

SIGN	SIZE	AREA	QTY	TOTAL	QTY	TOTAL	SIGN	DESCRIPTION
IN.	SQ.FT.	EACH	SQ.FT.	EACH	SQ.FT.	NUM.		
WARNING SIGNS								
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT)
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT)
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT)
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT)
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT)
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT)
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT)
WO1-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT)
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)
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						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 (LEFT)
WO4-1aR	48X48	16.00						MERGE (RIGHT)
WO5-1	48X48	16.00	1	16			43	ROAD/BRIDGE/RAMP NARROWS
WO5-3	48X48	16.00						ONE LANE BRIDGE
WO5-5	48X48	16.00						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
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)
WO8-17L	48X48	16.00						SHOULDER DROP-OFF (SYMBOL LEFT)
WO8-17R	48X48	16.00						SHOULDER DROP-OFF (SYMBOL RIGHT)
WO8-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)
WO10-1	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	1	6.3			44	ADVISORY SPEED (PLAQUE)
WO16-2	30X24	5.00						XXX FEET (PLAQUE)
WO16-3	30X24	5.00						X MILE (PLAQUE)
WO20-1	48X48	16.00	2	32			2	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						ONE LANE ROAD AHEAD
WO20-5+	48X48	16.00	1	16			21B	RIGHT/CENTER/LEFT SHOULDER CLOSED AHEAD
WO20-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
WO20-6a+	48X48	16.00	1	16			21A	RIGHT/CENTER/LEFT SHOULDER CLOSED
WO20-7a	48X48	16.00						FLAGGER (SYMBOL)
WO21-2	36X36	9.00						FRESH OIL
WO21-5	48X48	16.00	1	16			21	SHOULDER WORK / 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						WET PAINT (ARROW PIVOTS)

SIGN	SIZE	AREA	QTY	TOTAL	QTY	TOTAL	SIGN	DESCRIPTION	
IN.	SQ.FT.	EACH	SQ.FT.	EACH	SQ.FT.	NUM.			
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						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						WORK ZONE (PLAQUE)	
MO4-8a	24X18	3.00						END DETOUR	
MO4-9L	48X36	12.00						DETOUR (LEFT)	
MO4-9R	48X36	12.00						DETOUR (RIGHT)	
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	48TR1	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						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	
R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)	
R4-8a	36X48	12.00						KEEP LEFT (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	
R11-4	60X30	12.50						LOCAL TRAFFIC ONLY	
CONST-3A	60X48	20.00						ROAD CLOSED TO THRU TRAFFIC	
CONST-3X	56X12	4.67						FINE SIGN	
MISCELLANEOUS SIGNS									
CONST-5	48X36	12.00						POINT OF PRESENCE	
CONST-5	96X48	32.00						POINT OF PRESENCE	
CONST-8	48X36	12.00						WORK ZONE NO PHONE ZONE	
CONSTRUCTION SIGNS									
616-10.05					TOTAL				
					103				
RELOCATED SIGNS									
616-10.10					TOTAL				
					*				

ITEM	TOTAL	DESCRIPTION
NUMBER	QTY	
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)
6123001	+++	TRUCK MOUNTED ATTENUATOR (TMA)
6161008		ADVANCED WARNING RAIL SYSTEM
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161025	50	CHANNELIZER (TRIM LINE)
6161030		TYPE III MOVEABLE BARRICADE
6161033		DIRECTION INDICATOR BARRICADE
6161040		FLASHING ARROW PANEL
6161047		TYPE III OBJECT MARKER
6161055		SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A	**1	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

NOTE: CMS LOCATIONS TO BE APPROVED BY THE ENGINEER.

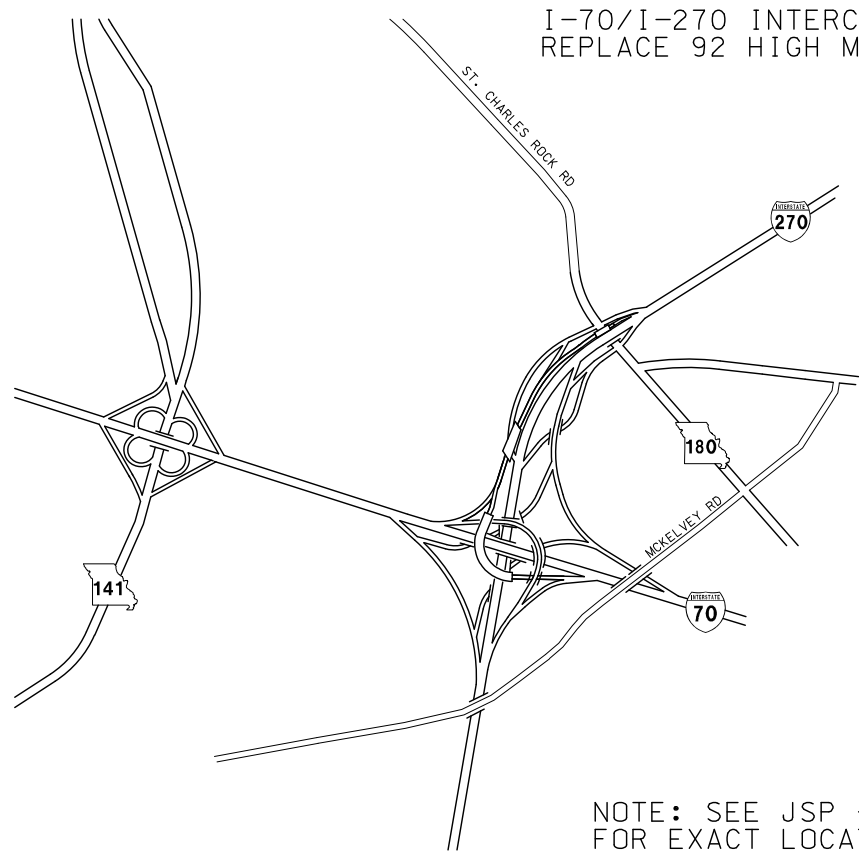
** INDICATES ITEM NOT INCLUDED IN TEMP. TRAFFIC CONTROL LUMP SUM BID ITEM.

NOTE: EXIST. SIGNS SHALL NOT BE REMOVED UNTIL NEW OR TEMP. SIGNS HAVE BEEN INSTALLED UNLESS APPROVED BY THE ENGINEER.

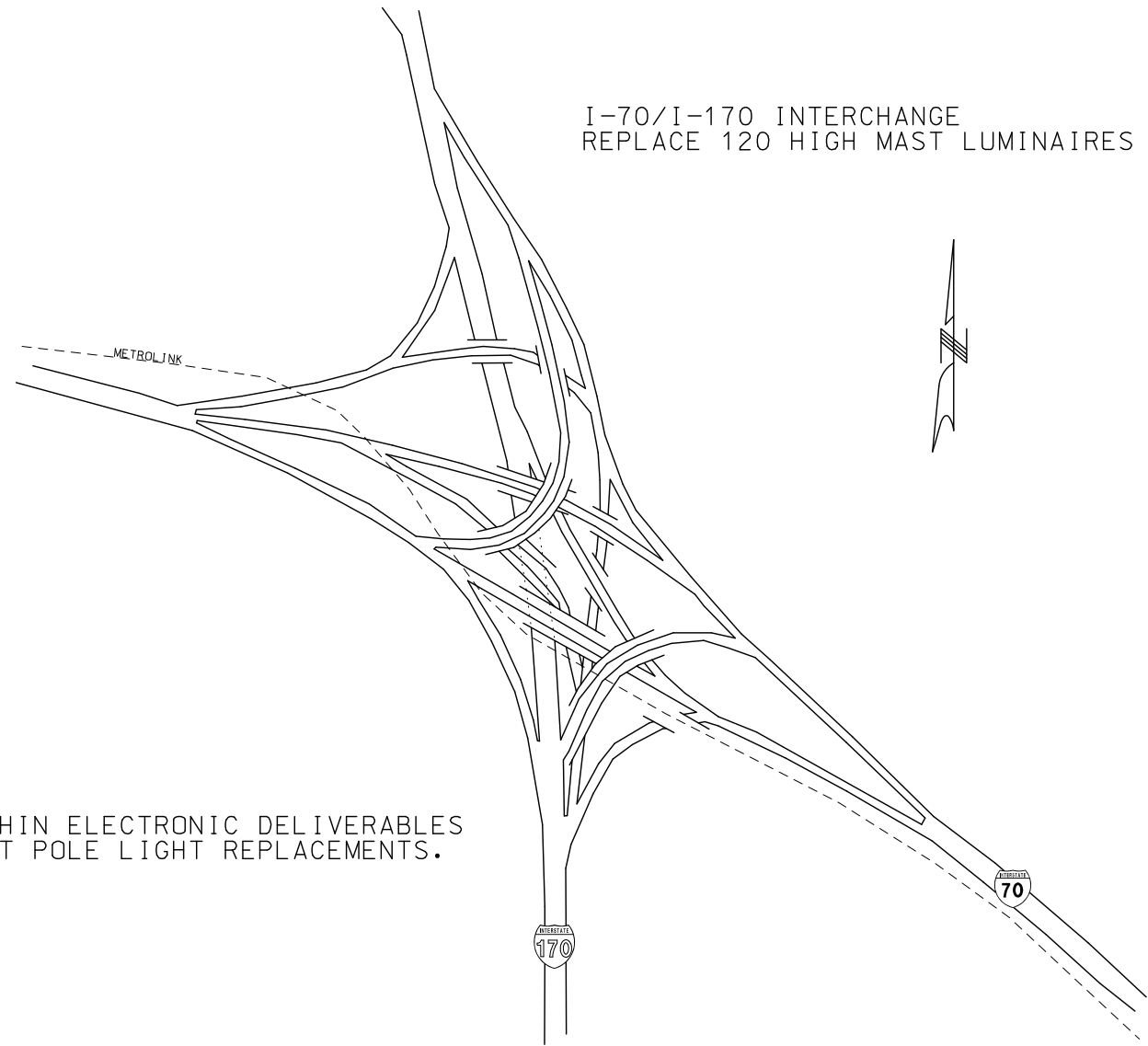
NOTE: QUANTITIES PROVIDED ARE SETUP USING GENERIC TRAFFIC CONTROL. IF THE CONTRACTOR CHOOSES TO SETUP TRAFFIC CONTROL DIFFERENTLY, THEN THOSE ADDITIONAL QUANTITIES SHALL BE PAID AT THE EXPENSE OF THE CONTRACTOR.

* NOTE: NO DIRECT PAYMENT SHALL BE MADE TO RELOCATE OR COVER/UNCOVER EXISTING OR TCP SIGNS OR RELOCATE OTHER TCP DEVICES.

+++ INDICATES TMAs WILL BE REQUIRED FOR MOBILE OPERATIONS ON THIS JOB BUT AT NO DIRECT PAY. THE CONTRACTOR MAY USE TMAs AT STATIONARY LOCATIONS OF HIS OR HER OWN CHOOSING BUT NO PAYMENT SHALL BE MADE FOR THESE TMAs.

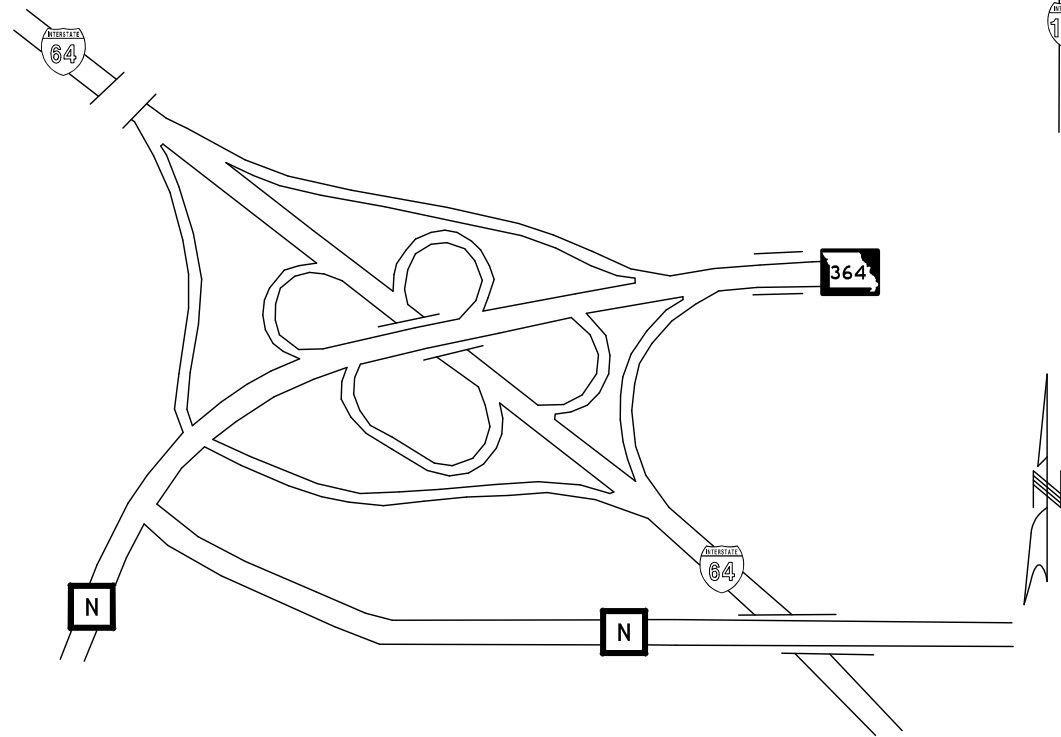


I-70/I-270 INTERCHANGE
REPLACE 92 HIGH MAST LUMINAIRES



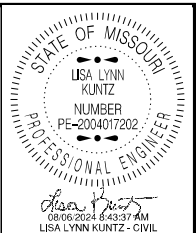
I-70/I-170 INTERCHANGE
REPLACE 120 HIGH MAST LUMINAIRES

NOTE: SEE JSP - INFORMATION WITHIN ELECTRONIC DELIVERABLES
FOR EXACT LOCATIONS OF HIGH MAST POLE LIGHT REPLACEMENTS.



I-64/MO 364-RTE. N INTERCHANGE
REPLACE 104 HIGH MAST LUMINAIRES

NONE OF THE LOCATION SKETCHES ARE DRAWN TO SCALE



DATE PREPARED 8/6/2024	
ROUTE VAR.	STATE MO
DISTRICT SL	SHEET NO. 3
COUNTY ST. LOUIS ST. CHARLES	
JOB NO. JSL0177	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

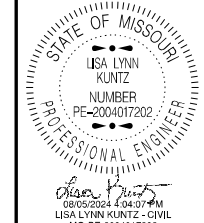


105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-273-6636)

PLAN SHEET

NOT TO SCALE

Sign Spacing, Device Spacing and Channelizing Taper Lengths



DATE PREPARED
6/6/2024

ROUTE VAR. MO

DISTRICT SL SHEET NO. 4

COUNTY ST. LOUIS ST. CHARLES

JOB NO. JSL0177

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

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SIGN SPACING (S) FOR ADVANCE SIGN SERIES (1) (2)		
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

LONGITUDINAL BUFFER SPACE (B)	
SPEED MPH	BUFFER SPACE
0-35	250
40-45	360
50-55	495
60-70	730

SPEED MPH	TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES				
	MINIMUM TAPER LENGTHS (L) FOR LANE WIDTHS (W)			MAXIMUM CHANNELIZER SPACING	
	10 FT	11 FT	12 FT	THROUGH TAPER	THROUGH WORK AREA
0-35	205	225	245	35	40
40-45	450	495	540	40	80
50-55	550	605	660	50	80
60-70	700	770	840	60	120

TAPER LENGTH (L):

L = WS FOR 40 MPH OR MORE

L = $\frac{WS^2}{60}$ FOR 35 MPH OR LESS

FOR SHOULDER TAPER USE L/3

WHERE:

L = TAPER LENGTH IN FEET

W = LATERAL SHIFT IN FEET

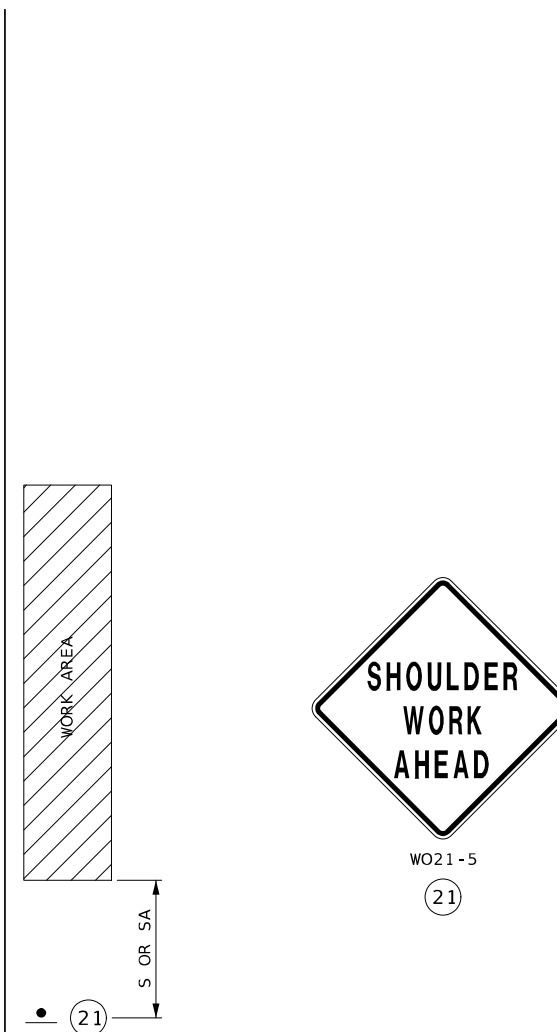
S = POSTED SPEED IN MPH

NOTES:

DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.

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

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



WORK BEYOND THE SHOULDER
(UNDIVIDED OR DIVIDED HIGHWAY)

TRAFFIC CONTROL DEVICES

GENERAL NOTES:

- SEE STANDARD PLAN 616.10 FOR DETAILS AND ITEMS NOT SHOWN
- EXISTING SIGNS SHALL BE COVERED DURING WORKING HOURS ONLY IF IN CONFLICT WITH TRAFFIC CONTROL PLANS.
- NO DIRECT PAYMENT WILL BE MADE FOR RELOCATING, COVERING, UNCOVERING OR REMOVING SIGNS.
- CONES ALLOWABLE FOR DAYTIME OPERATIONS ONLY.
- LOCATE FLASHING ARROW PANEL AT BEGINNING OF TAPER WHEN FEASIBLE, ARROW PANELS ARE ALWAYS LOCATED BEHIND CHANNELIZERS OR CONES.

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- FLAGGER
- DIRECTIONAL INDICATOR BARRICADE
- CHANNELIZER
- BARRICADE
- CHANGEABLE MESSAGE BOARD
- TRUCK MOUNTED ATTENUATOR W/ FLASHING ARROW

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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

TRAFFIC CONTROL PLANS
WORK BEYOND SHOULDER

