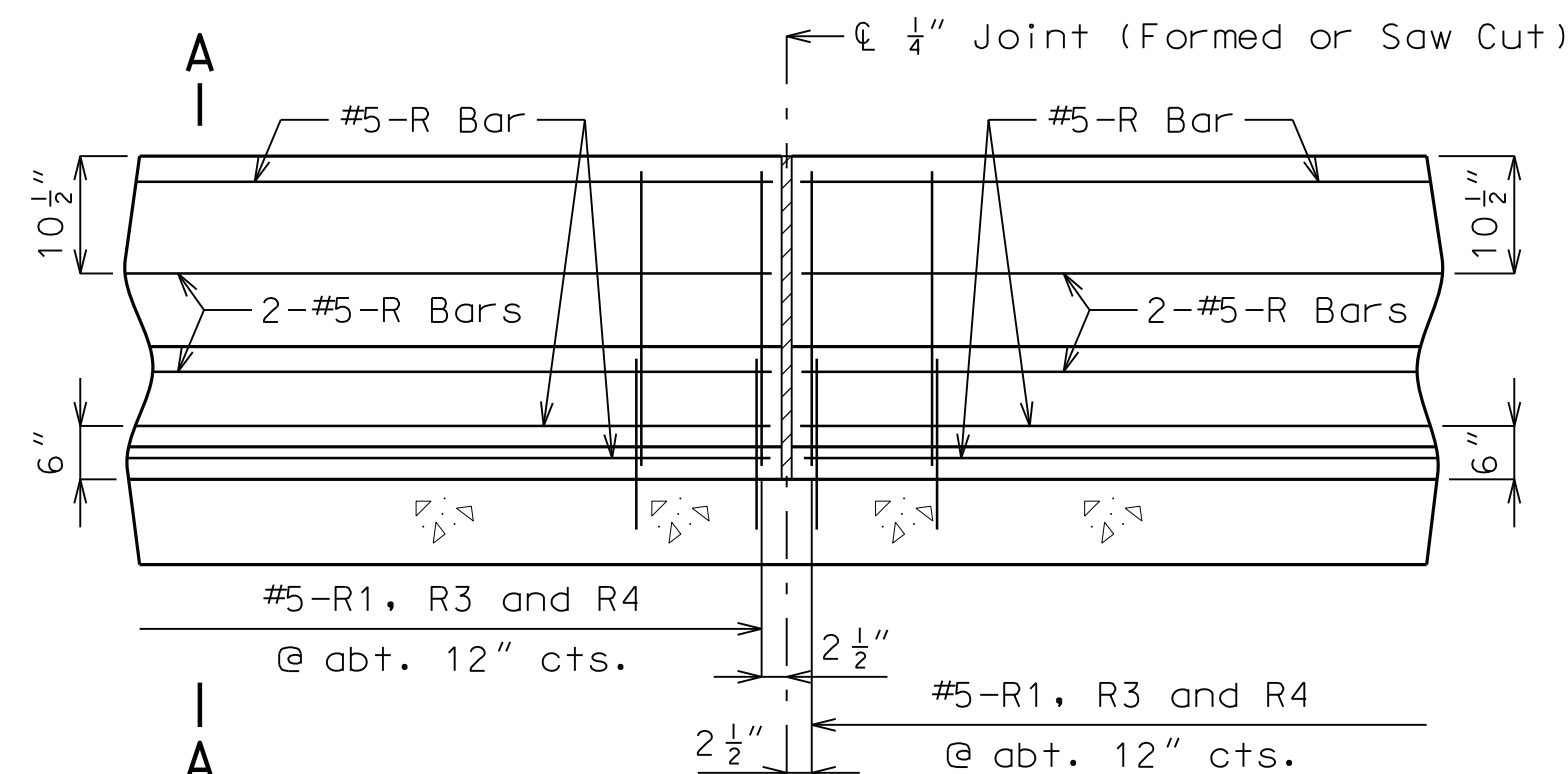
**PART ELEVATION AT FORMED JOINT**



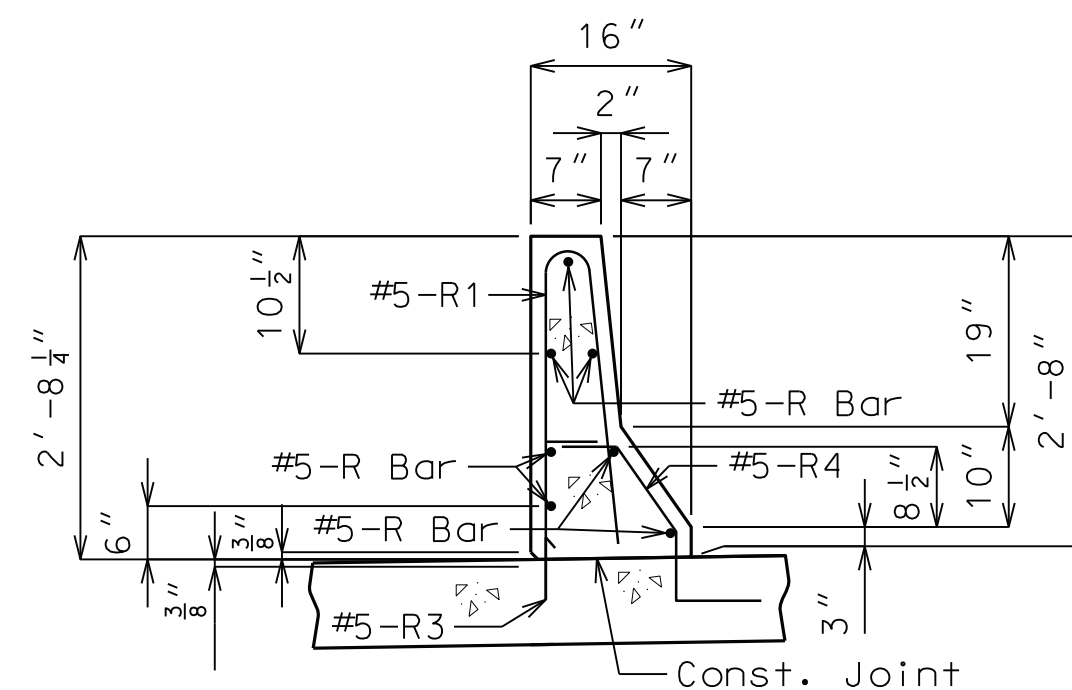
**SECTION THRU SAW CUT JOINT**



**SECTION B-B**



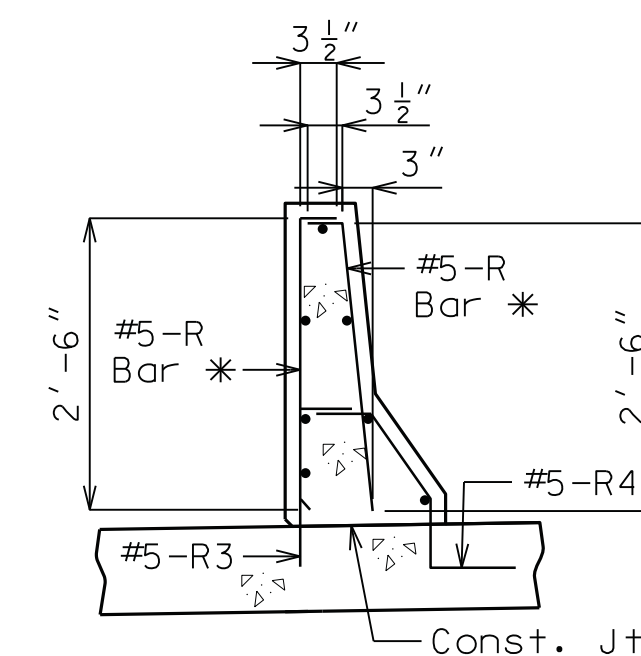
**PART ELEVATION OF SAFETY BARRIER CURB**



**SECTION A-A**

Use a minimum lap of 3'-1" for #5 horizontal safety barrier curb bars.

The cross-sectional area above the slab = 2.27 sq. ft.



**R-BAR PERMISSIBLE ALTERNATE SHAPE**

\* The R1 bar may be separated into two bars as shown, at the contractor's option, only when slip forming is not used. (All dimensions are out to out.)

**General Notes**

Top of safety barrier curb shall be built parallel to grade with barrier curb joints (except at end bents) normal to grade.

All exposed edges of safety barrier curb shall have either a 1/2-inch radius or a 3/8-inch bevel, unless otherwise noted.

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Safety Barrier Curb per linear foot.

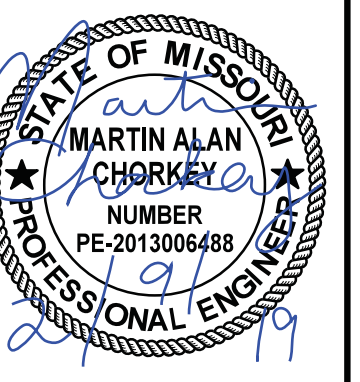
Concrete in the safety barrier curb shall be Class B-1.

Measurement of safety barrier curb is to the nearest linear foot for each structure, measured along the outside top of slab from end of new Safety Barrier Curb to end of new Safety Barrier Curb.

Concrete traffic barrier delineators shall be placed on top of the safety barrier curb as shown on Missouri Standard Plans 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for Safety Barrier Curb.

Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

Plastic waterstop shall not be used with saw cut joints.



DATE PREPARED 12/9/2019	
ROUTE 13	STATE MO
DISTRICT BR	SHEET NO. 9
COUNTY CALDWELL	
JOB NO. J1S3359	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A00102	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

HORNER SHIFRIN

402 S. SEPT ST., STE. 400 SAINT LOUIS, MO 63103-2296  
314-831-8221 • FAX 314-534-6966 • WWW.HORNERSHIFRIN.COM  
LICENSED PROFESSIONAL ENGINEERS  
CERTIFICATE OF AUTHORITY: 000150  
EXPIRATION DATE: DECEMBER 31, 2020

RTE. 13 OVER  
RTE. 36

SAFETY BARRIER CURB DETAILS

Designed: CBW  
Detailed: CAB  
Checked: TPL

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

Sheet No. 9 of 12





