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Sheet No.		Typical Sections and Details
Sheet No.		Estimate of Quantities
Sheet No.		Miscellaneous Quantities
Sheet No.		Standard Detail Drawings

TOTAL SHEETS = 100

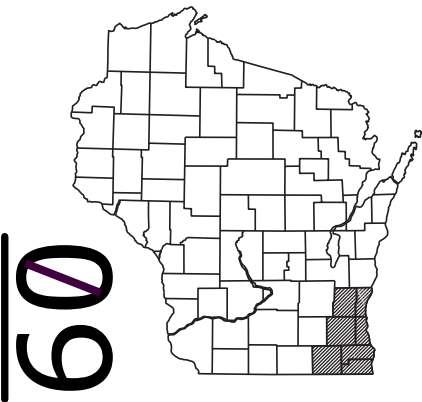
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

EPOXY PAVEMENT MARKING - 2018

VARIOUS HIGHWAYS
SE REGION WIDE

STATE PROJECT NUMBER
1000-77-18



WASHINGTON COUNTY

OZAUKEE COUNTY

WAUKESHA COUNTY

MILWAUKEE COUNTY

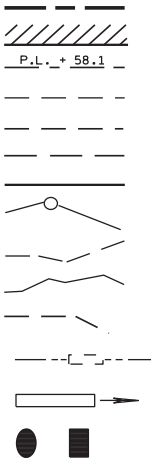
WALWORTH COUNTY

RACINE COUNTY

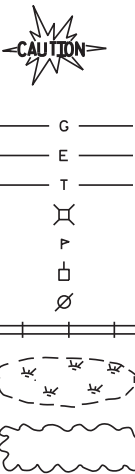
KENOSHA COUNTY

CONVENTIONAL SIGNS

COUNTY LINE
CORPORATE LIMITS
PROPERTY LINE
LOT LINE
LIMITED EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
SURVEY LINE
SLOPE INTERCEPT
ORIGINAL GROUND
MARSH OR ROCK PROFILE
EXISTING CULVERT
PROPOSED CULVERT
(Box or Pipe)
CULVERT (Profile View)



COMBUSTIBLE FLUIDS
UNDERGROUND UTILITIES
GAS
ELECTRIC
TELEPHONE OR TELEGRAPH
SERVICE PEDESTAL
CABLE MARKER
POWER POLE
TELEPHONE POLE
RAILROAD
MARSH AREA
WOODED OR SHRUB AREA



LAYOUT

SCALE

PROJECT ID 1000-77-18

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1000-77-18		

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	
Designer	DONALD STEEL
Project Manager	DONALD STEEL
Regional Examiner	TOM HEYDEL
Regional Supervisor	DON BERGHAMMER
C.O. Examiner	
APPROVED FOR THE DEPARTMENT	
DATE: 1/23/18	<i>Thomas Heydel, P.E.</i> (Signature)

GENERAL NOTES:

- 1. THERE ARE NO UTILITY IMPACTS FOR THIS PROJECT
- 2. THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

CONTACTS:

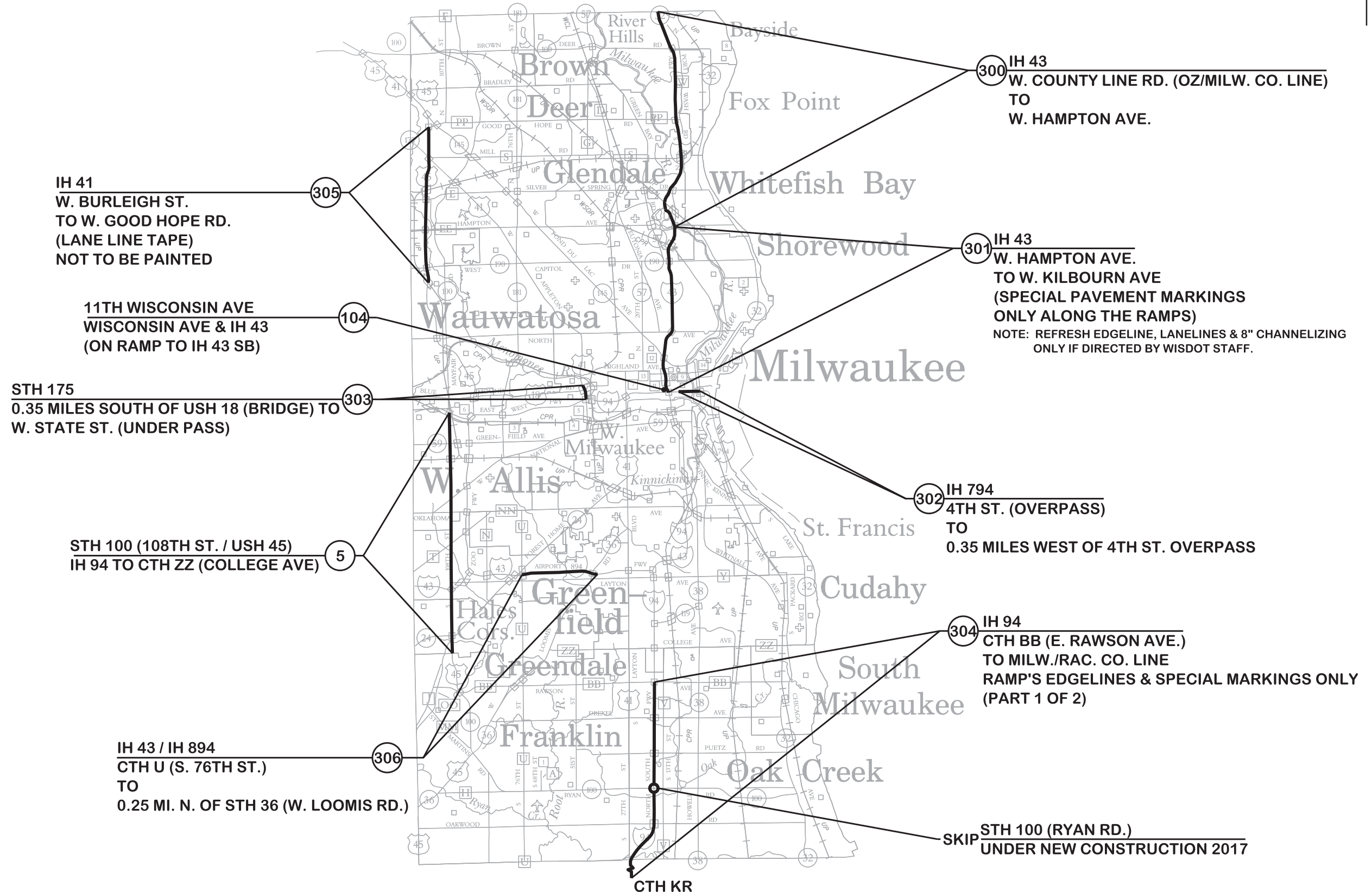
DNR- SPILL HOTLINE (24HR)
1-800-943-0003

DIGGERSHOTLINE

Dial811or(800)242-8511

www.DiggersHotline.com

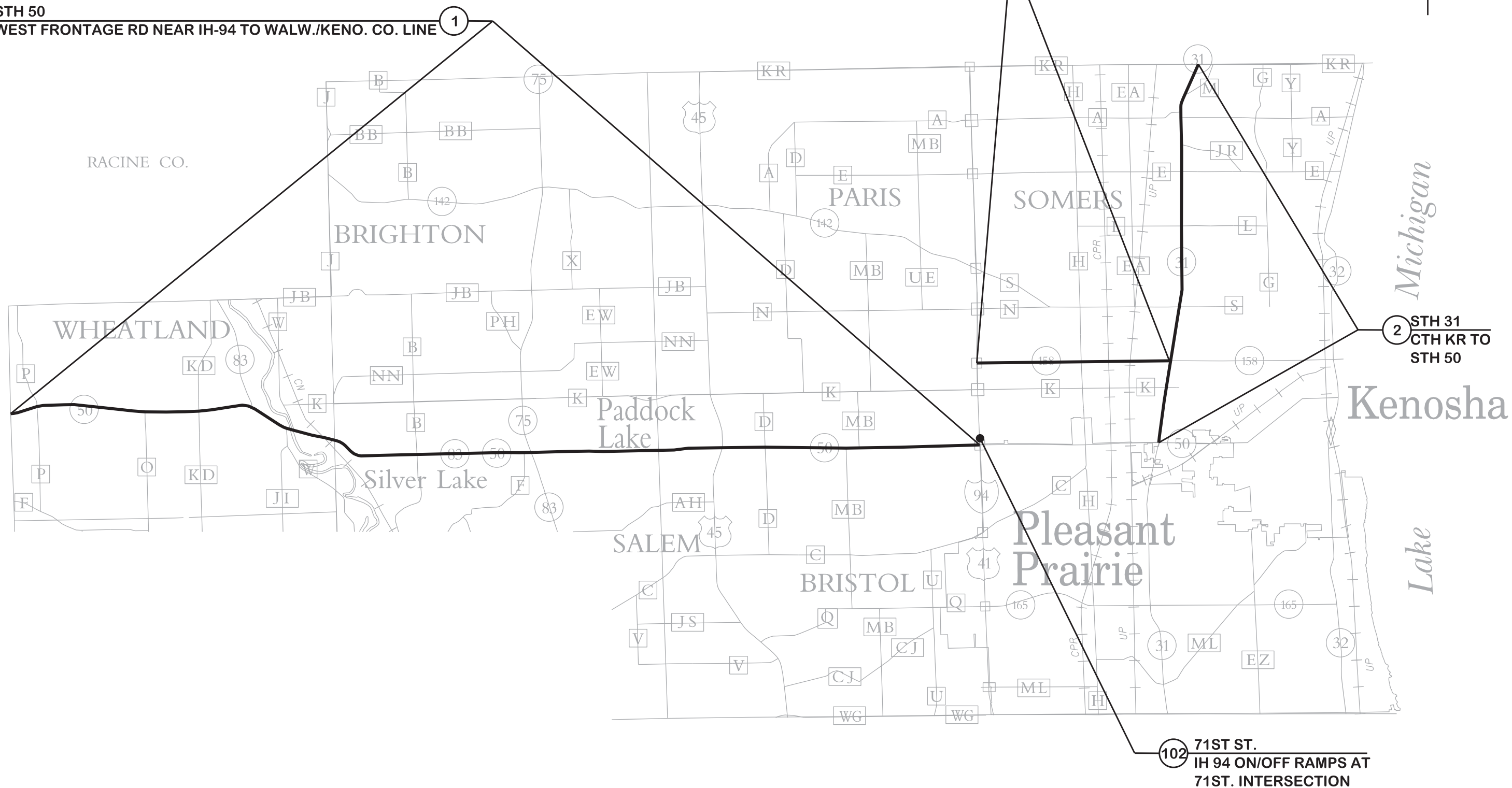
EPOXY PAVEMENT MARKING 2018



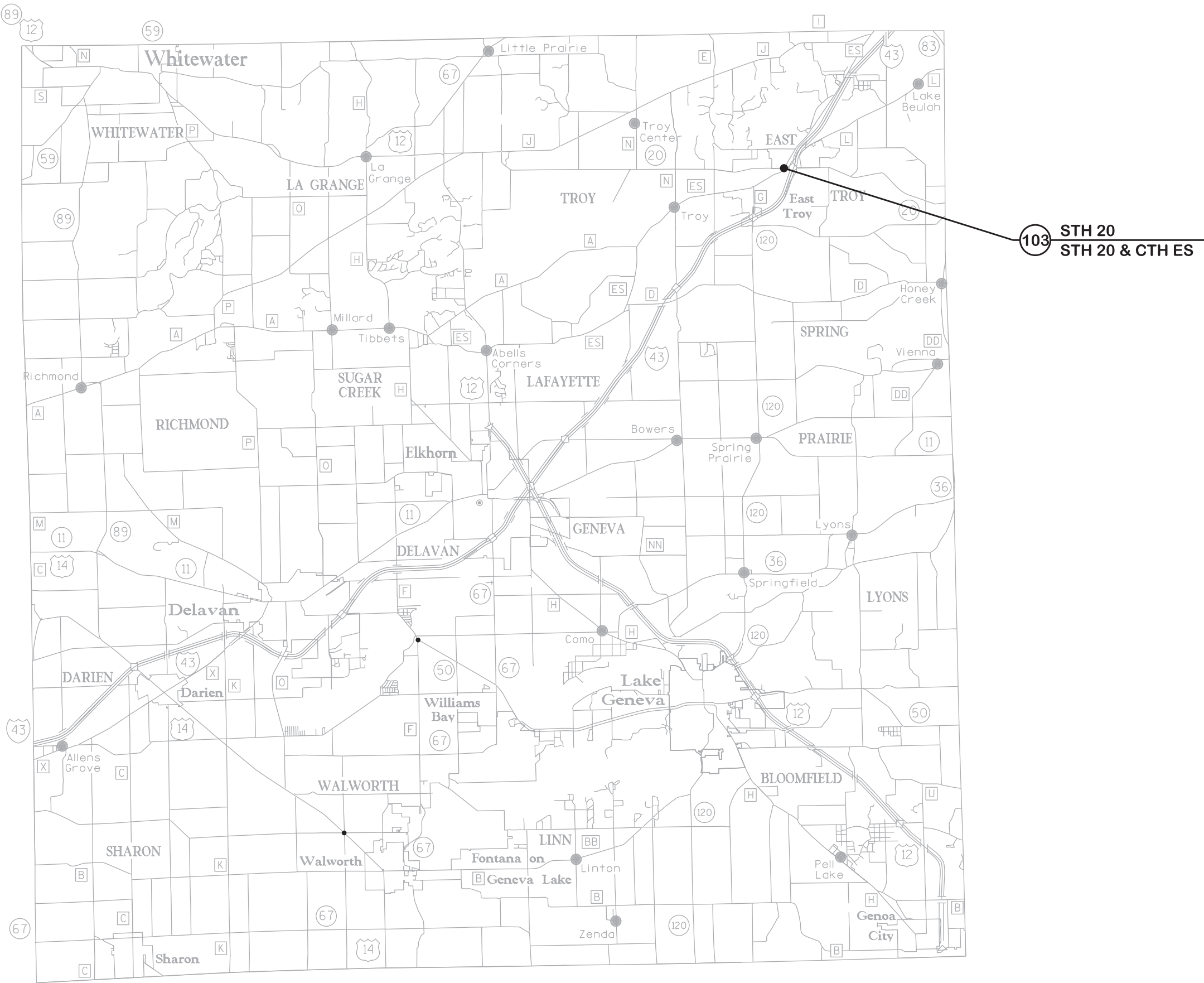
EPOXY PAVEMENT MARKING 2018

STH 158
E FRONTAGE RD. (INTERSECTION) IH 94 TO WEST
OF STH 31 (GREEN BAY RD.)

STH 50
WEST FRONTAGE RD NEAR IH-94 TO WALW./KENO. CO. LINE



EPOXY PAVEMENT MARKING 2018



EPOXY PAVEMENT MARKING 2018



STH 16
N. LAPHAM ST.
TO
0.5 MI. E. OF CTH P (SAW RD. SO.) BRIDGE

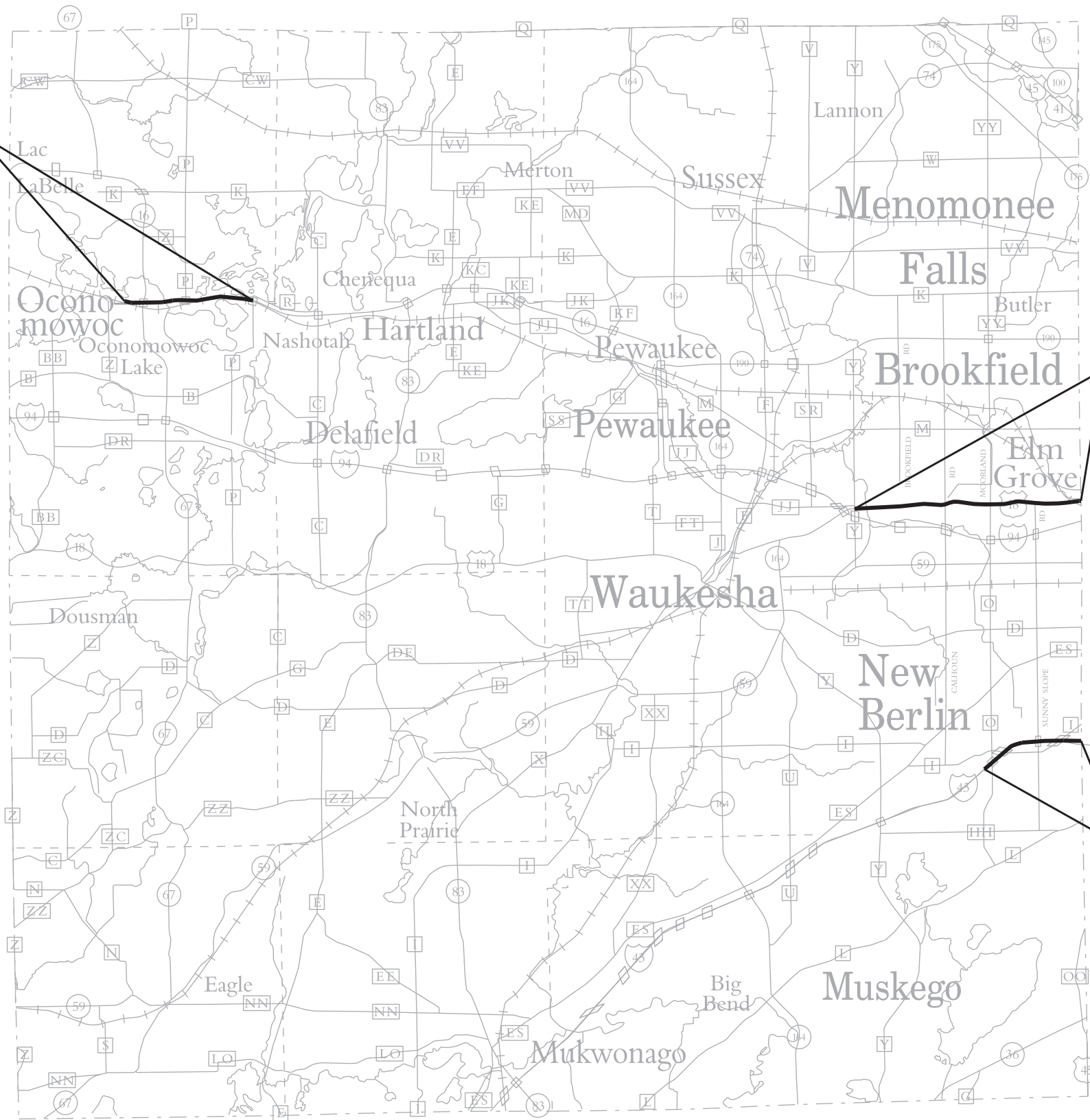
307

9

USH 18 (W. BLUEMOUND RD)
CTH Y (BARKER RD) TO
124TH ST. (WAUK/MILE. CO. LINE)
(LANELINES & 8" CHANNELIZING ONLY)
EXCEPTION AT CALHOUN RD ALSO
ADDING NEW ARROW & ONLY BETWEEN
FAIRWAY AND EASTMOOR AVE.

308

IH 43
0.6 MILES W. OF CTH O (S. MOORLAND RD.)
TO
0.35 MILES E. OF STH 100 (108TH ST.)
(EDGE LINE ON MAIN LINE &
RAMPS ONLY)



EPOXY PAVEMENT MARKING 2018



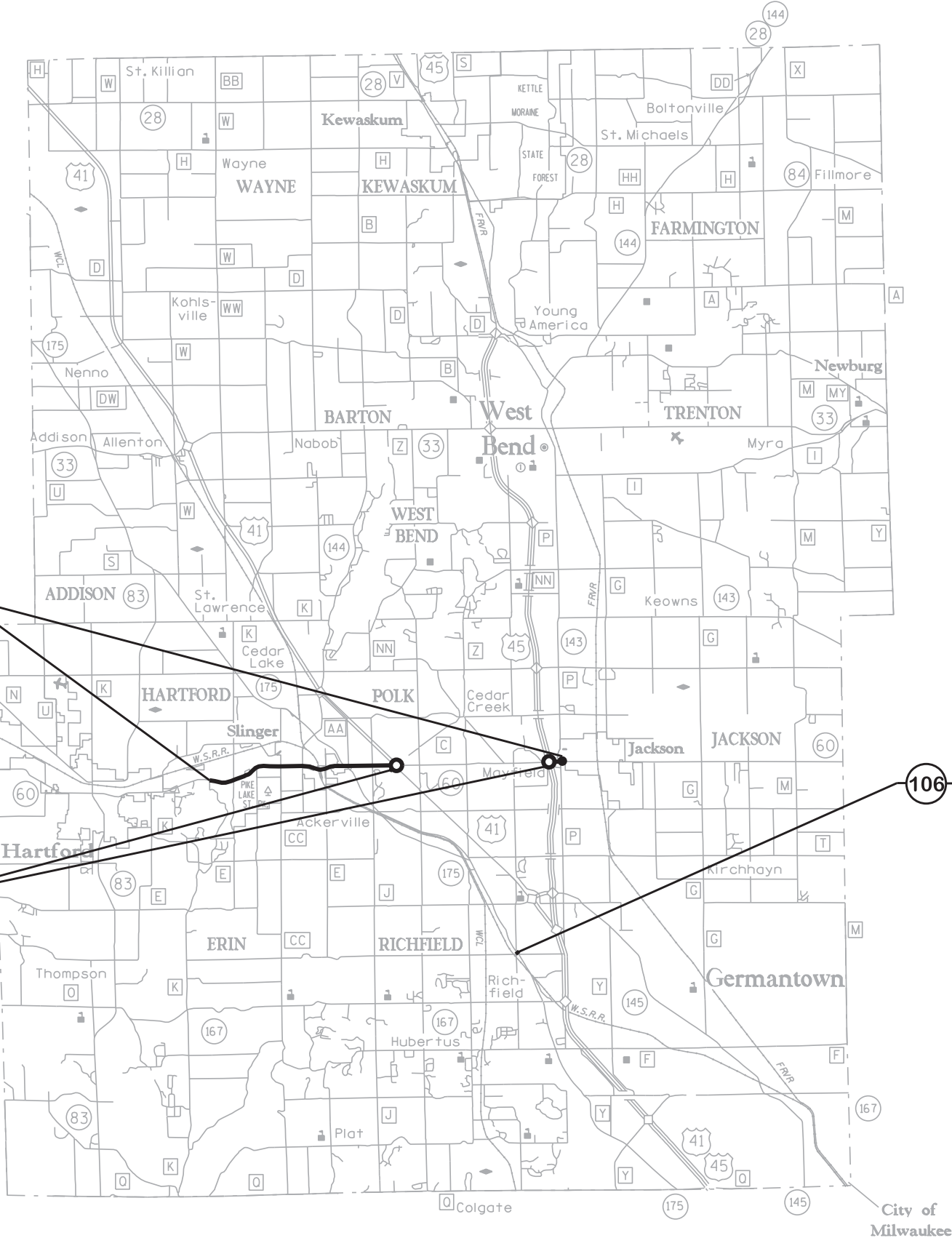
STH 60
CTH P (OLD US HWY 45) TO HIGH RD.

8

(NOTE: BETWEEN RAMPS
DONE 2017
EPOXY PROJ.) SKIP THIS SECTION

STH 175
STH 175 & PLEASANT HILL RD.

106

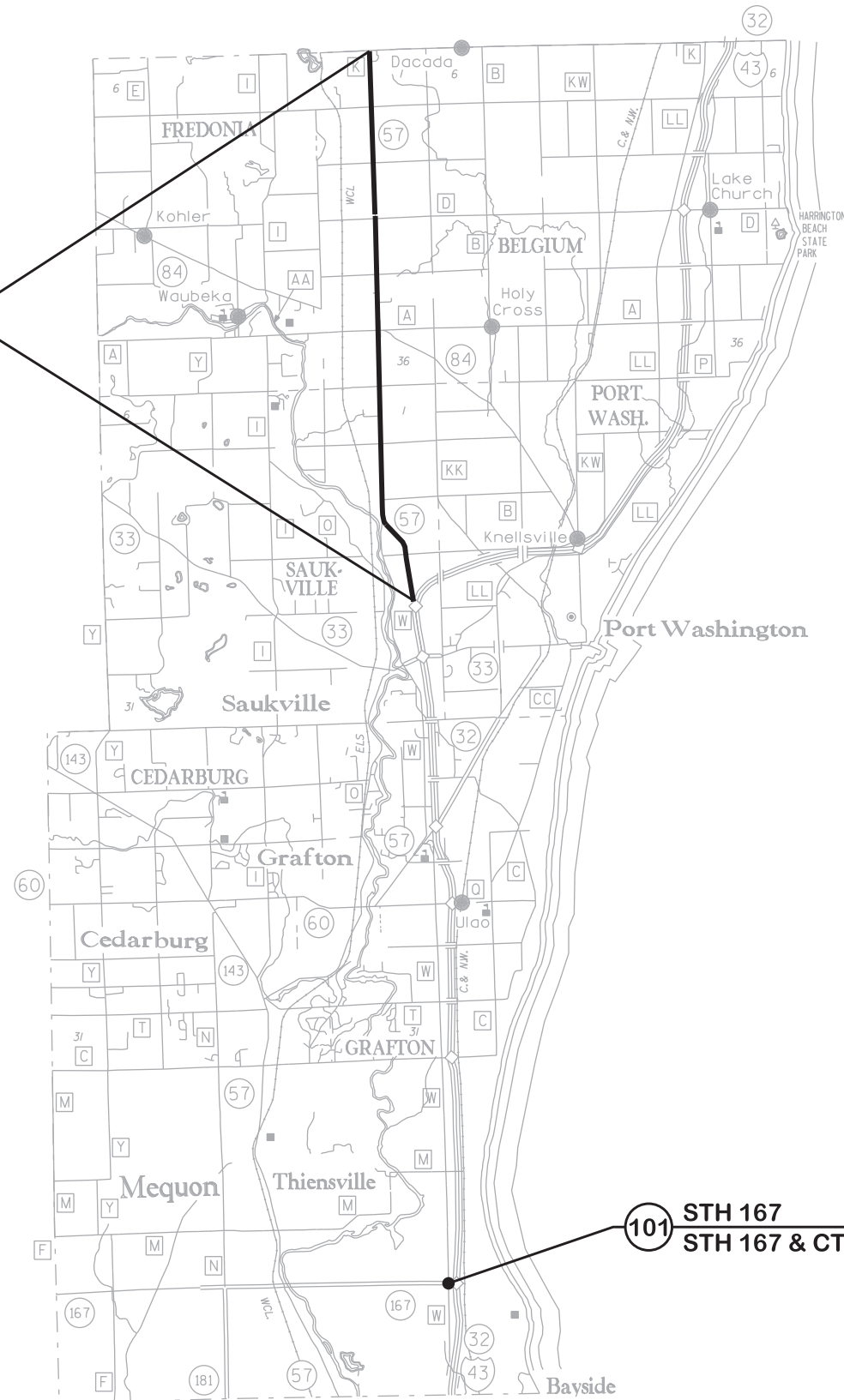


EPOXY PAVEMENT MARKING 2018



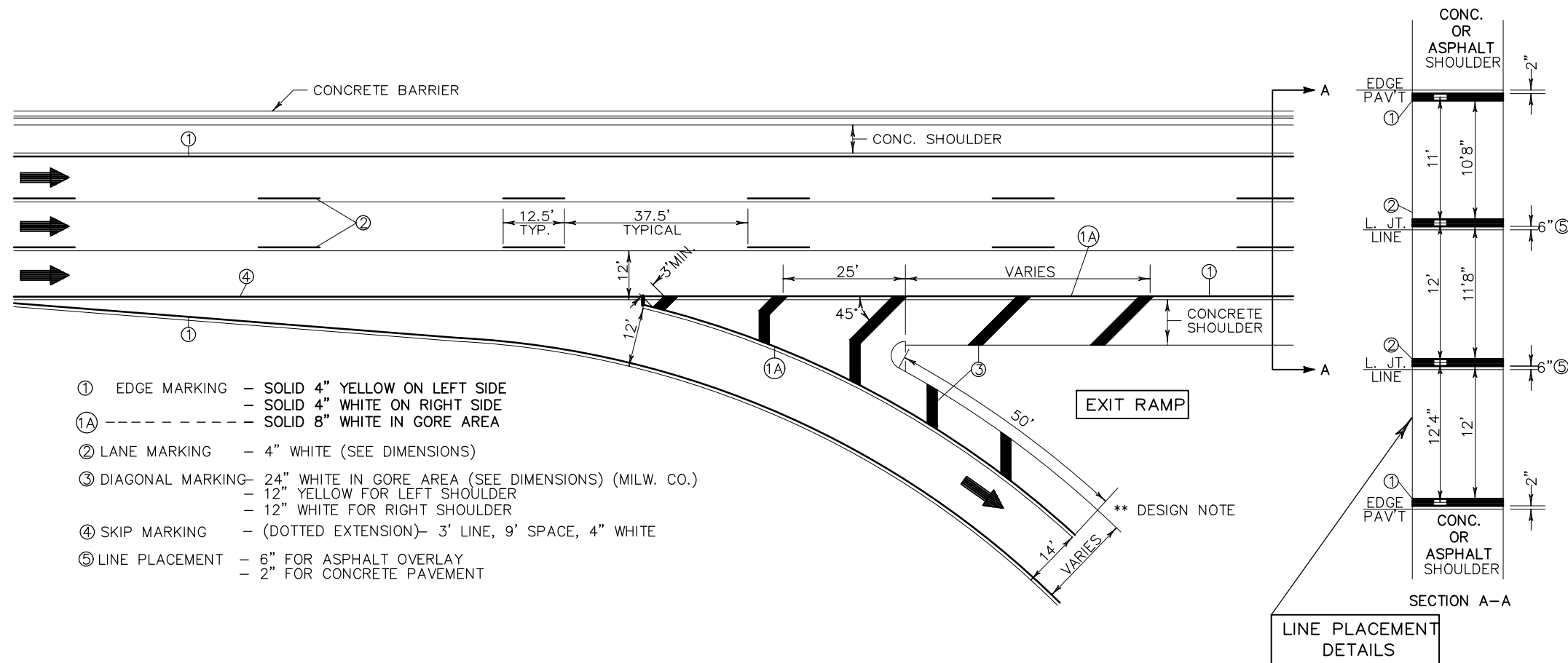
STH 57
IH43 TO OZ./SHEBOYGAN CO. LINE

4



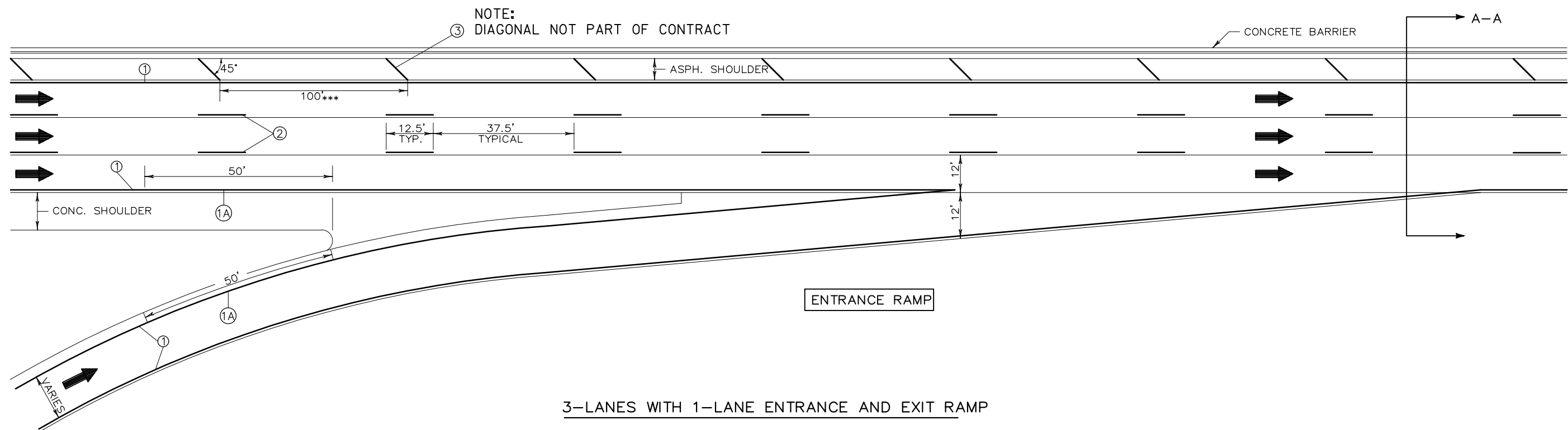
101 STH 167
STH 167 & CTH W

N



NOTES:

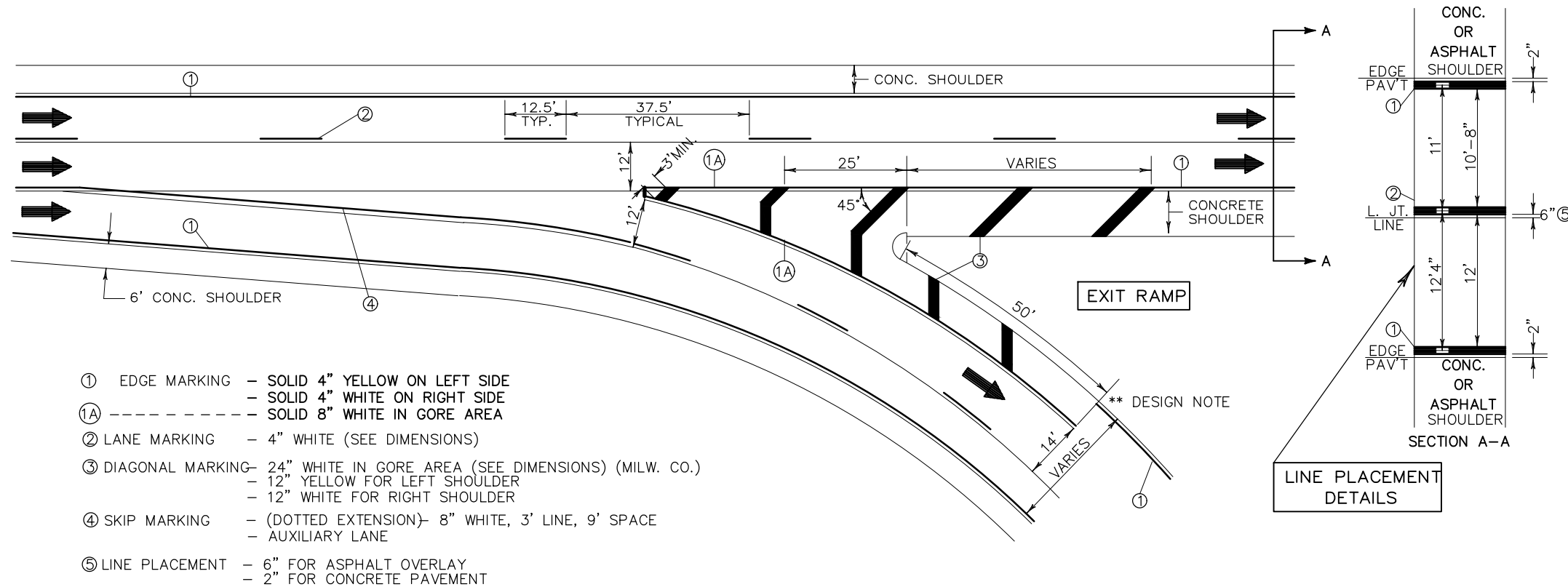
1. THE 12" WIDE DIAGONAL SHOULDER MARKING SHALL BE USED ONLY WHERE THE ASPHALTIC CONCRETE SHOULDER ABUTS ASPHALTIC CONC. PAV'T. IF THERE ARE CONTINUOUS RUMBLE STRIPS, DO NOT USE DIAGONAL SHOULDER MARKING.
2. WHERE THE DOTTED EXTENSION OF THE RIGHT EDGE LINE IS SHOWN ON THE PLAN, IT SHALL BE 4" WIDE, WITH A LINE SKIP PATTERN CONSISTING OF A 3' LONG LINE AND A 9' SKIP.
3. PAVEMENT LANE MARKINGS SHALL BE LOCATED 6" OFF THE LONGITUDINAL JOINT OF THE UNDERLYING CONC. PAVEMENT.
4. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
5. SPOTTING FOR PAVEMENT LANE MARKINGS AND EDGE LINES SHALL BE 4"x4" PIECES OF REFLECTORIZED PAV'T MARKING TAPE SPACED AT 50' INTERVALS, INCIDENTAL TO PAV'T MARKING.



3-LANES WITH 1-LANE ENTRANCE AND EXIT RAMP

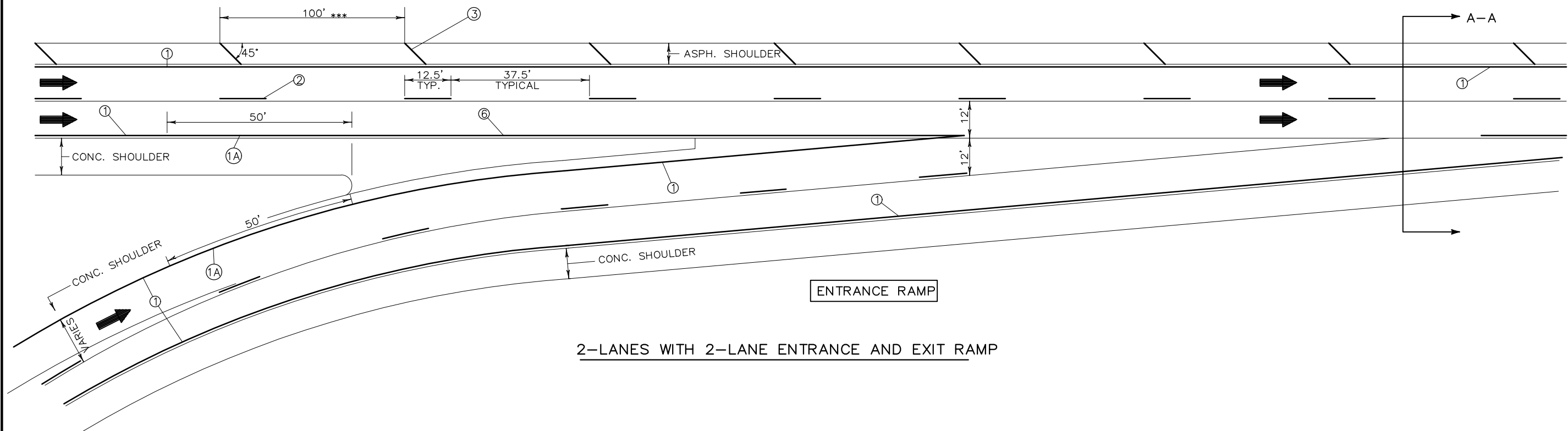
GORES, FREEWAYS & EXPRESSWAYS (EPOXY)





NOTES:

1. THE 12" WIDE DIAGONAL SHOULDER MARKING SHALL BE USED ONLY WHERE THE ASPHALTIC CONCRETE SHOULDER ABUTS ASPHALTIC CONC. PAV'T. IF THERE ARE CONTINUOUS RUMBLE STRIPS, DO NOT USE DIAGONAL SHOULDER MARKING.
2. WHERE THE DOTTED EXTENSION OF THE RIGHT EDGE LINE IS SHOWN ON THE PLAN, IT SHALL BE 8" WIDE, WITH A LINE SKIP PATTERN CONSISTING OF A 3' LONG LINE AND A 9' SKIP.
3. PAVEMENT LANE MARKINGS SHALL BE LOCATED 6" OFF THE LONGITUDINAL JOINT OF THE UNDERLYING CONC. PAVEMENT.
4. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
5. SPOTTING FOR PAVEMENT LANE MARKINGS AND EDGE LINES SHALL BE 4"x4" PIECES OF REFLECTORIZED PAV'T MARKING TAPE SPACED AT 50' INTERVALS, INCIDENTAL TO PAV'T MARKING.



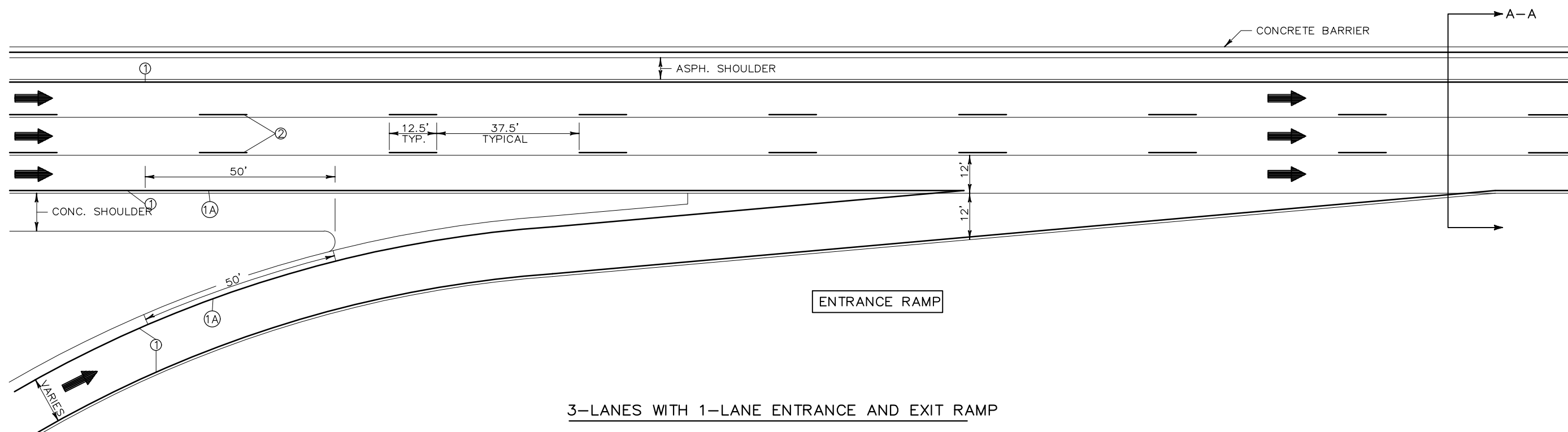
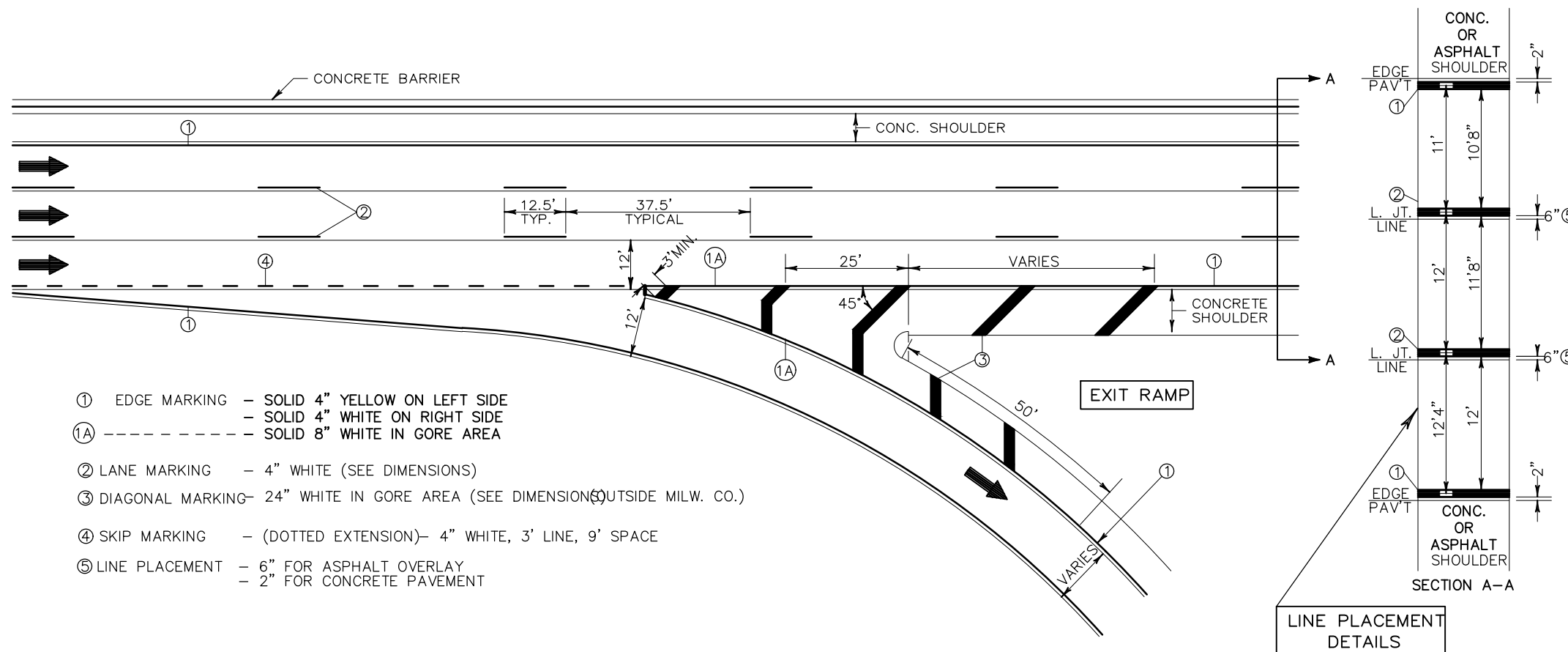
2-LANES WITH 2-LANE ENTRANCE AND EXIT RAMP

GORES, FREEWAYS & EXPRESSWAYS (EPOXY)

RACINE, KENOSHA, WALWORTH, WAUKESHA,
FOND DU LAC, OZAUKEE & WASHINGTON
COUNTIES

NOTES:

1. WHERE THE DOTTED EXTENSION OF THE RIGHT EDGE LINE IS SHOWN ON THE PLAN, IT SHALL BE 4" WIDE, WITH A LINE SKIP PATTERN CONSISTING OF A 3' LONG LINE AND A 9' SKIP.
2. PAVEMENT LANE MARKINGS SHALL BE LOCATED 6" OFF THE LONGITUDINAL JOINT OF THE UNDERLYING CONC. PAVEMENT.
3. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
4. SPOTTING FOR PAVEMENT LANE MARKINGS AND EDGE LINES SHALL BE 4"x4" PIECES OF REFLECTORIZED PAV'T MARKING TAPE SPACED AT 50' INTERVALS, INCIDENTAL TO PAV'T MARKING.



GORES, FREEWAYS & EXPRESSWAYS

PROJECT NO:1000-77-18

HWY: VARIOUS

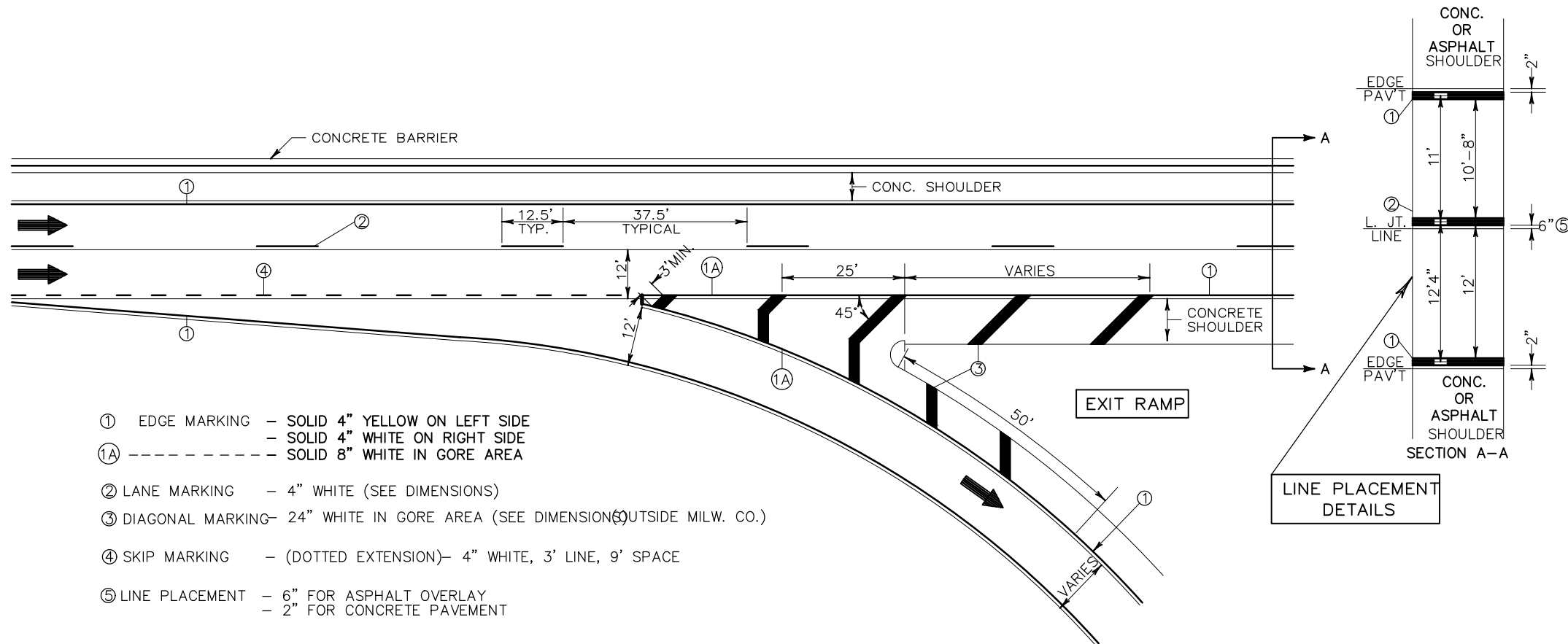
COUNTY: VARIOUS

EPOXY PAVEMENT MARKING, RAMP

SHEET

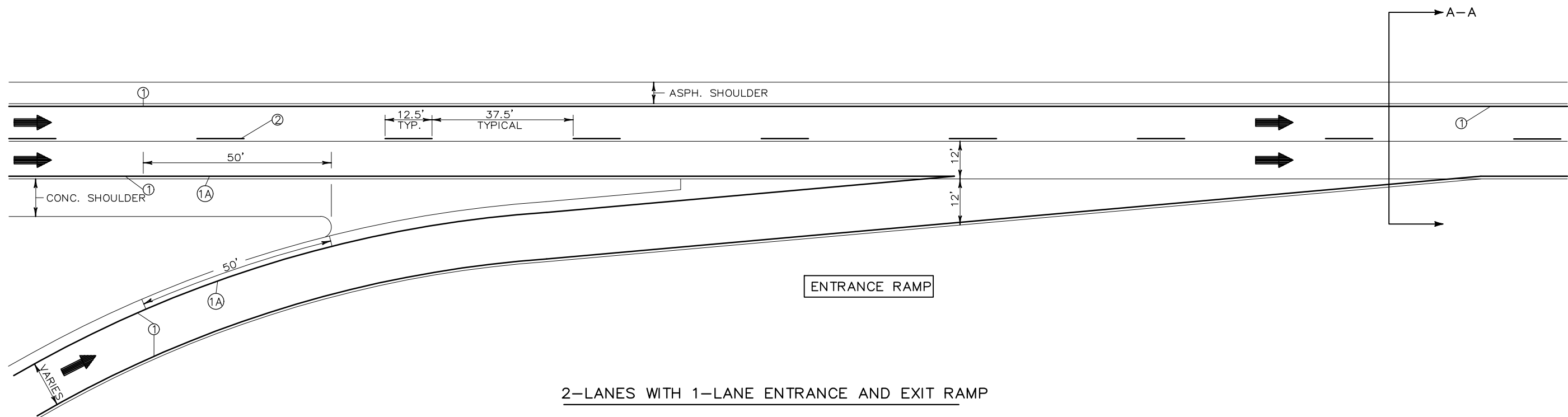
E

RACINE, KENOSHA, WALWORTH, WAUKESHA,
FOND DU LAC, OZAUKEE & WASHINGTON
COUNTIES



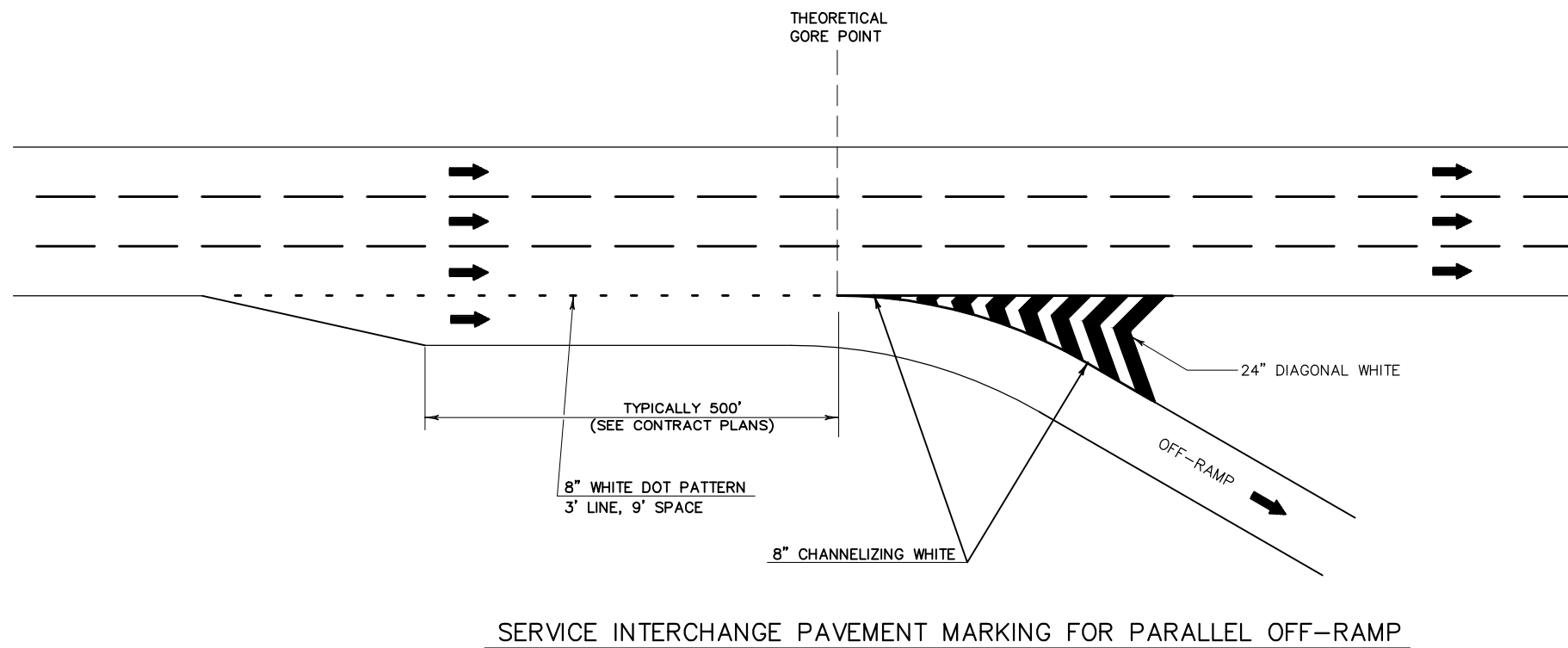
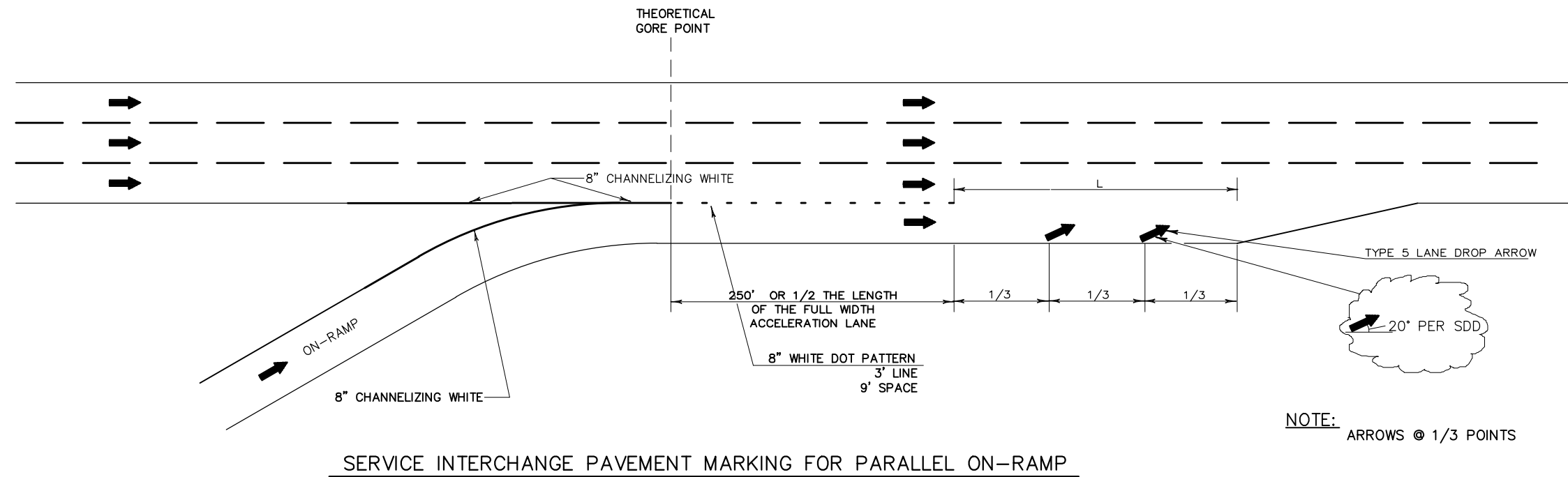
NOTES:

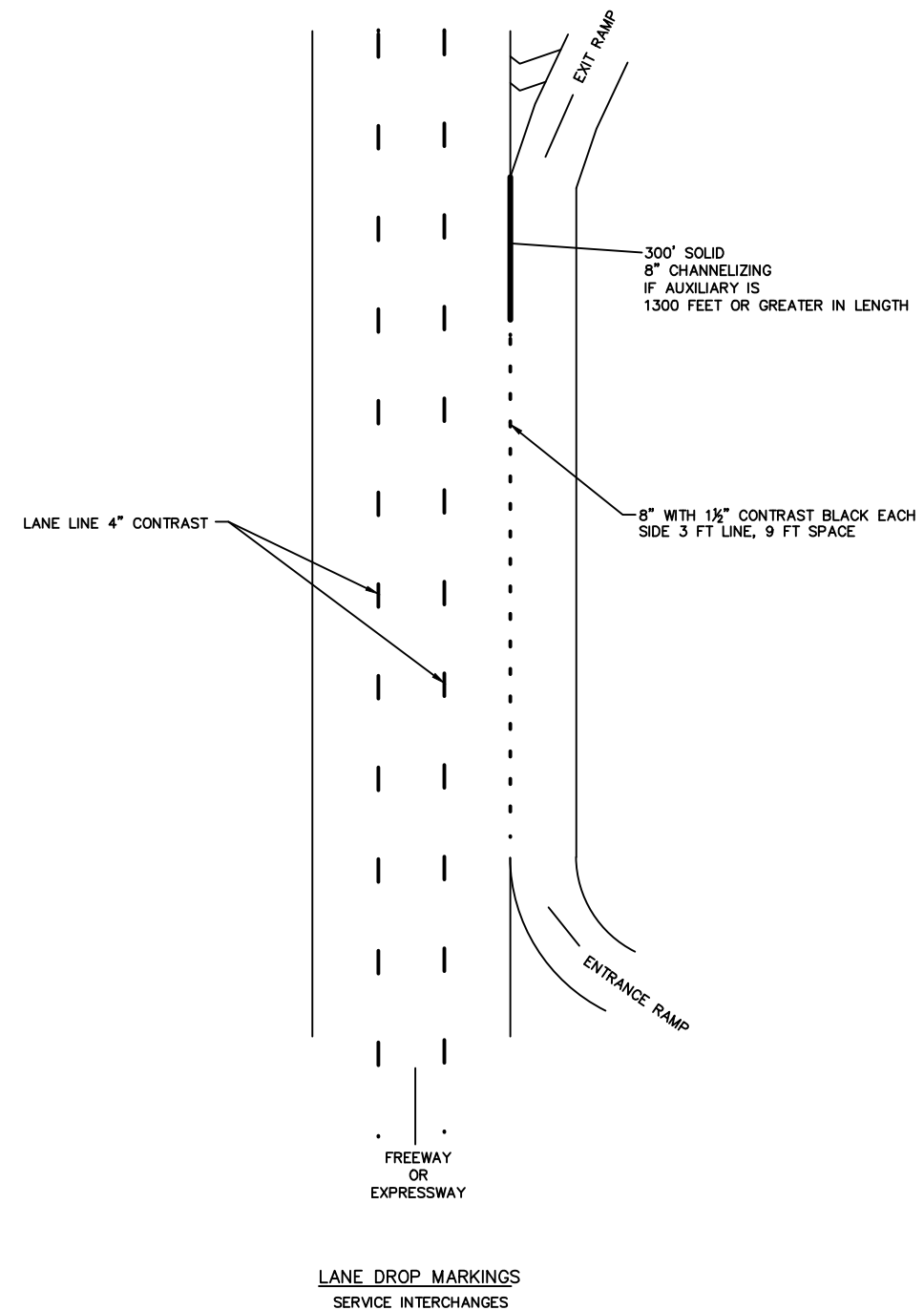
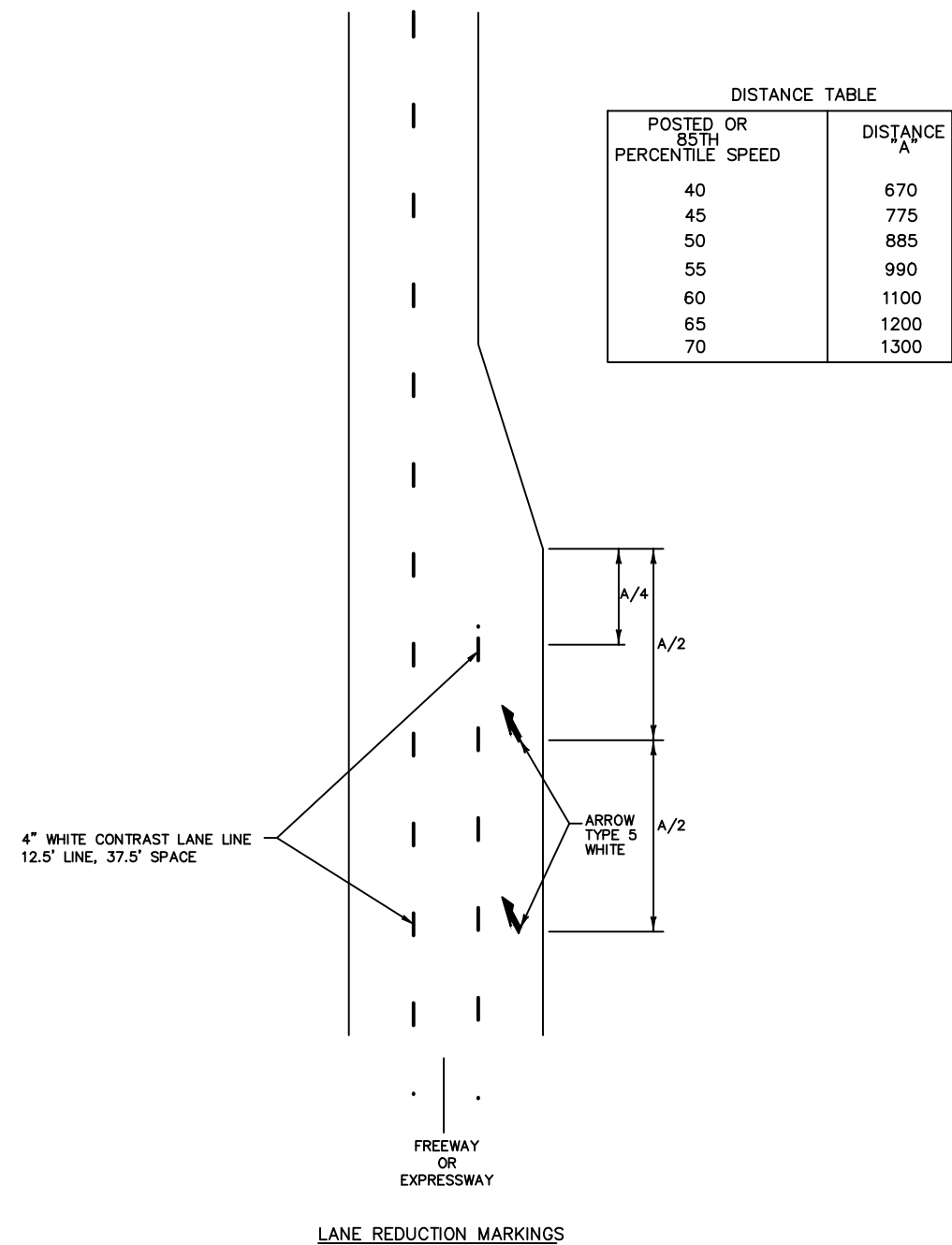
1. WHERE THE DOTTED EXTENSION OF THE RIGHT EDGE LINE IS SHOWN ON THE PLAN, IT SHALL BE 4" WIDE, WITH A LINE SKIP PATTERN CONSISTING OF A 3' LONG LINE AND A 9' SKIP.
2. PAVEMENT LANE MARKINGS SHALL BE LOCATED 6" OFF THE LONGITUDINAL JOINT OF THE UNDERLYING CONC. PAVEMENT.
3. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
4. SPOTTING FOR PAVEMENT LANE MARKINGS AND EDGE LINES SHALL BE 4"x4" PIECES OF REFLECTORIZED PAV'T MARKING TAPE SPACED AT 50' INTERVALS, INCIDENTAL TO PAV'T MARKING.

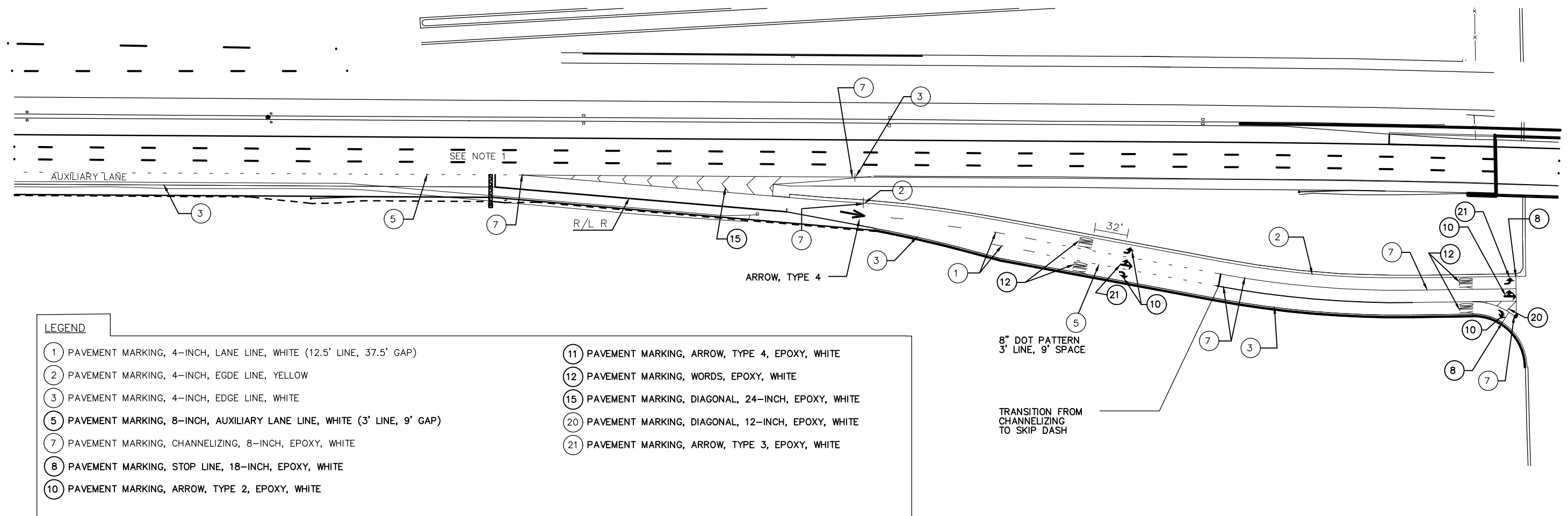


2-LANES WITH 1-LANE ENTRANCE AND EXIT RAMP

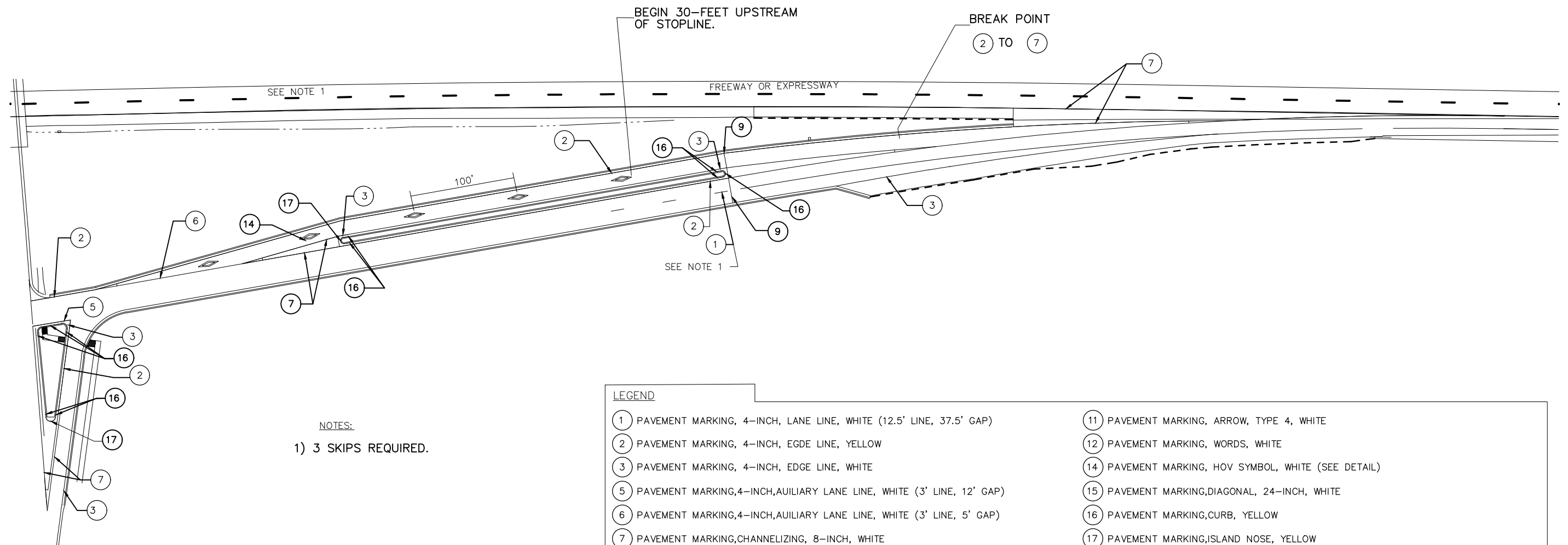
GORES, FREEWAYS & EXPRESSWAYS







TYPICAL OFF-RAMP PAVEMENT MARKING WITH MULTIPLE LANES



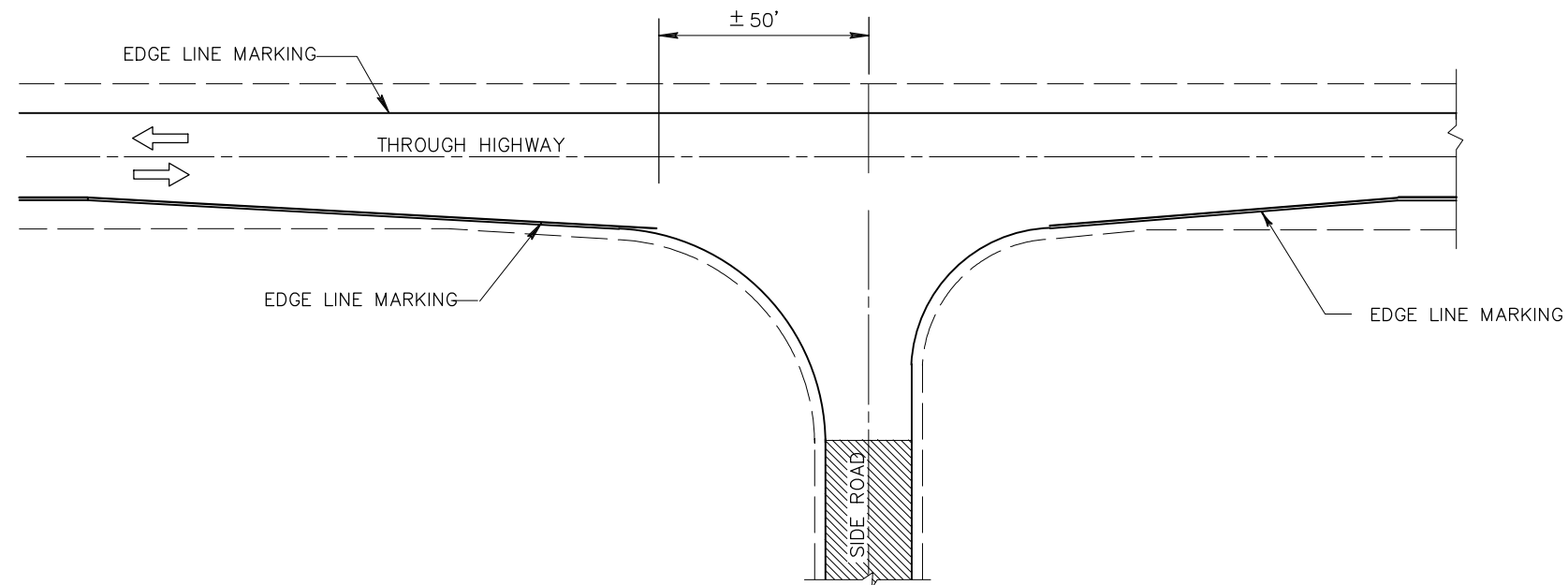
NOTES:

1) 3 SKIPS REQUIRED.

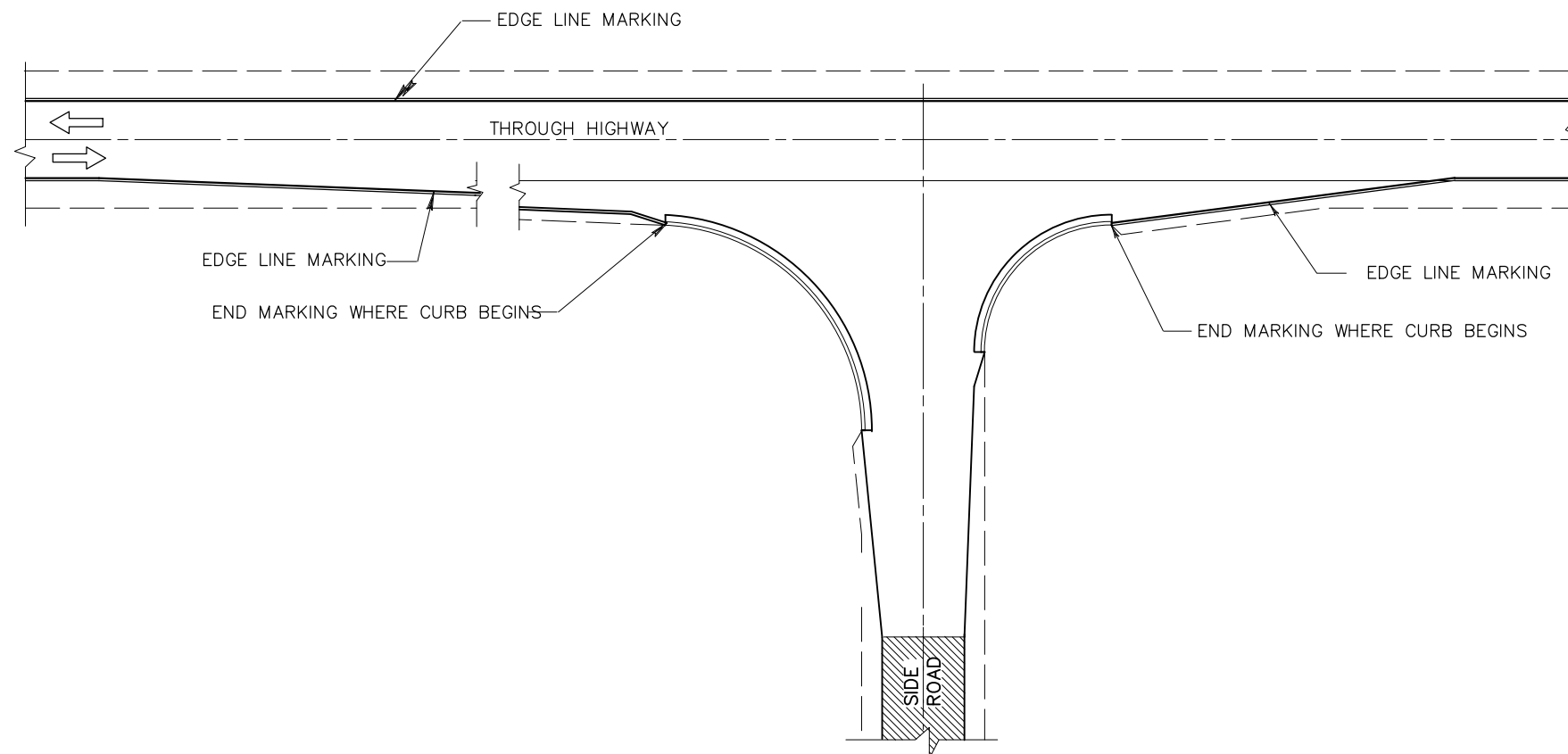
LEGEND

- | | |
|---|---|
| (1) PAVEMENT MARKING, 4-INCH, LANE LINE, WHITE (12.5' LINE, 37.5' GAP) | (11) PAVEMENT MARKING, ARROW, TYPE 4, WHITE |
| (2) PAVEMENT MARKING, 4-INCH, EDGE LINE, YELLOW | (12) PAVEMENT MARKING, WORDS, WHITE |
| (3) PAVEMENT MARKING, 4-INCH, EDGE LINE, WHITE | (14) PAVEMENT MARKING, HOV SYMBOL, WHITE (SEE DETAIL) |
| (5) PAVEMENT MARKING, 4-INCH, AUXILIARY LANE LINE, WHITE (3' LINE, 12' GAP) | (15) PAVEMENT MARKING, DIAGONAL, 24-INCH, WHITE |
| (6) PAVEMENT MARKING, 4-INCH, AUXILIARY LANE LINE, WHITE (3' LINE, 5' GAP) | (16) PAVEMENT MARKING, CURB, YELLOW |
| (7) PAVEMENT MARKING, CHANNELIZING, 8-INCH, WHITE | (17) PAVEMENT MARKING, ISLAND NOSE, YELLOW |
| (8) PAVEMENT MARKING, STOP LINE, 18-INCH, WHITE | |
| (9) PAVEMENT MARKING, STOP LINE, 18-INCH, WHITE | |
| (10) PAVEMENT MARKING, ARROW, TYPE 2, WHITE | |

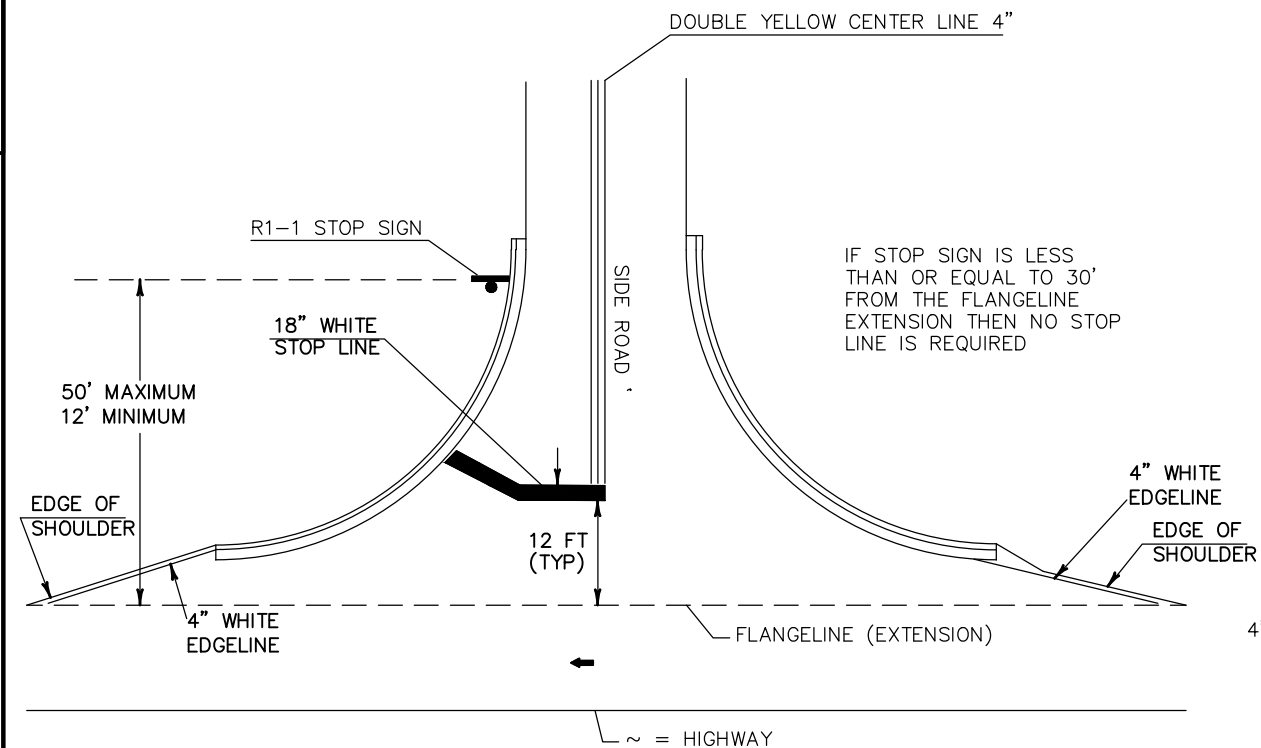
TYPICAL RAMP METER AND HOV LANE MARKING



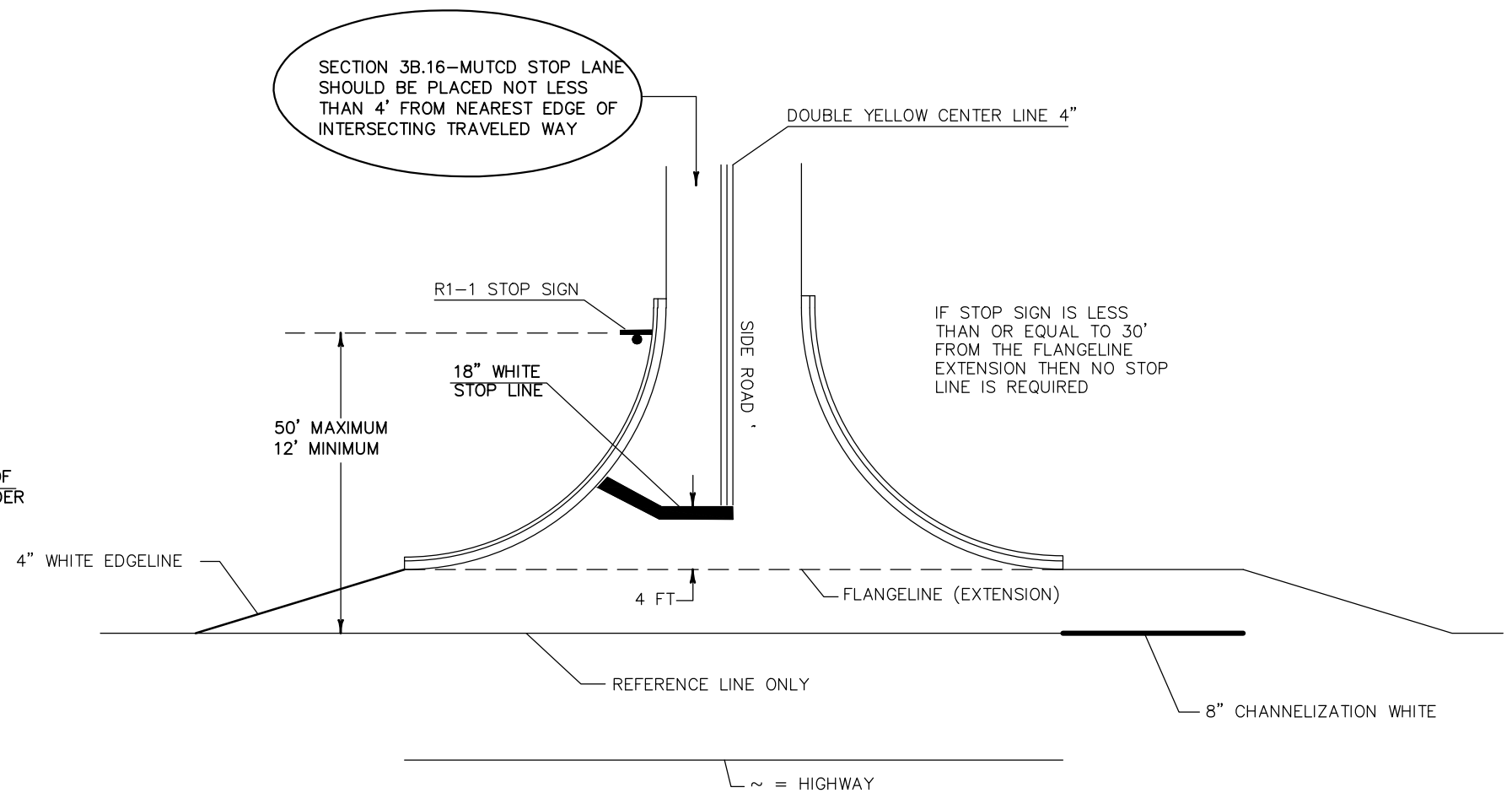
MINOR INTERSECTION WITHOUT CURBS
(TYPICAL MARKING)



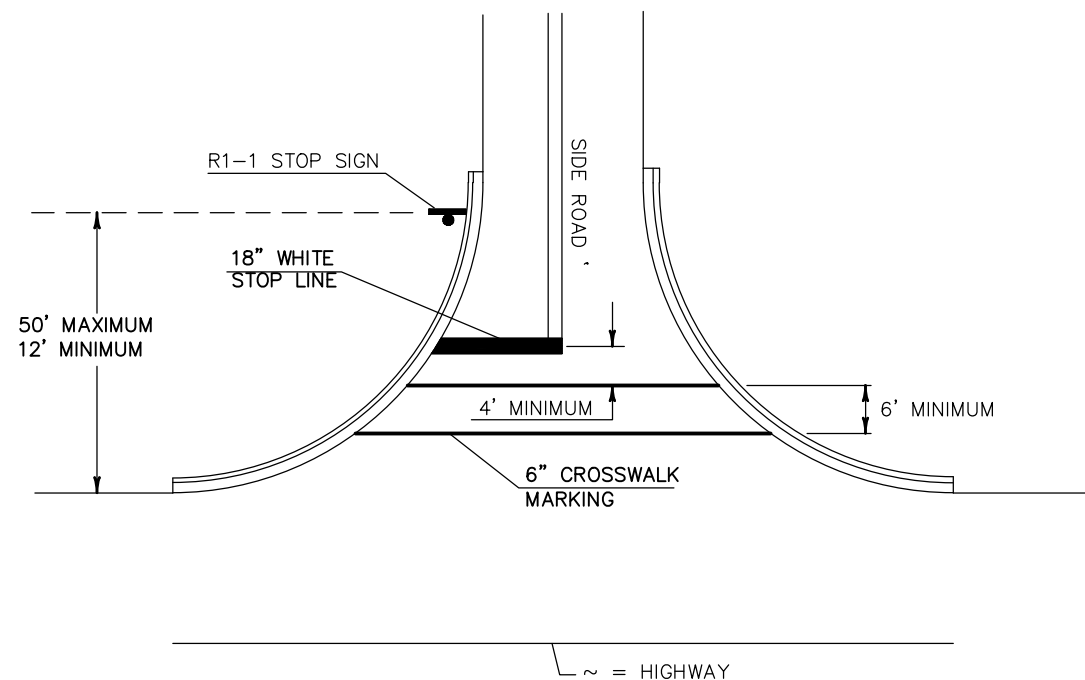
MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



TYPICAL PAVEMENT MARKING FOR SIDEROADS



TYPICAL PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



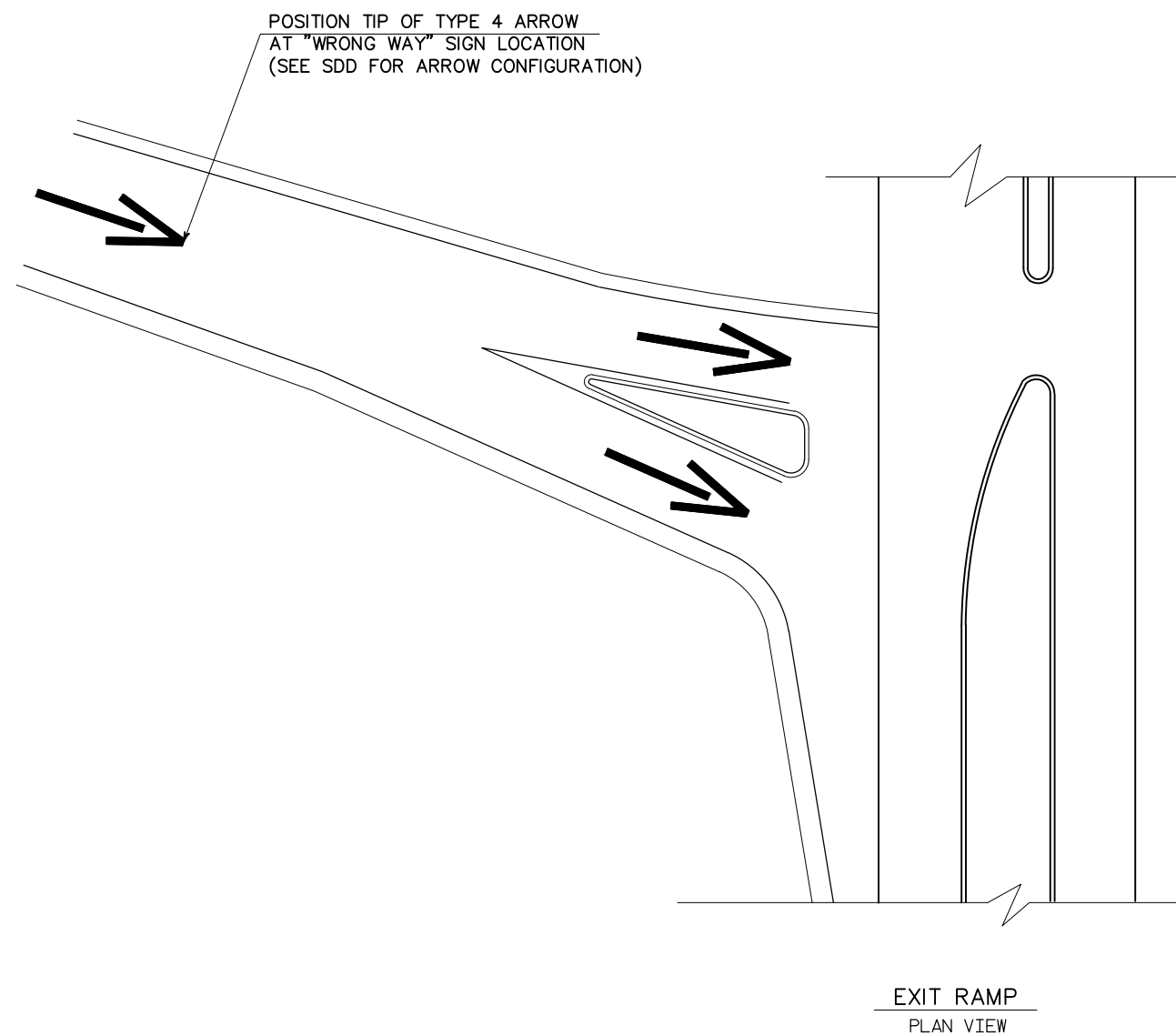
TYPICAL PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

NOTES:

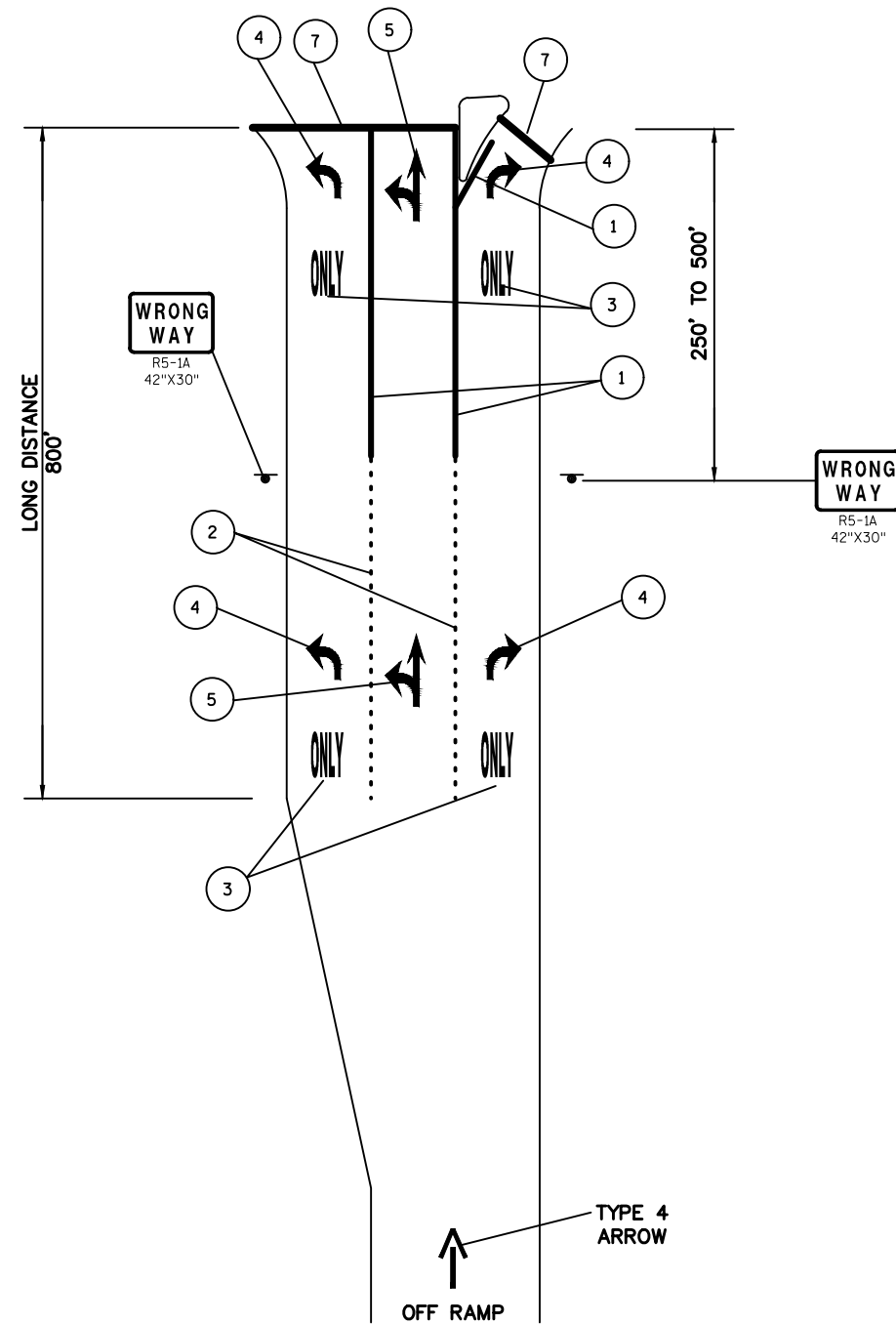
18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

STOP LINES REQUIRED WHERE:

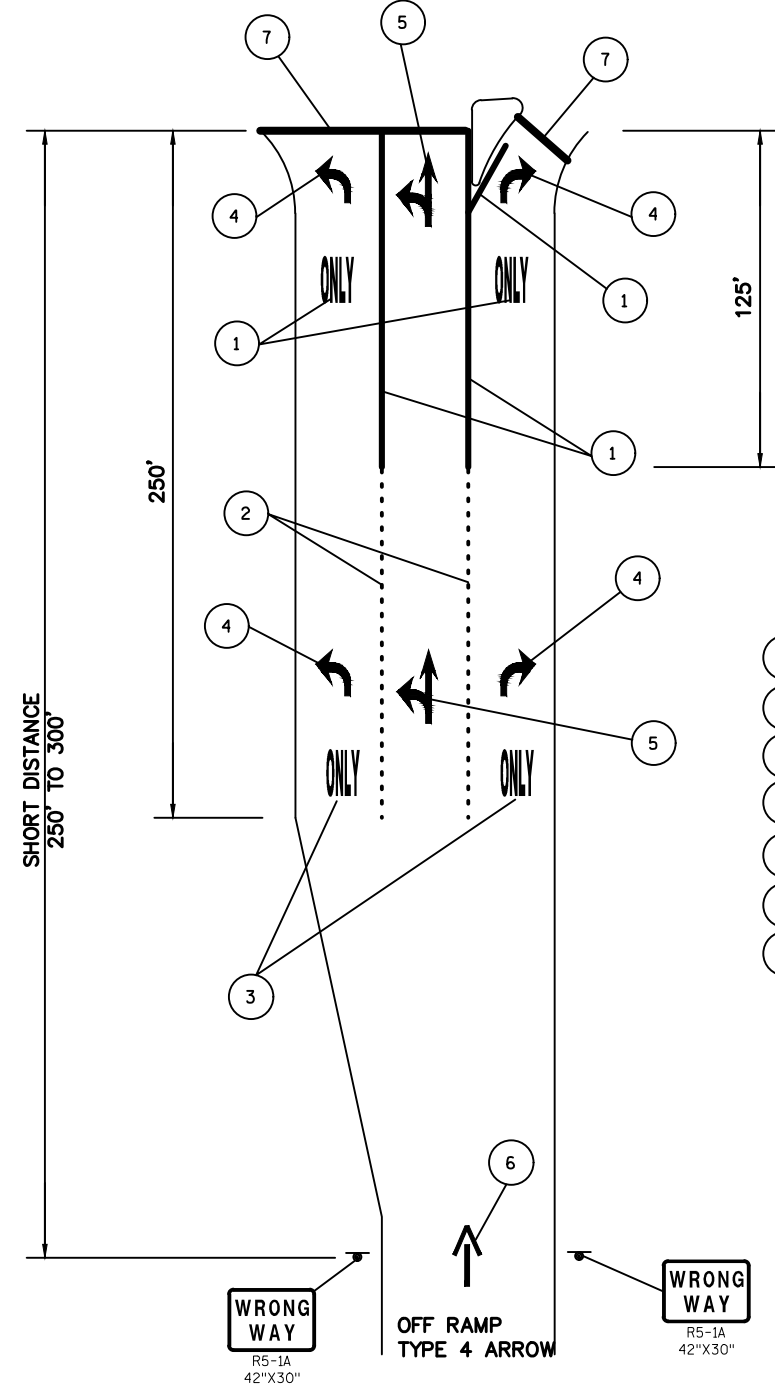
- CROSSWALK MARKINGS EXIST OR BEING PROVIDED
- LARGE RADII
- OFFSET LEFT TURNS WHERE STOP BAR FOR LEFT TURN IS SET BACK FROM THRU MOVEMENT.



(RAMPS & ARROWS)



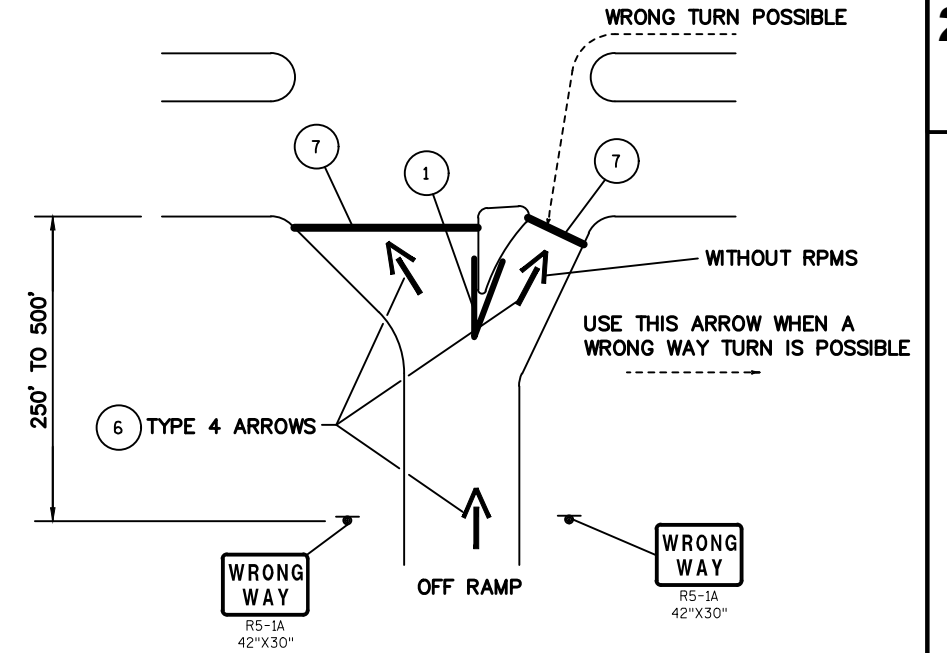
**EXIT RAMP
LONG TURN LANES**



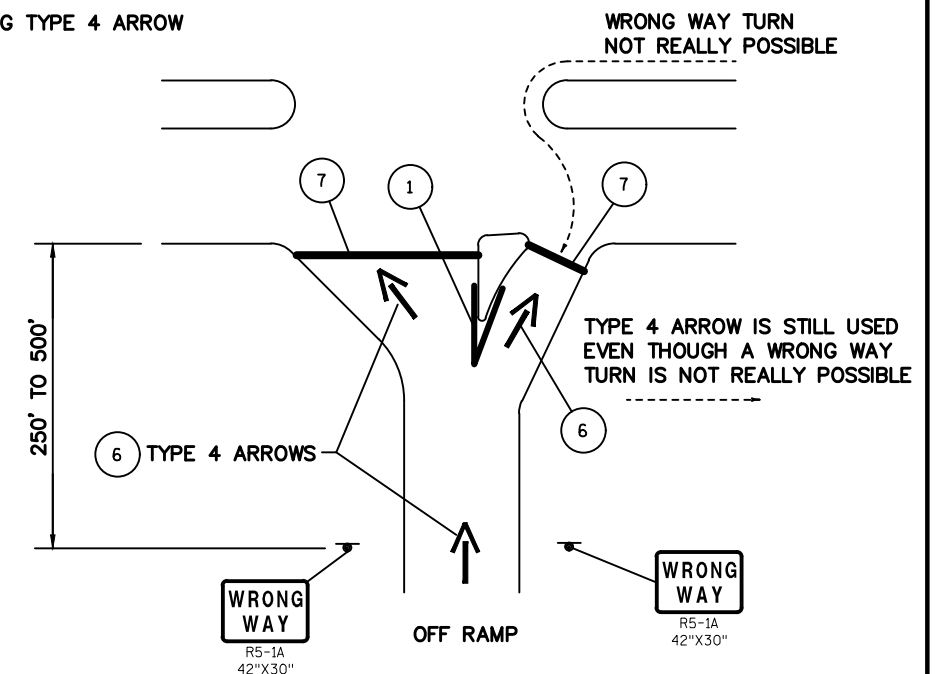
**EXIT RAMP
250' OR SHORTER TURN LANES**

LEGEND

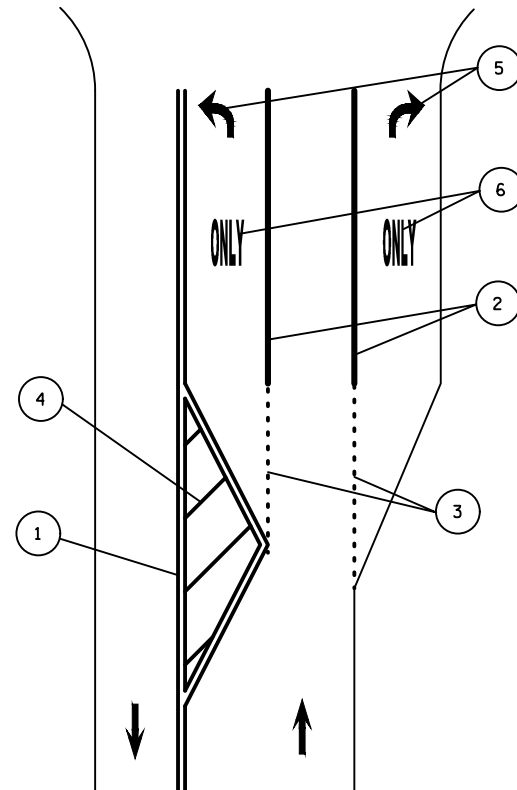
- 1 PAVEMENT MARKING 8" CHANNELIZING WHITE
- 2 PAVEMENT MARKING 8" WHITE (3' LINE, 9' SPACE)
- 3 PAVEMENT MARKING WORDS
- 4 PAVEMENT MARKING TYPE 2 ARROW
- 5 PAVEMENT MARKING TYPE 3 ARROW
- 6 PAVEMENT MARKING TYPE 4 ARROW
- 7 18" STOP BAR



**EXIT RAMP
(SIMPLE)**



**EXIT RAMP
(SIMPLE)**

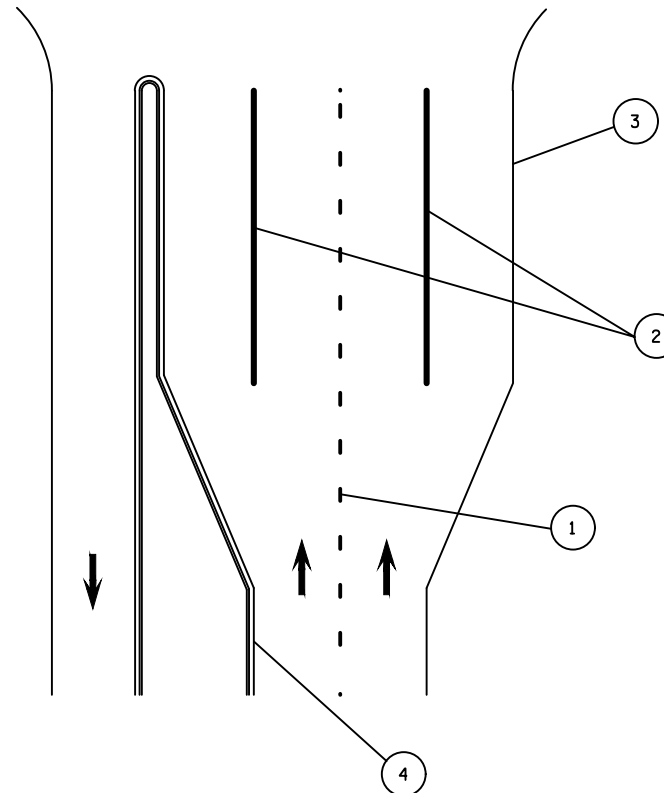


NOTE: IF SIGNALIZED
ADD STOP BAR

**TYPICAL ARROW/ONLY LANE USE MARKINGS
FOR PAINTED CENTERLINE APPLICATION**

LEGEND

- 1 PAVEMENT MARKING 4" DOUBLE YELLOW
- 2 PAVEMENT MARKING 8" CHANNELIZING WHITE
- 3 PAVEMENT MARKING 8" WHITE (3' LINE, 9' SPACE)
- 4 PAVEMENT MARKING 12" DIAGONAL YELLOW
- 5 PAVEMENT MARKING TYPE 2 ARROW
- 6 PAVEMENT MARKING WORDS

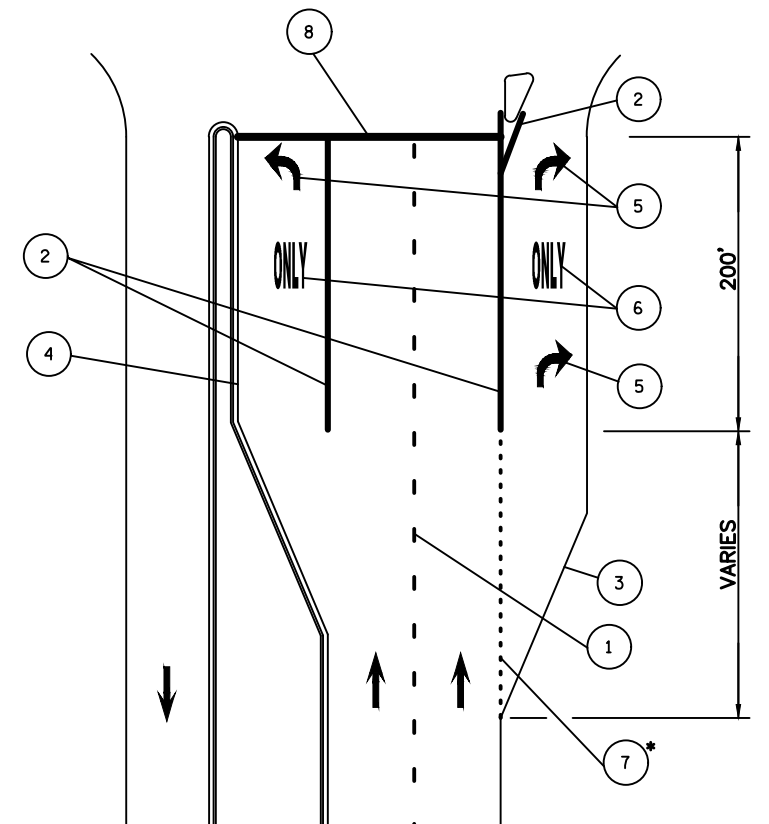


NOTE: IF OUTSIDE SHOULDER
IS NOT CURB & GUTTER THEN
ALWAYS USE EDGETLINE
REGARDLESS OF SPEED LIMIT

**TYPICAL NO ARROW/ONLY TURN LANES
CURB & GUTTER MEDIAN
UNSIGNALIZED SIDEROAD**

LEGEND

- 1 PAVEMENT MARKING 4" LANE LINE WHITE (12.5' LINE, 37.5' SPACE)
- 2 PAVEMENT MARKING 8" CHANNELIZING WHITE
- 3 PAVEMENT MARKING 4" WHITE EDGETLINE 45 MPH & GREATER
- 4 PAVEMENT MARKING 4" YELLOW EDGETLINE 45 MPH & GREATER



NOTE: SIGNALIZED INTERSECTION

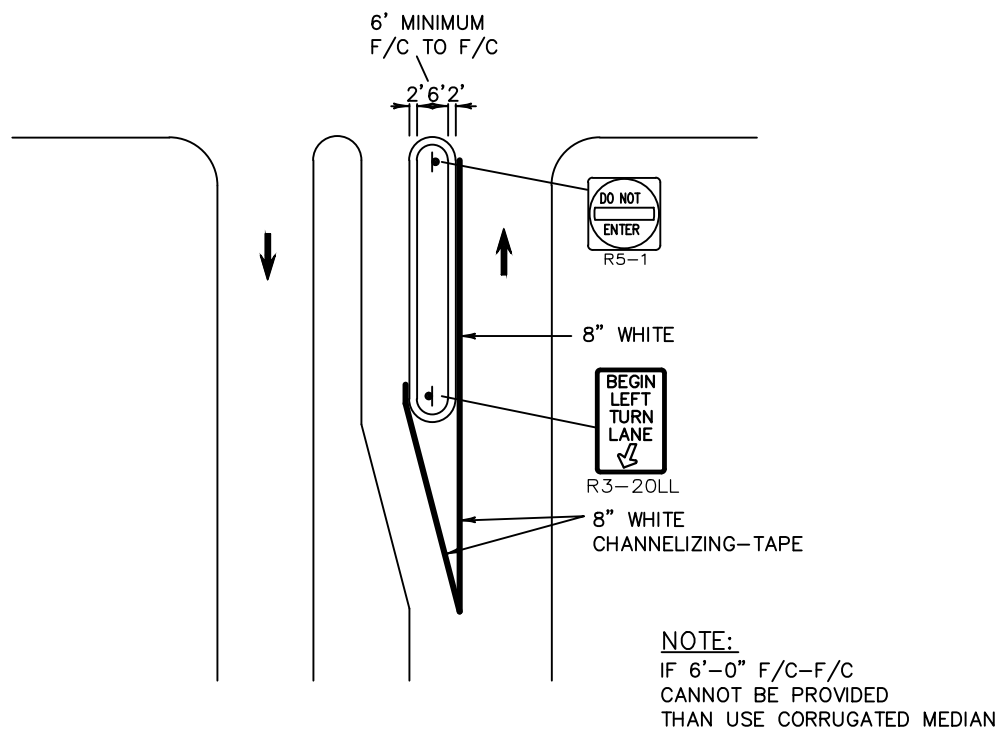
* 7 DOT PATTERN NOT NEEDED
IF CURB & GUTTER UNLESS
ON CURVE

**TYPICAL MARKING AT
SIGNALIZED INTERSECTION
CURB & GUTTER MEDIAN**

LEGEND

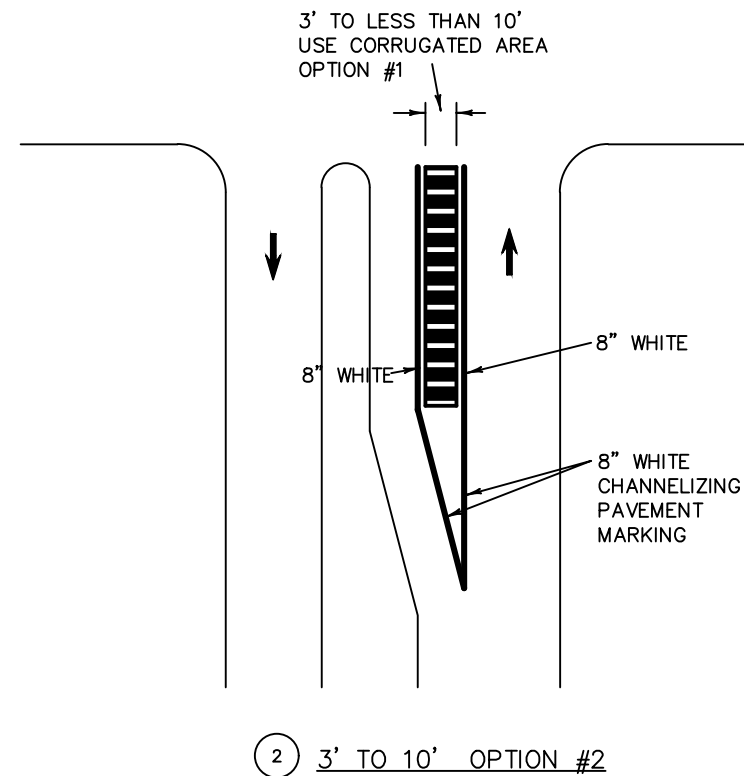
- 1 PAVEMENT MARKING 4" LANE LINE WHITE (12.5' LINE, 37.5' SPACE)
- 2 PAVEMENT MARKING 8" CHANNELIZING WHITE
- 3 PAVEMENT MARKING 4" WHITE EDGETLINE 45 MPH & GREATER
- 4 PAVEMENT MARKING 4" YELLOW EDGETLINE 45 MPH & GREATER
- 5 PAVEMENT MARKING TYPE 2 ARROW
- 6 PAVEMENT MARKING WORDS
- 7 PAVEMENT MARKING 8" WHITE (3' LINE, 9' SPACE)
- 8 PAVEMENT MARKING 18" STOP LINE

2

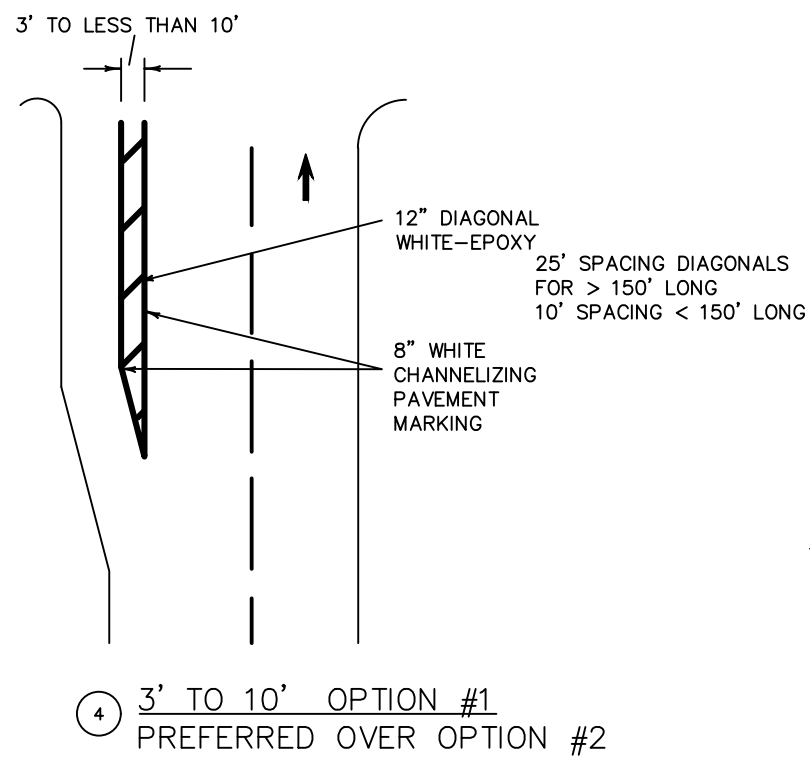


① 10' OR GREATER
CURB & GUTTER LEFT TURN SLOT

2



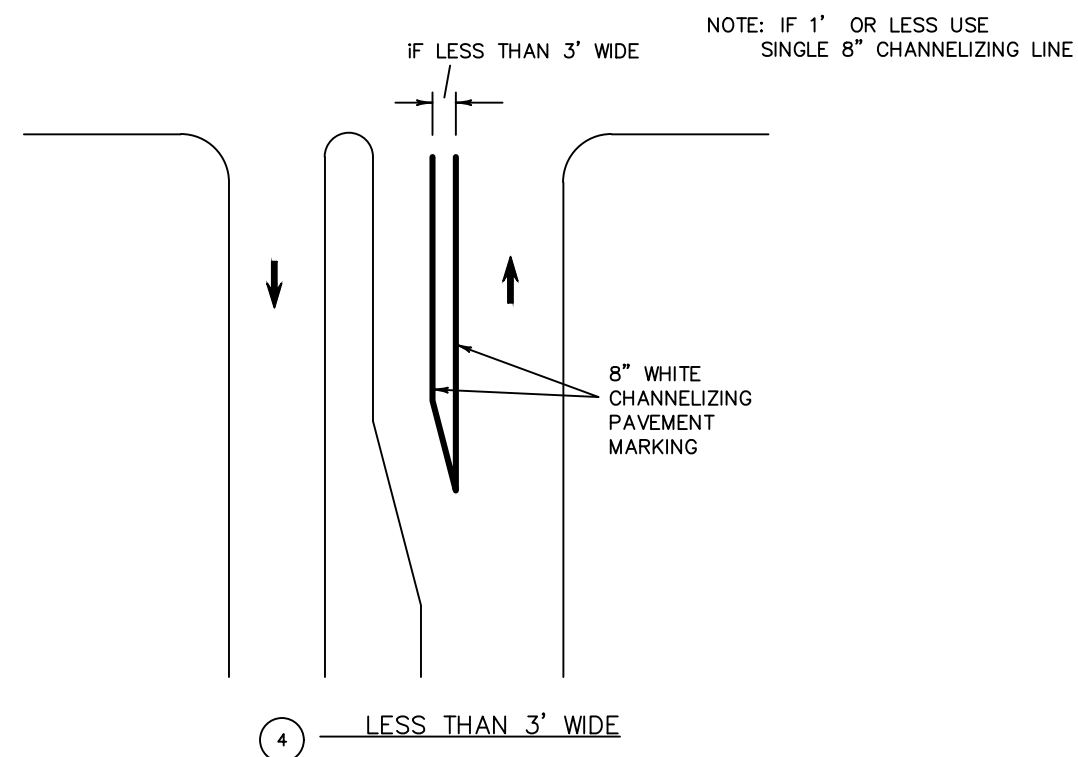
② 3' TO 10' OPTION #2



④ 3' TO 10' OPTION #1
PREFERRED OVER OPTION #2

SLOTTED LEFT TURN LANE TREATMENT

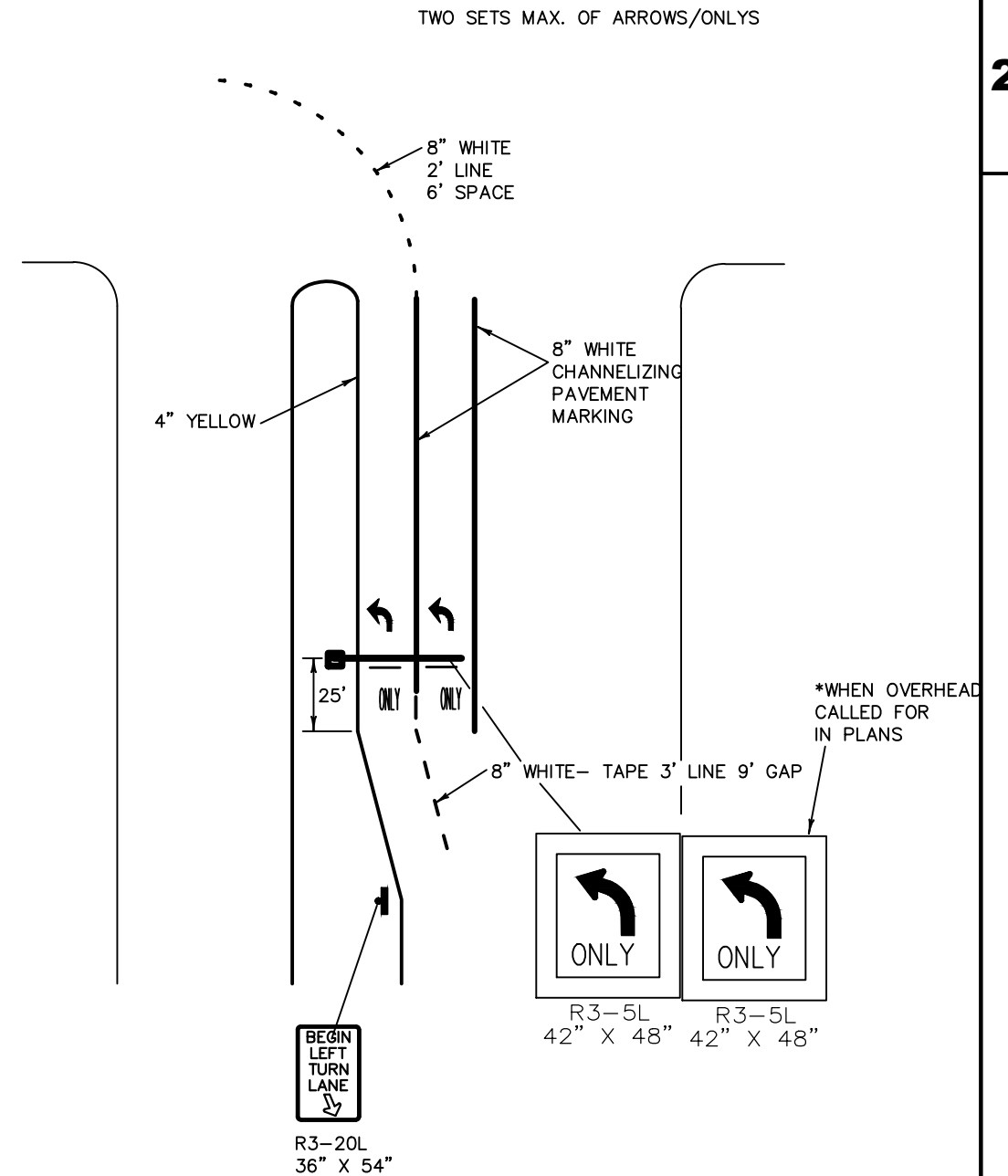
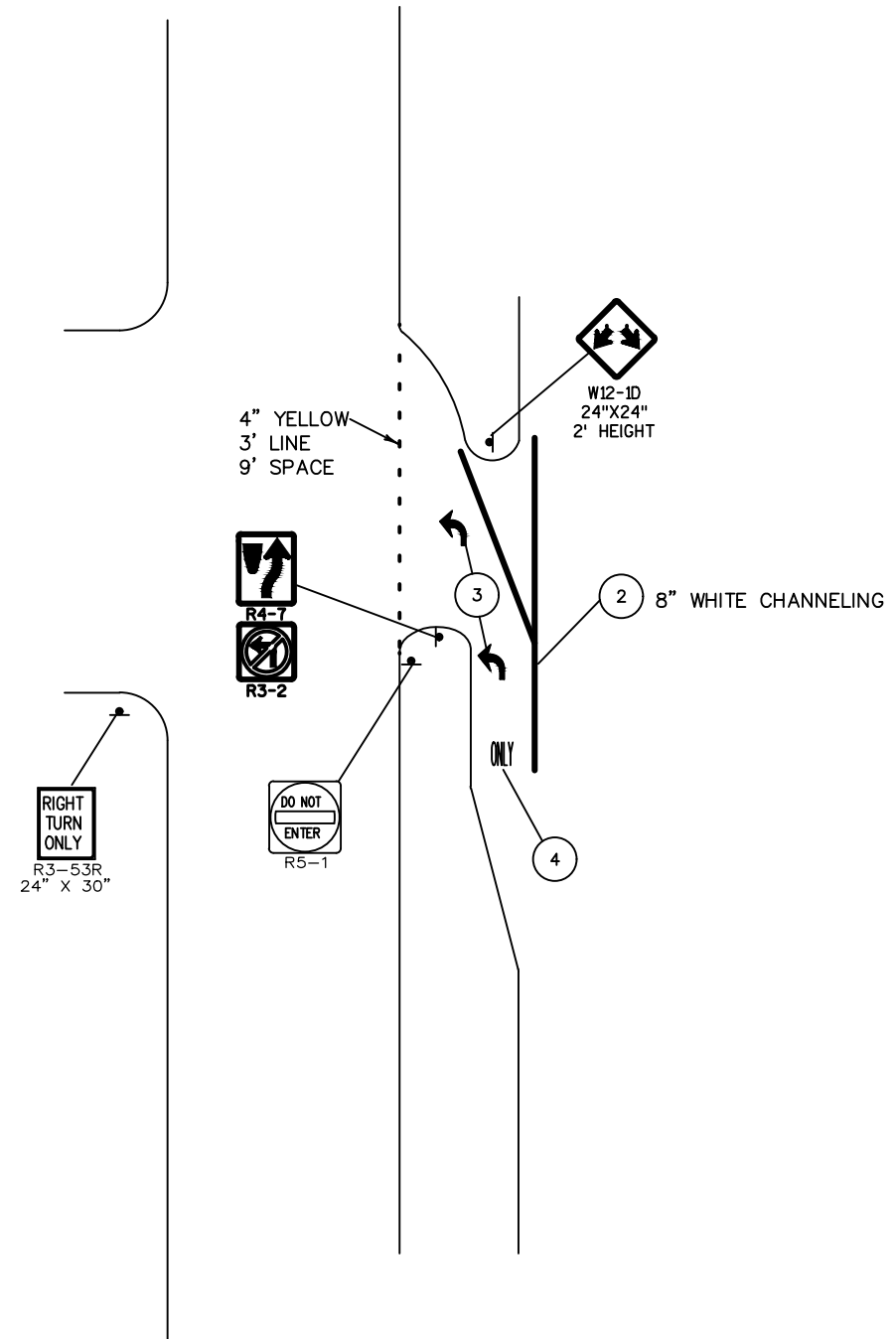
- ① 10' OR GREATER
- ② 3' TO 10' OPTION #2
- ③ 3' TO 10' OPTION #1
- ④ LESS THAN 3'-0"



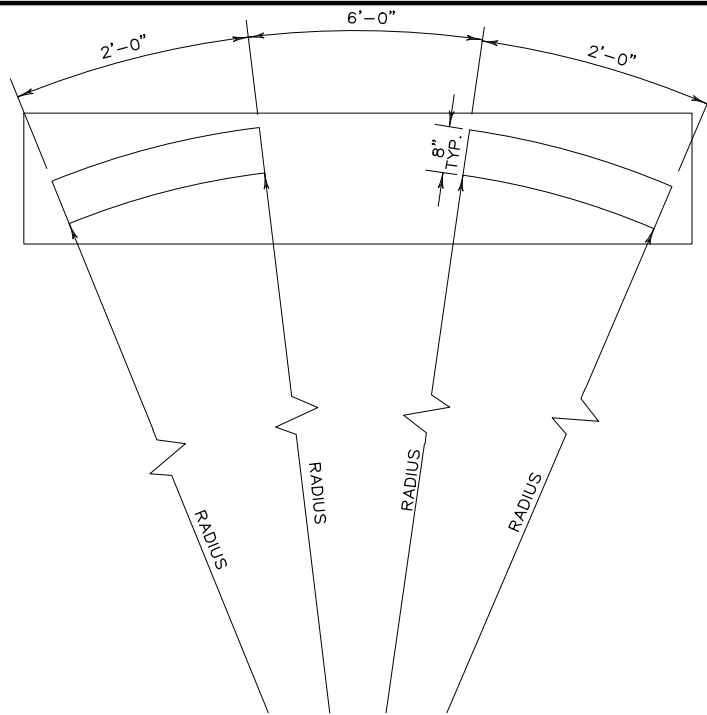
④ LESS THAN 3' WIDE

PAVEMENT MARKING

SHEET 1 OF 2



- **SEE REGION MATRIX OF MATERIALS FOR TYPE OF PAVEMENT MARKING PRODUCT TO USE
CONTACT TOM HEYDEL

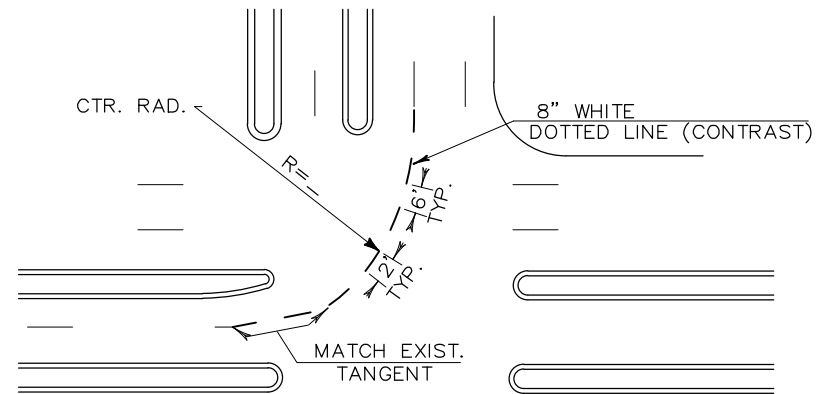


DOTTED TEMPLATE

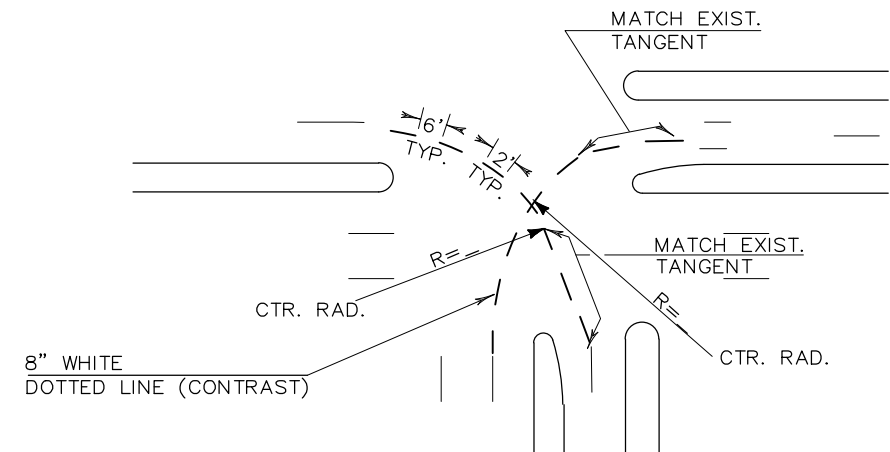
NOTE: CONTRACTOR TO BUILD TEMPLATE BASED ON RADIUS SHOWN.
TEMPLATES ARE TO BE CONSTRUCTED OF PLYWOOD, PLASTIC, OR
SUITABLE MATERIAL APPROVED BY THE ENGINEER IN THE FIELD.

DESIGNER NOTE: ESTABLISH RADIUS FOR DUAL LEFT MARKING
PROVIDE R=VALUE IN SPECIFIC CASE

INTERSECTING HIGHWAYS (DOTTED PATTERN) DOUBLE LEFT-TURNING MOVEMENTS



INTERSECTING HIGHWAYS (DOTTED PATTERN) DOUBLE LEFT-TURNING MOVEMENTS

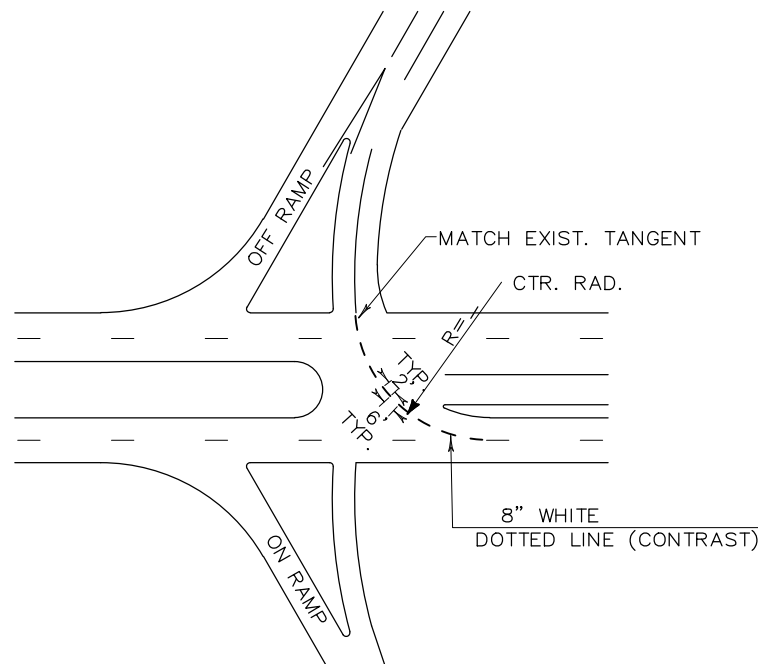


GENERAL NOTES

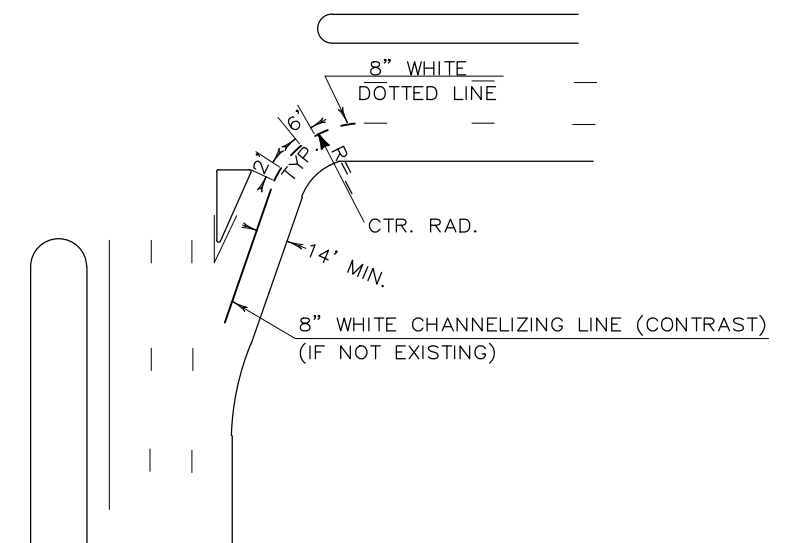
1. DOTTED PAVEMENT MARKING PATTERNS SHALL BE INSTALLED WITH A 2-FOOT SEGMENT AND A 6-FOOT GAP.
2. EXISTING MARKINGS THRU INTERSECTIONS DO NOT ALWAYS HAVE THE 2-FOOT X 6-FOOT CYCLE. IF THE EXISTING MARKINGS ARE OF THE 5-FOOT CYCLE, THEY WILL BE BRUSH PLASTED AND PAVEMENT MARKED WITH A 380 WR TAPE GROOVED IN.

IF THE EXISTING MARKINGS ARE NOT OF THE 2-FOOT CYCLE, THE CONTRACTOR WILL LAY OUT THE NEW MARKINGS, PREPARE THE EXISTING PAVMENT BY BRUSH PLASTING, AND A 380 WR TAPE PAVEMENT MARK THE NEW CYCLE.
3. IF THE DOTTED PAVEMENT MARKINGS ARE NON-EXISTING, THE CONTRACTOR SHALL LAY OUT THE RADIUS, AS BEING USED BY THE PRESENT TRAFFIC, WITH THE MINIMUM LANE WIDTHS AS SHOWN ON THE PLANS.
4. THE CONTRACTOR SHALL CONSTRUCT AND USE ONE OF THE TWO DOTTED TEMPLATES WHICH MOST CLOSELY MATCH THE FIELD CONDITIONS.
5. THE CONTRACTOR SHALL PROTECT THE TAPE LINES UNTIL DRY, BY THE USE OF TRAFFIC CONTROLS AND TRAFFIC CONES AS SHOWN ON THE TRAFFIC CONTROL PLANS.

FREEWAY EXIT RAMP (DOTTED PATTERN) DOUBLE LEFT-TURNING MOVEMENTS

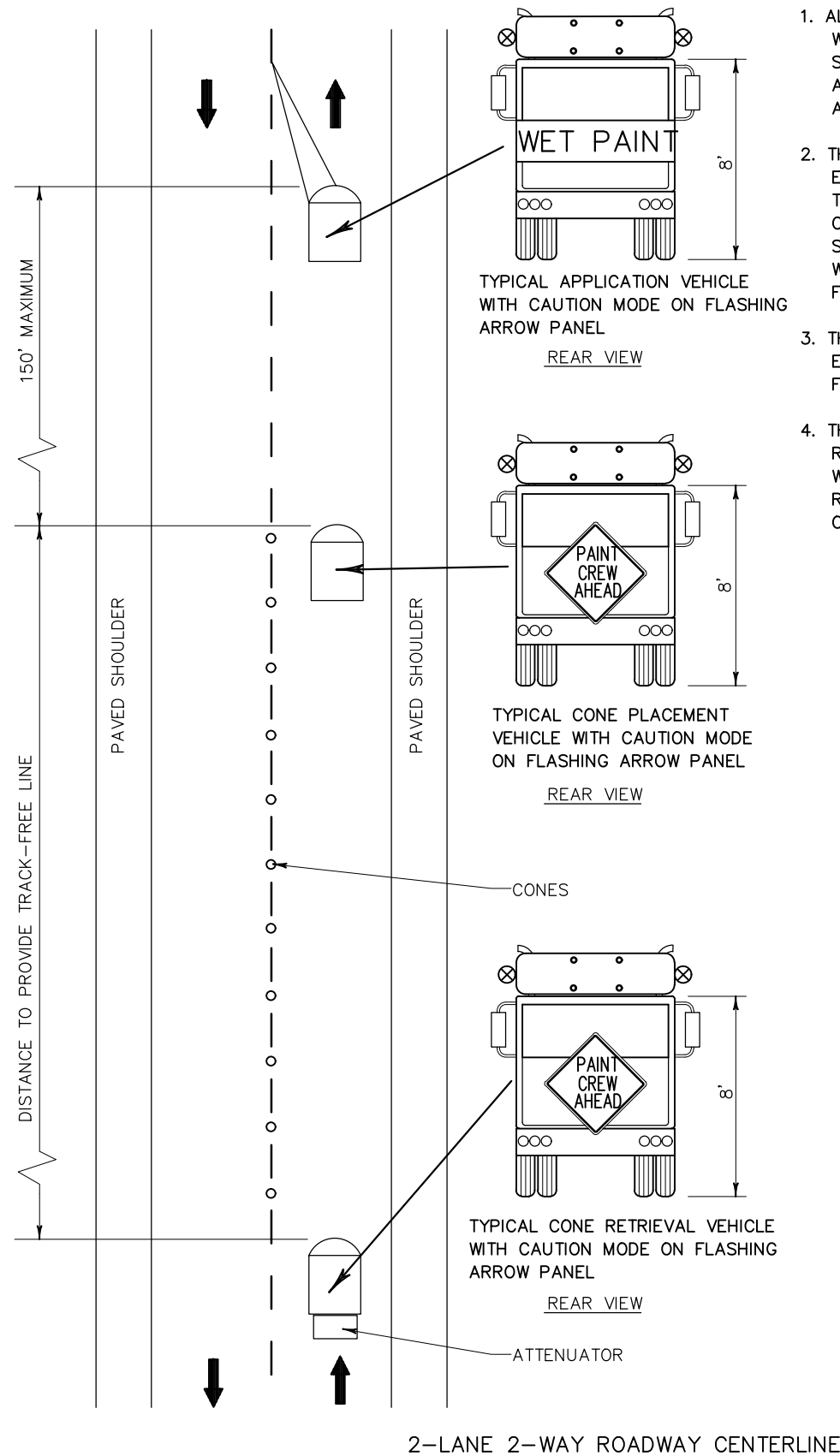


INTERSECTIONS & EXIT RAMP (DOTTED PATTERN) DOUBLE RIGHT-TURNING MOVEMENTS

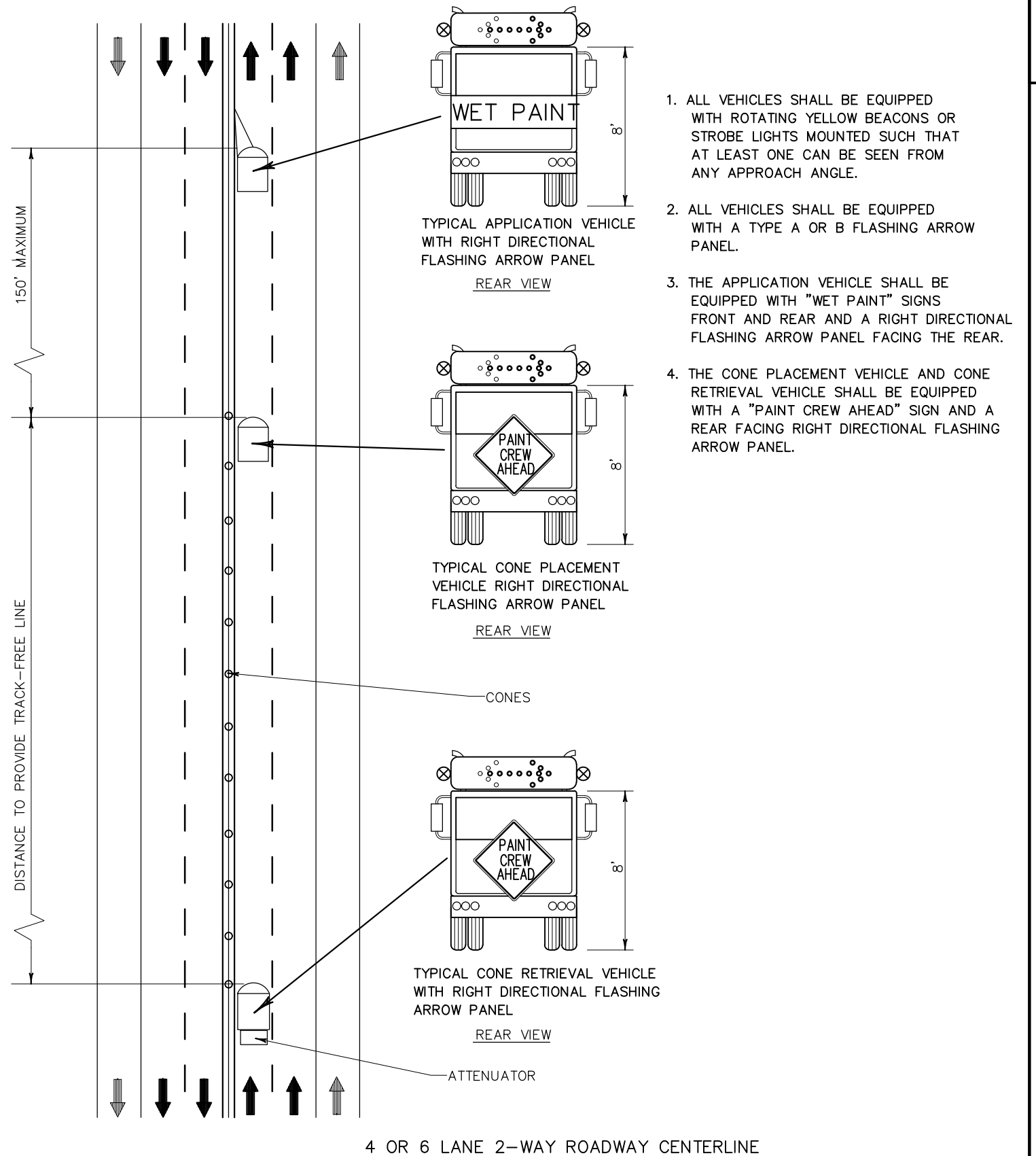
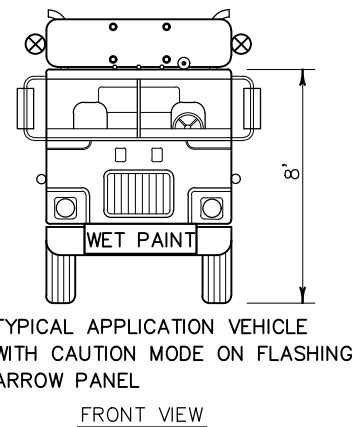


STANDARD DETAIL DRAWINGS

15 C 12-2 TRAFFIC CONTROL FOR LANE CLOSURES
(SUITABLE FOR MOVING OPERATIONS)



1. ALL VEHICLES SHALL BE EQUIPPED WITH ROTATING YELLOW BEACONS OR STROBE LIGHTS MOUNTED SUCH THAT AT LEAST ONE CAN BE SEEN FROM ANY APPROACH ANGLE.
2. THE APPLICATION VEHICLE SHALL BE EQUIPPED WITH FRONT AND REAR FACING TYPE A OR B FLASHING ARROW PANELS OPERATING IN CAUTION MODE. ALL SUBSEQUENT VEHICLES SHALL BE EQUIPPED WITH A REAR FACING TYPE A OR B FLASHING ARROW PANEL.
3. THE APPLICATION VEHICLE SHALL BE EQUIPPED WITH "WET PAINT" SIGNS FRONT AND REAR.
4. THE CONE PLACEMENT VEHICLE AND CONE RETRIEVAL VEHICLE SHALL BE EQUIPPED WITH A "PAINT CREW AHEAD" SIGN AND A REAR FACING FLASHING ARROW PANEL OPERATING IN CAUTION MODE.

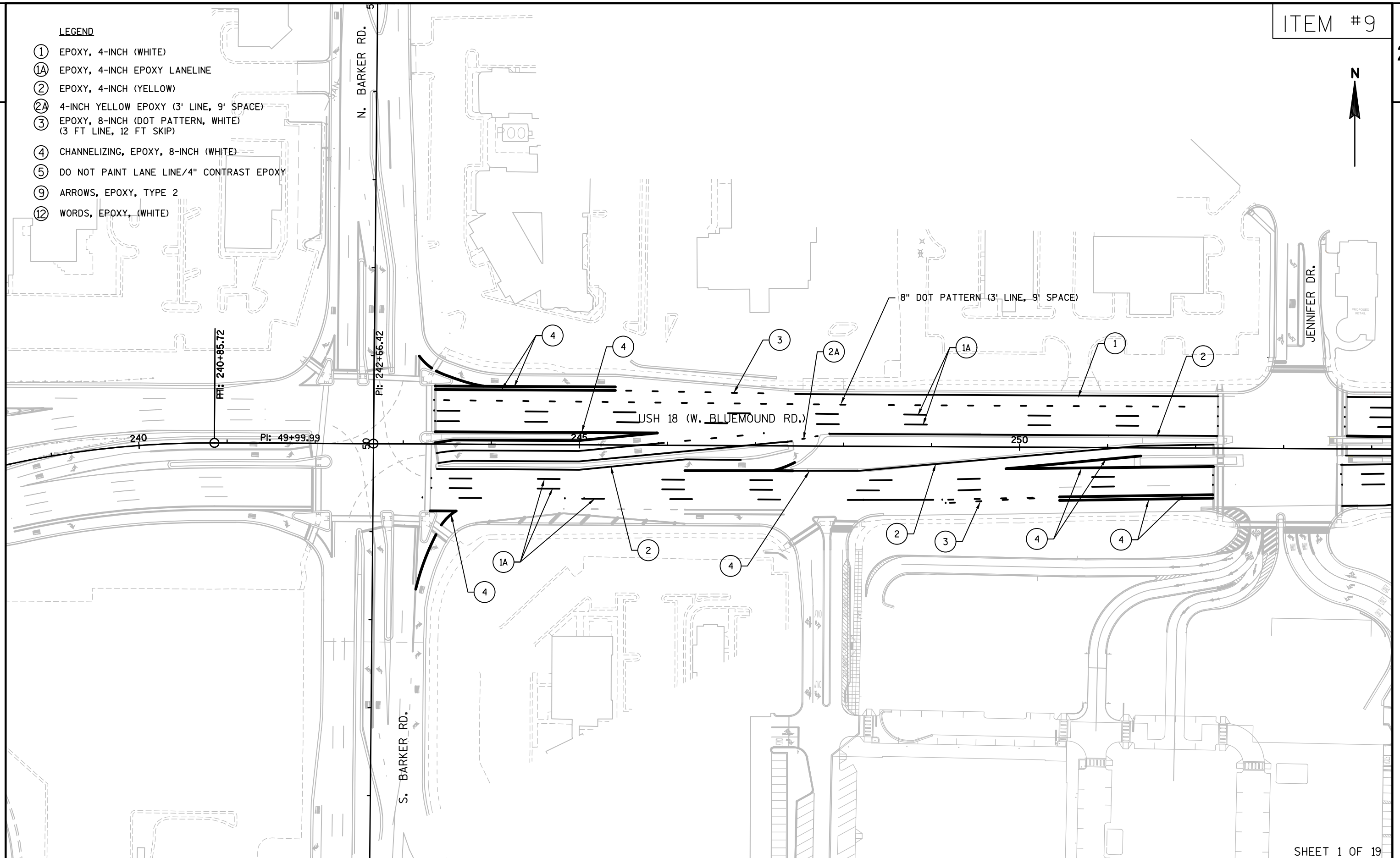


1. ALL VEHICLES SHALL BE EQUIPPED WITH ROTATING YELLOW BEACONS OR STROBE LIGHTS MOUNTED SUCH THAT AT LEAST ONE CAN BE SEEN FROM ANY APPROACH ANGLE.
2. ALL VEHICLES SHALL BE EQUIPPED WITH A TYPE A OR B FLASHING ARROW PANEL.
3. THE APPLICATION VEHICLE SHALL BE EQUIPPED WITH "WET PAINT" SIGNS FRONT AND REAR AND A RIGHT DIRECTIONAL FLASHING ARROW PANEL FACING THE REAR.
4. THE CONE PLACEMENT VEHICLE AND CONE RETRIEVAL VEHICLE SHALL BE EQUIPPED WITH A "PAINT CREW AHEAD" SIGN AND A REAR FACING RIGHT DIRECTIONAL FLASHING ARROW PANEL.



LEGEND

- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)

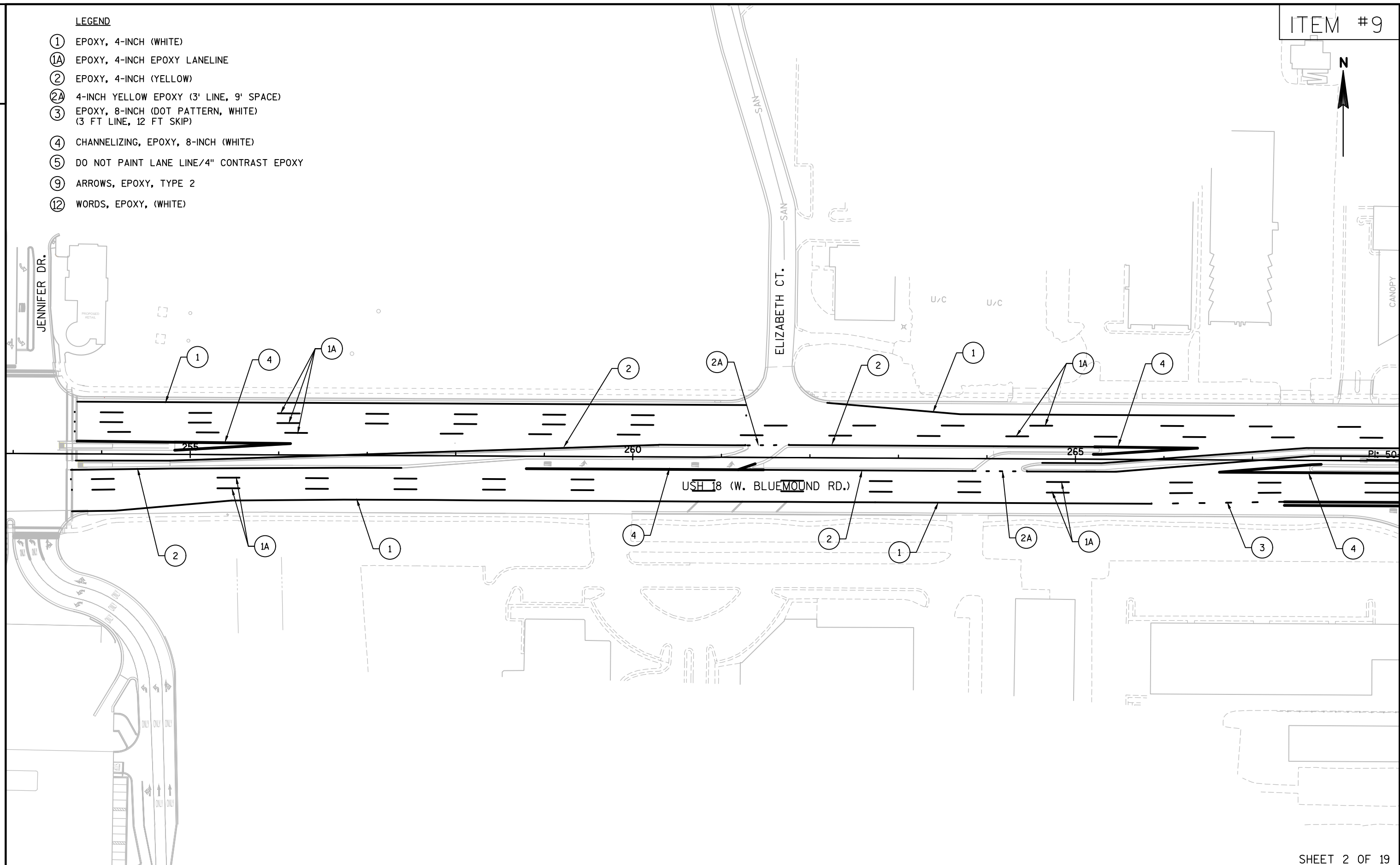


2

2

- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)

ITEM #9



SHEET 2 OF 19

PROJECT NO:1000-77-18

HWY: USH 18

COUNTY: WAUKESHA

PAVEMENT MARKING

SHEET

E

FILE NAME : N:\PDS\PROJECTS\10007718\PLAN_SET\024501-ITEM-109-PM.DWG
LAYOUT NAME - 024502-PM

PLOT DATE : 1/23/2018 7:47 AM

PLOT BY : WAGNER, SCOTT H

PLOT NAME :

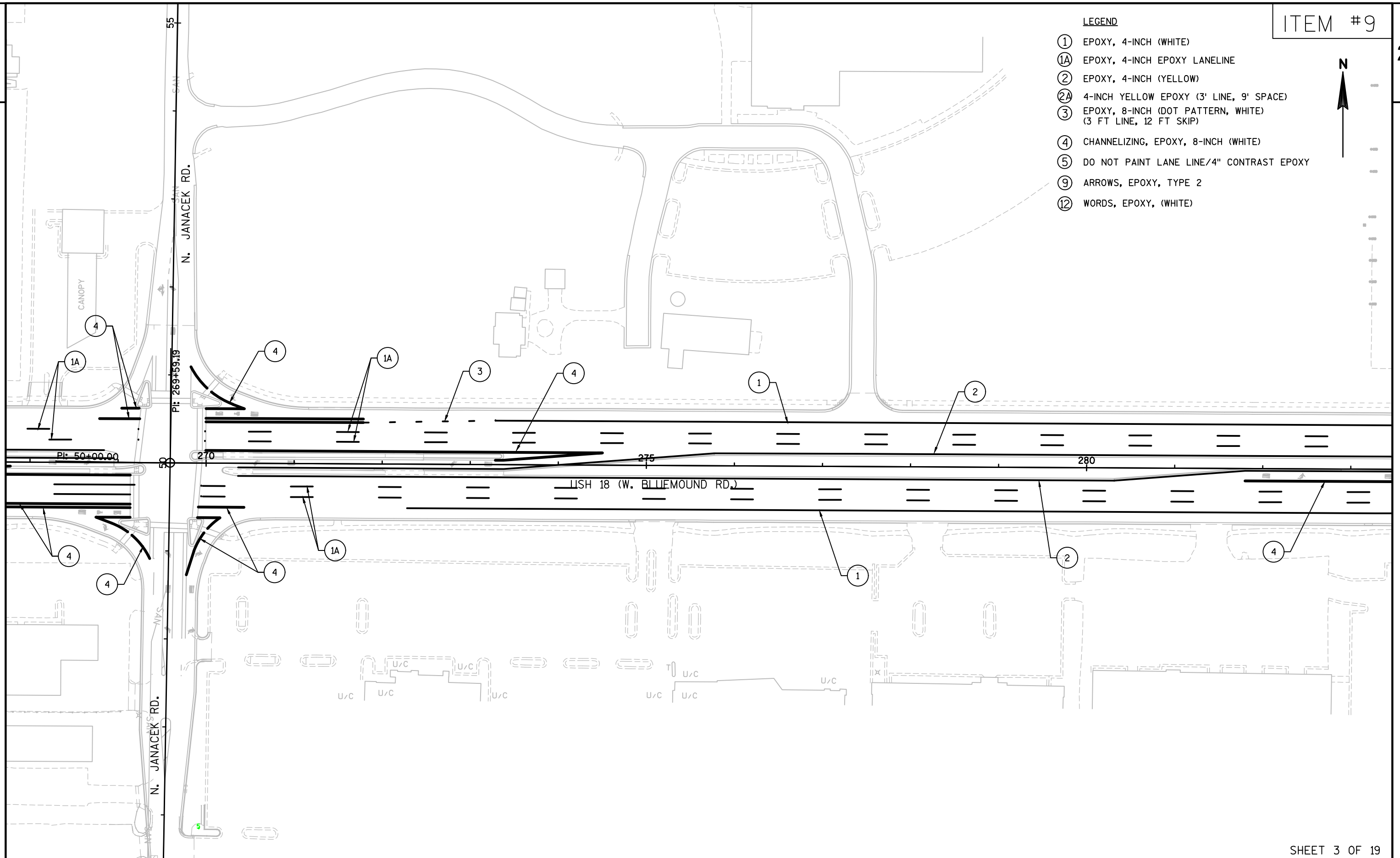
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

ITEM #9

LEGEND

- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)



SHEET 3 OF 19

PROJECT NO:1000-77-18

HWY:USH 18

COUNTY:WAUKESHA

PAVEMENT MARKING

SHEET

E

FILE NAME : N:\PDS\PROJECTS\10007718\PLAN_SET\024501_ITEM-109_PM.DWG
LAYOUT NAME - 024503_PM

PLOT DATE : 1/23/2018 7:47 AM

PLOT BY : WAGNER, SCOTT H

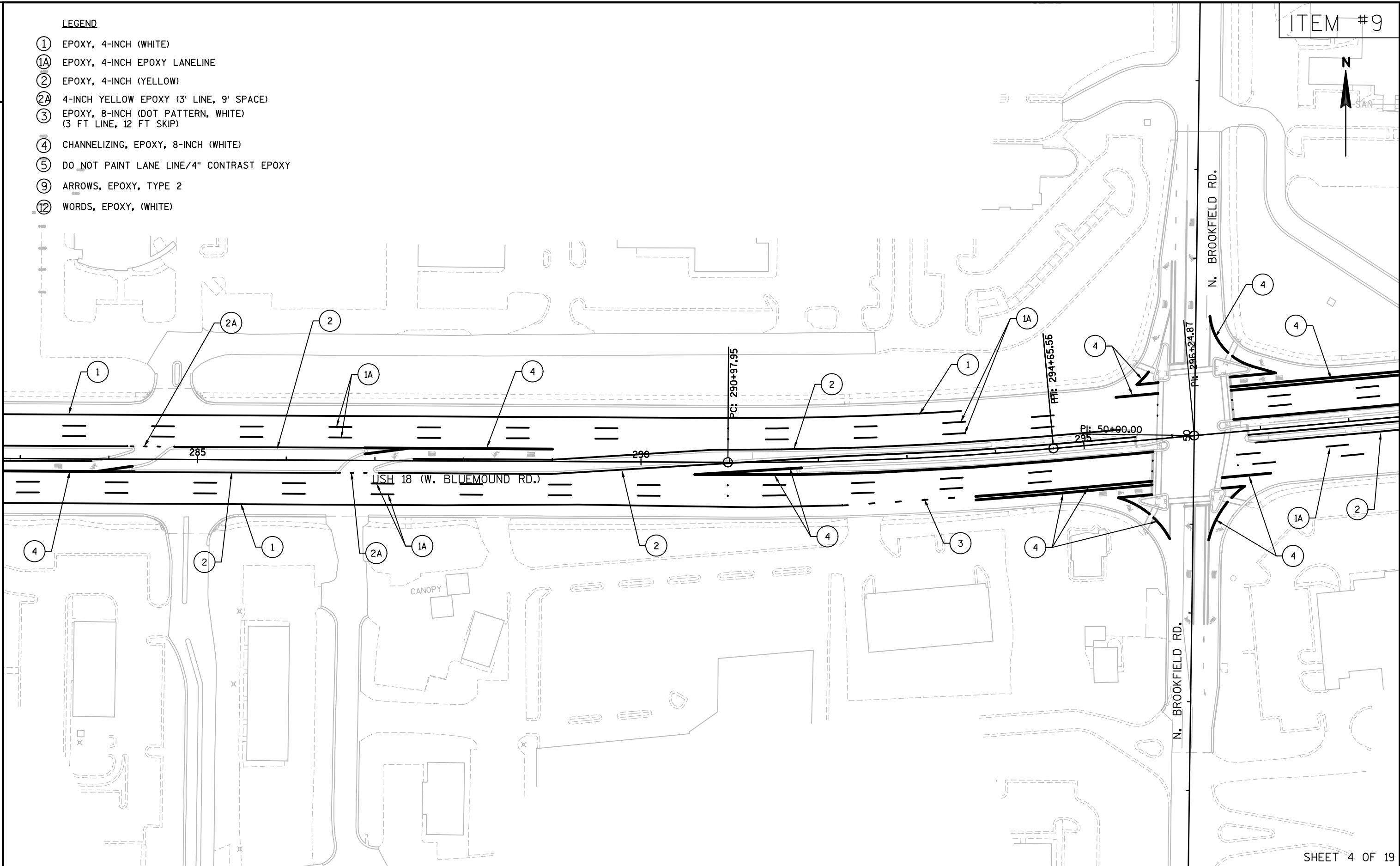
PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDs SHEET 42

LEGEND

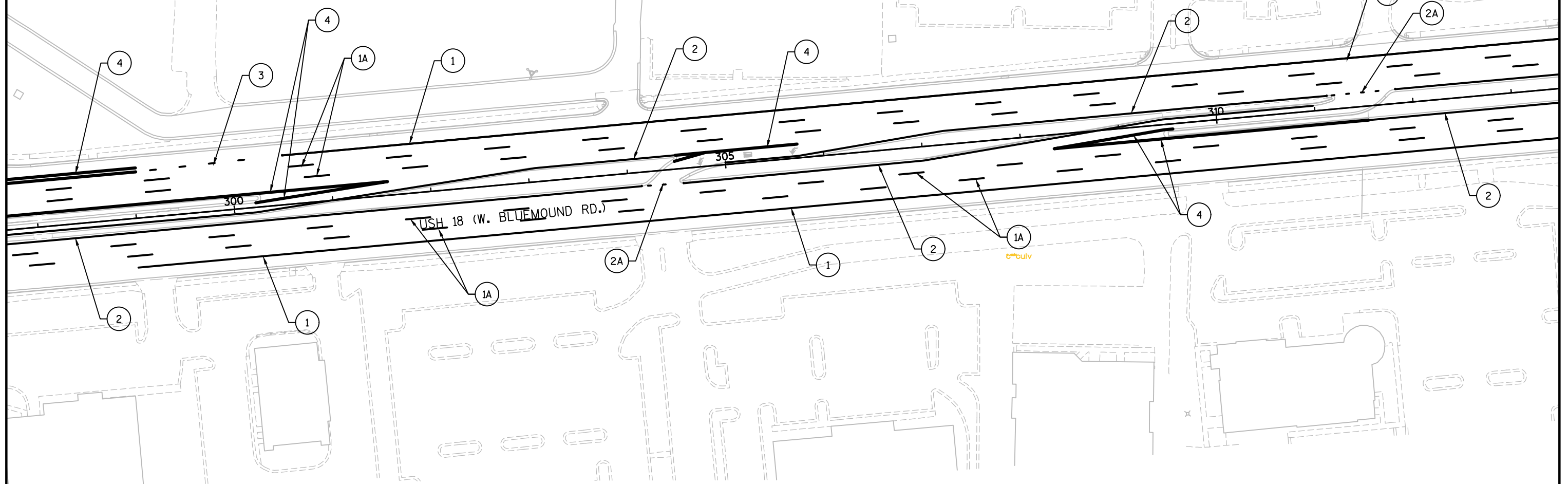
- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)



ITEM #9

LEGEND

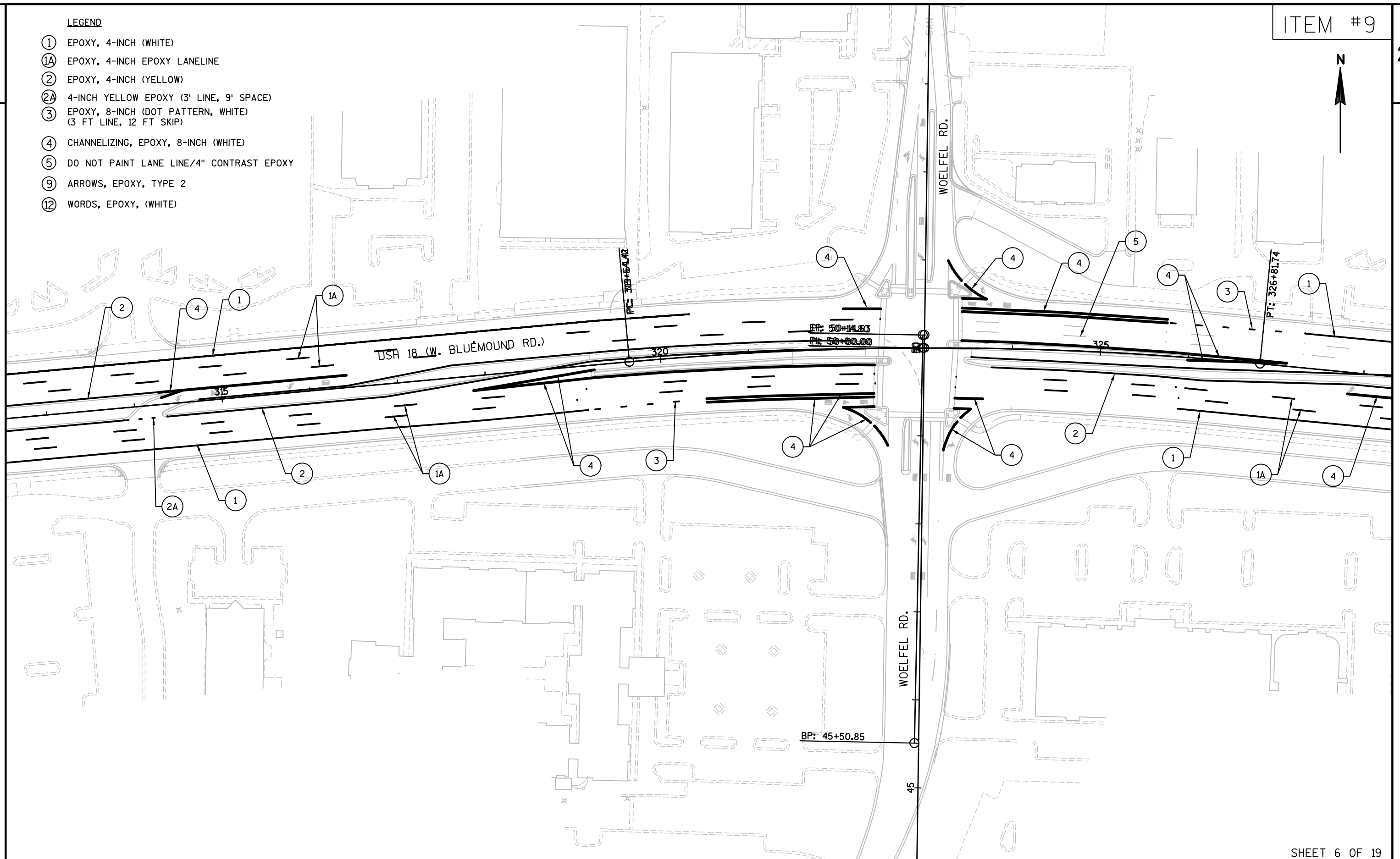
- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)



LEGEND

- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)

ITEM #9



SHEET 6 OF 19

PROJECT NO:1000-77-18

HWY:USH 18

COUNTY:WAUKESHA

PAVEMENT MARKING

SHEET

E

FILE NAME : N:\PDS\PROJECTS\10007718\PLAN_SET\024501_ITEM-109_PM.DWG
LAYOUT NAME - 024506_PM

PLOT DATE : 1/23/2018 7:48 AM

PLOT BY : WAGNER, SCOTT H

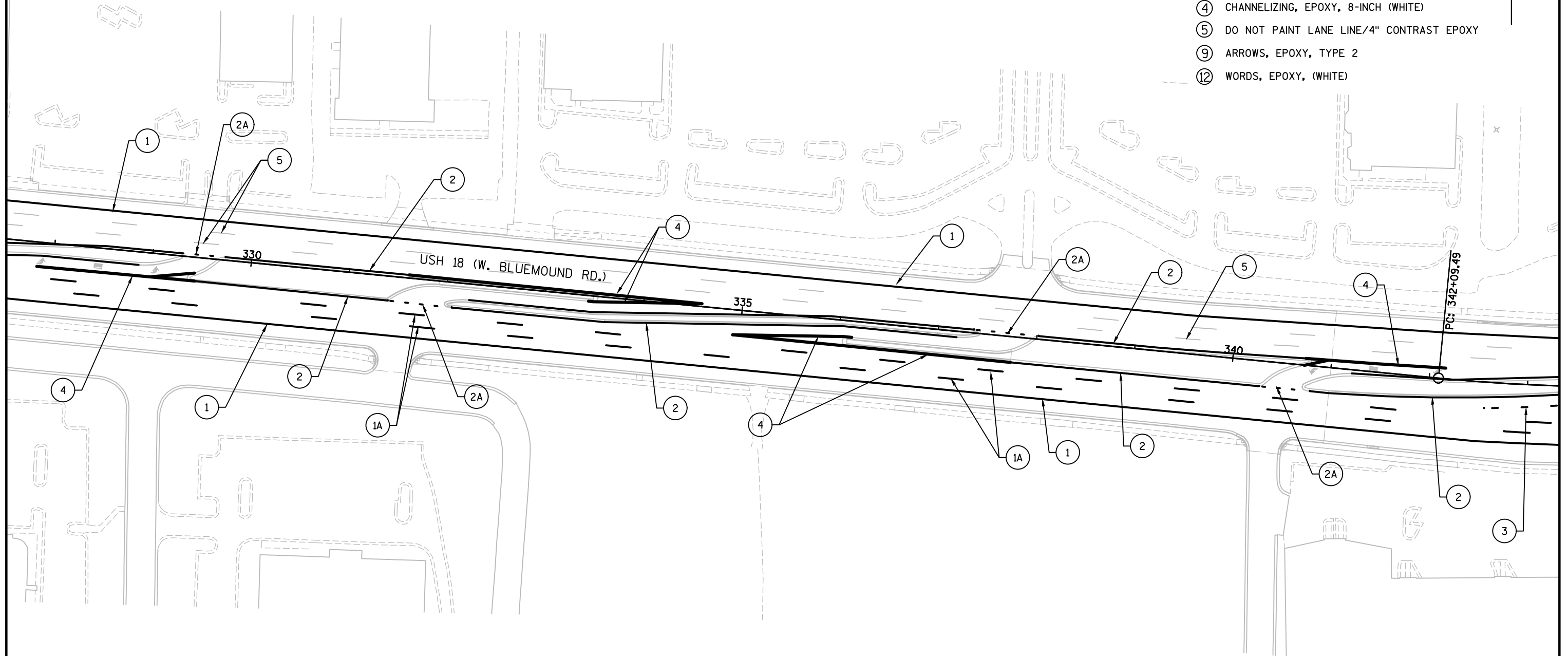
PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDs SHEET 42

LEGEND

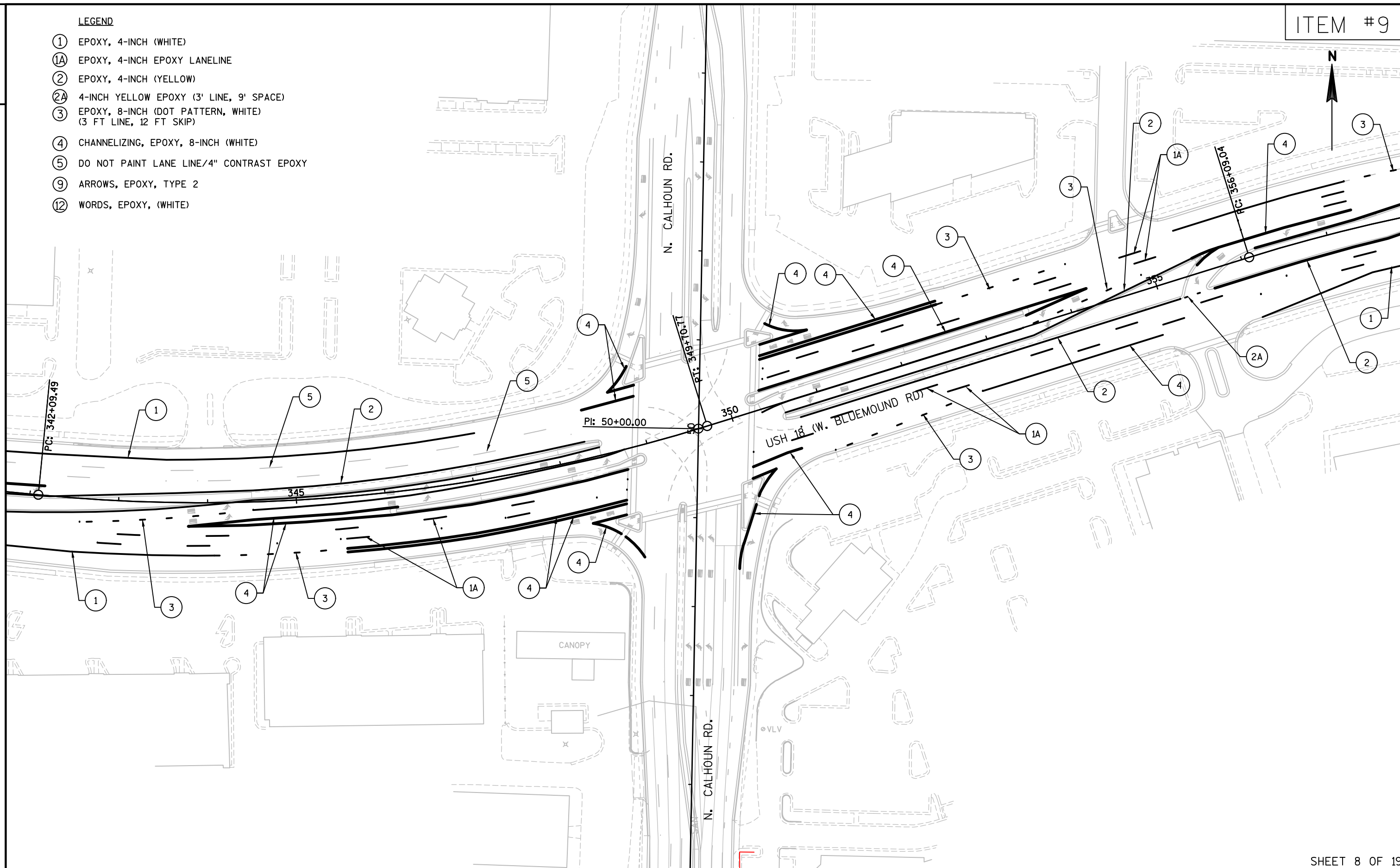
- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)



LEGEND

- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)

ITEM #9



SHEET 8 OF 19

PROJECT NO:1000-77-18

HWY:USH 18

COUNTY:WAUKESHA

PAVEMENT MARKING

SHEET

E

FILE NAME : N:\PDS\PROJECTS\10007718\PLAN_SET\024501_ITEM-109_PM.DWG
LAYOUT NAME - 024508_PM

PLOT DATE : 1/23/2018 7:48 AM

PLOT BY : WAGNER, SCOTT H

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDs SHEET 42

LEGEND

- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)

ITEM #9



SHEET 9 OF 19

PROJECT NO:1000-77-18

HWY:USH 18

COUNTY:WAUKESHA

PAVEMENT MARKING

SHEET

E

FILE NAME : N:\PDS\PROJECTS\10007718\PLAN_SET\024501_ITEM-109_PM.DWG
LAYOUT NAME - 024509_PM

PLOT DATE : 1/23/2018 7:48 AM

PLOT BY : WAGNER, SCOTT H

PLOT NAME :

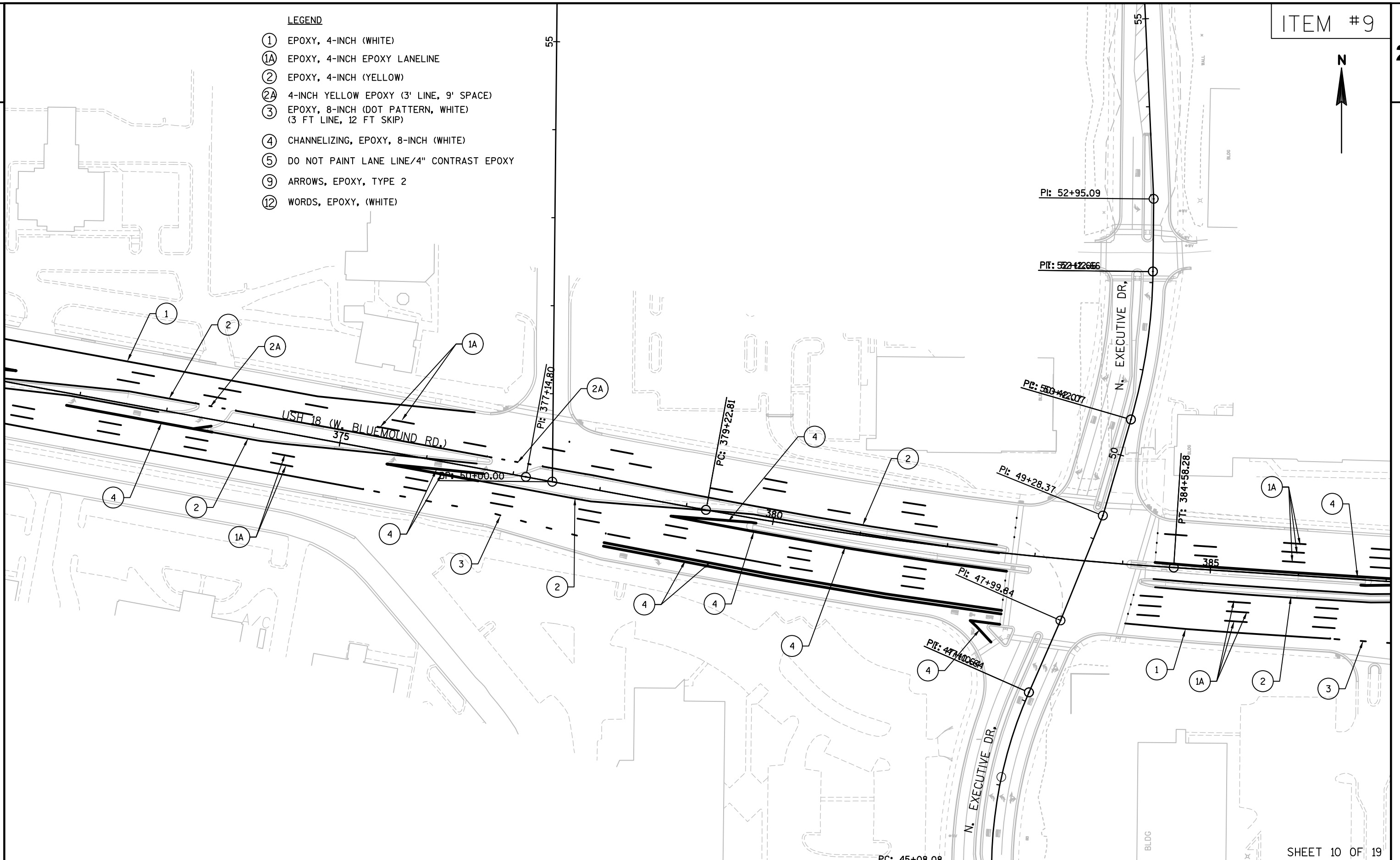
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDs SHEET 42



2

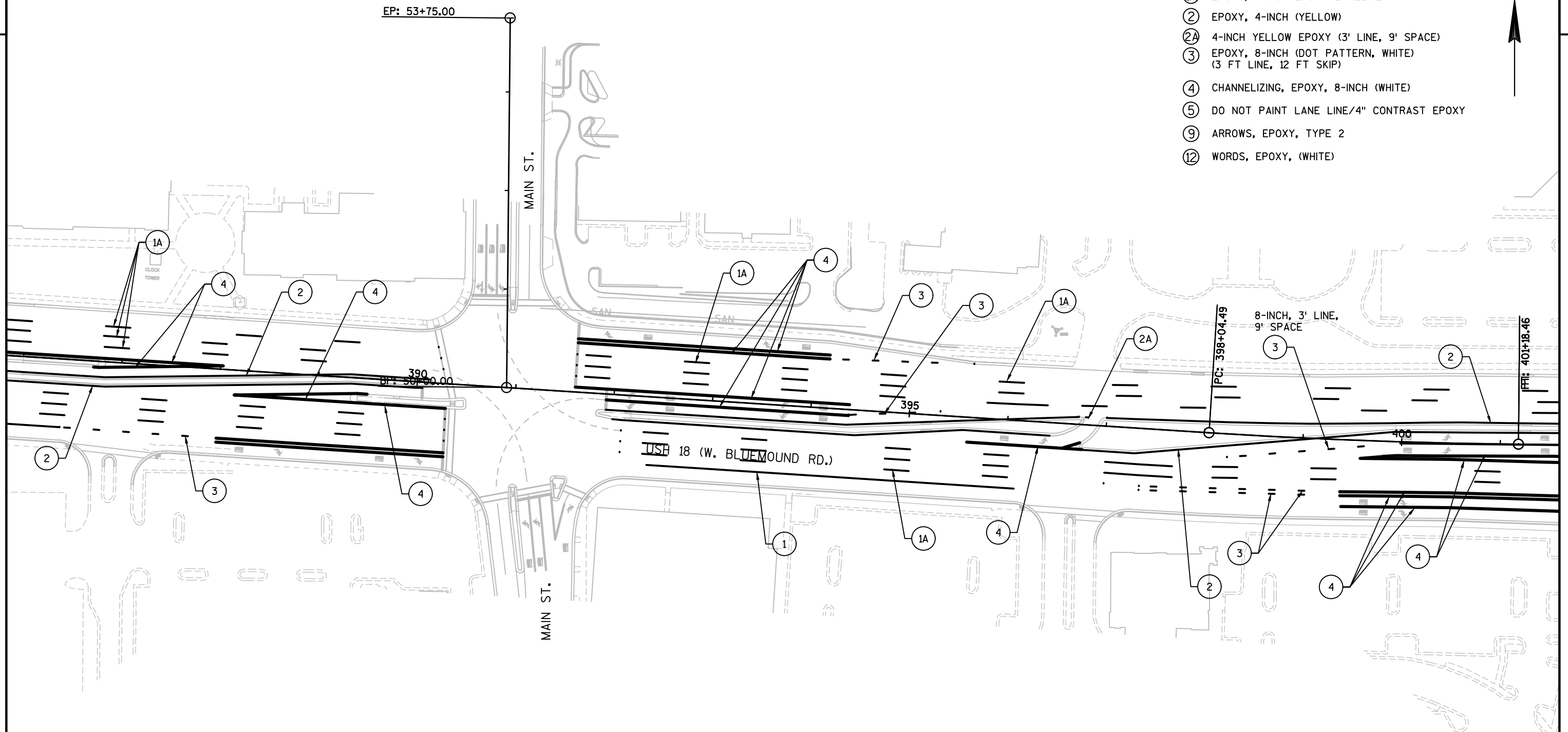
- 55



SHEET 10 OF 19

LEGEND

- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)

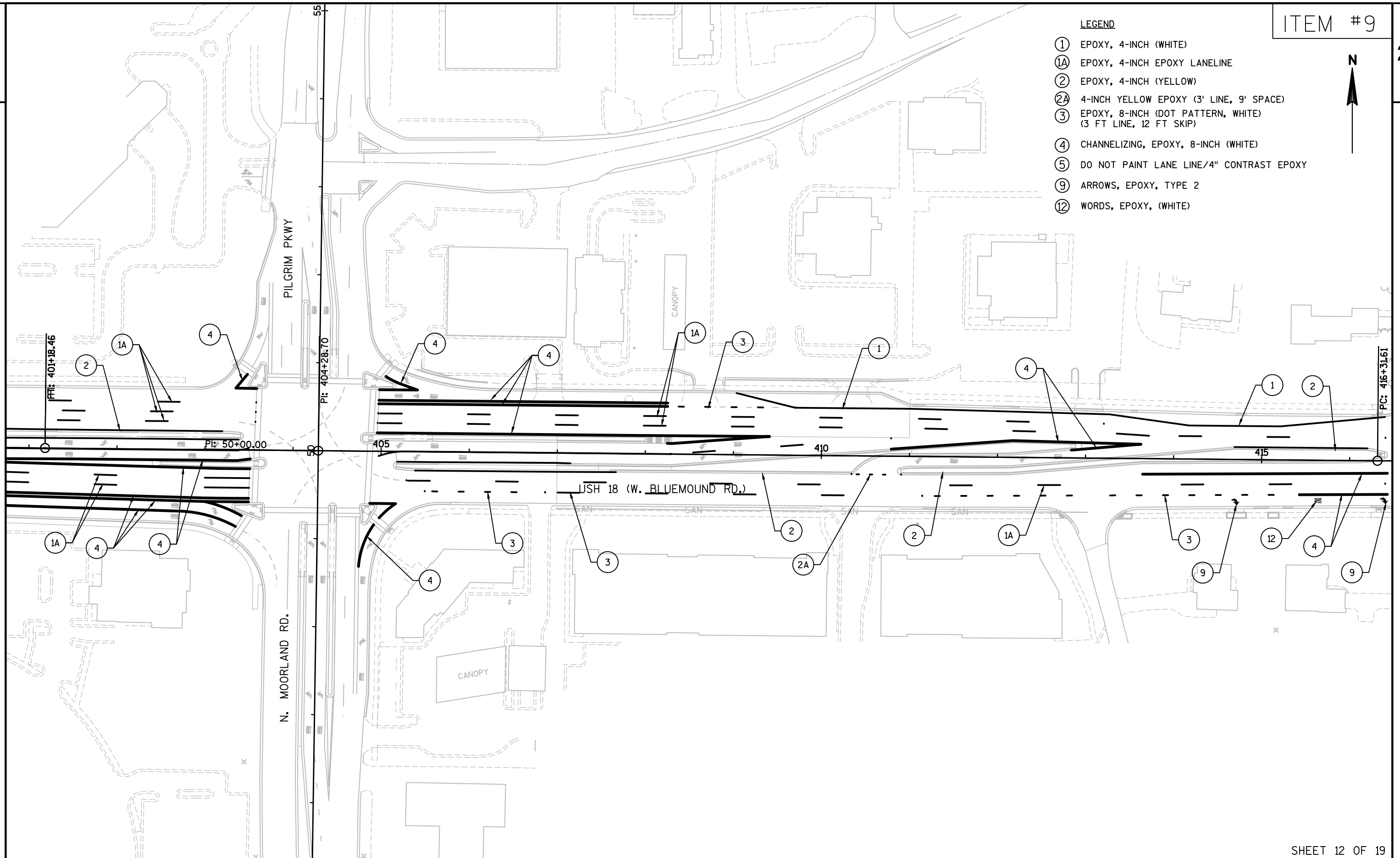


ITEM #9

LEGEND

- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)

N



SHEET 12 OF 19

PROJECT NO:1000-77-18

HWY:USH 18

COUNTY:WAUKESHA

PAVEMENT MARKING

SHEET

E

FILE NAME : N:\PDS\PROJECTS\10007718\PLAN_SET\024501_ITEM-109.PM.DWG
LAYOUT NAME - 024512_PM

PLOT DATE : 1/23/2018 7:49 AM

PLOT BY : WAGNER, SCOTT H

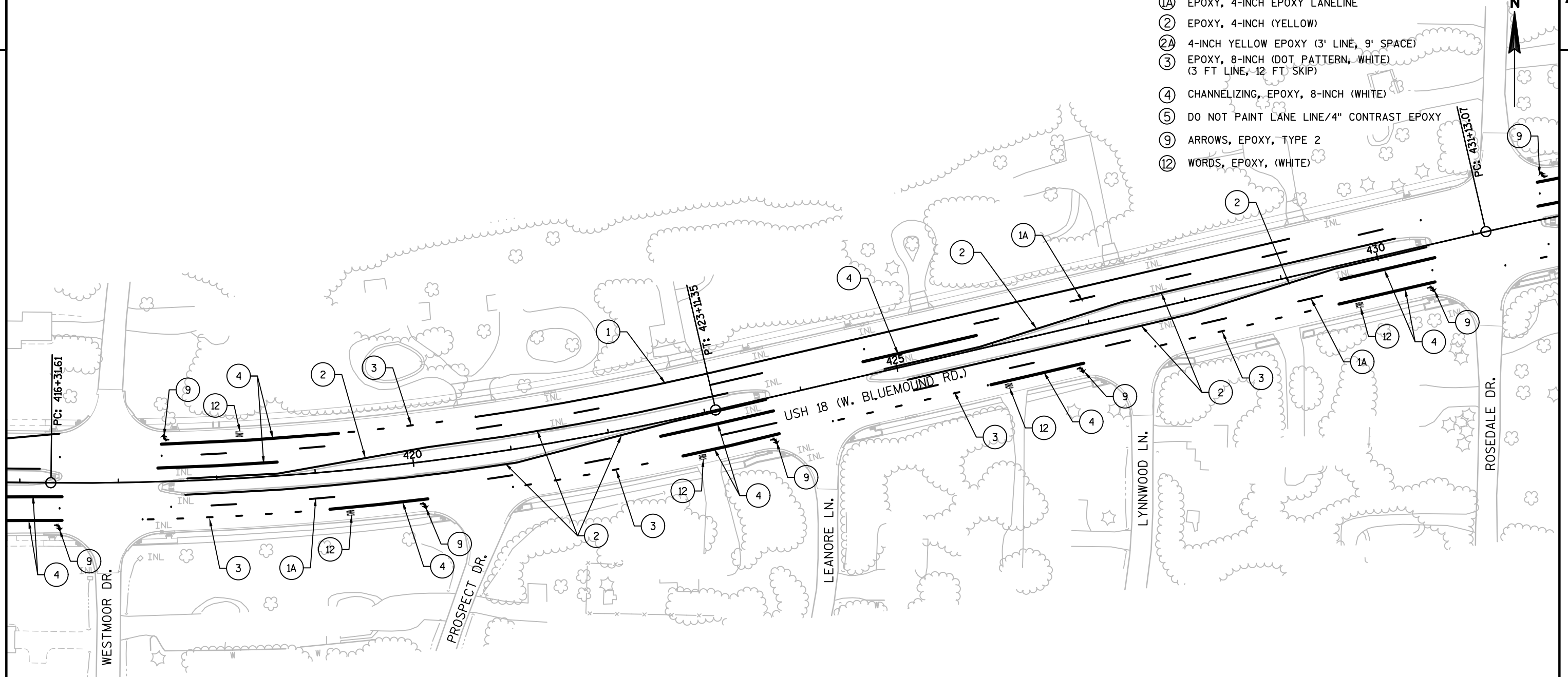
PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDs SHEET 42

LEGEND

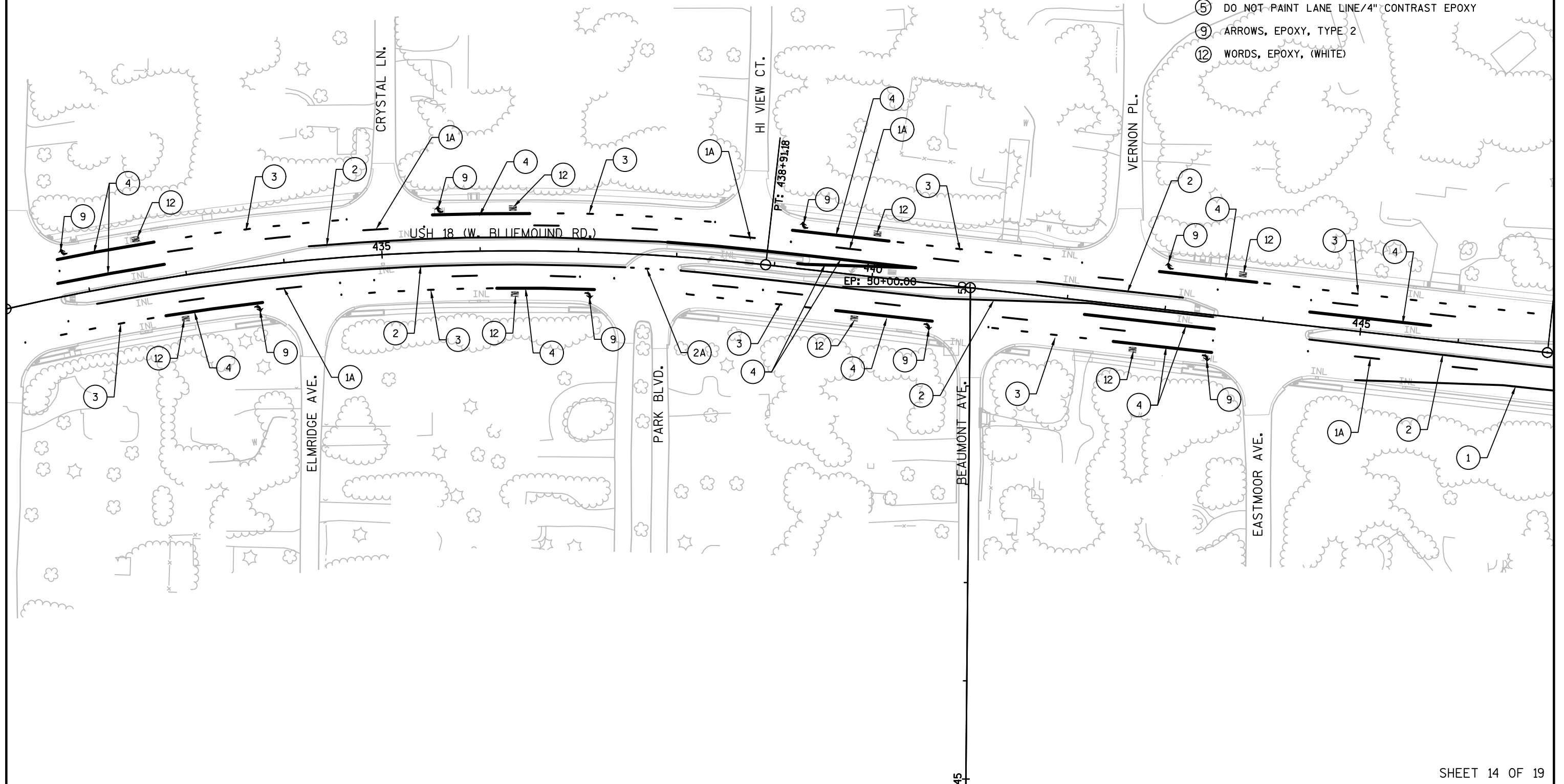
- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)



ITEM #9

LEGEND

- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)



SHEET 14 OF 19

PROJECT NO:1000-77-18

HWY: USH 18

COUNTY: WAUKESHA

PAVEMENT MARKING

SHEET

E

FILE NAME : N:\PDS\PROJECTS\10007718\PLAN_SET\024501-ITEM-109-PM.DWG
LAYOUT NAME - 024514-PM

PLOT DATE : 1/23/2018 7:49 AM

PLOT BY : WAGNER, SCOTT H

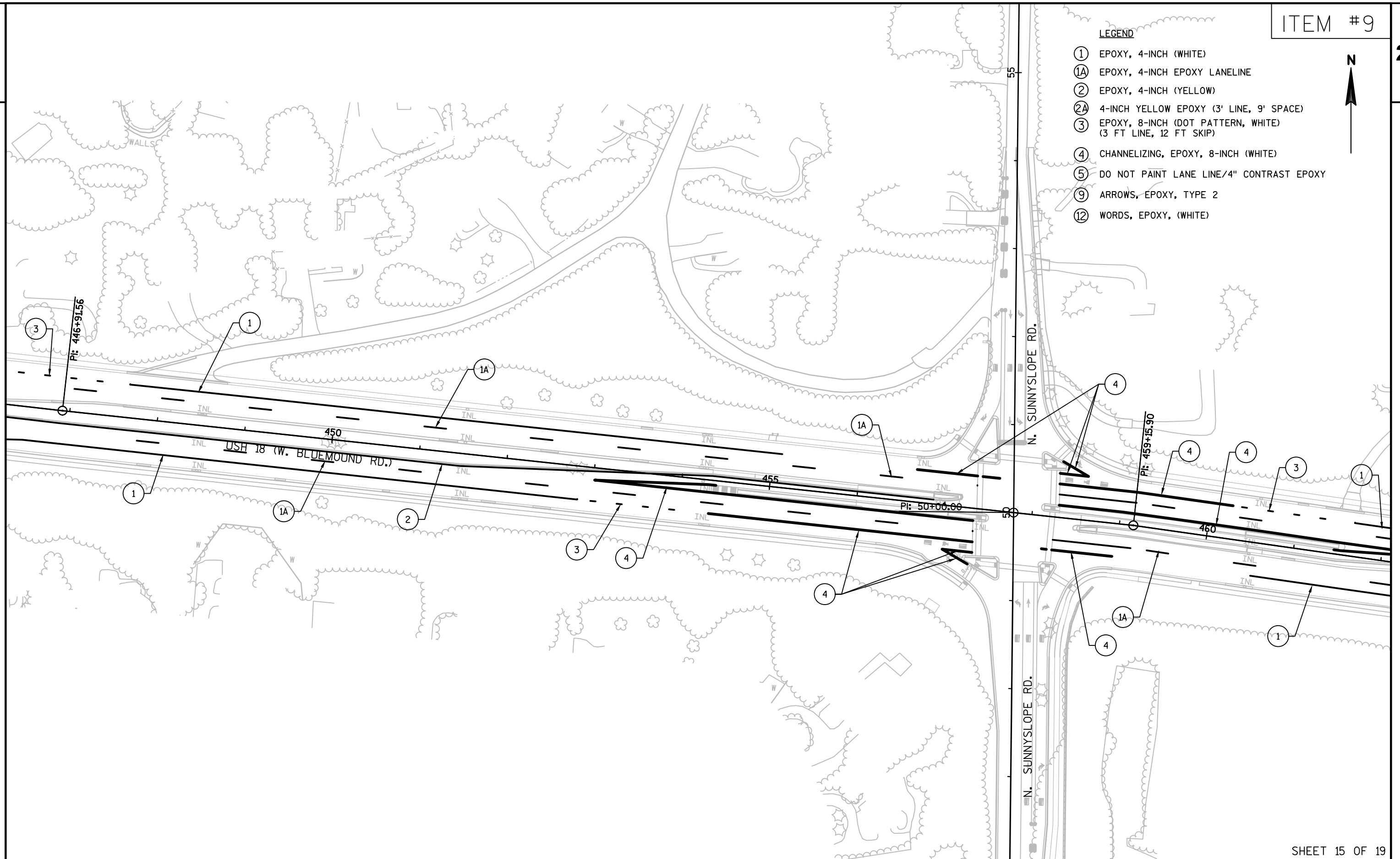
PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDs SHEET 42

LEGEND

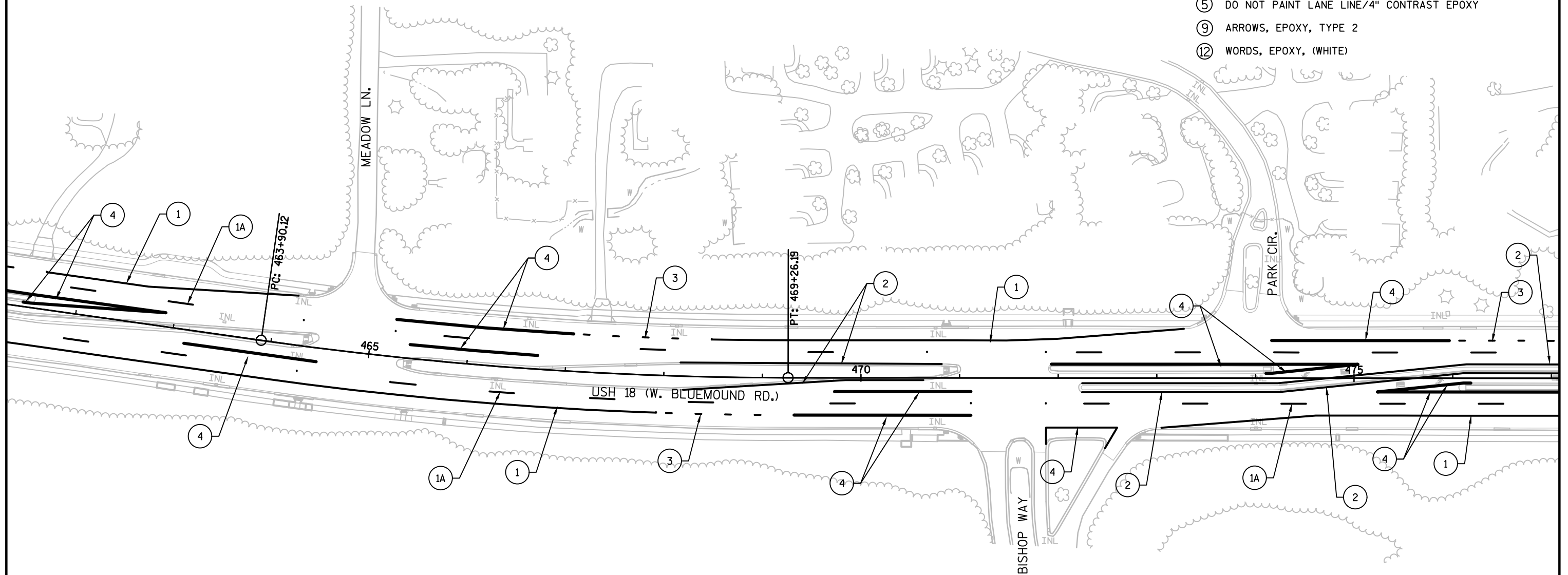
- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)



LEGEND

- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)

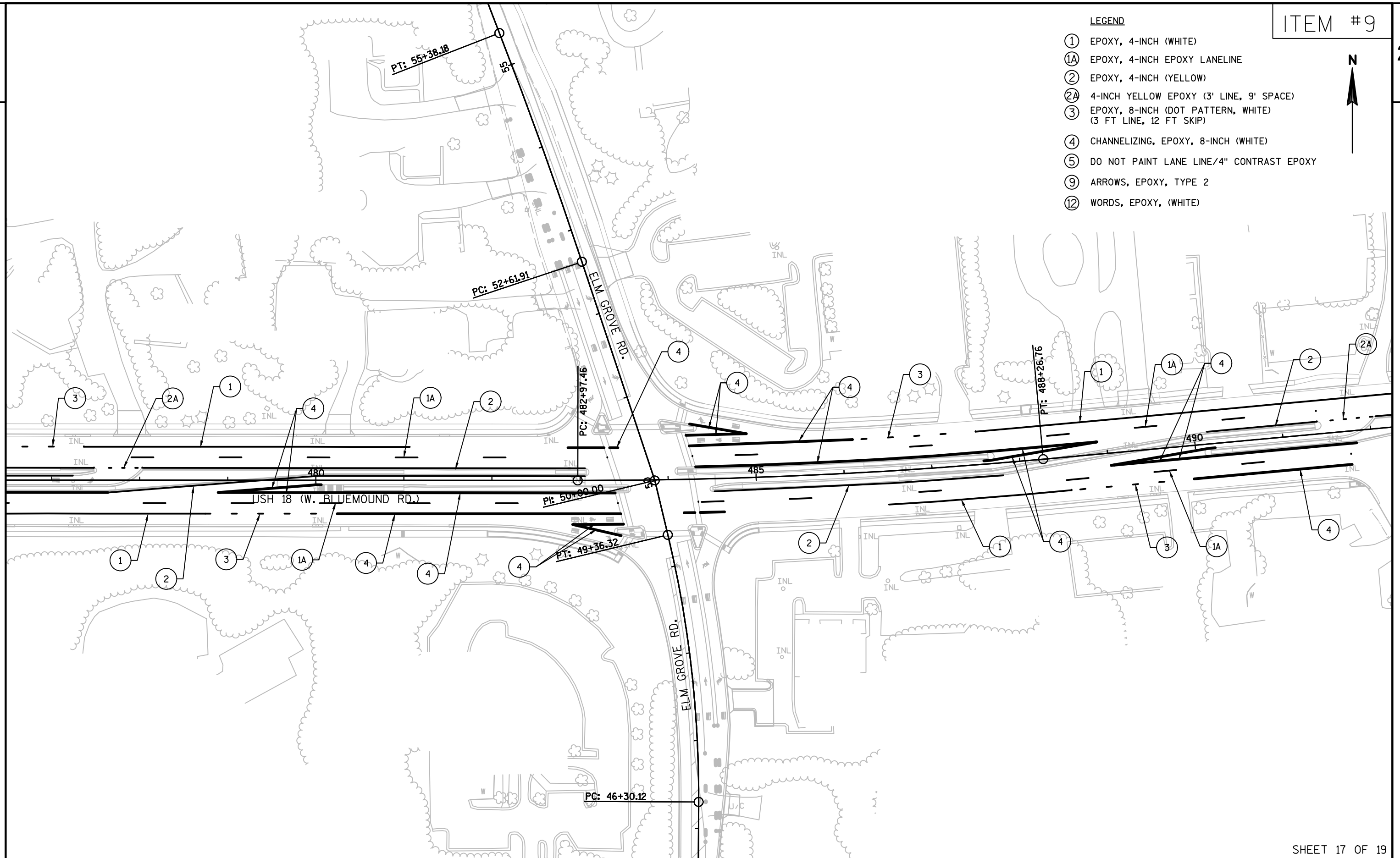
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LEGEND

- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)

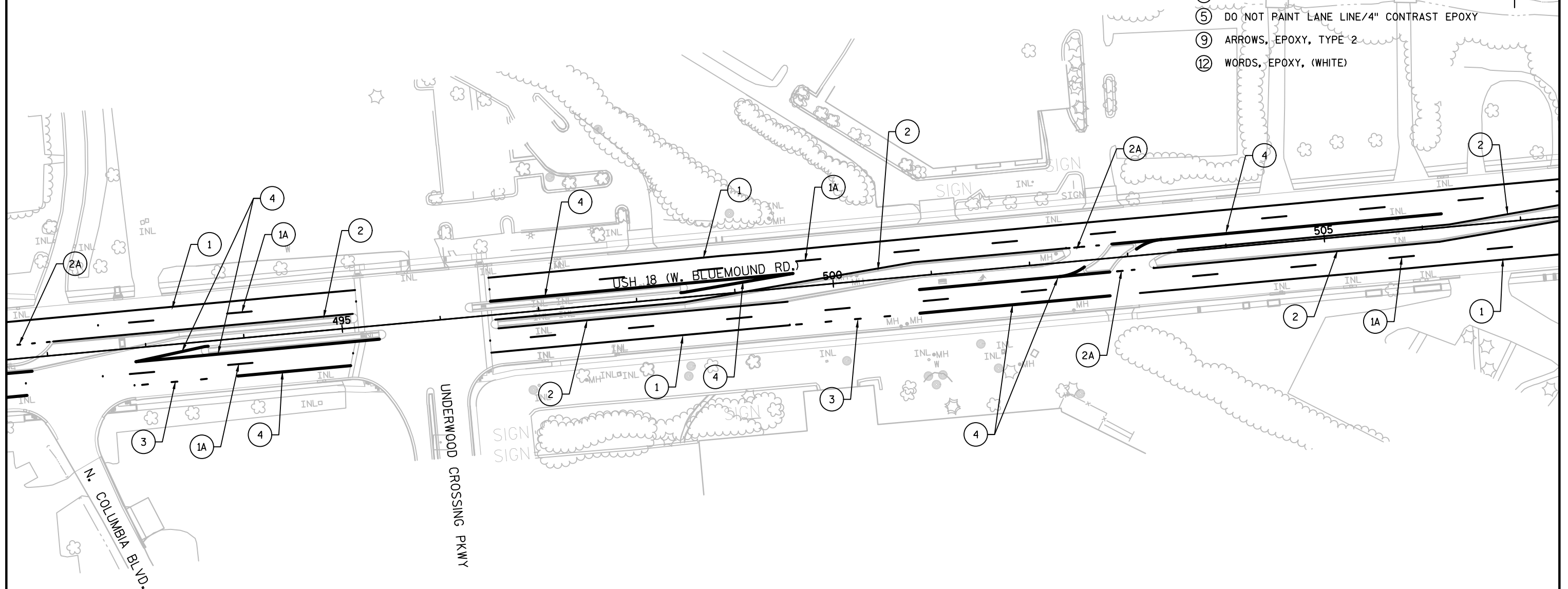
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LEGEND

- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)

N

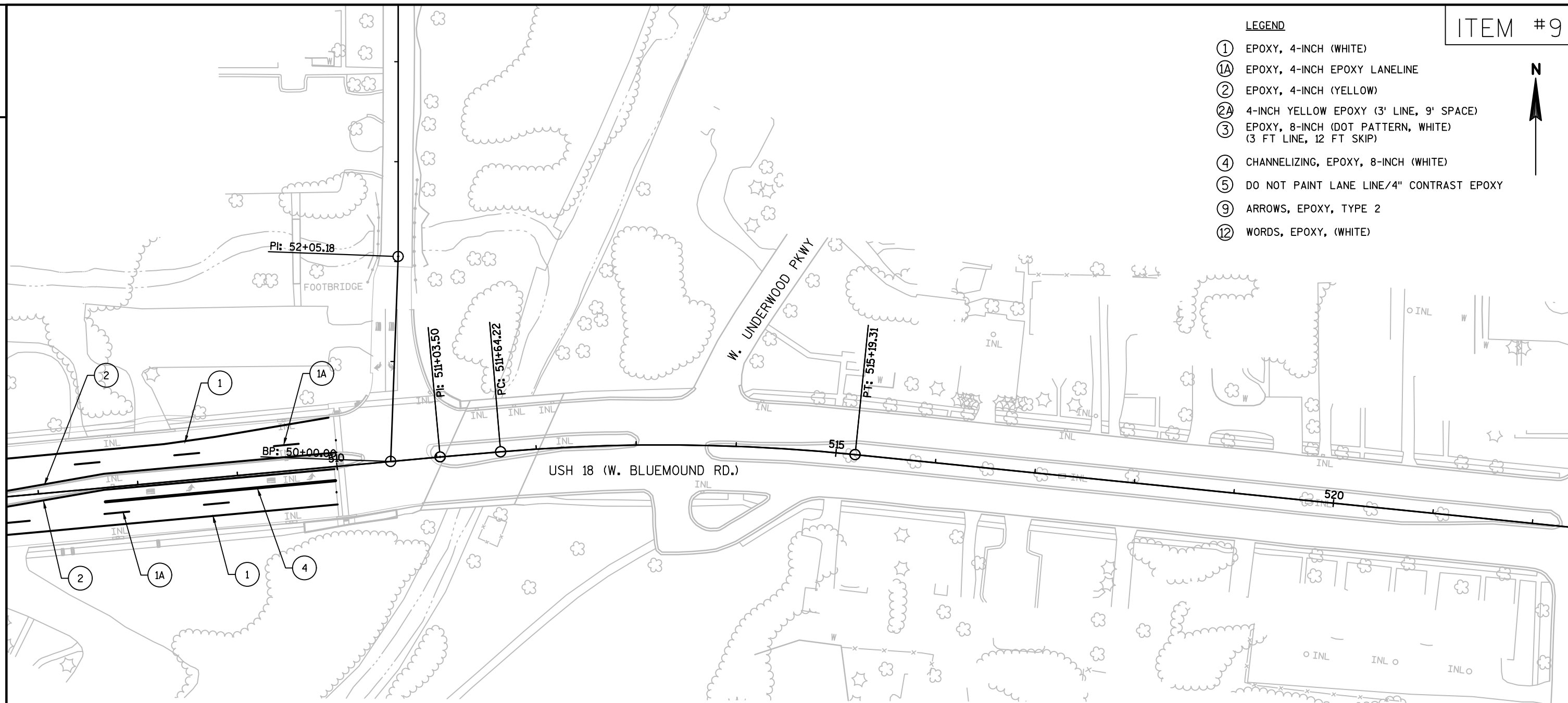


ITEM #9

LEGEND

- ① EPOXY, 4-INCH (WHITE)
- ①A EPOXY, 4-INCH EPOXY LANELINE
- ② EPOXY, 4-INCH (YELLOW)
- ②A 4-INCH YELLOW EPOXY (3' LINE, 9' SPACE)
- ③ EPOXY, 8-INCH (DOT PATTERN, WHITE)
(3 FT LINE, 12 FT SKIP)
- ④ CHANNELIZING, EPOXY, 8-INCH (WHITE)
- ⑤ DO NOT PAINT LANE LINE/4" CONTRAST EPOXY
- ⑨ ARROWS, EPOXY, TYPE 2
- ⑫ WORDS, EPOXY, (WHITE)

N



SHEET 19 OF 19

PROJECT NO:1000-77-18

HWY: USH 18

COUNTY: WAUKESHA

PAVEMENT MARKING

SHEET

E

FILE NAME : N:\PDS\PROJECTS\10007718\PLAN_SET\024501_ITEM-109_PM.DWG
LAYOUT NAME - 024519_PM

PLOT DATE : 1/23/2018 7:50 AM

PLOT BY : WAGNER, SCOTT H

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDs SHEET 42

DETAIL SHEET
ITEM #103



W WISCONSIN AVE

PAVEMENT MARKING, 4-INCH,
SOLID WHITE CONTRAST

PAVEMENT MARKING 4-INCH,
YELLOW CONTRAST
(2' LINE, 6' GAP)

IH 43 SB

IH 43 NB

Estimate Of Quantities

1000-77-18

Line	Item	Item Description	Unit	Total	Qty
0002	619.1000	Mobilization	EACH	1.000	1.000
0004	646.1020	Marking Line Epoxy 4-Inch	LF	2,287,517.000	2,287,517.000
0006	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	250.000	250.000
0008	646.1545	Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	LF	250.000	250.000
0010	646.3020	Marking Line Epoxy 8-Inch	LF	243,752.000	243,752.000
0012	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	250.000	250.000
0014	646.3545	Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	LF	250.000	250.000
0016	646.5020	Marking Arrow Epoxy	EACH	1,281.000	1,281.000
0018	646.5120	Marking Word Epoxy	EACH	721.000	721.000
0020	646.5220	Marking Symbol Epoxy	EACH	43.000	43.000
0022	646.5320	Marking Railroad Crossings Epoxy	EACH	5.000	5.000
0024	646.5420	Marking Aerial Enforcement Bar Epoxy	EACH	540.000	540.000
0026	646.6120	Marking Stop Line Epoxy 18-Inch	LF	14,914.000	14,914.000
0028	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	32.000	32.000
0030	646.6320	Marking Dotted Extension Epoxy 18-Inch	LF	5.000	5.000
0032	646.7120	Marking Diagonal Epoxy 12-Inch	LF	500.000	500.000
0034	646.7220	Marking Chevron Epoxy 24-Inch	LF	750.000	750.000
0036	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	25,165.000	25,165.000
0038	646.7520	Marking Crosswalk Epoxy Ladder Pattern 24-Inch	LF	200.000	200.000
0040	646.8120	Marking Curb Epoxy	LF	10.000	10.000
0042	646.8220	Marking Island Nose Epoxy	EACH	5.000	5.000
0044	646.9000	Marking Removal Line 4-Inch	LF	400.000	400.000
0046	646.9100	Marking Removal Line 8-Inch	LF	500.000	500.000
0048	646.9200	Marking Removal Line Wide	LF	1,500.000	1,500.000
0050	646.9300	Marking Removal Special Marking	EACH	31.000	31.000
0052	SPV.0090	Special 01. Pav.Mrk Contrast Epoxy 4-in	LF	26,601.000	26,601.000
0054	SPV.0090	Special 02. Pav.Mrk Contrast Epoxy 8-in	LF	5,934.000	5,934.000
0056	SPV.0105	Special 01. Traffic Control Project 1000-77-18	LS	1.000	1.000

Epoxy Pavement Marking - 2018 Var. Hwy (1000-77-18) SE Region Wide					646.1020 MARKING LINE EPOXY MAIN LINE Lane line, Edge line, Mini Skips 4-IN L.F.	SPV.0090.01 Pav. Mrkng Epoxy Contrast (white) 4-IN L.F.	646.1040 Marking Line Grooved Wet Contrast (white) 4-IN L.F.	646.1545 Marking Line Grooved Wet Ref Contrast Epoxy 4-IN L.F.	646.9000 Marking Removal line 4-IN L.F.	646.7420 Marking Cross Walk Epoxy Transverse Line 6-IN L.F.	646.3020 MARKING LINE EPOXY Gore, Channelizing 8-IN L.F.	SPV.0090.02 Pav. Mrkng Epoxy Contrast (white) 8-IN L.F.	646.3040 Marking Line Grooved Wet Contrast (white) 8-IN L.F.	646.3545 Marking Line Grooved Wet Ref Contrast Epoxy 8-IN L.F.	646.9100 Marking Removal line 8-IN L.F.	646.7120 Marking Diagonal Epoxy 12-IN L.F.	646.9200 Marking Removal line Wide -- L.F.	646.7220 Marking CHEVRONS Epoxy 24-IN L.F.	646.6220 Marking Yield line Epoxy 18-IN L.F.	646.6120 Marking Stop Line Epoxy 18-IN L.F.	646.6320 Marking Dotted Extnsn Epoxy 18-IN EA.	646.5420 Marking Aerial Enforcement Bar Epoxy L.F.	646.7520 Mrkng Crosswalk Epoxy Ladder Pattern 24-IN L.F.	646.5020 Marking Arrow Epoxy EA.	646.5220 Marking Symbols Epoxy EA.	646.5120 Marking Word Epoxy EA.	646.9300 Marking Removal Special Marking EA.	646.8120 Marking Curb Epoxy L.F.	646.8220 Marking Island Nose Epoxy EA.	646.5320 Marking Railroad Crossings Epoxy E.A.	
SUMMARY																															
Item #	County	HWY	Miles	LOCATION																											
1	KENO.	STH 50	18.2	W. FRONTAGE RD near I94 TO WALW./KENO. CO.LINE	384384	0	0	0	0	3850	28220	0	0	0	0	0	0	0	0	1832	0	0	0	118	0	95	0	0	0	0	
2	KENO.	STH 31	7.2	CTH KR (KENO. / RAC. CO. LINE) TO STH 50 (75TH ST)	161568	0	0	0	0	3400	24880	360	0	0	0	0	0	0	0	1877	0	0	0	133	0	111	0	0	0	0	
3A,B			4.34	700' West of Ives Groves Rd to W Frontage Rd near I 94	29044	0	0	0	0	1325	8100	240	0	0	0	0	0	0	0	1495	0	0	0	98	0	83	0	0	0	0	
3A	RAC.	STH 20		1000' East of CTH H to STH 31 (green Bay Rd)																											
3B	RAC.	STH 20																													
4	OZ.	STH 57	10.2	IH 43 TO OZ / SHEBOYGAN CO. LINE	242352	0	0	0	0	0	15200	0	0	0	0	0	0	0	0	487	0	0	0	42	0	42	0	0	0	0	
5	Milw.	STH 100 (108th St) / US 45	6.6	IH 94 to CTH ZZ (W College Ave)	18160	0	0	0	0	9580	21845	0	0	0	0	0	0	0	0	3016	0	0	0	136	0	108	0	0	0	0	
6	RAC.	STH 38	2.1	CTH K to CTH MM	49896	0	0	0	0	0	7370	120	0	0	0	0	0	0	0	804	0	0	0	42	0	31	0	0	0	0	
7	RAC.	STH 32	2.13	25th st. to CTH KR (RAC./KENO. CO.LINE)	50608	0	0	0	0	575	6225	120	0	0	0	0	0	0	0	417	0	0	0	32	0	29	0	0	0	0	
8	WASH.	Sth 60	8.3	CTH P (OLD US HWY 45) TO HIGH RD (Skip between Ramps)	177896	0	0	0	0	980	10125	0	0	0	0	0	0	0	0	1140	0	0	0	127	0	76	0	0	0	0	
9	Wauk	USH 18	5.13	CTH Y (BARKER RD) TO 124 ST (WAUK/MILW CO.LINE)	7014	21331	0	0	0	0	27086	0	0	0	0	0	0	0	0	0	0	0	15	0	14	0	0	0	0		
10	KENO.	STH 158	3.5	E. FRONTAGE RD (Intersection) near I94 TO W OF STH 31 (GREENBAY RD)	58180	0	0	0	0	0	1100	0	0	0	0	0	0	0	0	84	0	0	0	8	0	6	0	0	0	0	
11	WAUK	STH 83	5.15	300' SO. OF CTH NN TO .15 MI. N OF HOLIDAY RD	101476	0	0	0	0	840	2187	40	0	0	0	0	0	0	0	176	0	0	0	10	0	8	0	0	0	0	
TOTALS					1280578	21331	0	0	0	20550	152338	880	0	0	0	0	0	0	0	11328	0	0	0	761	0	603	0	0	0	0	

Epoxy Pavement Marking - 2018 Var. Hwy (1000-77-18) SE Region Wide			646.1020 MARKING LINE EPOXY MAIN LINE Lane line, Edge line, Mini Skips 4-IN L.F.	SPV.0090.01 Pav. Mrkng Epoxy Contrast (white) 4-IN L.F.	646.1040 Marking Line Grooved Wet Contrast (white) 4-IN L.F.	646.1545 Marking Line Grooved Wet Ref Contrast Epoxy 4-IN L.F.	646.9000 Marking Removal line 4-IN L.F.	646.7420 Marking Cross Walk Epoxy Transverse Line 6-IN L.F.	646.3020 MARKING LINE EPOXY Gore, Channelizing 8-IN L.F.	SPV.0090.02 Pav. Mrkng Epoxy Contrast (white) 8-IN L.F.	646.3040 Marking Line Grooved Wet Contrast (white) 8-IN L.F.	646.3545 Marking Line Grooved Wet Ref Contrast Epoxy 8-IN L.F.	646.9100 Marking Removal line 8-IN L.F.	646.7120 Marking Diagonal Epoxy 12-IN L.F.	646.9200 Marking Removal line Wide -- L.F.	646.7220 Marking CHEVRONS Epoxy 24-IN L.F.	646.6220 Marking Yield line Epoxy 18-IN L.F.	646.6120 Marking Stop Line Epoxy 18-IN L.F.	646.6320 Marking Dotted Extnsn Epoxy 18-IN EA.	646.5420 Marking Aerial Enforcement Bar Epoxy L.F.	646.7520 Mrkng Crosswalk Epoxy Ladder Pattern 24-IN L.F.	646.5020 Marking Arrow Epoxy EA.	646.5220 Marking Symbols Epoxy EA.	646.5120 Marking Word Epoxy EA.	646.9300 Marking Removal Special Marking EA.	646.8120 Marking Curb Epoxy L.F.	646.8220 Marking Island Nose Epoxy EA.	646.5320 Marking Railroad Crossings Epoxy E.A.
FINAL SUMMARY:																												
MULTI- LANE (Items 1 - 10) MILE(S) 72.85			1360578213310002055015233888000																									

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SHEET: 5 OF 28

PROJECT NO:1000-77-18

HWY:VARIOUS

COUNTY:VARIOUS

MISCELLANEOUS QUANTITIES

(FOR INFORMATION ONLY)

SHEET:

E

3

Epoxy Pavement Marking - 2018				INFORMATION ONLY		646.1020	SPV.0090.01	646.1040	646.1545	646.9000	646.7420	646.3020	SPV.0090.02	646.3040	646.3545	646.9100	646.7120	646.9200	646.7220	646.6220	646.6120	646.6320	646.5420	646.7520	646.5020								646.5220	646.5120	646.9300	646.8120	646.8220	646.5320
Var. Hwy (1000-77-18) SE Region Wide						MARKING LINE EPOXY MAIN LINE Lane line, Edge line, Mini Skips	Pav. Mrlng Epoxy Contrast (white)	Marking Line Grooved Wet Contrast (white)	Marking Line Grooved Wet Ref Contrast Epoxy	Marking Removal line 4 - IN	Marking Cross Walk Epoxy Transverse Line 6-IN	MARKING LINE EPOXY Gore, Channelizing 8-IN	Pav. Mrlng Epoxy Contrast (white)	Marking Line Grooved Wet Contrast (white)	Marking Line Grooved Wet Ref Contrast Epoxy	Marking Removal line 8-IN	Marking Diagonal Epoxy 12-IN	Marking Removal line Wide --	Marking CHEVRONS Epoxy 24-IN	Marking Yield line Epoxy 18-IN	Marking Stop Line Epoxy 18-IN	Marking Dotted Extnsn Epoxy 18-IN	Marking Aerial Enforcement Bar Epoxy L.F.	Mrlng Crosswalk Epoxy Ladder Pattern 24-IN	Marking Arrow Epoxy TYPE 1TYPE 2TYPE 3TYPE 4TYPE 5TYPE 2RTYPE 3RTYPE 7R								Marking Symbols Epoxy EA.	Marking Word Epoxy EA.	Marking Removal Special Marking EA.	Marking Curb Epoxy L.F.	Marking Island Nose Epoxy EA.	Marking Railroad Crossings Epoxy E.A.
SUMMARY				REMARKS / COMMENTS																																		
Item #	County	HWY	Miles	LOCATION																																		
4	OZ.	STH 57	10.2	IH 43 TO OZ / SHEBOYGAN CO. LINE		242352						2500																										
				Auailiary Lane Line & Ramps Interchanges / or Intersections;																																		
				STH 57 /IH 43 (ON /OFF -SPLIT RAMPS)																																		
				COUNTY HWY W		400													12										2				2					
				WILLOW RD		400													15										2				2					
				HAWTHORNE DR		800													50										4				4					
				BEECH LN		400													15										2				2					
				MEADOWLARK RD		800													50										4				4					
				CTH H		5500													132										6				6					
				MARTIN DR		400													24										2				2					
				AIRPORT RD		400													15										2				2					
				WILLOW VALLEY RD		400													24										2				2					
				CTH D (BELGIUM KOHLER RD)		800													36										4				4					
				HICKORY GROVE RD		800													36										4				4					
				JAY RD		800													30										4				4					
				CTH K (OZ. CO. LINE)		800													48										4				4					
						0 42 0 0 0 0 0 0																																
4	OZ.	STH 57	10.2	IH 43 TO OZ / SHEBOYGAN CO. LINE		242352	0	0	0	0	0	15200	0	0	0	0	0	0	0	0	487	0	0	0	42				0	42	0	0	0	0	0			
SHEET: 6 OF 28																																						
PROJECT NO:1000-77-18				HWY:VARIOUS				COUNTY:VARIOUS				MISCELLANEOUS QUANTITIES											(FOR INFORMATION ONLY)								SHEET:				E			

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Epoxy Pavement Marking - 2018 Var. Hwy (1000-77-18) SE Region Wide					INFORMATION ONLY	646.1020 MARKING LINE EPOXY MAIN LINE Lane line, Edge line, Mini Skips 4-IN L.F.	SPV.0090.01 Pav. Mrking Epoxy Contrast (white) 4-IN L.F.	646.1040 Marking Line Grooved Wet Contrast (white) 4-IN L.F.	646.1545 Marking Line Grooved Wet Ref Contrast Epoxy 4-IN L.F.	646.9000 Marking Removal line 4 - IN L.F.	646.7420 Marking Cross Walk Epoxy Transverse Line 6-IN L.F.	646.3020 MARKING LINE EPOXY Gore, Channelizing 8-IN L.F.	SPV.0090.02 Pav. Mrking Epoxy Contrast (white) 8-IN L.F.	646.3040 Marking Line Grooved Wet Contrast (white) 8-IN L.F.	646.3545 Marking Line Grooved Wet Ref Contrast Epoxy 8-IN L.F.	646.9100 Marking Removal line 8-IN L.F.	646.7120 Marking Diagonal Epoxy 12-IN L.F.	646.9200 Marking Removal line Wide -- L.F.	646.7220 Marking CHEVRONS Epoxy 24-IN L.F.	646.6220 Marking Yield line Epoxy 18-IN L.F.	646.6120 Marking Stop Line Epoxy 18-IN L.F.	646.6320 Marking Dotted Extnsn Epoxy 18-IN EA.	646.5420 Marking Aerial Enforcement Bar Epoxy L.F.	646.7520 Mrking Crosswalk Epoxy Ladder Pattern 24-IN L.F.	646.5020 Marking Arrow Epoxy TYPE 1TYPE 2TYPE 3TYPE 4TYPE 5TYPE 2RTYPE 3RTYPE 7RTYPE 7L								646.5220 Marking Symbols Epoxy EA.	646.5120 Marking Word Epoxy EA.	646.9900 Marking Removal Special Marking EA.	646.8120 Marking Curb Epoxy L.F.	646.8220 Marking Island Nose Epoxy EA.	646.5320 Marking Railroad Crossings Epoxy EA.																			
SUMMARY					REMARKS / COMMENTS																																																				
Item #	County	HWY	Miles			LOCATION																																																			
5	Milw.	STH 100 (108th St) / US 45	6.6		IH 94 to CTH ZZ (W College Ave)	LANE LINE																										18160																									
Auailiary Lane Line & Ramps Interchanges / or Intersections;																																																									
					SERVICE RD (COLDERS)																										15																										
					2ND SERVICE RD																										100																										
					W THEODORE TRECKER WAY																										400375120313																										
					W WALKER ST																										10020																										
					W WASHINGTON ST																										5602403622																										
					W MADISON ST																										80100181																										
					W GREENFIELD AVE																										900350027616																										
					W ORCHARD ST																										765012																										
					W LAPHAM ST																										280335482																										
					W MITCHELL ST																										75150151																										
					W MITCHELL ST (WESTSIDE)																										75100151																										
					W MANOR PARK DR																										7510015																										
					W ROGERS ST																										125200302																										
					BECHER ST																										125150302																										
					W GRANT ST																										125175302																										
					W LINCOLN AVE																										90010001924																										
					W HAYES AVE																										1257530																										
					W ARTHUR AVE																										300600722																										
					W CLEVELAND AVE																										80012001924																										
					W NATIONAL AVE																										1200250019212																										
					W DAKOTA ST																										300400302																										
					W OKLAHOMA AVE																										80012002168																										
					S WOLLMER RD																										50100151																										
					W MORGAN AVE																										12522548313																										
					W PALLOTTINE DR																										407512																										
					W BELOIT RD (OMIT MARKINGS)																																																				
					W HOWARD AVE (OMIT MARKINGS)																																																				
W COLD SPRING RD																										6507001445																															
S 110TH ST																										1221																															

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Epoxy Pavement Marking - 2018 Var. Hwy (1000-77-18) SE Region Wide					INFORMATION ONLY	646.1020 MARKING LINE EPOXY MAIN LINE Lane line, Edge line, Mini Skips	SPV.0090.01 Pav. Mking Epoxy Contrast (white) 4-IN L.F.	646.1040 Marking Line Grooved Wet Contrast (white) 4-IN L.F.	646.1545 Marking Line Grooved Wet Ref Contrast Epoxy 4-IN L.F.	646.9000 Marking Removal line 4-IN L.F.	646.7420 Marking Cross Walk Epoxy Transverse Line 6-IN L.F.	646.3020 MARKING LINE EPOXY Gore, Channelizing 8-IN L.F.	SPV.0090.02 Pav. Mking Epoxy Contrast (white) 8-IN L.F.	646.3040 Marking Line Grooved Wet Contrast (white) 8-IN L.F.	646.3545 Marking Line Grooved Wet Ref Contrast Epoxy 8-IN L.F.	646.9100 Marking Removal line 8-IN L.F.	646.7120 Marking Diagonal Epoxy 12-IN L.F.	646.9200 Marking Removal line Wide L.F.	646.7220 Marking CHEVRONS Epoxy 24-IN L.F.	646.6220 Marking Yield line Epoxy 18-IN L.F.	646.6120 Marking Stop Line Epoxy 18-IN L.F.	646.6320 Marking Dotted Extnsn Epoxy 18-IN EA.	646.5420 Marking Aerial Enforcement Bar Epoxy L.F.	646.7520 Mking Crosswalk Epoxy Ladder Pattern 24-IN L.F.	646.5020 Marking Arrow Epoxy TYPE 1 EA.								TYPE 2 EA.	TYPE 3 EA.	TYPE 4 EA.	TYPE 5 EA.	TYPE 2R EA.	TYPE 3R EA.	TYPE 7R EA.	646.5120 Marking Symbols Epoxy EA.	646.9300 Marking Word Removal Special Marking EA.	646.8120 Marking Curb Epoxy L.F.	646.8220 Marking Island Nose Epoxy EA.	646.5320 Marking Railroad Crossings Epoxy EA.
SUMMARY					REMARKS / COMMENTS																																							
Item #	County	HWY	Miles	LOCATION																																								
7	RAC.	STH 32	2.13	25th st. to CTH KR (RAC./KENO. CO.LINE)		50608						1000																																
					Auailary Lane Line & Ramps Interchanges / or Intersections;																																							
					25TH ST																																							
					STH 11 (DURAND AVE)																																							
					LARSON ST																																							
					CHICORY RD																																							
					SHERIDAN RD																																							
					MACEMON RD																																							
					HANSCHERD																																							
					EDGEWATER DR																																							
					COUNTY LINE RD (1ST STREET)																																							
						0 32 0 0 0 0 0 0																																						
7	RAC.	STH 32	2.13	25th st. to CTH KR (RAC./KENO. CO.LINE)	Totals	50608	0	0	0	0	575	6225	120	0	0	0	0	0	0	0	417	0	0	0	32								0	29	0	0	0	0						

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PROJECT NO:1000-77-18	HWY:VARIOUS	COUNTY:VARIOUS	MISCELLANEOUS QUANTITIES	(FOR INFORMATION ONLY)	SHEET:	E
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Epoxy Pavement Marking - 2018 Var. Hwy (1000-77-18) SE Region Wide					INFORMATION ONLY	646.1020 MARKING LINE EPOXY MAIN LINE Lane line, Edge line, Mini Skips	SPV.0090.01 Pav. Mking Epoxy Contrast (white)	646.1040 Marking Line Grooved Wet Contrast (white)	646.1545 Marking Line Grooved Wet Ref Contrast Epoxy	646.9000 Marking Removal line	646.7420 Marking Cross Walk Epoxy Transverse Line	646.3020 MARKING LINE EPOXY Gore, Channelizing	SPV.0090.02 Pav. Mking Epoxy Contrast (white)	646.3040 Marking Line Grooved Wet Contrast (white)	646.3545 Marking Line Grooved Wet Ref Contrast Epoxy	646.9100 Marking Removal line	646.7120 Marking Diagonal Epoxy	646.9200 Marking Removal line Wide	646.7220 Marking CHEVRONS Epoxy	646.6220 Marking Yield line Epoxy	646.6120 Marking Stop Line Epoxy	646.6320 Marking Dotted Extnsn Epoxy	646.5420 Marking Aerial Enforcement Bar Epoxy	646.7520 Mking Crosswalk Epoxy Ladder Pattern	646.5020 Marking Arrow Epoxy								646.5220 Marking Symbols Epoxy	646.5120 Marking Word Epoxy	646.9300 Marking Removal Special Marking	646.8120 Marking Curb Epoxy	646.8220 Marking Island Nose Epoxy	646.5320 Marking Railroad Crossings Epoxy																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
SUMMARY					REMARKS / COMMENTS	4-IN	4-IN	4-IN	4-IN	4-IN	6-IN	8-IN	8-IN	8-IN	8-IN	8-IN	8-IN	12-IN	--	24-IN	18-IN	18-IN	18-IN	18-IN	24-IN	TYPE 1	TYPE 2	TYPE 3	TYPE 4	TYPE 5	TYPE 2R	TYPE 3R	TYPE 7R	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Item #	County	HWY	Miles	LOCATION		L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	EA	L.F.	L.F.	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
9	Wauk	USH 18	5.13	CTHY (BARKER RD) TO 124 ST (WAUK/MILW CO LINE)	SEE DETAIL SHEET FOR ITEM #9 All lane line is to be white contrast epoxy Add 4" yellow epoxy (3' line, 9' space) var. loc. at left turn median as shown on detail sheets	6876	21331					27086													15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

FILE NAME : N:\SPO\Operations\Pavement Marking\Miscellaneous Quantities\1000-77-18\Final Misc. Quantities	PLOT DATE : 1/23/2018	PLOT BY :DONALD STEEL	PLOT NAME : 030501_mq.pdf	PLOT SCALE : 1:1
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Epoxy Pavement Marking - 2018 Var. Hwy (1000-77-18) SE Region Wide					INFORMATION ONLY		646.1020 MARKING LINE EPOXY MAIN LINE Lane line, Edge line, Mini Skips	SPV.0090.01 Pav. M'king Epoxy Contrast (white)	646.1040 Marking Line Grooved Wet Contrast (white)	646.1545 Marking Line Grooved Wet Ref Contrast Epoxy	646.9000 Marking Removal line	646.7420 Marking Cross Walk Epoxy Transverse Line	646.3020 MARKING LINE EPOXY Gore, Channelizing	SPV.0090.02 Pav. M'king Epoxy Contrast (white)	646.3040 Marking Line Grooved Wet Contrast (white)	646.3545 Marking Line Grooved Wet Ref Contrast Epoxy	646.9100 Marking Removal line	646.7120 Marking Diagonal Epoxy	646.9200 Marking Removal line Wide	646.7220 Marking CHEVRONS Epoxy	646.6220 Marking Yield line Epoxy	646.6120 Marking Stop Line Epoxy	646.6320 Marking Dotted Extnsn Epoxy	646.5420 Marking Aerial Enforcement Bar Epoxy	646.7520 M'king Crosswalk Epoxy Ladder Pattern	646.5020 Marking Arrow Epoxy				646.5220 Marking Symbols Epoxy	646.5120 Marking Word Epoxy	646.9300 Marking Removal Special Marking	646.8120 Marking Curb Epoxy	646.8220 Marking Island Nose Epoxy	646.5320 Marking Railroad Crossings Epoxy	
SUMMARY					LOCATION	REMARKS / COMMENTS	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	EA	L.F.	L.F.	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
Item #	County	UNW	Miles																																	
300	Milwaukee	IH 43	5.9																																	
				Interchanges / or Intersections;																																
				W GOODHOPE RD INTER.																																
				LONG LINE MARKINGS :	NOTE: NO EDGE LINE MARKINGS ON RAMPS																															
				NB OFF RAMP	ADD NEW TYPE 4 ARROW																															
				NB ON RAMP	WB GOODHOPE																															
				SB OFF RAMP	Add New type 3 and 4 arrow type																															
				SB ON RAMP																																
				CROSS ROAD / UNDERPASS OR OVERPASS CROSSING	LIMITS: 320' IN BOTH DIRECTION, FROM THE CENTER OF THE CROSSING RDWY OR BRIDGE																															
				SPECIAL MARKINGS: (LOCATION AT UNDERPASS / OVERPASS AND TERIMINI AREA)	4" white for Edge line on overpass crossing (only)																															
				Interchanges / or Intersections;																																
				W Silver Spring Interchange																																
				LONG LINE MARKINGS :																																
				NB OFF RAMP																																
				(1ST RAMP) TO N PORT WASHINGTON RD																																
				(2ND RAMP) TO WB SILVER SPRING RD																																
				(2ND RAMP) TO N PORT WASHINGTON RD	ADD NEW TYPE 4 ARROW 550' FROM INTERSECTION																															
				ON RAMP TO NB IH 43																																
				SB IH 43																																
				SB OFF RAMP																																
				SB ON RAMP																																
				CROSS ROAD / UNDERPASS OR OVERPASS CROSSING	LIMITS: 75' IN BOTH DIRECTION, FROM THE CENTER OF THE CROSSING RDWY OR BRIDGE																															
				SPECIAL MARKINGS: (LOCATION AT UNDERPASS / OVERPASS AND TERIMINI AREA)																																
300	Milwaukee	IH 43	5.9	W CO. LINE RD (OZAUKEE / MILW. CO. LINE) TO W HAMPTON AVE	Totals	142996	0	0	0	0	240	16111	0	0	0	0	0	0	0	0	450	0	0	0	0 29 5 4 0 0 0 2				40	6	24	0	0	0	0	

PROJECT NO:1000-77-18

HWY:VARIOUS

COUNTY:VARIOUS

MISCELLANEOUS QUANTITIES

(FOR INFORMATION ONLY)

SHEET:

E

SHEET: 15 OF 28

Epoxy Pavement Marking - 2018 Var. Hwy (1000-77-18) SE Region Wide				INFORMATION ONLY																											
SUMMARY				REMARKS / COMMENTS																											
Item #	County	HWY	Miles	LOCATION																											
301	MILWAUKEE	IH 43	4.5	W HAMPTON AVE TO W KILBOURN AVE	REFRESH ANY LANE LINES OR EDGE LINE IF - directed by Wisdot Staff																										
				2500																											
				Interchanges / or Intersections; W HAMPTON AVE Interchange																											
				LONG LINE MARKINGS : NB IH 43 OFF RAMP																											
				HAMPTON AV EAST	ADD NEW (TYPE 4) ARROW																										
				HAMPTON AV WEST																											
				ON RAMP TO IH 43 SB																											
				LOCATIONS AT CROSS RD UNDER OR OVERPASS AND TERIMINI AREA:																											
				SPECIAL MARKINGS:	LIMITS: 100' IN BOTH DIRECTION, FROM THE CENTER OF THE CROSSING RDWY OR BRIDGE A pair of Arrow /Only approaching IH 43 SB on ramp From the Wes and East on Hampton Ave.																										
				Interchanges / or Intersections; STH 57 (N GREEN BAY AVE) ON/OFF RAMPS																											
				LONG LINE MARKINGS : NA																											
				SPECIAL MARKINGS:																											
				IH 43 (SB) OFF RAMP TO STH 57	ADD NEW STOP BAR																										
				IH 43 (NB) OFF RAMP TO STH 57																											
				IH 43 (SB) ON RAMP																											
				IH 43 (NB) ON RAMP (FROM N. 7TH ST.)																											
				LOCATIONS AT CROSS RD UNDER OR OVERPASS AND TERIMINI AREA:																											
				Interchanges / or Intersections; STH 190, CAPITAL AVE																											
				LONG LINE MARKINGS : NA																											
				SPECIAL MARKINGS:																											
				IH 43 (NB) OFF RAMP TO CAPITAL AV (EAST)																											
				IH 43 (SB) ON RAMP FROM N. 9TH ST.																											
				LOCATIONS AT CROSS RD UNDER OR OVERPASS AND TERIMINI AREA:																											

Item 301 continue on sheet17 & 18 of 28

SHEET: 16 OF 28

PROJECT NO:1000-77-18	HWY:VARIOUS	COUNTY:VARIOUS	MISCELLANEOUS QUANTITIES (FOR INFORMATION ONLY)	SHEET:	E
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FILE NAME : N:\SPO\Operations\Pavement
Marking\Miscellaneous Quantities\1000-77-18\Final
Misc. Quantities

PLOT DATE : 1/23/2018

PLOT BY :DONALD STEEL

PLOT NAME : 030501_mq.pdf

PLOT SCALE : 1:1

3

3

[illegible]

Epoxy Pavement Marking - 2018 Var. Hwy (1000-77-18) SE Region Wide				INFORMATION ONLY																													
SUMMARY				REMARKS / COMMENTS																													
Item #	County	HWY	Miles	LOCATION																													
304	MILW / RAC.	IH 94	15.3	CTH BB (E. RAWSON AVE) TO STH 11 (DURAND AVE)																													
				(SKIP STH 100, CTH K & STH 20 INTERCHANGES) PAINTING VAR. RAMPS & CROSS RD / NO MAIN LINE PAINTING)																													
				Interchanges / or Intersections; CTH BB (RAWSON AVE)																													
				LONG LINE MARKINGS :																													
				SPECIAL MARKINGS:																													
				IH 94 (NB) OFF RAMP																													
				IH 94 (NB) ON RAMP																													
				IH 94 (SB) OFF RAMP																													
				IH 94 (SB) ON RAMP																													
				ON CROSSROAD (UNDER OR OVERPASS) AND APPROACHS TO ON-RAMPS: CTH BB (RAWSON AVE)																													
				LONG LINE MARKINGS :																													
				Interchanges / or Intersections; DREXEL AVE																													
				LONG LINE MARKINGS :																													
				SPECIAL MARKINGS:																													
				IH 94 (NB) OFF RAMP																													
				IH 94 (NB) ON RAMP																													
				IH 94 (SB) OFF RAMP																													
				IH 94 (SB) ON RAMP																													
				ON CROSSROAD (UNDER OR OVERPASS) AND APPROACHS TO ON-RAMPS: DREXEL AVE																													
				LONG LINE MARKINGS :																													
				Interchanges / or Intersections; SKIP STH 100 (RYAN ROAD) INTERCHANGE / UNDERCONSTRUCTION 2017																													
				Interchanges / or Intersections; SOUTH 27TH STREET																													
				LONG LINE MARKINGS :																													
				SPECIAL MARKINGS:																													
				IH 94 (NB) OFF RAMP																													
				IH 94 (SB) ON RAMP																													
				ON CROSSROAD (UNDER OR OVERPASS) AND APPROACHS TO ON-RAMPS: SOUTH 27TH STREET																													
				LONG LINE MARKINGS :																													
				SPECIAL MARKINGS:																													

3

Epoxy Pavement Marking - 2018 Var. Hwy (1000-77-18) SE Region Wide				INFORMATION ONLY																													
SUMMARY				LOCATION		REMARKS / COMMENTS																											
Item #	County	HWY	Miles																														
307	WAUK	STH 16	3.3	N LAPHAM ST TO .5 MI. EAST OF CTH P (SAWYER RD-SOUTH) BRIDGE																													
				Intersections TO Interchange; N LAPHAM ST TO FRONTAGE RD ENT.																													
				LONG LINE MARKINGS : SPECIAL MARKINGS: Interchanges / or Intersections; FRONTAGE RD ENT. / STH 67																													
				LONG LINE MARKINGS : SPECIAL MARKINGS: OFF RAMP FROM STH 67 (NB) ON RAMP TO STH 67 (BYPASS-NB)																													
				Interchanges / or Intersections; E WISCONSIN AVE ENT. / STH 67																													
				LONG LINE MARKINGS : SPECIAL MARKINGS: ON RAMP TO STH 67 (BYPASS-NB) OFF RAMP FROM STH 67 (NB)																													
				Interchanges / or Intersections; CTH P NORTH (BROWN ST)																													
				LONG LINE MARKINGS : SPECIAL MARKINGS: STH 16 (SB) OFF RAMP STH 16 (SB) ON RAMP STH 16 (NB) OFF RAMP STH 16 (NB) ON RAMP																													
				LOCATIONS AT CROSS RD UNDER OR OVERPASS AND APPROACHS TO ON-RAMPS: CTH P NORTH (BROWN ST) LONG LINE MARKINGS : SPECIAL MARKINGS:																													
				Interchanges / or Intersections; CTH P SOUTH (SAWYER RD)																													
				LONG LINE MARKINGS : SPECIAL MARKINGS: STH 16 (SB) OFF RAMP STH 16 (SB) ON RAMP STH 16 (NB) OFF RAMP STH 16 (NB) ON RAMP																													
				LOCATIONS AT CROSS RD UNDER OR OVERPASS AND APPROACHS TO ON-RAMPS: CTH P SOUTH (SAWYER RD) LONG LINE MARKINGS : SPECIAL MARKINGS: STH 16 (SB) ON RAMP STH 16 (NB) ON RAMP																													
				N LAPHAM ST TO .5 MI. EAST OF CTH P (SAWYER RD-SOUTH) BRIDGE																													
				Totals																													

PROJECT NO:1000-77-18	HWY:VARIOUS	COUNTY:VARIOUS	MISCELLANEOUS QUANTITIES	(FOR INFORMATION ONLY)	SHEET:	E
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3

[illegible]

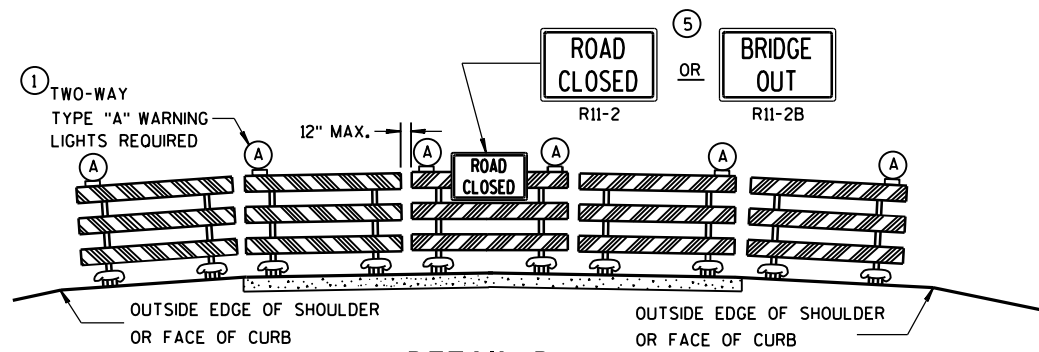
SHEET: 27 OF 28

PROJECT NO:1000-77-18	HWY:VARIOUS	COUNTY:VARIOUS	MISCELLANEOUS QUANTITIES	(FOR INFORMATION ONLY)	SHEET:	E
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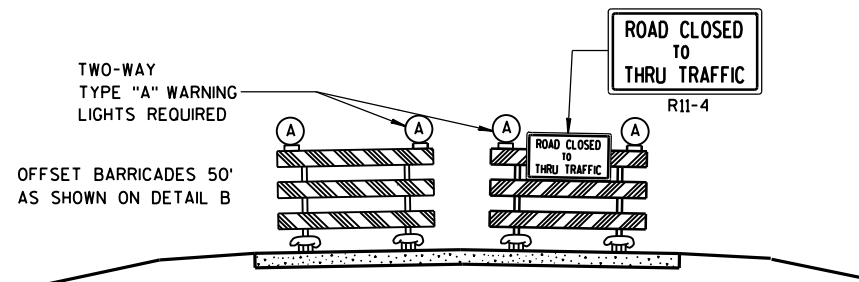
INFORMATION ONLY								
Epoxy Pavement Marking - 2018 Var. Hwy (1000-77-18) SE Region Wide	646.5020 Marking Arrow Epoxy							
	TYPE 1 EA.	TYPE 2 EA.	TYPE 3 EA.	TYPE 4 EA.	TYPE 5 EA.	TYPE 2R EA.	TYPE 3R EA.	TYPE 7R EA.
MILT-LANE	4	723	31	0	3	0	0	0
	761							
FREEWAY & EXPRESS WAYS	13	151	47	54	2	0	0	2
	269							
UNDISTRIBUTED	29	72	50	20	20	20	20	20
	251							
TOTAL				1281				

Standard Detail Drawing List

15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C07-14A	PAVEMENT MARKING SYMBOLS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C07-14D	ROUNDABOUT ARROWS
15C08-18A	LONGITUDINAL MARKING (MAINLINE)
15C08-18B	PAVEMENT MARKING (TURN LANES)
15C09-11A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C14-03	AERIAL ENFORCEMENT BARS PAVEMENT MARKING DETAILS
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-05B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-05C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C20-02	YIELD MARKING
15C31-03B	PAVEMENT MARKING MAJOR SPLIT FREEWAY TO FREEWAY
15C31-03C	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-02A	PAVEMENT MARKING (INTERSECTIONS)
15D16-03	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D22-03	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D37-02	TRAFFIC CONTROL, 2-LANE ROUNDABOUT



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

R11-2 SHALL BE 48" X 30".

R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".

M4-9 SHALL BE 30" X 24".

M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)

M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)

M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

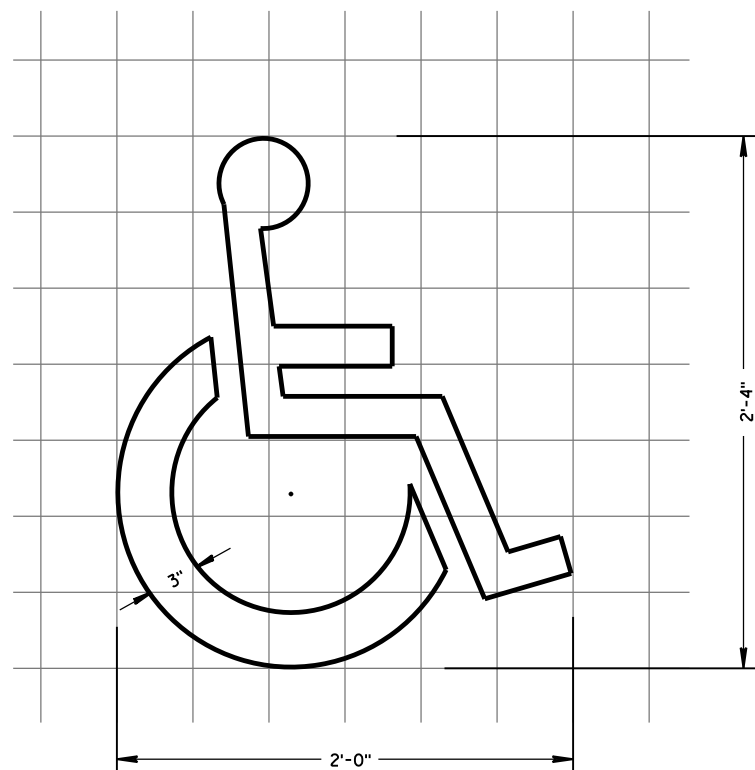
R1-1 SHALL BE 36" X 36".

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

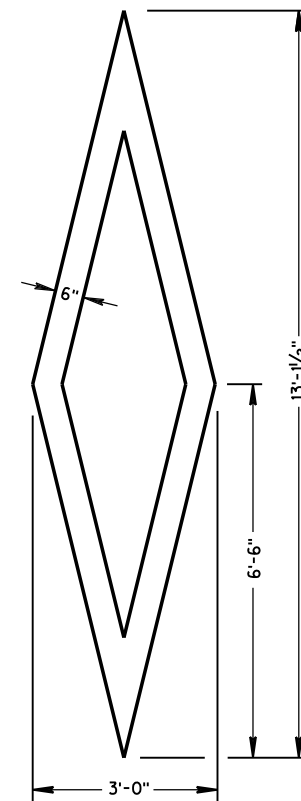
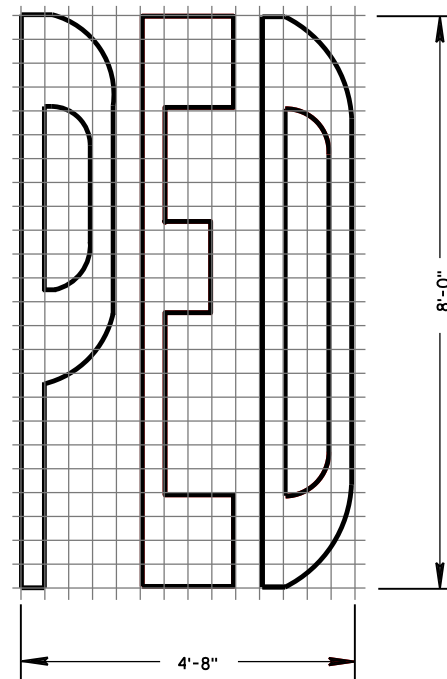
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 /S/ Peter Amokobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



HANDICAP SYMBOL

PREFERENTIAL
LANE SYMBOL**GENERAL NOTES**

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

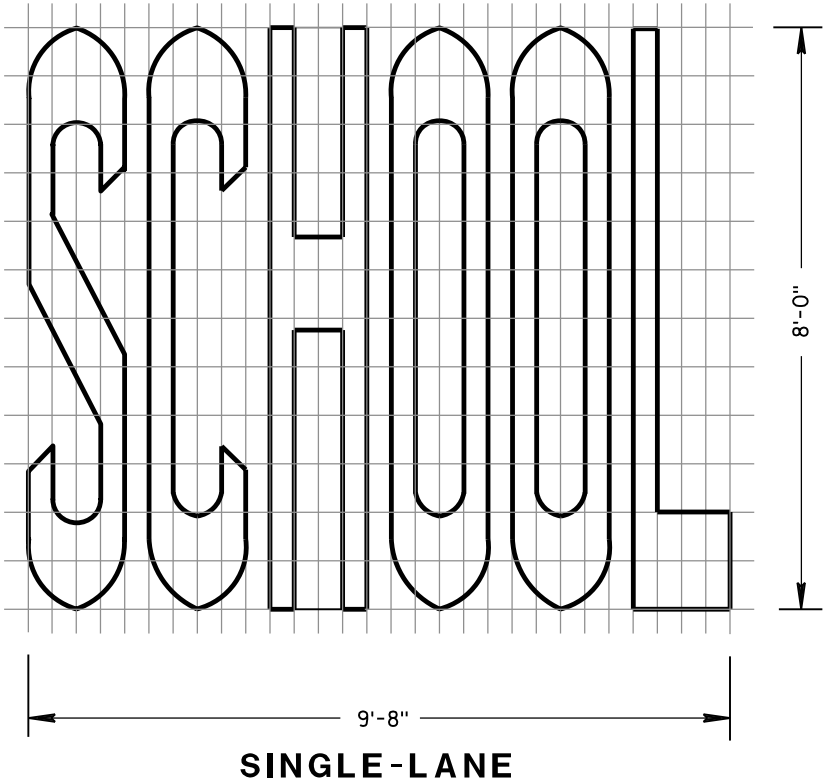
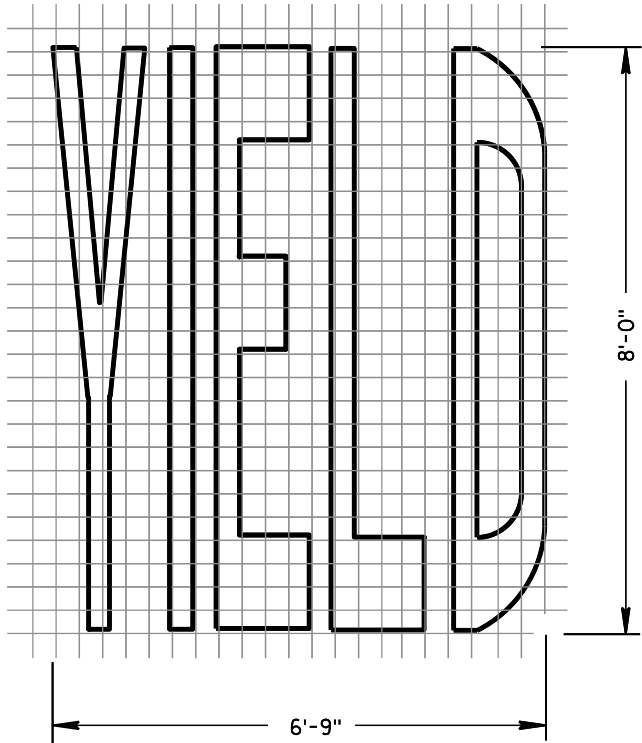
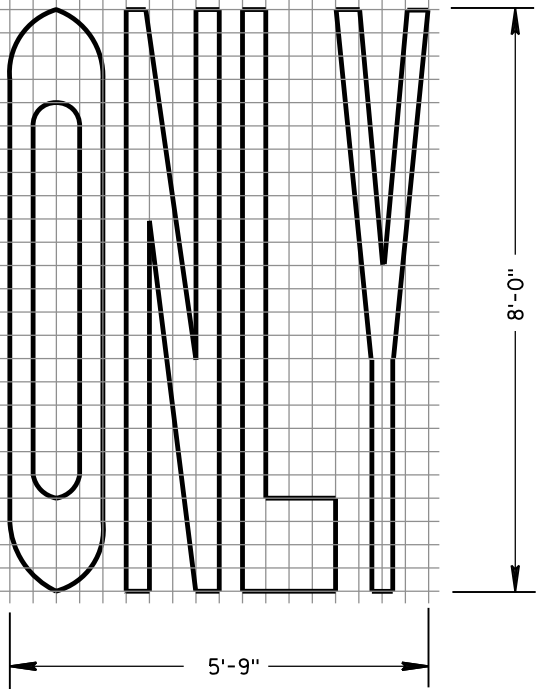
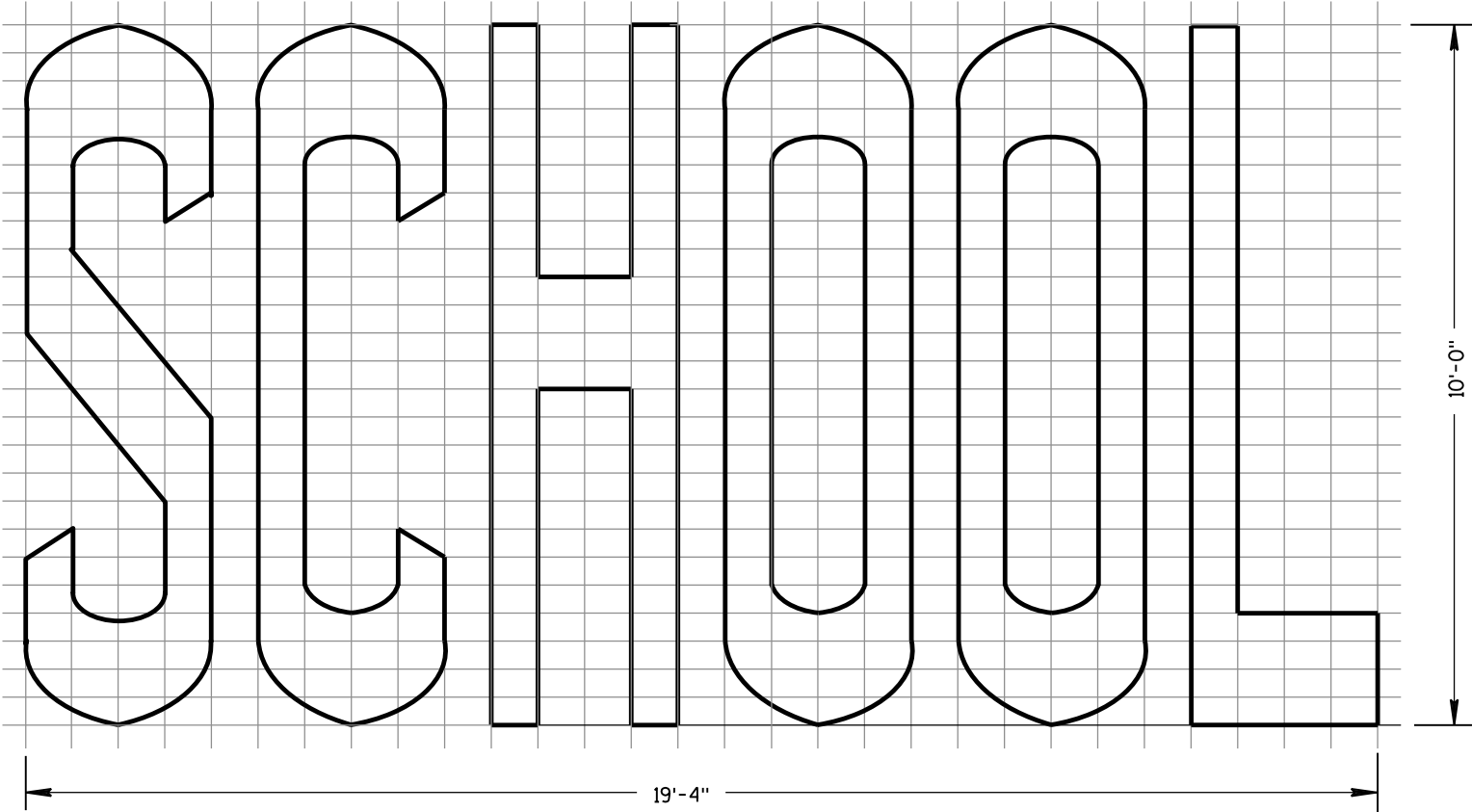
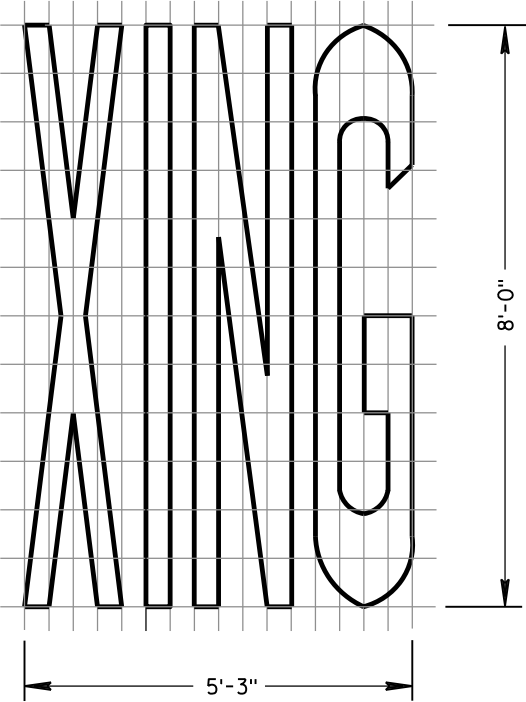
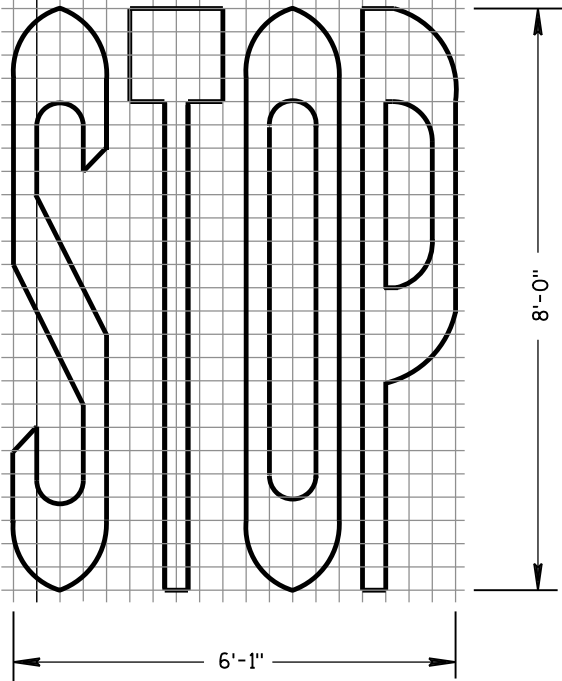
APPROVED

June 2017
DATE/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

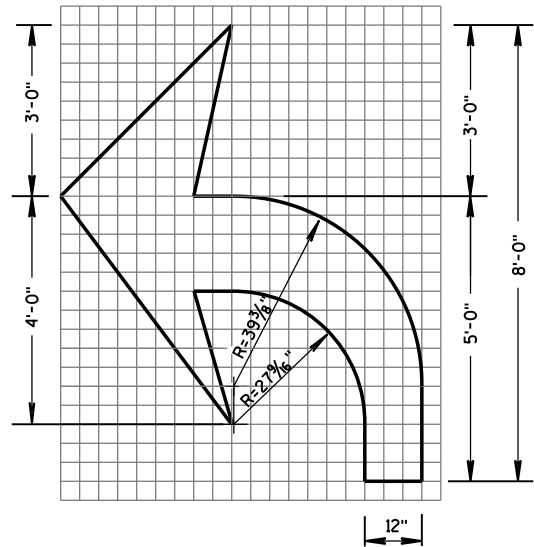
FHWA

GENERAL NOTES

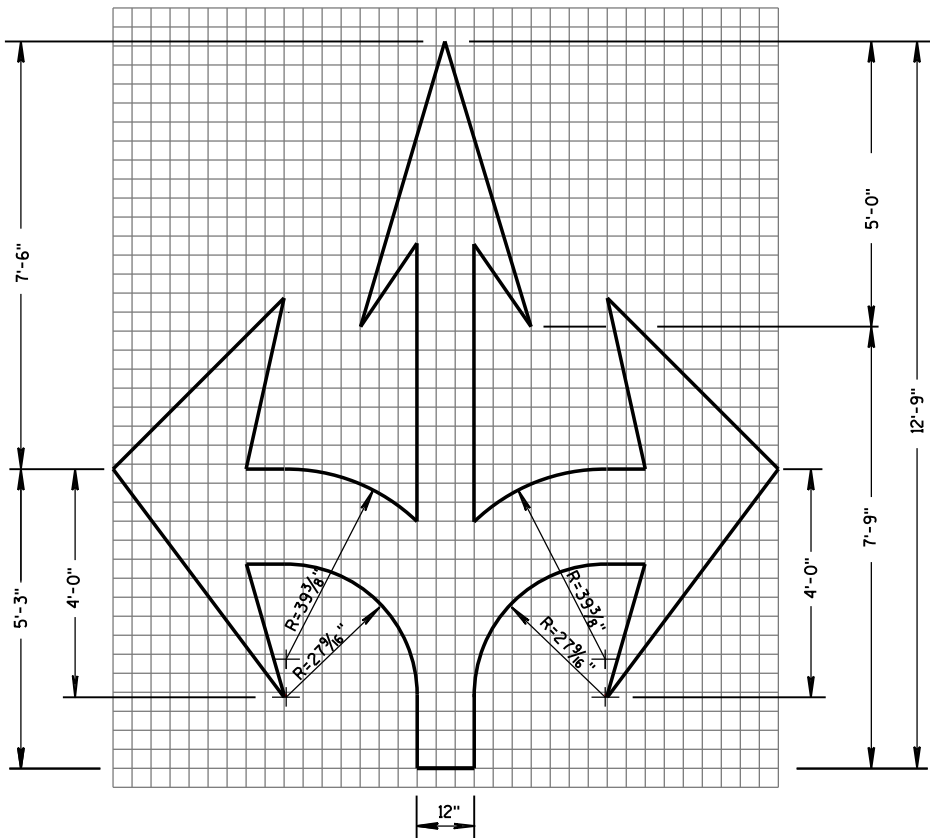
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



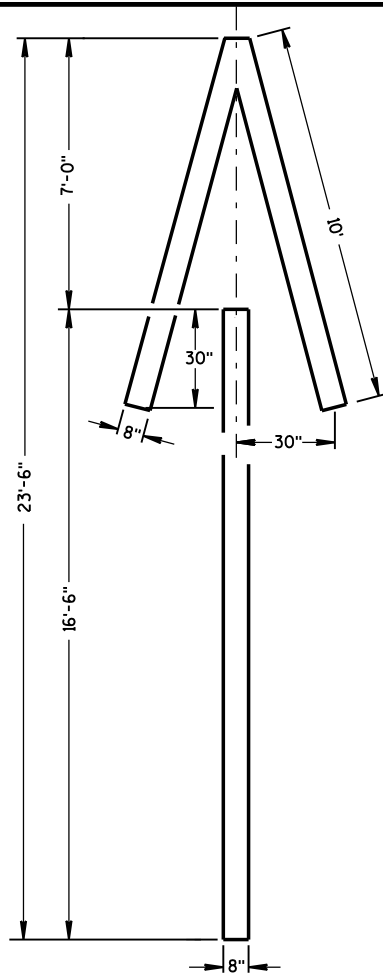
PAVEMENT MARKING WORDS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	



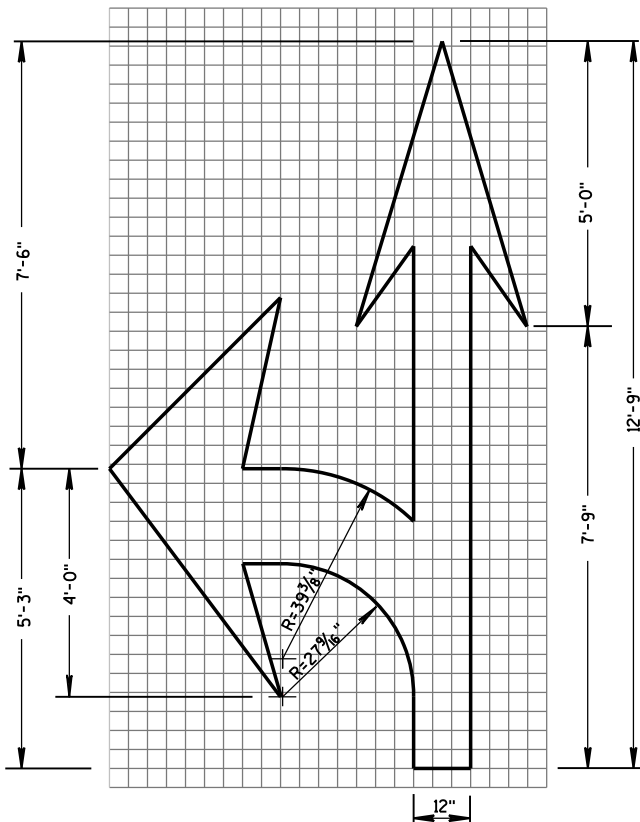
TYPE 2



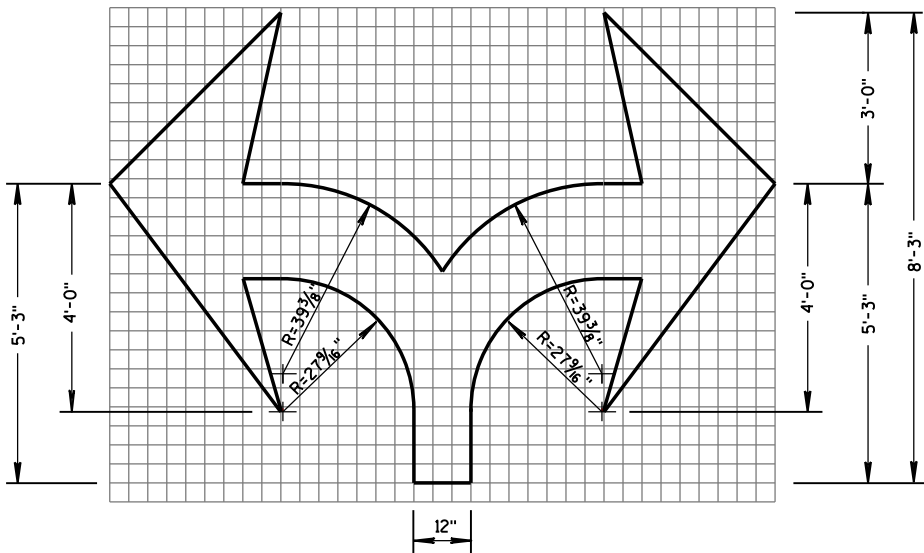
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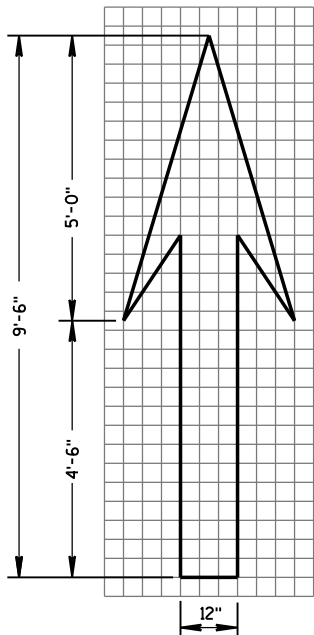
TYPE 4



TYPE 3



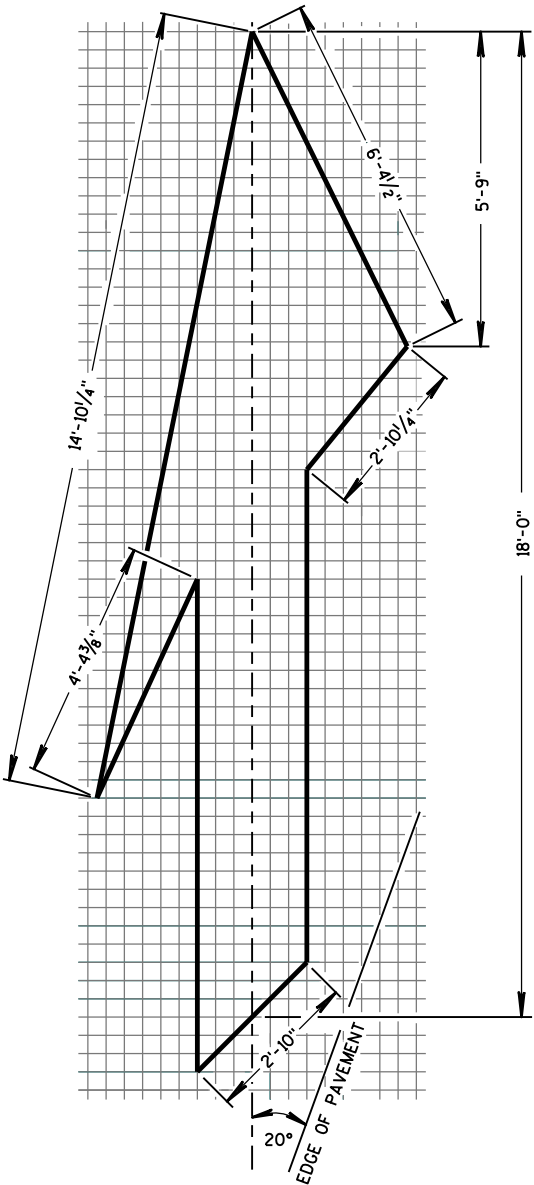
TYPE 7



TYPE 1

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

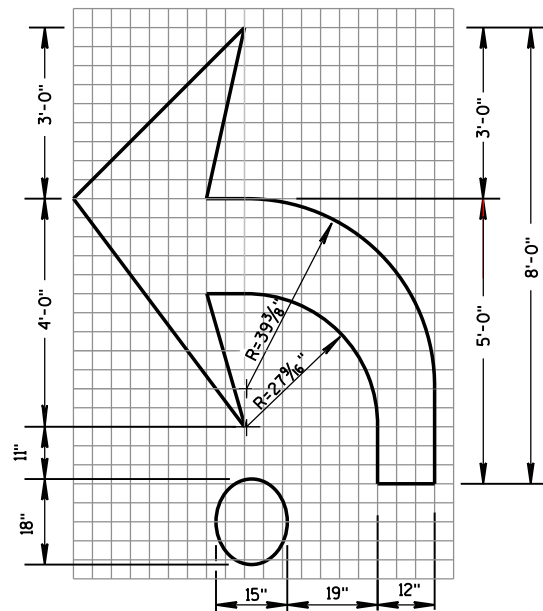


TYPE 5 LANE DROP ARROW

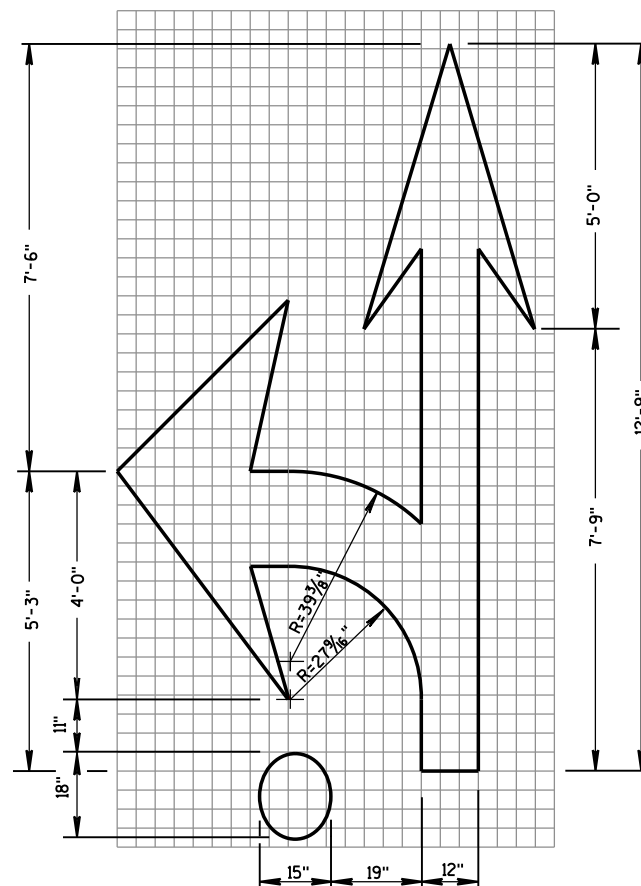
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

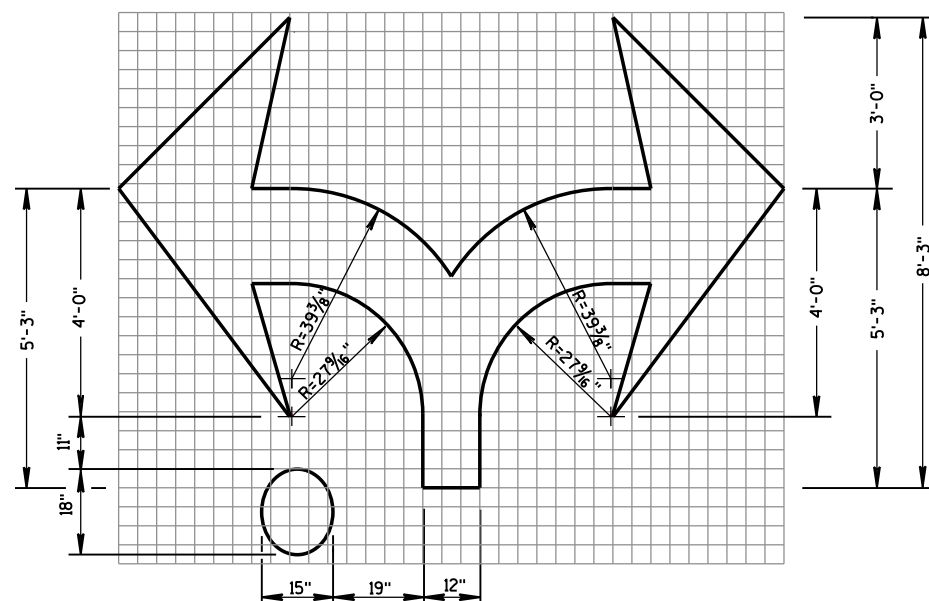
APPROVED
June 2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



TYPE 2R



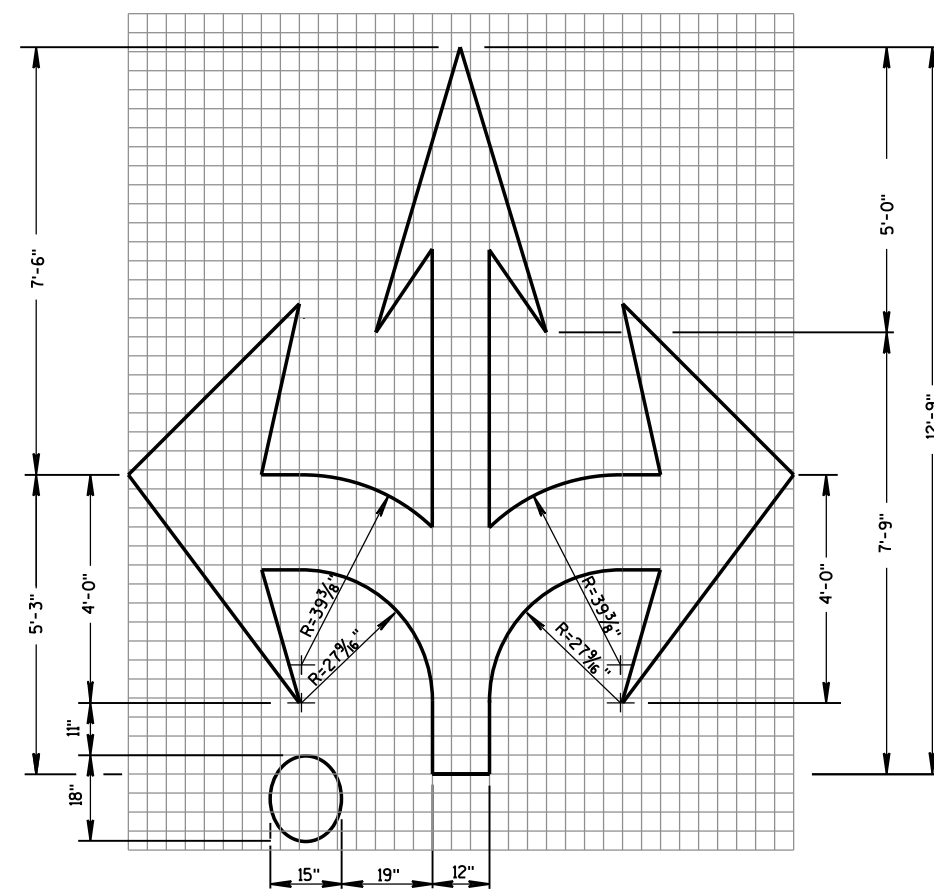
TYPE 3R



TYPE 7R

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



TYPE 6R

ROUNDBOUT ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

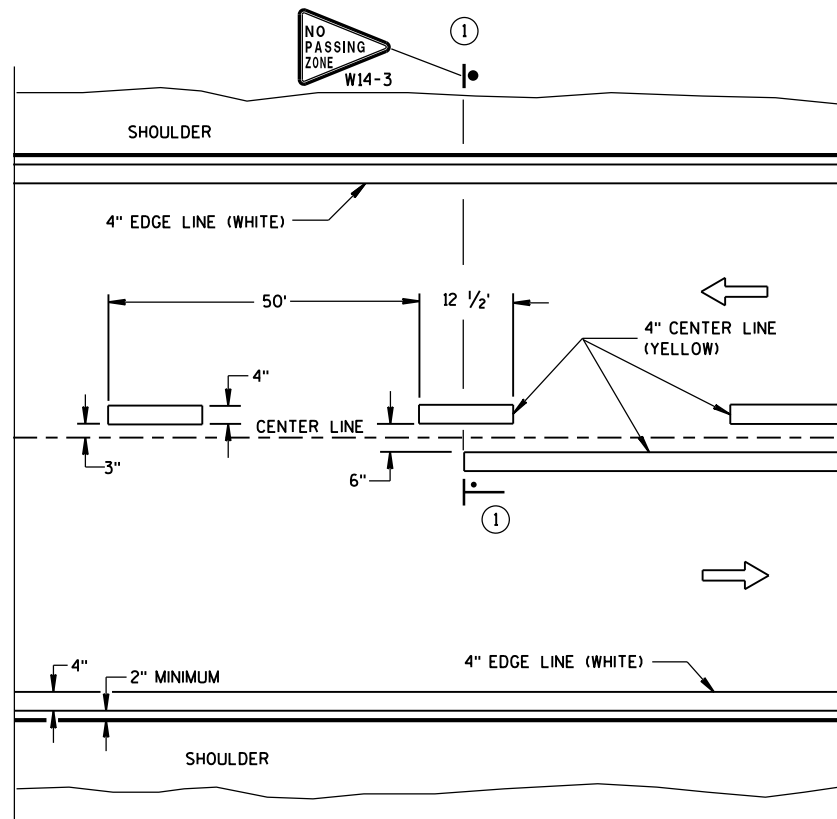
June 2017

DATE

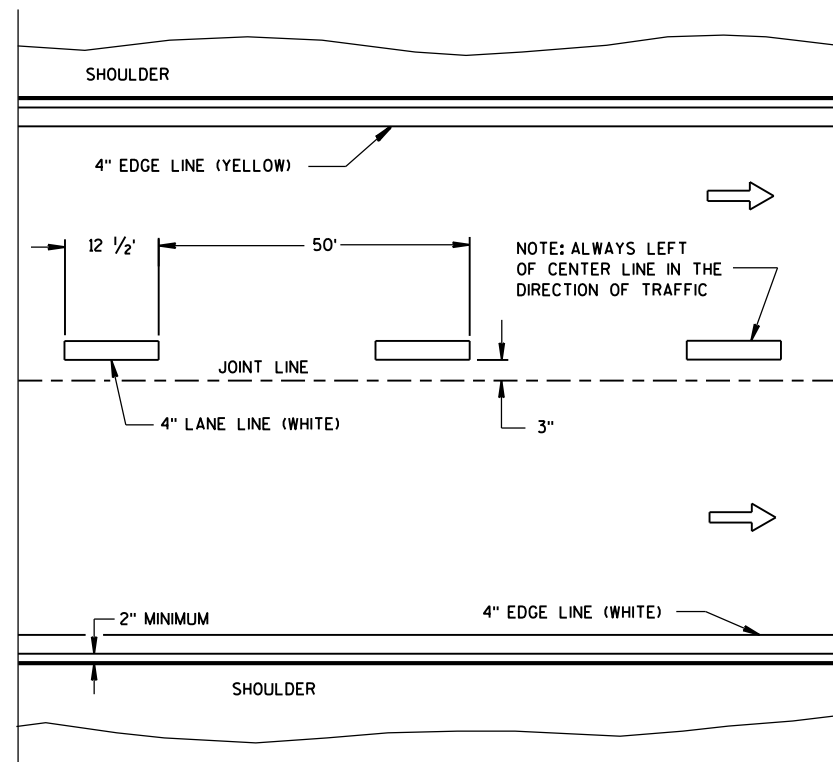
/S/ Matthew R. Rauch

STATE SIGNING AND MARKING ENGINEER

FHWA

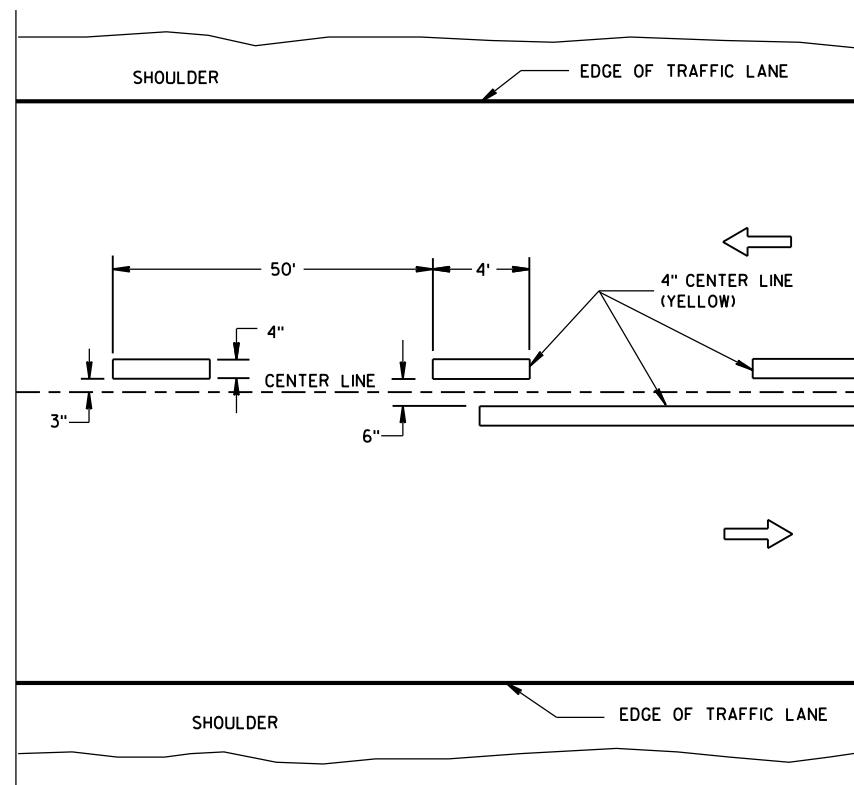


TWO WAY TRAFFIC

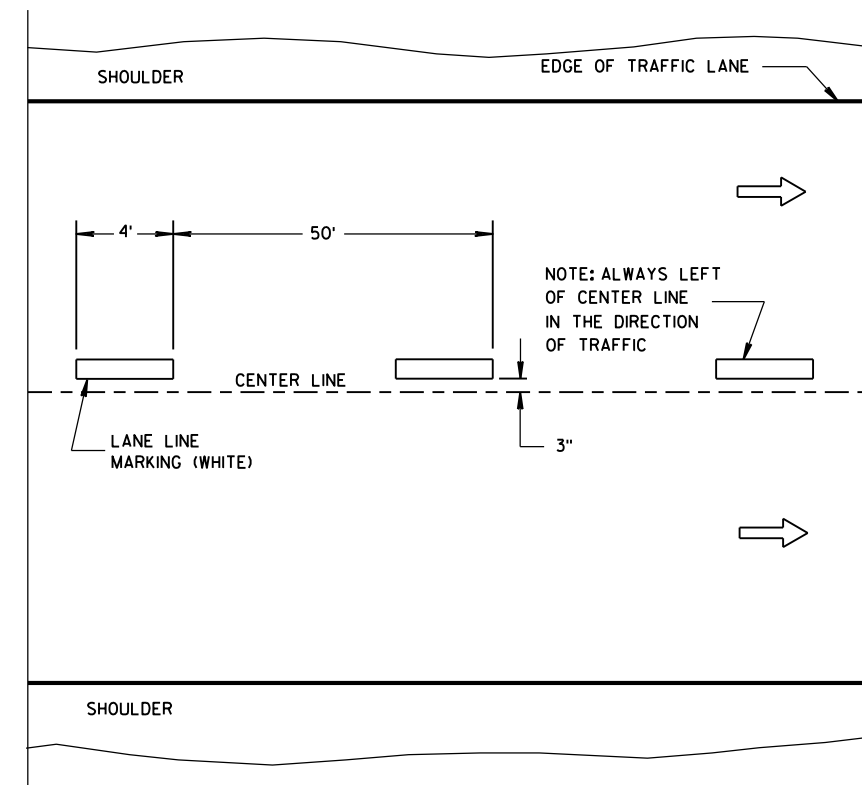


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

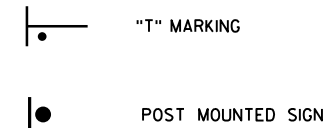
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

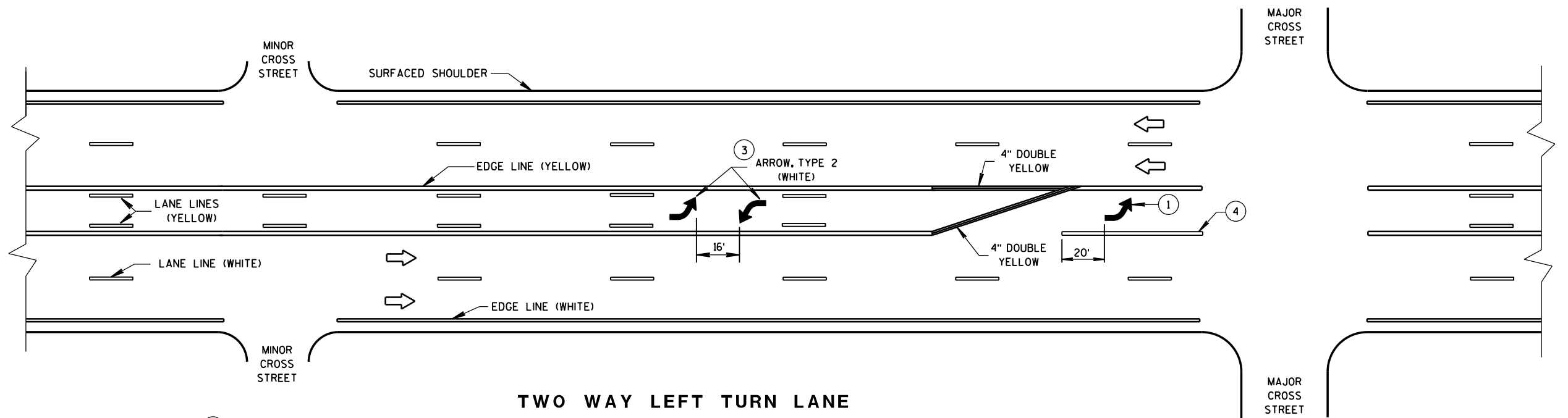
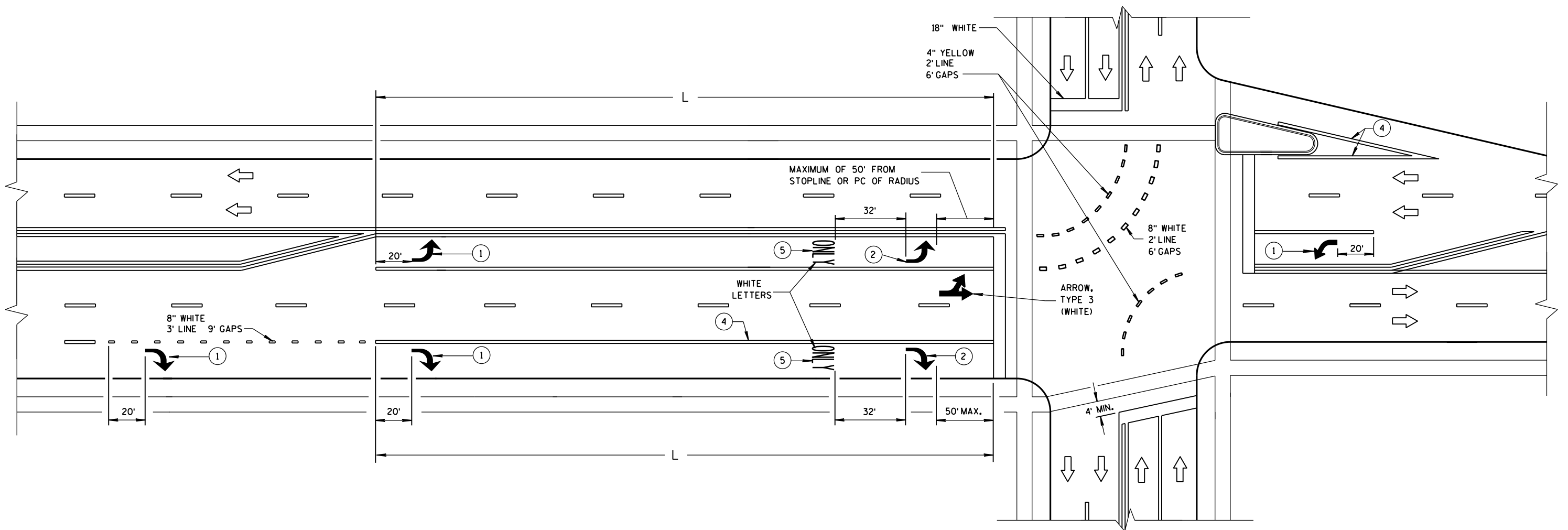
NOTE

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

LEGEND




LONGITUDINAL MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017	/s/ Matthew R. Rauch
DATE	STATE SIGNING AND MARKING ENGINEER
FHWA	



GENERAL NOTES

- ① REQUIRED ARROW, TYPE 2 (WHITE).
- ② REQUIRED ARROW, TYPE 2 (WHITE) WHEN L IS GREATER THAN 78 FEET AND LESS THAN OR EQUAL TO 166 FEET.
- ③ A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ④ 8" WHITE
- ⑤ REQUIRED WORD ONLY WHEN L IS GREATER THAN 166 FEET.

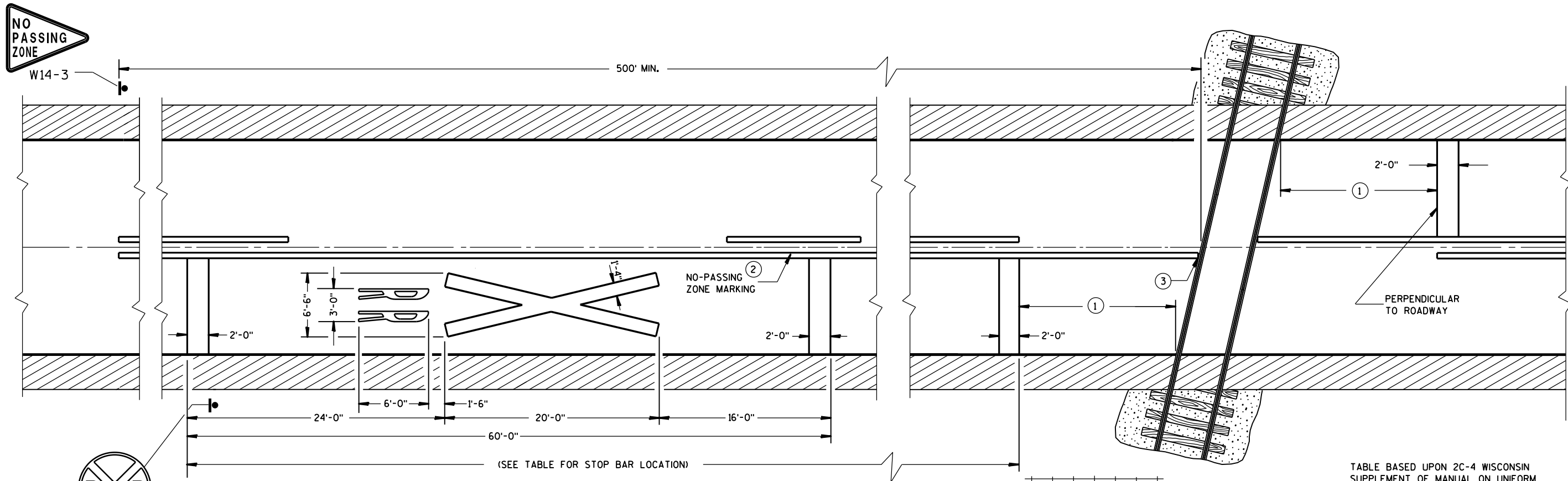
TWO WAY LEFT TURN LANE

NOTE:
ARROW SYMBOL ()
SHOWS DIRECTION OF TRAVEL

L = LENGTH OF TURN BAY

PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

RETRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

- ① MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.
- ② 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ③ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

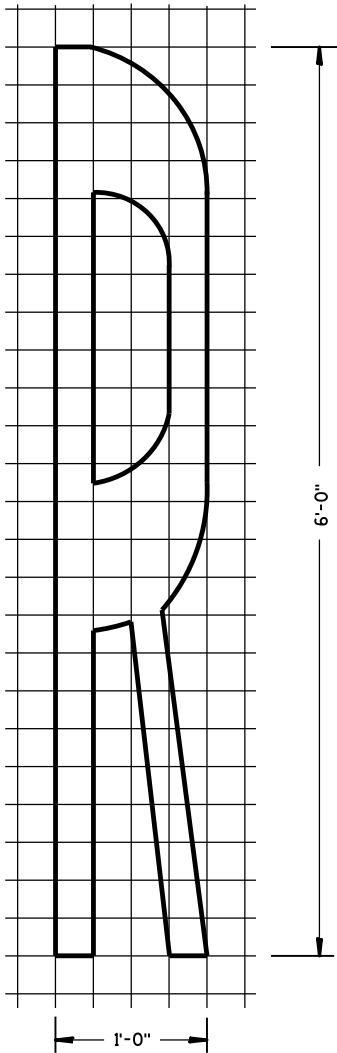


TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

Posted Speed (M.P.H.)	Dimension Range (Feet)
25	150*- 250
30	200*- 300
35	250*- 450
40	300*- 500
45	400*- 650
50	550*- 800
55	750*- 1000
60	1000*- 1250
65	1000*- 1250

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSE PROXIMITY OF DRIVEWAYS, BRIDGES, SIDEROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

SIGNING AND PAVEMENT MARKING
DETAILS FOR RAILROAD-HIGHWAY
GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA

LEGEND

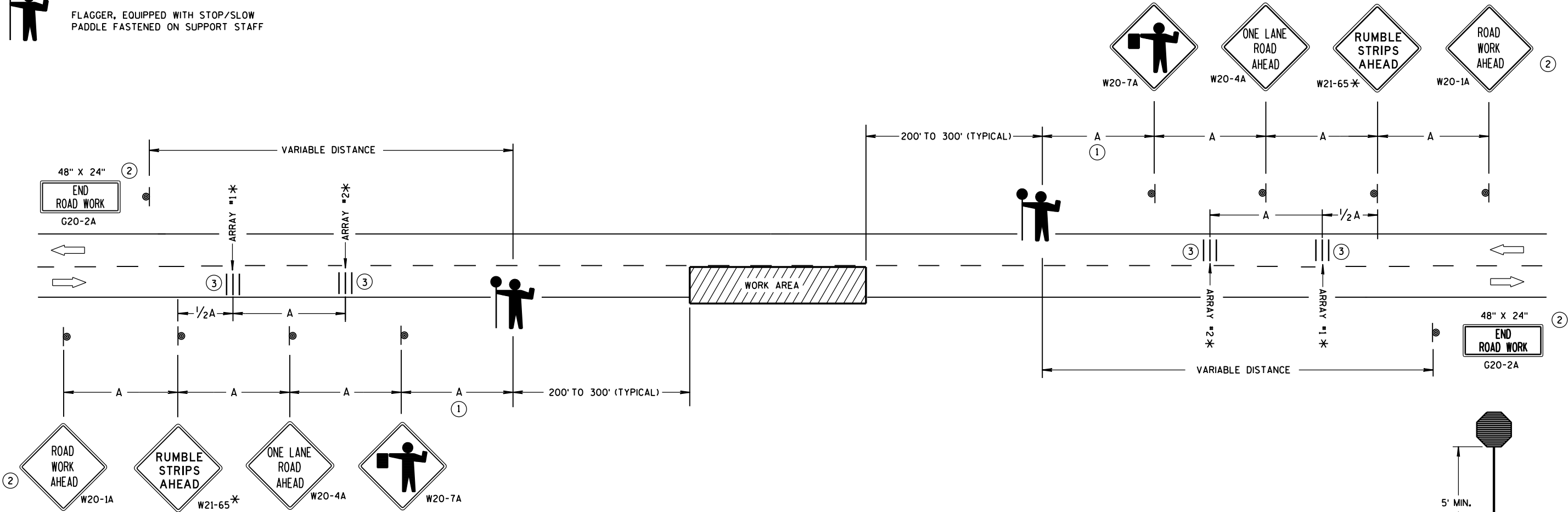
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING A
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING A.



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

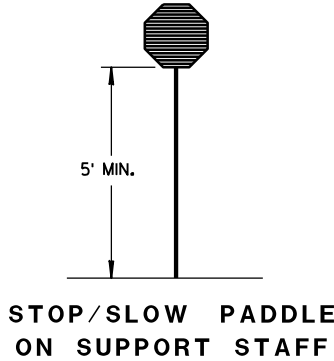
INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS. PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

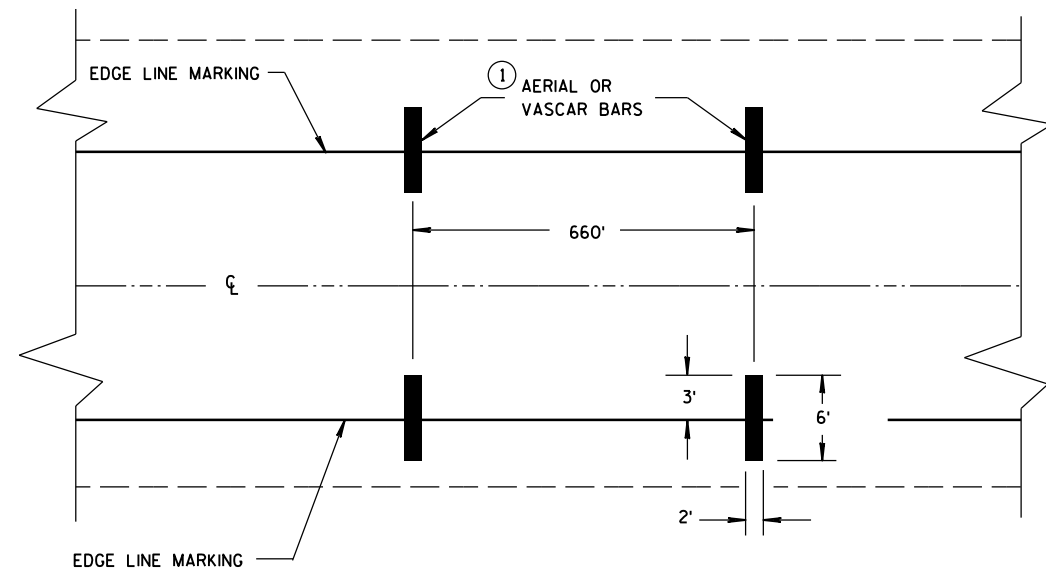
- FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.



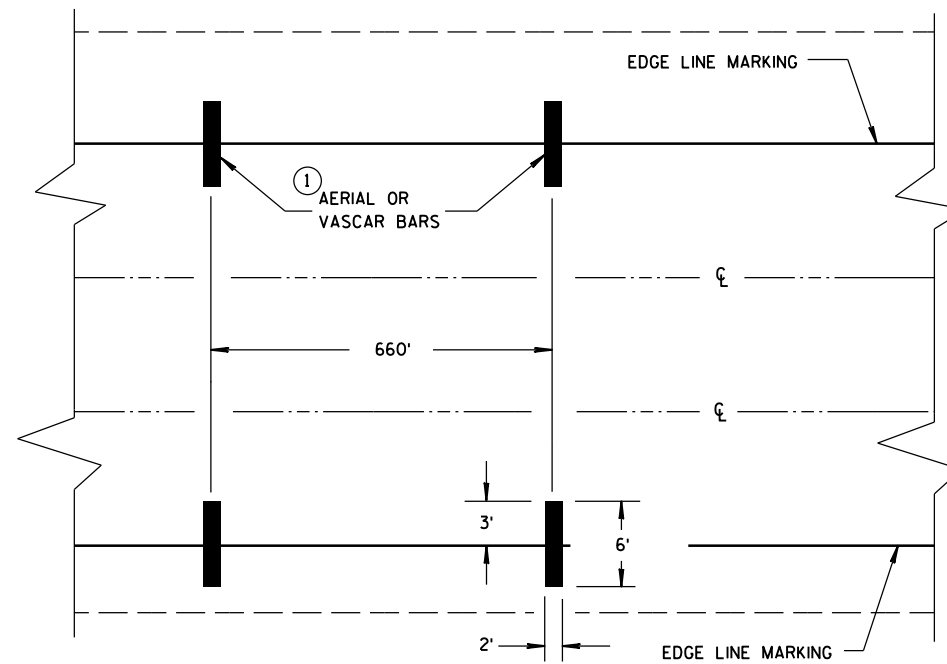
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Andrew Heldtke
DATE WORK ZONE ENGINEER
FHWA



TYPICAL FOR TWO WAY OR ONE WAY TRAFFIC



TYPICAL FOR MULTILANE TRAFFIC

SPEED ENFORCEMENT ZONE WITH AERIAL OR VASCAR BARS

GENERAL NOTES

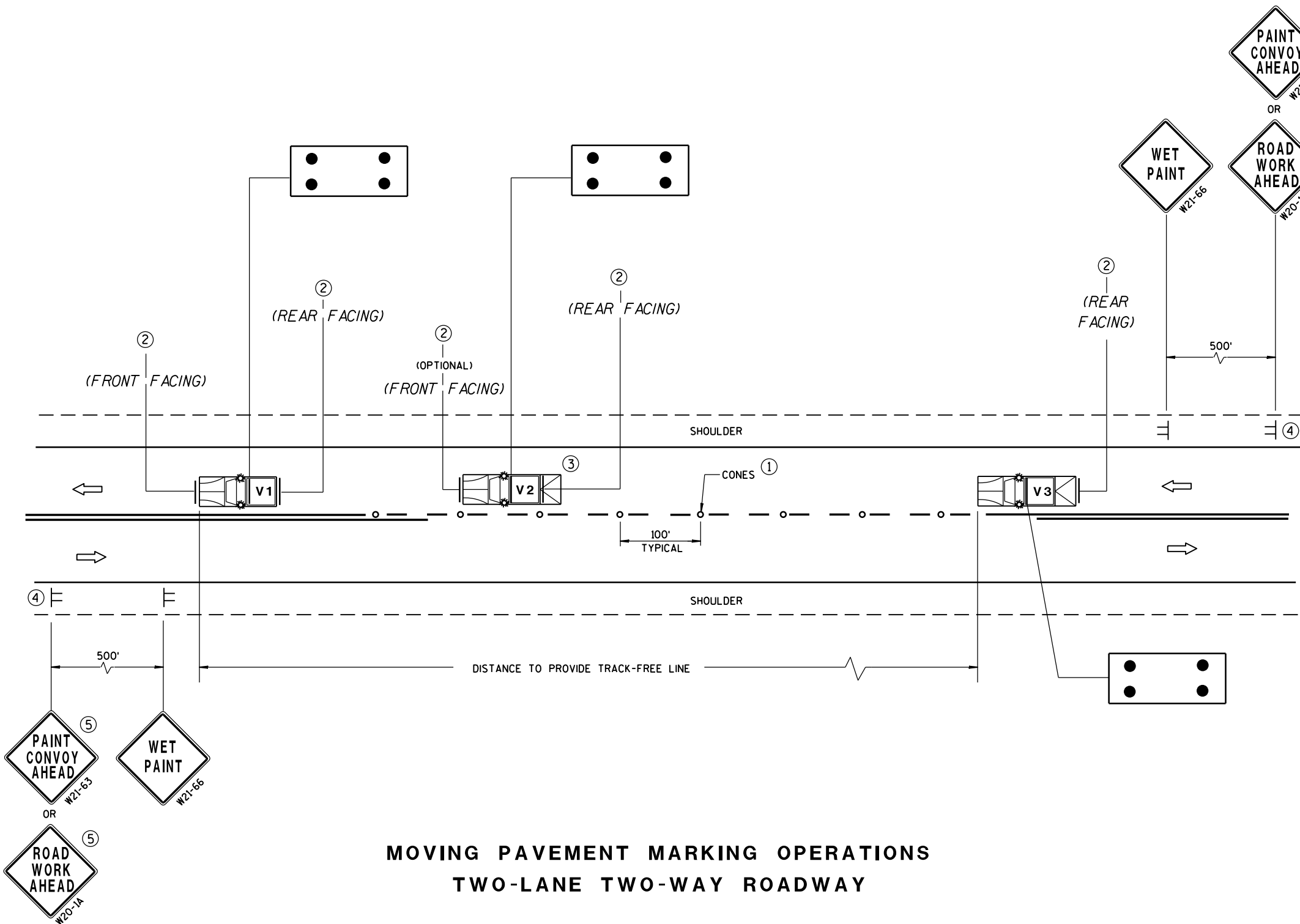
① PLACE TWO TO FIVE AERIAL OR VASCAR BARS AT 660 FOOT SPACING.

A CAR CAN BE PROVIDED BY THE WISCONSIN STATE PATROL FOR TRAFFIC CONTROL.

AERIAL ENFORCEMENT BARS
PAVEMENT MARKING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

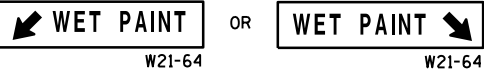
APPROVED
June 2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

- ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.
- VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.
- IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.
- ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.
- DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.
- THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.
- WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.
- ① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- ② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.
- ③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.
- ④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.



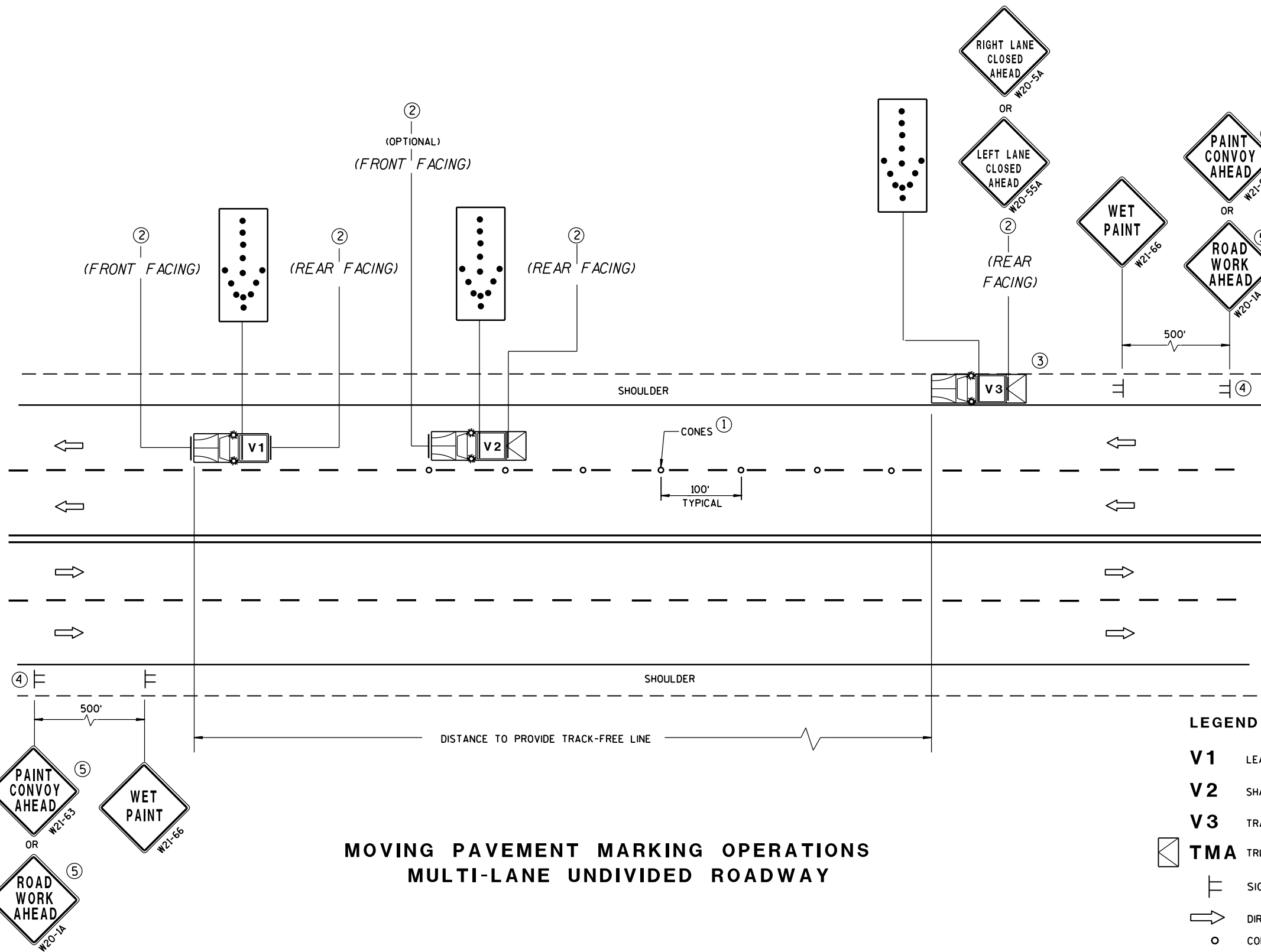
LEGEND

- V1** LEAD VEHICLE
- V2** SHADOW VEHICLE
- V3** TRAIL VEHICLE WITH TMA
- TMA** TRUCK-MOUNTED ATTENUATOR
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONES
- FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: Sept., 2017 /S/ Andrew Heidtke
WORK ZONE ENGINEER
FHWA



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE UNDIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

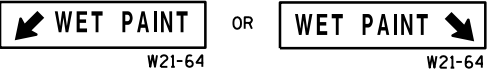
FOR EDGE LINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGE LINE OR LANELINE MARKING FOR MULTILANE UNDIVIDED ROADWAYS.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.



③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

TMA TRUCK-MOUNTED ATTENUATOR

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

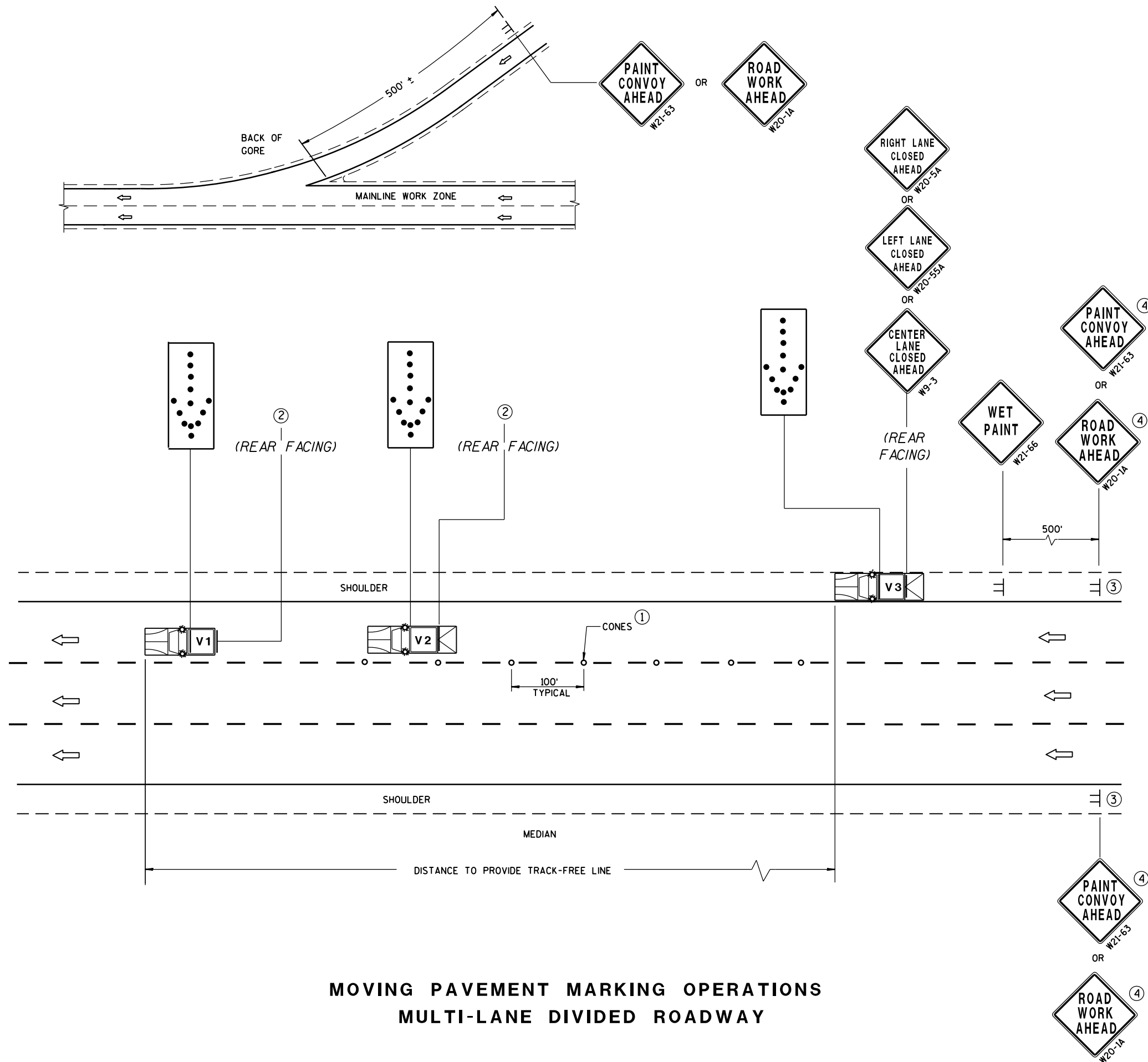
CONES

FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING
OPERATION
MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2017 /S/ Andrew Heldtke
DATE WORK ZONE ENGINEER
FHWA



S. D. D. 15 C 19-5c

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.


WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGE LINE OR LANE LINE MARKING FOR MULTILANE DIVIDED ROADWAYS.


- ① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- ② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

- ③ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.
- ④ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

 **TMA** TRUCK-MOUNTED ATTENUATOR

 SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

○ CONES

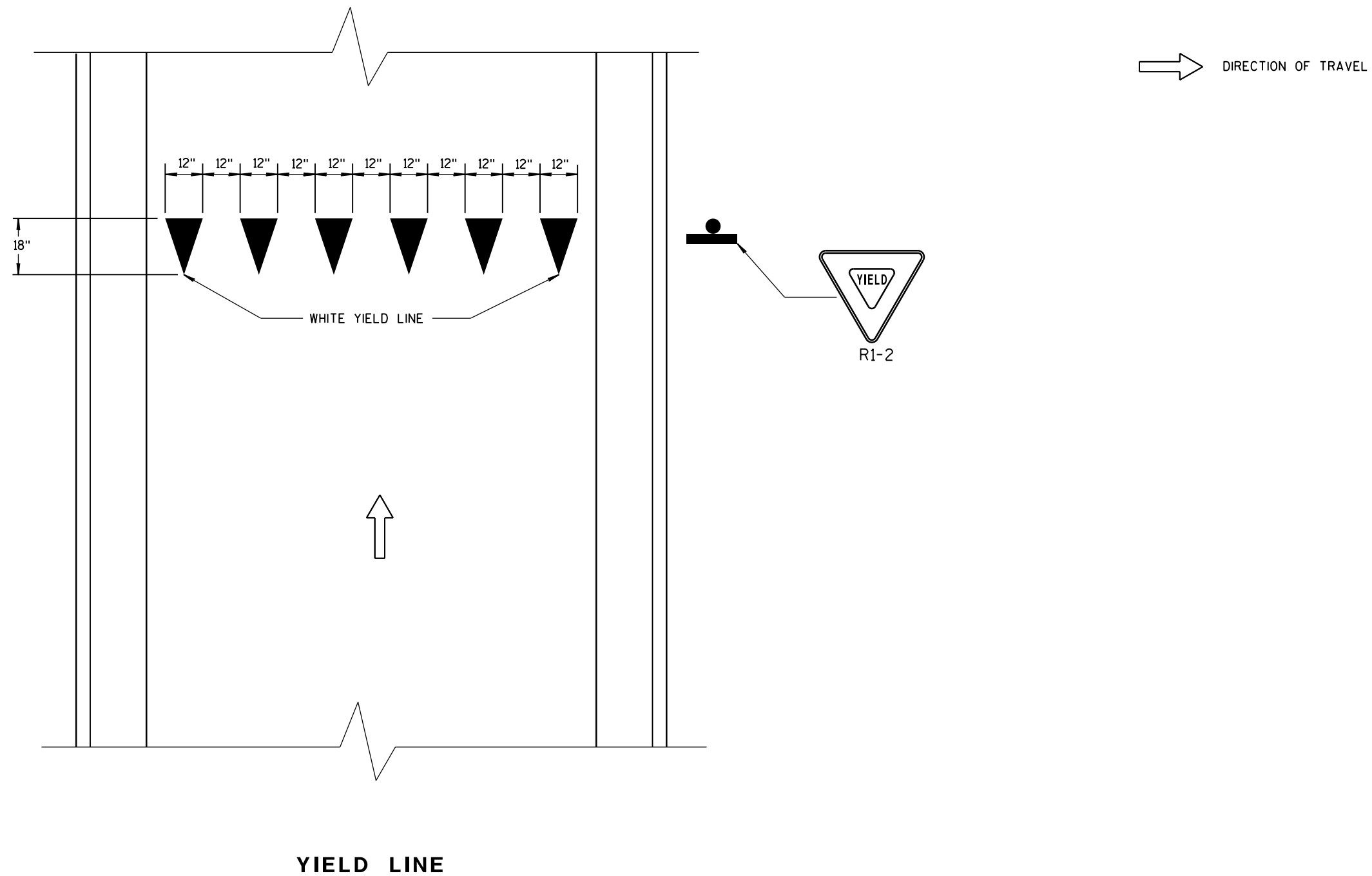
FLASHING
ARROW
PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2017 /S/ Andrew Heidtke
 DATE WORK ZONE ENGINEER
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S.D.D. 15 C 19-5c

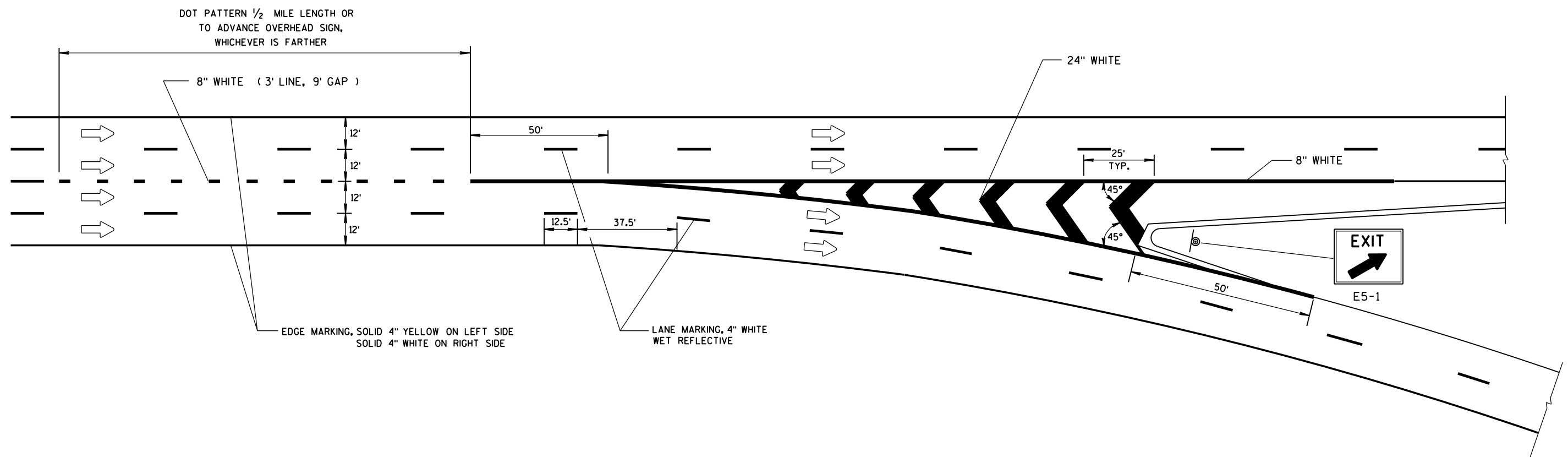


<p>YIELD MARKINGS</p>	
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>	
<p>APPROVED</p> <p><u>4-18-2016</u> DATE</p>	<p><u>/S/ Matthew R. Rauch</u> STATE SIGNING AND MARKING ENGINEER</p>
<p>FHWA</p>	

PLACE GROOVE 3 INCHES LEFT OF JOINT.

 DIRECTION OF TRAVEL

 SIGN ON PERMANENT SUPPORT



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

① 1/2 LENGTH OF FULL WIDTH ACCELERATION LANE.

PAVEMENT MARKING FOR ENTRANCE RAMP

LEGEND

➡ DIRECTION OF TRAVEL

SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE-RAMP

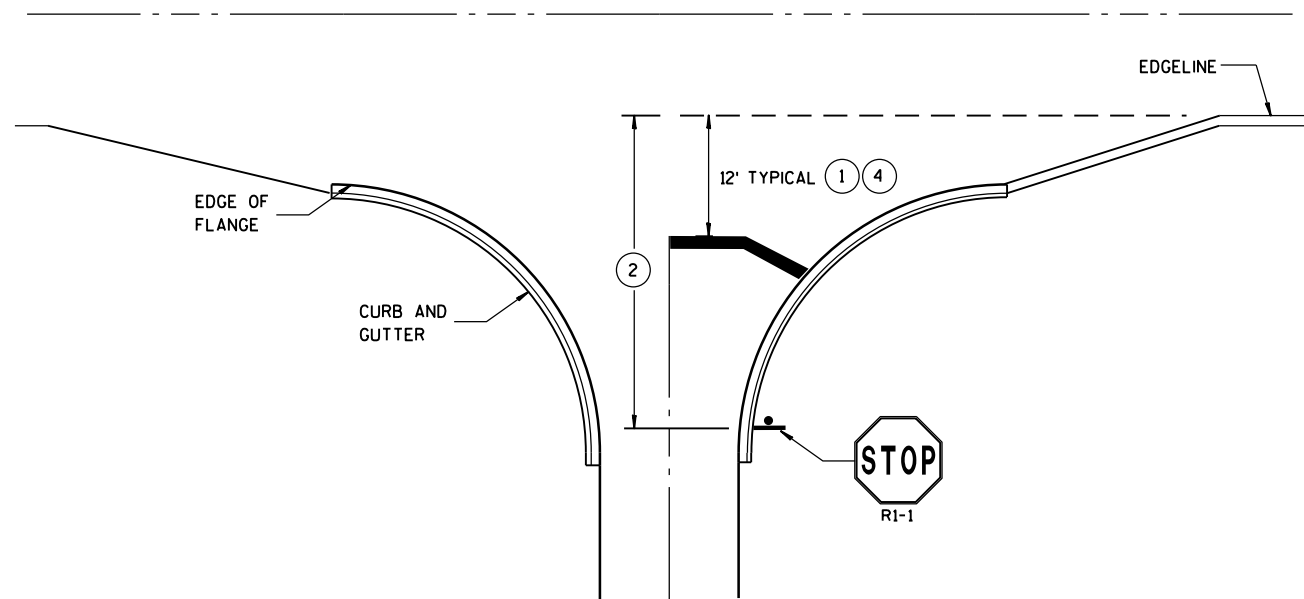
**PAVEMENT MARKING FOR
PARALLEL ON-RAMP AND
PARALLEL OFF-RAMP**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

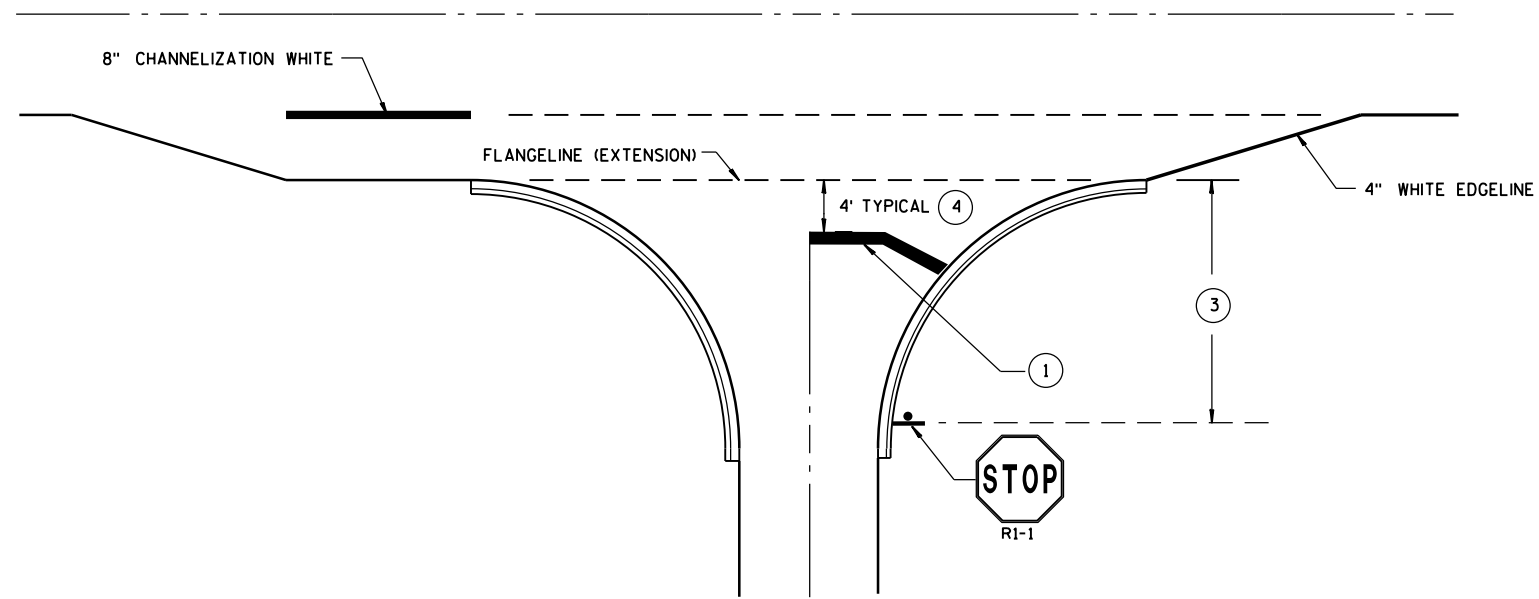
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S.D.D. 15 C 31-3c

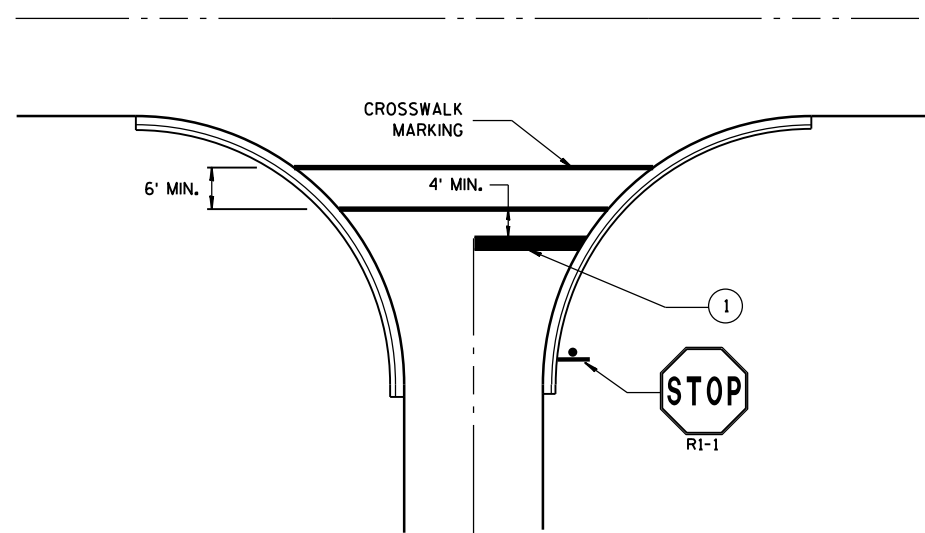
S.D.D. 15 C 31-3c



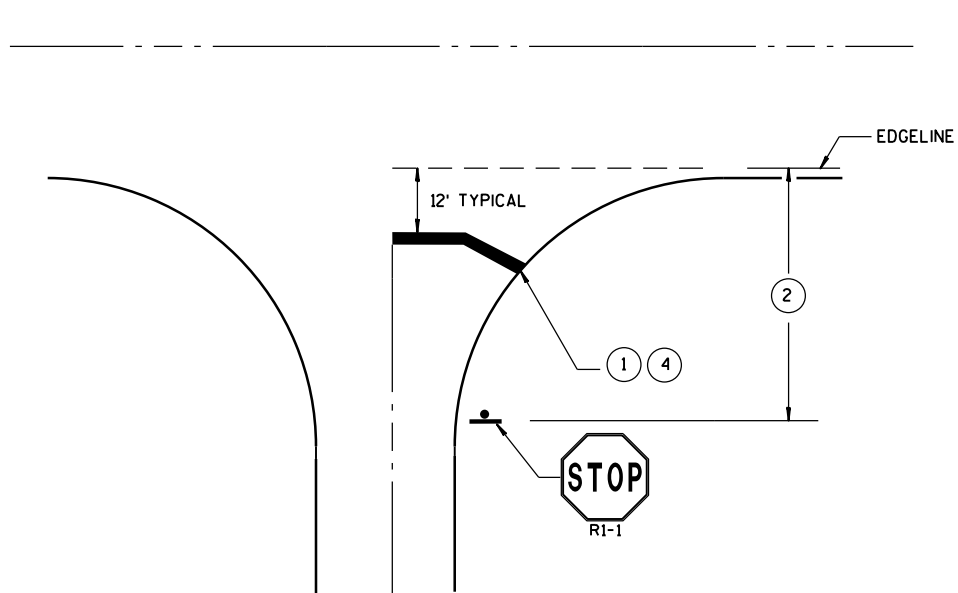
**TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER**



**TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE**



**TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING**



**TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER**

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGE LINE LOCATION.

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- ③ IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- ④ MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

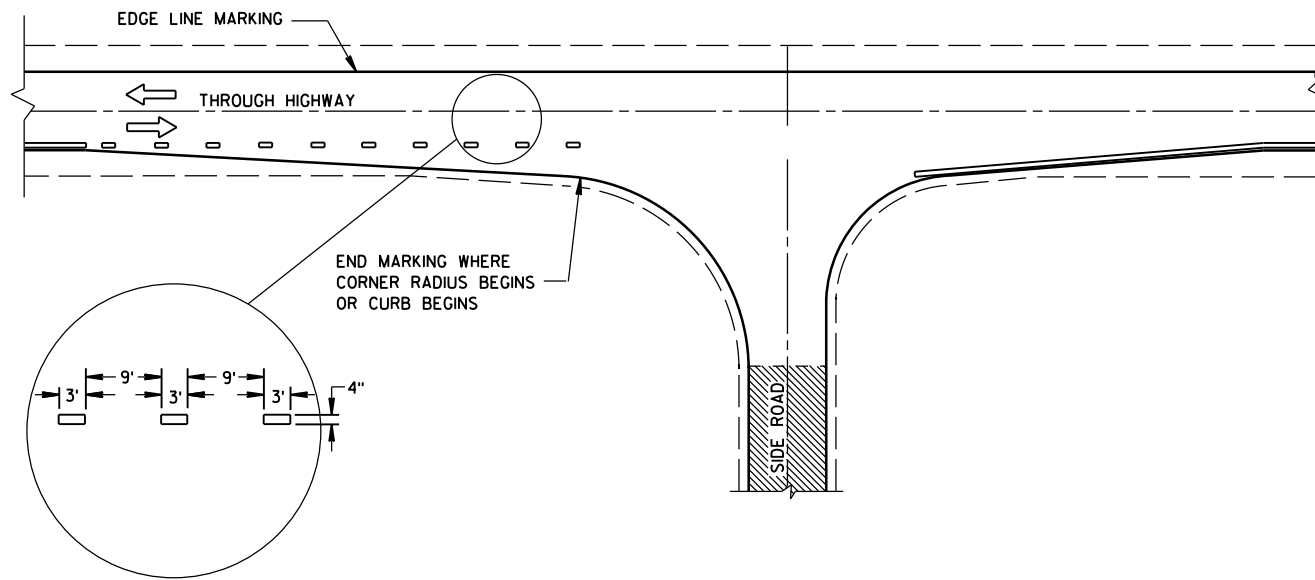
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA




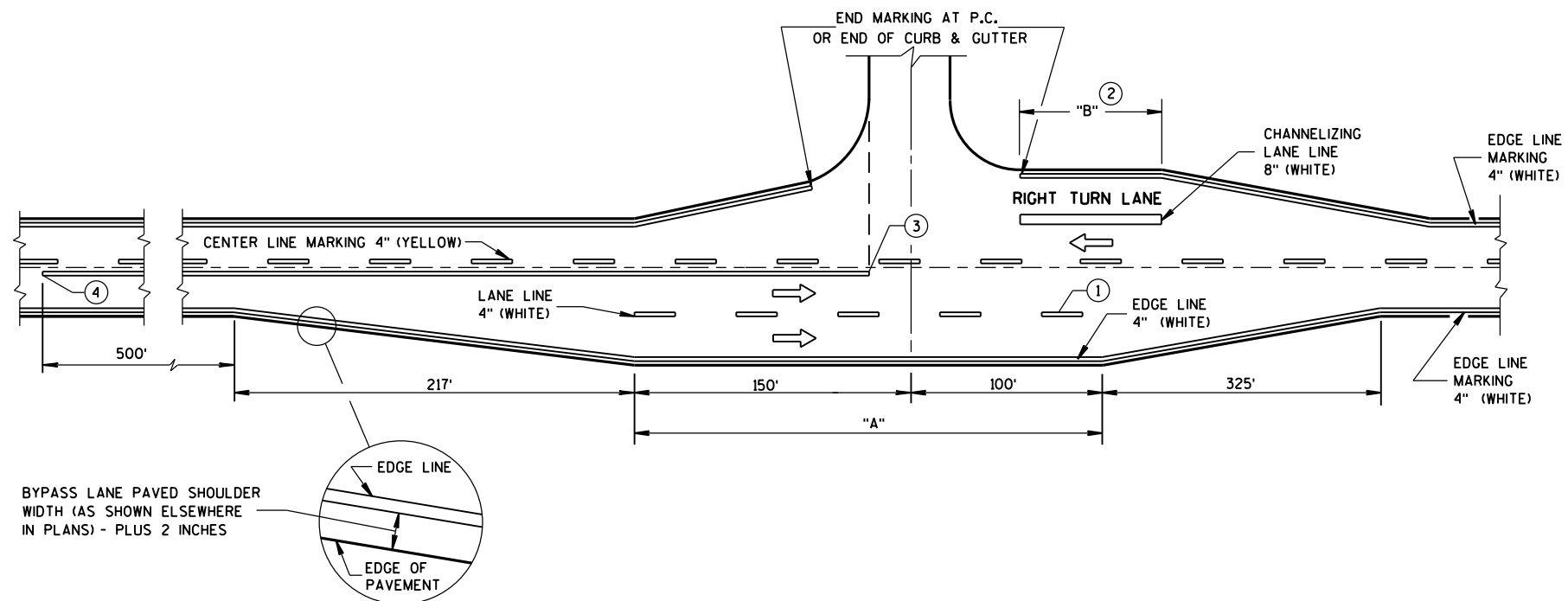
MINOR INTERSECTION

GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

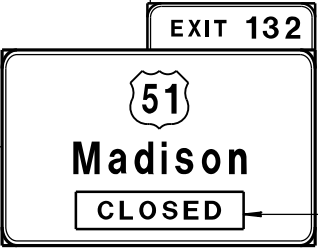
**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



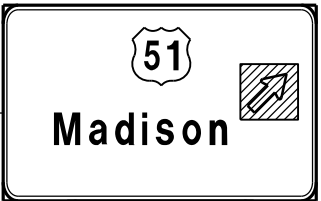
G20-60
108"x24"

OR



G20-60
108"x24"

PLACE SIGN G20-60 OVER MILEAGE
ON EXISTING E1-1A SIGN



COVER ARROW ON
EXISTING E4-1A
SIGN (COVERING
SIGNS TYPE I)

G20-61
120"x30"

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

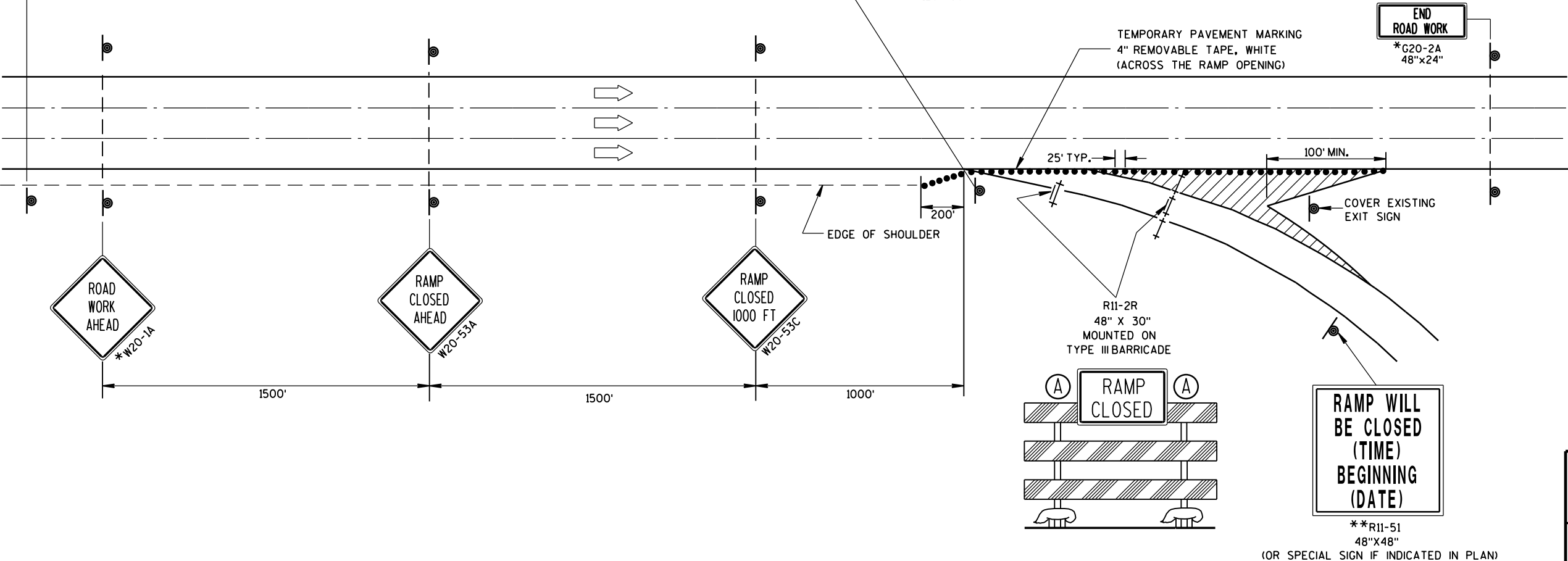
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

* W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

** PLACE "RAMP WILL BE CLOSED" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.

6

6



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

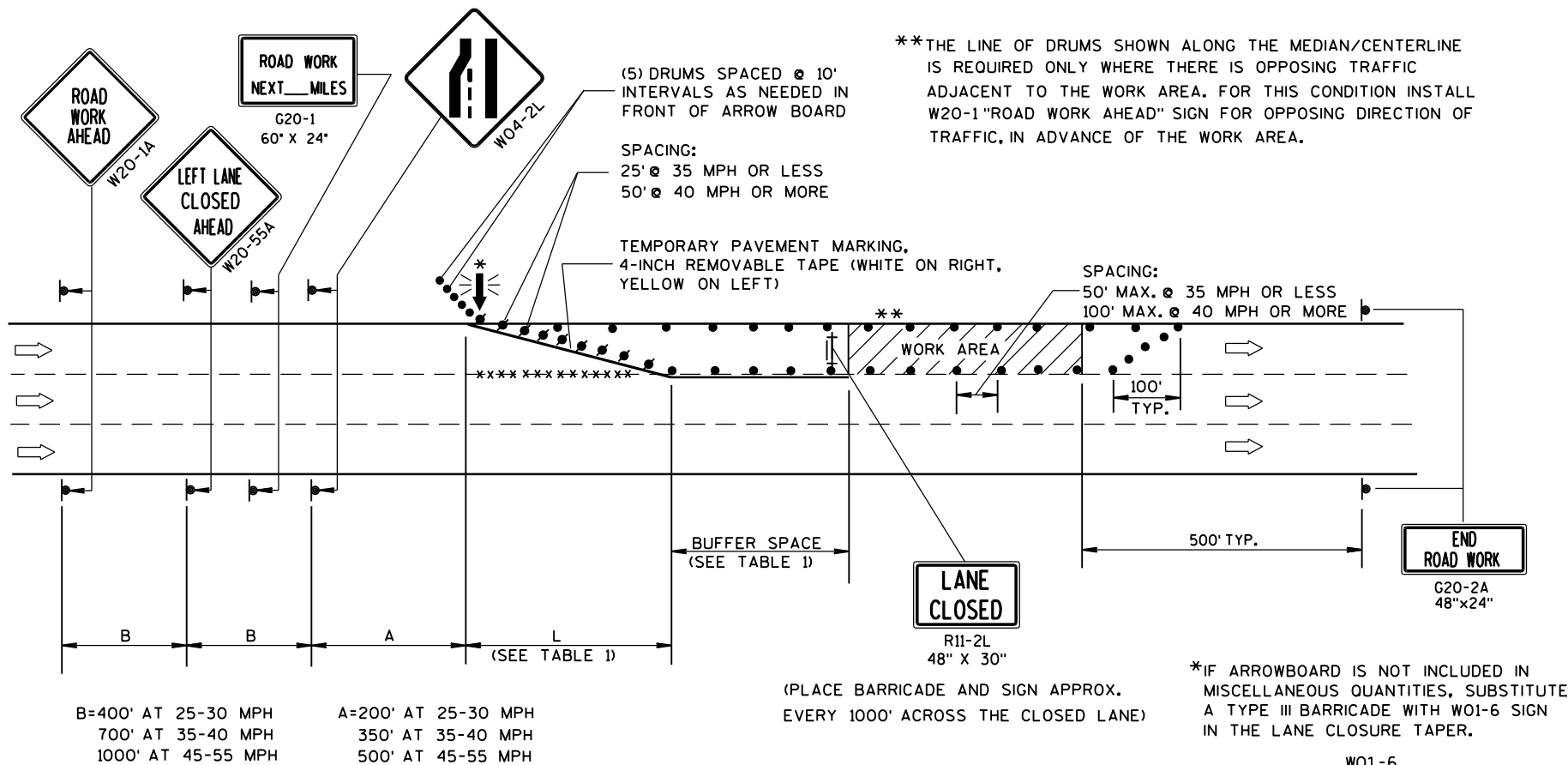
TRAFFIC CONTROL,
EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER

S.D.D. 15 D 16-3

S.D.D. 15 D 16-3



GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER
L = $\frac{WS^2}{60}$ AT 40 MPH OR LESS
L = TAPER LENGTH IN FEET
S = NON-CONSTRUCTION SPEED LIMIT (MPH)
W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

TRAFFIC CONTROL,
SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER

TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

s	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

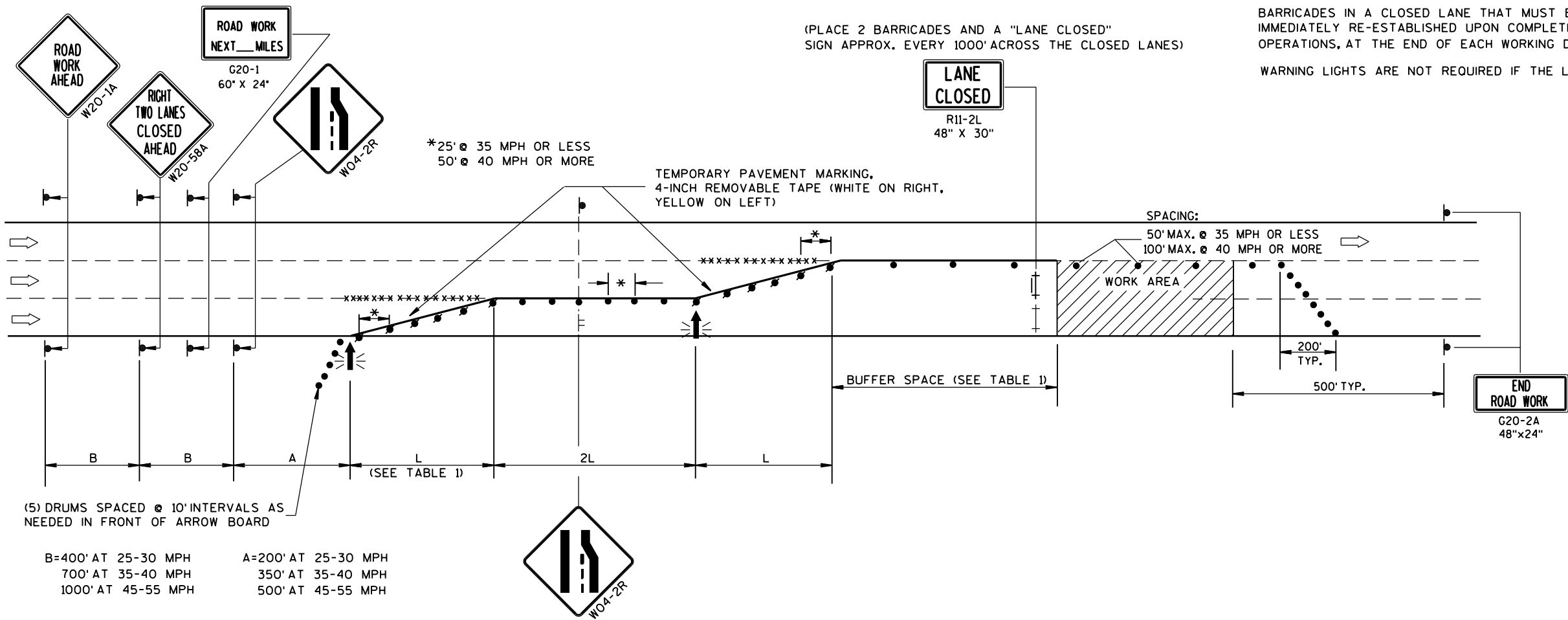
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO LOCATE THE ARROWBOARD AS SHOWN, PLACE THE ARROWBOARD IN THE LANE CLOSURE TAPER AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE TAPER.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

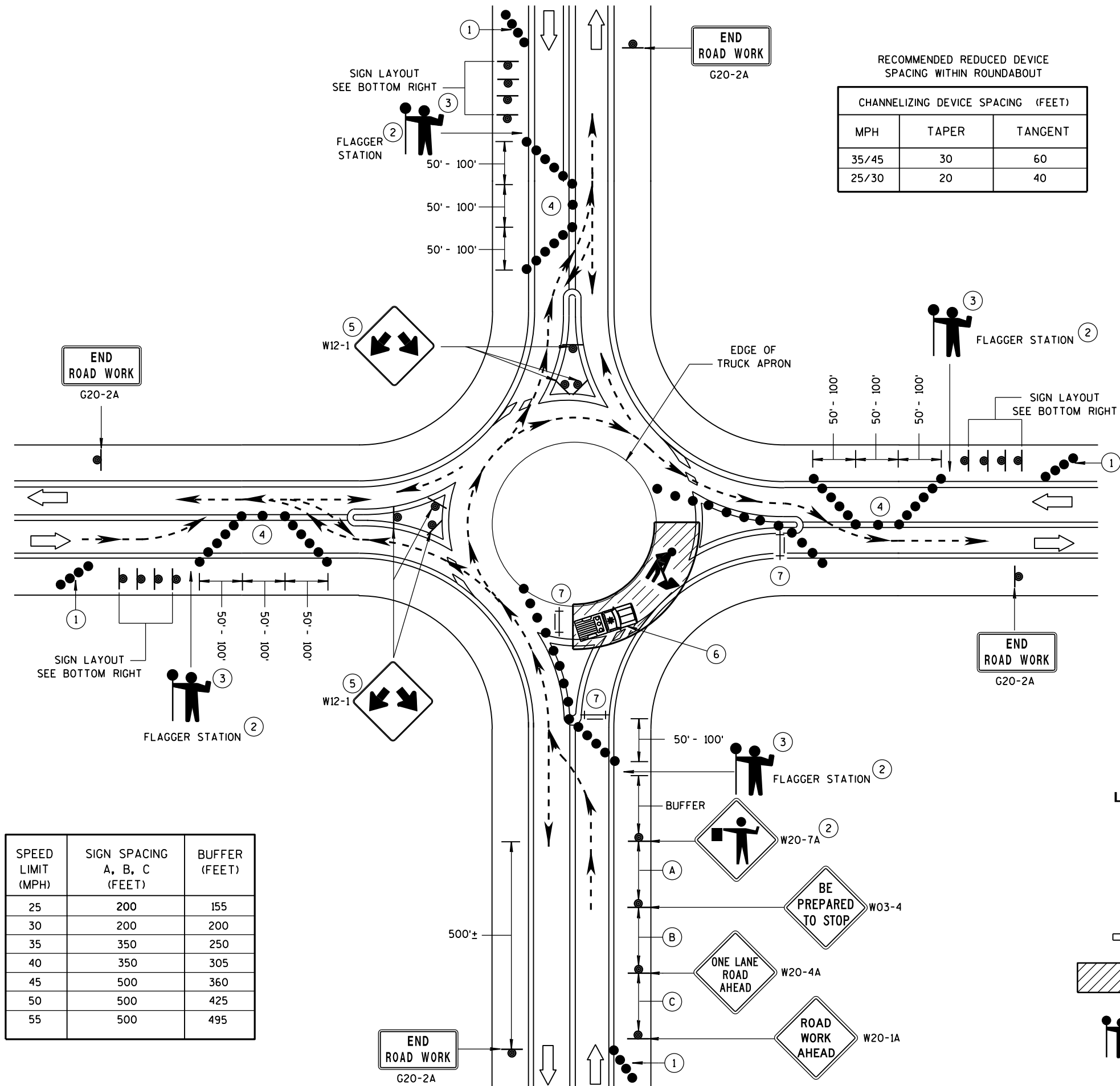
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.



TRAFFIC CONTROL,
TWO LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



SPEED LIMIT (MPH)	SIGN SPACING A, B, C (FEET)	BUFFER (FEET)
25	200	155
30	200	200
35	350	250
40	350	305
45	500	360
50	500	425
55	500	495

END
ROAD WORK
G20-2A

RECOMMENDED REDUCED DEVICE SPACING WITHIN ROUNDABOUT		
CHANNELIZING DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
35/45	30	60
25/30	20	40

GENERAL NOTES

ALL SIGNS ARE 48"x48" BLACK ON ORANGE UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS IF APPROVED BY THE ENGINEER.

REMOVE OR COVER CONFLICTING SIGNS.

THE EXACT LOCATION AND PLACEMENT OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

ONLY ONE QUADRANT OF TRAFFIC SHALL BE RELEASED AT A TIME.

FLAGGERS SHALL CONTROL TRAFFIC ON ALL APPROACHES OF THE ONE-LANE ROUNDABOUT. ONE FLAGGER SHALL BE DESIGNATED LEAD FLAGGER.

RADIO COMMUNICATION SHALL BE USED BY ALL FLAGGERS.

NIGHT TIME WORK REQUIRES ADDITIONAL LIGHTING AT FLAGGER STATION(S).

- 1 PLACE A MINIMUM OF 4 DRUMS ON THE SHOULDER IN ADVANCE OF THE PCMS IN A TAPER FOR DELINEATION ON ALL APPROACHES TO THE ROUNDABOUT.
- 2 ESTABLISH THE LIMITS OF THE WORK ZONE TO ENSURE THE MAXIMUM POSSIBLE SIGHT DISTANCE TO THE FLAGGER STATION.
- 3 FLAGGERS SHALL BE IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.
- 4 ADJUST CHANNELIZING DEVICES TO ACCOMMODATE FOR TURNING RADIUS OF LARGE VEHICLES AS DIRECTED BY THE ENGINEER.
- 5 GUIDE SIGN WITH ROAD NAMES MAY BE USED IN LIEU OF THE DOUBLE ARROW (W12-1) SIGN.
- 6 BUFFER VEHICLE RECOMMENDED TO SHIELD WORK AREA.
- 7 TYPE III BARRICADES WITH ROAD CLOSED SIGN.

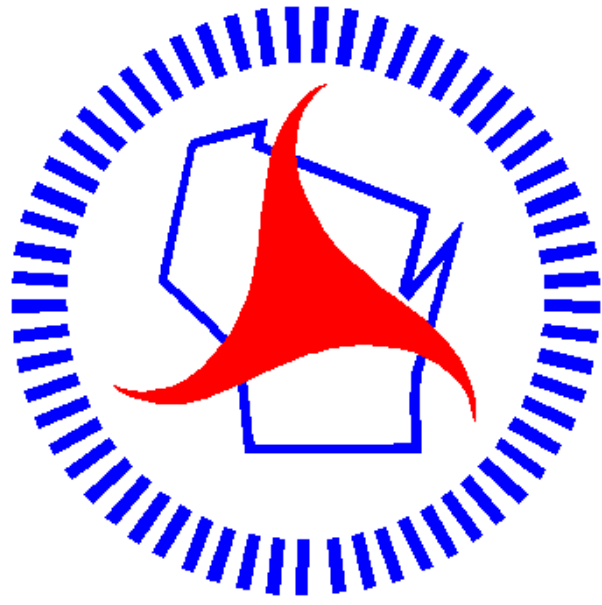
LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

TRAFFIC CONTROL,
2-LANE ROUNDABOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



Wisconsin Department of Transportation

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