

Michigan Department of Transportation Traffic and Safety



MAINTAINING TRAFFIC TYPICALS


M0880 THROUGH M2510 Freeway

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ENGLISH VERSION

 Michigan Department of Transportation	PREPARED BY TRAFFIC AND SAFETY
	ENGINEER OF TRAFFIC AND SAFETY
DEPARTMENT DIRECTOR KIRK T. STEUDLE	DRAWN BY: LTF
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FILE: PW:Doc/Ref Doc/TS/Typ/CP/Cover e maintraf.dgn REV. 07/22/2008 JK	

TEMPORARY TRAFFIC CONTROL FOR CONSTRUCTION AREAS

ENGLISH TYPICALS INDEX

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FREEWAY MAINTAINING TRAFFIC TYPICALS CROSS REFERENCE

Old Typical	New Typical	Old Typical	New Typical
M067a	M0880	M087c	M1200
M067b	M0890	M087f	M1210
M067c	M0920	M088	M1220
M067f	M0930	M089a	M1230
New	M0910	New	M1240
M068c	M0920	M089c	M1250
M068f	M0930	M089f	M1260
M069	M0940	M090	M1270
M070	M0950	M091a	M1280
M071	M0960	New	M1290
M078	M0970	M091c	M1300
M079a	M0980	M091f	M1310
New	M0990	M092	M1320
M079c	M1000	M093a	M1330
M079f	M1010	New	M1340
M081a	M1030	M093c	M1350
New	M1040	M093f	M1360
M081c	M1050	M094	M1370
M081f	M1060	M095a	M1380
M082	M1070	New	M1390
M083a	M1080	M095c	M1400
New	M1090	M095f	M1410
M083c	M1100	M096	M1420
M83f	M1110	M097a	M1430
M084	M1120	New	M1440
M085a	M1130	M097c	M1450
New	M1140	M097f	M1460
M085c	M1150	M098	M1460
M085f	M1160	M099a	M1480
M086	M1180	New	M1490
M087a	M1180	M099c	M1500
New	M1190	M099f	M1510

Old Typical	New Typical	Old Typical	New Typical
M100	M1520	M113c	M1850
M101a	M1530	M113f	M1860
New	M1540	M114	M1870
M101c	M1550	M115a	M1880
M101f	M1560	New	M1890
M102	M1570	M115c	M1900
M103a	M1580	M115f	M1910
New	M1590	New	M2500a
M103c	M1600	New	M2510a
M103f	M1610		
M104	M1620		
M105a	M1630		
New	M1640		
M105c	M1650		
M105f	M1660		
M106	M1670		
M107a	M1680		
New	M1690		
M107c	M1700		
M107f	M1710		
M108	M1720		
M109a	M1730		
New	M1740		
M109c	M1750		
M109f	M1760		
M110	M1770		
M111a	M1780		
New	M1790		
M111c	M1800		
M111f	M1810		
M112	M1820		
M113a	M1830		
New	M1840		

MINIMUM MERGING TAPER LENGTH "L" (FEET)

OFFSET	POSTED SPEED LIMIT, MPH (PRIOR TO WORK AREA)									
FEET	25	30	35	40	45	50	55	60	65	70
1	10	15	20	27	45	50	55	60	65	70
2	21	30	41	53	90	100	110	120	130	140
3	31	45	61	80	135	150	165	180	195	210
4	42	60	82	107	180	200	220	240	260	280
5	52	75	102	133	225	250	275	300	325	350
6	63	90	123	160	270	300	330	360	390	420
7	73	105	143	187	315	350	385	420	455	490
8	83	120	163	213	360	400	440	480	520	560
9	94	135	184	240	405	450	495	540	585	630
10	104	150	204	267	450	500	550	600	650	700
11	115	165	225	293	495	550	605	660	715	770
12	125	180	245	320	540	600	660	720	780	840
13	135	195	266	347	585	650	715	780	845	910
14	146	210	286	374	630	700	770	840	910	980
15	157	225	307	400	675	750	825	900	975	1050

TAPER LENGTH "L" IN FEET

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" = S x W 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
TWO-WAY TRAFFIC TAPER

DOWNSTREAM TAPERS
(USE IS OPTIONAL)

TAPER LENGTH

L - MINIMUM
1/2 L - MINIMUM
1/3 L - MINIMUM
100' - MAXIMUM
100' - MINIMUM
(PER LANE)



TABLES FOR "L", "D" AND "B" VALUES

DRAWN BY: CON:AE:djf
CHECKED BY: BMM

JUNE 2006
PLAN DATE:
FILE: K:/DGN/TSR/STDS/ENGLISH/MNTTRF/M0020a.dgn

M0020a

SHEET
1 OF 2

REV. 08/21/2006

DISTANCE BETWEEN TRAFFIC CONTROL DEVICES "D"
AND LENGTH OF LONGITUDINAL BUFFER SPACE ON
"WHERE WORKERS PRESENT" SEQUENCES

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

GUIDELINES FOR LENGTH OF
LONGITUDINAL BUFFER SPACE "B"

SPEED* MPH	LENGTH FEET
20	33
25	50
30	83
35	132
40	181
45	230
50	279
55	329
60	411
65	476
70	542

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

1 BASED UPON AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) BRAKING DISTANCE PORTION OF STOPPING SIGHT DISTANCE FOR WET AND LEVEL PAVEMENTS (A POLICY ON GEOMETRIC DESIGN OF HIGHWAY AND STREETS), AASHTO. THIS AASHTO DOCUMENT ALSO RECOMMENDS ADJUSTMENTS FOR THE EFFECT OF GRADE ON STOPPING AND VARIATION FOR TRUCKS.



TABLES FOR "L", "D" AND "B" VALUES

DRAWN BY: CON:AE:djf

JUNE 2006

M0020a

SHEET
2 OF 2

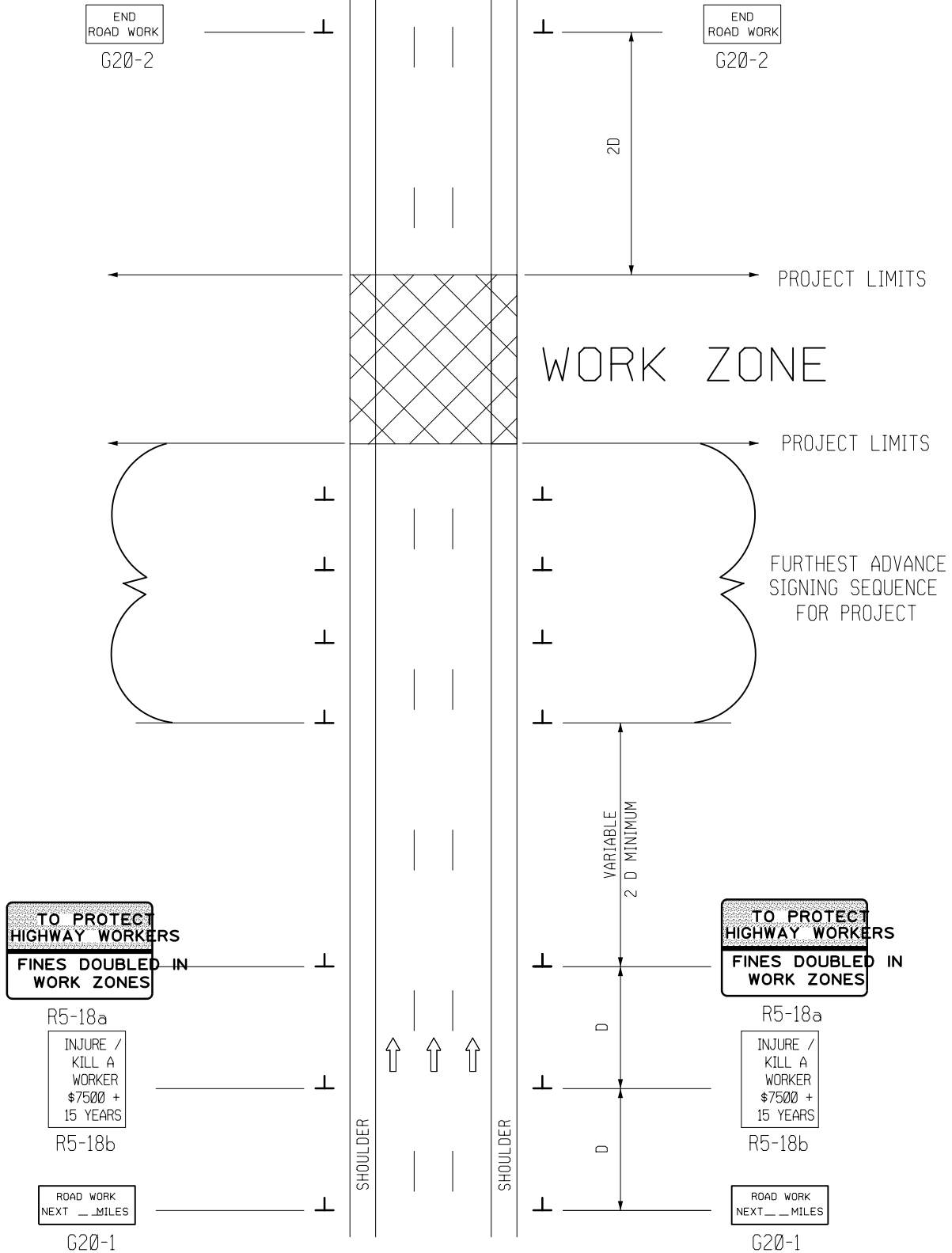
CHECKED BY: BMM

PLAN DATE:

FILE: K:/DGN/TSR/STDS/ENGLISH/MNTTRF/M0020a.dgn

REV. 08/21/2006

SIGN PLACEMENT
IS THE SAME FOR
BOTH DIRECTIONS



SIGN = 156 ft² - TYPE B
FOR ONE DIRECTION OF TRAFFIC

MDOT
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TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL ADVANCE SIGNING TREATMENT FOR
LONG, INTERMEDIATE AND SHORT TERM
STATIONARY WORK ZONE OPERATIONS
OF MORE THAN TWO MILES IN LENGTH WHERE
TRAFFIC CONTROL DEVICES MAY REMAIN AT
END OF WORK DAY ON A DIVIDED ROADWAY

DRAWN BY: CON:AE:djf

OCTOBER 2011

M0060a

SHEET

CHECKED BY: BMM:CRB

PLAN DATE:

1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT NON Fwy/M0060a.dgn

REV. 10/13/2011

NOT TO SCALE


NOTES

30. THE APPROPRIATE ADVANCE SIGNING SEQUENCE(S), (M0030a THROUGH M0080a) SHALL BE USED ON ALL PROJECTS.
32. THESE SIGNS SHALL BE LEFT IN PLACE AT THEIR PRESCRIBED LOCATIONS FOR THE DURATION OF THE PROJECT AND UNTIL ALL TEMPORARY TRAFFIC CONTROL HAS BEEN REMOVED.
33. THESE SIGNS ARE INTENDED TO BE USED OUTSIDE THE LIMITS OF ALL TEMPORARY SEQUENCE SIGNING AS IS SHOWN ON 1 OF 2. THESE SIGNS ARE NOT TO BE INTERMINGLED WITH ANY TEMPORARY SEQUENCE SIGNING.

SIGN SIZES

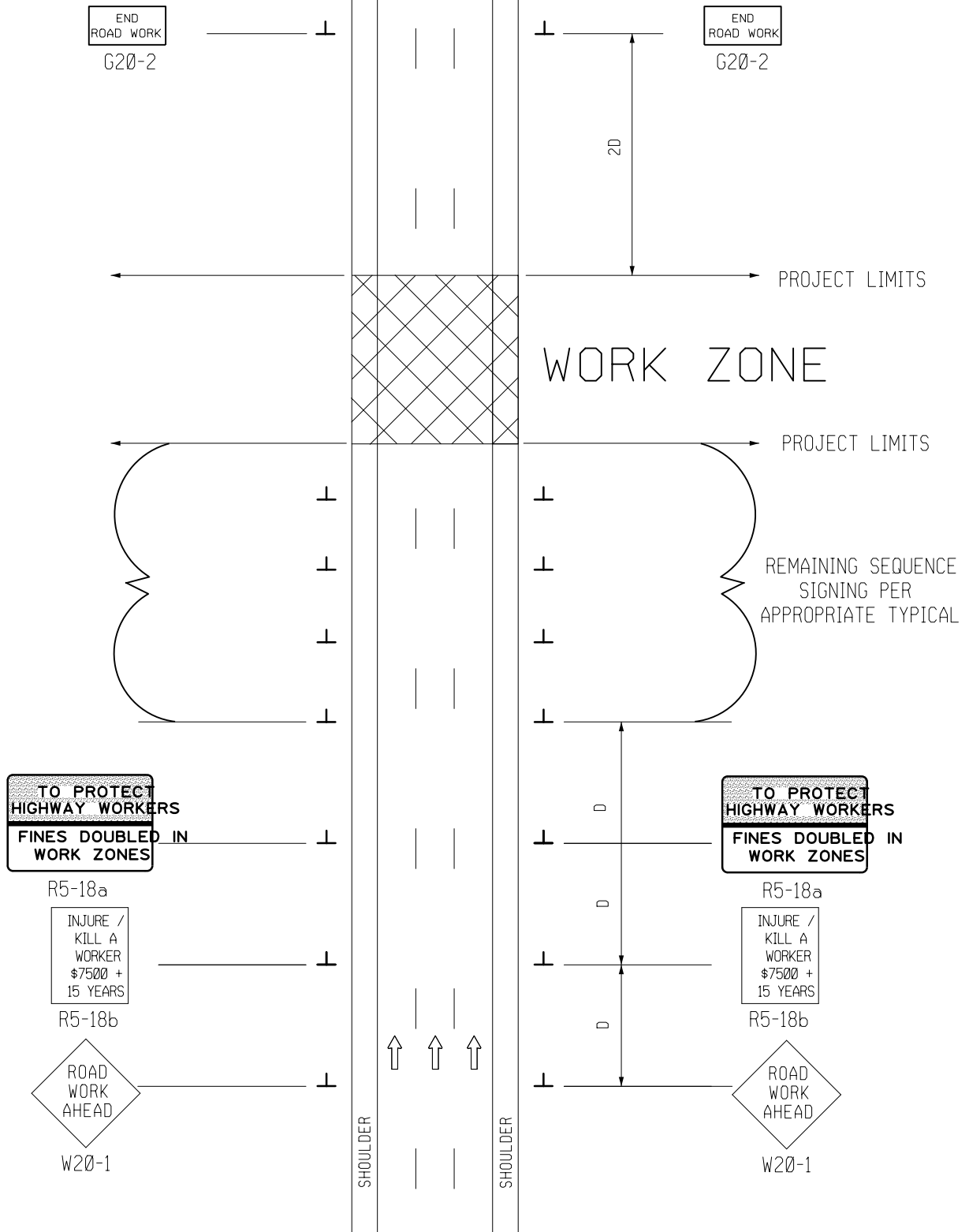
G20-1	-	60" x 24"
G20-2	-	48" x 24"
R5-18a	-	96" x 60"
R5-18b	-	48" x 60"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL ADVANCE SIGNING TREATMENT FOR LONG, INTERMEDIATE AND SHORT TERM STATIONARY WORK ZONE OPERATIONS OF MORE THAN TWO MILES IN LENGTH WHERE TRAFFIC CONTROL DEVICES MAY REMAIN AT END OF WORK DAY ON A DIVIDED ROADWAY	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M0060a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0060a.dgn		REV.	10/13/2011

SHEET
2 OF 2

SIGN PLACEMENT
IS THE SAME FOR
BOTH DIRECTIONS



SIGN = 136 ft² - TYPE B
FOR ONE DIRECTION OF TRAFFIC
W20-1 QUANTITY INCLUDED WITH
APPROPRIATE TYPICAL FOR
SEQUENCE SIGNING

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MAINTAINING TRAFFIC
TYPICAL

TYPICAL ADVANCE SIGNING TREATMENT FOR
LONG, INTERMEDIATE AND SHORT TERM
STATIONARY WORK ZONE OPERATIONS
OF LESS THAN TWO MILES IN LENGTH WHERE
TRAFFIC CONTROL DEVICES MAY REMAIN AT
END OF WORK DAY ON A DIVIDED ROADWAY.

DRAWN BY: CON:AE:djf

OCTOBER 2011

M0070a

SHEET

CHECKED BY: BMM:CRB

PLAN DATE:

1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0070a.dgn

REV. 10/13/2011

NOT TO SCALE


NOTES

30. THE APPROPRIATE ADVANCE SIGNING SEQUENCE(S), (M0030a THROUGH M0080a) SHALL BE USED ON ALL PROJECTS.
32. THESE SIGNS SHALL BE LEFT IN PLACE AT THEIR PRESCRIBED LOCATIONS FOR THE DURATION OF THE PROJECT AND UNTIL ALL TEMPORARY TRAFFIC CONTROL HAS BEEN REMOVED.
35. THESE SIGNS ARE INTENDED TO BE USED WITHIN THE LIMITS OF THE TEMPORARY SEQUENCE SIGNING AS IS SHOWN ON 1 OF 2. THESE SIGNS ARE NOT TO BE INTERMINGLED WITH ANY OTHER TEMPORARY SEQUENCE SIGNING EXCEPT AS SHOWN.

SIGN SIZES

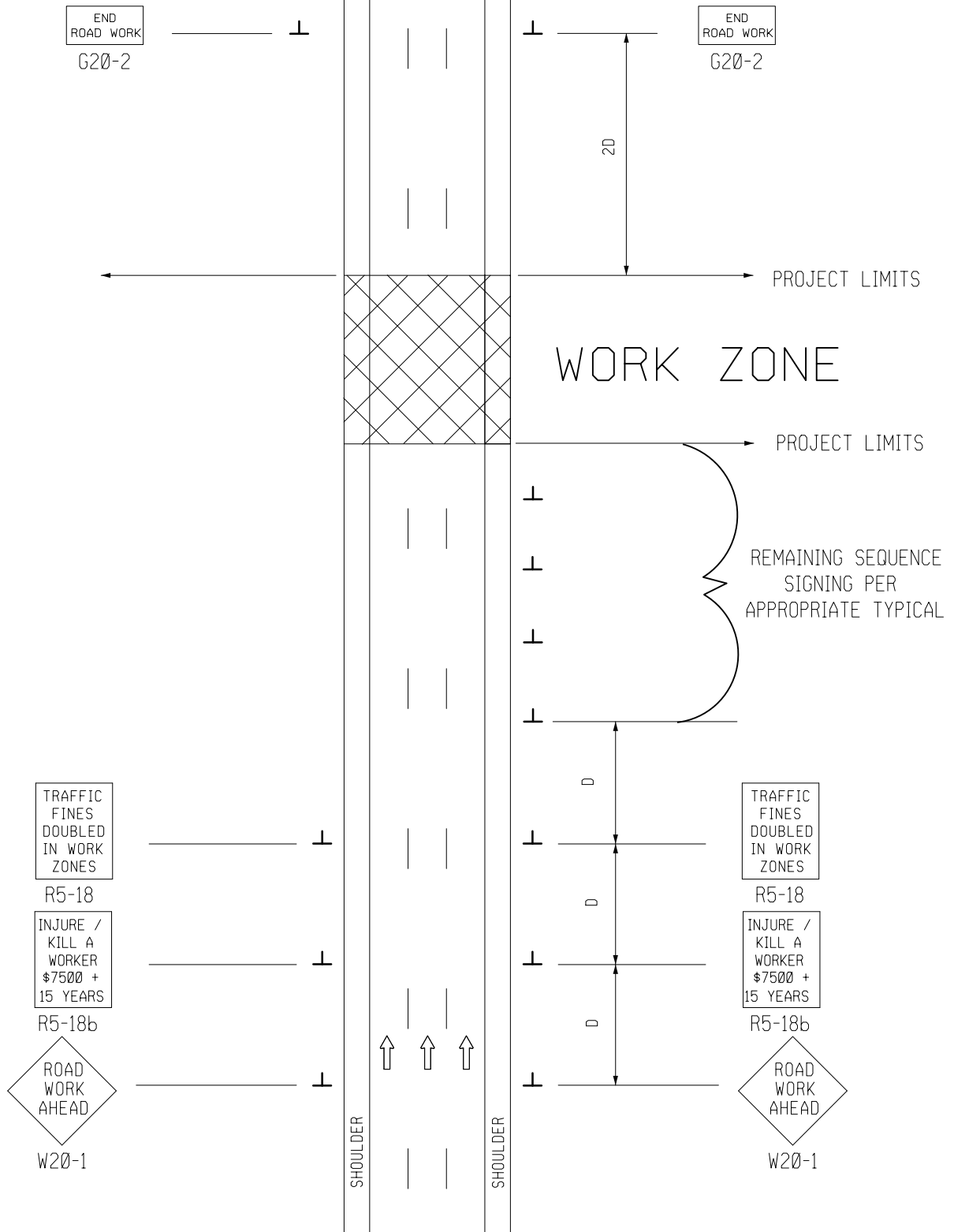
G20-2	-	48" x 24"
R5-18a	-	96" x 60"
R5-18b	-	48" x 60"
W20-1	-	48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL ADVANCE SIGNING TREATMENT FOR LONG, INTERMEDIATE AND SHORT TERM STATIONARY WORK ZONE OPERATIONS OF LESS THAN TWO MILES IN LENGTH WHERE TRAFFIC CONTROL DEVICES MAY REMAIN AT END OF WORK DAY ON A DIVIDED ROADWAY.	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M0070a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0070a.dgn		REV.	10/13/2011

SHEET
2 OF 2

SIGN PLACEMENT
IS THE SAME FOR
BOTH DIRECTIONS



SIGN = 96 ft² - TYPE B
FOR ONE DIRECTION OF TRAFFIC
W20-1 QUANTITY INCLUDED WITH
APPROPRIATE TYPICAL FOR
SEQUENCE SIGNING

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TYPICAL

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FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0080a.dgn

OCTOBER 2011

PLAN DATE:

M0080a

SHEET

1 OF 2

REV. 10/13/2011

NOT TO SCALE


NOTES

30. THE APPROPRIATE ADVANCE SIGNING SEQUENCE(S), (M0030a THROUGH M0080a) SHALL BE USED ON ALL PROJECTS.
35. THESE SIGNS ARE INTENDED TO BE USED WITHIN THE LIMITS OF THE TEMPORARY SEQUENCE SIGNING AS IS SHOWN ON 1 OF 2. THESE SIGNS ARE NOT TO BE INTERMINGLED WITH ANY OTHER TEMPORARY SEQUENCE SIGNING EXCEPT AS SHOWN.

SIGN SIZES

G20-2	-	48" x 24"
R5-18	-	48" x 60"
R5-18b	-	48" x 60"
W20-1	-	48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL ADVANCE SIGNING TREATMENT FOR INTERMEDIATE AND SHORT TERM STATIONARY WORK ZONE OPERATIONS WHERE ALL TRAFFIC CONTROL DEVICES ARE REMOVED AT END OF EACH WORK DAY ON A DIVIDED ROADWAY	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M0080a
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SHEET
2 OF 2

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X

R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED AND AFTER ALL
ENTRANCE RAMP AND ALL MAJOR
CROSSROADS IF PERMANENT SIGNS
ARE NOT IN PLACE.

SPEED
LIMIT
X X

R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED AND AFTER ALL
ENTRANCE RAMP AND ALL MAJOR
CROSSROADS IF PERMANENT SIGNS
ARE NOT IN PLACE.

KEY



CHANNELIZING DEVICES



LIGHTED ARROW PANEL
(CAUTION MODE)



TRAFFIC FLOW



REFLECTS EXISTING
SPEED LIMIT



USE THE "NEXT -- MILES"
SIGN WHEN SHOULDER CLOSURE
EXCEEDS 1 MILE IN LENGTH

SPEED
LIMIT
X X

R2-1

WORK
ZONE
BEGINS

R5-18c

SPEED
LIMIT
X X

R2-1

WORK
ZONE
BEGINS

R5-18c

SIGN = 148 ft2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA



W20-1

SHOULDER



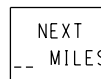
SHOULDER



W21-5b



W21-5a



W20-1a



W20-1

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TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A SHOULDER CLOSURE ON A
DIVIDED ROADWAY OR FREEWAY
NO SPEED REDUCTION

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OCTOBER 2011
PLAN DATE:

M0880a

SHEET
1 OF 2

NOT TO SCALE

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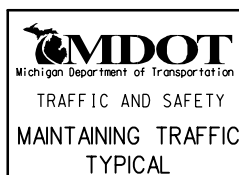
NOTES

1. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
1/3 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 29A. THE TYPE OF REFLECTIVE SHEETING USED FOR THE W20-1a PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
W20-1a PLAQUE - 48" x 36"
R2-1 REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE



TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A SHOULDER CLOSURE ON A
DIVIDED ROADWAY OR FREEWAY
NO SPEED REDUCTION

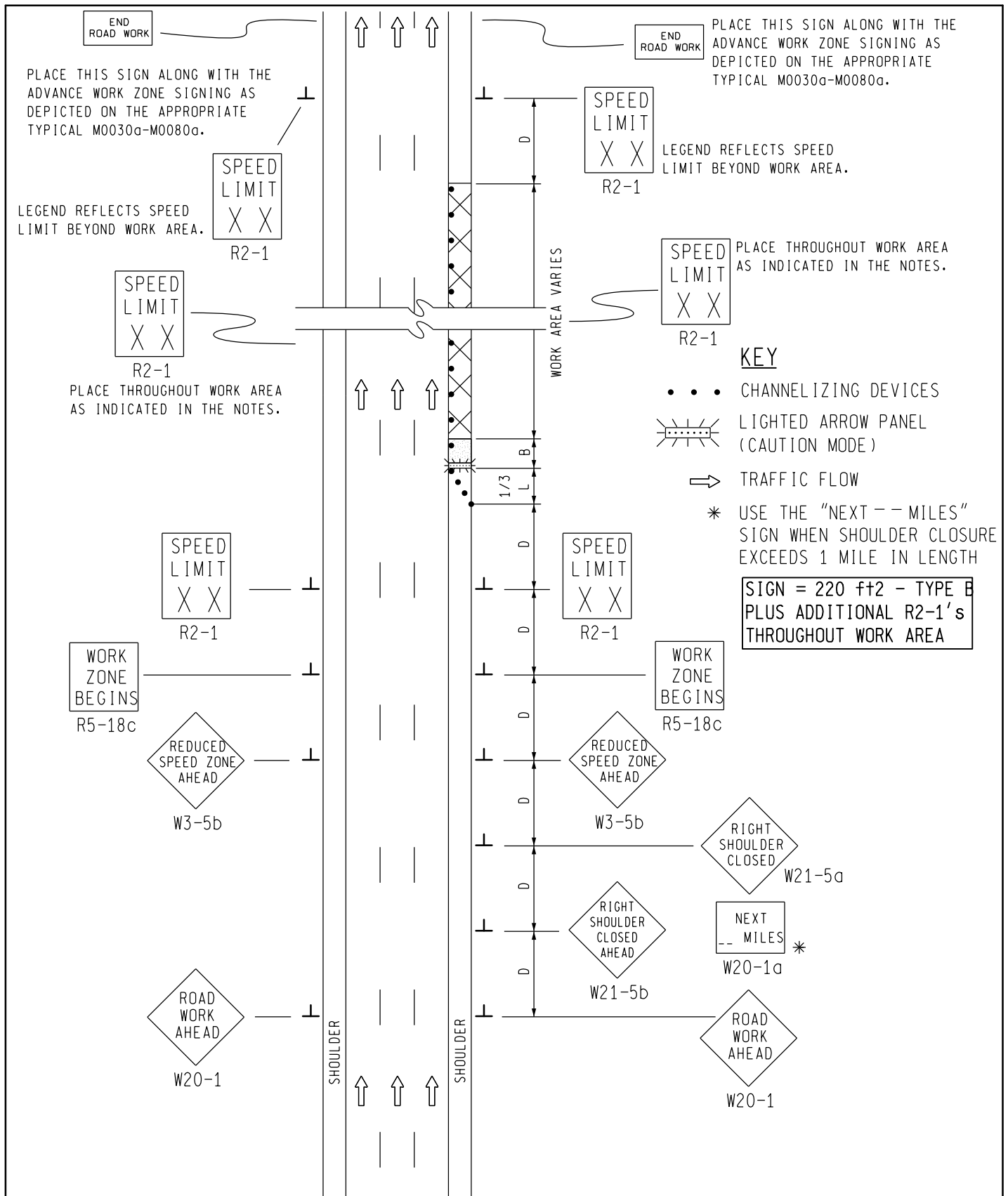
DRAWN BY: CON:AE:djf
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OCTOBER 2011
PLAN DATE:

M0880a

SHEET
2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0880a.dgn REV. 10/26/2011



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MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
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TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A SHOULDER CLOSURE ON A
DIVIDED ROADWAY OR FREEWAY,
USING A SINGLE STEP
DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M0890a

SHEET
1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT NON Fwy/M0890a.dgn REV. 10/27/2011


NOTES

1. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 $\frac{1}{3}$ L = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
- 16F. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH MAJOR CROSSROAD THAT INTERSECTS THE WORK AREA WHERE THE REDUCED SPEED IS IN EFFECT, OR AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 29A. THE TYPE OF REFLECTIVE SHEETING USED FOR THE W20-1a PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 W20-1a PLAQUE - 48" x 36"
 R2-1 REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

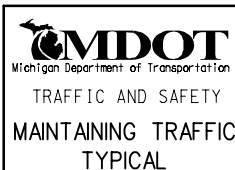
 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A SHOULDER CLOSURE ON A DIVIDED ROADWAY OR FREEWAY, USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	<div style="font-size: 1.2em; font-weight: bold;">M0890a</div>	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0890a.dgn REV. 10/27/2011			

NOTES

- 1G. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
1/3 L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 29C. THE TYPE OF REFLECTIVE SHEETING USED FOR THE W20-1a PLAQUE AND THE "WHERE WORKERS PRESENT" PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
W20-1a PLAQUE	- 48" x 36"
R2-1 REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"



TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A SHOULDER CLOSURE ON A
FREEWAY, USING A REDUCED
SPEED LIMIT WHERE WORKERS PRESENT

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

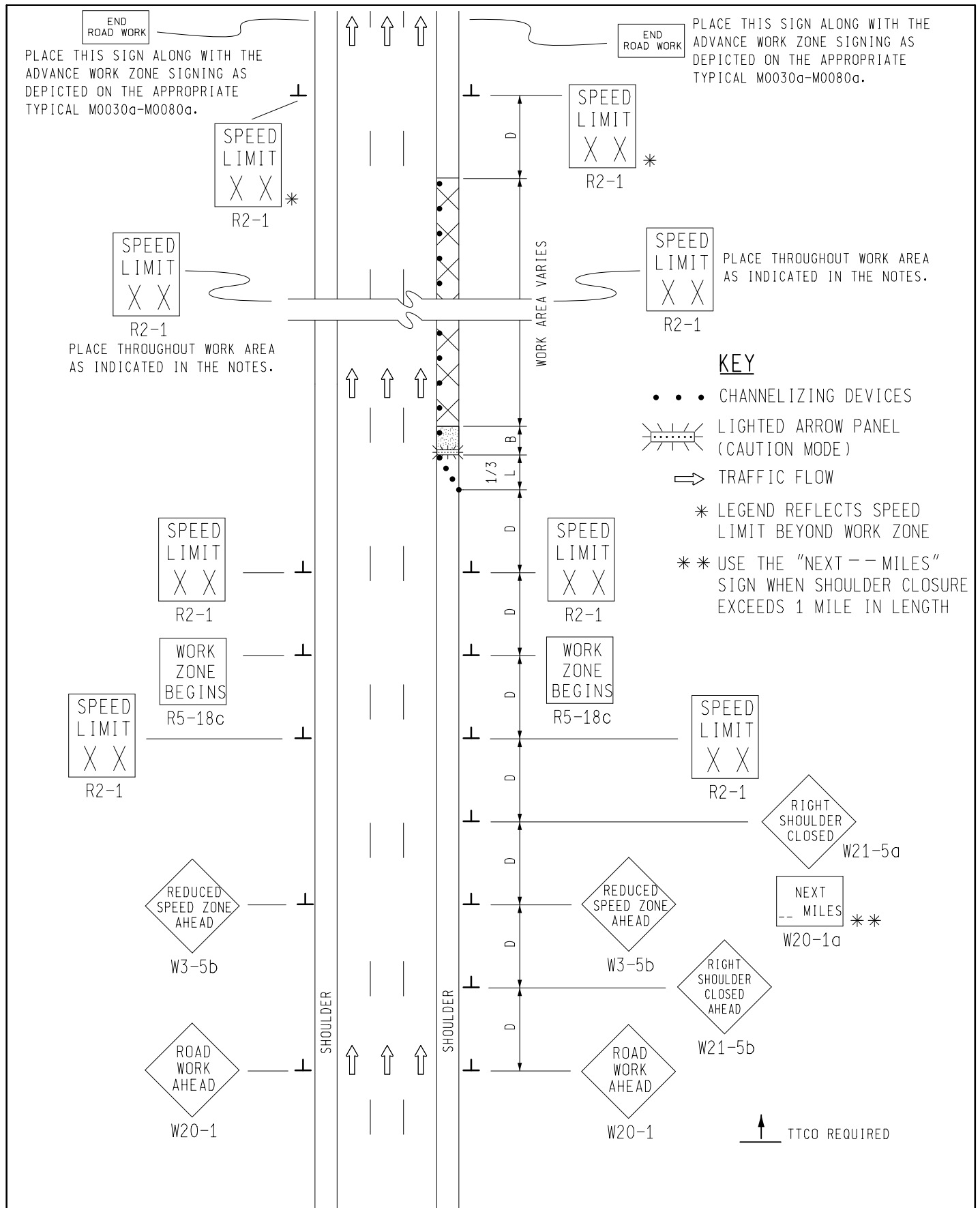
M0910a

SHEET
2 OF 2

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M0910a.dgn

REV. 10/27/2011



SIGN = 260 f+t2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A SHOULDER CLOSURE ON A FREEWAY,
USING A DOUBLE STEP DOWN IN
SPEED LIMIT

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M0920a

SHEET
1 OF 2

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M0920a.dgn

REV. 10/27/2011


NOTES

1. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 $\frac{1}{3} L$ = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE **M0020a** FOR "D," "L," AND "B" VALUES
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- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
- 29A. THE TYPE OF REFLECTIVE SHEETING USED FOR THE W20-1a PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN SIZES

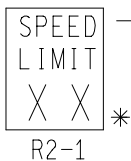
DIAMOND WARNING - 48" x 48"
 W20-1a PLAQUE - 48" x 36"
 R2-1 REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A SHOULDER CLOSURE ON A FREEWAY, USING A DOUBLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M0920a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M0920a.dgn		REV. 10/27/2011	

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



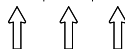
PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.



W3-5b



W20-1



SHOULDER



END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

KEY



CHANNELIZING DEVICES



LIGHTED ARROW PANEL
(CAUTION MODE)

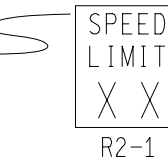
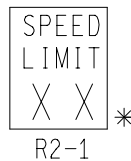


TRAFFIC FLOW

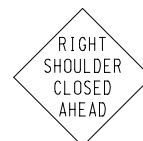


LEGEND REFLECTS SPEED
LIMIT BEYOND WORK ZONE

**SIGN = 272 f+2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA**



PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.



W21-5b



W3-5b



W20-1



Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

OCTOBER 2011

PLAN DATE:

M0930a

SHEET

1 OF 2

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M0930a.dgn

REV. 10/27/2011

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A SHOULDER CLOSURE ON A FREEWAY,
USING A TRIPLE STEP DOWN IN
SPEED LIMIT

TTCO REQUIRED


NOTES

1. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 $\frac{1}{3} L$ = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 R2-1 REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A SHOULDER CLOSURE ON A FREEWAY, USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M0930a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M0930a.dgn			
REV. 10/27/2011			



END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SHOULDER

SHOULDER

WORK
ZONE
BEGINS
R5-18c

RIGHT
SHOULDER
CLOSED
W21-5a

WORK AREA VARIES

EXIT
XX
MPH
W13-2

RAMP
WORK
AHEAD
W20-1
(MODIFIED)

KEY

... CHANNELIZING DEVICES

LIGHTED ARROW PANEL
(CAUTION MODE)

→ TRAFFIC FLOW

SIGN = 68 ft2 - TYPE B

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC
CONTROL FOR A SHOULDER
CLOSURE ON AN EXIT RAMP USING
AN ADVISORY SPEED

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M0940a

SHEET
1 OF 2

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M0940a.dgn

REV. 10/27/2011


NOTES

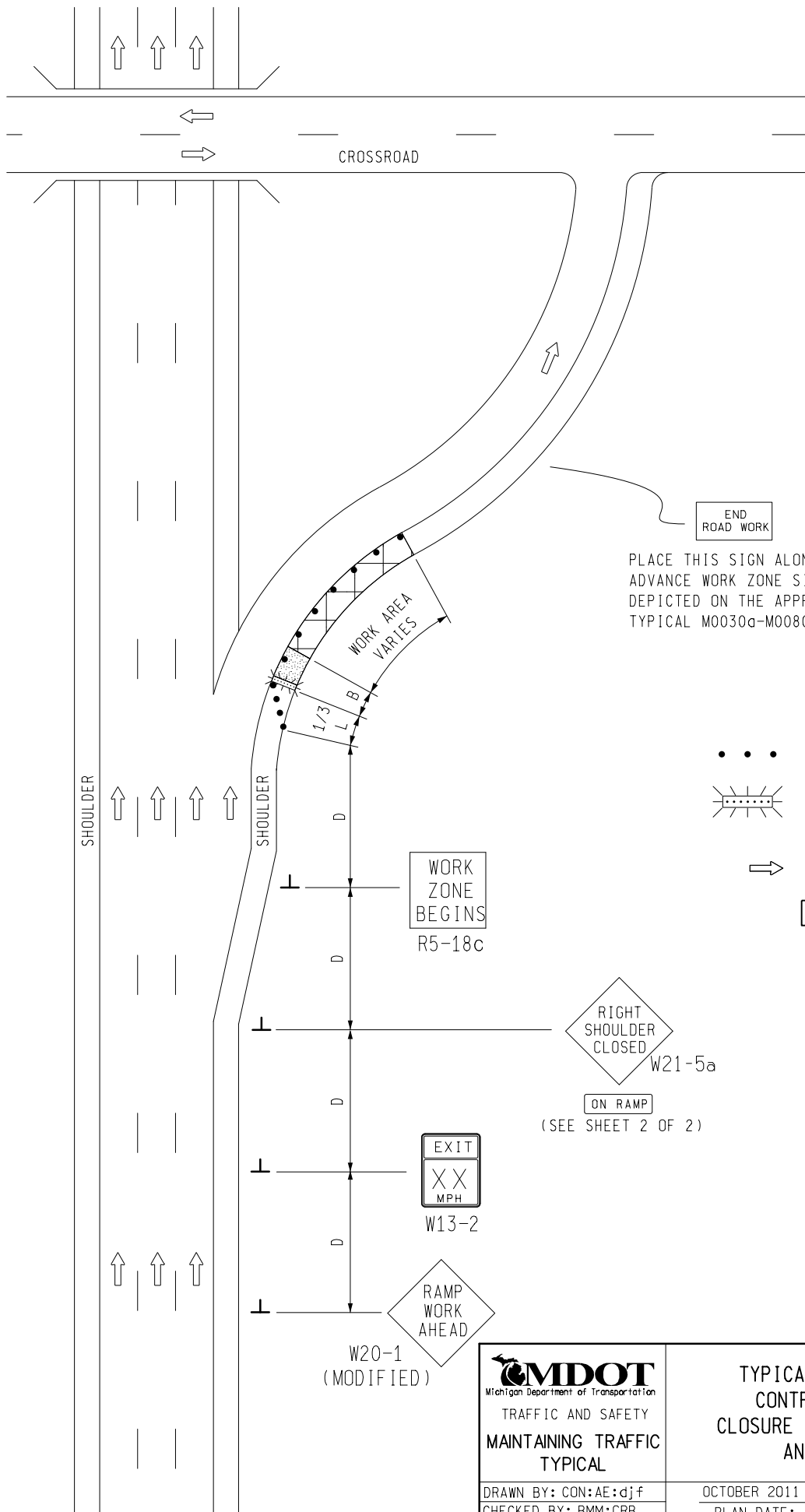
1. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 $\frac{1}{3} L$ = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
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7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 W13-2 WARNING - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A SHOULDER CLOSURE ON AN EXIT RAMP USING AN ADVISORY SPEED	
DRAWN BY: CON:AE:djf	OCTOBER 2011	<div style="font-size: 1.2em; font-weight: bold;">M0940a</div>	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M0940a.dgn		REV. 10/27/2011	



KEY

... CHANNELIZING DEVICES

⚡ LIGHTED ARROW PANEL (CAUTION MODE)

➡ TRAFFIC FLOW

SIGN = 76 ft2 - TYPE B

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M0950a.dgn

OCTOBER 2011

PLAN DATE:

M0950a

SHEET

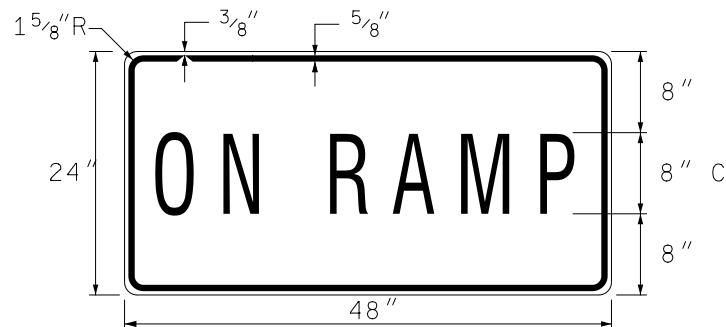
1 OF 2

REV. 10/27/2011

NOTES

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7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
29. THE TYPE OF REFLECTIVE SHEETING USED FOR THE "ON RAMP" PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN DETAIL




COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
 BACKGROUND - ORANGE (REFLECTORIZED)

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 W13-2 WARNING - 48" x 60"
 PLAQUE - 48" x 24"
 R5-18c REGULATORY - 48" x 48"



NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A SHOULDER CLOSURE ON AN EXIT RAMP USING AN ADVISORY SPEED	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M0950a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M0950a.dgn		REV.	10/27/2011

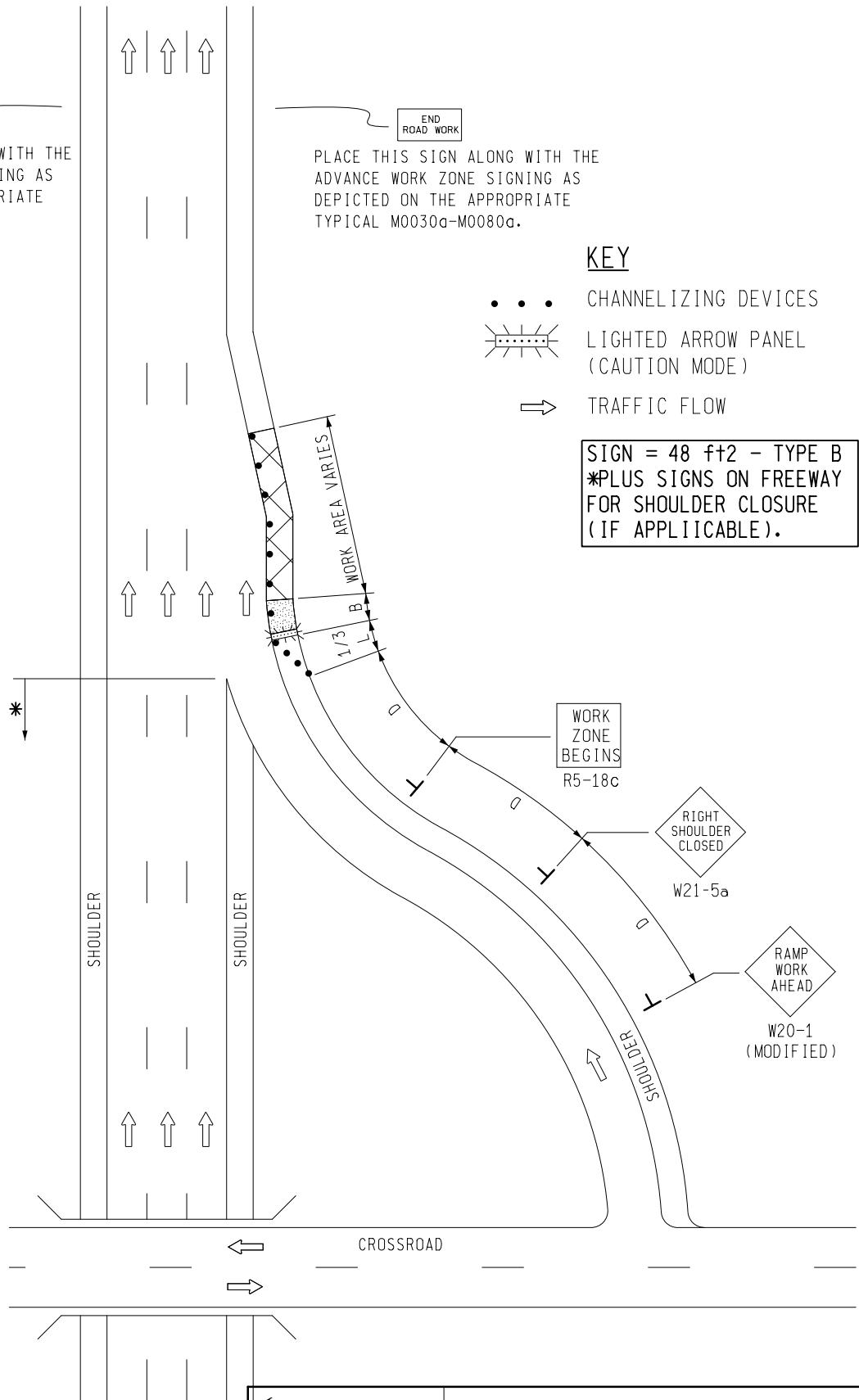
PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

KEY

- • • CHANNELIZING DEVICES
-  LIGHTED ARROW PANEL
(CAUTION MODE)
-  TRAFFIC FLOW

SIGN = 48 ft±2 - TYPE B
*PLUS SIGNS ON FREEWAY
FOR SHOULDER CLOSURE
(IF APPLICABLE).



*NOTE: WHEN SHOULDER CLOSURE EXTENDS ON
TO FREEWAY SIGNING ON FREEWAY SHALL BE IN
ACCORDANCE WITH THE APPROPRIATE FREEWAY
SHOULDER CLOSURE TYPICAL.

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC
CONTROL FOR A SHOULDER
CLOSURE ON AN ENTRANCE RAMP
NO SPEED REDUCTION

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M0960a

SHEET
1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M0960a.dgn

REV. 10/27/2011


NOTES

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8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 R2-1 REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A SHOULDER CLOSURE ON AN ENTRANCE RAMP NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M0960a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT Fwy/M0960a.dgn REV. 10/27/2011			

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



R2-1
PLACE THROUGHOUT WORK AREA
AS INDICATED AND AFTER ALL
ENTRANCE RAMPs IF PERMANENT
SIGNS ARE NOT IN PLACE.



WORK
ZONE
BEGINS
R5-18c



W4-2



W20-5

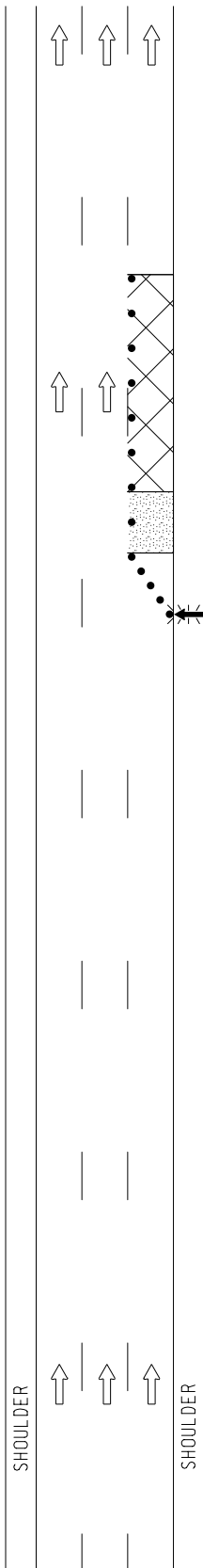


W20-1

KEY

- ... CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- ⇒ TRAFFIC FLOW

SIGN = 168 f+2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA



END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



R2-1
PLACE THROUGHOUT WORK AREA
AS INDICATED AND AFTER ALL
ENTRANCE RAMPs IF PERMANENT
SIGNS ARE NOT IN PLACE.



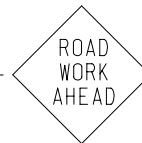
WORK
ZONE
BEGINS
R5-18c



W4-2



W20-5



W20-1

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY,
NO SPEED REDUCTION

OCTOBER 2011
PLAN DATE:

M0970a

SHEET
1 OF 2

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M0970a.dgn

REV. 10/27/2011


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

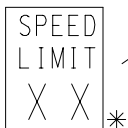
DIAMOND WARNING - 48" x 48"
R2-1 REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M0970a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M0970a.dgn REV. 10/27/2011			

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



R2-1



R2-1

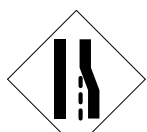
PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.



R2-1



R5-18c



W4-2



W3-5b



W20-5



W20-1

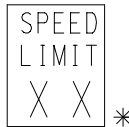
SHOULDER



SHOULDER

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



R2-1



R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.



R2-1



R5-18c



W4-2



W3-5b



W20-5



W20-1

KEY

• • • CHANNELIZING DEVICES

← LIGHTED ARROW PANEL

→ TRAFFIC FLOW

* LEGEND REFLECTS SPEED
LIMIT BEYOND WORK AREA

SIGN = 240 ft±2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
USING A SINGLE STEP DOWN IN
SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M0980a

SHEET
1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M0980a.dgn

REV. 10/27/2011

PW RD/TS/Typicals/Signs/MT FWY/M0980a.dgn


NOTES

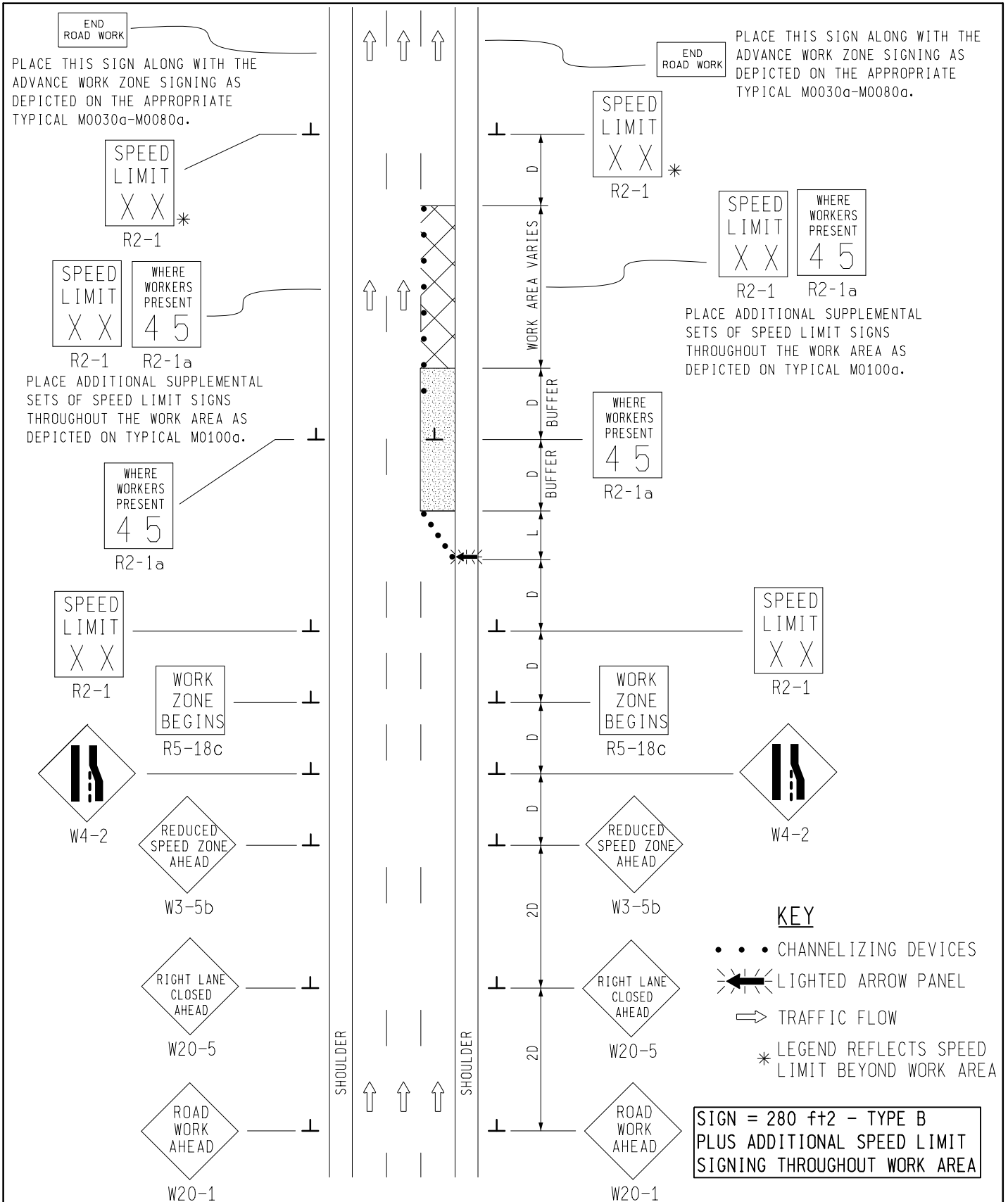
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L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
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3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 RECTANGULAR REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M0980a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M0980a.dgn		REV. 10/27/2011	



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: K:\DGN-TSR-STD5-ENGLISH-MNTTRF-M0990a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
USING REDUCED SPEED LIMIT
WHERE WORKERS PRESENT

OCTOBER 2011

PLAN DATE:

M0990a

SHEET

1 OF 2

REV. 10/27/2011


NOTES

11. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY USING REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
DRAWN BY: CON:AE:djf		OCTOBER 2011	SHEET 2 OF 2
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: K:\-DGN-TSR-STDS-ENGLISH-MNTTRF-M0990a.dgn		REV.	M0990a

10/27/2011

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X *

R2-1

SPEED
LIMIT
X X

R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.

SPEED
LIMIT
X X

R2-1

WORK
ZONE
BEGINS

R5-18c

SPEED
LIMIT
X X

R2-1



W4-2



W3-5b

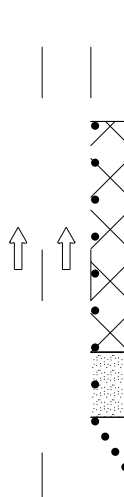
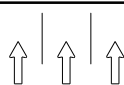


W20-5

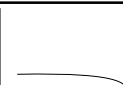


W20-1

SHOULDER



SHOULDER



END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X *

R2-1

SPEED
LIMIT
X X

R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.

SPEED
LIMIT
X X

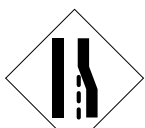
R2-1

WORK
ZONE
BEGINS

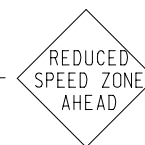
R5-18c

SPEED
LIMIT
X X

R2-1



W4-2



W3-5b



W20-5



W20-1

KEY

• • • CHANNELIZING DEVICES

← LIGHTED ARROW PANEL

⇒ TRAFFIC FLOW

* LEGEND REFLECTS SPEED
LIMIT BEYOND WORK AREA

SIGN = 280 ft ± 2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1000a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
USING A DOUBLE STEP DOWN IN
SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1000a

REV. 10/26/2011

SHEET

1 OF 2

PW RD/TS/Typicals/Signs/MT FWY/M1000a.dgn


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 RECTANGULAR REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY USING A DOUBLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1000a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1000a.dgn		REV. 10/26/2011	

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X

R2-1

SPEED
LIMIT
X X

R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.

SPEED
LIMIT
X X

R2-1

WORK
ZONE
BEGINS

R5-18c

SPEED
LIMIT
X X

R2-1



W4-2

SPEED
LIMIT
X X

R2-1



W3-5b

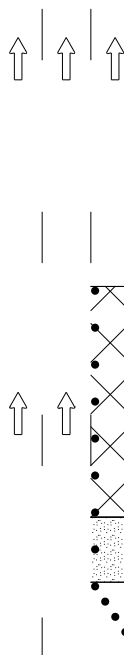


W20-5



W20-1

SHOULDER



SHOULDER

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X

R2-1

SPEED
LIMIT
X X

R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.

SPEED
LIMIT
X X

R2-1

WORK
ZONE
BEGINS

R5-18c

SPEED
LIMIT
X X

R2-1



W4-2

SPEED
LIMIT
X X

R2-1



W3-5b



W20-5



W20-1

KEY

• • • CHANNELIZING DEVICES

← LIGHTED ARROW PANEL

→ TRAFFIC FLOW

* LEGEND REFLECTS SPEED
LIMIT BEYOND WORK AREA

SIGN = 320 ft±2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: K:-DGN-TSR-STDS-ENGLISH-MNTTRF-M1010a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
USING A TRIPLE STEP DOWN IN
SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1010a

SHEET
1 OF 2

REV. 10/26/2011


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
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3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 RECTANGULAR REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1010a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: K:\-DGN-TSR-STD5-ENGLISH-MNTTRF-M1010a.dgn		REV. 10/26/2011	


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
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6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48 " x 48 "
R2-1 REGULATORY - 48 " x 60 "
R5-18c REGULATORY - 48 " x 48 "

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M1020a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1020a.dgn		REV.	10/26/2011

SHEET
2 OF 2

END ROAD WORK

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SPEED LIMIT
XX
R2-1 *

SPEED LIMIT
XX
R2-1

PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.

SPEED LIMIT
XX
R2-1

WORK ZONE BEGINS
R5-18c

W4-2

REDUCED SPEED ZONE AHEAD
W3-5b

RIGHT LANE CLOSED AHEAD
W20-5

RIGHT LANE CLOSED 1 MILE
W20-5 (MODIFIED)

RIGHT LANE CLOSED 2 MILES
W20-5 (MODIFIED)

ROAD WORK AHEAD
W20-1

END ROAD WORK

SPEED LIMIT
XX
R2-1 *

SPEED LIMIT
XX
R2-1

PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.

SPEED LIMIT
XX
R2-1

WORK ZONE BEGINS
R5-18c

W4-2

REDUCED SPEED ZONE AHEAD
W3-5b

RIGHT LANE CLOSED AHEAD
W20-5

RIGHT LANE CLOSED 1 MILE
W20-5 (MODIFIED)

RIGHT LANE CLOSED 2 MILES
W20-5 (MODIFIED)

ROAD WORK AHEAD
W20-1

KEY

- ... CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA

SIGN = 304 f+2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

OCTOBER 2011

PLAN DATE:

M1030a

SHEET

1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1030a.dgn

REV. 10/26/2011

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY USING A SINGLE STEP DOWN IN SPEED LIMIT


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

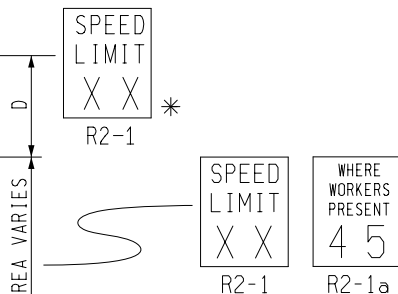
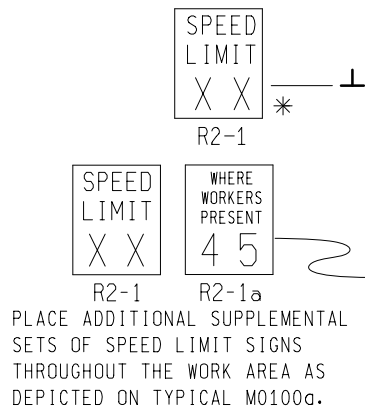
SIGN SIZES

DIAMOND WARNING	- 48 " x 48 "
RECTANGULAR REGULATORY	- 48 " x 60 "
R5-18c REGULATORY	- 48 " x 48 "

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	<div style="font-size: 1.2em; font-weight: bold;">M1030a</div>	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1030a.dgn		REV. 10/26/2011	

PLACE THESE SIGNS ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

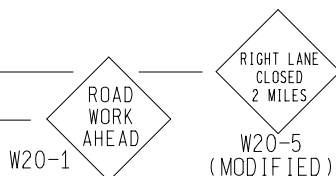
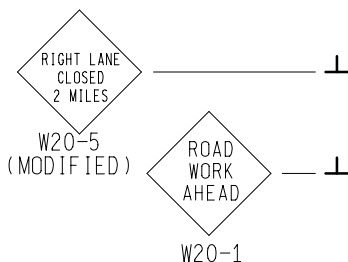
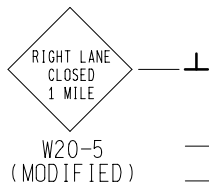
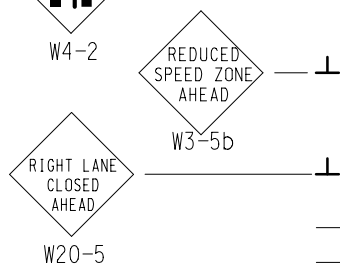
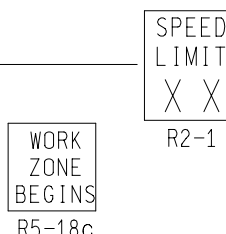
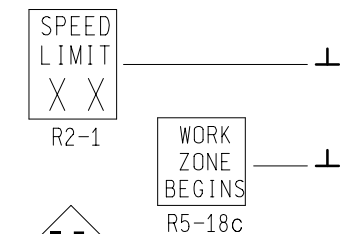
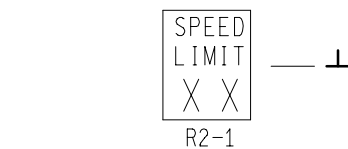


PLACE ADDITIONAL SUPPLEMENTAL SETS OF SPEED LIMIT SIGNS THROUGHOUT THE WORK AREA AS DEPICTED ON TYPICAL M0100a.

KEY

- ... CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA

SIGN = 344 ft± - TYPE B PLUS ADDITIONAL SPEED LIMIT SIGNING THROUGHOUT WORK AREA



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT

DRAWN BY: CON:AE:djf

OCTOBER 2011

M1040a

SHEET

CHECKED BY: BMM:CRB

PLAN DATE:

1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1040a.dgn

REV. 10/26/2011


NOTES

11. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48 " x 48 "
RECTANGULAR REGULATORY	- 48 " x 60 "
R5-18c REGULATORY	- 48 " x 48 "

NOT TO SCALE

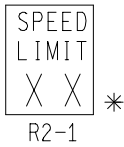
 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1040a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1040a.dgn		REV. 10/26/2011	

KEY

- ... CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA

SIGN = 344 ft+2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA

END ROAD WORK
PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



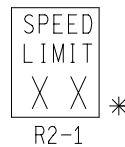
PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.



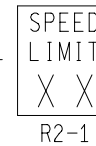
W20-5
(MODIFIED)



END ROAD WORK



PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.



W20-5
(MODIFIED)

W20-5
(MODIFIED)



W20-1

SHOULDER

SHOULDER

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1050a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A ONE-LANE CLOSURE ON A
FREEWAY USING A DOUBLE STEP DOWN IN
SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1050a

SHEET

1 OF 2

REV. 10/26/2011


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
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SIGN SIZES

DIAMOND WARNING	- 48 " x 48 "
RECTANGULAR REGULATORY	- 48 " x 60 "
R5-18c REGULATORY	- 48 " x 48 "

NOT TO SCALE

 MDOT Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY USING A DOUBLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1050a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1050a.dgn		REV. 10/26/2011	

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X *
R2-1

SPEED
LIMIT
X X
R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.

SPEED
LIMIT
X X
R2-1

WORK
ZONE
BEGINS
R5-18c

SPEED
LIMIT
X X
R2-1



W4-2

SPEED
LIMIT
X X
R2-1



W3-5b



W20-5



W20-5
(MODIFIED)

W20-5
(MODIFIED)



W20-1

SHOULDER



SHOULDER

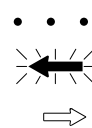
END
ROAD WORK

SPEED
LIMIT
X X *
R2-1

WORK AREA VARIES

SPEED
LIMIT
X X
R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.



KEY

CHANNELIZING DEVICES

LIGHTED ARROW PANEL

TRAFFIC FLOW

* LEGEND REFLECTS SPEED
LIMIT BEYOND WORK AREA

SIGN = 384 ft± - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA



TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1060a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A ONE-LANE CLOSURE ON A
FREEWAY USING A TRIPLE STEP DOWN IN
SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1060a

SHEET

1 OF 2

REV. 10/26/2011

NOT TO SCALE


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48 " x 48 "
RECTANGULAR REGULATORY	- 48 " x 60 "
R5-18c REGULATORY	- 48 " x 48 "

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	<div style="font-size: 1.2em; font-weight: bold;">M1060a</div>	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1060a.dgn		REV. 10/26/2011	

END
ROAD WORK

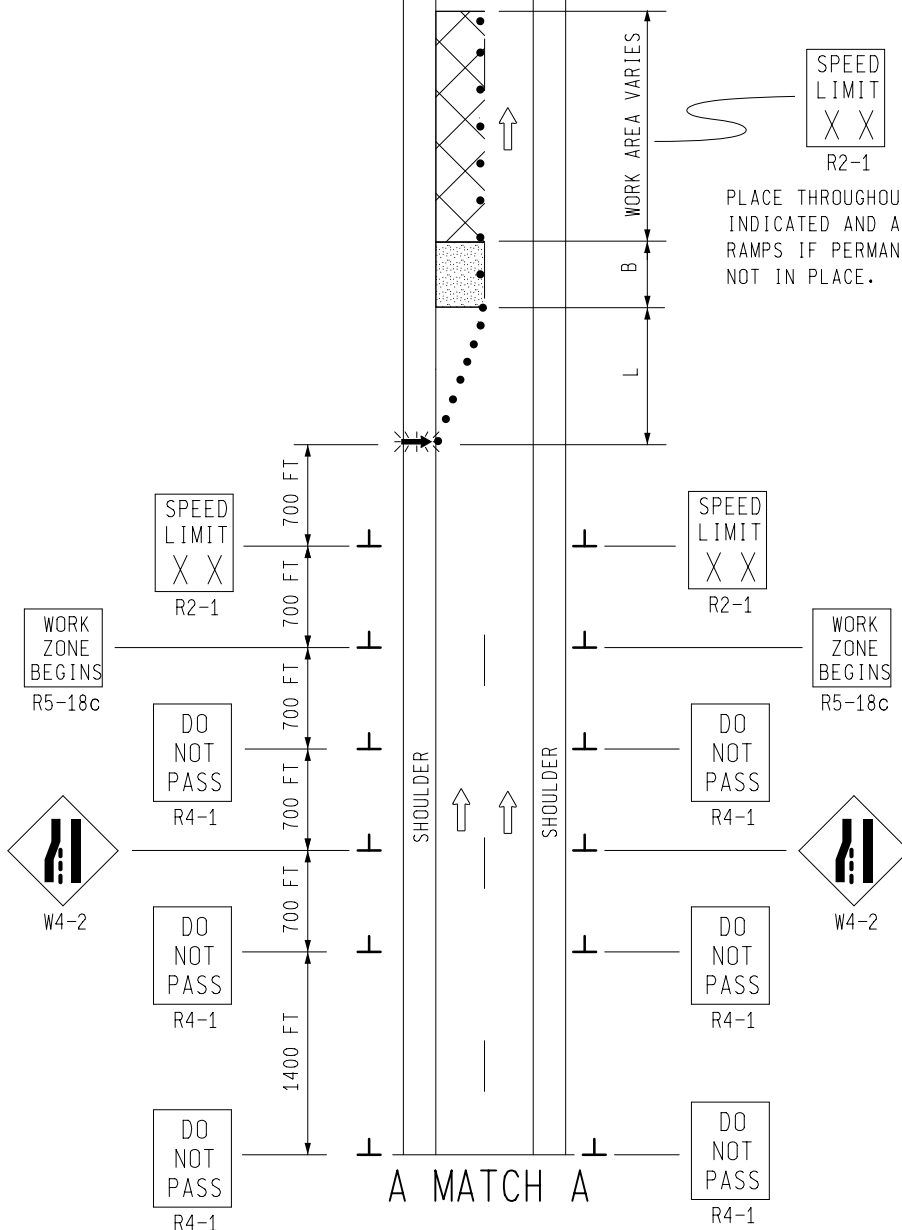
PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X
R2-1

PLACE THROUGHOUT WORK AREA AS
INDICATED AND AFTER ALL ENTRANCE
RAMPS IF PERMANENT SIGNS ARE
NOT IN PLACE.



KEY

- • • CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ⊕ STROBE LIGHT
- ➡ TRAFFIC FLOW
- ▲ SEE SHEET 3 OF 3

SIGN = 530 f+2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A
TWO-LANE FREEWAY UTILIZING THE
"DYNAMIC LANE MERGE" SYSTEM,
NO SPEED REDUCTION

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M1070a

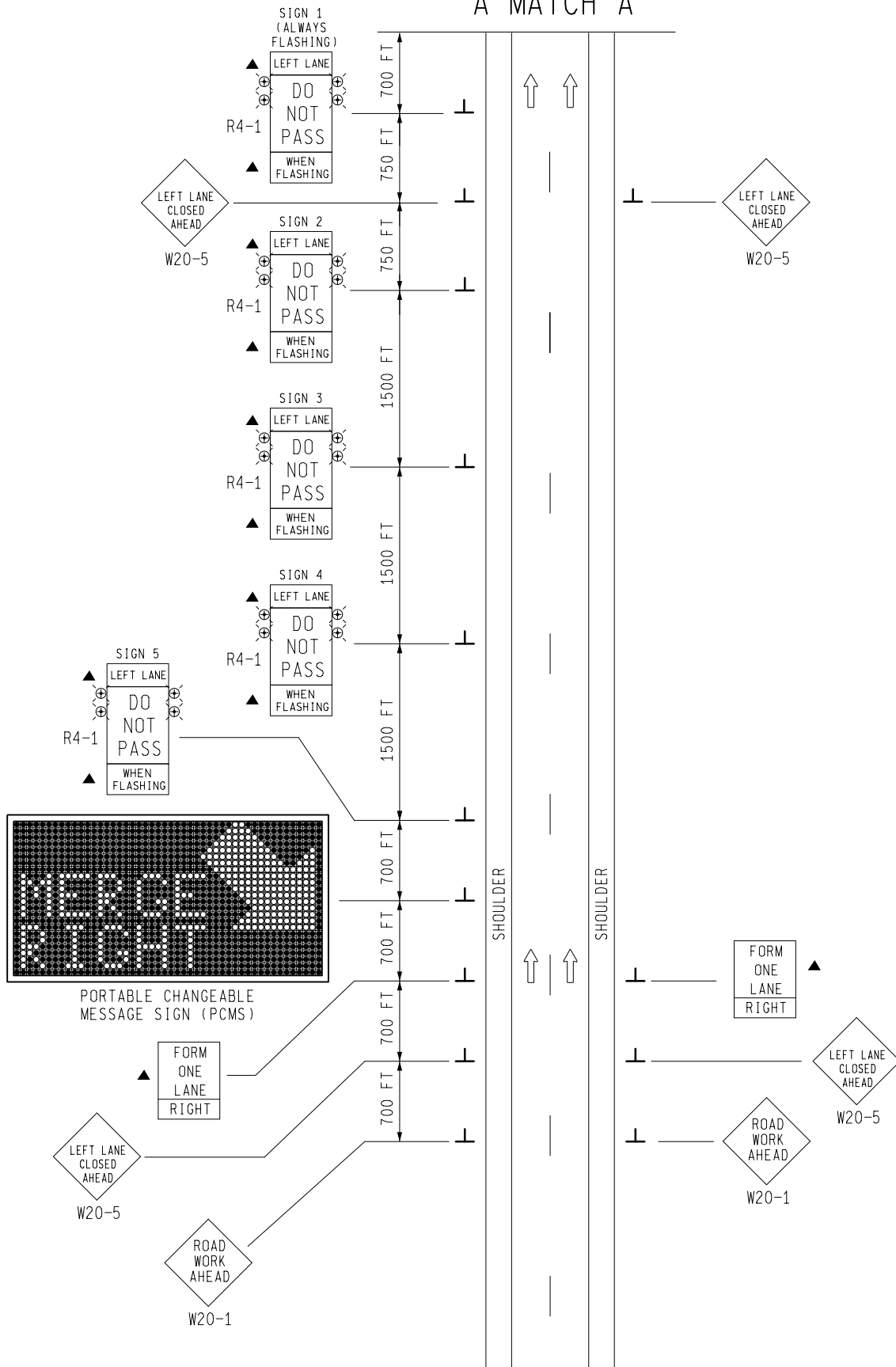
SHEET
1 OF 3

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1070a.dgn

REV. 10/26/2011

A MATCH A



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A
TWO-LANE FREEWAY UTILIZING THE
"DYNAMIC LANE MERGE" SYSTEM,
NO SPEED REDUCTION

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M1070a

SHEET
2 OF 3

NOT TO SCALE

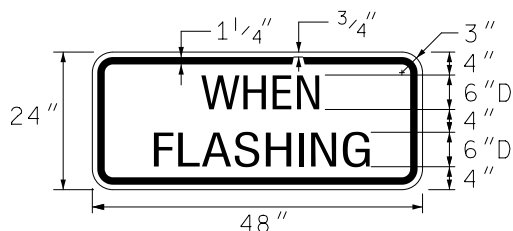
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1070a.dgn

REV. 10/26/2011

NOTES

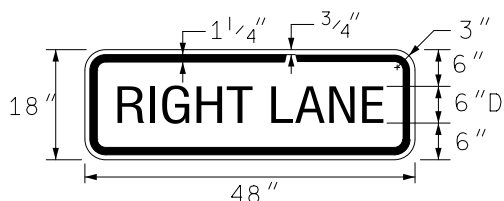
- 1P. L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "L" AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
- 2A. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN DETAILS



COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)

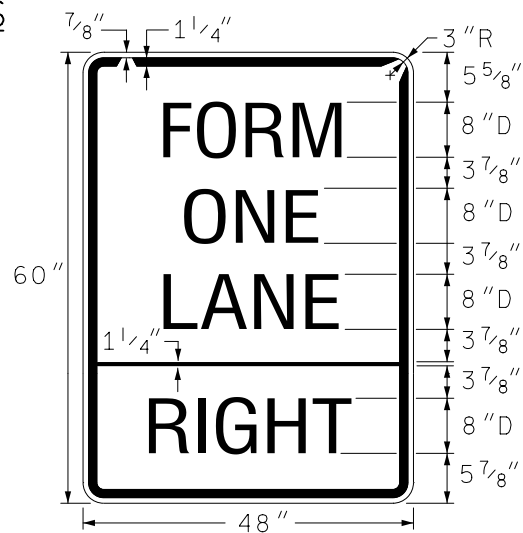


COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)

SIGN SIZES

DIAMOND WARNING - 48" x 48"
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"
SIGN DETAILS - AS SHOWN



COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A
TWO-LANE FREEWAY UTILIZING THE
"DYNAMIC LANE MERGE" SYSTEM,
NO SPEED REDUCTION

OCTOBER 2011

PLAN DATE:

M1070a

SHEET
3 OF 3

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1070a.dgn

REV. 10/26/2011

NOT TO SCALE

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



R2-1
LEGEND REFLECTS SPEED LIMIT
BEYOND WORK AREA.

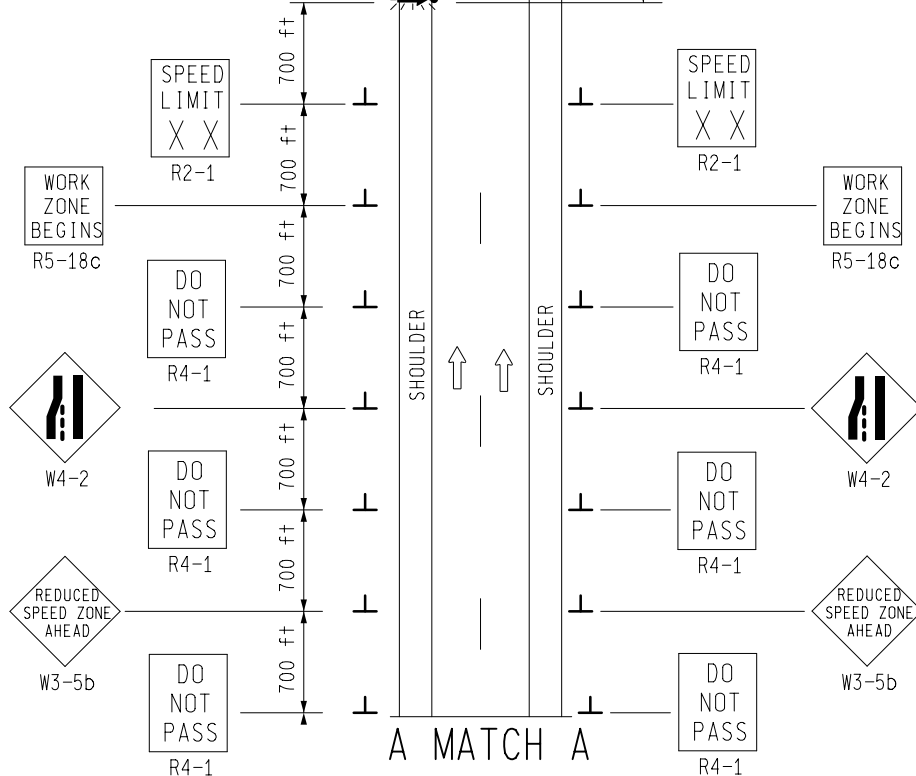
PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



R2-1
LEGEND REFLECTS SPEED LIMIT
BEYOND WORK AREA.



R2-1
PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.



KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- ⊕ STROBE LIGHT
- ⇒ TRAFFIC FLOW
- ▲ SEE SHEET 3 OF 3

SIGN = 602 ft2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A TWO-LANE
FREEWAY UTILIZING THE "DYNAMIC LANE
MERGE" SYSTEM USING A SINGLE STEP
DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1080a

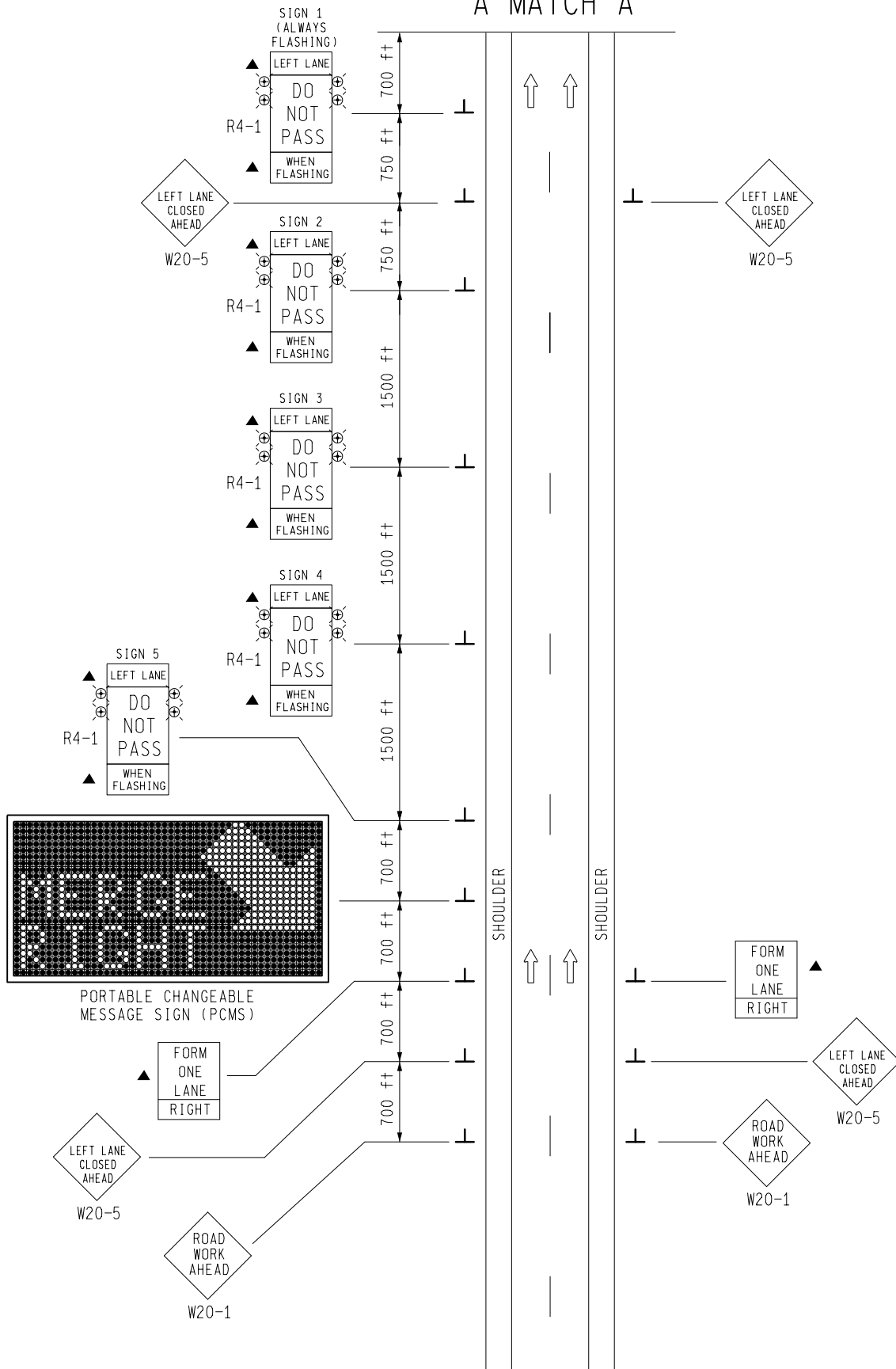
SHEET
1 OF 3

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1080a.dgn

REV. 10/26/2011

A MATCH A



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A TWO-LANE
FREEWAY UTILIZING THE "DYNAMIC LANE
MERGE" SYSTEM USING A SINGLE STEP
DOWN IN SPEED LIMIT

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M1080a

SHEET
2 OF 3

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1080a.dgn

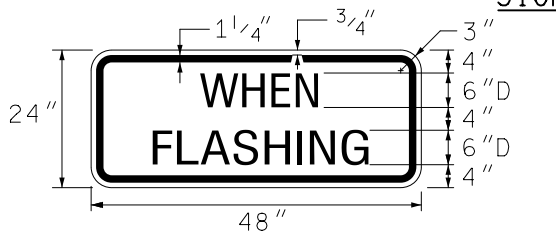
REV. 10/26/2011

1P. L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "L" AND "B" VALUES

NOTES

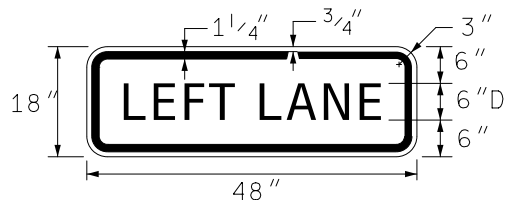
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
- 2A. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
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5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN DETAILS



COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)



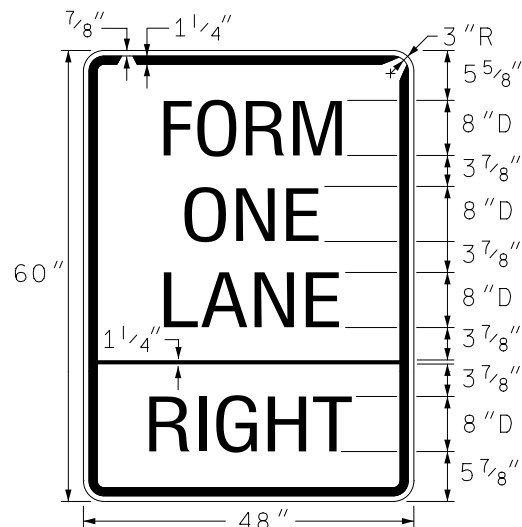
COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)

SIGN SIZES

DIAMOND WARNING - 48" x 48"
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"
SIGN DETAILS - AS SHOWN

NOT TO SCALE



COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1080a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A TWO-LANE
FREEWAY UTILIZING THE "DYNAMIC LANE
MERGE" SYSTEM USING A SINGLE STEP
DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1080a

SHEET
3 OF 3

REV. 10/26/2011

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.



R2-1

LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA.

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.



R2-1

LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA.



R2-1

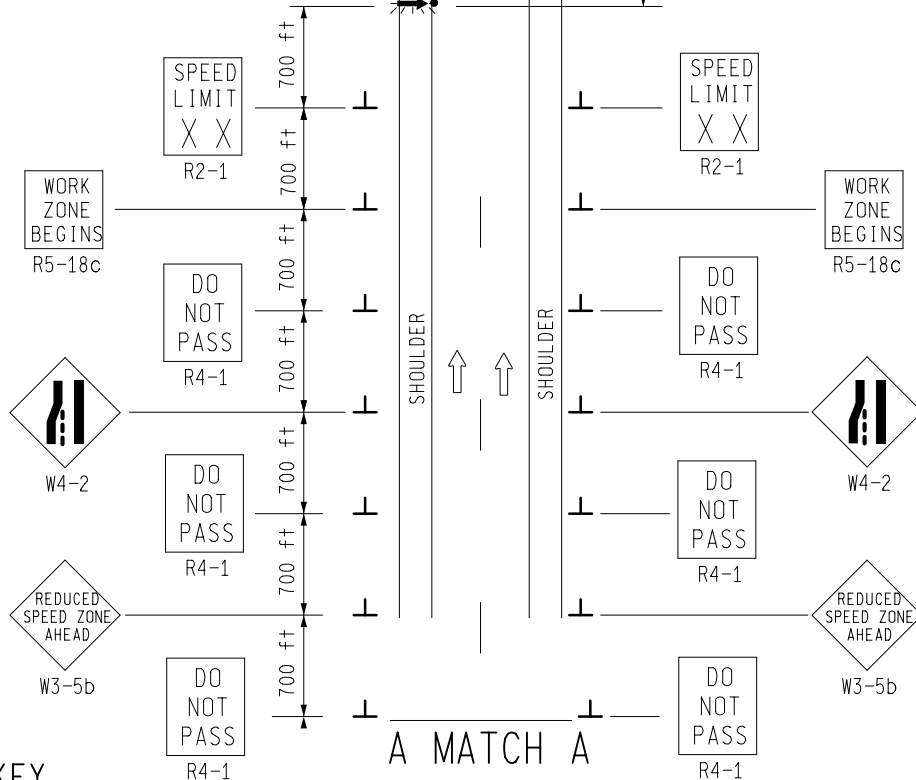


R2-1a

PLACE ADDITIONAL SUPPLEMENTAL SETS OF SPEED LIMIT SIGNS THROUGHOUT THE WORK AREA AS DEPICTED ON TYPICAL M0100a.



R2-1a



KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- ⊕ STROBE LIGHT
- ⇒ TRAFFIC FLOW
- ▲ SEE SHEET 3 OF 3

SIGN = 622 ft±2 - TYPE B PLUS ADDITIONAL SPEED LIMIT SIGNING THROUGHOUT WORK AREA

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A TWO-LANE FREEWAY UTILIZING THE "DYNAMIC LANE MERGE" SYSTEM USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M1090a

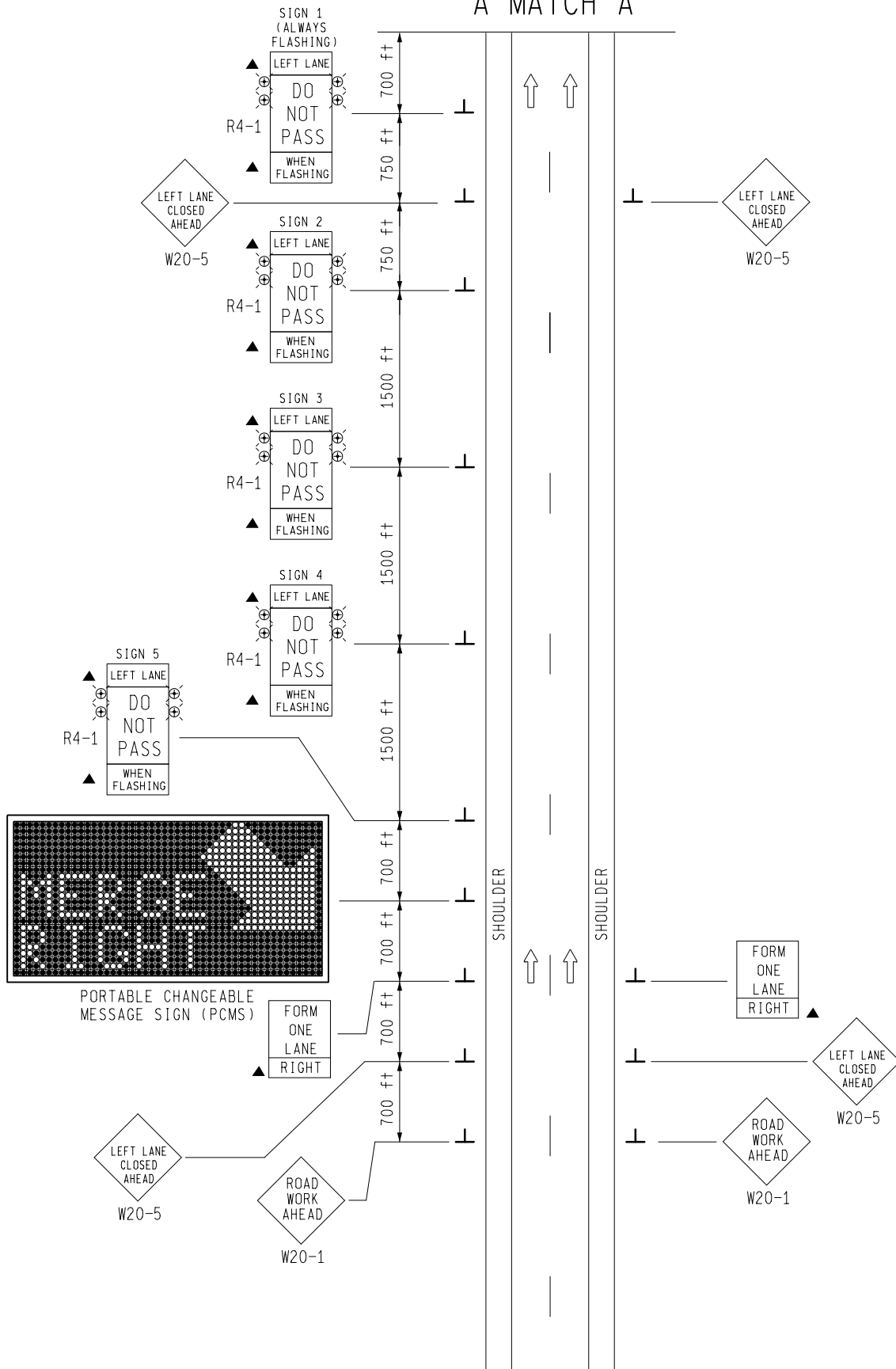
SHEET
1 OF 3

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1090a.dgn

REV. 10/26/2011

A MATCH A



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A TWO-LANE
FREEWAY UTILIZING THE "DYNAMIC LANE
MERGE" SYSTEM USING A REDUCED SPEED
LIMIT WHERE WORKERS PRESENT

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M1090a

SHEET
2 OF 3

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1090a.dgn

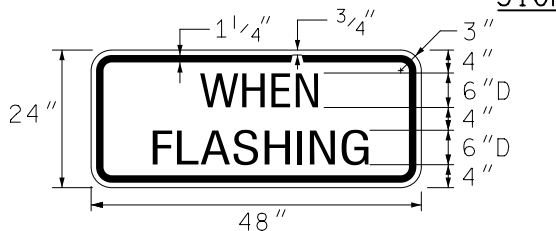
REV. 10/26/2011

10. L = MINIMUM LENGTH OF TAPER
D = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "L" AND "D" VALUES

NOTES

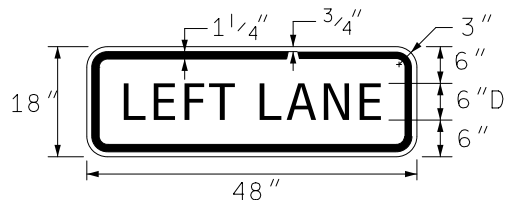
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- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN DETAILS



COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)



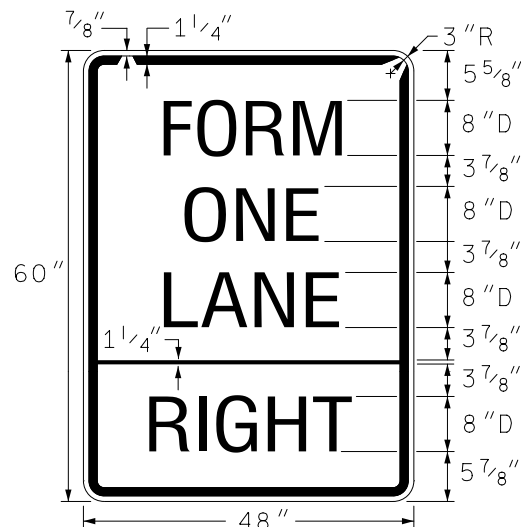
COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)

SIGN SIZES

DIAMOND WARNING - 48" x 48"
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"
SIGN DETAILS - AS SHOWN

NOT TO SCALE



COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1090a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A TWO-LANE
FREEWAY UTILIZING THE "DYNAMIC LANE
MERGE" SYSTEM USING A REDUCED SPEED
LIMIT WHERE WORKERS PRESENT

OCTOBER 2011
PLAN DATE:

M1090a

SHEET
3 OF 3

REV. 10/26/2011

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



R2-1
LEGEND REFLECTS SPEED LIMIT
BEYOND WORK AREA.

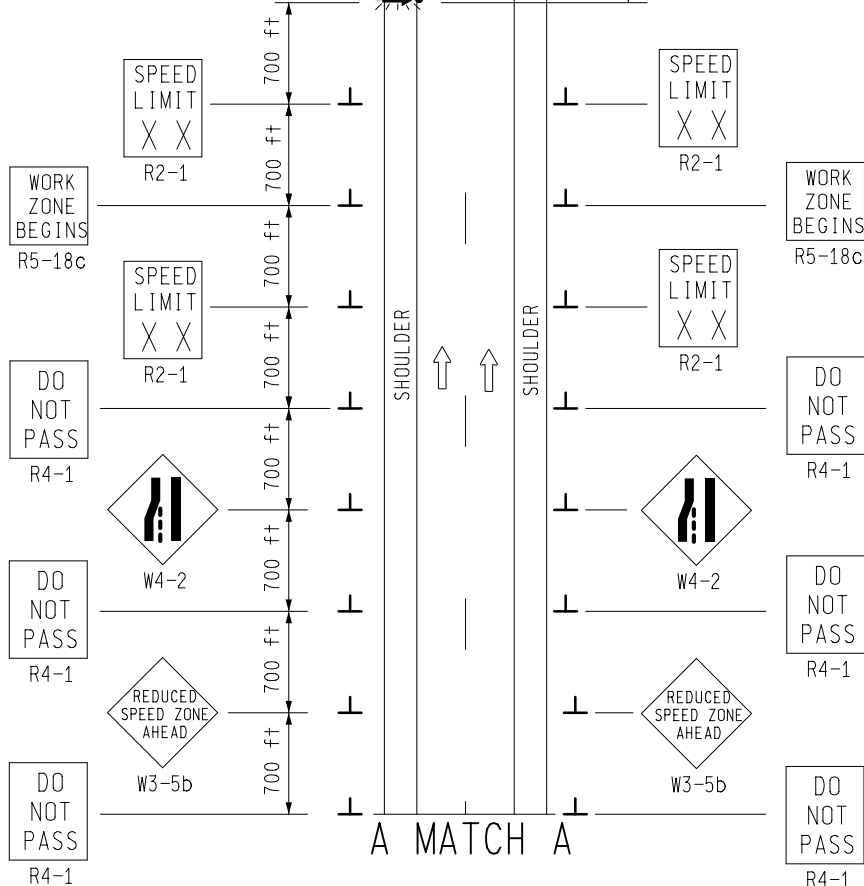
PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



R2-1
LEGEND REFLECTS SPEED LIMIT
BEYOND WORK AREA.



R2-1
PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.



KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- ⊗ STROBE LIGHT
- TRAFFIC FLOW
- ▲ SEE SHEET 3 OF 3

SIGN = 642 ft±2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A TWO-LANE
FREEWAY UTILIZING THE "DYNAMIC LANE
MERGE" SYSTEM USING A DOUBLE STEP
DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1100a

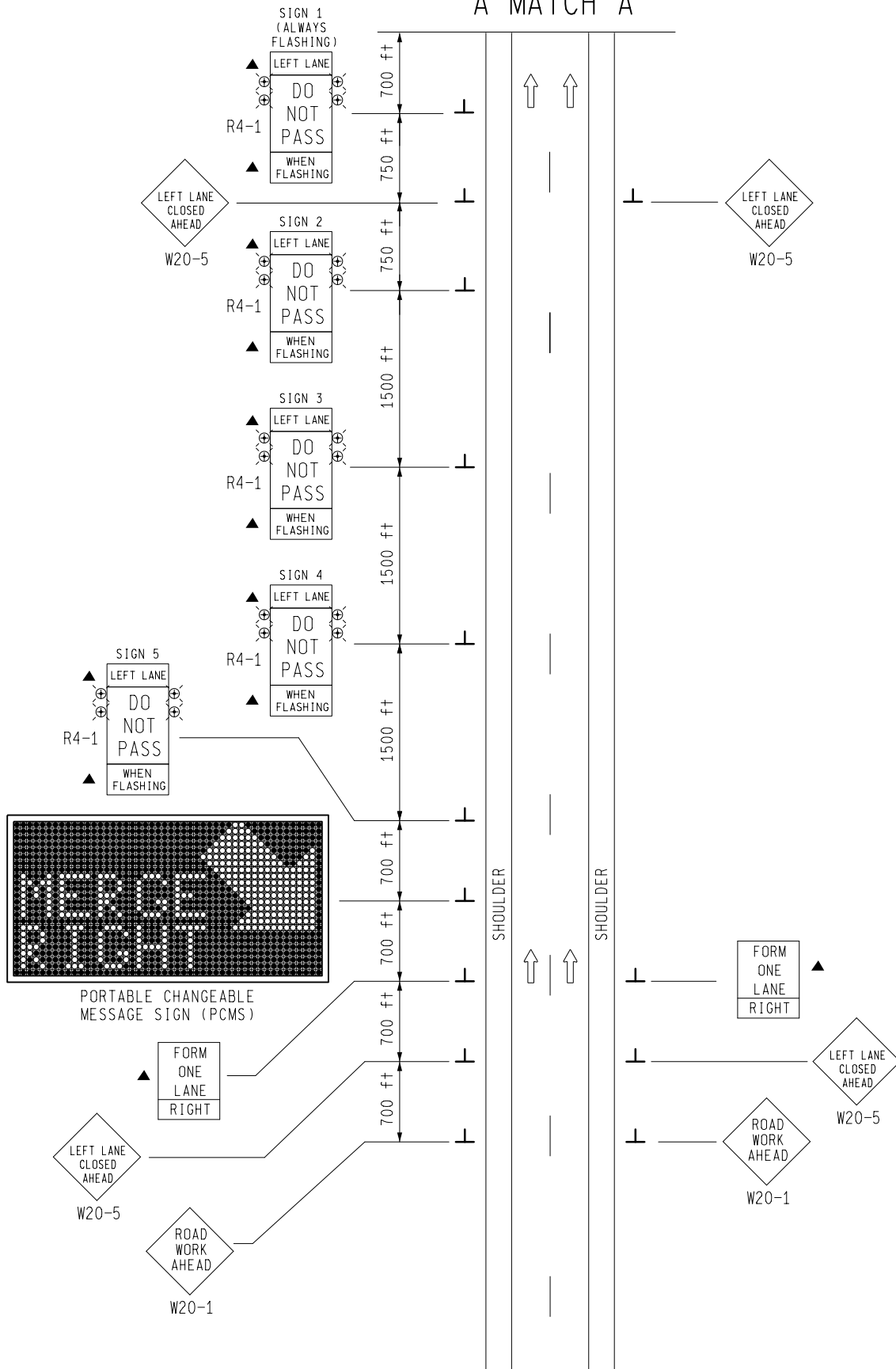
SHEET
1 OF 3

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1100a.dgn

REV. 10/26/2011

A MATCH A



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A TWO-LANE
FREEWAY UTILIZING THE "DYNAMIC LANE
MERGE" SYSTEM USING A DOUBLE STEP
DOWN IN SPEED LIMIT

DRAWN BY: CON:AE:djf

OCTOBER 2011

M1100a

SHEET

CHECKED BY: BMM:CRB

PLAN DATE:

2 OF 3

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1100a.dgn

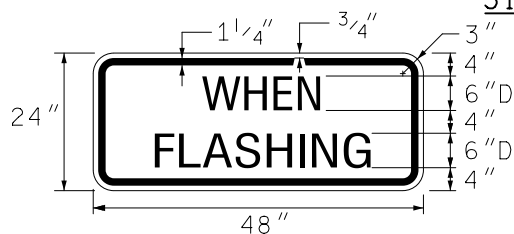
REV. 10/26/2011

1P. L = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE **M0020a** FOR "L" AND "B" VALUES

NOTES

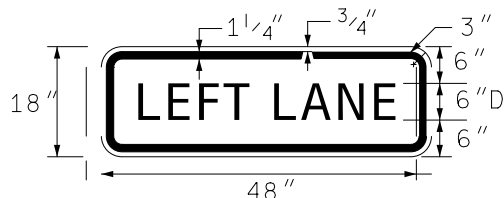
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
- 2A. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN DETAILS



COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
 BACKGROUND - WHITE (REFLECTORIZED)



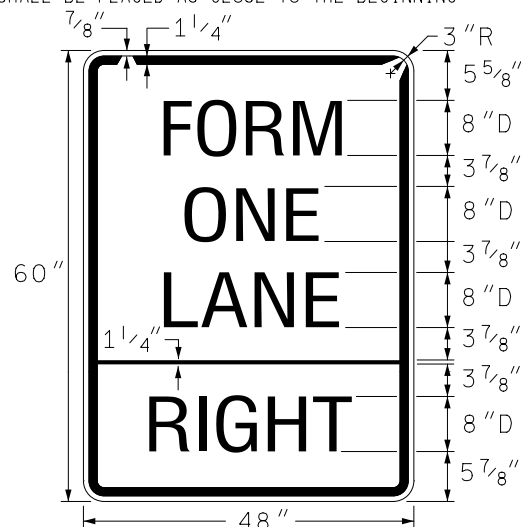
COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
 BACKGROUND - WHITE (REFLECTORIZED)

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 RECTANGULAR REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"
 SIGN DETAILS - AS SHOWN

NOT TO SCALE



COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
 BACKGROUND - WHITE (REFLECTORIZED)

MDOT
 Michigan Department of Transportation
 TRAFFIC AND SAFETY
 MAINTAINING TRAFFIC
 TYPICAL

DRAWN BY: CON:AE:djf
 CHECKED BY: BMM:CRB
 FILE: PW RD/TS/Typicals/Signs/MT FWY/M1100a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
 A ONE-LANE CLOSURE ON A TWO-LANE
 FREEWAY UTILIZING THE "DYNAMIC LANE
 MERGE" SYSTEM USING A DOUBLE STEP
 DOWN IN SPEED LIMIT

OCTOBER 2011
 PLAN DATE:

M1100a

SHEET
 3 OF 3

REV. 10/26/2011

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X

R2-1

LEGEND REFLECTS SPEED LIMIT
BEYOND WORK AREA.

KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- ⊗ STROBE LIGHT
- TRAFFIC FLOW
- ▲ SEE SHEET 3 OF 3

SIGN = 682 ft±2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X

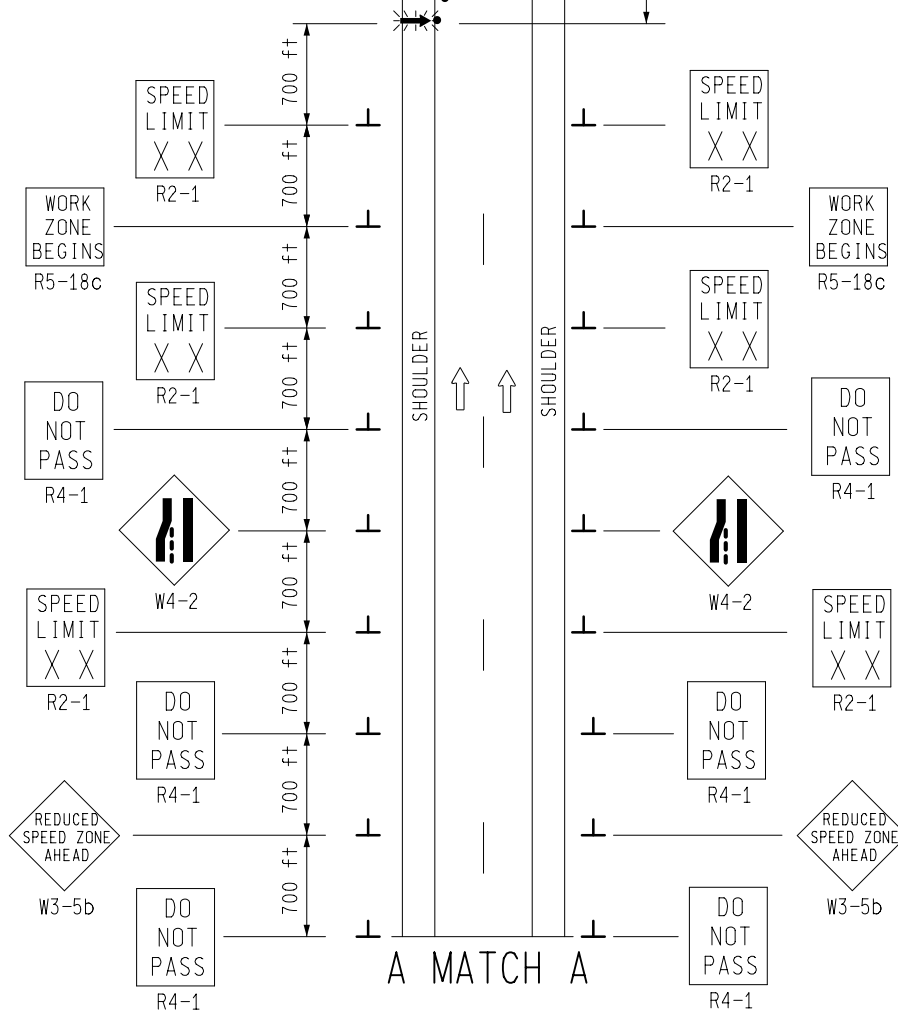
R2-1

LEGEND REFLECTS SPEED LIMIT
BEYOND WORK AREA.

SPEED
LIMIT
X X

R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.



TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1110a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A TWO-LANE
FREEWAY UTILIZING THE "DYNAMIC LANE
MERGE" SYSTEM USING A TRIPLE STEP
DOWN IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1110a

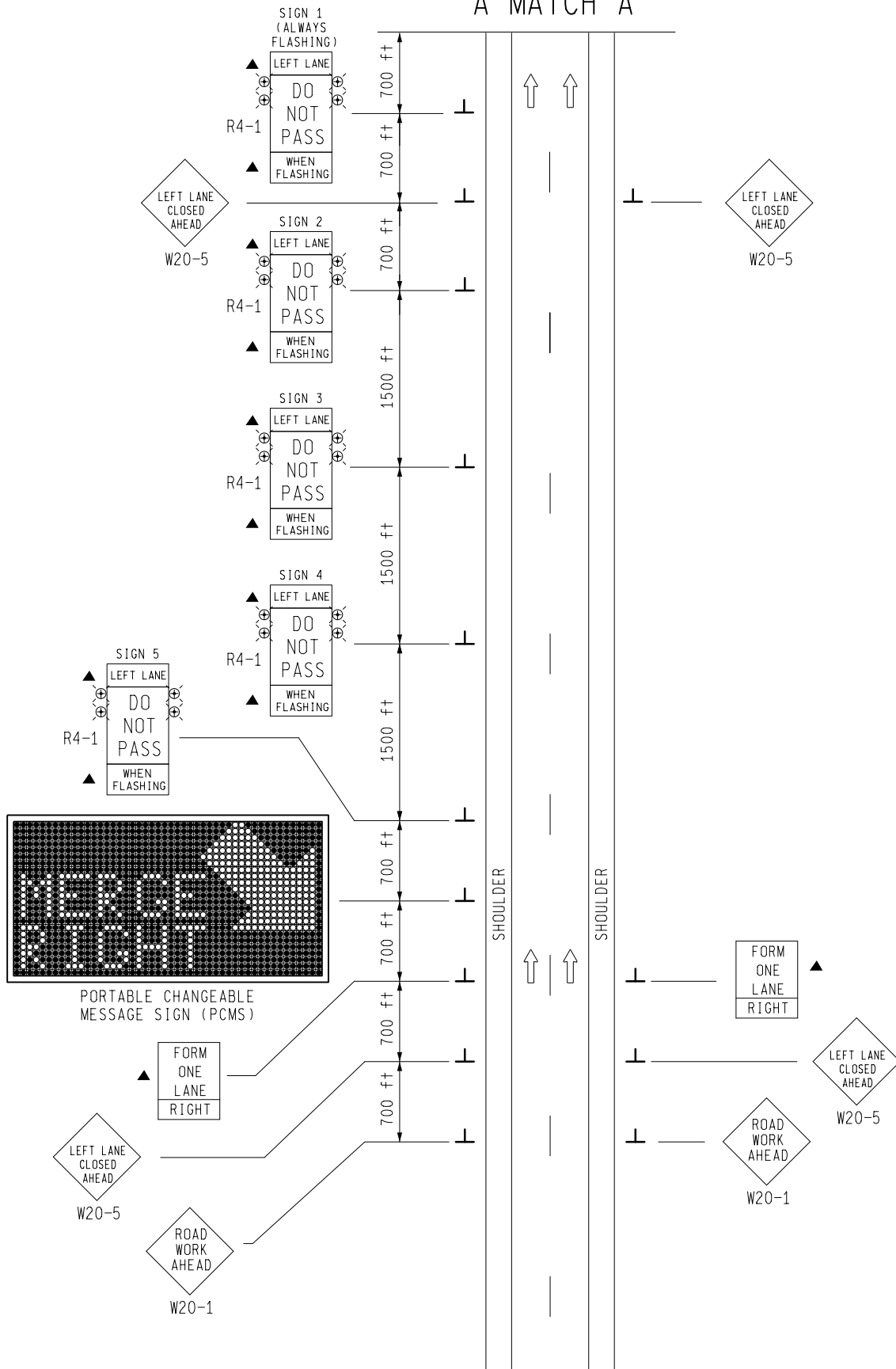
SHEET

1 OF 3

REV. 10/26/2011

NOT TO SCALE

A MATCH A



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A TWO-LANE
FREEWAY UTILIZING THE "DYNAMIC LANE
MERGE" SYSTEM USING A TRIPLE STEP
DOWN IN SPEED LIMIT

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M1110a

SHEET
2 OF 3

NOT TO SCALE

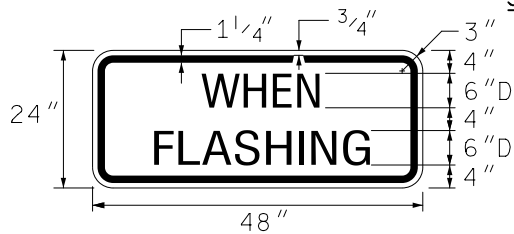
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1110a.dgn

REV. 10/26/2011

NOTES

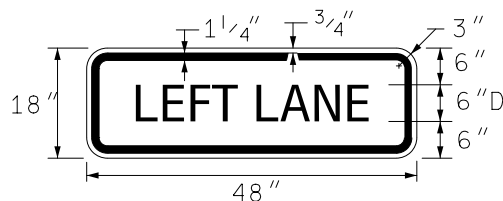
- 1P. L = MINIMUM LENGTH OF TAPER
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- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
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SIGN DETAILS



COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)

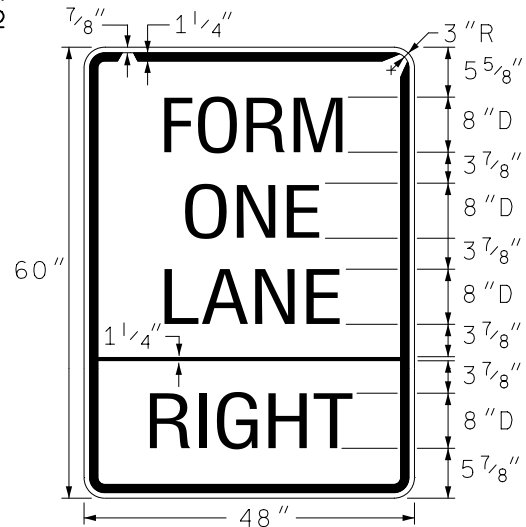


COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)

SIGN SIZES

DIAMOND WARNING - 48" x 48"
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"
SIGN DETAILS - AS SHOWN



COLORS

LEGEND & BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1110a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A TWO-LANE
FREEWAY UTILIZING THE "DYNAMIC LANE
MERGE" SYSTEM USING A TRIPLE STEP
DOWN IN SPEED LIMIT

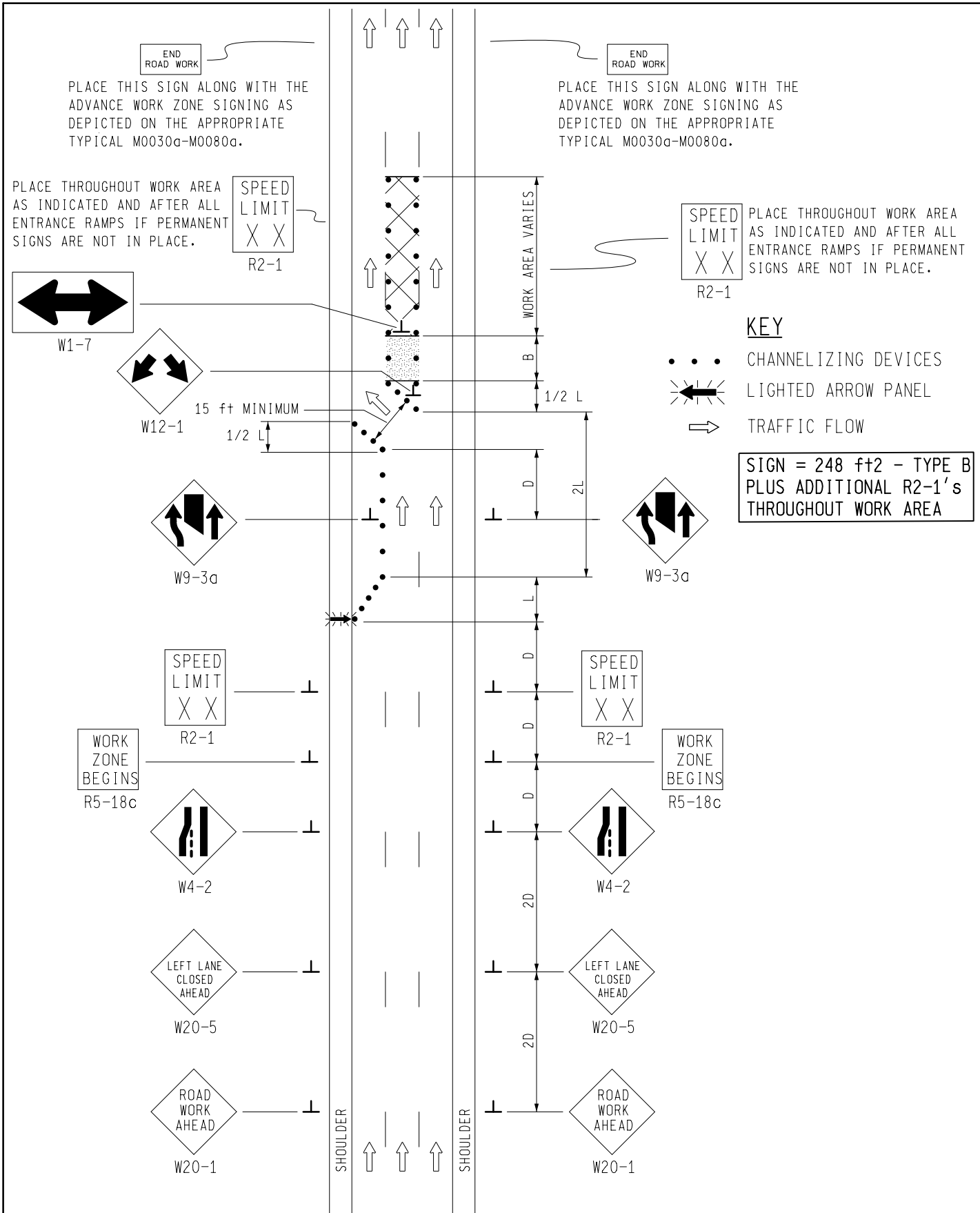
OCTOBER 2011
PLAN DATE:

M1110a

SHEET
3 OF 3

REV. 10/26/2011

NOT TO SCALE



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1120a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A CENTER LANE CLOSURE ON A
FREEWAY, NO SPEED REDUCTION

OCTOBER 2011

PLAN DATE:

M1120a

SHEET

1 OF 2

REV. 10/26/2011


NOTES

- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
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6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 25B. THIS SEQUENCE SHOULD ONLY BE USED WHEN WORKERS ARE NOT PRESENT, E.G., FOR CURING CONCRETE OVERNIGHT, ETC. WHEN WORK IS BEING CONDUCTED IN THE CENTER LANE, AN ADJACENT LANE, NORMALLY THE MEDIAN LANE, SHOULD ALSO BE CLOSED UTILIZING THE APPROPRIATE TYPICAL SIGNING SEQUENCE.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.
- 27A. WHEN THE CENTER LANE CLOSURE OCCURS WITHIN CLOSE PROXIMITY TO, OR EXTENDS THROUGH INTERCHANGES, INFORMATIONAL SIGNING SHOULD BE USED IN ADVANCE OF THE LANE CLOSURE TO DIRECT TRAFFIC TO THE APPROPRIATE LANE FOR ACCESS TO THE INTERCHANGE RAMPS.

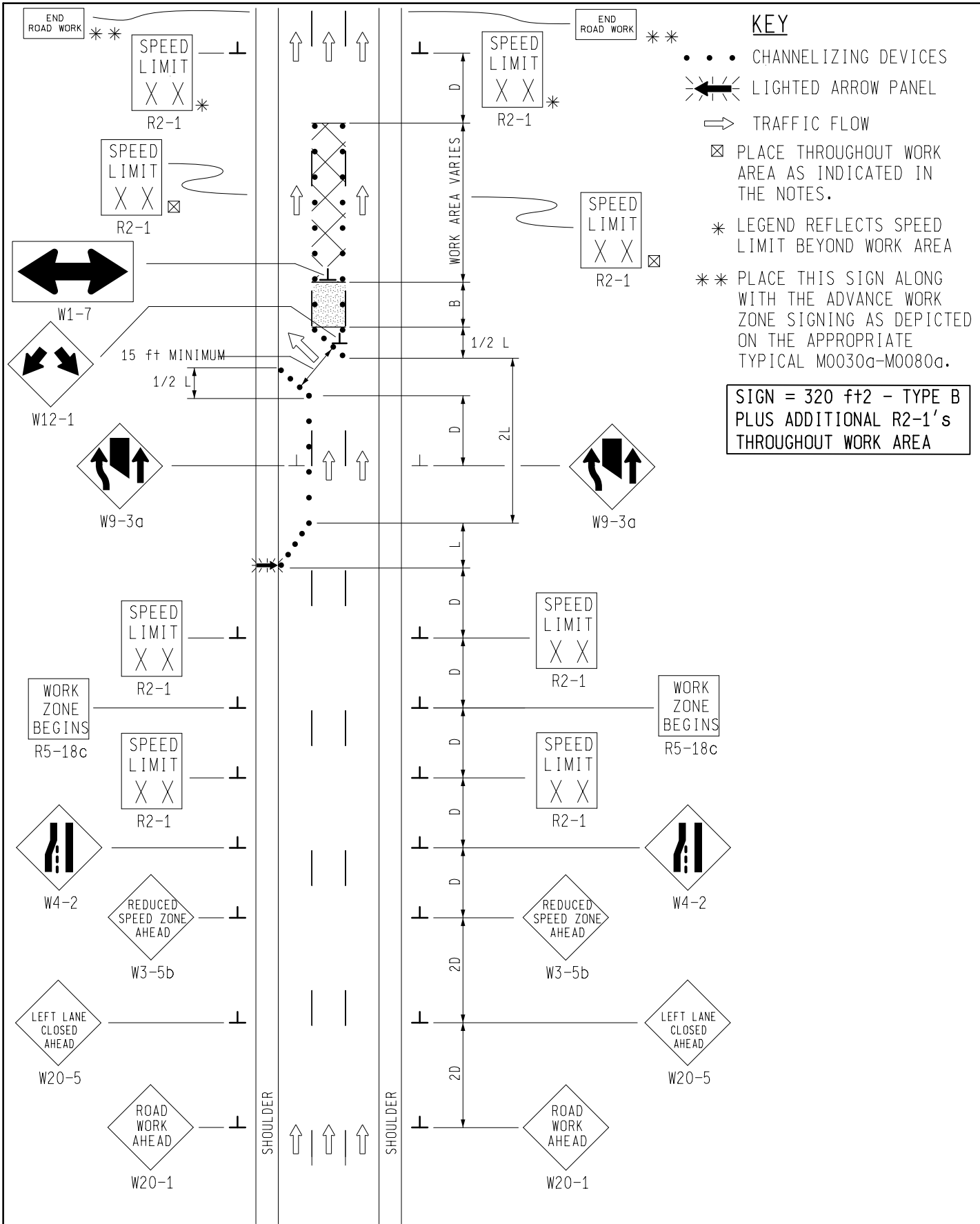
SIGN SIZES

DIAMOND WARNING - 48" x 48"
W1-7 WARNING - 96" x 48"
R2-1 REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A CENTER LANE CLOSURE ON A FREEWAY, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M1120a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1120a.dgn		REV.	10/26/2011

SHEET
2 OF 2



<p>Michigan Department of Transportation</p> <p>TRAFFIC AND SAFETY</p> <p>MAINTAINING TRAFFIC</p> <p>TYPICAL</p>		<p>TYPICAL TEMPORARY TRAFFIC CONTROL</p> <p>FOR A CENTER-LANE CLOSURE ON A</p> <p>FREEWAY USING A SINGLE STEP DOWN</p> <p>IN SPEED LIMIT</p>	
<p>DRAWN BY: CON:AE:djf</p> <p>CHECKED BY: BMM:CRB</p> <p>FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1130a.dgn</p>		<p>OCTOBER 2011</p> <p>PLAN DATE:</p>	<p>M1130a</p> <p>SHEET 1 OF 2</p>
<p>REV. 10/26/2011</p>			

NOT TO SCALE


NOTES

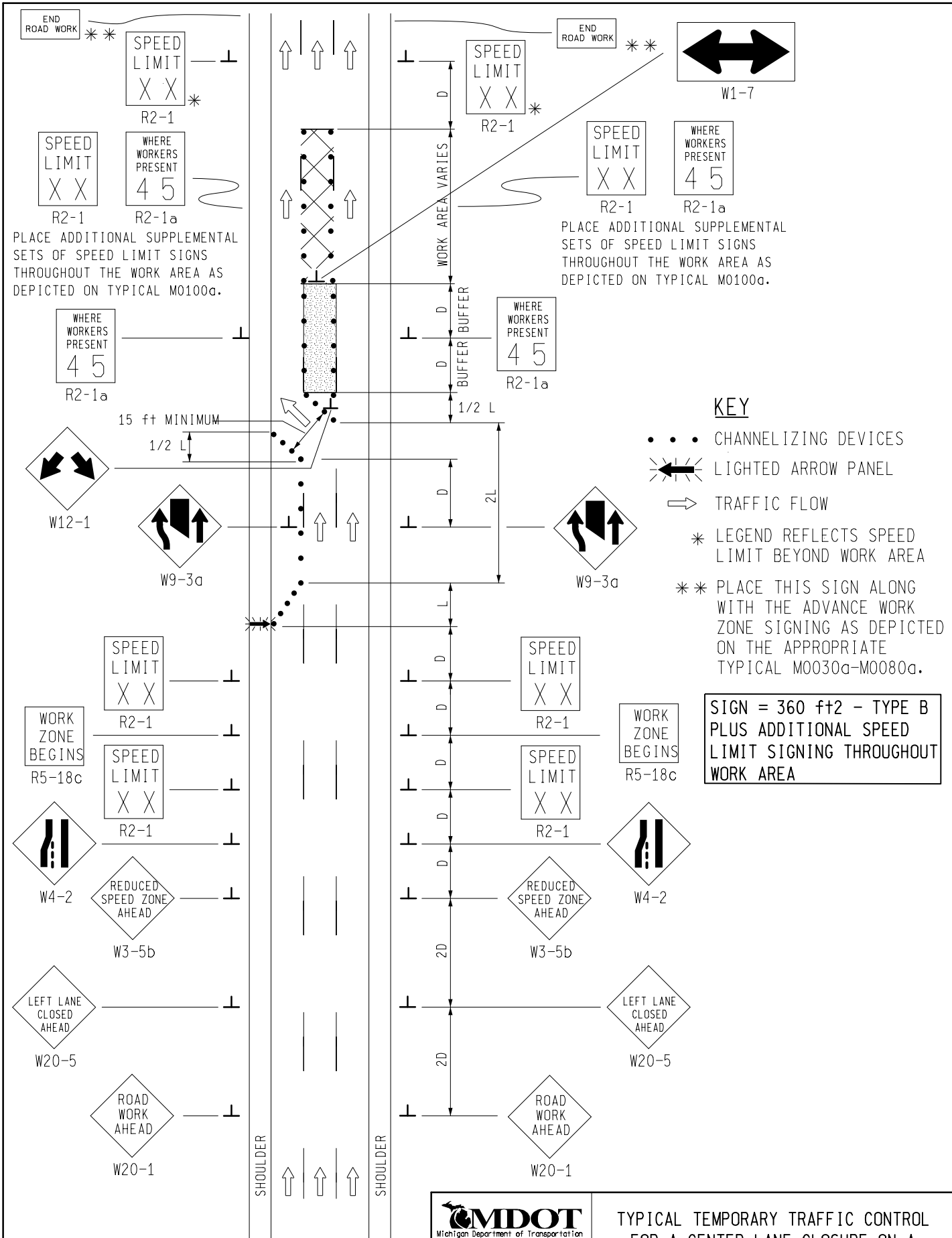
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- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
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SIGN SIZES

DIAMOND WARNING	- 48" x 48"
W1-7 WARNING	- 96" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A CENTER-LANE CLOSURE ON A FREEWAY USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1130a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1130a.dgn		REV. 10/26/2011	



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1140a.dgn

**TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A CENTER-LANE CLOSURE ON A
FREEWAY USING A REDUCED SPEED LIMIT
WHERE WORKERS PRESENT**

OCTOBER 2011

PLAN DATE:

M1140a

SHEET

1 OF 2

REV. 10/26/2011


NOTES

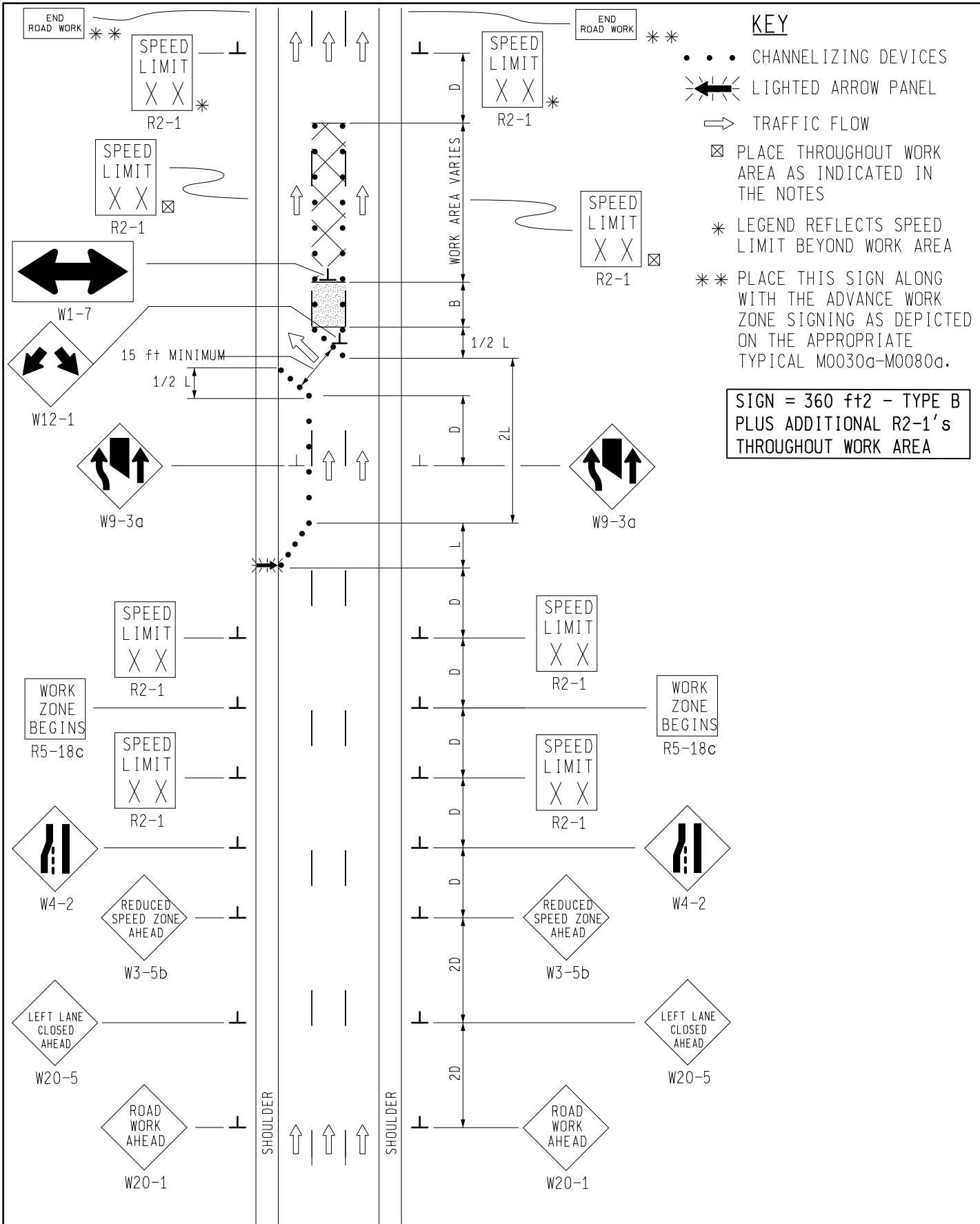
- 1K. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L & 1/2 L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 25B. THIS SEQUENCE SHOULD ONLY BE USED WHEN WORKERS ARE NOT PRESENT, E.G., FOR CURING CONCRETE OVERNIGHT, ETC. WHEN WORK IS BEING CONDUCTED IN THE CENTER LANE, AN ADJACENT LANE, NORMALLY THE MEDIAN LANE, SHOULD ALSO BE CLOSED UTILIZING THE APPROPRIATE TYPICAL SIGNING SEQUENCE.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.
- 27A. WHEN THE CENTER LANE CLOSURE OCCURS WITHIN CLOSE PROXIMITY TO, OR EXTENDS THROUGH INTERCHANGES, INFORMATIONAL SIGNING SHOULD BE USED IN ADVANCE OF THE LANE CLOSURE TO DIRECT TRAFFIC TO THE APPROPRIATE LANE FOR ACCESS TO THE INTERCHANGE RAMPS.

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
W1-7 WARNING	- 96" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A CENTER-LANE CLOSURE ON A FREEWAY USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1140a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1140a.dgn		REV. 10/26/2011	



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1150a.dgn

**TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A CENTER-LANE CLOSURE ON A
FREEWAY USING A DOUBLE STEP DOWN IN
SPEED LIMIT**

OCTOBER 2011

PLAN DATE:

M1150a

SHEET

1 OF 2

REV. 10/26/2011

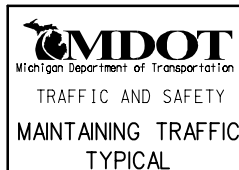
NOTES

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- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
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SIGN SIZES

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RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE



DRAWN BY: CON:AE:djf	OCTOBER 2011
CHECKED BY: BMM:CRB	PLAN DATE:

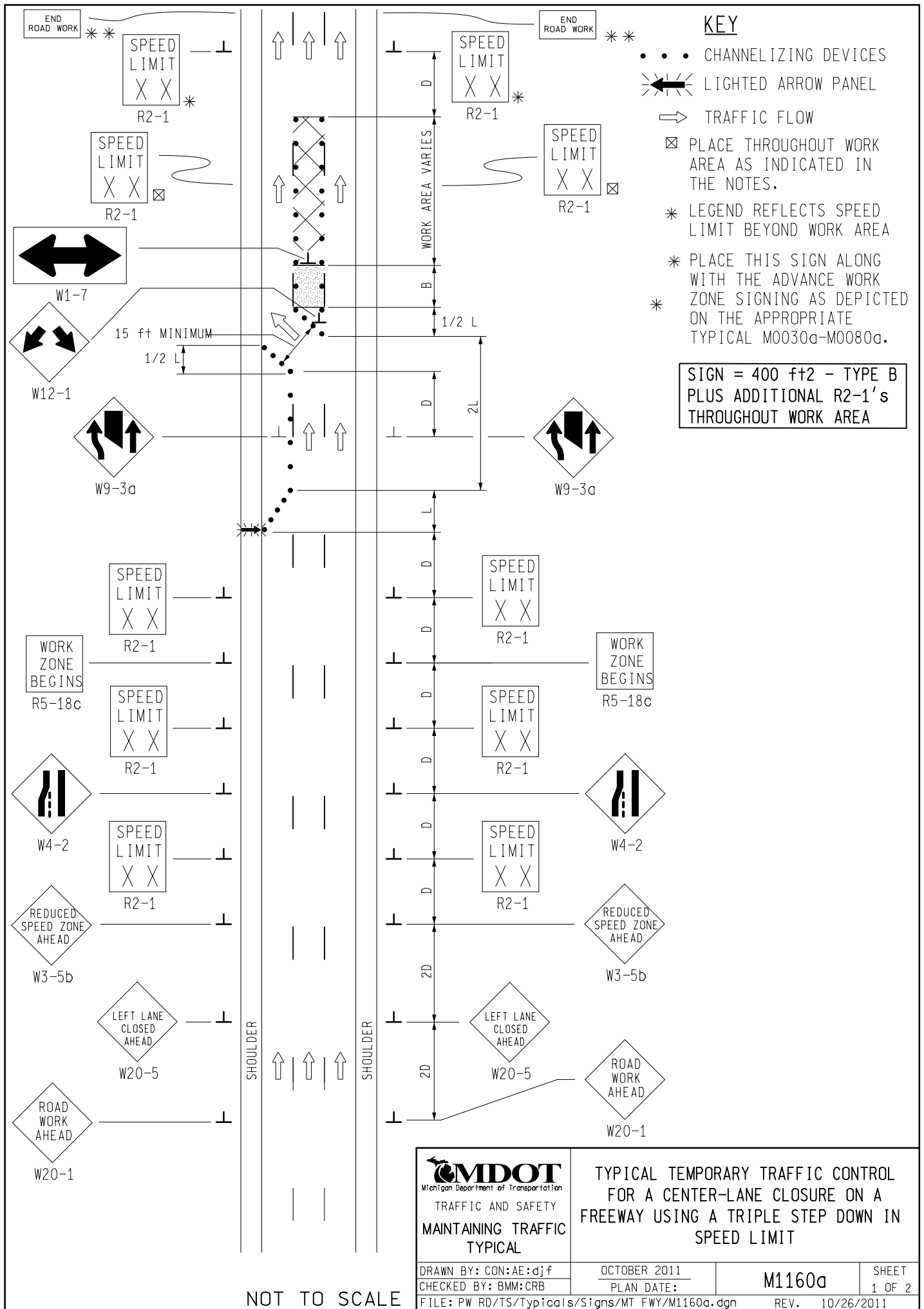
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1150a.dgn

**TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A CENTER-LANE CLOSURE ON A
FREEWAY USING A DOUBLE STEP DOWN IN
SPEED LIMIT**

M1150a

SHEET
2 OF 2

REV. 10/26/2011



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

**TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A CENTER-LANE CLOSURE ON A
FREEWAY USING A TRIPLE STEP DOWN IN
SPEED LIMIT**

OCTOBER 2011
PLAN DATE:

M1160a

SHEET
1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1160a.dgn

REV. 10/26/2011

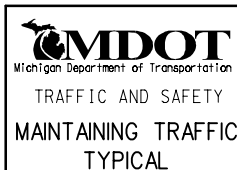
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SIGN SIZES

DIAMOND WARNING	- 48" x 48"
W1-7 WARNING	- 96" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A CENTER-LANE CLOSURE ON A
FREEWAY USING A TRIPLE STEP DOWN IN
SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1160a

SHEET
2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1160a.dgn

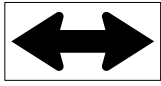
REV. 10/26/2011

END
ROAD WORK

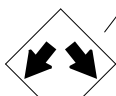
PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X
R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED AND AFTER ALL
ENTRANCE RAMP'S IF PERMANENT
SIGNS ARE NOT IN PLACE.



W1-7



W12-1



W9-3a

SPEED
LIMIT
X X
R2-1

R2-1

WORK
ZONE
BEGINS
R5-18c

R5-18c



W4-2

LEFT LANE
CLOSED
AHEAD
W20-5

W20-5

LEFT LANE
CLOSED
1 MILE
W20-5 (MODIFIED)

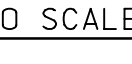
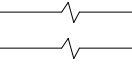
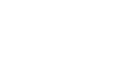
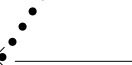
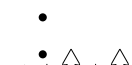
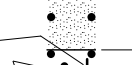
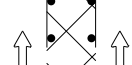
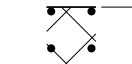
W20-5 (MODIFIED)

LEFT LANE
CLOSED
2 MILES
W20-5 (MODIFIED)

W20-5 (MODIFIED)



W20-1



END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X
R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED AND AFTER ALL
ENTRANCE RAMP'S IF PERMANENT
SIGNS ARE NOT IN PLACE.

KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW

SIGN = 312 ft±2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA



TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1170a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A CENTER-LANE CLOSURE
ON A FREEWAY, NO SPEED REDUCTION

OCTOBER 2011
PLAN DATE:

M1170a

SHEET
1 OF 2

REV. 10/26/2011

NOT TO SCALE


NOTES

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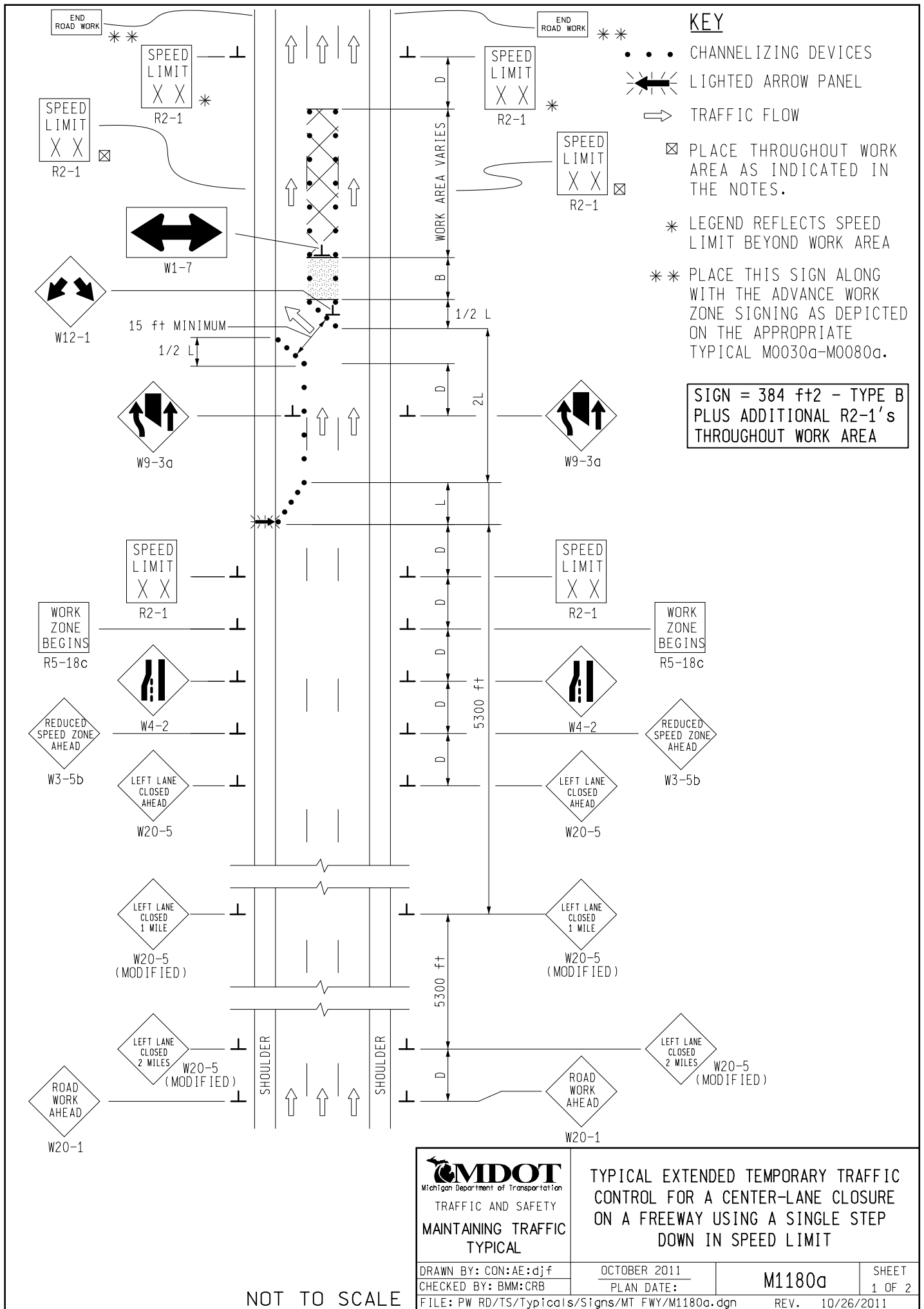
SIGN SIZES

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R2-1 REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A CENTER-LANE CLOSURE ON A FREEWAY, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M1170a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1170a.dgn		REV.	10/26/2011

SHEET
2 OF 2



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1180a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A CENTER-LANE CLOSURE ON A FREEWAY USING A SINGLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1180a

SHEET
1 OF 2

REV. 10/26/2011

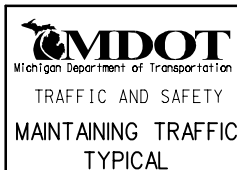
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- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 25B. THIS SEQUENCE SHOULD ONLY BE USED WHEN WORKERS ARE NOT PRESENT, E.G., FOR CURING CONCRETE OVERNIGHT, ETC. WHEN WORK IS BEING CONDUCTED IN THE CENTER LANE, AN ADJACENT LANE, NORMALLY THE MEDIAN LANE, SHOULD ALSO BE CLOSED UTILIZING THE APPROPRIATE TYPICAL SIGNING SEQUENCE.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.
- 27A. WHEN THE CENTER LANE CLOSURE OCCURS WITHIN CLOSE PROXIMITY TO, OR EXTENDS THROUGH INTERCHANGES, INFORMATIONAL SIGNING SHOULD BE USED IN ADVANCE OF THE LANE CLOSURE TO DIRECT TRAFFIC TO THE APPROPRIATE LANE FOR ACCESS TO THE INTERCHANGE RAMPS.

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
W1-7 WARNING	- 96" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE



TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A CENTER-LANE CLOSURE
ON A FREEWAY USING A SINGLE STEP
DOWN IN SPEED LIMIT

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M1180a

SHEET
2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1180a.dgn

REV. 10/26/2011

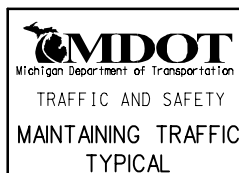
NOTES

- 1K. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L & 1/2 L = MINIMUM LENGTH OF TAPER
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- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
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- 27A. WHEN THE CENTER LANE CLOSURE OCCURS WITHIN CLOSE PROXIMITY TO, OR EXTENDS THROUGH INTERCHANGES, INFORMATIONAL SIGNING SHOULD BE USED IN ADVANCE OF THE LANE CLOSURE TO DIRECT TRAFFIC TO THE APPROPRIATE LANE FOR ACCESS TO THE INTERCHANGE RAMPS.

SIGN SIZES

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RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A CENTER-LANE CLOSURE
ON A FREEWAY USING A REDUCED SPEED
LIMIT WHERE WORKERS PRESENT

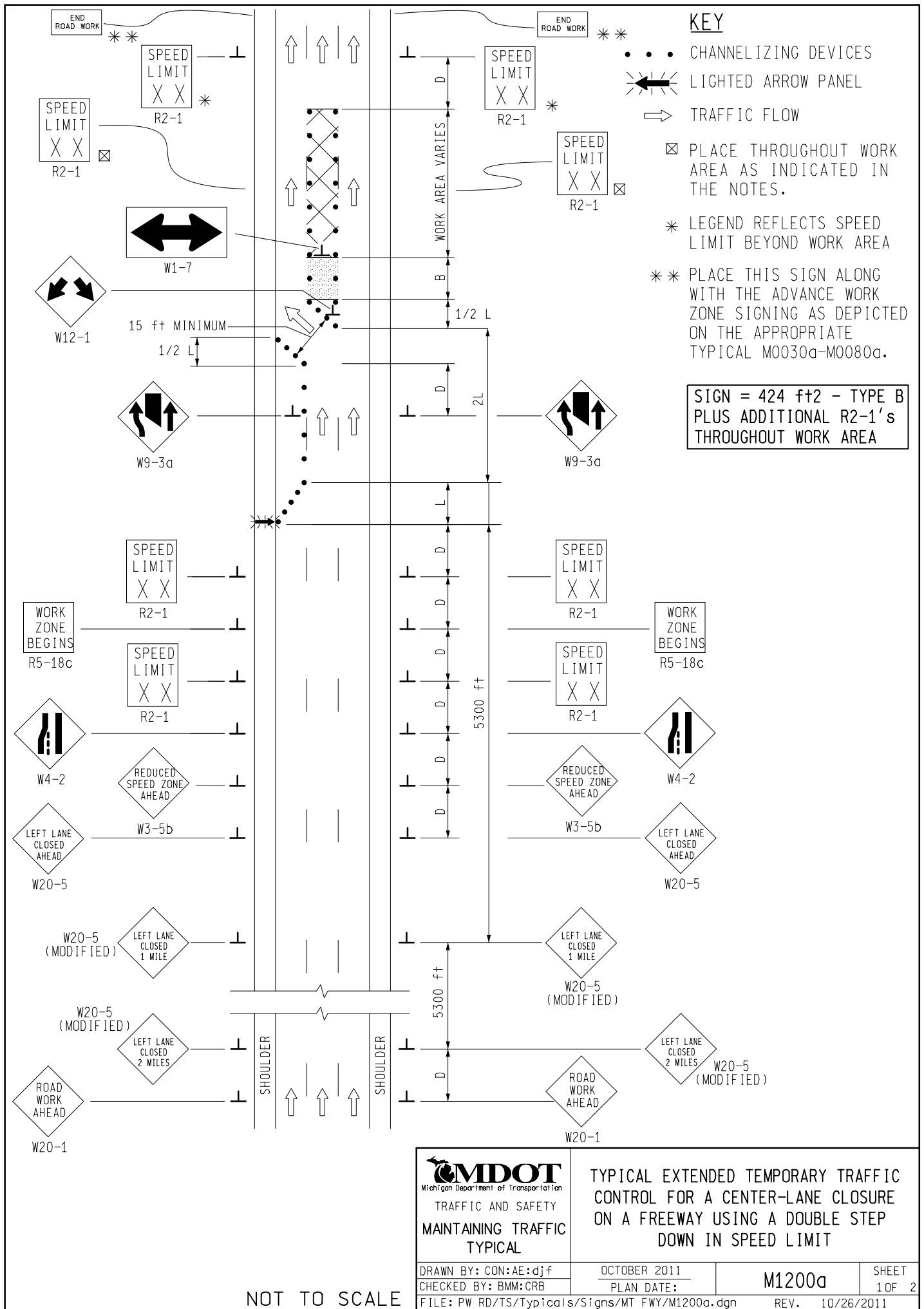
OCTOBER 2011
PLAN DATE:

M1190a

SHEET
2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1190a.dgn

REV. 10/26/2011



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1200a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A CENTER-LANE CLOSURE ON A FREEWAY USING A DOUBLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1200a

SHEET
1 OF 2

REV. 10/26/2011

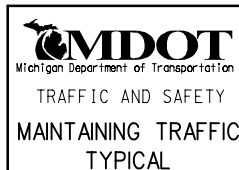
NOTES

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L & 1/2 L = MINIMUM LENGTH OF TAPER
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- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
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RECTANGULAR REGULATORY	- 48" x 60"
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NOT TO SCALE



TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A CENTER-LANE CLOSURE
ON A FREEWAY USING A DOUBLE STEP
DOWN IN SPEED LIMIT

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

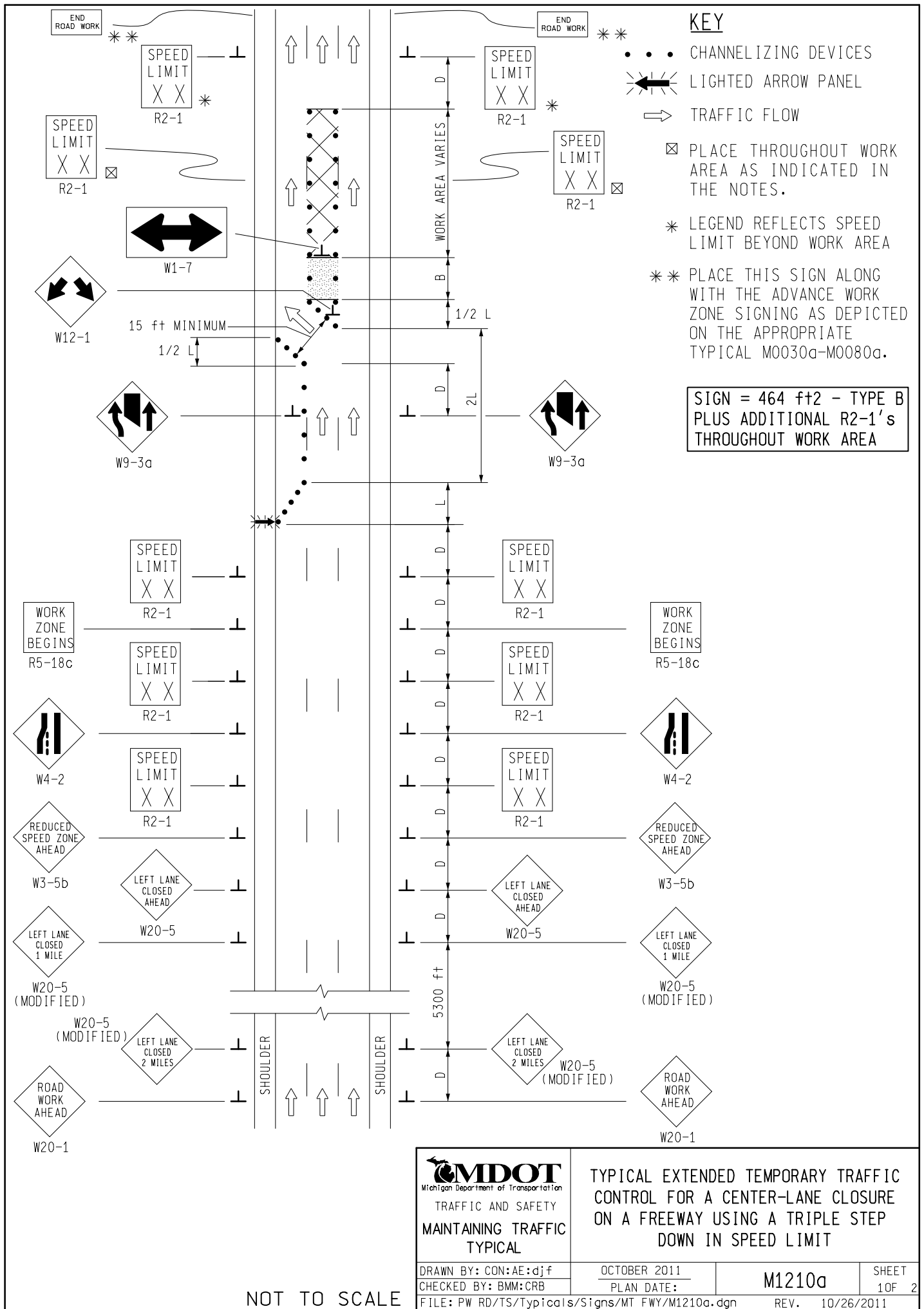
OCTOBER 2011
PLAN DATE:

M1200a

SHEET
2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1200a.dgn

REV. 10/26/2011



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A CENTER-LANE CLOSURE ON A FREEWAY USING A TRIPLE STEP DOWN IN SPEED LIMIT

DRAWN BY: CON:AE:djf

OCTOBER 2011

M1210a

SHEET 1 OF 2

CHECKED BY: BMM:CRB

PLAN DATE:

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1210a.dgn

REV. 10/26/2011

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SIGN SIZES

DIAMOND WARNING	- 48" x 48"
W1-7 WARNING	- 96" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE



TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A CENTER-LANE CLOSURE ON A FREEWAY USING A TRIPLE STEP DOWN IN SPEED LIMIT

DRAWN BY: CON:AE:djf	OCTOBER 2011	M1210a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1210a.dgn		REV. 10/26/2011	

END ROAD WORK

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

END ROAD WORK

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SPEED LIMIT XX

R2-1

PLACE THROUGHOUT WORK AREA AS INDICATED AND AFTER ALL ENTRANCE RAMP'S IF PERMANENT SIGNS ARE NOT IN PLACE.

SPEED LIMIT XX

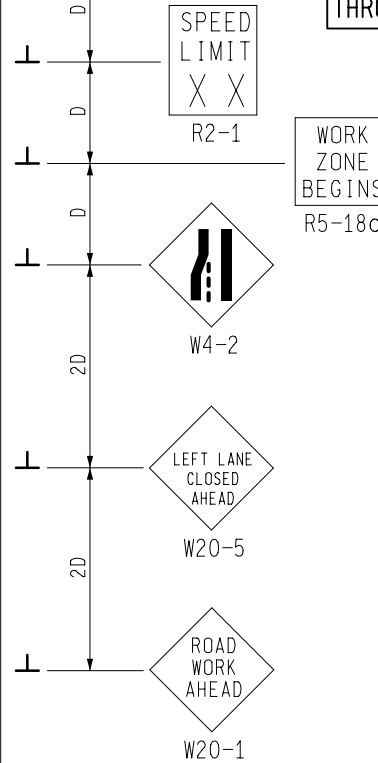
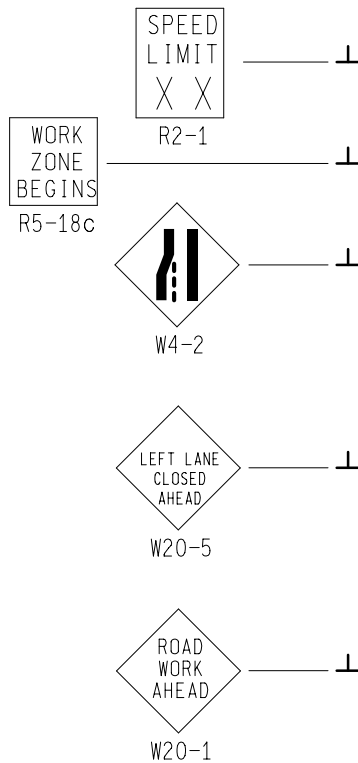
R2-1

PLACE THROUGHOUT WORK AREA AS INDICATED AND AFTER ALL ENTRANCE RAMP'S IF PERMANENT SIGNS ARE NOT IN PLACE.

KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW

SIGN = 200 ft ± 2 - TYPE B
TOTAL FOR BOTH STAGES
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A FREEWAY THAT
CAN BE CONVERTED TO A TWO-LANE
CLOSURE, NO SPEED REDUCTION

OCTOBER 2011
PLAN DATE:

M1220a

SHEET
1 OF 3

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1220a.dgn

REV. 10/26/2011

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X

R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED AND AFTER ALL
ENTRANCE RAMPs IF PERMANENT
SIGNS ARE NOT IN PLACE.

SPEED
LIMIT
X X

R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED AND AFTER ALL
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W4-2

SPEED
LIMIT
X X

R2-1

WORK
ZONE
BEGINS
R5-18c



W4-2



W20-5a



W20-1

SHOULDER

SHOULDER

WORK AREA VARIES

B

L

D

2L

L

D

D

D

D

2D

2D

SPEED
LIMIT
X X

R2-1

WORK
ZONE
BEGINS
R5-18c



W4-2



W20-5a



W20-1

KEY



CHANNELIZING DEVICES



LIGHTED ARROW PANEL



TRAFFIC FLOW

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1220a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A FREEWAY THAT
CAN BE CONVERTED TO A TWO-LANE
CLOSURE, NO SPEED REDUCTION

OCTOBER 2011

PLAN DATE:

M1220a

SHEET

2 OF 3

REV. 10/26/2011


NOT TO SCALE

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R2-1 REGULATORY - 48" x 60"
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 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY THAT CAN BE CONVERTED TO A TWO-LANE CLOSURE, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M1220a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1220a.dgn		REV.	10/26/2011

NOT TO SCALE

END
ROAD WORK

**

SPEED
LIMIT
X X

R2-1

SPEED
LIMIT
X X

R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.

END
ROAD WORK

**

SPEED
LIMIT
X X

R2-1

SPEED
LIMIT
X X

R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.

KEY



CHANNELIZING DEVICES



LIGHTED ARROW PANEL



TRAFFIC FLOW

*

LEGEND REFLECTS SPEED
LIMIT BEYOND WORK AREA

**

PLACE THIS SIGN ALONG
WITH THE ADVANCE WORK
ZONE SIGNING AS DEPICTED
ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SIGN = 304 ft² - TYPE B
TOTAL FOR BOTH STAGES
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA

WORK
ZONE
BEGINS
R5-18c

SPEED
LIMIT
X X

R2-1



W4-2



W3-5b



W20-5



W20-1

SHOULDER



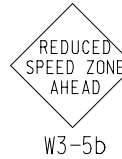
SHOULDER

SPEED
LIMIT
X X

R2-1



W4-2



W3-5b



W20-5



W20-1



TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1230a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A FREEWAY THAT
CAN BE CONVERTED TO A TWO-LANE
CLOSURE USING A SINGLE STEP DOWN IN
SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1230a

SHEET

1 OF 3

REV. 10/26/2011

NOT TO SCALE

END
ROAD WORK

SPEED
LIMIT
X X
R2-1

END
ROAD WORK

SPEED
LIMIT
X X
R2-1

SPEED
LIMIT
X X
R2-1

KEY



CHANNELIZING DEVICES



LIGHTED ARROW PANEL



TRAFFIC FLOW



LEGEND REFLECTS SPEED
LIMIT BEYOND WORK AREA



PLACE THIS SIGN ALONG
WITH THE ADVANCE WORK
ZONE SIGNING AS DEPICTED
ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



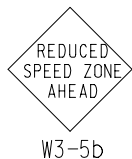
W4-2

SPEED
LIMIT
X X
R2-1

WORK
ZONE
BEGINS
R5-18c



W4-2



W3-5b



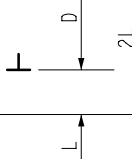
W20-5a



W20-1

SHOULDER

SHOULDER



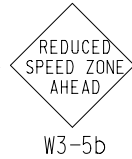
W4-2

SPEED
LIMIT
X X
R2-1

WORK
ZONE
BEGINS
R5-18c



W4-2



W3-5b



W20-5a



W20-1



Michigan Department of Transportation

TRAFFIC AND SAFETY

MAINTAINING TRAFFIC

TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1230a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A TWO-LANE CLOSURE ON A FREEWAY
CONVERTED FROM A ONE-LANE CLOSURE
USING A SINGLE STEP DOWN IN
SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1230a

SHEET

2 OF 3

REV. 10/26/2011

NOT TO SCALE


NOTES

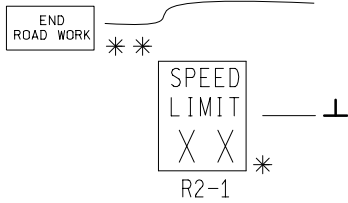
- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

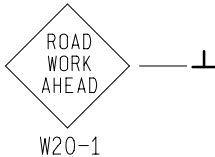
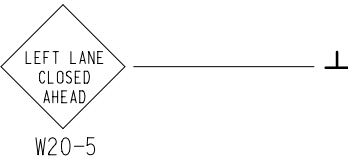
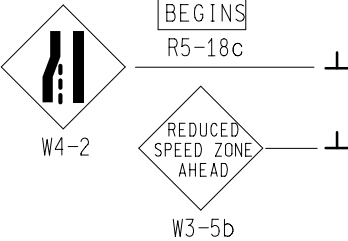
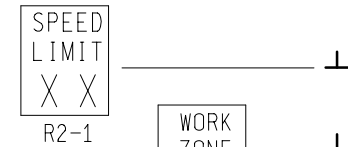
DIAMOND WARNING	- 48" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

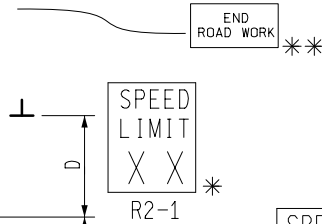
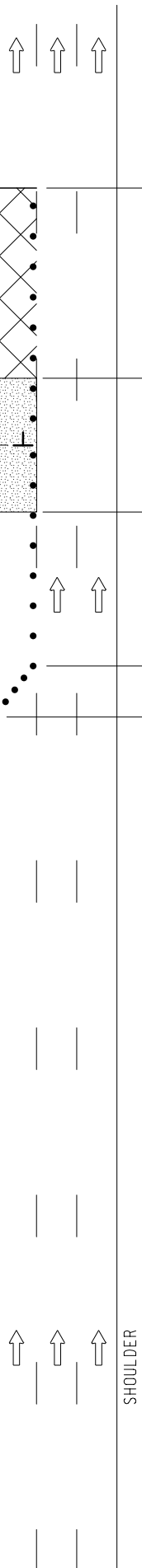
 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY THAT CAN BE CONVERTED TO A TWO-LANE CLOSURE USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1230a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1230a.dgn		REV. 10/26/2011	



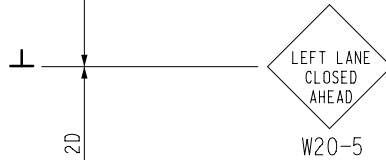
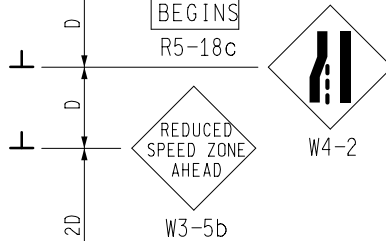
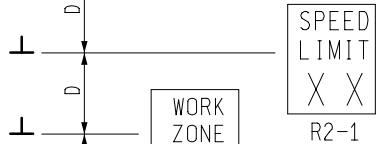
PLACE ADDITIONAL SUPPLEMENTAL SETS OF SPEED LIMIT SIGNS THROUGHOUT THE WORK AREA AS DEPICTED ON TYPICAL M0100a.



SHOULDER



PLACE ADDITIONAL SUPPLEMENTAL SETS OF SPEED LIMIT SIGNS THROUGHOUT THE WORK AREA AS DEPICTED ON TYPICAL M0100a.



SHOULDER

KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 344 f+2 - TYPE B
TOTAL FOR BOTH STAGES
PLUS ADDITIONAL SPEED
LIMIT SIGNING THROUGHOUT
WORK AREA

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A FREEWAY THAT
CAN BE CONVERTED TO A TWO-LANE
CLOSURE USING A REDUCED SPEED
LIMIT WHERE WORKERS PRESENT

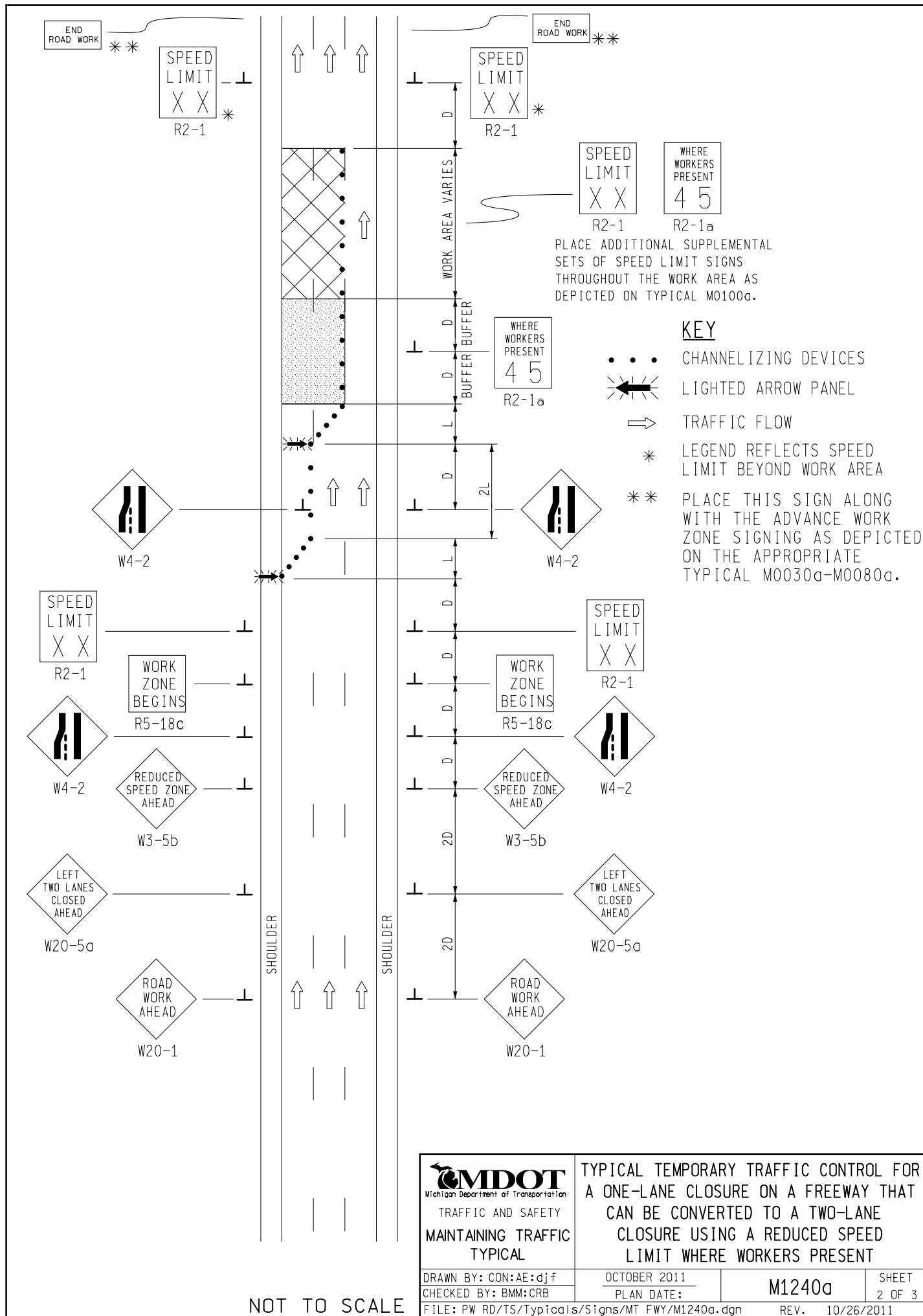
OCTOBER 2011
PLAN DATE:

M1240a

SHEET
1 OF 3

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1240a.dgn

REV. 10/26/2011



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1240a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A FREEWAY THAT
CAN BE CONVERTED TO A TWO-LANE
CLOSURE USING A REDUCED SPEED
LIMIT WHERE WORKERS PRESENT

OCTOBER 2011

PLAN DATE:

M1240a

SHEET

2 OF 3

REV. 10/26/2011

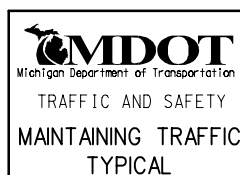
NOTES

11. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A FREEWAY THAT
CAN BE CONVERTED TO A TWO-LANE
CLOSURE USING A REDUCED SPEED
LIMIT WHERE WORKERS PRESENT

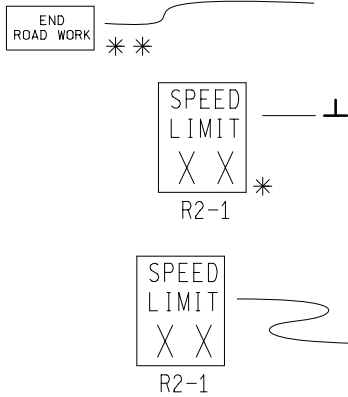
OCTOBER 2011
PLAN DATE:

M1240a

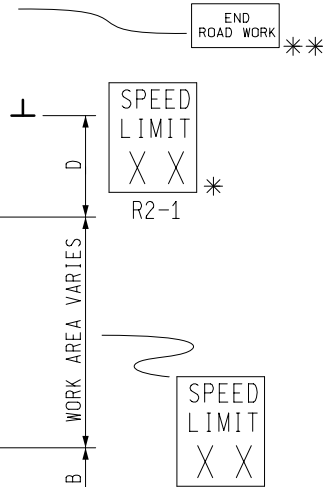
SHEET
3 OF 3

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1240a.dgn

REV. 10/26/2011



PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.

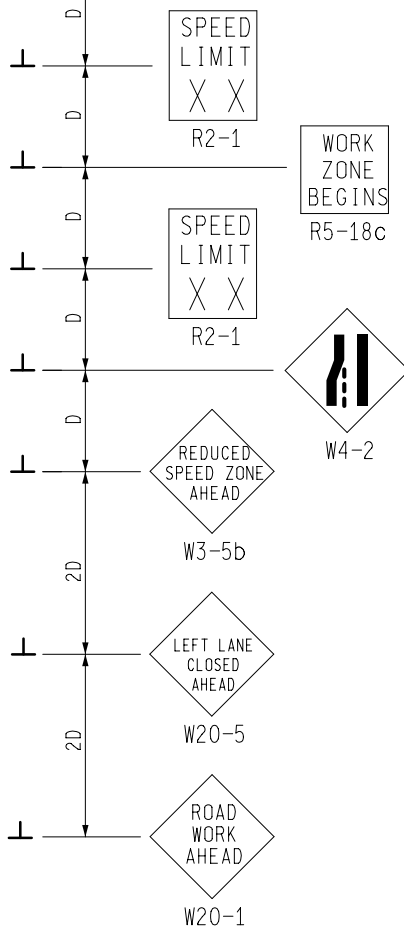
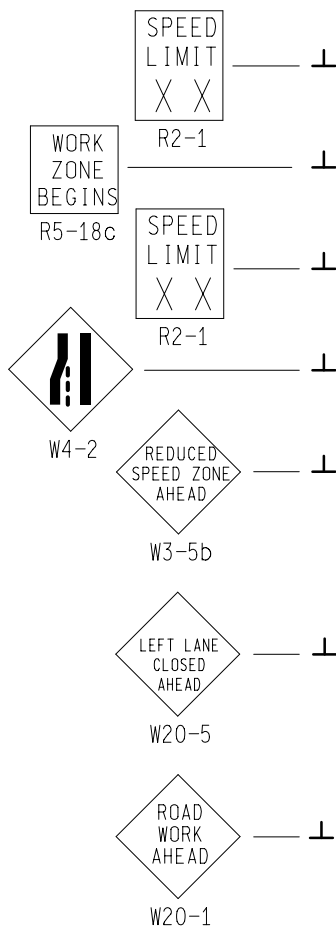


PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.

KEY

- • • CHANNELIZING DEVICES
- ⬅️ LIGHTED ARROW PANEL
- ➡️ TRAFFIC FLOW
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 344 ft² - TYPE B
TOTAL FOR BOTH STAGES
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1250a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A FREEWAY THAT
CAN BE CONVERTED TO A TWO-LANE
CLOSURE USING A DOUBLE STEP DOWN IN
SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1250a

SHEET

1 OF 3

REV. 10/26/2011

END
ROAD WORK

SPEED
LIMIT
X X
R2-1

END
ROAD WORK

SPEED
LIMIT
X X
R2-1

KEY



CHANNELIZING DEVICES



LIGHTED ARROW PANEL



TRAFFIC FLOW



LEGEND REFLECTS SPEED
LIMIT BEYOND WORK AREA



PLACE THIS SIGN ALONG
WITH THE ADVANCE WORK
ZONE SIGNING AS DEPICTED
ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



SPEED
LIMIT
X X
R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.



W4-2



W4-2

SPEED
LIMIT
X X
R2-1

SPEED
LIMIT
X X
R2-1

WORK
ZONE
BEGINS
R5-18c

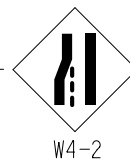
WORK
ZONE
BEGINS
R5-18c

SPEED
LIMIT
X X
R2-1

SPEED
LIMIT
X X
R2-1



W4-2



W4-2



W3-5b



W3-5b



W20-5a



W20-5a



W20-1



W20-1

SHOULDER

SHOULDER

NOT TO SCALE



TRAFFIC AND SAFETY

MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1250a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A TWO-LANE CLOSURE ON A FREEWAY
CONVERTED FROM A ONE-LANE CLOSURE
USING A DOUBLE STEP DOWN IN
SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1250a

SHEET

2 OF 3

REV. 10/26/2011


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
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- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY THAT CAN BE CONVERTED TO A TWO-LANE CLOSURE USING A DOUBLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1250a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1250a.dgn		REV. 10/26/2011	

END
ROAD WORK

SPEED
LIMIT
X X

R2-1

SPEED
LIMIT
X X

R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.

WORK
ZONE
BEGINS
R5-18c

SPEED
LIMIT
X X

R2-1

SPEED
LIMIT
X X

R2-1

SPEED
LIMIT
X X

R2-1



W4-2



W3-5b



W20-5



W20-1

SHOULDER



SHOULDER

END
ROAD WORK

SPEED
LIMIT
X X

R2-1

SPEED
LIMIT
X X

R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.

END
ROAD WORK



KEY

CHANNELIZING DEVICES

LIGHTED ARROW PANEL

TRAFFIC FLOW

LEGEND REFLECTS SPEED
LIMIT BEYOND WORK AREA

PLACE THIS SIGN ALONG
WITH THE ADVANCE WORK
ZONE SIGNING AS DEPICTED
ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SIGN = 384 ft± - TYPE B
TOTAL FOR BOTH STAGES
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA



TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1260a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A ONE-LANE CLOSURE ON A FREEWAY THAT
CAN BE CONVERTED TO A TWO-LANE
CLOSURE USING A TRIPLE STEP DOWN IN
SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1260a

SHEET

1 OF 3

REV. 10/26/2011

NOT TO SCALE

END
ROAD WORK

SPEED
LIMIT
X X
R2-1

END
ROAD WORK

SPEED
LIMIT
X X
R2-1

KEY



CHANNELIZING DEVICES



LIGHTED ARROW PANEL



TRAFFIC FLOW



LEGEND REFLECTS SPEED
LIMIT BEYOND WORK AREA



PLACE THIS SIGN ALONG
WITH THE ADVANCE WORK
ZONE SIGNING AS DEPICTED
ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



W4-2

SPEED
LIMIT
X X
R2-1

WORK
ZONE
BEGINS
R5-18c



W4-2

SPEED
LIMIT
X X
R2-1



W3-5b

SPEED
LIMIT
X X
R2-1



W20-5a



W20-1

WORK AREA VARIES

SPEED
LIMIT
X X
R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.

D
B
L
D
2L
L
D
D
D
D
D
D
2D
2D



W4-2

SPEED
LIMIT
X X
R2-1

WORK
ZONE
BEGINS
R5-18c



W4-2

SPEED
LIMIT
X X
R2-1



W3-5b

SPEED
LIMIT
X X
R2-1



W20-5a



W20-1

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1260a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A TWO-LANE CLOSURE ON A FREEWAY
CONVERTED FROM A ONE-LANE CLOSURE
USING A TRIPLE STEP DOWN IN
SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1260a

SHEET

2 OF 3

REV. 10/26/2011


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY THAT CAN BE CONVERTED TO A TWO-LANE CLOSURE USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf		OCTOBER 2011	SHEET 3 OF 3
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1260a.dgn		M1260a	REV. 10/26/2011

END ROAD WORK

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.



R2-1

PLACE THROUGHOUT WORK AREA AS INDICATED AND AFTER ALL ENTRANCE RAMP'S IF PERMANENT SIGNS ARE NOT IN PLACE.

END ROAD WORK

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.



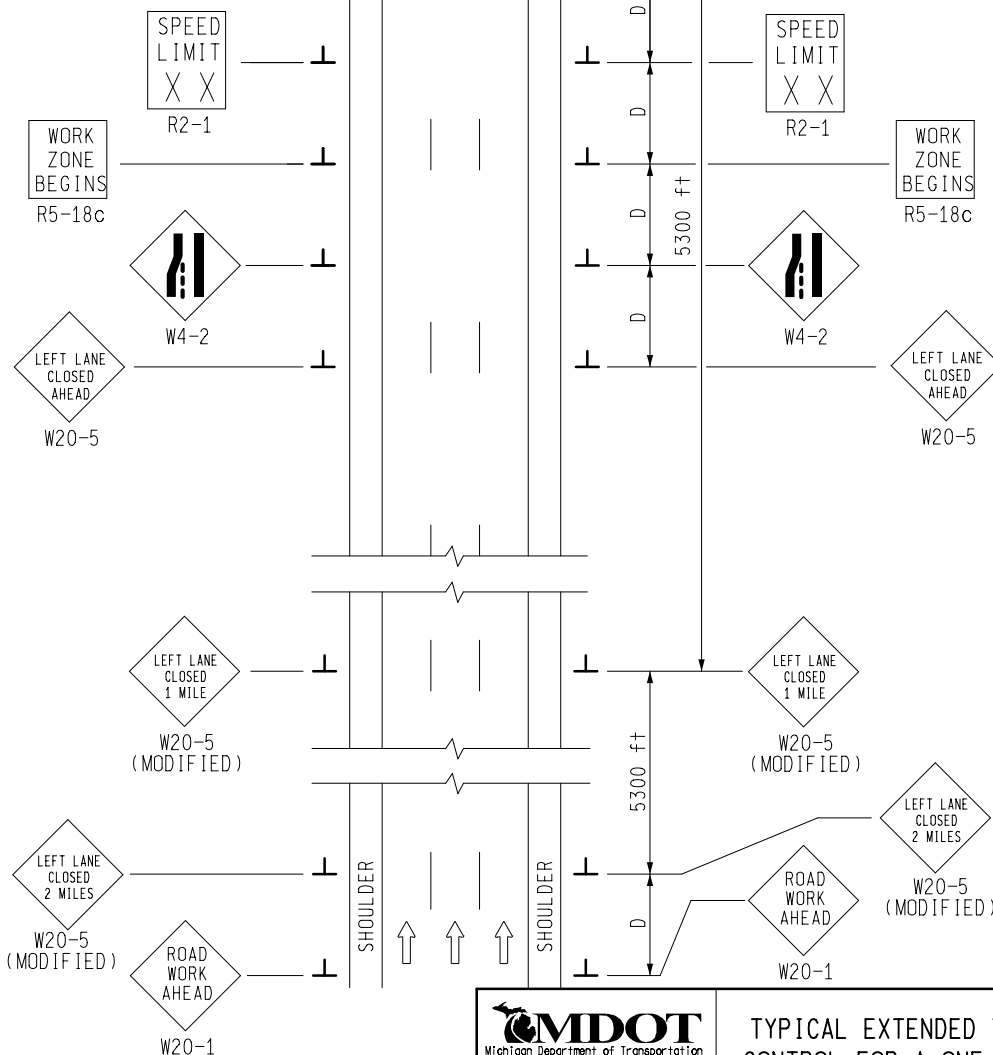
R2-1

PLACE THROUGHOUT WORK AREA AS INDICATED AND AFTER ALL ENTRANCE RAMP'S IF PERMANENT SIGNS ARE NOT IN PLACE.

KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW

SIGN = 360 ft± - TYPE B
TOTAL FOR BOTH STAGES
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY THAT CAN BE CONVERTED TO A TWO-LANE CLOSURE, NO SPEED REDUCTION

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M1270a

SHEET
1 OF 3

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1270a.dgn

REV. 10/26/2011

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

END
ROAD WORK

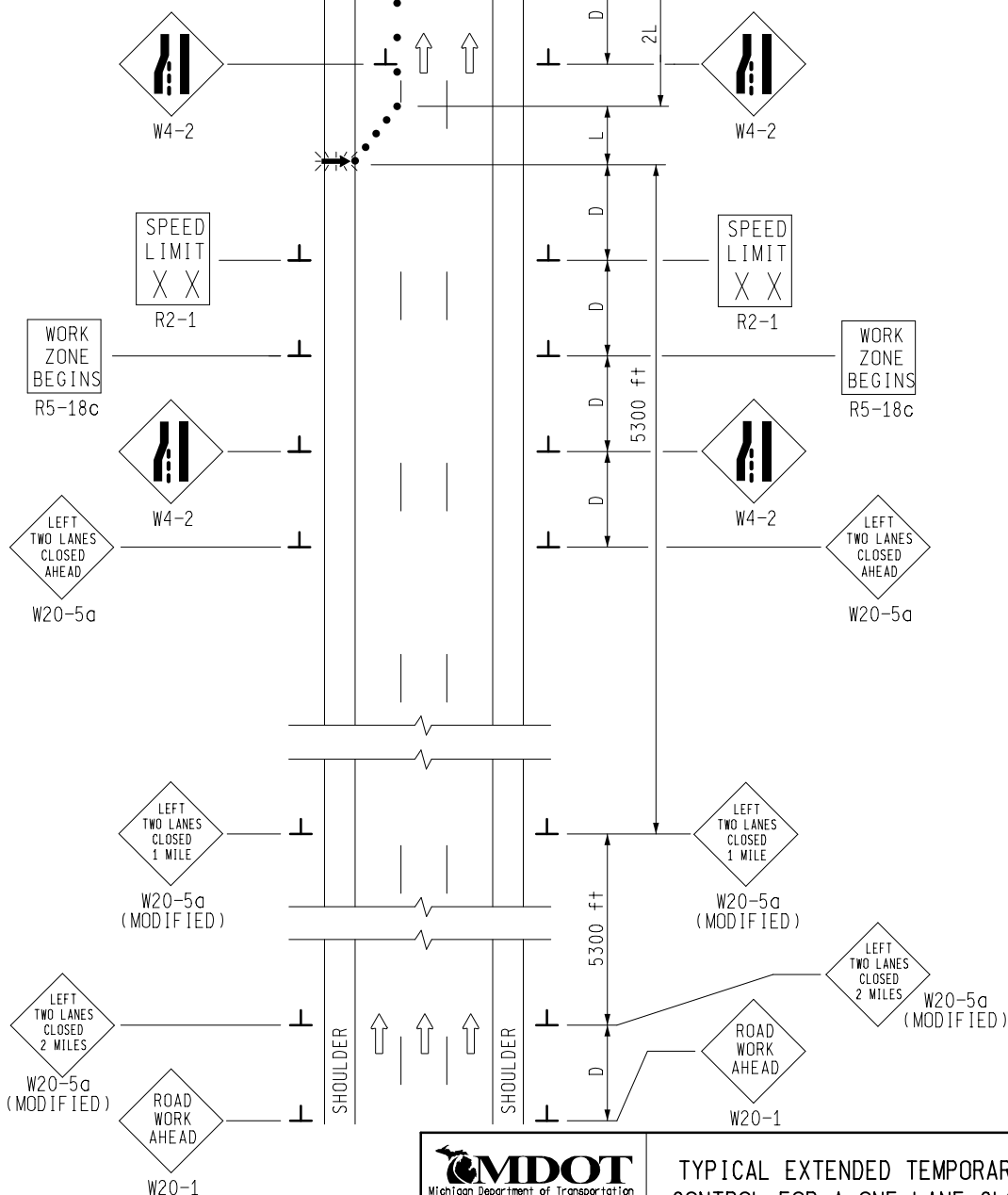
PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X
R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED AND AFTER ALL
ENTRANCE RAMP'S IF PERMANENT
SIGNS ARE NOT IN PLACE.

KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A ONE-LANE CLOSURE ON A
FREEWAY THAT CAN BE CONVERTED TO A
TWO-LANE CLOSURE, NO SPEED REDUCTION

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M1270a

SHEET
2 OF 3

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1270a.dgn

REV. 10/26/2011


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

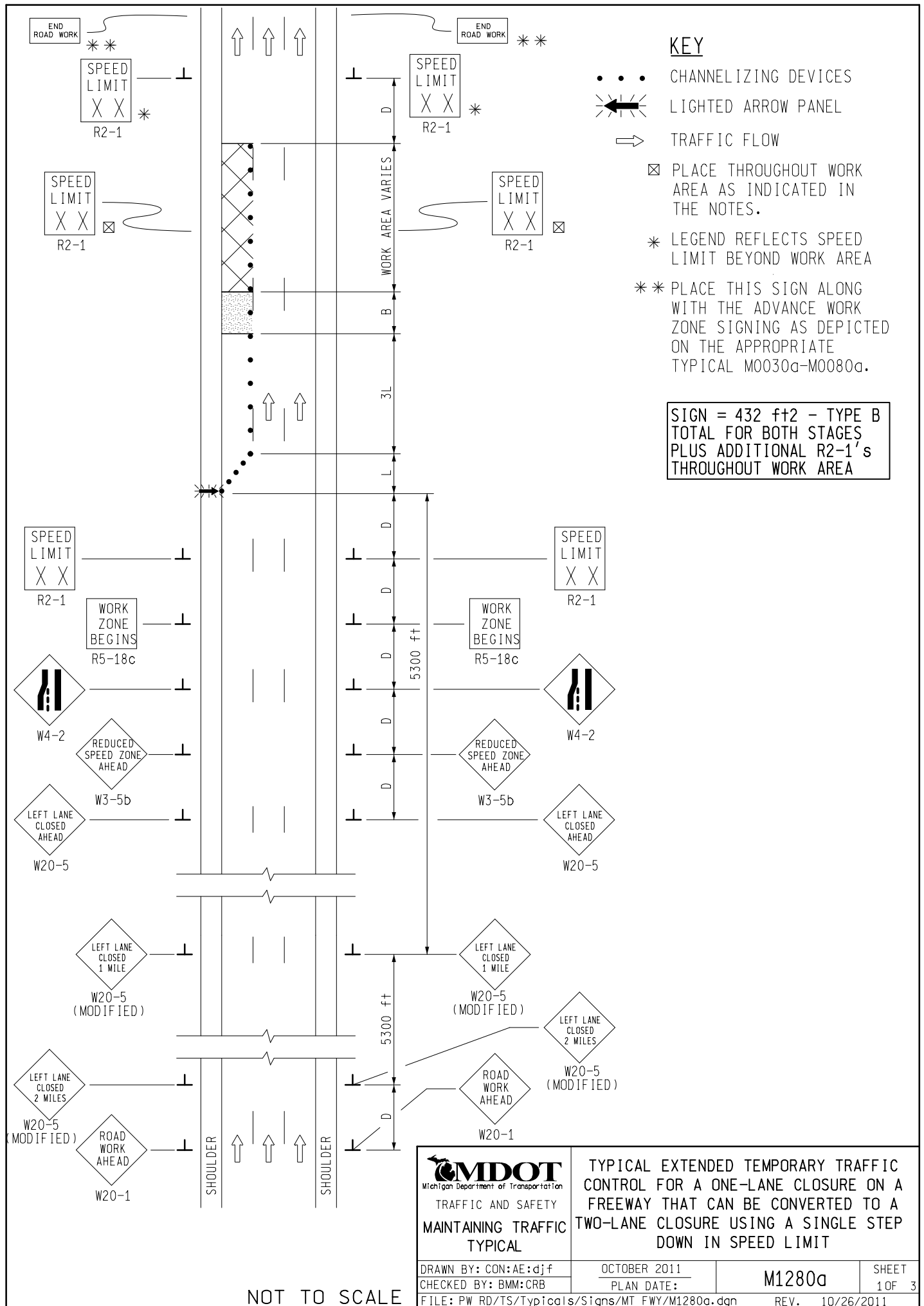
SIGN SIZES

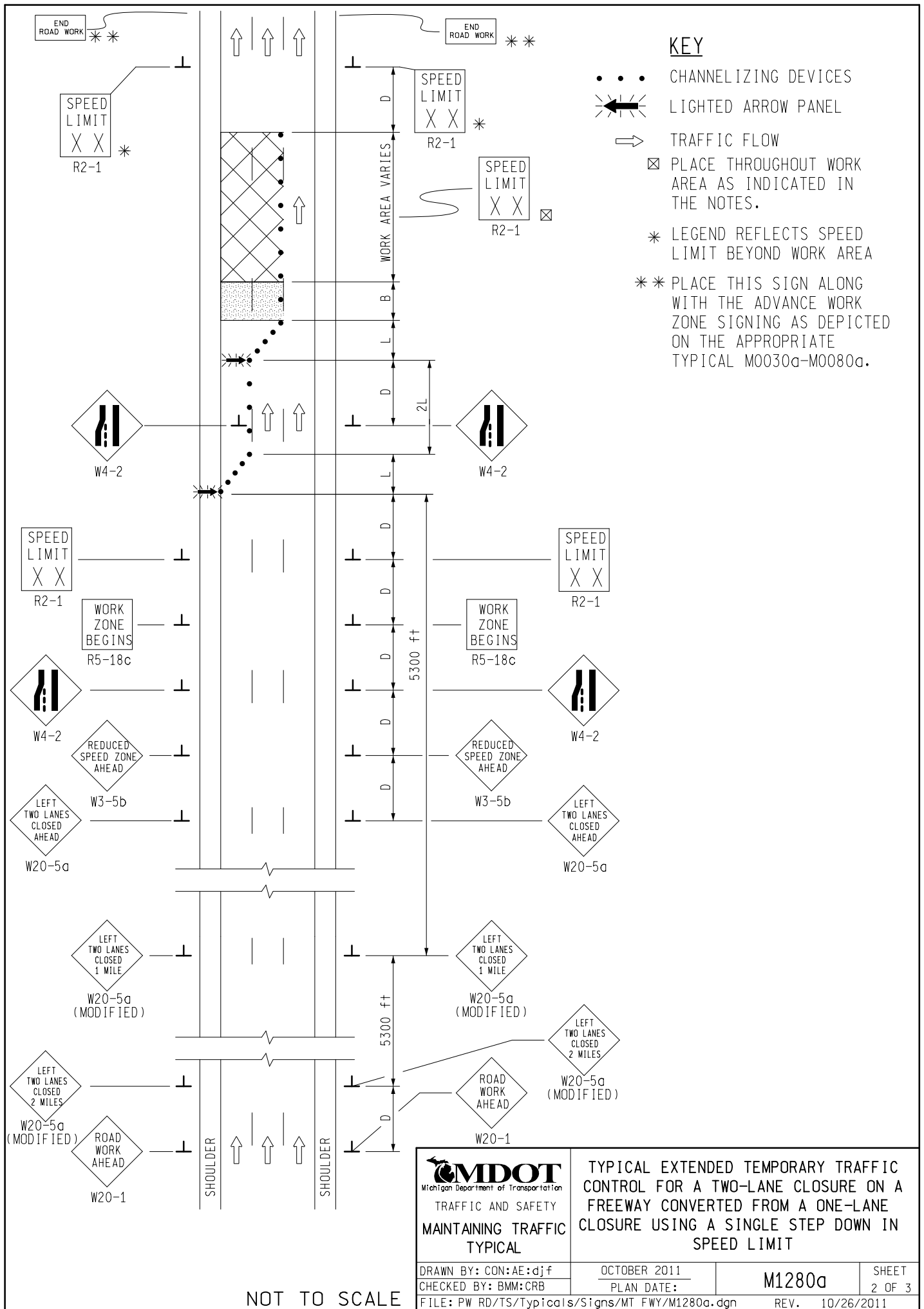
DIAMOND WARNING - 48" x 48"
R2-1 REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY THAT CAN BE CONVERTED TO A TWO-LANE CLOSURE, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M1270a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1270a.dgn		REV.	10/26/2011

SHEET
3 OF 3





MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1280a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY CONVERTED FROM A ONE-LANE CLOSURE USING A SINGLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1280a

SHEET

2 OF 3

REV. 10/26/2011


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY THAT CAN BE CONVERTED TO A TWO-LANE CLOSURE USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M1280a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1280a.dgn		REV.	10/26/2011

SHEET
3 OF 3


NOTES

11. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

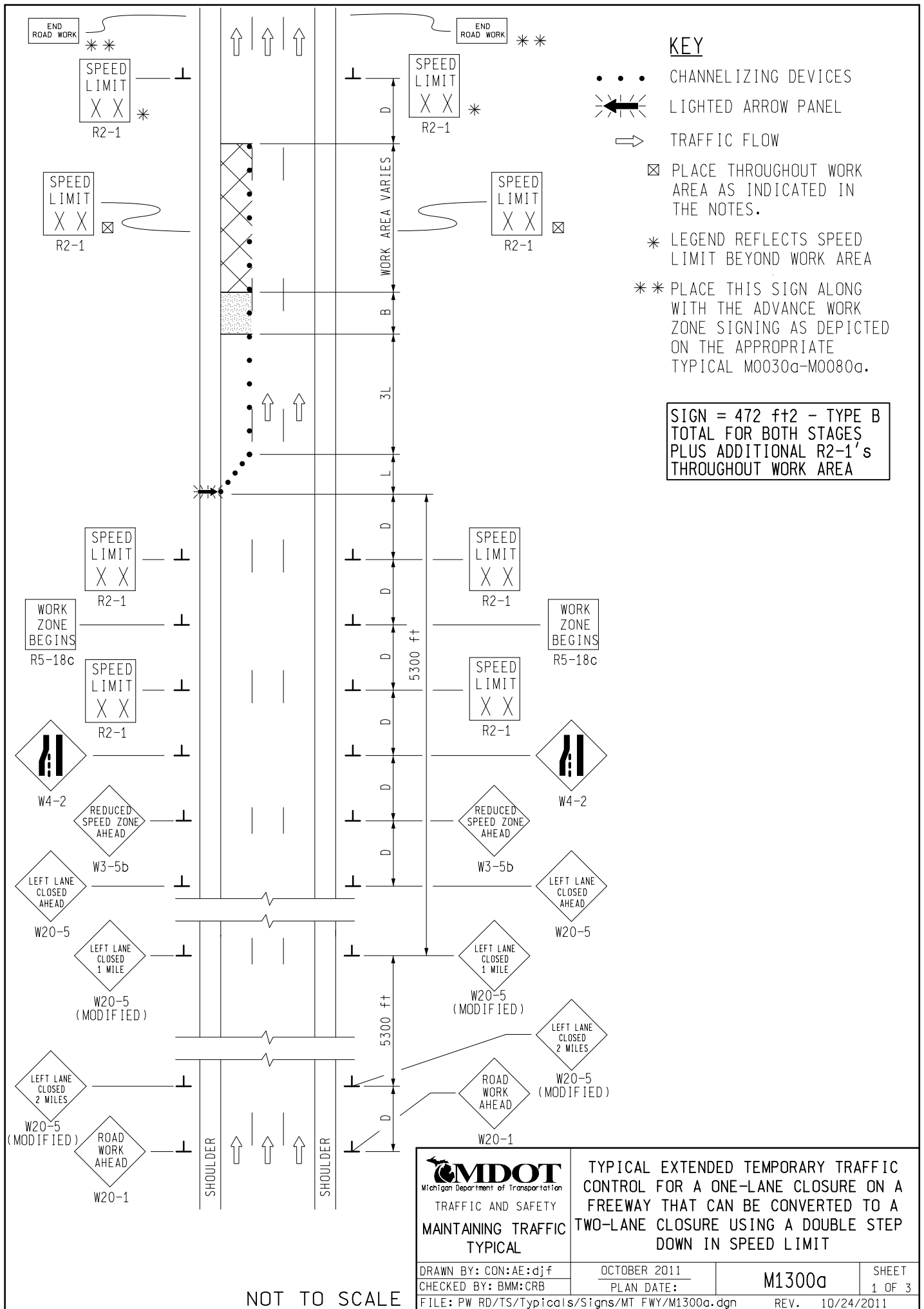
SIGN SIZES

DIAMOND WARNING - 48" x 48"
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY THAT CAN BE CONVERTED TO A TWO-LANE CLOSURE USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M1290a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1290a.dgn		REV.	10/26/2011

SHEET
3 OF 3



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY THAT CAN BE CONVERTED TO A TWO-LANE CLOSURE USING A DOUBLE STEP DOWN IN SPEED LIMIT

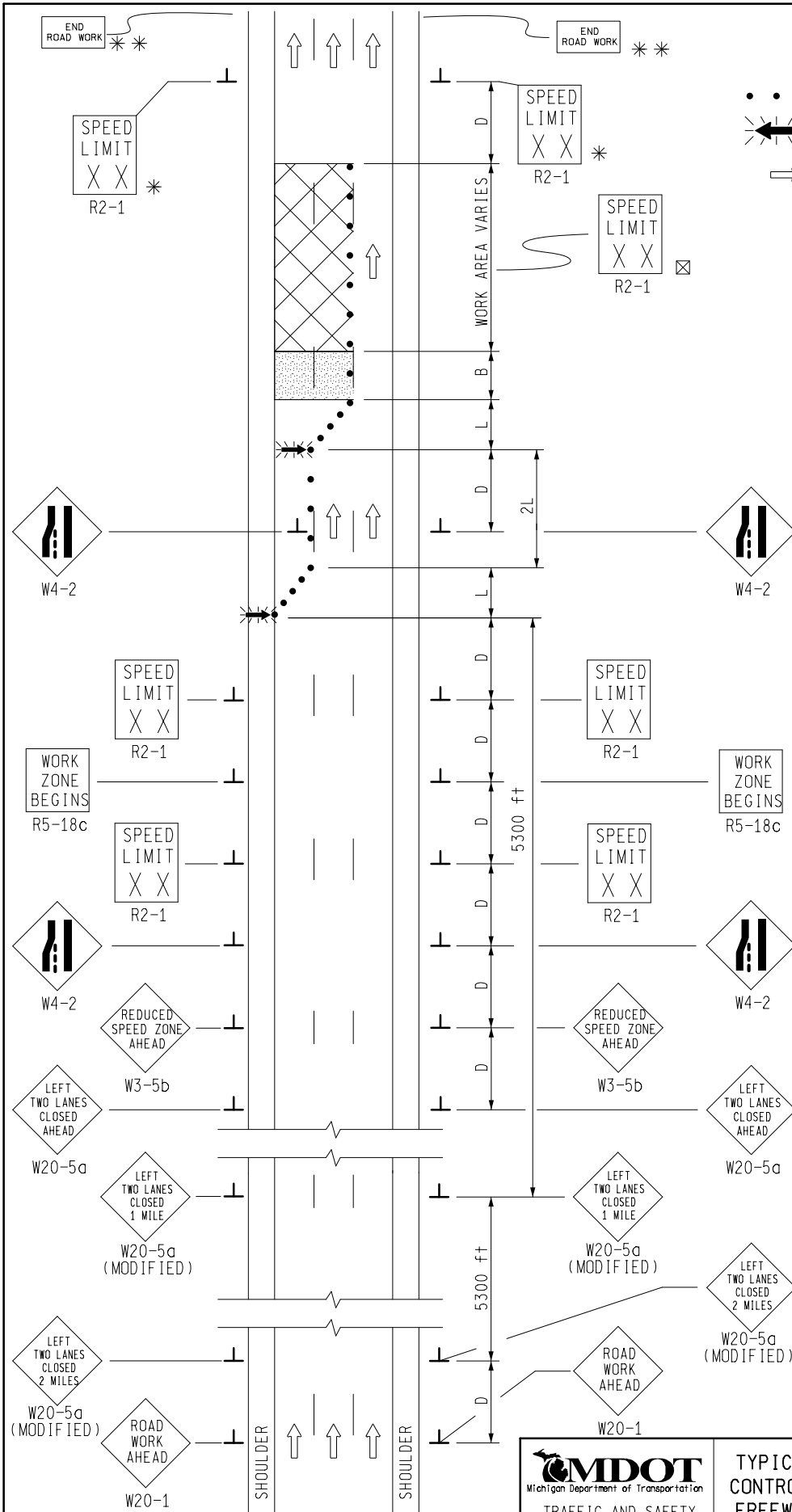
OCTOBER 2011
PLAN DATE:

M1300a

SHEET
1 OF 3

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1300a.dgn

REV. 10/24/2011



KEY



CHANNELIZING DEVICES

LIGHTED ARROW PANEL



TRAFFIC FLOW

☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.

* LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA

** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1300a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY CONVERTED FROM A ONE-LANE CLOSURE USING A DOUBLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1300a

SHEET

2 OF 3

REV. 10/24/2011

NOT TO SCALE

NOTES


- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.

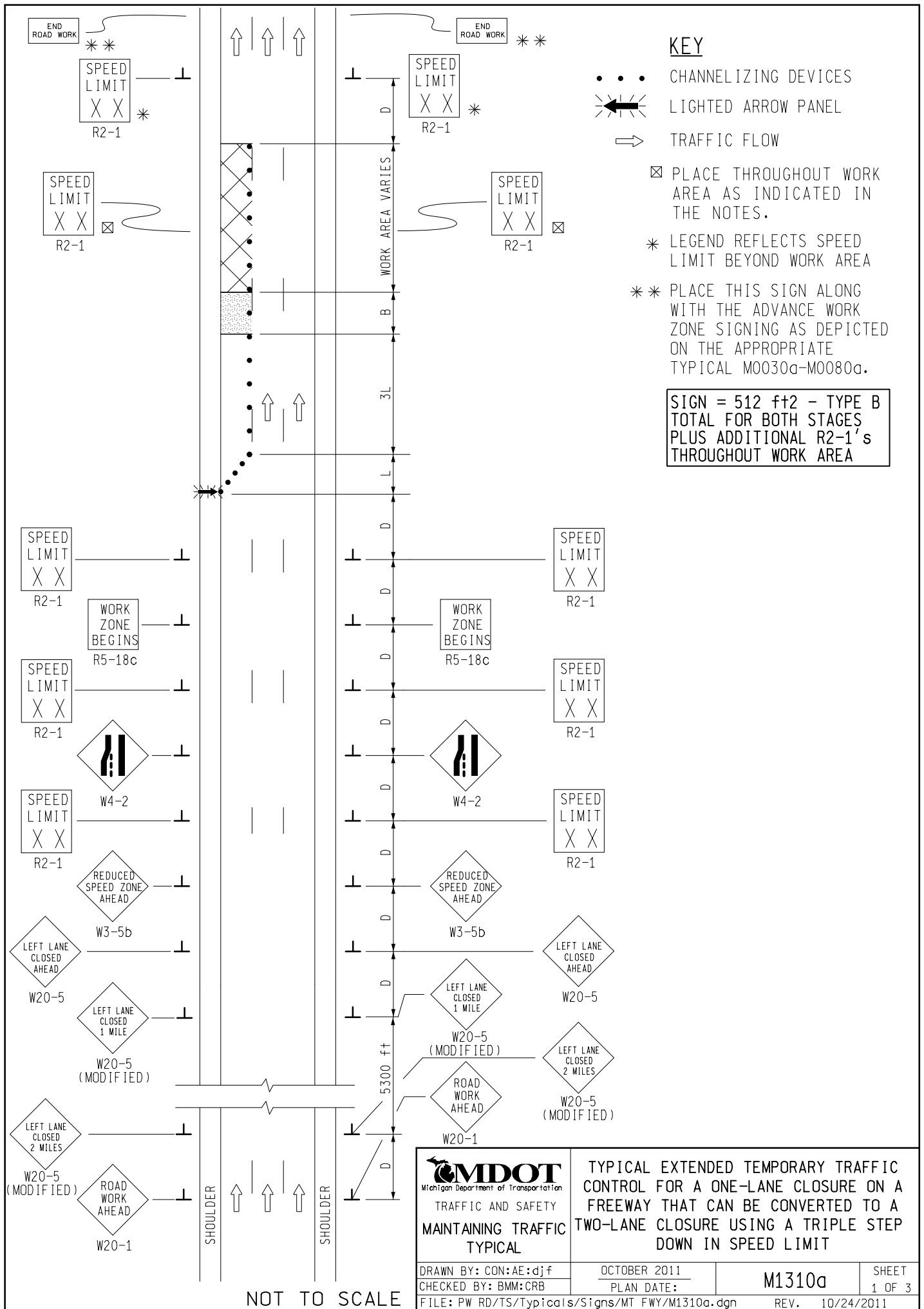
ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP
- 16D. THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

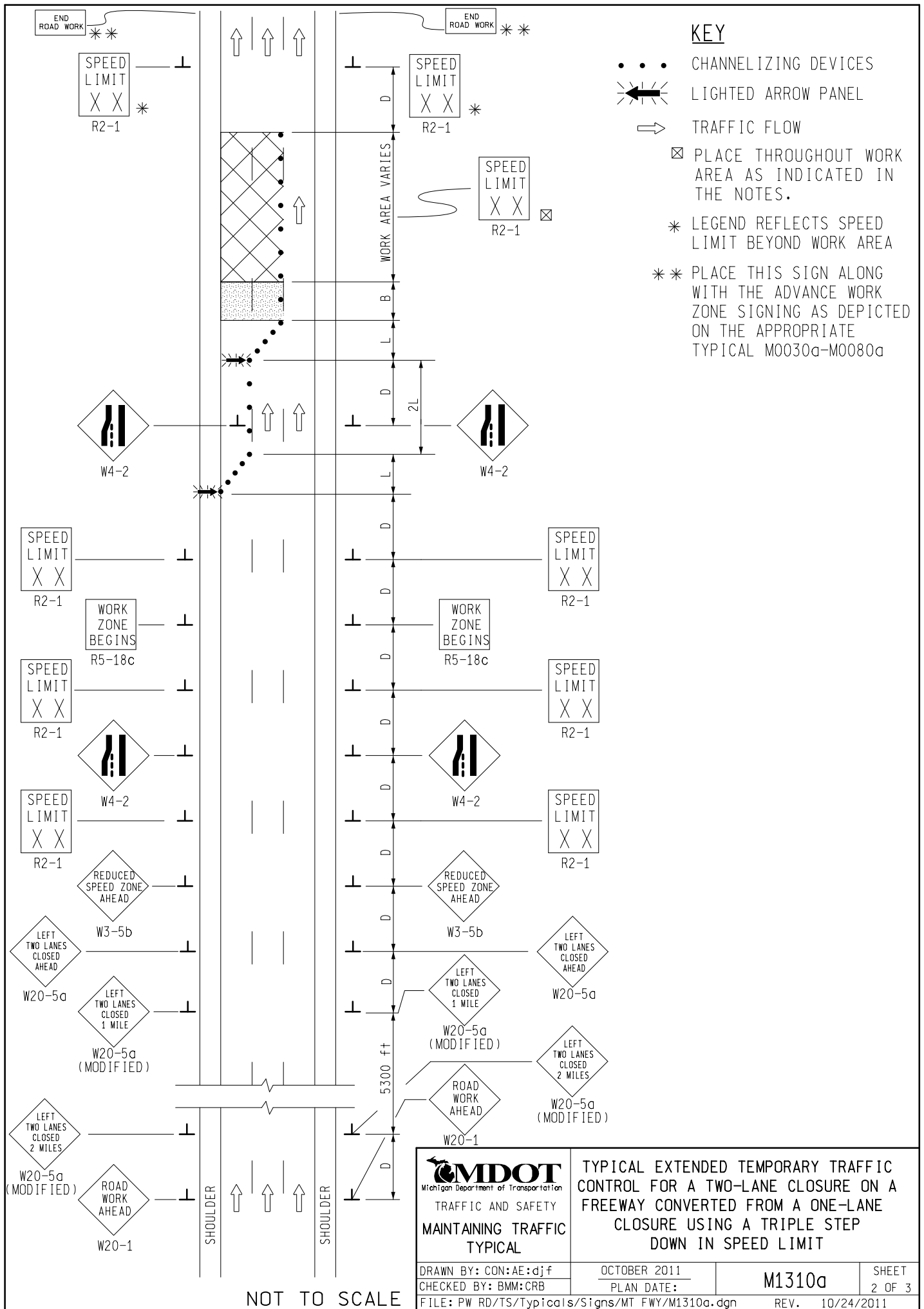
SIGN SIZES

DIAMOND WARNING - 48" x 48"
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY THAT CAN BE CONVERTED TO A TWO-LANE CLOSURE USING A DOUBLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1300a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1300a.dgn		REV. 10/24/2011	





MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1310a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY CONVERTED FROM A ONE-LANE CLOSURE USING A TRIPLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1310a

SHEET
2 OF 3


REV. 10/24/2011

NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP
- 16D. THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

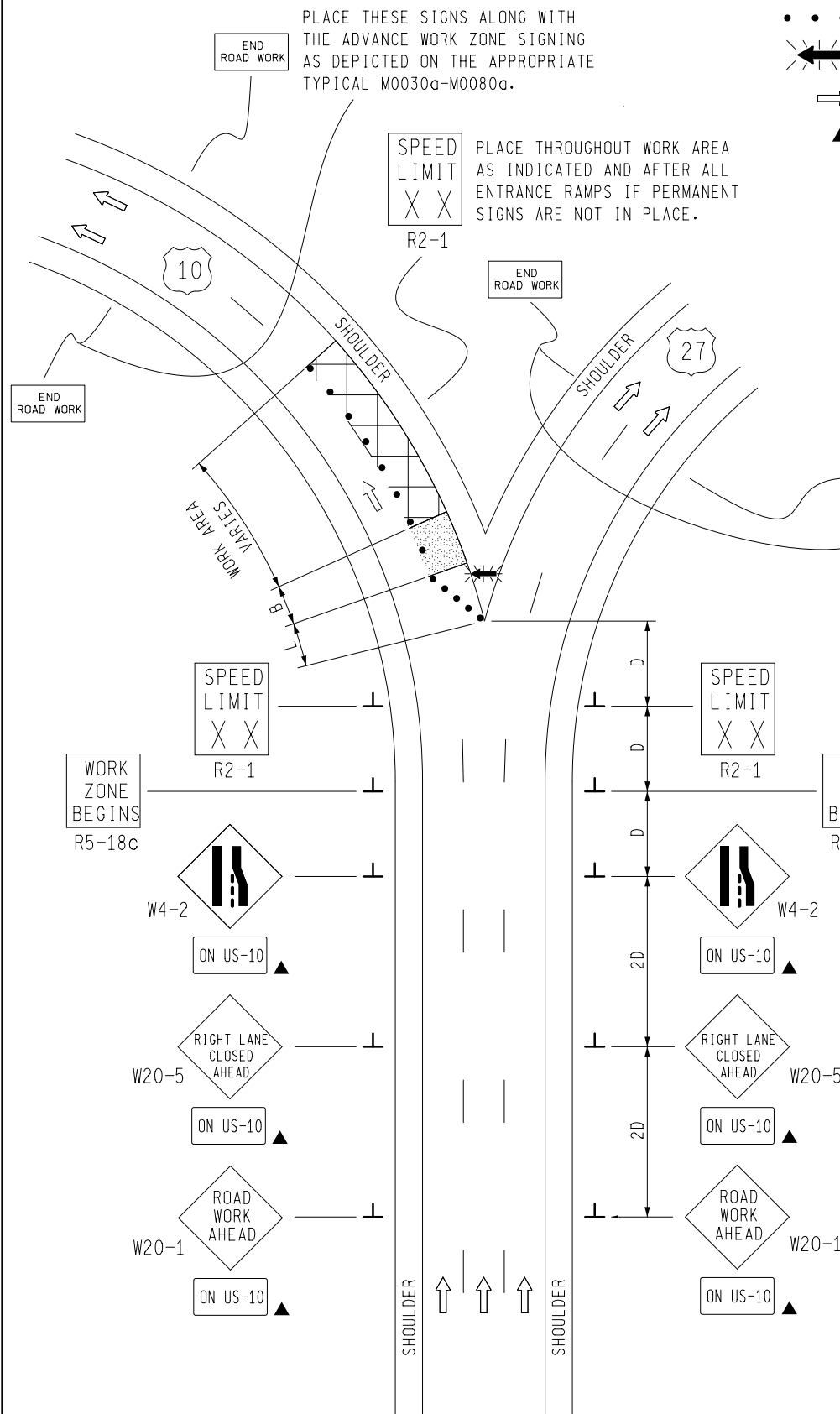
DIAMOND WARNING - 48" x 48"
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY THAT CAN BE CONVERTED TO A TWO-LANE CLOSURE USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M1310a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1310a.dgn		REV.	10/24/2011

NOT TO SCALE

CHANNELIZING DEVICES
LIGHTED ARROW PANEL
TRAFFIC FLOW
SEE SHEET 2 OF 2

PLACE THESE SIGNS ALONG WITH
THE ADVANCE WORK ZONE SIGNING
AS DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1320a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
AT THE GORE AREA OF A MAJOR
DIVERGENCE, NO SPEED REDUCTION

OCTOBER 2011
PLAN DATE:

M1320a

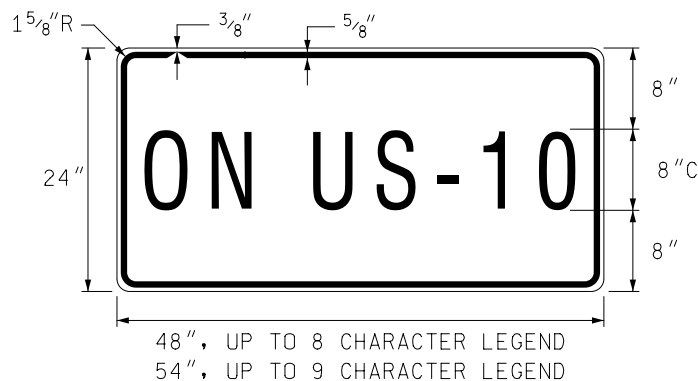
SHEET
1 OF 2

REV. 10/24/2011

NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 L = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 26B. THE LIGHTED ARROW PANEL SHALL BE LOCATED AS CLOSE TO THE BEGINNING OF THE TAPER AS PRACTICAL, BUT IN SUCH A MANNER SO AS NOT TO BE OBSCURED BY, OR INTERFERE WITH, EXISTING GORE SIGNING. CARE SHOULD ALSO BE TAKEN TO ASSURE ITS PLACEMENT DOES NOT CONFUSE APPROACHING MOTORISTS.
- 29B. THE TYPE OF REFLECTIVE SHEETING USED FOR THE "ON ____ " PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN DETAIL



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
 BACKGROUND - ORANGE (REFLECTORIZED)

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 PLAQUE - AS DETAILED
 R2-1 REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

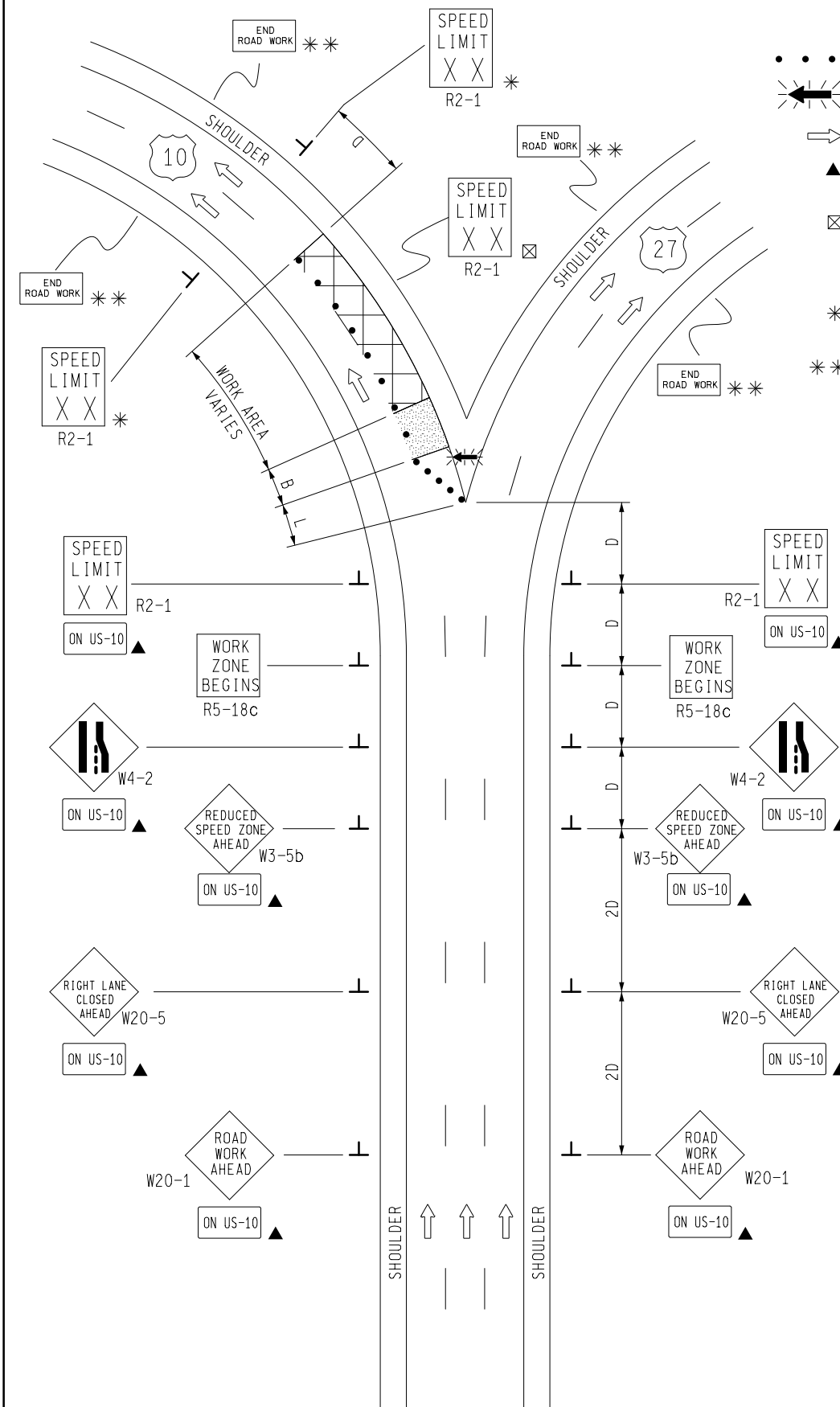
NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY AT THE GORE AREA OF A MAJOR DIVERGENCE, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1320a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1320a.dgn		REV. 10/24/2011	

KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 2
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 240 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 2



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
AT THE GORE AREA OF A MAJOR
DIVERGENCE USING A SINGLE STEP DOWN
IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1330a

SHEET
1 OF 2

NOT TO SCALE

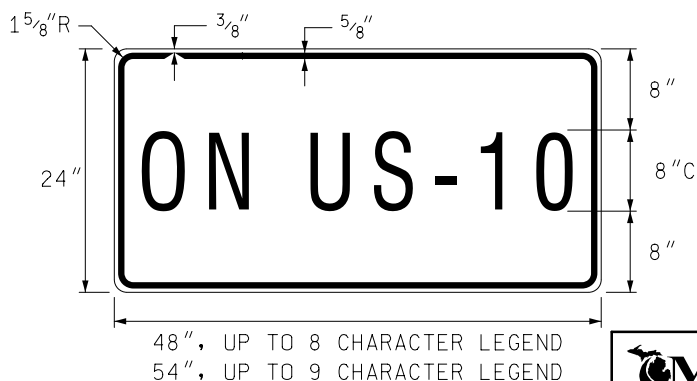
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1330a.dgn

REV. 10/24/2011

NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 26B. THE LIGHTED ARROW PANEL SHALL BE LOCATED AS CLOSE TO THE BEGINNING OF THE TAPER AS PRACTICAL, BUT IN SUCH A MANNER SO AS NOT TO BE OBSCURED BY, OR INTERFERE WITH, EXISTING GORE SIGNING. CARE SHOULD ALSO BE TAKEN TO ASSURE ITS PLACEMENT DOES NOT CONFUSE APPROACHING MOTORISTS.
- 29B. THE TYPE OF REFLECTIVE SHEETING USED FOR THE "ON ____ " PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN DETAIL



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)

48", UP TO 8 CHARACTER LEGEND
54", UP TO 9 CHARACTER LEGEND

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
PLAQUE	- AS DETAILED
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
**MAINTAINING TRAFFIC
TYPICAL**

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
AT THE GORE AREA OF A MAJOR
DIVERGENCE USING A SINGLE STEP DOWN
IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

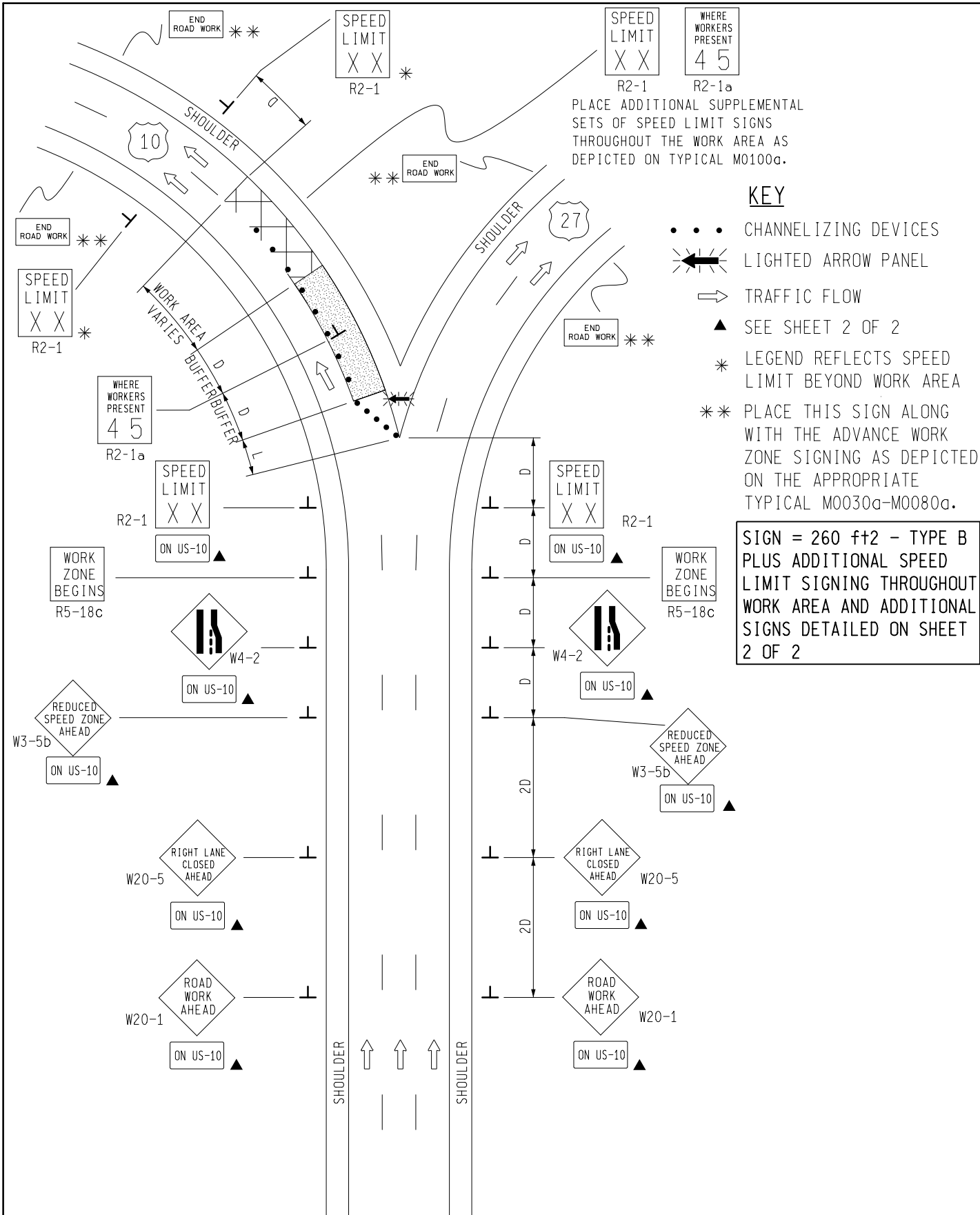
M1330a

SHEET

2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1330a.dgn

REV. 10/24/2011



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
AT THE GORE AREA OF A MAJOR
DIVERGENCE USING A REDUCED SPEED
LIMIT WHERE WORKERS PRESENT

DRAWN BY: CON:AE:djf

OCTOBER 2011

M1340a

SHEET

CHECKED BY: BMM:CRB

PLAN DATE:

1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1340a.dgn

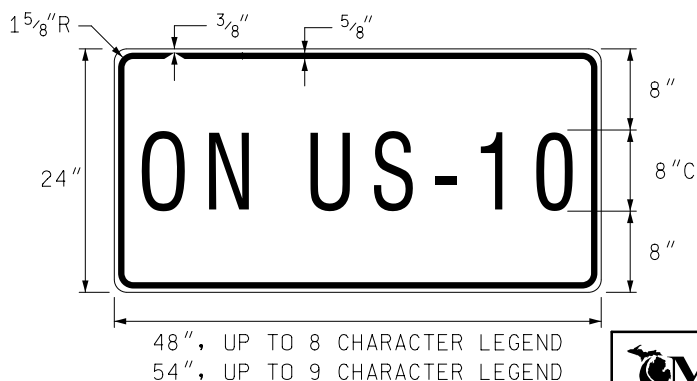
REV. 10/24/2011

NOT TO SCALE

NOTES

11. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 26B. THE LIGHTED ARROW PANEL SHALL BE LOCATED AS CLOSE TO THE BEGINNING OF THE TAPER AS PRACTICAL, BUT IN SUCH A MANNER SO AS NOT TO BE OBSCURED BY, OR INTERFERE WITH, EXISTING GORE SIGNING. CARE SHOULD ALSO BE TAKEN TO ASSURE ITS PLACEMENT DOES NOT CONFUSE APPROACHING MOTORISTS.
- 29B. THE TYPE OF REFLECTIVE SHEETING USED FOR THE "ON ____ " PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN DETAIL



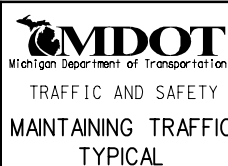
SIGN SIZES

DIAMOND WARNING	- 48" x 48"
PLAQUE	- AS DETAILED
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)



DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1340a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
AT THE GORE AREA OF A MAJOR
DIVERGENCE USING A REDUCED SPEED
LIMIT WHERE WORKERS PRESENT

OCTOBER 2011

PLAN DATE:

M1340a

SHEET

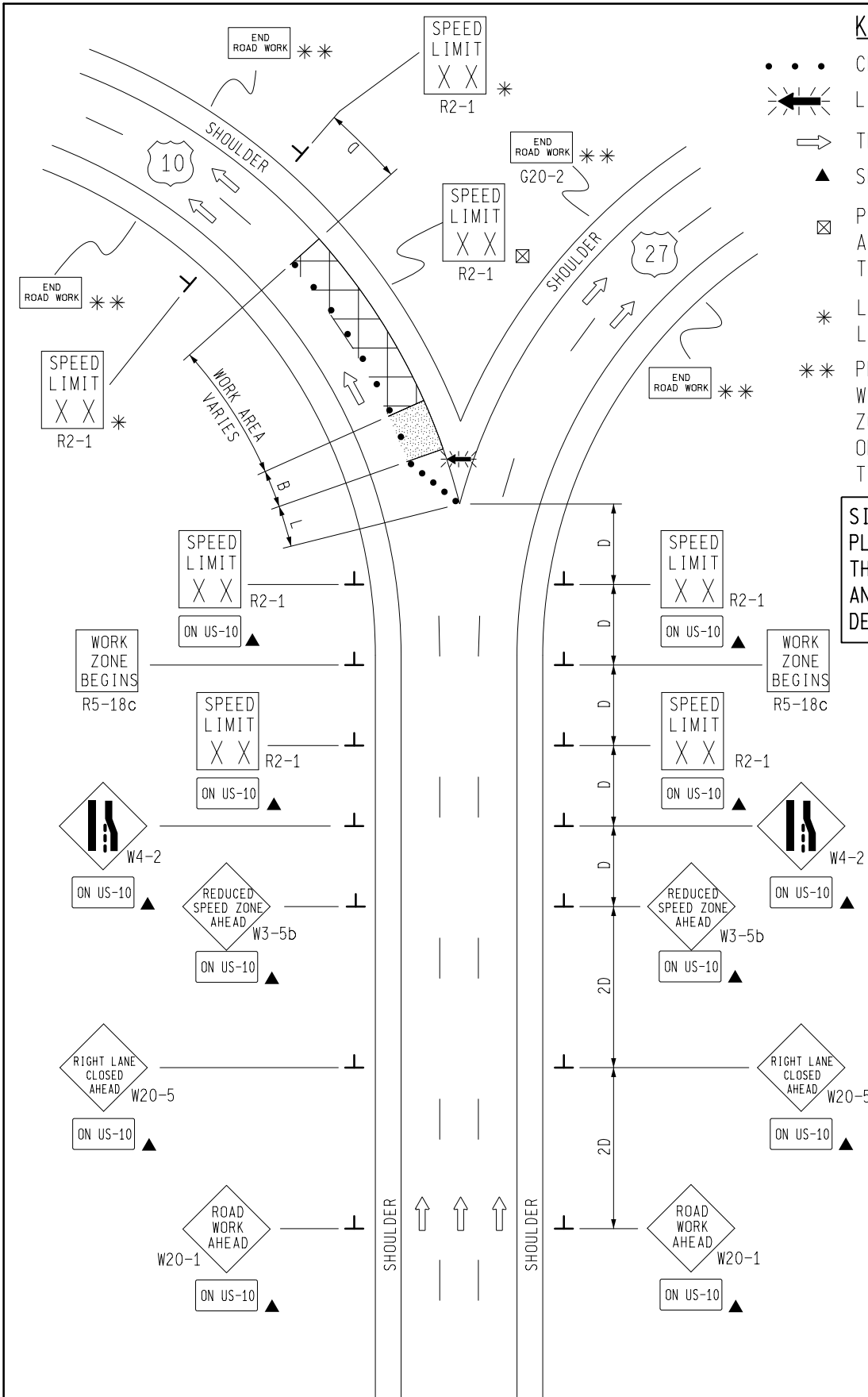
2 OF 2

REV. 10/24/2011

KEY

- • • CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ➡ TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 2
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 280 ft± - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 2



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
AT THE GORE AREA OF A MAJOR
DIVERGENCE USING A DOUBLE STEP DOWN
IN SPEED LIMIT

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M1350a

SHEET
1 OF 2

NOT TO SCALE

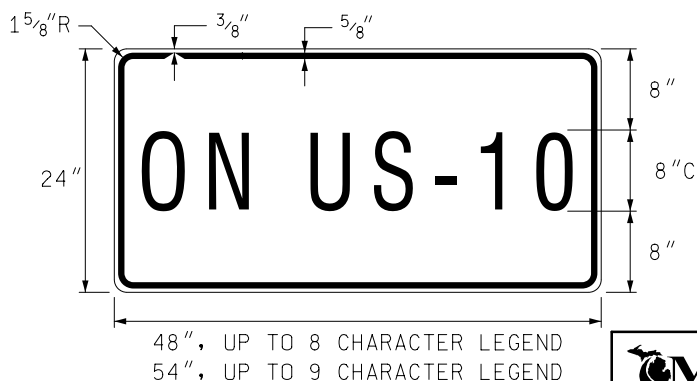
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1350a.dgn

REV. 10/24/2011

NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
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- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
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8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 26B. THE LIGHTED ARROW PANEL SHALL BE LOCATED AS CLOSE TO THE BEGINNING OF THE TAPER AS PRACTICAL, BUT IN SUCH A MANNER SO AS NOT TO BE OBSCURED BY, OR INTERFERE WITH, EXISTING GORE SIGNING. CARE SHOULD ALSO BE TAKEN TO ASSURE ITS PLACEMENT DOES NOT CONFUSE APPROACHING MOTORISTS.
- 29B. THE TYPE OF REFLECTIVE SHEETING USED FOR THE "ON ____ " PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN DETAIL



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)

48", UP TO 8 CHARACTER LEGEND
54", UP TO 9 CHARACTER LEGEND

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
PLAQUE	- AS DETAILED
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
AT THE GORE AREA OF A MAJOR
DIVERGENCE USING A DOUBLE STEP DOWN
IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1350a

SHEET
2 OF 2

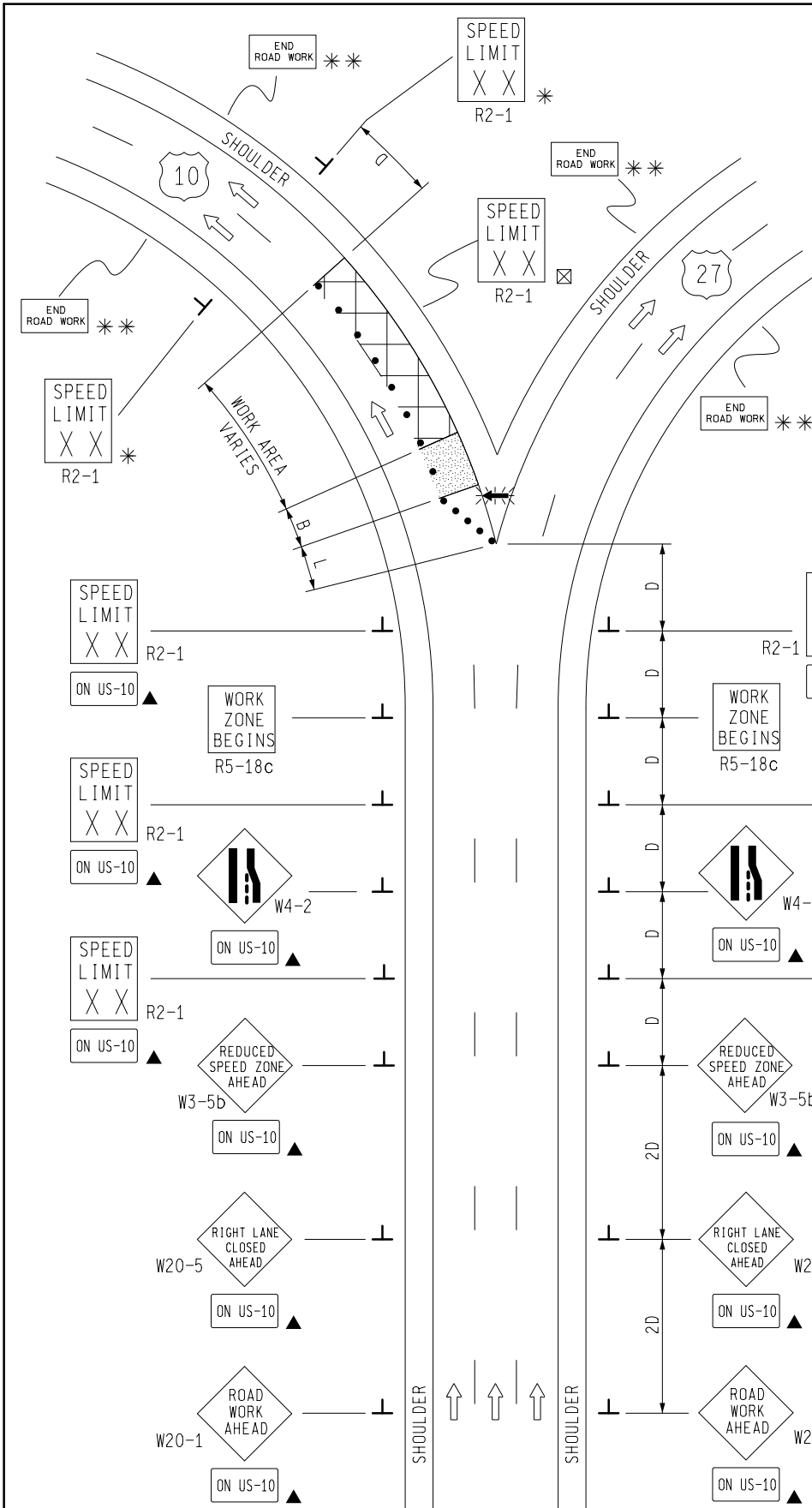
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REV. 10/24/2011

KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 2
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 320 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 2



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
AT THE GORE AREA OF A MAJOR
DIVERGENCE USING A TRIPLE STEP DOWN
IN SPEED LIMIT

DRAWN BY: CON:AE:djf

OCTOBER 2011

M1360a

SHEET

CHECKED BY: BMM:CRB

PLAN DATE:

1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1360a.dgn

REV. 10/24/2011

NOT TO SCALE

NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 26B. THE LIGHTED ARROW PANEL SHALL BE LOCATED AS CLOSE TO THE BEGINNING OF THE TAPER AS PRACTICAL, BUT IN SUCH A MANNER SO AS NOT TO BE OBSCURED BY, OR INTERFERE WITH, EXISTING GORE SIGNING. CARE SHOULD ALSO BE TAKEN TO ASSURE ITS PLACEMENT DOES NOT CONFUSE APPROACHING MOTORISTS.
- 29B. THE TYPE OF REFLECTIVE SHEETING USED FOR THE "ON ____ " PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN DETAIL



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)

SIGN SIZES

DIAMOND WARNING - 48" x 48"
PLAQUE - AS DETAILED
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
AT THE GORE AREA OF A MAJOR
DIVERGENCE USING A TRIPLE STEP DOWN
IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1360a

SHEET
2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1360a.dgn

REV. 10/24/2011

KEY

... CHANNELIZING DEVICES

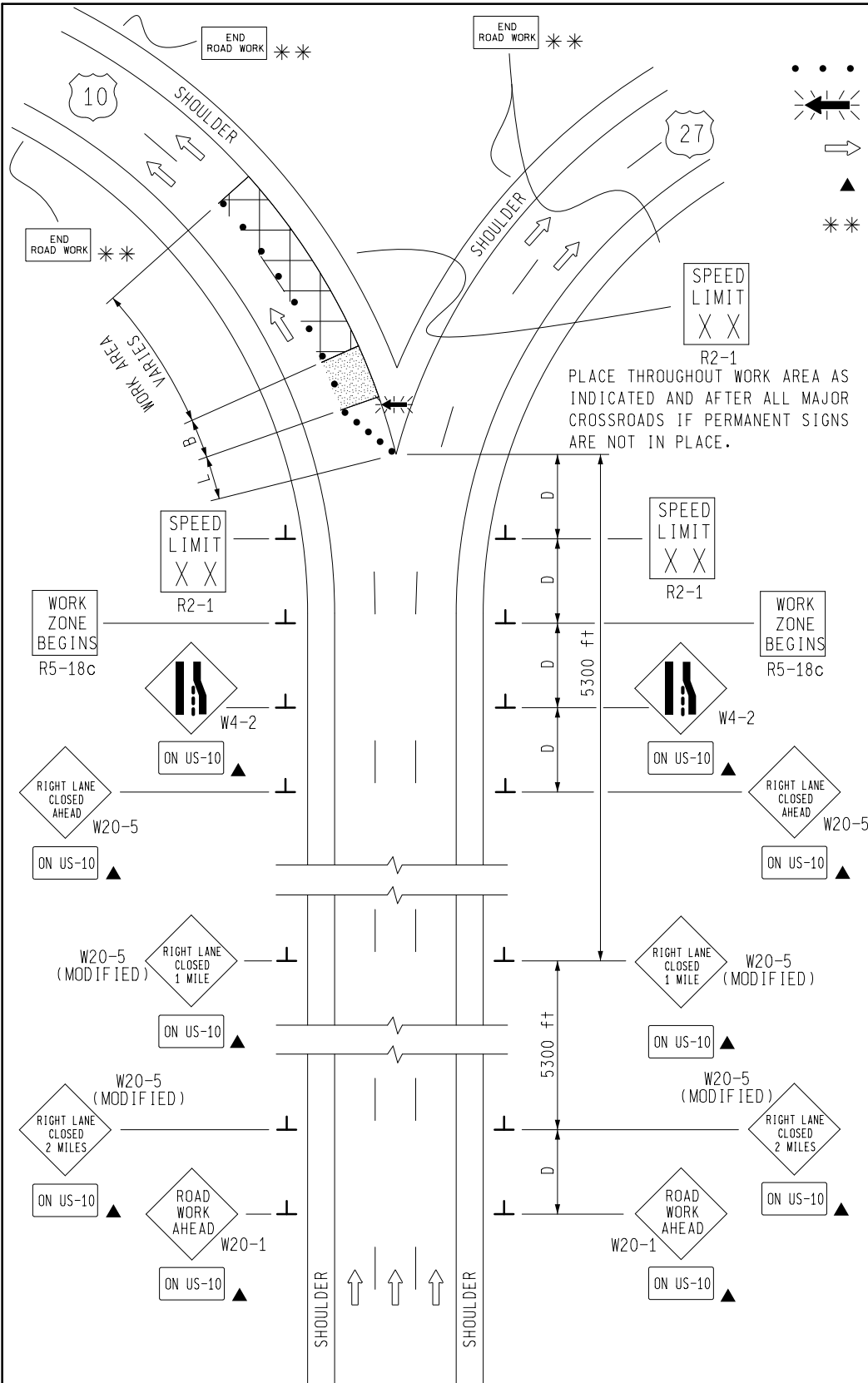
← LIGHTED ARROW PANEL

→ TRAFFIC FLOW

▲ SEE SHEET 2 OF 2

** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 232 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 2



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1370a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY AT THE GORE AREA OF A MAJOR DIVERGENCE, NO SPEED REDUCTION

OCTOBER 2011

PLAN DATE:

M1370a

SHEET

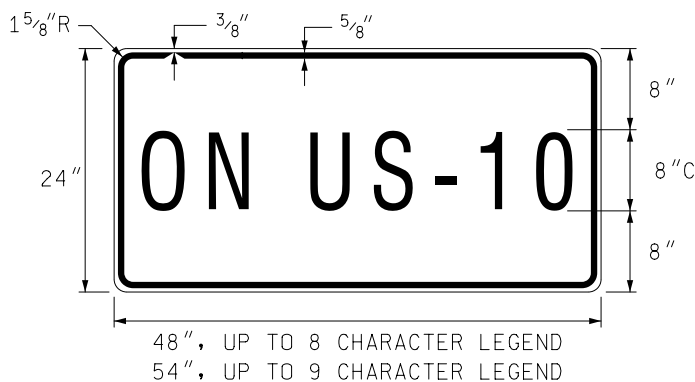
1 OF 2

REV. 10/24/2011

NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 26B. THE LIGHTED ARROW PANEL SHALL BE LOCATED AS CLOSE TO THE BEGINNING OF THE TAPER AS PRACTICAL, BUT IN SUCH A MANNER SO AS NOT TO BE OBSCURED BY, OR INTERFERE WITH, EXISTING GORE SIGNING. CARE SHOULD ALSO BE TAKEN TO ASSURE ITS PLACEMENT DOES NOT CONFUSE APPROACHING MOTORISTS.
- 29B. THE TYPE OF REFLECTIVE SHEETING USED FOR THE "ON ____ " PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN DETAIL




LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)

COLORS

SIGN SIZES

DIAMOND WARNING - 48" x 48"
PLAQUE - AS DETAILED
R2-1 REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

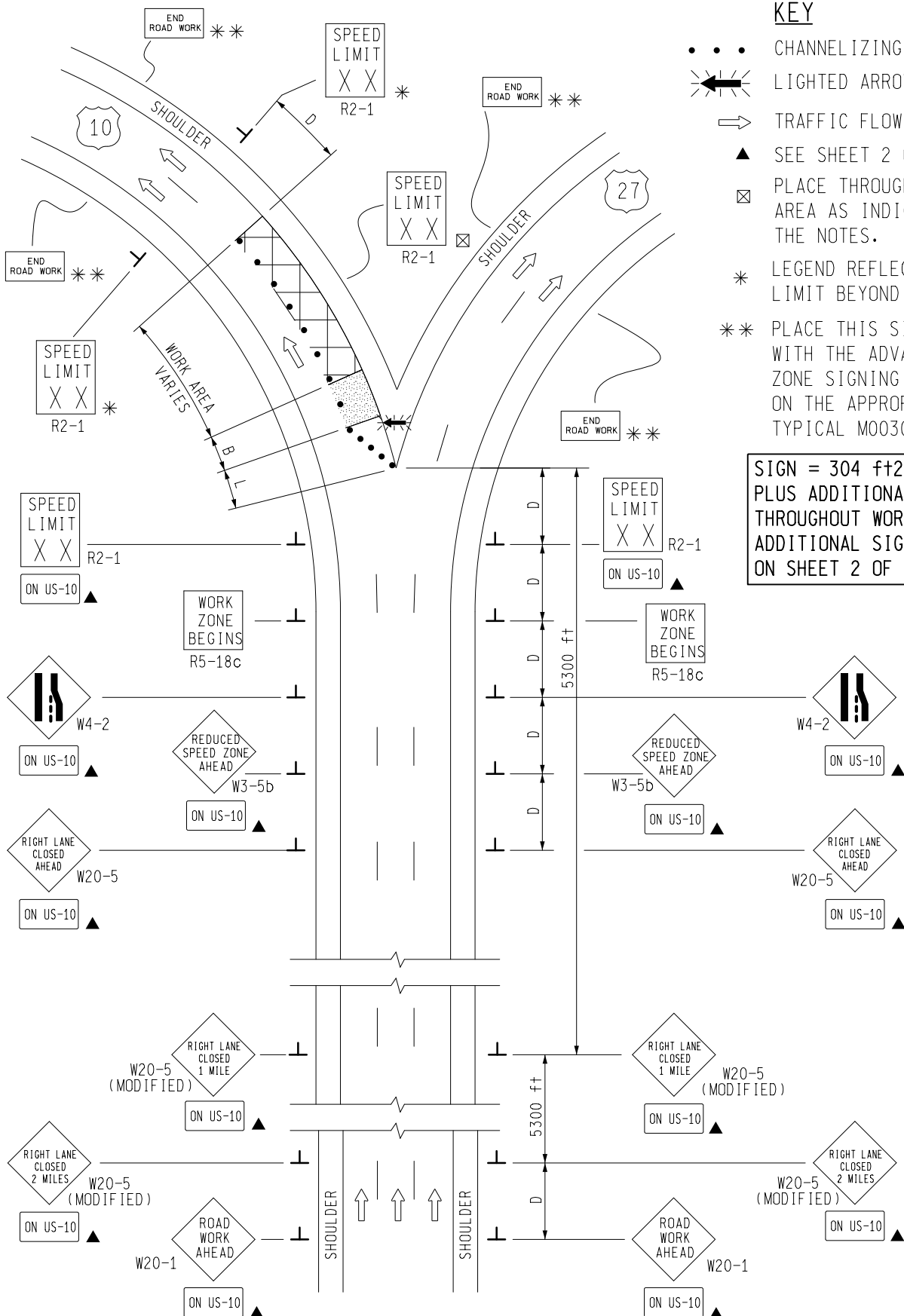
NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY AT THE GORE AREA OF A MAJOR DIVERGENCE, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1370a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1370a.dgn		REV. 10/24/2011	

KEY

- • • CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ➡ TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 2
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 304 ft± - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 2



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1370a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY AT THE GORE AREA OF A MAJOR DIVERGENCE USING A SINGLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1380a

SHEET
1 OF 2

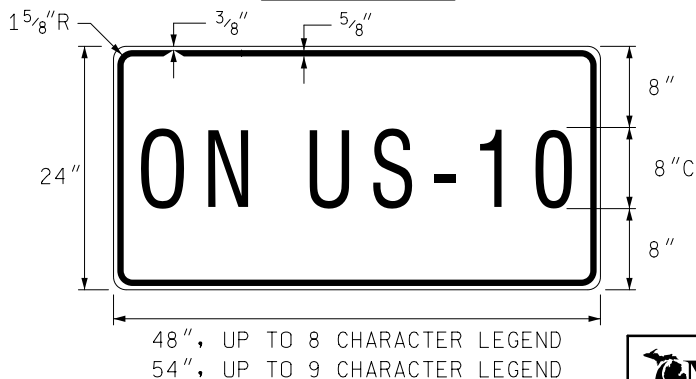
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REV. 10/24/2011

NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 26B. THE LIGHTED ARROW PANEL SHALL BE LOCATED AS CLOSE TO THE BEGINNING OF THE TAPER AS PRACTICAL, BUT IN SUCH A MANNER SO AS NOT TO BE OBSCURED BY, OR INTERFERE WITH, EXISTING GORE SIGNING. CARE SHOULD ALSO BE TAKEN TO ASSURE ITS PLACEMENT DOES NOT CONFUSE APPROACHING MOTORISTS.
- 29B. THE TYPE OF REFLECTIVE SHEETING USED FOR THE "ON ____ " PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN DETAIL



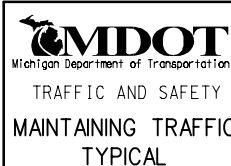
COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)

SIGN SIZES

DIAMOND WARNING - 48" x 48"
PLAQUE - AS DETAILED
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY AT THE GORE AREA OF A MAJOR DIVERGENCE USING A SINGLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1380a

SHEET
2 OF 2

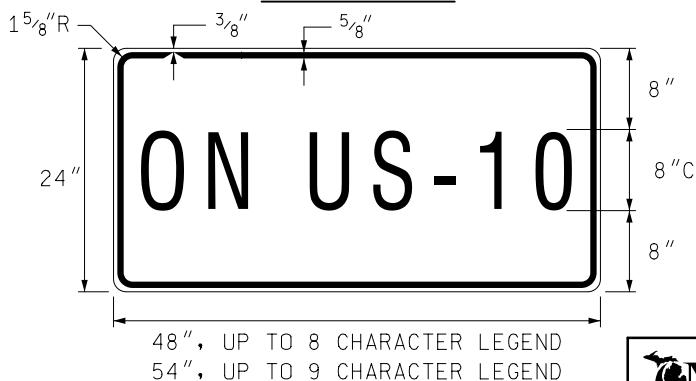
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REV. 10/24/2011

NOTES

11. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 26B. THE LIGHTED ARROW PANEL SHALL BE LOCATED AS CLOSE TO THE BEGINNING OF THE TAPER AS PRACTICAL, BUT IN SUCH A MANNER SO AS NOT TO BE OBSCURED BY, OR INTERFERE WITH, EXISTING GORE SIGNING. CARE SHOULD ALSO BE TAKEN TO ASSURE ITS PLACEMENT DOES NOT CONFUSE APPROACHING MOTORISTS.
- 29B. THE TYPE OF REFLECTIVE SHEETING USED FOR THE "ON ____ " PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN DETAIL



SIGN SIZES

DIAMOND WARNING	- 48" x 48"
PLAQUE	- AS DETAILED
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY AT THE GORE AREA OF A MAJOR DIVERGENCE USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT

OCTOBER 2011
PLAN DATE:

M1390a

SHEET
2 OF 2

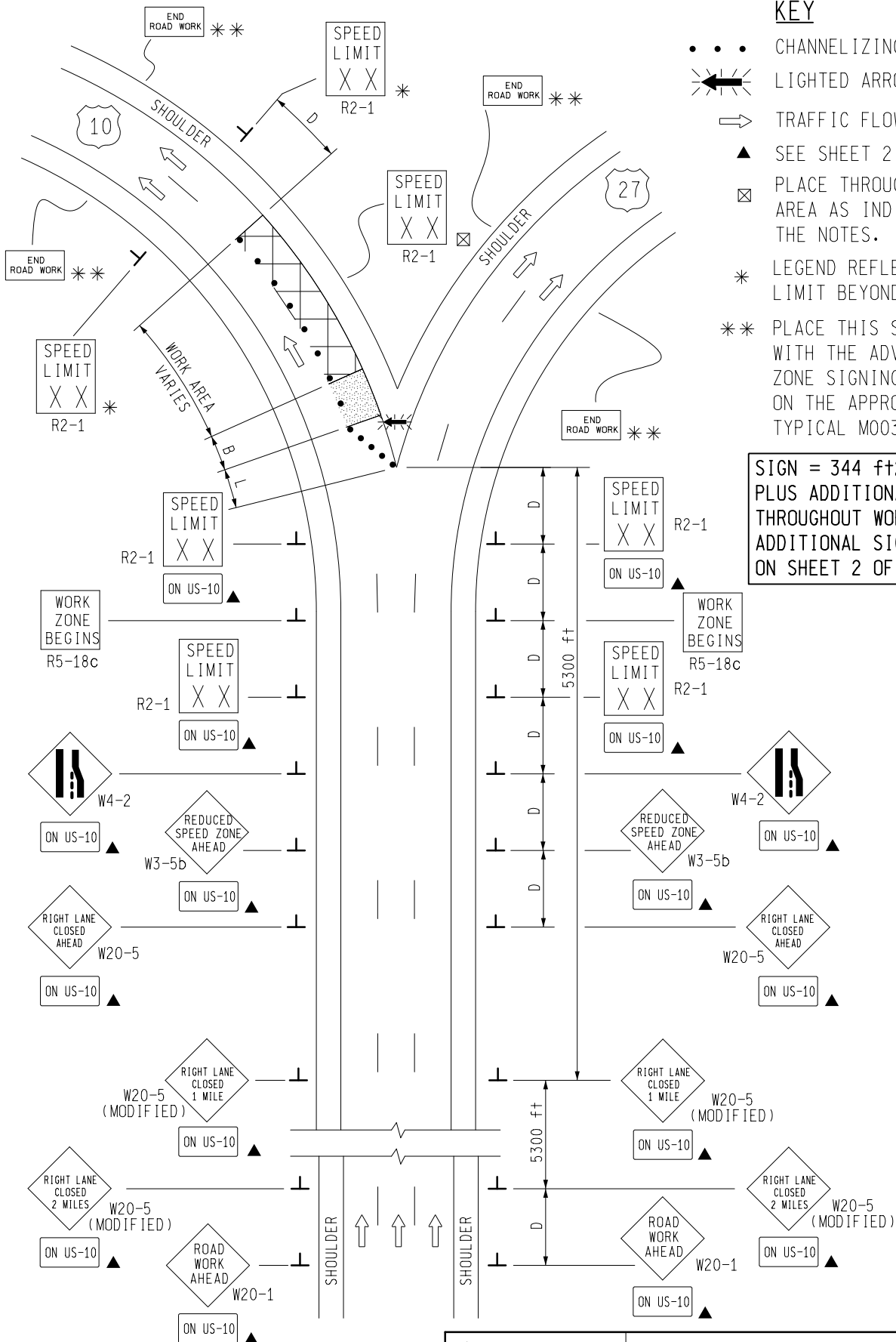
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REV. 10/24/2011

KEY

- • • CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ➡ TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 2
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 344 ft± - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 2



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1400a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY AT THE GORE AREA OF A MAJOR DIVERGENCE USING A DOUBLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1400a

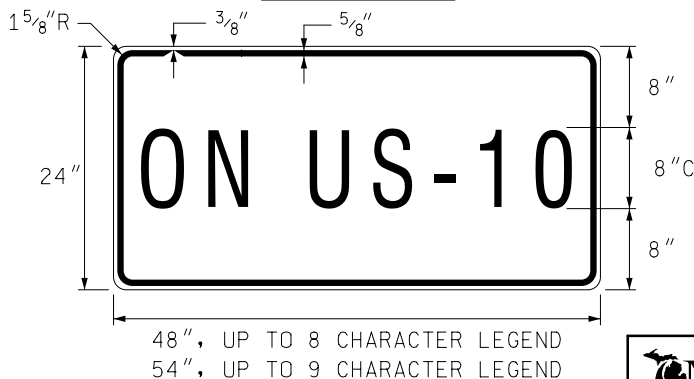
SHEET
1 OF 2

REV. 10/24/2011

NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 26B. THE LIGHTED ARROW PANEL SHALL BE LOCATED AS CLOSE TO THE BEGINNING OF THE TAPER AS PRACTICAL, BUT IN SUCH A MANNER SO AS NOT TO BE OBSCURED BY, OR INTERFERE WITH, EXISTING GORE SIGNING. CARE SHOULD ALSO BE TAKEN TO ASSURE ITS PLACEMENT DOES NOT CONFUSE APPROACHING MOTORISTS.
- 29B. THE TYPE OF REFLECTIVE SHEETING USED FOR THE "ON ____ " PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN DETAIL



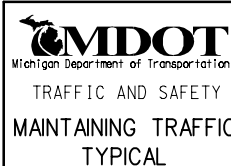
COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)

SIGN SIZES

DIAMOND WARNING - 48" x 48"
PLAQUE - AS DETAILED
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY AT THE GORE AREA OF A MAJOR DIVERGENCE USING A DOUBLE STEP DOWN IN SPEED LIMIT

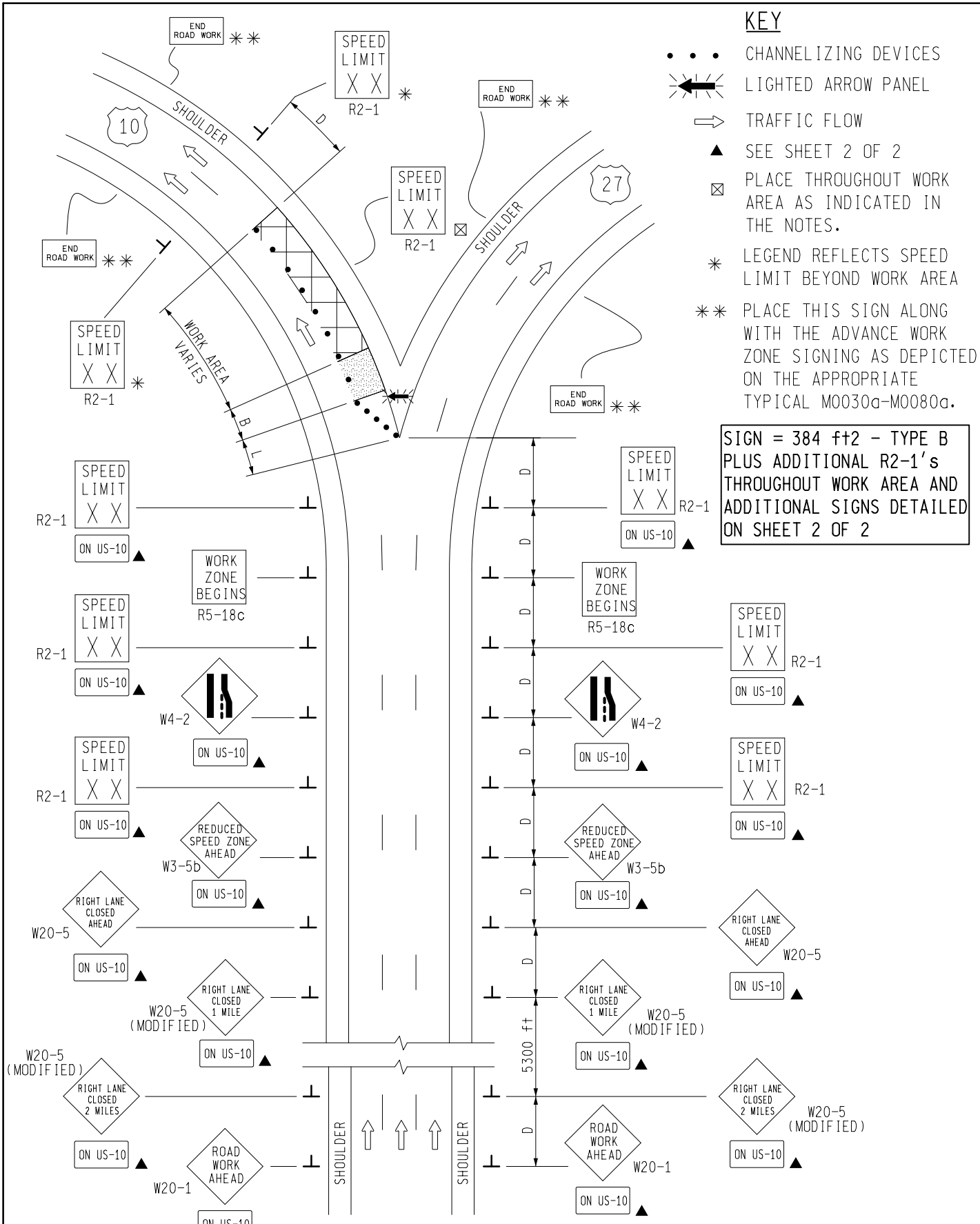
OCTOBER 2011
PLAN DATE:

M1400a

SHEET
2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1400a.dgn

REV. 10/24/2011



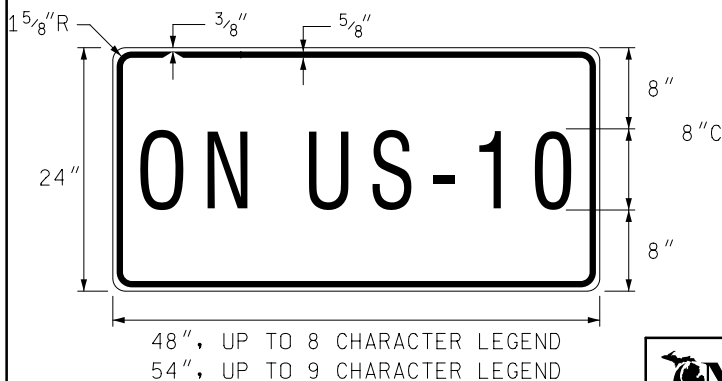
<p>Michigan Department of Transportation</p> <p>TRAFFIC AND SAFETY</p> <p>MAINTAINING TRAFFIC</p> <p>TYPICAL</p>		<p>TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY AT THE GORE AREA OF A MAJOR DIVERGENCE USING A TRIPLE STEP DOWN IN SPEED LIMIT</p>	
<p>DRAWN BY: CON:AE:djf</p> <p>CHECKED BY: BMM:CRB</p> <p>FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1410a.dgn</p>		<p>OCTOBER 2011</p> <p>PLAN DATE:</p>	<p>M1410a</p> <p>SHEET 1 OF 2</p>

NOT TO SCALE

NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 26B. THE LIGHTED ARROW PANEL SHALL BE LOCATED AS CLOSE TO THE BEGINNING OF THE TAPER AS PRACTICAL, BUT IN SUCH A MANNER SO AS NOT TO BE OBSCURED BY, OR INTERFERE WITH, EXISTING GORE SIGNING. CARE SHOULD ALSO BE TAKEN TO ASSURE ITS PLACEMENT DOES NOT CONFUSE APPROACHING MOTORISTS.
- 29B. THE TYPE OF REFLECTIVE SHEETING USED FOR THE "ON ____ " PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN DETAIL



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)

SIGN SIZES

DIAMOND WARNING - 48" x 48"
PLAQUE - AS DETAILED
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1410a.dgn

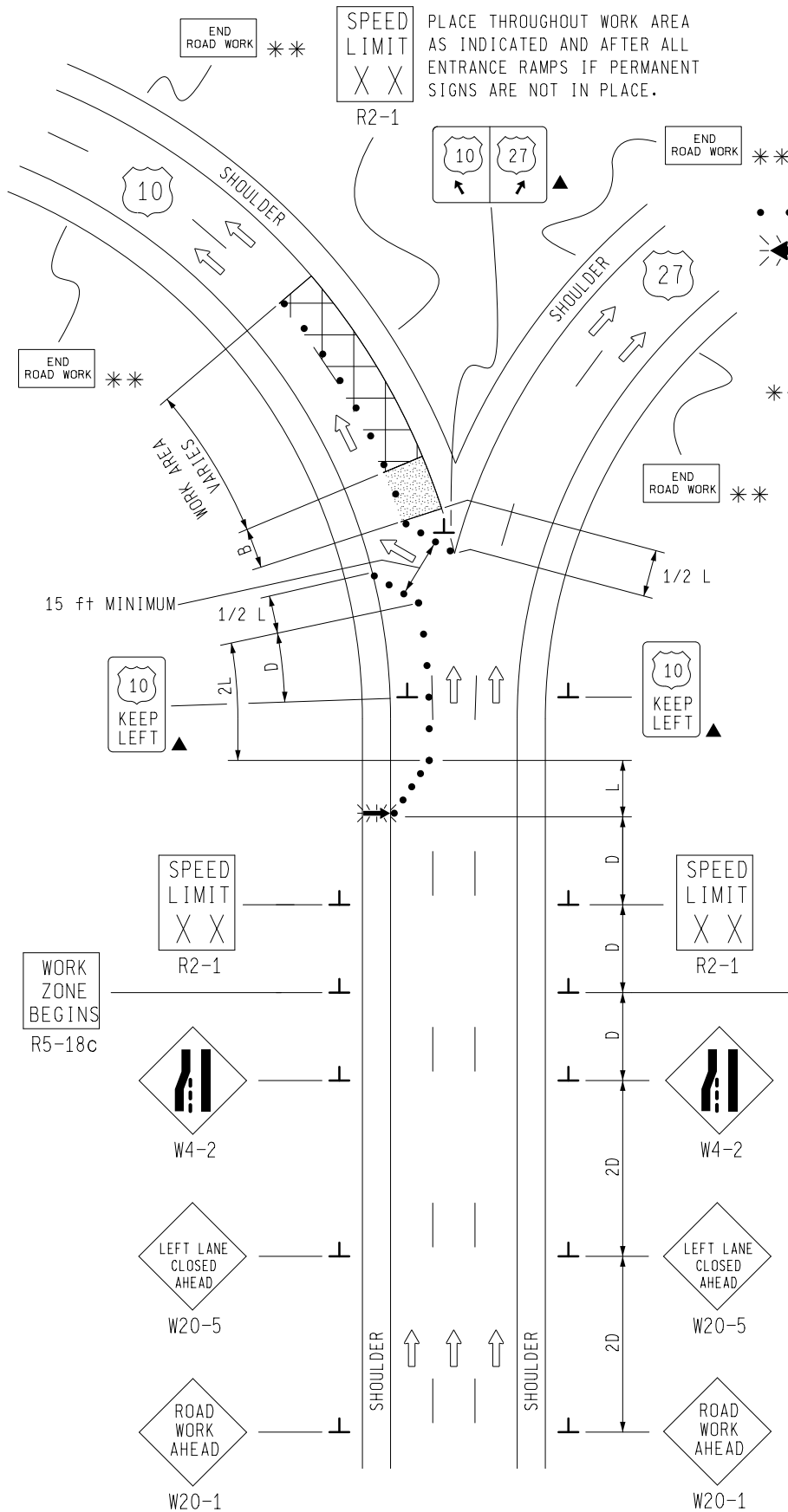
TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY AT THE GORE AREA OF A MAJOR DIVERGENCE USING A TRIPLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1410a

SHEET
2 OF 2

REV. 10/24/2011



KEY

- • • CHANNELIZING DEVICES
- ➔ LIGHTED ARROW PANEL
- ➔ TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 2

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 168 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 2

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1420a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
IN ADVANCE OF A GORE AREA AT A MAJOR
DIVERGENCE, NO SPEED REDUCTION

OCTOBER 2011

PLAN DATE:

M1420a

SHEET

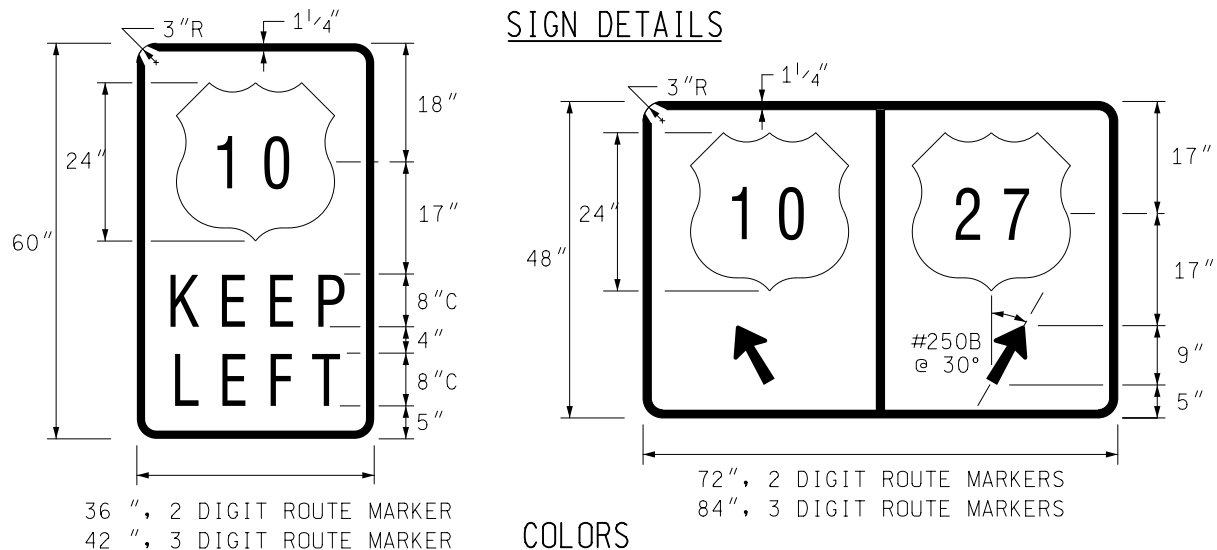
1 OF 2

REV. 10/24/2011

NOTES

- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

SIGN SIZES

DIAMOND WARNING - 48" x 48"
SPECIAL SIGNS - AS DETAILED
R2-1 REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
IN ADVANCE OF A GORE AREA AT A MAJOR
DIVERGENCE, NO SPEED REDUCTION

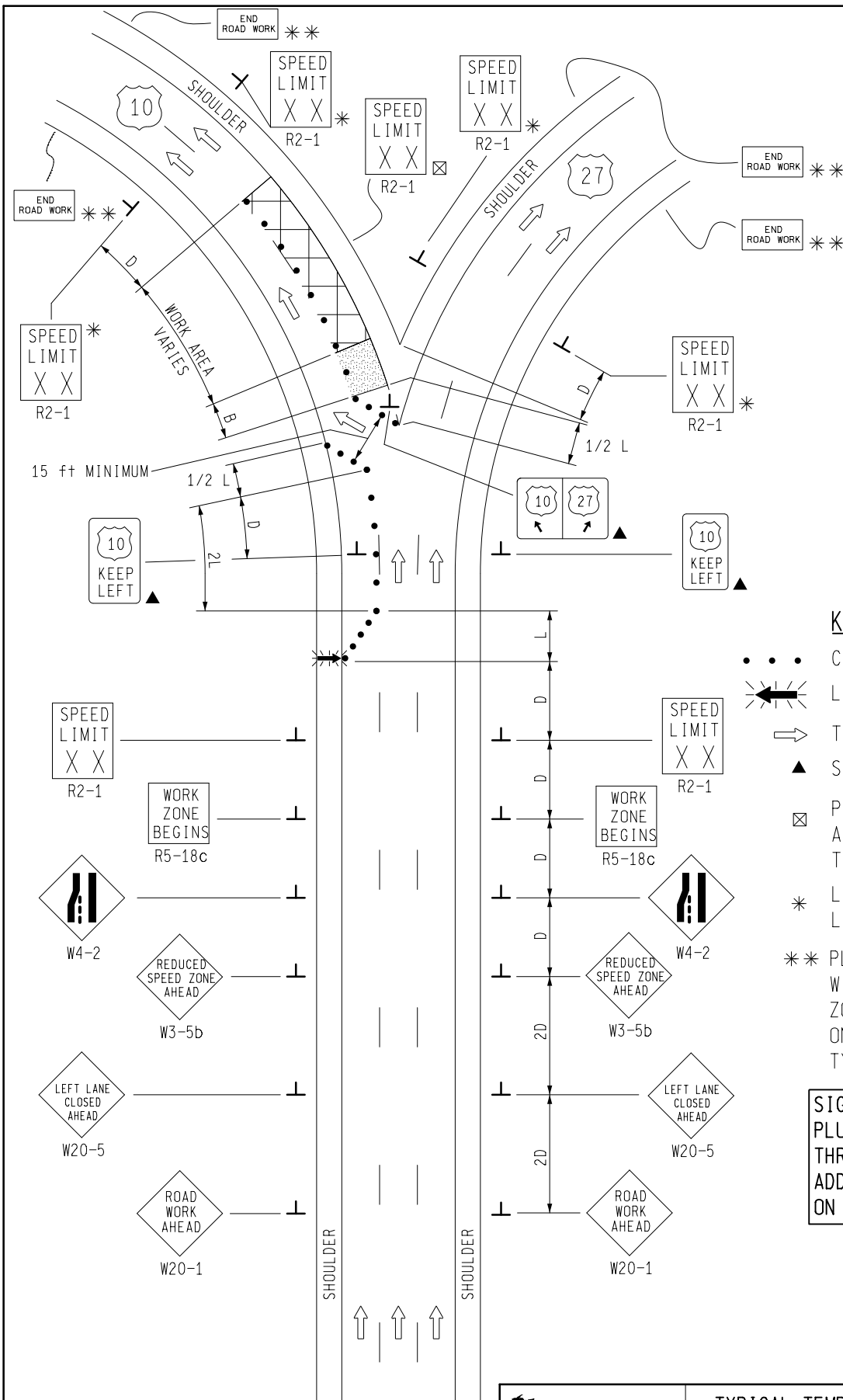
OCTOBER 2011
PLAN DATE:

M1420a

SHEET
2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1420a.dgn

REV. 10/24/2011



KEY

- • • CHANNELIZING DEVICES
- ➔ LIGHTED ARROW PANEL
- ➔ TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 2
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 280 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 2

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
IN ADVANCE OF A GORE AREA AT A MAJOR
DIVERGENCE USING A SINGLE STEP DOWN
IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1430a

SHEET
1 OF 2

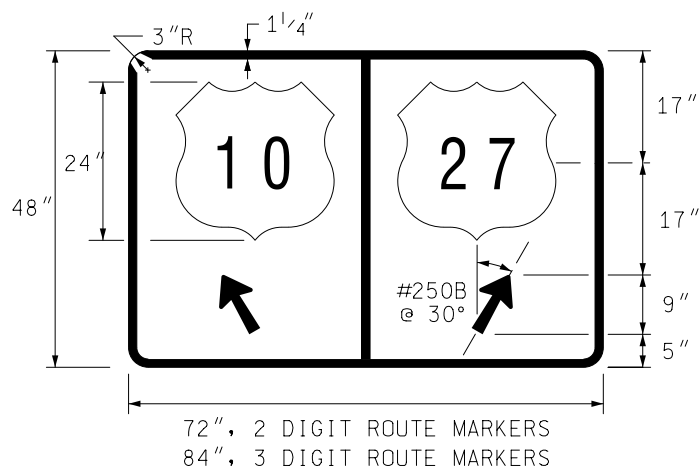
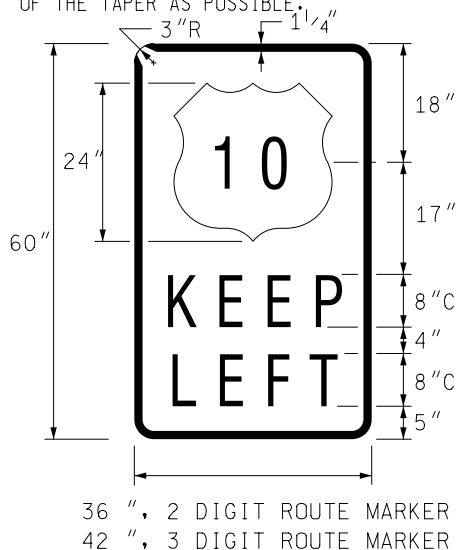
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REV. 10/24/2011

NOTES

- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

SIGN SIZES

DIAMOND WARNING - 48" x 48"
SPECIAL SIGNS - AS DETAILED
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
IN ADVANCE OF A GORE AREA AT A MAJOR
DIVERGENCE USING A SINGLE STEP DOWN
IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

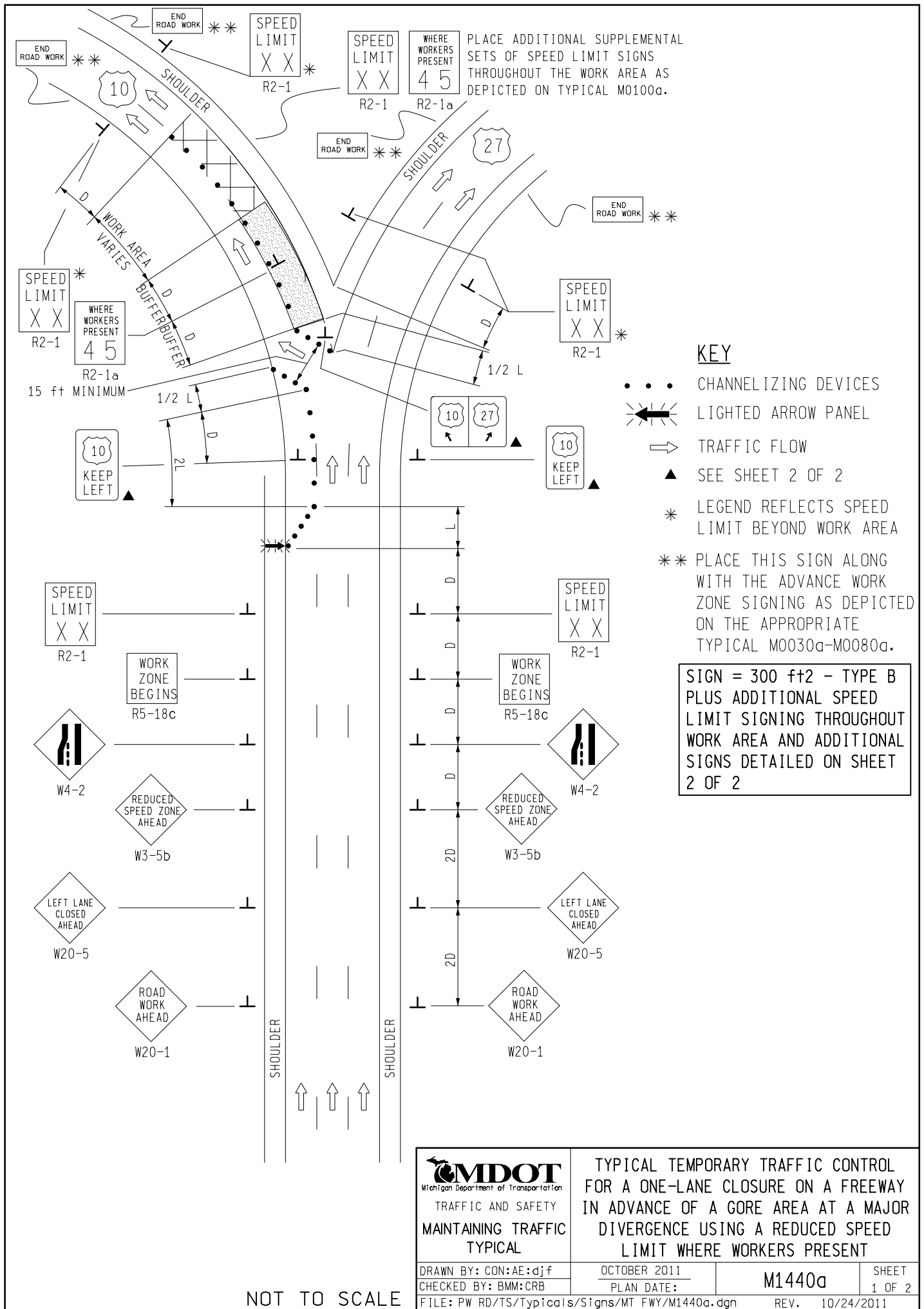
M1430a

SHEET

2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1430a.dgn

REV. 10/24/2011



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
IN ADVANCE OF A GORE AREA AT A MAJOR
DIVERGENCE USING A REDUCED SPEED
LIMIT WHERE WORKERS PRESENT

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M1440a

SHEET
1 OF 2

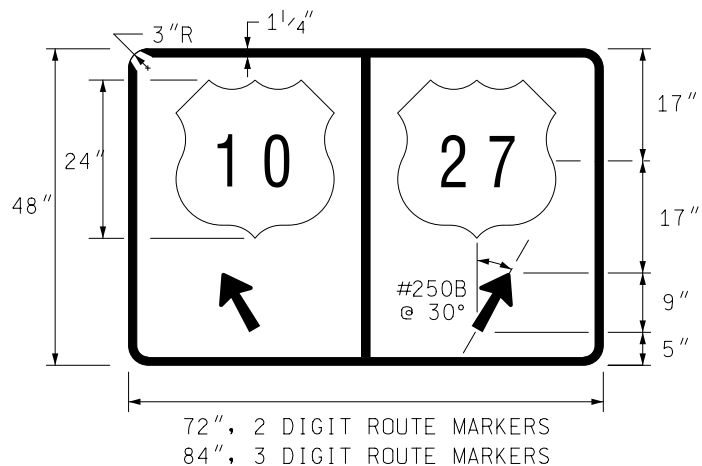
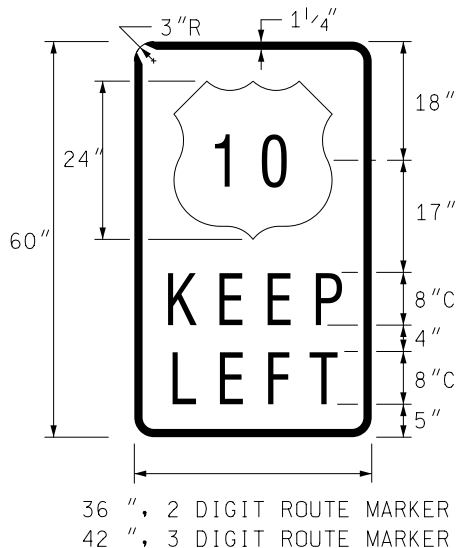
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REV. 10/24/2011

NOTES

- 1K. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L & 1/2 L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

SIGN SIZES

DIAMOND WARNING - 48" x 48"
SPECIAL SIGNS - AS DETAILED
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
IN ADVANCE OF A GORE AREA AT A MAJOR
DIVERGENCE USING A REDUCED SPEED
LIMIT WHERE WORKERS PRESENT

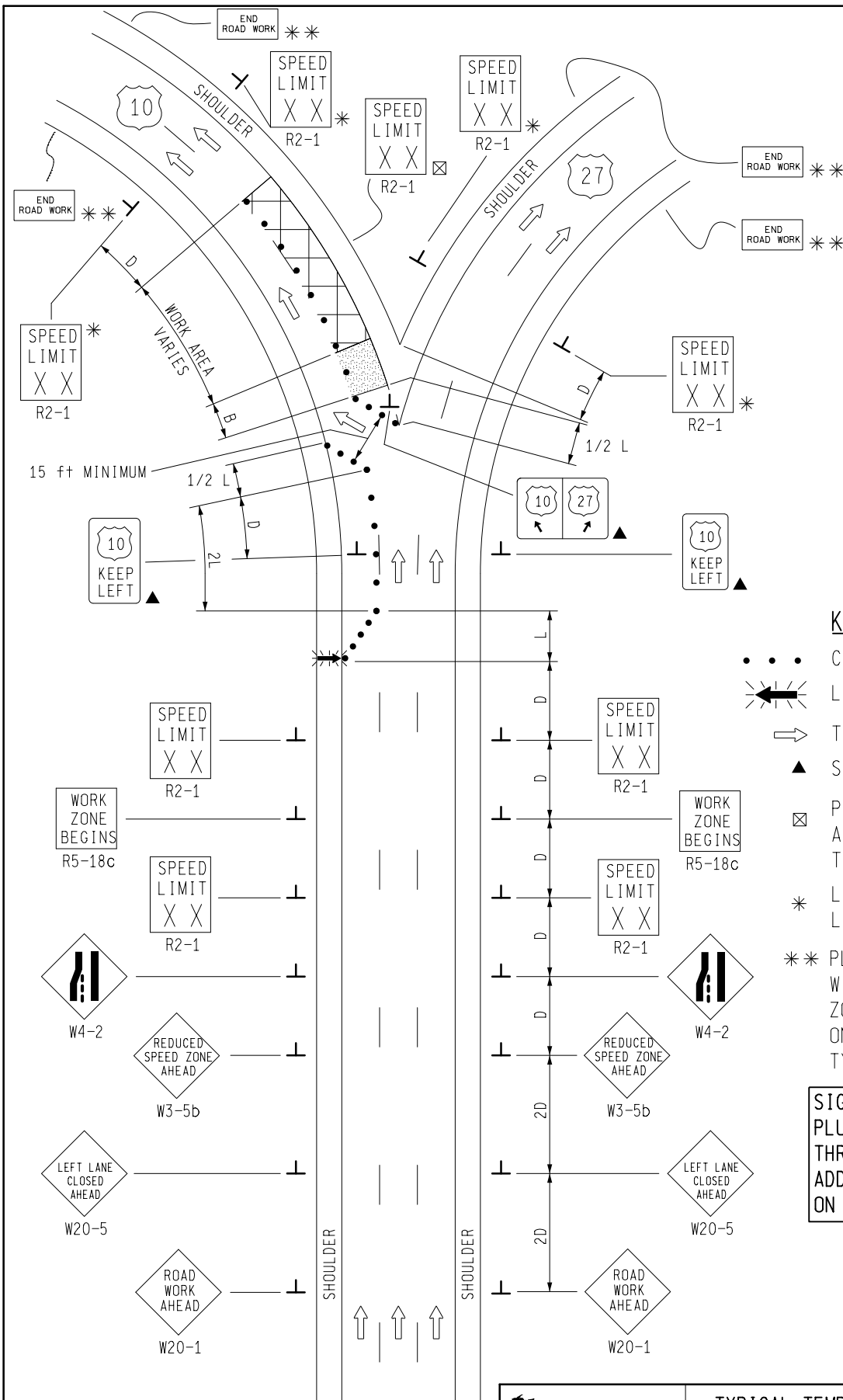
OCTOBER 2011
PLAN DATE:

M1440a

SHEET
2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1440a.dgn

REV. 10/24/2011



KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 2
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 320 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 2

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1450a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
IN ADVANCE OF A GORE AREA AT A MAJOR
DIVERGENCE USING A DOUBLE STEP DOWN
IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1450a

SHEET

1 OF 2

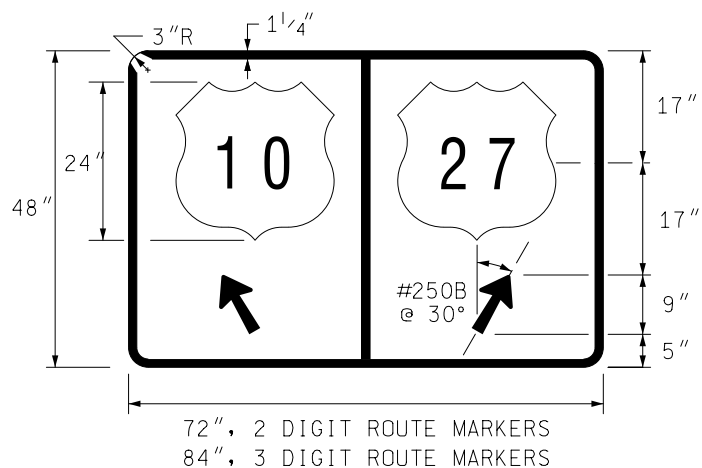
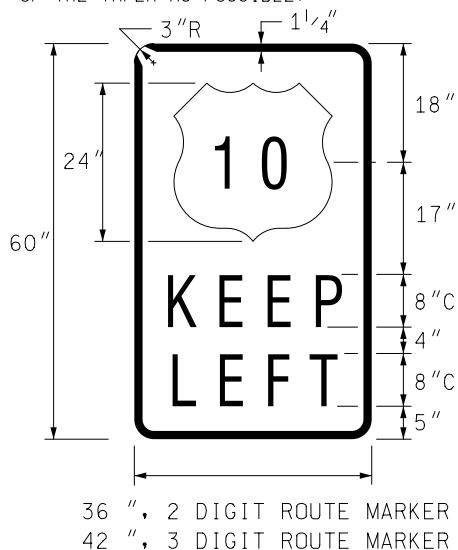
REV. 10/24/2011

NOT TO SCALE

NOTES

- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

SIGN SIZES

DIAMOND WARNING - 48" x 48"
SPECIAL SIGNS - AS DETAILED
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1450a.dgn

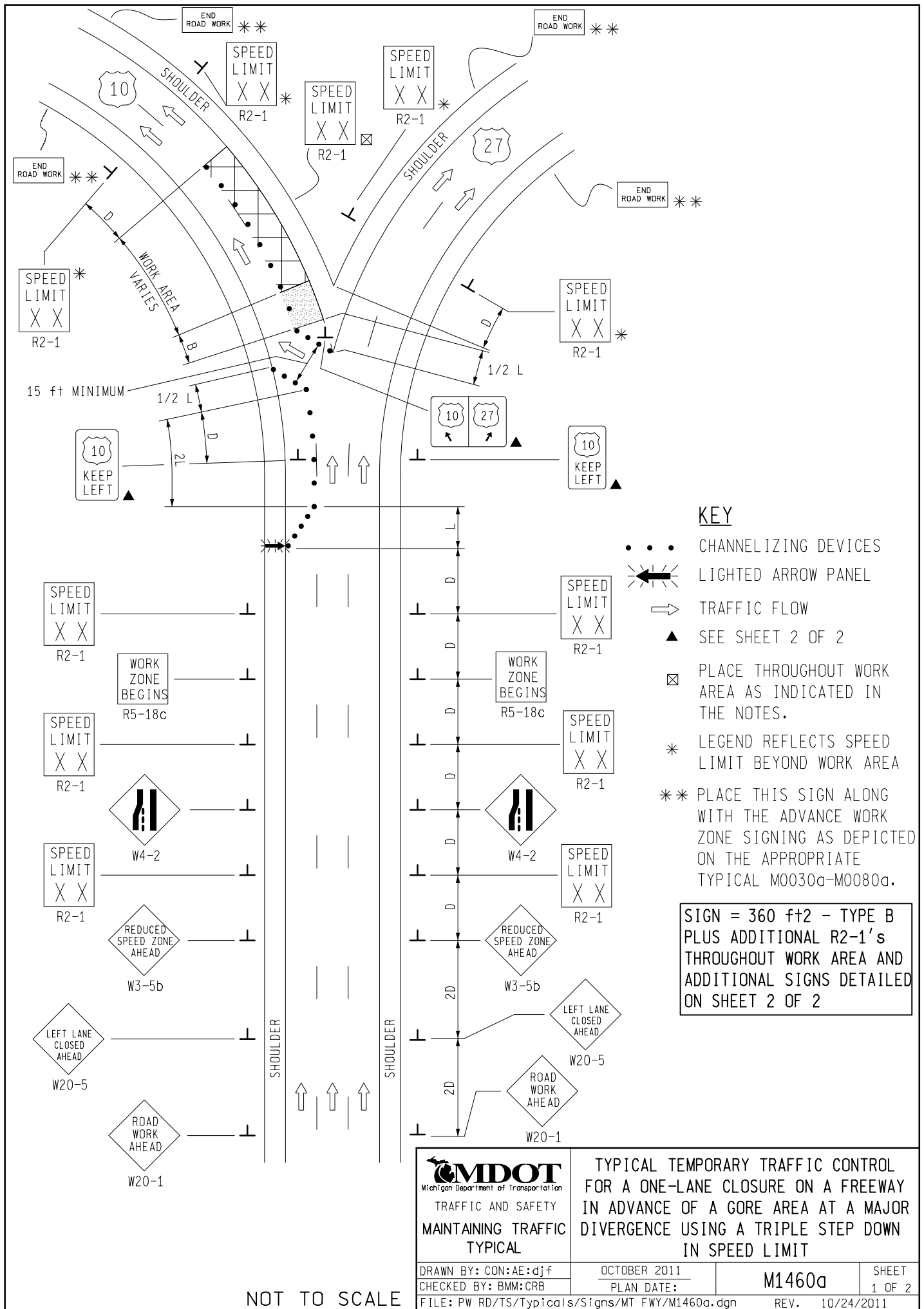
TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
IN ADVANCE OF A GORE AREA AT A MAJOR
DIVERGENCE USING A DOUBLE STEP DOWN
IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1450a

SHEET
2 OF 2

REV. 10/24/2011



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1460a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A ONE-LANE CLOSURE ON A FREEWAY
IN ADVANCE OF A GORE AREA AT A MAJOR
DIVERGENCE USING A TRIPLE STEP DOWN
IN SPEED LIMIT

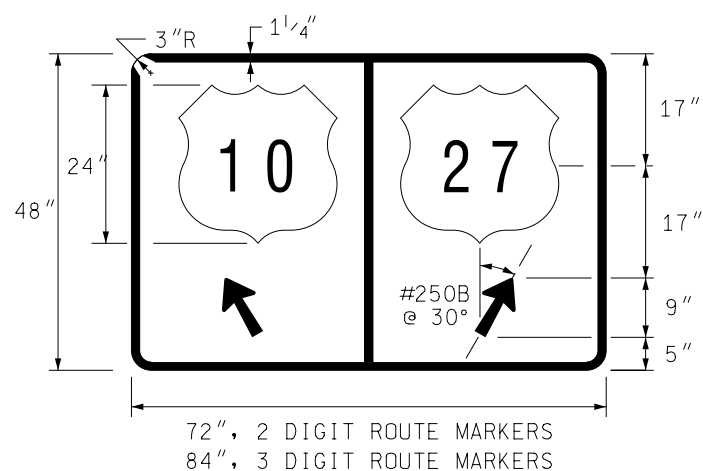
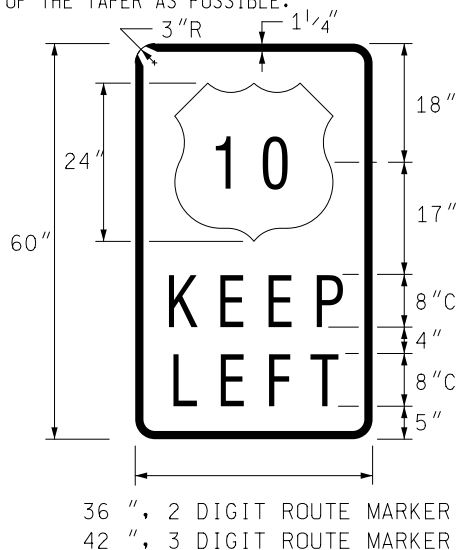
OCTOBER 2011
PLAN DATE:
M1460a
SHEET
1 OF 2
REV. 10/24/2011

- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 L & 1/2 L = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE **M0020a** FOR "D," "L," AND "B" VALUES

NOTES

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- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
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26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
 BACKGROUND - ORANGE (REFLECTORIZED)
 ROUTE MARKER - PER STANDARD

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 SPECIAL SIGNS - AS DETAILED
 RECTANGULAR REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

MDOT
 Michigan Department of Transportation
 TRAFFIC AND SAFETY
 MAINTAINING TRAFFIC
 TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
 FOR A ONE-LANE CLOSURE ON A FREEWAY
 IN ADVANCE OF A GORE AREA AT A MAJOR
 DIVERGENCE USING A TRIPLE STEP DOWN
 IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

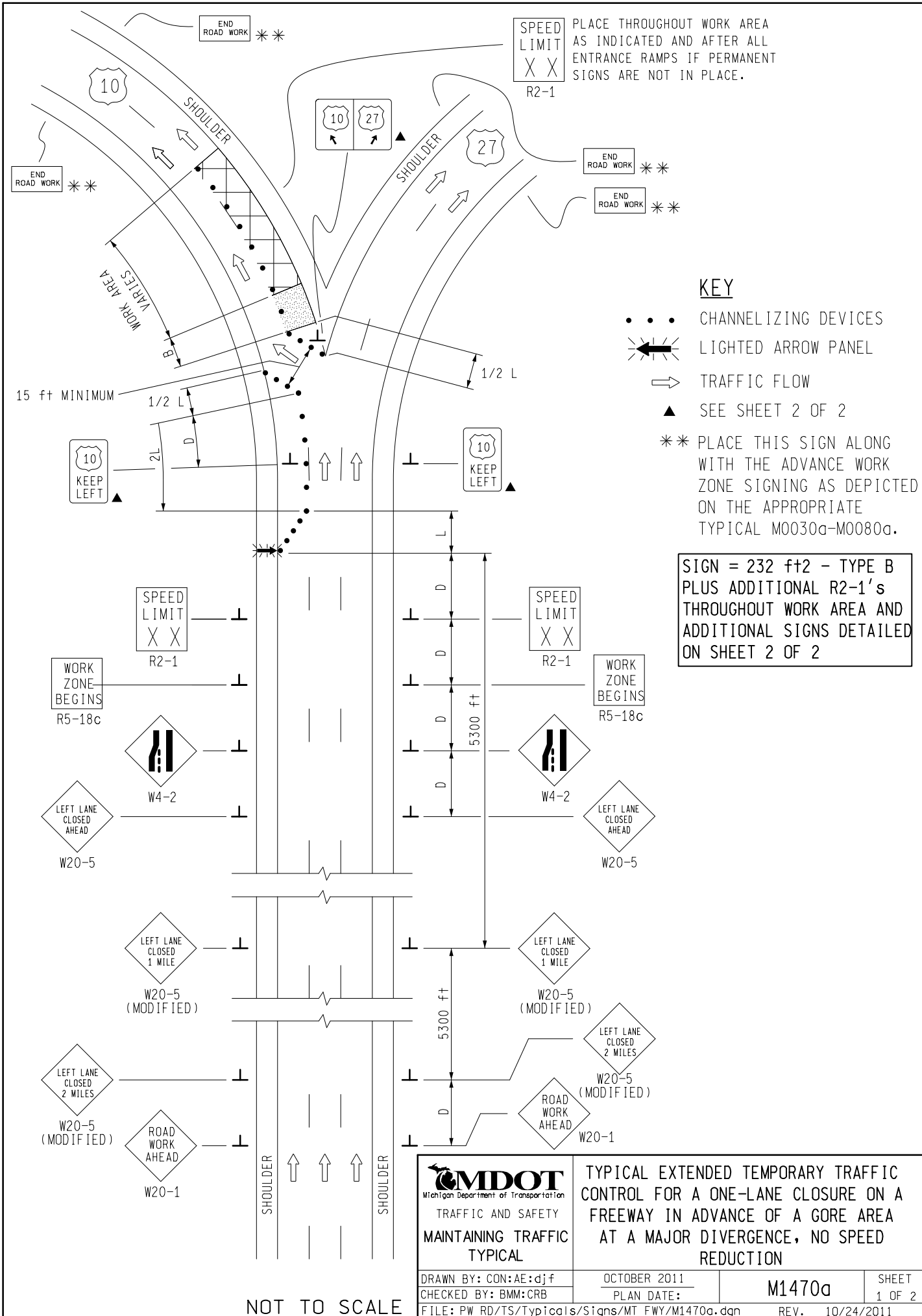
M1460a

SHEET

2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1460a.dgn

REV. 10/24/2011



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

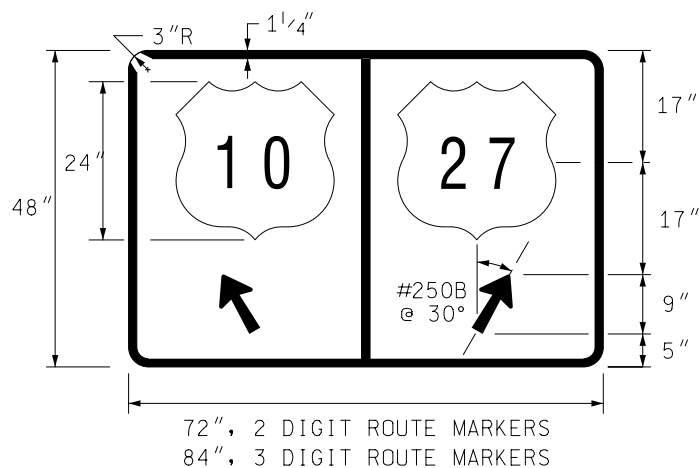
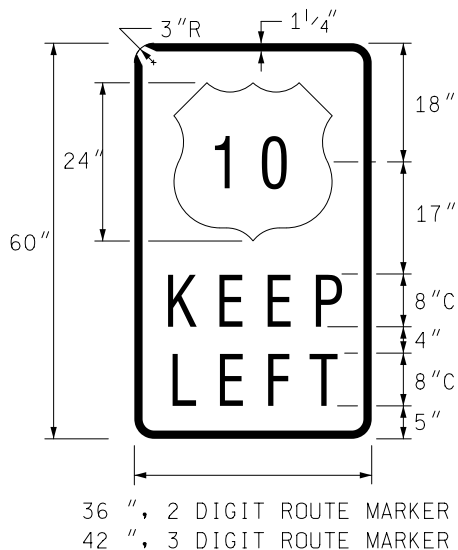
TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY IN ADVANCE OF A GORE AREA AT A MAJOR DIVERGENCE, NO SPEED REDUCTION

DRAWN BY: CON:AE:djf	OCTOBER 2011	M1470a	SHEET 1 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1470a.dgn		REV. 10/24/2011	

NOTES

- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
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- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
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SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

SIGN SIZES

DIAMOND WARNING - 48" x 48"
SPECIAL SIGNS - AS DETAILED
R2-1 REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A ONE-LANE CLOSURE ON A
FREEWAY IN ADVANCE OF A GORE AREA
AT A MAJOR DIVERGENCE, NO SPEED
REDUCTION

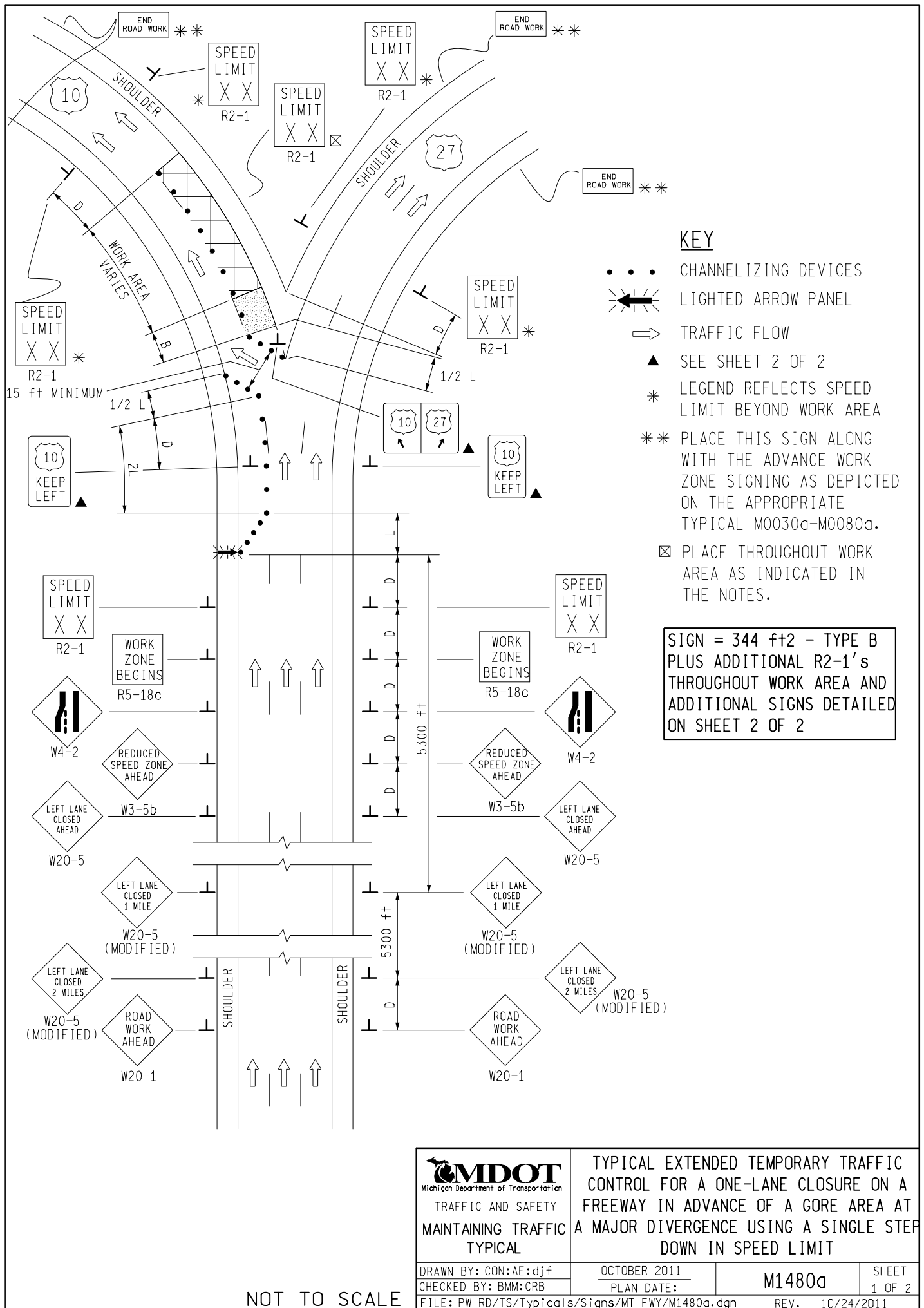
OCTOBER 2011
PLAN DATE:

M1470a

SHEET
2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1470a.dgn

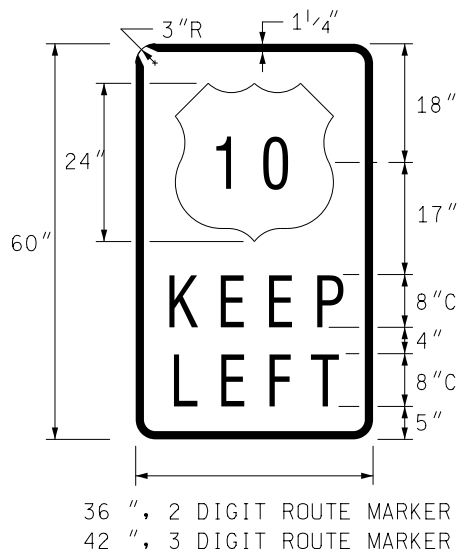
REV. 10/24/2011



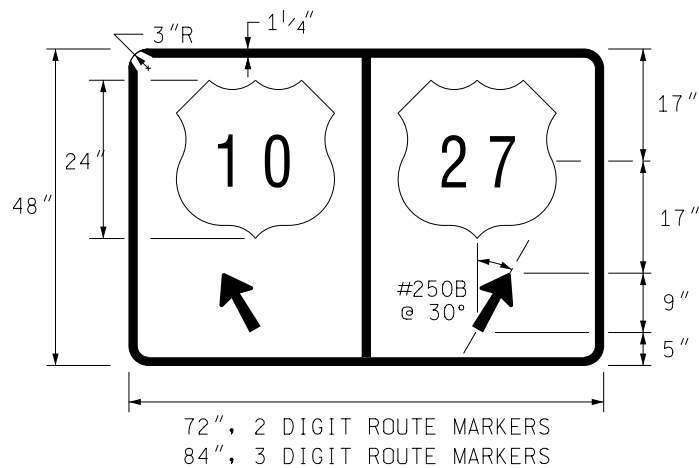
- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 L & 1/2 L = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE **M0020a** FOR "D," "L," AND "B" VALUES

NOTES

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7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
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- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.



SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
 BACKGROUND - ORANGE (REFLECTORIZED)
 ROUTE MARKER - PER STANDARD

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 SPECIAL SIGNS - AS DETAILED
 RECTANGULAR REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

MDOT
 Michigan Department of Transportation
 TRAFFIC AND SAFETY
 MAINTAINING TRAFFIC
 TYPICAL

DRAWN BY: CON:AE:djf
 CHECKED BY: BMM:CRB
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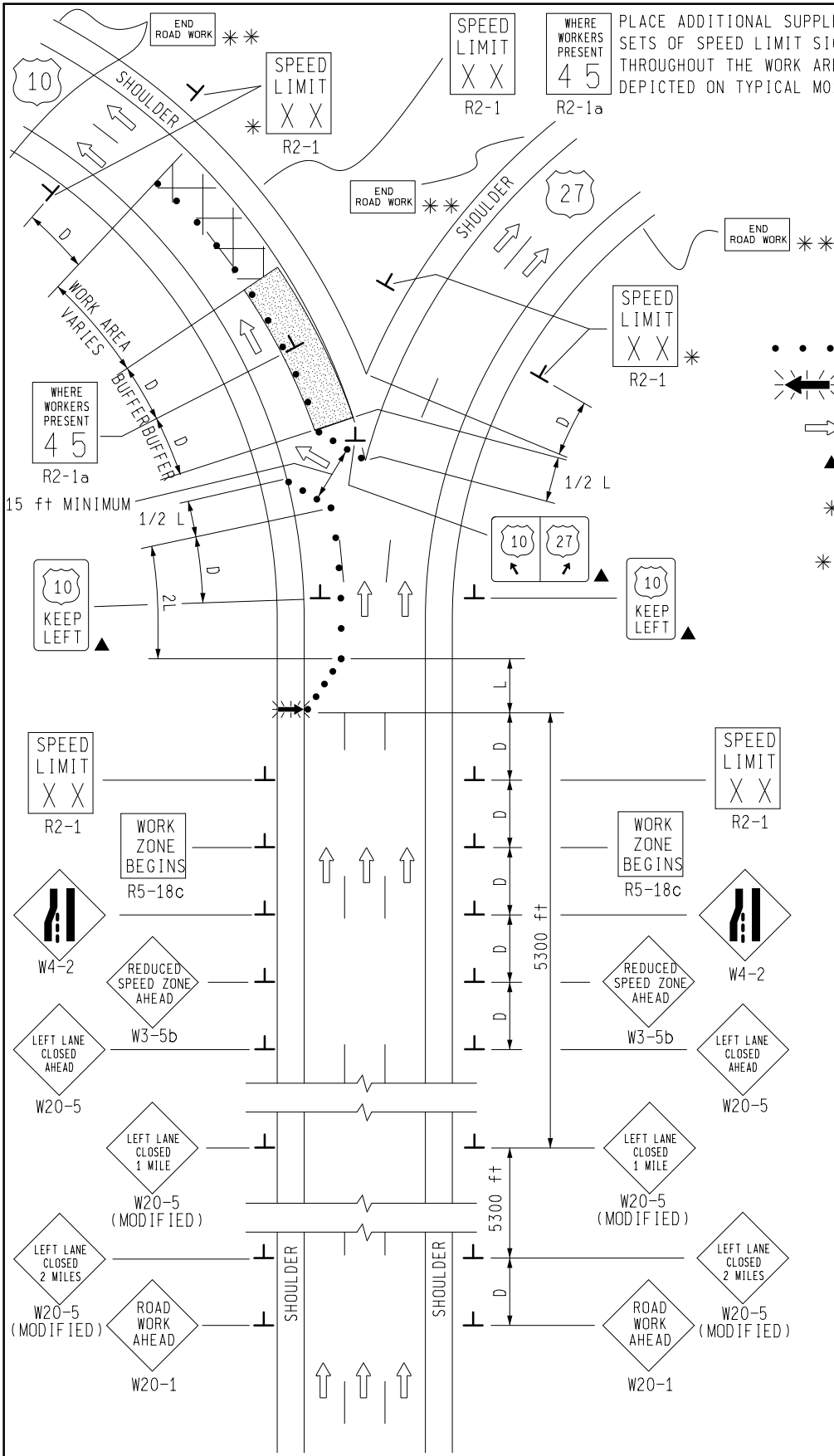
TYPICAL EXTENDED TEMPORARY TRAFFIC
 CONTROL FOR A ONE-LANE CLOSURE ON A
 FREEWAY IN ADVANCE OF A GORE AREA AT
 A MAJOR DIVERGENCE USING A SINGLE STEP
 DOWN IN SPEED LIMIT

OCTOBER 2011
 PLAN DATE:

M1480a

SHEET
 2 OF 2


REV. 10/24/2011



KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 2
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

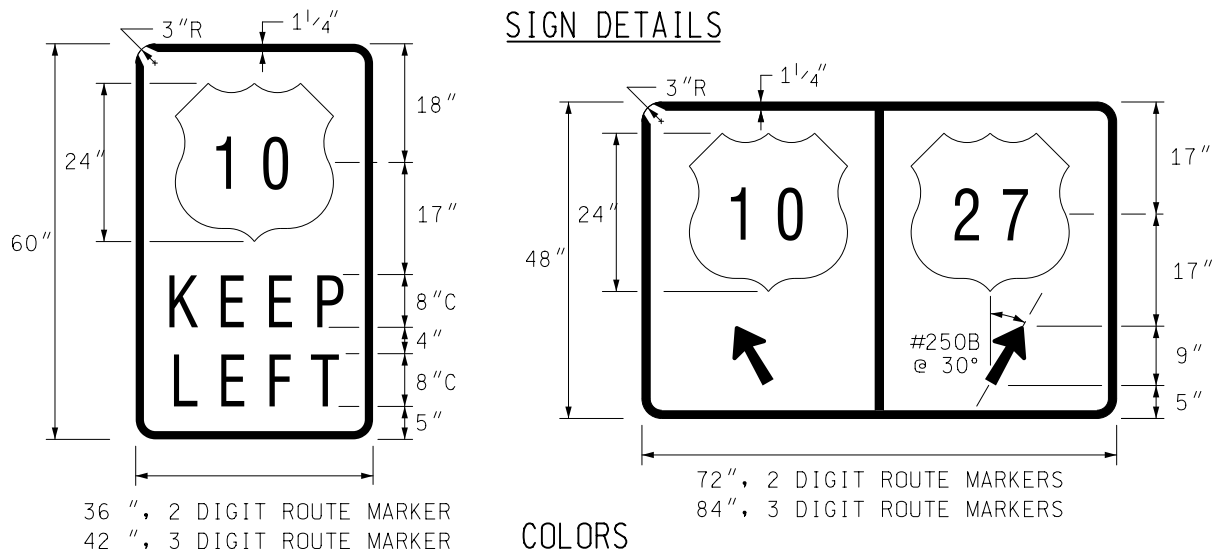
SIGN = 364 ft± - TYPE B PLUS ADDITIONAL SPEED LIMIT SIGNING THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 2

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY IN ADVANCE OF A GORE AREA AT A MAJOR DIVERGENCE USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
		DRAWN BY: CON:AE:djf CHECKED BY: BMM:CRB	OCTOBER 2011 PLAN DATE:
NOT TO SCALE		FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1490a.dgn REV. 10/24/2011	

NOTES

- 1K. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L & 1/2 L = MINIMUM LENGTH OF TAPER
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- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
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SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

SIGN SIZES

DIAMOND WARNING - 48" x 48"
SPECIAL SIGNS - AS DETAILED
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY IN ADVANCE OF A GORE AREA AT A MAJOR DIVERGENCE USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT

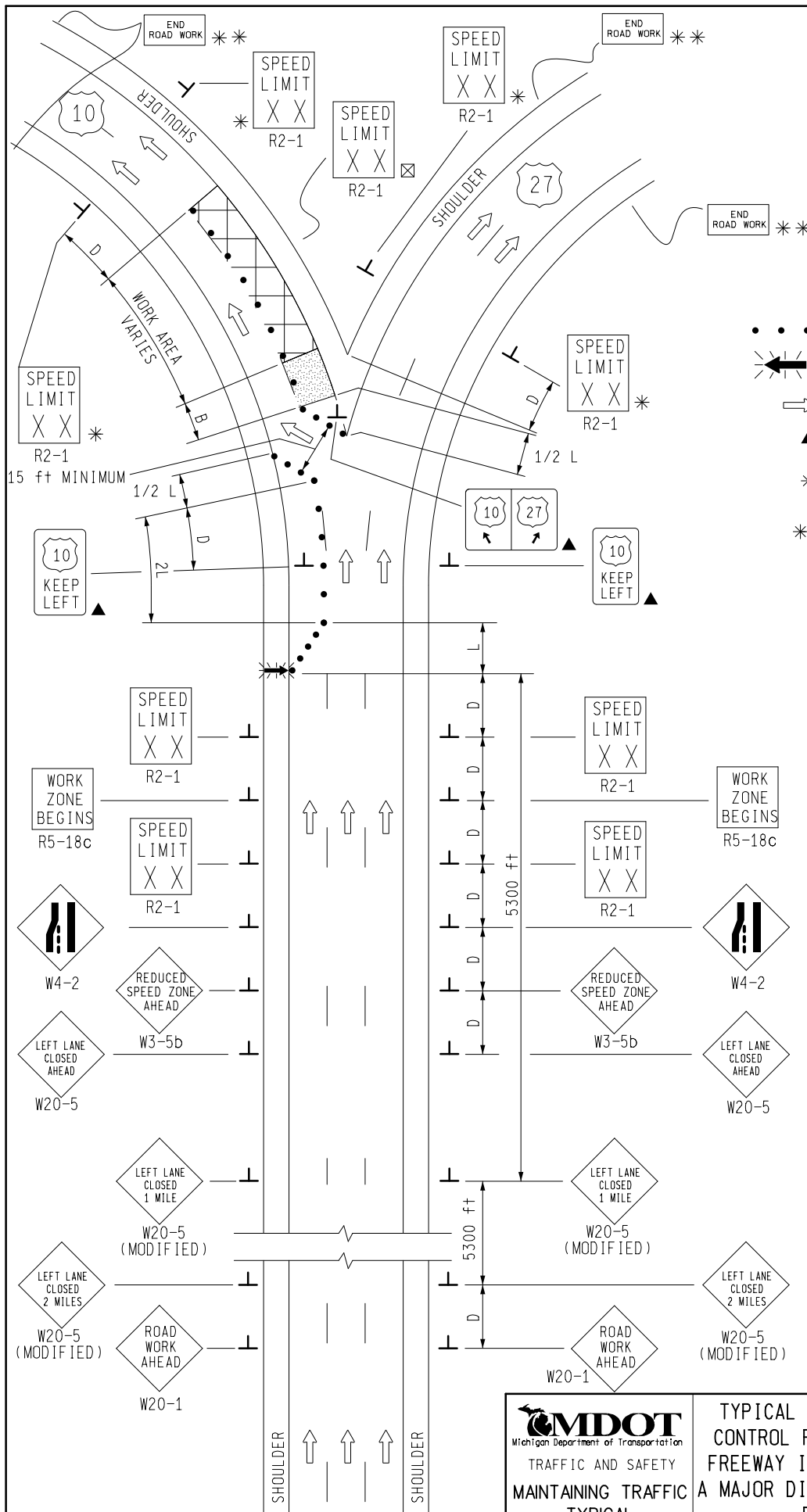
OCTOBER 2011
PLAN DATE:

M1490a

SHEET
2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1490a.dgn

REV. 10/24/2011



KEY

- • • CHANNELIZING DEVICES
- ➔ LIGHTED ARROW PANEL
- ➔ TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 2
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M008a.
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.

SIGN = 384 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 2

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1500a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY IN ADVANCE OF A GORE AREA AT A MAJOR DIVERGENCE USING A DOUBLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1500a

SHEET
1 OF 2

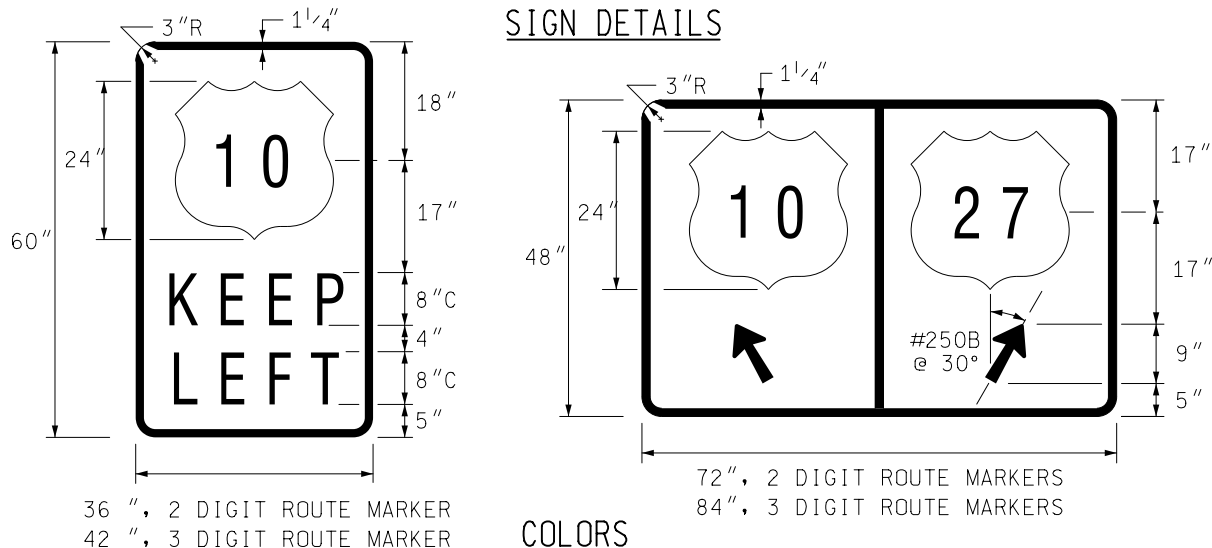
NOT TO SCALE

REV. 10/24/2011

NOTES

- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

SIGN SIZES

DIAMOND WARNING - 48" x 48"
SPECIAL SIGNS - AS DETAILED
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY IN ADVANCE OF A GORE AREA AT A MAJOR DIVERGENCE USING A DOUBLE STEP DOWN IN SPEED LIMIT

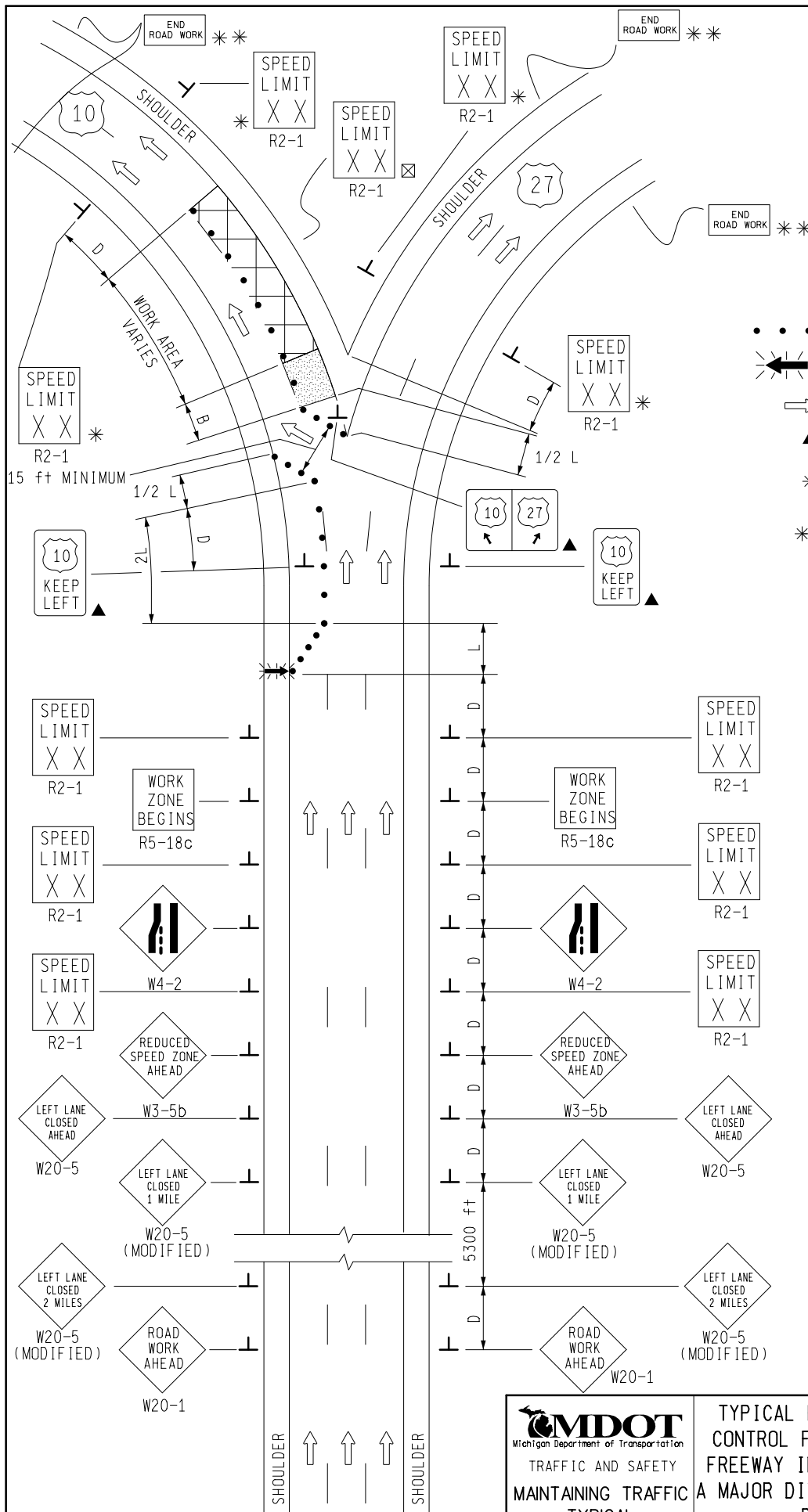
OCTOBER 2011
PLAN DATE:

M1500a

SHEET
2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1500a.dgn

REV. 10/24/2011



KEY

- • • CHANNELIZING DEVICES
- ➔ LIGHTED ARROW PANEL
- ➔ TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 2
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.

SIGN = 424 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 2



TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1510a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A FREEWAY IN ADVANCE OF A GORE AREA AT A MAJOR DIVERGENCE USING A TRIPLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1510a

SHEET

1 OF 2

REV. 10/24/2011

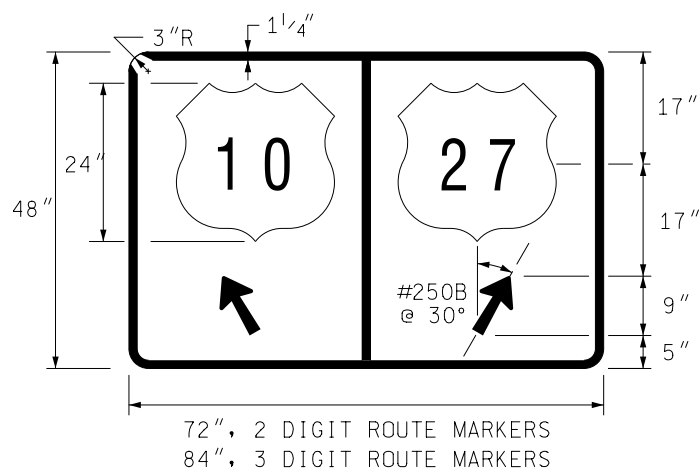
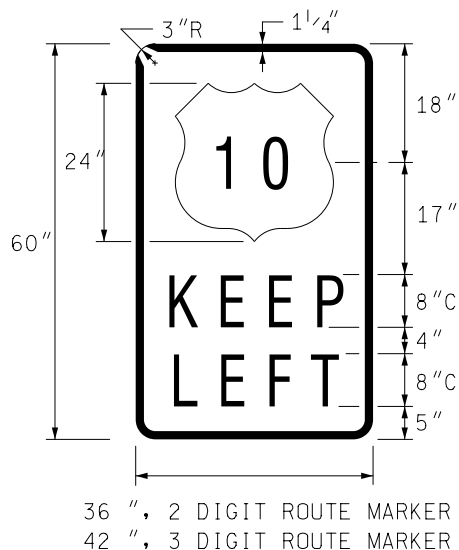
NOT TO SCALE

- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 L & 1/2 L = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE **M0020a** FOR "D," "L," AND "B" VALUES

NOTES

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8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
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SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
 BACKGROUND - ORANGE (REFLECTORIZED)
 ROUTE MARKER - PER STANDARD

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 SPECIAL SIGNS - AS DETAILED
 RECTANGULAR REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

MDOT
 Michigan Department of Transportation
 TRAFFIC AND SAFETY
 MAINTAINING TRAFFIC
 TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

TYPICAL EXTENDED TEMPORARY TRAFFIC
 CONTROL FOR A ONE-LANE CLOSURE ON A
 FREEWAY IN ADVANCE OF A GORE AREA AT
 A MAJOR DIVERGENCE USING A TRIPLE STEP
 DOWN IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

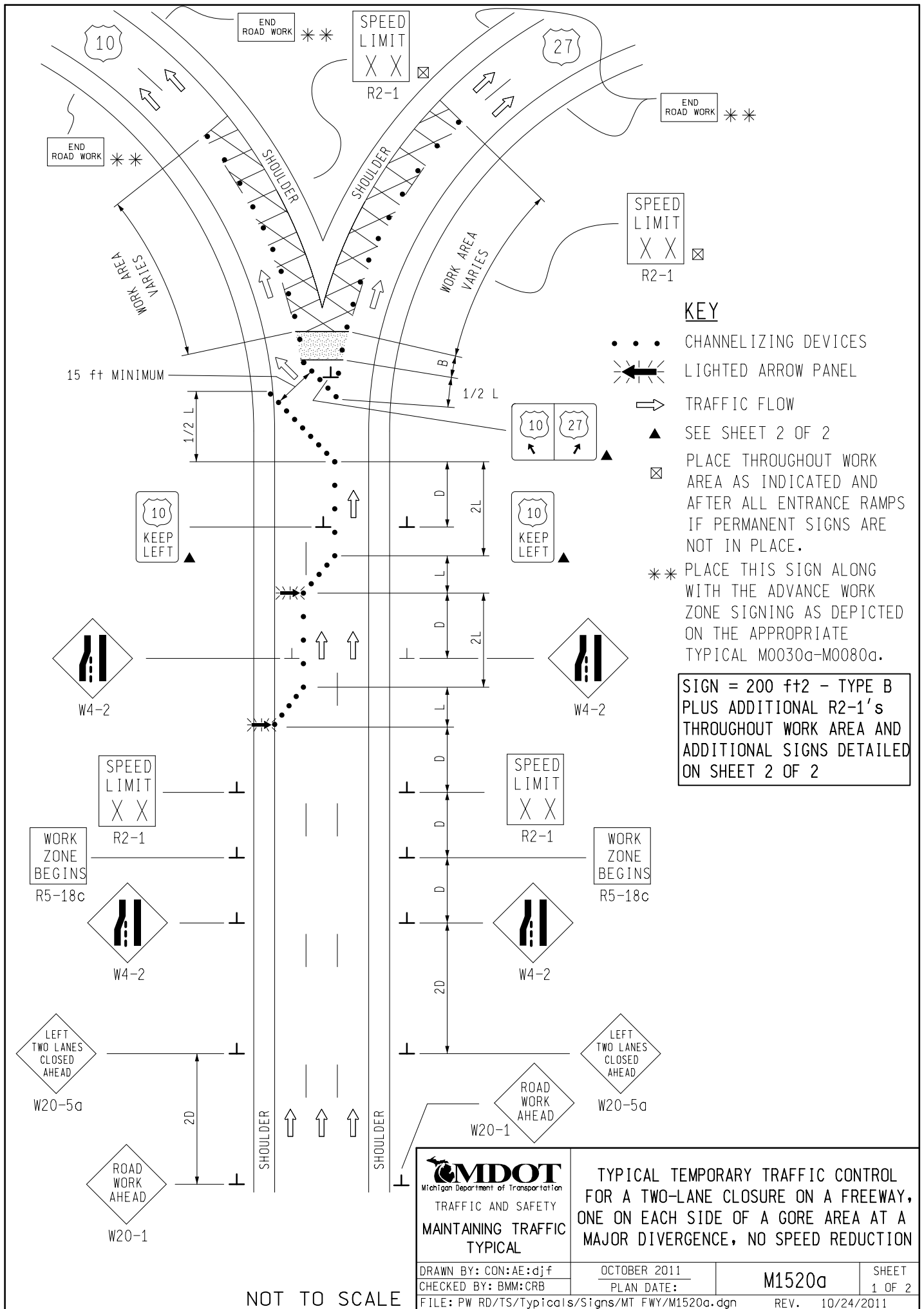
M1510a

SHEET

2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1510a.dgn

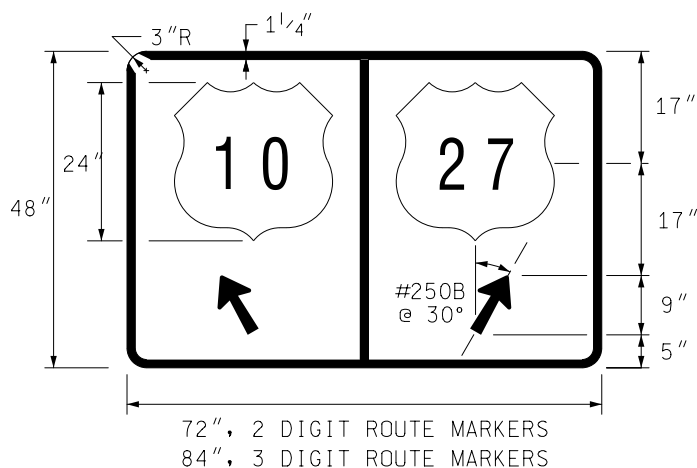
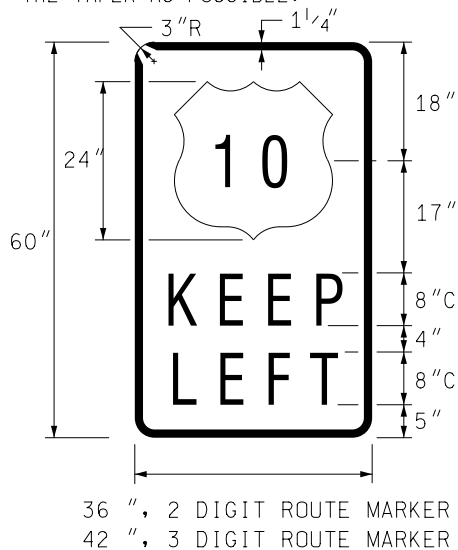
REV. 10/24/2011



NOTES

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SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

SIGN SIZES

DIAMOND WARNING - 48" x 48"
SPECIAL SIGNS - AS DETAILED
R2-1 REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE



DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE, NO SPEED REDUCTION

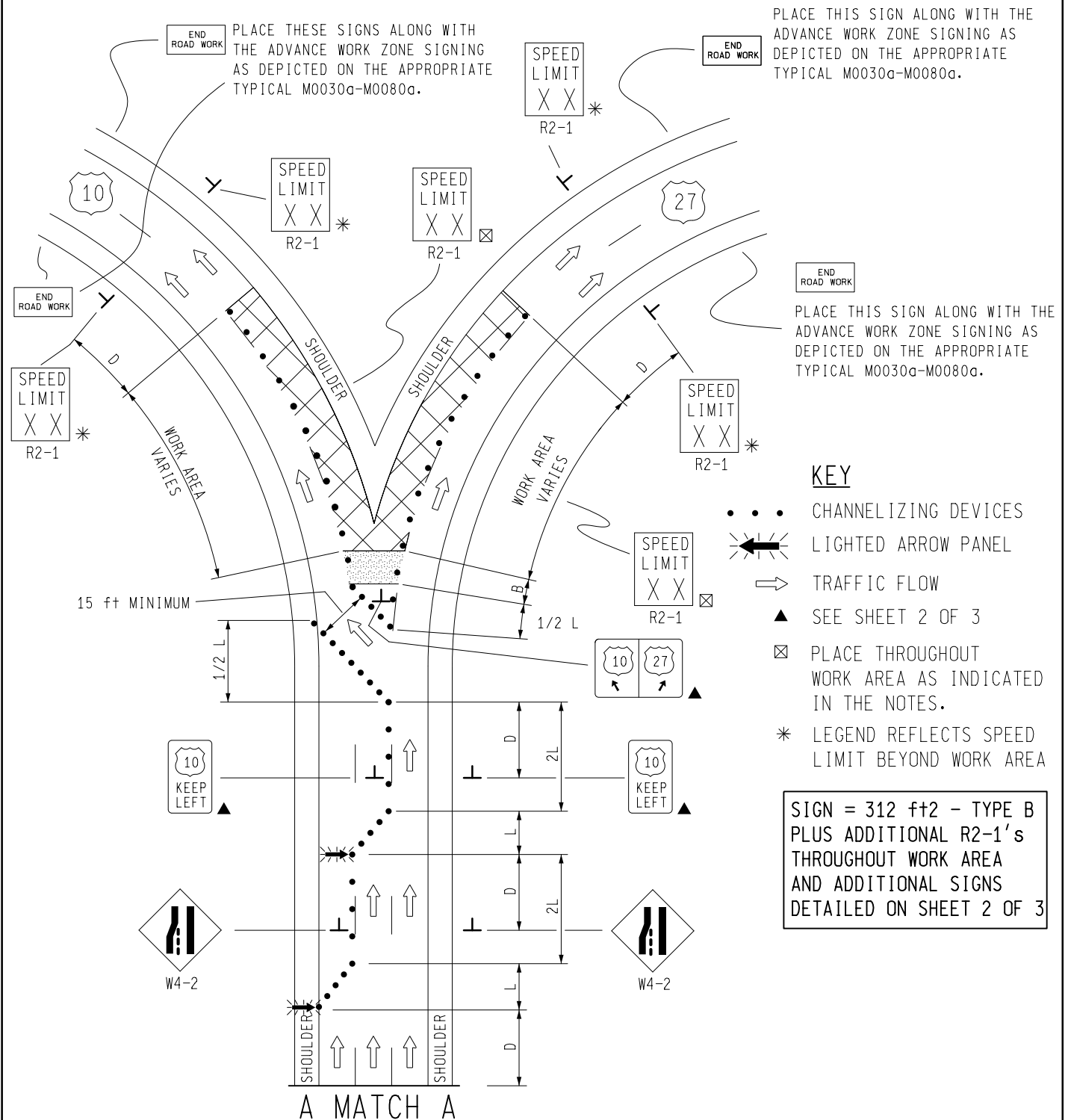
OCTOBER 2011
PLAN DATE:

M1520a

SHEET
2 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1520a.dgn

REV. 10/24/2011



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1530a.dgn

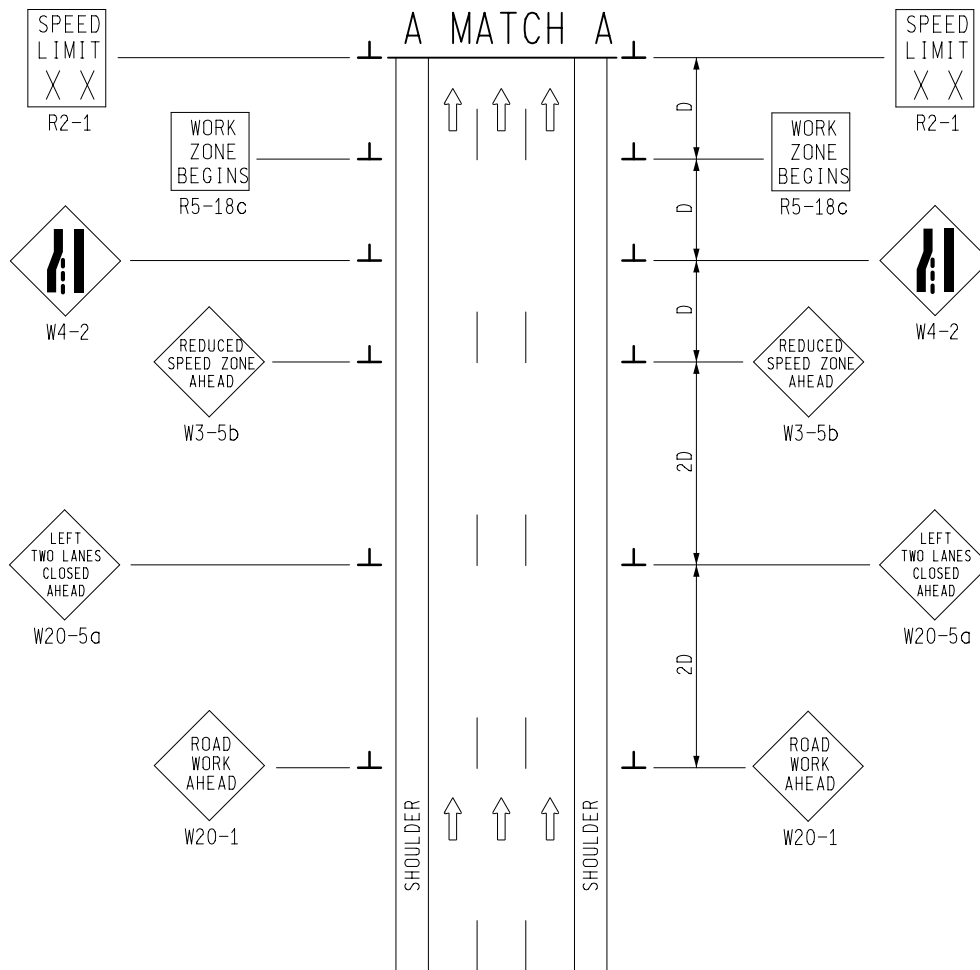
TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE USING A SINGLE STEP
DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

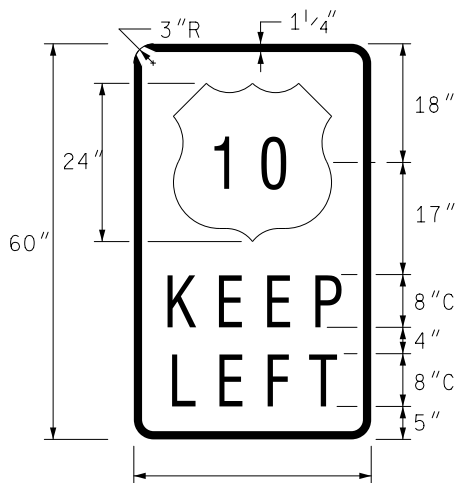
M1530a

SHEET
1 OF 3

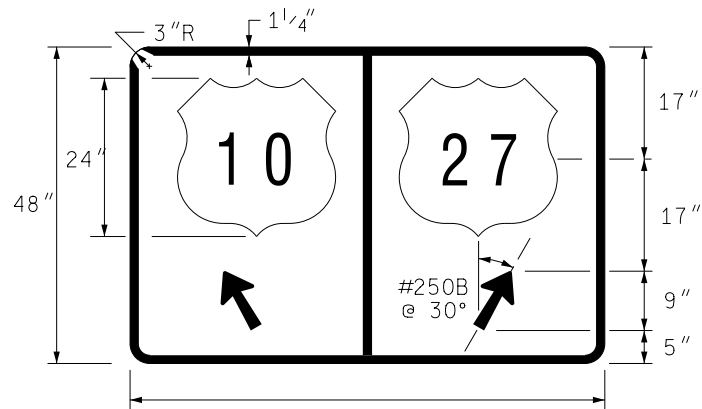
REV. 10/24/2011



SIGN DETAILS



36", 2 DIGIT ROUTE MARKER
42", 3 DIGIT ROUTE MARKER



72", 2 DIGIT ROUTE MARKERS
84", 3 DIGIT ROUTE MARKERS

COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1530a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE USING A SINGLE STEP
DOWN IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1530a

SHEET

2 OF 3

REV. 10/24/2011


NOTES

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SIGN SIZES

DIAMOND WARNING	- 48" x 48"
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL	TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A SINGLE STEP DOWN IN SPEED LIMIT			
	DRAWN BY: CON:AE:djf	OCTOBER 2011	M1530a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:			
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1530a.dgn			REV.	10/24/2011

END
ROAD WORK

PLACE THESE SIGNS ALONG WITH
THE ADVANCE WORK ZONE SIGNING
AS DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X
R2-1

WHERE
WORKERS
PRESENT
4 5
R2-1a

PLACE ADDITIONAL SUPPLEMENTAL
SETS OF SPEED LIMIT SIGNS
THROUGHOUT THE WORK AREA AS
DEPICTED ON TYPICAL M0100a.

SPEED
LIMIT
X X
R2-1

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
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SPEED
LIMIT
X X
R2-1

WHERE
WORKERS
PRESENT
4 5
R2-1a

PLACE ADDITIONAL SUPPLEMENTAL
SETS OF SPEED LIMIT SIGNS
THROUGHOUT THE WORK AREA AS
DEPICTED ON TYPICAL M0100a.

KEY

- ... CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 3
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA

SIGN = 352 ft± - TYPE B
PLUS ADDITIONAL SPEED
LIMIT SIGNING THROUGHOUT
WORK AREA AND ADDITIONAL
SIGNS DETAILED ON SHEET
2 OF 3

10

27

WORK AREA
VARIES

WORK AREA
VARIES

WHERE
WORKERS
PRESENT
4 5
R2-1a

WHERE
WORKERS
PRESENT
4 5
R2-1a

15 ft+ MINIMUM

1/2 L

10
KEEP LEFT

10
KEEP LEFT

W4-2

W4-2

A MATCH A

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

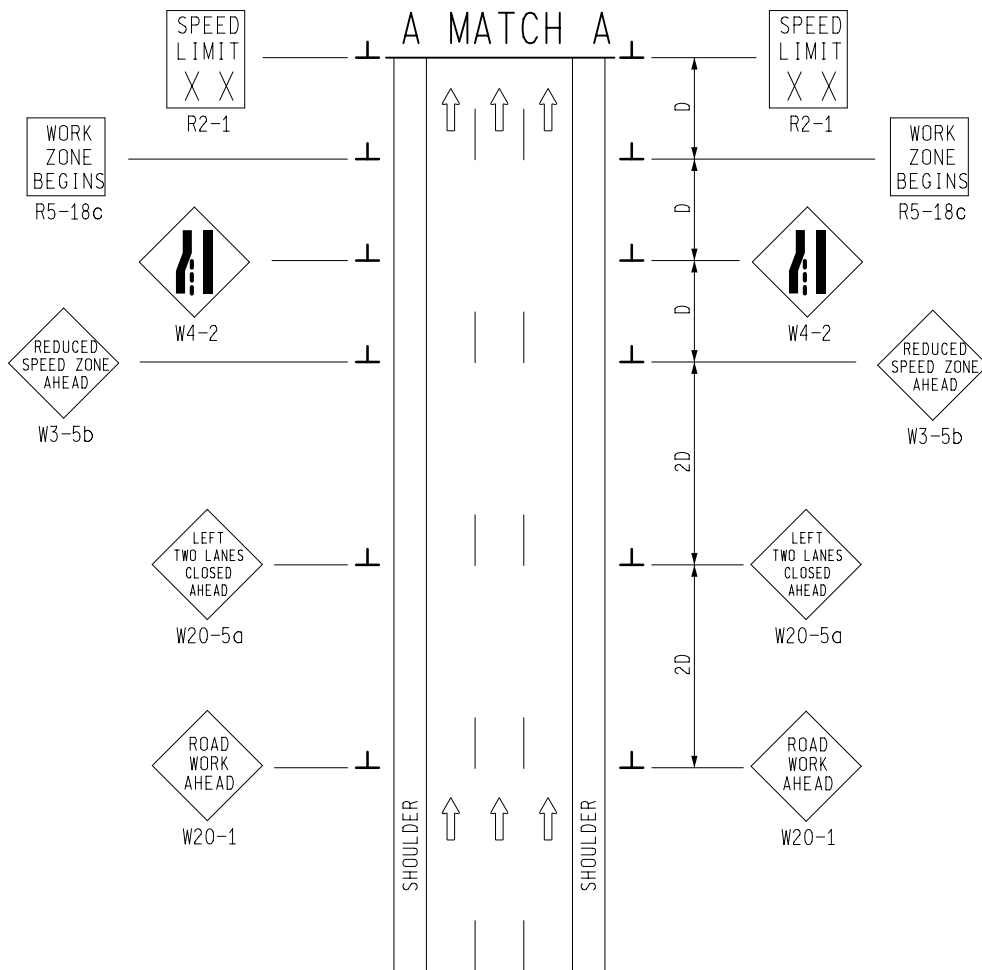
TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE USING A REDUCED
SPEED LIMIT WHERE WORKERS PRESENT

OCTOBER 2011
PLAN DATE:

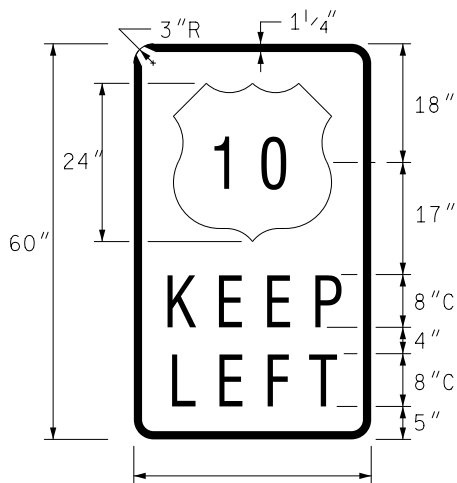
M1540a

SHEET
1 OF 3

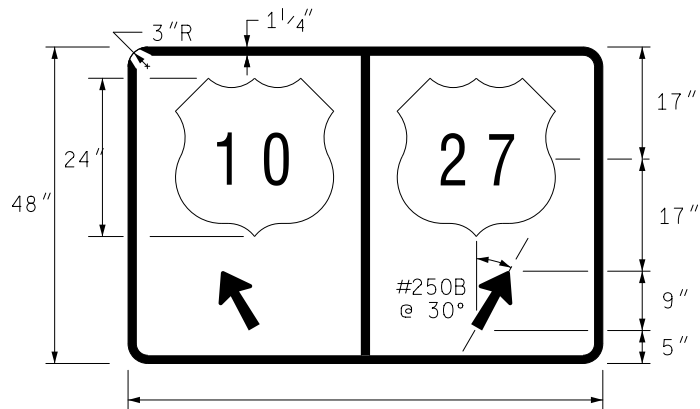
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SIGN DETAILS



36", 2 DIGIT ROUTE MARKER
42", 3 DIGIT ROUTE MARKER



72", 2 DIGIT ROUTE MARKERS
84", 3 DIGIT ROUTE MARKERS

COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1540a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE USING A REDUCED
SPEED LIMIT WHERE WORKERS PRESENT

OCTOBER 2011

PLAN DATE:

M1540a

SHEET

2 OF 3

REV. 10/24/2011


NOTES

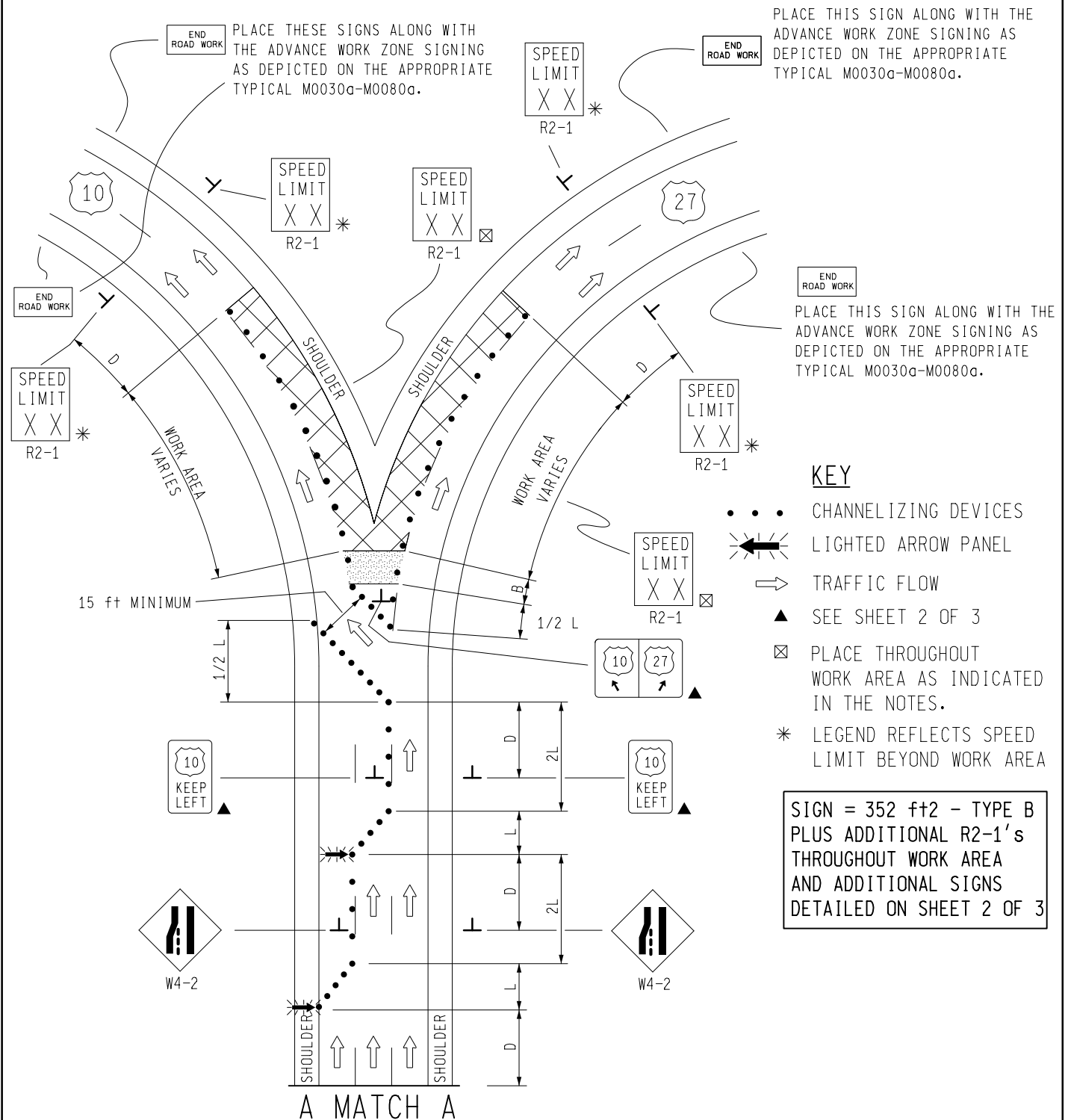
- 1K. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L & 1/2 L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

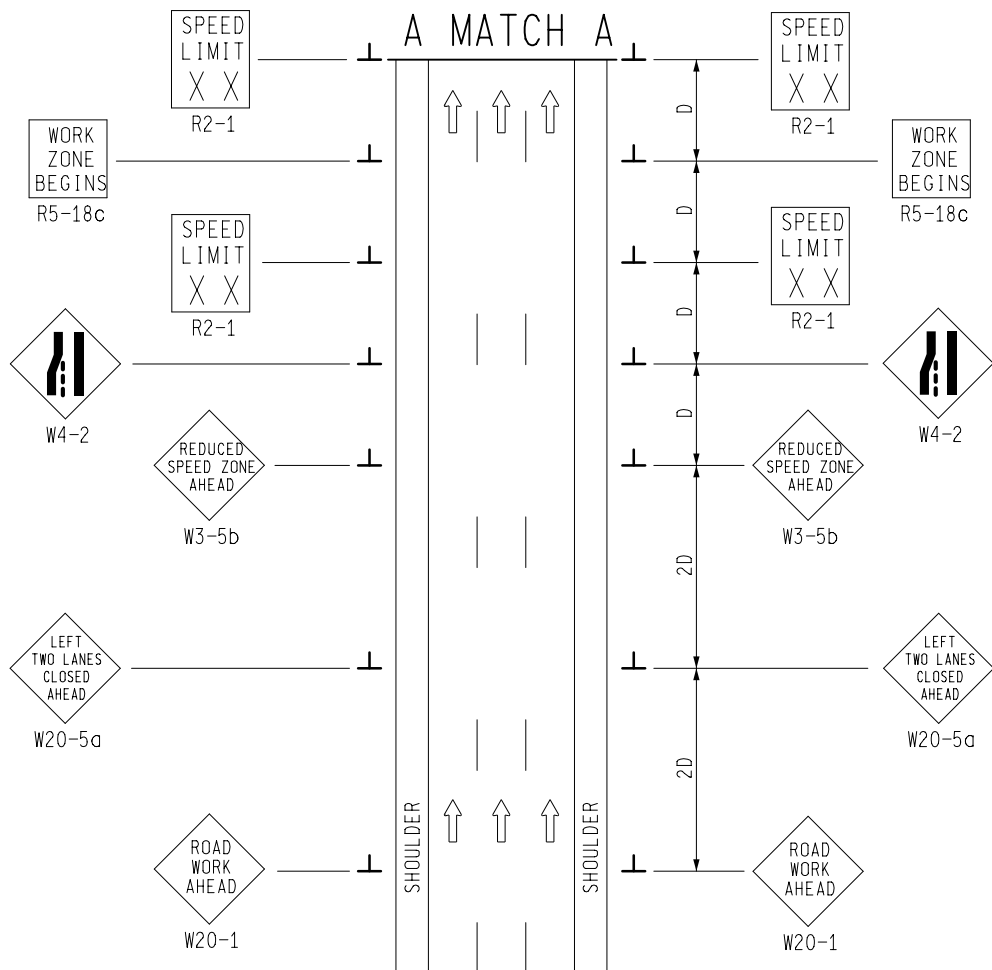
NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1540a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1540a.dgn		REV. 10/24/2011	

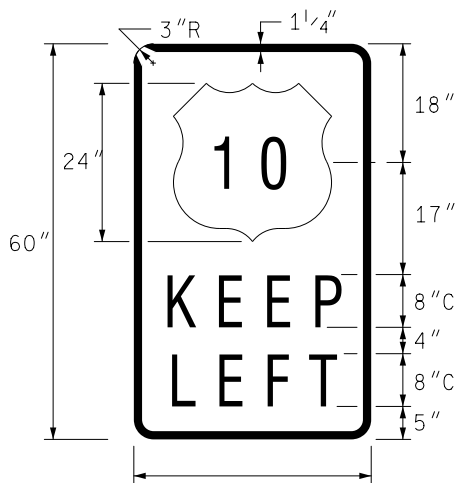


NOT TO SCALE

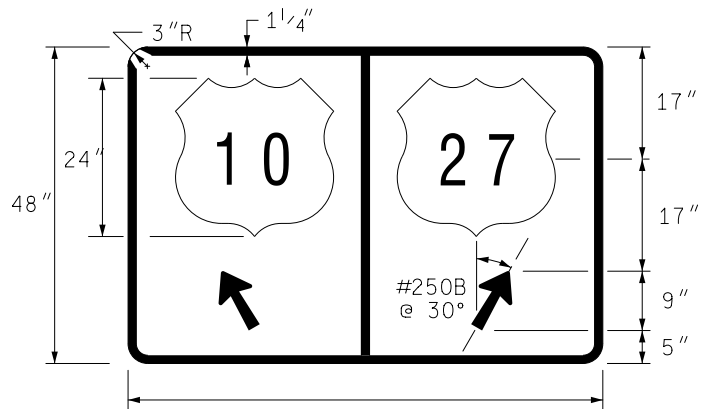
<p>Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL</p>		<p>TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A DOUBLE STEP DOWN IN SPEED LIMIT</p>	
<p>DRAWN BY: CON:AE:djf CHECKED BY: BMM:CRB</p>	<p>OCTOBER 2011 PLAN DATE:</p>	<p>M1550a</p>	<p>SHEET 1 OF 3</p>
<p>FILE: k:\DGN-TSR-STDS-ENGLISH-MNTTRF-M1550a.dgn</p>		<p>REV. 10/26/2011</p>	



SIGN DETAILS



36", 2 DIGIT ROUTE MARKER
42", 3 DIGIT ROUTE MARKER



72", 2 DIGIT ROUTE MARKERS
84", 3 DIGIT ROUTE MARKERS

COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: k:\DGN-TSR-STD5-ENGLISH-MNTTRF-M1550a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE USING A DOUBLE STEP
DOWN IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1550a

SHEET

2 OF 3

REV. 10/26/2011


NOTES

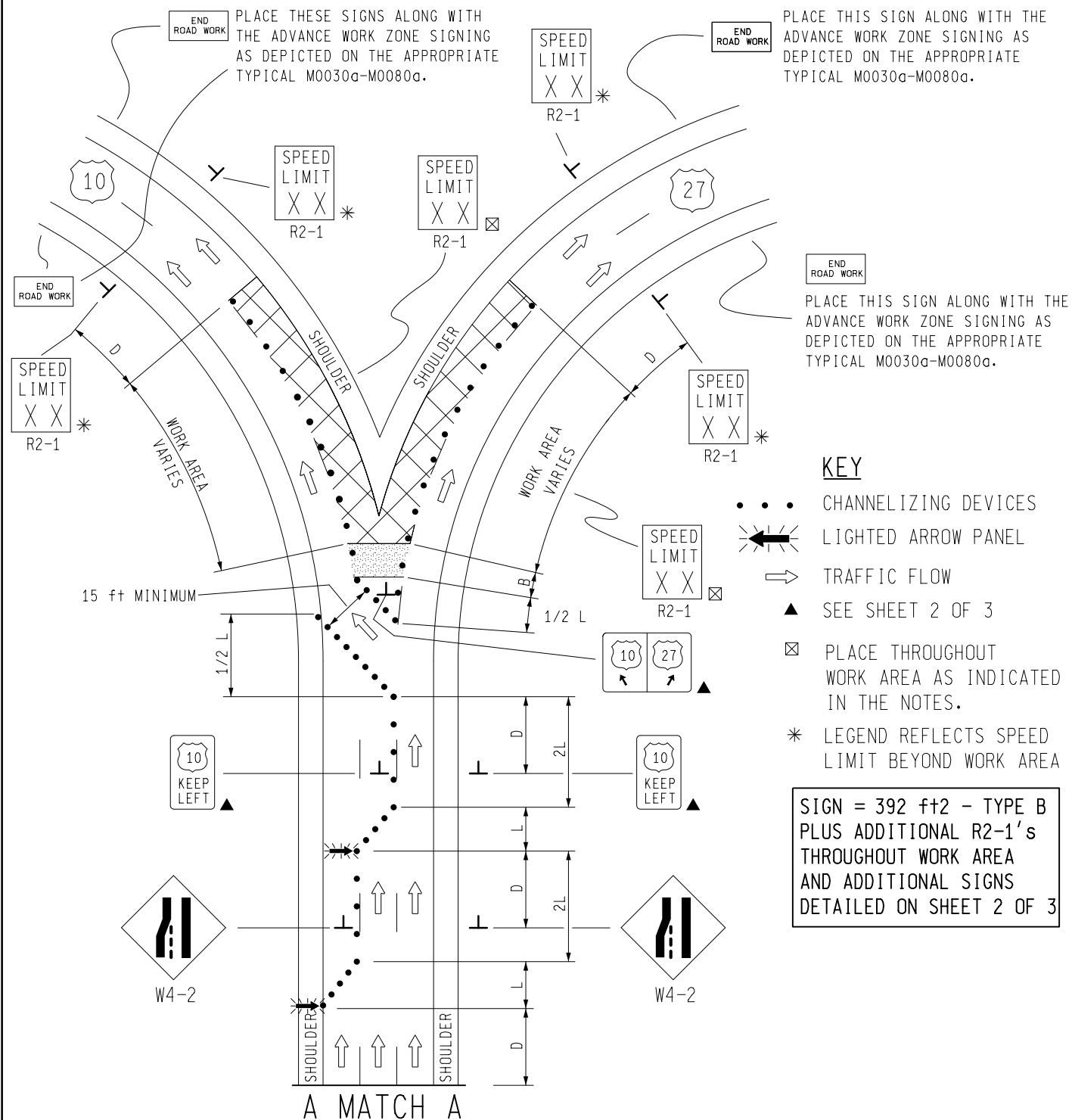
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- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
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- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
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SIGN SIZES

DIAMOND WARNING	- 48" x 48"
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

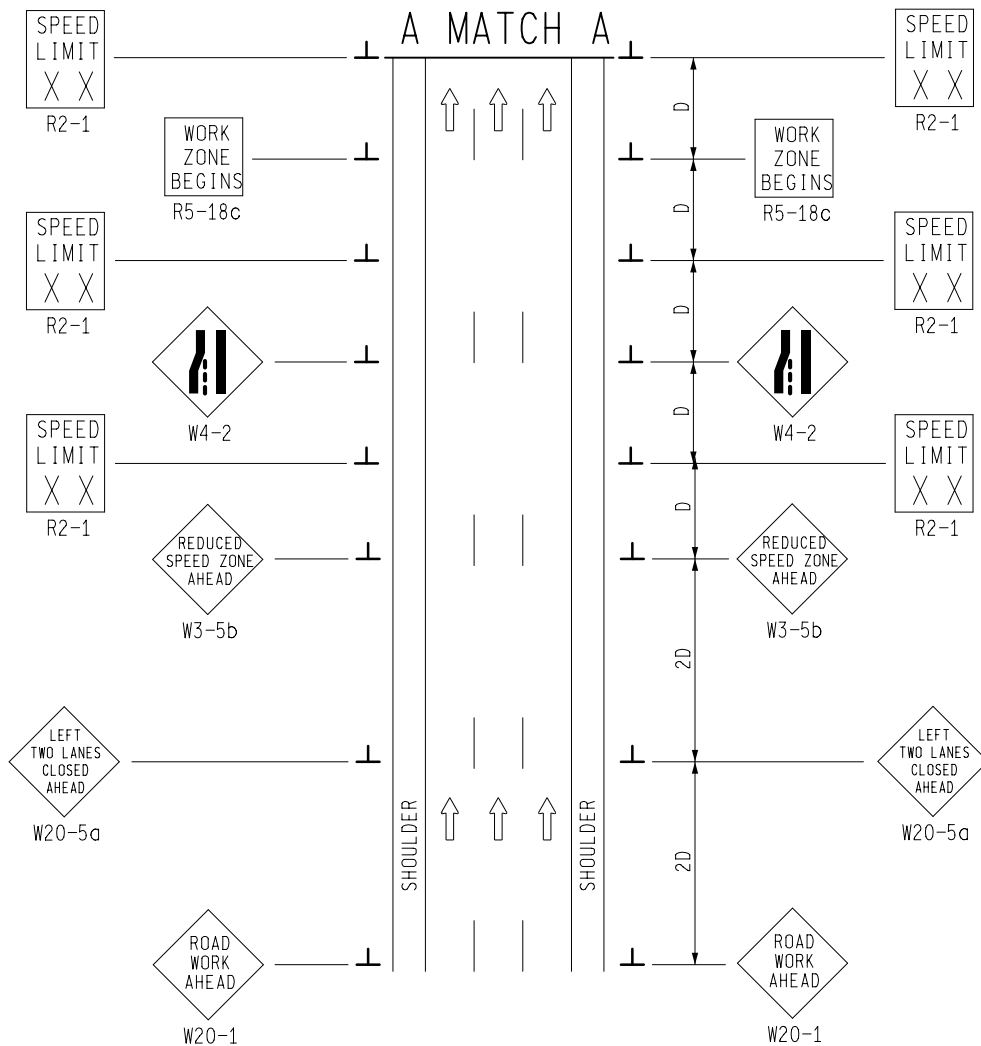
NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A DOUBLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1550a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: k:-DGN-TSR-STD5-ENGLISH-MNTTRF-M1550a.dgn		REV. 7/4/2012	

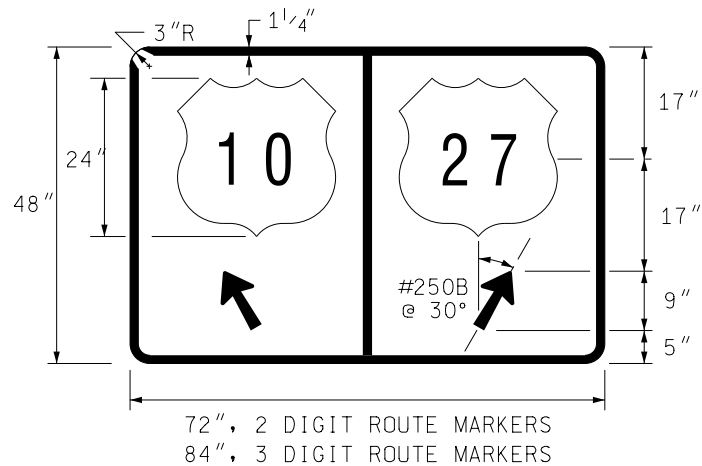
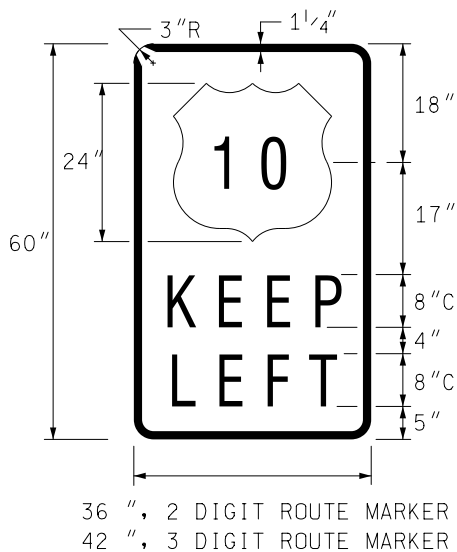


NOT TO SCALE

<p>Michigan Department of Transportation</p> <p>TRAFFIC AND SAFETY</p> <p>MAINTAINING TRAFFIC</p> <p>TYPICAL</p>		<p>TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A TRIPLE STEP DOWN IN SPEED LIMIT</p>	
<p>DRAWN BY: CON:AE:djf</p> <p>CHECKED BY: BMM:CRB</p>	<p>OCTOBER 2011</p> <p>PLAN DATE:</p>	<p>M1560a</p>	<p>SHEET 1 OF 3</p>
<p>FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1560a.dgn</p>		<p>REV. 10/24/2011</p>	




SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

NOT TO SCALE

 MDOT Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A TRIPLE STEP DOWN IN SPEED LIMIT	
		DRAWN BY: CON:AE:djf CHECKED BY: BMM:CRB	OCTOBER 2011 PLAN DATE:
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1560a.dgn		REV. 10/24/2011	


NOTES

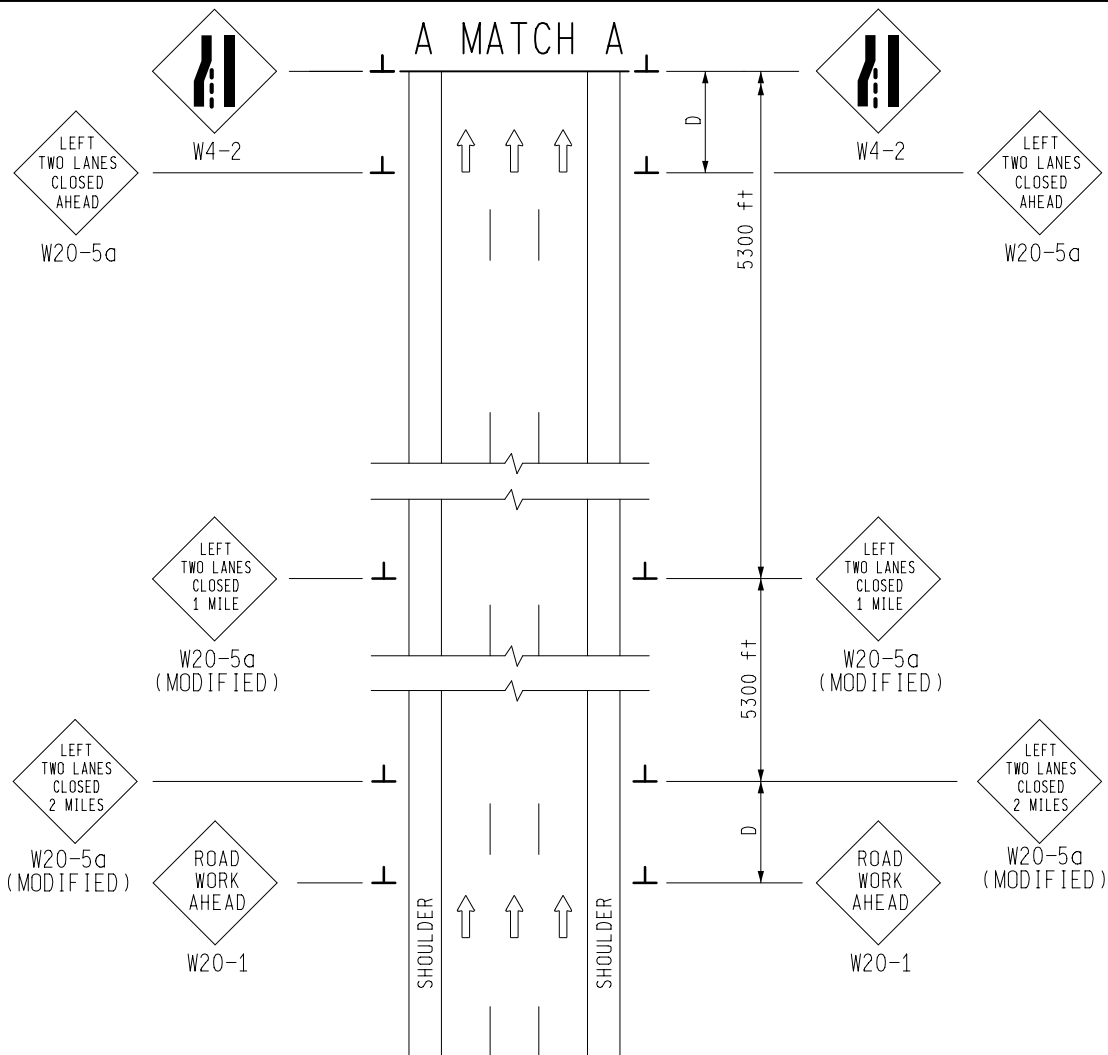
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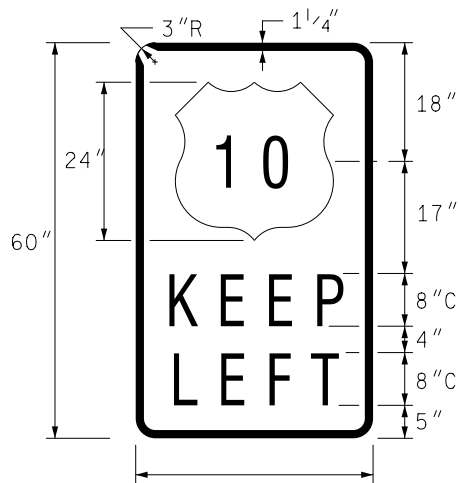
DIAMOND WARNING	- 48" x 48"
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

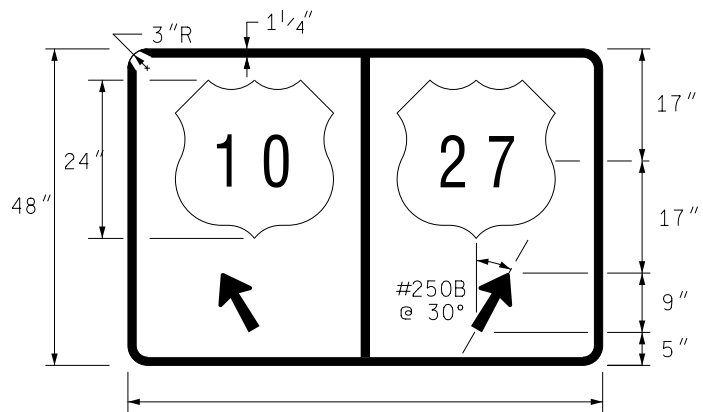
 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1560a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1560a.dgn		REV. 10/24/2011	



SIGN DETAILS



36 ", 2 DIGIT ROUTE MARKER
42 ", 3 DIGIT ROUTE MARKER



72", 2 DIGIT ROUTE MARKERS
84", 3 DIGIT ROUTE MARKERS

COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1570a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A TWO-LANE CLOSURE ON
A FREEWAY, ONE ON EACH SIDE OF A GORE
AREA AT A MAJOR DIVERGENCE,
NO SPEED REDUCTION

OCTOBER 2011

PLAN DATE:

M1570a

SHEET

2 OF 3

REV. 10/24/2011

NOT TO SCALE


NOTES

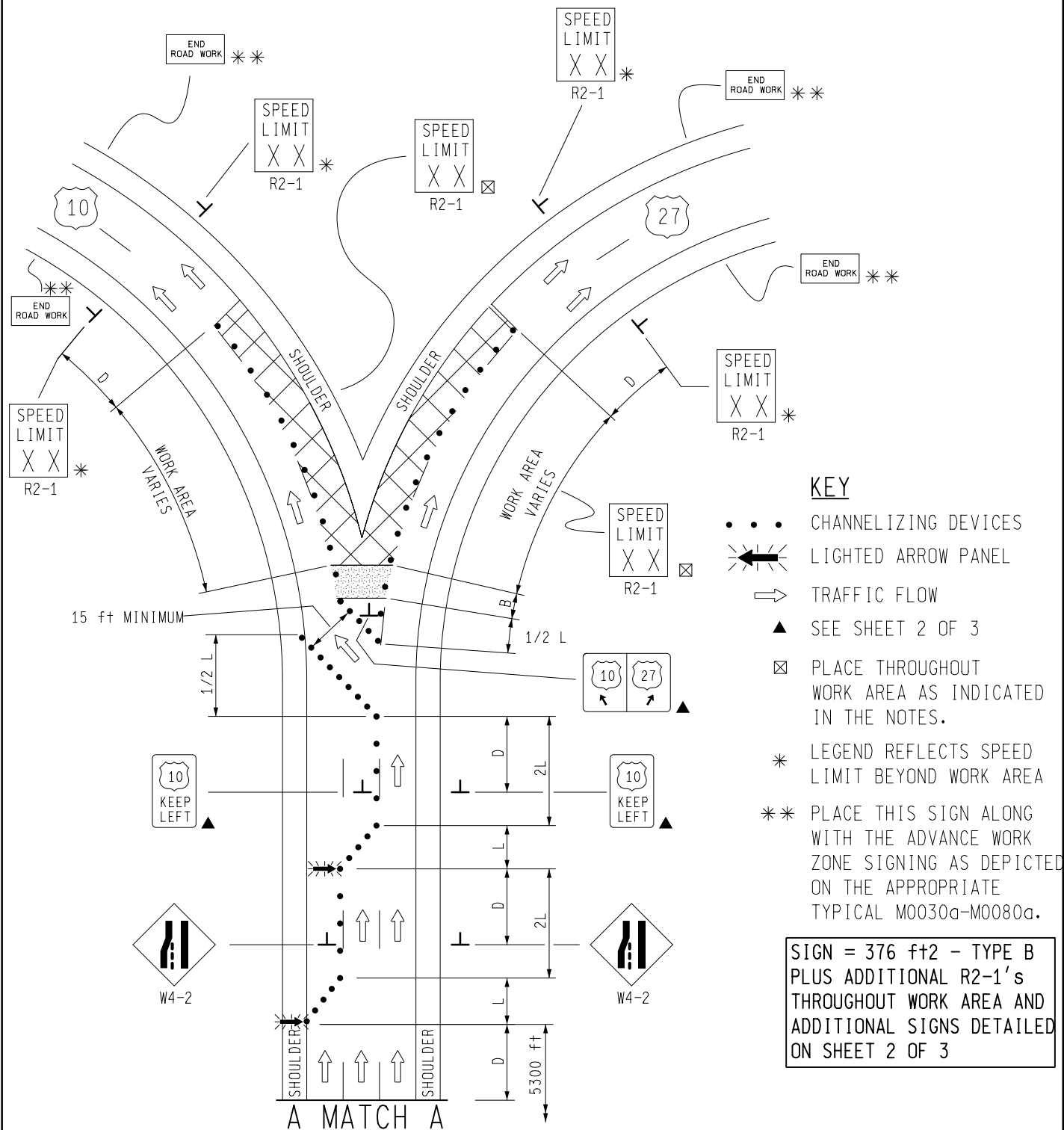
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SIGN SIZES

DIAMOND WARNING - 48" x 48"
 SPECIAL SIGNS - AS DETAILED
 R2-1 REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf	OCTOBER 2011	<div style="font-size: 1.2em; font-weight: bold;">M1570a</div>	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
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TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1580a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A SINGLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011

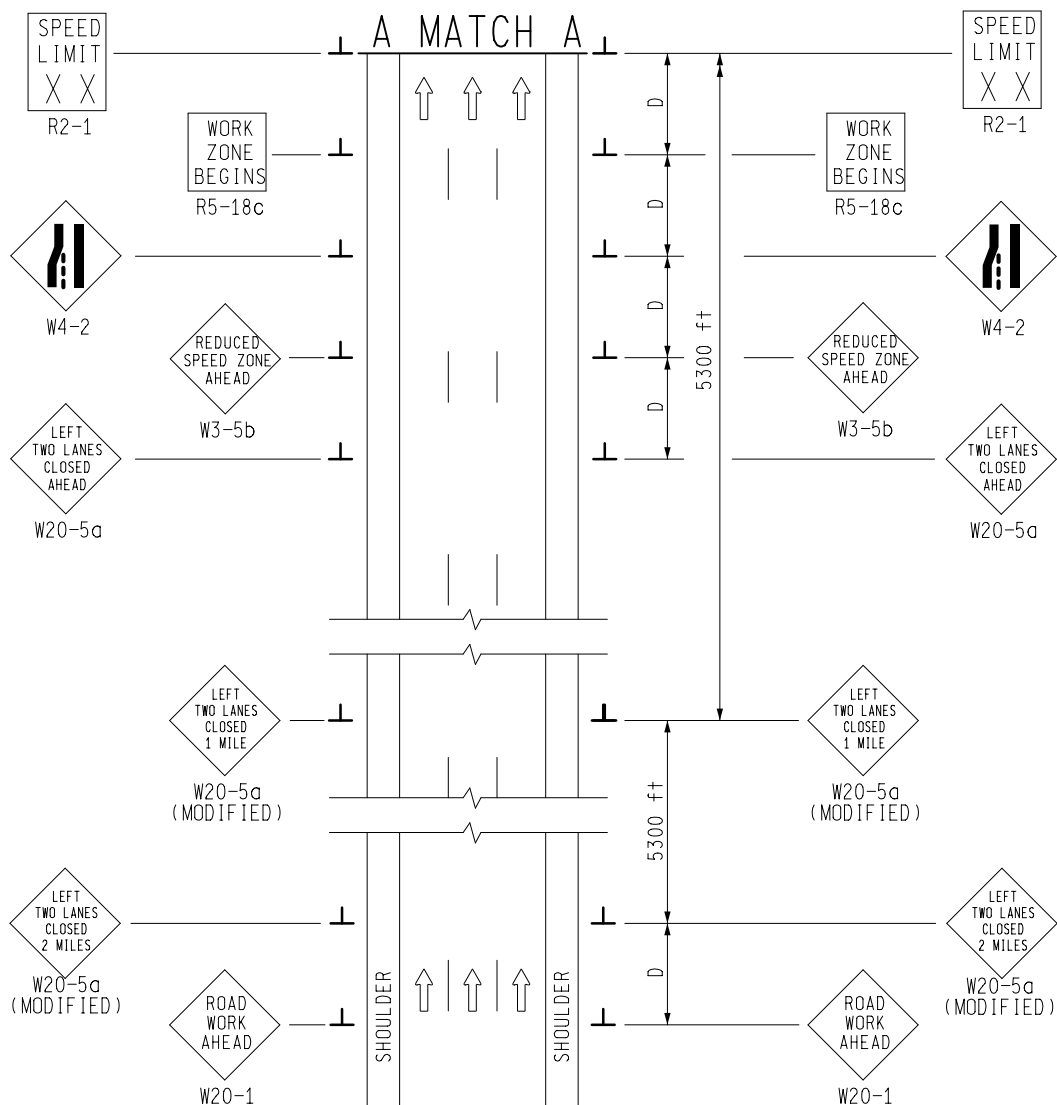
PLAN DATE:

M1580a

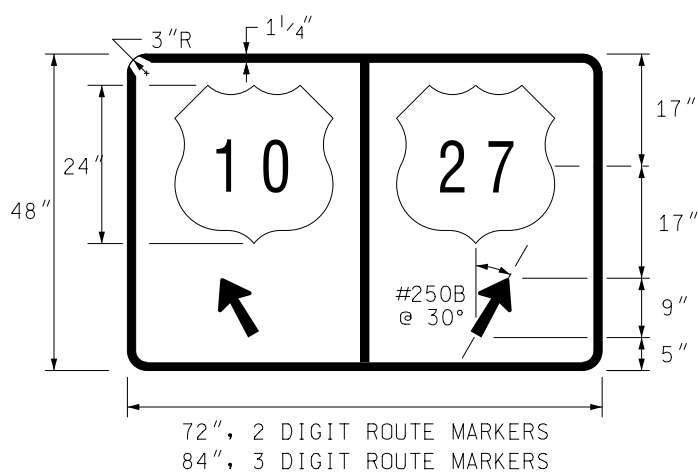
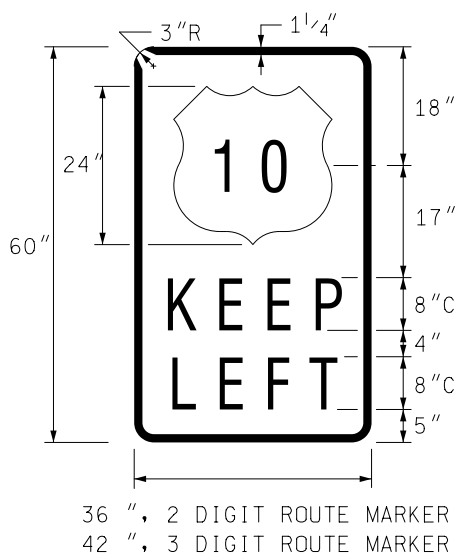
SHEET

1 OF 3

REV. 10/24/2011



SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

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TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A TWO-LANE CLOSURE ON
A FREEWAY, ONE ON EACH SIDE OF A GORE
AREA AT A MAJOR DIVERGENCE USING A
SINGLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1580a

SHEET

2 OF 3

REV. 10/24/2011


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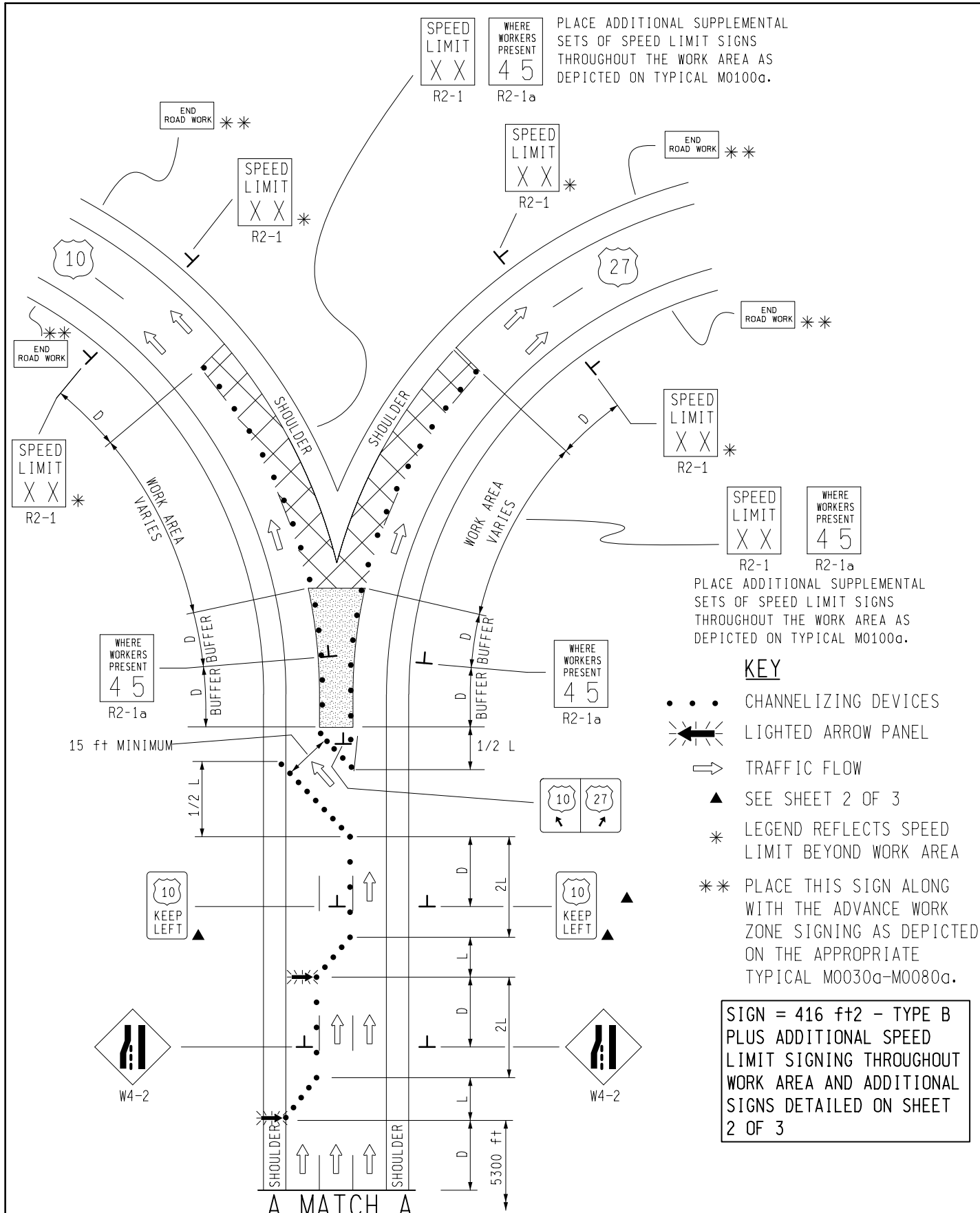
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- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 MDOT Michigan Department of Transportation		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A SINGLE STEP DOWN IN SPEED LIMIT		
TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL				
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1580a	SHEET 3 OF 3	
CHECKED BY: BMM:CRB	PLAN DATE:			
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1580a.dgn		REV. 10/24/2011		



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1590a.dgn

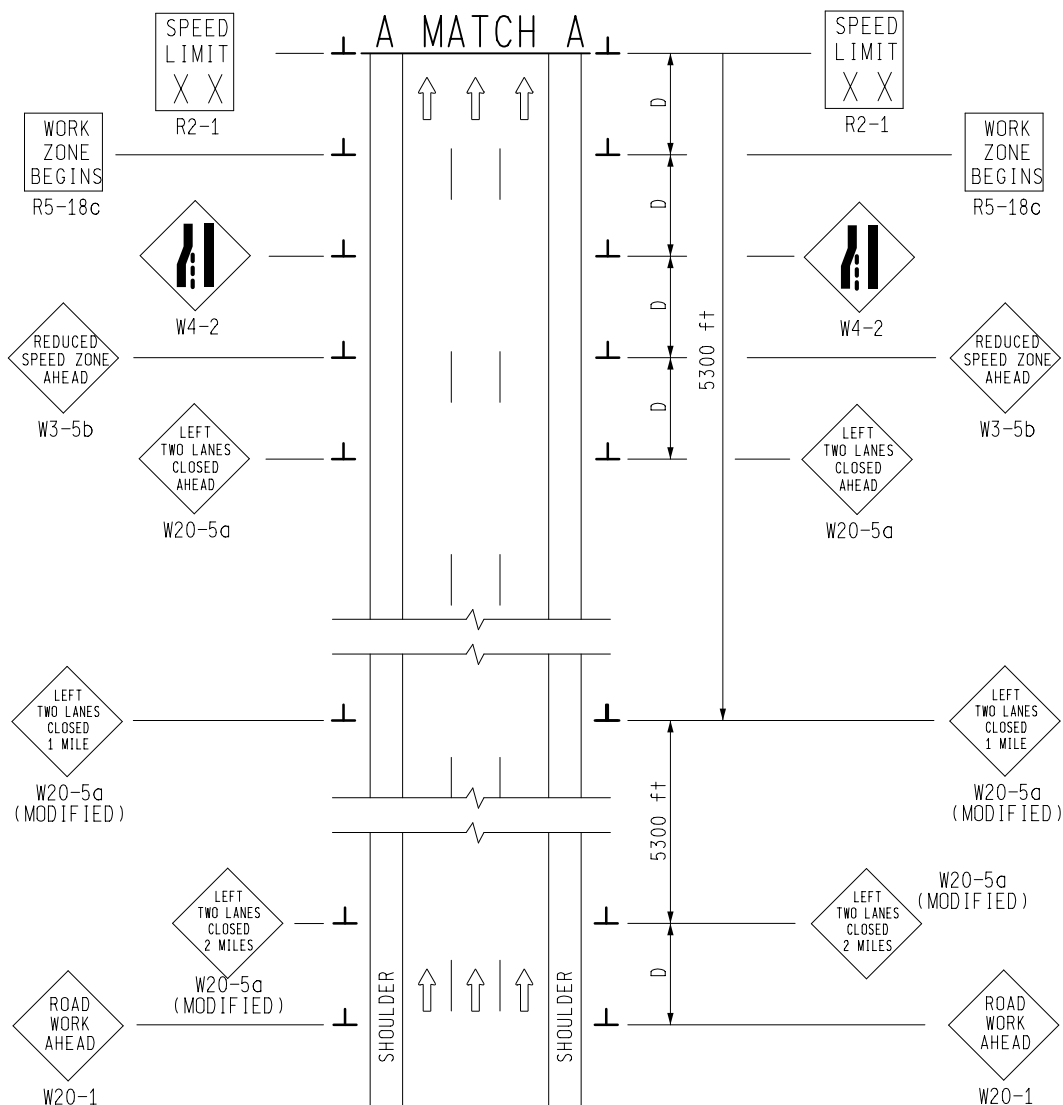
TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT

OCTOBER 2011
PLAN DATE:

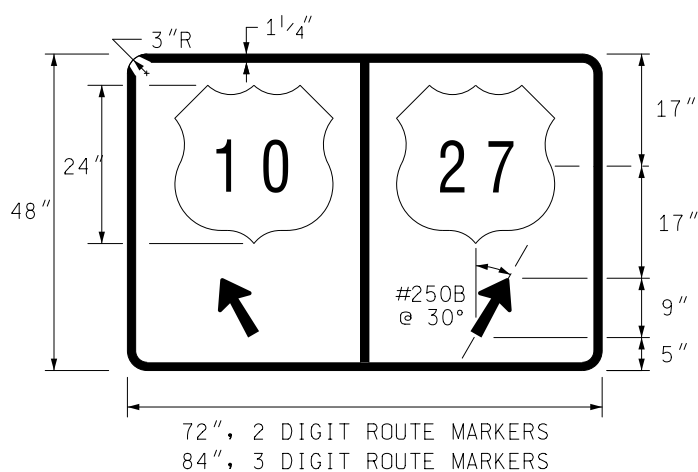
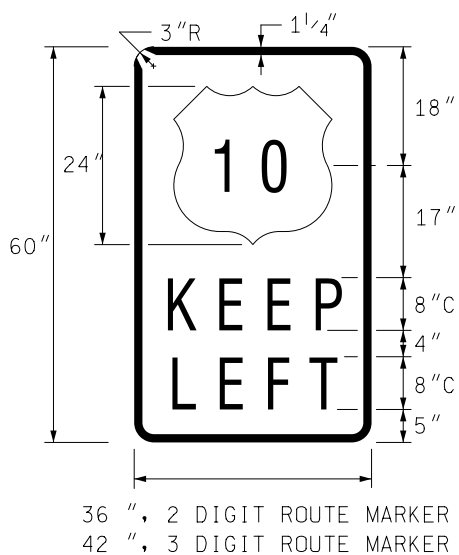
M1590a

SHEET
1 OF 3

REV. 10/19/2011



SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A TWO-LANE CLOSURE ON
A FREEWAY, ONE ON EACH SIDE OF A GORE
AREA AT A MAJOR DIVERGENCE USING A
REDUCED SPEED LIMIT
WHERE WORKERS PRESENT

OCTOBER 2011
PLAN DATE:

M1590a

SHEET
2 OF 3

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1590a.dgn

REV. 10/19/2011


NOTES

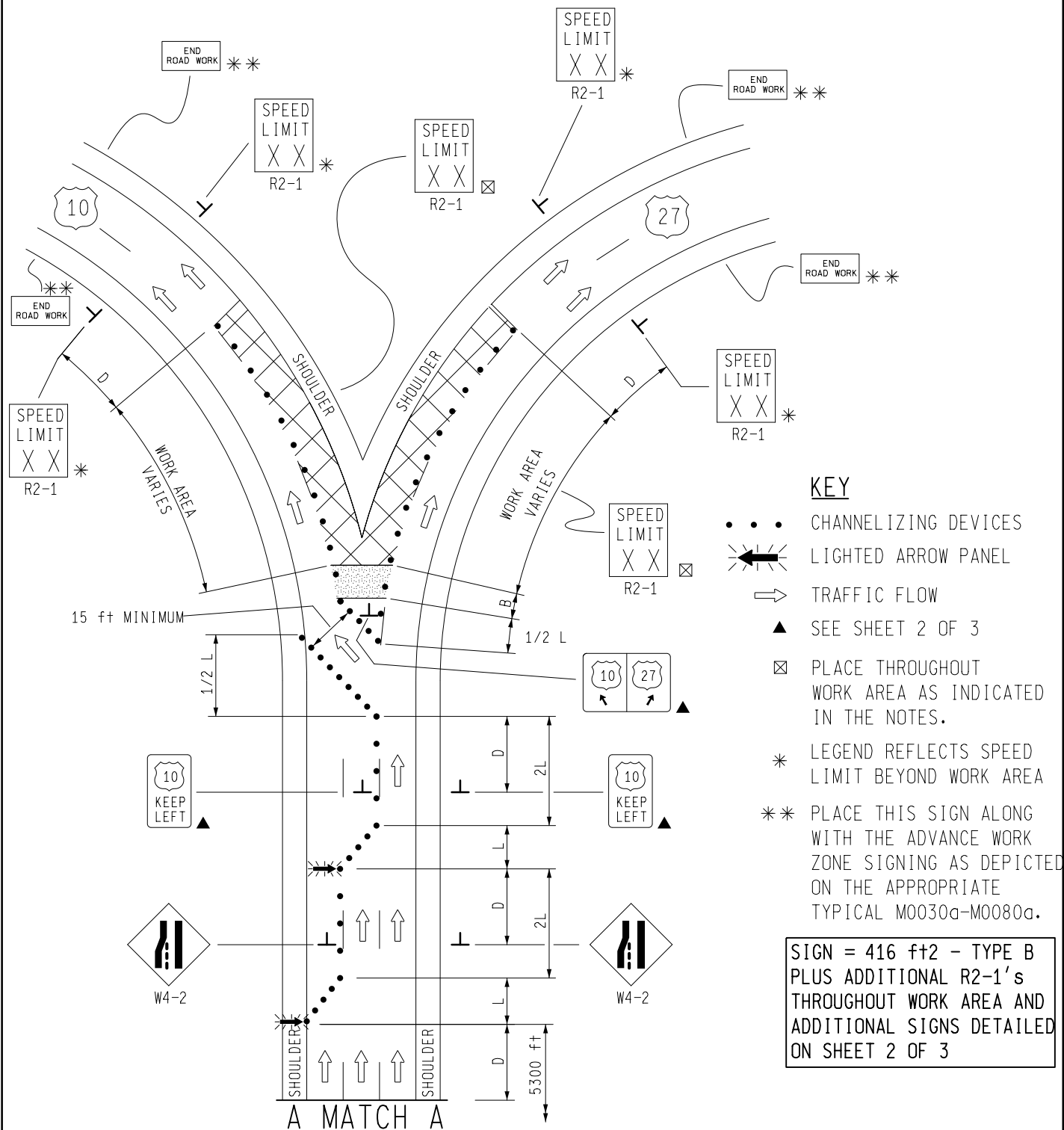
- 1K. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L & 1/2 L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 MDOT Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1590a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1590a.dgn		REV. 10/19/2011	



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1600a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A TWO-LANE CLOSURE ON
A FREEWAY, ONE ON EACH SIDE OF A GORE
AREA AT A MAJOR DIVERGENCE USING A
DOUBLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011

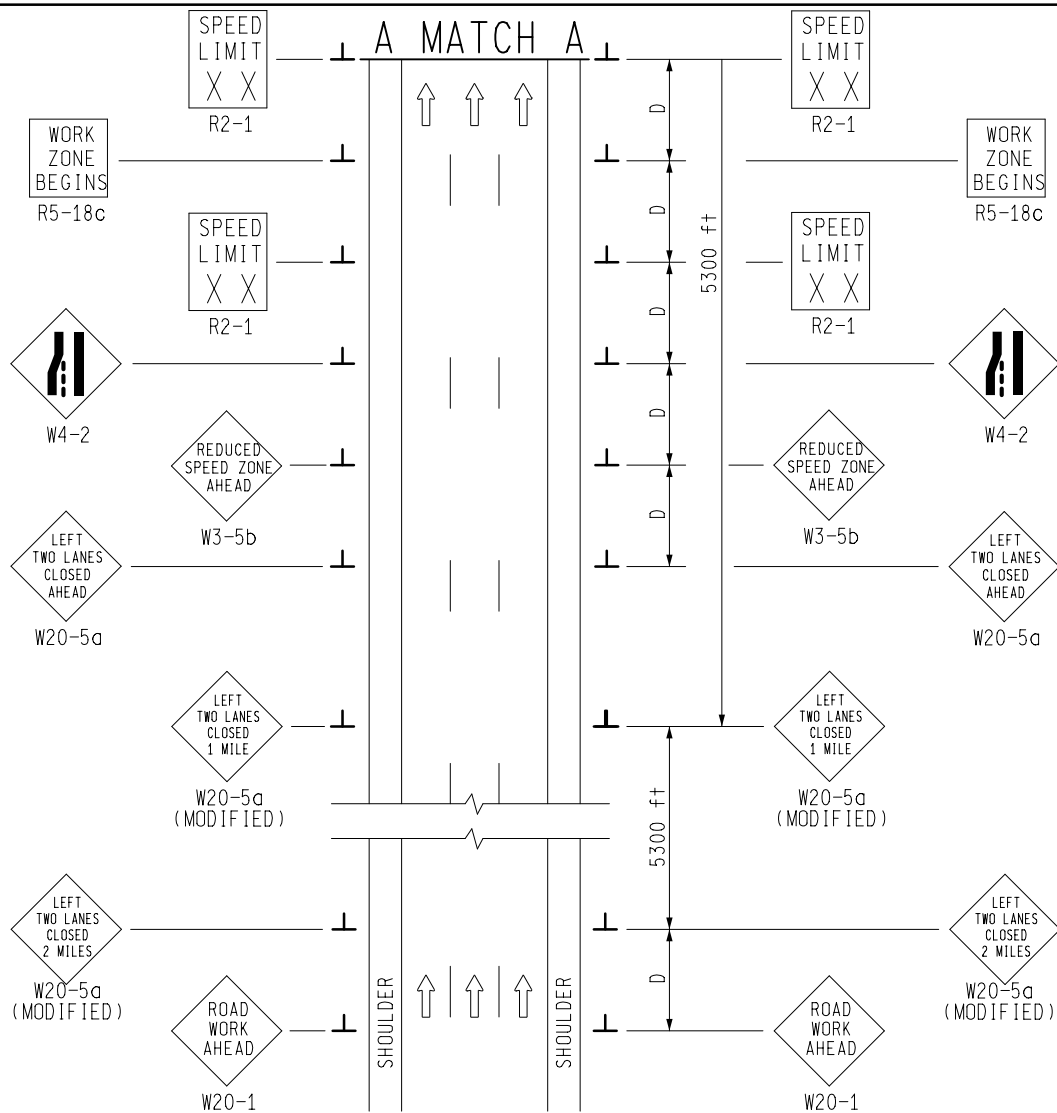
PLAN DATE:

M1600a

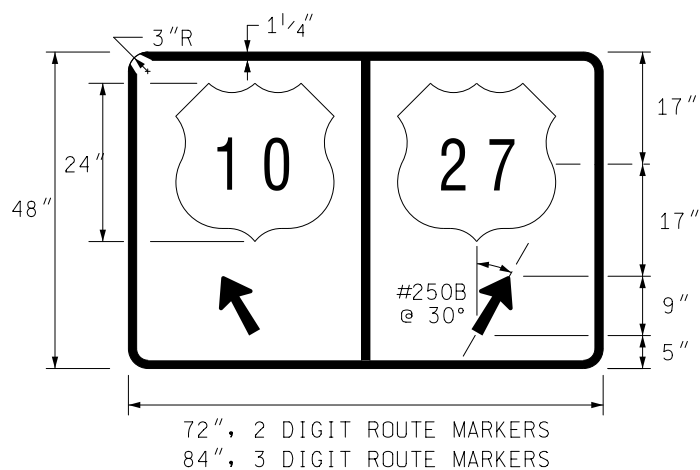
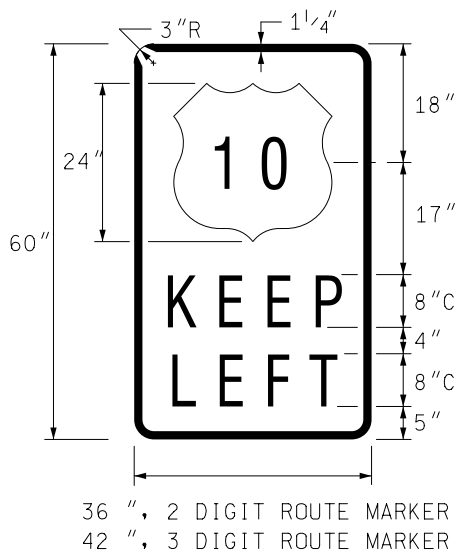
SHEET

1 OF 3

REV. 10/19/2011



SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1600a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A DOUBLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1600a

SHEET
2 OF 3

REV. 10/19/2011


NOTES

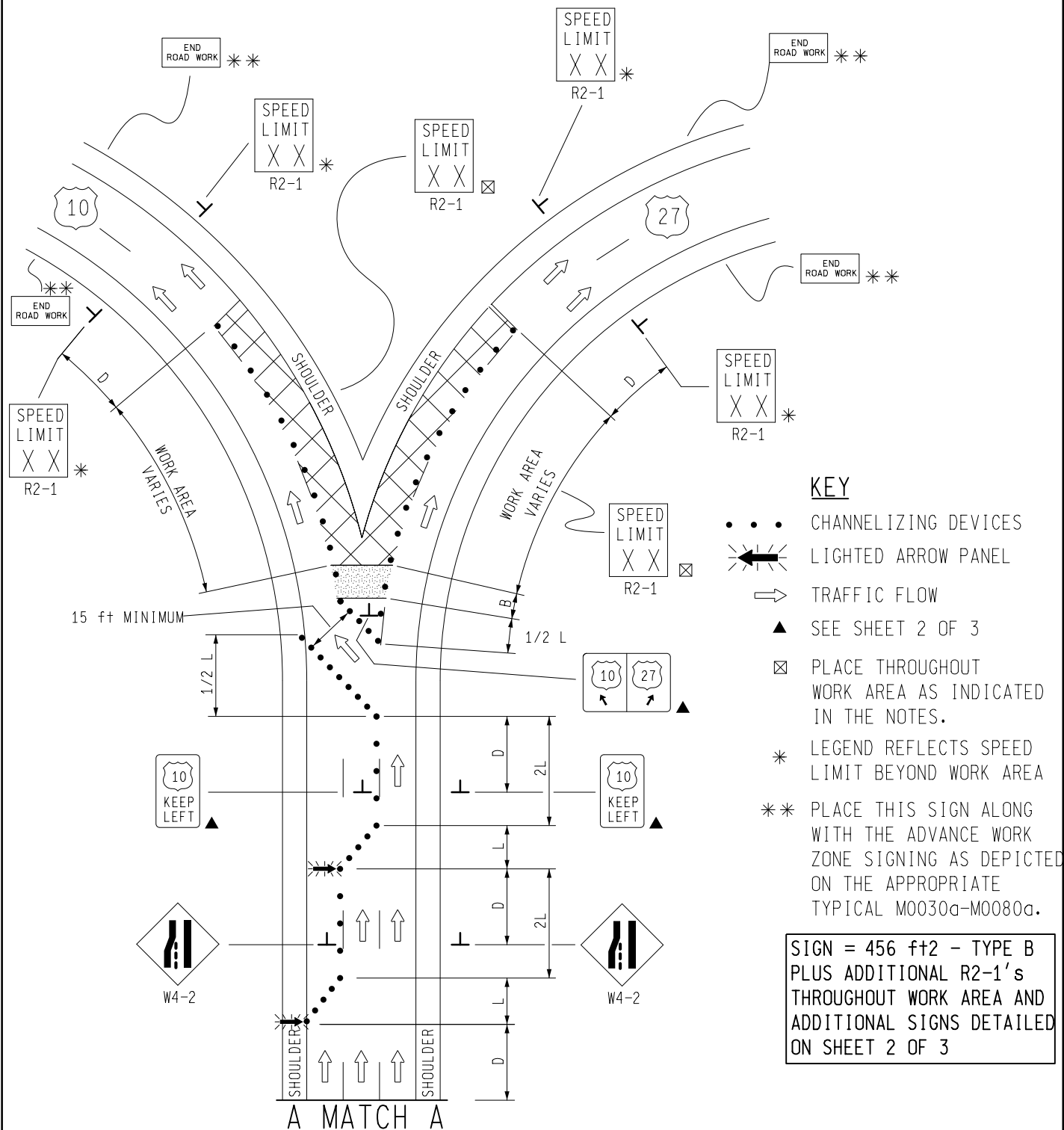
- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
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SIGN SIZES

DIAMOND WARNING	- 48" x 48"
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A DOUBLE STEP DOWN IN SPEED LIMIT		
DRAWN BY: CON:AE:djf		OCTOBER 2011		SHEET 3 OF 3
CHECKED BY: BMM:CRB		PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1600a.dgn		M1600a		REV. 10/19/2011



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1610a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A TRIPLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011

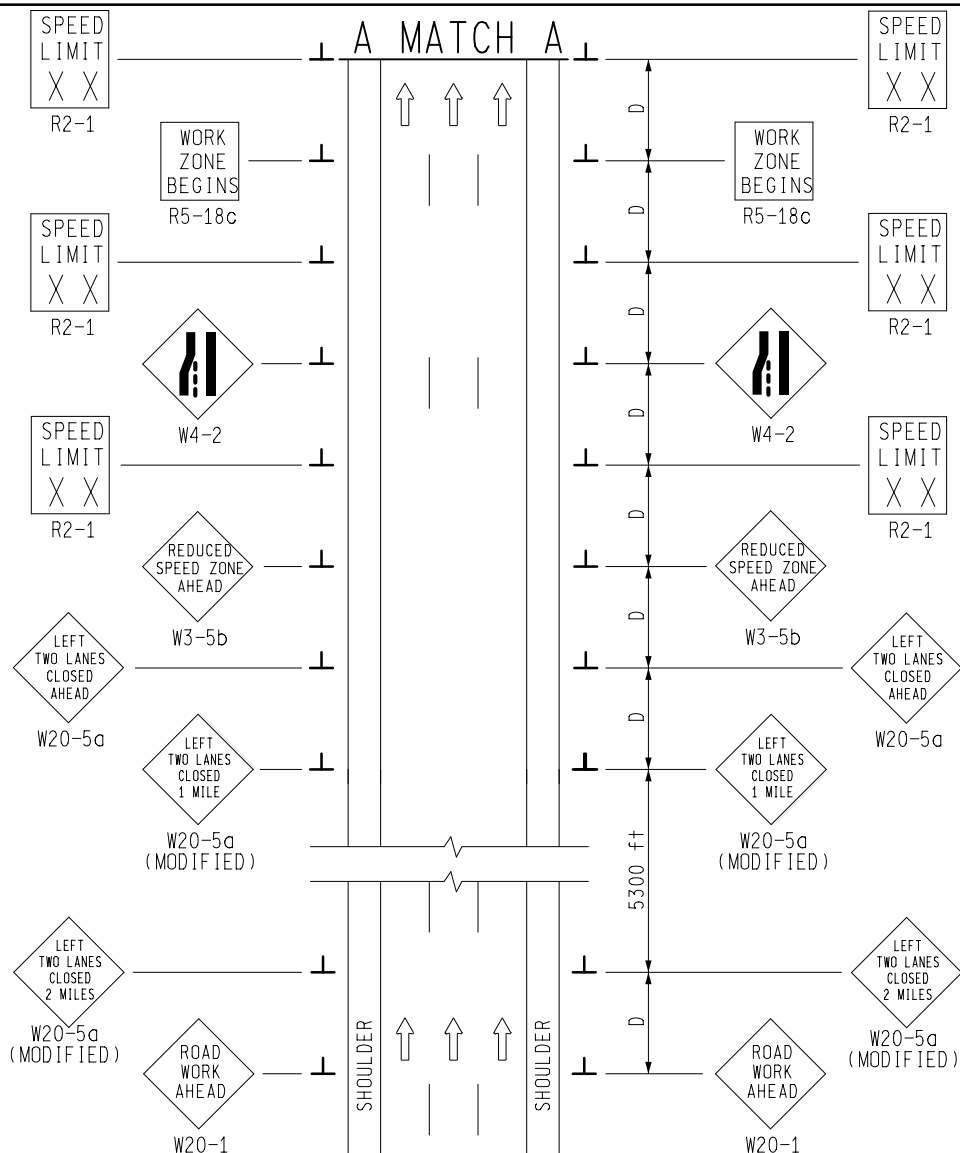
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M1610a

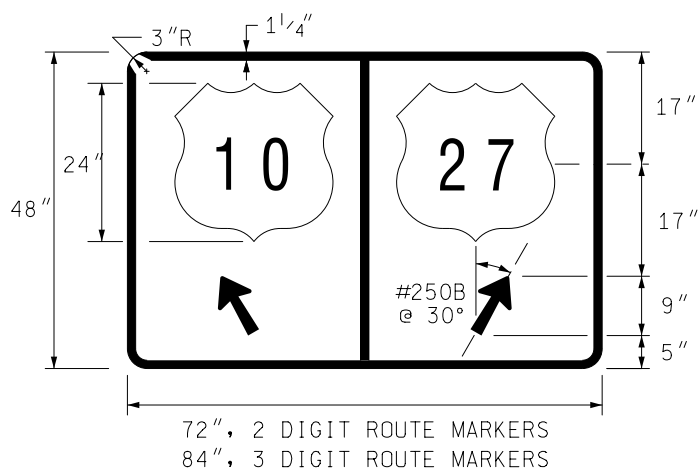
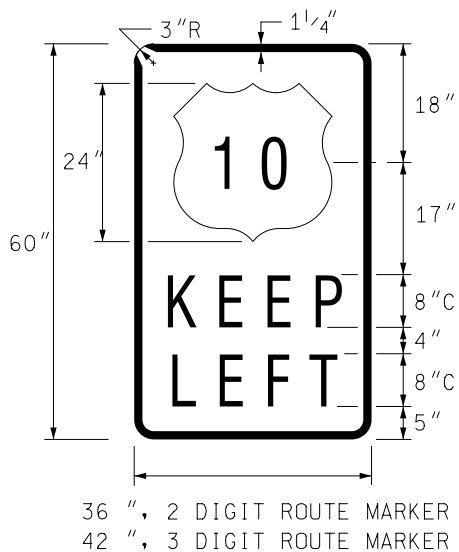
SHEET

1 OF 3

REV. 10/19/2011



SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1610a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A TWO-LANE CLOSURE ON
A FREEWAY, ONE ON EACH SIDE OF A GORE
AREA AT A MAJOR DIVERGENCE USING
A TRIPLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1610a

SHEET
2 OF 3

REV. 10/19/2011


NOTES

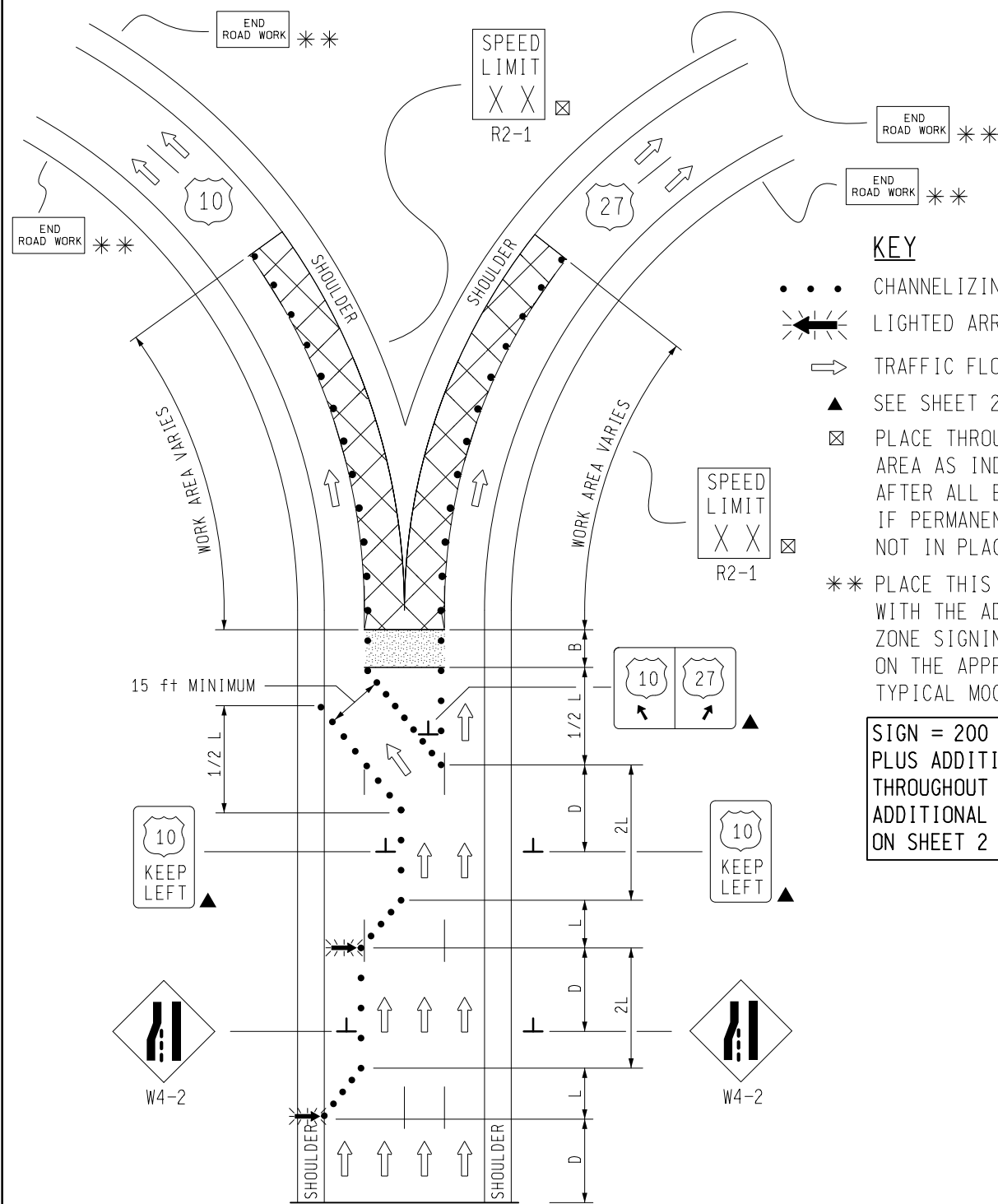
- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
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- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
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SIGN SIZES

DIAMOND WARNING	- 48" x 48"
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 MDOT Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1610a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1610a.dgn		REV. 10/19/2011	



KEY

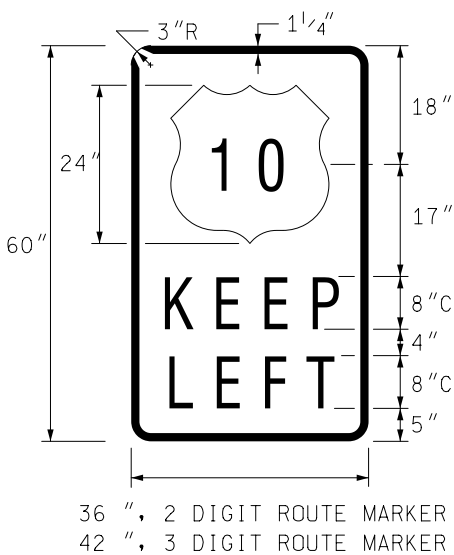
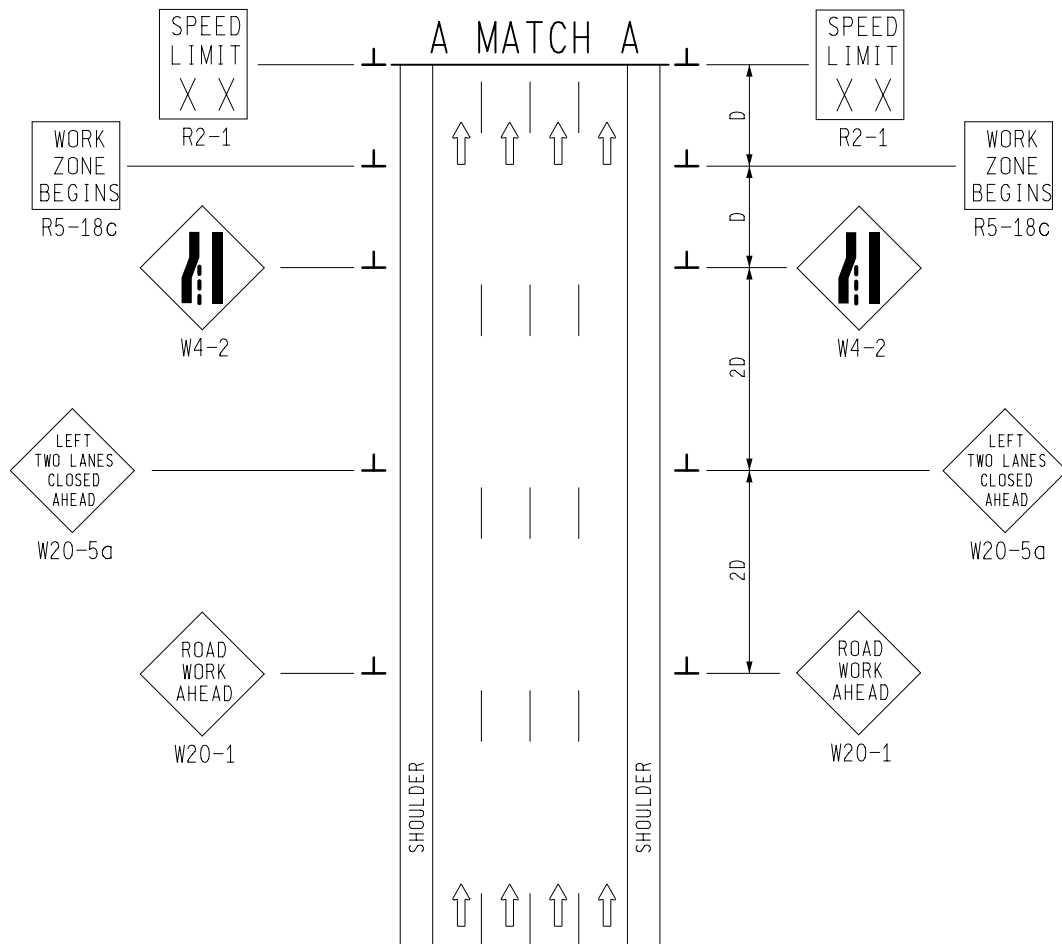
- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 3
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED AND AFTER ALL ENTRANCE RAMPs IF PERMANENT SIGNS ARE NOT IN PLACE.
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 200 f+2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 3

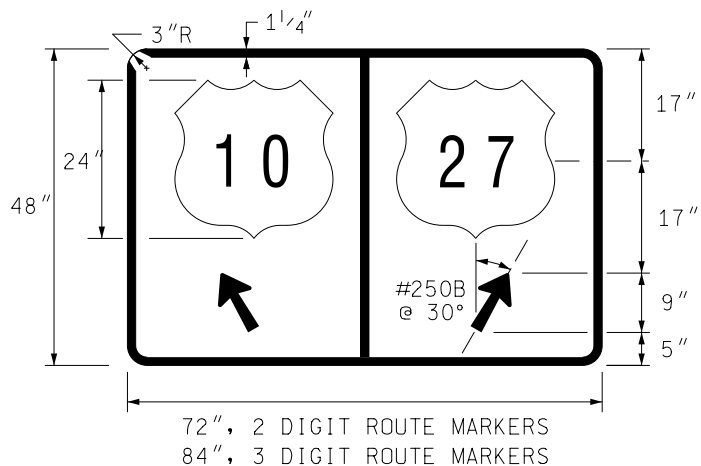
A MATCH A

NOT TO SCALE

<p>Michigan Department of Transportation</p> <p>TRAFFIC AND SAFETY</p> <p>MAINTAINING TRAFFIC</p> <p>TYPICAL</p>		<p>TYPICAL TEMPORARY TRAFFIC CONTROL</p> <p>FOR A TWO-LANE CLOSURE ON A FREEWAY,</p> <p>ONE ON EACH SIDE OF A GORE AREA AT A</p> <p>MAJOR DIVERGENCE, NO SPEED REDUCTION</p>	
<p>DRAWN BY: CON:AE:djf</p> <p>CHECKED BY: BMM:CRB</p>		<p>OCTOBER 2011</p> <p>PLAN DATE:</p>	<p>SHEET</p> <p>1 OF 3</p>
<p>FILE: PW RD/TS/Typicals/Signs/MT FWY/M1620a.dgn</p>		<p>M1620a</p>	<p>REV. 10/19/2011</p>



SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE, NO SPEED REDUCTION

OCTOBER 2011

PLAN DATE:

M1620a

SHEET

2 OF 3

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1620a.dgn

REV. 10/19/2011


NOTES

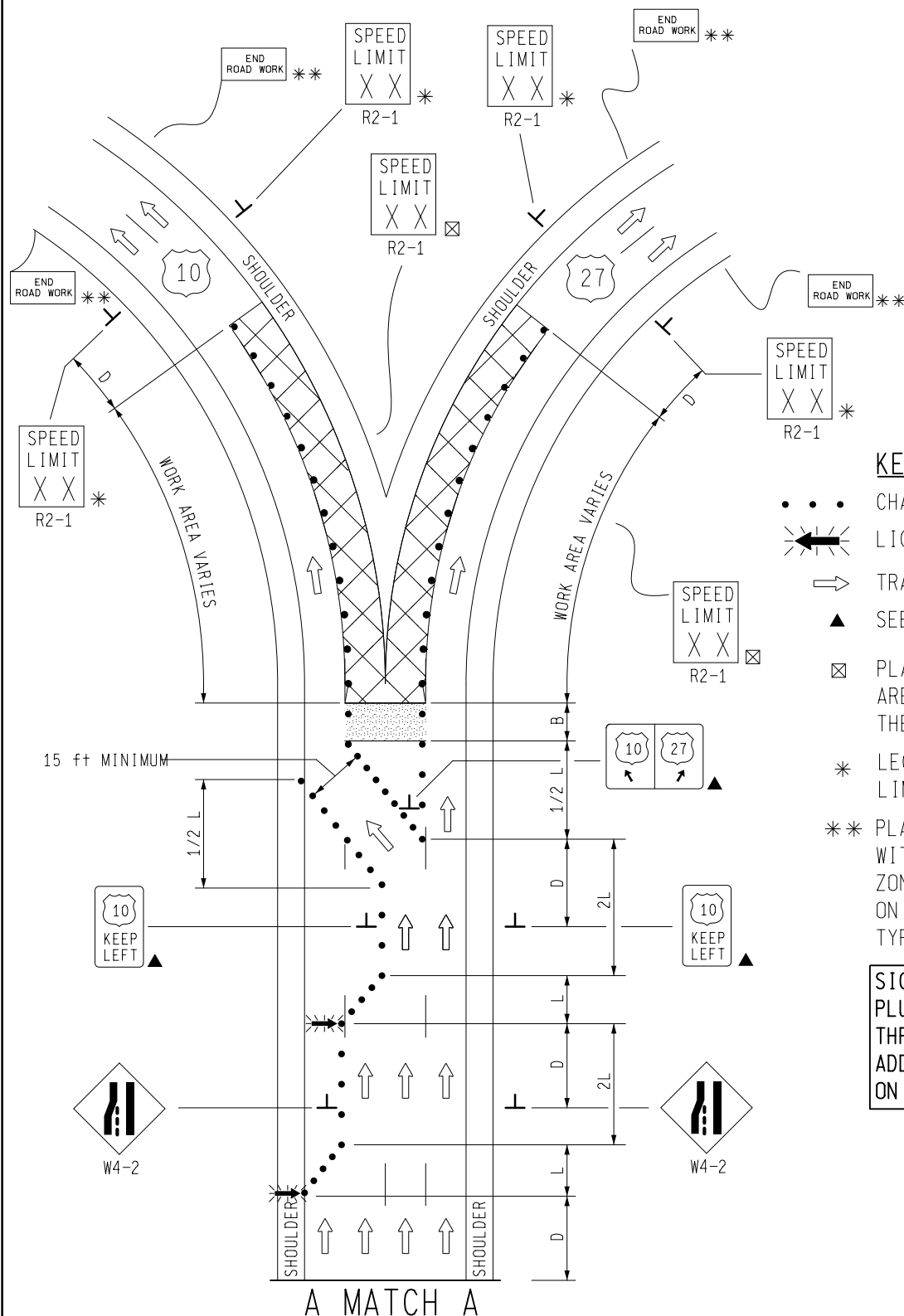
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3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
SPECIAL SIGNS - AS DETAILED
R2-1 REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1620a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1620a.dgn		REV. 10/19/2011	



KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 3
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 312 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 3

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1630a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE USING A SINGLE STEP
DOWN IN SPEED LIMIT

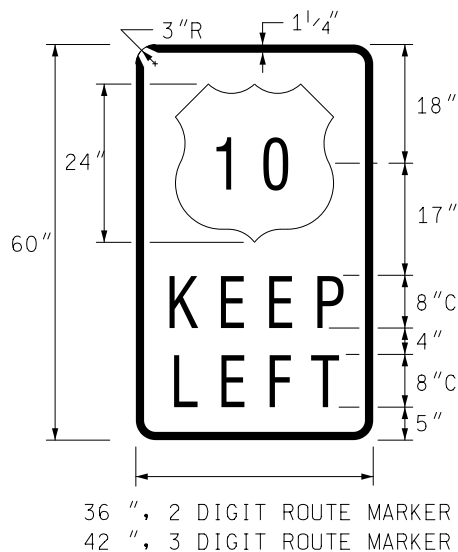
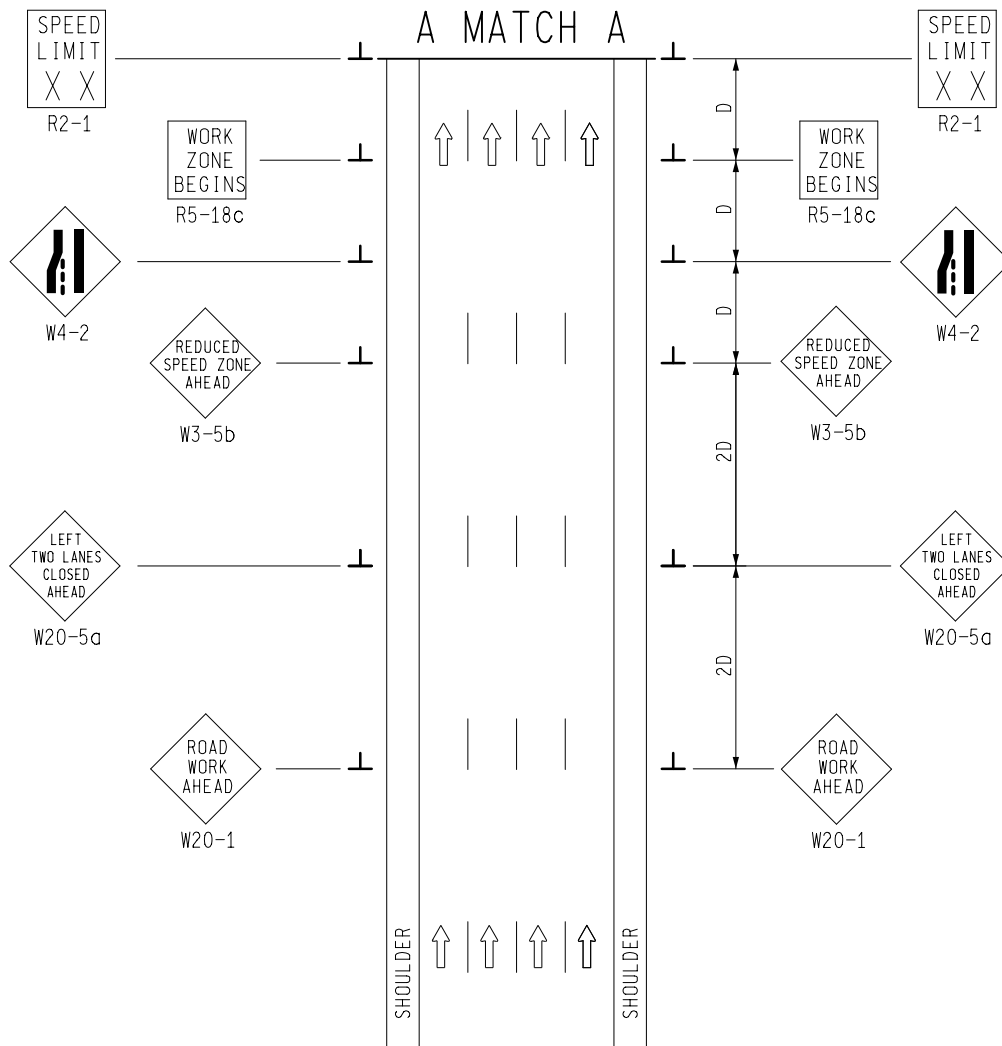
OCTOBER 2011

PLAN DATE:

M1630a

SHEET
1 OF 3

REV. 10/19/2011

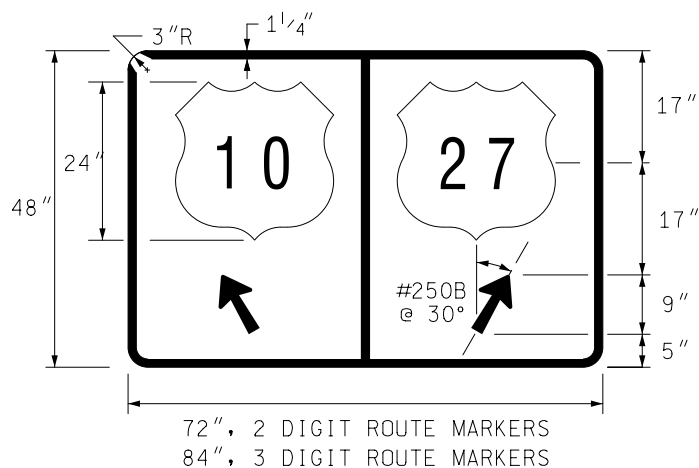


COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

NOT TO SCALE

SIGN DETAILS



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1630a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE USING A SINGLE STEP
DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1630a

SHEET
2 OF 3

REV. 10/19/2011


NOTES

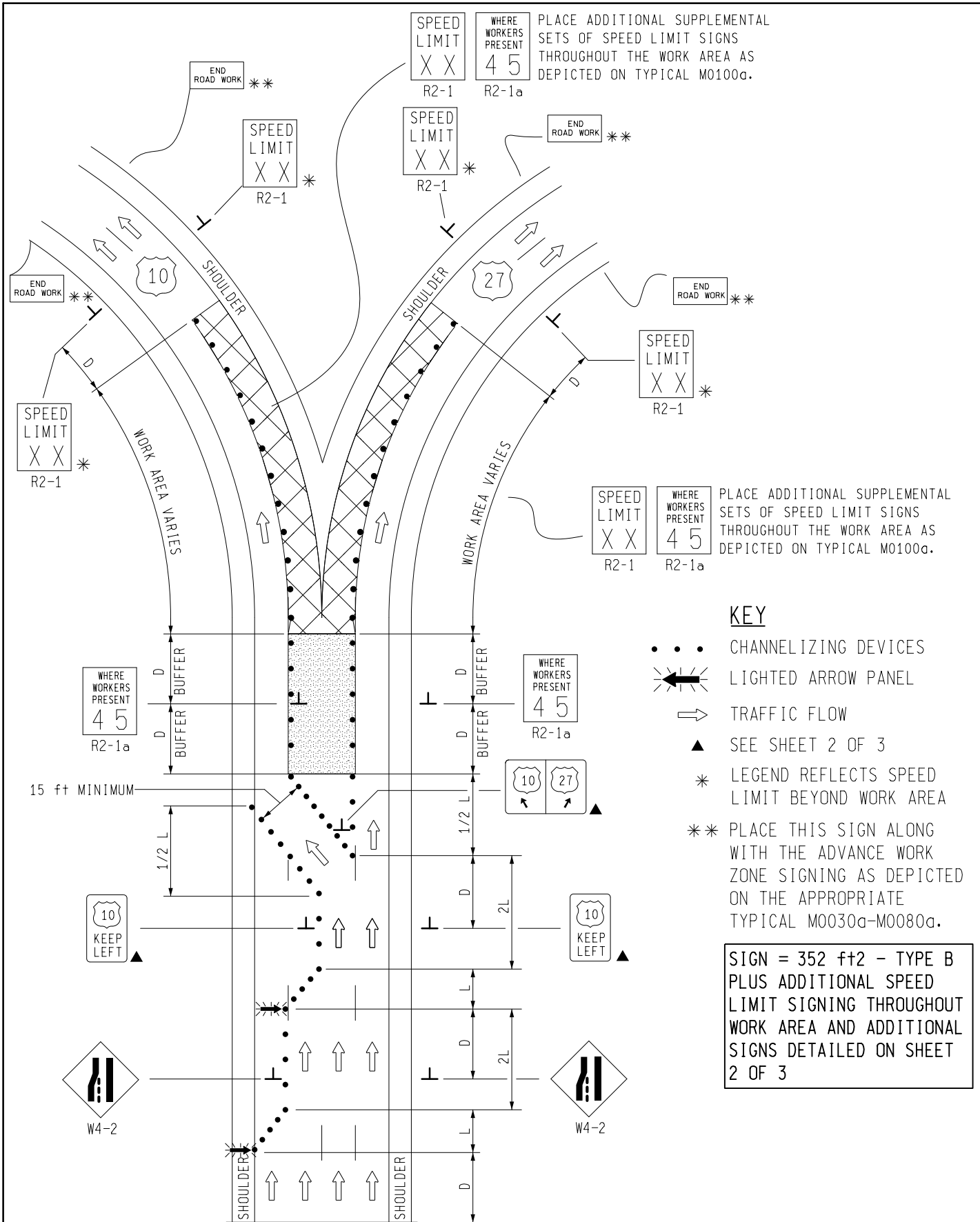
- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48 " x 48 "
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48 " x 60 "
R5-18c REGULATORY	- 48 " x 48 "

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1630a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1630a.dgn		REV. 10/19/2011	



A MATCH A

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1640a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE USING A REDUCED
SPEED LIMIT WHERE WORKERS PRESENT

OCTOBER 2011

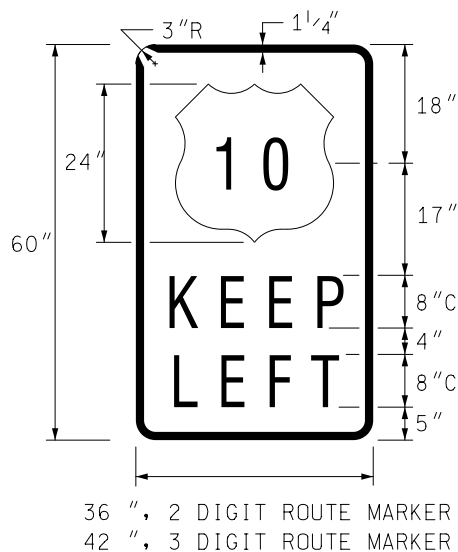
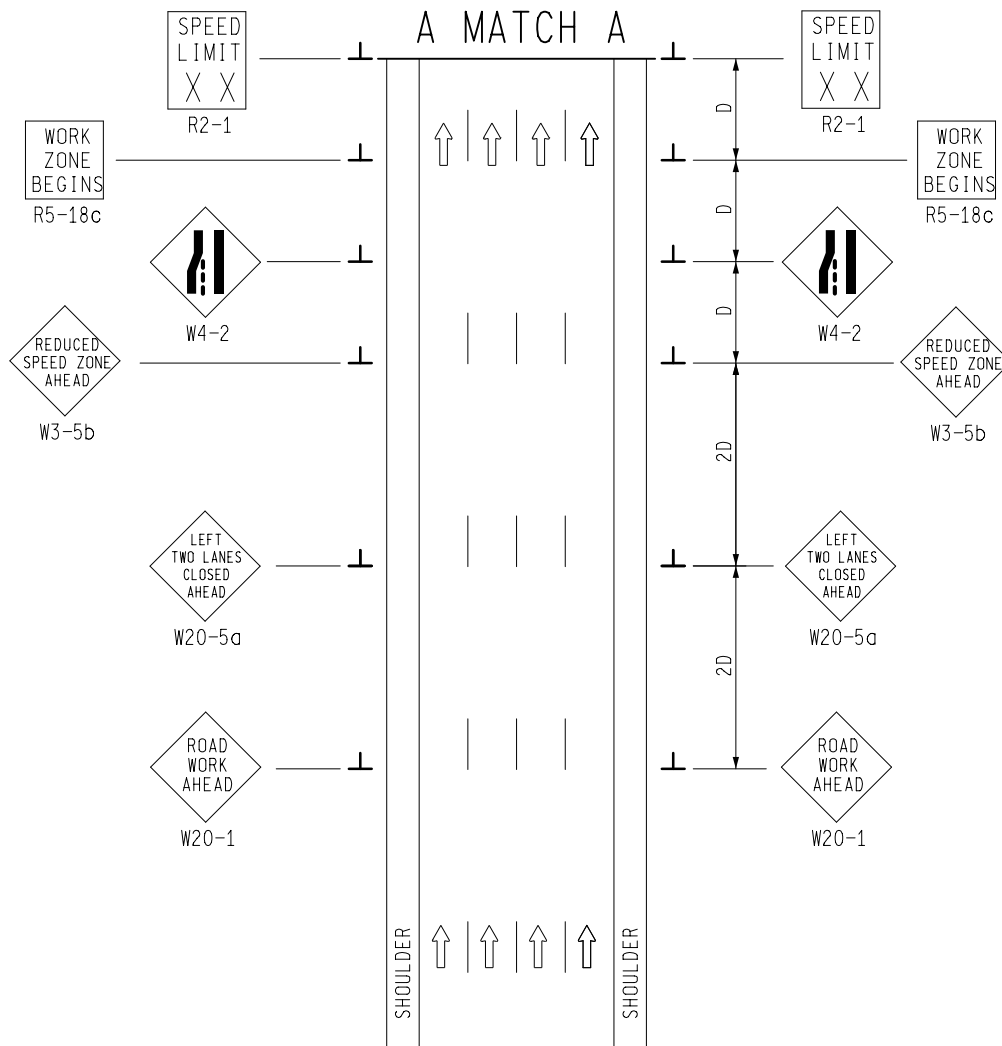
PLAN DATE:

M1640a

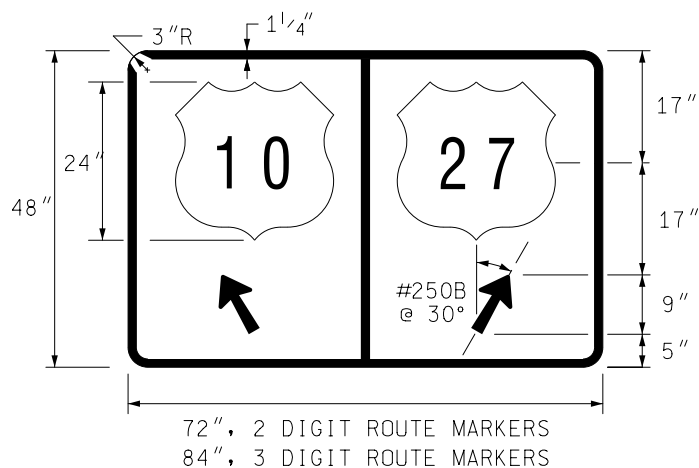
SHEET

1 OF 3

REV. 10/19/2011



SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
**MAINTAINING TRAFFIC
TYPICAL**

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE USING A REDUCED
SPEED LIMIT WHERE WORKERS PRESENT

OCTOBER 2011
PLAN DATE:

M1640a

SHEET
2 OF 3

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1640a.dgn

REV. 10/19/2011


NOTES

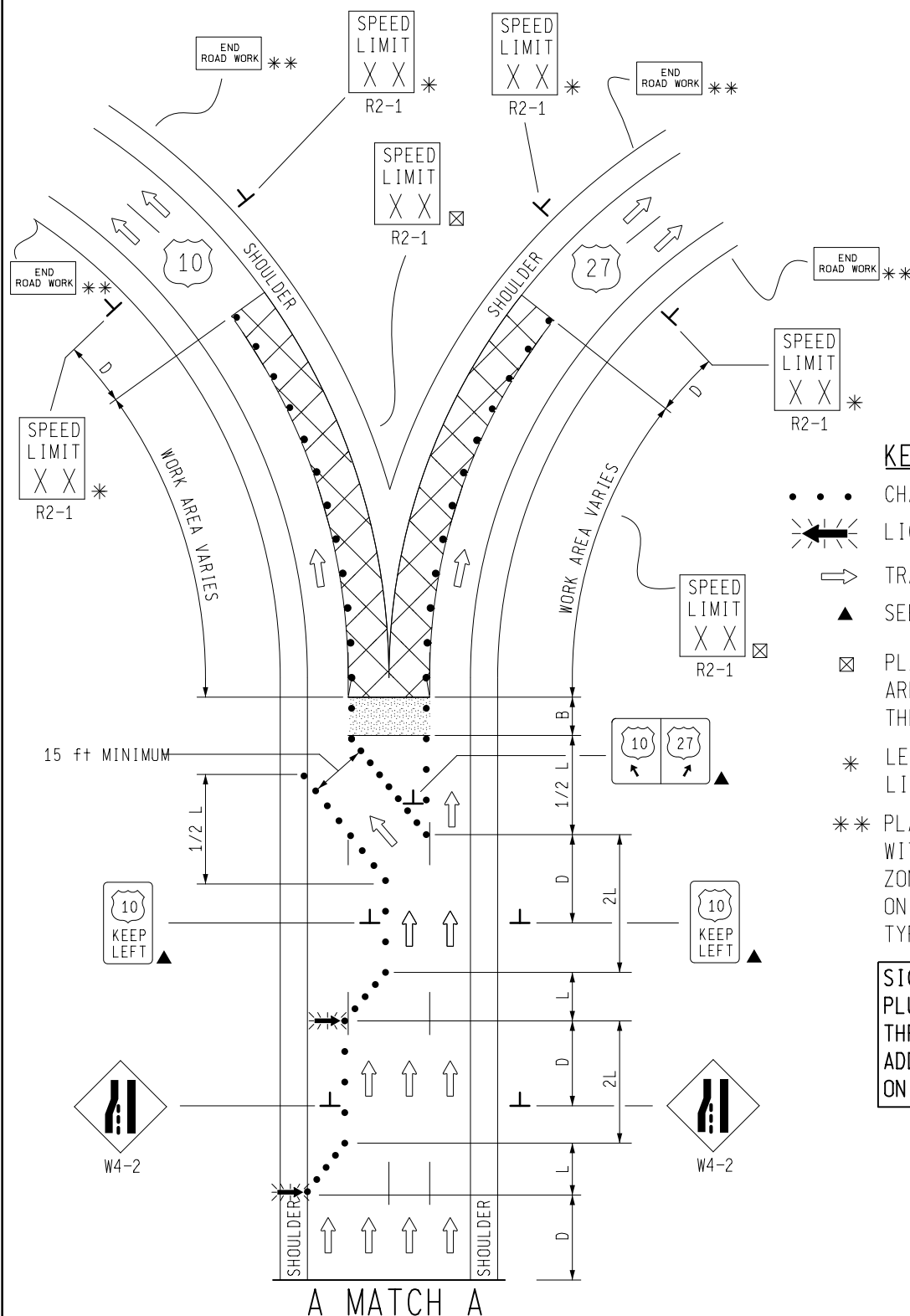
- 1K. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L & 1/2 L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48 " x 48 "
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48 " x 60 "
R5-18c REGULATORY	- 48 " x 48 "

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1640a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1640a.dgn		REV. 10/19/2011	



KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 3
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 352 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 3

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1650a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE USING A DOUBLE STEP
DOWN IN SPEED LIMIT

OCTOBER 2011

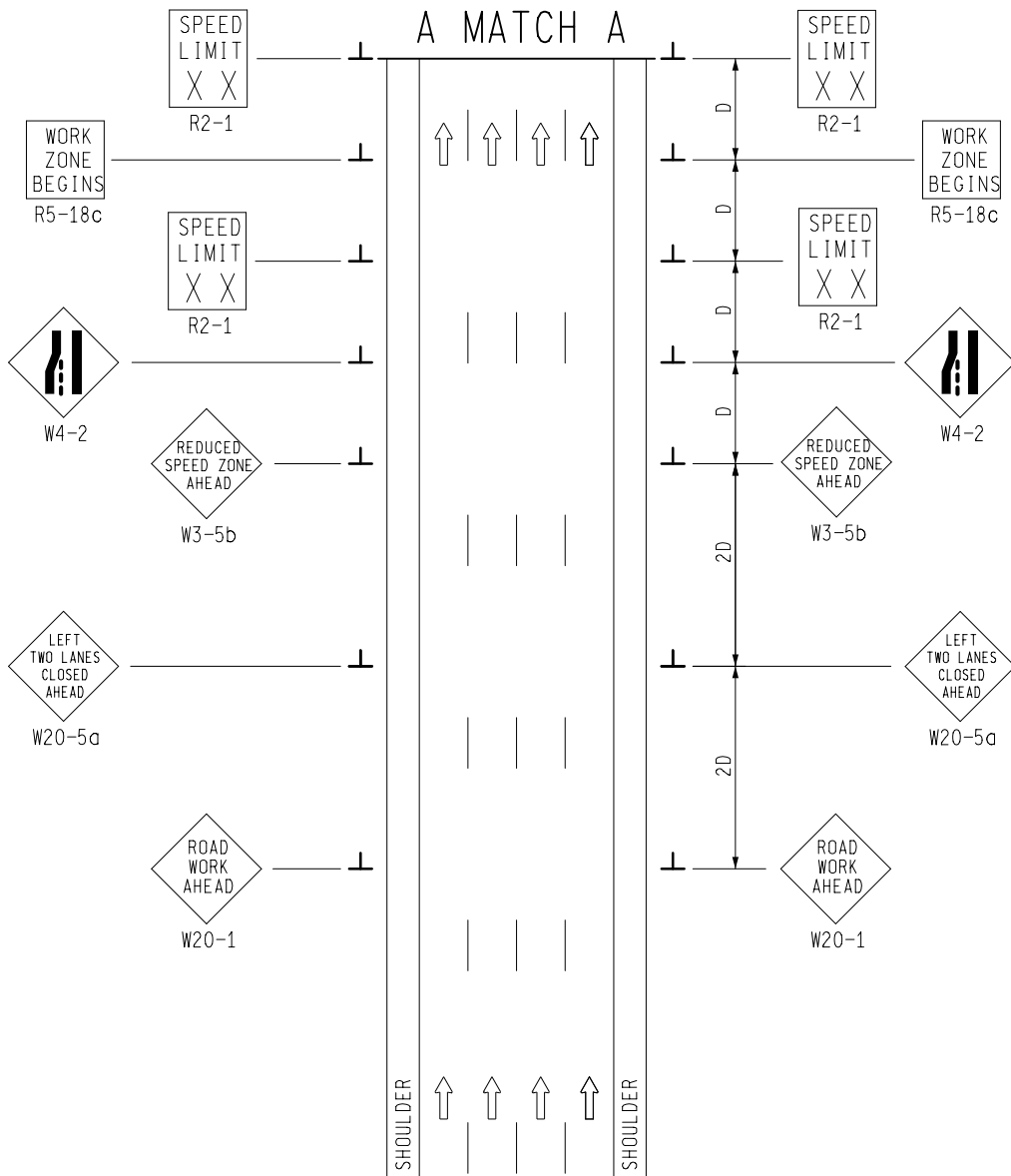
PLAN DATE:

M1650a

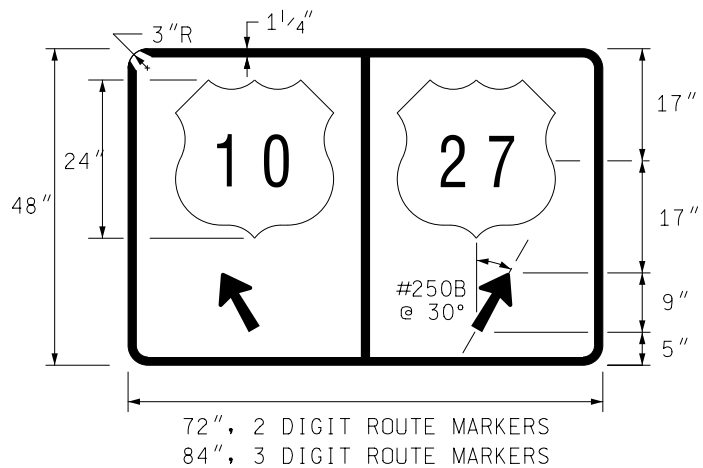
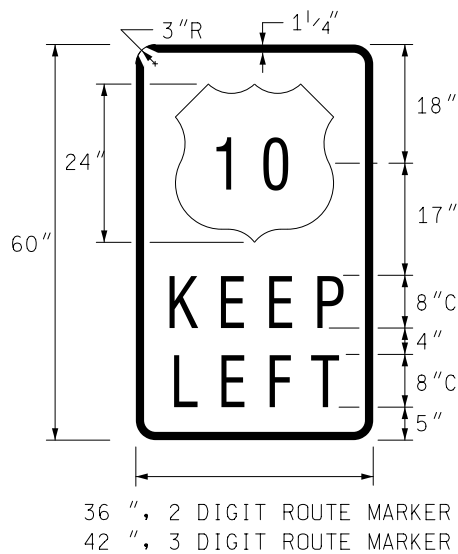
SHEET

1 OF 3

REV. 10/19/2011



SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
**MAINTAINING TRAFFIC
TYPICAL**

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE USING A DOUBLE STEP
DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:
M1650a
SHEET 2 OF 3
REV. 10/19/2011

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1650a.dgn


NOTES

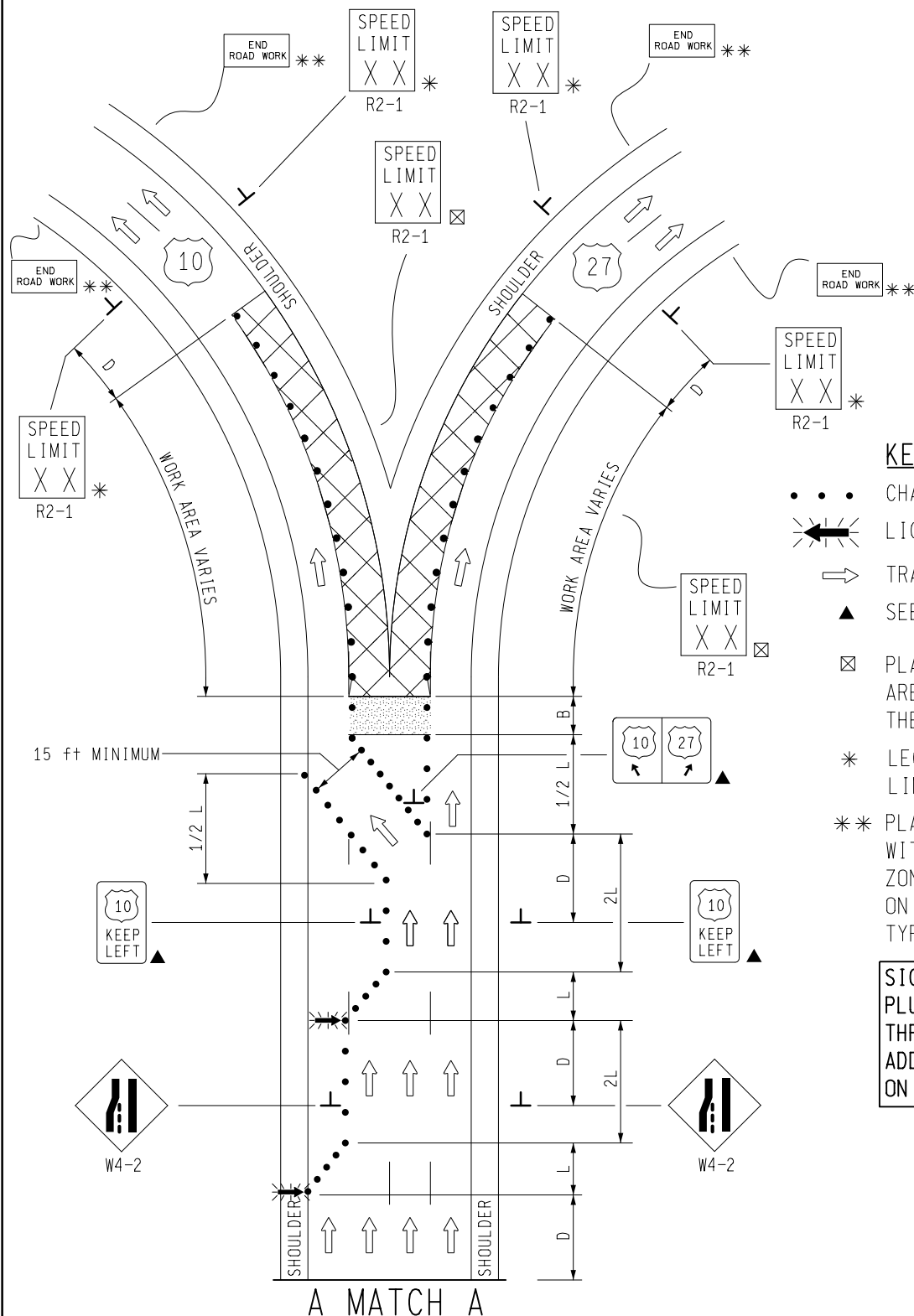
- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48 " x 48 "
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48 " x 60 "
R5-18c REGULATORY	- 48 " x 48 "

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A DOUBLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1650a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1650a.dgn		REV. 10/19/2011	



KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 3
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 392 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 3

A MATCH A

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1660a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE USING A TRIPLE STEP
DOWN IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

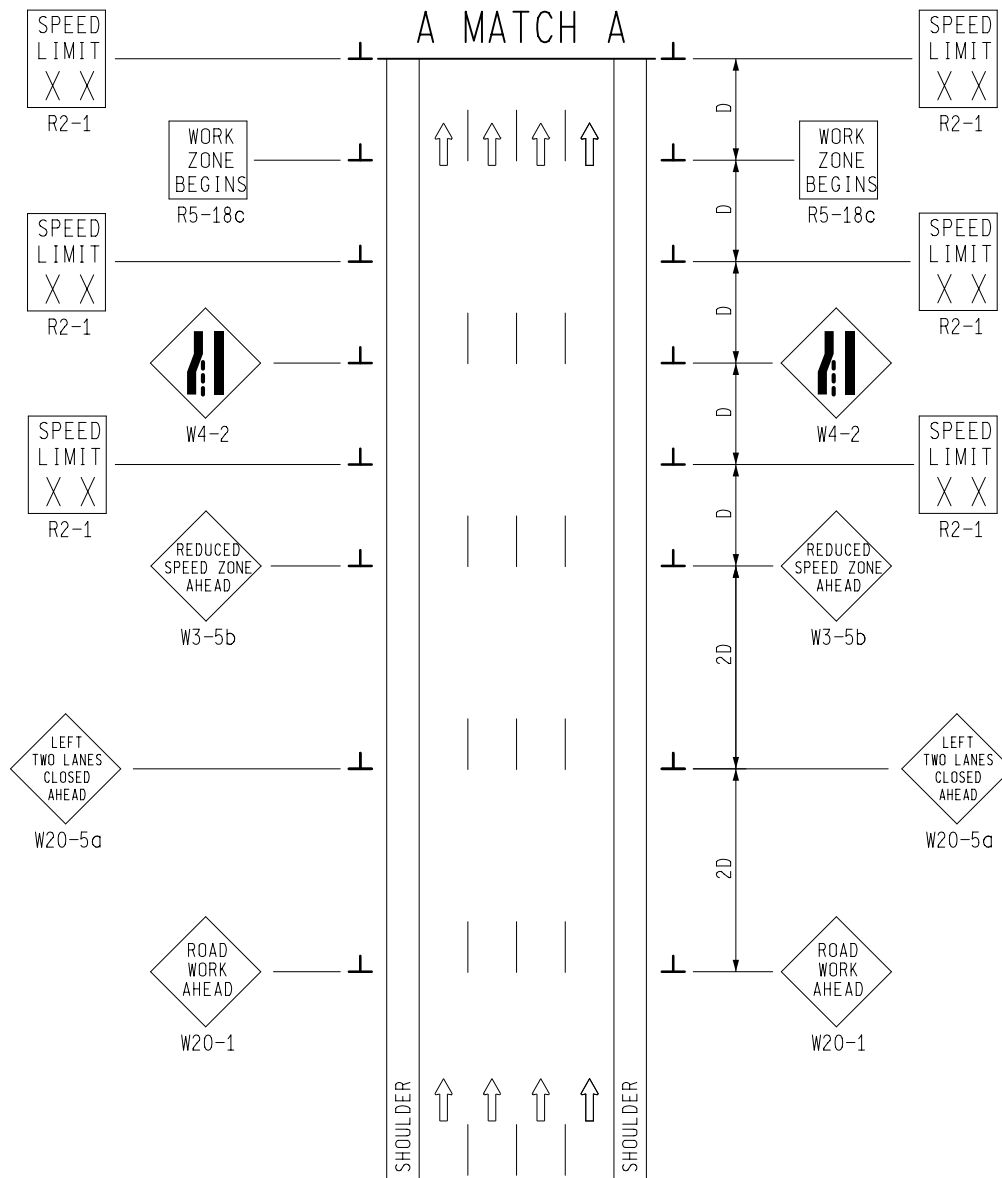
M1660a

SHEET

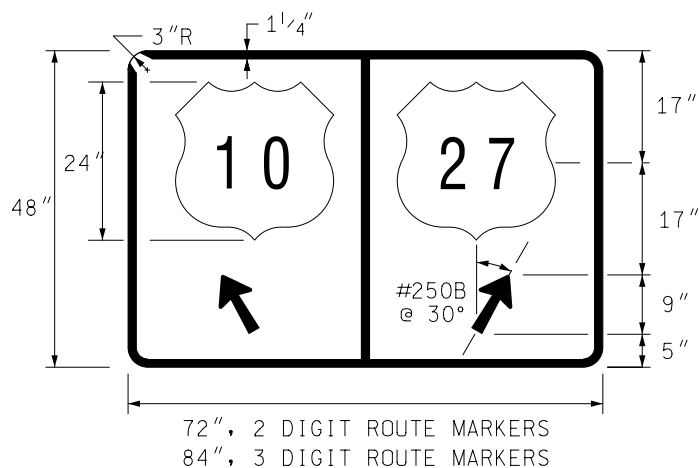
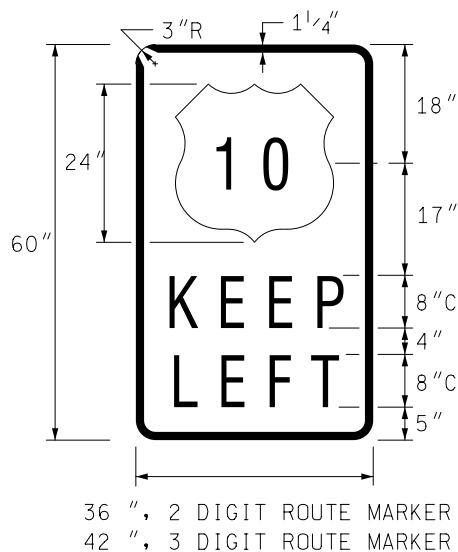
1 OF 3

REV. 10/19/2011

NOT TO SCALE



SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1660a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
ONE ON EACH SIDE OF A GORE AREA AT A
MAJOR DIVERGENCE USING A TRIPLE STEP
DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1660a

SHEET
2 OF 3

REV. 10/19/2011


NOTES

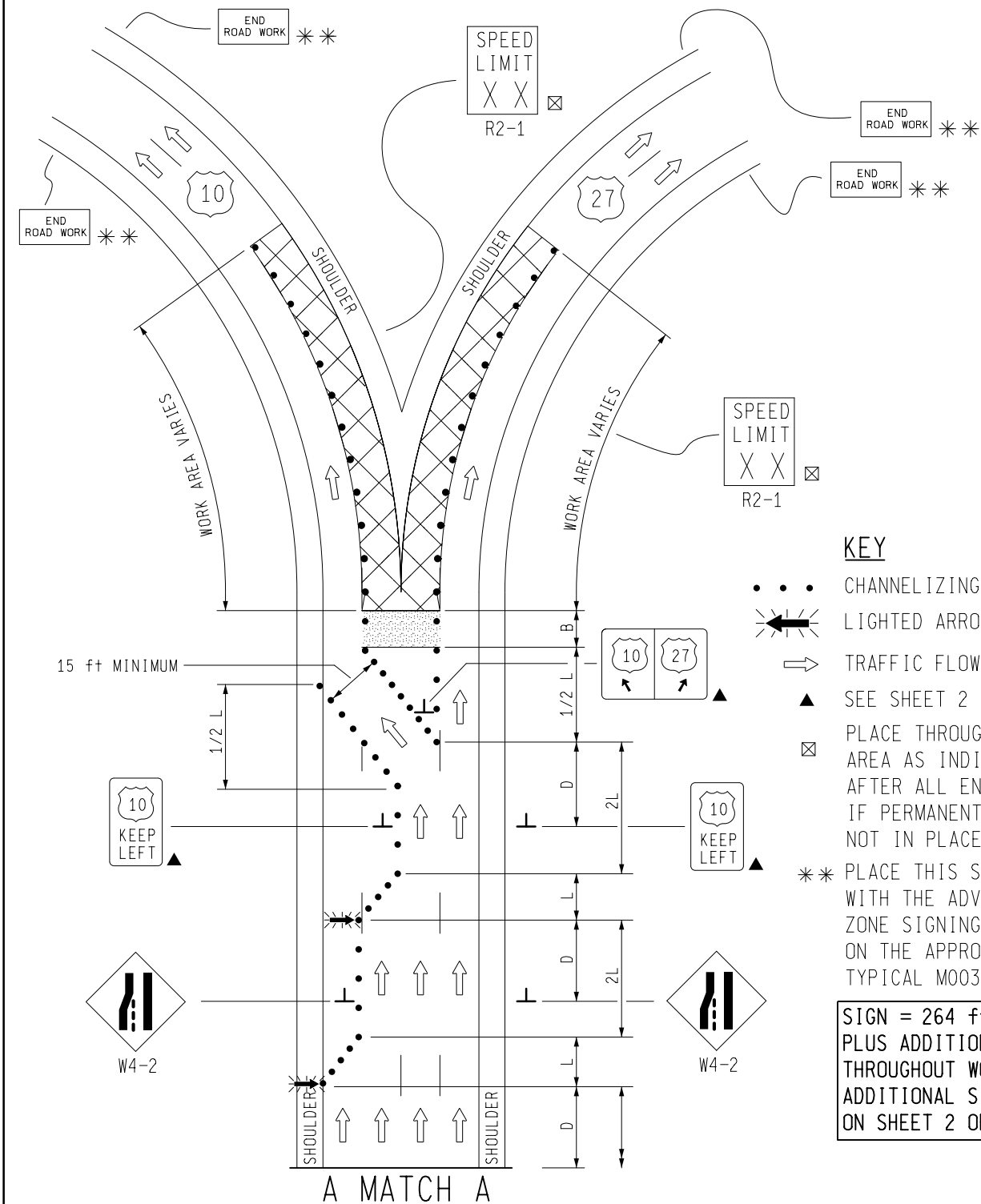
- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48 " x 48 "
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48 " x 60 "
R5-18c REGULATORY	- 48 " x 48 "

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1660a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1660a.dgn			
REV. 10/19/2011			



KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 3
- ☒ PLACE THROUGHOUT WORK AREA AS INDICATED AND AFTER ALL ENTRANCE RAMP'S IF PERMANENT SIGNS ARE NOT IN PLACE.
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 264 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 3

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1670a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE, NO SPEED REDUCTION

OCTOBER 2011

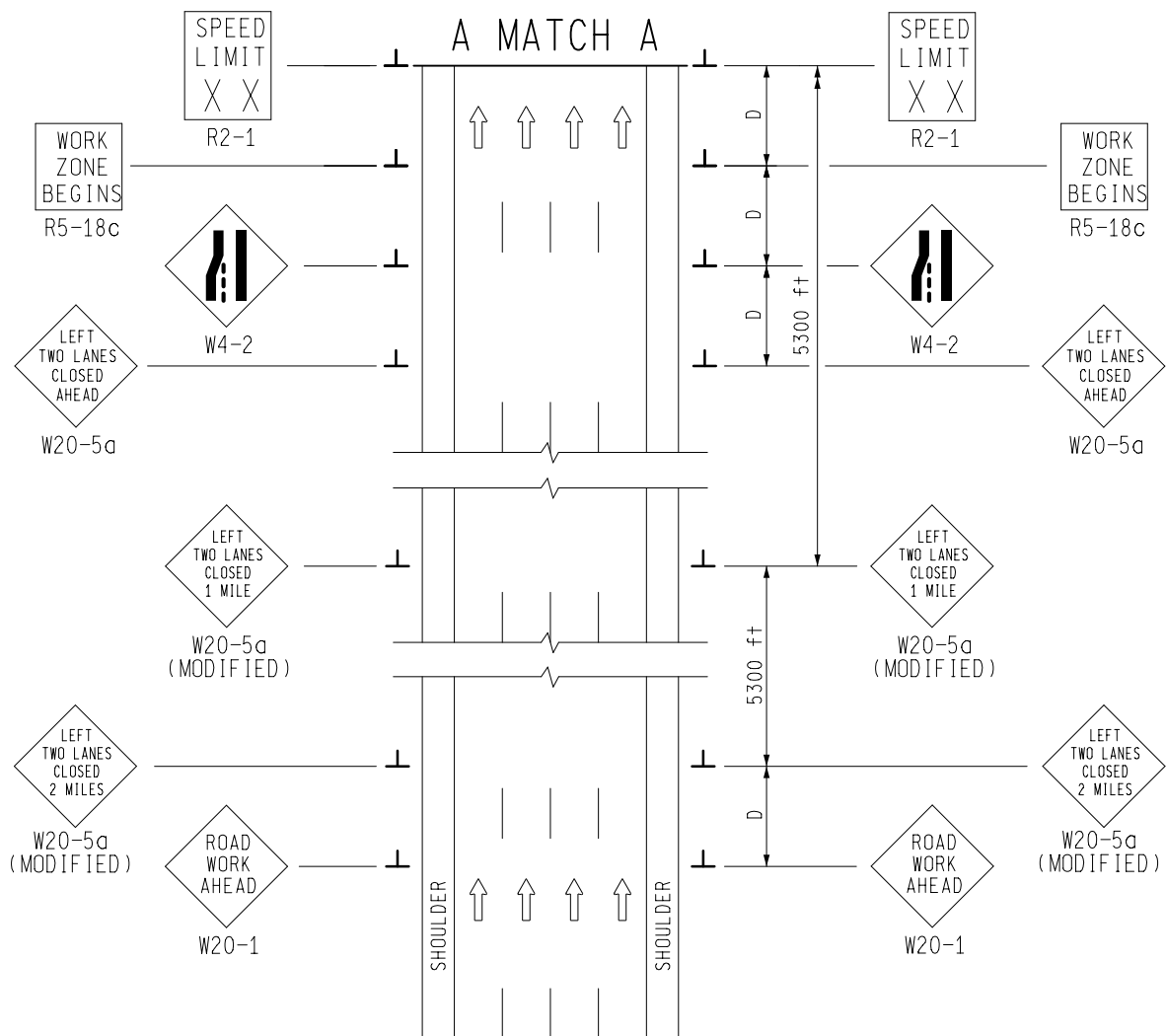
PLAN DATE:

M1670a

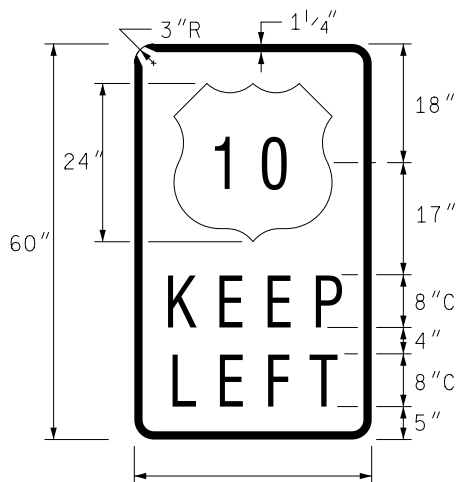
SHEET
1 OF 3

REV. 10/19/2011

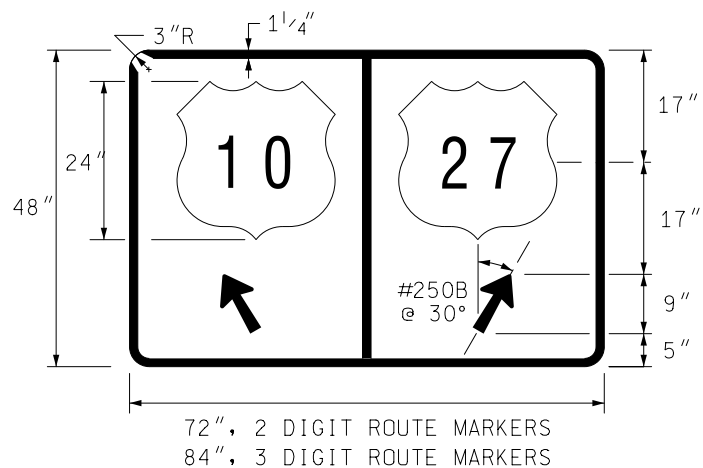
NOT TO SCALE



SIGN DETAILS



36", 2 DIGIT ROUTE MARKER
42", 3 DIGIT ROUTE MARKER



72", 2 DIGIT ROUTE MARKERS
84", 3 DIGIT ROUTE MARKERS

COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1670a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A TWO-LANE CLOSURE ON
A FREEWAY, ONE ON EACH SIDE OF A GORE
AREA AT A MAJOR DIVERGENCE,
NO SPEED REDUCTION

OCTOBER 2011

PLAN DATE:

M1670a

SHEET

2 OF 3

REV. 10/19/2011

NOT TO SCALE


NOTES

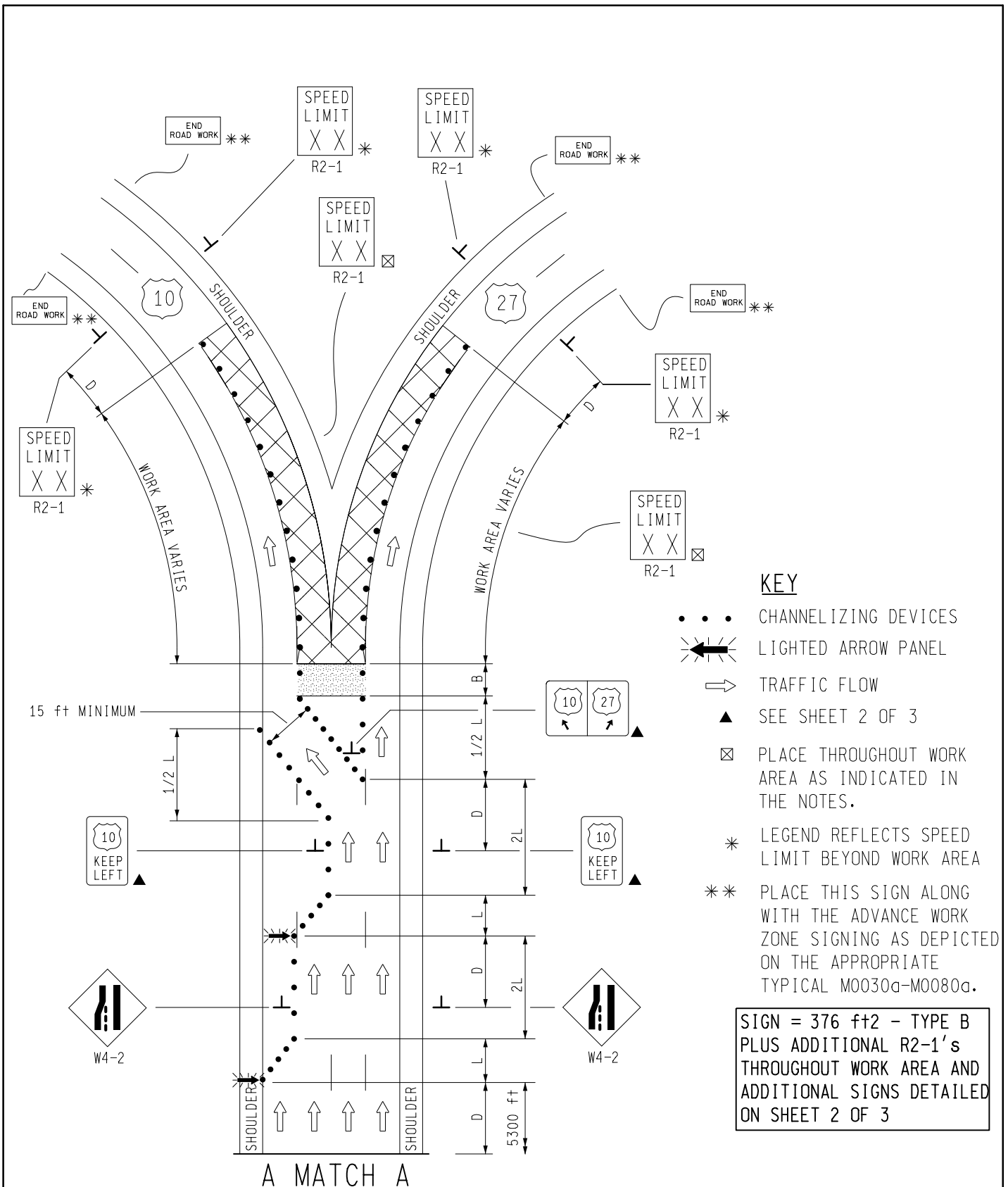
- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 SPECIAL SIGNS - AS DETAILED
 R2-1 REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

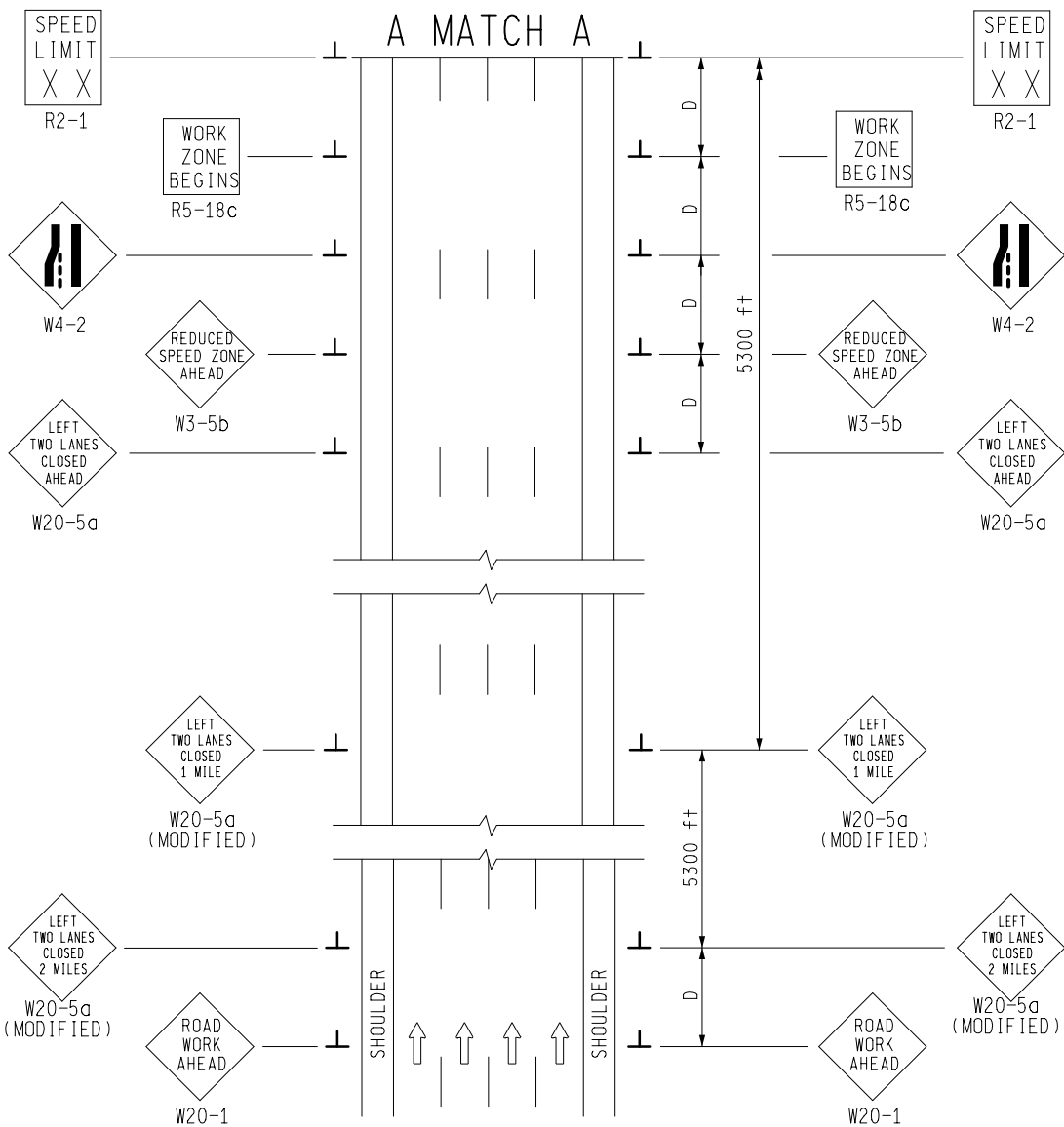
NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1670a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1670a.dgn		REV. 10/19/2011	

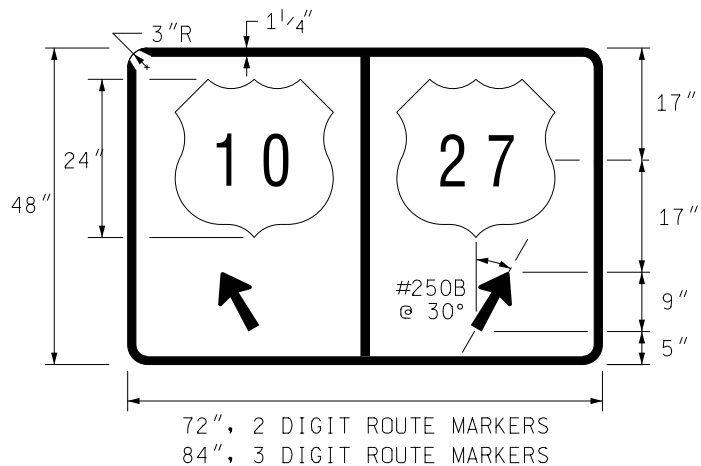
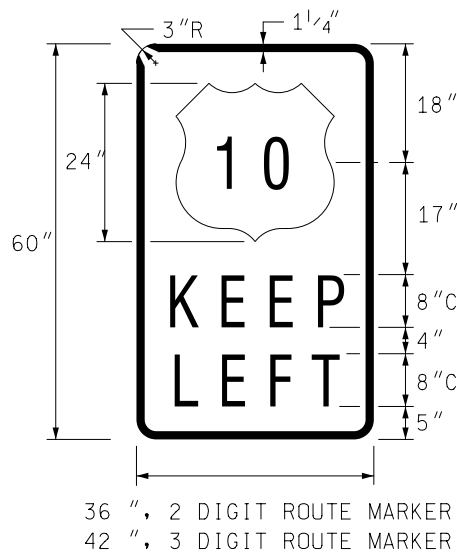


NOT TO SCALE

MDOT Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf CHECKED BY: BMM:CRB	OCTOBER 2011 PLAN DATE:	M1680a	SHEET 1 OF 3
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1680a.dgn		REV. 10/19/2011	



SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
 BACKGROUND - ORANGE (REFLECTORIZED)
 ROUTE MARKER - PER STANDARD

NOT TO SCALE

MDOT
 Michigan Department of Transportation
 TRAFFIC AND SAFETY
 MAINTAINING TRAFFIC
 TYPICAL

DRAWN BY: CON:AE:djf
 CHECKED BY: BMM:CRB
 FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1680a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC
 CONTROL FOR A TWO-LANE CLOSURE ON
 A FREEWAY, ONE ON EACH SIDE OF A GORE
 AREA AT A MAJOR DIVERGENCE USING A
 SINGLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011
 PLAN DATE:

M1680a

SHEET
 2 OF 3

REV. 10/19/2011


NOTES

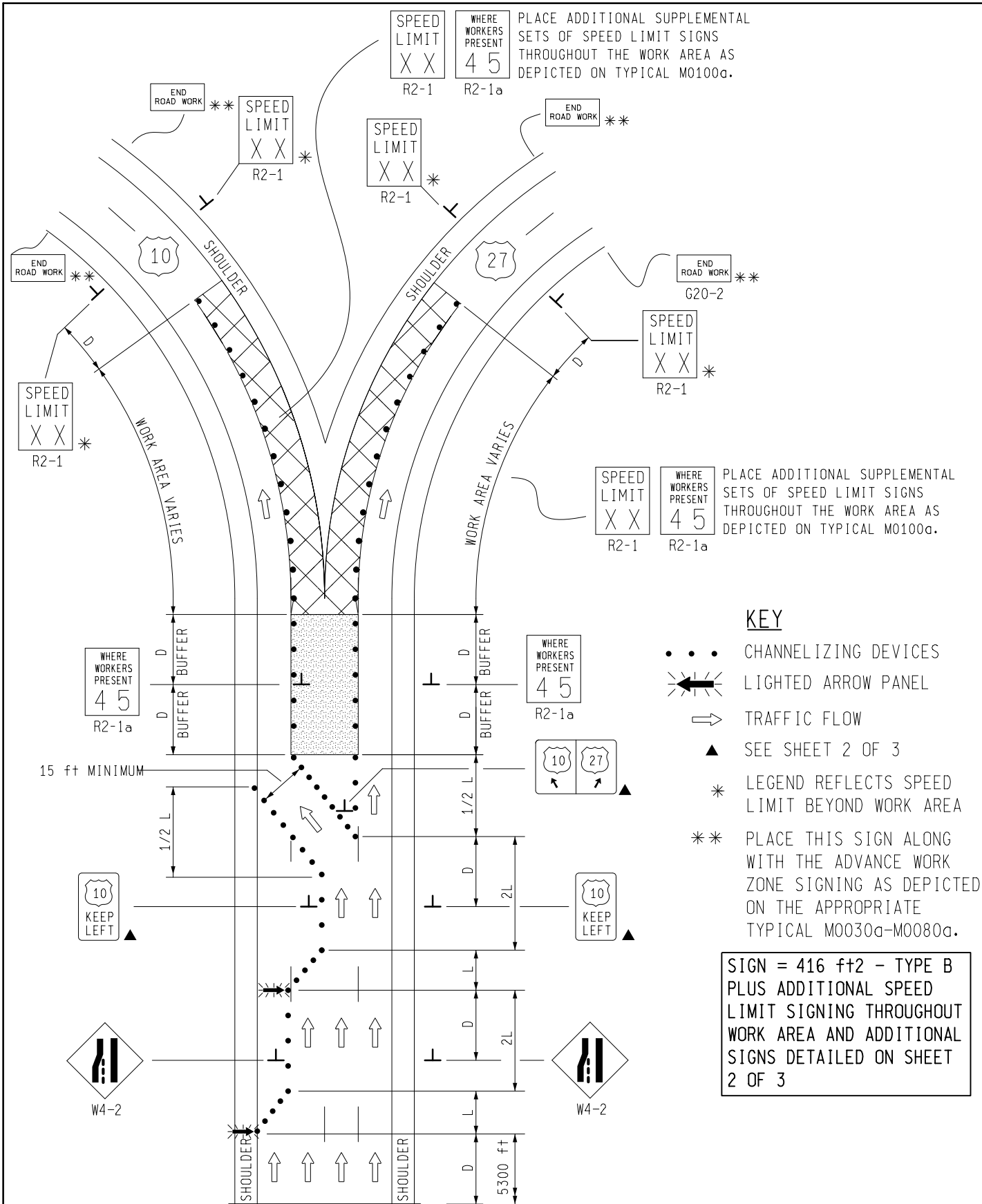
- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48 " x 48 "
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48 " x 60 "
R5-18c REGULATORY	- 48 " x 48 "

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1680a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1680a.dgn		REV. 10/19/2011	



PLACE ADDITIONAL SUPPLEMENTAL SETS OF SPEED LIMIT SIGNS THROUGHOUT THE WORK AREA AS DEPICTED ON TYPICAL M0100a.

PLACE ADDITIONAL SUPPLEMENTAL SETS OF SPEED LIMIT SIGNS THROUGHOUT THE WORK AREA AS DEPICTED ON TYPICAL M0100a.


KEY

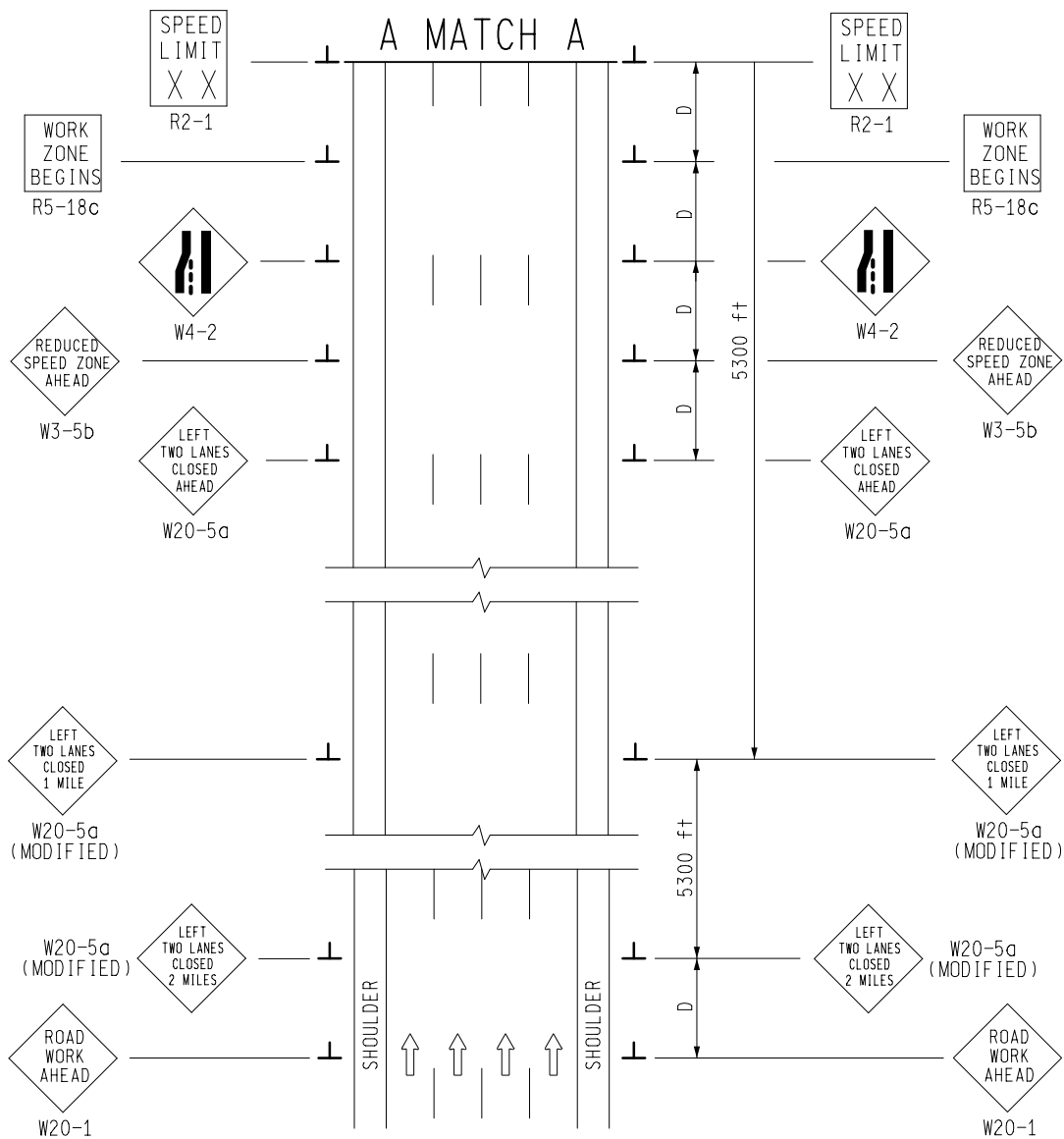
- • • CHANNELIZING DEVICES
- ⬅ LIGHTED ARROW PANEL
- ➡ TRAFFIC FLOW
- ▲ SEE SHEET 2 OF 3
- * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA
- ** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 416 ft± - TYPE B PLUS ADDITIONAL SPEED LIMIT SIGNING THROUGHOUT WORK AREA AND ADDITIONAL SIGNS DETAILED ON SHEET 2 OF 3

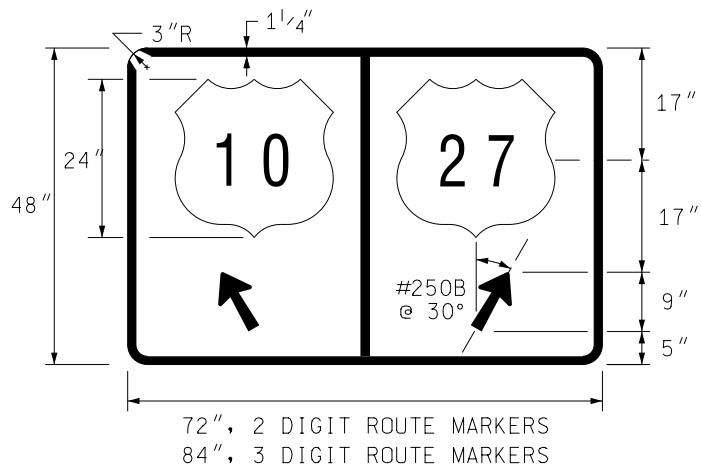
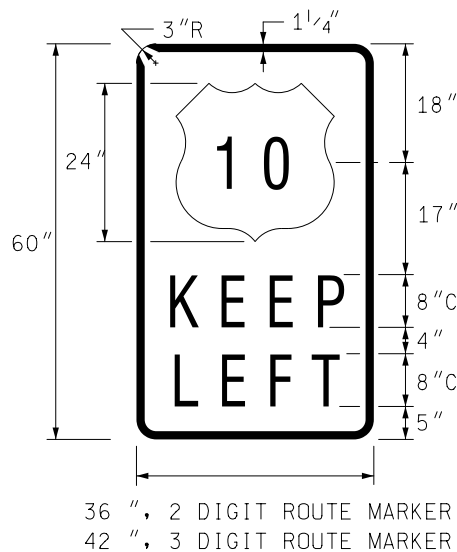
A MATCH A

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
DRAWN BY: CON:AE:djf CHECKED BY: BMM:CRB	OCTOBER 2011 PLAN DATE:	M1690a	SHEET 1 OF 3
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1690a.dgn		REV. 10/19/2011	



SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - ORANGE (REFLECTORIZED)
ROUTE MARKER - PER STANDARD

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1690a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A TWO-LANE CLOSURE ON
A FREEWAY, ONE ON EACH SIDE OF A
GORE AREA AT A MAJOR DIVERGENCE
USING A REDUCED SPEED LIMIT
WHERE WORKERS PRESENT

OCTOBER 2011
PLAN DATE:

M1690a

SHEET
2 OF 3

REV. 10/19/2011


NOTES

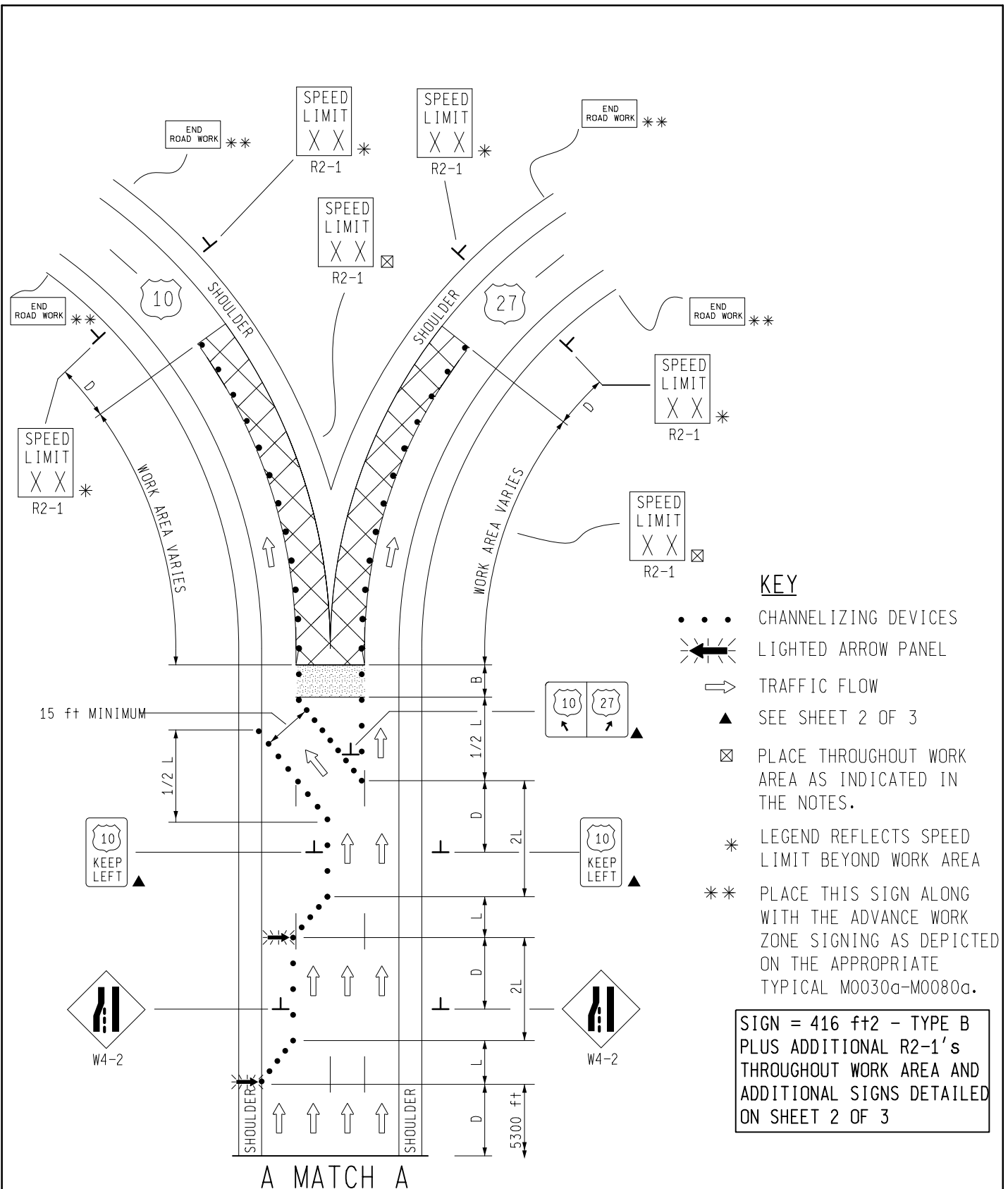
- 1K. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L & 1/2 L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
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SIGN SIZES

DIAMOND WARNING	- 48 " x 48 "
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48 " x 60 "
R5-18c REGULATORY	- 48 " x 48 "

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1690a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1690a.dgn		REV. 10/19/2011	



A MATCH A

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1700a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A DOUBLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1700a

SHEET

1 OF 3

REV. 10/17/2011


NOTES

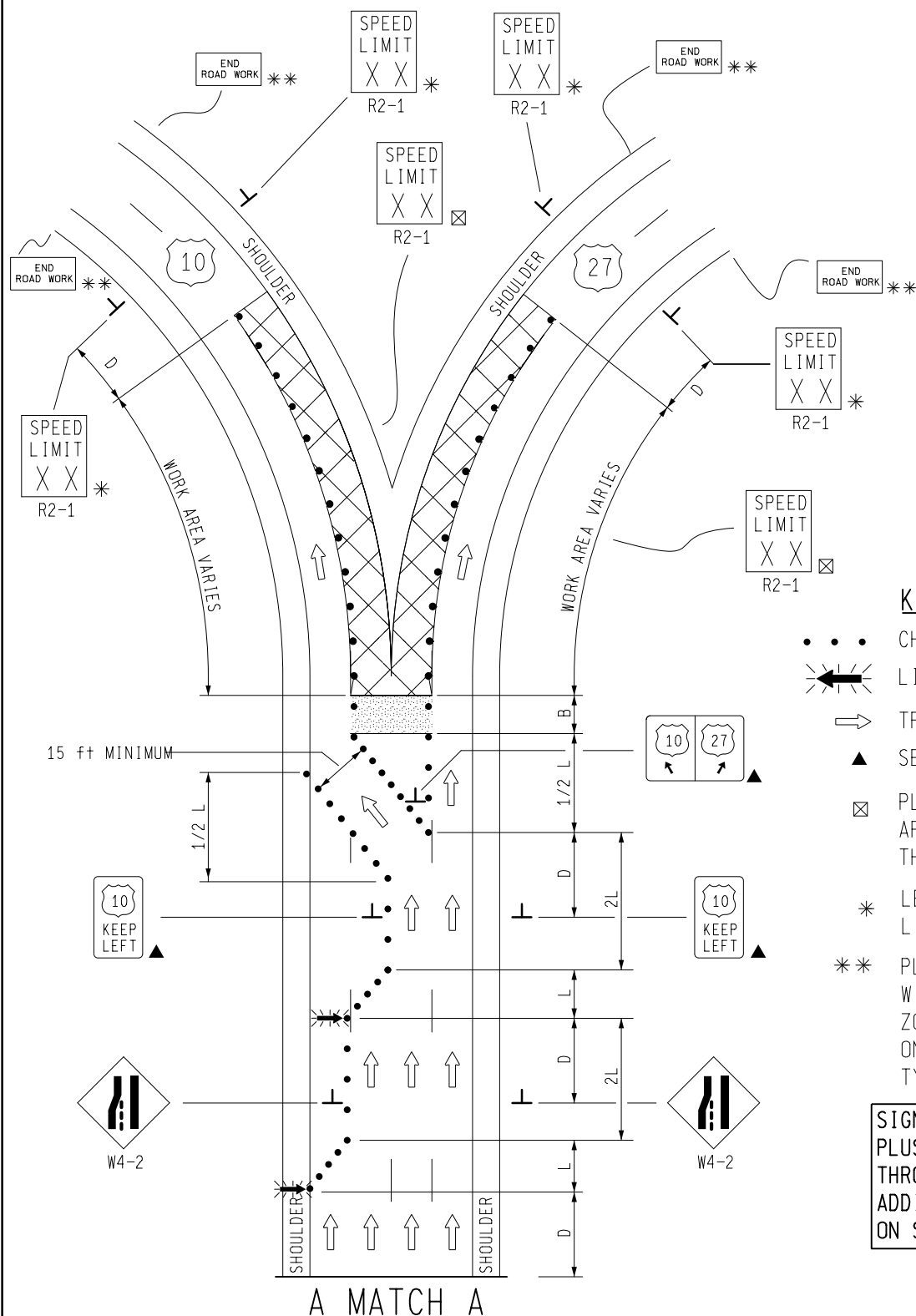
- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
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SEE **M0020a** FOR "D," "L," AND "B" VALUES
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5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48 " x 48 "
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48 " x 60 "
R5-18c REGULATORY	- 48 " x 48 "

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A DOUBLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1700a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1700a.dgn		REV. 10/17/2011	



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1710a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A TRIPLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011

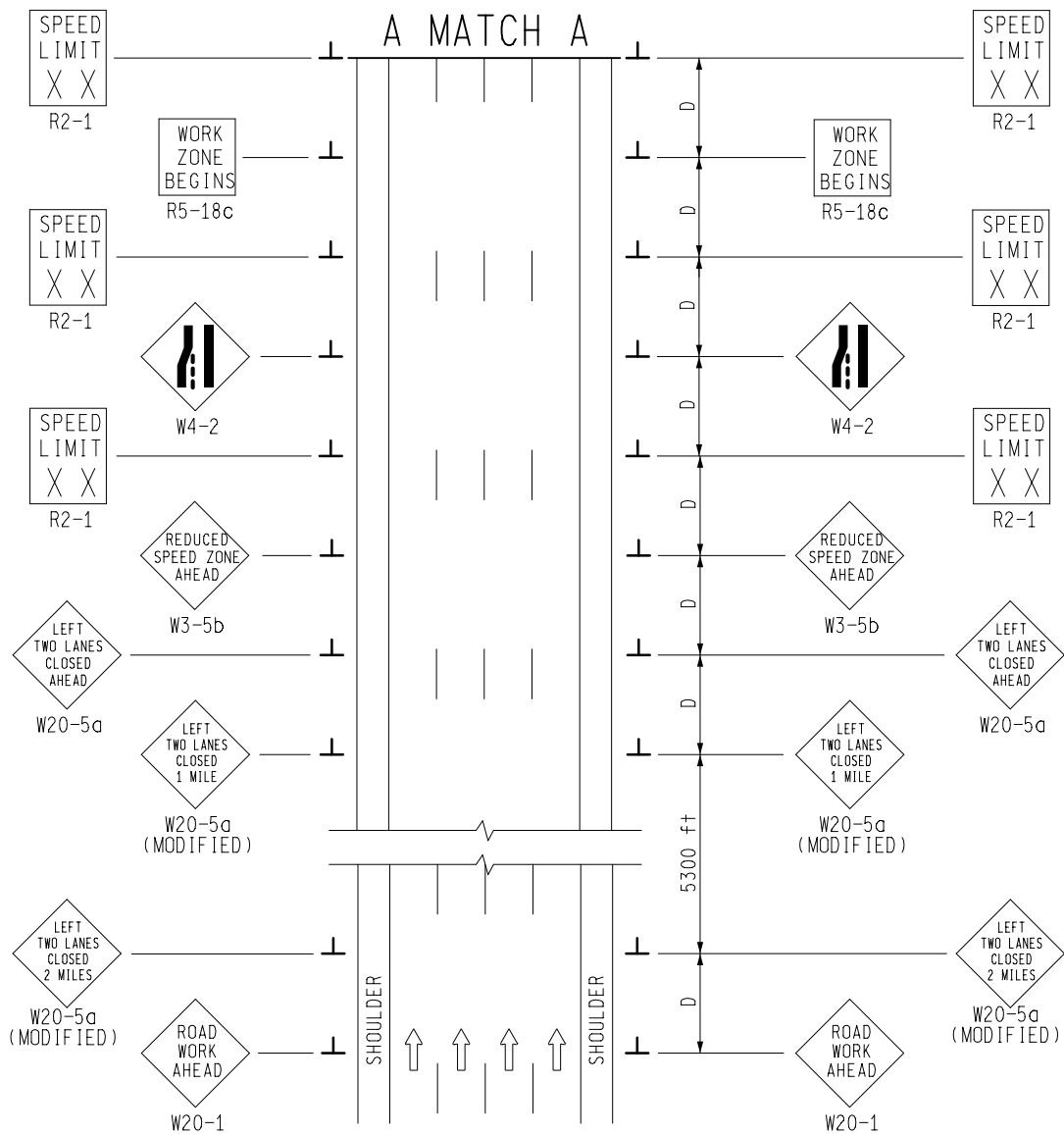
PLAN DATE:

M1710a

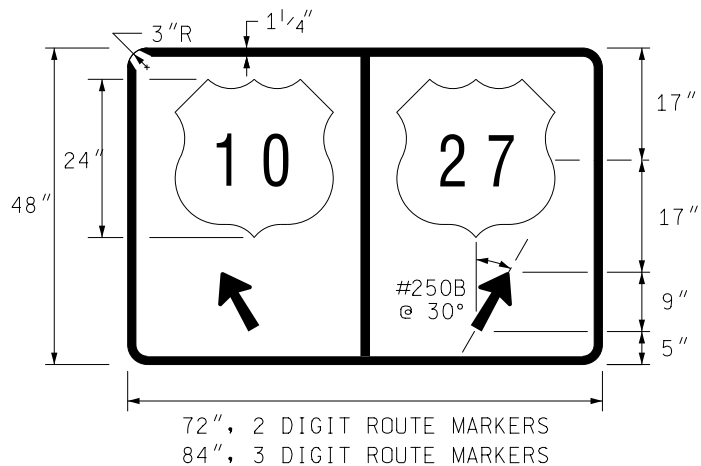
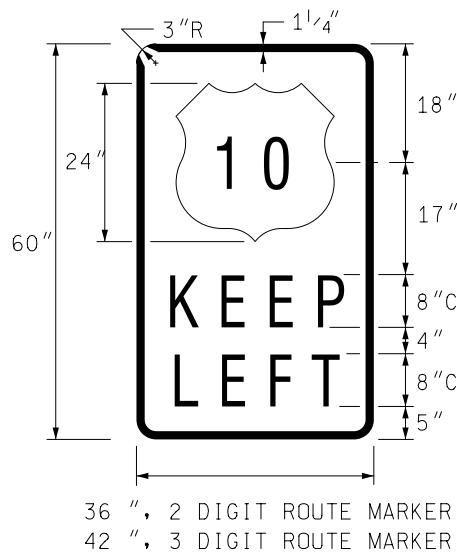
SHEET

1 OF 3

REV. 10/17/2011



SIGN DETAILS



COLORS

LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
 BACKGROUND - ORANGE (REFLECTORIZED)
 ROUTE MARKER - PER STANDARD

NOT TO SCALE

MDOT
 Michigan Department of Transportation
 TRAFFIC AND SAFETY
 MAINTAINING TRAFFIC
 TYPICAL

DRAWN BY: CON:AE:djf
 CHECKED BY: BMM:CRB
 FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1710a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC
 CONTROL FOR A TWO-LANE CLOSURE ON
 A FREEWAY, ONE ON EACH SIDE OF A GORE
 AREA AT A MAJOR DIVERGENCE USING A
 TRIPLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011
 PLAN DATE:

M1710a

SHEET
 2 OF 3

REV. 10/17/2011


NOTES

- 1C. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/2 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48 " x 48 "
SPECIAL SIGNS	- AS DETAILED
RECTANGULAR REGULATORY	- 48 " x 60 "
R5-18c REGULATORY	- 48 " x 48 "

NOT TO SCALE

 MDOT <small>Michigan Department of Transportation</small> TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, ONE ON EACH SIDE OF A GORE AREA AT A MAJOR DIVERGENCE USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1710a	SHEET 3 OF 3
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1710a.dgn		REV. 10/17/2011	

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

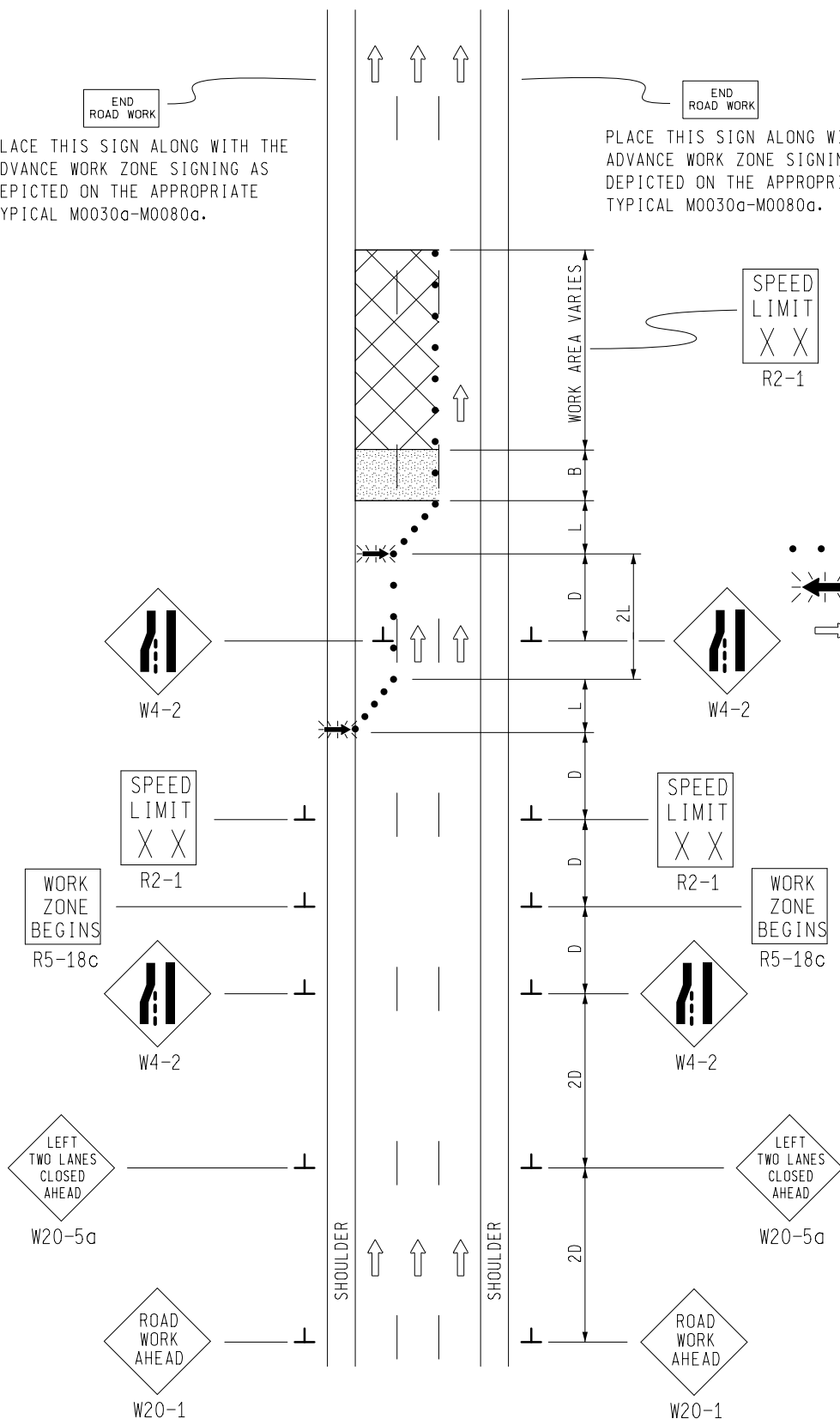
SPEED
LIMIT
X X
R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED AND AFTER ALL
ENTRANCE RAMPs IF PERMANENT
SIGNS ARE NOT IN PLACE.

KEY

- ... CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW

SIGN = 200 ft ± 2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY,
NO SPEED REDUCTION

OCTOBER 2011
PLAN DATE:

M1720a

SHEET
1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1720a.dgn

REV. 10/17/2011


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
R2-1 REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, NO SPEED REDUCTION	
		DRAWN BY: CON:AE:djf CHECKED BY: BMM:CRB	OCTOBER 2011 PLAN DATE:
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1720a.dgn REV. 10/17/2011			

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X
R2-1 *

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- * LEGEND REFLECTS SPEED
LIMIT BEYOND WORK AREA

SIGN = 272 f+2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA

SPEED
LIMIT
X X
R2-1 *

SPEED
LIMIT
X X
R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED IN THE NOTES.



W4-2



W4-2

SPEED
LIMIT
X X
R2-1

WORK
ZONE
BEGINS
R5-18c



W4-2

REDUCED
SPEED ZONE
AHEAD
W3-5b



W20-5a

ROAD
WORK
AHEAD
W20-1

SPEED
LIMIT
X X
R2-1

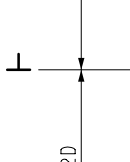
WORK
ZONE
BEGINS
R5-18c

SPEED
LIMIT
X X
R2-1



W4-2

REDUCED
SPEED ZONE
AHEAD
W3-5b



W20-5a

ROAD
WORK
AHEAD
W20-1

SHOULDER

SHOULDER

NOT TO SCALE



TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY
USING A SINGLE STEP DOWN IN
SPEED LIMIT

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

OCTOBER 2011

PLAN DATE:

M1730a

SHEET
1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1730a.dgn

REV. 10/17/2011


NOTES

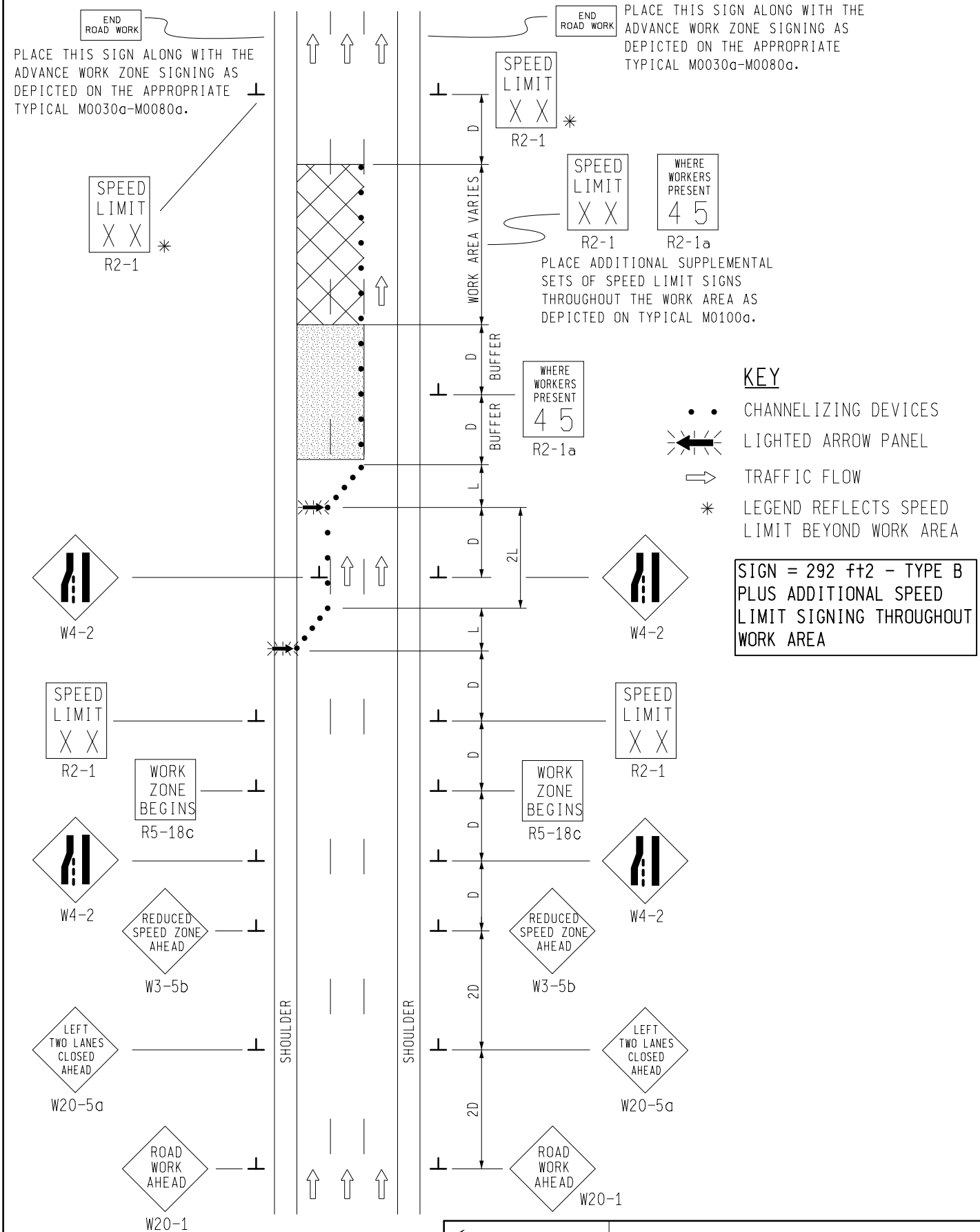
- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES


DIAMOND WARNING	- 48" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1730a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1730a.dgn		REV. 10/17/2011	



NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
DRAWN BY: CON:AE:djf CHECKED BY: BMM:CRB	OCTOBER 2011 PLAN DATE:	M1740a	SHEET 1 OF 2
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1740a.dgn		REV. 10/17/2011	


NOTES

11. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1740a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1740a.dgn REV. 10/17/2011			

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X
R2-1 *

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

KEY

- ... CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW
- * LEGEND REFLECTS SPEED
LIMIT BEYOND WORK AREA

SIGN = 312 f+2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA



W4-2

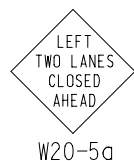
SPEED
LIMIT
X X
R2-1

WORK
ZONE
BEGINS
R5-18c



W4-2

REDUCED
SPEED ZONE
AHEAD
W3-5b



W20-5a

ROAD
WORK
AHEAD
W20-1

SHOULDER



SHOULDER



SPEED
LIMIT
X X
R2-1

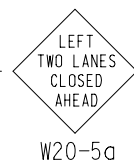
WORK
ZONE
BEGINS
R5-18c

SPEED
LIMIT
X X
R2-1



W4-2

REDUCED
SPEED ZONE
AHEAD
W3-5b



W20-5a

ROAD
WORK
AHEAD
W20-1



TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY
USING A DOUBLE STEP DOWN IN
SPEED LIMIT

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

OCTOBER 2011

PLAN DATE:

M1750a

SHEET
1 OF 2

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1750a.dgn

REV. 10/17/2011


NOTES

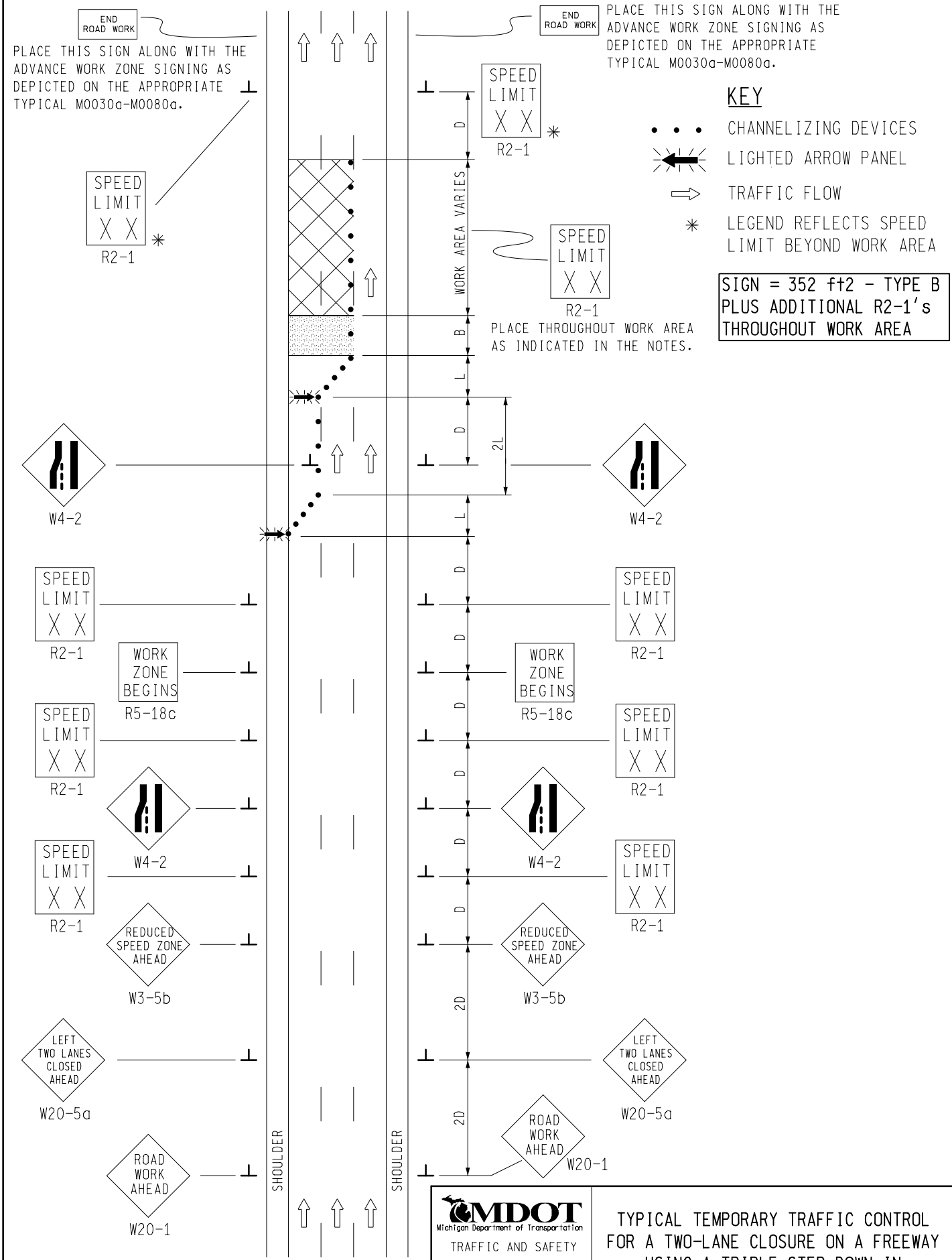
- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 L = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 RECTANGULAR REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY USING A DOUBLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1750a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1750a.dgn		REV. 10/17/2011	



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TWO-LANE CLOSURE ON A FREEWAY
USING A TRIPLE STEP DOWN IN
SPEED LIMIT

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1760a.dgn

OCTOBER 2011
PLAN DATE:

M1760a

SHEET
1 OF 2

REV. 10/17/2011


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- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
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SIGN SIZES

DIAMOND WARNING	- 48" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1760a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1760a.dgn		REV. 10/17/2011	

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

SPEED
LIMIT
X X

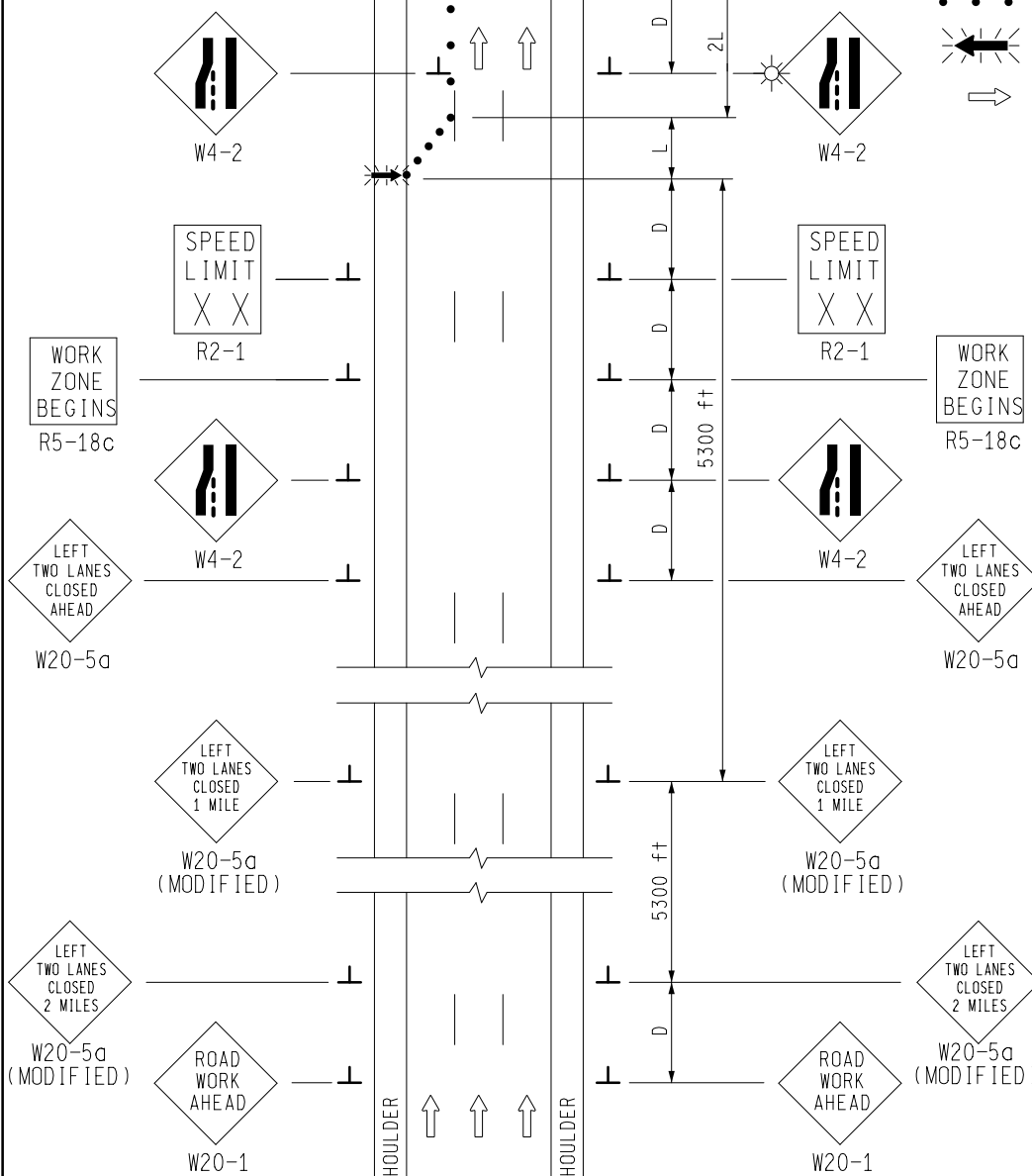
R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED AND AFTER ALL
ENTRANCE RAMPs IF PERMANENT
SIGNS ARE NOT IN PLACE.

KEY

- ... CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW

SIGN = 264 ft±2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA



NOT TO SCALE



TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1770a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A TWO-LANE CLOSURE ON A
FREEWAY, NO SPEED REDUCTION

OCTOBER 2011

PLAN DATE:

M1770a

SHEET

1 OF 2

REV. 10/17/2011


NOTES

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- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
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6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
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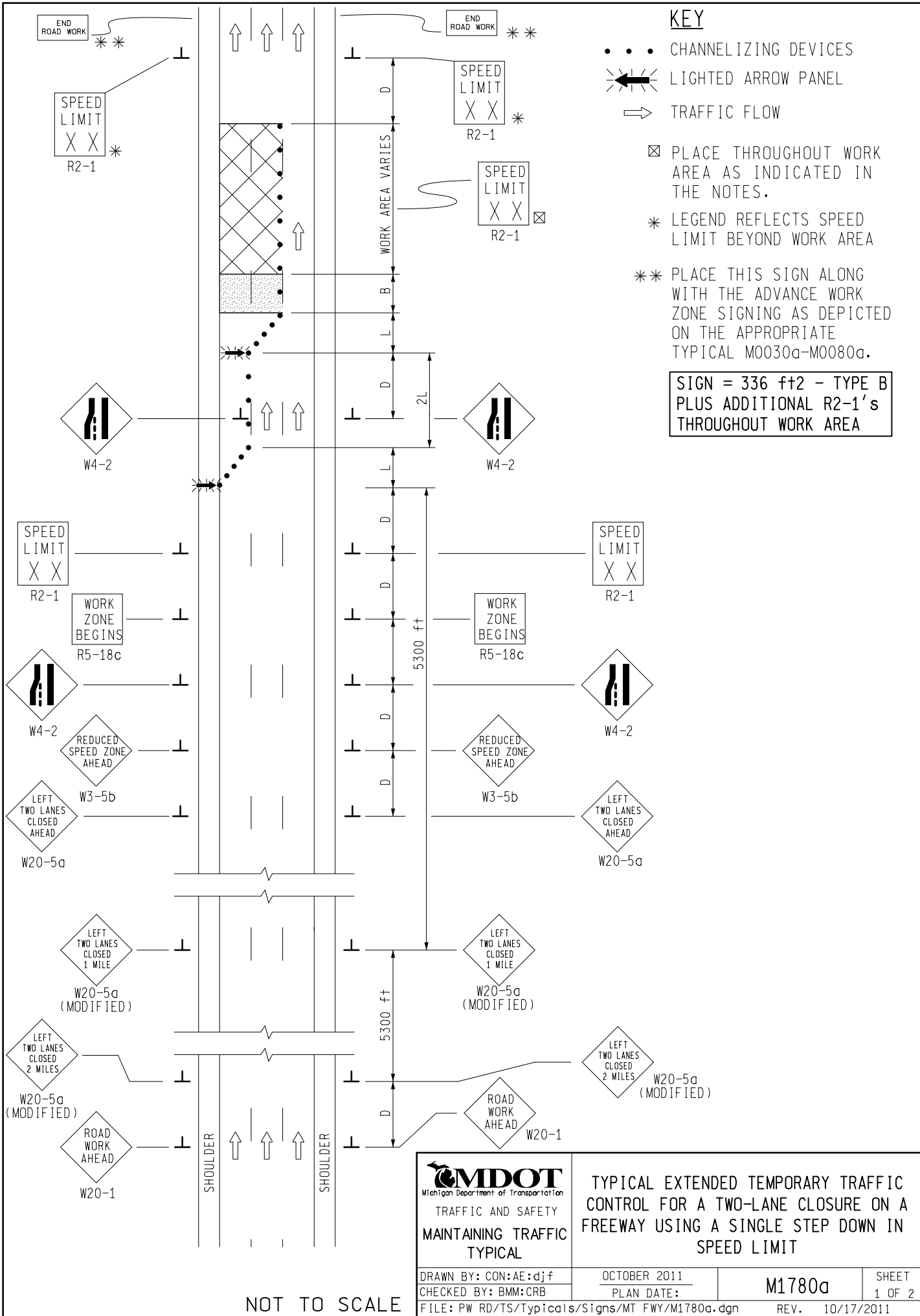
SIGN SIZES

DIAMOND WARNING - 48" x 48"
R2-1 REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M1770a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1770a.dgn		REV.	10/17/2011

SHEET
2 OF 2



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY USING A SINGLE STEP DOWN IN SPEED LIMIT

OCTOBER 2011
PLAN DATE:

M1780a

SHEET
1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1780a.dgn

REV. 10/17/2011


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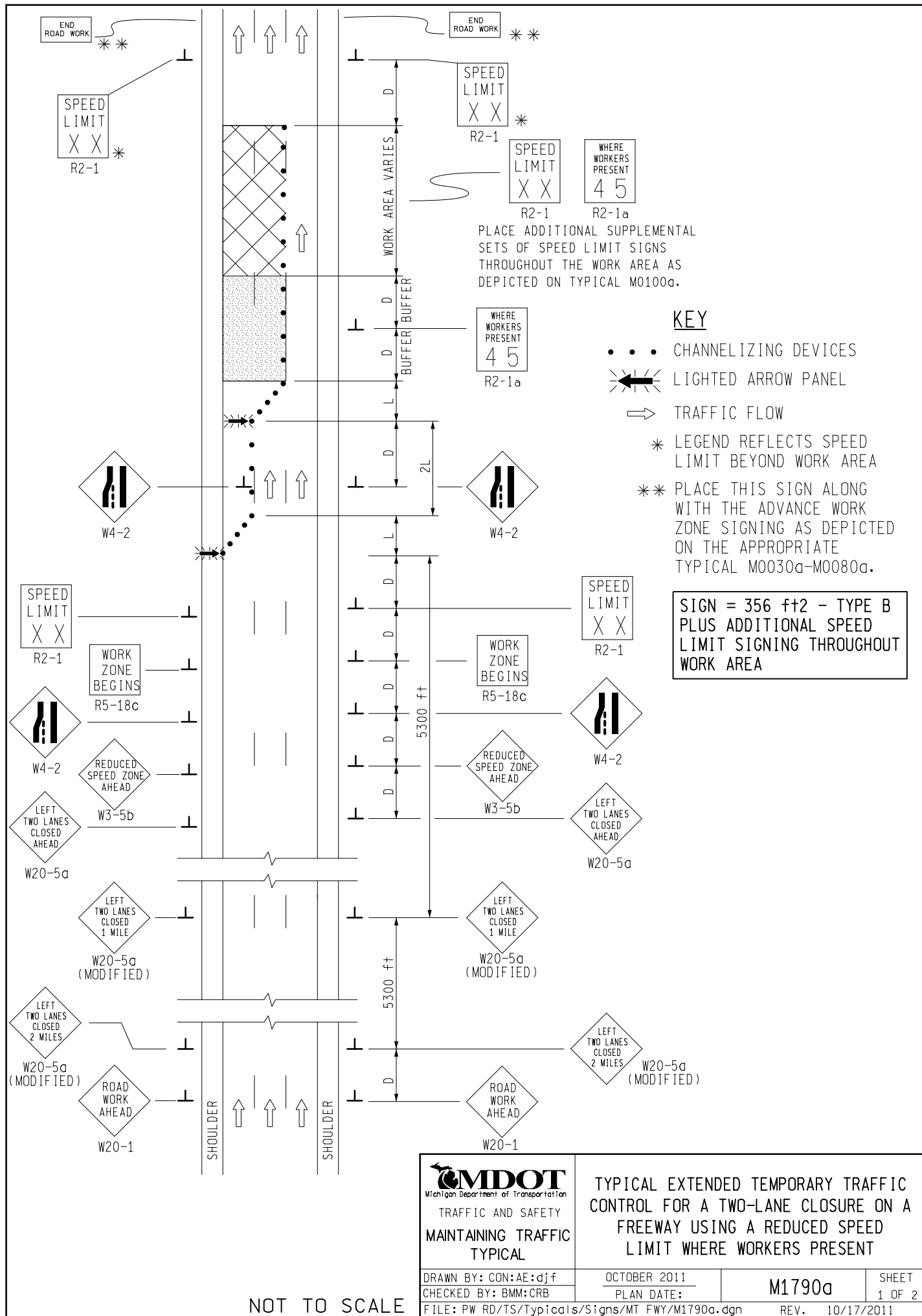
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26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1780a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1780a.dgn		REV. 10/17/2011	



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1790a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT

OCTOBER 2011

PLAN DATE:

M1790a

SHEET

1 OF 2

REV. 10/17/2011


NOTES

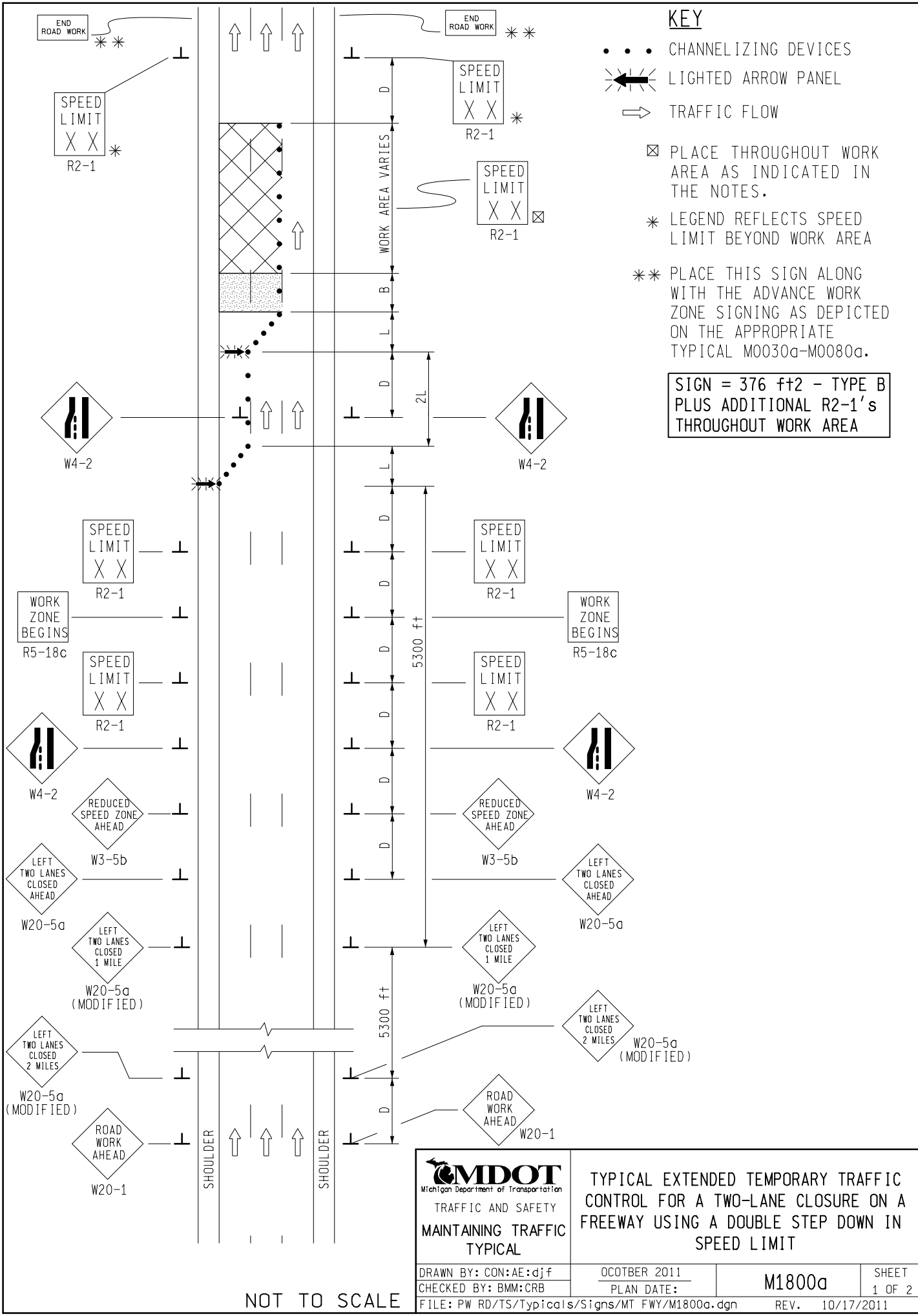
11. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
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- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
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 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1790a	SHEET 2 OF 2
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SIGN = 376 ft±2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A TWO-LANE CLOSURE ON A
FREEWAY USING A DOUBLE STEP DOWN IN
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DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCOTBER 2011
PLAN DATE:

M1800a

SHEET
1 OF 2

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REV. 10/17/2011

NOT TO SCALE


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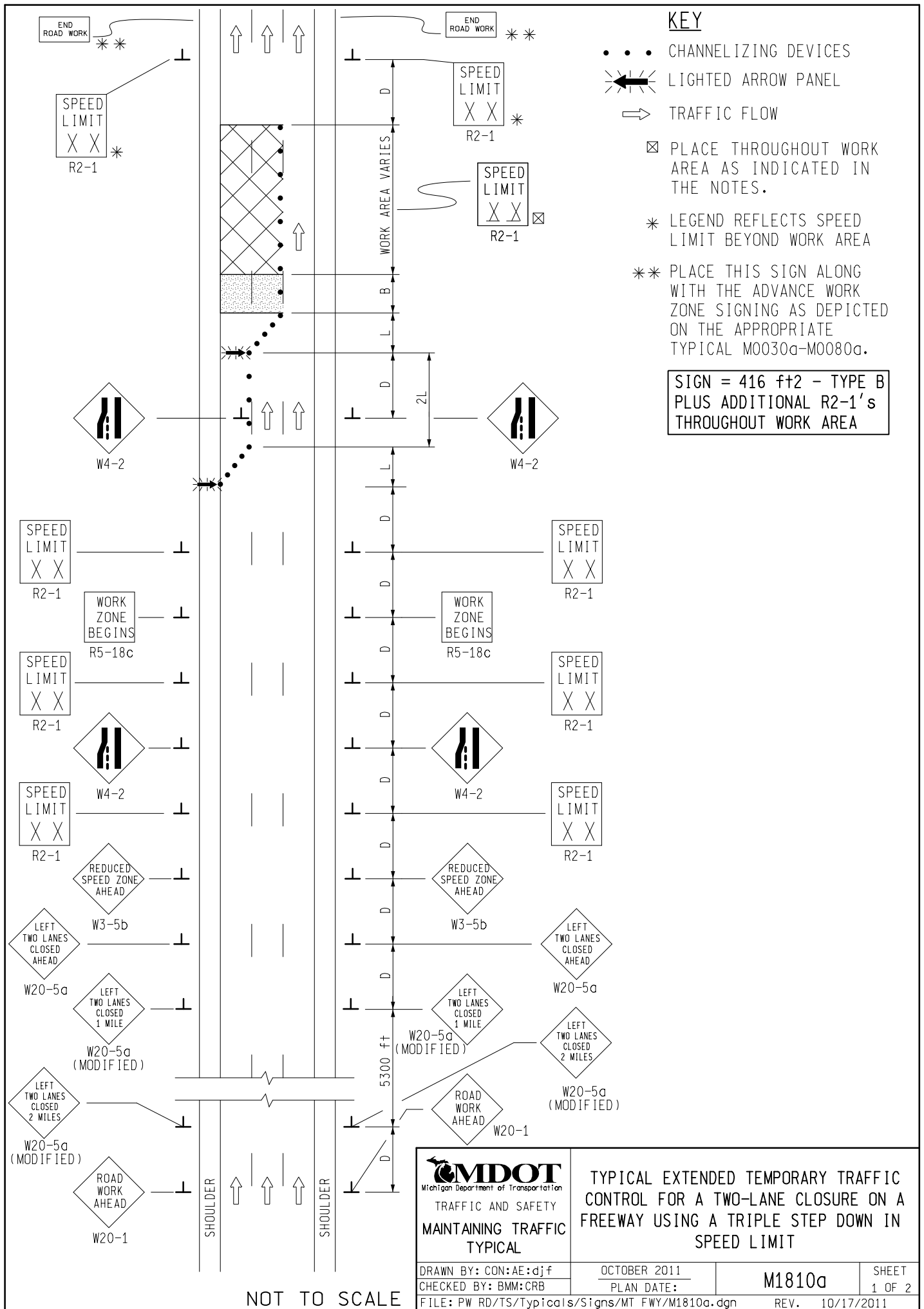
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21. ALL EXISTING PAVEMENT MARKINGS WHICH ARE IN CONFLICT WITH EITHER PROPOSED CHANGES IN TRAFFIC PATTERNS OR PROPOSED TEMPORARY TRAFFIC MARKINGS, SHALL BE REMOVED BEFORE ANY CHANGE IS MADE IN THE TRAFFIC PATTERN. EXCEPTION WILL BE MADE FOR DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.


SIGN SIZES

DIAMOND WARNING	- 48" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 MDOT Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY USING A DOUBLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1800a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1800a.dgn		REV. 10/17/2011	



 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf CHECKED BY: BMM:CRB		OCTOBER 2011 PLAN DATE:	M1810a SHEET 1 OF 2
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1810a.dgn		REV. 10/17/2011	


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 MDOT Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE CLOSURE ON A FREEWAY USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1810a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1810a.dgn		REV. 10/17/2011	

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

END
ROAD WORK

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0030a-M0080a.

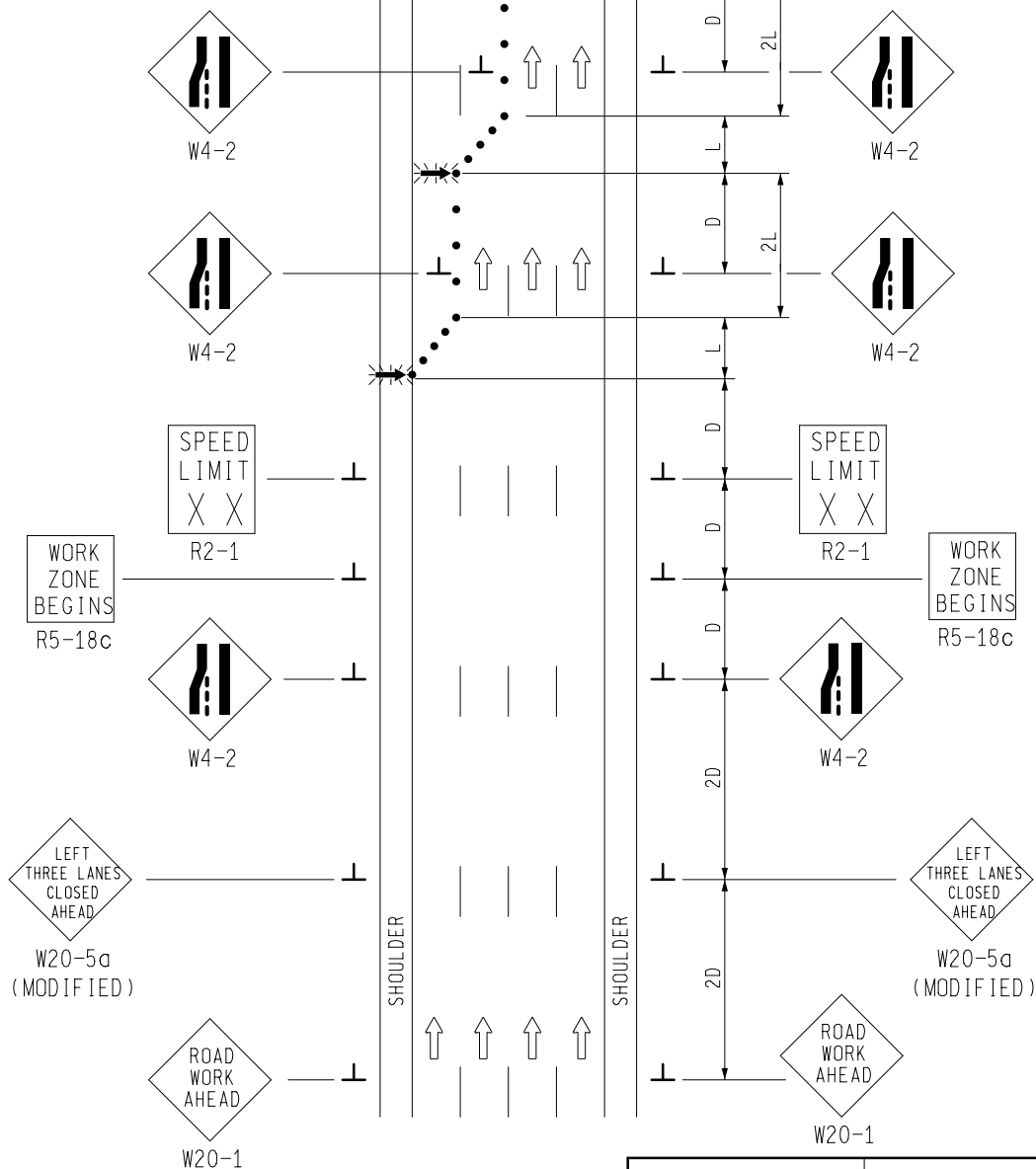
SPEED
LIMIT
X X
R2-1

PLACE THROUGHOUT WORK AREA
AS INDICATED AND AFTER ALL
ENTRANCE RAMP'S IF PERMANENT
SIGNS ARE NOT IN PLACE.

KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW

SIGN = 232 ft± - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA



NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A THREE-LANE CLOSURE ON A
FREEWAY, NO SPEED REDUCTION

DRAWN BY: CON:AE:djf

OCTOBER 2011

CHECKED BY: BMM:CRB

PLAN DATE:

M1820a

SHEET
1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1820a.dgn

REV. 10/17/2011


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
R2-1 REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M1820a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1820a.dgn		REV.	10/17/2011

SHEET
2 OF 2

END
ROAD WORK

SPEED
LIMIT
X X
R2-1

END
ROAD WORK

SPEED
LIMIT
X X
R2-1

SPEED
LIMIT
X X
R2-1

KEY

- • • CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ➡ TRAFFIC FLOW

☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.

* LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA

** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

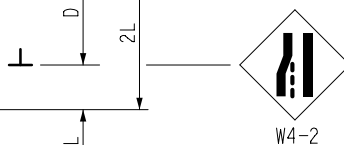
SIGN = 304 f+2 - TYPE B
PLUS ADDITIONAL R2-1's
THROUGHOUT WORK AREA



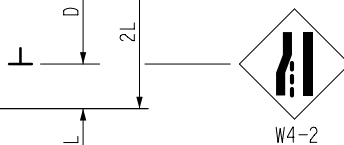
W4-2



W4-2



W4-2



W4-2

SPEED
LIMIT
X X
R2-1

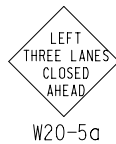
WORK
ZONE
BEGINS
R5-18c



W4-2



W3-5b



W20-5a
(MODIFIED)



W20-1

SHOULDER

SHOULDER

SPEED
LIMIT
X X
R2-1

WORK
ZONE
BEGINS
R5-18c



W4-2



W3-5b



W20-5a
(MODIFIED)



W20-1

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1830a.dgn

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A THREE-LANE CLOSURE ON A
FREEWAY USING A SINGLE STEP DOWN IN
SPEED LIMIT

OCTOBER 2011

PLAN DATE:

M1830a

SHEET

1 OF 2

REV. 10/17/2011

NOT TO SCALE


NOTES

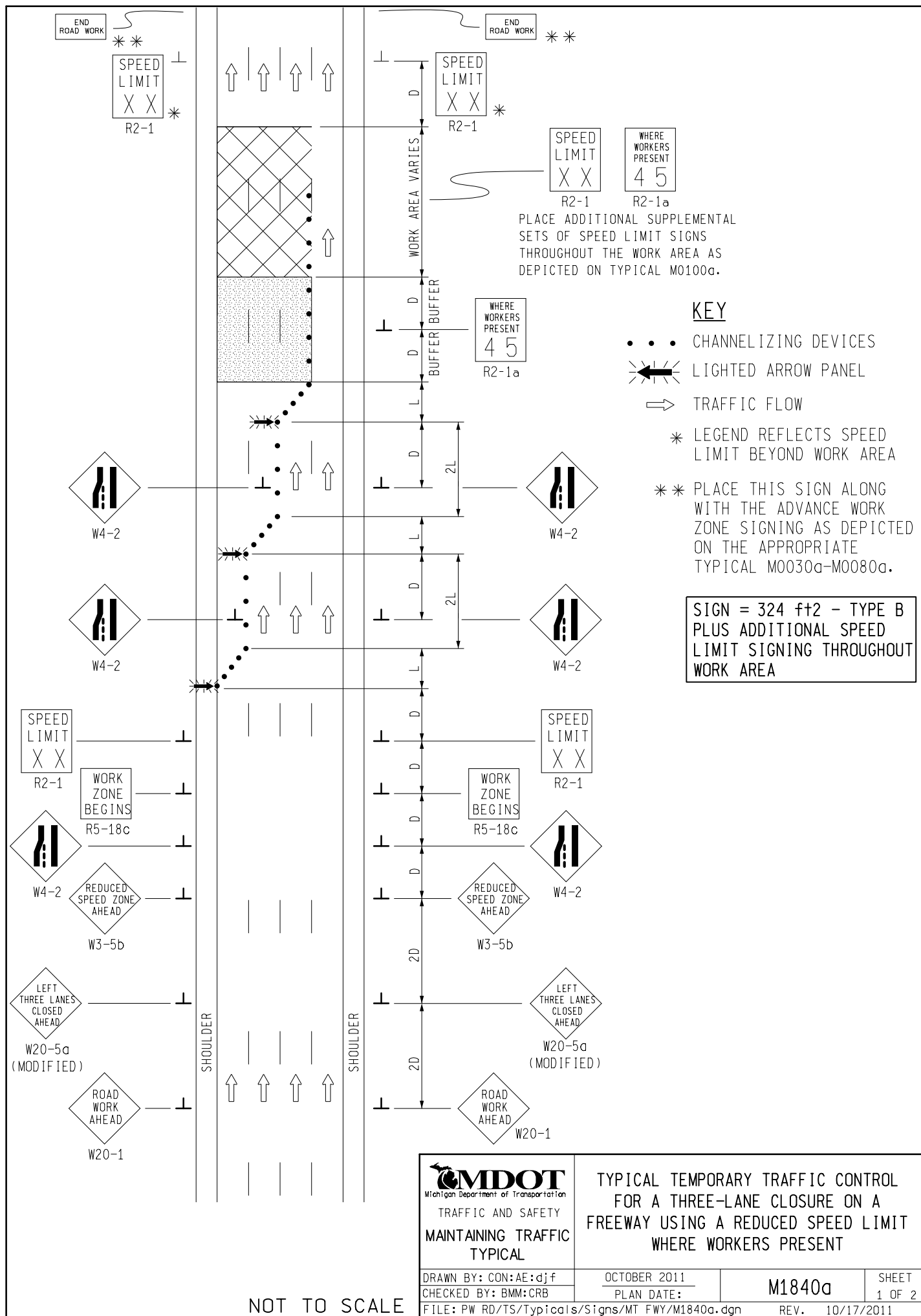
- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 MDOT Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	<div style="font-size: 1.2em; font-weight: bold;">M1830a</div>	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1830a.dgn		REV. 10/17/2011	




NOTES

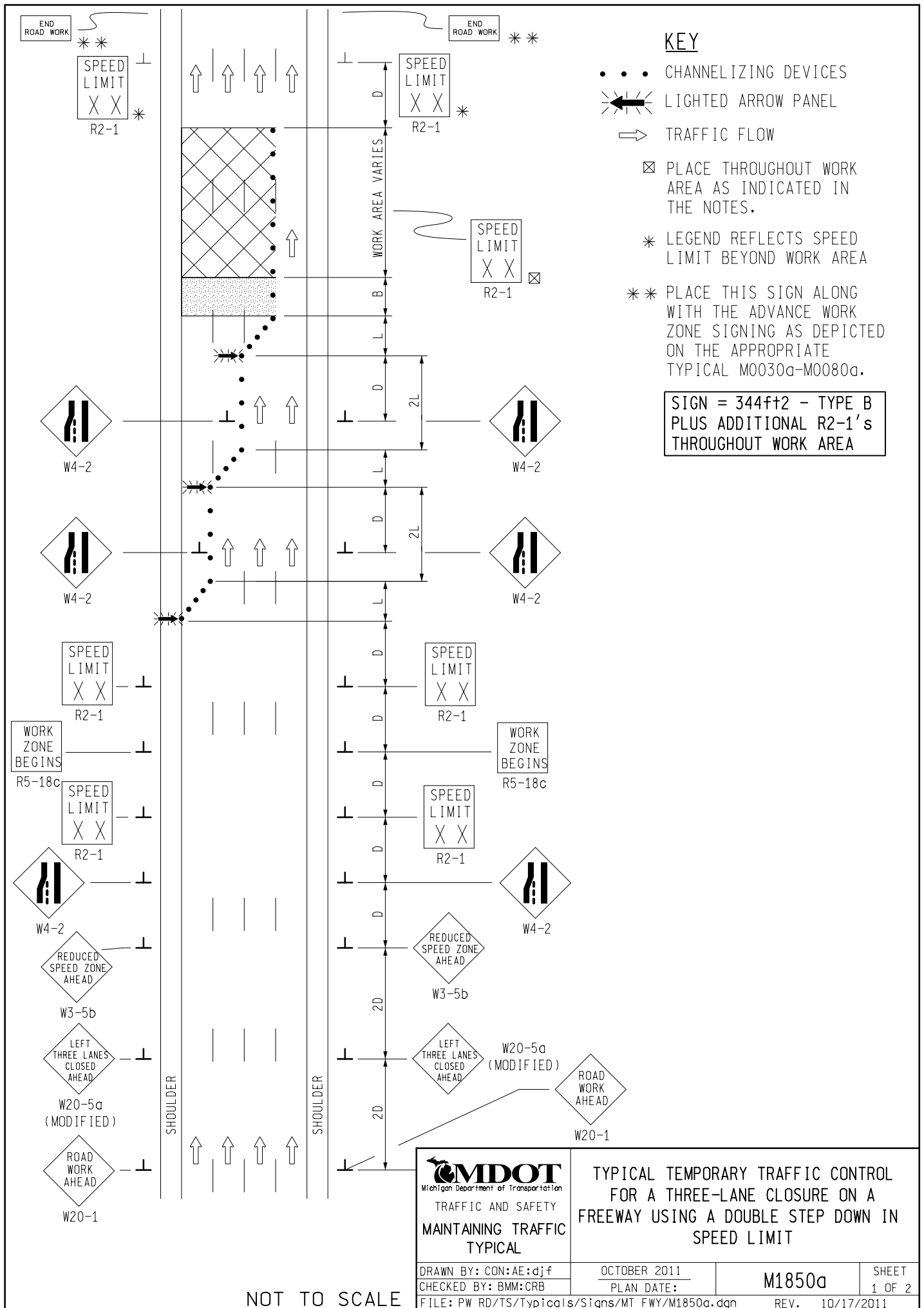
11. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
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SIGN SIZES

DIAMOND WARNING	- 48" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT		
		DRAWN BY: CON:AE:djf CHECKED BY: BMM:CRB	OCTOBER 2011 PLAN DATE:	M1840a
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1840a.dgn				REV. 10/17/2011



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

**TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A THREE-LANE CLOSURE ON A
FREEWAY USING A DOUBLE STEP DOWN IN
SPEED LIMIT**

OCTOBER 2011
PLAN DATE:

M1850a

SHEET
1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1850a.dgn

REV. 10/17/2011


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
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SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
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- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
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8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY USING A DOUBLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1850a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1850a.dgn		REV. 10/17/2011	

END
ROAD WORK

SPEED
LIMIT
X X

R2-1

END
ROAD WORK

SPEED
LIMIT
X X

R2-1

KEY

... CHANNELIZING DEVICES

← LIGHTED ARROW PANEL

→ TRAFFIC FLOW

☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.

* LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA

** PLACE THIS SIGN WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 384 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA



W4-2



W4-2



W4-2



W4-2

SPEED
LIMIT
X X

R2-1

WORK
ZONE
BEGINS

R5-18c

SPEED
LIMIT
X X

R2-1



W4-2

SPEED
LIMIT
X X

R2-1



W3-5b



W20-5a
(MODIFIED)



W20-1

SPEED
LIMIT
X X

R2-1

WORK
ZONE
BEGINS

R5-18c

SPEED
LIMIT
X X

R2-1



W4-2

SPEED
LIMIT
X X

R2-1



W3-5b



W20-5a
(MODIFIED)



W20-1

SHOULDER

SHOULDER

NOT TO SCALE

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

OCTOBER 2011

PLAN DATE:

M1860a

SHEET

1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT Fwy/M1860a.dgn

REV. 10/17/2011

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A THREE-LANE CLOSURE ON A
FREEWAY USING A TRIPLE STEP DOWN IN
SPEED LIMIT


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 L = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1860a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1860a.dgn		REV. 10/17/2011	

END
ROAD WORK

END
ROAD WORK

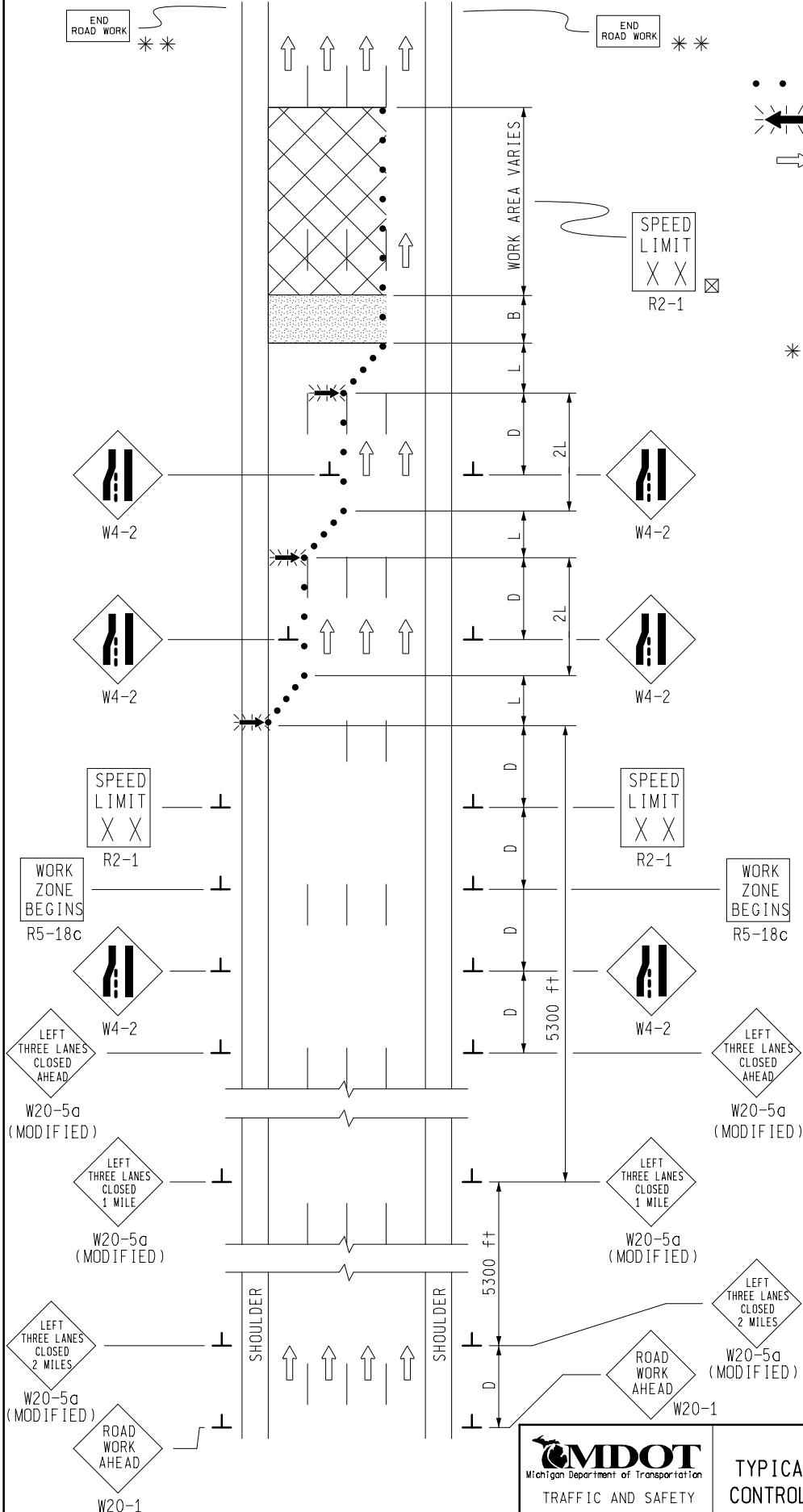
KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW

☒ PLACE THROUGHOUT WORK AREA AS INDICATED AND AFTER ALL ENTRANCE RAMP'S IF PERMANENT SIGNS ARE NOT IN PLACE.

** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 296 ft± - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA



TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL EXTENDED TEMPORARY TRAFFIC
CONTROL FOR A THREE-LANE CLOSURE ON
A FREEWAY, NO SPEED REDUCTION

DRAWN BY: CON:AE:djf

OCTOBER 2011

M1870a

SHEET

CHECKED BY: BMM:CRB

PLAN DATE:

1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1870a.dgn

REV. 10/17/2011

NOT TO SCALE


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY, NO SPEED REDUCTION	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M1870a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1870a.dgn		REV.	10/17/2011

SHEET
2 OF 2

END
ROAD WORK

SPEED
LIMIT
XX

R2-1

END
ROAD WORK

SPEED
LIMIT
XX

R2-1

SPEED
LIMIT
XX

R2-1

KEY

- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW

☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.

* LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA

** PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 368 ft±2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA



W4-2



W4-2



W4-2



W4-2

SPEED
LIMIT
XX

R2-1

SPEED
LIMIT
XX

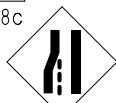
R2-1

WORK
ZONE
BEGINS

R5-18c

WORK
ZONE
BEGINS

R5-18c



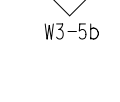
W4-2



W4-2



W3-5b



W3-5b



REDUCED
SPEED ZONE
AHEAD

W3-5b



W20-5a
(MODIFIED)



W20-5a
(MODIFIED)



W20-5a
(MODIFIED)



W20-5a
(MODIFIED)



W20-5a
(MODIFIED)



W20-1

SHOULDER

SHOULDER

5300 ft±

5300 ft±

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf

CHECKED BY: BMM:CRB

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1880a.dgn

OCTOBER 2011

PLAN DATE:

M1880a

SHEET

1 OF 2

REV. 10/17/2011

NOT TO SCALE

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY USING A SINGLE STEP DOWN IN SPEED LIMIT


NOTES

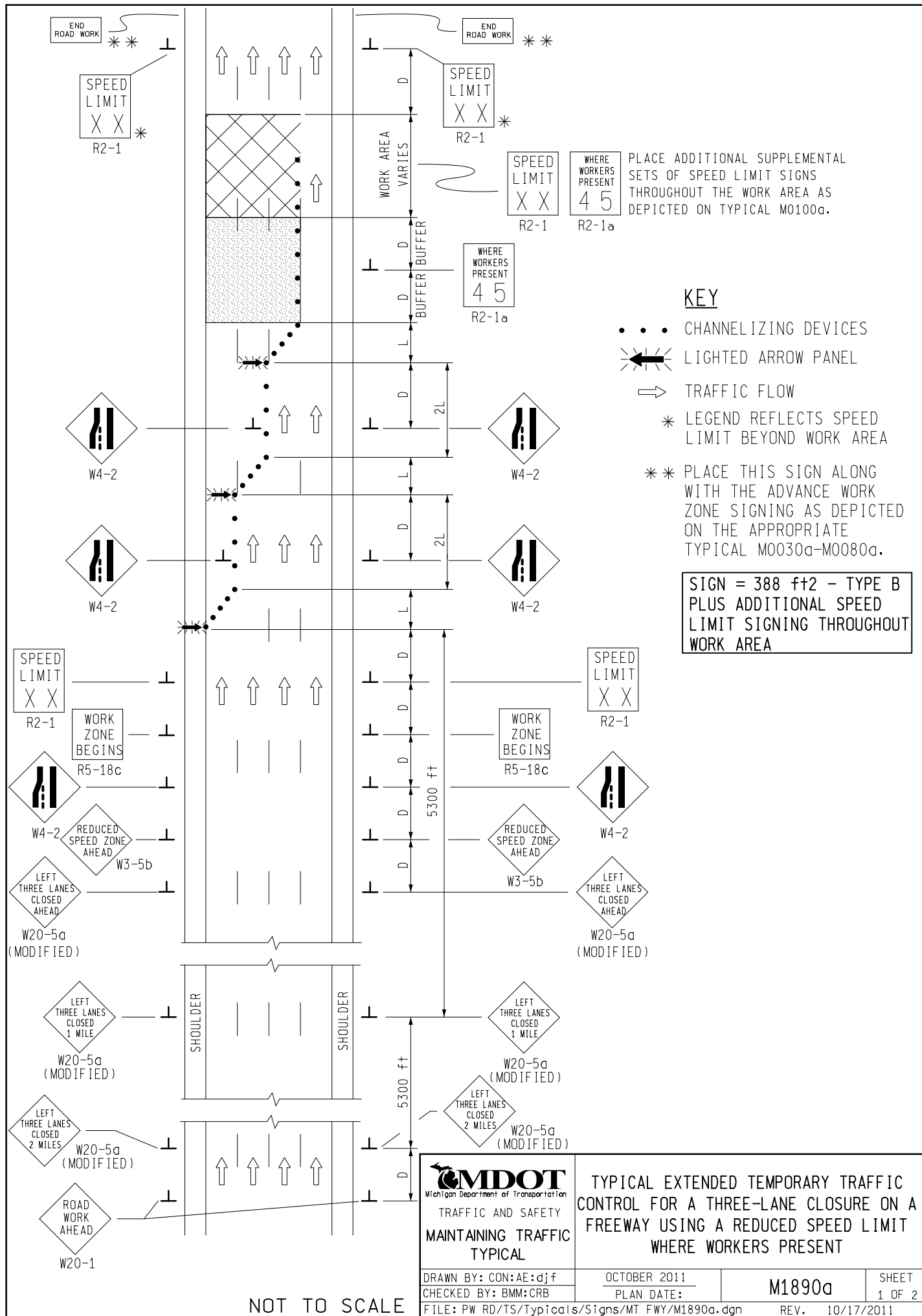
- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 RECTANGULAR REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1880a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1880a.dgn		REV. 10/17/2011	



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1890a.dgn

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT

OCTOBER 2011
PLAN DATE:

M1890a

SHEET
1 OF 2

REV. 10/17/2011


NOTES

11. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
AND LENGTH OF LONGITUDINAL BUFFERS
L = MINIMUM LENGTH OF TAPER
SEE **M0020a** FOR "D" AND "L" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4D. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 45 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
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SIGN SIZES

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RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT	
DRAWN BY: CON:AE:djf		OCTOBER 2011	M1890a
CHECKED BY: BMM:CRB		PLAN DATE:	
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1890a.dgn		REV.	10/17/2011

SHEET
2 OF 2

END
ROAD WORKSPEED
LIMIT
XX

R2-1

END
ROAD WORKSPEED
LIMIT
XX

R2-1

KEY

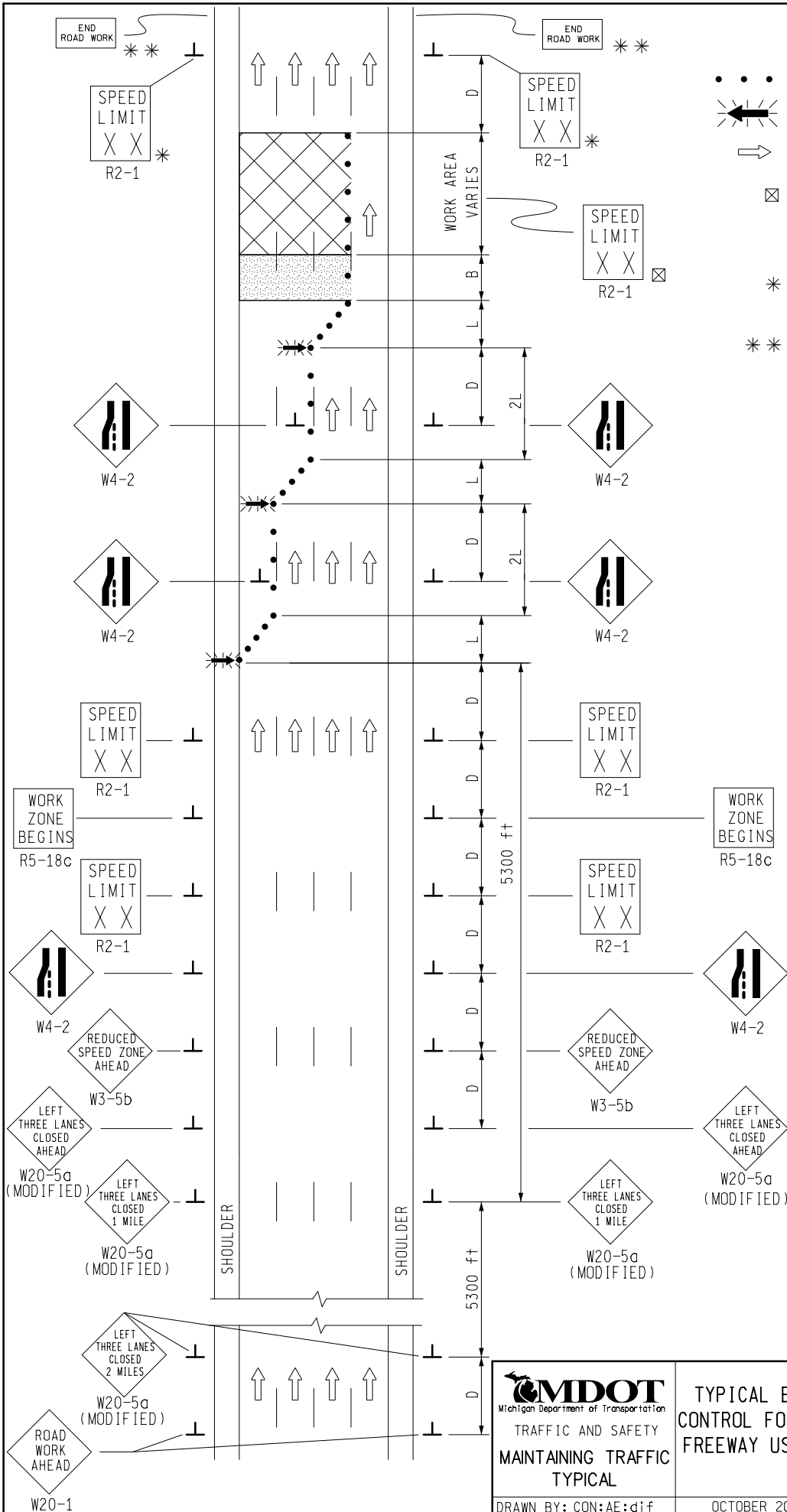
- • • CHANNELIZING DEVICES
- ← LIGHTED ARROW PANEL
- TRAFFIC FLOW

☒ PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.

* LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA

* * PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

SIGN = 408 f+2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY USING A DOUBLE STEP DOWN IN SPEED LIMIT

DRAWN BY: CON:AE:djf

OCTOBER 2011

M1900a

SHEET

CHECKED BY: BMM:CRB

PLAN DATE:

1 OF 2

FILE: PW RD/TS/Typicals/Signs/MT FWY/M1900a.dgn

REV. 10/17/2011

NOT TO SCALE


NOTES

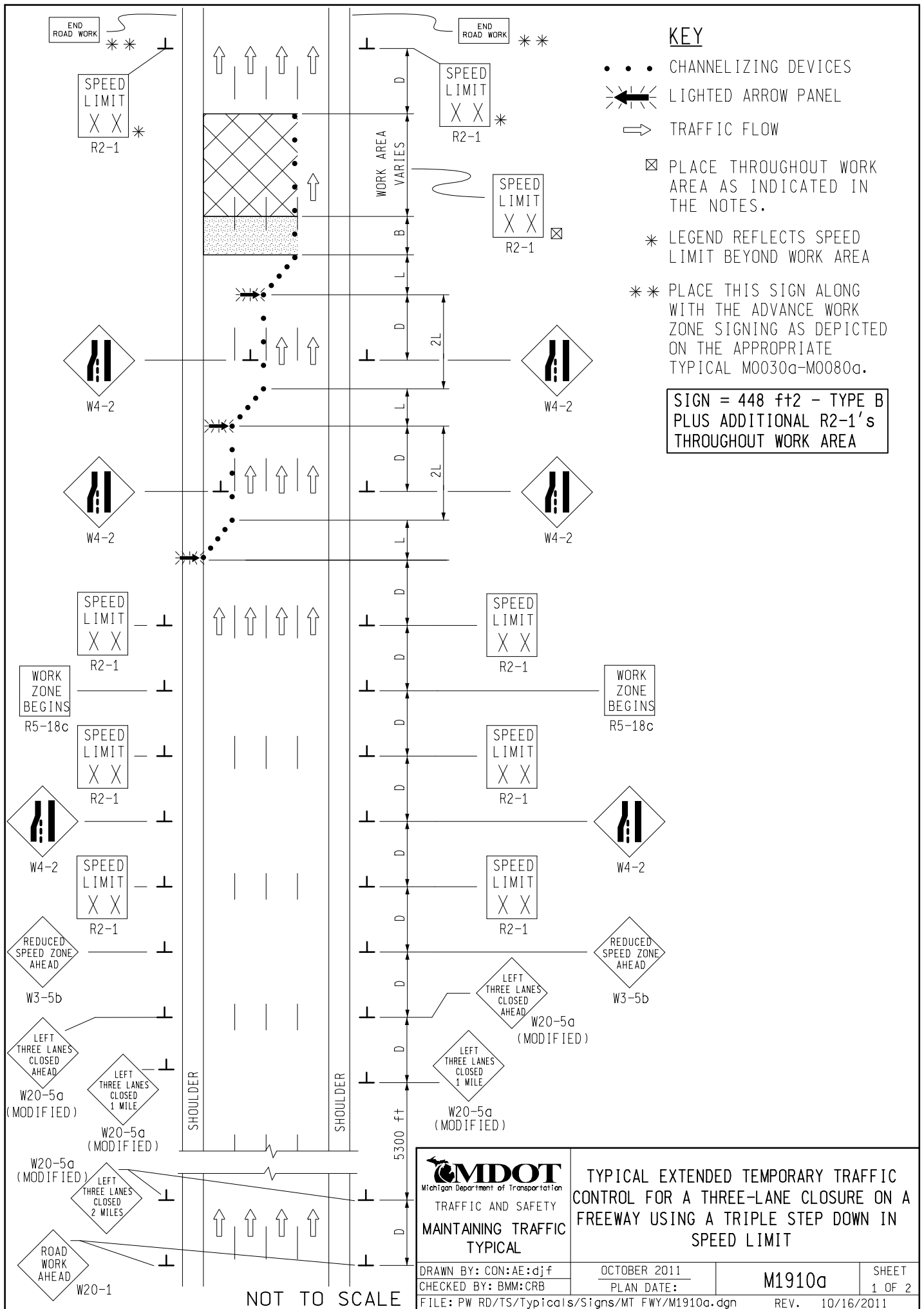
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SIGN SIZES

DIAMOND WARNING - 48" x 48"
 RECTANGULAR REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY USING A DOUBLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1900a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1900a.dgn		REV. 10/17/2011	



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY USING A TRIPLE STEP DOWN IN SPEED LIMIT

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1910a.dgn

OCTOBER 2011
PLAN DATE:

M1910a

SHEET
1 OF 2

REV. 10/16/2011


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE **M0020a** FOR "D," "L," AND "B" VALUES
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3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, CHANNELIZING DEVICES SHALL BE LIGHTED PLASTIC DRUMS.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16D. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. 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 DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
RECTANGULAR REGULATORY - 48" x 60"
R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL EXTENDED TEMPORARY TRAFFIC CONTROL FOR A THREE-LANE CLOSURE ON A FREEWAY USING A TRIPLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf	OCTOBER 2011	M1910a	SHEET 2 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT FWY/M1910a.dgn		REV. 10/16/2011	

END
ROAD WORK

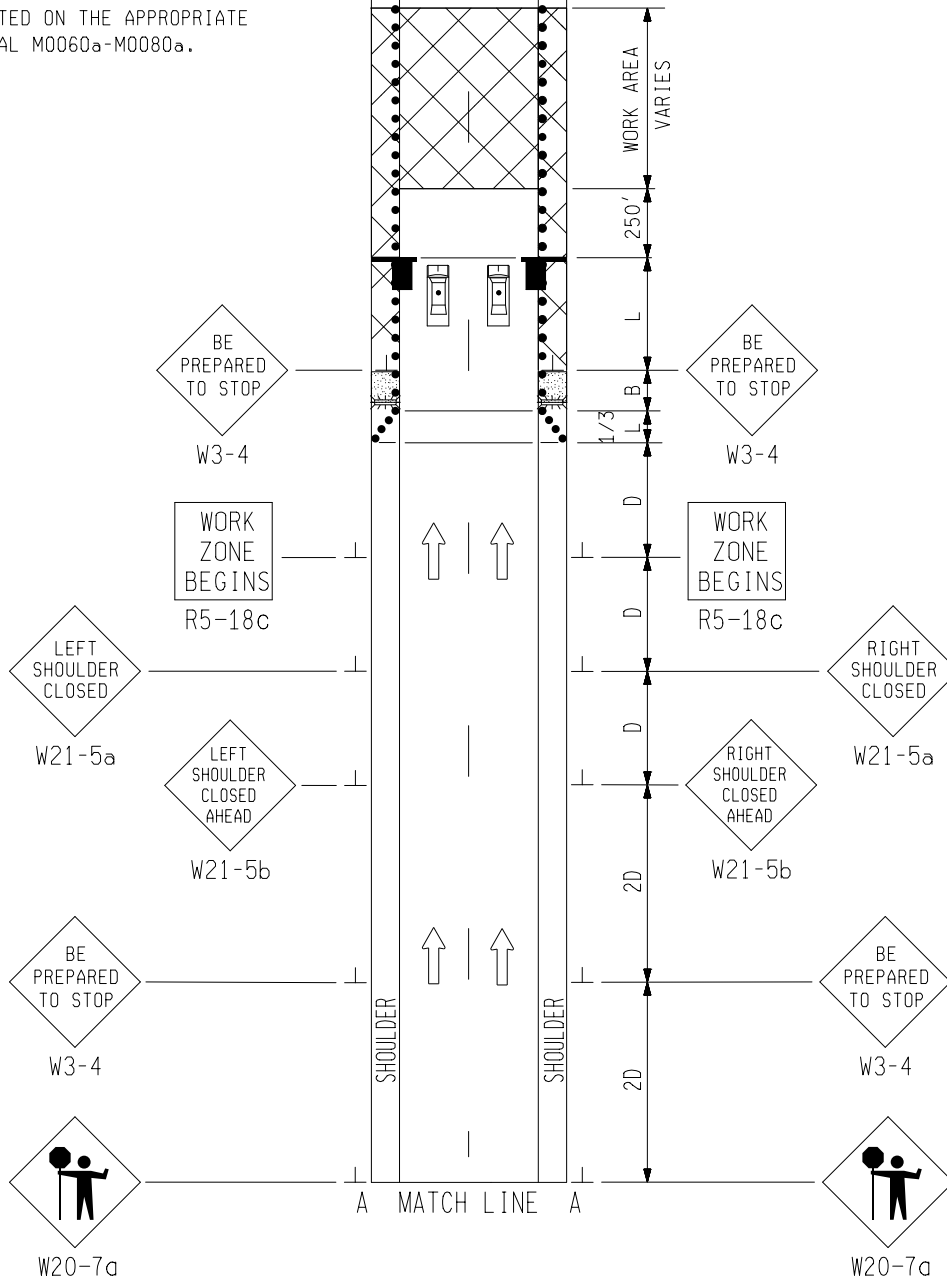
G20-2

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0060a-M0080a.






END
ROAD WORK

G20-2

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0060a-M0080a.



KEY

-  TRAFFIC REGULATOR
-  CHANNELIZING DEVICES
-  LIGHTED ARROW PANEL (CAUTION MODE)
-  TRAFFIC FLOW
-  POLICE VEHICLES WITH LIGHT BAR OR CONSTRUCTION VEHICLES WITH PERMANENTLY AFFIXED ROTATING BEACON OR STROBE LIGHT.

SIGN = 256 ft±2 - TYPE B
PLUS ADDITIONAL W20-15b's
REQUIRED ON APPROACHES

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: JDJ

CHECKED BY: BMM:CRB

FILE: PW: RD/T&S/Typicals/Signs/MT/MT Fwy/M2500a

OCTOBER 2011

PLAN DATE:

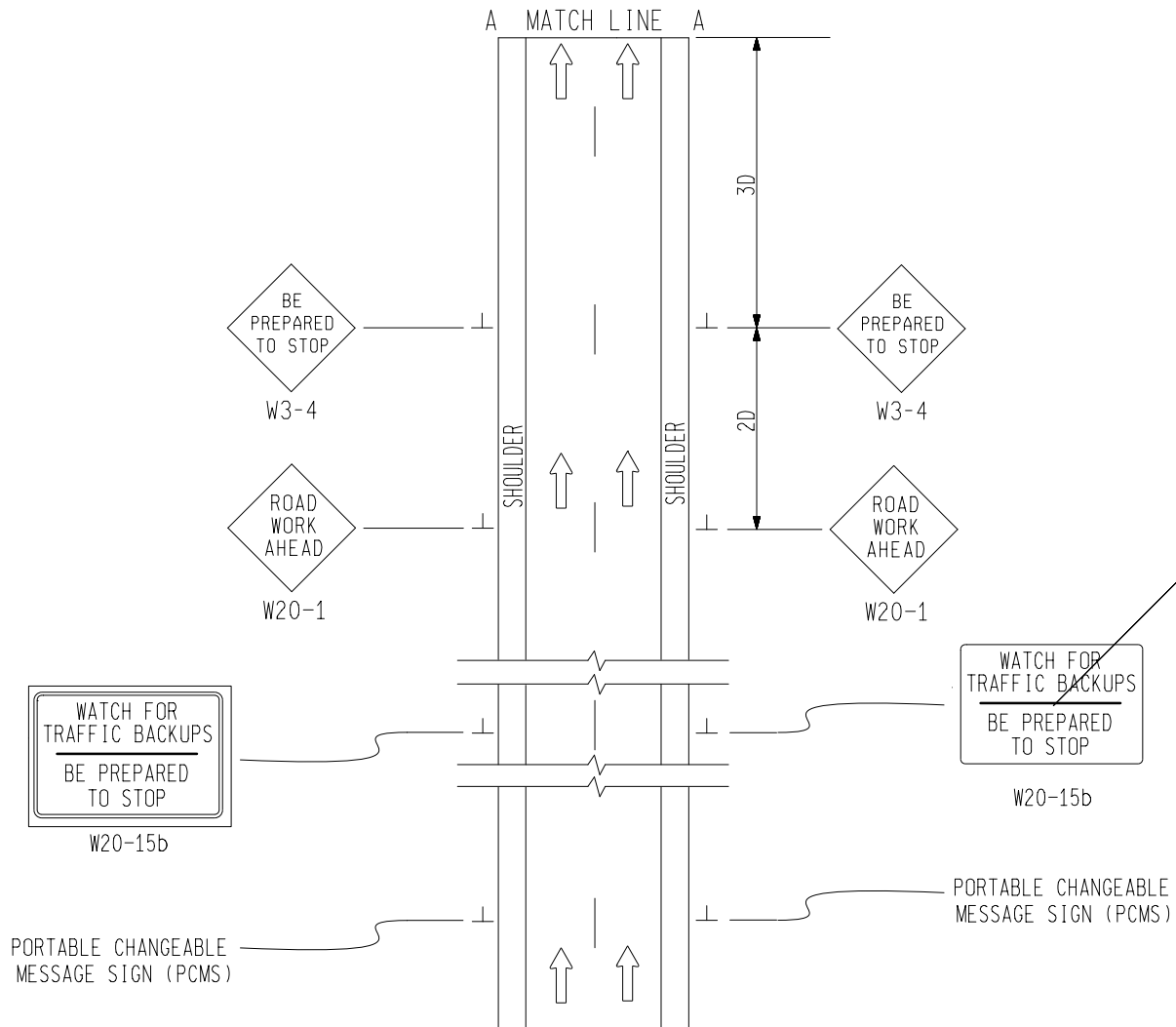
M2500a

SHEET


1 OF 4

REV. 10/17/2011

NOT TO SCALE



NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TRAFFIC STOPPAGE ON A DIVIDED HIGHWAY OR FREEWAY	
DRAWN BY: JDJ CHECKED BY: BMM:CRB	OCTOBER 2011 PLAN DATE:	M2500a	SHEET 2 OF 4
FILE: PW: RD/T&S/Typicals/Signs/MT/MT Fwy/M2500a		REV. 10/17/2011	


NOTES

- 1D. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L & 1/3 L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
SEE M0020a FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CONSTRUCTION INFLUENCE AREA (CIA) SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4G. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO 1/2 THE POSTED SPEED IN MILES PER HOUR ON TAPERS AND TO THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN 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.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
9. ALL TRAFFIC REGULATORS SHALL BE PROPERLY TRAINED AND SUPERVISED.
- 9A. IN ANY OPERATION INVOLVING MORE THAN ONE TRAFFIC REGULATOR, ONE PERSON SHOULD BE DESIGNATED AS HEAD TRAFFIC REGULATOR.
10. ALL TRAFFIC REGULATORS' CONDUCT, THEIR EQUIPMENT, AND TRAFFIC REGULATING PROCEDURES SHALL CONFORM TO THE CURRENT EDITION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND THE CURRENT EDITION OF THE MDOT HANDBOOK ENTITLED "TRAFFIC REGULATORS INSTRUCTION MANUAL."
11. WHEN TRAFFIC REGULATING IS ALLOWED DURING THE HOURS OF DARKNESS, APPROPRIATE LIGHTING SHALL BE PROVIDED TO SUFFICIENTLY ILLUMINATE THE TRAFFIC REGULATOR'S STATIONS.
14. ADDITIONAL SIGNING AND/OR ELONGATED SIGNING SEQUENCES SHOULD BE USED WHEN TRAFFIC VOLUMES ARE SIGNIFICANT ENOUGH TO CREATE BACKUPS BEYOND THE W3-4 SIGNS.
15. THE HAND HELD (PADDLE) SIGNS REQUIRED BY THE MMUTCD TO CONTROL TRAFFIC WILL BE PAID FOR AS PART OF MINOR TRAFFIC DEVICES.

SIGN SIZES

DIAMOND WARNING - 48" X 48"
W20-15b WARNING - 96" X 72"
R5-18c REGULATORY - 48" X 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TRAFFIC STOPPAGE ON A DIVIDED HIGHWAY OR FREEWAY	
DRAWN BY: JDJ	OCTOBER 2011	M2500a	SHEET 3 OF 4
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW: RD/T&S/Typicals/Signs/MT/MT Fwy/M2500a REV. 10/17/2011			


NOTES

36. ALL EFFORTS SHALL BE MADE TO CONDUCT ALL TRAFFIC STOPPAGES UTILIZING LAW ENFORCEMENT OFFICIALS AND VEHICLES. WHEN NOT AVAILABLE, ONE CONSTRUCTION VEHICLE PER OPEN LANE OF TRAFFIC WITH PERMANENTLY AFFIXED ROTATING BEACON OR STROBE LIGHT SHALL BE USED. THESE VEHICLES SHALL START IN THEIR APPROPRIATE LANES, BEACONS ON, WELL IN ADVANCE OF THE SIGNING SEQUENCE FLOWING NORMALLY WITH TRAFFIC. AS THEY PROGRESS THROUGH THE SIGNING SEQUENCE THEY SHALL SLOWLY REDUCE THEIR SPEED UNTIL A FULL STOP IS ATTAINED AT THE PRESCRIBED STOPPING POINT.
37. TRAFFIC MAY BE STOPPED FOR A PERIOD OF TIME NOT TO EXCEED 15 MINUTES DURING TIMES PRESCRIBED IN THE SPECIAL PROVISIONS FOR MAINTAINING TRAFFIC. WHEN TRAFFIC IS RELEASED, ADDITIONAL STOPPAGES WILL NOT BE ALLOWED UNTIL THE EXISTING TRAFFIC QUEUE HAS CLEARED COMPLETELY AND TRAFFIC IS FLOWING NORMALLY AGAIN.
38. "WATCH FOR TRAFFIC BACKUPS" (W20-15b) SIGNS SHALL BE UTILIZED ON ALL APPROACHES IN ADVANCE OF THE STOPPAGE TO WARN MOTORISTS OF THE APPROACHING STOPPAGE. THESE SIGNS SHALL BE PLACED A SUFFICIENT DISTANCE IN ADVANCE OF THE ANTICIPATED QUEUES.
39. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE UTILIZED A SUFFICIENT DISTANCE IN ADVANCE TO ADVISE MOTORISTS OF ALTERNATE ROUTES, IMPENDING STOPPAGE, TIMES STOPPAGE WILL BE CONDUCTED, ETC.
40. TRAFFIC REGULATOR(S) SHALL BE UTILIZED TO HOLD THE TRAFFIC QUEUE AT THE STOPPED POSITION IF THE POLICE VEHICLES OR CONSTRUCTION VEHICLES USED TO FACILITATE THE TRAFFIC STOPPAGE ARE REMOVED BEFORE THE WORK OPERATION BEGINS. IN ADDITION, TRAFFIC REGULATOR(S) SHALL BE UTILIZED TO GIVE DIRECTION TO THE MOTORIST WHEN THEY CAN BEGIN TO PROCEED UPON THE COMPLETION OF THE WORK OPERATION.

SIGN SIZES

DIAMOND WARNING - 48" X 48"
W20-15b WARNING - 96" X 72"
R5-18c REGULATORY - 48" X 48"

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL	TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TRAFFIC STOPPAGE ON A DIVIDED HIGHWAY OR FREEWAY	
	DRAWN BY: JDJ CHECKED BY: BMM:CRB FILE: PW: RD/T&S/Typicals/Signs/MT/MT Fwy/M2500a	OCTOBER 2011 PLAN DATE: REV. 10/17/2011
M2500a		SHEET 4 OF 4

END
ROAD WORK

G20-2

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0060a-M0080a.

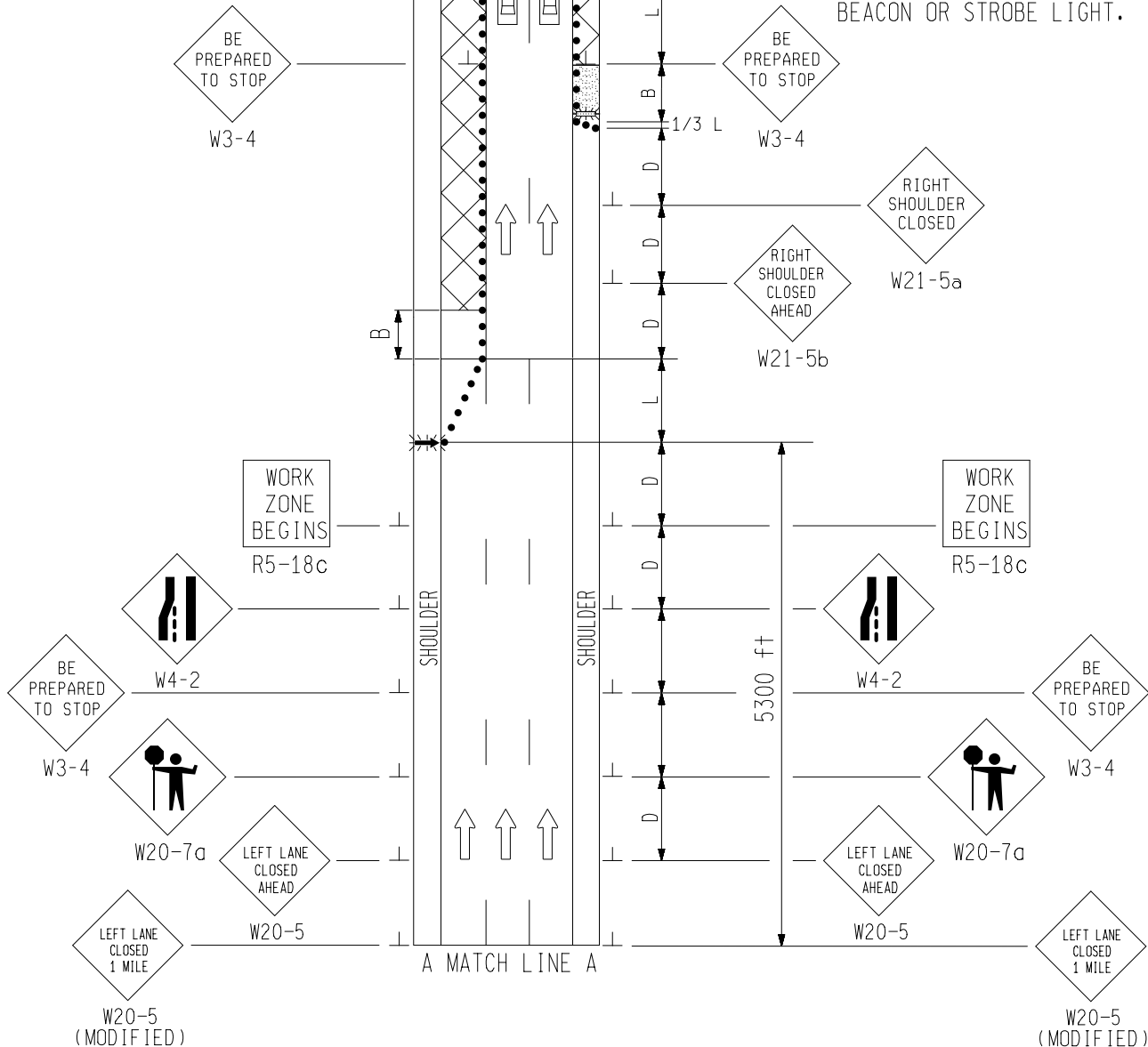
END
ROAD WORK

G20-2

PLACE THIS SIGN ALONG WITH THE
ADVANCE WORK ZONE SIGNING AS
DEPICTED ON THE APPROPRIATE
TYPICAL M0060a-M0080a.

KEY

- ... CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL
- ⚡ LIGHTED ARROW PANEL (CAUTION MODE)
- ➡ TRAFFIC FLOW
- ⏹ TRAFFIC REGULATOR
- 🚓 POLICE VEHICLES WITH LIGHT BAR OR CONSTRUCTION VEHICLES WITH PERMANENTLY AFFIXED ROTATING BEACON OR STROBE LIGHT.



SIGN = 352 ft ± 2 - TYPE B
PLUS ADDITIONAL W20-15b's
REQUIRED ON APPROACHES

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TRAFFIC STOPPAGE ON A
DIVIDED HIGHWAY OR FREEWAY
UTILIZING A LANE CLOSURE

DRAWN BY: JDJ

OCTOBER 2011

CHECKED BY: BMM:CRB

PLAN DATE:

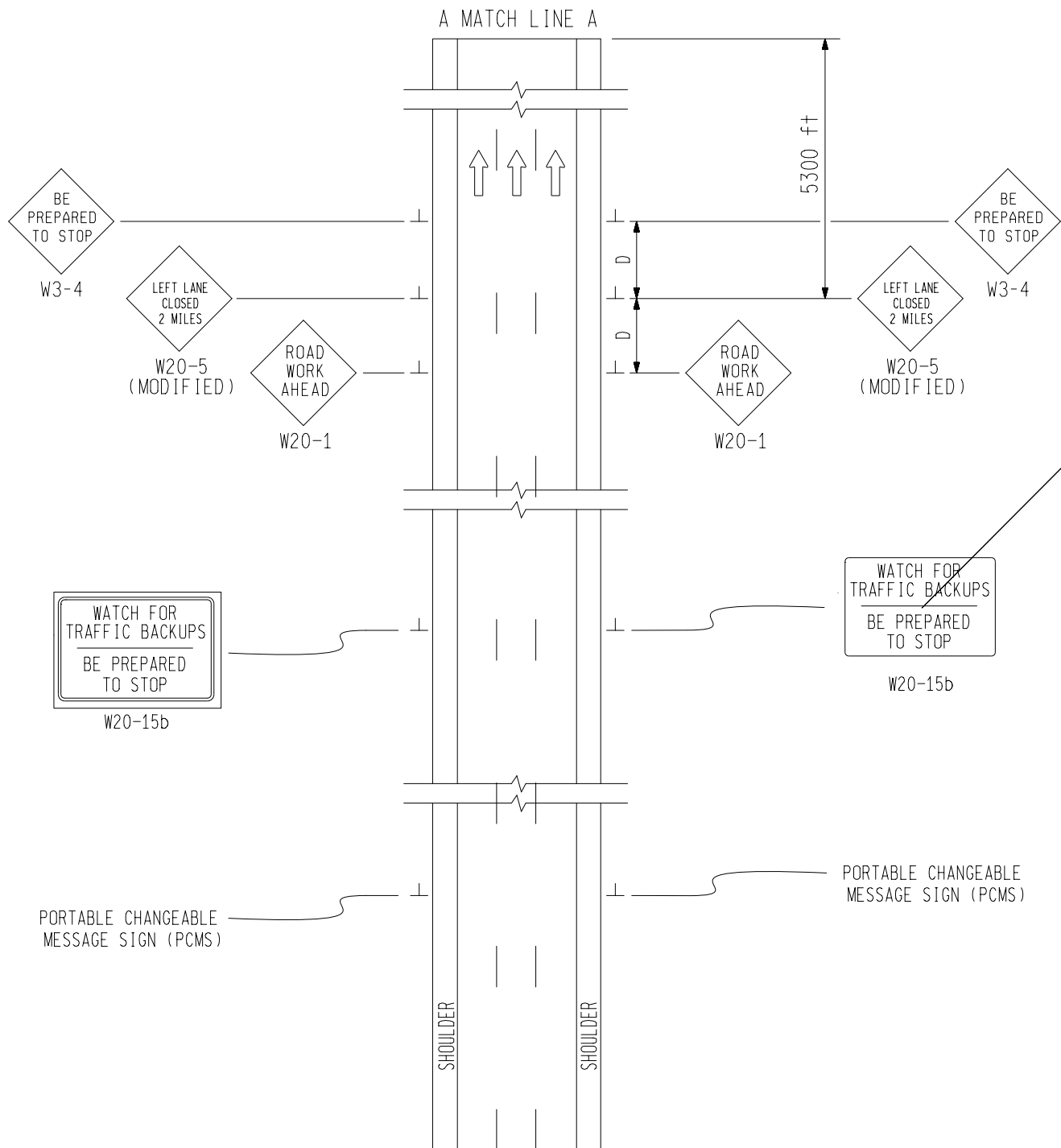
M2510a

SHEET
1 OF 4

NOT TO SCALE

FILE: PW: RD/T&S/Typicals/Signs/MT/MT Fwy/M2510a

REV. 10/17/2011



MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

DRAWN BY: JDJ
CHECKED BY: BMM:CRB

TYPICAL TEMPORARY TRAFFIC CONTROL
FOR A TRAFFIC STOPPAGE ON A
DIVIDED HIGHWAY OR FREEWAY
UTILIZING A LANE CLOSURE

OCTOBER 2011
PLAN DATE:

M2510a

SHEET
2 OF 4

NOT TO SCALE

FILE: PW: RD/T&S/Typicals/Signs/MT/MT Fwy/M2510a

REV. 10/17/2011


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SIGN SIZES


DIAMOND WARNING - 48" X 48"
W20-15b WARNING - 96" X 72"
R5-18c REGULATORY - 48" X 48"

NOT TO SCALE

 MDOT Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TRAFFIC STOPPAGE ON A DIVIDED HIGHWAY OR FREEWAY UTILIZING A LANE CLOSURE	
DRAWN BY: JDJ	OCTOBER 2011	M2510a	SHEET 3 OF 4
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW: RD/T&S/Typicals/Signs/MT/MT Fwy/M2510a		REV. 10/17/2011	

NOTES

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 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL	TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TRAFFIC STOPPAGE ON A DIVIDED HIGHWAY OR FREEWAY UTILIZING A LANE CLOSURE		
	DRAWN BY: JDJ CHECKED BY: BMM:CRB	OCTOBER 2011 PLAN DATE:	M2510a SHEET 4 OF 4
FILE: PW: RD/T&S/Typicals/Signs/MT/MT Fwy/M2510a REV. 10/17/2011			

NOT TO SCALE