



MAINTENANCE MAINTAINING TRAFFIC TYPICALS

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		NO:		

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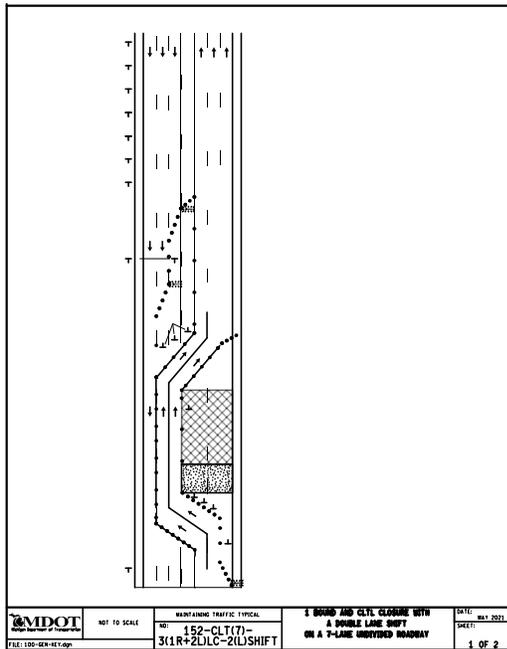
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TYPICAL NUMBER KEY

CODES

AB = ARROW BOARD AW = ADVANCE WARNING C = CLOSURE CLT = CENTER LEFT TURN LANE CROSS = CROSSOVER CruSha = CRUSH AND SHAPE EM = EARLY MERGE EnR = ENTRANCE RAMP ExR = EXIT RAMP FW = FREEWAY GEN = GENERAL INFORMATION GORE = FREEWAY GORE AREA IN = INSIDE INT = INTERSECTION L = LANE (L) = LEFT LC = LANE CLOSURE LD = LONG DURATION	LO = LANE OPEN O = OUTSIDE (LANE CLOSURE) OUT = OUTSIDE OF SHOULDER MID = MIDDLE OF INTERSECTION OR ROAD NFW = NON-FREEWAY PARK = PARKING LANE PCMS = PORTABLE CHANGEABLE MESSAGE SIGN (R) = RIGHT ROLL = ROLLING ROADBLOCK RUM = RUMBLE STRIP SD = SHORT DURATION SHL = SHOULDER CLOSURE SIGN = SIGN SPEED = SPEED STA = STOPPED TRAFFIC ADVISORY TR = TRAFFIC REGULATOR TS = TEMPORARY SIGNAL ZIP = ZIPPER MERGE
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- 100 - GENERAL NOTES
- 110 - TRAFFIC REGULATORS
- 120 - NON-FREEWAY
- 130 - CENTER LEFT TURN (CLT) LANES
- 140 - PARKING LANES
- 150 - CLT 7 LANE SECTIONS
- 160 - SIGNAL WORK
- 200 - FREEWAY CLOSURES
- 210 - FREEWAY LANE SHIFTS
- 220 - FREEWAY ENTRANCE RAMPS
- 230 - FREEWAY EXIT RAMPS
- 300 - ADVANCE WARNINGS
- 310 - CROSSOVER CLOSURE
- 320 - CRUSH AND SHAPE
- 340 - MERGE SYSTEMS
- 350 - GORE LOCATIONS
- 360 - ROLLING ROADBLOCK
- 4000 - MAINTENANCE
- 5000 - SURVEY

EXAMPLE TYPICAL

CODE: 152-CTL(7)-3(1R+2L)LC-2(L)SHIFT

152 - TYPICAL NUMBER

CTL(7) = CENTER LEFT TURN LANE, 7 LANES TOTAL.

3(1R+2L)LC = 3 LANES CLOSED, (1 RIGHT LANE AND 2 LEFT LANES).

2(L)SHIFT = 2 LANES SHIFTED TO THE LEFT.

NOT TO SCALE

	NOT TO SCALE	MAINTAINING TRAFFIC TYPICAL	TYPICAL NUMBERING KEY	DATE: MAY 2021
		NO: 100-GEN-KEY		SHEET: 1 OF 1

FILE: 100-GEN-KEY.dgn

DISTANCE BETWEEN TRAFFIC SIGNS, "D"

"D" DISTANCES	POSTED SPEED LIMIT, MPH (PRIOR TO WORK AREA)										
	25	30	35	40	45	50	55	60	65	70	75
D (FEET)	250	300	350	400	450	500	550	600	650	700	750

GUIDELINES FOR LENGTH OF LONGITUDINAL BUFFER SPACE, "B"

"B" LENGTHS	SPEED*, MPH (PRIOR TO WORK AREA)											
	20	25	30	35	40	45	50	55	60	65	70	75
B (FEET)	33	50	83	132	181	230	279	329	411	476	542	625

* POSTED SPEED, OFF-PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED.

MINIMUM MERGING TAPER LENGTH, "L" (FEET)

OFFSET (FEET)	POSTED SPEED LIMIT, MPH (PRIOR TO WORK AREA)										
	25	30	35	40	45	50	55	60	65	70	75
1	11	15	21	27	45	50	55	60	65	70	75
2	21	30	41	54	90	100	110	120	130	140	150
3	32	45	62	80	135	150	165	180	195	210	225
4	42	60	82	107	180	200	220	240	260	280	300
5	53	75	103	134	225	250	275	300	325	350	375
6	63	90	123	160	270	300	330	360	390	420	450
7	73	105	143	187	315	350	385	420	455	490	525
8	84	120	164	214	360	400	440	480	520	560	600
9	94	135	184	240	405	450	495	540	585	630	675
10	105	150	205	267	450	500	550	600	650	700	750
11	115	165	225	294	495	550	605	660	715	770	825
12	125	180	245	320	540	600	660	720	780	840	900
13	136	195	266	347	585	650	715	780	845	910	975
14	146	210	286	374	630	700	770	840	910	980	1050
15	157	225	307	400	675	750	825	900	975	1050	1125

NOT TO SCALE

	NOT TO SCALE	MAINTAINING TRAFFIC TYPICAL	"B", "D" AND "L" TABLES CHANNELIZING DEVICE SPACING, SIGN BORDER KEY, AND ROLL-AHEAD SPACING	DATE: MAY 2021
		NO: 101-GEN-SPACING-CHARTS		SHEET: 1 OF 3

THE FORMULAS FOR THE MINIMUM LENGTH OF A MERGING TAPER IN DERIVING THE "L" VALUES SHOWN IN THE ABOVE TABLES ARE AS FOLLOWS:

"L" = $\frac{W \times S^2}{60}$ WHERE POSTED SPEED PRIOR TO THE WORK AREA IS 40 MPH OR LESS

"L" = W X S WHERE POSTED SPEED PRIOR TO THE WORK AREA IS 45 MPH OR GREATER

L = MINIMUM LENGTH OF MERGING TAPER
 S = POSTED SPEED LIMIT IN MPH PRIOR TO WORK AREA
 W = WIDTH OF OFFSET

TYPES OF TAPERS

UPSTREAM TAPERS

- MERGING TAPER
- SHIFTING TAPER
- SHOULDER TAPER
- 2 TO 1 LANE ROAD TAPER

TAPER LENGTH

- L - MINIMUM
- 1/2 L - MINIMUM
- 1/3 L - MINIMUM
- 100' - MAXIMUM

DOWNSTREAM TAPERS
 (USE IS RECOMMENDED)

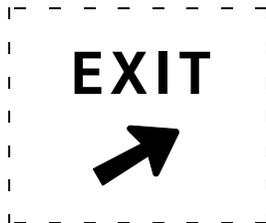
100' (PER LANE)

MAXIMUM SPACING FOR CHANNELIZING DEVICES

WORK ZONE SPEED LIMIT	DRUM AND 42" DEVICE SPACING (FT)		NIGHTTIME 42" DEVICE SPACING (FT)	
	TAPER	TANGENT	TAPER	TANGENT
< 45 MPH	1 x SPEED LIMIT	2 x SPEED LIMIT	25 FEET	50 FEET
≥ 45 MPH	50 FEET	100 FEET	25 FEET	50 FEET

SIGN OUTLINE KEY

DASHED OUTLINES INDICATE A SIGN THAT EXISTS ON SITE, AND NEEDS TO BE COVERED.



SOLID OUTLINES INDICATE A SIGN THAT IS TO BE PLACED ON THE PROJECT



NOT TO SCALE

	NOT TO SCALE	MAINTAINING TRAFFIC TYPICAL	"B", "D" AND "L" TABLES CHANNELIZING DEVICE SPACING SIGN BORDER KEY AND ROLL-AHEAD SPACING	DATE: MAY 2021
		NO: 101-GEN-SPACING-CHARTS		SHEET: 2 OF 3

GUIDELINES FOR ROLL-AHEAD DISTANCES FOR TMA VEHICLES – TEST LEVEL 2

WEIGHT OF TMA VEHICLE	PREVAILING SPEED (POSTED SPEED PRIOR TO WORK ZONE)	ROLL-AHEAD DISTANCE* (DISTANCE FROM FRONT OF TMA VEHICLE TO WORK AREA)
5.5 TONS (STATIONARY)	40 MPH OR LESS	25 FT

* ROLL-AHEAD DISTANCES ARE CALCULATED USING A 4,410 POUND IMPACT VEHICLE WEIGHT.

GUIDELINES FOR ROLL-AHEAD DISTANCES FOR TMA VEHICLES – TEST LEVEL 3

WEIGHT OF TMA VEHICLE	PREVAILING SPEED (POSTED SPEED PRIOR TO WORK ZONE)	ROLL-AHEAD DISTANCE* (DISTANCE FROM FRONT OF TMA VEHICLE TO WORK AREA)
5 TONS (MOBILE)	45 MPH	100 FT
	50-55 MPH	150 FT
	60-75 MPH	175 FT
12 TONS (STATIONARY)	45 MPH	25 FT
	50-55 MPH	25 FT
	60-75 MPH	50 FT

* ROLL-AHEAD DISTANCES ARE CALCULATED USING A 10,000 POUND IMPACT VEHICLE WEIGHT.



NOT TO SCALE

MAINTAINING TRAFFIC TYPICAL

NO: 101-GEN-SPACING-CHARTS

"B", "D" AND "L" TABLES
CHANNELIZING DEVICE SPACING
SIGN BORDER KEY AND ROLL AHEAD SPACING

DATE: MAY 2021

SHEET: 3 OF 3

THE FOLLOWING NOTES APPLY IF CALLED FOR ON THE TRAFFIC TYPICAL

GENERAL NOTES

- G1: SEE GEN-SPACING-CHARTS FOR COMMON VALUES INCLUDING:
D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
ROLL AHEAD DISTANCE
- G2: DISTANCE BETWEEN SIGNS, "D", THE VALUES FOR WHICH ARE SHOWN IN TYPICAL GEN-KEY ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- G3: ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING MUST MEET NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT 350 (NCHRP 350) TEST LEVEL 3, OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) TL-3 AS WELL AS THE CURRENT EDITION OF THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS. ONLY DESIGNS AND MATERIALS APPROVED BY MDOT WILL BE ALLOWED.
- G4: DO NOT STORE EQUIPMENT, MATERIALS OR PERFORM WORK IN ESTABLISHED BUFFER AREAS.
- G5: ALL EXISTING PAVEMENT MARKINGS WHICH ARE IN CONFLICT WITH EITHER PROPOSED CHANGES IN TRAFFIC PATTERNS OR PROPOSED TEMPORARY TRAFFIC MARKINGS SHALL BE REMOVED BEFORE ANY CHANGE IS MADE IN THE TRAFFIC PATTERN. EXCEPTION WILL BE MADE FOR TRAFFIC PATTERNS FOR WORK LESS THAN THREE DAYS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.

SIGN NOTES

- S1: ALL NON-APPLICABLE SIGNING WITHIN THE CIA MUST BE MODIFIED TO FIT CONDITIONS, COVERED, OR REMOVED. FOR GUIDANCE SEE THE WORK ZONE SAFETY AND MOBILITY MANUAL, SECTIONS 6.01.09 AND 6.01.10.
- S2: R5-18b SIGNS ARE ONLY REQUIRED ON FREEWAY PROJECTS WITH A DURATION OF 15 DAYS OR LONGER OR NON-FREEWAY PROJECTS WITH A DURATION OF 90 DAYS OR LONGER. TO APPLY THIS TYPICAL WITHOUT R5-18b SIGNS, REMOVE THE SIGNS AND CONSOLIDATE THE SEQUENCE AS APPROPRIATE.
- S3: R5-18c IS ONLY REQUIRED IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. OMIT THIS SIGN IN SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE.
- S4: ADDITIONAL SIGNING AND/OR ELONGATED SIGNING SEQUENCES SHOULD BE USED WHEN TRAFFIC VOLUMES ARE SIGNIFICANT ENOUGH TO CREATE BACKUPS BEYOND THE W20-5 SIGNS.
- S5: PLACE ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE WORK ZONE SPEED AFTER EACH MAJOR CROSSROAD THAT INTERSECTS THE WORK ZONE, OR AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT. PLACE ADDITIONAL SPEED LIMIT SIGNS AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS ARE MORE THAN 2 MILES APART. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, PLACE ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED BEYOND THE LIMITS OF THE WORK AREA AS INDICATED. IF PERMANENT SIGNS DISPLAYING THE CORRECT SPEED LIMIT ARE POSTED, OMIT ALL W3-5b AND R2-1 SIGNS AND REDUCE SPACING ACCORDINGLY.
- S6: FABRICATE SPECIAL SIGNS IN ACCORDANCE WITH CURRENT SIGNING DESIGN STANDARDS.
- S7: PLACE ADDITIONAL R8-3 SIGNS AT A MAXIMUM 500' SPACING THROUGHOUT THE WORK ZONE.
- S8: WHEN SPEED LIMIT SIGNS CANNOT BE PLACED SIDE BY SIDE AS SHOWN, PLACE THEM "D" DISTANCE APART.
- S9: STOP SIGNS NOT REQUIRED IF SIGNALS ARE ON 4-WAY FLASHING RED. STOP AHEAD SIGNS ARE NOT REQUIRED IF THERE IS ADEQUATE VISIBILITY OF THE STOP SIGN OR IF SIGNALS ARE BEING USED TO CONTROL TRAFFIC.
- S10: PLACE REDUCED SPEED ZONE AHEAD SIGN (W3-5b) HERE WHEN USING A SPEED REDUCTION IN THIS DIRECTION.
- S11: THE NUMBER OF W1-6 SHIFT SIGNS TO PLACE FOR A SHIFT IS AS FOLLOWS:
SHIFTS 4FT OR LESS, PLACE ONE W1-6(R)(L)
SHIFTS 5FT TO 12FT, PLACE TWO W1-6(R)(L)
SHIFTS MORE THAN 12FT, PLACE THREE OR MORE W1-6(R)(L) SIGNS DEPENDING UPON LENGTH OF SHIFT AND AS PER THE ENGINEER.
- S12: PLACE R2-1 SIGNS AS DETAILED IN NOTE S5 WHEN THERE IS A SPEED REDUCTION IN THIS DIRECTION

TRAFFIC REGULATOR NOTES

- TR1: TRAFFIC REGULATORS MUST FOLLOW ALL THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS, THE CURRENT VERSIONS OF THE TRAFFIC REGULATOR'S INSTRUCTION MANUAL AND THE VIDEO "HOW TO SAFELY REGULATE TRAFFIC IN MICHIGAN". THE MAXIMUM DISTANCE BETWEEN THE TRAFFIC REGULATORS IS DETERMINED BY THE ROADWAY ADT, GEOMETRICS, AND AS DIRECTED BY THE ENGINEER.
- TR2: PROVIDE APPROPRIATE BALLOON LIGHTING TO SUFFICIENTLY ILLUMINATE TRAFFIC REGULATOR'S STATIONS WHEN TRAFFIC REGULATING IS ALLOWED DURING THE HOURS OF DARKNESS.

TEMPORARY TRAFFIC CONTROL DEVICE NOTES

- TCD1: THE MAXIMUM DISTANCE IN FEET BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD NOT EXCEED 1.0 TIMES THE WORK ZONE SPEED LIMIT IN MPH FOR ROADWAYS WITH A POSTED WORK ZONE SPEED LIMIT LESS THAN 45 MPH AND SHOULD NOT EXCEED 50 FEET ON ROADWAYS WITH A POSTED WORK ZONE SPEED LIMIT OF 45 MPH OR GREATER. THE SPACING FOR 42 INCH CHANNELIZING DEVICE TAPERS ARE NOT TO EXCEED 25 FEET AT NIGHT.
- TCD2: THE MAXIMUM DISTANCE IN FEET BETWEEN CHANNELIZING DEVICES IN A TANGENT SHOULD NOT EXCEED TWICE THE WORK ZONE SPEED LIMIT IN MPH FOR ROADWAYS WITH A POSTED WORK ZONE SPEED LIMIT LESS THAN 45 MPH AND SHOULD NOT EXCEED 100 FEET ON ROADWAYS WITH A POSTED WORK ZONE SPEED LIMIT OF 45 MPH OR GREATER. THE SPACING FOR 42 INCH CHANNELIZING DEVICE TANGENTS ARE NOT TO EXCEED 50 FEET AT NIGHT.
- TCD3: TYPE III BARRICADES MUST BE LIGHTED FOR OVERNIGHT CLOSURES.
- TCD4: WHEN THE HAUL ROAD IS NOT IN USE, PLACE LIGHTED TYPE III BARRICADES WITH "ROAD CLOSED" EXTENDING COMPLETELY ACROSS THE HAUL ROAD.
- TCD5: USE VERTICAL PANELS IN LIEU OF THE TYPE B HIGH INTENSITY LIGHT SHOWN IN THE STANDARD PLAN FOR TEMPORARY CONCRETE BARRIER (R-53, AND R-126) WHEN USED WITH A TEMPORARY SIGNAL SYSTEM.
- TCD6: PLACE LIGHTED ARROW PANELS AS CLOSE TO THE BEGINNING OF TAPERS AS PRACTICAL, BUT NOT IN A MANNER THAT WILL OBSCURE OR CONFUSE APPROACHING MOTORISTS WHEN PHYSICAL LIMITATIONS RESTRICT PLACEMENT. IN CURBED SECTIONS, IF ARROW BOARD CANNOT BE PLACED BEHIND CURB, PLACE ARROW BOARD IN THE CLOSED LANE AS CLOSE TO THE BEGINNING OF TAPER AS POSSIBLE.
- TCD7: ADDITIONAL TYPE III BARRICADES MAY BE REQUIRED TO COMPLETELY CLOSE OFF ROAD FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT.
- TCD8: WHERE THE SHIFTED SECTION IS SHORTER THAN 600 FEET, A DOUBLE REVERSE CURVE SIGN (W24-1) CAN BE USED INSTEAD OF THE FIRST REVERSE CURVE SIGN, AND THE SECOND REVERSE CURVE SIGN CAN BE OMITTED.
- TCD9: RUMBLE STRIPS ARE TO BE PLACED AS SPECIFIED IN THE CONTRACT. IF NOT SPECIFIED IN THE CONTRACT, PLACE RUMBLE STRIPS AS SHOWN, AND IN ACCORDANCE WITH THE RUMBLE STRIP MANUFACTURER'S RECOMMENDATIONS. AN ARRAY OF RUMBLE STRIPS CONTAINS THREE RUMBLE STRIPS. PLACE THE RUMBLE STRIPS IN THE ARRAY AT A CONSISTENT DISTANCE, BETWEEN 10' AND 20' APART.
- TCD10: SEE THE WORK ZONE SAFETY AND MOBILITY MANUAL, PORTABLE CHANGEABLE MESSAGE SIGN GUIDELINES FOR RECOMMENDED AND CORRECT PCMS MESSAGING. STAGGER PCMS THAT ARE ON OPPOSING SIDES OF THE ROAD 1000 FEET FROM EACH OTHER.

RAMP NOTES

- RMP1: WHEN CONDITIONS ALLOW, E5-1 SIGNS MUST BE REMOVED OR COVERED AND CHANNELIZING DEVICES MUST BE POSITIONED TO ENABLE RAMP TRAFFIC TO DIVERGE IN A FREE MANNER
- RMP2: STOP AND YIELD CONDITIONS SHOULD BE AVOIDED WHENEVER PRACTICAL. WHEN CONDITIONS WARRANT, R1-1 SIGNS MAY BE USED IN PLACE OF R1-2 SIGNS. WHEN R-1 SIGNS ARE USED, W3-1 SIGNS MUST BE USED IN PLACE OF W3-2 SIGNS. CONSIDERATION SHOULD BE GIVEN TO CLOSING THE RAMP TO COMPLETE WORK TO ALLOW AN ADEQUATE MERGE DISTANCE. WORK SHOULD BE EXPEDITED TO AVOID THE STOP AND/OR YIELD CONDITIONS.

	NOT TO SCALE	MAINTAINING TRAFFIC TYPICAL		<p align="center">TRAFFIC TYPICALS NOTE SHEET</p>	DATE: MAY 2021
		NO:	102-GEN-NOTES		SHEET: 1 OF 2

THE FOLLOWING NOTES APPLY IF CALLED FOR ON THE TRAFFIC TYPICAL

SIGNAL NOTES

- SIG1: EXISTING SIGNAL MUST BE EITHER 4-WAY FLASHING RED, BAGGED, OR TURNED OFF.
- SIG2: SIGNAL IS IN OPERATION.
- SIG3: DELINEATE THE WORK ZONE AREA WITH 28 INCH CONES FOR DAYTIME WORK, OR 42 INCH CHANNELIZING DEVICES FOR NIGHTTIME WORK.
- SIG4: THE CONTRACTOR MUST HAVE A DESIGNATED SPOTTER IF THE AERIAL BUCKET TRUCK IS LOCATED OVER ACTIVE TRAVEL LANES.
- SIG5: THE LOWEST POINT OF THE BUCKET MAY NOT TRAVEL BELOW 14 FOOT VERTICAL CLEARANCE. THE CONTRACTOR MUST UTILIZE AN ALTERNATE SET UP, OR PLACE THE INTERSECTION IN A 4 WAY STOP IF THE 14 FOOT VERTICAL CLEARANCE IS COMPROMIZED. USE TRAFFIC REGULATORS TO CONTROL TRAFFIC THROUGH THE INTERSECTION WHEN TRAFFIC IS PLACED IN A 4 WAY STOP.
- SIG6: DELINEATE THE TRUCK WITH CHANNELIZING DEVICES. THE POSITION OF THE TRUCK MAY BE MOVED TO FACILITATE WORK.

MAINTENANCE AND SURVEYING NOTES

- MS1: WHENEVER STOPPING SIGHT DISTANCE EXISTS TO THE REAR, THE SHADOW VEHICLES SHOULD MAINTAIN THE RECOMENDED DISTANCE FROM THE WORK AREA AND PROCEED AT THE SAME SPEED. THE SHADOW VEHICLE SHOULD SLOW DOWN AND TRAVEL AT A FARTHER DISTANCE TO PROVIDE ADEQUATE SIGHT DISTANCE IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES.
- MS2: WORKERS OUTSIDE OF VEHICLES SHOULD WORK WITHIN 150' OF WORK VEHICLES WITH AN ACTIVATED BEACON, BETWEEN THE "BEGIN WORK CONVOY" SIGN AND THE "END WORK CONVOY" SIGN, OR BETWEEN THE "WORK ZONE BEGINS" AND "END ROAD WORK" SIGN.
- MS3: WORK OR SHADOW VEHICLES WITH OR WITHOUT A TMA MAY BE USED TO SEPARATE THE WORK SPACE FROM TRAFFIC. IF USED, THE VEHICLES SHOULD BE PARKED ACCORDING TO THE ROLL AHEAD DISTANCE TABLES.
- MS4: WORK AND SHADOW VEHICLES SHALL BE APPROPRIATELY EQUIPPED WITH AN ACTIVATED AMBER BEACON.
- MS5: WHEN WORKERS ARE OUTSIDE THEIR VEHICLES IN AN EXISTING LANE WHILE A MOBILE OPERATION IS OCCURRING DURING THE NIGHTTIME HOURS, CHANNELIZING DEVICES TO DELINEATE OPEN OR CLOSED LANES AT 50 FT SPACING MUST BE USED. AN EXAMPLE OF AN OPERATION (BUT NOT LIMITED TO) IS THE LAYOUT OF CONCRETE PATCHES.
- MS6: W21-6 AND W20-1 SIGNS MAY BE SUBSTITUTED AS DETERMINED BY THE TYPE OF WORK TAKING PLACE AS PER THE ENGINEER.



NOT TO SCALE

MAINTAINING TRAFFIC TYPICAL

NO: 102-GEN-NOTES

TRAFFIC TYPICALS
NOTE SHEET

DATE: MAY 2021
SHEET:

2 OF 2

SIGN NUMBER KEY



E5-1f
48" x 48"
60" x 48"



E5-2
48" x 36"



E5-2a
48" x 36"



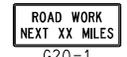
E5-3
48" x 36"



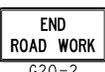
E13-1P
VAR x 24"



E13-1aP
36" x 24"



G20-1
60" x 24"



G20-2
48" x 24"



G20-4
36" x 18"



I-6a
18" x 18"
24" x 24"
30" x 30"



M1-1
18" x 18"
24" x 24"
36" x 36"
48" x 48"



M1-1
22.5" x 18"
30" x 24"
45" x 36"
60" x 48"



M1-2
18" x 18"
24" x 24"
36" x 36"
48" x 48"



M1-2
22.5" x 18"
30" x 24"
45" x 36"
60" x 48"



M1-3
18" x 18"
24" x 24"
36" x 36"
48" x 48"



M1-3
22.5" x 18"
30" x 24"
45" x 36"
60" x 48"



M1-4
18" x 18"
24" x 24"
36" x 36"
48" x 48"



M1-4
22.5" x 18"
30" x 24"
45" x 36"
60" x 48"



M1-5
18" x 18"
24" x 24"
30" x 30"
36" x 36"



M1-5a
18" x 18"
24" x 24"



M1-6
18" x 18"
24" x 24"
36" x 36"



M1-6
22.5" x 18"
30" x 24"
45" x 36"



M3-1
12" x 6"
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M3-2
12" x 6"
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M3-3
12" x 6"
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M3-4
12" x 6"
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M4-1
12" x 6"
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M4-1a
12" x 6"
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M4-2
12" x 6"
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M4-3
12" x 6"
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M4-4
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M4-5
12" x 6"
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M4-6
12" x 6"
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M4-7
12" x 6"
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M4-7a
12" x 6"
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M4-8
12" x 6"
18" x 9"
24" x 12"
30" x 15"



M4-8a
24" x 18"



M4-8b
24" x 12"



M4-9L
30" x 24"
48" x 36"
60" x 48"



M4-9R
30" x 24"
48" x 36"
60" x 48"



M4-9j
30" x 24"
48" x 36"
60" x 48"



M4-9kL
30" x 30"
48" x 42"
60" x 54"



M4-9kR
30" x 30"
48" x 42"
60" x 54"



M4-9mL
30" x 30"
48" x 42"
60" x 54"



M4-9mR
30" x 30"
48" x 42"
60" x 54"



M4-9dL
12" x 18"



M4-9dR
12" x 18"



M4-9e
12" x 18"



M4-9f
12" x 18"



M4-9gL
12" x 18"



M4-9gR
12" x 18"



M4-9h
12" x 24"



M4-9i
12" x 18"



M4-10L
48" x 18"



M4-10R
48" x 18"



M4-11a
12" x 6"
18" x 9"
24" x 12"
30" x 15"
36" x 18"



M5-1L
12" x 9"
21" x 15"
30" x 21"



M5-1R
12" x 9"
21" x 15"
30" x 21"



M5-2L
12" x 9"
21" x 15"
30" x 21"



M5-2R
12" x 9"
21" x 15"
30" x 21"



M5-3
12" x 9"
21" x 15"
30" x 21"



M6-1L
12" x 9"
18" x 12"
21" x 15"
30" x 21"



M6-1R
12" x 9"
18" x 12"
21" x 15"
30" x 21"



M6-2L
12" x 9"
18" x 12"
21" x 15"
30" x 21"



M6-2R
12" x 9"
18" x 12"
21" x 15"
30" x 21"



M6-3
12" x 9"
18" x 12"
21" x 15"
30" x 21"



M6-4
12" x 9"
18" x 12"
21" x 15"
30" x 21"



M6-5
12" x 9"
18" x 12"
21" x 15"
30" x 21"



M6-6L
12" x 9"
18" x 12"
21" x 15"
30" x 21"



M6-6R
12" x 9"
18" x 12"
21" x 15"
30" x 21"



M6-7L
12" x 9"
18" x 12"
21" x 15"
30" x 21"



M6-7R
12" x 9"
18" x 12"
21" x 15"
30" x 21"

SEE MDOT SHS 13-WORK ZONE FOR SIGN DETAILS



NOT TO SCALE

MAINTAINING TRAFFIC TYPICAL

NO:

103-GEN-SIGN

TRAFFIC TYPICALS
SIGN SHEET

DATE:
JUNE 2021

SHEET:

1 OF 5

SIGN NUMBER KEY

NORTH
10
KEEP LEFT
M8-1gL
36" x 66"

SOUTH
27
KEEP RIGHT
M8-1gR
36" x 66"

NORTH SOUTH
10 27
M8-2d
60" x 48"

OM-3L
12" x 36"
24" x 48"
36" x 72"

OM-3R
12" x 36"
24" x 48"
36" x 72"

STOP
R1-1
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"

FRONT BACK
STOP SLOW
R1-1a
18" x 18"
24" x 24"

YIELD
R1-2
18"
24"
30"
36"
48"
60"

TO ONCOMING TRAFFIC
R1-2aP
24" x 18"
36" x 30"
48" x 36"

SPEED LIMIT
XX
R2-1
18" x 24"
24" x 30"
30" x 36"
36" x 48"
48" x 60"

WHERE WORKERS PRESENT
45
R2-1a
48" x 60"

R3-1
24" x 24"
30" x 30"
36" x 36"
48" x 48"

R3-2
24" x 24"
30" x 30"
36" x 36"
48" x 48"

NO TURNS
R3-3
24" x 24"
36" x 36"
48" x 48"

R3-4
24" x 24"
30" x 30"
36" x 36"
48" x 48"

ONLY
R3-5L
30" x 36"
36" x 48"

ONLY
R3-5R
30" x 36"
36" x 48"

ONLY
R3-5a
30" x 36"
36" x 48"

R3-6L
30" x 36"
42" x 48"

R3-6R
30" x 36"
42" x 48"

LEFT LANE MUST TURN LEFT
R3-7L
30" x 30"
36" x 36"

RIGHT LANE MUST TURN RIGHT
R3-7R
30" x 30"
36" x 36"

ONLY ONLY
R3-8c
36" x 30"

ONLY ONLY
R3-8d
36" x 30"

DO NOT PASS
R4-1
12" x 18"
18" x 24"
24" x 30"
36" x 48"
48" x 60"

PASS WITH CARE
R4-2
12" x 18"
18" x 24"
24" x 30"
36" x 48"
48" x 60"

R4-7
12" x 18"
18" x 24"
24" x 30"
36" x 48"
48" x 60"

R4-8
18" x 24"
24" x 30"
36" x 48"
48" x 60"

STAY IN LANE
R4-9
18" x 24"
24" x 30"
36" x 48"
48" x 60"

DO NOT ENTER
R5-1
30" x 30"
36" x 36"
48" x 48"

WRONG WAY
R5-1a
30" x 18"
36" x 24"
42" x 30"

INJURE / KILL A WORKER \$7500+ 15 YEARS
R5-18b
48" x 60"

WORK ZONE BEGINS
R5-18c
48" x 48"

BEGIN WORK CONVOY
R5-18d
78" x 12"

END WORK CONVOY
R5-18e
72" x 12"

USE ALL LANES DURING BACKUPS
R5-18f
48" x 60"

FORM ONE LANE RIGHT
R5-18g
30" x 42"

DO NOT FOLLOW TRUCKS INTO WORK ZONE
R5-18h
48" x 60"

ONE WAY
R6-1L
36" x 12"
54" x 18"

ONE WAY
R6-1R
36" x 12"
54" x 18"

ONE WAY
R6-2L
12" x 16"
18" x 24"
24" x 30"
36" x 48"
48" x 60"

ONE WAY
R6-2R
12" x 16"
18" x 24"
24" x 30"
36" x 48"
48" x 60"

R8-3
12" x 12"
18" x 18"
24" x 24"
36" x 36"
48" x 48"

PEDESTRIAN CROSSWALK
R9-8
36" x 18"

SIDEWALK CLOSED
R9-9
24" x 12"
30" x 18"

SIDEWALK CLOSED USE OTHER SIDE
R9-10
24" x 12"
48" x 24"

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11L
24" x 12"
48" x 36"

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11R
24" x 12"
48" x 36"

SIDEWALK CLOSED CROSS HERE
R9-11aL
24" x 12"
48" x 24"

SIDEWALK CLOSED CROSS HERE
R9-11aR
24" x 12"
48" x 24"

STOP HERE ON RED
R10-6b
36" x 54"

ROAD CLOSED
R11-2
48" x 30"

RAMP CLOSED
R11-2a
48" x 30"

EXIT CLOSED
R11-2b
48" x 30"

CROSSOVER CLOSED
R11-2c
60" x 30"

ROAD CLOSED 10 MILES AHEAD LOCAL TRAFFIC ONLY
R11-3a
60" x 30"

BRIDGE OUT 10 MILES AHEAD LOCAL TRAFFIC ONLY
R11-3b
60" x 30"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60" x 30"

SEE MDOT SHS 13-WORK ZONE FOR SIGN DETAILS



NOT TO SCALE

MAINTAINING TRAFFIC TYPICAL

NO: 103-GEN-SIGN

TRAFFIC TYPICALS SIGN SHEET

DATE: JUNE 2021
SHEET:

SIGN NUMBER KEY



W1-1L
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W1-1R
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W1-2L
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W1-2R
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W1-2bL
36" x 36"
48" x 48"



W1-2bR
36" x 36"
48" x 48"



W1-3L
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W1-3R
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W1-4L
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W1-4R
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W1-4bL
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W1-4bR
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W1-4cL
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W1-4cR
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W24-1L
30" x 30"
36" x 36"
48" x 48"

ALL LANES

W24-1cP
24" x 18"
30" x 24"



W24-1R
30" x 30"
36" x 36"
48" x 48"



W24-1aL
30" x 30"
36" x 36"
48" x 48"



W24-1aR
30" x 30"
36" x 36"
48" x 48"



W24-1bL
30" x 30"
36" x 36"
48" x 48"



W24-1bR
30" x 30"
36" x 36"
48" x 48"



W1-6L
24" x 12"
36" x 18"
48" x 24"
60" x 30"
96" x 48"



W1-6R
24" x 12"
36" x 18"
48" x 24"
60" x 30"
96" x 48"



W1-8L
12" x 18"
18" x 24"
24" x 30"
30" x 36"
36" x 48"



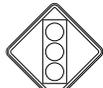
W1-8R
12" x 18"
18" x 24"
24" x 30"
30" x 36"
36" x 48"



W3-1
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W3-2
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W3-3
18" x 18"
30" x 30"
36" x 36"
48" x 48"



W3-4
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W3-4b
30" x 30"
36" x 36"
48" x 48"



W3-5
36" x 36"
48" x 48"



W3-5a
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W3-5b
30" x 30"
36" x 36"
48" x 48"



W4-1L
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W4-1R
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W4-2L
30" x 30"
36" x 36"
48" x 48"



W4-2R
30" x 30"
36" x 36"
48" x 48"



W4-3L
30" x 30"
36" x 36"
48" x 48"



W4-3R
30" x 30"
36" x 36"
48" x 48"



W4-5L
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W4-5R
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W4-5P
18" x 24"
24" x 30"



W4-6L
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W4-6R
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W4-7L
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W4-7R
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W5-1
30" x 30"
36" x 36"
48" x 48"



W5-2
18" x 18"
30" x 30"
36" x 36"
48" x 48"



W5-3
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W5-4
30" x 30"
36" x 36"
48" x 48"



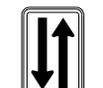
W6-1
30" x 30"
36" x 36"
48" x 48"



W6-2
30" x 30"
36" x 36"
48" x 48"



W6-3
30" x 30"
36" x 36"
48" x 48"



W6-4
12" x 18"



W7-1
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W7-1a
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W8-1
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"

SEE MDOT SHS 13-WORK ZONE FOR SIGN DETAILS



NOT TO SCALE

MAINTAINING TRAFFIC TYPICAL

NO:

103-GEN-SIGN

TRAFFIC TYPICALS
SIGN SHEET

DATE:
JUNE 2021

SHEET:

3 OF 5

SIGN NUMBER KEY



W8-2
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W8-3
18" x 18"
30" x 30"
36" x 36"
48" x 48"



W8-4
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W8-5
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W8-5P
24" x 18"
30" x 24"
36" x 30"



W8-7
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W8-8
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W8-9
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W8-11
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W8-12
30" x 30"
36" x 36"
48" x 48"



W8-14
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W8-15
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W8-15P
24" x 18"
30" x 24"
36" x 30"



W8-17L
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W8-17R
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W8-17P
24" x 18"
30" x 24"
36" x 30"



W8-18
24" x 24"
36" x 36"
48" x 48"



W8-23
24" x 24"
36" x 36"
48" x 48"



W8-24
30" x 30"
36" x 36"
48" x 48"



W8-25
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W8-26
30" x 30"
48" x 48"



W9-1L
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W9-1R
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W9-2L
30" x 30"
36" x 36"
48" x 48"



W9-2R
30" x 30"
36" x 36"
48" x 48"



W9-3C
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W9-3L
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W9-3R
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W9-3a
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W9-3b
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W11-10
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W11-10a
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W11-24
36" x 36"
48" x 48"



W12-1
24" x 24"
30" x 30"
36" x 36"
48" x 48"



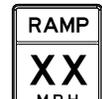
W12-2
18" x 18"
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W13-1P
18" x 18"
24" x 24"
30" x 30"



W13-2
24" x 30"
36" x 48"
48" x 60"



W13-3
24" x 30"
36" x 48"
48" x 60"



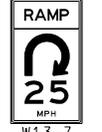
W13-4P
24" x 24"
36" x 36"



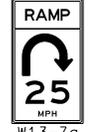
W13-6
24" x 42"
36" x 60"
48" x 84"



W13-6a
24" x 42"
36" x 60"
48" x 84"



W13-7
24" x 42"
36" x 60"
48" x 84"



W13-7a
24" x 42"
36" x 60"
48" x 84"



W14-3
36" x 24"
40" x 30"
48" x 36"
64" x 48"



W16-2P
18" x 12"
24" x 18"
30" x 24"



W16-4aP
18" x 12"
24" x 18"
30" x 24"
36" x 30"



W16-12P
24" x 18"



W16-13P
24" x 18"
30" x 24"



W20-1
24" x 24"
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W20-1a
24" x 24"
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W20-1b
24" x 24"
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W20-1c
24" x 24"
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W20-1d
24" x 24"
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W20-2
30" x 30"
36" x 36"
48" x 48"



W20-3
30" x 30"
36" x 36"
48" x 48"



W20-3a
30" x 30"
36" x 36"
48" x 48"

SEE MDOT SHS 13-WORK ZONE FOR SIGN DETAILS



NOT TO SCALE

MAINTAINING TRAFFIC TYPICAL

NO:

103-GEN-SIGN

TRAFFIC TYPICALS
SIGN SHEET

DATE:
JUNE 2021
SHEET:

4 OF 5

SIGN NUMBER KEY



W20-3b
30" x 30"
36" x 36"
48" x 48"



W20-4
30" x 30"
36" x 36"
48" x 48"



W20-4c
36" x 36"
48" x 48"



W20-5C
30" x 30"
36" x 36"
48" x 48"



W20-5L
30" x 30"
36" x 36"
48" x 48"



W20-5L1
30" x 30"
36" x 36"
48" x 48"



W20-5L2
30" x 30"
36" x 36"
48" x 48"



W20-5R
30" x 30"
36" x 36"
48" x 48"



W20-5R1
30" x 30"
36" x 36"
48" x 48"



W20-5R2
30" x 30"
36" x 36"
48" x 48"



W20-5aL2
30" x 30"
36" x 36"
48" x 48"



W20-5aL3
30" x 30"
36" x 36"
48" x 48"



W20-5aR2
30" x 30"
36" x 36"
48" x 48"



W20-5aR3
30" x 30"
36" x 36"
48" x 48"



W20-7a
30" x 30"
36" x 36"
48" x 48"



W20-8
24" x 18"



W20-9
54" x 48"



W20-10
48" x 24"
66" x 30"



W20-11
12" x 18"



W20-12P
VARIABLE x 12"



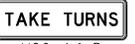
W20-13P
VARIABLE x 12"



W20-14L
36" x 36"
48" x 48"



W20-14R
36" x 36"
48" x 48"



W20-14dP
36" x 12"
48" x 12"



W20-14bP
36" x 12"
48" x 12"



W20-15
36" x 36"
48" x 48"



W20-15a
36" x 36"
48" x 48"



W20-15c
48" x 54"



W20-15d
48" x 54"



W20-16
36" x 36"
48" x 48"



W20-17
36" x 36"
48" x 48"



W21-1
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W21-2
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W21-2
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W21-3
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W21-4
36" x 18"



W21-5
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W21-5aL
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W21-5aR
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W21-5bL
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W21-5bR
30" x 30"
36" x 36"
48" x 48"
60" x 60"



W21-6
24" x 24"
30" x 30"
36" x 36"
48" x 48"



W21-7
30" x 30"
36" x 36"
48" x 48"



W21-8
30" x 30"
36" x 36"
48" x 48"



W22-1
30" x 30"
36" x 36"
48" x 48"



W22-2
42" x 36"



W22-3
36" x 30"
42" x 36"



W23-1
48" x 24"



W23-2
36" x 36"
48" x 48"

SEE MDOT SHS 13-WORK ZONE FOR SIGN DETAILS



NOT TO SCALE

MAINTAINING TRAFFIC TYPICAL

NO:

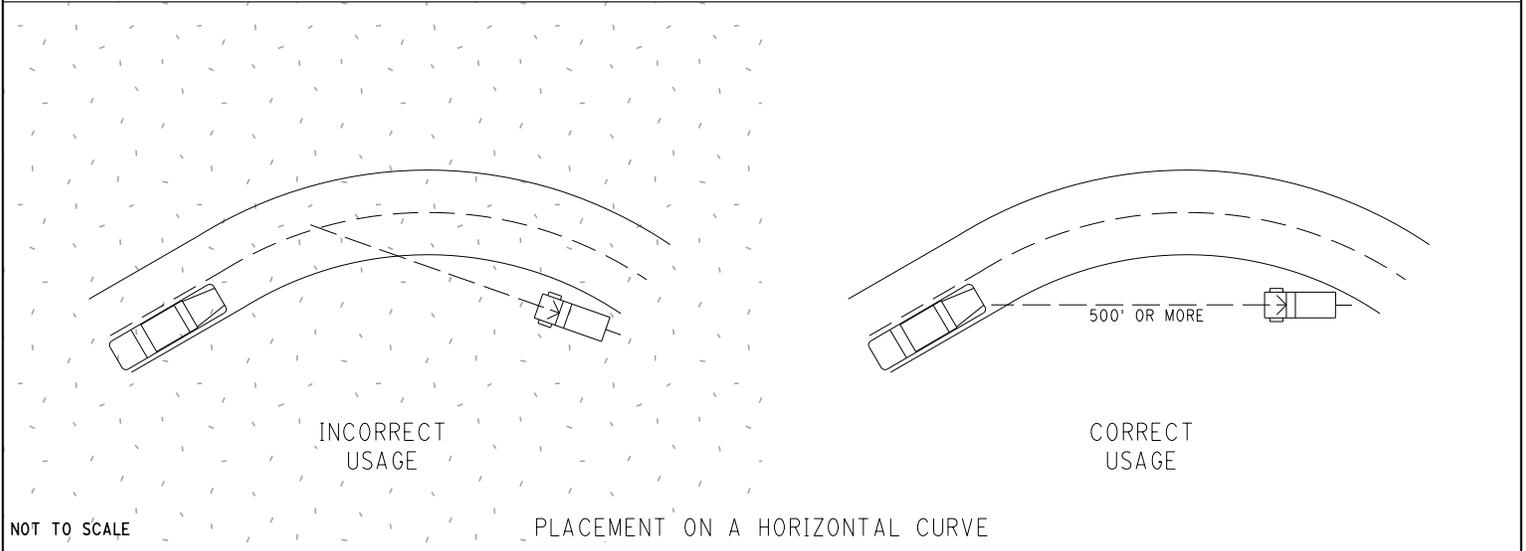
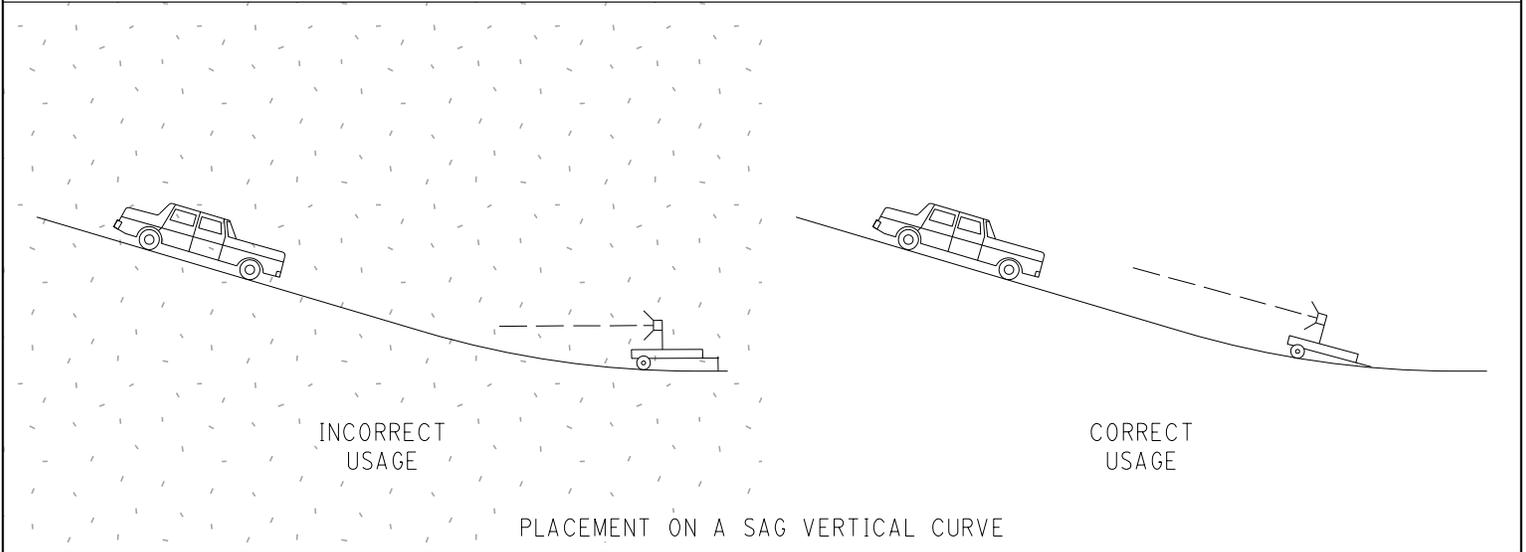
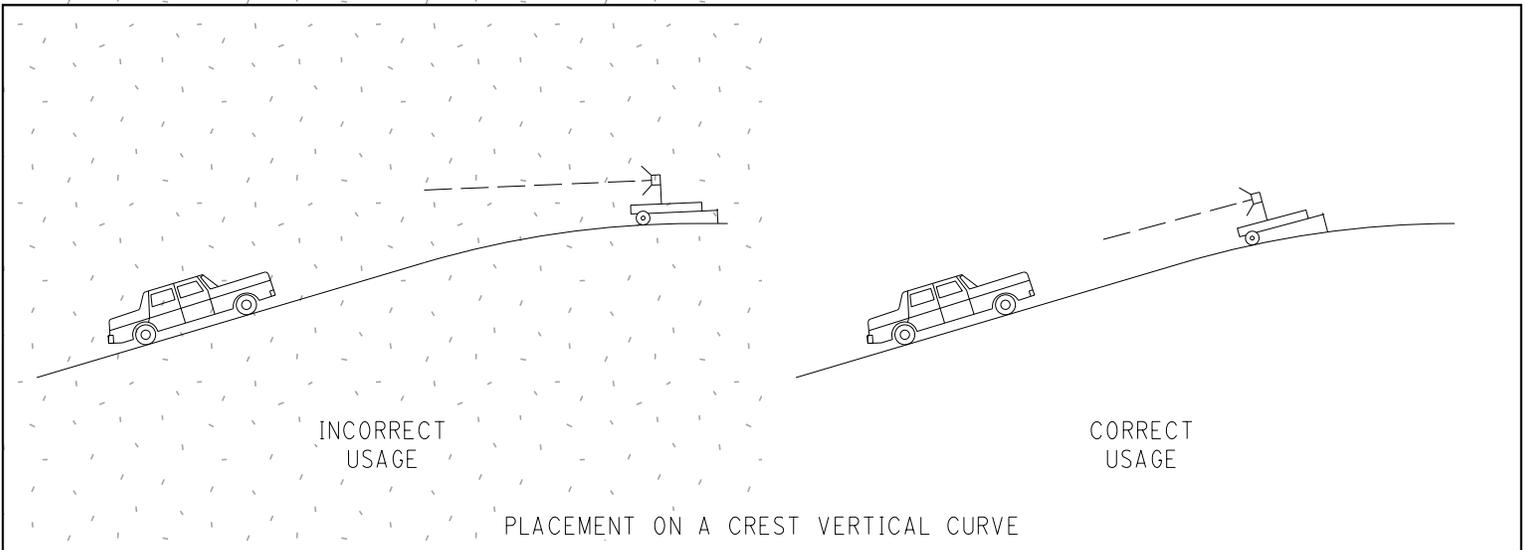
103-GEN-SIGN

TRAFFIC TYPICAL
SIGN SHEET

DATE:
JUNE 2021

SHEET:

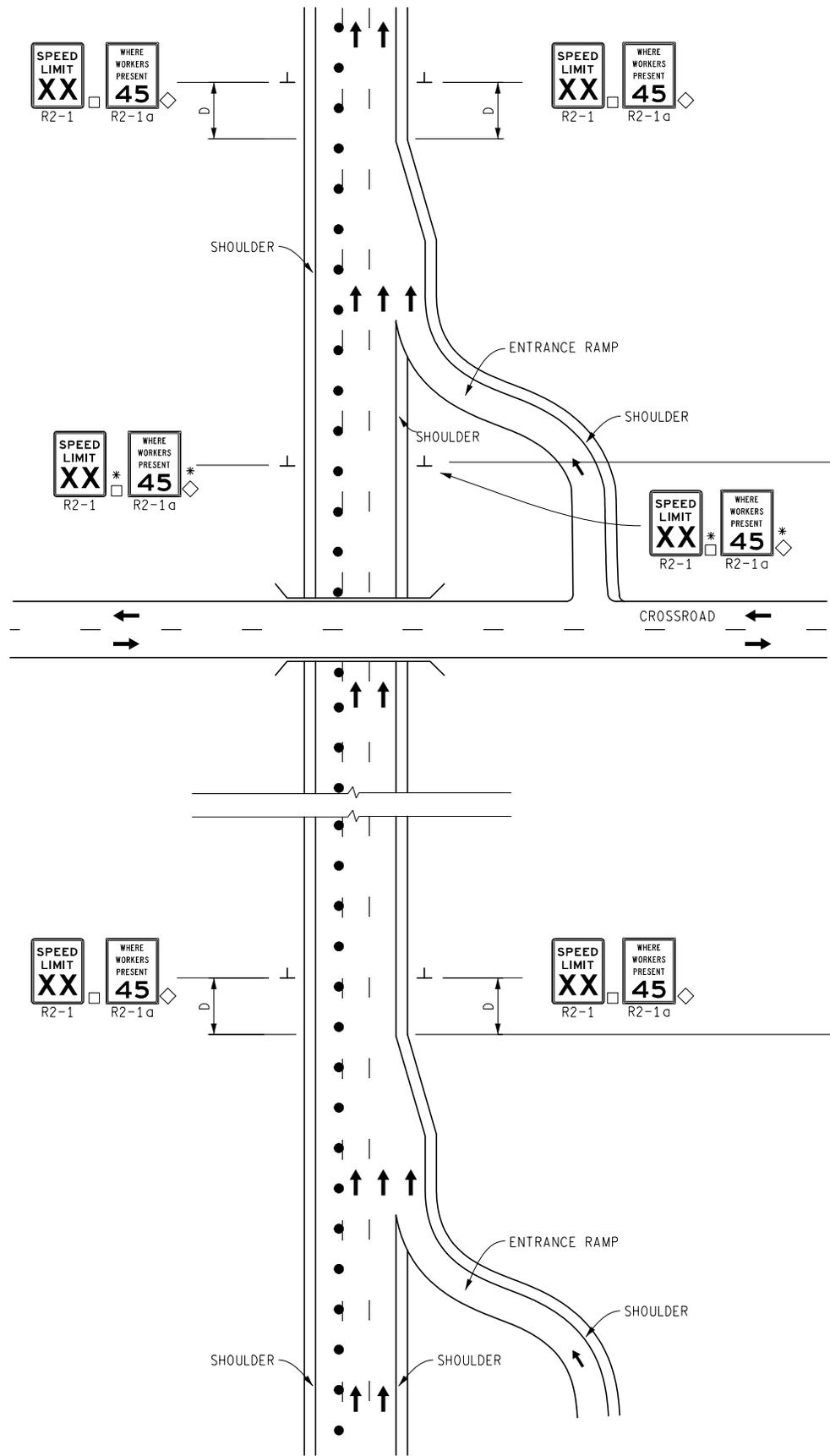
5 OF 5



NOTE:

ENSURE THE ARROW REMAINS CLEARLY LEGIBLE AT DISTANCES FROM 2,500 FEET TO 200 FEET, FROM ALL TRAFFIC LANES AND ROADWAY ENTRANCES. DO NOT PLACE THE LIGHTED ARROW ON A HORIZONTAL OR VERTICAL CURVE THAT MIGHT INTERFERE WITH THIS LEGIBILITY REQUIREMENT.

	NOT TO SCALE	MAINTAINING TRAFFIC TYPICAL	USE OF ARROW BOARD ON HILL OR CURVE AND WORK ZONE LAYOUT	DATE: MAY 2021
		NO: 104-GEN-AB		SHEET: 1 OF 1



KEY

- CHANNELIZING DEVICE
- ← TRAFFIC FLOW
- PLACE AS INDICATED IN NOTE S5
- ◇ R2-1a OPTIONAL

STANDARD NOTES

(SEE GEN-NOTES)

GENERAL: G1, G2, G3, G4

SIGNING: S1, S5, S8

DEVICES: TCD2

KEY

- CHANNELIZING DEVICE
- ↑ TRAFFIC FLOW
- ⚡ LIGHTED ARROW PANEL
- ⊥ TYPE III BARRICADE
- ◊ PART OF LEAD-IN SIGNING SEQUENCE
- ◈ REQUIRED AFTER MAJOR INTERSECTIONS

STANDARD NOTES

(SEE GEN-NOTES)

GENERAL: G1, G2, G3, G4
 SIGNING: S1, S5
 DEVICES: TCD1, TCD2, TCD3, TCD6

MAJOR INTERSECTION

MAJOR INTERSECTION

MAJOR INTERSECTION

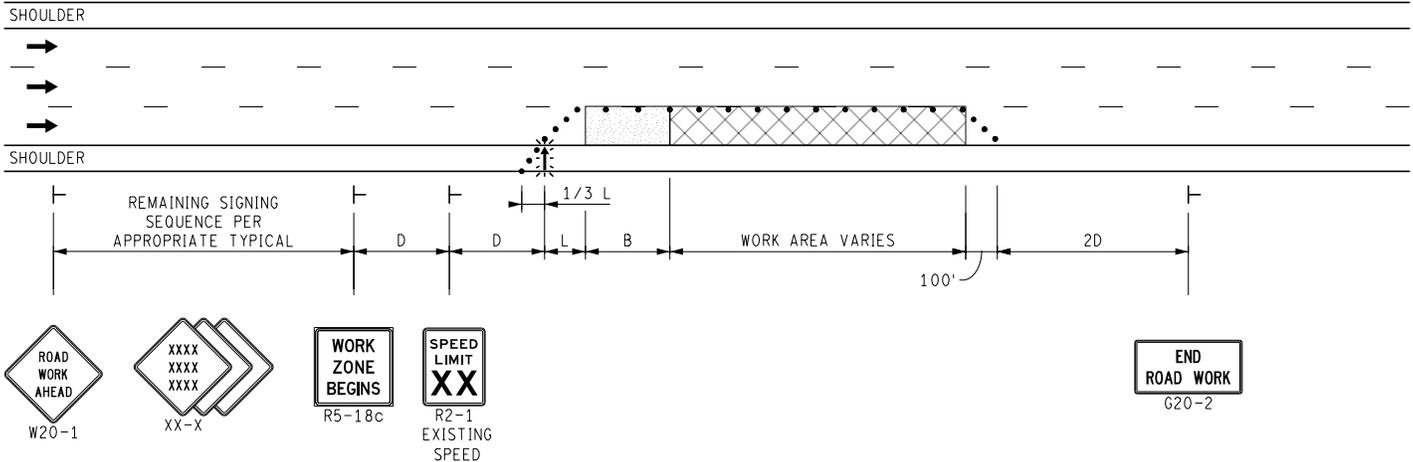
GREATER THAN 2 MILES
 LESS THAN 4 MILES

LESS THAN 2 MILES

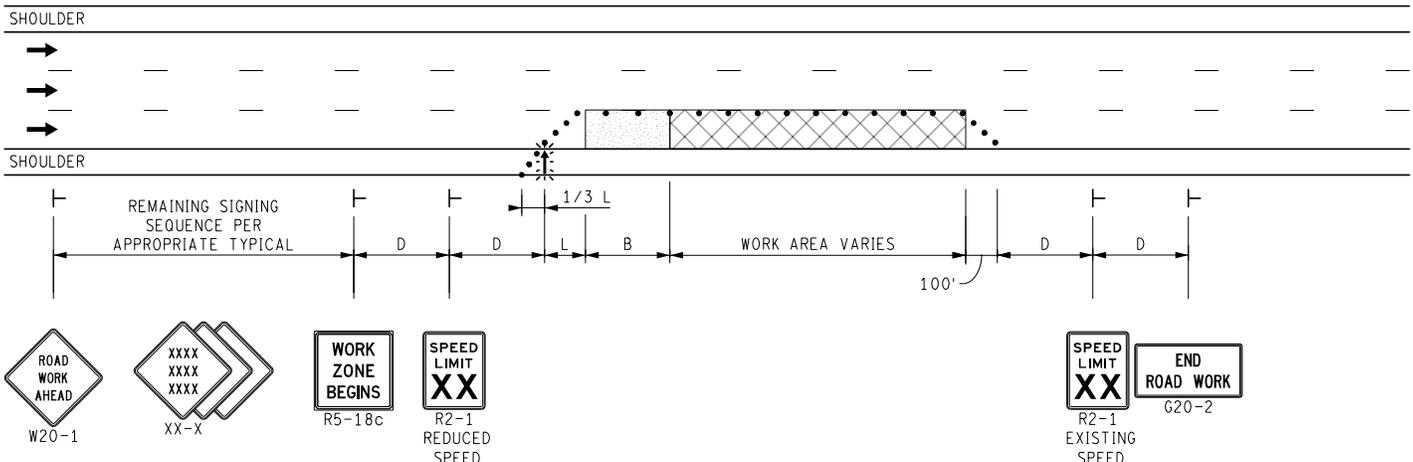
LESS THAN 2 MILES

	NOT TO SCALE	MAINTAINING TRAFFIC TYPICAL	SUPPLEMENTAL SPEED LIMIT TREATMENT ON A 2-WAY ROADWAY WHERE WORKERS PRESENT	DATE: MAY 2021
		NO: 106-GEN-SPEED-NFW		SHEET: 1 OF 1

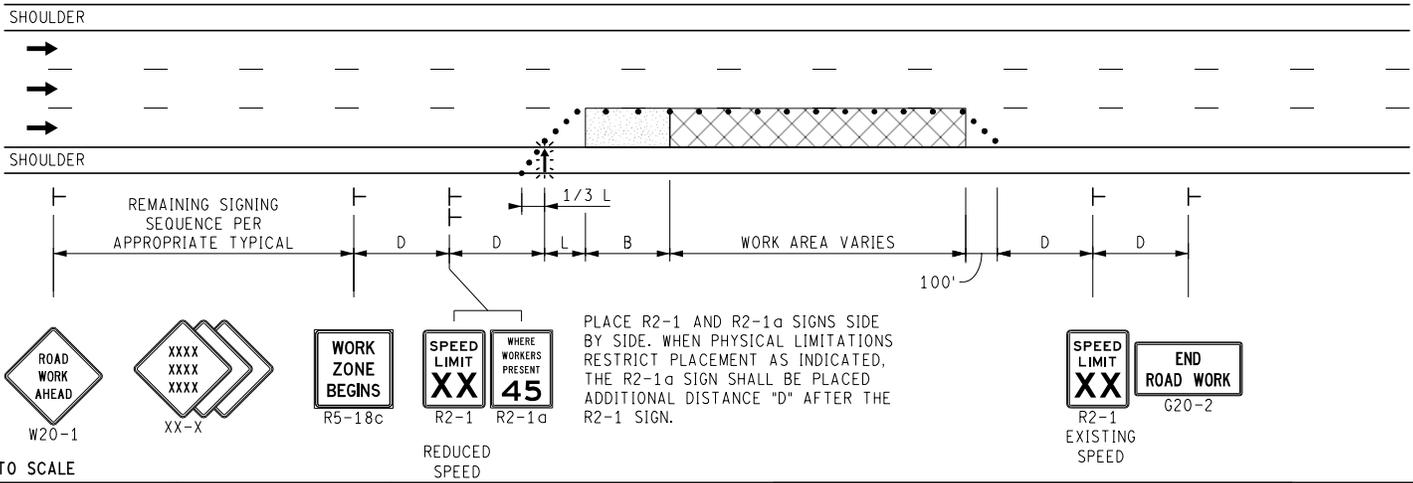
NO SPEED REDUCTION THROUGH WORK ZONE



REDUCED SPEED THROUGH WORK ZONE



REDUCED SPEED THROUGH WORK ZONE USING "WHERE WORKERS PRESENT"



NOT TO SCALE



NOT TO SCALE

MAINTAINING TRAFFIC TYPICAL

NO: 107-GEN-SPEED

SPEED LIMIT LAYOUT

DATE: MAY 2021
SHEET: 1 OF 2

NOTES

1. FOR SHORT-DURATION OR MOBILE OPERATIONS, NO SIGNS ARE REQUIRED IF APPROPRIATELY EQUIPPED VEHICLES ARE USED.
2. IF THE OPERATION HAS VEHICLE(S) PARKED ON THE SHOULDER OR VEHICLES ACCESSING THE WORK SITE VIA THE HIGHWAY OR CROSSING THE HIGHWAY TO PERFORM OPERATIONS, A "ROAD WORK AHEAD" SIGN OR AN ARROW BOARD IN CAUTION MODE SHALL BE USED.
3. WORK VEHICLES SHOULD BE PARKED AS FAR OFF THE TRAVELED WAY AS PRACTICAL.
4. IF THE WORK SPACE IS IN THE MEDIAN OF A DIVIDED ROADWAY, ADVANCE WARNING SIGNS SHALL BE PLACED IN BOTH DIRECTIONS OF TRAVEL.
5. VEHICLES AND PERSONNEL SHOULD ALL BE LOCATED AND PARKED ON THE SAME SIDE OF THE ROADWAY TO THE EXTENT PRACTICAL.

KEY

← TRAFFIC FLOW

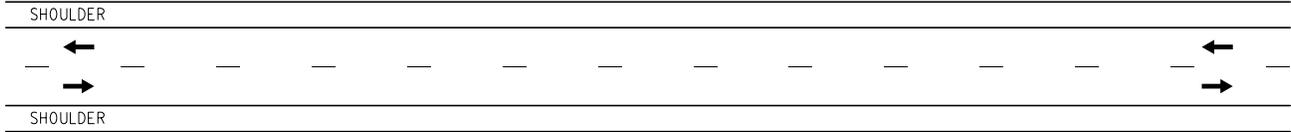
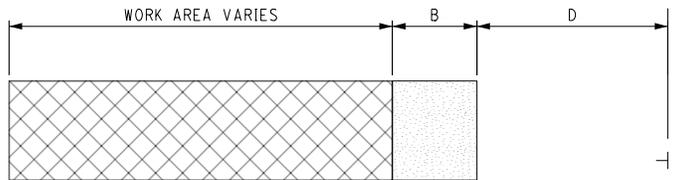
STANDARD NOTES

(SEE 102-GEN-NOTES)

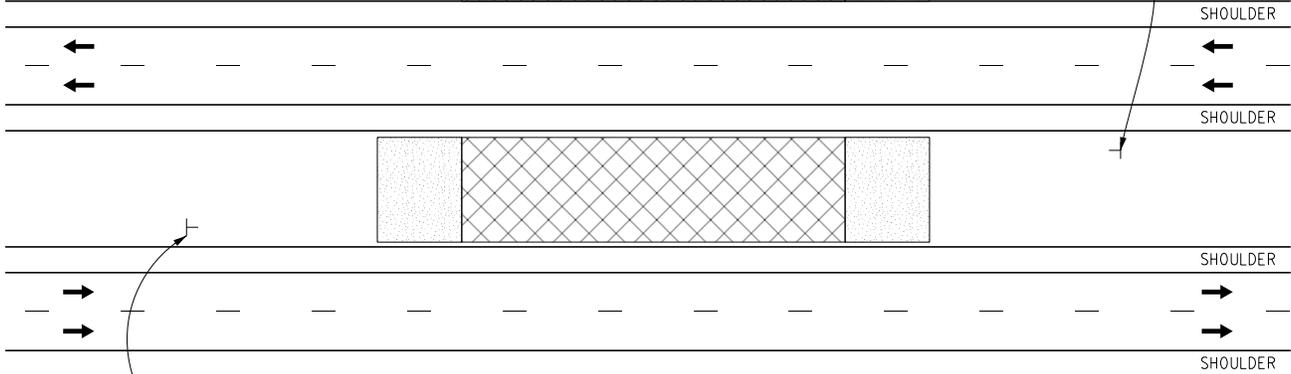
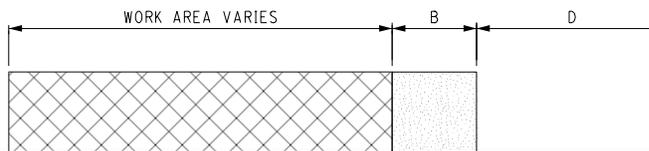
GENERAL: G1, G3, G4

SIGNING: S1

MAINT & SURV: MS2, MS4



TWO LANE, TWO WAY ROADWAY



DIVIDED ROADWAY

NOT TO SCALE

W20-1



MAINTENANCE
MAINTAINING TRAFFIC
TYPICAL

DURATION:

ALL

WORK OUTSIDE SHOULDER

DATE:
MAY 2021

NO:
4000-M-SHL-OUT

SHEET:
1 OF 1

FILE: 4000-M-SHL-OUT.dgn

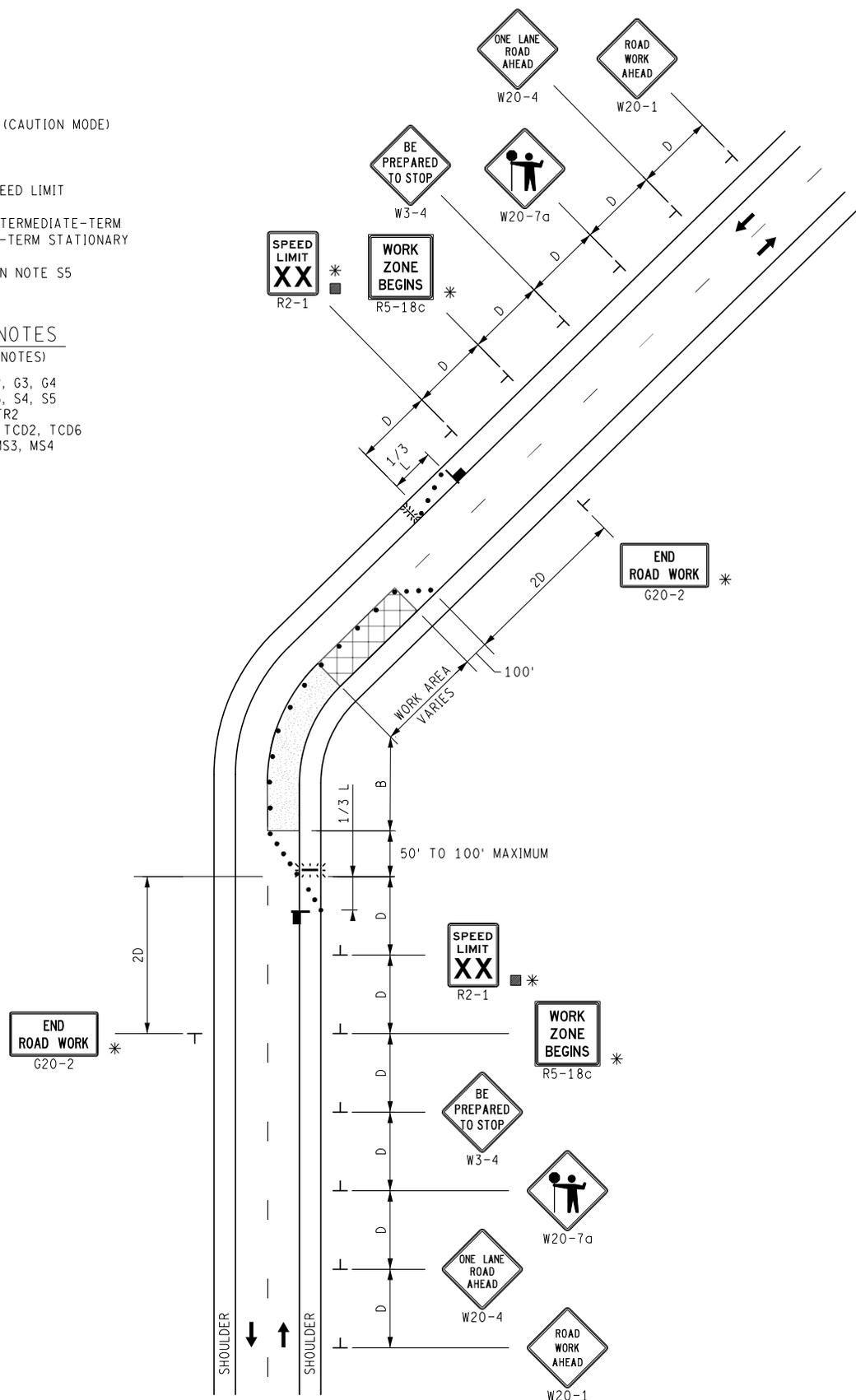
KEY

-  TRAFFIC REGULATOR
-  CHANNELIZING DEVICES
-  LIGHTED ARROW PANEL (CAUTION MODE)
-  TRAFFIC FLOW
-  REFLECTS EXISTING SPEED LIMIT
-  * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY
-  □ PLACE AS INDICATED IN NOTE 55

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
 SIGNING: S1, S3, S4, S5
 TRAF REG: TR1, TR2
 DEVICES: TCD1, TCD2, TCD6
 MAINT & SURV: MS2, MS3, MS4



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	LANE CLOSURE FOR A TWO-LANE, TWO-WAY ROADWAY UTILIZING TRAFFIC REGULATORS NO SPEED REDUCTION	DATE: MAY 2021 NO: 4110A-M-TR-NFW-2L SHEET: 1 OF 1
	FILE: 4110A-M-TR-NFW-2L.dgn			

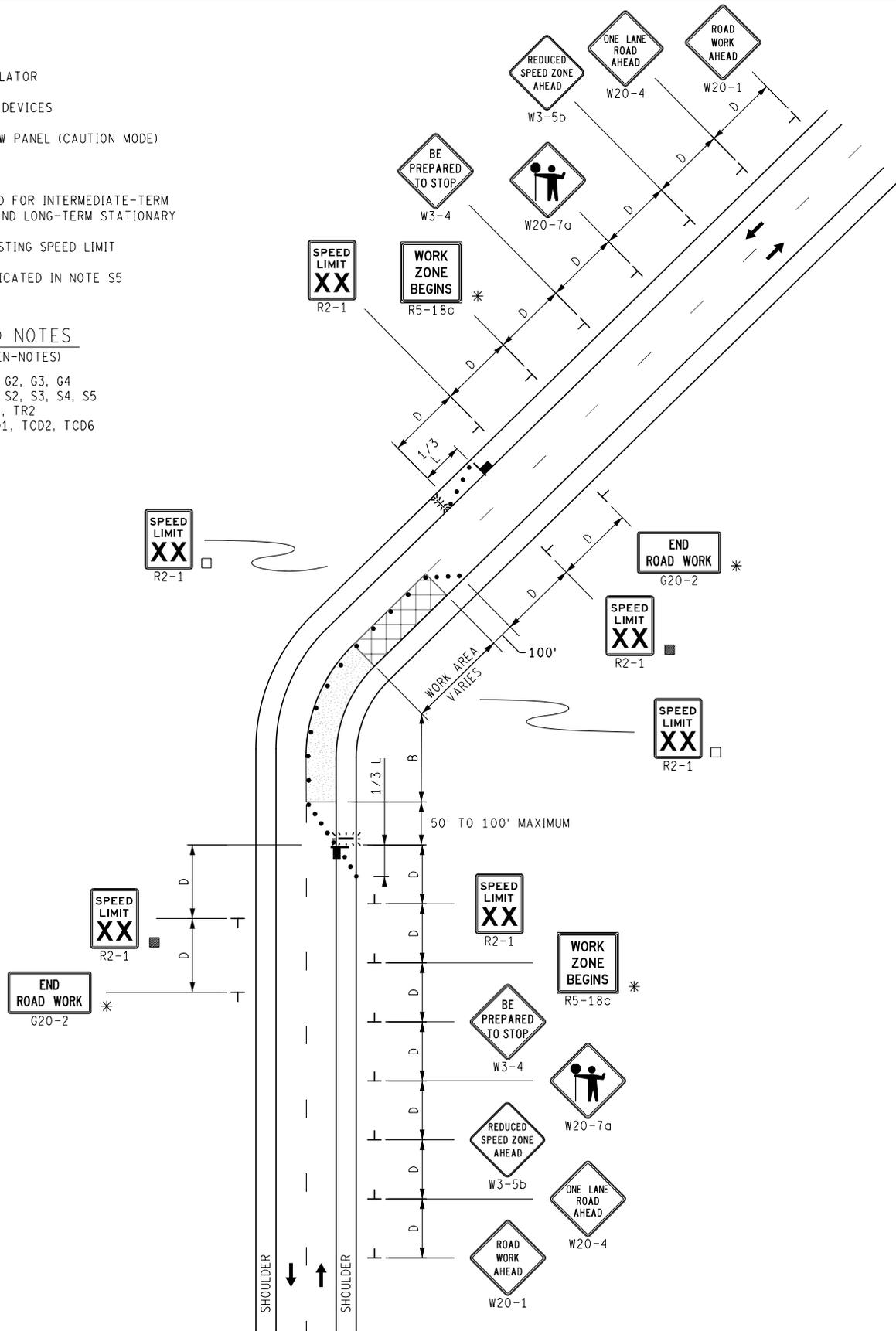
KEY

-  TRAFFIC REGULATOR
-  CHANNELIZING DEVICES
-  LIGHTED ARROW PANEL (CAUTION MODE)
-  TRAFFIC FLOW
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY
-  REFLECTS EXISTING SPEED LIMIT
-  PLACE AS INDICATED IN NOTE S5

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
 SIGNING: S1, S2, S3, S4, S5
 TRAF REG: TR1, TR2
 DEVICES: TCD1, TCD2, TCD6



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	LANE CLOSURE FOR A TWO-LANE, TWO-WAY ROADWAY UTILIZING TRAFFIC REGULATORS WITH A MAXIMUM 10 MPH SPEED REDUCTION	DATE: MAY 2021
				NO: 4110B-M-TR-NFW-2L
FILE: 4110B-M-TR-NFW-2L.dgn				SHEET: 1 OF 1

KEY

- CHANNELIZING DEVICES
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- TEMPORARY TRAFFIC SIGNAL
- TEMPORARY PAVEMENT MARKING (SOLID 24" STOP BAR)
- TEMPORARY CONCRETE BARRIER WALL
- CRASH ATTENUATOR

NOTES

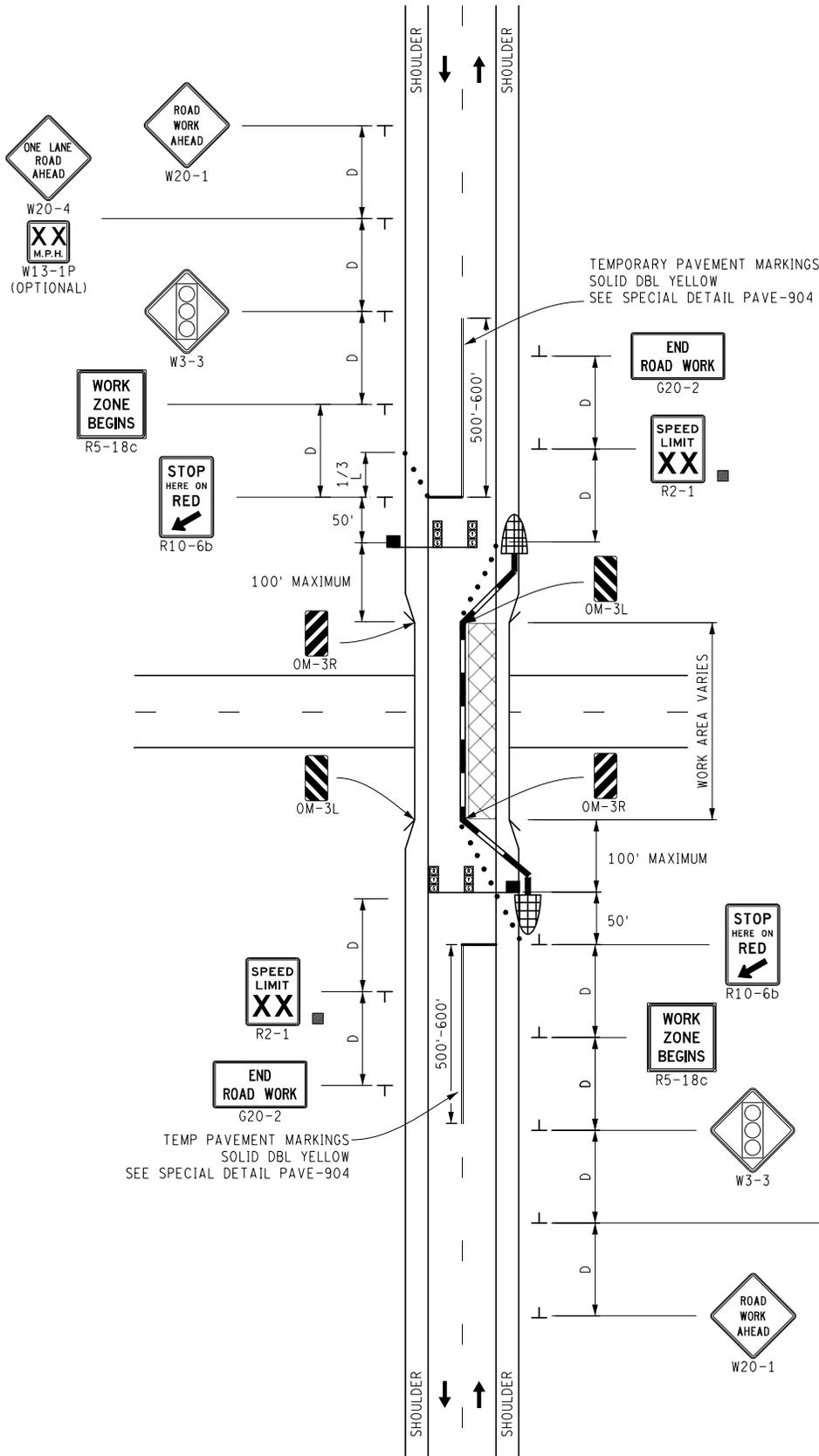
SEE TABLE 6-11 IN DESIGN MANUAL, EDGE DROP TREATMENT FOR BARRIER WALL USAGE GUIDELINES.

BARRIER WALL AND OM-3 SIGNS MAY BE REMOVED AND REPLACED WITH CHANNELIZING DEVICES IF THERE IS NO DROP OFF.

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G5
 SIGNING: S1, S3, S4
 DEVICES: TCD1, TCD5
 MAINT & SURV MS2, MS3, MS4



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY	TEMPORARY TRAFFIC SIGNAL ON A TWO-LANE, TWO-WAY ROADWAY NO SPEED REDUCTION (WITH TEMPORARY BARRIER WALL)	DATE: MAY 2021
				NO: 4121-M-TS
	FILE: 4121-M-TS.dgn			SHEET: 1 OF 1

KEY

- CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL (CAUTION MODE)
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY

STANDARD NOTES

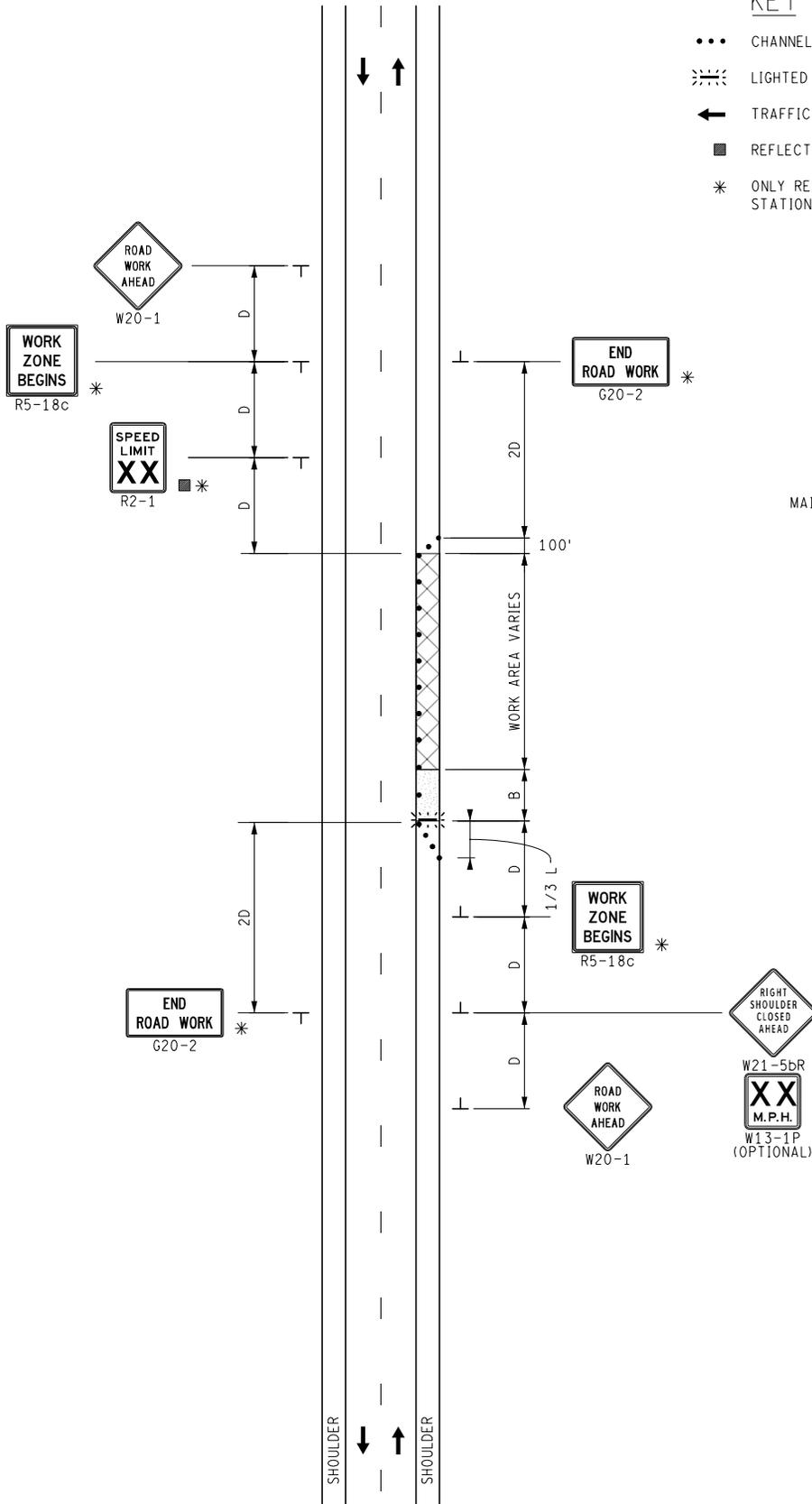
(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4

SIGNING: S1, S3

DEVICES: TCD1, TCD2, TCD6

MAINT & SURV: MS2, MS3, MS4



NOT TO SCALE

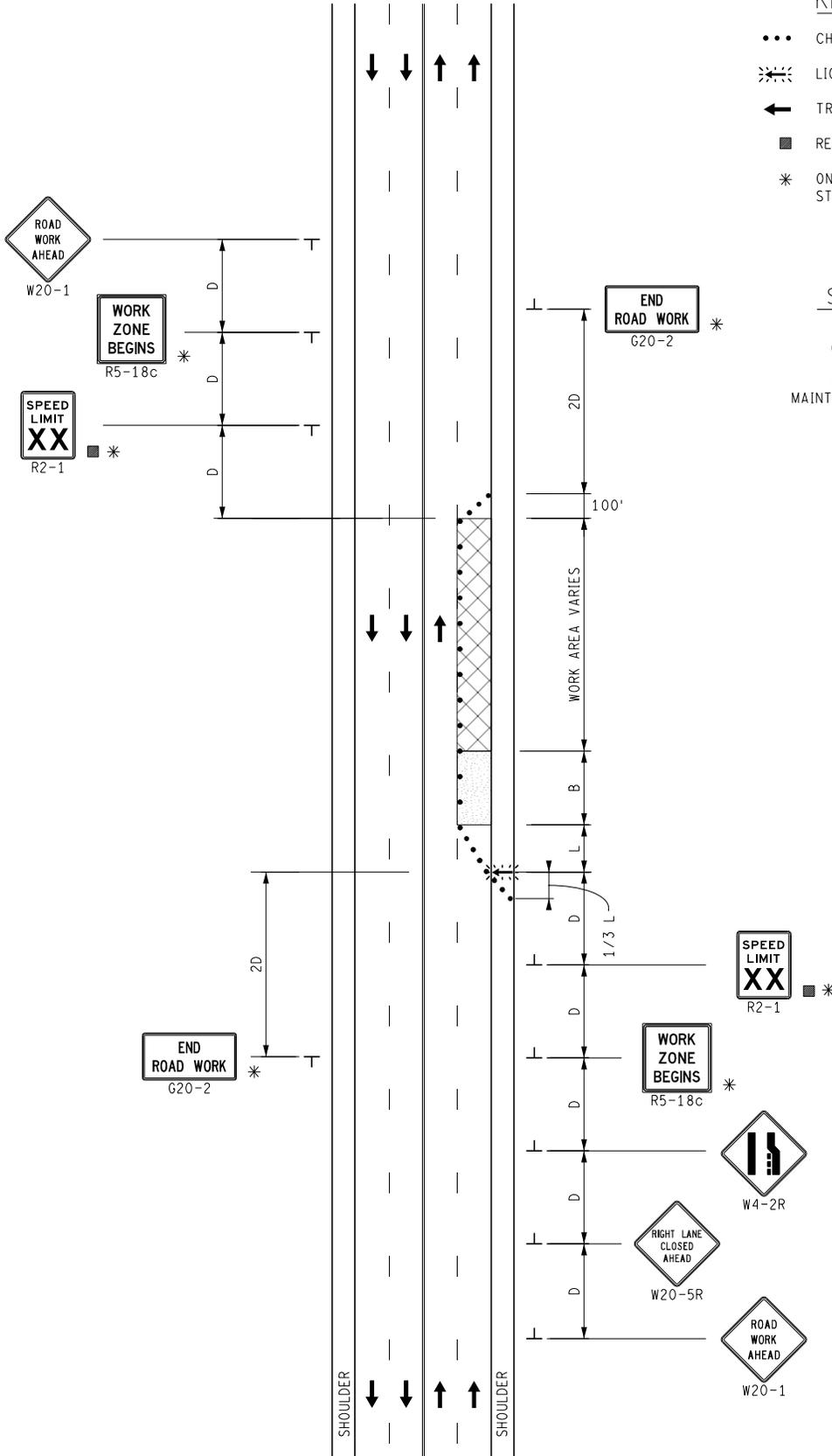
	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: SHORT-TERM STATIONARY, SHORT DURATION LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY	SHOULDER CLOSURE ON A TWO-LANE, TWO-WAY ROADWAY		DATE: MAY 2021
			FILE: 4122-M-NFW-SHL.dgn	NO: 4122-M-NFW-SHL	SHEET: 1 OF 1

KEY

- CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY

STANDARD NOTES

(SEE 102-GEN-NOTES)
 GENERAL: G1, G2, G3, G4
 SIGNING: S1, S3
 DEVICES: TCD1, TCD2, TCD6
 MAINT & SURV MS2, MS3, MS4



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	RIGHT LANE CLOSURE ON AN UNDIVIDED MULTI-LANE ROADWAY, NO SPEED REDUCTION	DATE: MAY 2021
				NO: 4123A-M-NFW-1LC-(R)
FILE: 4123A-M-NFW-1LC-(R).dgn				SHEET: 1 OF 1

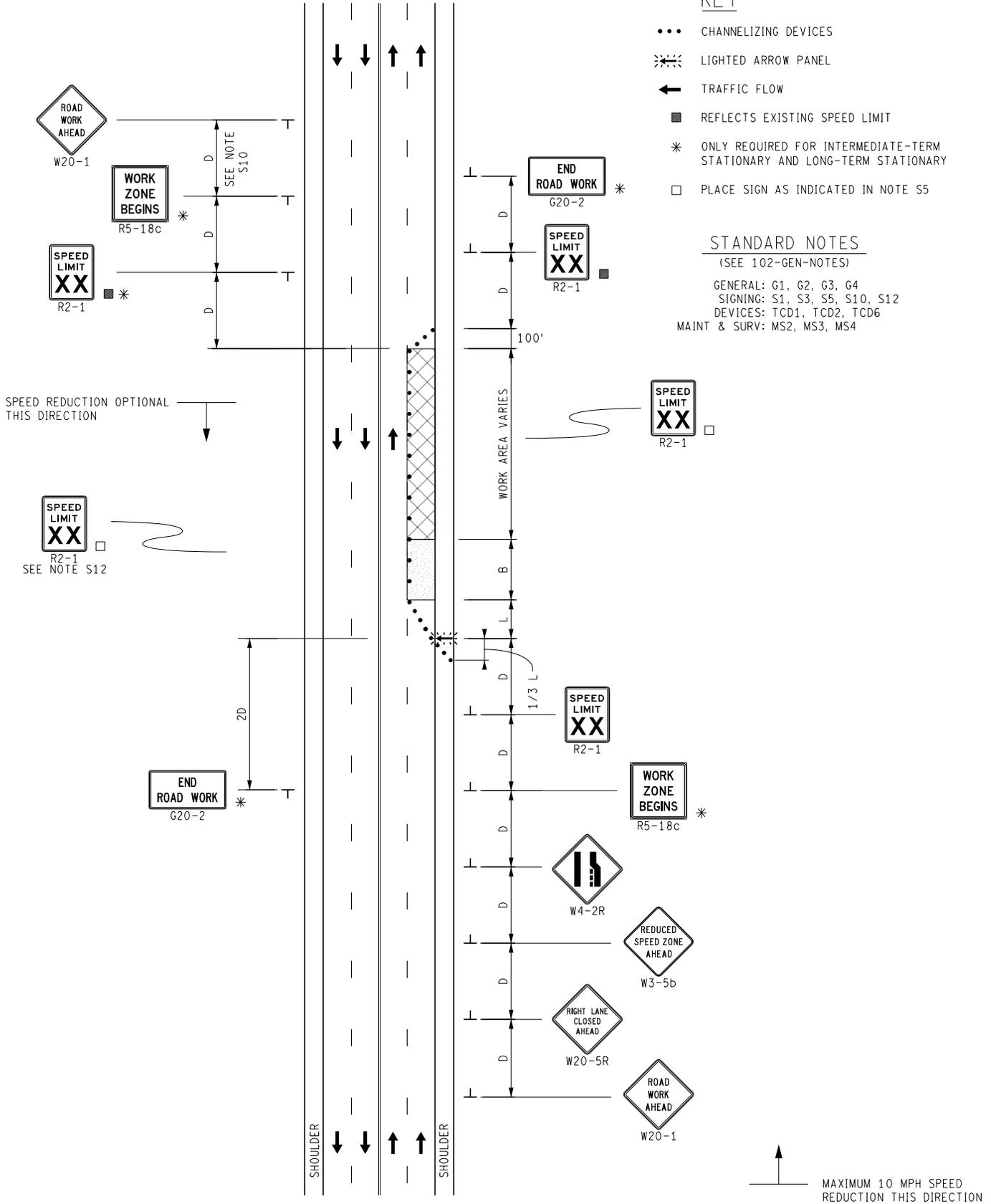
KEY

- CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY
- PLACE SIGN AS INDICATED IN NOTE S5

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
 SIGNING: S1, S3, S5, S10, S12
 DEVICES: TCD1, TCD2, TCD6
 MAINT & SURV: MS2, MS3, MS4



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	ONE-LANE CLOSURE ON AN UNDIVIDED MULTI-LANE ROADWAY, WITH A MAXIMUM 10 MPH SPEED REDUCTION	DATE: MAY 2021
				NO: 4123B- M-NFW-1LC-(R)
FILE: 4123B-M-NFW-1LC-(R).dgn			SHEET: 1 OF 1	

KEY

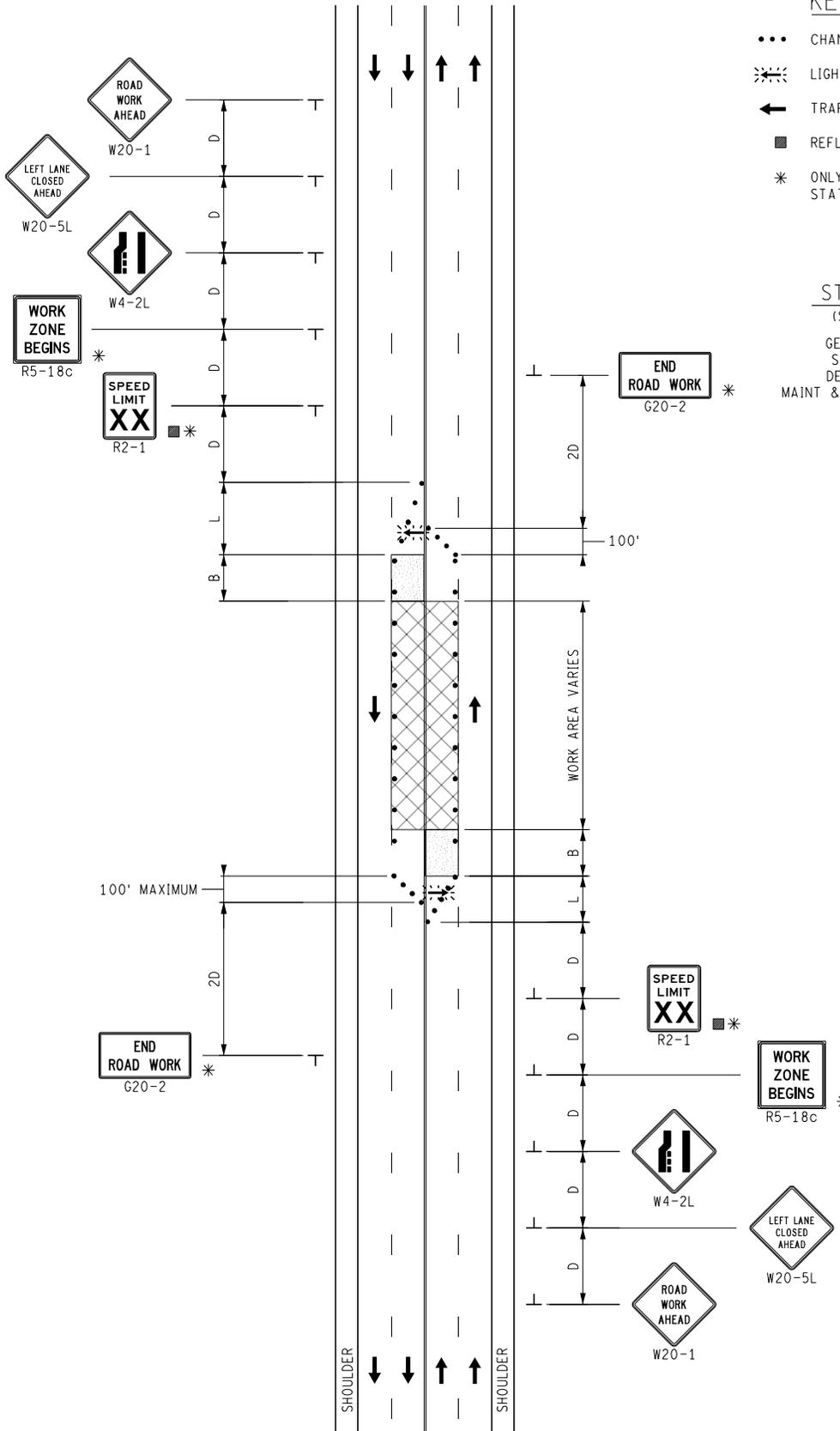
- CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
SIGNING: S1, S3

DEVICES: TCD1, TCD2, TCD6
MAINT & SURV: MS2, MS3, MS4



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	2-LANE CLOSURE, INSIDE OF A MULTI-LANE UNDIVIDED ROADWAY, NO SPEED REDUCTION	DATE: MAY 2021
				NO: 4125A-M-NFW-2LC-(IN)
FILE: 4125A-M-NFW-2LC-(IN).dgn				SHEET: 1 OF 1

KEY

- CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY
- PLACE SIGN AS INDICATED IN NOTE S5

STANDARD NOTES

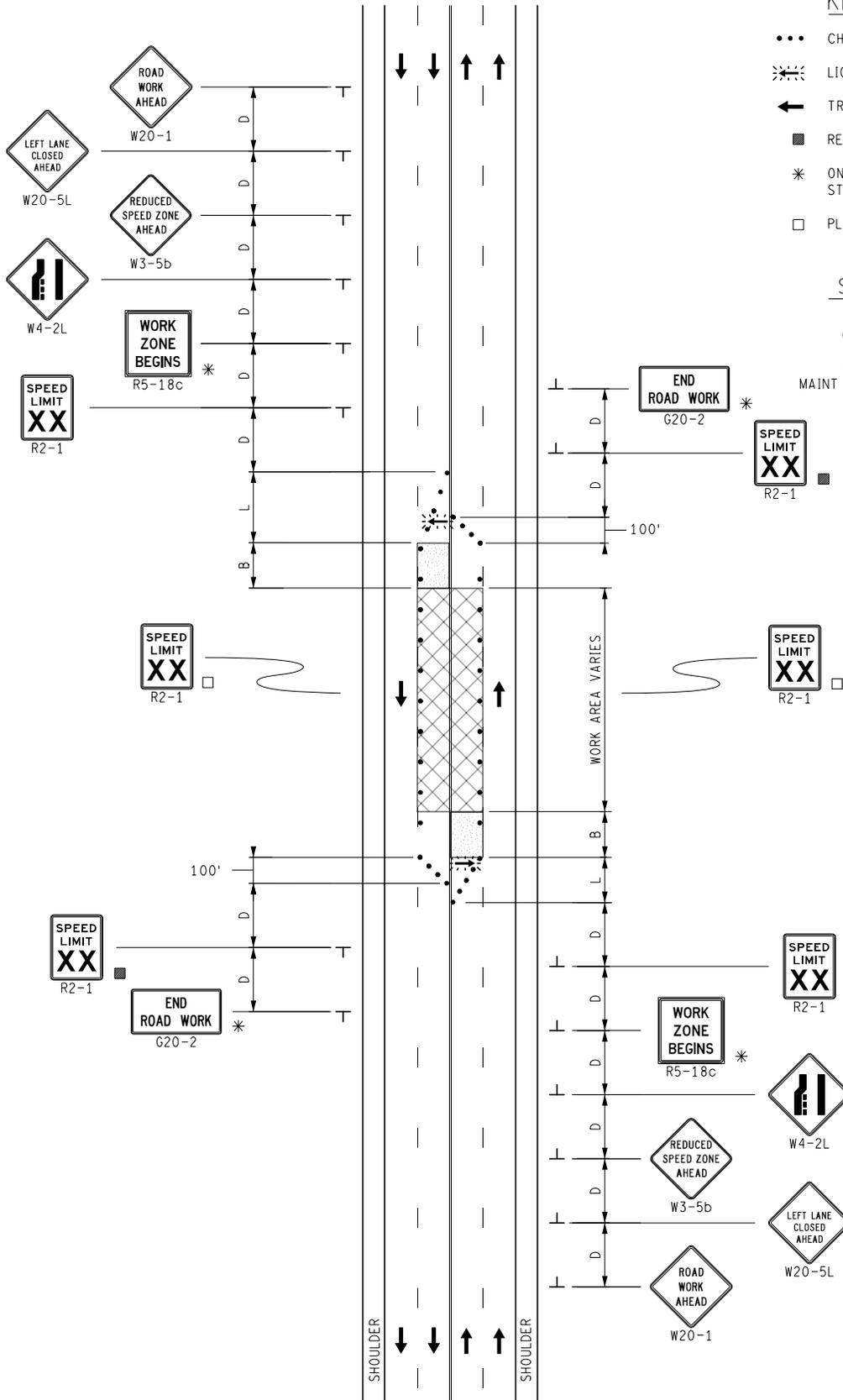
(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4

SIGNING: S1, S3, S5

DEVICES: TCD1, TCD2, TCD6

MAINT & SURV: MS2, MS3, MS4



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	2-LANE CLOSURE, INSIDE OF A MULTI-LANE UNDIVIDED ROADWAY, WITH A MAXIMUM 10 MPH SPEED REDUCTION	DATE: MAY 2021
				NO: 4125B-M-NFW-2LC-(IN)
FILE: 4125B-M-NFW-2LC-(IN).dgn				SHEET: 1 OF 1

KEY

- CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY

STANDARD NOTES

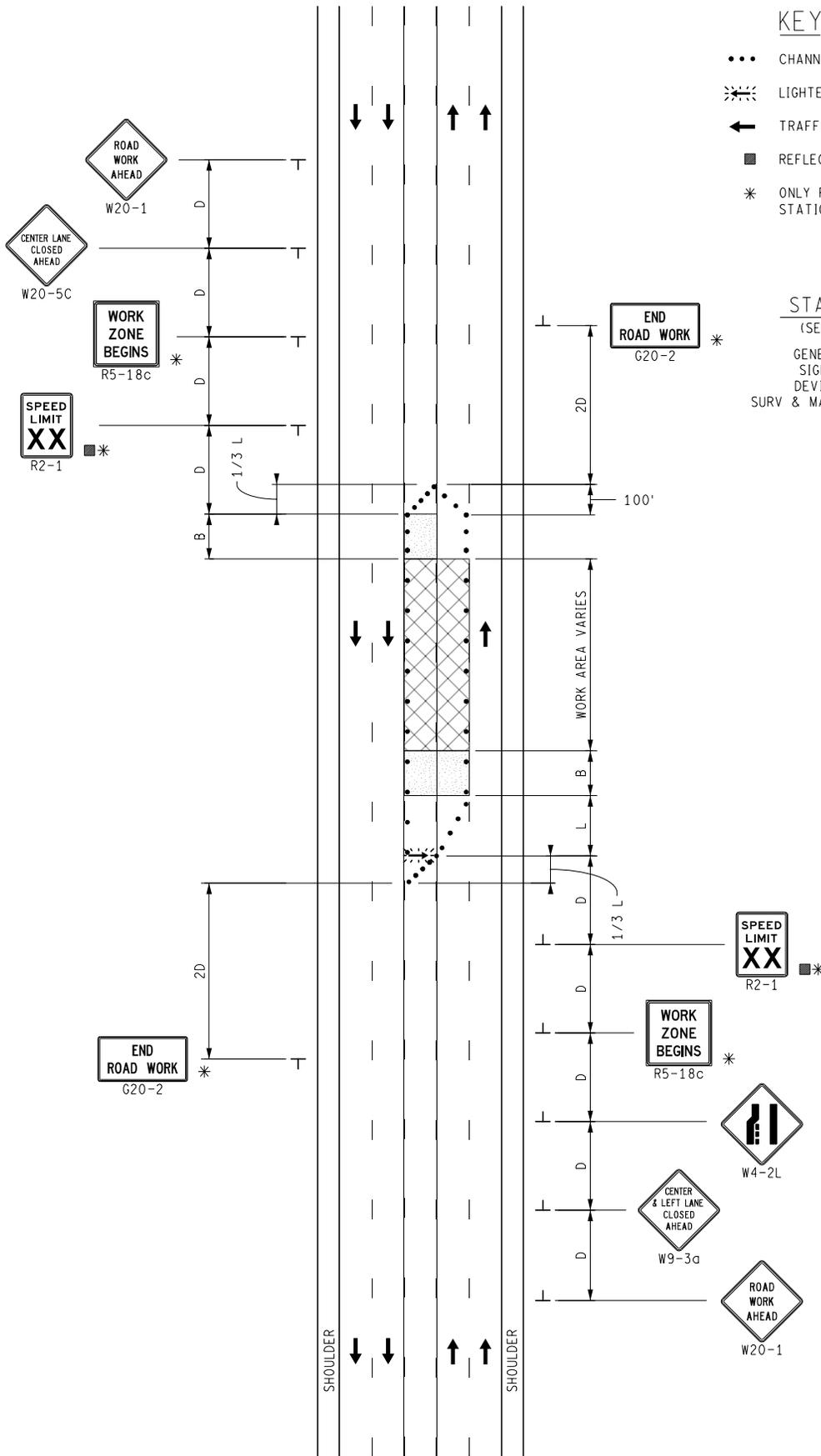
(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4

SIGNING: S1, S3

DEVICES: TCD1, TCD2, TCD6

SURV & MAINT: M2, M3, M4



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	CENTER AND LEFT LANE CLOSURE OF A MULTI-LANE UNDIVIDED ROADWAY, NO SPEED REDUCTION	DATE: MAY 2021
				NO: 4133A-M-CLT-1LC-(L)
FILE: 4133A-M-CLT-1LC-(L).dgn				SHEET: 1 OF 1

SPEED REDUCTION OPTIONAL
THIS DIRECTION

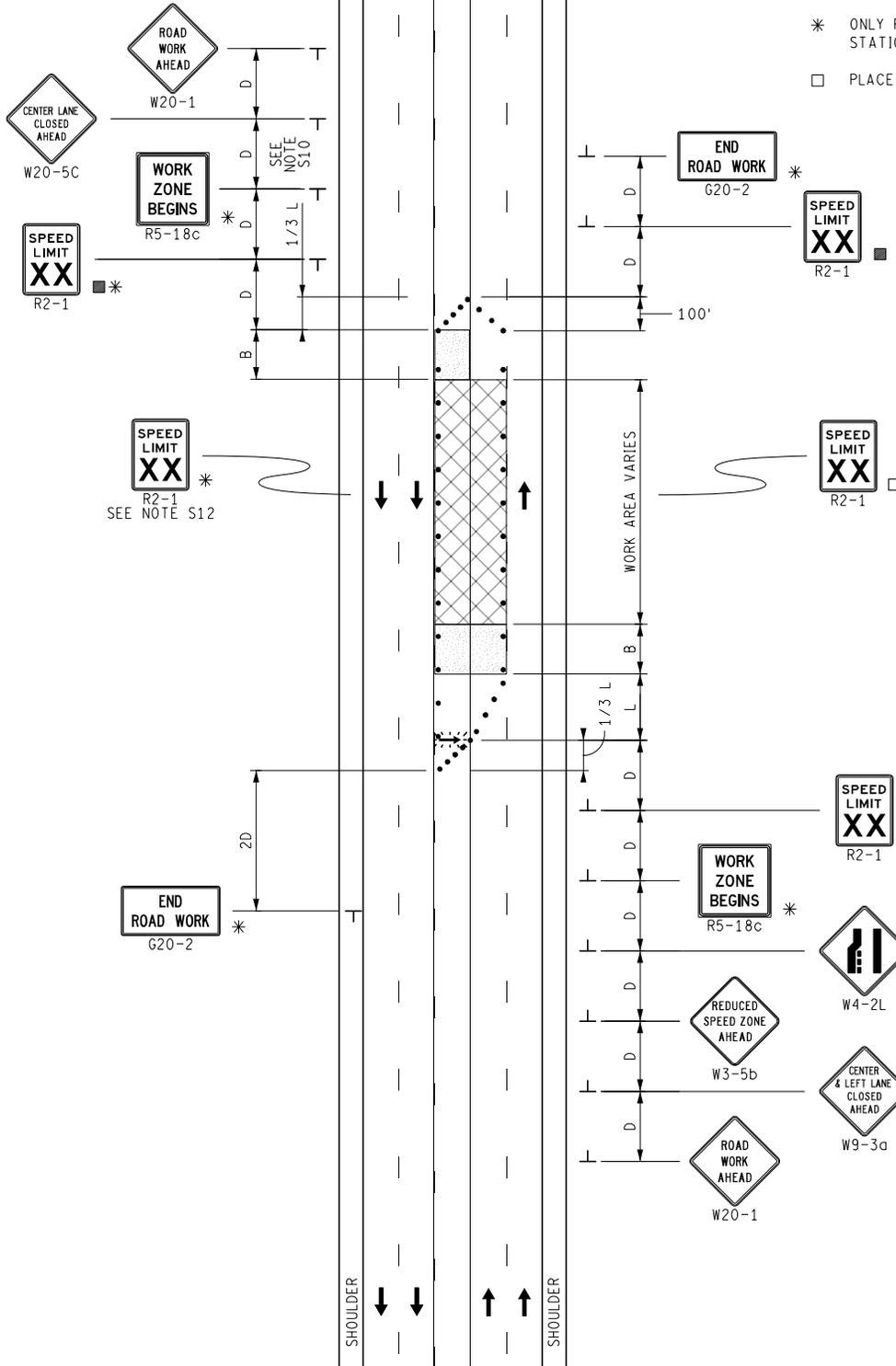
KEY

- CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY
- PLACE SIGN AS INDICATED IN NOTE S5

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
SIGNING: S1, S3, S5, S10, S12
DEVICES: TCD1, TCD2, TCD6
MAINT & SURV: MS2, MS3, MS4



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	CENTER AND LEFT LANE CLOSURE OF A MULTI-LANE UNDIVIDED ROADWAY, WITH A MAXIMUM 10 MPH SPEED REDUCTION	DATE: MAY 2021
	FILE: 4133B-M-CLT-1LC-(L).dgn			

KEY

- CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY

STANDARD NOTES

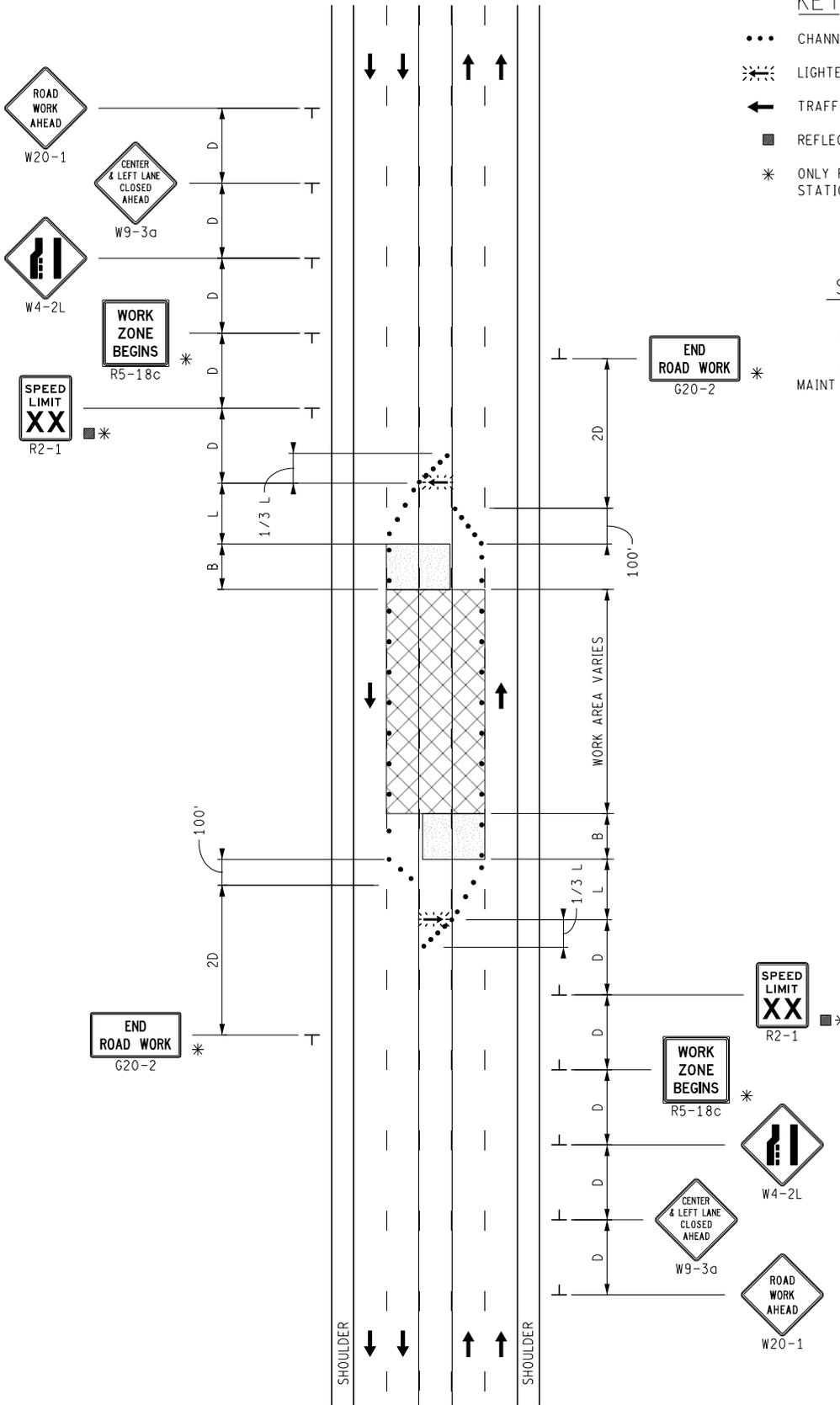
(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4

SIGNING: S1, S3

DEVICES: TCD1, TCD2, TCD6

MAINT & SURV: MS2, MS3, MS4



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	CLOSURE OF CENTER LANE AND LEFT LANES OF A MULTI-LANE UNDIVIDED ROADWAY, NO SPEED REDUCTION	DATE: MAY 2021
	FILE: 4134A-M-CLT-2(L)LC-(IN).dgn			NO: 4134A-M-CLT-2(L)LC-(IN)

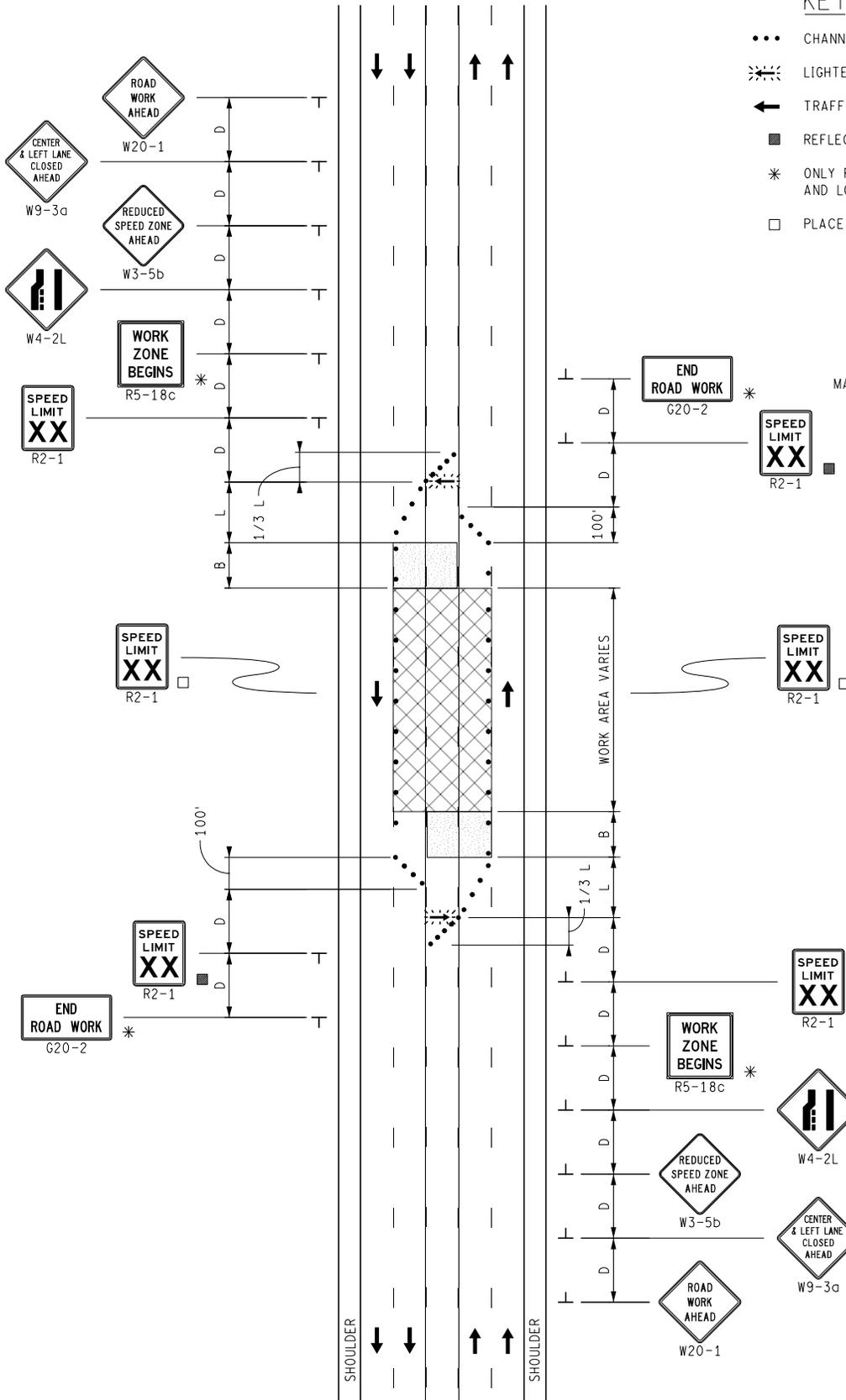
KEY

- CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY
- PLACE SIGN AS INDICATED IN NOTE S5

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
 SIGNING: S1, S3, S5
 DEVICES: TCD1, TCD2, TCD6
 MAINT & SURV: MS2, MS3, MS4

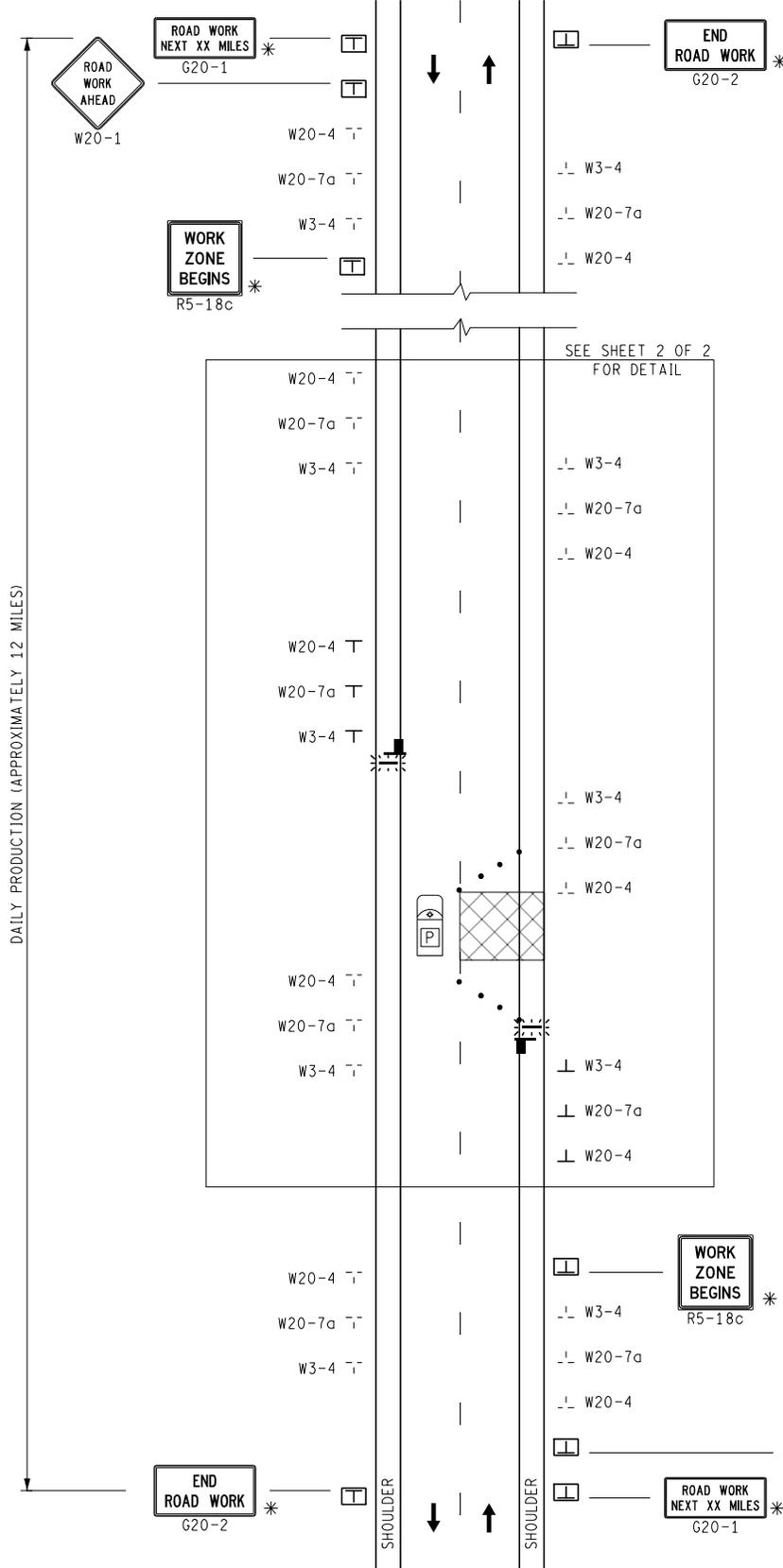


NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	CLOSURE OF CENTER LANE AND LEFT LANES OF A MULTI-LANE UNDIVIDED ROADWAY, WITH A MAXIMUM 10 MPH SPEED REDUCTION	DATE: MAY 2021
	FILE: 4134B-M-CLT-2(L)LC-(IN).dgn			NO: 4134B-M-CLT-2(L)LC-(IN)

KEY

- CHANNELIZING DEVICES
- ⋮ LIGHTED ARROW PANEL (CAUTION MODE)
- ← TRAFFIC FLOW
- ▬ TRAFFIC REGULATOR
- ☐ PILOT CAR
- ⊥ SIGN (FACE VISIBLE TO TRAFFIC)
- ⊥ SIGN (FUTURE/PAST LOCATION OR FACE DOWN WITH LEGS FOLDED)
- ☐ SIGN (STATIONARY FOR LENGTH OF PROJECT - DOES NOT "LEAP")
- * SIGN OPTIONAL



NOTES

A SERIES OF SIGNS AT EACH FLAGGING LOCATION INCLUDES W20-4, W20-7a, AND W3-4:



THREE (3) SERIES OF SIGNS ARE REQUIRED FOR EACH DIRECTION OF TRAVEL.

TWO (2) SERIES OF SIGNS ARE ALLOWED TO BE VISIBLE AT ONE TIME IN EACH DIRECTION.

NO MORE THAN FOUR (4) MILES FROM ROAD WORK AHEAD SIGN TO OPERATION IS PERMITTED AT ANY TIME.

WHEN OPERATION (PROGRESSING TOWARD THE TRAFFIC REGULATOR) MOVES WITHIN 500 FEET OF THE REGULATOR, THE FLAGGING STATION MUST BE MOVED TO THE NEXT STATION BY POSITIONING A SECOND TRAFFIC REGULATOR AT THE NEW STATION.

WHEN OPERATION (MOVING AWAY FROM THE TRAFFIC REGULATOR) PASSES THE ADJACENT FLAGGING STATION, THE FLAGGING STATION MUST BE MOVED AND THE PILOT CAR WILL HOLD TRAFFIC UNTIL THE TRAFFIC REGULATOR IS SET AT THE NEW STATION.

TRAFFIC REGULATOR MUST REMAIN WITH LIGHTED ARROW PANEL AT ALL TIMES.

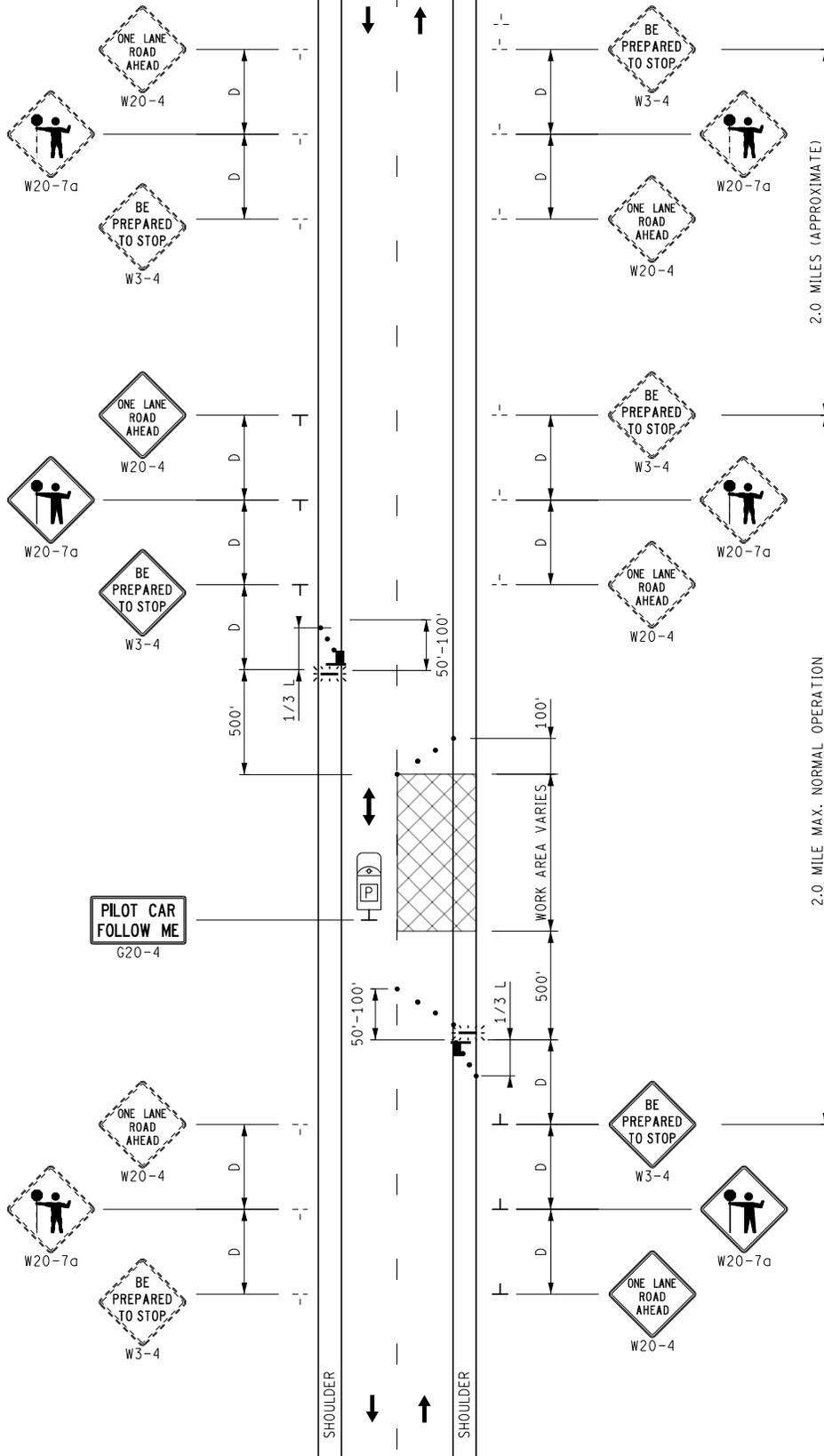
STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
 SIGNING: S1, S2, S3, S4, S5
 TRAF REG: TR1, TR2
 DEVICES: TCD1, TCD2, TCD6
 MAINT & SURV: MS2, MS3, MS4, MS5

NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: MOBILE SHORT DURATION SHORT-TERM STATIONARY	LEAP FROG LANE CLOSURE ON A TWO-LANE, TWO-WAY ROADWAY	DATE: MAY 2021
	FILE: 4180-M-TR-NFW-2L.dgn			NO: 4180- M-TR-NFW-2L
				SHEET: 1 OF 2



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: MOBILE SHORT DURATION SHORT-TERM STATIONARY	LEAP FROG LANE CLOSURE ON A TWO-LANE, TWO-WAY ROADWAY	DATE: MAY 2021
				NO: 4180-M-TR-NFW-2L
FILE: 4180-M-TR-NFW-2L.dgn				SHEET: 2 OF 2

KEY

- CHANNELIZING DEVICES
- ⋈ LIGHTED ARROW PANEL (CAUTION MODE)
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY

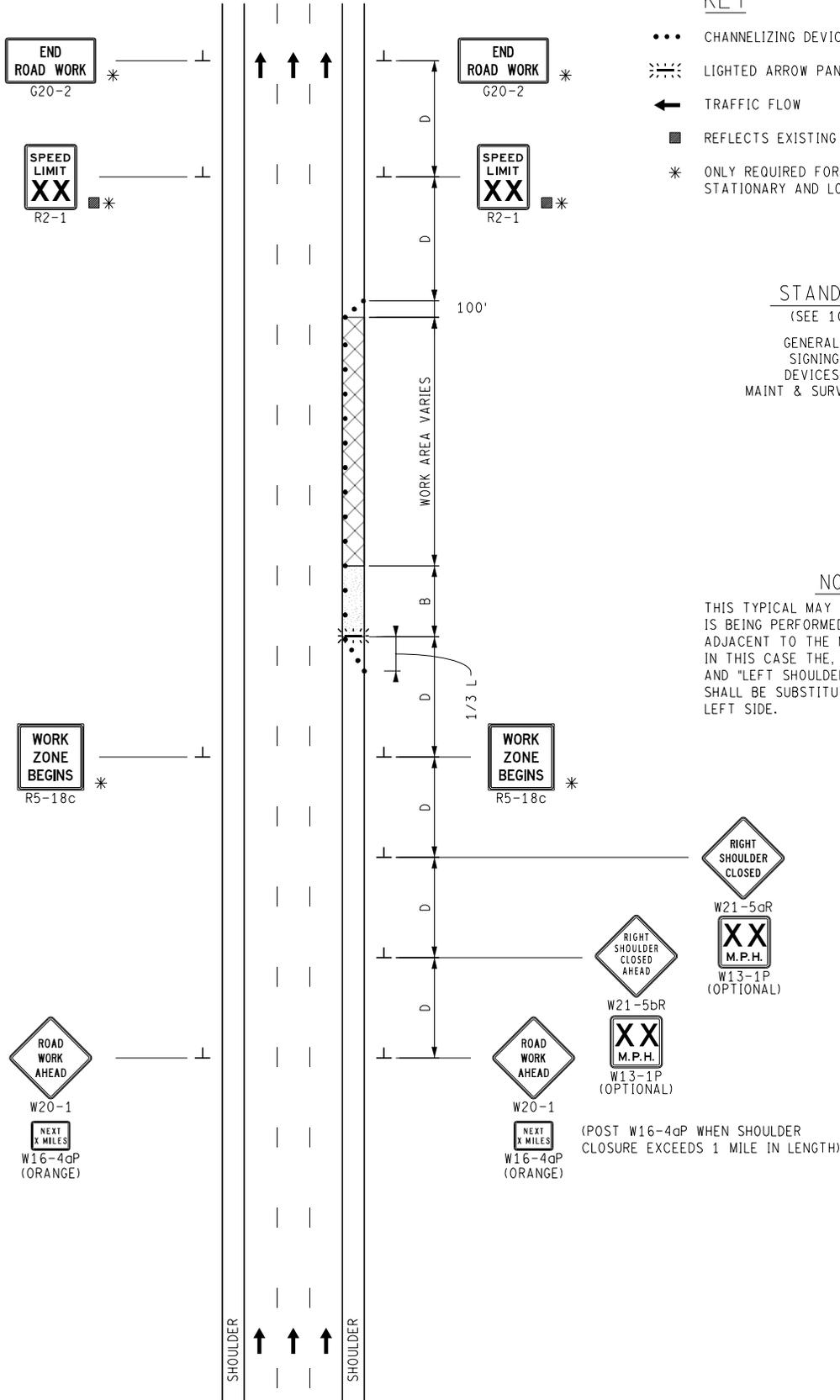
STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
 SIGNING: S1, S3
 DEVICES: TCD1, TCD2, TCD6
 MAINT & SURV MS2, MS3, MS4

NOTE

THIS TYPICAL MAY ALSO BE USED WHEN WORK IS BEING PERFORMED IN THE SHOULDER ADJACENT TO THE MEDIAN OF THE ROADWAY. IN THIS CASE THE, "LEFT SHOULDER CLOSED" AND "LEFT SHOULDER CLOSED AHEAD" SIGNS SHALL BE SUBSTITUTED AND PLACED ON THE LEFT SIDE.



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	SHOULDER CLOSURE ON A DIVIDED ROADWAY OR FREEWAY	DATE: MAY 2021
	FILE: 4200-M-FW-SHL.dgn			NO: 4200-M-FW-SHL
				SHEET: 1 OF 1

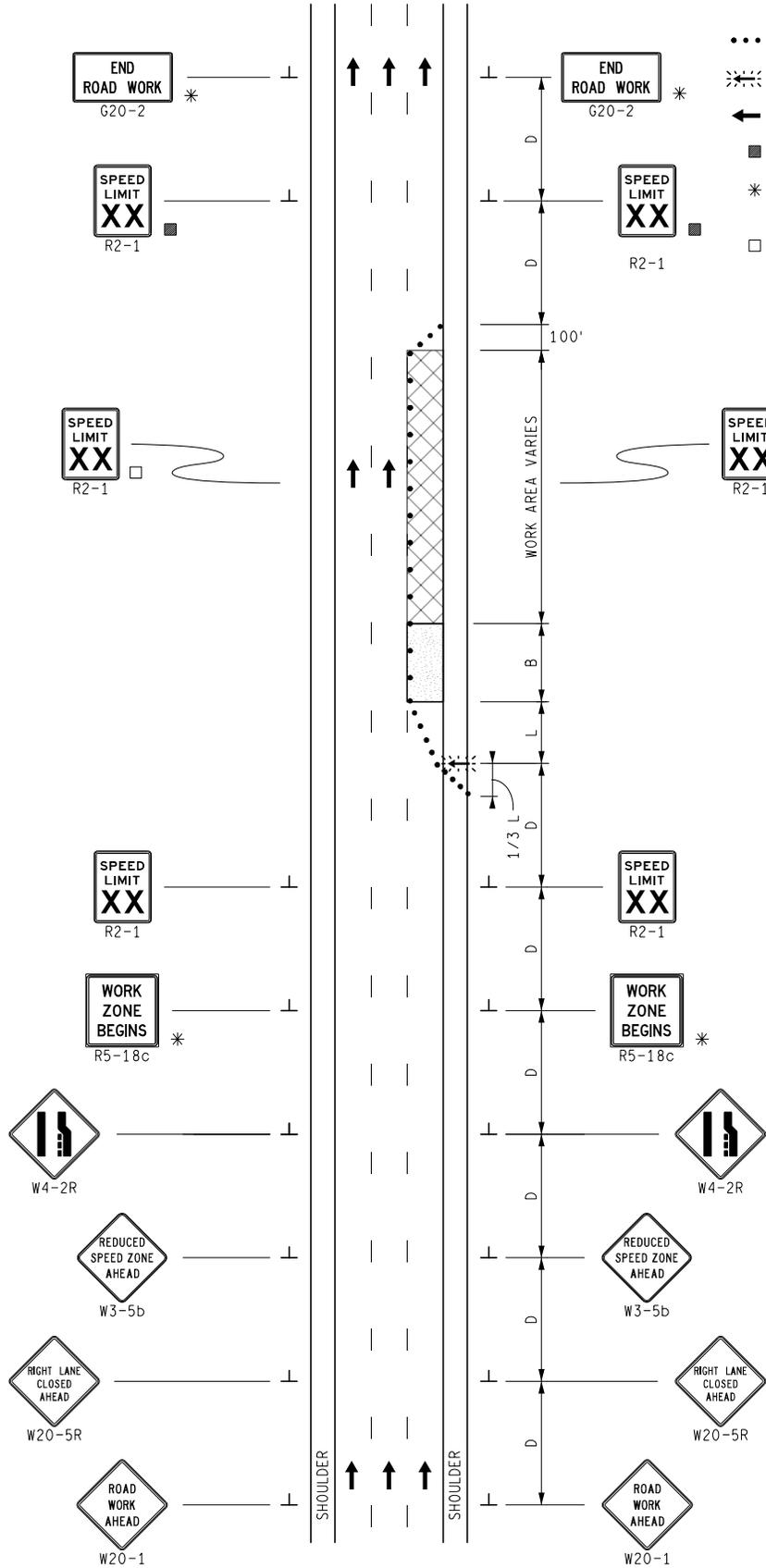
KEY

- CHANNELIZING DEVICES
- ☀️ LIGHTED ARROW PANEL
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY
- PLACE SIGN AS INDICATED IN NOTE S5

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
 SIGNING: S1, S3, S5
 DEVICES: TCD1, TCD2, TCD6
 MAINT & SURV: MS2, MS3, MS4



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	SINGLE RIGHT LANE CLOSURE ON A FREEWAY USING A 10 MPH STEP DOWN IN SPEED LIMIT	DATE: MAY 2021
	FILE: 4203A-M-FW-1LC-(R).dgn			NO: 4203A- M-FW-1LC-(R)
				SHEET: 1 OF 1

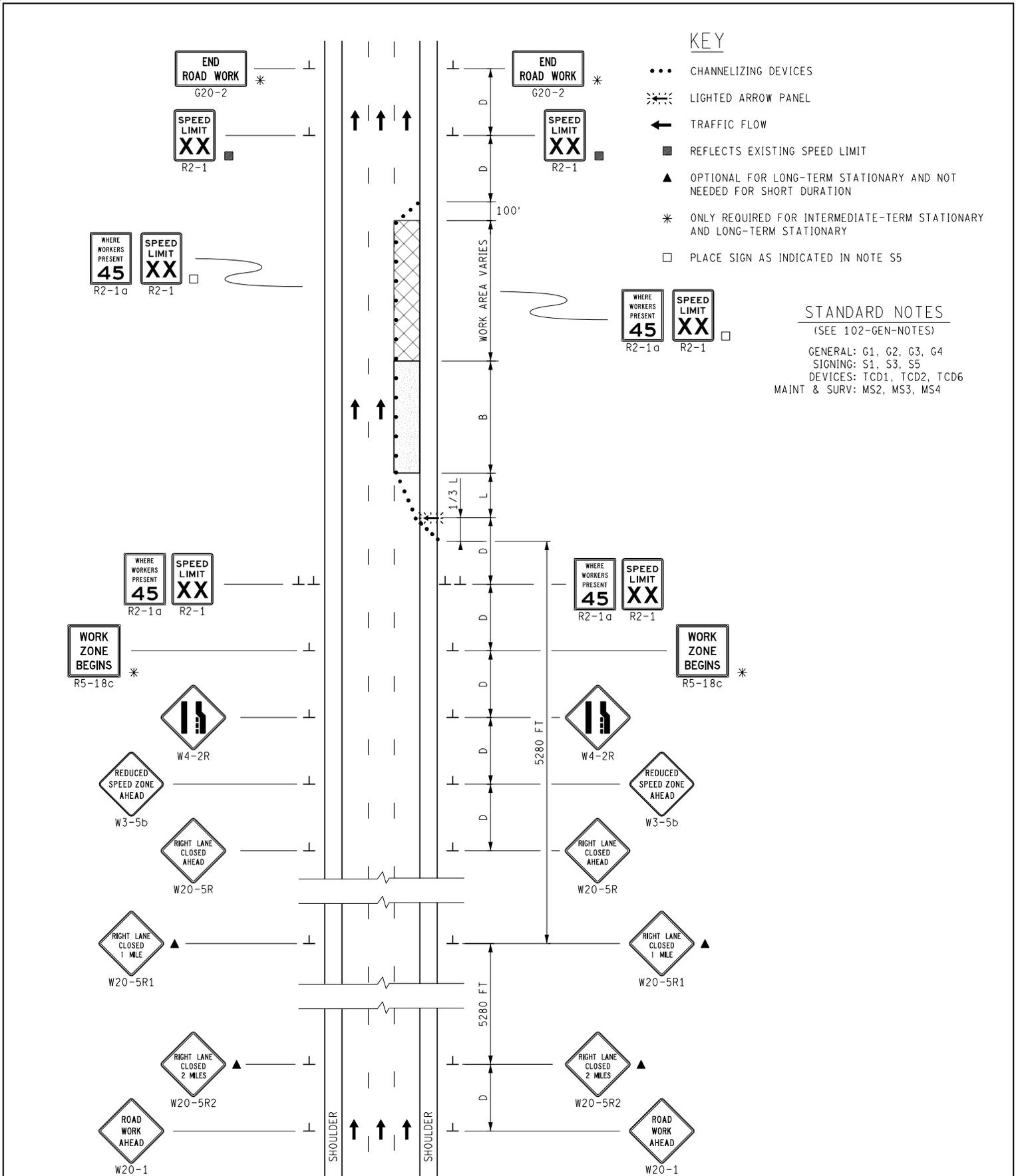
KEY

- CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- ▲ OPTIONAL FOR LONG-TERM STATIONARY AND NOT NEEDED FOR SHORT DURATION
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY
- PLACE SIGN AS INDICATED IN NOTE S5

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
 SIGNING: S1, S3, S5
 DEVICES: TCD1, TCD2, TCD6
 MAINT & SURV: MS2, MS3, MS4



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: APPLIES TO ALL DURATIONS	SINGLE LANE CLOSURE ON A FREEWAY USING "WHERE WORKERS PRESENT" AND A 10 MPH STEP DOWN IN SPEED LIMIT 2 MILE ADVANCED WARNING	DATE: MAY 2021
				NO: 4203B-M-FW-1LC-(R)
FILE: 4203B-M-FW-1LC-(R).dgn				SHEET: 1 OF 1

KEY

- CHANNELIZING DEVICES
- ← TRAFFIC FLOW

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4

SIGNING: S1

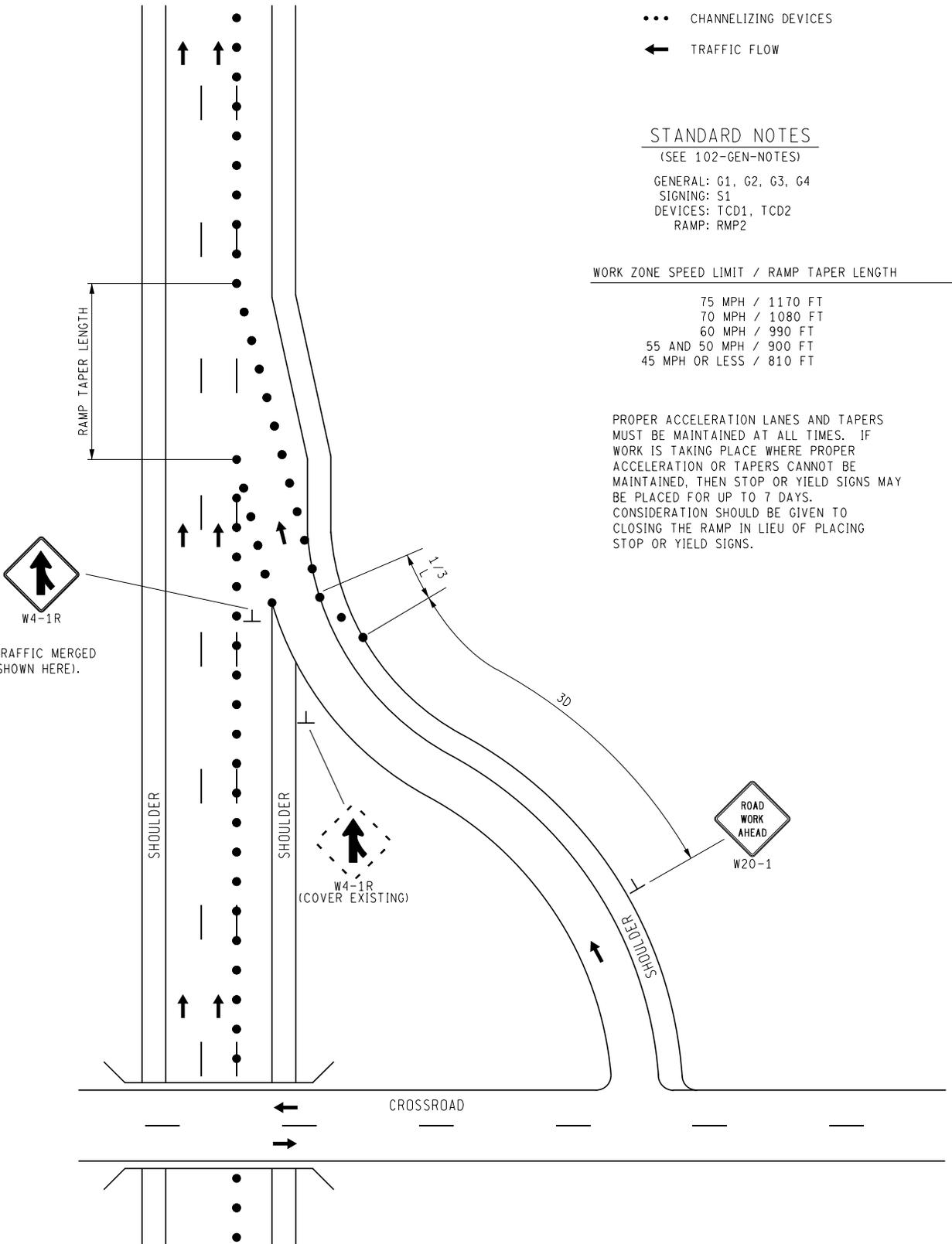
DEVICES: TCD1, TCD2

RAMP: RMP2

WORK ZONE SPEED LIMIT / RAMP TAPER LENGTH

75 MPH	/	1170 FT
70 MPH	/	1080 FT
60 MPH	/	990 FT
55 AND 50 MPH	/	900 FT
45 MPH OR LESS	/	810 FT

PROPER ACCELERATION LANES AND TAPERS MUST BE MAINTAINED AT ALL TIMES. IF WORK IS TAKING PLACE WHERE PROPER ACCELERATION OR TAPERS CANNOT BE MAINTAINED, THEN STOP OR YIELD SIGNS MAY BE PLACED FOR UP TO 7 DAYS. CONSIDERATION SHOULD BE GIVEN TO CLOSING THE RAMP IN LIEU OF PLACING STOP OR YIELD SIGNS.



USE W4-1 WHEN HAVING TRAFFIC MERGED INTO AN OPEN LANE (AS SHOWN HERE).

NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	OUTSIDE LANE CLOSURE ON A FREEWAY THROUGH ENTRANCE RAMP AREA FREEFLOW CONDITION	DATE: MAY 2021
	FILE: 4221-FW-EnR-0-LC-FREE.dgn			NO: 4221-FW EnR-0-LC-FREE SHEET: 1 OF 1

KEY

••• CHANNELIZING DEVICES

← TRAFFIC FLOW

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4

SIGNING: S1

DEVICES: TCD1, TCD2

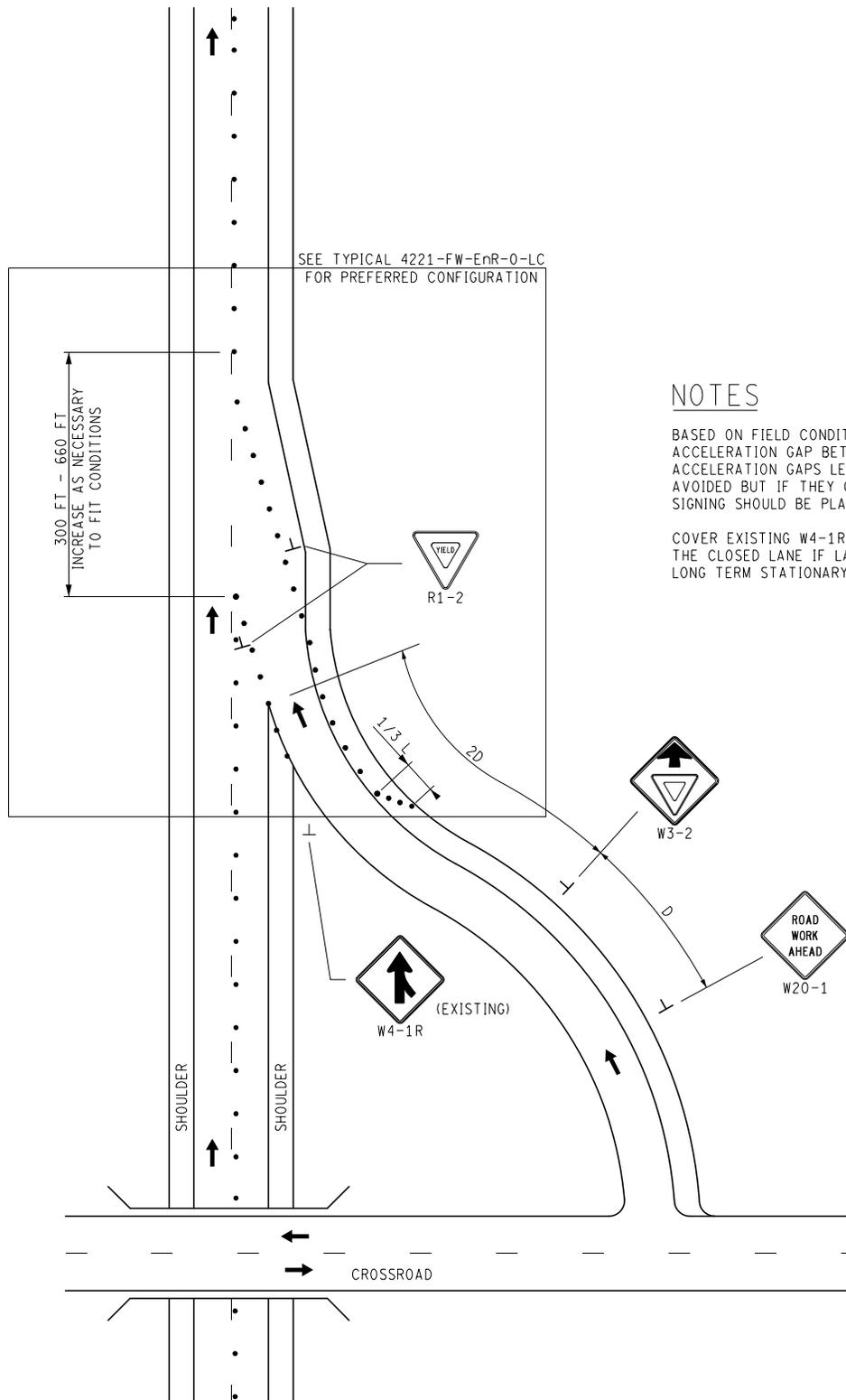
RAMP: RMP2

MAINT & SURV: MS2, MS3, MS4

NOTES

BASED ON FIELD CONDITIONS, PROVIDE AN ACCELERATION GAP BETWEEN 300 AND 660 FT. ACCELERATION GAPS LESS THAN 300 FT SHOULD BE AVOIDED BUT IF THEY CANNOT, THEN R1-1 (STOP) SIGNING SHOULD BE PLACED.

COVER EXISTING W4-1R SIGN AND POST A W4-1R SIGN IN THE CLOSED LANE IF LANE CLOSURE IS IN PLACE FOR A LONG TERM STATIONARY DURATION.



NOT TO SCALE



MAINTENANCE
MAINTAINING TRAFFIC
TYPICAL

DURATION:
LONG-TERM STATIONARY
INTERMEDIATE-TERM STATIONARY
SHORT-TERM STATIONARY

OUTSIDE LANE CLOSURE ON A FREEWAY
THROUGH ENTRANCE RAMP AREA
YIELD CONDITION

DATE:
MAY 2021

NO: 4222-FW
EnR-0-LC-YIELD

SHEET:
1 OF 1

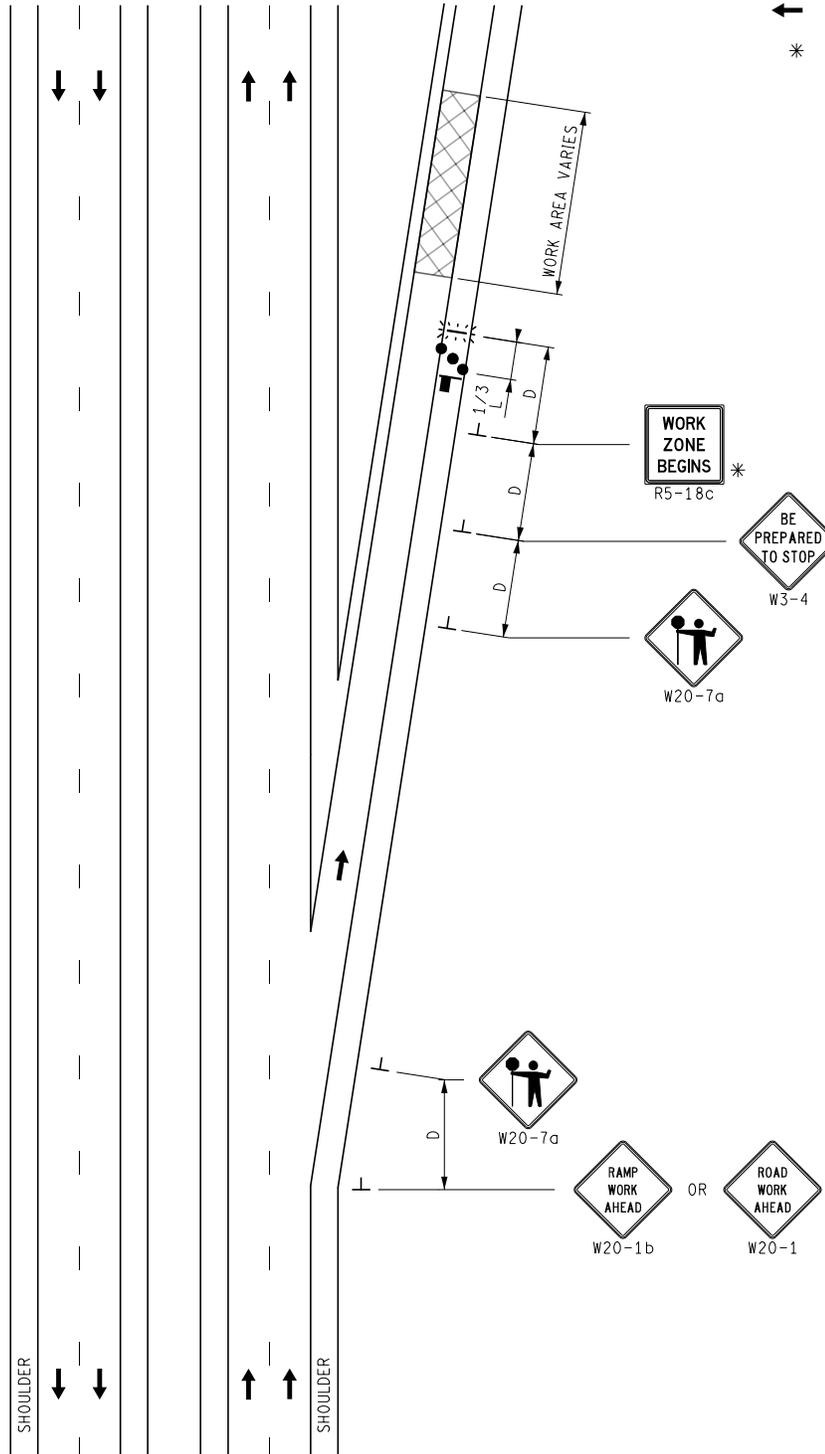
KEY

-  TRAFFIC REGULATOR
-  CHANNELIZING DEVICES
-  LIGHTED ARROW PANEL (CAUTION MODE)
-  TRAFFIC FLOW
-  * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY

STANDARD NOTES

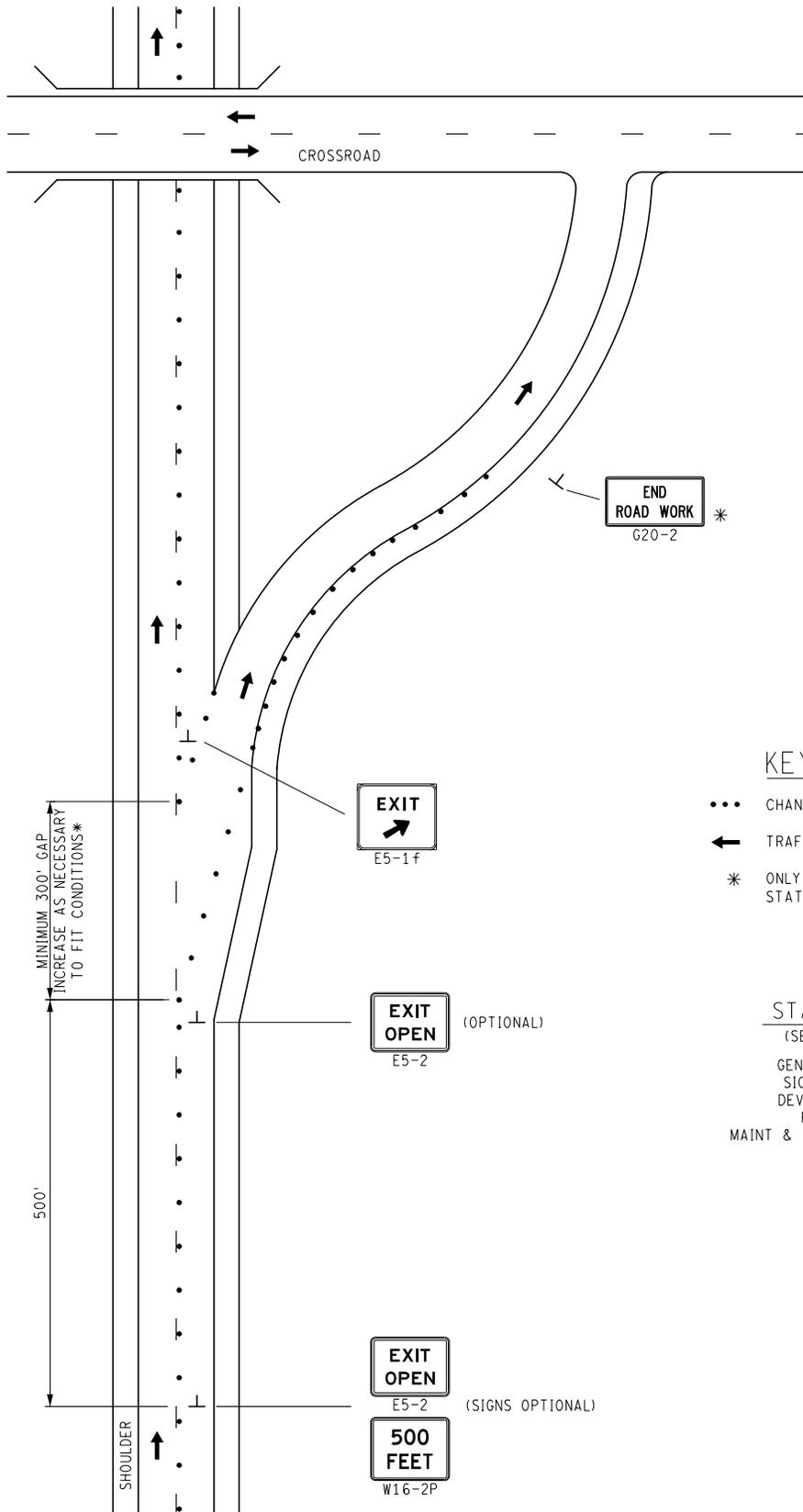
(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
 SIGNING: S1, S3, S4
 TRAF REG: TR1, TR2
 DEVICES: TCD1, TCD2, TCD6
 MAINT & SURV: MS2, MS3, MS4



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	WORK OPERATIONS ON EXIT RAMPs	DATE: MAY 2021
				NO: 4224-M-FW-ExR-TR
FILE: 4224-M-FW-ExR-TR.dgn				SHEET: 1 OF 1



KEY

- CHANNELIZING DEVICES
- ← TRAFFIC FLOW
- * ONLY REQUIRED FOR INTERMEDIATE-TERM STATIONARY AND LONG-TERM STATIONARY

STANDARD NOTES

(SEE 102-GEN-NOTES)

- GENERAL: G1, G2, G3, G4
- SIGNING: S1
- DEVICES: TCD1, TCD2
- RAMP: RMP1
- MAINT & SURV: MS2, MS3, MS4

NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: LONG-TERM STATIONARY INTERMEDIATE-TERM STATIONARY SHORT-TERM STATIONARY	EXIT RAMP TREATMENT ON A FREEWAY WITH OUTSIDE LANE CLOSURE	DATE: MAY 2021
				NO: 4231-M-FW-ExR-0-LC
FILE: 4231-M-FW-ExR-0-LC.dgn				SHEET: 1 OF 1

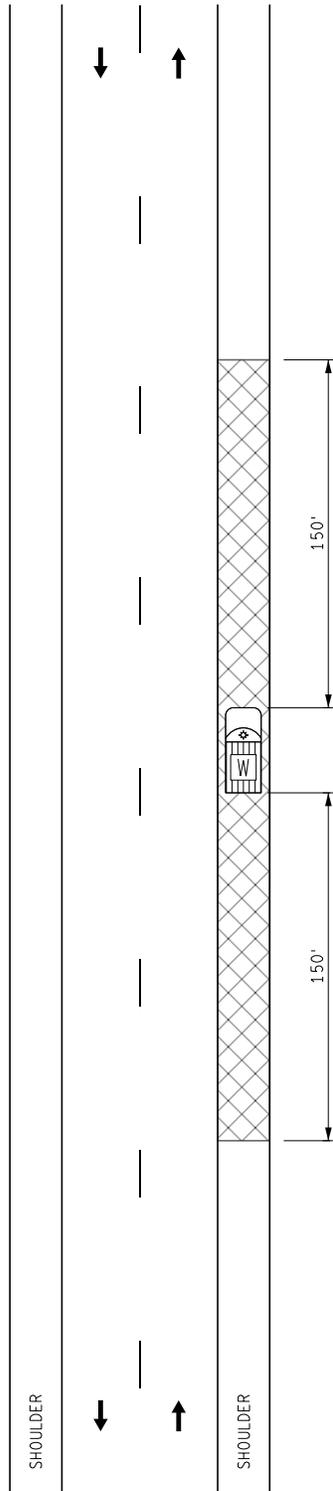
KEY



VEHICLE FROM WHICH WORK IS BEING PERFORMED



TRAFFIC FLOW



STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
SIGNING: S1
MAINT & SURV: MS2, MS3, MS4

NOTES

AT A MINIMUM, MAINTAINING TRAFFIC SHALL CONSIST OF AN APPROPRIATELY MARKED VEHICLE WITH A ROTATING BEACON. NO SIGNS OR CHANNELIZING DEVICES ARE REQUIRED.

THE FOLLOWING FACTORS SHOULD BE CONSIDERED IN DETERMINING THE NEED FOR ADDITIONAL ADVANCE WARNING:

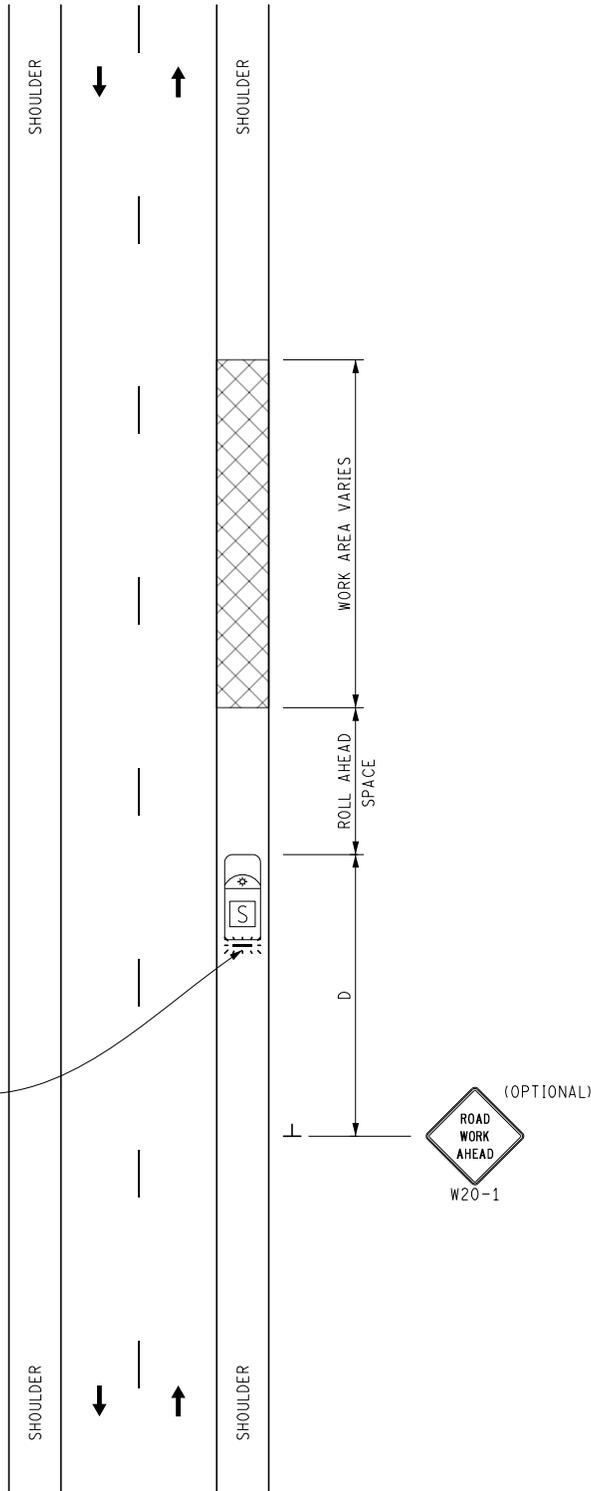
1. TRAFFIC VOLUME
2. POSTED AND OPERATING SPEED LIMITS
3. HORIZONTAL AND VERTICAL ALIGNMENTS
4. URBAN OR RURAL SITE
5. WORK TYPE
6. AVAILABLE SHOULDER WIDTH

NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: MOBILE	SHOULDERS WORK WITH TRAFFIC VOLUMES LESS THAN 10,000 ADT AND ADEQUATE SIGHT DISTANCES	DATE: MAY 2021
				NO: 4400-M-NFW-SHL-MOB
FILE: 4400-M-SHL-MOB.dgn				SHEET: 1 OF 1

KEY

-  LIGHTED ARROW PANEL (CAUTION MODE)
-  TRAFFIC FLOW
-  SHADOW VEHICLE WITH OPTIONAL TRUCK MOUNTED ATTENUATOR



STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4

SIGNING: S1

MAINT & SURV: MS2, MS3, MS4

NOTES

THERE MUST BE EITHER AN APPROPRIATELY MARKED VEHICLE WITH A ROTATING BEACON OR OPTIONAL W20-1 SIGNS TO INDICATE TO THE PUBLIC THAT WORK IS BEING DONE IN THE AREA.

LIGHTED ARROW PANEL (CAUTION MODE)

(OPTIONAL)

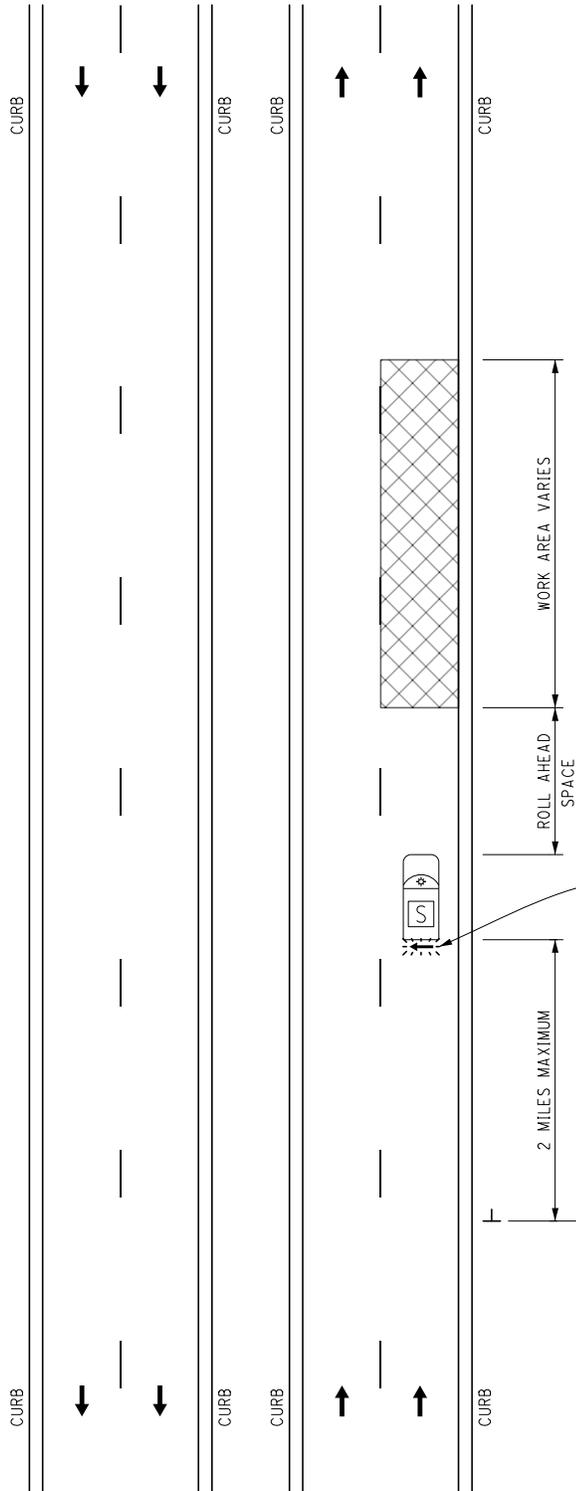


NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: SHORT-DURATION MOBILE	SHOULDER WORK ON A TWO-LANE, TWO-WAY ROADWAY	DATE: MAY 2021
				NO: 4401-M-NFW-SHL-2L
FILE: 4401-M-NFW-SHL-2L.dgn				SHEET: 1 OF 1

KEY

-  LIGHTED ARROW PANEL
-  TRAFFIC FLOW
-  SHADOW VEHICLE WITH OPTIONAL TRUCK MOUNTED ATTENUATOR



NOTES

"ROAD WORK AHEAD" SIGN SHALL BE WITHIN TWO MILES OF WORK AREA.

THIS DETAIL IS ONLY ALLOWED IN AREAS WITHOUT SHOULDERS AND SPEED LIMITS OF 45 MPH OR LESS. USED FOR PATROLLING, MINOR PATCHING AND OTHER ACTIVITIES IN AREAS WITH CURBED ROADWAY.

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4

SIGNING: S1

MAINT & SURV: MS1, MS2, MS3, MS4, MS5

LIGHTED ARROW PANEL (ARROW MODE)



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: SHORT-DURATION MOBILE	LANE CLOSURE ON A DIVIDED ROADWAY WITH CURBS AND SPEED LIMITS 45 MPH OR LESS	DATE: MAY 2021
				NO: 4402-M-NFW-1LC
FILE: 4402-M-NFW-1LC.dgn				SHEET: 1 OF 1

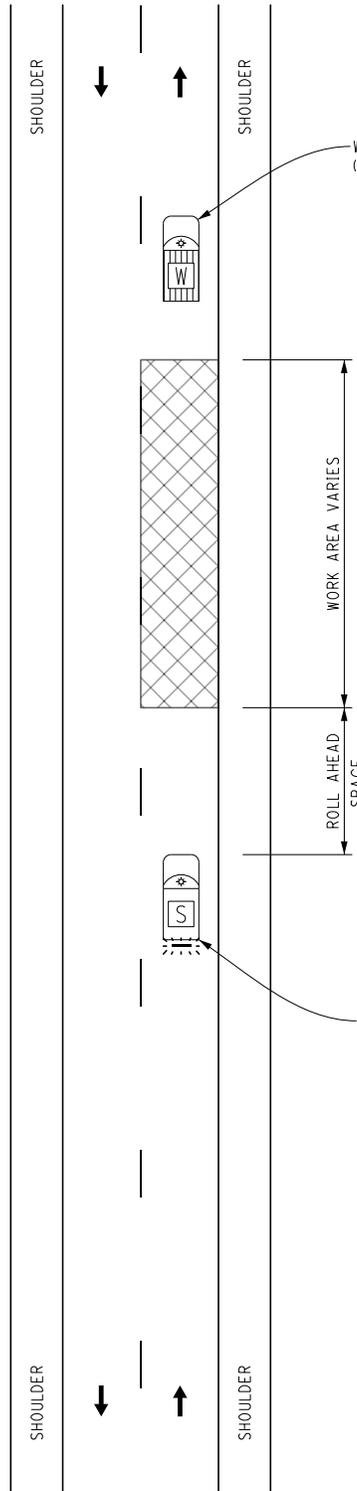
KEY

 LIGHTED ARROW PANEL (CAUTION MODE)

 TRAFFIC FLOW

 SHADOW VEHICLE WITH OPTIONAL TRUCK MOUNTED ATTENUATOR

 WORK VEHICLE WITH OPTIONAL TRUCK MOUNTED ATTENUATOR



NOTES

WHERE VEHICLE TRAFFIC CANNOT EFFECTIVELY SELF REGULATE, ONE OR TWO TRAFFIC REGULATORS SHALL BE USED.

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G3, G4

SIGNING: S1

MAINT & SURV: MS1, MS2, MS3, MS4, MS5

NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: SHORT-DURATION MOBILE	MOBILE OPERATION ON A TWO-LANE ROADWAY	DATE: MAY 2021
				NO: 4403-M-NFW-2L
FILE: 4403-M-NFW-2L.dgn				SHEET: 1 OF 1

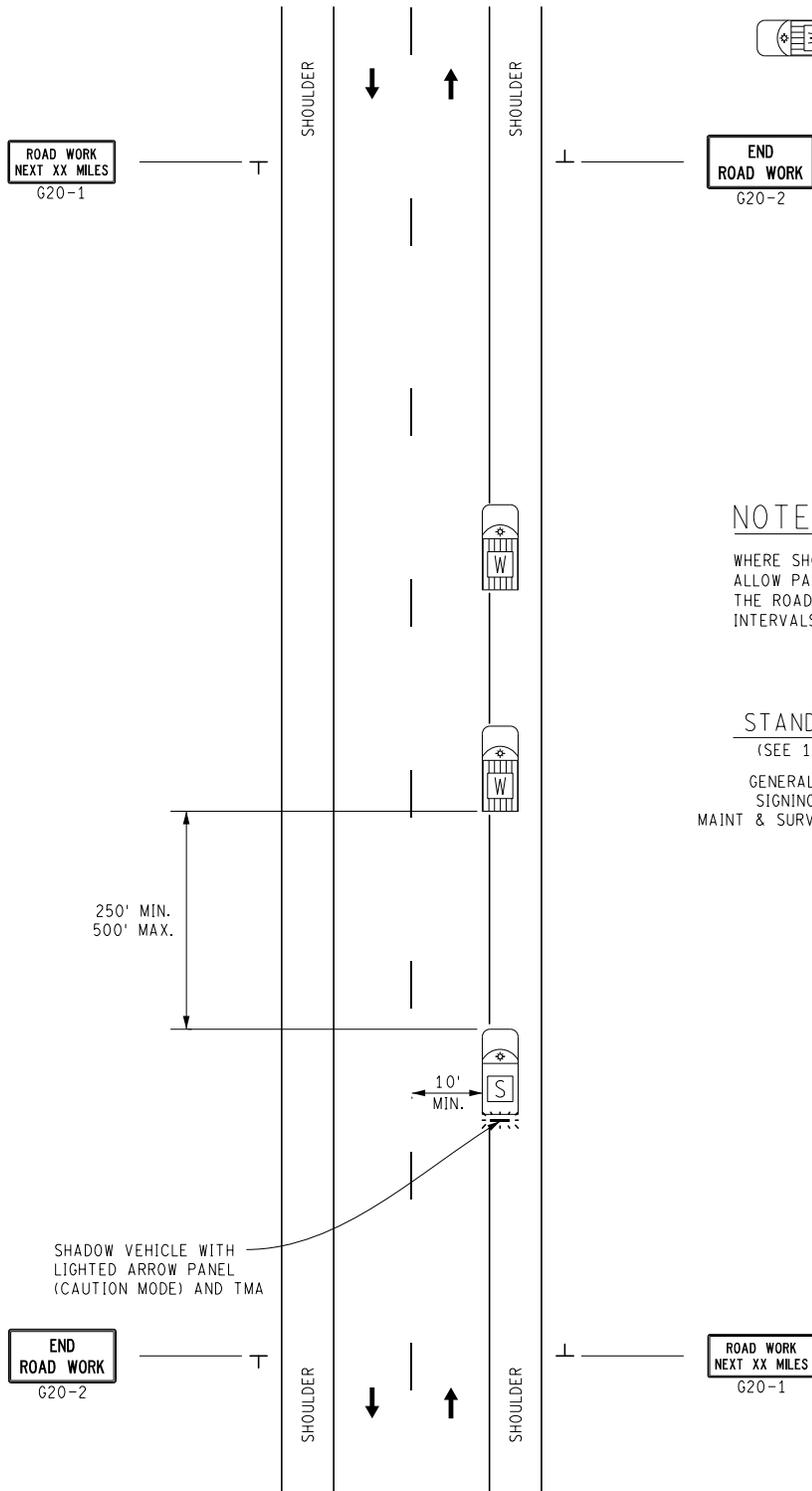
KEY

 LIGHTED ARROW PANEL (TRUCK MOUNTED) (CAUTION MODE)

 TRAFFIC FLOW

 SHADOW VEHICLE WITH TRUCK MOUNTED ATTENUATOR

 WORK VEHICLE



NOTES

WHERE SHOULDERS ARE NARROW AND INSUFFICIENT WIDTH EXISTS TO ALLOW PASSING, THE CONVOY SHALL CEASE OPERATION AND PULL OFF THE ROADWAY TO ALLOW QUEUED TRAFFIC TO PASS AT REASONABLE INTERVALS.

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G3, G4

SIGNING: S1

MAINT & SURV: MS1, MS2, MS3, MS4, MS5

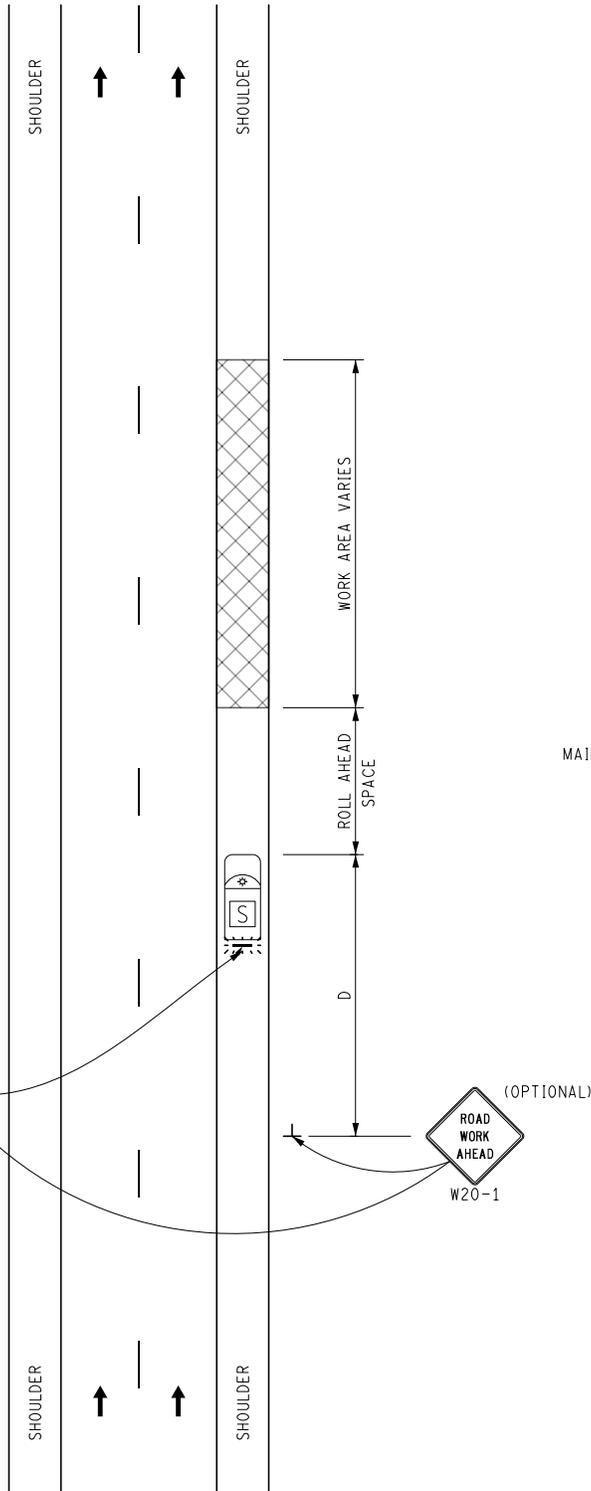
NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: MOBILE	SHOULDERS ON A TWO-LANE, TWO-WAY ROADWAY WITH LANE ENCROACHMENTS	DATE: MAY 2021
				NO: 4405-M-NFW-SHL
				SHEET: 1 OF 1

FILE: 4405-M-NFW-SHL.dgn

KEY

-  LIGHTED ARROW PANEL (CAUTION MODE)
-  TRAFFIC FLOW
-  SHADOW VEHICLE WITH OPTIONAL TRUCK MOUNTED ATTENUATOR



NOTES

THERE MUST BE EITHER AN APPROPRIATELY MARKED VEHICLE WITH A ROTATING BEACON OR OPTIONAL W20-1 SIGNS TO INDICATE TO THE PUBLIC THAT WORK IS BEING DONE IN THE AREA.

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
 SIGNING: S1
 MAINT & SURV: MS2, MS3, MS4

LIGHTED ARROW PANEL (CAUTION MODE)

(OPTIONAL)



NOT TO SCALE

 FILE: 4420-M-FW-SHL.dgn	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: SHORT-DURATION MOBILE	SHOULDER WORK ON A DIVIDED ROADWAY OR FREEWAY	DATE: MAY 2021
				NO: 4420-M-FW-SHL
				SHEET: 1 OF 1

KEY

 LIGHTED ARROW PANEL

 TRAFFIC FLOW

 SHADOW VEHICLE WITH OPTIONAL TRUCK MOUNTED ATTENUATOR

 WORK VEHICLE WITH OPTIONAL TRUCK MOUNTED ATTENUATOR

STANDARD NOTES

(SEE 102-GEN-NOTES)

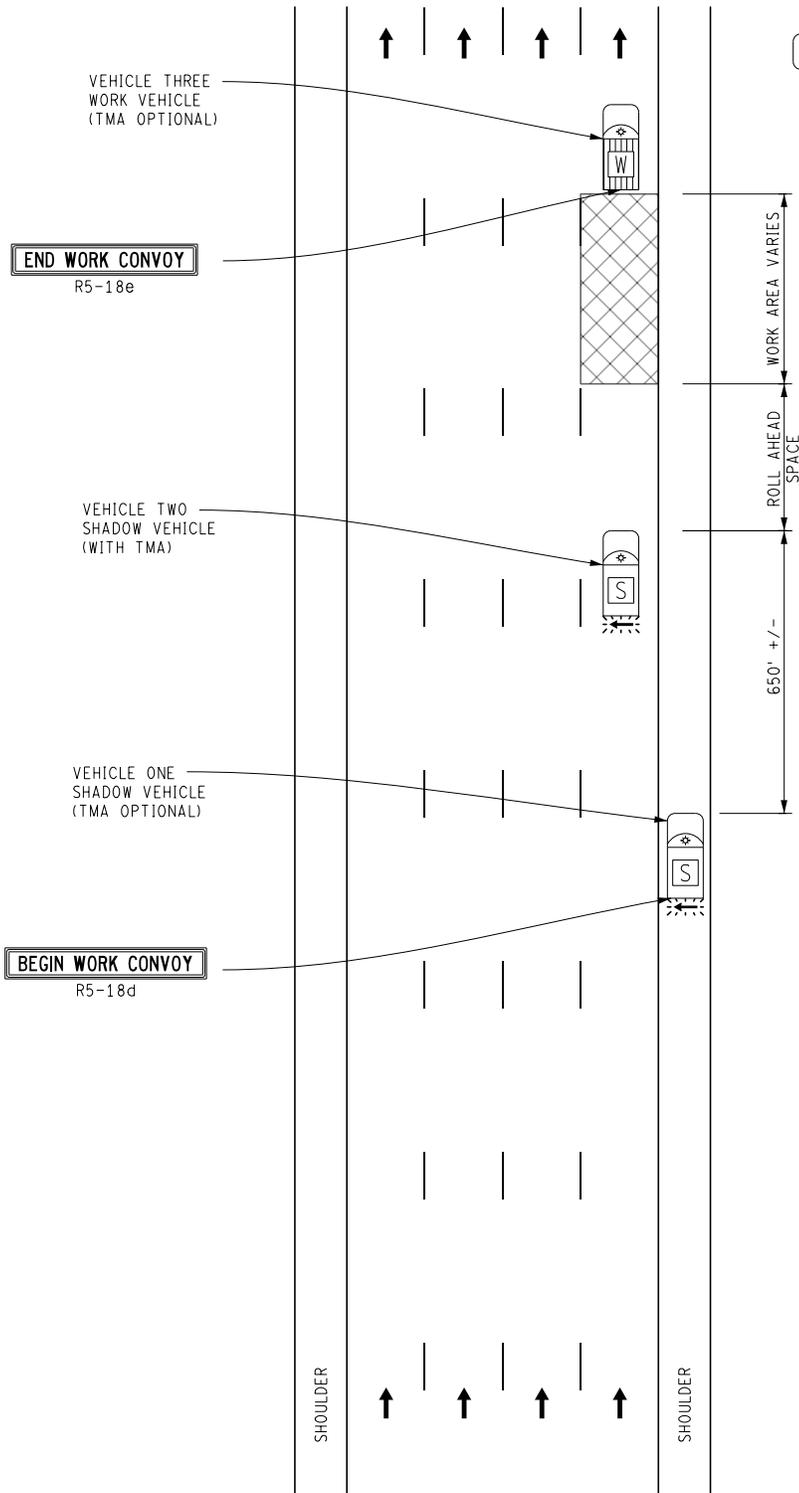
GENERAL: G1, G3, G4

SIGNING: S1

MAINT & SURV: MS1, MS2, MS3, MS4, MS5

NOTES

1. THIS TYPICAL ALSO MAY BE USED WHEN WORK IS BEING PERFORMED IN THE LANE ADJACENT TO THE MEDIAN OF THE ROADWAY. IN THIS CASE, THE "LEFT LANE CLOSED AHEAD" SIGNS SHALL BE SUBSTITUTED.



NOT TO SCALE

	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: SHORT-DURATION MOBILE	MOBILE OPERATION ON A MULTI-LANE ROADWAY		DATE: MAY 2021
					NO: 4421-M-FW-1LC
					SHEET: 1 OF 1

FILE: 4421-M-FW-1LC.dgn

KEY

-  LIGHTED ARROW PANEL
-  TRAFFIC FLOW
-  SHADOW VEHICLE WITH OPTIONAL TRUCK MOUNTED ATTENUATOR
-  WORK VEHICLE WITH OPTIONAL TRUCK MOUNTED ATTENUATOR

STANDARD NOTES

(SEE 102-GEN-NOTES)

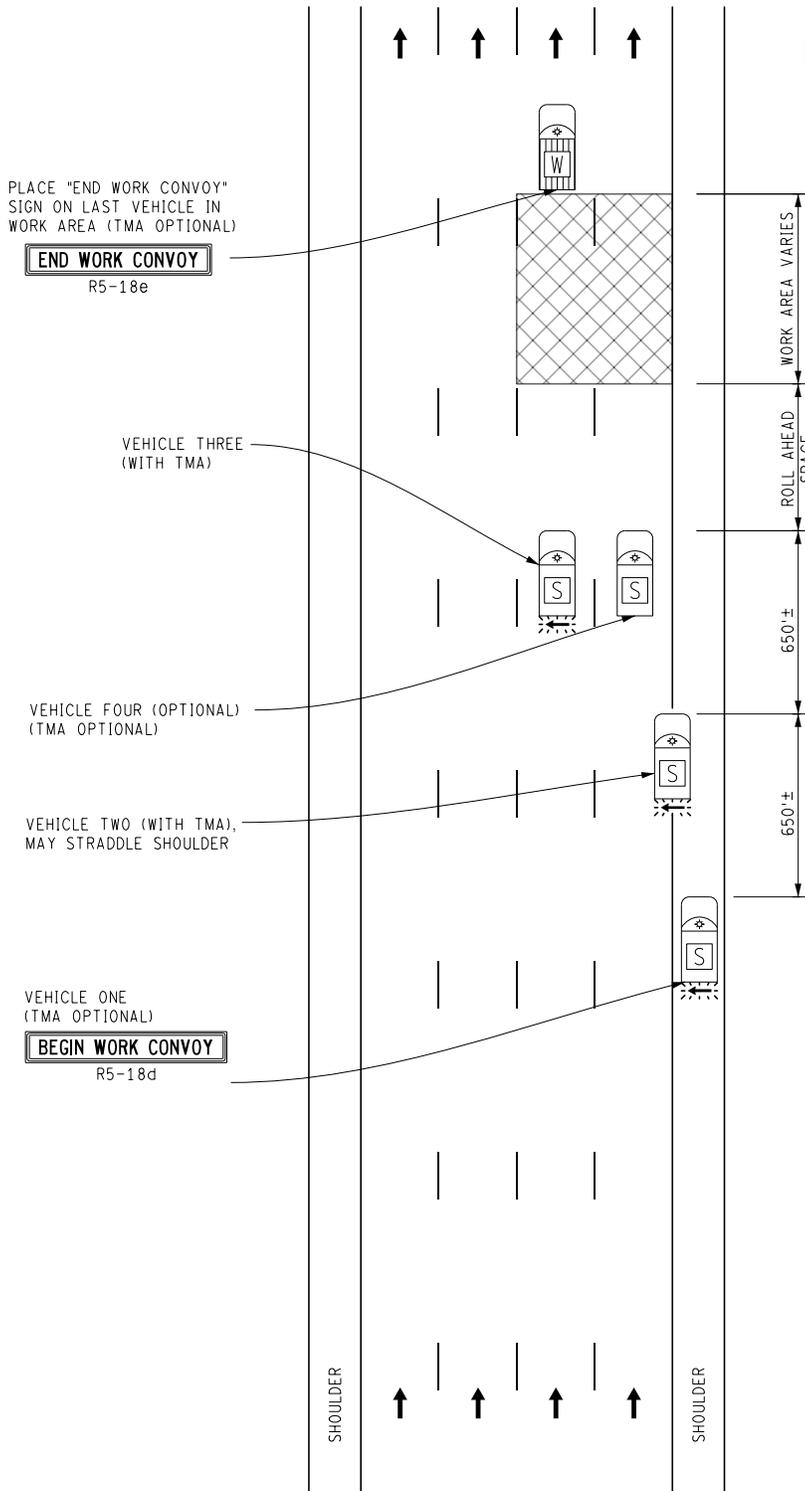
GENERAL: G1, G2, G3, G4

SIGNING: S1

MAINT & SURV: MS1, MS2, MS3, MS4, MS5

NOTES

1. THIS TYPICAL ALSO MAY BE USED WHEN WORK IS BEING PERFORMED IN THE LANE ADJACENT TO THE MEDIAN OF THE ROADWAY. IN THIS CASE, THE "LEFT TWO LANES CLOSED AHEAD" SIGNS SHALL BE SUBSTITUTED.



NOT TO SCALE



MAINTENANCE
MAINTAINING TRAFFIC
TYPICAL

DURATION:
SHORT-DURATION
MOBILE

MOBILE OPERATION
ON A MULTI-LANE ROADWAY - 2 LANES

DATE:
MAY 2021

NO:
4422-M-FW-2LC

SHEET:
1 OF 1