DESIGN DESIGNATION

A.A.D.T. - 2025 = 25,200
A.A.D.T. - 2045 = 33,600

T = 6.9 %
V = 55 M.P.H.

FUNCTIONAL CLASSIFICATION- PRINCIPAL ARTERIAL

NO RIGHT OF WAY TO BE ACQUIRED

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

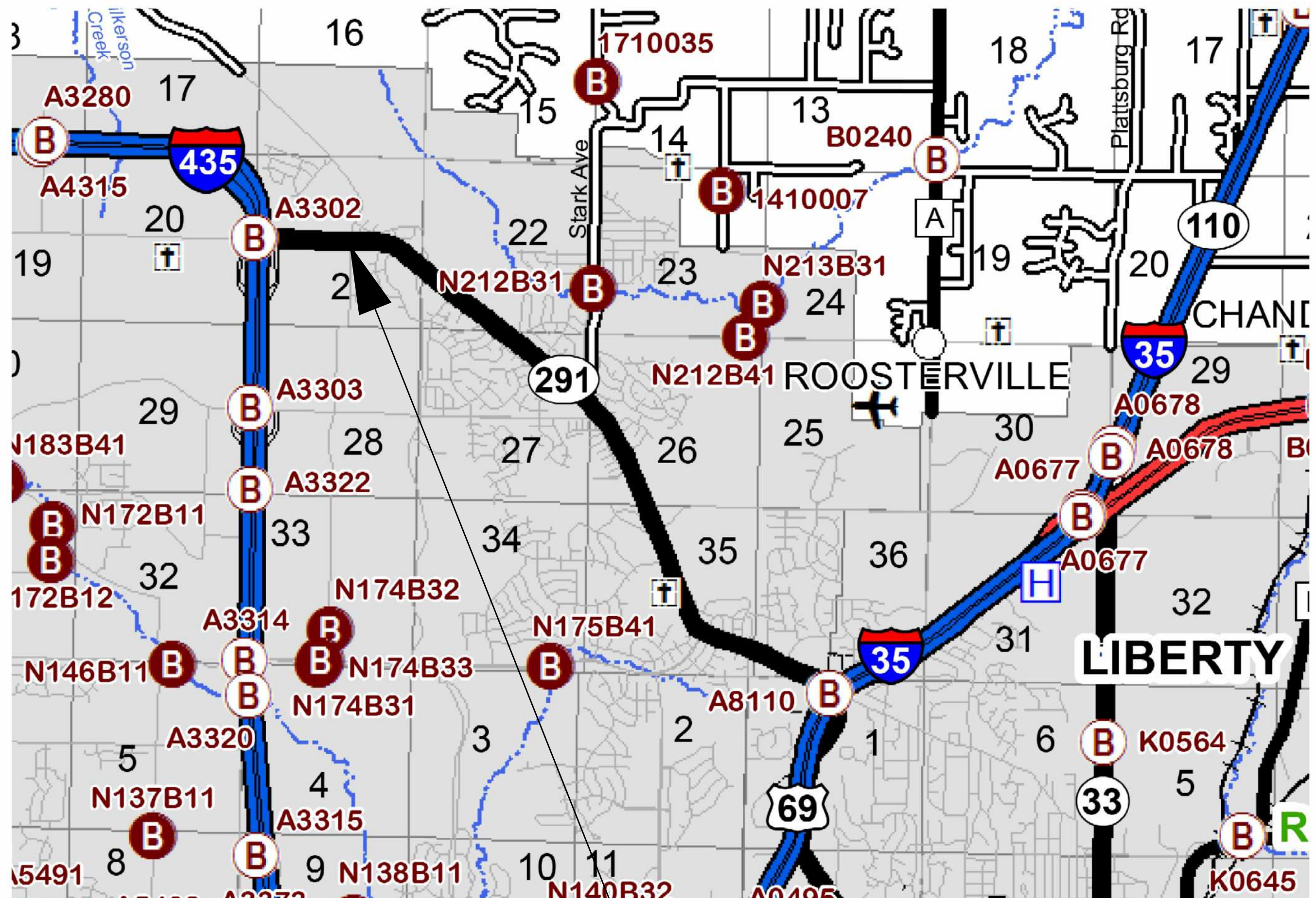
PLANS FOR PROPOSED

STATE HIGHWAY

CLAY COUNTY

KEY MAP
LOCATION OF CLAY COUNTY

NOT TO SCALE



PROJECT LOCATION:
INTERSECTION AT SHERMAN ROAD & MO-291UPGRADING SIGNAL TO PERMANENT POSTS AND INSTALLING A RIGHT TURN LANE.
STATION LIMITS 230+75.15 TO 236+44.10

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.

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		
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	

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
TYPICAL SECTIONS (TS) (2 SHEETS)	2
QUANTITIES (QU) (2 SHEETS)	3
PLAN (PL)	4
PLAN-PROFILE (PP)	5
REFERENCE POINTS (RP)	6
COORDINATE POINTS (CP)	7
CULVERT SECTIONS (CS)	8
SIGNALS (SG)	9-14
SIGNING (SN)	15
EROSION CONTROL (EC)	16
PAVEMENT MARKING (PM)	17
TRAFFIC CONTROL SHEETS (TC)	18-23
CROSS SECTIONS (XS)	1-2

LENGTH OF PROJECT

BEGINNING OF PROJECT	STA. 230+75.15
END OF PROJECT	STA. 236+44.10
APPARENT LENGTH	0.1077 MILES (568.9 FEET)
EQUATIONS & EXCEPTIONS:	NONE
TOTAL CORECTIONS	0.00 FEET
NET LENGTH OF PROJECT	568.90 FEET
STATE LENGTH	0.108 MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	0.206 ACRES

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2018000273
PROFESSIONAL ENGINEER
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	3/7/2025
ROUTE 291	STATE MO
DISTRICT KC	SHEET NO. 1
COUNTY	CLAY
JOB NO.	JKU0121
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION

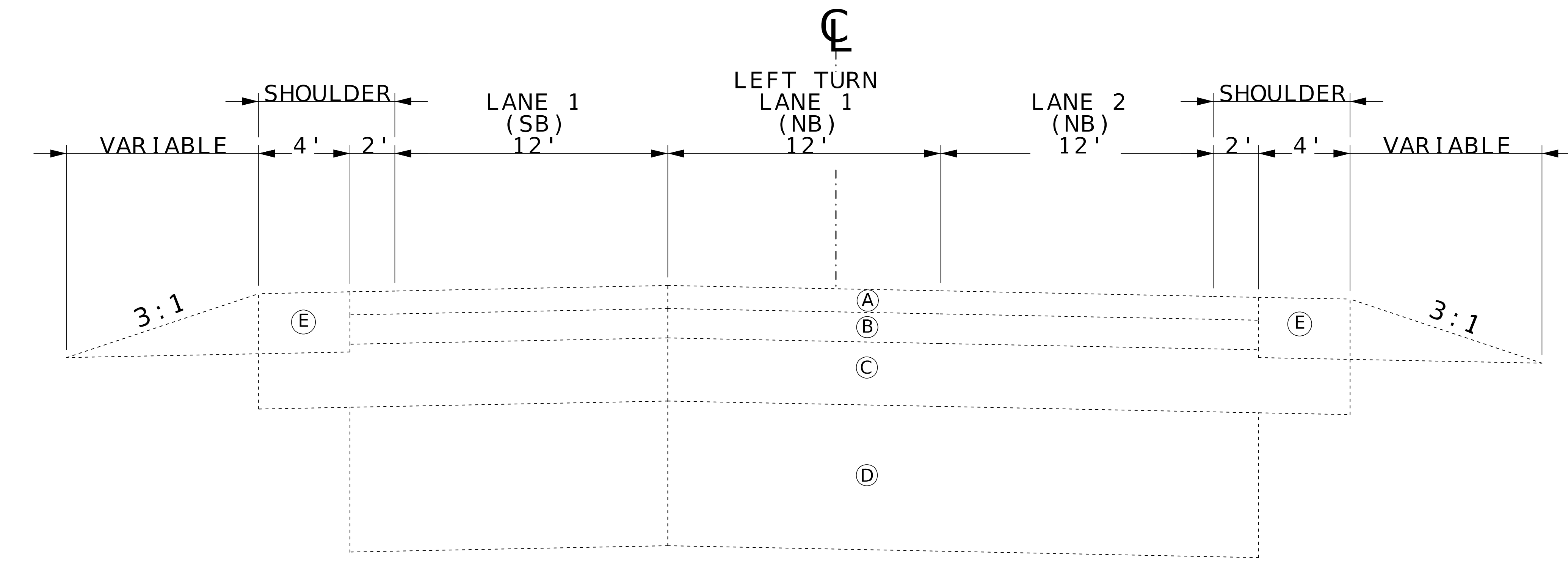
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

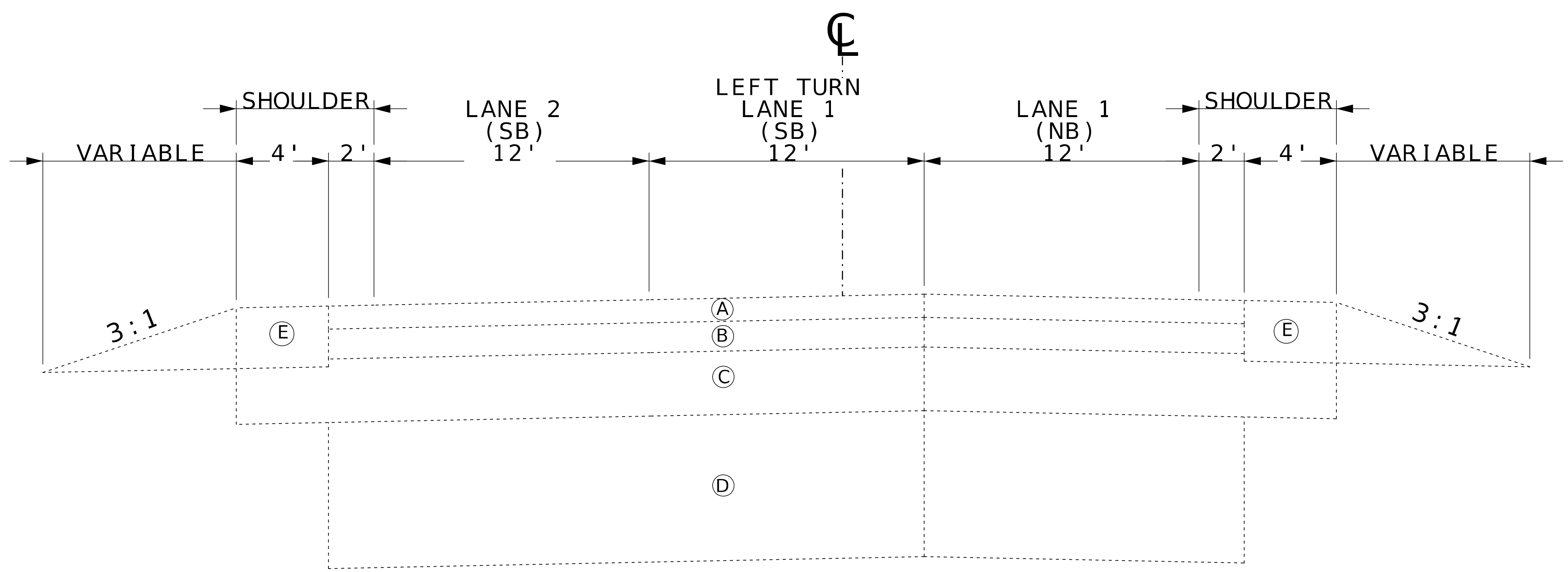
MoDOT

EXISTING TYPICALS



BEFORE INTERSECTION OF MO-291 & SHERMAN ROAD
(FACING NORTHBOUND)

STA. 231+82.11 - 236+44.05



AFTER INTERSECTION OF MO-291 & SHERMAN ROAD
(FACING NORTHBOUND)

STA. 230+75.15 - 231+37.62

- (A) 1½" SP095 C
- (B) 1" SP125 C
- (C) 4" SP250 MC
- (D) 7" PCCP
- (E) 3½" BP-2

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER PE-2018000273
PROFESSIONAL ENGINEER

CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	2/26/2025
ROUTE	291
STATE	MO
DISTRICT	KC
SHEET NO.	2
COUNTY	CLAY
JOB NO.	JKU0121
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

TYPICAL SECTIONS
1 OF 2

PROPOSED TYPICAL

Ⓐ 1½" SP095 C

Ⓑ 1" SP125 C

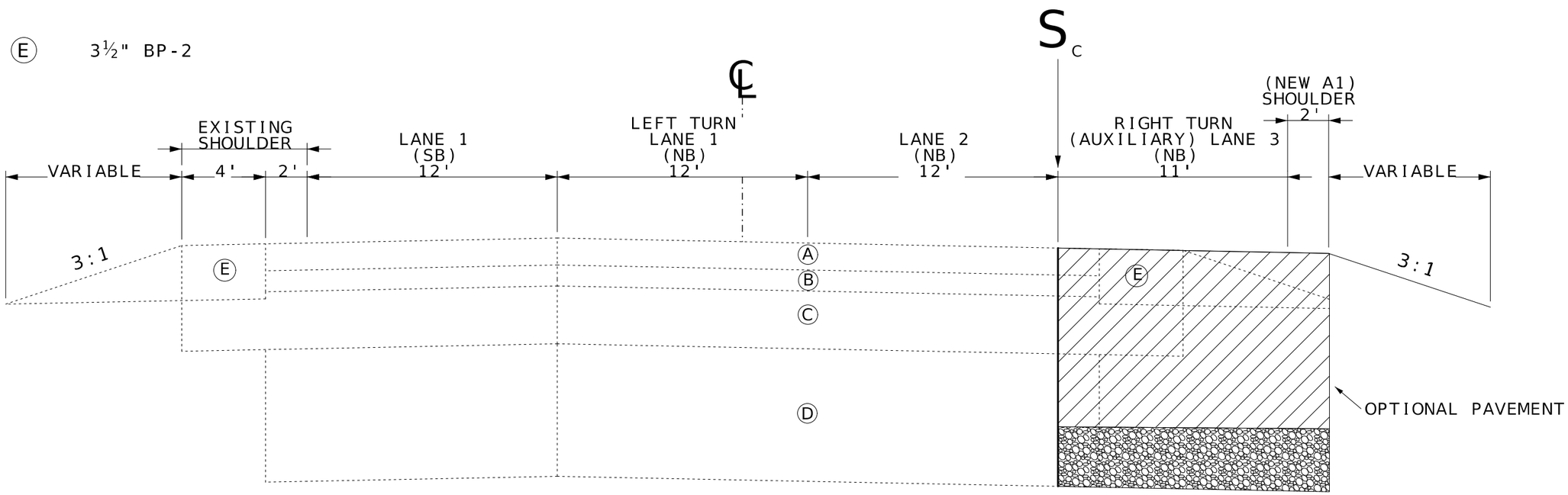
Ⓒ 4" SP250 MC

Ⓓ 7" PCCP

Ⓔ 3½" BP-2

ASPHALT CONVERSION FACTORS	
SP-125C	1.999 TON / YD³
SP-190C	2.018 TON / YD³
TACK	0.05 TON / YD²

FOR INFORMATION ONLY



OPTIONAL PAVEMENT
9½" JPCP WIDENED SLAB 15' JOINT SPACING & 1¼" DOWELS 6" TYPE 5 AGGREGATE BASE OR 12" HMA 2" SP125C W/ PG 70-22 2" SP125C W/ PG 70-22 8" SP190C W/ PG 64-22 6" TYPE 5 AGGREGATE BASE
TACK COAT IS INCIDENTAL TO HMA OPTION

BEFORE INTERSECTION ON SHERMAN ROAD
(FACING NORTHBOUND MO-291)

LOG MILE 231+82.11 - 236+44.10

S C NOTE:
SAW CUT POINT FOR FULL DEPTH PAVEMENT. REMOVE EXISTING SHOULDER

LOCATION OF FULL DEPTH OPTIONAL PAVEMENT FOR NEW TURN LANE & SHOULDER

TYPE 5 AGGREGATE BASE

TYPICAL SECTIONS
2 OF 2

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER PE-2018000273
PROFESSIONAL ENGINEER

DOCUMENT PREPARED BY
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	
3/7/2025	
ROUTE 291	STATE MO
DISTRICT KC	SHEET NO. 2
COUNTY CLAY	
JOB NO. JKU0121	
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)

REMOVAL OF IMPROVEMENTS

LOCATION	STATION FROM	STATION TO	OFFSET FROM	OFFSET TO	ITEM DESCRIPTION	QUANTITY	UNIT	NOTE / REMARKS
NE CORNER	232+13.99		-59.23		STREET SIGNS	2	EA	ON POWER POLE
SE CORNER	231+95.68		39.11		STREET SIGNS	2	EA	ON POWER POLE
SE CORNER	231+92.17		38.96		STOP SIGN	1	EA	
NW CORNER	231+30.52		-46.31		STOP SIGN	1	EA	
NE CORNER	231+82.11	236+44.10			SAW CUTS	502	LF	SPECIFIC LOCATIONS ON PLAN SHEET
NE CORNER	232+19.76		-30.60		18"	20	LF	EXISTING PIPE & F.E.S.
NE CORNER	231+82.11	236+44.10	-67.47	-13.5502	EXISTING PAVEMENT & SHOULDER	111	SY	LOCATIONS OF START & END POINTS
TOTALS					LUMP SUM	1.00		

OPTIONAL PAVEMENT QUANTITIES

HIGHWAY LOCATION	STATION FROM	STATION TO	OPTIONAL PAVEMENT (SQYD)	SUBGRADE COMPACTION 6" (100FT)	TYPE 1 or 5 AGG BASE (6") (SQYD)
MO-291	231+82.11	236+44.10	623.00	4.60	623.00
PAY TOTALS			623.0	4.6	623.0

EARTHWORK QUANTITIES

LOCATION	STATION FROM	STATION TO	CLASS A EXCAVATION (CY)	Spec 203.4.16 EMBANKMENT IN PLACE (CY)	NOTE / REMARKS
NE CORNER OF SHERMAN INTERSECTION	231+82.11	236+44.10	328.92	4.62	
SUBTOTALS			328.92	4.62	
PAY TOTALS			329	5	

GROUP A PIPE

FROM STRUCTURE NUMBER	TO STRUCTURE NUMBER	18" GROUP A PIPE L.F.	TYPE A PIPE COLLAR EACH	18" GROUP A F.E.S. L.F.	CLASS 3 EXCAVATION C.Y	STATION FROM	OFFSET FROM	STATION TO	OFFSET TO	NOTE / REMARKS
EXIST. PIPE	FES	14	1	1	8.12	232+19.69	LT 31.32'	232+33.66	LT 32.58'	
PAY TOTALS		14	1	1	8.0					

REFER TO 604.40G FOR FURTHER DETAIL OF PIPE COLLAR

MAINLINE PERMANENT PAVEMENT MARKING

STATION START	STATION END	TOTAL LENGTH (FT)	6" WHITE HIGH BUILD WATERBORNE (TYPE L BEADS) (LF)	6" INT. WHITE HIGH BUILD WATERBORNE (TYPE L BEADS) (LF)	24" WHITE PREFORMED THERMOPLASTIC (LF)	RIGHT/LEFT ARROW WHITE PREFORMED THERMOPLASTIC EACH	NOTE / REMARKS
236+44.10	231+82.11	461.99	689	45	43.0	3.0	WESTBOUND MO-291 (START OF TAPER TO SHERMAN ROAD)
231+65.63	231+35.65				30.0	1.0	SHERMAN ROAD (NORTHSIDE OF INTERSECTION)
231+29.63	231+29.63				24.0		EASTBOUND MO-291 (STOPBAR)
SUB TOTAL			689	45	97	4	
PAY TOTALS			734		97	4	

EROSION CONTROL

LOCATION	STATION FROM	STATION TO	OFFSET FROM	OFFSET TO	LENGTH	SILT FENCE (LF)	ALTERNATE DITCH CHECK (LF)	SEDIMENT TRAP (CY)	(SPEC 806.6) SEDIMENT REMOVAL (CY)	NOTE / REMARKS
NE CORNER	232+89.60		LT 34.85				6		1	
NE CORNER	233+39.60		LT 33.80				6		1	
NE CORNER	233+89.60		LT 33.37				6		1	
NE CORNER	234+39.60		LT 32.86				6		1	
NE CORNER	234+89.60		LT 33.78				6		1	
NE CORNER	235+39.57		LT 35.05				6		1	
NE CORNER	235+89.61		LT 32.12				6		1	EAST SIDE OF PIPE (235+71.29)
NE CORNER	236+39.74		LT 21.80				6		1	
NE CORNER	232+30.65	235+68.45	-47.84	-47.84	337.8	338			4	
SE CORNER	235+71.73		-35.48					1.25	10	OUTLET OF 24" PIPE
PAY TOTALS						338	48	1.2	22	

MOBILIZATION
1 LUMP SUM

CONTRACTOR FURNISHED SURVEYING & STAKING
1 LUMP SUM

PAVEMENT EDGE TREATMENT
420 LF

KC DISTRICT VIDEO DETECTION SYSTEM
1 LUMP SUM

SUMMARY OF QUANTITIES
SHEET 1 OF 2

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2018000273
PROFESSIONAL ENGINEER
Craig Skorseth
DOCUSIGNED CERTIFICATE
CRAIG SKORSETH - CIVIL
MO-PE-2018000273
DATE PREPARED
3/7/2025

ROUTE	STATE
291	MO
DISTRICT	SHEET NO.
KC	3

COUNTY
CLAY
JOB NO.
JKU0121
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)

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
WARNING SIGNS								
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT ARROW)
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT ARROW)
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT ARROW)
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT ARROW)
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT ARROW)
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT ARROW)
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT ARROW)
WO1-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT ARROW)
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)
WO1-8	18X24	3.00						CHEVRON (SYMBOL)
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)
WO3-4	48X48	16.00	2	32				BE PREPARED TO STOP
WO3-5	48X48	16.00						SPEED LIMIT AHEAD
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)
WO4-1aL	48X48	16.00						MERGE (ARROW SYMBOL)
WO4-1aR	48X48	16.00						MERGE (ARROW SYMBOL)
WO5-1	48X48	16.00						ROAD/BRIDGE/RAMP NARROWS
WO5-3	48X48	16.00						ONE LANE BRIDGE
WO5-5	48X48	16.00	1	16				NARROW LANES
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)
WO8-1	48X48	16.00						BUMP
WO8-2	48X48	16.00						DIP
WO8-3	48X48	16.00						PAVEMENT ENDS
WO8-4	48X48	16.00						SOFT SHOULDER
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)
WO8-6	48X48	16.00						TRUCK CROSSING (WITH FLAGS)
WO8-6c	48X48	16.00						TRUCK ENTRANCE
WO8-7	36X36	9.00						LOOSE GRAVEL
WO8-7a	36X36	9.00						FRESH OIL/LOOSE GRAVEL
WO8-9	48X48	16.00						LOW SHOULDER
WO8-11	48X48	16.00						UNEVEN LANES
WO8-12	48X48	16.00						NO CENTER LINE
WO8-15	48X48	16.00						GROOVED PAVEMENT
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)
WO8-17	48X48	16.00	1	16				SHOULDER DROP-OFF (SYMBOL)
WO8-17P	30X24	5.00	1	5				SHOULDER DROP-OFF (PLAQUE)
W10-1	42RND.	9.62						RAILROAD CROSSING
WO12-1	24X24	4.00						DOUBLE DOWN ARROW (SYMBOL)
WO12-2	48X48	16.00						LOW CLEARANCE (SYMBOL)
WO12-2X	24X18	3.00						LOW CLEARANCE (PLAQUE)
WO12-2a	84X24	14.00						OVERHEAD LOW CLEARANCE (FEET AND INCHES)
WO12-4	120X60	50.00						LOW CLEARANCE XX FT XX IN XX MILES AHEAD
WO12-5	120X60	50.00						WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD
WO13-1	30X30	6.25						ADVISORY SPEED (PLAQUE)
WO16-2	30X24	5.00						XXX FEET (PLAQUE)
WO16-3	30X24	5.00						X MILE (PLAQUE)
WO20-1	48X48	16.00	4	64				ROAD/BRIDGE/RAMP WORK AHEAD
WO20-2	48X48	16.00						DETOUR AHEAD
WO20-3	48X48	16.00						ROAD CLOSED AHEAD
WO20-4	48X48	16.00	2	32				ONE LANE ROAD AHEAD
WO20-5	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED AHEAD
WO20-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
WO20-6a	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED
WO20-7a	48X48	16.00	4	64				FLAGGER (SYMBOL, WITH FLAGS)
WO21-2	36X36	9.00						FRESH OIL
WO21-5	48X48	16.00	2	32				SHOULDER WORK AHEAD
WO22-1	48X48	16.00						BLASTING ZONE AHEAD
WO22-2	42X36	10.50						TURN OFF 2-WAY RADIO AND PHONE
WO22-3	42X36	10.50						END BLASTING ZONE
GO22-1	21X15	2.19	2	4.38				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
GO20-1	60X24	10.00						ROAD WORK NEXT XX MILES
GO20-2	48X24	8.00	2	16				END ROAD WORK
GO20-4	36X18	4.50						PILOT CAR FOLLOW ME
GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW
GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
GO20-5aP	36X24	6.00	2	12				WORK ZONE (PLAQUE)
MO4-8a	24X18	3.00						END DETOUR
MO4-9L	48X36	12.00						DETOUR (LEFT ARROW)
MO4-9R	48X36	12.00						DETOUR (RIGHT ARROW)
MO4-9P	48X12	4.00						STREET NAME (PLAQUE)
MO4-10L	48X18	6.00						DETOUR (ARROW LEFT)
MO4-10R	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				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						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	2	64				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	2	24				WORK ZONE NO PHONE ZONE

	TOTAL
616-10.05 CONSTRUCTION SIGNS	430
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)
6161008	2	ADVANCED WARNING RAIL SYSTEM
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161025	150	CHANNELIZER (TRIM LINE)
6161030	2	TYPE III MOVEABLE BARRICADE
6161033	13	DIRECTION INDICATOR BARRICADE
6161040		FLASHING ARROW PANEL
6161047		TYPE III OBJECT MARKER
6161055	13	SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A	4	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
6173600D		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/RETAINED
6173602B		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION
6175010A		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

QUANTITY SHEET
SHEET 2 OF 2

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

DIGITALLY SIGNED BY CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED
2/26/2025

ROUTE	STATE
291	MO
DISTRICT	SHEET NO.
KC	3

COUNTY
CLAY

JOB NO.
JKU0121

CONTRACT ID.

PROJECT NO.

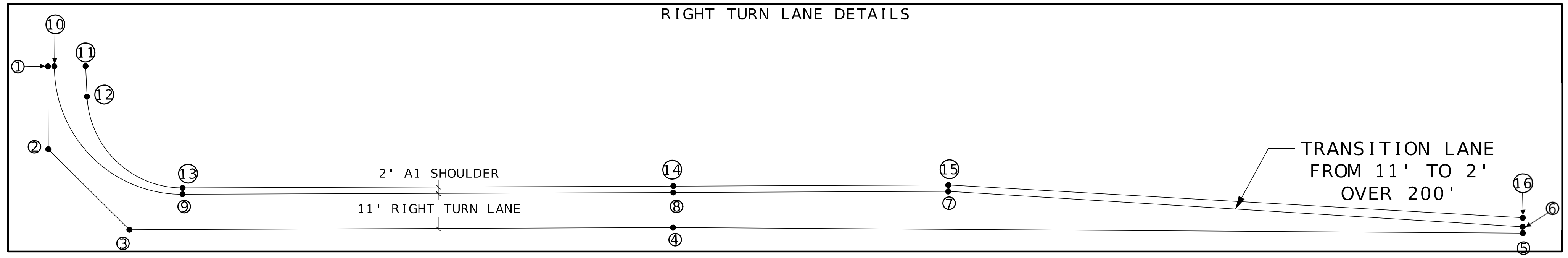
BRIDGE NO.

DESCRIPTION	DATE

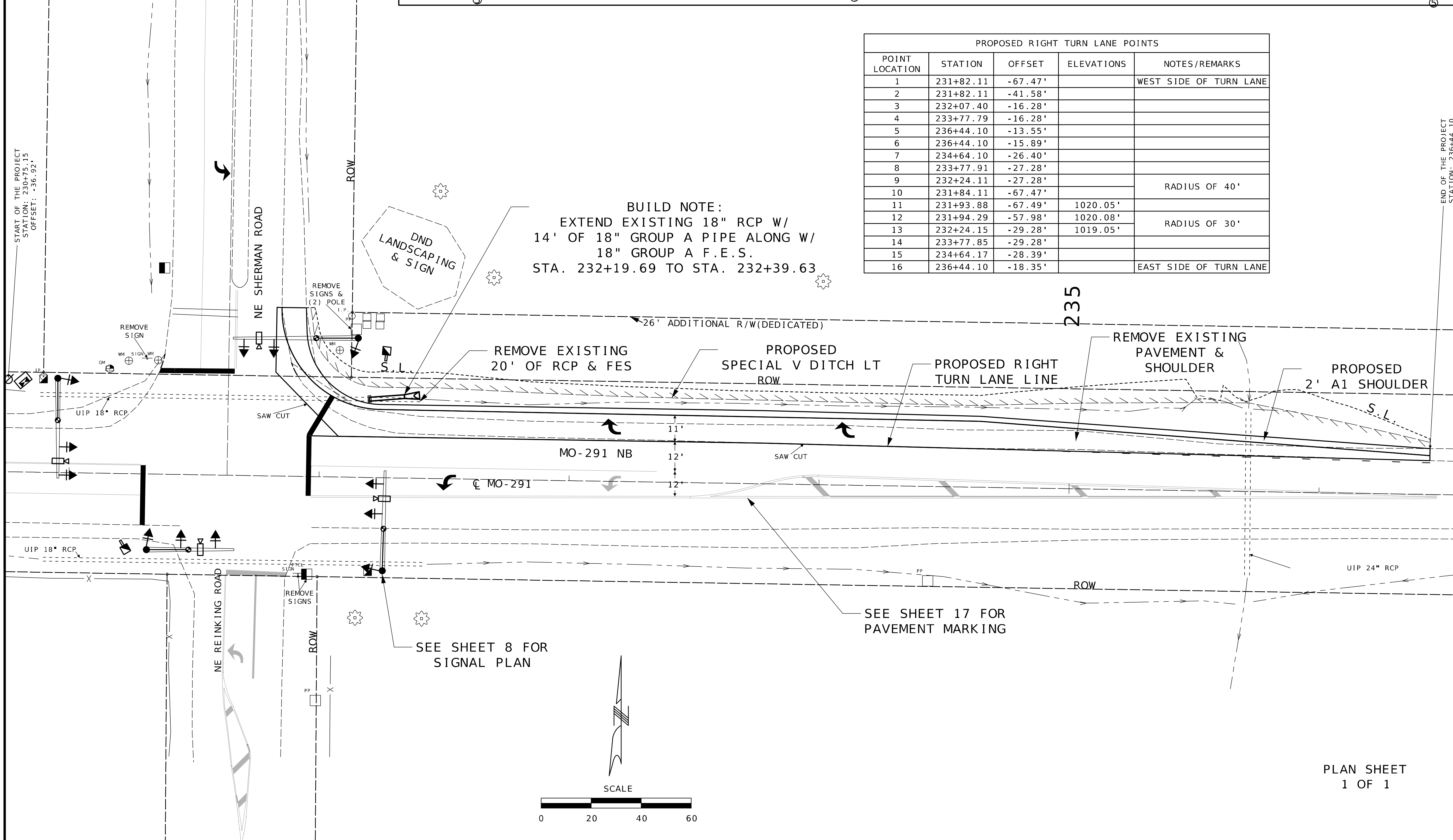
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

GENERAL NOTES:
- (2) RELOCATE BY OTHERS



PROPOSED RIGHT TURN LANE POINTS				
POINT LOCATION	STATION	OFFSET	ELEVATIONS	NOTES/REMARKS
1	231+82.11	-67.47'		WEST SIDE OF TURN LANE
2	231+82.11	-41.58'		
3	232+07.40	-16.28'		
4	233+77.79	-16.28'		
5	236+44.10	-13.55'		
6	236+44.10	-15.89'		
7	234+64.10	-26.40'		
8	233+77.91	-27.28'		
9	232+24.11	-27.28'		RADIUS OF 40'
10	231+84.11	-67.47'		
11	231+93.88	-67.49'	1020.05'	
12	231+94.29	-57.98'	1020.08'	RADIUS OF 30'
13	232+24.15	-29.28'	1019.05'	
14	233+77.85	-29.28'		
15	234+64.17	-28.39'		
16	236+44.10	-18.35'		EAST SIDE OF TURN LANE



PLAN SHEET
1 OF 1

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER PE-2018000273
PROFESSIONAL ENGINEER
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	
3/7/2025	
ROUTE	STATE
291	MO
DISTRICT	SHEET NO.
KC	4
COUNTY	
CLAY	
JOB NO.	
JKU0121	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION

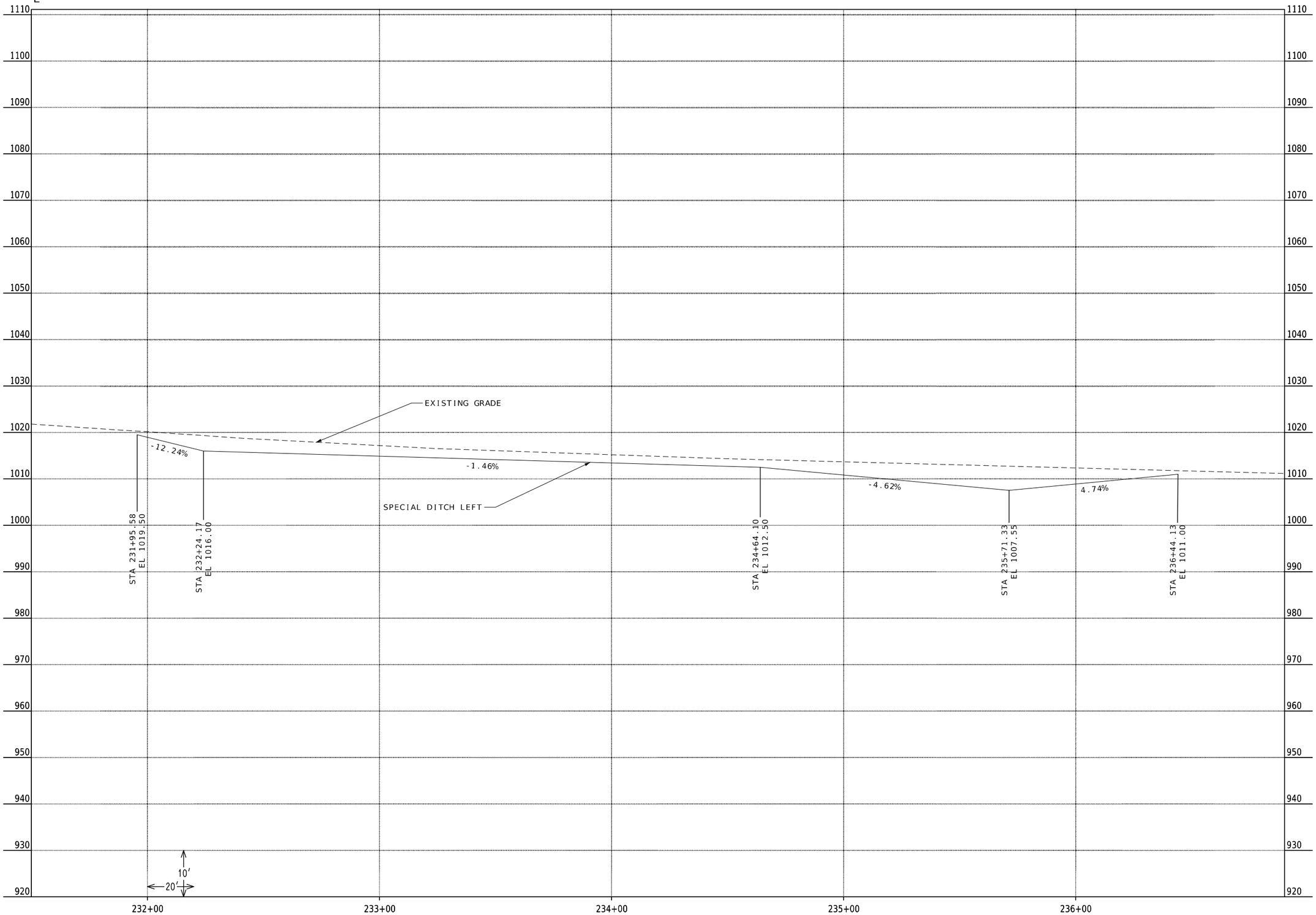
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

MoDOT

℄ MO-291 PROFILE



STATE OF MISSOURI
CRAIG SKORSETH
NUMBER PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

DIGITALLY SIGNED BY CRAIG SKORSETH
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

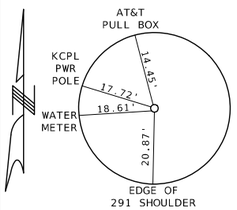
DATE PREPARED	2/26/2025
ROUTE	291
STATE	MO
DISTRICT	KC
SHEET NO.	5
COUNTY	CLAY
JOB NO.	JKU0121
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

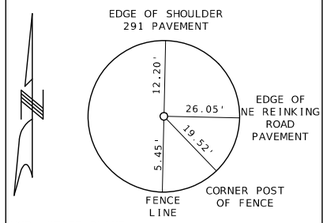
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CP #1 5/8 IB & CAP NORTH OF RTE. 291 ℄
(EAST OF SHERMAN ROAD)



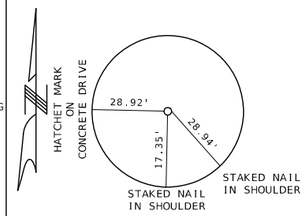
MOD. STATE PLANE
N:1142213.891
E:2789036.318
ELEV:1018.365'

CP #2 SET 5/8 IB & CAP SOUTH OF RTE. 291 ℄
(WEST OF NE REINKING ROAD)



MOD. STATE PLANE
N:1142131.384
E:2788929.820
ELEV:1023.373'

CP #5 SET 5/8 IB & CAP NORTH OF RTE. 291 ℄
(EAST OF SHERMAN ROAD)



MOD. STATE PLANE
N:1142228.994
E:2787895.584
ELEV:1044.428'

COORDINATES ARE IN MODIFIED
MISSOURI STATE PLANE, WEST ZONE (NAD83/2011)
PROJECTION FACOTOR: 1.0001021
GRID FACTOR: 0.99989791

REFERENCE POINT SHEET
1 OF 1

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

DIGITALLY SIGNED & SEALED BY
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED
2/26/2025

ROUTE	STATE
291	MO
DISTRICT	SHEET NO.
KC	6

COUNTY
CLAY

JOB NO.
JKU0121

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)

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	MODIFIED STATE PLANE(GROUND)
HORIZONTAL DATUM	NAD83
VERTICAL DATUM	NAVD88
GEOID MODEL	GEOID18
ELEVATIONS DETERMINED BY	GPS OBSERVATION
PROJECT PROJECTION FACTOR	1.00010210

REFERENCE CONTROL INFORMATION

COORDINATE SYSTEM	MO COORDINATE SYSTEM OF 1983
CONTROL STATION	MO GEOGRAPHIC REFERENCE SYSTEM
DESIGNATION	CL-08
CORS_ID	XX
PID	47008
LATITUDE	39°17'56.38104"
LONGITUDE	094°29'19.08334"
NORTHING (M)	347641.3990
EASTING (M)	850980.3580
ZONE	WEST
PROJECT AVERAGE GRID FACTOR	0.99989791

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 #___
N _____.____ X _._____ = N _____.___
E _____.____ X _._____ = E _____.___

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								
	232+26.94	NB SHLDR	-46.95	1,142,213.89	2,789,036.32	1,018.37	CP-1	
	231+21.78	SB SHLDR	37.25	1,142,131.38	2,788,929.82	1,023.37	CP-2	
		NB SHLDR		1,142,228.99	2,787,895.58	1,044.43	CP-5	
ALIGNMENTS								
4	217+73.60	℄ MO-291	0	1,142,190.19	2,787,582.41		BACK BEARING (PC) = S89° 5' 0.40" E	
4	239+92.35	℄ MO-291	0	1,142,154.70	2,789,800.87		BACK BEARING (PC) = S89° 5' 0.40" E	

COORDINATE POINT SHEET
SHEET 1 OF 1

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth
VERIFY ENVELOPE FOR
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED
2/26/2025

ROUTE	STATE
291	MO
DISTRICT	SHEET NO.
KC	7

COUNTY
CLAY

JOB NO.
JKU0121

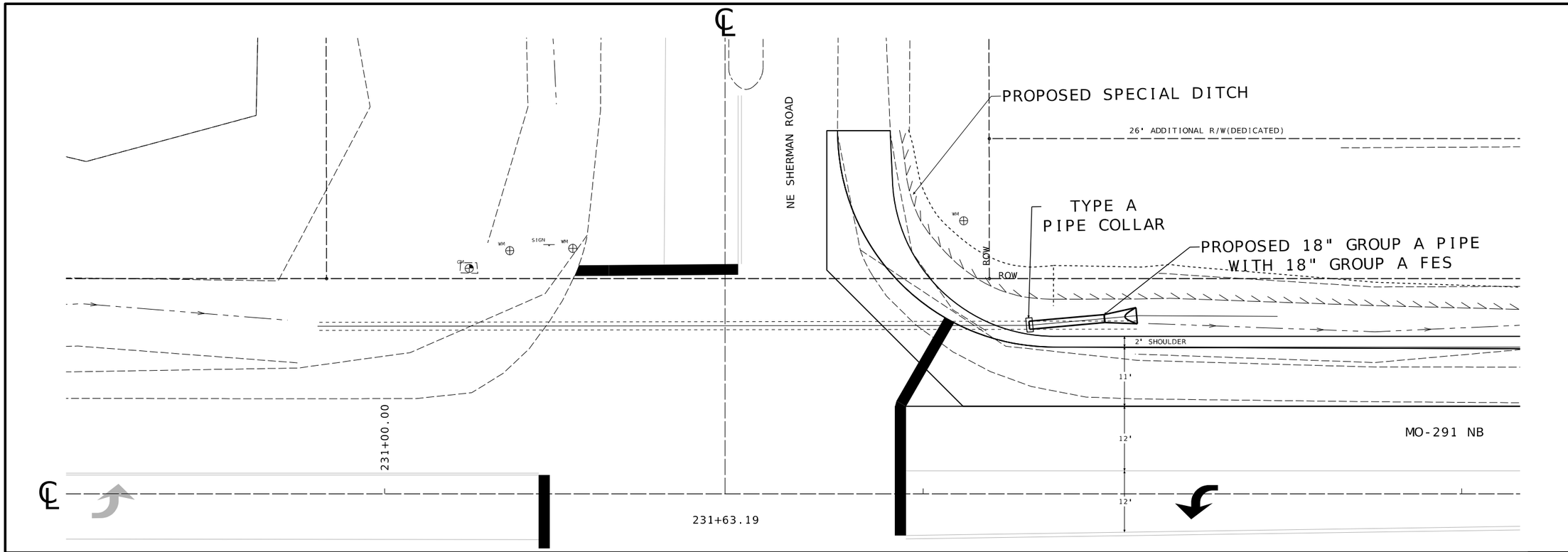
CONTRACT ID.

PROJECT NO.

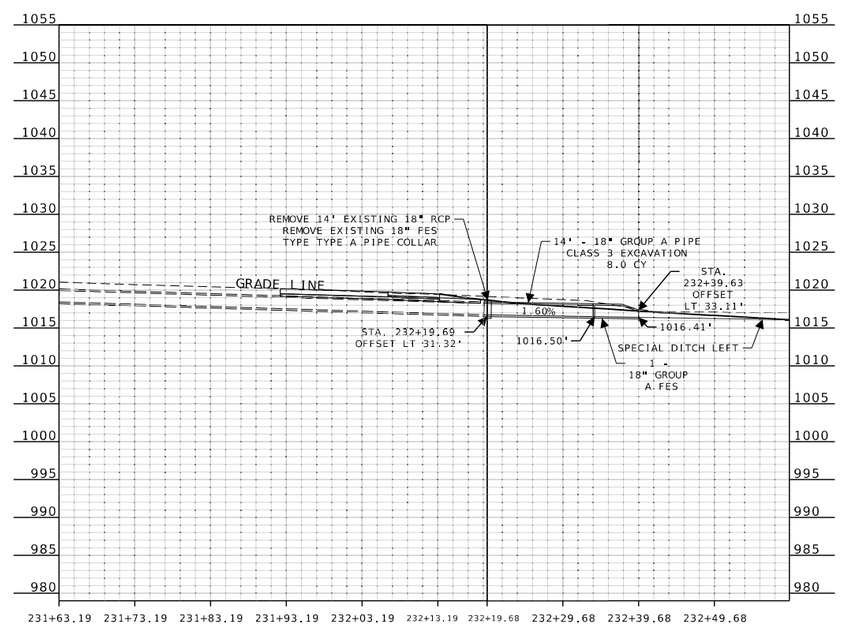
BRIDGE NO.

DESCRIPTION	DATE

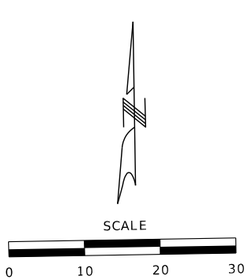
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



PROFILE



291 CENTERLINE
(STARTS AT SHERMAN ROAD)



CULVERT SECTION
SHEET 1 OF 1

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

DOCUSIGNED BY:
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

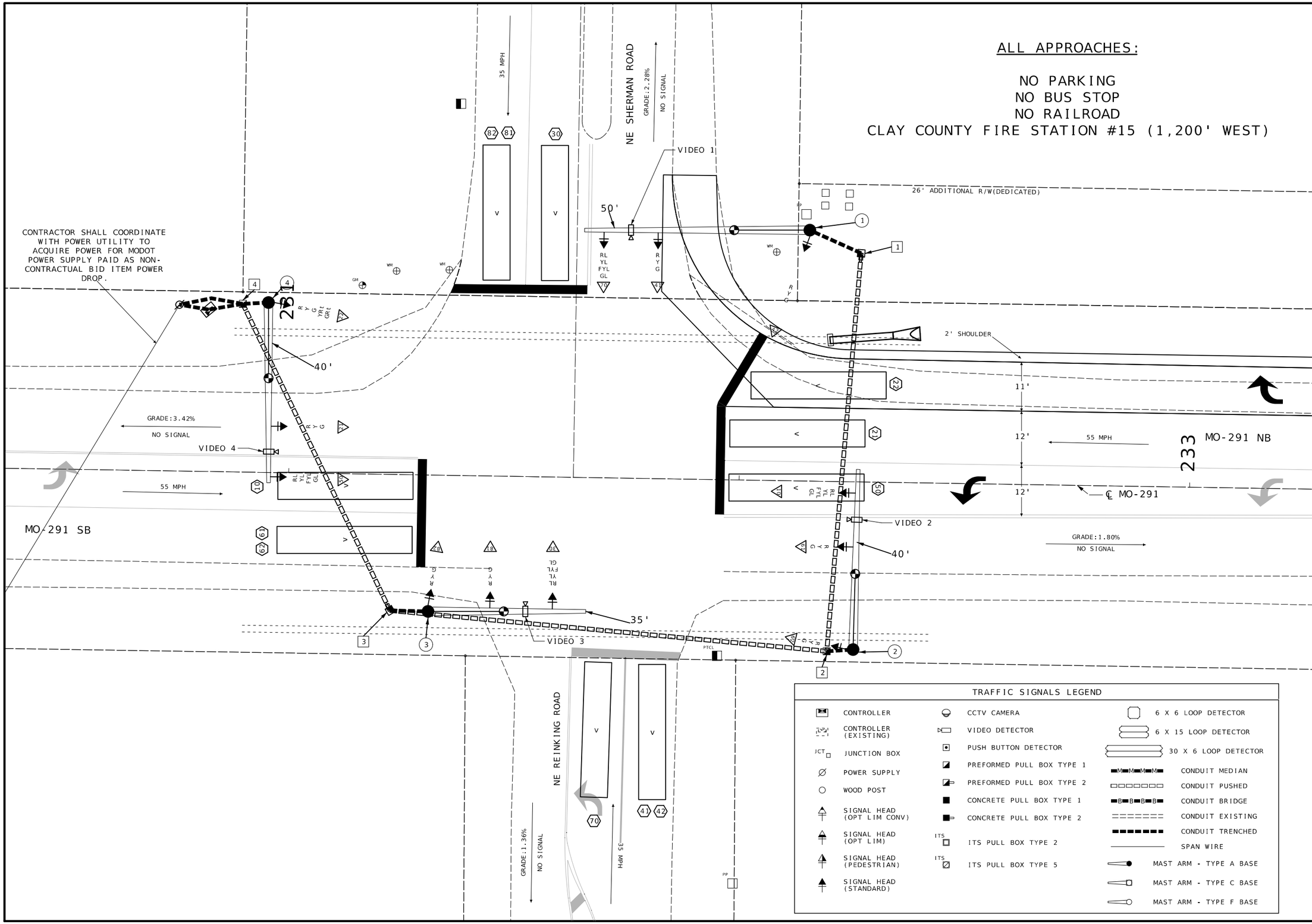
DATE PREPARED	2/27/2025
ROUTE	291
STATE	MO
DISTRICT	KC
SHEET NO.	8
COUNTY	CLAY
JOB NO.	JKU0121
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

008_CS_01_KU0121_Culvert_Section_I10.dgn 3:19:59 PM 2/27/2025



STATE OF MISSOURI
CRAIG SKORSETH
NUMBER PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

DIGITALLY SIGNED BY CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	2/26/2025
ROUTE 291	STATE MO
DISTRICT KC	SHEET NO. 9
COUNTY	CLAY
JOB NO.	JKU0121
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)

POST NUMBER	PULL BOX NUMBER	LOCATION APPROACH	STATION	OFFSET	BASE A 9	A 9.5	A 10	A 10.5	A 11	A 12	BASE F 9	F 9.5	F 10	F 10.5	F 11	F 12	BASE C	CONCRETE** (CU. YDS.)	PULL BOX PREFORMED CLASS 1	CLASS 2	CLASS 3	CLASS 5	CONCRETE STANDARD	DOUBLE, TYPE A	DOUBLE, TYPE B	DRAIN TYPE* I	II A	II B	II C
			CONTROLLER	(AS REQ'D)														1.93											
1		NE Corner	232+14.79	55.7084L				1										3.27											
2		SE Corner	232+25.87	37.2284R				1										3.27											
3		SW Corner	231+34.41	30.2740R		1												3.01											
4		NW Corner	230+94.91	37.7198L				1										3.27											
	1	NE Corner	232+26.28	50.7634L																1								1	
	2	SE Corner	232+20.03	37.7610R																1						1			
	3	SW Corner	231+22.98	30.2076R																	1						1		
	4	NW Corner	230+89.21	37.3382L																	1					1			
SUBTOTAL																		14.75		2	2								
TOTAL																		14.8		2	2								

POST NUMBER	TOP MOUNT POST 8 FT.	15 FT.	TYPE C & CL ARM LENGTH 50	40	35	A	SIGNAL SPACING B	C	D	D'	SIGN SPACING B	C	D	D'	TYPE B & BL ARM LENGTH E	K	E	K	E	K	LEFT ARM E SIGNAL SPACING F	G	H	H'	SIGN SPACING F	G	H	H'	RIGHT ARM K SIGNAL SPACING L	M	N	N'	SIGN SPACING L	M	N	N'	INCLUDED ANGLE	LUMINAIRE BRACKET ARM* 4 FT.	6 FT.	8 FT.	10 FT.	12 FT.	15 FT.
1			1				0	34	46		1	44																															1
2				1			0	23	35		1	33																															1
3					1		0	13	27		1	25																															1
4				1			0	27	39		1	37																															1
SUBTOTAL			1	2	1																																						
TOTAL			1	2	1																																						

SIGNAL HEADS

SPAN NUMBER	POST NUMBER	FACE NUMBER	LUMINAIRE 150W SODIUM	INDICATIONS * 12" LENS CONVENTIONAL RL	R	Y	YL	YRt	FYL	G	S	L	Rt	(PED. SYMBOL)	12" LENS OPTICAL LIMITING R	Y	YL	YRt	YL	YRt	G	S	L	Rt	VISORS * 12" LENS	PED.
	1	70	1	1			1		1			1													4	
		41			1	1				1															3	
		42			1	1				1															3	
	2	10	1	1			1		1			1													4	
		61			1	1				1															3	
		62			1	1				1															3	
	3	30	1	1			1		1			1													4	
		81			1	1				1															3	
		82			1	1				1															3	
	4	50	1	1			1		1			1													4	
		21			1	1				1															3	
		22			1	1		1		1			1												5	
SUBTOTAL			4																							
TOTAL			4																							

FACE NUMBER	LOUVERS * A	B	C	D	E	F	BACKPLATE* LENSES 1	2	3	4	5	RETROREFLECTIVE BACKPLATE* LENSES 1	2	3	4	5	BRACKET* TYPE I	II	III
70															1		1		
41														1			1		
42														1			1		
10															1		1		
61														1			1		
62														1			1		
30															1		1		
81														1			1		
82														1			1		
50															1		1		
21														1			1		
22																1	1		

FACE NUMBER	ONE-FACE SECTION 1- T	S	C	B	3- T	S	C	B	4- T	S	C	B	5- T	S	C	B	TWO-FACE SECTIONS 11- T	S	B	33- T	S	C	B	34- S	B	35- S	B	44- S	B	45- S	B
70												1																			
41								1																							
42						1																									
10												1																			
61								1																							
62						1																									
30												1																			
81								1																							
82						1																									
50												1																			
21								1																							
22														1																	
SUBTOTAL OPTICALLY LIMITED																															
SUBTOTAL CONVENTIONAL						3		4				4		1																	
SUBTOTAL COMBINATION OL & CONV																															
TOTAL OPTICALLY LIMITED																															
TOTAL CONVENTIONAL						3		4				4		1																	
TOTAL COMBINATION OL & CONV																															

LEGEND
T - TOP MOUNT
S - SIDE MOUNT
C - SPANWIRE MOUNT
B - MAST ARM MOUNT

SPAN WIRE POLES

POST NUMBER	WOOD CLASS IV	STEEL (NO BASE REQUIRED)
SUBTOTAL		
TOTAL		

SPAN WIRE CABLE SPANS

SPAN NUMBER	FROM POST	TO POST	SINGLE MESSENGER ASSEMBLY (LIN. FT.)	MESSENGER ASSEMBLY WITH TETHER (LIN. FT.)
SUBTOTAL				
TOTAL				

REMARKS

ALL LENGTHS AND SPACINGS ARE IN FEET UNLESS OTHERWISE INDICATED.

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

** SEE STANDARD PLANS 902.10 AND 902.30 FOR CONCRETE REQUIREMENTS ON BASES.

*** USE D3-16 FOR ONE LINE. USE D3-18 FOR TWO LINE.

**** SEE STANDARD PLANS 902.00P, 902.05 & 902.40R FOR TRAFFIC SIGNAL HEAD INSTALLATION

SIGNAL STRUCTURES WHICH WILL EXCEED THE DIMENSION LIMITS SHOWN ON STANDARD PLAN SHEETS IN SECTION 902 AND ANY OTHER INSTALLATION WHERE THE DETAILS OF CONSTRUCTION ARE NOT FURNISHED IN THE CONTRACT PLANS, SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE 2001 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION, AND LATEST INTERIMS. THE STRUCTURE SHALL BE DESIGNED AS IMPORTANCE CATEGORY I FOR FATIGUE WITH A 50-YEAR DESIGN LIFE. THE CONTRACTOR SHALL SUBMIT A SET OF SHOP DETAIL DRAWINGS INCLUDING WELD PROCEDURE SPECIFICATIONS AND DESIGN COMPUTATIONS FOR MODOT RECORDS AND REFERENCE. THE SUBMITTED DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED IN ACCORDANCE WITH THE LAWS RELATING TO ARCHITECTS AND PROFESSIONAL ENGINEERS (CHAPTER 327, RSMO.), AND SHALL INCLUDE A TITLE BLOCK OR SUMMARY SHEET WHICH LISTS AND CERTIFIES THAT THE PRODUCT MEETS ALL OF THE SPECIFIED DESIGN CRITERIA.

MO-291 & SHERMAN

INTERSECTION

D-37A

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER PE-2018000273
PROFESSIONAL ENGINEER
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED 3/7/2025
ROUTE 291 | STATE MO
DISTRICT KC | SHEET NO. 10
COUNTY CLAY
JOB NO. JKU0121
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)

SIGNAL SHEET
MO-291 & SHERMAN ROAD
SHEET 2 OF 6

* SEE STANDARD PLANS 902.10Q FOR CONDUIT SPECIFICS

** QUANTITY OR INFORMATION ONLY,
CABLES TO BE PAID FOR AS PART OF ASSOCIATED BID ITEMS

CONDUIT (WITH #14 TRACER WIRE)

FROM	TO	CENTER TO CENTER DISTANCE	LOOP DET.	TRENCH				PUSHED			MEDIAN			ON STRUCTURE			REMARKS
			1"	2"	3"	4"		2"	3"	4"	2"	3"	4"	2"	3"		
P.S.	⧗	6				10											
①	1	13				14											
1	2	89								87							
②	2	6				7											
2	3	98								96							
③	3	9				10											
3	4	76								74							
④	4	6				7											
4	⧗	8				20											
4	P.S.	15				18											
SUBTOTALS						86				257							
PAY TOTALS						86				257							

CABLE

FROM	TO	CENTER TO CENTER DISTANCE	POWER		CONTROL				CLOSED LOOP INTERCONNECT	LUMINAIRE		DETECTOR		FIBER		REMARKS
				1c #6	2c #16	5c #16	7c #16	3c #16	3 PAIR #16	CONTROL 2c #12	POLE & BRACKET 1c #10	1c #14 IN DUCT	VIDEO CABLES **	SINGLE-MODE	MULTI-MODE	
P.S.	⧗	6		171												
▽70	⧗	284					383									
▽41	⧗	284					371									
▽42	⧗	284					329									SIDE MOUNTED SIGNAL HEAD
LUM 1	P.S.	284								324	90					ON TOP OF ①
▽10	⧗	188					258									
▽61	⧗	188					235									
▽62	⧗	188					227									SIDE MOUNTED SIGNAL HEAD
LUM 2	P.S.	188								222	90					ON TOP OF ②
▽30	⧗	93					169									
▽81	⧗	93					134									
▽82	⧗	93					126									SIDE MOUNTED SIGNAL HEAD
LUM 3	P.S.	93								121	90					ON TOP OF ③
▽50	⧗	14					89									
▽21	⧗	14					49									
▽22	⧗	14					41									SIDE MOUNTED SIGNAL HEAD
LUM 4	P.S.	14								71	90					ON TOP OF ④
▷▭ 1	⧗	284											385			ON ①
▷▭ 2	⧗	188											273			ON ②
▷▭ 3	⧗	93											167			ON ③
▷▭ 4	⧗	14											93			ON ④
SUBTOTALS				171			2411			738	360		918			
PAY TOTALS				180			2420			740	360					

INTERSECTION MO-291 & SHERMAN ROAD

D-37B

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

DIGITALLY SIGNED BY CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED
2/27/2025

ROUTE	STATE
291	MO

DISTRICT	SHEET NO.
KC	11

COUNTY
CLAY

JOB NO.
JKU0121

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)

SIGNAL SHEET
MO-291 & SHERMAN ROAD
SHEET 3 OF 6

POWER SUPPLY

LOCATION			POWER SUPPLY ASSEMBLY		CIRCUIT BREAKER TRIP RATING*					LIGHTING CONTROL * (ON POWER SUPPLY)		SERVICE POLE	
					CONTROLLER		POWER SUPPLY DISCONNECT						
							MAIN BREAKER						
APPROACH	STATION	OFFSET	DRAWING 902.15	DRAWING	AUXILIARY BREAKER	CONT & SIGNAL LAMPS	SIGNALS	LIGHTING		120 VOLT CONTROL CABINET	MAIN BREAKER	CONTRACT FURNISH	UTILITY COMPANY
MO-291	230+76.76	-36.9487	Type 2		15 Amps	50 Amps	50 Amps	40 Amps		1	15 Amps	Cl. Ft.	
			Type		15 Amps	Amps	Amps	Amps			Amps	Cl. Ft.	

* MMU Z FOR FYA MODE G

CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT

LOCATION			SYSTEM MASTER (CLOSED LOOP)		ACTUATED		ON-OFF* SWITCH TYPE		COORDINATION INTERFACE *						TIME * CLOCK	NEMA CABINET TYPE *			170 CABINET TYPE *		170 SOFTWARE *	
									12C/7C HARDWIRE (1)		TIME BASE	CLOSED LOOP		FIBER								
APPROACH	STATION	OFFSET	NEMA	170	NEMA	170	I	II	MASTER	LOCAL		NEMA	170			E	EV	DOUBLE	332	336S	BITRAN	WAPITI
MO-291	230+82.64	-36.7244			(3)						1						1					

NEMA DETECTOR ASSIGNMENT

		CARD POSITION							
		1	2	3	4	5	6	7	8
CHANNEL	1	VIDEO							
	2								

NEMA LOAD SWITCH ASSIGNMENTS

1	2	3	4	5	6	7	8	9	10	11	12
Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	FYA Ø1	FYA Ø3	FYA Ø5	FYA Ø7
								13	14	15	16
									OVL B		

* MODOT USES 16 LOAD SWITCH ASSIGN

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) = (2)

DETECTOR SCHEDULE

DETECTOR NUMBER	APPROACH	TYPE: PUSH BUTTON	INDUCTION LOOP (2): STANDARD	INDUCTION LOOP (2): DELAY/ EXTEND *	INDUCTION LOOP (2): CALL UNIT *	VIDEO
70	NB SHERMAN RD					▷□1
41	NB SHERMAN RD					▷□1
42	NB SHERMAN RD					▷□1
10	SB MO-291					▷□2
61	SB MO-291					▷□2
62	SB MO-291					▷□2
30	SB NE REINKING RD					▷□3
81	SB NE REINKING RD					▷□3
82	SB NE REINKING RD					▷□3
50	NB MO-291					▷□4
21	NB MO-291					▷□4
22	NB MO-291					▷□4
TOTAL						

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

*** USE D3-1 FOR ONE LINE. USE D3-1B FOR TWO LINE.

(1) MoDOT "D" PLUG SHALL BE WIRED INTO ALL NEMA CONTROLLERS WITH 7C HARDWIRE INTERCONNECT.

(2) PAYMENT IS MADE FOR THE NUMBER OF 2-CHANNEL DETECTOR CARDS AS SHOWN BELOW THE ASSIGNMENT CHART.

(3) MODOT SHALL PROVIDE ECONOLITE COBALT 2100 AS CONTROLLER TO BE INSTALLED WITH NEW CABINET. CONTRACTOR SHALL PROVIDE MMU2 MALFUNCTION MONITOR UNIT. PAID AS PART OF 902-99.02 TS2 / EV CABINET ASSEMBLY WITHOUT CONTROLLER.

SIGNAL SIGNS

QUANTITY	MUTCD SIGN NUMBER	SIZE	AREA	SIGN TOTAL AREA ITEM NO. 90208.33	SIGNAL SIGN MOUNTING HARDWARE ITEM NO. 90208.34
		INCHES	SQ.FT.	SQ.FT.	EA.
	R10-10L	24 X 30	5.0		
	R10-10R	24 X 30	5.0		
	R3-5L	30 X 36	7.5		
	R3-5R	30 X 36	7.5		
	R3-5A	30 X 36	7.5		
	R3-6L	30 X 36	7.5		
	R3-6R	30 X 36	7.5		
	R3-2	24 X 24	4.0		
	R3-1	24 X 24	4.0		
	R3-3	24 X 24	4.0		
4	D3-1 ***	VAR. X 18		42	4
	D3-1B ***	VAR. X 18			
	R10-3E	9 X 15	0.9		
	R10-11A	24 X 30	5.0		
	R10-13	36 X 24	6.0		
4	R10-27A	30 X 36	7.5	30	4
			SUBTOTAL	72	8
			TOTAL	72	8

170 INPUT FILE ASSIGNMENTS

	CHANNEL	1	2	3	4	5	6	7	8	9	10	11	12	13	14
"I"	U														
	L														
"J"	U														
	L														

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) = (2)

170 OUTPUT FILE ASSIGNMENTS

FR1							MONITOR
FR2							
FR3							
FR4							

170 AUXILIARY OUTPUT FILE

FR5							
FR6							

MO-291 & SHERMAN ROAD

INTERSECTION

D-37C

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

DIGITALLY SIGNED BY CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED
2/26/2025

ROUTE	STATE
291	MO
DISTRICT	SHEET NO.
KC	12

COUNTY
CLAY

JOB NO.
JKU0121

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

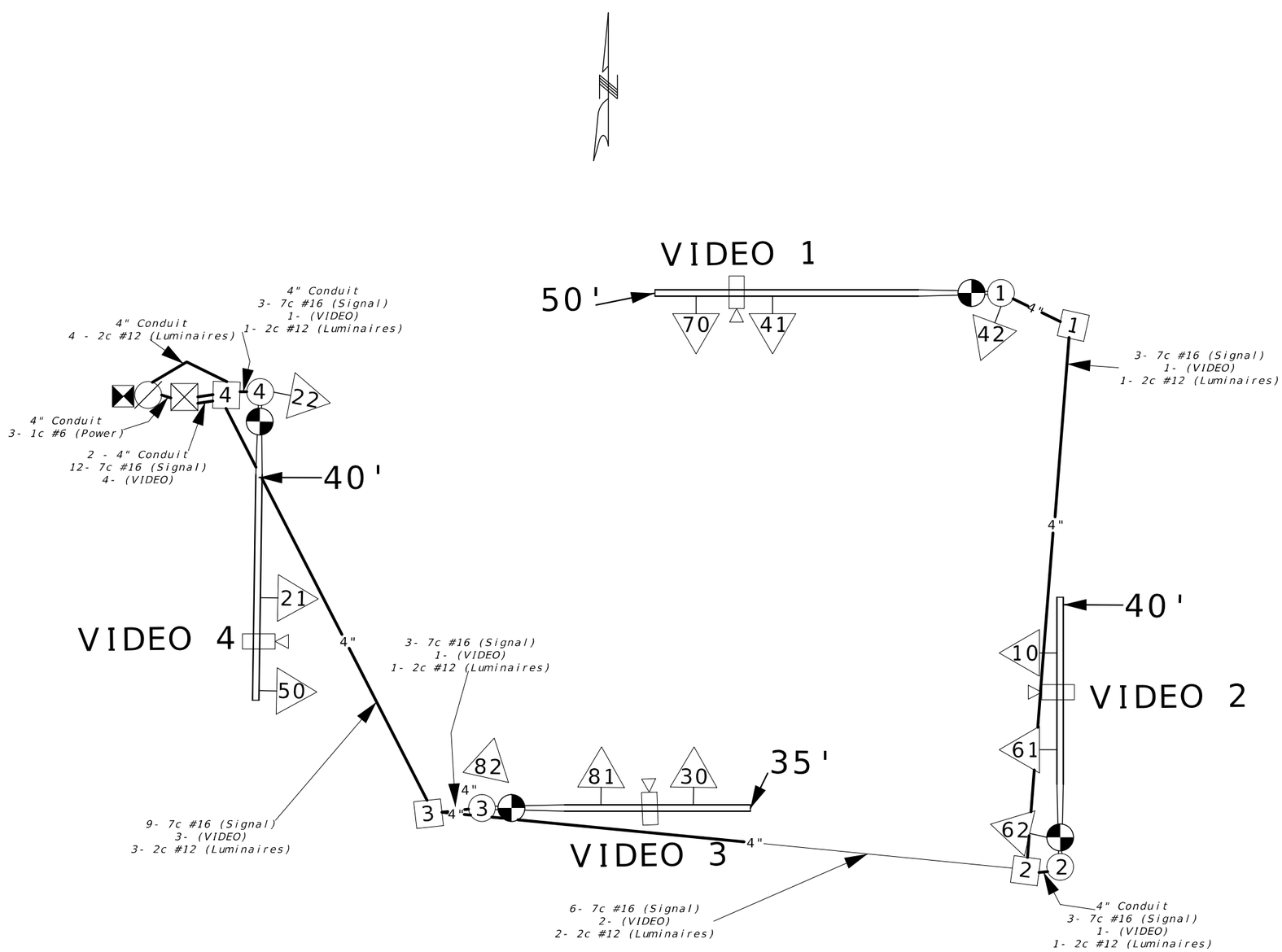
DESCRIPTION	DATE

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

SIGNAL SHEET
MO-291 & SHERMAN ROAD
SHEET 4 OF 6

EFFECTIVE: 12-01-2017

WIRING DIAGRAM



LEGEND

3"	CONDUIT CONTAINING CABLE WITH SIZE
	CABLE
X-Xc	MULTI-CONDUCTOR CABLE #16 AWG (UNLESS OTHERWISE INDICATED)
LIC	#14 AWG DETECTOR LEAD-IN CABLE (2C TWISTED SHIELDED)
X	PULL BOX WITH NUMBER
X	POST WITH NUMBER
X	POST WITH MAST ARM
X	POST WITH MAST ARM AND LUMINAIRE
X	DETECTOR WITH NUMBER
X	SIGNAL HEAD WITH NUMBER
	SIGNAL CONTROLLER
	POWER SUPPLY
	LIGHTING CONTROLLER

MO-291 & SHERMAN ROAD

INTERSECTION

D-37D

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

Digitally signed by Craig Skorseth
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	2/26/2025
ROUTE 291	STATE MO
DISTRICT KC	SHEET NO. 13
COUNTY	CLAY
JOB NO.	JKU0121
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

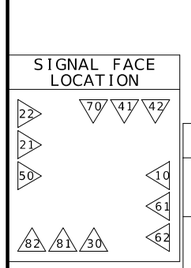
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

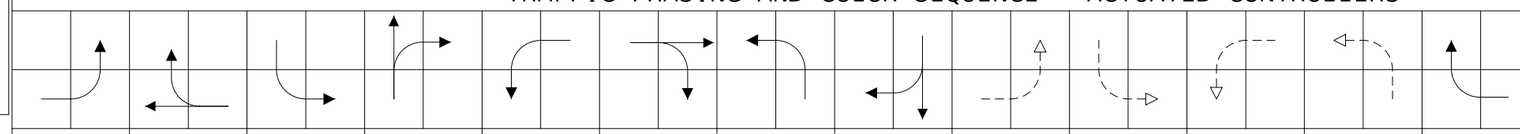
SIGNAL SHEET
MO-291 & SHERMAN ROAD
SHEET 5 OF 6

EFFECTIVE: 12-01-2017

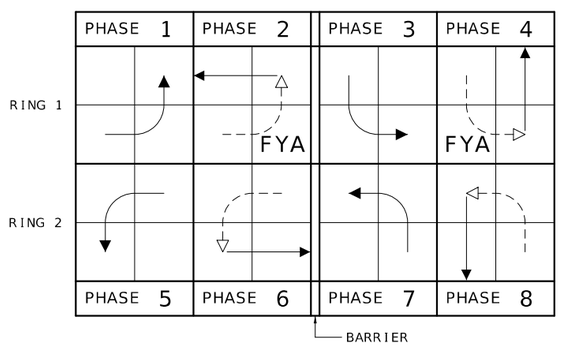
SIGNAL FACE LOCATION



TRAFFIC PHASING AND COLOR SEQUENCE - ACTUATED CONTROLLERS



	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	OVERLAP M	OVERLAP N	OVERLAP O	OVERLAP P	OVERLAP B
FACE NUMBERS	10	21 22	30	41 42	50	61 62	70	81 82					
SIGNAL INDICATIONS R	RL	R	RL	R	RL	R	RL	R					
SIGNAL INDICATIONS Y	YL	Y	YL	Y	YL	Y	YL	Y	FYL	FYL	FYL	FYL	Y_{Rt}
SIGNAL INDICATIONS FYA													
SIGNAL INDICATIONS G	L	G	L	G	L	G	L	G					Rt
DETECTOR ASSIGNMENTS													
DETECTOR ASSIGNMENTS (PEDS. ONLY)													
OVERLAP PARENT PHASES									Ø2	Ø4	Ø6	Ø8	Ø3



RING STRUCTURE

IF CALLED, ALL NON-CONFLICTING PHASES SHALL COMBINE AND TIME CONCURRENTLY. TIME TO BE DETERMINED BY THE ENGINEER AT SIGNAL TURN ON AND SET IN THE CONTROLLER BY THE CONTRACTOR.

LEGEND

- ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED ACTUATED VEHICULAR MOVEMENT
- NON-ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED NON-ACTUATED VEHICULAR MOVEMENT
- ACTUATED PEDESTRIAN MOVEMENT
- NON-ACTUATED PEDESTRIAN MOVEMENT
- VEHICLE STOPPED

FDW — FLASHING DON'T WALK
W — WALK
DW — DON'T WALK
R/W — RIGHT OF WAY INTERVAL
YRt — YELLOW RIGHT ARROW
RT. — GREEN RIGHT ARROW
LY -YL — YELLOW LEFT ARROW
L — GREEN LEFT ARROW
S — GREEN STRAIGHT AHEAD ARROW
G — CIRCULAR GREEN
Y — CIRCULAR YELLOW
R — CIRCULAR RED
RL — RED LEFT ARROW
Ø — TRAFFIC PHASE
AO — ALL OTHERS
FR — FLASHING RED
FY — FLASHING CIRCULAR YELLOW
FYL — FLASHING YELLOW LEFT ARROW

FLASHING OPERATION	
MO-291	FR
SHERMAN	FR

CONTROLLER TYPE NEMA

TRAFFIC SIGNAL CONTROL OPERATION

INTERSECTION OF MO-291

WITH SHERMAN ROAD

D-38A

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER PE-2018000273
PROFESSIONAL ENGINEER
Craig Skorseth
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	2/26/2025
ROUTE 291	STATE MO
DISTRICT KC	SHEET NO. 14
COUNTY	CLAY
JOB NO.	JKU0121
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

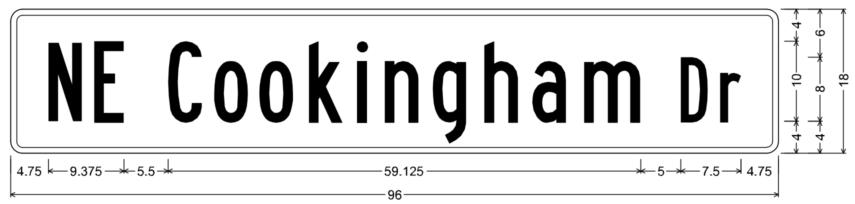
DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

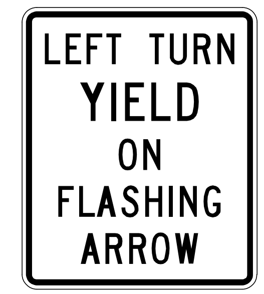
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

SIGNAL SHEET
MO-291 & SHERMAN ROAD
SHEET 6 OF 6



D3-1 SH-FLAT SHEET;
1.500" Radius, 0.750" Border, White on, Green;
"NE Cookingham", B 80% spacing; "Dr", B 80% spacing;
Table of letter and object lefts

N	E	C	o	o	k	i	n	g	h	a	m	D	r
4.750	10.375	19.625	25.500	31.125	37.250	43.250	46.750	52.750	59.250	65.250	71.625	83.750	88.750

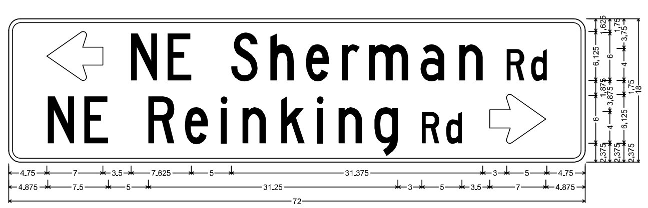


R10-27a

D3-1b SH-FLAT SHEET;
1.500" Radius, 0.500" Border, White on, Green;
Standard Arrow Custom 7.000" X 6.125" 180°; "NE Reinking", C; "Rd", C; "NE Sherman", C; "Rd", C; Standard Arrow Custom 7.000" X 6.125" 0°;
Table of letter and object lefts

⇦	N	E	R	e	i	n	k	i	n	g	R	d
4.875	15.375	19.875	27.875	32.500	37.000	39.750	44.500	49.000	51.750	56.125	62.125	65.125

N	E	S	h	e	r	m	a	n	R	d	⇨
4.750	9.375	17.375	22.125	26.625	31.125	34.500	41.000	45.750	51.750	54.750	60.250



D3-1b SH-FLAT SHEET;
1.500" Radius, 0.500" Border, White on, Green;
Standard Arrow Custom 7.000" X 6.125" 180°; "NE Sherman", C; "Rd", C; "NE Reinking", C; "Rd", C; Standard Arrow Custom 7.000" X 6.125" 0°;
Table of letter and object lefts

⇦	N	E	S	h	e	r	m	a	n	R	d
4.750	15.250	19.875	27.875	32.625	37.125	41.625	45.000	51.500	56.250	62.250	65.250

N	E	R	e	i	n	k	i	n	g	R	d	⇨
4.875	9.375	17.375	22.000	26.500	29.250	34.000	38.500	41.250	45.625	51.625	54.625	60.125

SPECIAL SIGNING SHEET
SHEET 1 OF 1

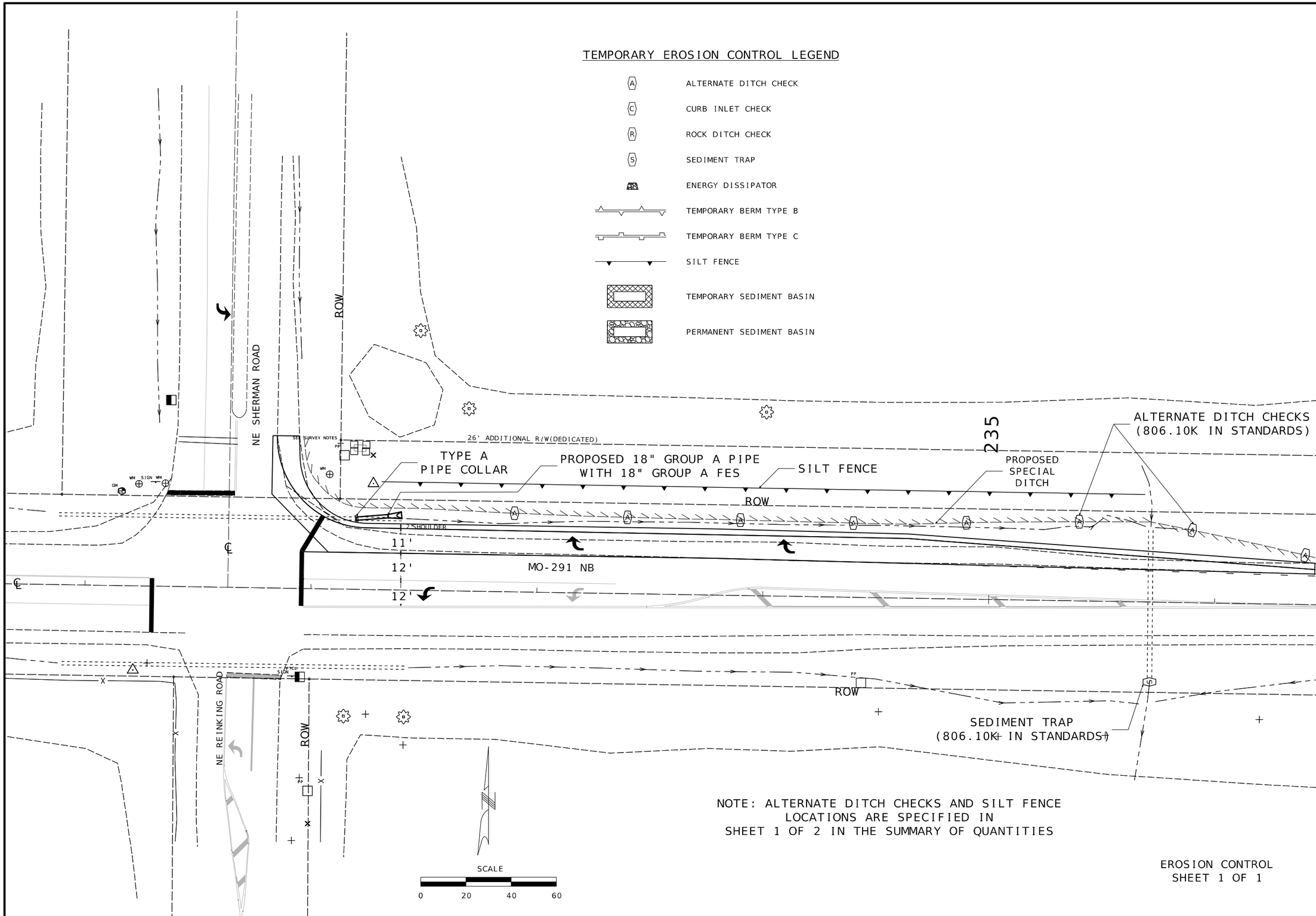
STATE OF MISSOURI
CRAIG SKORSETH
NUMBER PE-2018000273
PROFESSIONAL ENGINEER
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	2/26/2025
ROUTE	291
STATE	MO
DISTRICT	KC
SHEET NO.	15
COUNTY	CLAY
JOB NO.	JKU0121
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
DESCRIPTION	
DATE	

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

TEMPORARY EROSION CONTROL LEGEND

- ALTERNATE DITCH CHECK
- CURB INLET CHECK
- ROCK DITCH CHECK
- SEDIMENT TRAP
- ENERGY DISSIPATOR
- TEMPORARY BERM TYPE B
- TEMPORARY BERM TYPE C
- SILT FENCE
- TEMPORARY SEDIMENT BASIN
- PERMANENT SEDIMENT BASIN



NOTE: ALTERNATE DITCH CHECKS AND SILT FENCE
LOCATIONS ARE SPECIFIED IN
SHEET 1 OF 2 IN THE SUMMARY OF QUANTITIES

EROSION CONTROL
SHEET 1 OF 1

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

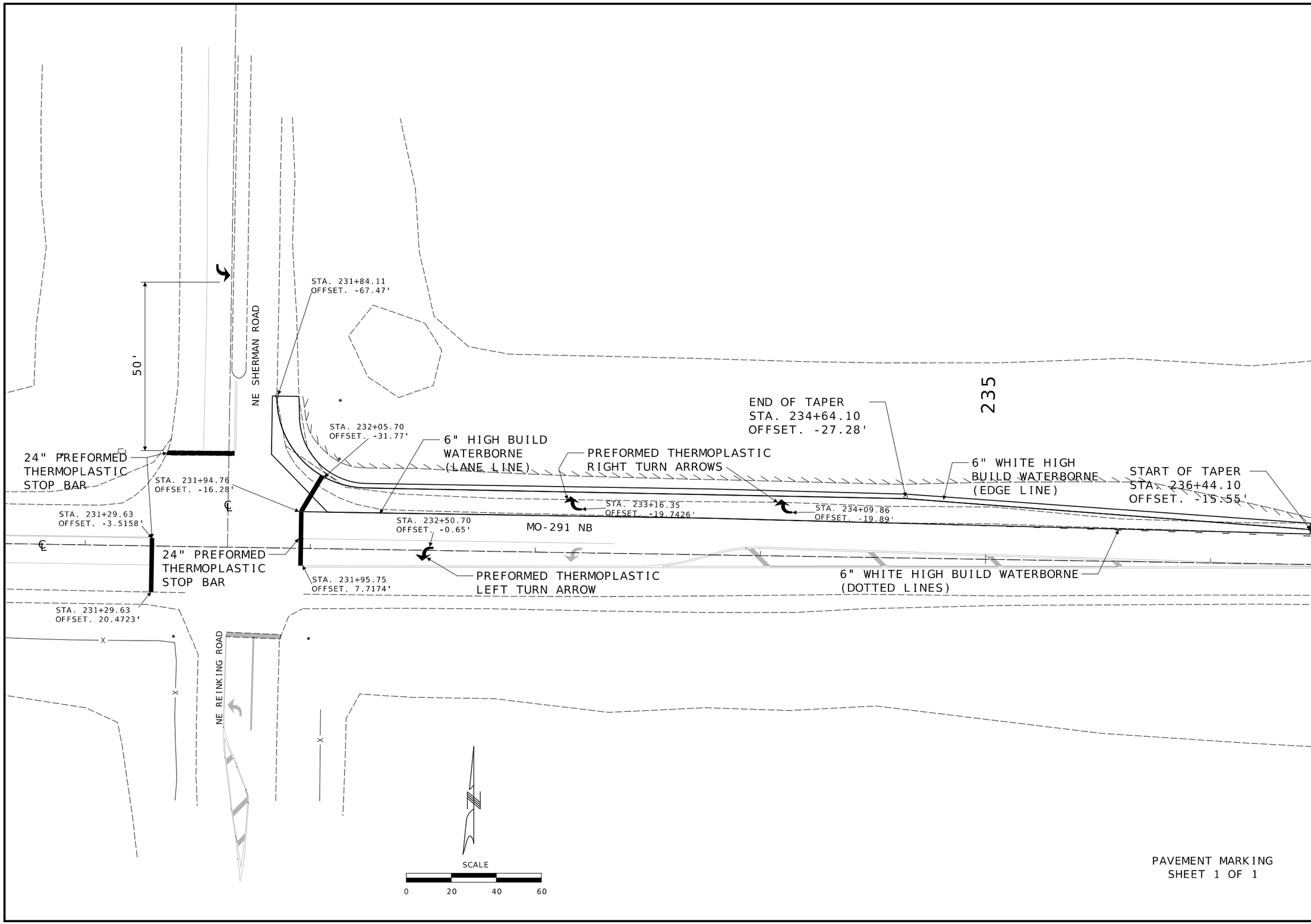
DIGITALLY SIGNED BY
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	
2/26/2025	
ROUTE	STATE
291	MO
DISTRICT	SHEET NO.
KC	16
COUNTY	
CLAY	
JOB NO.	
JKU0121	
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)



PAVEMENT MARKING
SHEET 1 OF 1

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

DIGITALLY SIGNED BY CRAIG SKORSETH
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	2/26/2025
ROUTE	291
STATE	MO
DISTRICT	KC
SHEET NO.	17
COUNTY	CLAY
JOB NO.	JKU0121
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)

SPACING AND TAPER LENGTHS FOR WORK ZONE SIGNS, CHANNELIZERS AND CONCRETE BARRIER

SIGN SPACING FOR ADVANCE SIGN SERIES (1) (2)		
PERMANENT POSTED SPEED MPH	UNDIVIDED HIGHWAYS	DIVIDED HIGHWAYS
0-35	200′	200′
40-45	350′	500′
50-55	500′	1000′
60-70	1000′	SA - 1000′ SB - 1500′ SC - 2640′

TAPER LENGTHS AND END TREATMENTS FOR CONCRETE BARRIER				
PERMANENT POSTED SPEED MPH	MINIMUM LANE TAPER LENGTH (3)			END TREATMENT (4)
	10′	11′	12′	
< 40	160′	168′	176′	BARRIER HEIGHT TRANSITION
> 40	160′	168′	176′	APPROVED CRASH CUSHION

TAPER LENGTHS AND SPACING FOR CHANNELIZERS							
PERMANENT POSTED SPEED MPH	MINIMUM LANE TAPER LENGTH (3)			MINIMUM SHOULDER TAPER LENGTH BASED ON 10′ SHOULDER	BUFFER LENGTH FT	MAXIMUM CHANNELIZER SPACING	
	10′	11′	12′			THROUGH TAPER	THROUGH WORK AREA
0-35	205′	225′	245′	70′	280′	35′	40′
40-45	450′	495′	540′	150′	400′	40′	80′
50-55	550′	605′	660′	185′	560′	50′	80′
60-70	700′	770′	840′	235′	840′	60′	120′

NOTE:

(1) SPACING BETWEEN SIGNS AND SPACING BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER, OF SIGNED CONDITION.

(2) SPACING MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS.

(3) TAPER LENGTHS SHOWN INCLUDE LENGTH REQUIRED FOR LANE AND 10' SHOULDER

(4) CONCRETE BARRIER MAY BE INSTALLED AT 8:1 FLARE RATE FROM THE SHOULDER POINT OF THE LIMITS OF THE CLEAR ZONE WHERE THE SIDE SLOPE IS 6:1 OR FLATTER

TEMPORARY
TRAFFIC CONTROL
SHEET 1 OF 6

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

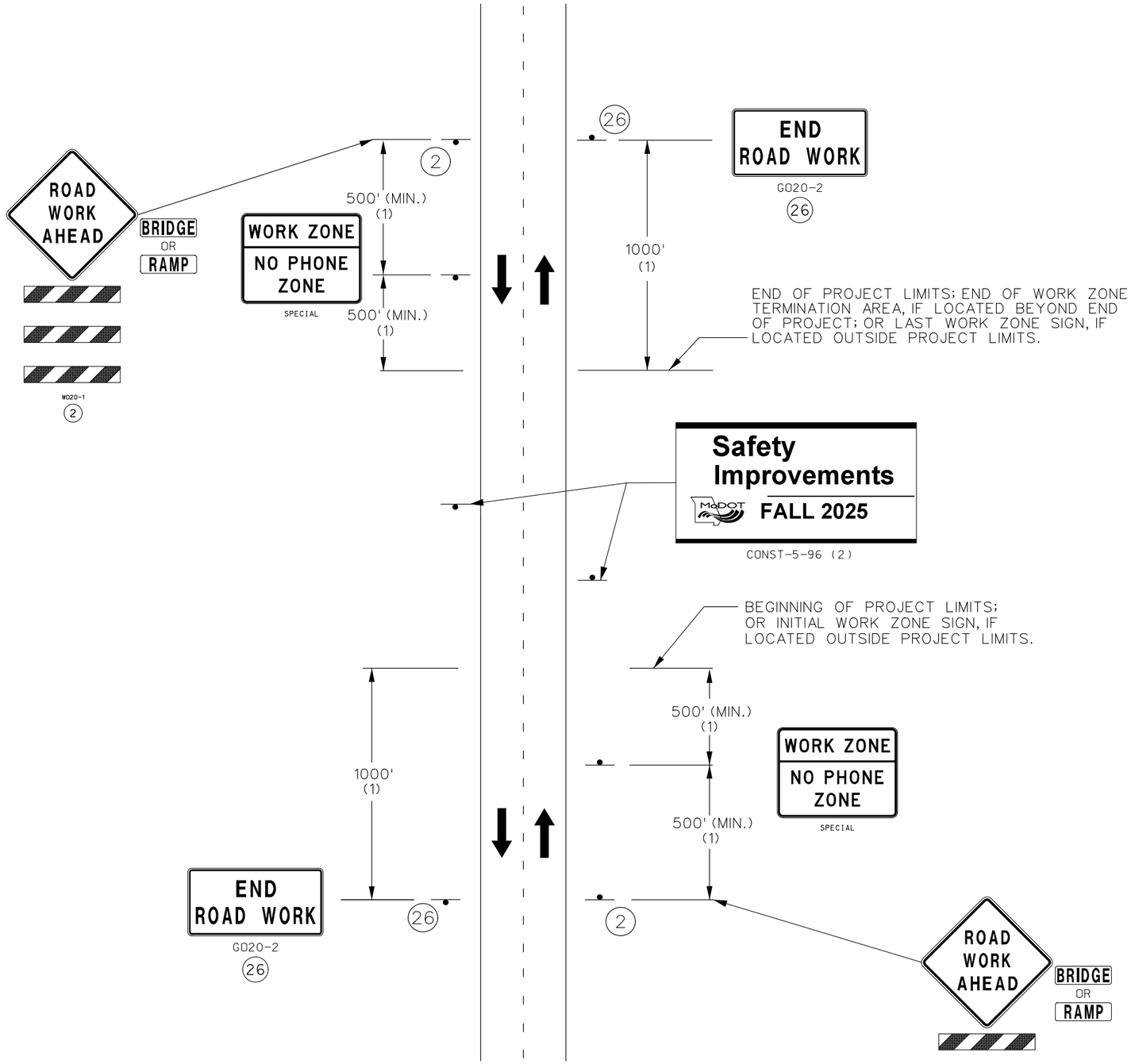
Digitally signed by CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	
2/26/2025	
ROUTE 291	STATE MO
DISTRICT KC	SHEET NO. 18
COUNTY CLAY	
JOB NO. JKU0121	
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)



TWO-LANE UNDIVIDED
BEGIN/END OF PROJECT SIGNING
(FOR USE ON ALL
PROJECTS TWO MILES OR LESS)

OTHER SIGNS SUCH AS DETOUR OR ALTERNATE ROUTE SIGNING MAY BE USED OUTSIDE THE PROJECT LIMITS.

ANY EXISTING SIGNING THAT CONFLICTS WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.

(1) DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS. WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCE WARNING AREA, ADDITIONAL SIGNING MAY BE NEEDED.

(2) SIGN CONST-5-96 OR CONST-5-48 IS PLACED IN A VISIBLE AREA WITHIN THE PROJECT LIMITS PROVIDED ITS PLACEMENT DOES NOT DISRUPT A SEQUENCE OF SIGNS. IF A VISIBLE LOCATION WITHIN THE PROJECT IS NOT AVAILABLE, THE SIGN MAY BE PLACED 500 FEET BEFORE SIGN CONST-7-48 OR CONST-7-72.

(3) THE "POINT OF PRESENCE" SIGN IS AVAILABLE IN TWO SIZES DEPENDING ON ROADWAY CONDITION. THE 48 IN. X 36 IN. SIGN IS USED ON LOW VOLUME ROUTES THAT CARRY 400 AADT OR LESS, ON PROJECTS THAT HAVE A DURATION OF 4 WEEKS OR LESS OR IN URBAN AREAS WHERE THERE IS INSUFFICIENT RIGHT OF WAY FOR AN EIGHT FOOT WIDE SIGN. THE 96IN. X 48 IN. VERSION OF THE SIGN IS USED IN ALL OTHER APPLICATIONS. BUT CAN ALSO BE USED IN PLACE OF THE 48 IN. X 36 IN. SIGN IF ADDED EMPHASIS IS DEEMED NECESSARY.

(4) THE "WORK ZONE NO PHONE ZONE" SIGN IS PLACED A MINIMUM OF 500 FEET BEFORE THE ROAD WORK AHEAD SIGN.

BEGIN/END
TEMPORARY
TRAFFIC CONTROL
SHEET 2 OF 6

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2016000273
PROFESSIONAL ENGINEER

Craig Skorseth

CRAIG SKORSETH - CIVIL
MO-PE-2016000273

DATE PREPARED
2/26/2025

ROUTE	STATE
291	MO
DISTRICT	SHEET NO.
KC	19

COUNTY
CLAY

JOB NO.
JKU0121

CONTRACT ID.

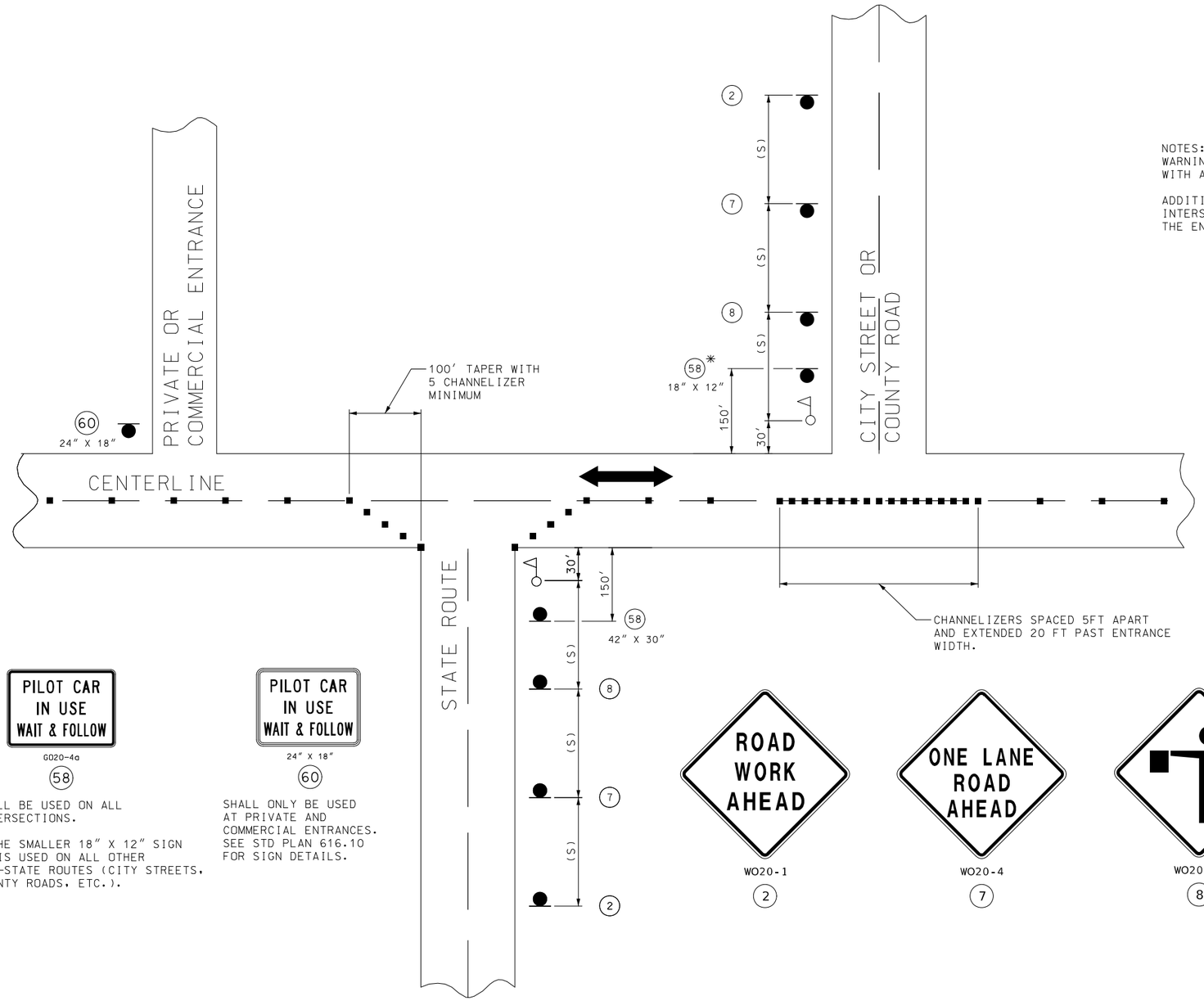
PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

NOT TO SCALE



NOTES:
WARNING SIGNS SHALL BE ERECTED AT EACH INTERSECTION WITH ANOTHER STATE HIGHWAY WITHIN THE WORK ZONE.

ADDITIONAL WARNING SIGNS SHALL BE ERECTED AT OTHER INTERSECTIONS WITHIN THE WORK ZONE, AS DIRECTED BY THE ENGINEER.

G020-4a

58

SHALL BE USED ON ALL INTERSECTIONS.

* THE SMALLER 18" X 12" SIGN 58 IS USED ON ALL OTHER NON-STATE ROUTES (CITY STREETS, COUNTY ROADS, ETC.).

24" X 18"

60

SHALL ONLY BE USED AT PRIVATE AND COMMERCIAL ENTRANCES. SEE STD PLAN 616.10 FOR SIGN DETAILS.

WO20-1

2

WO20-4

7

WO20-7a

8

SIDE ROADS ENTERING WORK ZONES

ENTERING SIDE ROADS
TEMPORARY TRAFFIC CONTROL
SHEET 3 OF 6

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

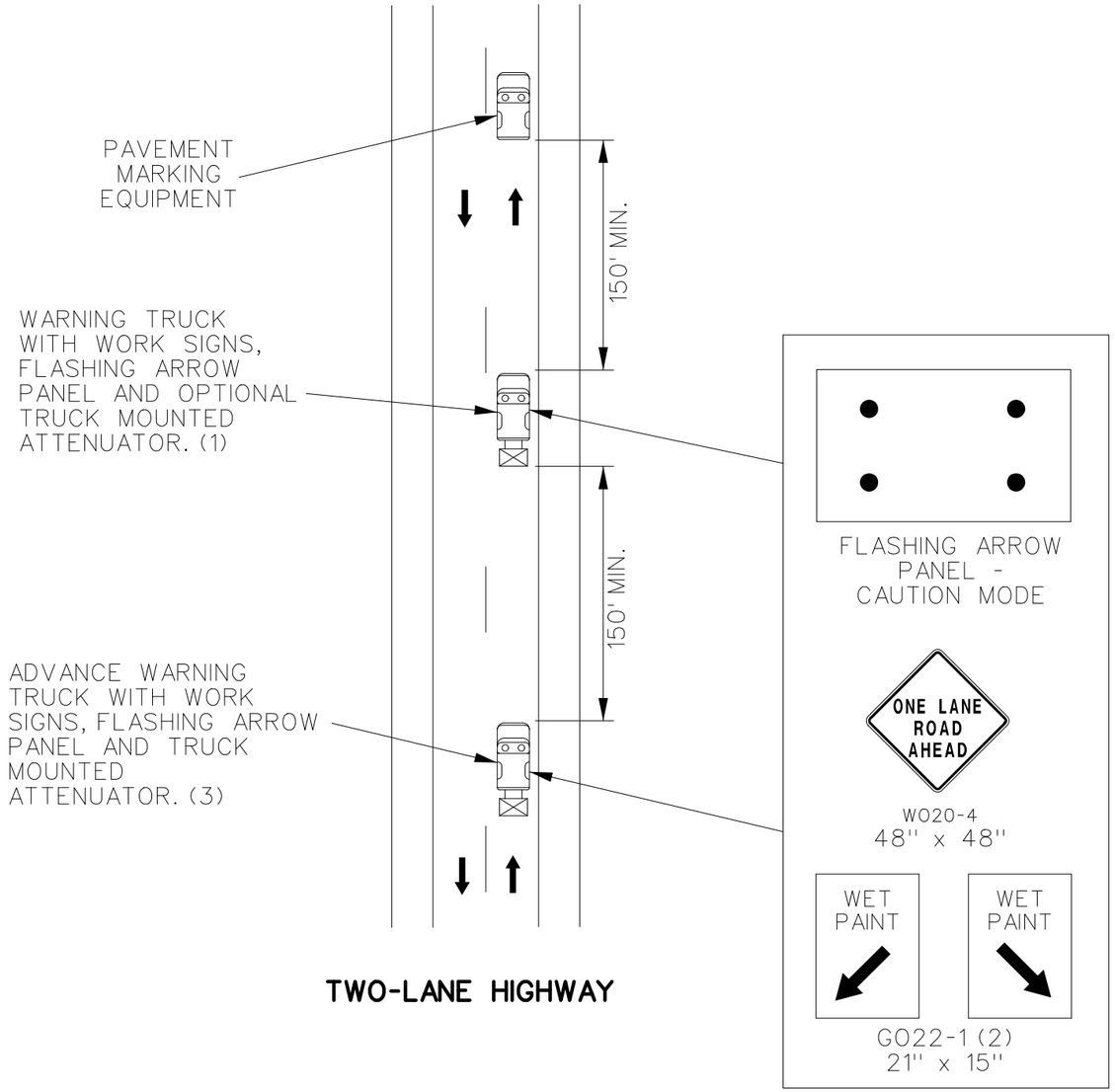
VICE PRESIDENT OF PE
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	
2/26/2025	
ROUTE 291	STATE MO
DISTRICT KC	SHEET NO. 20
COUNTY CLAY	
JOB NO. JKU0121	
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)



TWO-LANE HIGHWAY

MOVING OPERATION ON HIGHWAY OPEN TO TRAFFIC

NOTES:

ALL SIGNS HAVE TYPE 3 FLUORESCENT ORANGE RETROFLECTIVE SHEETING.

UPON APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY PROVIDE ADDITIONAL PROTECTIVE TRUCKS EQUIPPED WITH PROPER WARNING DEVICES.

PROTECTIVE TRUCK AND WORK VEHICLES SHALL DISPLAY HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING OR STROBE LIGHTS.

VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH -INTENSITY ROTATING FLASHING, FLASHING, OSCILLATING, OR STROBE LIGHTS.

(1). TRUCK IS OPTIONAL ON TWO-LANE UNDIVIDED HIGHWAYS IF SIGNING AND ARROW BOARD IS MOUNTED ON THE PAVEMENT MARKING EQUIPMENT.

(2). WET PAINT SIGNS ARE INSTALLED TO INDICATE THE SIDE IN WHICH THE PAVEMENT MARKING MATERIAL IS BEING APPLIED. AT THE CONTRACTOR'S OPTION. A FRONT FACING WET PAINT SIGN MAY BE INSTALLED ON THE LEFT SIDE OF THE PAVEMENT MARKING EQUIPMENT.

(3). ADVANCE WARNING TRUCK IS POSITIONED AT THE NO TRACK POINT OF THE PAVEMENT MARKING MATERIAL OR SPACING SHOWN, WHICHEVER IS GREATER.

MOVING OPERATION
OPEN TO TRAFFIC
TEMPORARY
TRAFFIC CONTROL
SHEET 4 OF 6

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

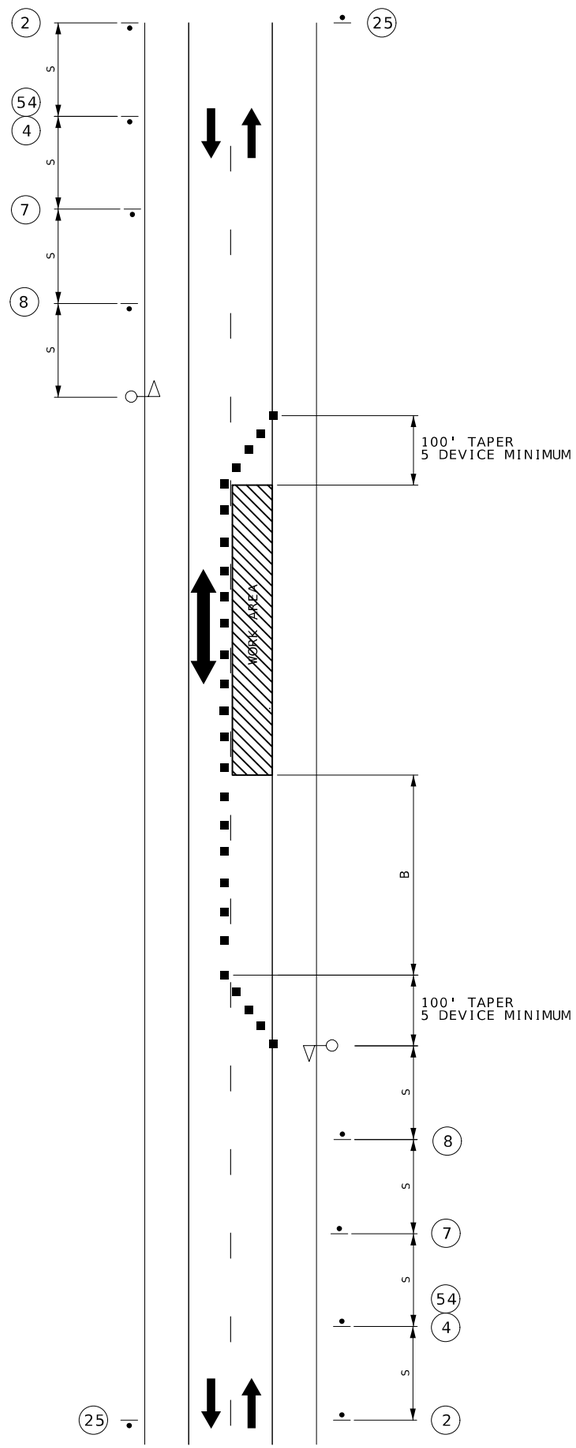
Digitally signed by Craig Skorseth
CRAIG.SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	
2/26/2025	
ROUTE 291	STATE MO
DISTRICT KC	SHEET NO. 21
COUNTY CLAY	
JOB NO. JKU0121	
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)

NOT TO SCALE



R2-1

4

R2-1

25

GO20-5aP

54

WO20-1

2

WO20-4

7

WO20-7a

8

LANE CLOSURE ON TWO-LANE ROAD USING FLAGGERS

STATIONARY FLAGGERS
TEMPORARY TRAFFIC CONTROL
SHEET 5 OF 6

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2018000273
PROFESSIONAL ENGINEER

Craig Skorseth

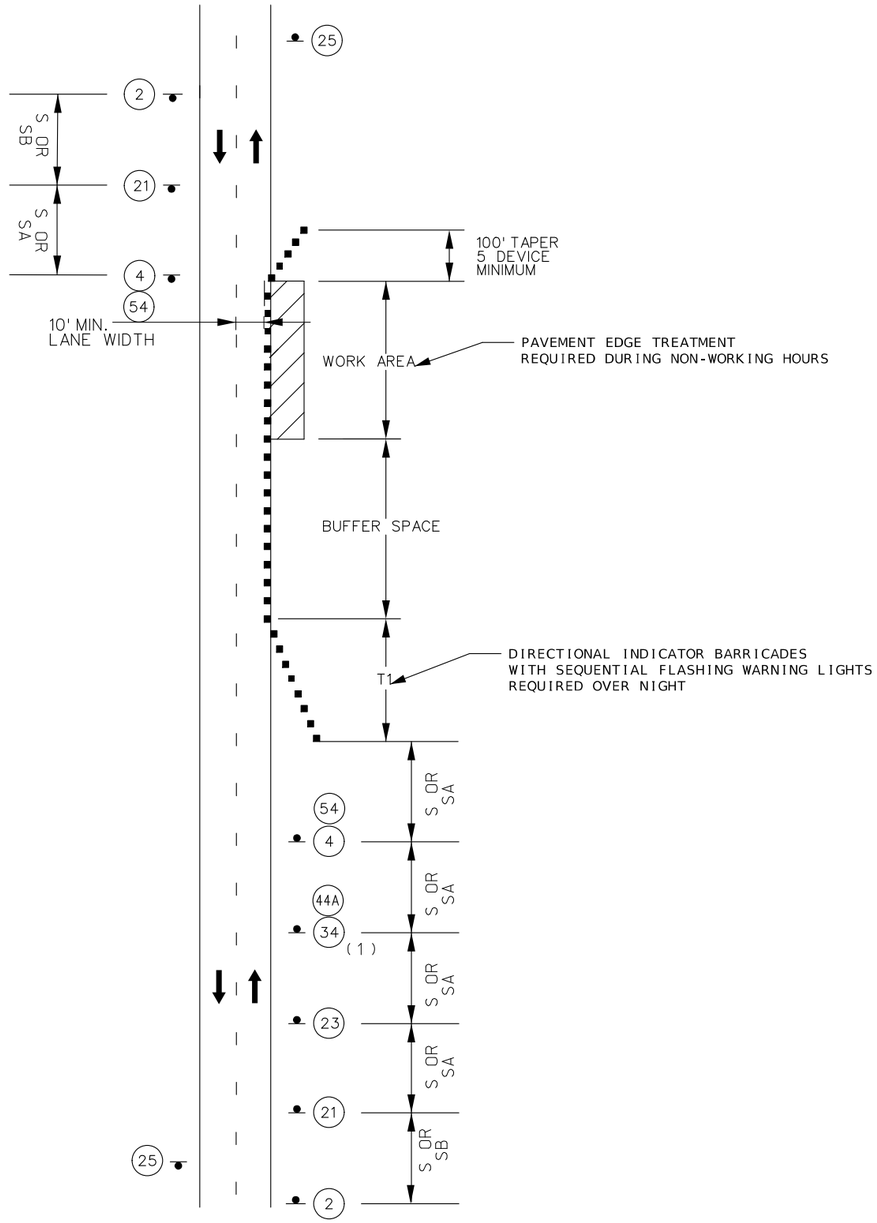
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	
2/26/2025	
ROUTE 291	STATE MO
DISTRICT KC	SHEET NO. 22
COUNTY CLAY	
JOB NO. JKU0121	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

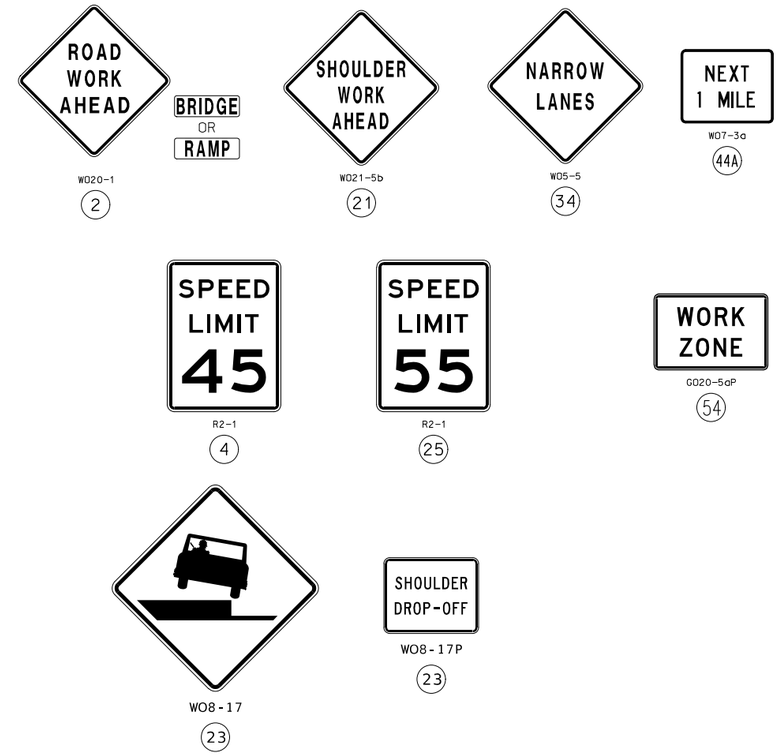
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



TWO LANE UNDIVIDED
SHOULDER WORK
MINOR TRAVELWAY ENCROACHMENT



NOTES:

SEE TRAFFIC CONTROL SHEET 1 FOR SIGN SPACING, DEVICE SPACING AND CHANNELIZING TAPER LENGTHS.

SIGN 2 NOT REQUIRED IF SHOULDER WORK IS LOCATED WITHIN THE LIMITS OF AN ACTIVITY AREA WHERE ANOTHER SIGN 2 IS ALREADY USED.

THE PROTECTIVE VEHICLE MAY BE OMITTED IF A TAPER AND CHANNELIZING DEVICES ARE USED.

VEHICLE- MOUNTED SIGNS SHALL BE MOUNTED IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGEND ON VEHICLE-MOUNTED SIGNS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH -INTENSITY ROTATING FLASHING, FLASHING, OSCILLATING, OR STROBE LIGHTS.

SHADOW AND WORK VEHICLES SHALL DISPLAY HIGH-DENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS.

(1). SIGN 44A NOT REQUIRED FOR NARROW LANE SECTIONS LESS THAN ONE MILE.

SHOULDER WORK
MINOR ENCROACHMENT
TEMPORARY
TRAFFIC CONTROL
SHEET 6 OF 6

STATE OF MISSOURI
CRAIG SKORSETH
NUMBER
PE-2018000273
PROFESSIONAL ENGINEER
Craig Skorseth
CRAIG SKORSETH - CIVIL
MO-PE-2018000273

DATE PREPARED	
2/26/2025	
ROUTE 291	STATE MO
DISTRICT KC	SHEET NO. 23
COUNTY CLAY	
JOB NO. JKU0121	
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DATE	DESCRIPTION

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