

MAD PROJECT ID: 1011-01-60 WITH: 1011-01-75

MAY 2022
ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plot
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Gross Sections

TOTAL SHEETS = 72



DESIGN DESIGNATION 1011-01-30
 A.A.D.T. (2022) = 59,500
 A.A.D.T. (2042) = 66,800
 D.H.V. (2042) = 8,580 - 10,040
 D.D. = 58/42
 T. = 22.7%
 DESIGN SPEED = 70 MPH
 ESALS = 36,000,000

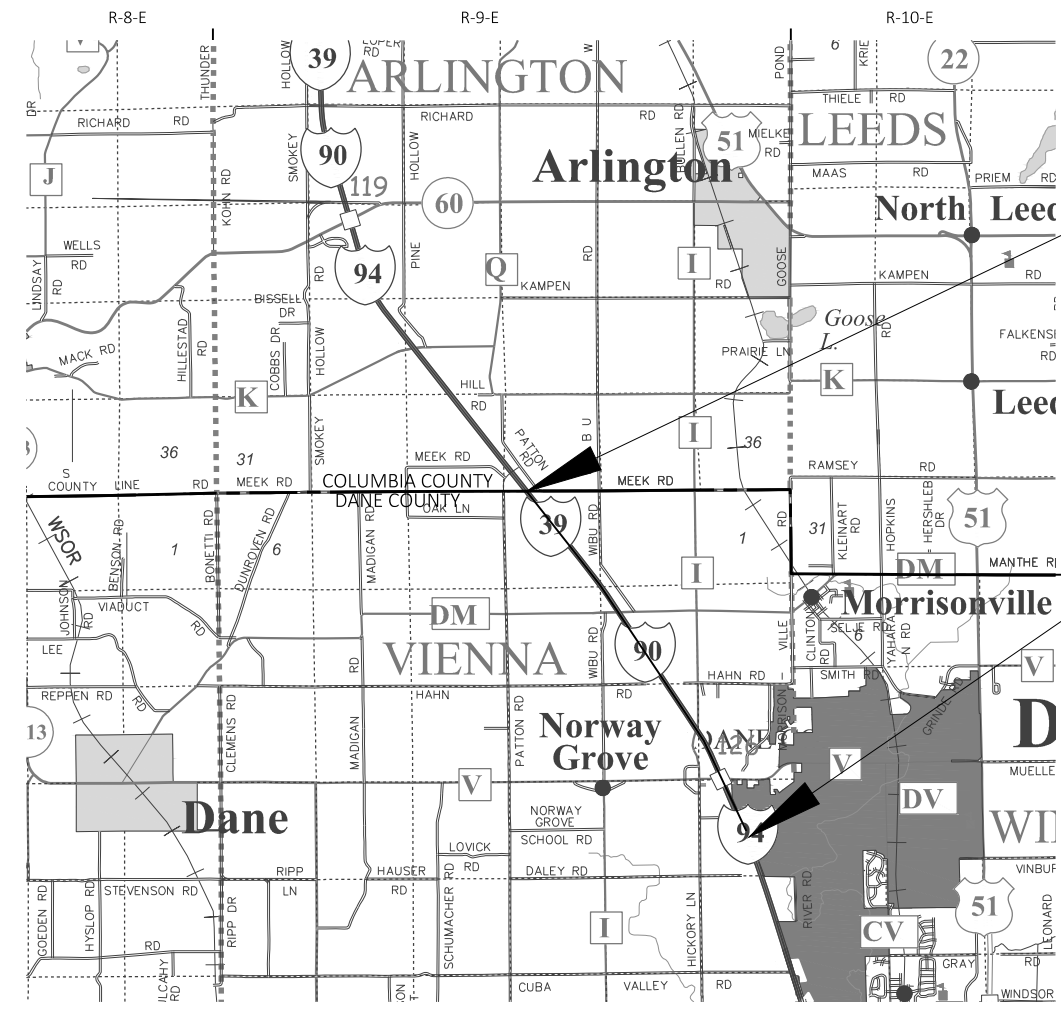
CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION
 PLAN OF PROPOSED IMPROVEMENT
MADISON - PORTAGE
 .55 MI S CTH V TO NORTH COUNTY LINE
 IH 39
 DANE COUNTY

STATE PROJECT NUMBER
1011-01-60



BEGIN PROJECT
 STA 407+70.46'EB'
 Y = 562,831.29
 X = 812,154.26

END PROJECT
 STA 629+24.00'EB'

LAYOUT
 SCALE 0 2 MI
 TOTAL NET LENGTH OF CENTERLINE = 0.000 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DANE COUNTY NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1011-01-60	WISC 2022373	1
1011-01-75	WISC 2022375	1

ORIGINAL PLANS PREPARED BY

AECOM

WISCONSIN PROFESSIONAL ENGINEER

ZACHARY R. LARSON
 E-43030
 MADISON
 WI

1/13/22 (Date) (Signature)

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor _____ AECOM
 Designer _____ AECOM
 Project Manager _____ AMY COUGHLIN
 Regional Examiner _____ SW REGION
 Regional Supervisor _____ REGIONAL SUPERVISOR

APPROVED FOR THE DEPARTMENT

DATE 1/13/2022 (Signature)

E

GENERAL NOTES:

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THEIR 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.

BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT WILL NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

STATIONING OF CONCRETE PAVEMENT REPAIR & REPLACEMENT LOCATIONS IN PLAN ARE APPROXIMATE. VERIFY LOCATIONS WITH ENGINEER.

PLAN REMOVAL AREAS ARE APPROXIMATE. EXACT LIMITS SHALL BE DETERMINED IN THE FIELD.

SAWING CONCRETE WILL BE MEASURED AND PAID FOR ONLY ONCE WHEN REPAIRS ARE ADJACENT ALONG THE C/L OF THE NB LANES (IN BOTH MEDIAN AND OUTSIDE LANES).

OVERSAWING INTO PAVEMENT THAT IS TO REMAIN TO FACILITATE REMOVAL OF REPAIR AREAS SHALL BE SEALED WITH AN APPROVED EPOXY. THE OVERSAWING AND EPOXY ARE INCIDENTAL TO BID ITEMS 416.1710, 416.1715, 416.1720 & 416.1725.

IN CONCRETE PAVEMENT REPLACEMENT SECTIONS, THE NEW JOINTS SHALL MATCH ADJACENT CONCRETE JOINT. THE NEW TINGING SHALL MATCH THE ADJACENT PAVEMENT PATTERN.

RADII, ELEVATIONS, AND DIMENSIONS ARE GIVEN AT THE PAVEMENT EDGES, UNLESS OTHERWISE NOTED IN THE PLANS.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

ADJUST TRAFFIC CONTROL DEVICE LOCATIONS TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL HAVE A MINIMUM MOUNTING HEIGHT OF 5-FEET.

EROSION CONTROL ITEMS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS TO FIT FIELD CONDITIONS.

WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES. DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.

PAVEMENT MARKING SHALL FOLLOW STANDARD DETAIL DRAWING LONGITUDINAL MARKING (MAINLINE).

PAVEMENT MARKINGS IMPACTED DURING PROJECT SHALL BE REPLACED IN KIND.

MEDIAN AND OUTSIDE SHOULDERS FOR IH 39 NB/ 90/94 WB SHALL HAVE CONCRETE PAVEMENT REPAIR AND REPLACEMENT AS DIRECTED BY THE ENGINEER BETWEEN STA 547+00'WB' TO 595+00'WB' (FOR TRAFFIC CONTROL IN PROJECT 1011-01-75).

ABBREVIATIONS

AHEAD	AH
BACK	BK
CENTERLINE	CL or C/L
CONCRETE	CONC
COUNTY TRUNK HIGHWAY	CTH
EXISTING	EX
GRID NORTH	GN
LEFT	LT
POINT OF TANGENCY	PT
REFERENCE LINE	RL or R/L
POINT OF CURVATURE	PC
POINT OF INTERSECTION	PI
RIGHT	RT
RIGHT OF WAY	RW or R/W
SQUARE FEET	SF
STATE TRUNK HIGHWAY	STH
STATION	STA
VOLUME	V

WISDOT DESIGN PROJECT MANAGER

AMY COUGHLIN
SOUTHWEST REGION, MADISON OFFICE
2101 WRIGHT ST
MADISON, WI 53704
(608) 245-5358
amy.coughlin@dot.wi.gov

DESIGN CONTACT

AECOM
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MIDDLETON, WI 53562
(608) 828-8165
zachary.larson@aecom.com

WISDNR

(SOUTHWEST REGION)
ERIC HEGGELUND
3911 FISH HATCHERY RD
FITCHBURG, WI 53711
(608) 228-7927
eric.heggelund@wisconsin.gov

WISDOT COMMUNICATIONS CONTACT

WISCONSIN DEPARTMENT OF TRANSPORTATION
JEFF MADSON
433 W ST PAUL AVE, STE 300
MILWAUKEE, WI 53203-3007
(414) 225-3723
Jeffrey.Madson@dot.wi.gov

DETAIL SHEET INDEX

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- TRAFFIC CONTROL
- DETOURS
- ALIGNMENT DATA

UTILITIES

COMMUNICATIONS

AT&T LEGACY
KENNETH NINE
JMC ENGINEERS & ASSOCIATES, INC
110 N MAIN ST
CULVER, IN 46511
(574) 842-8830
knine@jmceainc.com
CC: VANESSA ROSS
VF2021@att.com

LUMEN (FORMERLY CENTURYLINK)
STEVE BISHOP
130 4TH STREET
BARABOO, WI 53913
(608) 355-7501
Steven.Bishop@lumen.com

CHARTER COMMUNICATIONS
EDWIN DAVY
2701 DANIELS ST
MADISON, WI 53718
(608) 301-7713
edwin.davy@charter.com

TDS METROCOM LLC
KIRK OLSON
328 RAEMISCH RD
WAUNAKEE, WI 53597
(608) 849-1339
kirk.olson@tdstelecom.com

ELECTRICITY

ALLIANT ENERGY
KAI GRAFF
6462 BLANCHAR'S CROSSING
WINDSOR, WI 53598
(608) 459-5797
KaiGraff@alliantenergy.com

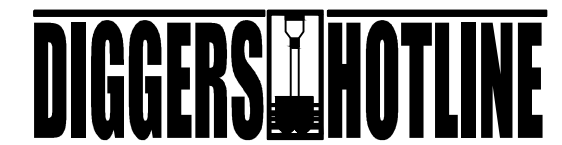
ATC MANAGEMENT, INC
DOUG VOSBERG
2489 RINDEN RD
COTTAGE GROVE, WI 53527
(608) 877-7650
dvosberg@atcllc.com

GAS

MADISON GAS AND ELECTRIC COMPANY
ROGER AHLES
623 RAILROAD ST
MADISON, WI 53701
(608) 252-5682
rahles@mge.com

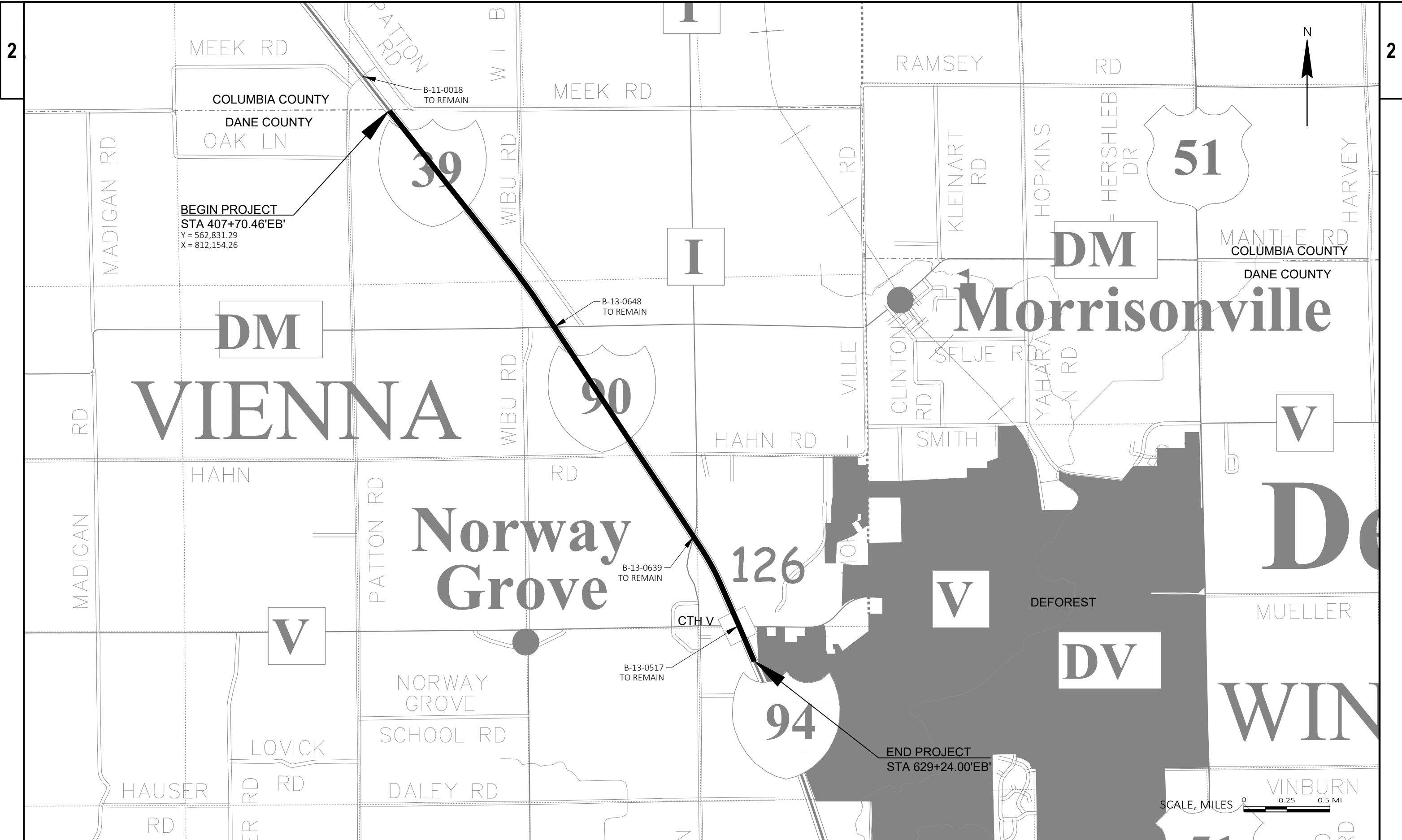
WATER

VILLAGE OF DEFOREST
GREG HALL
120 S. STEVENSON ST
DEFOREST, WI 53532
(608) 807-7023
hallg@vi.deforest.wi.us

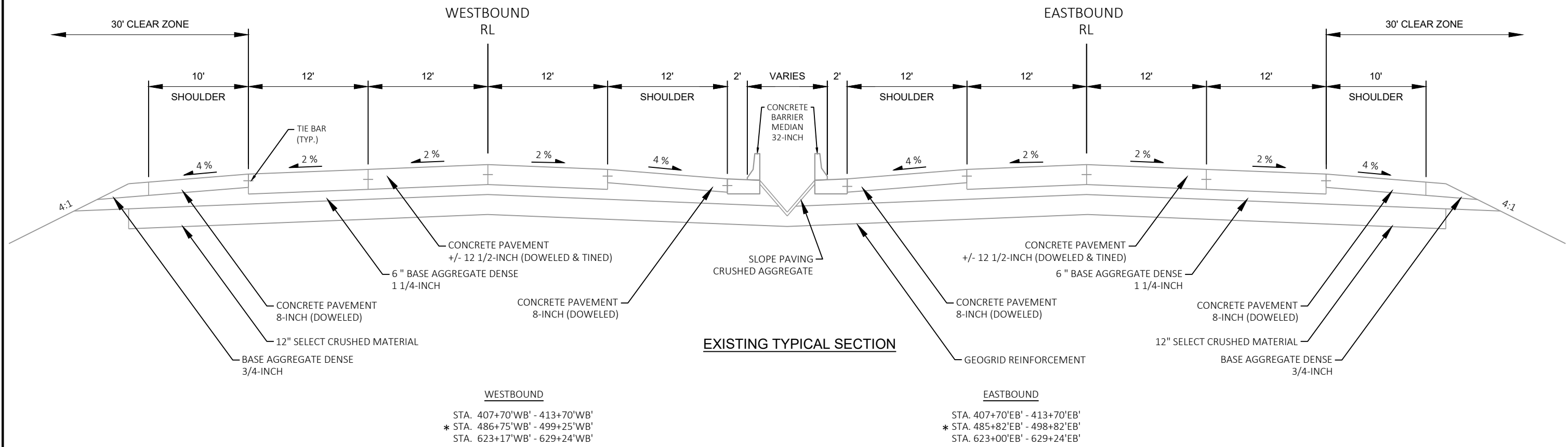


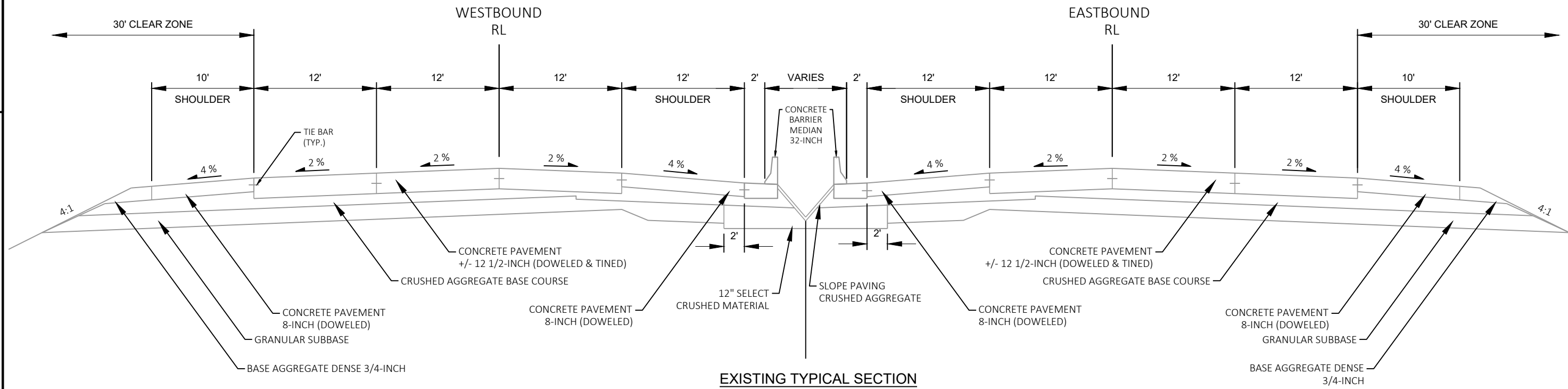
Dial **811** or (800)242-8511
www.DiggersHotline.com

PROJECT NO: 1011-01-60	HWY: IH 39	COUNTY: DANE	GENERAL NOTES	SHEET	E
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PROJECT NO: 1011-01-60	HWY: IH 39	COUNTY: DANE	PROJECT OVERVIEW	SHEET E
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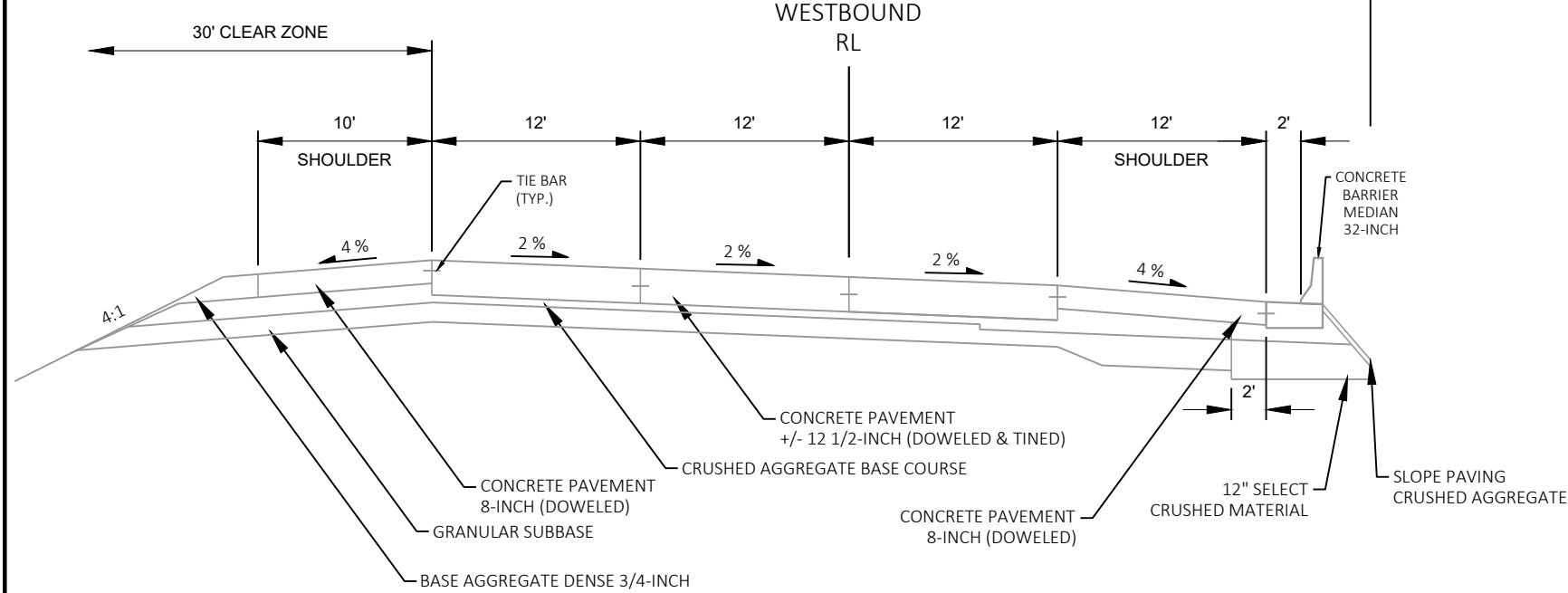
EXISTING TYPICAL SECTION

WESTBOUND

- STA. 413+70'WB' - 471+27'WB'
- STA. 479+94'WB' - 486+75'WB'
- STA. 499+25'WB' - 547+12'WB'
- STA. 599+78'WB' - 623+17'WB'

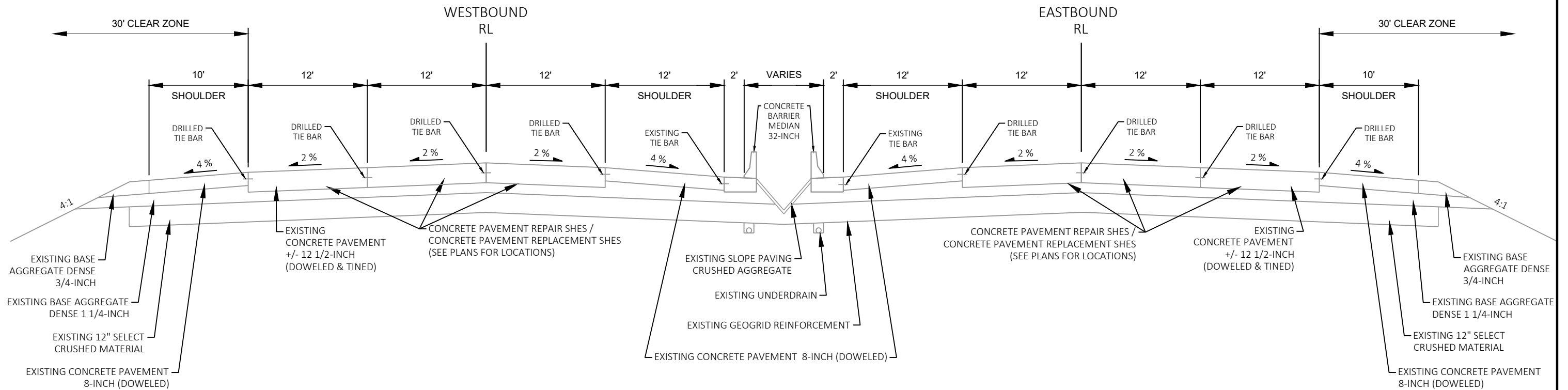
EASTBOUND

- STA. 413+70'EB' - 485+82'EB'
- STA. 498+82'EB' - 547+12'EB'
- STA. 559+78'EB' - 623+00'EB'



EXISTING TYPICAL HALF SECTION

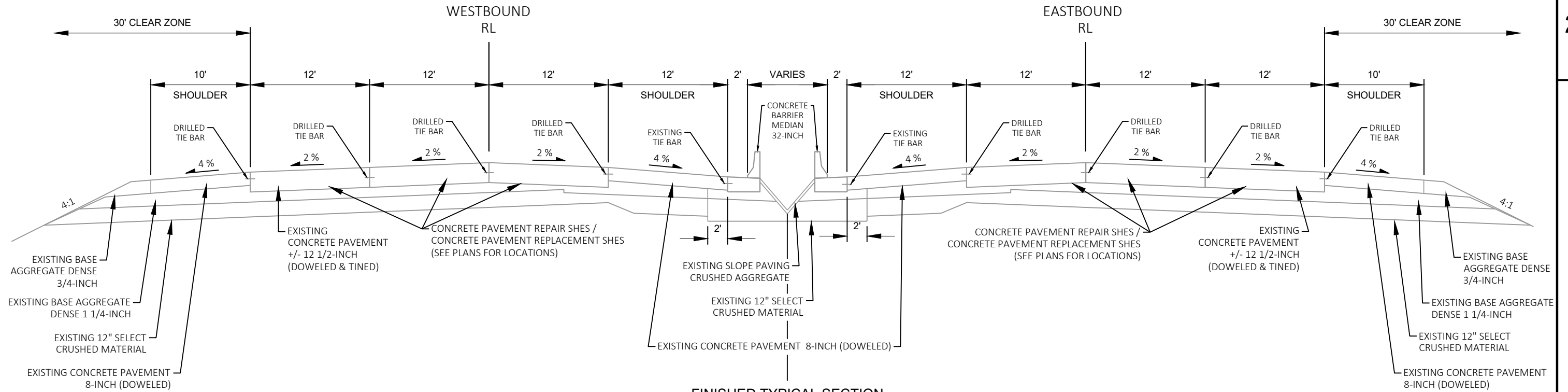
STA. 471+27'WB' - 479+94'WB'



FINISHED TYPICAL SECTION

WESTBOUND
 STA. 407+70'WB' - 413+70'WB'
 STA. 486+75'WB' - 499+25'WB'
 STA. 623+17'WB' - 629+24'WB'

EASTBOUND
 STA. 407+70'EB' - 413+70'EB'
 STA. 485+82'EB' - 498+82'EB'
 STA. 623+00'EB' - 629+24'EB'



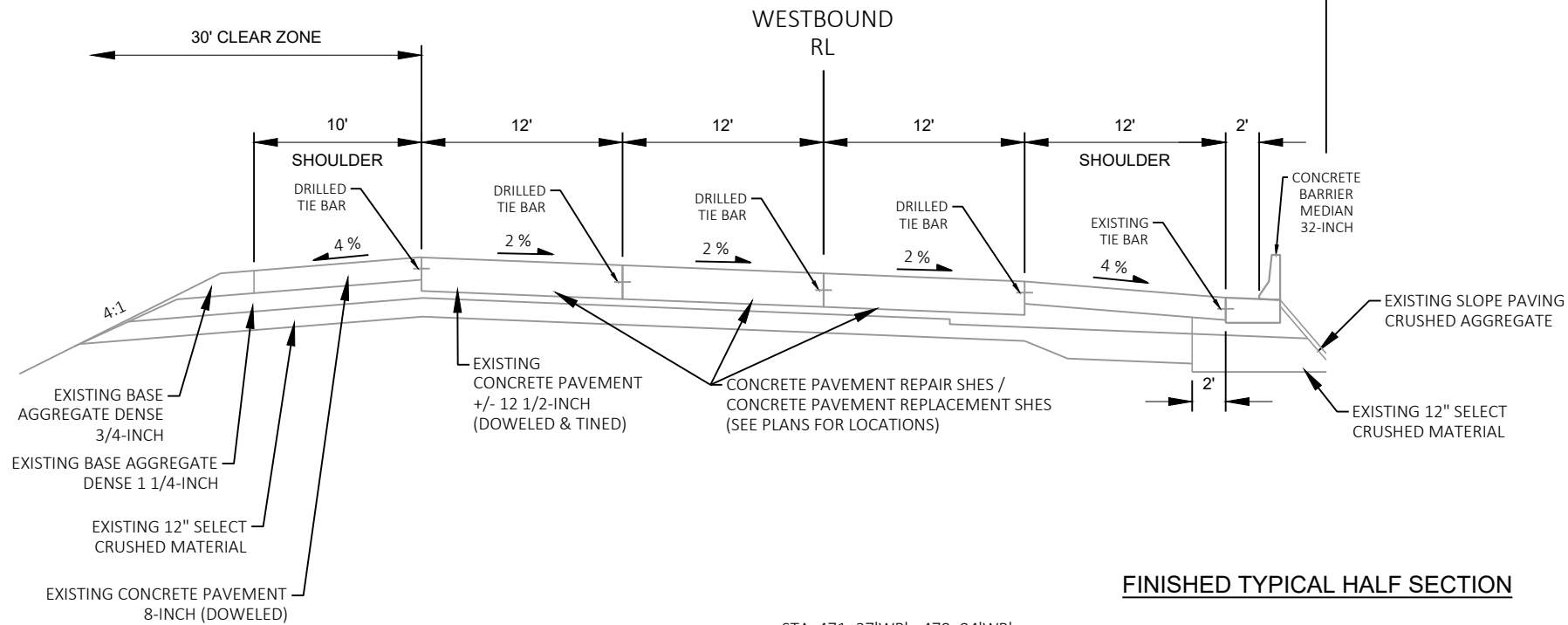
FINISHED TYPICAL SECTION

WESTBOUND

STA. 413+70'WB' - 471+27'WB'
 STA. 479+94'WB' - 486+75'WB'
 STA. 499+25'WB' - 547+12'WB'
 STA. 599+78'WB' - 623+17'WB'

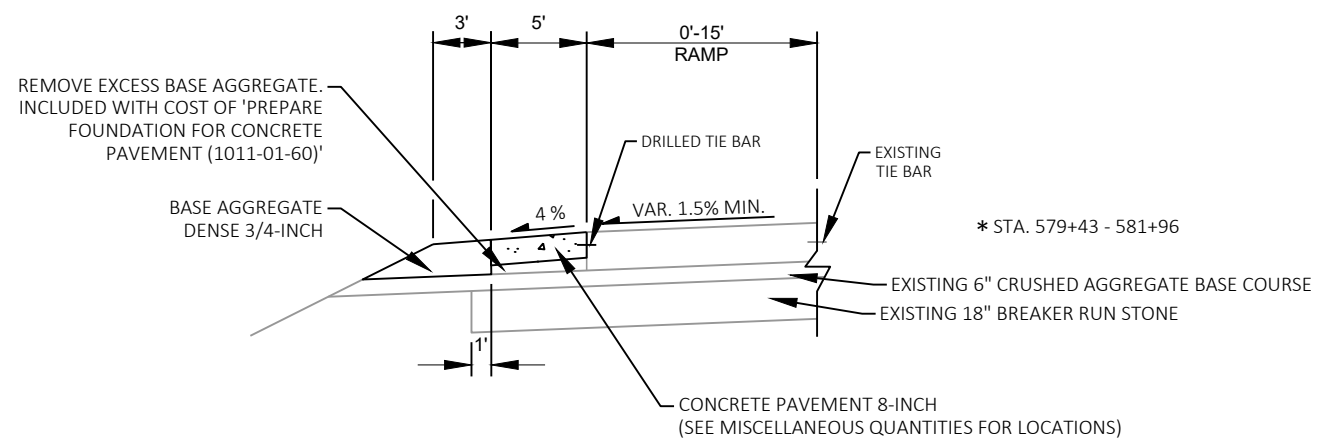
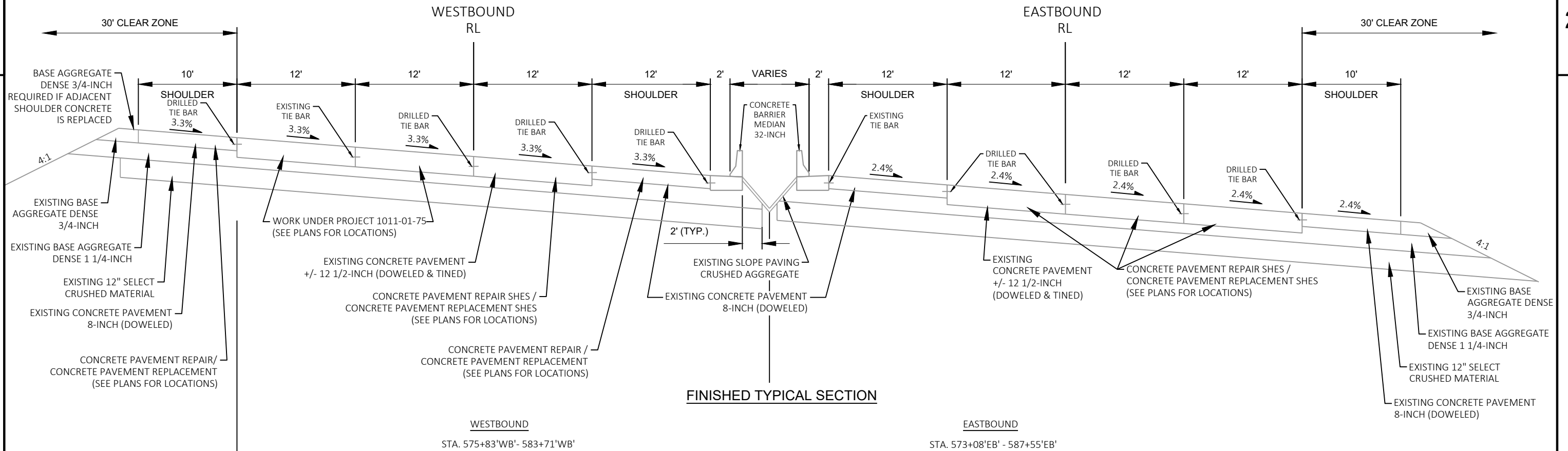
EASTBOUND

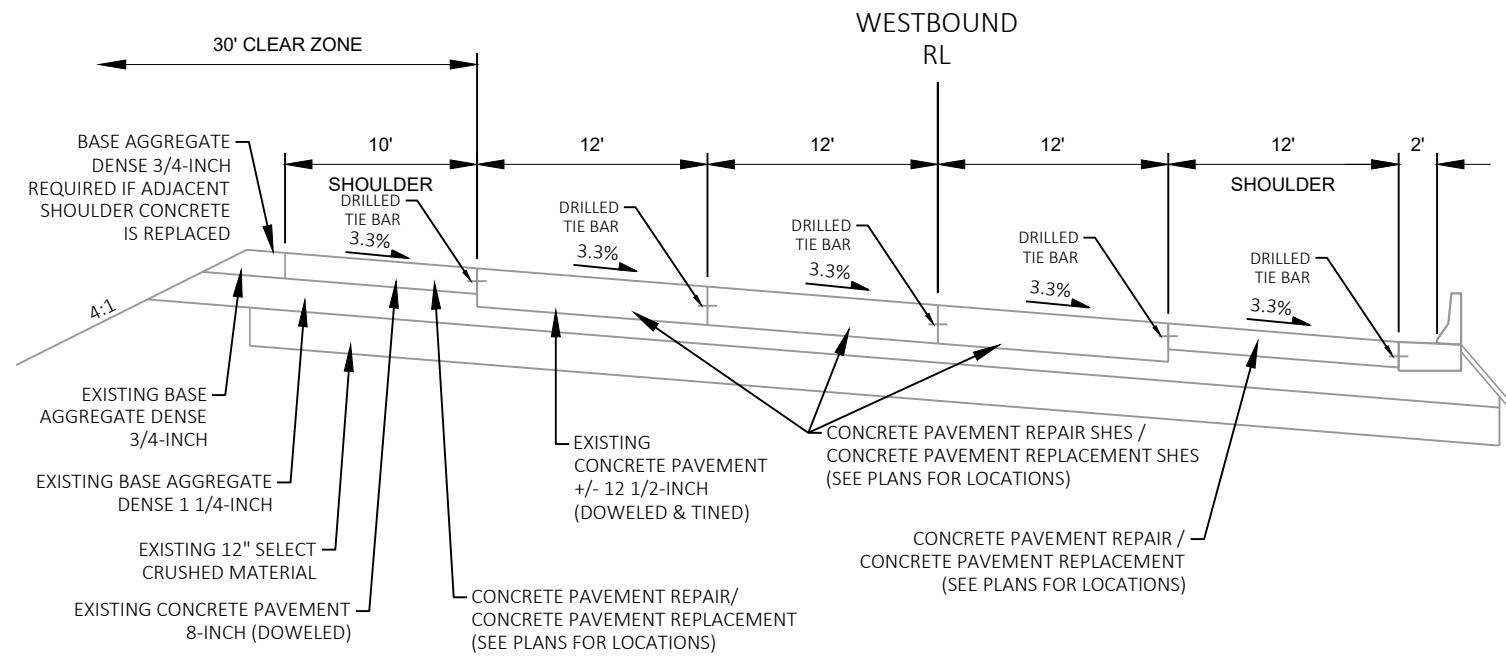
STA. 413+70'EB' - 485+82'EB'
 STA. 498+82'EB' - 547+12'EB'
 STA. 559+78'EB' - 623+00'EB'



FINISHED TYPICAL HALF SECTION

STA. 471+27'WB' - 479+94'WB'

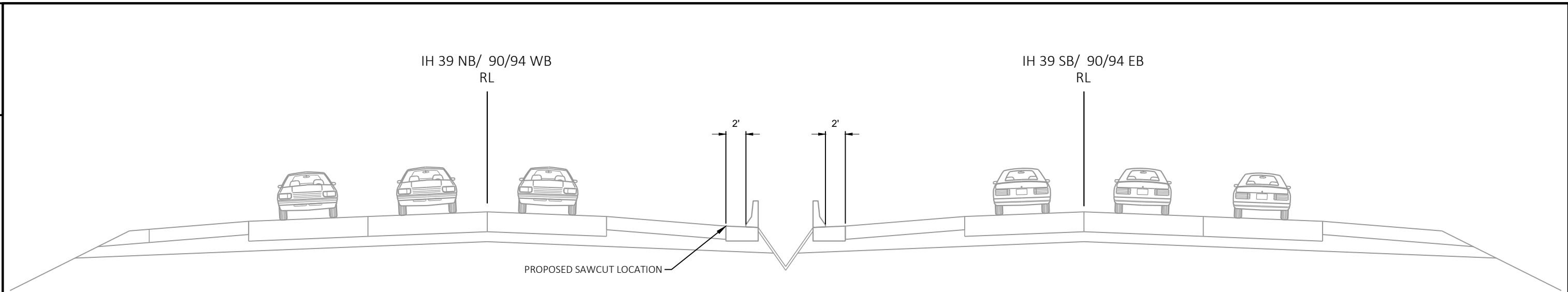




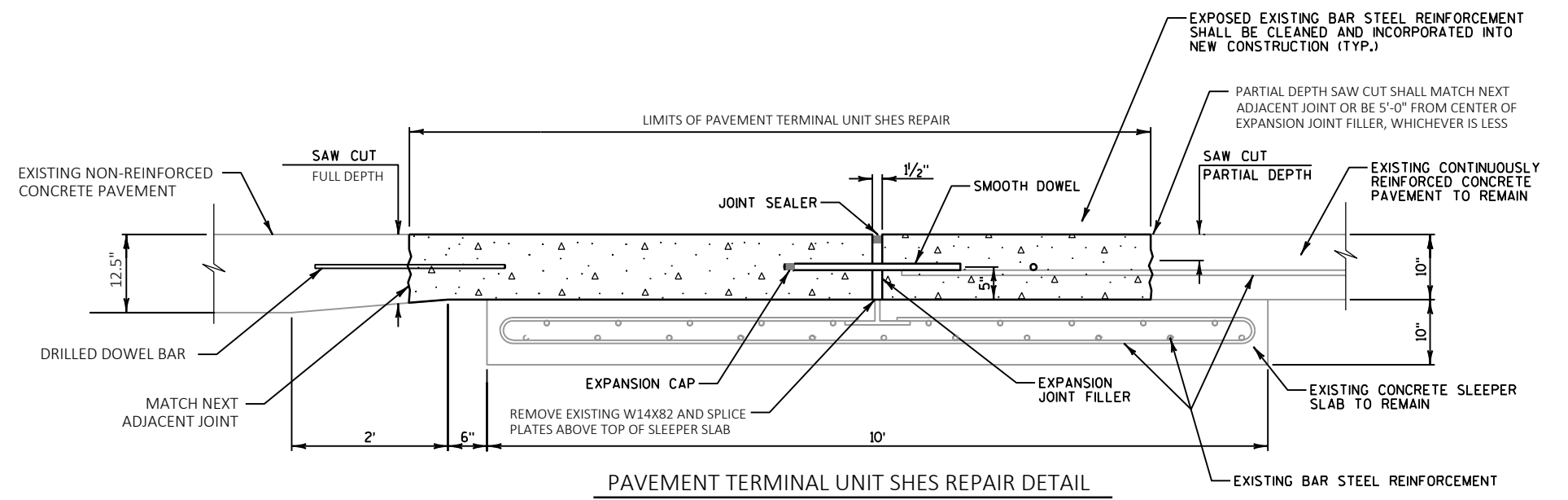
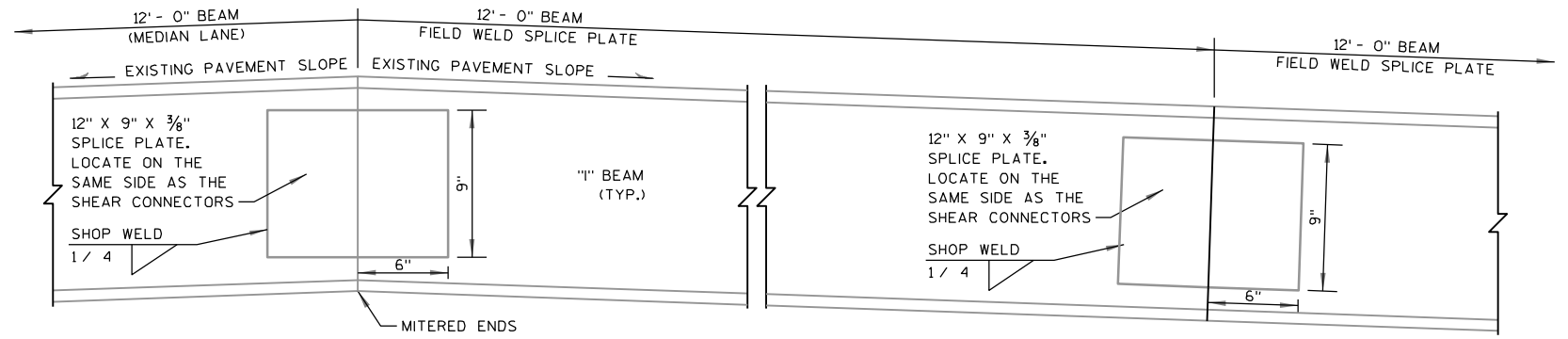
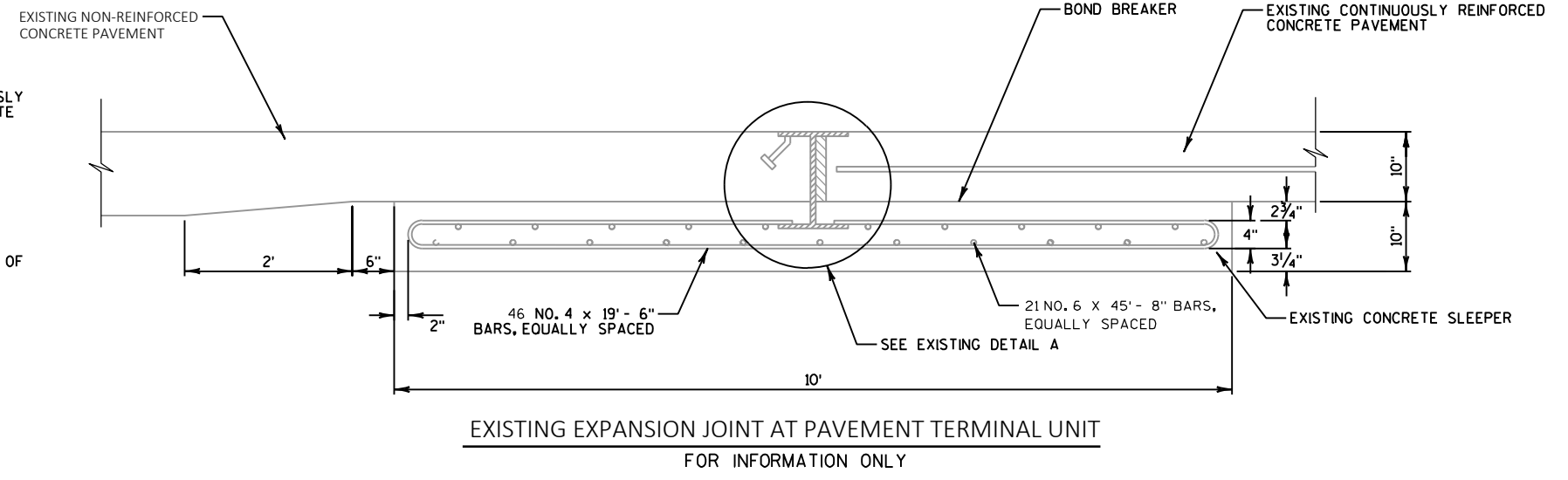
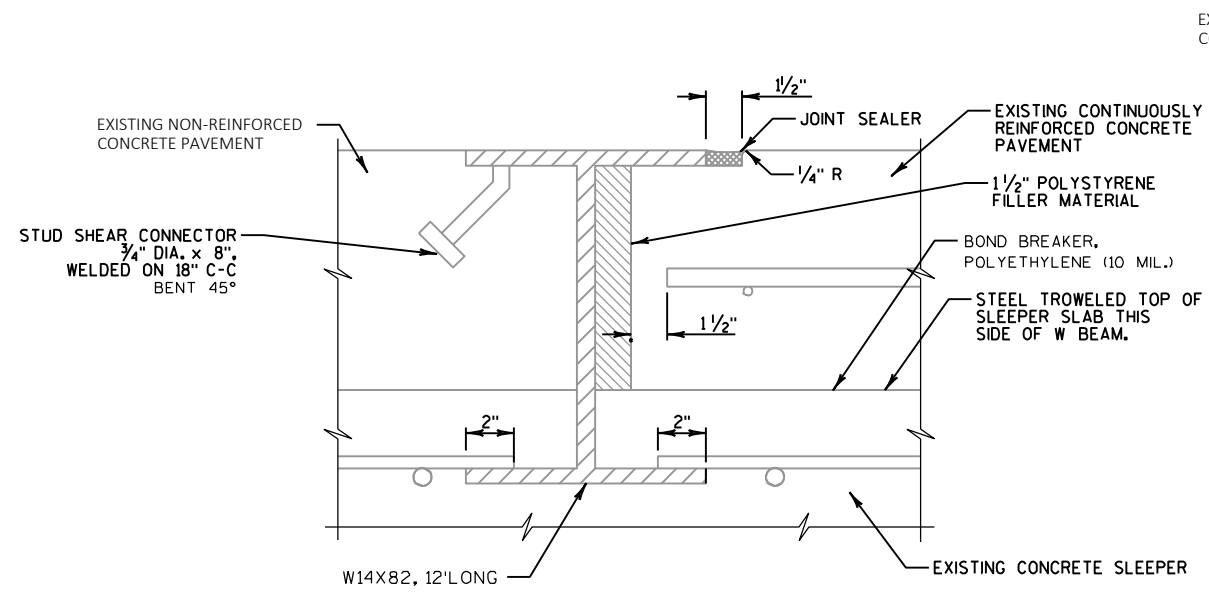
FINISHED TYPICAL HALF SECTION

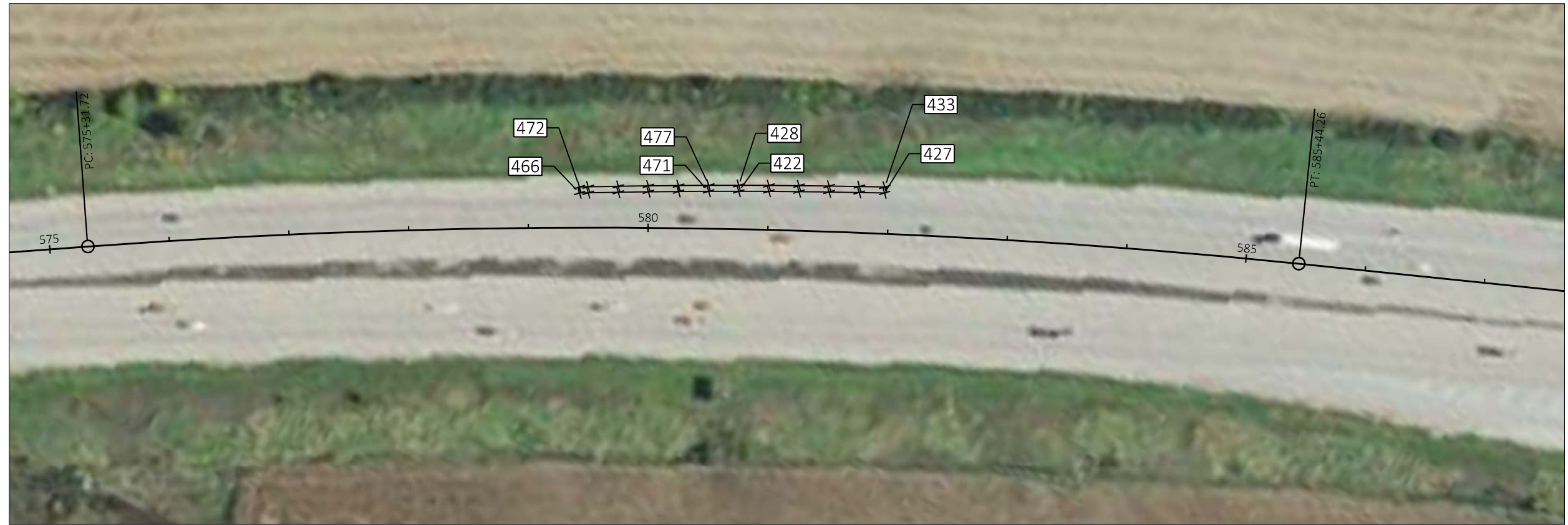
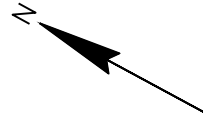
WESTBOUND

STA. 583+71'WB'- 584+93'WB'



SAWCUT LOCATION AT WB MEDIAN SHOULDER PAVING LOCATIONS





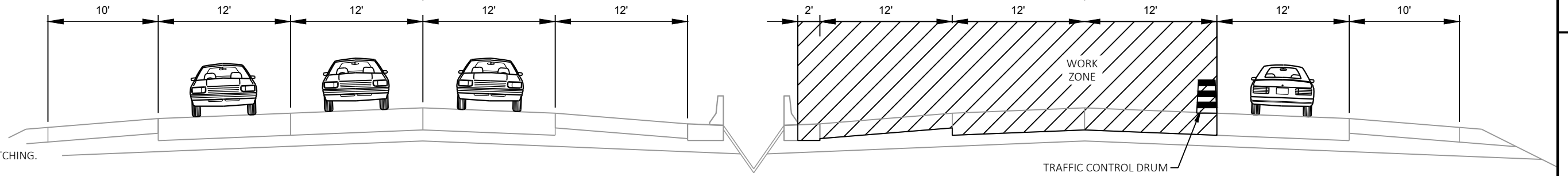
NOTE: CONTRACTOR TO FIELD VERIFY ELEVATIONS AND CROSS-SLOPES TO MATCH FINAL CONFIGURATION.

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	ELEVATION
472	579+42.75	33.99 LT	969.38
466	579+42.78	28.98 LT	969.22
473	579+50.00	34.11 LT	969.28
467	579+50.00	29.11 LT	969.11
474	579+75.00	34.58 LT	968.93
468	579+75.00	29.58 LT	968.77
475	580+00.00	35.11 LT	968.59
469	580+00.00	30.10 LT	968.43
476	580+25.00	35.58 LT	968.28
470	580+25.00	30.58 LT	968.11
477	580+50.00	36.10 LT	967.96
471	580+50.00	31.10 LT	967.79
428	580+75.00	36.58 LT	967.62
422	580+75.00	31.57 LT	967.45
429	581+00.00	37.10 LT	967.30
423	581+00.00	32.10 LT	967.13
424	581+25.00	32.58 LT	966.80
430	581+25.00	37.58 LT	966.98

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	ELEVATION
431	581+50.00	38.10 LT	966.60
425	581+50.00	33.11 LT	966.43
432	581+75.00	38.58 LT	966.27
426	581+75.00	33.57 LT	966.10
433	581+96.00	39.04 LT	966.03
427	581+96.00	34.04 LT	965.86

IH 39 NB & 90/94 WB
RL

IH 39 SB & 90/94 EB
RL



**STAGE 1A:
CONSTRUCTION ACTIVITIES**

- 1) COMPLETE INSIDE LANE PATCHING.

TRAFFIC

- 1) CENTER AND INSIDE LANES CLOSED DURING NIGHT TIME CLOSURES

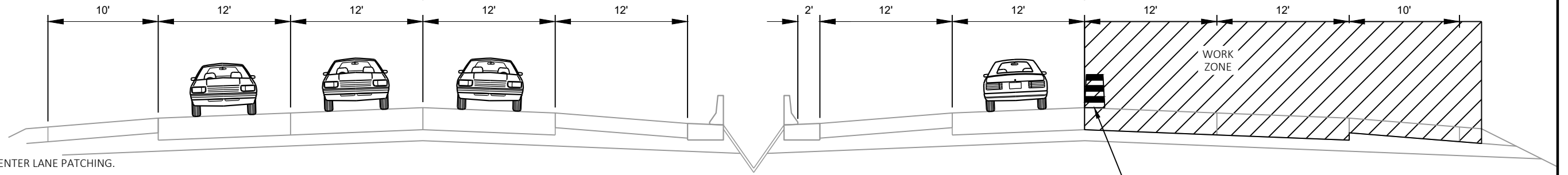
STANDARD DETAIL DRAWINGS REQUIRED

- 1) TRAFFIC CONTROL, DROP OFF SIGNING
- 2) TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)
- 3) TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE
- 4) TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

TRAFFIC CONTROL TYPICAL SECTION
STAGE 1A NIGHT TIME LANE CLOSURE

IH 39 NB & 90/94 WB
RL

IH 39 SB & 90/94 EB
RL



**STAGE 1B:
CONSTRUCTION ACTIVITIES**

- 1) COMPLETE OUTSIDE AND CENTER LANE PATCHING.

TRAFFIC

- 1) CENTER AND OUTSIDE LANES CLOSED DURING NIGHT TIME CLOSURES.

STANDARD DETAIL DRAWINGS REQUIRED

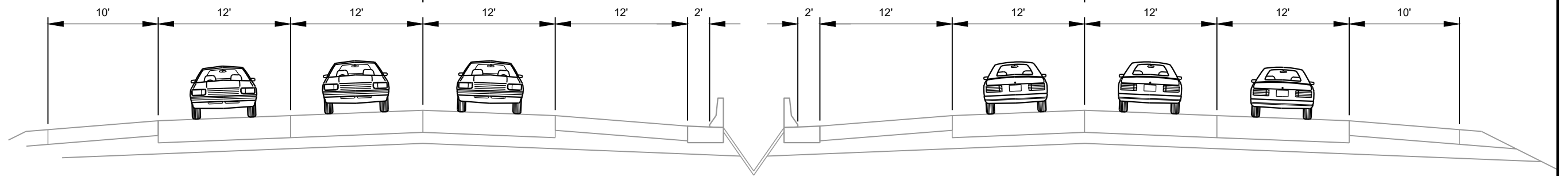
- 1) TRAFFIC CONTROL, DROP OFF SIGNING
- 2) TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)
- 3) TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE
- 4) TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
- 5) TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

TRAFFIC CONTROL TYPICAL SECTION
STAGE 1B NIGHT TIME LANE CLOSURE

* DRUM MAY BE TEMPORARILY MOVED INTO THE ADJACENT LANE WHILE PATCHING CENTER LANES. IMMEDIATELY MOVE DRUM BACK TO LOCATION SHOWN AFTER PATCHING OPERATION COMPLETE

IH 39 NB & 90/94 WB
RL

IH 39 SB & 90/94 EB
RL



**STAGE 1A & 1B DAYTIME:
CONSTRUCTION ACTIVITIES**

- 1) NONE

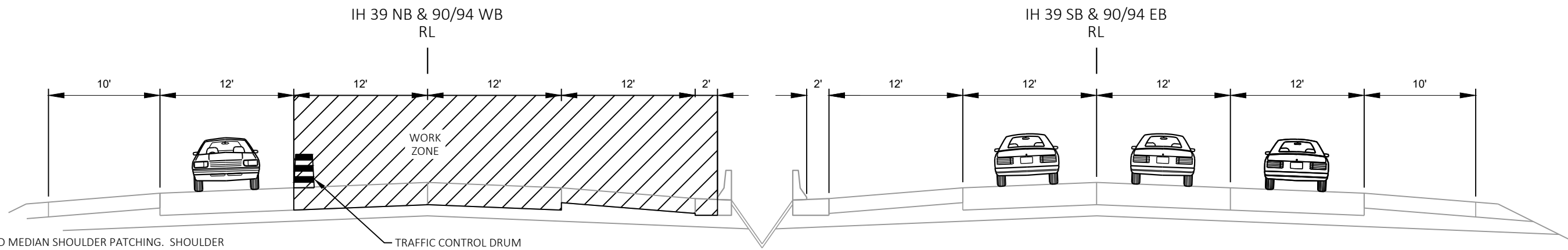
TRAFFIC

- 1) ALL THREE LANES OPEN TO TRAFFIC

STANDARD DETAIL DRAWINGS REQUIRED

- 1) NONE

TRAFFIC CONTROL TYPICAL SECTION
STAGE 1A & 1B DAYTIME



TRAFFIC CONTROL TYPICAL SECTION
STAGE 2A NIGHT TIME LANE CLOSURE

**STAGE 2A:
CONSTRUCTION ACTIVITIES**

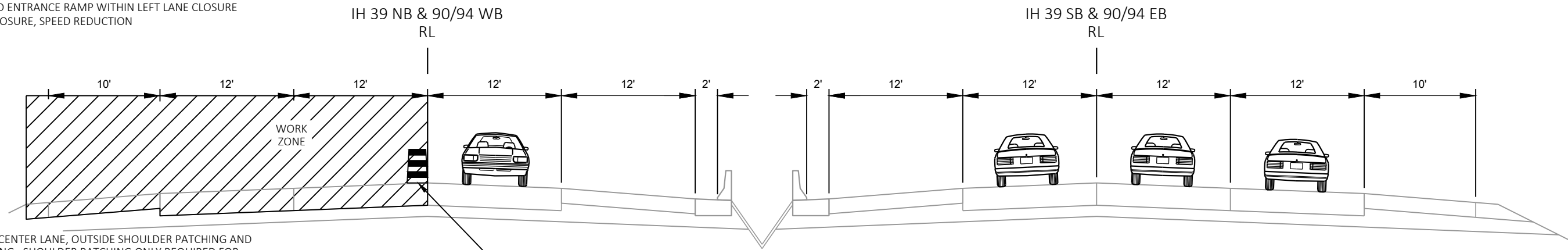
- 1) COMPLETE INSIDE LANE AND MEDIAN SHOULDER PATCHING. SHOULDER PATCHING ONLY REQUIRED FOR 1011-01-75 TRAFFIC CONTROL BETWEEN STA 547+05 AND 594+68

TRAFFIC

- 1) CENTER AND INSIDE LANES CLOSED DURING NIGHT TIME CLOSURES

STANDARD DETAIL DRAWINGS REQUIRED

- 1) TRAFFIC CONTROL, DROP OFF SIGNING
- 2) TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)
- 3) TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE
- 4) TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION



TRAFFIC CONTROL TYPICAL SECTION
STAGE 2B NIGHT TIME LANE CLOSURE

**STAGE 2B:
CONSTRUCTION ACTIVITIES**

- 1) COMPLETE OUTSIDE LANE, CENTER LANE, OUTSIDE SHOULDER PATCHING AND SHOULDER CONCRETE PAVING. SHOULDER PATCHING ONLY REQUIRED FOR 1011-01-75 TRAFFIC CONTROL BETWEEN STA 547+40 AND 593+61 AND SHOULDER CONCRETE PAVING ONLY REQUIRED BETWEEN STA 579+43 AND 581+96

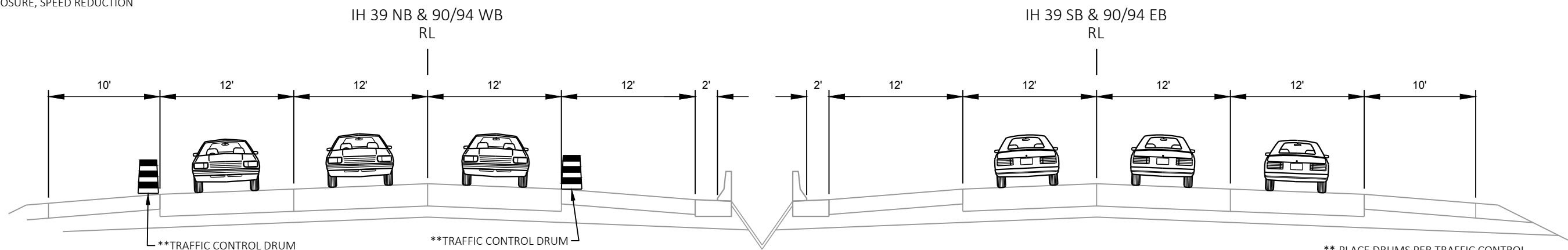
TRAFFIC

- 1) CENTER AND OUTSIDE LANES CLOSED DURING NIGHT TIME CLOSURES.

STANDARD DETAIL DRAWINGS REQUIRED

- 1) TRAFFIC CONTROL, DROP OFF SIGNING
- 2) TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)
- 3) TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE
- 4) TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
- 5) TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

* DRUM MAY BE TEMPORARILY MOVED INTO THE ADJACENT LANE WHILE PATCHING CENTER LANES. IMMEDIATELY MOVE DRUM BACK TO LOCATION SHOWN AFTER PATCHING OPERATION COMPLETE



TRAFFIC CONTROL TYPICAL SECTION
STAGE 2A & 2B DAYTIME

**STAGE 2A & 2B DAYTIME:
CONSTRUCTION ACTIVITIES**

- 1) NONE

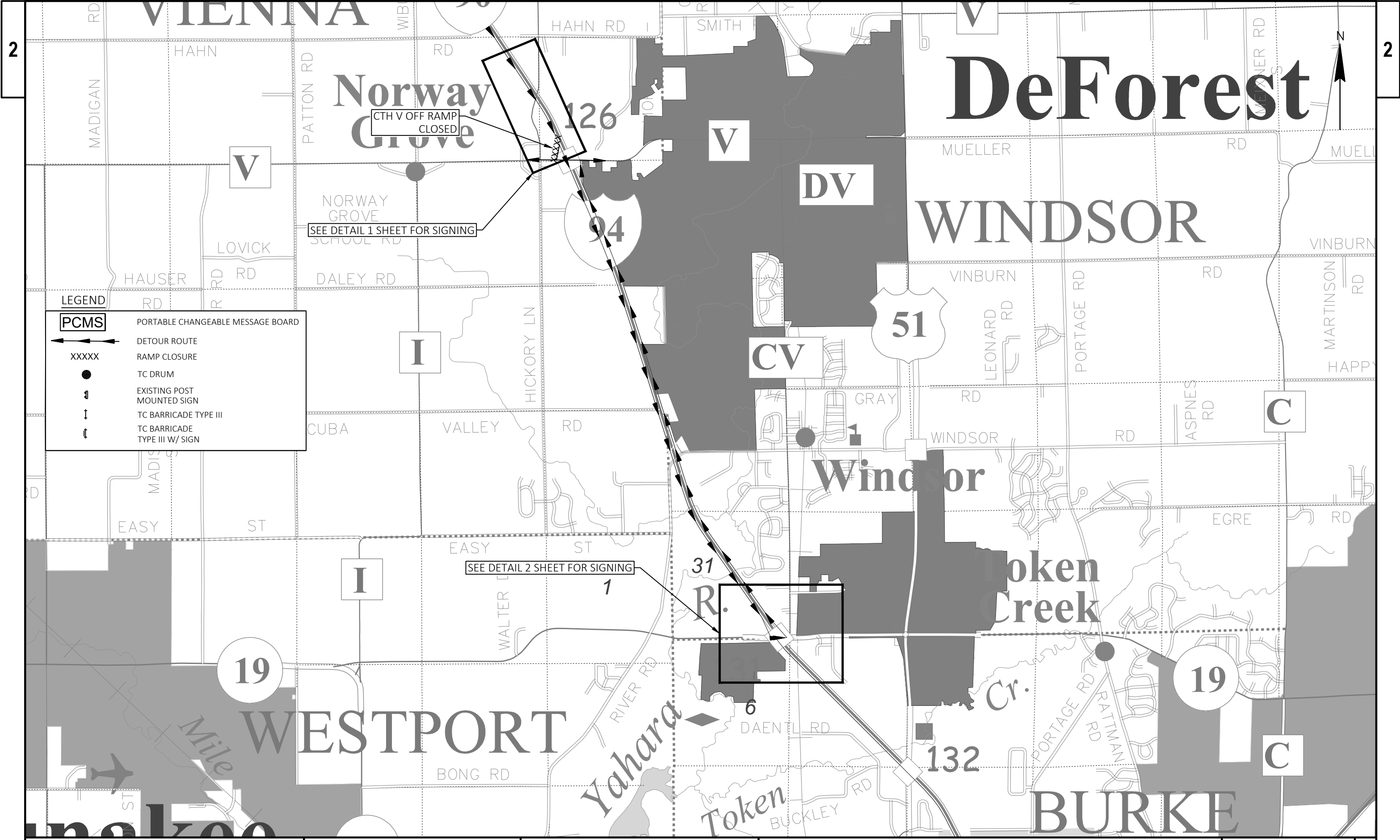
TRAFFIC

- 1) ALL THREE LANES OPEN TO TRAFFIC

STANDARD DETAIL DRAWINGS REQUIRED

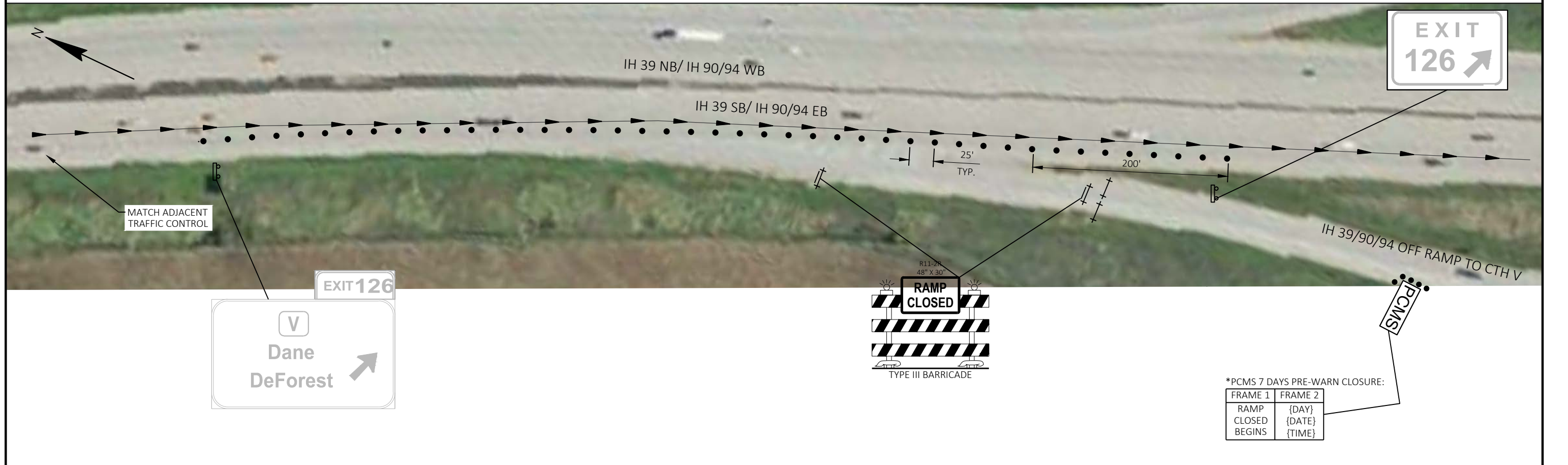
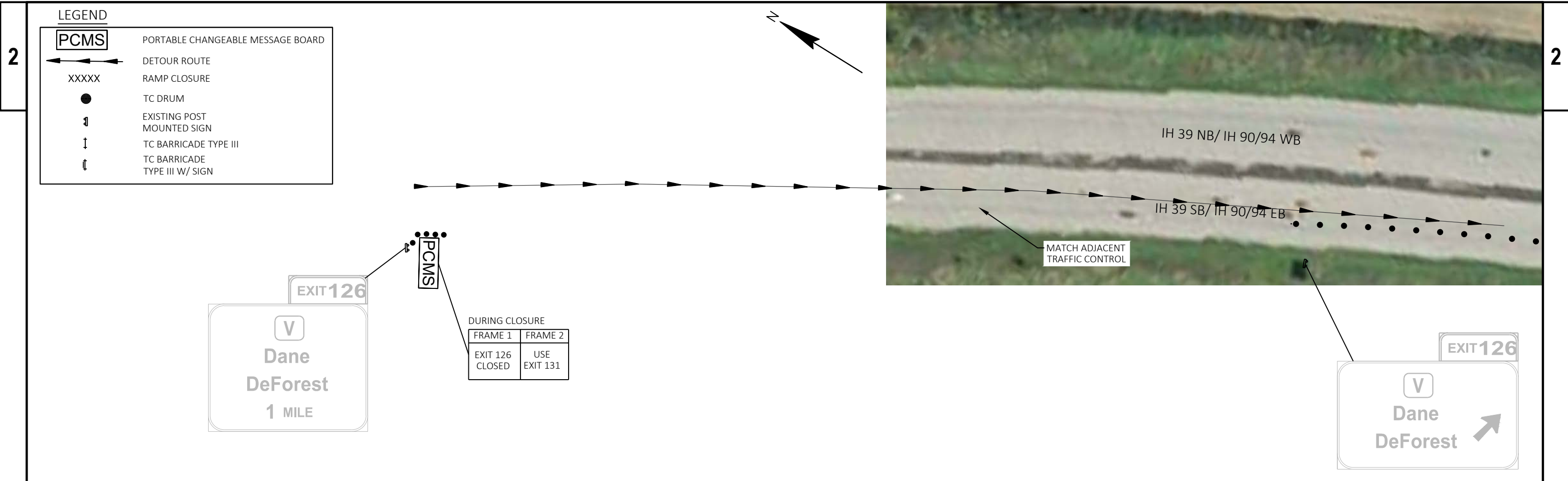
- 1) TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

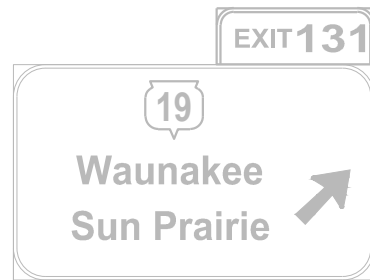
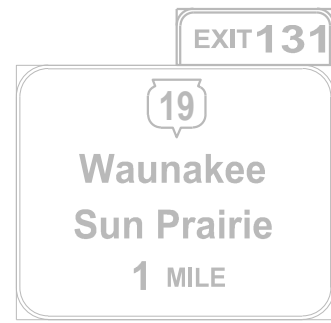
** PLACE DRUMS PER TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH



LEGEND

PCMS	PORTABLE CHANGEABLE MESSAGE BOARD
	DETOUR ROUTE
XXXXX	RAMP CLOSURE
	TC DRUM
	EXISTING POST MOUNTED SIGN
	TC BARRICADE TYPE III
	TC BARRICADE TYPE III W/ SIGN





DURING CLOSURE

FRAME 1	FRAME 2
TO HWY V	USE EXIT 131

DURING CLOSURE

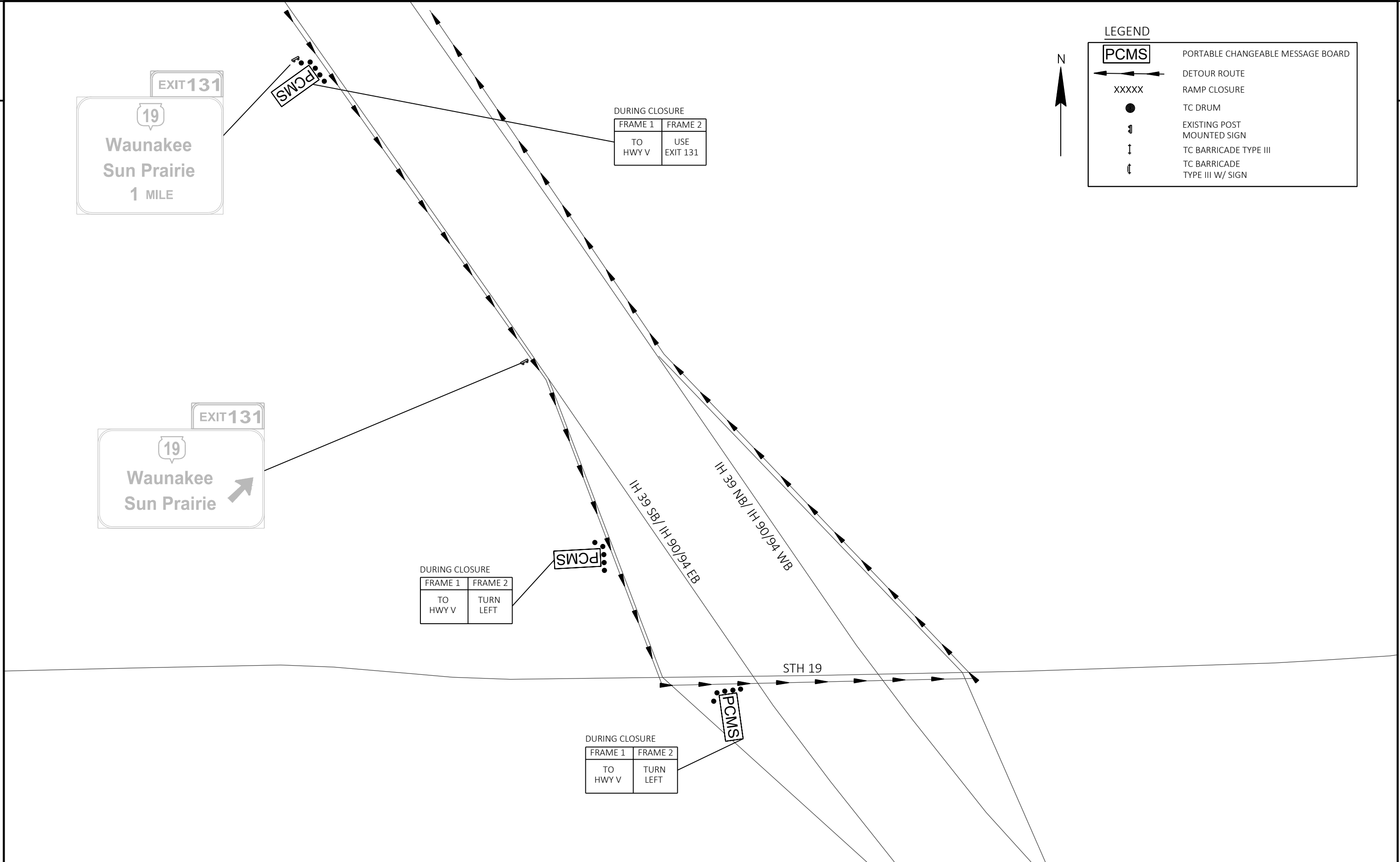
FRAME 1	FRAME 2
TO HWY V	TURN LEFT

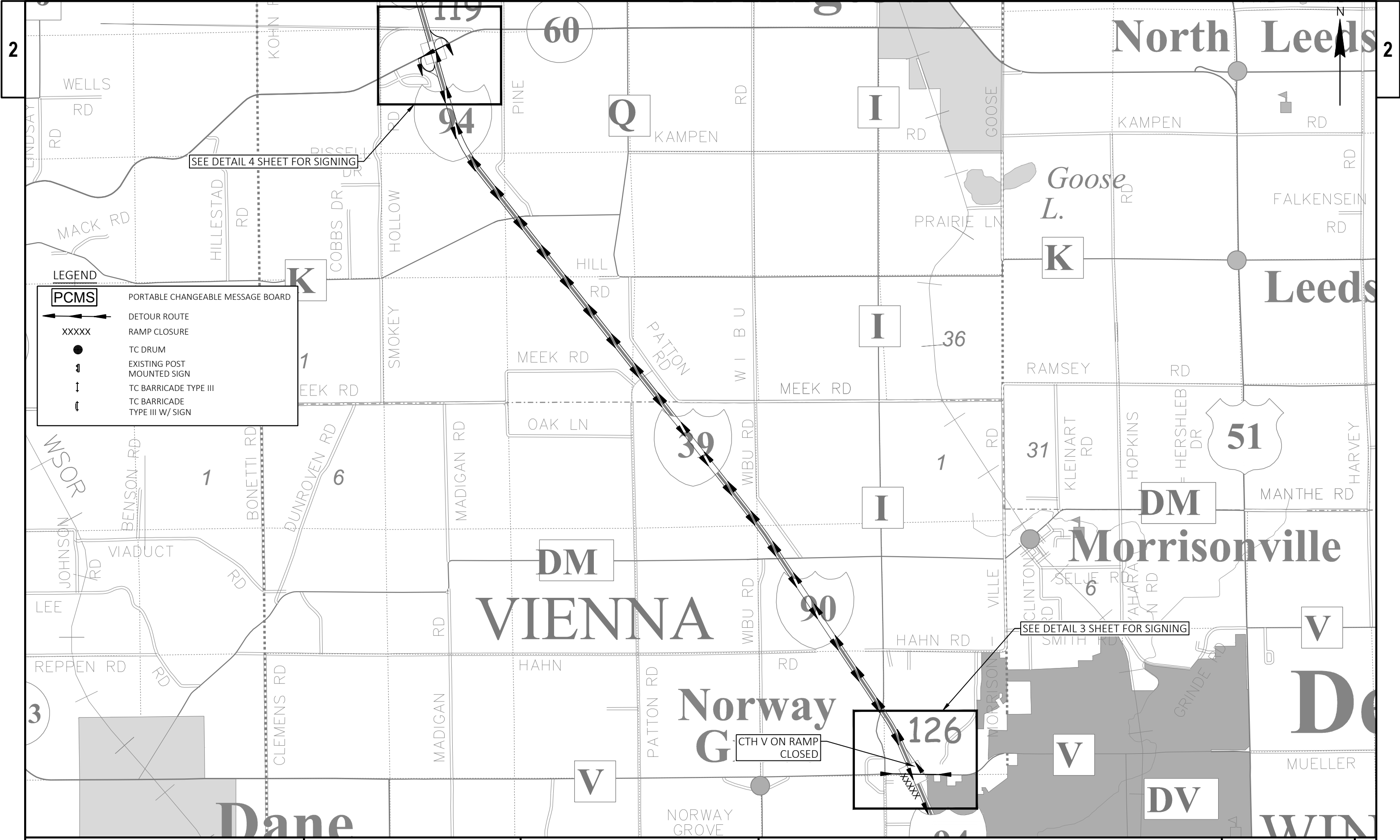
DURING CLOSURE

FRAME 1	FRAME 2
TO HWY V	TURN LEFT

LEGEND

- PCMS PORTABLE CHANGEABLE MESSAGE BOARD
- DETOUR ROUTE
- RAMP CLOSURE
- TC DRUM
- EXISTING POST MOUNTED SIGN
- TC BARRICADE TYPE III
- TC BARRICADE TYPE III W/ SIGN





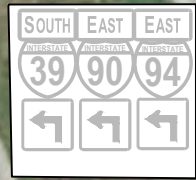
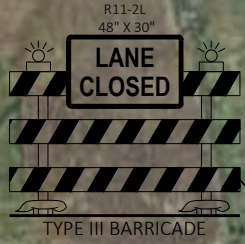
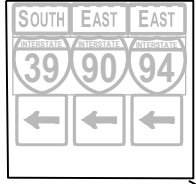
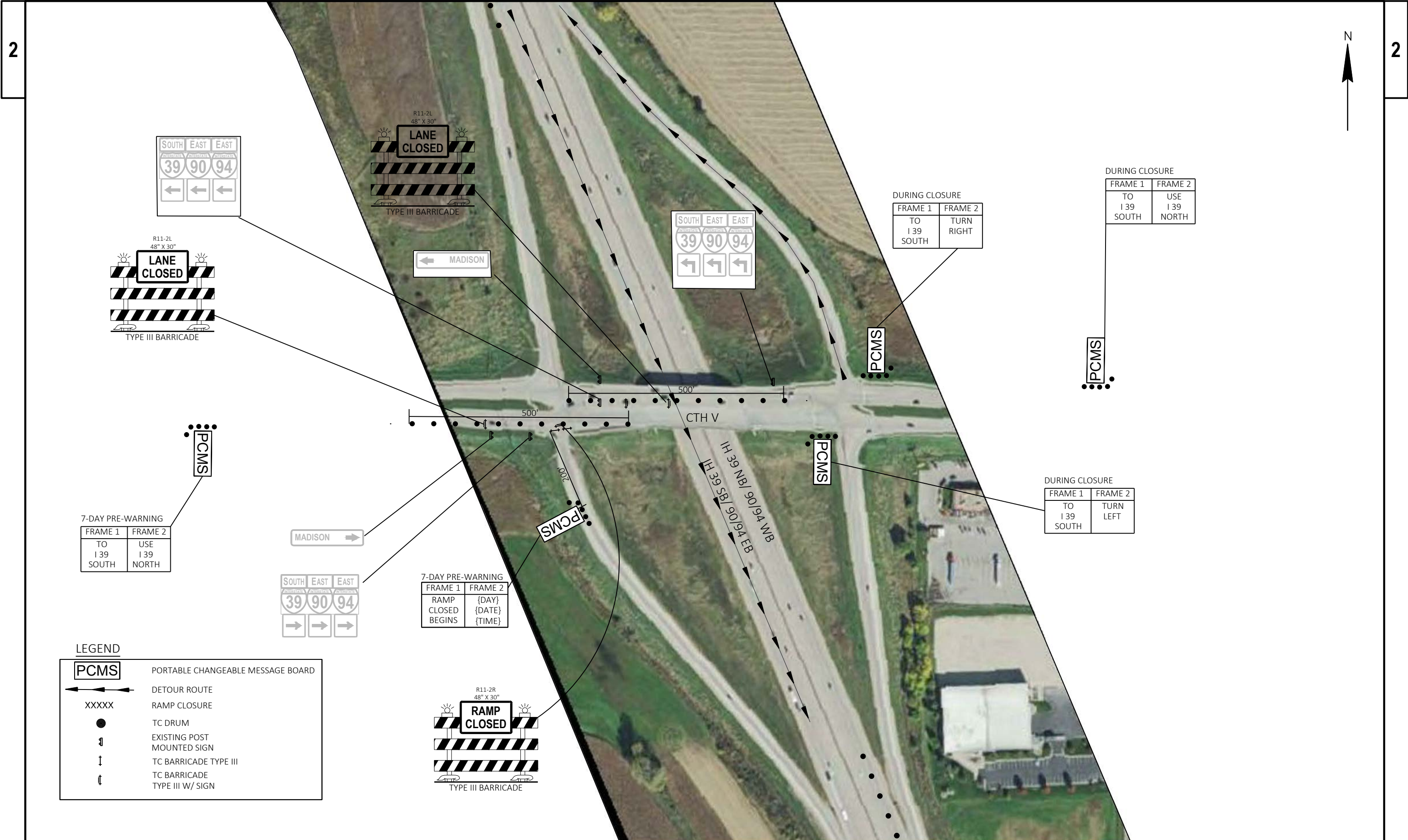
LEGEND

PCMS	PORTABLE CHANGEABLE MESSAGE BOARD
	DETOUR ROUTE
XXXXX	RAMP CLOSURE
	TC DRUM
	EXISTING POST
	TC BARRICADE TYPE III
	TC BARRICADE TYPE III W/ SIGN

SEE DETAIL 4 SHEET FOR SIGNING

SEE DETAIL 3 SHEET FOR SIGNING

CTH V ON RAMP CLOSED



DURING CLOSURE

FRAME 1	FRAME 2
TO I 39 SOUTH	TURN RIGHT

DURING CLOSURE

FRAME 1	FRAME 2
TO I 39 SOUTH	USE I 39 NORTH

7-DAY PRE-WARNING

FRAME 1	FRAME 2
TO I 39 SOUTH	USE I 39 NORTH

MADISON →

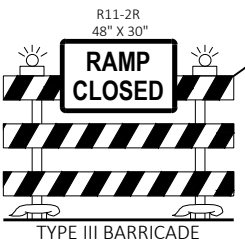
7-DAY PRE-WARNING

FRAME 1	FRAME 2
RAMP CLOSED BEGINS	{DAY} {DATE} {TIME}



DURING CLOSURE

FRAME 1	FRAME 2
TO I 39 SOUTH	TURN LEFT



LEGEND

	PORTABLE CHANGEABLE MESSAGE BOARD
	DETOUR ROUTE
	RAMP CLOSURE
	TC DRUM
	EXISTING POST MOUNTED SIGN
	TC BARRICADE TYPE III
	TC BARRICADE TYPE III W/ SIGN

EXIT 119 ↗



DURING CLOSURE

FRAME 1	FRAME 2
TO I 39 SOUTH	TURN RIGHT

DURING CLOSURE

FRAME 1	FRAME 2
TO I 39 SOUTH	TURN LEFT

DURING CLOSURE

FRAME 1	FRAME 2
TO I 39 SOUTH	USE EXIT 119

LEGEND

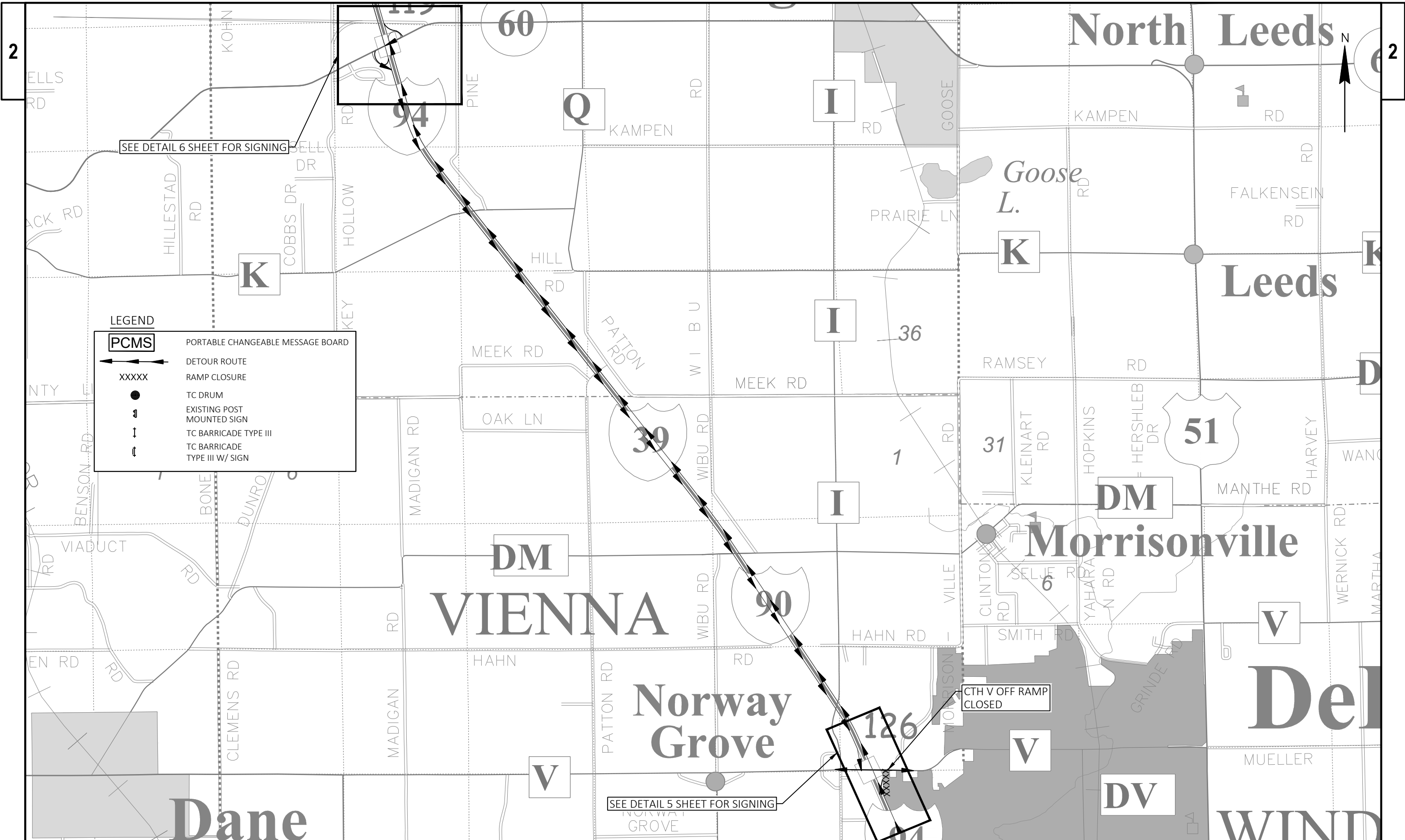
	PORTABLE CHANGEABLE MESSAGE BOARD
	DETOUR ROUTE
	RAMP CLOSURE
	TC DRUM
	EXISTING POST MOUNTED SIGN
	TC BARRICADE TYPE III
	TC BARRICADE TYPE III W/ SIGN



EXIT 119

60

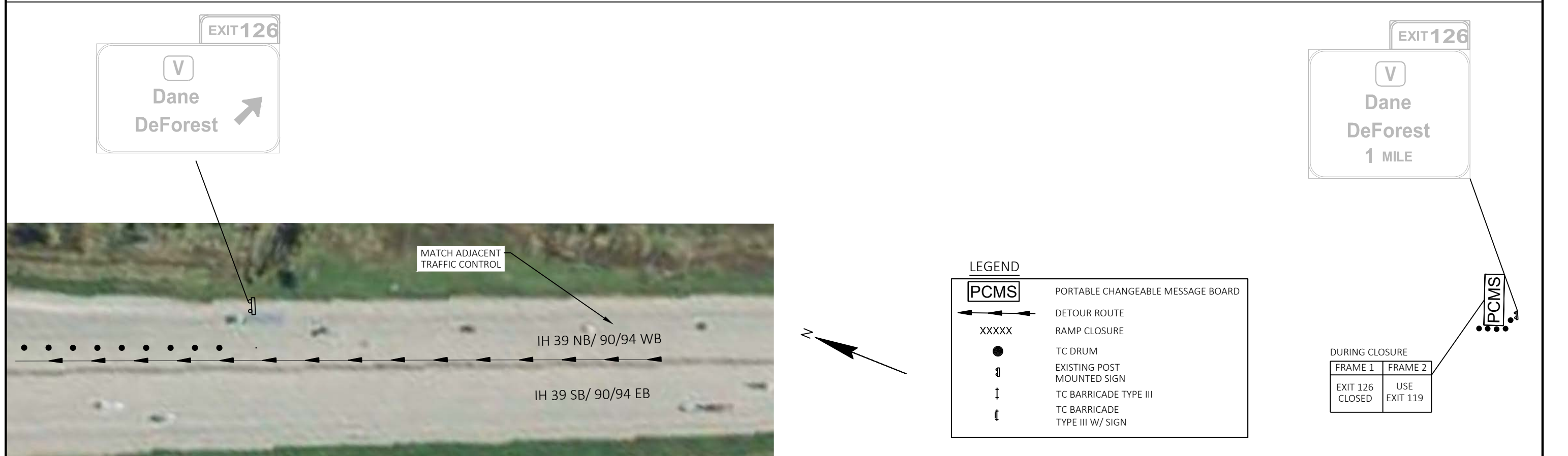
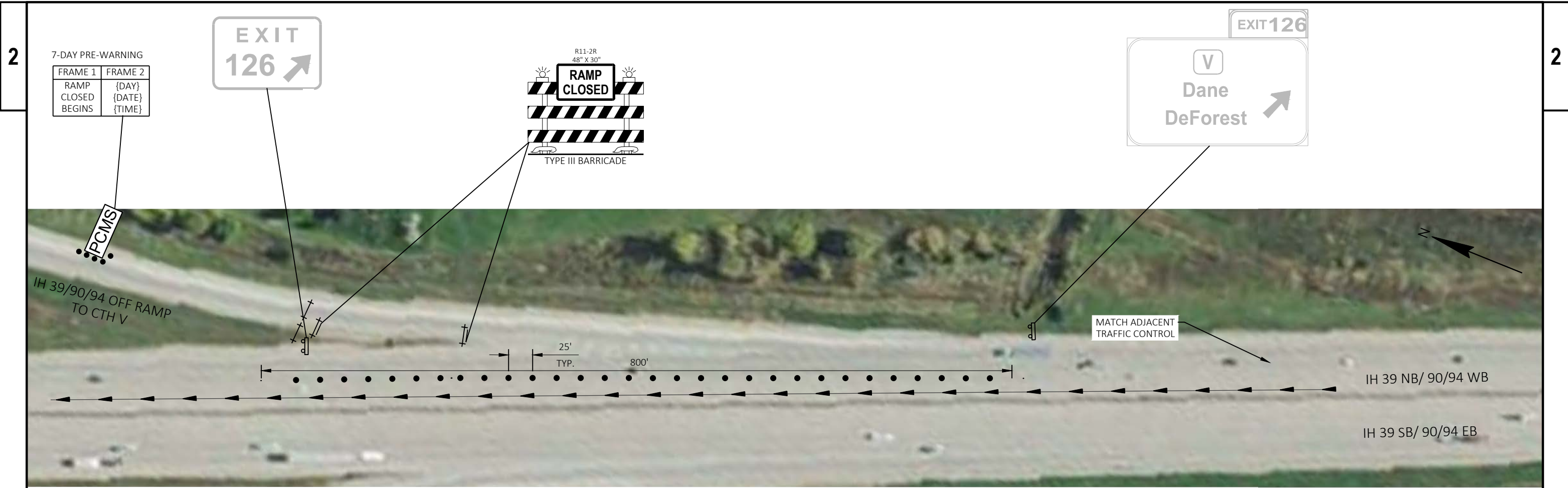
Lodi
Arlington
1 MILE



LEGEND

	PORTABLE CHANGEABLE MESSAGE BOARD
	DETOUR ROUTE
	RAMP CLOSURE
	TC DRUM
	EXISTING POST MOUNTED SIGN
	TC BARRICADE TYPE III
	TC BARRICADE TYPE III W/ SIGN

PROJECT NO: 1011-01-60 HWY: IH 39 COUNTY: DANE DETOUR - IH 39 NB & 90/94 WB OFF RAMP TO CTH V (STAGE 2B) - OVERVIEW SHEET 2



EXIT 119 ↗



DURING CLOSURE

FRAME 1	FRAME 2
TO HWY V	TURN RIGHT

DURING CLOSURE

FRAME 1	FRAME 2
TO HWY V	TURN LEFT

DURING CLOSURE

FRAME 1	FRAME 2
TO HWY V	USE EXIT 119

EXIT 119

60

Lodi
Arlington
1 MILE

PCMS

STH 60

IH 39 SB / 90/94 EB
IH 39 NB / 90/94 WB

PCMS

LEGEND

PCMS	PORTABLE CHANGEABLE MESSAGE BOARD
↔	DETOUR ROUTE
XXXXX	RAMP CLOSURE
●	TC DRUM
↑	EXISTING POST MOUNTED SIGN
↓	TC BARRICADE TYPE III
↑↓	TC BARRICADE TYPE III W/ SIGN

Estimate Of Quantities By Plan Sets

1011-01-60

Line	Item	Item Description	Unit	Total	Qty
0004	204.0110	Removing Asphaltic Surface	SY	142.000	142.000
0006	211.0200	Prepare Foundation for Concrete Pavement (project) 01. 1011-01-60	LS	1.000	1.000
0010	213.0100	Finishing Roadway (project) 01. 1011-01-60	EACH	1.000	1.000
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	106.000	106.000
0018	415.0080	Concrete Pavement 8-Inch	SY	142.000	142.000
0022	416.0610	Drilled Tie Bars	EACH	802.000	802.000
0024	416.0620	Drilled Dowel Bars	EACH	3,134.000	3,134.000
0028	416.1710	Concrete Pavement Repair	SY	50.000	50.000
0030	416.1715	Concrete Pavement Repair SHES	SY	1,527.000	1,527.000
0032	416.1720	Concrete Pavement Replacement	SY	664.000	664.000
0034	416.1725	Concrete Pavement Replacement SHES	SY	334.000	334.000
0046	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1011-01-60	EACH	1.000	1.000
0048	619.1000	Mobilization	EACH	0.340	0.340
0050	624.0100	Water	MGAL	1.700	1.700
0052	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0054	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0056	628.7010	Inlet Protection Type B	EACH	2.000	2.000
0058	642.5001	Field Office Type B	EACH	0.340	0.340
0060	643.0300	Traffic Control Drums	DAY	10,847.000	10,847.000
0062	643.0420	Traffic Control Barricades Type III	DAY	452.000	452.000
0066	643.0705	Traffic Control Warning Lights Type A	DAY	892.000	892.000
0068	643.0715	Traffic Control Warning Lights Type C	DAY	2,969.000	2,969.000
0070	643.0800	Traffic Control Arrow Boards	DAY	139.000	139.000
0072	643.0900	Traffic Control Signs	DAY	1,130.000	1,130.000
0074	643.0920	Traffic Control Covering Signs Type II	EACH	22.000	22.000
0076	643.1050	Traffic Control Signs PCMS	DAY	48.000	48.000
0080	643.4100.S	Traffic Control Interim Lane Closure	EACH	118.000	118.000
0082	643.5000	Traffic Control	EACH	0.340	0.340
0084	646.1020	Marking Line Epoxy 4-Inch	LF	974.000	974.000
0086	646.3020	Marking Line Epoxy 8-Inch	LF	62.000	62.000
0102	650.7000	Construction Staking Concrete Pavement	LF	253.000	253.000
0104	650.8000	Construction Staking Resurfacing Reference	LF	44,308.000	44,308.000
0106	650.9910	Construction Staking Supplemental Control (project) 01. 1011-01-60	LS	1.000	1.000
0110	690.0150	Sawing Asphalt	LF	267.000	267.000
0112	690.0250	Sawing Concrete	LF	7,160.000	7,160.000
0120	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0122	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	200.000	200.000
0128	SPV.0090	Special 01. Sawing Concrete Partial Depth	LF	352.000	352.000
0130	SPV.0180	Special 01. Pavement Terminal Unit SHES Repair	SY	192.000	192.000

CONCRETE PAVEMENT

***ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED.

STATION TO	STATION	ALIGNMENT	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	624.0100 WATER (MGAL)	415.0080 CONCRETE PAVEMENT 8-INCH (SY)	416.0610 DRILLED TIE BARS (EACH)	416.0620 DRILLED DOWEL BARS (EACH)	416.1710 CONCRETE PAVEMENT REPAIR (SY)	416.1715 CONCRETE PAVEMENT REPAIR SHES (SY)	416.1720 CONCRETE PAVEMENT REPLACEMENT (SY)	416.1725 CONCRETE PAVEMENT REPLACEMENT SHES (SY)	COMMENT
407+70 -	435+00	'EB'	--	--	--	--	48	--	24	--	--	STAGE 1A
435+00 -	464+00	'EB'	--	--	--	--	16	--	8	--	--	
464+00 -	493+75	'EB'	--	--	--	--	--	--	--	--	--	
493+75 -	522+75	'EB'	--	--	--	12	48	--	21	--	21	
522+75 -	551+75	'EB'	--	--	--	--	--	--	--	--	--	
551+75 -	580+75	'EB'	--	--	--	--	--	--	--	--	--	
580+75 -	609+75	'EB'	--	--	--	--	--	--	--	--	--	
609+75 -	629+24	'EB'	--	--	--	8	16	--	--	--	--	
STAGE 1A TOTAL			0	0	0	20	128	0	53	0	21	
407+70 -	435+00	'EB'	--	--	--	--	160	--	82	--	--	STAGE 1B
435+00 -	464+00	'EB'	--	--	--	67	96	--	47	--	112	
464+00 -	493+75	'EB'	--	--	--	--	48	--	28	--	--	
493+75 -	522+75	'EB'	--	--	--	--	48	--	24	--	--	
522+75 -	551+75	'EB'	--	--	--	--	80	--	43	--	--	
551+75 -	580+75	'EB'	--	--	--	--	208	--	112	--	--	
580+75 -	609+75	'EB'	--	--	--	--	64	--	34	--	--	
609+75 -	629+24	'EB'	--	--	--	17	32	--	19	--	--	
STAGE 1B TOTAL			0	0	0	84	736	0	389	0	112	
STAGE 1 TOTALS			0	0	0	104	864	0	442	0	133	
407+70 -	435+00	'WB'	--	--	--	--	32	--	22	--	--	STAGE 2A
435+00 -	464+00	'WB'	--	--	--	--	16	--	8	--	--	
464+00 -	493+75	'WB'	--	--	--	--	--	--	--	--	--	
493+75 -	522+75	'WB'	--	--	--	--	--	--	--	--	--	
522+75 -	551+75	'WB'	--	--	--	230	64	--	--	383	--	
551+75 -	580+75	'WB'	--	--	--	102	48	--	--	170	--	
580+75 -	609+75	'WB'	--	--	--	--	--	--	--	--	--	
609+75 -	629+24	'WB'	--	--	--	22	16	--	--	--	--	
STAGE 2A TOTAL			0	0	0	353	176	0	30	553	0	
407+70 -	435+00	'WB'	--	--	--	--	128	--	70	--	--	STAGE 2B
435+00 -	464+00	'WB'	--	--	--	--	32	--	20	--	--	
464+00 -	493+75	'WB'	--	--	--	--	128	--	64	--	--	
493+75 -	522+75	'WB'	--	--	--	--	48	--	24	--	--	
522+75 -	551+75	'WB'	--	--	--	71	576	--	264	--	119	
551+75 -	580+75	'WB'	50	0.8	74	53	3	--	--	--	--	
580+75 -	609+75	'WB'	46	0.7	68	50	224	--	131	--	--	
609+75 -	629+24	'WB'	--	--	--	37	432	--	227	--	26	
STAGE 2B TOTAL			96	1.5	142	211	1,571	0	800	0	145	
STAGE 2 TOTALS			96	1.5	142	564	1,747	0	830	553	145	
UNDISTRIBUTED			10 **	0.2	--	134	523	50 **	255	111	56	**UNDISTRIBUTED QUANTITY FOR 'WB' MEDIAN AND OUTSIDE SHOULDER CONCRETE PAVEMENT REPAIR/REPLACEMENT BETWEEN STA 547+00'WB' AND 595+00'WB' REQUIRED FOR PROJECT 1011-01-75 STAGING. LOCATIONS TO BE DETERMINED BY ENGINEER.
PROJECT TOTALS			106	1.7	142	802	3,134	50	1,527	664	334	

3

3

INLET PROTECTION TYPE B

***ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED.

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EROSION CONTROL (EACH)	628.7010 INLET PROTECTION TYPE B (EACH)	COMMENTS
UNDISTRIBUTED	1	1	2	MEDIAN INLET PROTECTION AGAINST SAW SLURRY IF DETERMINED BY ENGINEER
PROJECT TOTALS	1	1	2	

REMOVING PAVEMENT

STATION TO STATION	204.0110 REMOVING ASPHALTIC SURFACE (SY)	COMMENT
579+43 - 581+96	142	STAGE 2
PROJECT TOTALS	142	

TRAFFIC CONTROL - DRUMS, BARRICADES, WARNING LIGHTS, ARROW BOARDS, AND SIGNS

ROADWAY	DAYS IN SERVICE	643.0300 TRAFFIC CONTROL DRUMS NO. (DAY)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO. (DAY)	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO. (DAY)	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C NO. (DAY)	643.0800 TRAFFIC CONTROL ARROW BOARDS NO. (DAY)	643.0900 TRAFFIC CONTROL SIGNS NO. (DAY)	643.0920 TRAFFIC CONTROL COVERING SIGNS (EACH) LOCATION CYCLE	643.1050 TRAFFIC CONTROL SIGNS PCMS NO. (DAY)	643.4100.S TRAFFIC CONTROL INTERIM LANE CLOSURE (EACH)	COMMENTS
PRE WARNING MAINLINE											
IH 39 SB/ 90/94 EB	7	5 35	-- --	-- --	-- --	-- --	-- --	-- --	1 7	--	
IH 39 NB/ 90/94 WB	7	5 35	-- --	-- --	-- --	-- --	-- --	-- --	1 7	--	
IH 39 SB/ 90/94 FB - STAGE 1A											
ADV. WARNING	3	5 15	-- --	-- --	-- --	-- --	-- --	-- --	-- --	--	
NIGHTTIME 2 LANE CLOSURE	9	213 1,913	11 99	22 198	61 549	3 27	23 207	-- --	-- --	18	
IH 39 SB/ 90/94 FB - STAGE 1B											
NIGHTTIME 2 LANE CLOSURE	9	272 2,444	11 99	22 198	84 756	3 27	25 225	-- --	-- --	18	
DETOUR PREWARN	7	10 70	-- --	-- --	-- --	-- --	-- --	-- --	2 14	--	
DETOUR FOR IH 39 SB OFF RAMP TO CTH V	1	84 84	4 4	4 4	-- --	-- --	4 4	-- --	4 4	--	
DETOUR FOR CTH V ON RAMP TO IH 39 SB	1	44 44	4 4	4 4	-- --	-- --	4 4	-- --	6 6	--	
IH 39 NB/ 90/94 WB - STAGE 2A											
ADV. WARNING	3	5 15	-- --	-- --	-- --	-- --	-- --	-- --	-- --	--	
NIGHTTIME 2 LANE CLOSURE	8	213 1,700	11 88	22 176	61 488	3 24	23 184	8 1 8	-- --	16	COVER 70 MPH SIGN
MEDIAN SHOULDER CLOSURE	5	30 150	-- --	-- --	-- --	1 5	8 40	-- --	-- --	10	
IH 39 NB/ 90/94 WB - STAGE 2B											
NIGHTTIME 2 LANE CLOSURE	14	272 3,801	11 154	22 308	84 1,176	3 42	25 350	14 1 14	-- --	28	COVER 70 MPH SIGN
OUTSIDE SHOULDER CLOSURE	14	30 420	-- --	-- --	-- --	1 14	8 112	-- --	-- --	28	
DETOUR PREWARN	7	5 35	-- --	-- --	-- --	-- --	-- --	-- --	1 7	--	
DETOUR FOR IH 39 NB OFF RAMP TO CTH V	1	87 87	4 4	4 4	-- --	-- --	4 4	-- --	3 3	--	
PROJECT TOTALS		10,847	452	892	2,969	139	1,130	22	48	118	

PAVEMENT MARKING

STATION	- STATION		646.1020 MARKING LINE EPOXY 4-INCH		646.3020 MARKING LINE EPOXY 8-INCH WHITE (LF)	COMMENTS
			YELLOW (LF)	WHITE (LF)		
407+70	- 435+00	'EB'	18	--	--	STAGE 1A
435+00	- 464+00	'EB'	6	--	--	
464+00	- 493+75	'EB'	--	--	--	
493+75	- 522+75	'EB'	36	--	--	
522+75	- 551+75	'EB'	--	--	--	
551+75	- 580+75	'EB'	--	--	--	
580+75	- 609+75	'EB'	--	--	--	
609+75	- 629+24	'EB'	--	--	--	
STAGE 1A TOTAL			60	0	0	
407+70	- 435+00	'EB'	--	74	--	STAGE 1B
435+00	- 464+00	'EB'	--	119	--	
464+00	- 493+75	'EB'	--	21	--	
493+75	- 522+75	'EB'	--	15	--	
522+75	- 551+75	'EB'	--	18	--	
551+75	- 580+75	'EB'	--	89	--	
580+75	- 609+75	'EB'	--	28	--	
609+75	- 629+24	'EB'	--	7	--	
STAGE 1B TOTAL			0	371	0	
STAGE 1 TOTALS			431		0	
407+70	- 435+00	'WB'	16	--	--	STAGE 2A
435+00	- 464+00	'WB'	6	--	--	
464+00	- 493+75	'WB'	--	--	--	
493+75	- 522+75	'WB'	--	--	--	
522+75	- 551+75	'WB'	--	--	--	
551+75	- 580+75	'WB'	--	--	--	
580+75	- 609+75	'WB'	--	--	--	
609+75	- 629+24	'WB'	--	--	--	
STAGE 2A TOTAL			22	0	0	
407+70	- 435+00	'WB'	--	66	--	STAGE 2B
435+00	- 464+00	'WB'	--	--	--	
464+00	- 493+75	'WB'	--	30	--	
493+75	- 522+75	'WB'	--	12	--	
522+75	- 551+75	'WB'	--	202	--	
551+75	- 580+75	'WB'	--	--	--	
580+75	- 609+75	'WB'	--	36	32	
609+75	- 629+24	'WB'	--	128	27	
STAGE 2B TOTAL			0	474	59	
STAGE 2 TOTALS			496		59	
UNDISTRIBUTED			47		3	
PROJECT TOTALS			974		62	

CONSTRUCTION STAKING CONCRETE PAVEMENT

STATION	- STATION	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT (LF)	COMMENT
579+43	- 581+96	253	STAGE 2B
PROJECT TOTALS		253	

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

LOCATION	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE (LF)	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (LS)	COMMENTS
EB	22,154	--	
WB	22,154	--	
PROJECT	--	1	
PROJECT TOTALS	44,308	1	

***ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED.

SAWING CONCRETE

PAVEMENT TERMINAL UNIT SHES REPAIR

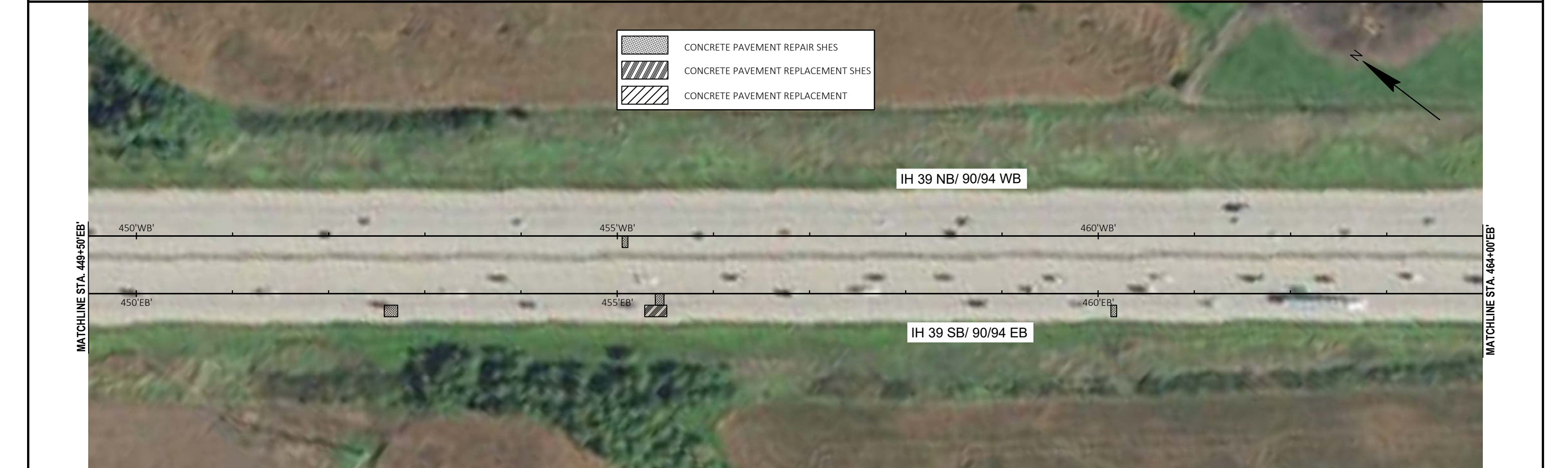
STATION	TO	STATION	ALIGNMENT	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)	SPV.0090.01 SAWING CONCRETE PARTIAL DEPTH (LF)	COMMENTS
407+70	-	435+00	'EB'	--	108	--	STAGE 1A
435+00	-	464+00	'EB'	--	36	--	
464+00	-	493+75	'EB'	--	--	--	
493+75	-	522+75	'EB'	--	133	--	
522+75	-	551+75	'EB'	--	--	--	
551+75	-	580+75	'EB'	--	--	--	
580+75	-	609+75	'EB'	--	--	--	
609+75	-	629+24	'EB'	--	--	65	
'EB' STAGE 1A TOTAL				0	277	65	
407+70	-	435+00	'EB'	--	362	--	STAGE 1B
435+00	-	464+00	'EB'	--	363	--	
464+00	-	493+75	'EB'	--	114	--	
493+75	-	522+75	'EB'	--	107	--	
522+75	-	551+75	'EB'	--	184	--	
551+75	-	580+75	'EB'	--	480	--	
580+75	-	609+75	'EB'	--	147	--	
609+75	-	629+24	'EB'	--	76	90	
'EB' STAGE 1B TOTAL				0	1,833	90	
STAGE 1 TOTALS				0	2,110	155	
407+70	-	435+00	'WB'	--	80	--	STAGE 2A
435+00	-	464+00	'WB'	--	36	--	
464+00	-	493+75	'WB'	--	--	--	
493+75	-	522+75	'WB'	--	--	--	
522+75	-	551+75	'WB'	--	671	--	
551+75	-	580+75	'WB'	--	326	--	
580+75	-	609+75	'WB'	--	--	--	
609+75	-	629+24	'WB'	--	--	78	
'WB' STAGE 2A TOTAL				0	1,113	78	
407+70	-	435+00	'WB'	--	296	--	STAGE 2B
435+00	-	464+00	'WB'	--	78	--	
464+00	-	493+75	'WB'	--	264	--	
493+75	-	522+75	'WB'	--	108	--	
522+75	-	551+75	'WB'	--	1,360	--	
551+75	-	580+75	'WB'	267	--	--	
580+75	-	609+75	'WB'	--	556	--	
609+75	-	629+24	'WB'	--	934	102	
'WB' STAGE 2B TOTAL				267	3,596	102	
STAGE 2 TOTALS				267	4,709	180	
UNDISTRIBUTED				0	341	17	
PROJECT TOTALS				267	7,160	352	

STATION	TO	STATION	ALIGNMENT	SPV.0180.01 PAVEMENT TERMINAL UNIT SHES REPAIR (SY)	DESCRIPTION
629+01	-	629+23	'EB'	28	STAGE 1A
629+01	-	629+23	'EB'	56	STAGE 1B
628+95	-	629+22	'WB'	36	STAGE 2A
628+95	-	629+22	'WB'	72	STAGE 2B
PROJECT TOTALS				192	

***ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED.



PROJECT NO: 1011-01-60	HWY: IH 39	COUNTY: DANE	PLAN SHEETS	SHEET	E
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PROJECT NO: 1011-01-60

HWY: IH 39

COUNTY: DANE

PLAN SHEETS




SHEET

E



PROJECT NO: 1011-01-60	HWY: IH 39	COUNTY: DANE	PLAN SHEETS	SHEET	E
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-  CONCRETE PAVEMENT REPAIR SHES
-  CONCRETE PAVEMENT REPLACEMENT SHES
-  CONCRETE PAVEMENT REPLACEMENT

PROJECT NO: 1011-01-60

HWY: IH 39

COUNTY: DANE

PLAN SHEETS

SHEET

E

5

MATCHLINE STA. 522+75'EB'

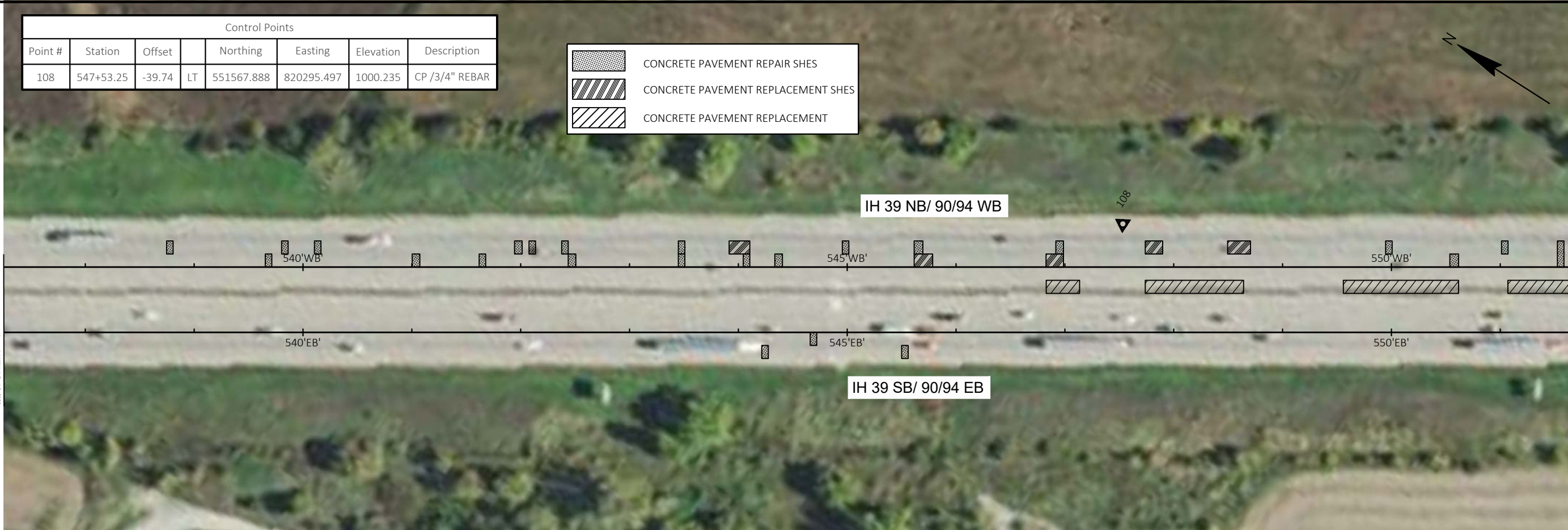
MATCHLINE STA. 537+25'EB'



5

MATCHLINE STA. 537+25'EB'

MATCHLINE STA. 551+75'EB'



Control Points							
Point #	Station	Offset		Northing	Easting	Elevation	Description
108	547+53.25	-39.74	LT	551567.888	820295.497	1000.235	CP /3/4" REBAR

CONCRETE PAVEMENT REPAIR SHES

CONCRETE PAVEMENT REPLACEMENT SHES

CONCRETE PAVEMENT REPLACEMENT



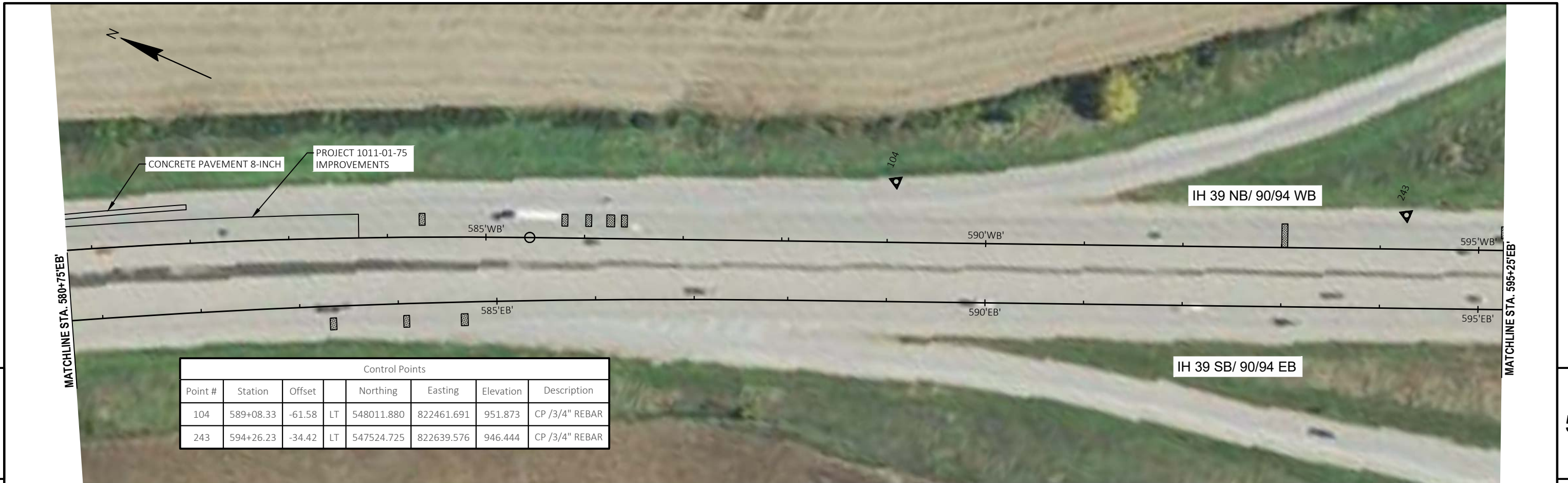
5

5



Control Points							
Point #	Station	Offset		Northing	Easting	Elevation	Description
105	579+42.75	-39.86	LT	548888.467	822030.375	968.781	CP /3/4" REBAR
107	558+49.95	-38.94	LT	550649.626	820895.122	990.966	CP /3/4" REBAR
106	570+59.00	-42.37	LT	549639.658	821559.784	977.221	CP /3/4" REBAR

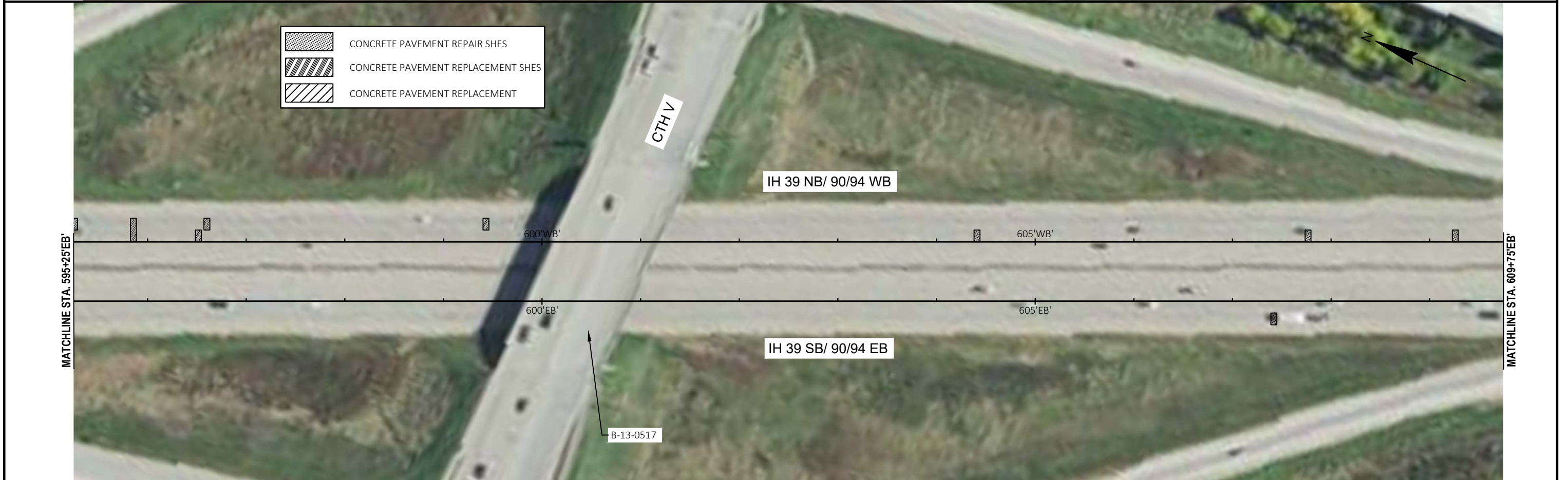
- CONCRETE PAVEMENT REPAIR SHES
- CONCRETE PAVEMENT REPLACEMENT SHES
- CONCRETE PAVEMENT REPLACEMENT






Control Points							
Point #	Station	Offset		Northing	Easting	Elevation	Description
104	589+08.33	-61.58	LT	548011.880	822461.691	951.873	CP /3/4" REBAR
243	594+26.23	-34.42	LT	547524.725	822639.576	946.444	CP /3/4" REBAR

5

5



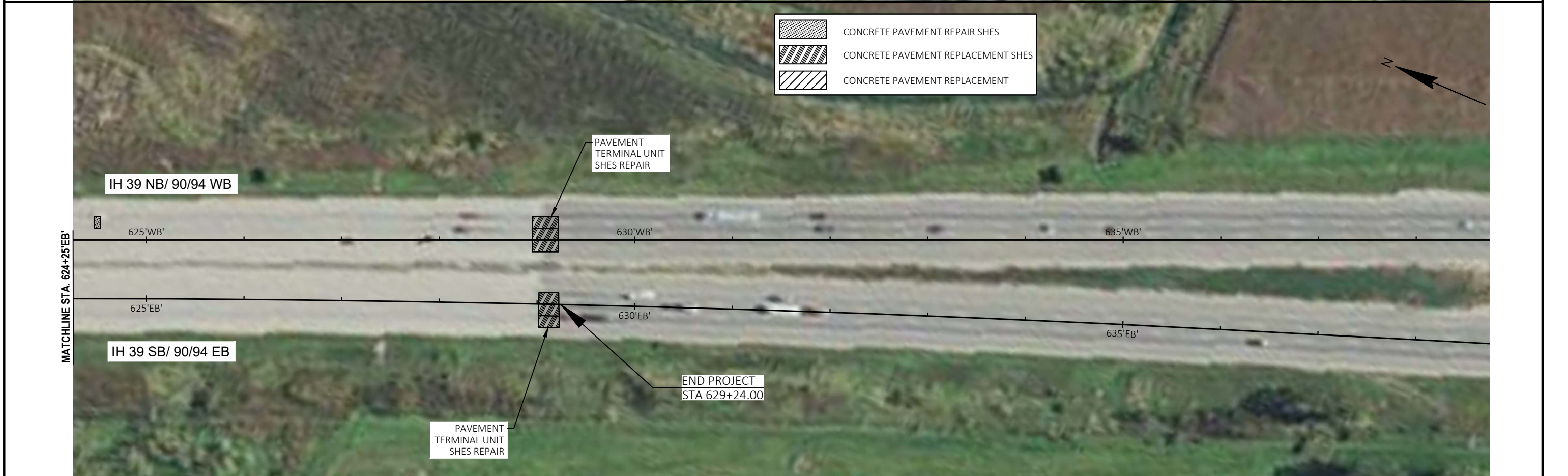
	CONCRETE PAVEMENT REPAIR SHES
	CONCRETE PAVEMENT REPLACEMENT SHES
	CONCRETE PAVEMENT REPLACEMENT

PROJECT NO: 1011-01-60 HWY: IH 39 COUNTY: DANE PLAN SHEETS SHEET E



5

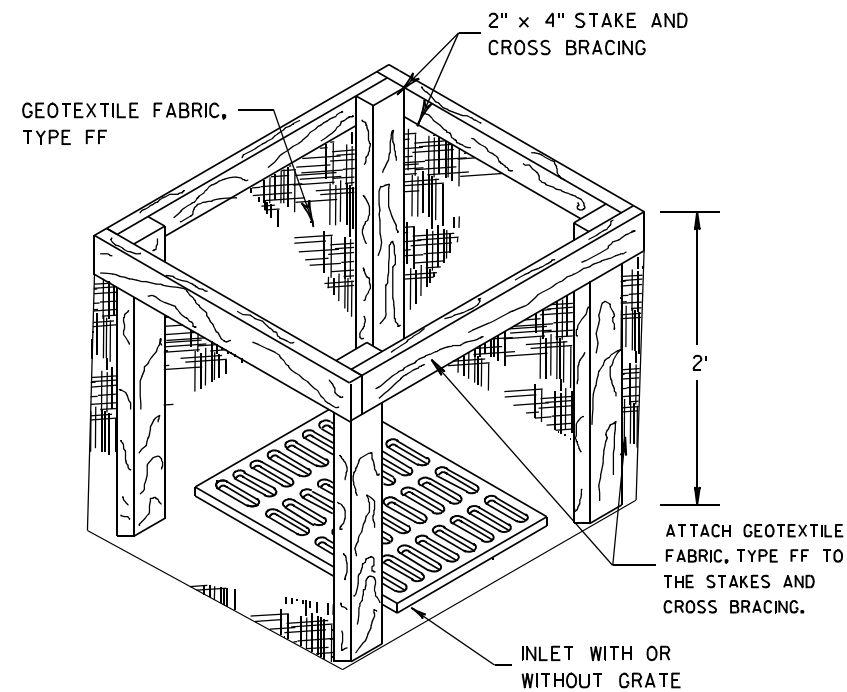
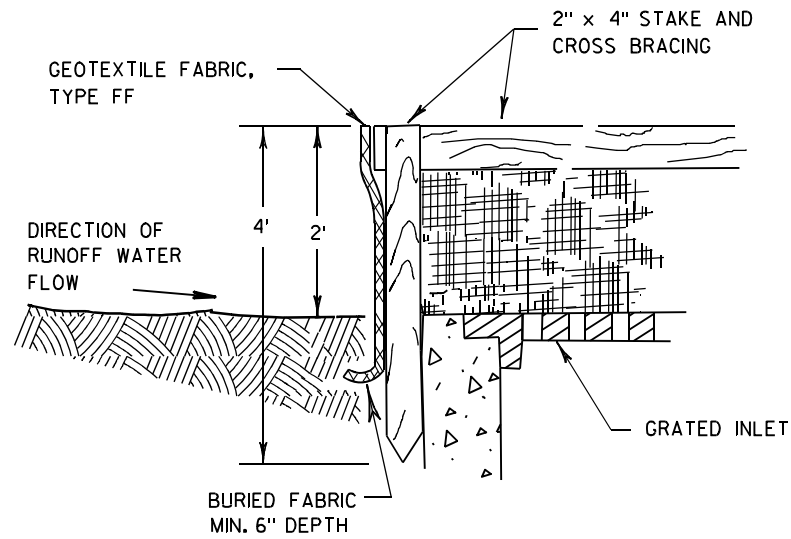
5



PROJECT NO: 1011-01-60	HWY: IH 39	COUNTY: DANE	PLAN SHEETS	SHEET	E
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Standard Detail Drawing List

08E10-02	INLET PROTECTION TYPE A, B, C AND D
13A03-06	CONCRETE PAVEMENT SHOULDERS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-15A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
13C18-07F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C18-07G	CONCRETE PAVEMENT JOINTING ACCELERATION/DECELERATION LANE
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-08E	OFF RAMP LANE CLOSURE
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D12-09A	TRAFFIC CONTROL, LANE CLOSURE
15D12-09B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D14-04	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-05A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D16-04	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING



INLET PROTECTION, TYPE A

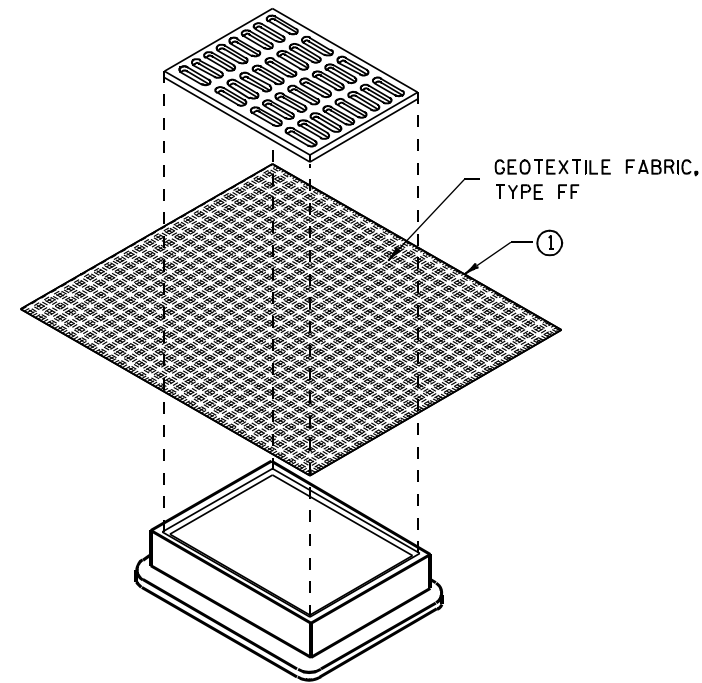
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

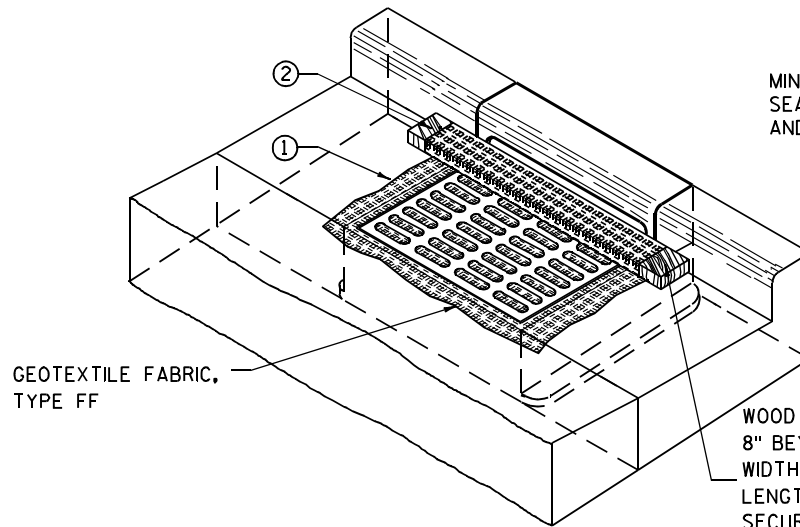
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

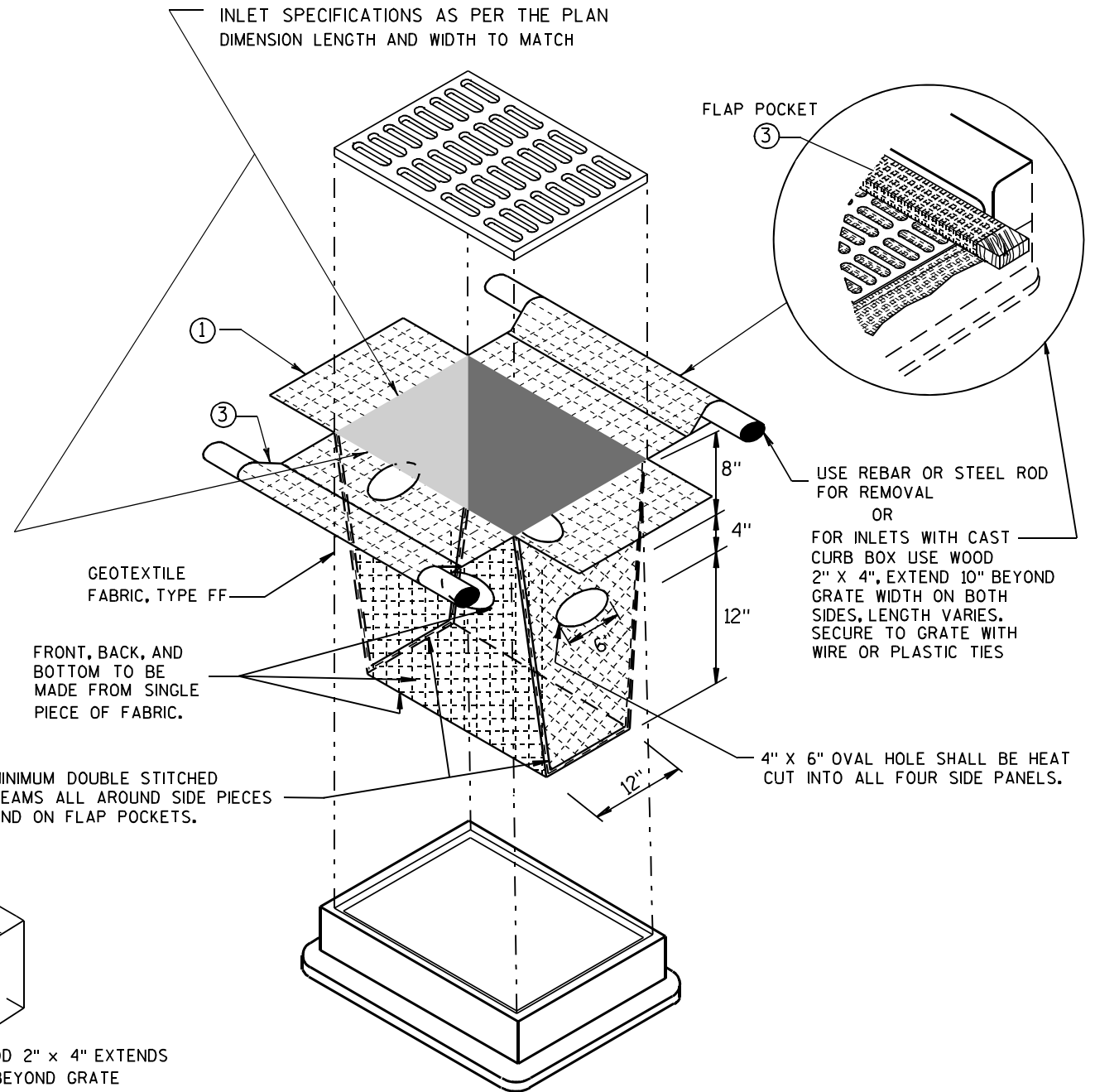
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

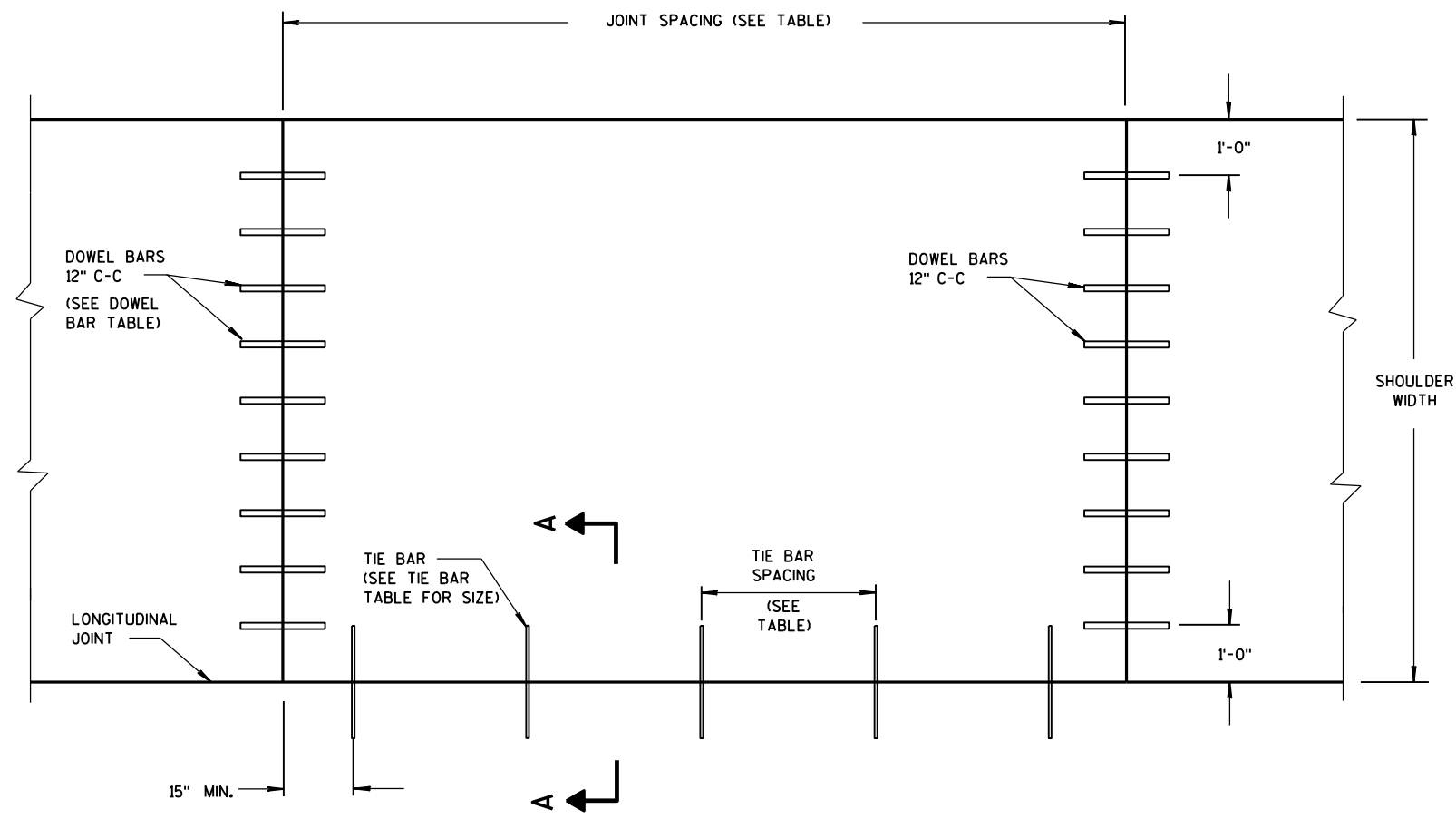
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

INLET PROTECTION TYPE A, B, C, AND D	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/16/02 DATE	/s/ Beth Connestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



PLAN VIEW
CONCRETE PAVEMENT SHOULDER

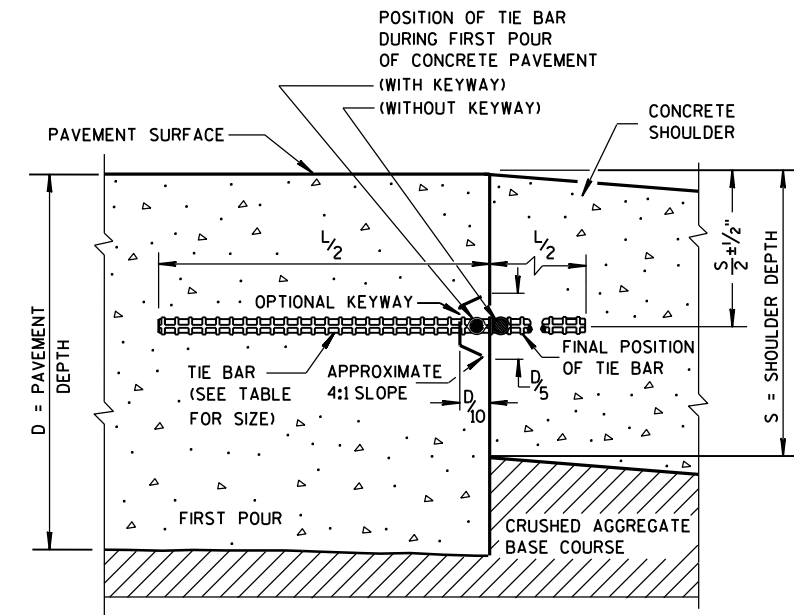
GENERAL NOTES

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.

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

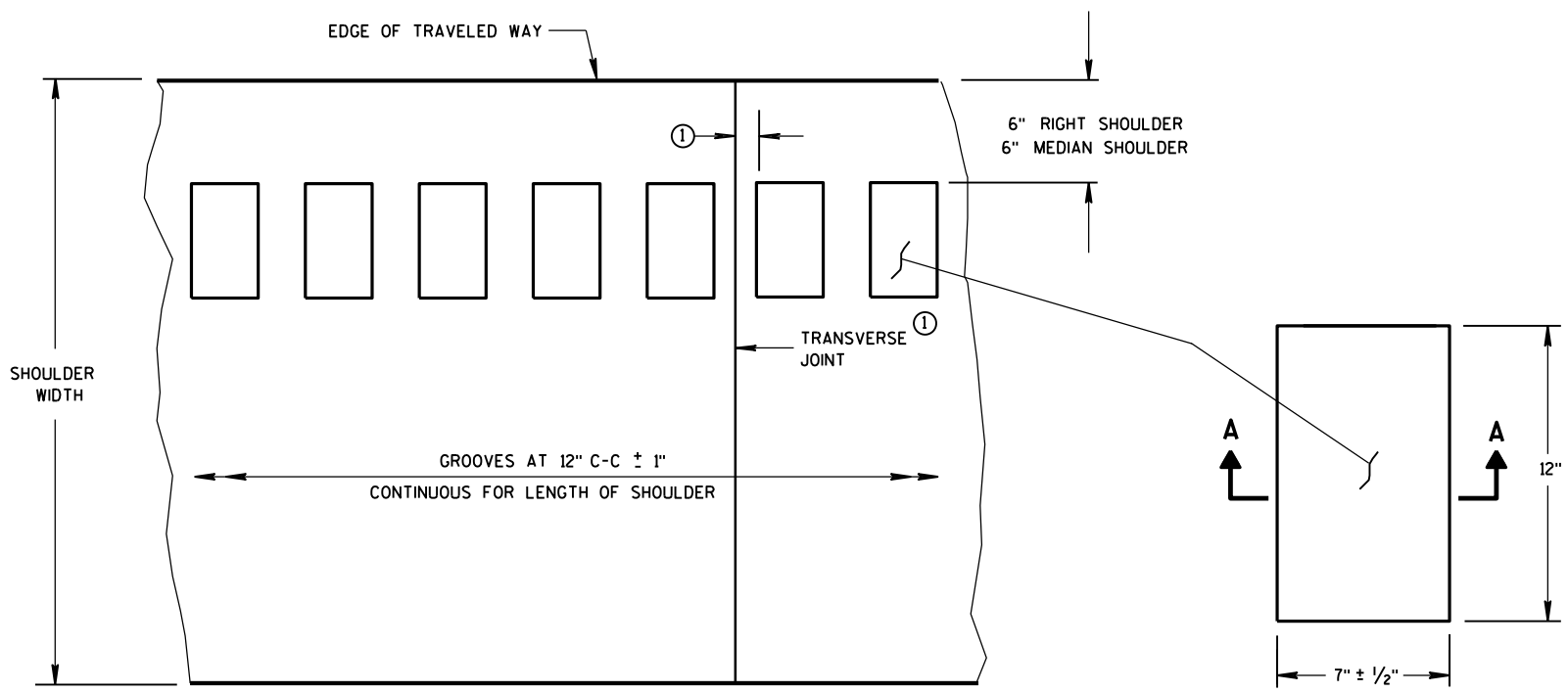
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER***	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

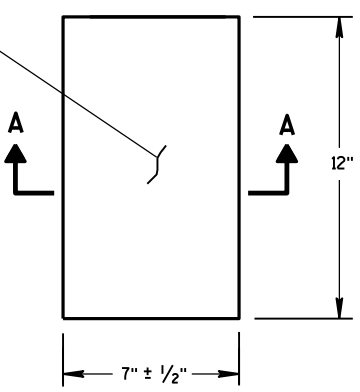
CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA



PLAN VIEW
SHOULDER WITH GROOVES



PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

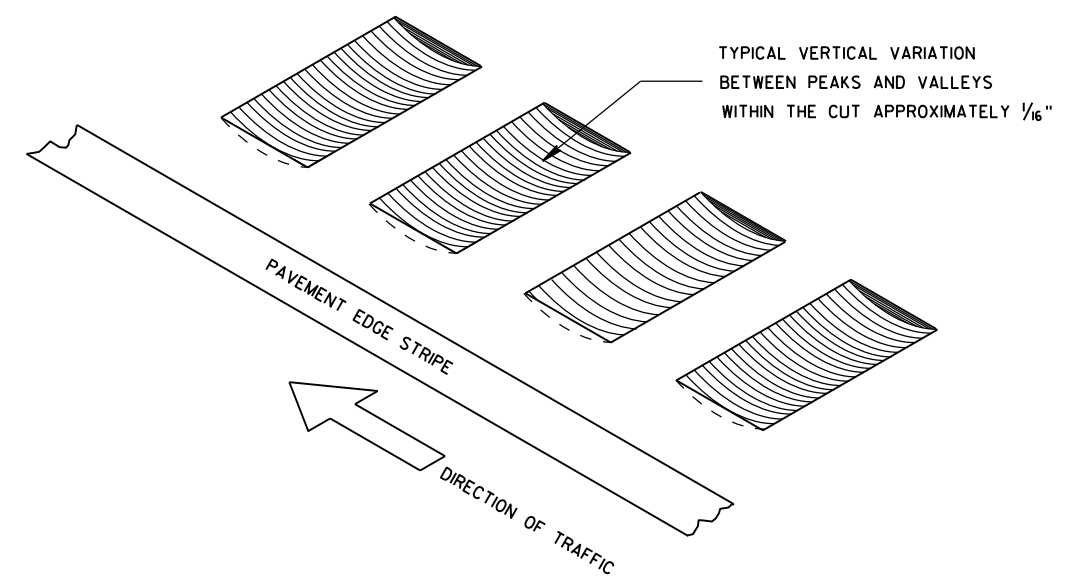
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

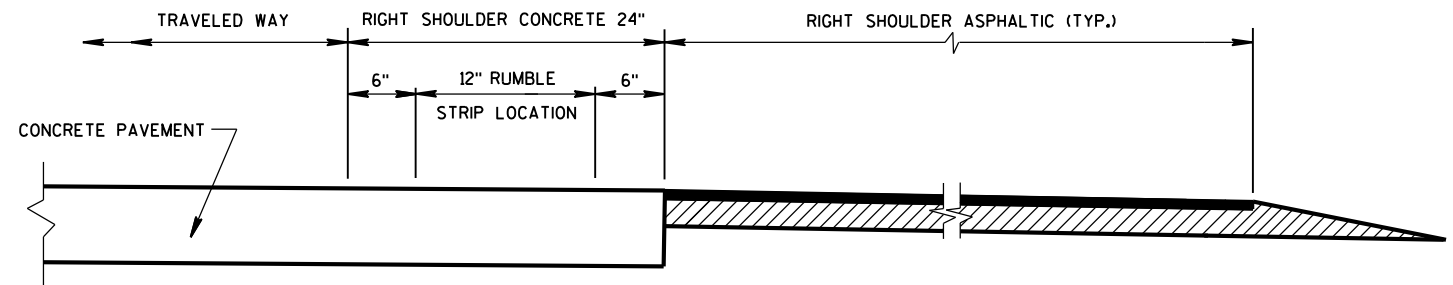
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

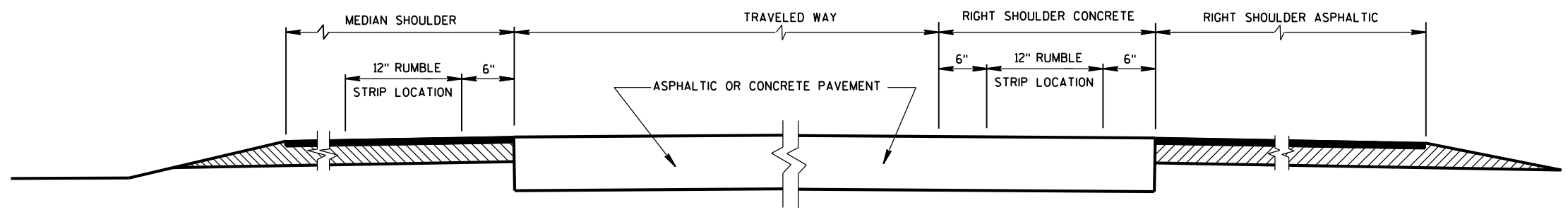
① CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



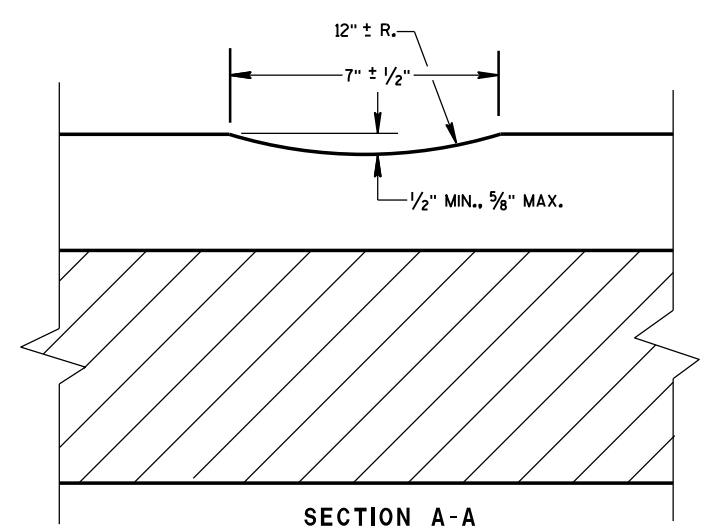
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW
TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS
IN RURAL DIVIDED HIGHWAYS
(ONE ROADWAY IS SHOWN)



SECTION A-A

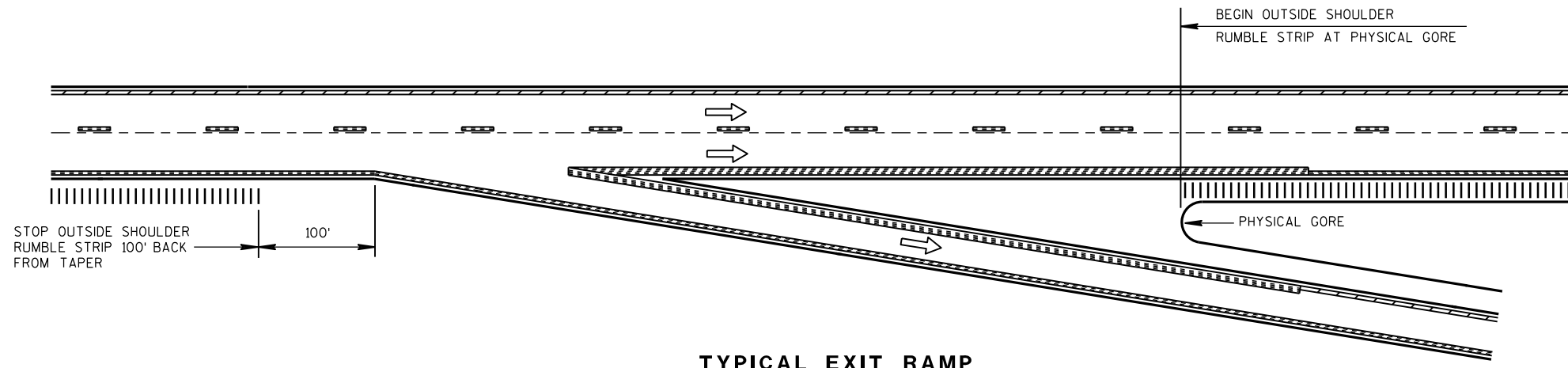
6

6

S.D.D. 13 A 5-5a

S.D.D. 13 A 5-5a

<p>SHOULDER RUMBLE STRIP, MILLING</p>
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>

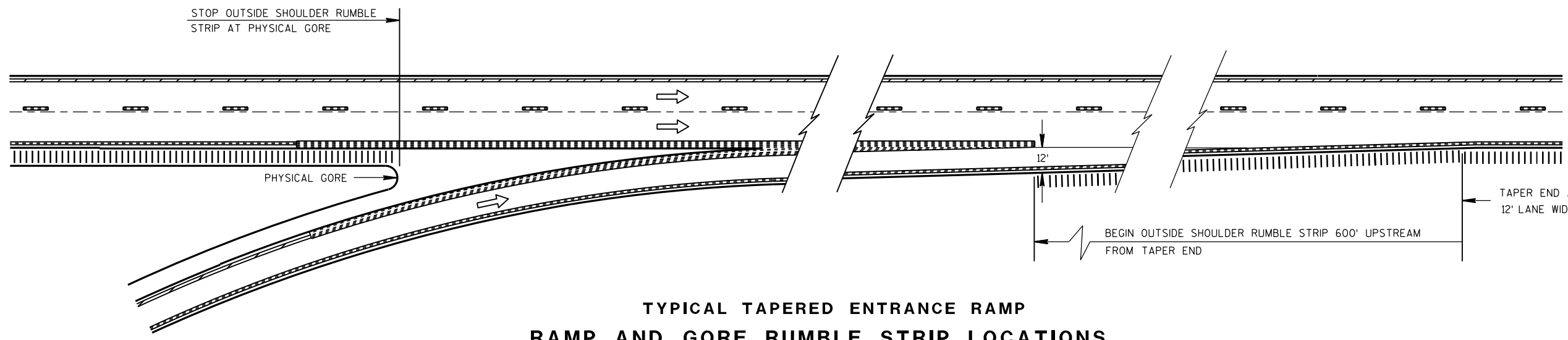


TYPICAL EXIT RAMP

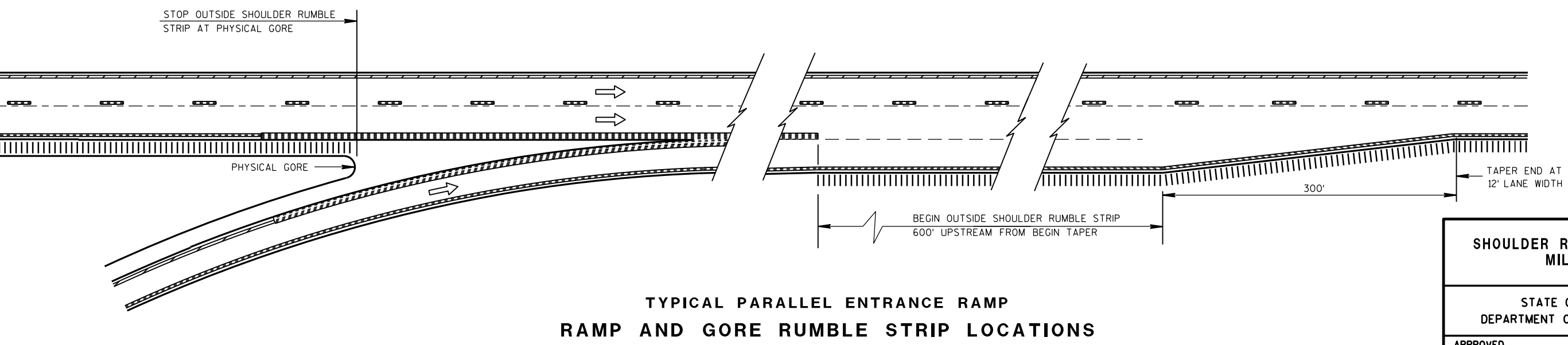
NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMP, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.
 PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
 ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP
 RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP
 RAMP AND GORE RUMBLE STRIP LOCATIONS

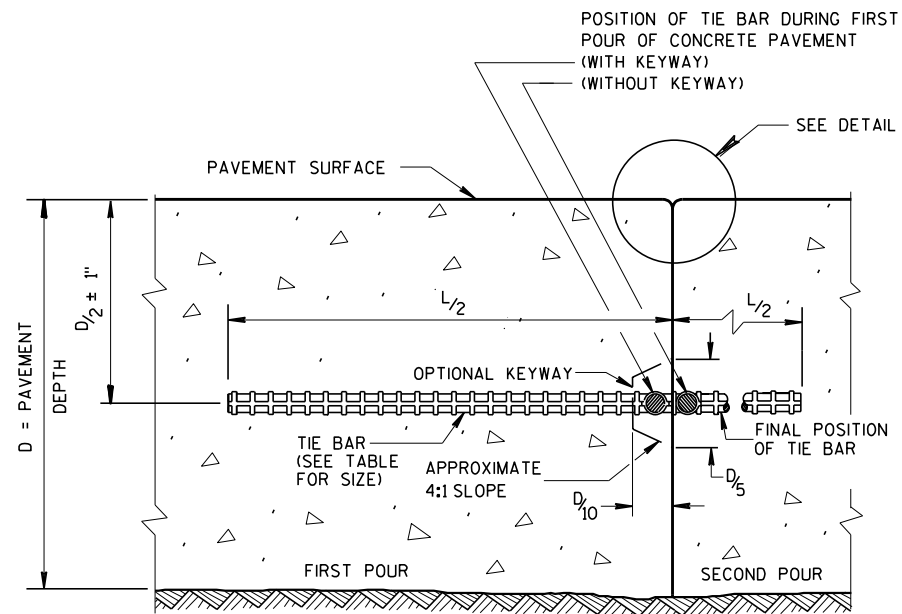
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6

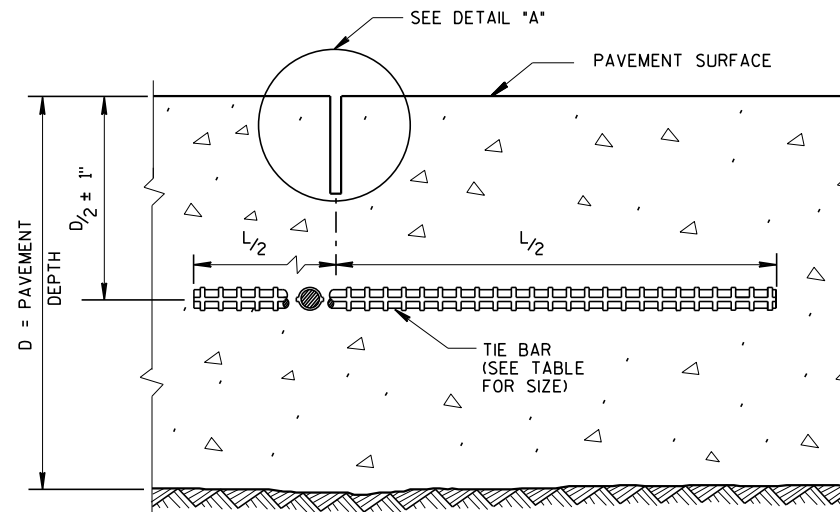
S.D.D. 13 A 5-5b

S.D.D. 13 A 5-5b

SHOULDER RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 12/17/2012	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



CONSTRUCTION JOINT



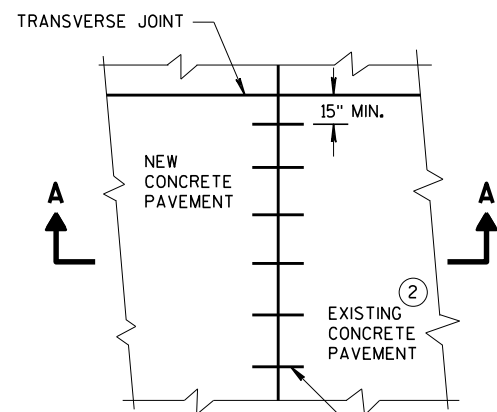
SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

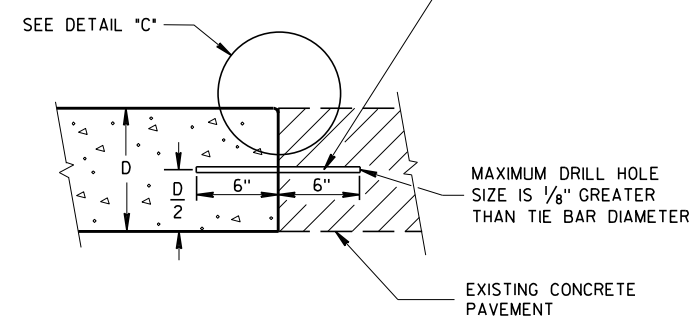
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

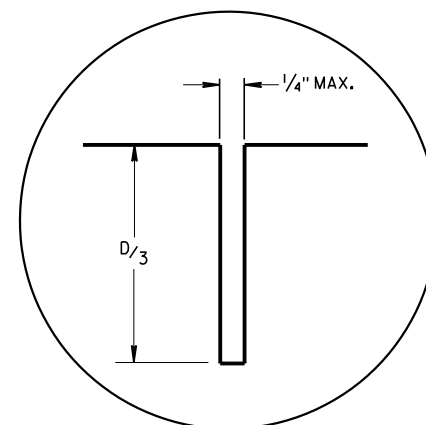


PLAN VIEW

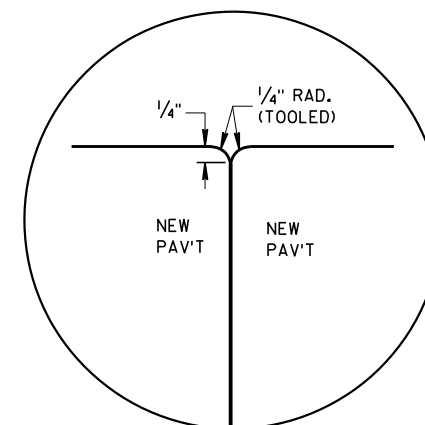
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



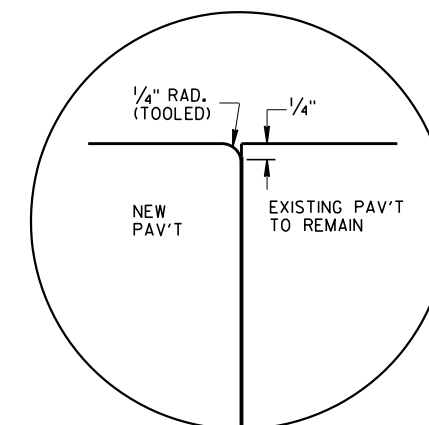
**SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT**



DETAIL "A"



DETAIL "B"



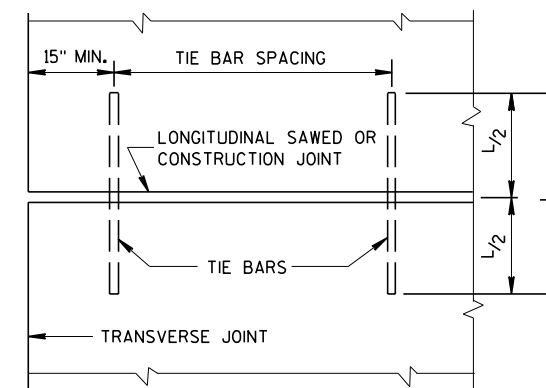
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



**PLAN VIEW
SHOWING LOCATION OF TIE BARS**

**CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR

FHWA

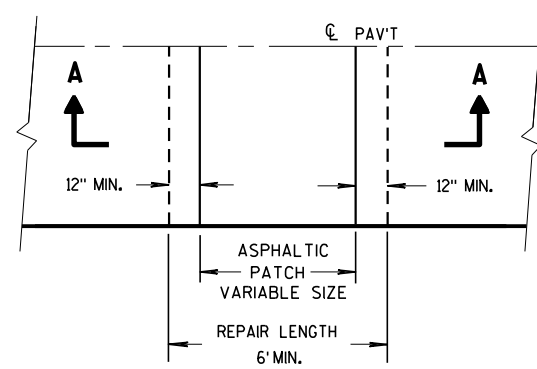
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

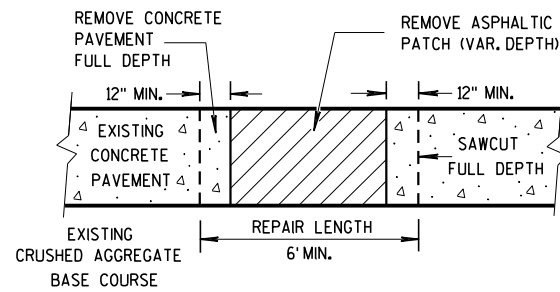
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

① DOWEL BARS MIGHT NOT EXIST.

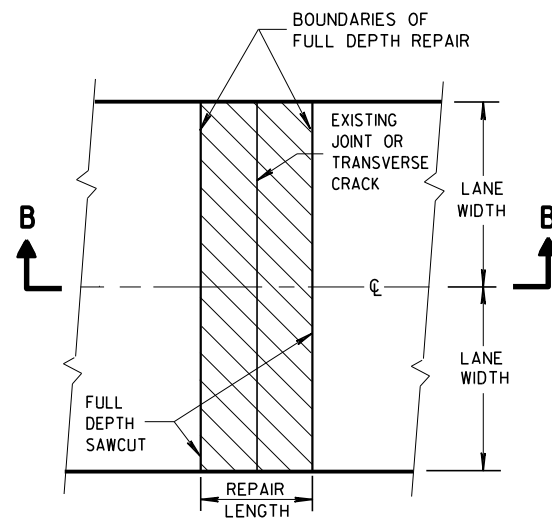


PLAN VIEW

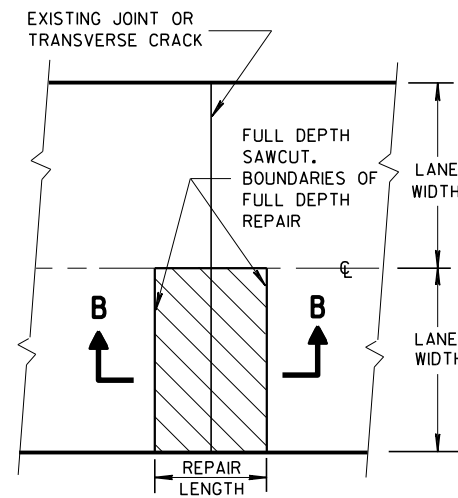


SECTION A-A

HMA PATCH REMOVAL

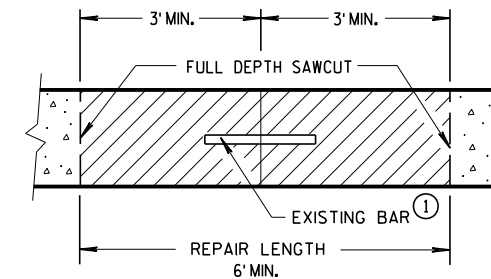


**PLAN VIEW
(DOUBLE LANE REPAIR)**

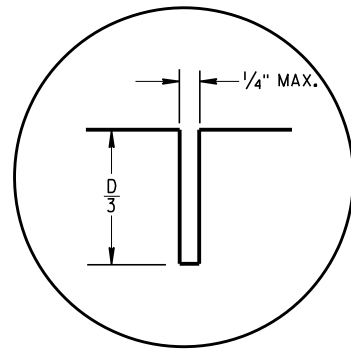


**PLAN VIEW
(SINGLE LANE REPAIR)**

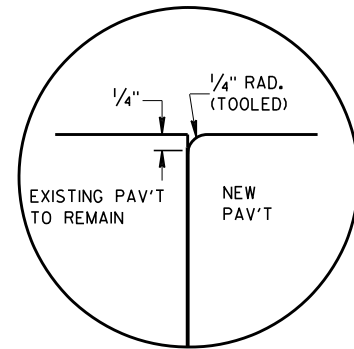
FULL DEPTH CONCRETE PAVEMENT REMOVAL



**SECTION B-B
CONCRETE REMOVAL**

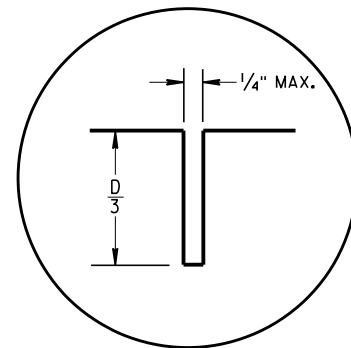


C1

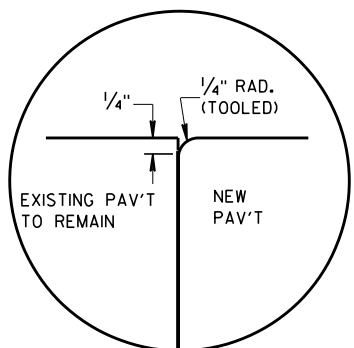


C2

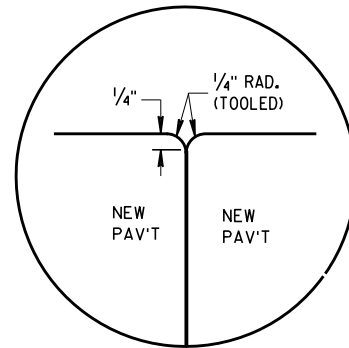
TRANSVERSE JOINTS



L1



L2



L3

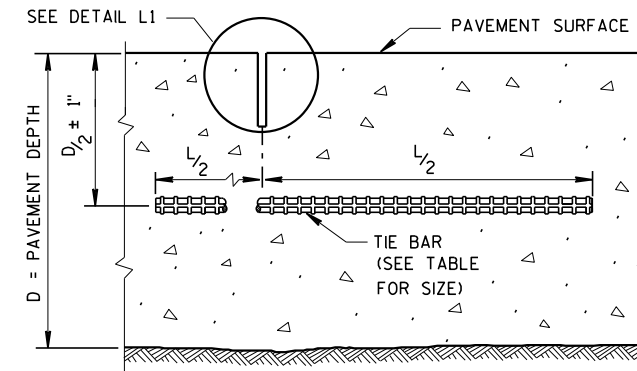
LONGITUDINAL JOINTS

TIE BAR TABLE

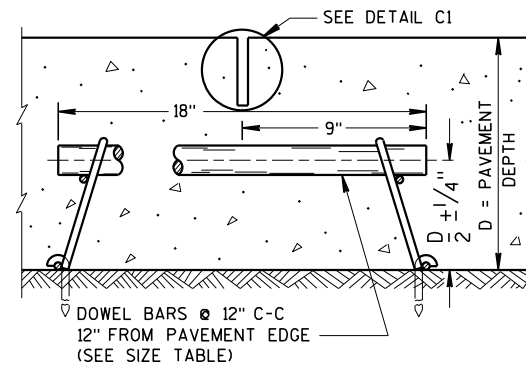
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



**SECTION C-C
SAWED LONGITUDINAL JOINT**



**SECTION F-F
CONTRACTION JOINT**

GENERAL NOTES

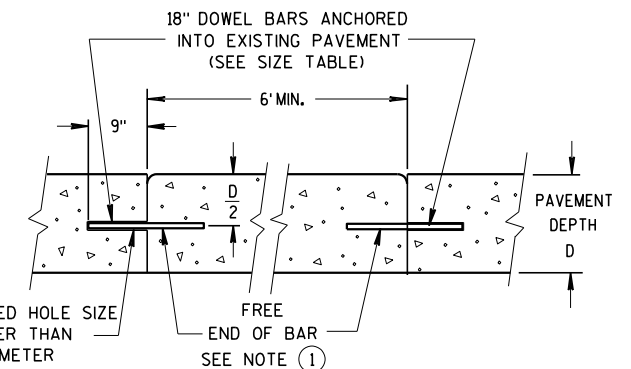
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

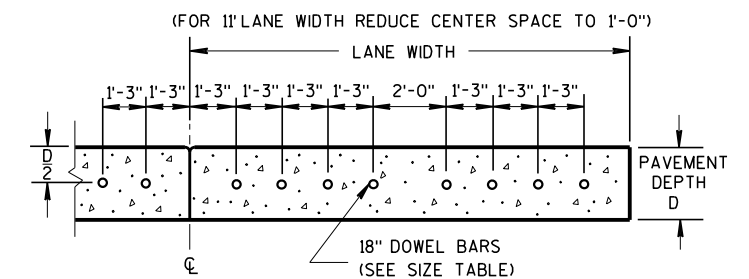
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

① APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



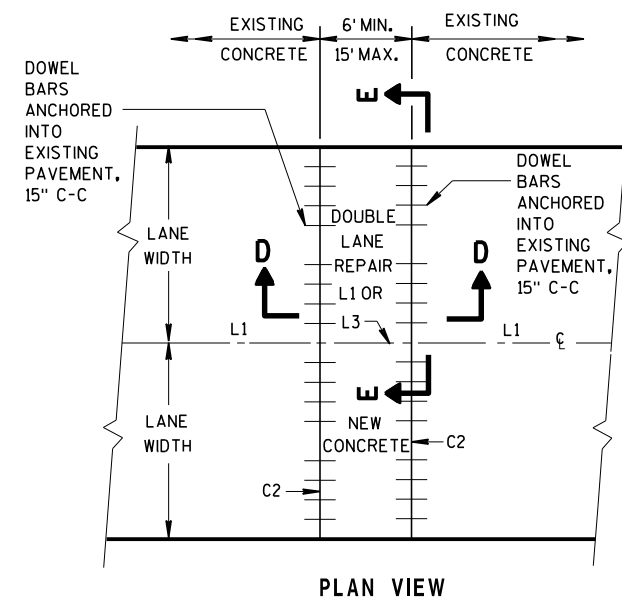
SECTION D-D



**SECTION E-E
DRILLED DOWEL BAR CONSTRUCTION JOINT**

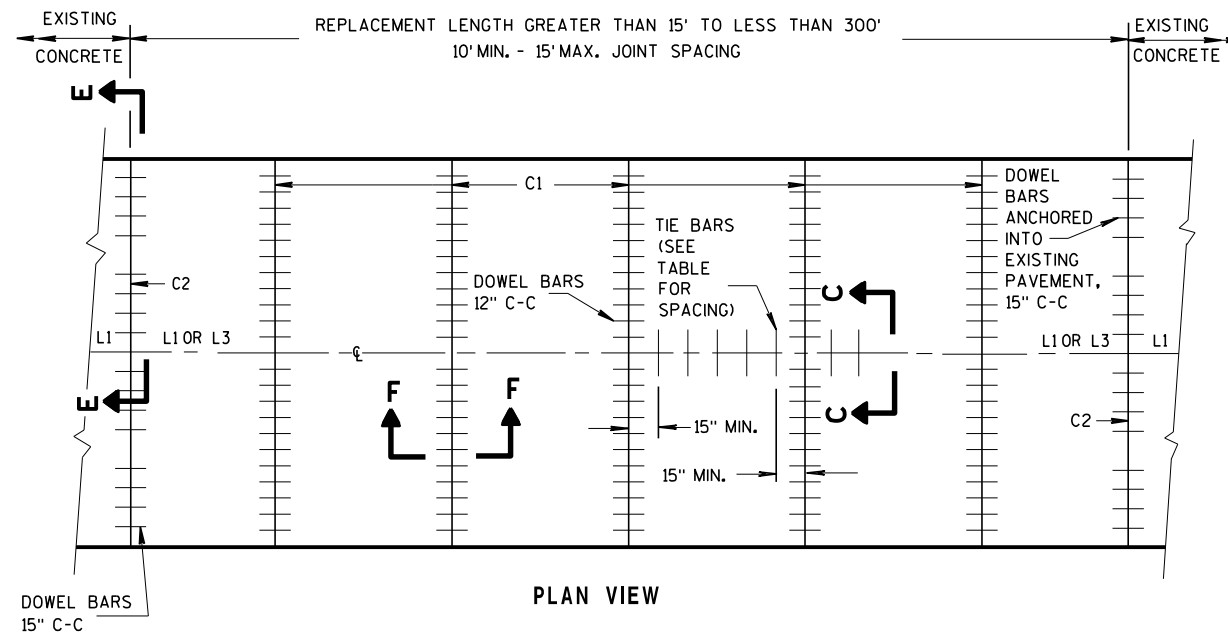
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	NONE	12'
7", 7 1/2"	1"	1"	14'
8", 8 1/2"	1 1/4"	1 1/4"	15'
9", 9 1/2"	1 1/4"	1 1/4"	15'
10" & ABOVE	1 1/2"	1 1/4"	15'



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

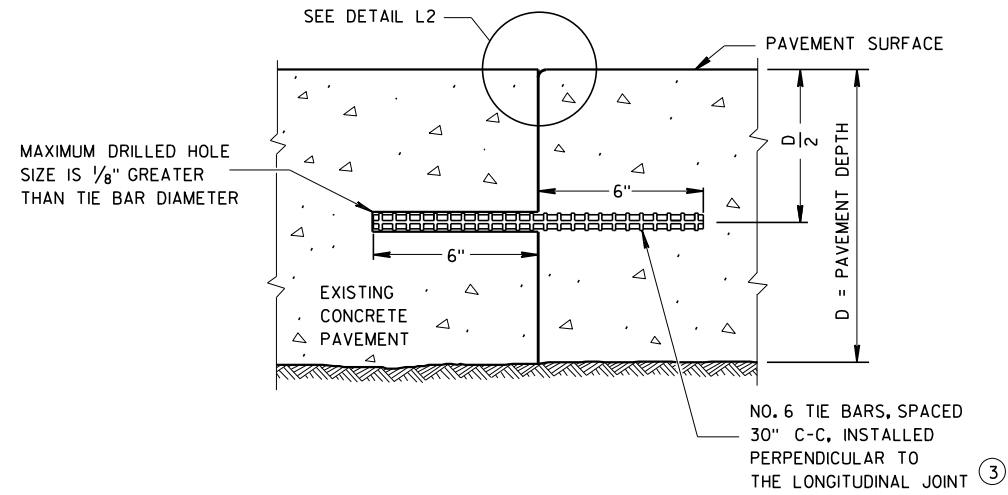
MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

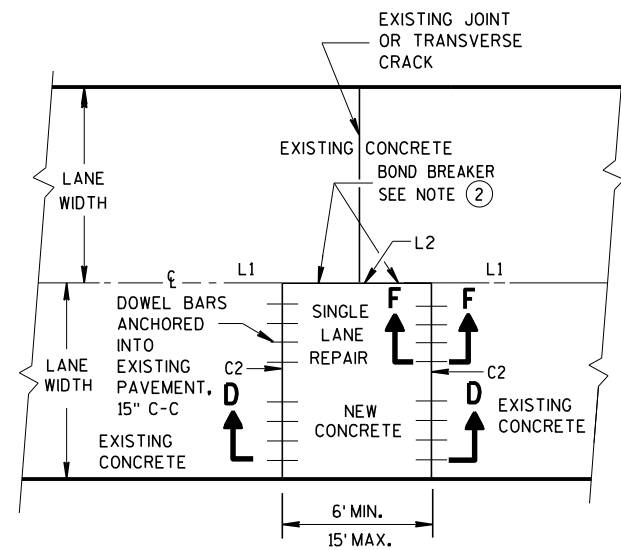
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

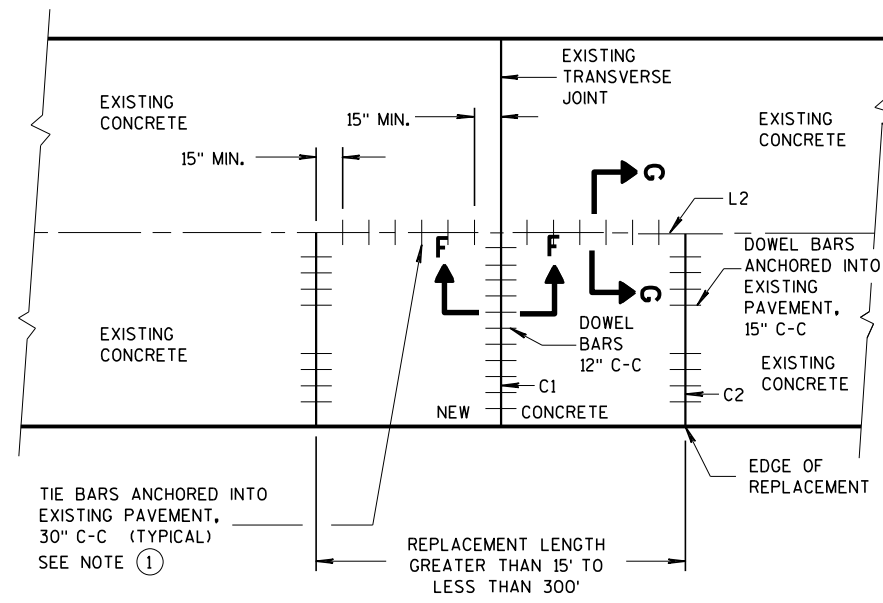
- ① WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
- ② USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.
- ③ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



SECTION G-G
TIE BARS ANCHORED
INTO EXISTING PAVEMENT

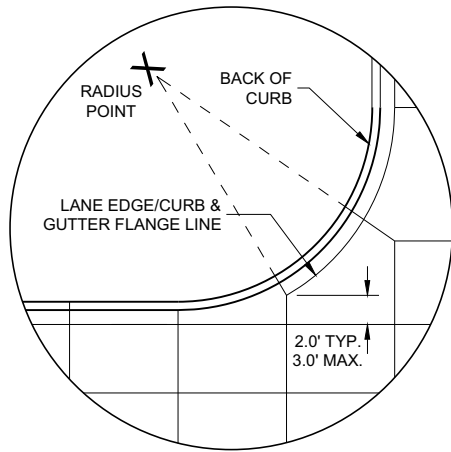


PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPAIR

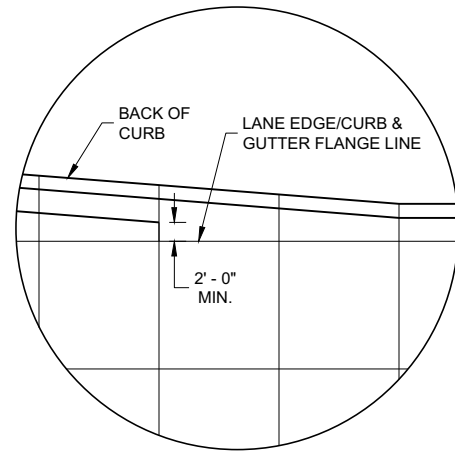


PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPLACEMENT

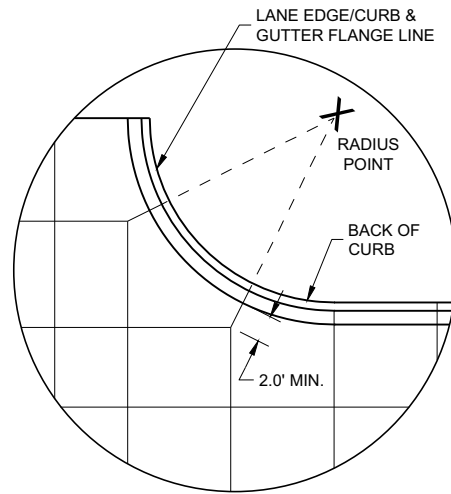
CONCRETE PAVEMENT REPAIR AND REPLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
March 2018 DATE	/s/ Peter Kemp, P.E. PAVEMENT SUPERVISOR
FHWA	



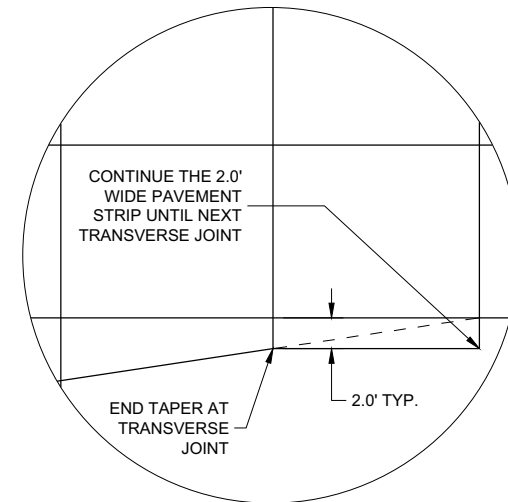
DETAIL "A"



DETAIL "B"



DETAIL "C"

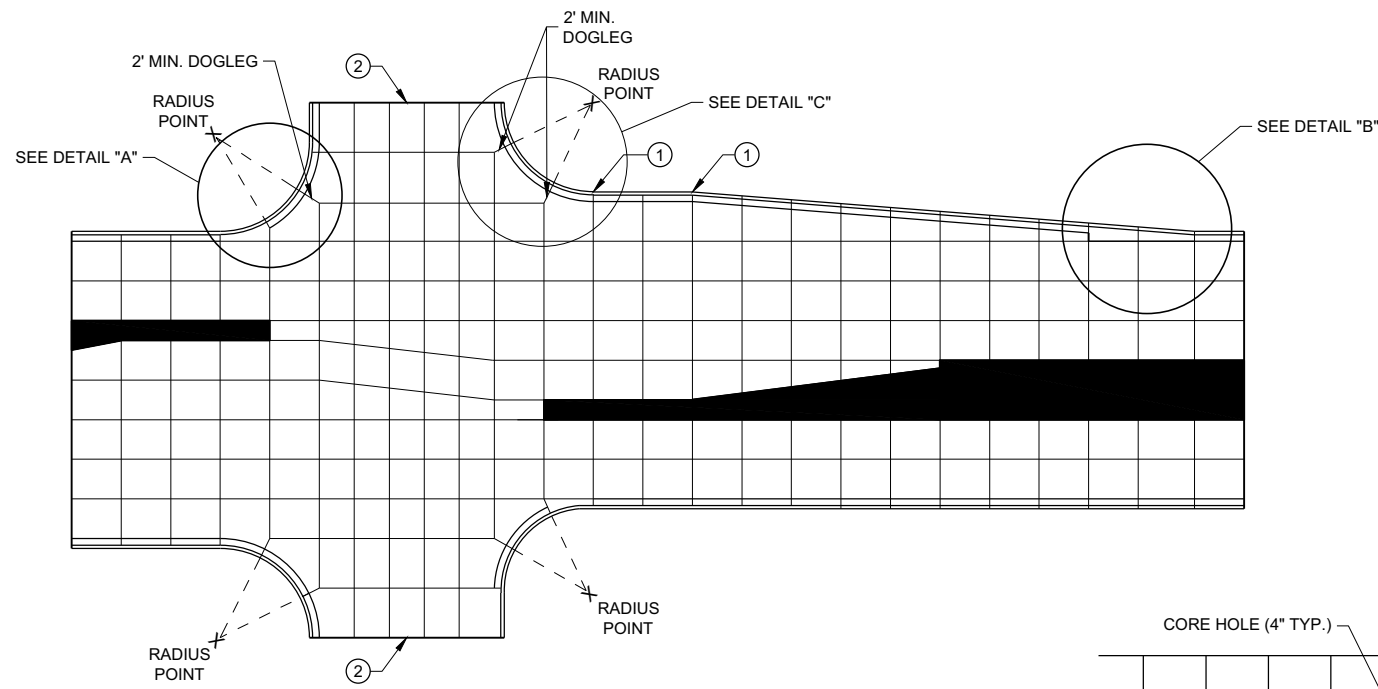


DETAIL "D"

GENERAL NOTES

- THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.
- ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.
- CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.
- ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.
- AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.
- SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.
- AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.
- CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

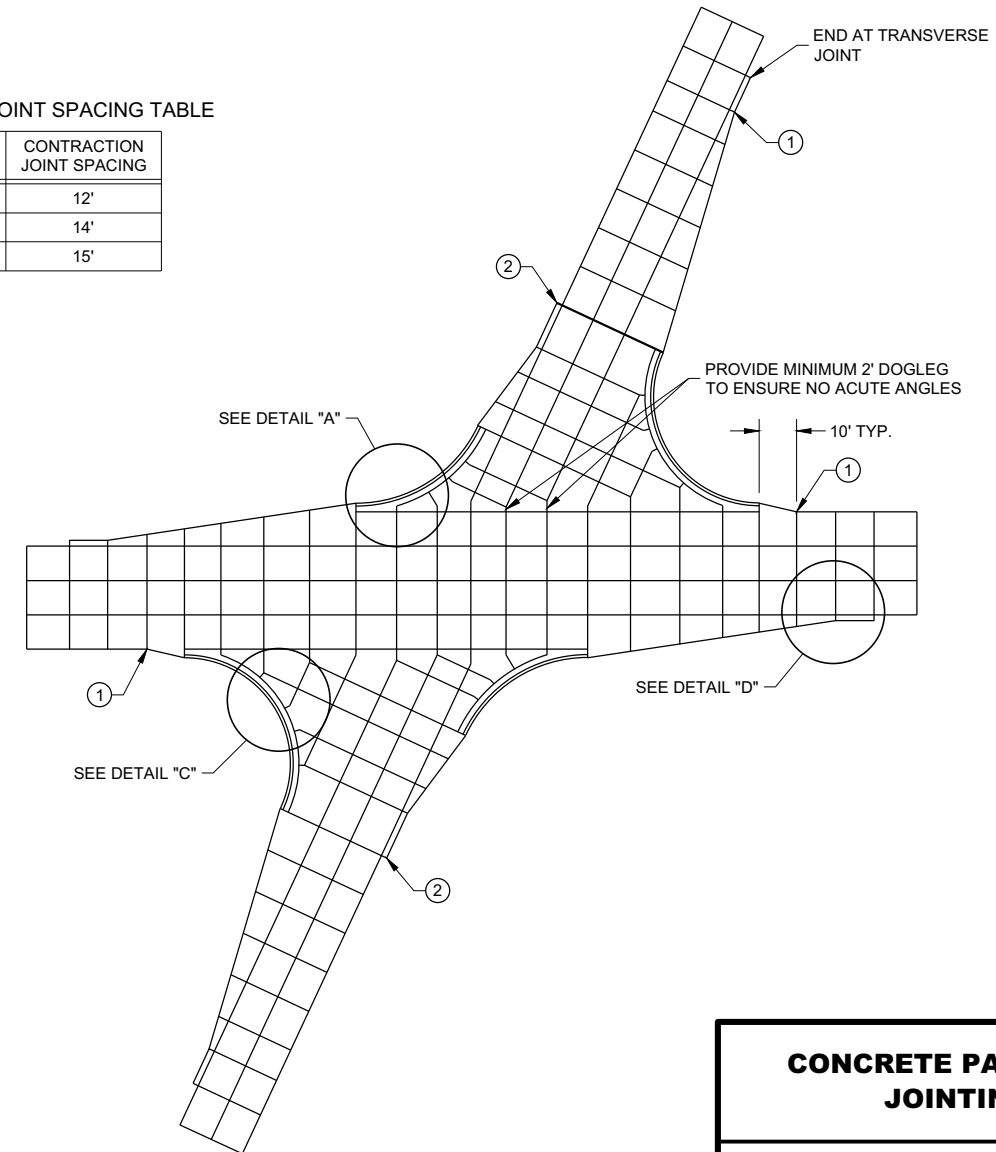
- ① PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
- ② CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
- ③ THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



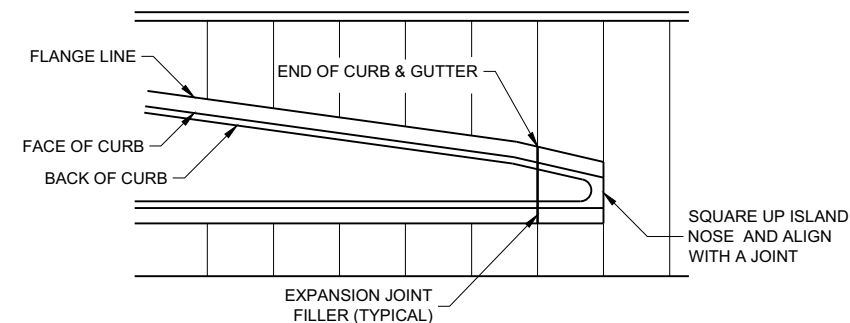
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

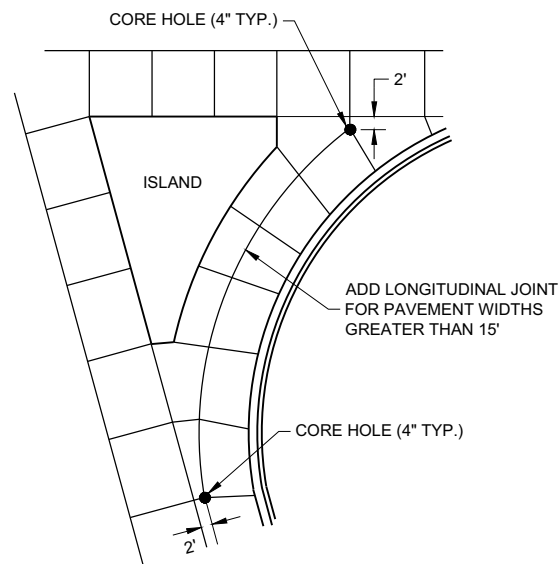
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

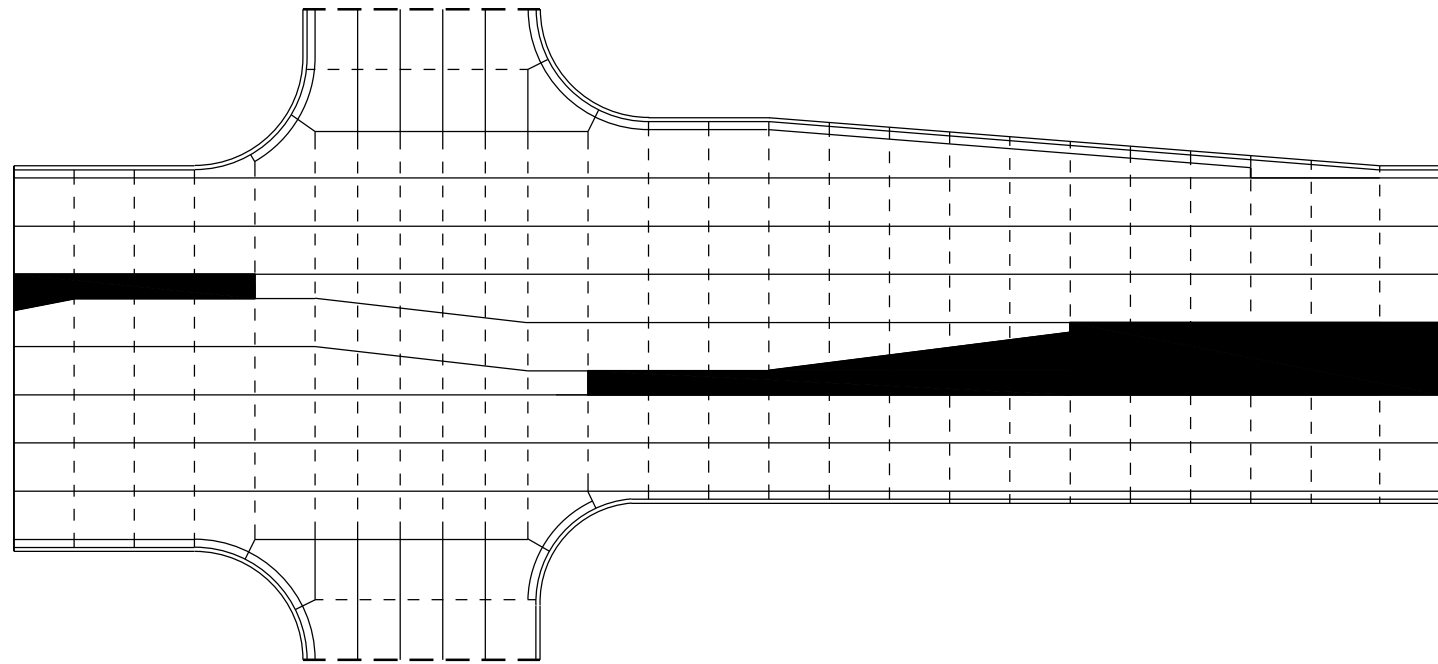
LEGEND

- - - - - POTENTIAL DOWELED EXPANSION JOINT
- - - - - DOWELED JOINT
- TIED JOINT

GENERAL NOTES

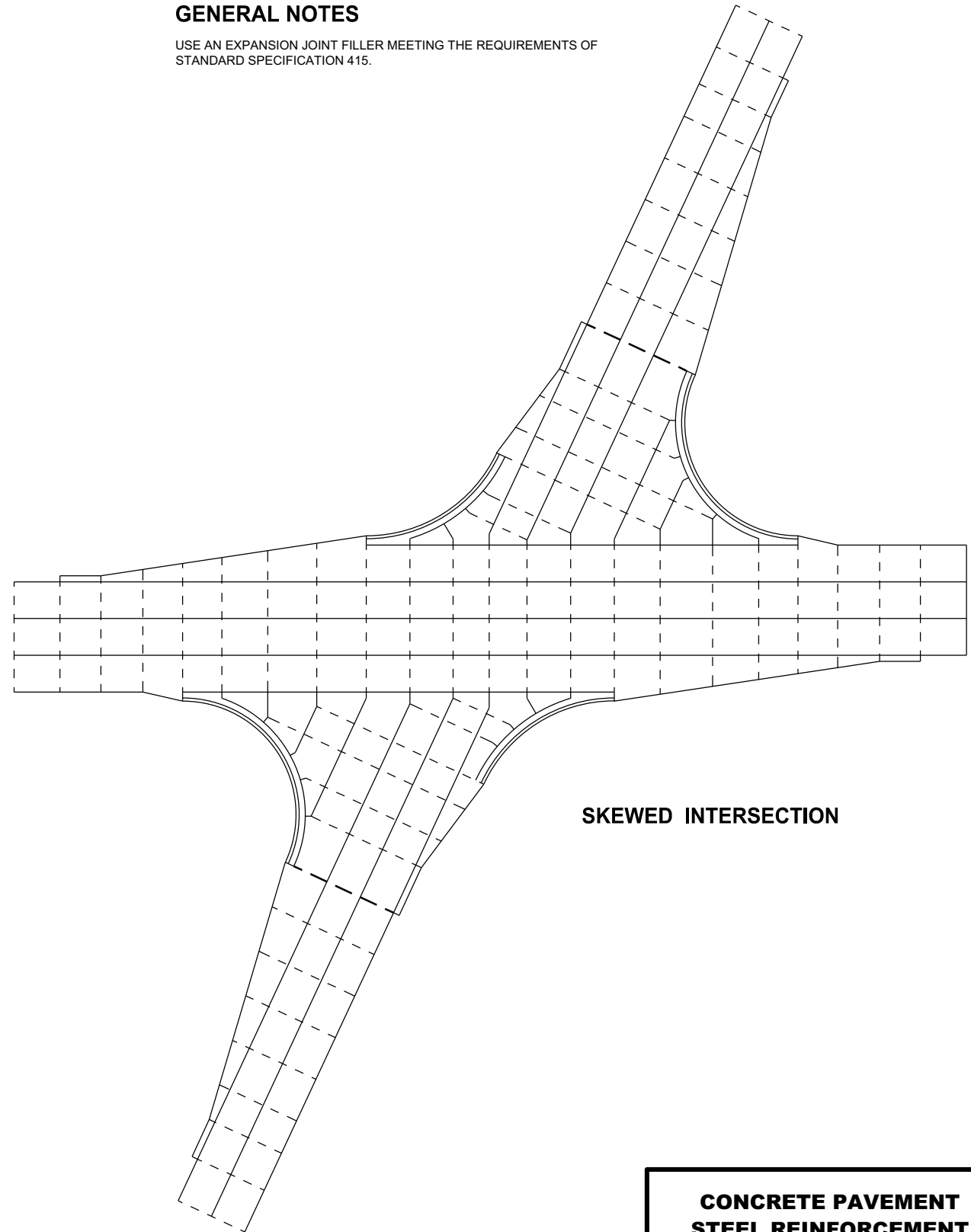
USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.

6



STANDARD INTERSECTION

6



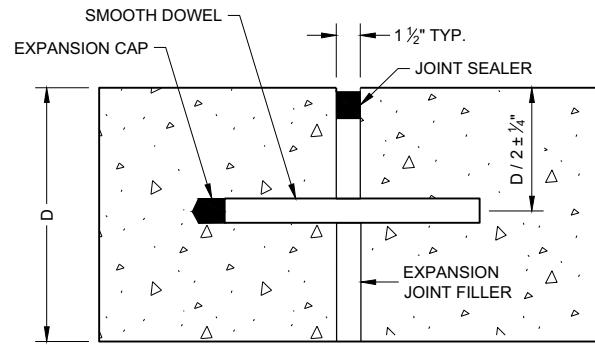
SKEWED INTERSECTION

SDD 13C18 - 07b

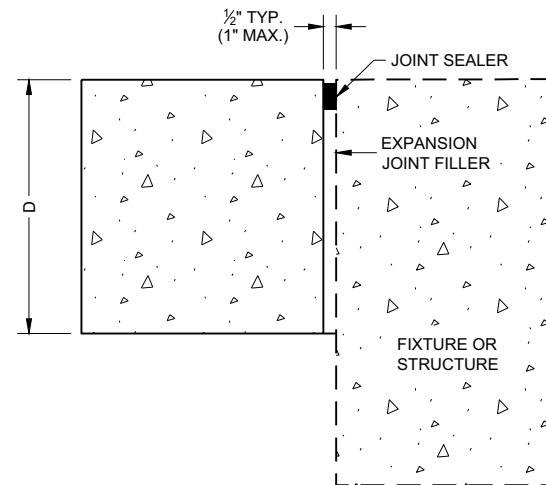
SDD 13C18 - 07b

**CONCRETE PAVEMENT
STEEL REINFORCEMENT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DOWELED TRANSVERSE ①



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

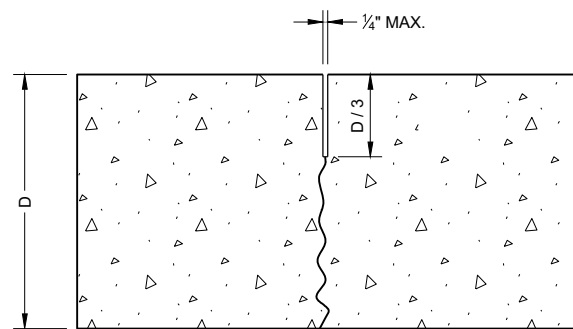
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
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≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

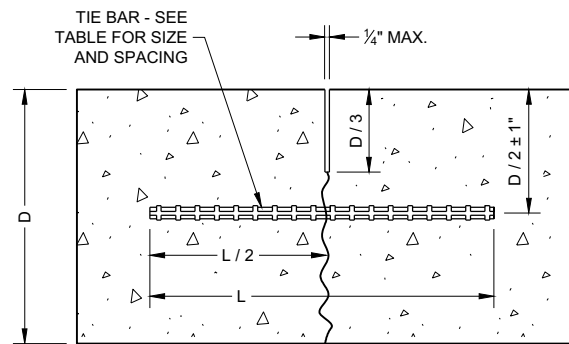
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

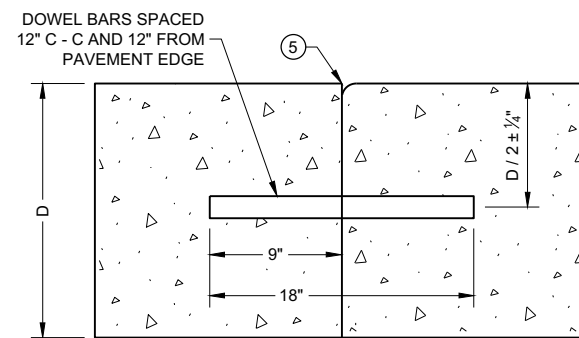
- ① USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
- ② SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
- ③ LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
- ④ CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
- ⑤ IF JOINT IS FORMED, PROVIDE A 1/4" RADIUS.
- ⑥ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



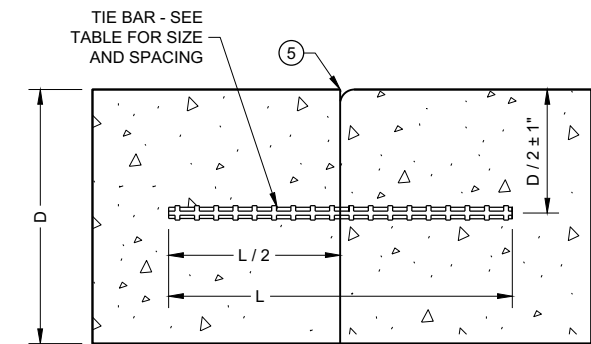
UNDOWELED TRANSVERSE



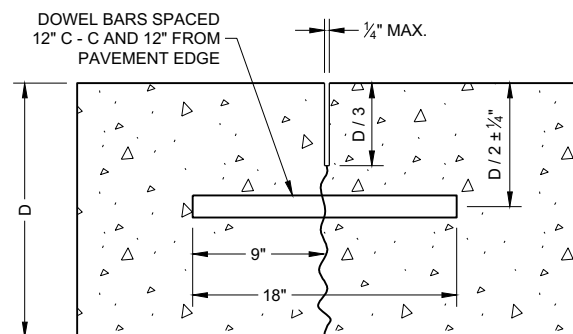
TIED LONGITUDINAL



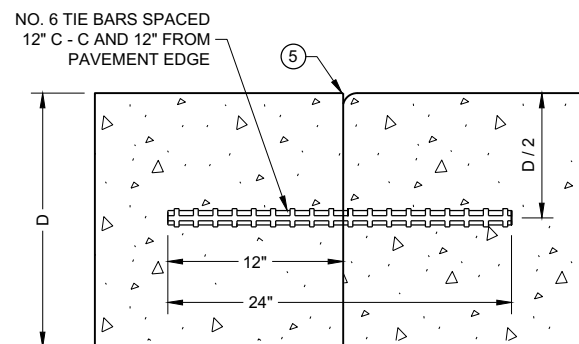
DOWELED TRANSVERSE ③



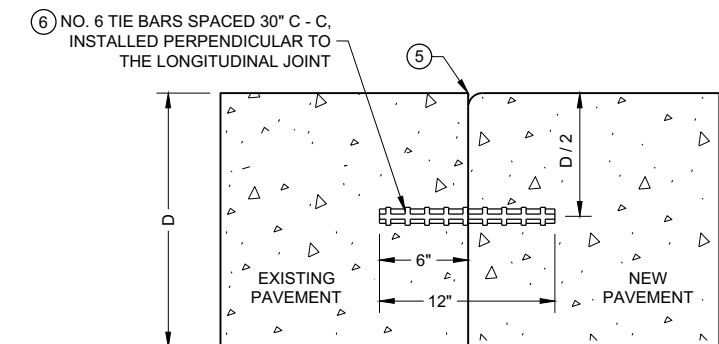
TIED LONGITUDINAL



DOWELED TRANSVERSE



TIED TRANSVERSE ③
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



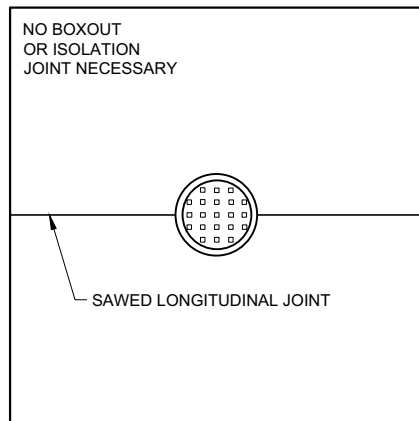
TIED LONGITUDINAL TO EXISTING

CONTRACTION JOINTS ②

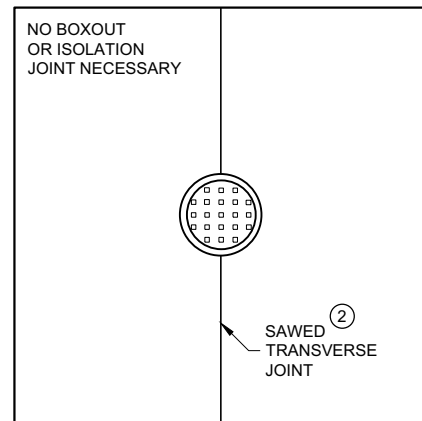
CONSTRUCTION JOINTS ④

CONCRETE PAVEMENT JOINT TYPES

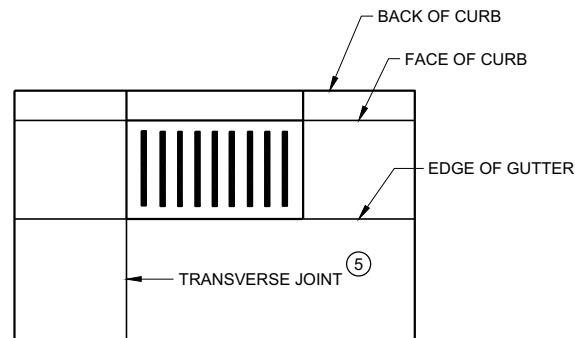
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MANHOLE WITH LONGITUDINAL JOINT



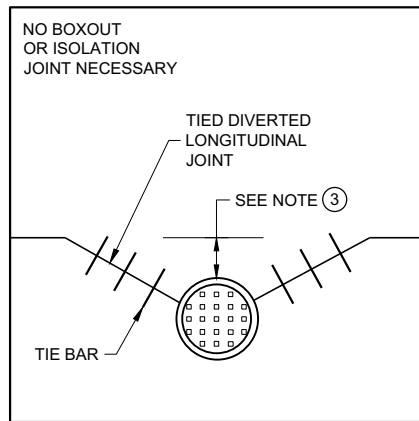
MANHOLE WITH TRANSVERSE JOINT



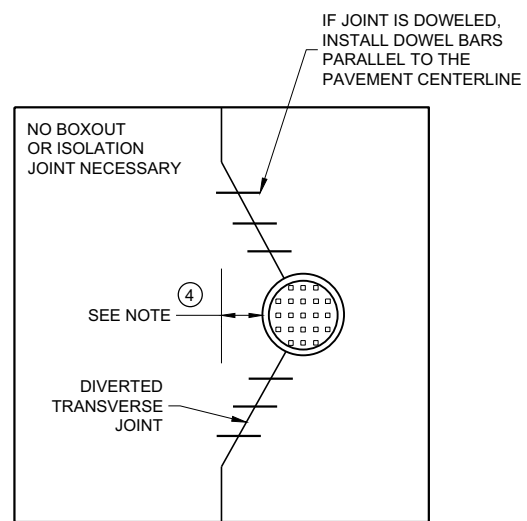
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

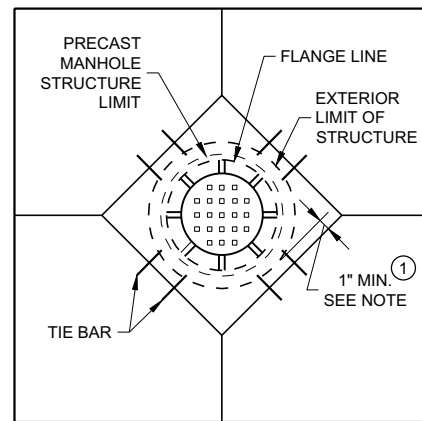
- ① USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- ② ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- ③ IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- ④ IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- ⑤ ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

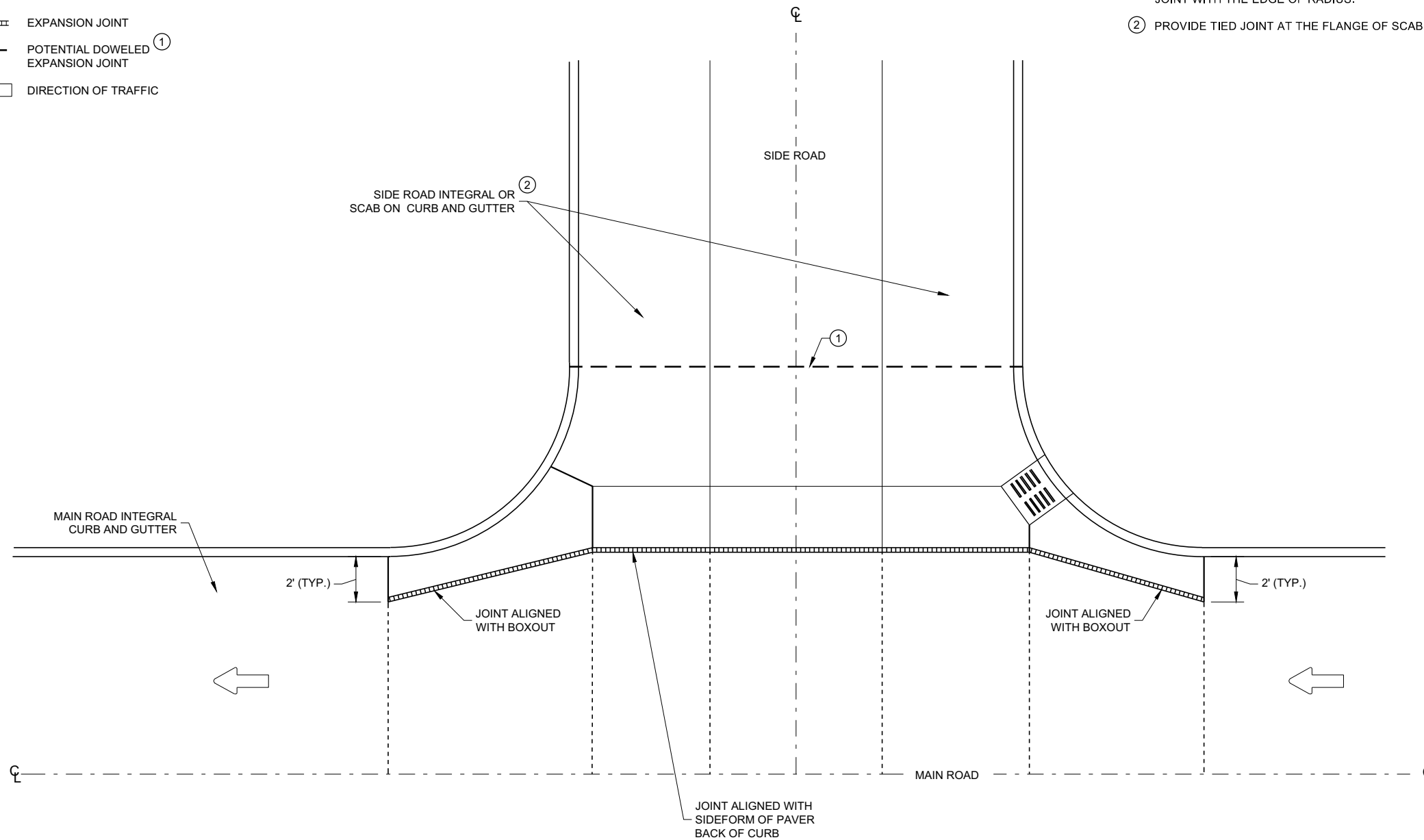
APPROVED
 November 2018 /S/ Peter Kemp P.E.
 DATE PAVEMENT SUPERVISOR
 FHWA

LEGEND

- DOWELED JOINT
- TIED JOINT
- ▨▨▨▨ EXPANSION JOINT
- — — — POTENTIAL DOWELED ^① EXPANSION JOINT
- ← DIRECTION OF TRAFFIC

GENERAL NOTES

- ① CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.
- ② PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.



INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

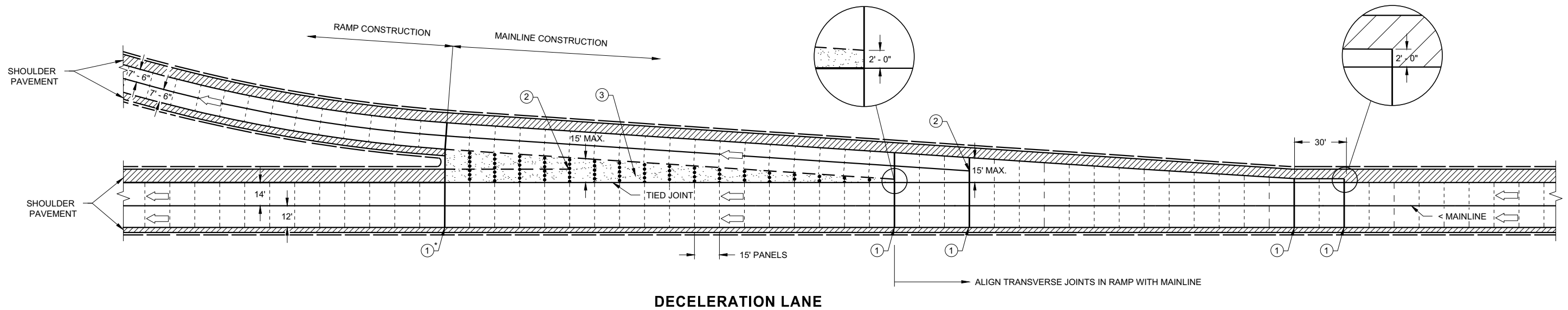
CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2018 DATE	/s/ Peter Kemp P.E. ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

6

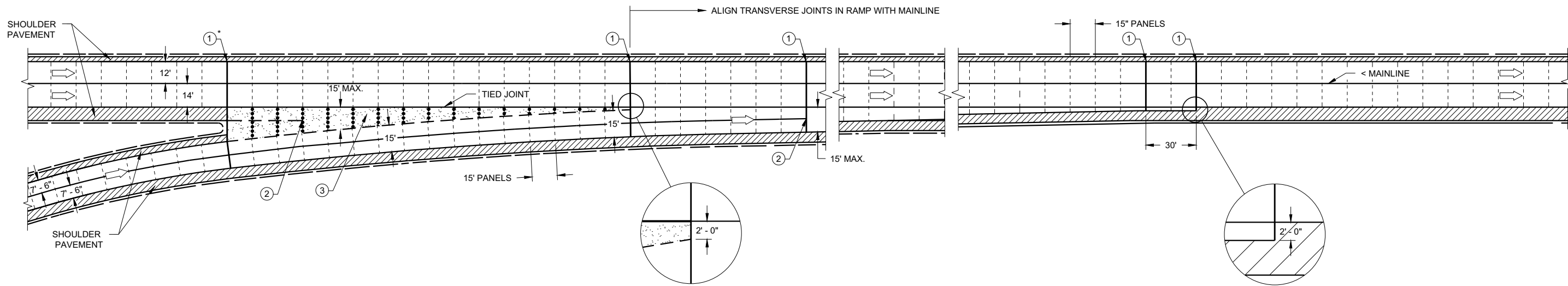
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SDD 13C18 - 07f

SDD 13C18 - 07f



DECELERATION LANE



ACCELERATION LANE

GENERAL NOTES

PAVEMENT AND BASE THICKNESS, PANEL LENGTHS, JOINTS AND REINFORCEMENT FOR THE DECELERATION AND ACCELERATION LANES, INCLUDING TAPERS, SHALL BE THE SAME AS THE MAINLINE, EXCEPT WHERE OTHERWISE NOTED.

ALL REINFORCEMENT BARS SHALL BE EPOXY COATED CONFORMING TO SUBSECTION 505.2.6 OF THE STANDARD SPECIFICATIONS.

LANE AND SHOULDER WIDTHS MAY VARY FROM SHOWN. SEE CONSTRUCTION PLANS FOR ACTUAL PROPOSED WIDTHS.

- ① CRITICAL TRANSVERSE JOINT LOCATIONS AT PAVEMENT WIDTH CHANGES.
(①* IS NOT A CRITICAL TRANSVERSE JOINT WHEN ASPHALTIC GORE IS INSTALLED).
- ② STOP LONGITUDINAL JOINT WITH CORE HOLE (2" TYP.) WHEN IT MEETS THE FIRST TRANSVERSE JOINT LESS THAN 15' WIDE OR STOP LONGITUDINAL JOINT WHEN IT MEETS 2' AWAY FROM THE TIED JOINT OF THE MAINLINE.
- ③ DISREGARD THE JOINT DETAILS IN AND AROUND THE GORE WHEN ASPHALTIC GORE IS INSTALLED.

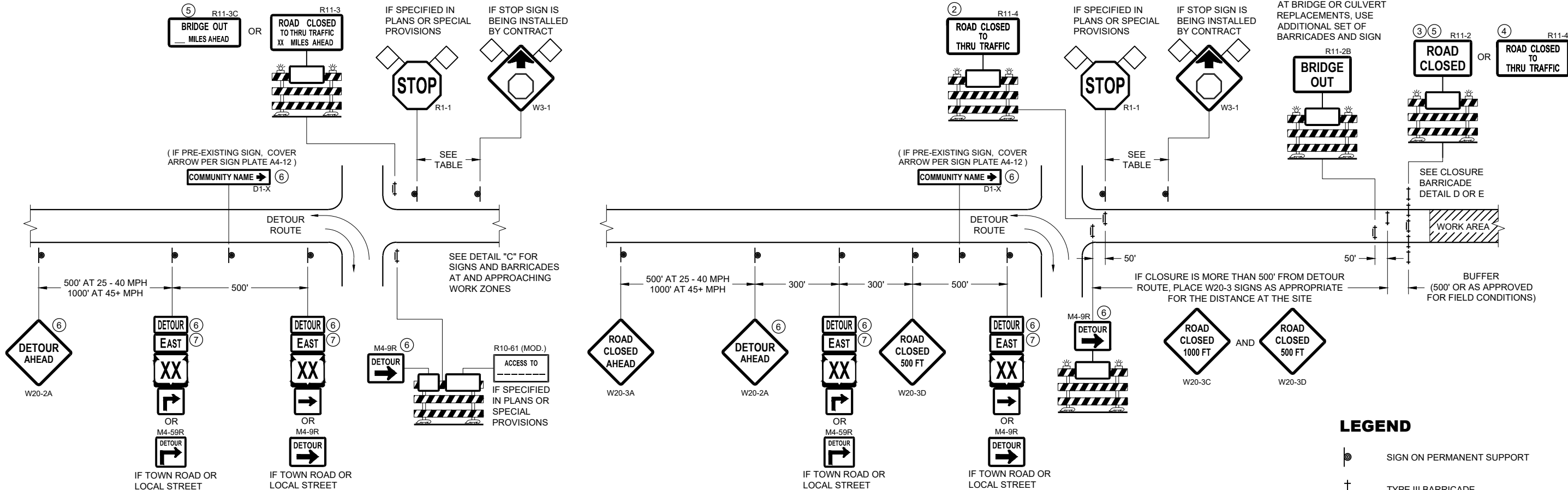
LEGEND

- DOWELED JOINT
- UNDOWELED JOINT
- TIED JOINT
- - - - - UNTIED JOINT
- ▨ GORE
- ⇨ DIRECTION OF TRAVEL

**CONCRETE PAVEMENT JOINTING
ACCELERATION/
DECELERATION LANE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Peter Kemp P.E.
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

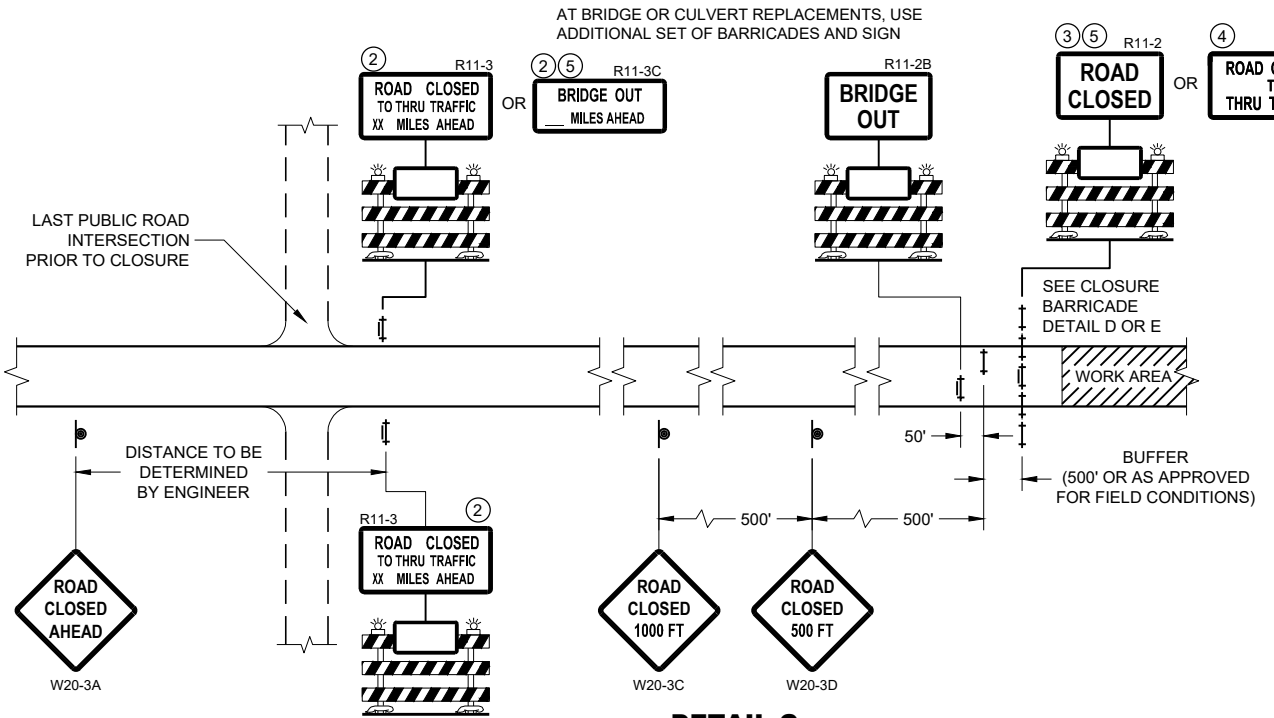
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



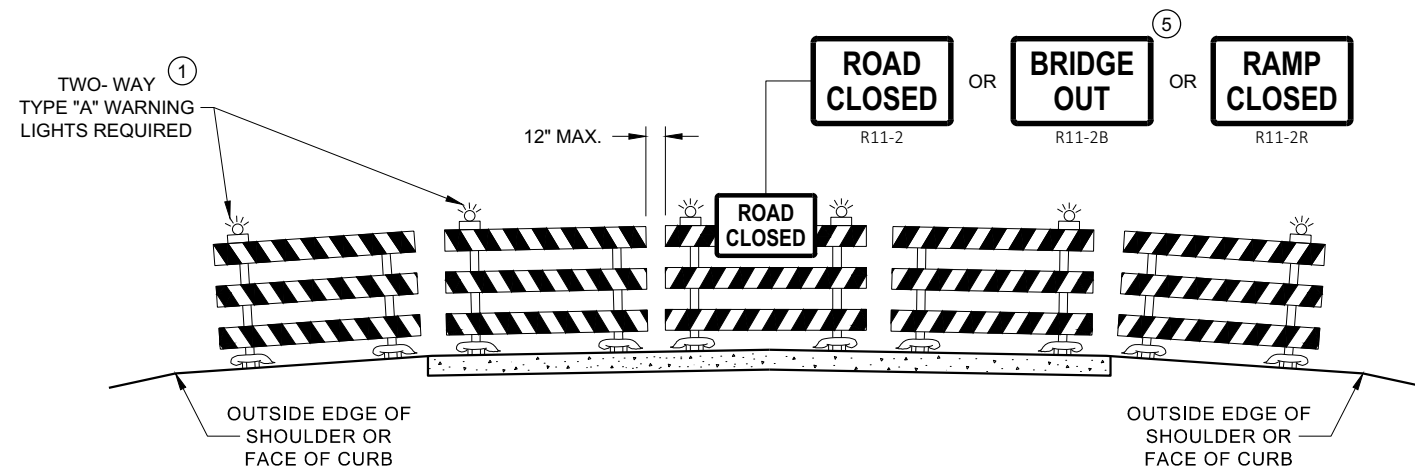
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

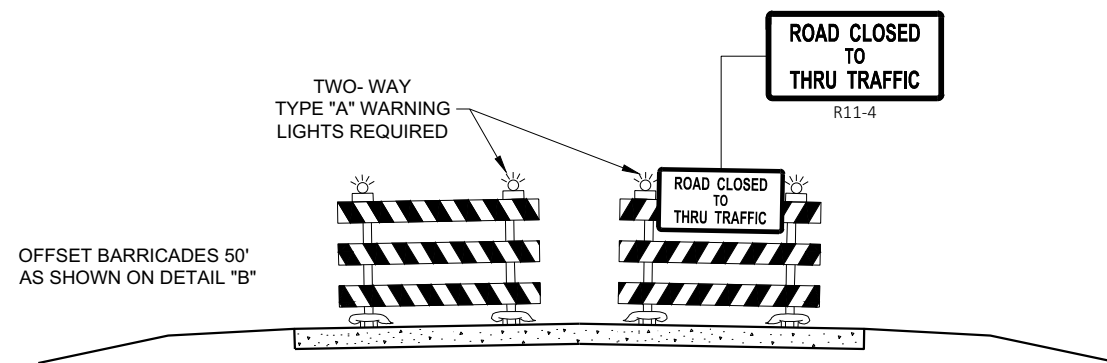
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE DATE WORK ZONE ENGINEER
FHWA



**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 THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL 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 SHALL, 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" (36" X 18" 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)
- MO5 - 1 AND MO6 - 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 AN 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 ROAD 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
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

GENERAL NOTES

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

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. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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.

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

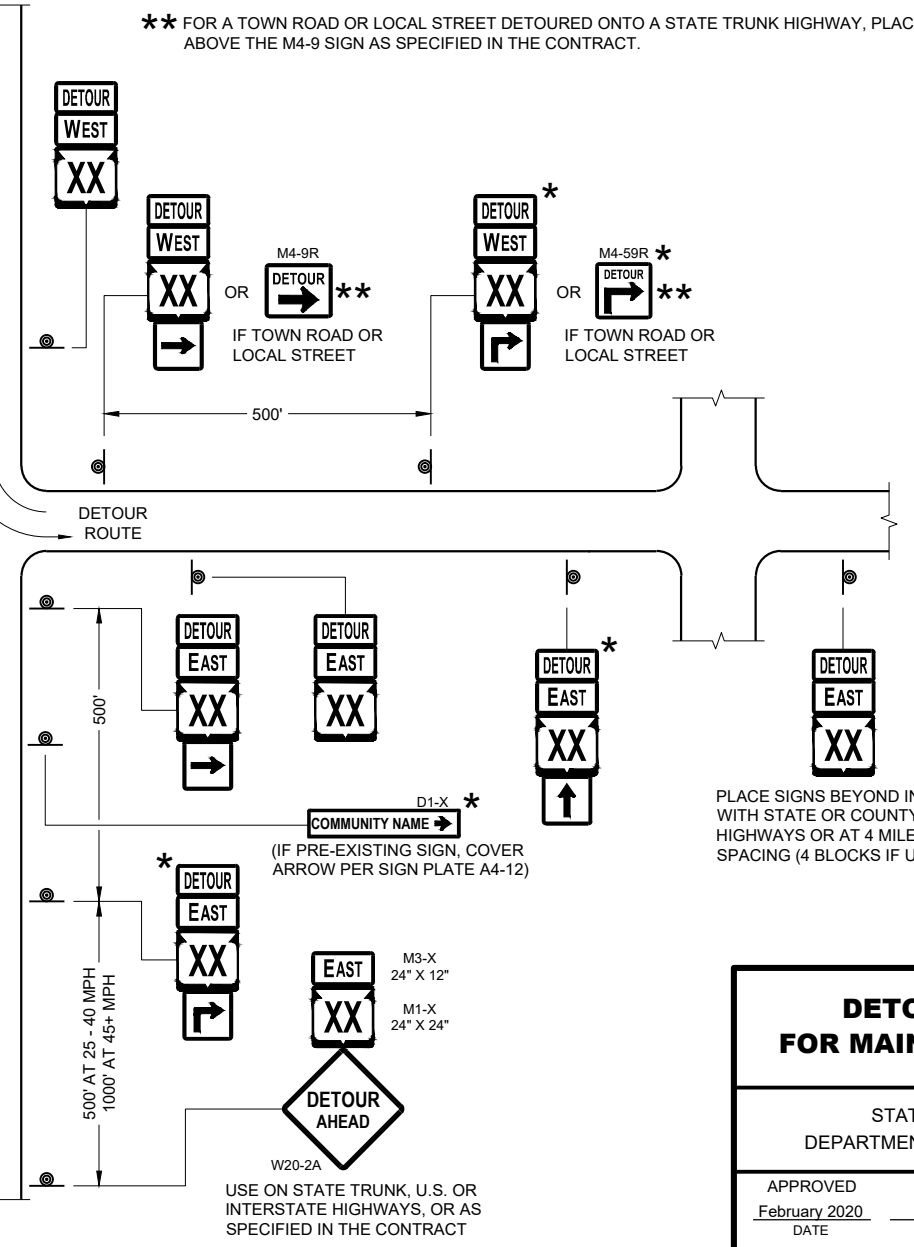
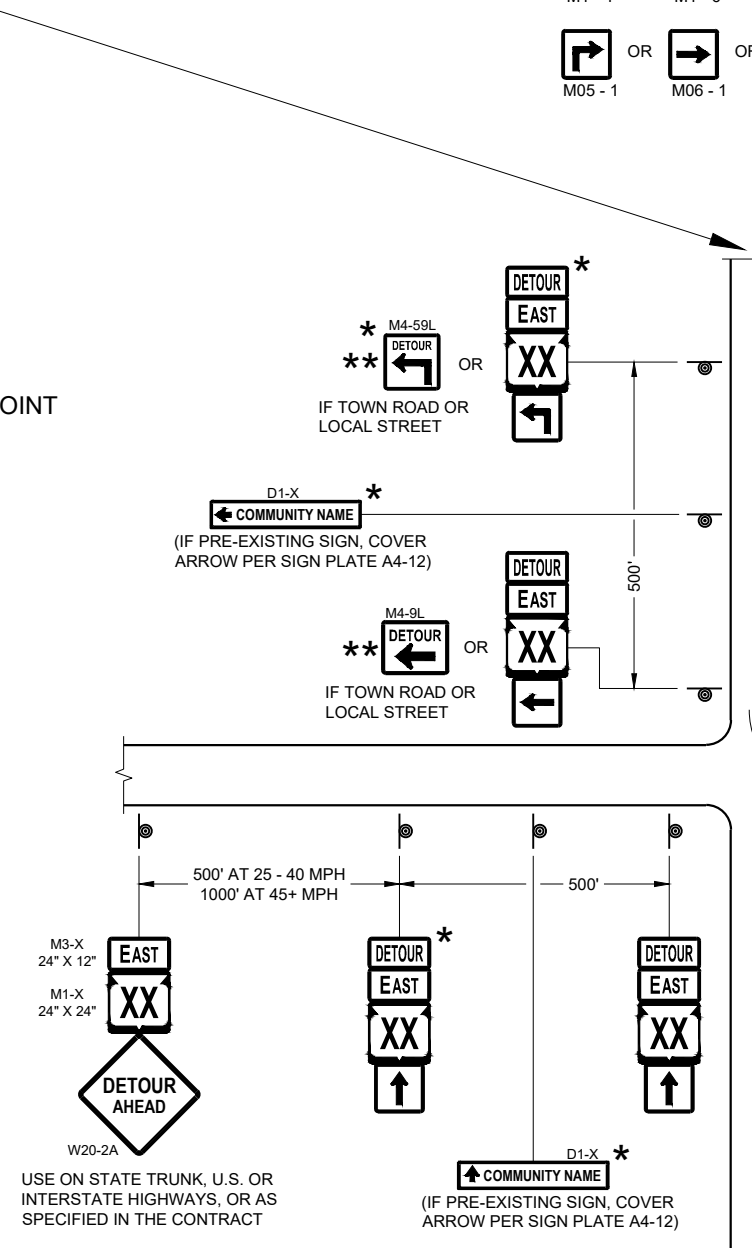
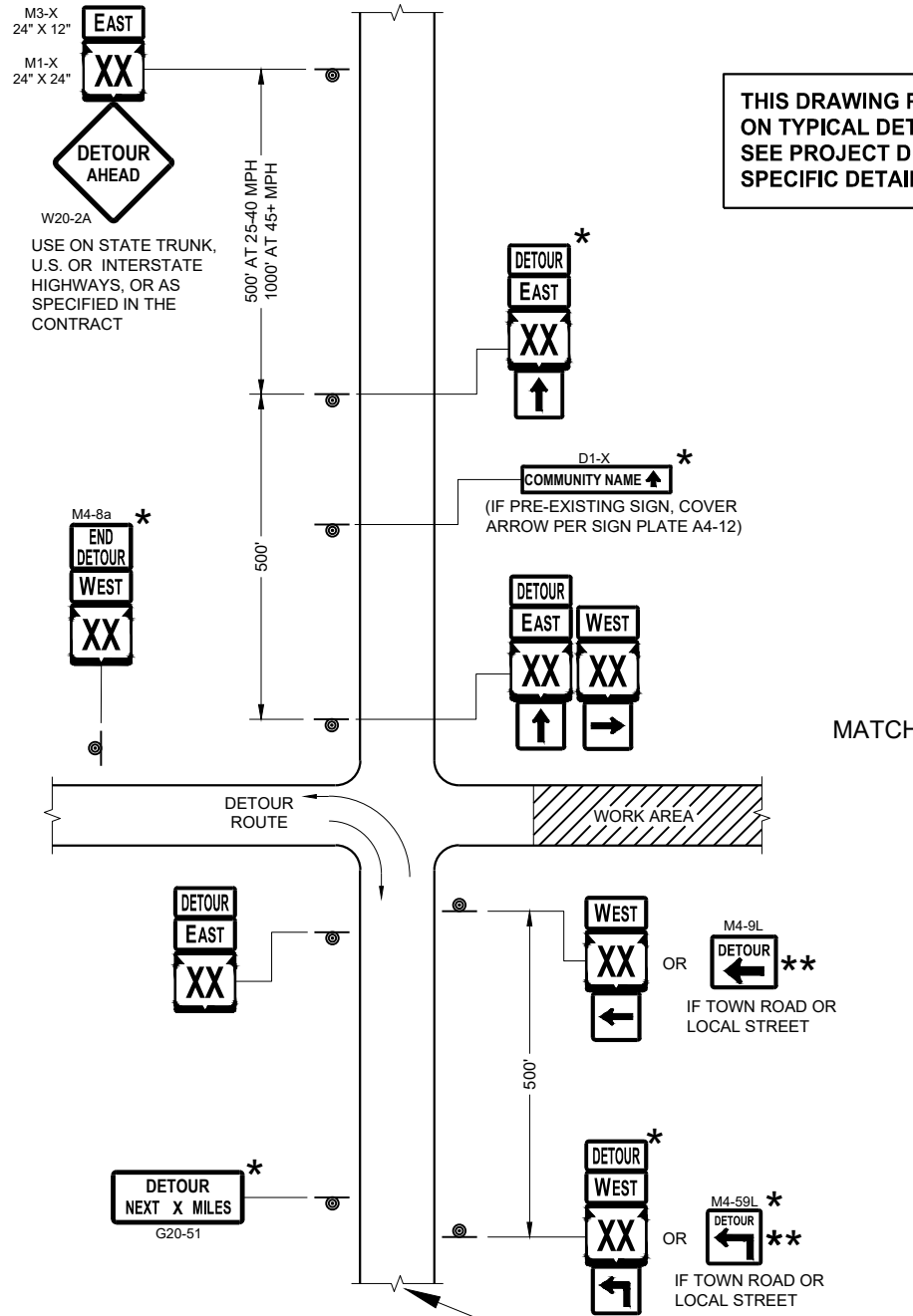
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" 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)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



DETAIL F DETOUR SIGNING

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

**DETOUR SIGNING
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL "TO" MO-4 SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- TO MO4 - 5
- M1 - 4 OR M1 - 6 OR COUNTY M1 - 5A
- M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2 OR M06 - 4

GENERAL NOTES

- SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.
- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE "TO" MO-4 ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.
- THE SPACING BETWEEN TRAFFIC CONTROL AND "TO" MO-4 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- 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.
- SIGNS THAT SHALL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- SIGN SIZES SHALL BE AS FOLLOW:
 MO4 - 5 SHALL BE 24" X 12". (36" X 18" 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).
 MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- ① ONLY ADD IF THERE ARE NO EXISTING ROUTE MARKERS FOR THE INTERSECTING ROADWAY.

SEE SDD 15D16 FOR RAMP CLOSURE

EXIT RAMP CLOSURE

6

6

SDD 15C02 - 08e

SDD 15C02 - 08e

PCMS

PCMS MESSAGING

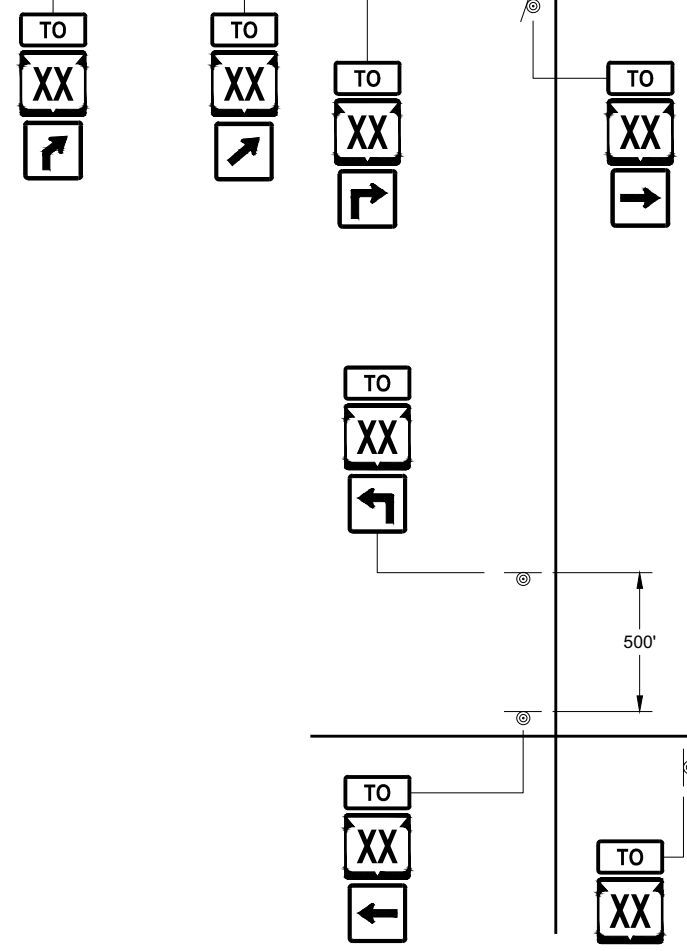
FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

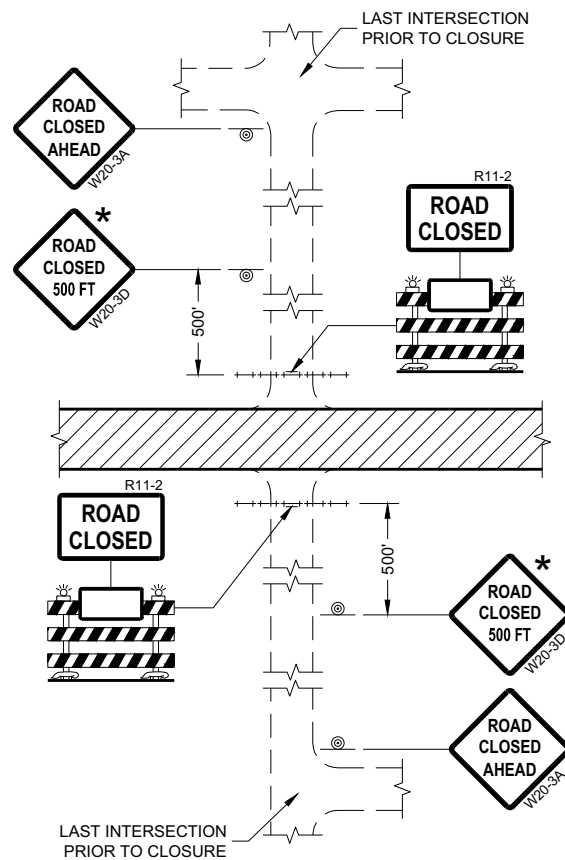


**OFF RAMP
LANE CLOSURE**

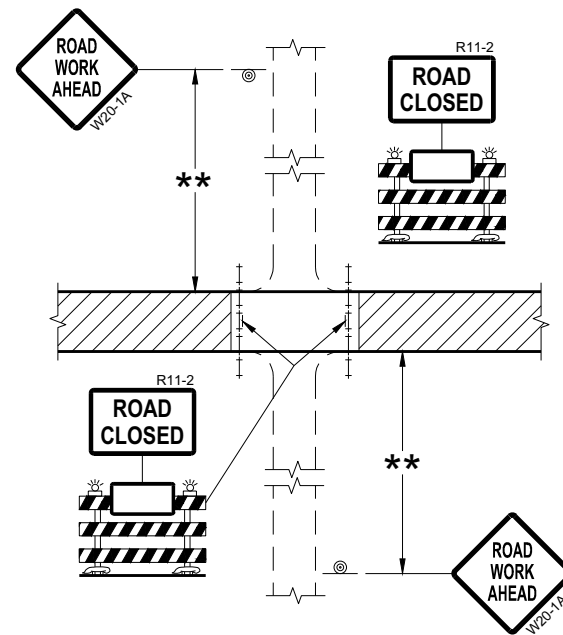
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

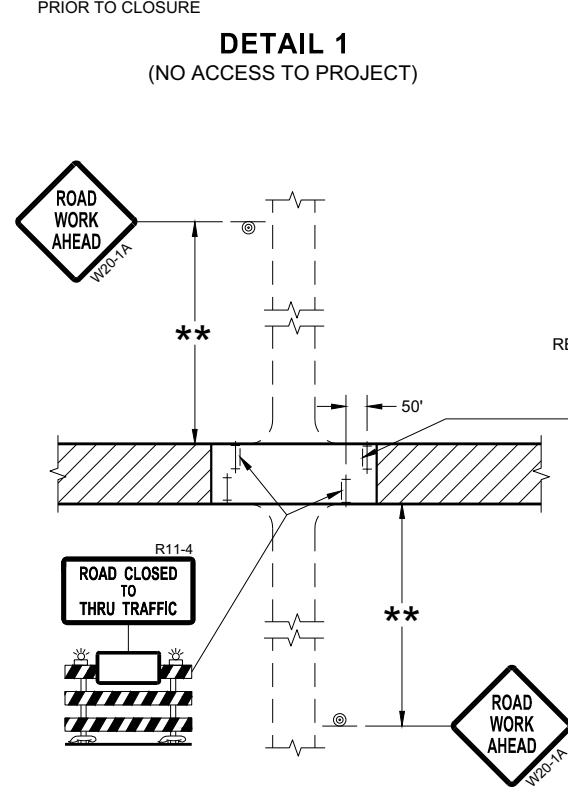
FHWA



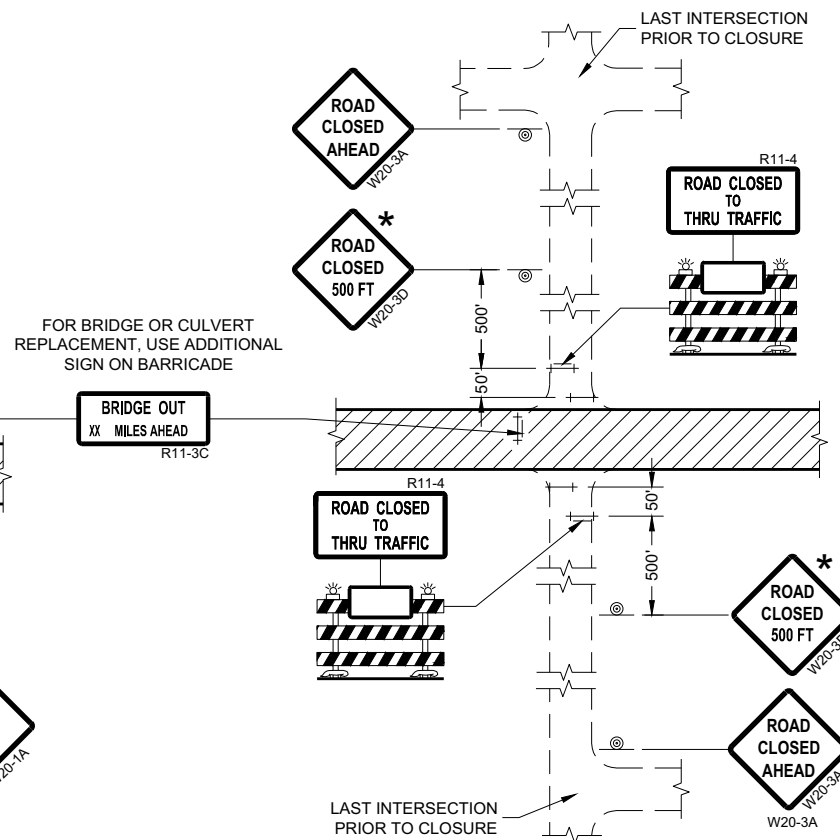
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

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 (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

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

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN 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, AND R11-4 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.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

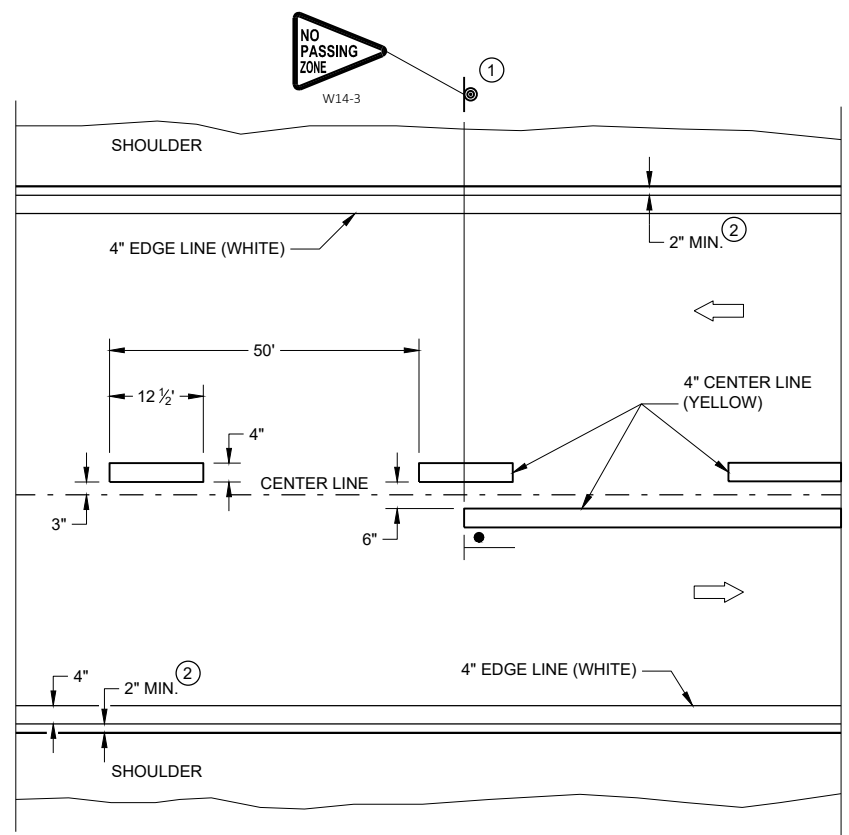
LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

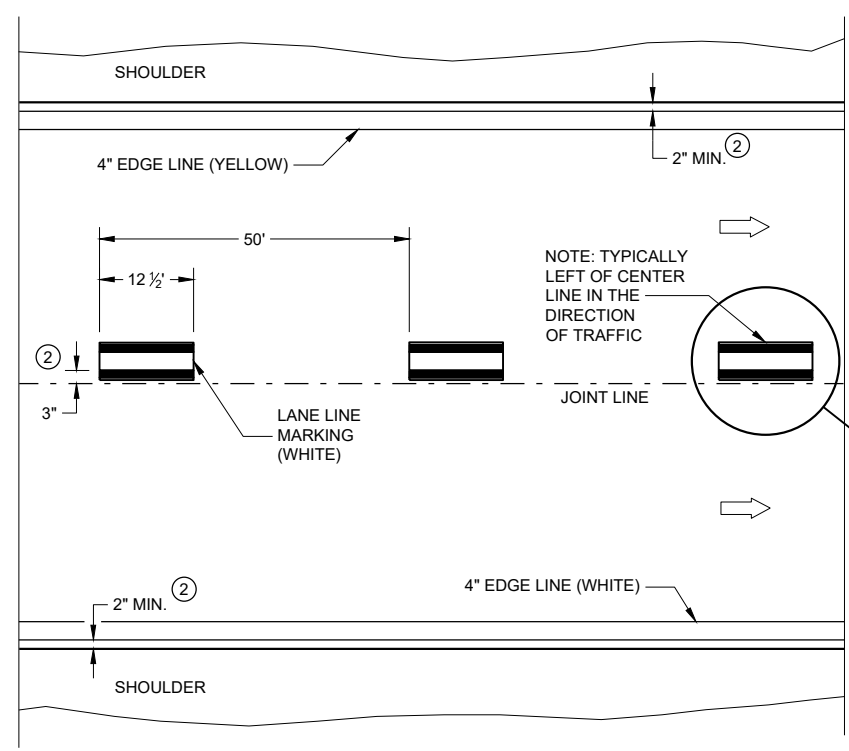
**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

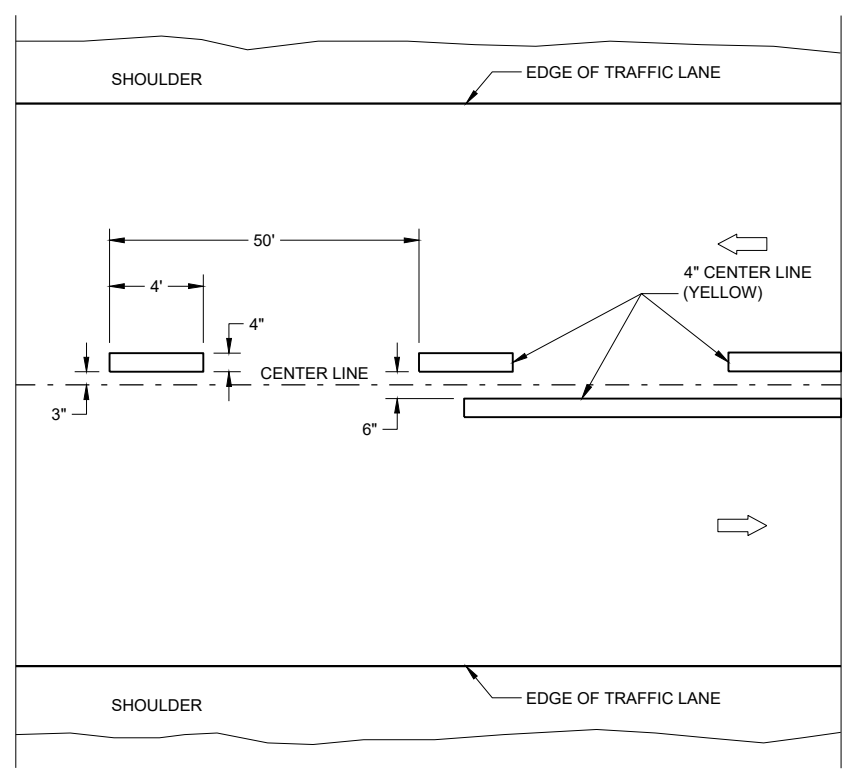


TWO WAY TRAFFIC

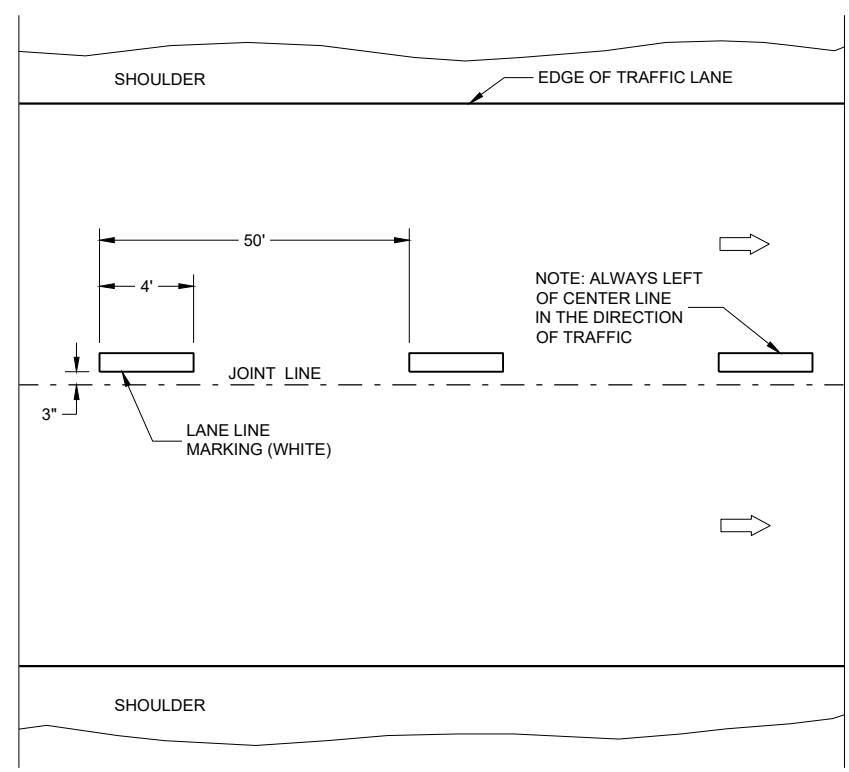


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

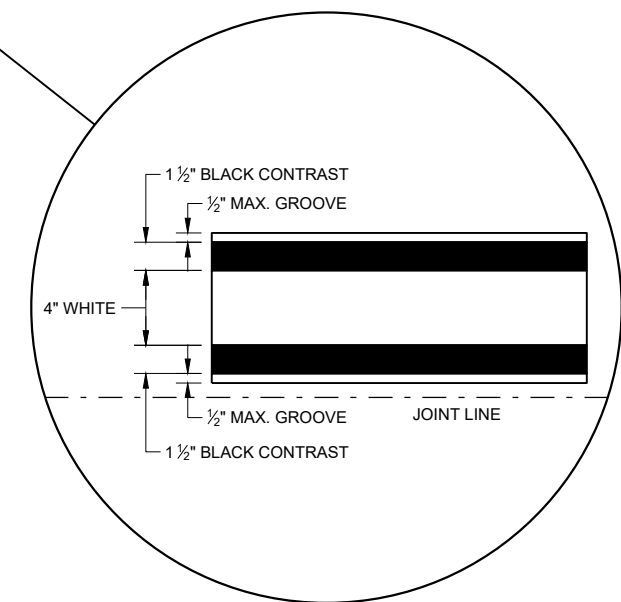
GENERAL NOTES

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
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

- |— "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

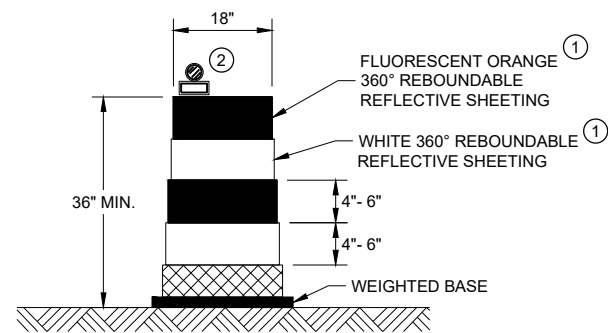


LONGITUDINAL MARKING (MAINLINE)

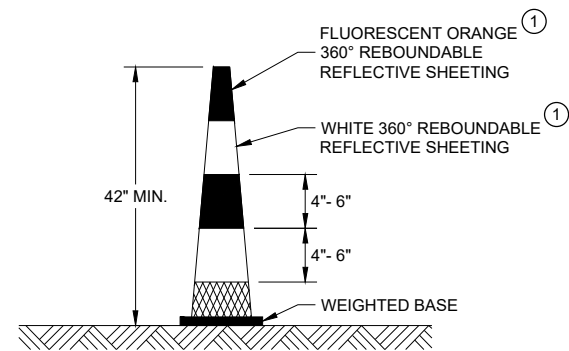
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Matthew Rauch
DATE STATEWIDE SIGNING AND MARKING
ENGINEER

FHWA

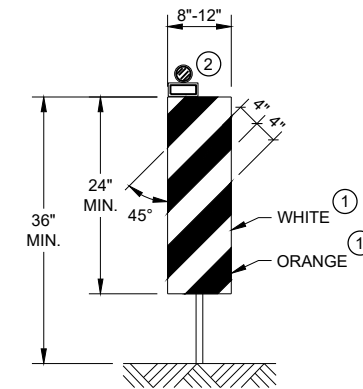


DRUM



42" CONE

DO NOT USE IN TAPERS
 1/2 SPACING OF DRUMS

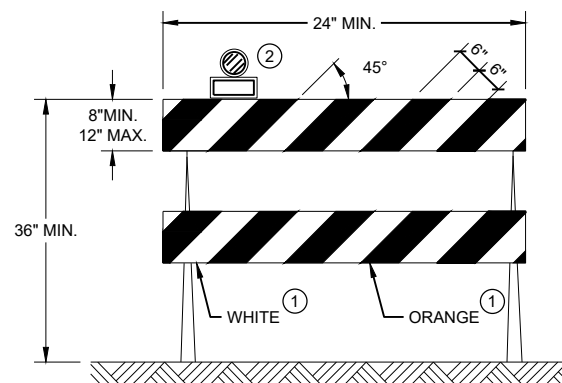


VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.

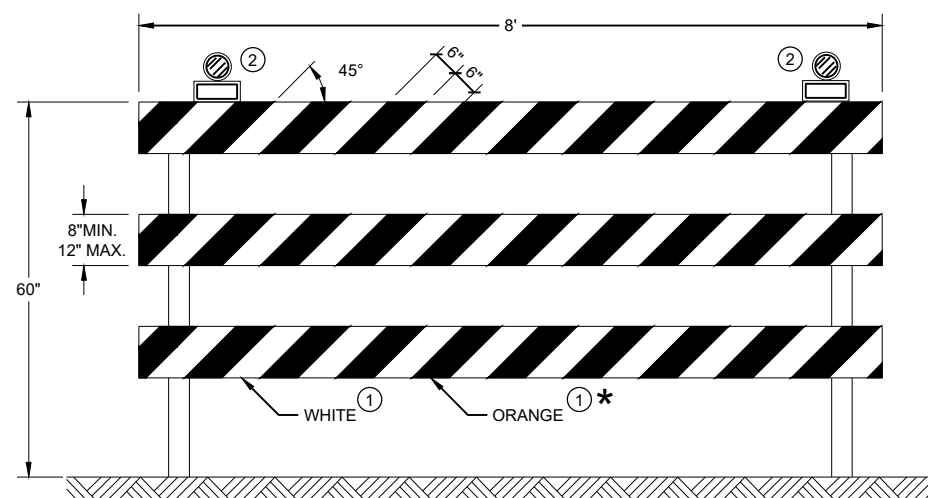
GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
<small>FHWA</small>	

GENERAL NOTES

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 TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.










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

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

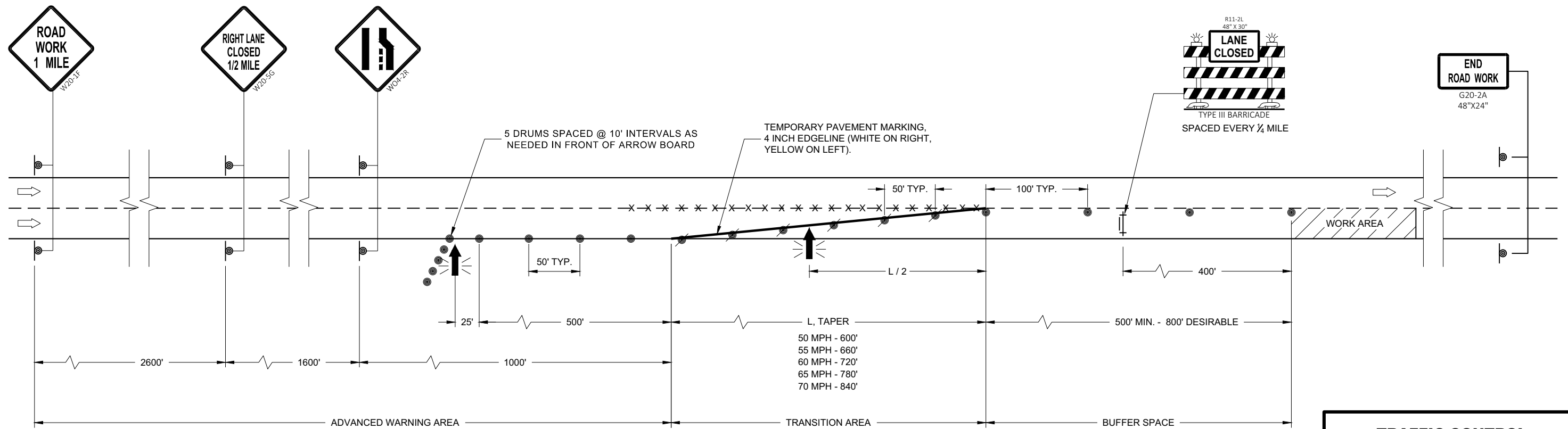
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

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

6

SDD 15D12 - 09a



6

SDD 15D12 - 09a

TRAFFIC CONTROL LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

GENERAL NOTES

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 TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.










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

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

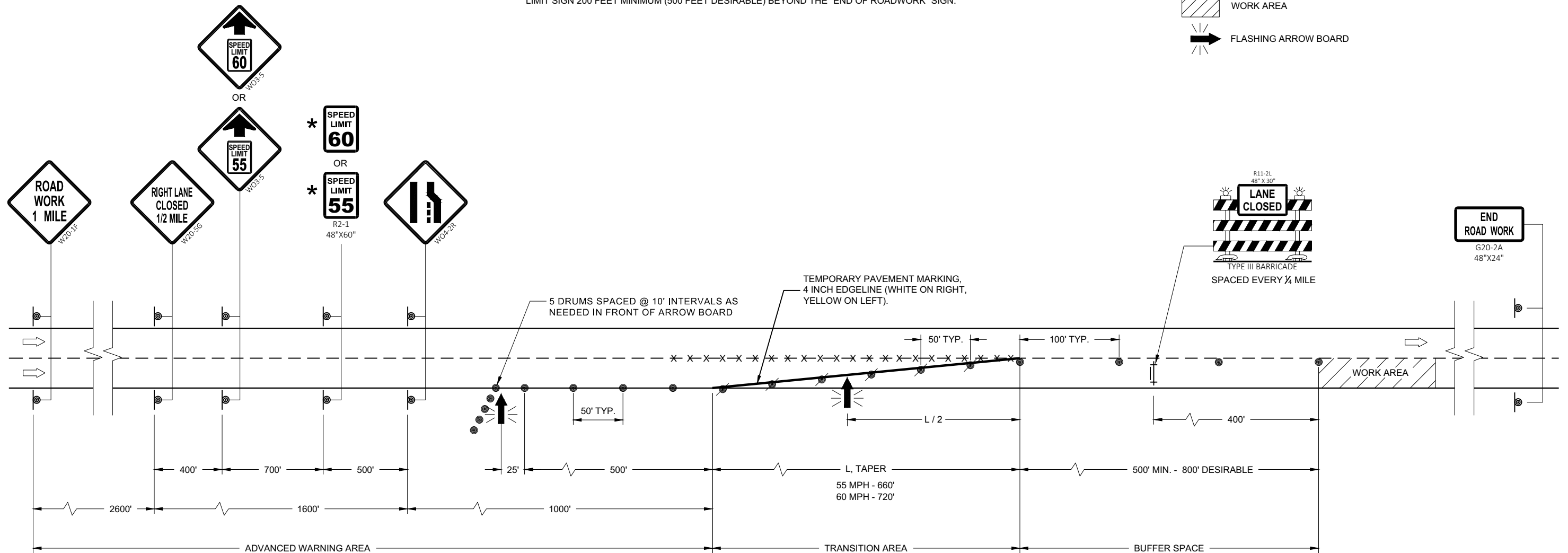
* A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

LEGEND

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

6

SDD 15D12 - 09b












6

SDD 15D12 - 09b

TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  FLASHING ARROW BOARD
-  DIRECTION OF TRAFFIC
-  WORK AREA

GENERAL NOTES

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

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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 TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

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

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

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

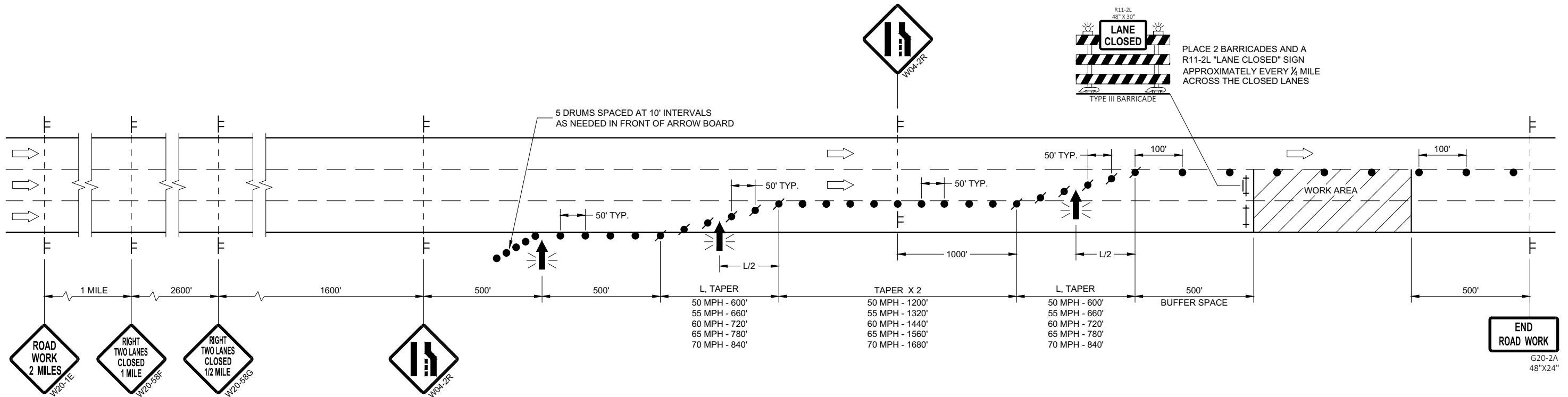
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

6

6



SDD 15D14 - 04

SDD 15D14 - 04

TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2020 DATE	/S/ Andrew Heidtke STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	

LEGEND

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

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

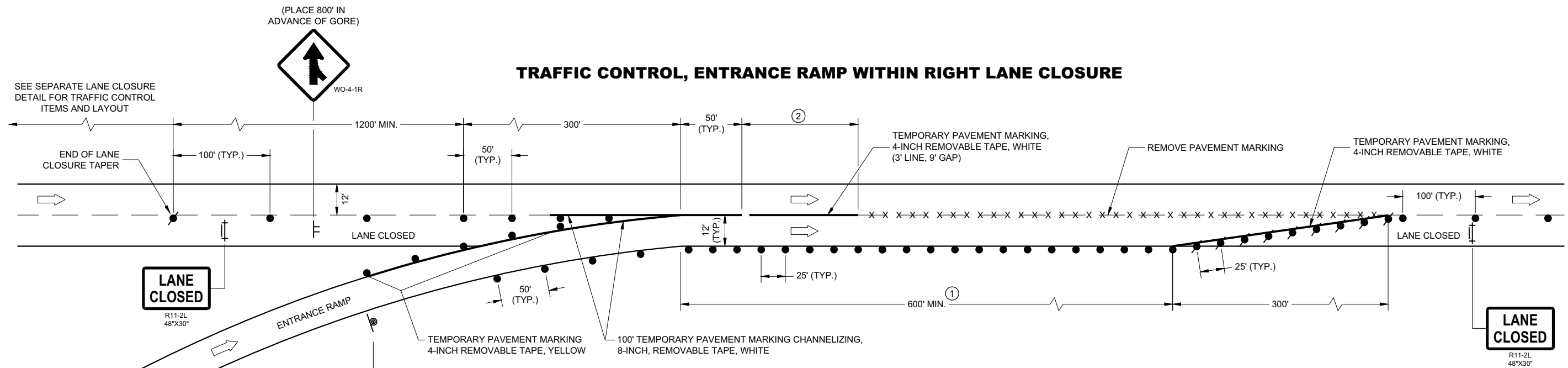
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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.

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

- ① EXTEND THE LENGTH OF THE MERGE ARE IF THE ENTERING (DESIGN) SPEED IS LESS THAN 50MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.
- ② END TEMPORARY MARKING AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE











PARALLEL EXIT RAMP

**TRAFFIC CONTROL,
PARALLEL ENTRANCE RAMP
WITHIN LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

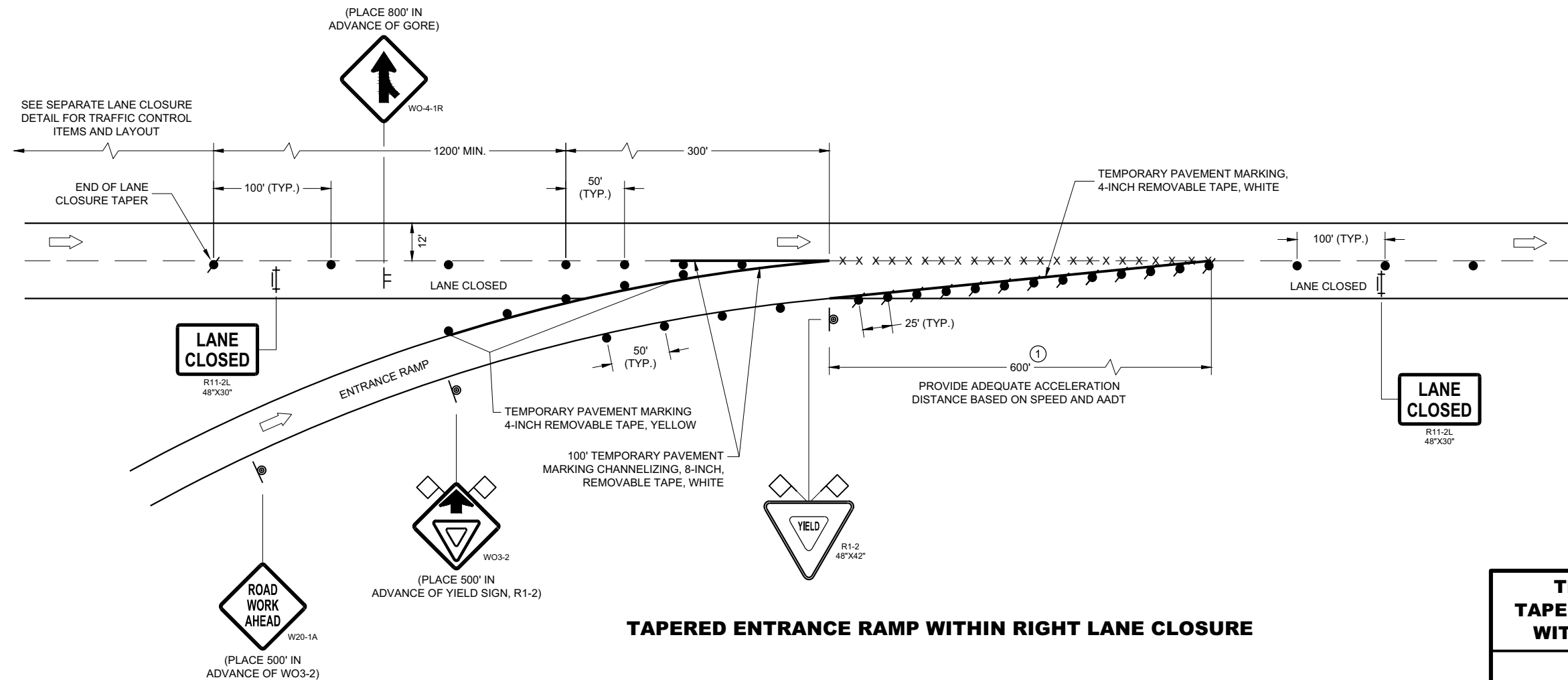
APPROVED
DATE May 2019 /S/ Andrew Heidtke
WORK ZONE ENGINEER

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  FLAGS, 16" X 16" MIN., ORANGE
-  DIRECTION OF TRAFFIC

GENERAL NOTES

- THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.
- 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.
- "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.
- YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.
- SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.
- IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.
- 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.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- ① CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.



TAPERED ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE








**TRAFFIC CONTROL,
TAPERED ENTRANCE RAMP
WITHIN LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2019 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  FLAGS, 16" X 16" MIN., ORANGE
-  DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

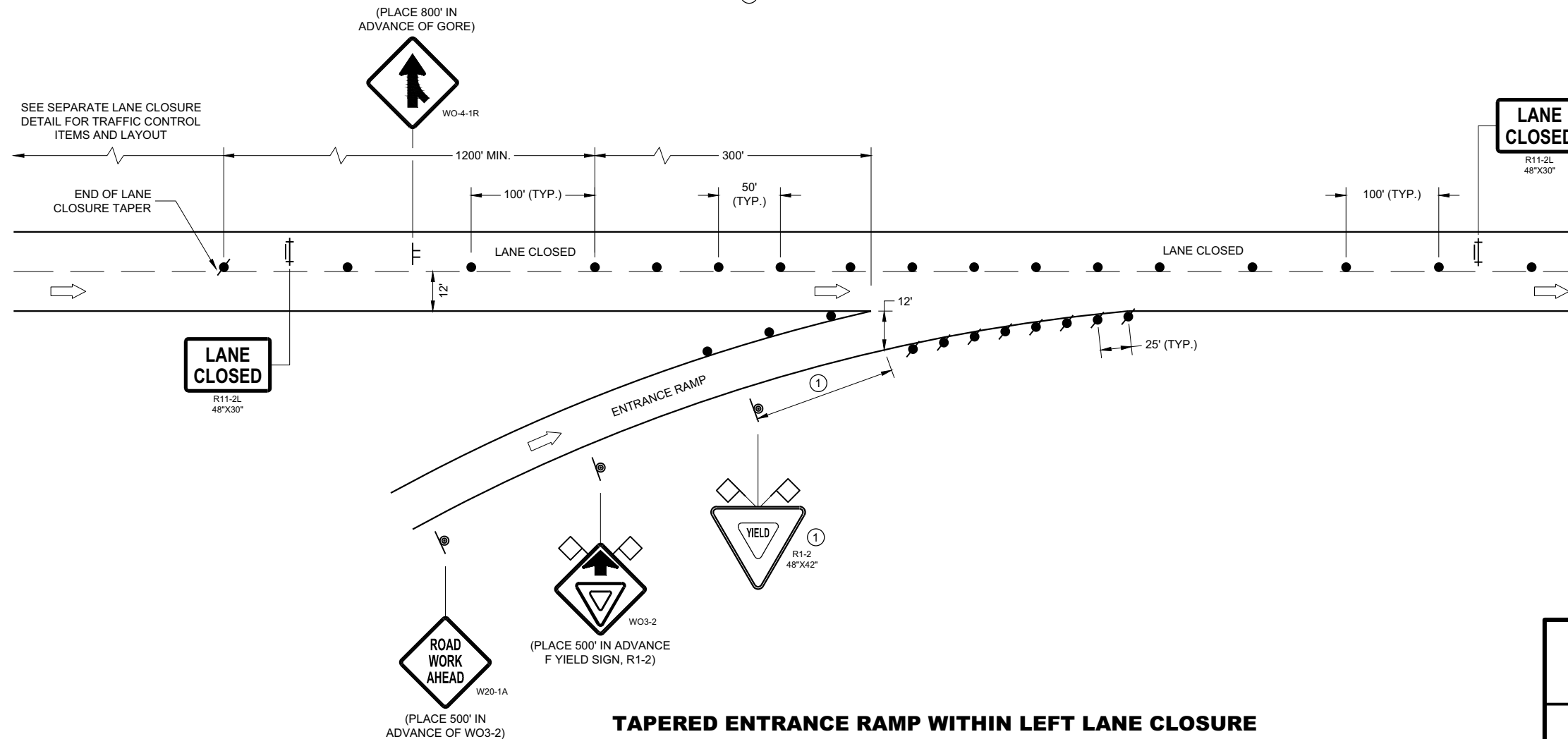
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

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

① PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE

**TRAFFIC CONTROL,
TAPERED ENTRANCE RAMP
WITHIN LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- ⊞ SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- ⦿ TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ×-×-× REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- ⊞ TYPE III BARRICADE WITH ATTACHED SIGN
- ➡ DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

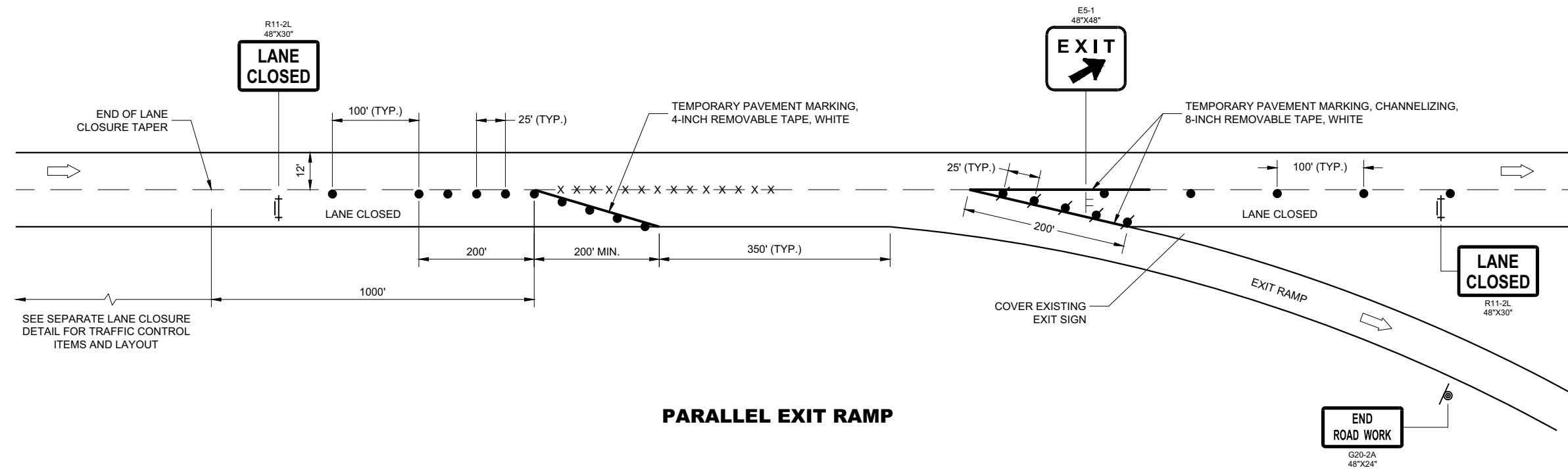
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

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.

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



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SDD 15D15 - 05e

SDD 15D15 - 05e

TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

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

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.

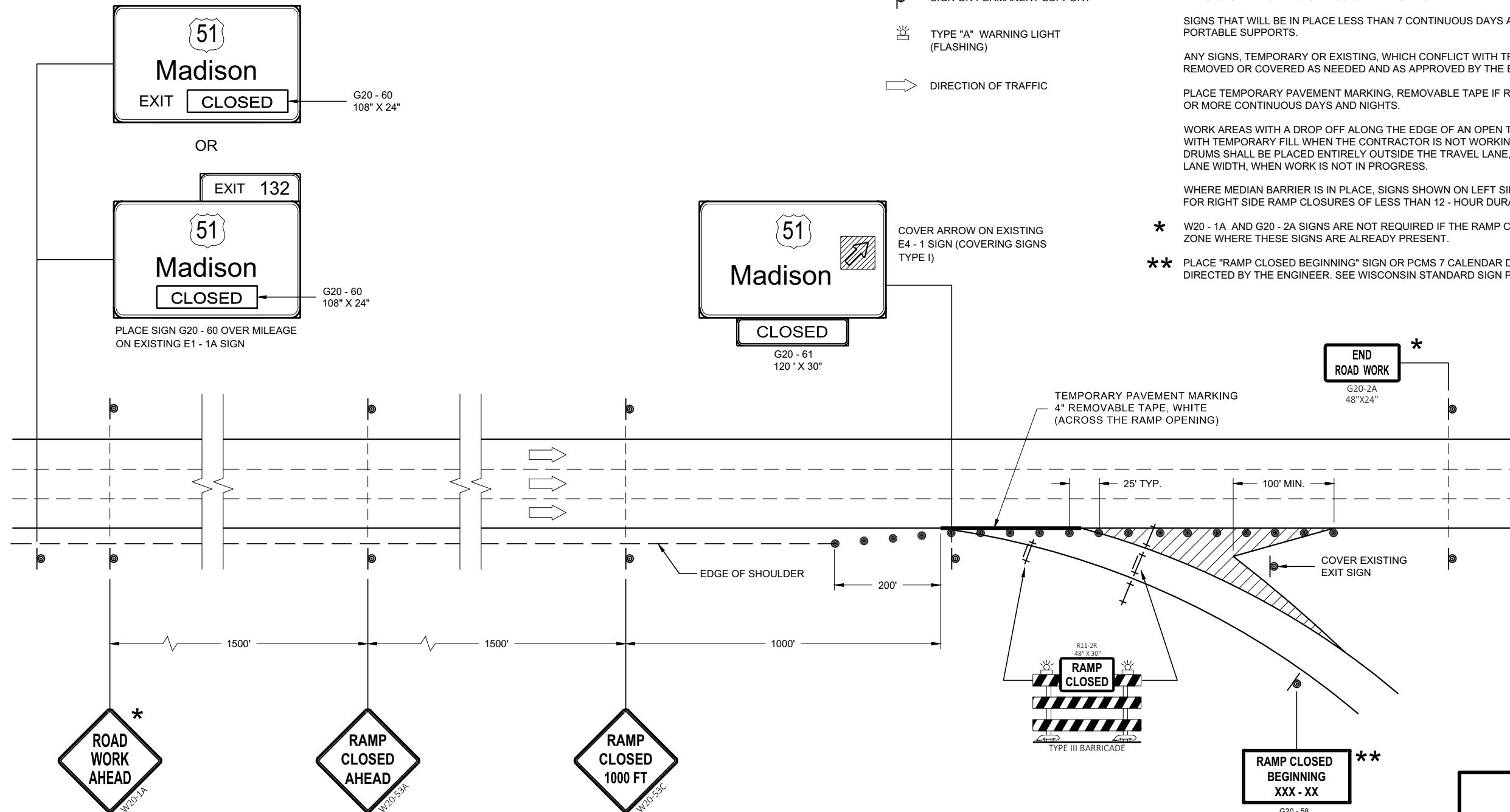
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROP OFF 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 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 - 1A 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 CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



RAMP CLOSED BEGINNING **

G20 - 58
OR
PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

**TRAFFIC CONTROL,
EXIT RAMP CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 DATE /S/ Andrew Heidtke
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES

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

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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.

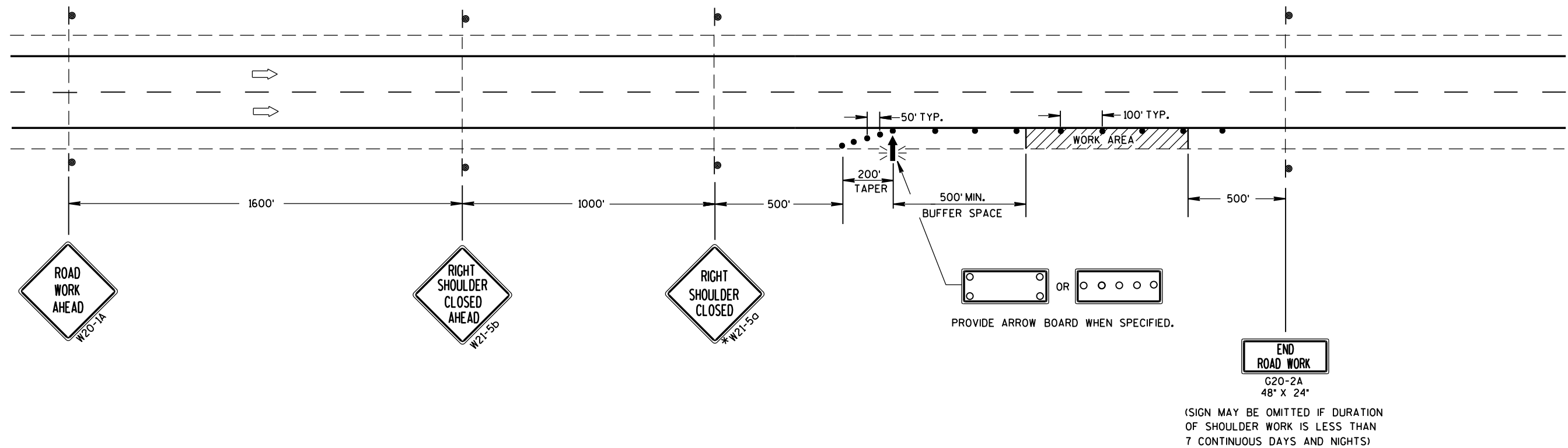
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A 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.

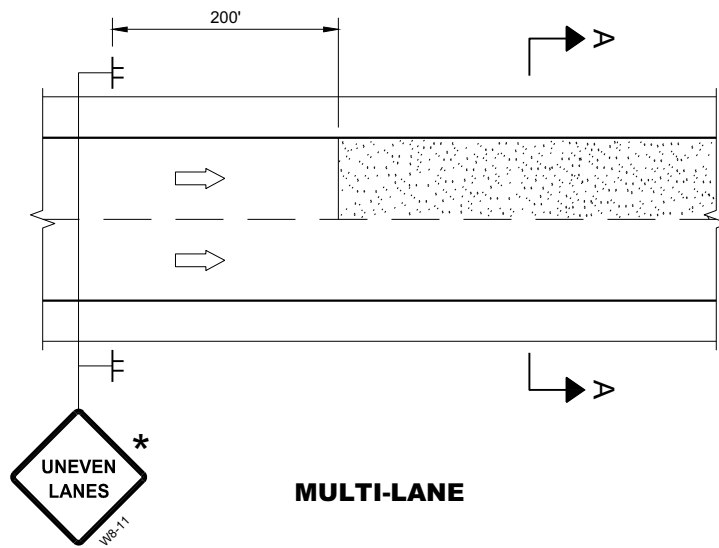
*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-50 SIGN MAY BE OMITTED.

LEGEND

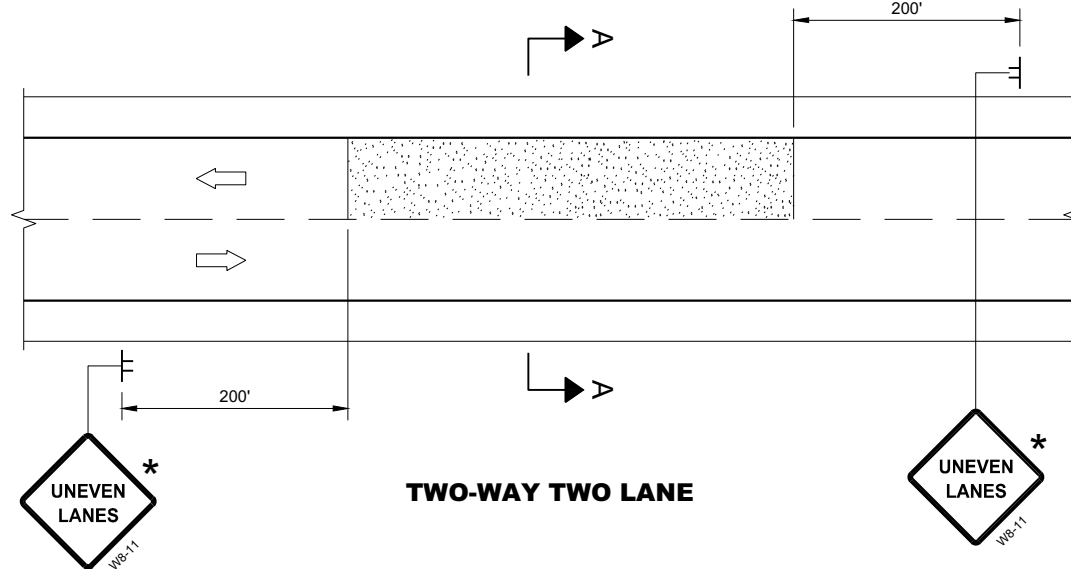
- TRAFFIC CONTROL DRUM
- ⊙ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ⚡ FLASHING ARROW BOARD
- ▨ WORK AREA



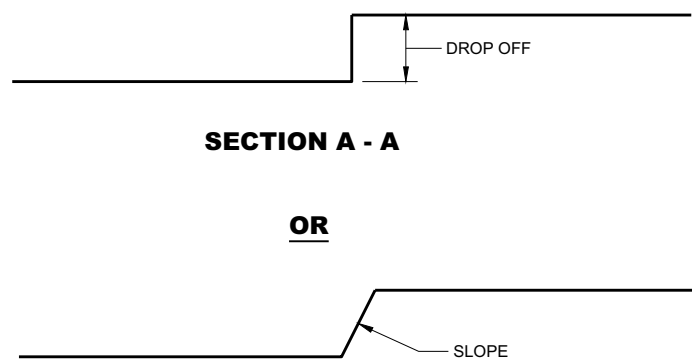
TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2016 DATE	/s/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



MULTI-LANE



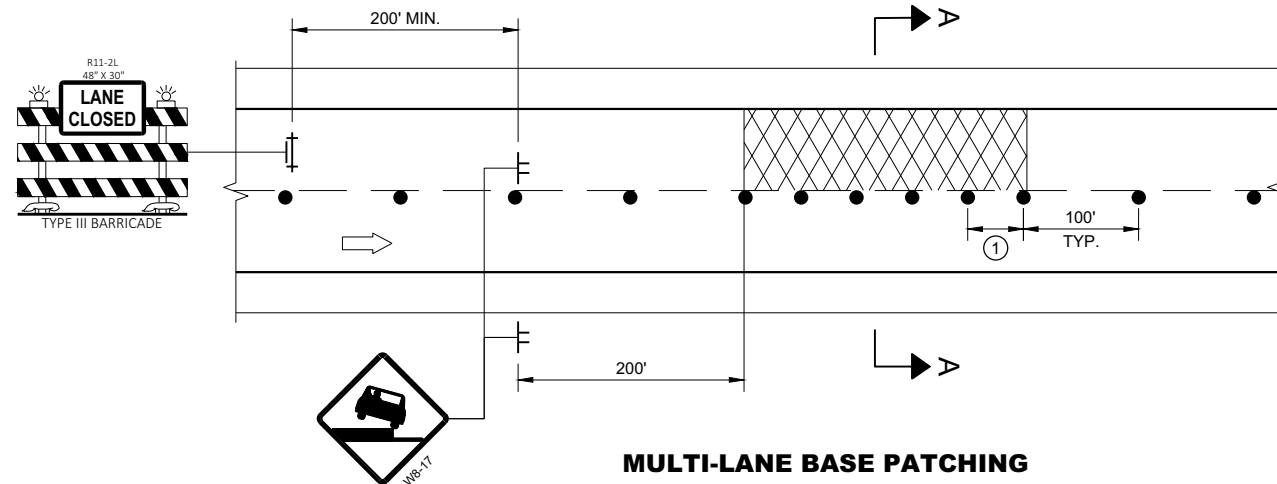
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

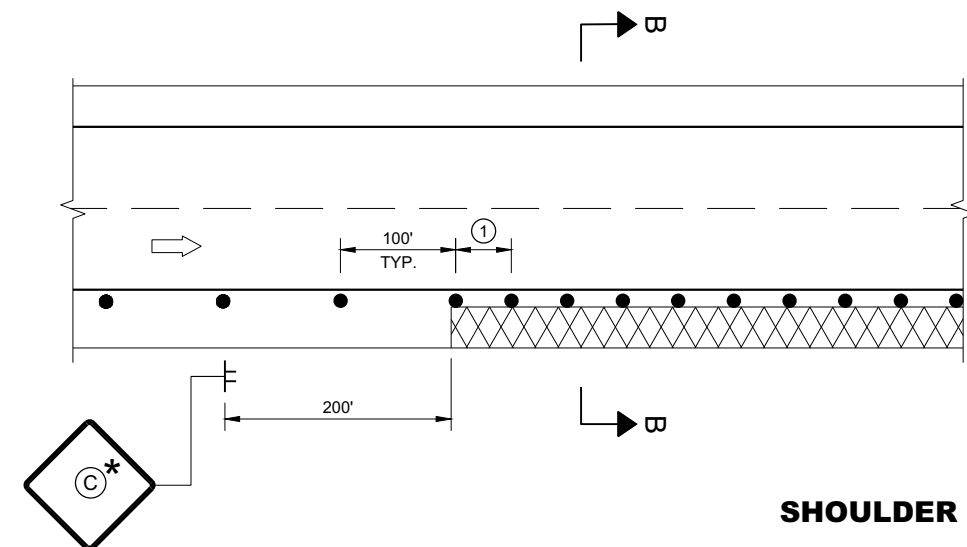
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- * IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.
- ① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

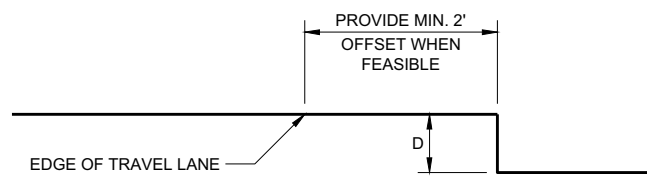
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

6

6



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	 LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	 SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

SDD 15D39 - 02

SDD 15D39 - 02

**TRAFFIC CONTROL,
DROP-OFF SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>

MAD
PROJECT ID:
WITH: 1011-01-60

1011-01-75

COUNTY:
DANE

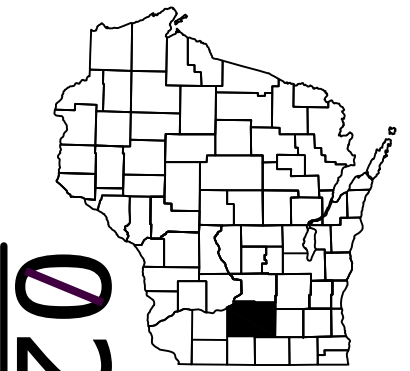
FILE NAME : 010101-TI.DWG

MAY 2022

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plan
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Gross Sections

TOTAL SHEETS = 96



DESIGN DESIGNATION 1011-01-30

A.A.D.T. (EXISTING YEAR 2019)	= 59,100
A.A.D.T. (CONSTRUCTION YEAR 2022)	= 59,500
A.A.D.T. (DESIGN YEAR 2042)	= 66,800
D.H.V. (CONSTRUCTION YEAR 2022)	= 8,470
D.H.V. (DESIGN YEAR 2042)	= 8,580
D.D.	= 58/42
T.	= 22.7%
DESIGN SPEED	= 70 MPH
ESALS	= 36,000,000

CONVENTIONAL SYMBOLS

PLAN	PROFILE
CORPORATE LIMITS	GRADE LINE
PROPERTY LINE	ORIGINAL GROUND
LOT LINE	MARSH OR ROCK PROFILE (To be noted as such)
LIMITED HIGHWAY EASEMENT	SPECIAL DITCH
EXISTING RIGHT OF WAY	GRADE ELEVATION
PROPOSED OR NEW R/W LINE	CULVERT (Profile View)
SLOPE INTERCEPT	UTILITIES
REFERENCE LINE	ELECTRIC
EXISTING CULVERT	FIBER OPTIC
PROPOSED CULVERT (Box or Pipe)	GAS
COMBUSTIBLE FLUIDS	SANITARY SEWER
MARSH AREA	STORM SEWER
WOODED OR SHRUB AREA	TELEPHONE
	WATER
	UTILITY PEDESTAL
	POWER POLE
	TELEPHONE POLE

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

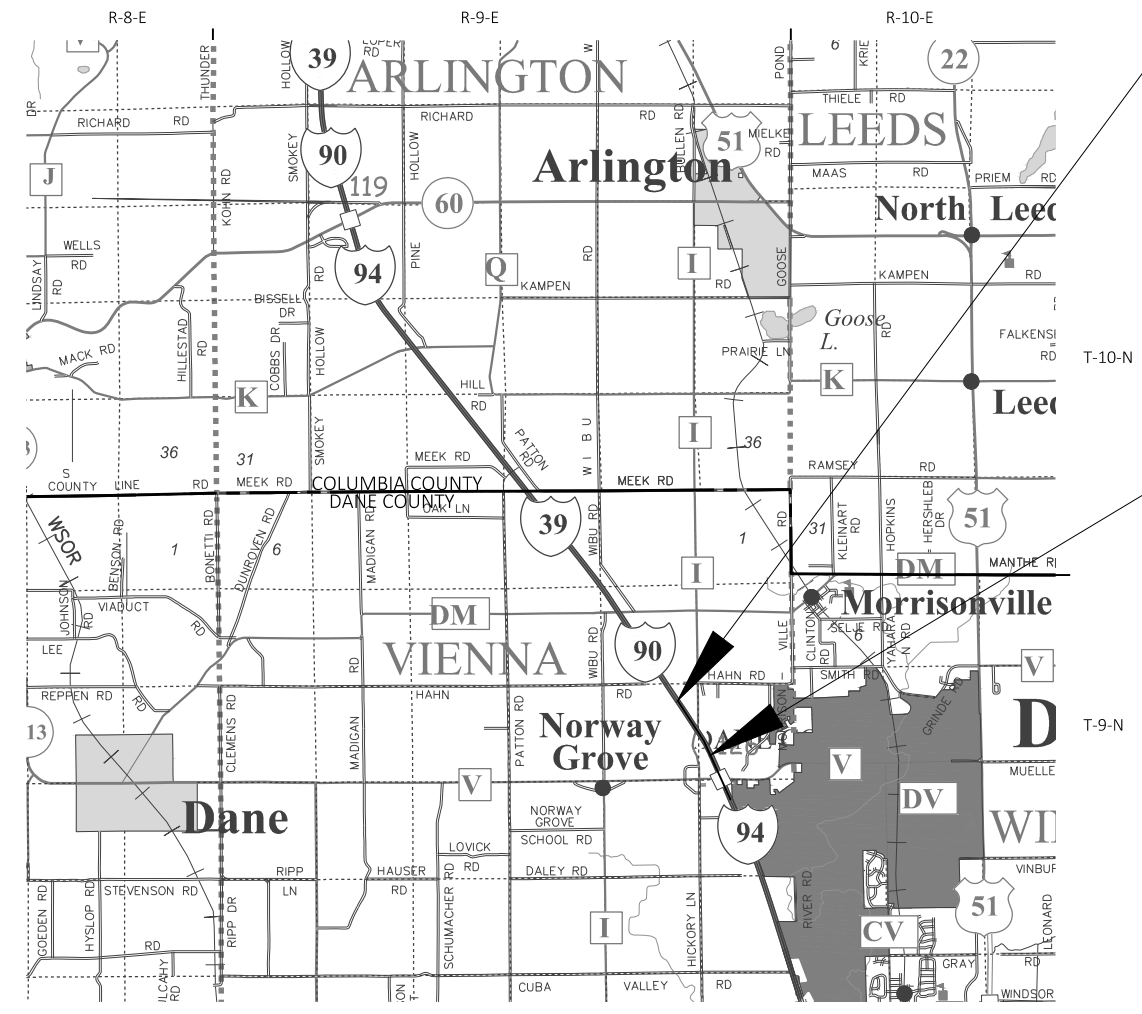
MADISON - PORTAGE

CTH V TO 0.4 MI N OF CTH I, NB RDWY

IH 39

DANE COUNTY

STATE PROJECT NUMBER
1011-01-75



LAYOUT
SCALE 0 2 MI
TOTAL NET LENGTH OF CENTERLINE = 0.598 MI

BEGIN PROJECT
STA 552+11
Y = 551,163.046
X = 820,512.795

END PROJECT
STA 583+71

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DANE COUNTY NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1011-01-75	WISC 2022375	1
1011-01-60	WISC 2022373	1

ORIGINAL PLANS PREPARED BY

AECOM

ZACHARY R. LARSON
E-43030
MADISON
WI
PROFESSIONAL ENGINEER

1/13/22 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AECOM
Designer	AECOM
Project Manager	AMY COUGHLIN
Regional Examiner	SW REGION
Regional Supervisor	REGIONAL SUPERVISOR

APPROVED FOR THE DEPARTMENT

DATE: 1/13/2022 (Signature)

E

GENERAL NOTES:

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT WILL NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

STATIONING OF CONCRETE PAVEMENT REPAIR & REPLACEMENT LOCATIONS IN PLAN ARE APPROXIMATE. VERIFY LOCATIONS WITH ENGINEER.

PLAN REMOVAL AREAS ARE APPROXIMATE. EXACT LIMITS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

REMOVAL OF BASE AGGREGATE MATERIAL UNDER PAVED SURFACES IS INCIDENTAL TO BID ITEM 211.0200.

SAWING CONCRETE WILL BE MEASURED AND PAID FOR ONLY ONCE WHEN REPAIRS ARE ADJACENT ALONG THE C/L OF THE NB LANES (IN BOTH MEDIAN AND OUTSIDE LANES).

OVERSAWING INTO PAVEMENT THAT IS TO REMAIN TO FACILITATE REMOVAL OF REPAIR AREAS SHALL BE SEALED WITH AN APPROVED EPOXY. THE OVERSAWING AND EPOXY ARE INCIDENTAL TO BID ITEMS 416.1710, 416.1715, 416.1720 & 416.1725.

IN CONCRETE PAVEMENT REPLACEMENT SECTIONS, THE NEW JOINTS SHALL MATCH ADJACENT CONCRETE JOINT. THE NEW TINING SHALL MATCH THE ADJACENT PAVEMENT PATTERN.

WITHIN CONCRETE PAVEMENT REPLACEMENT SECTIONS, THE NEW CONTRACTION JOINTS MAY NOT MATCH ABUTTING EXISTING JOINTS BECAUSE OF CHANGES TO STANDARDS AND PRIOR REPAIRS. ADJUST NEW JOINTS TO MATCH EXISTING JOINTS WHERE PRACTICAL. DO NOT EXCEED THE MAXIMUM CONTRACTION JOINT SPACING OF 15'.

RADII, ELEVATIONS, AND DIMENSIONS ARE GIVEN AT THE PAVEMENT EDGES, UNLESS OTHERWISE NOTED IN THE PLANS.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

ADJUST TRAFFIC CONTROL DEVICE LOCATIONS TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES. DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.

PAVEMENT MARKING SHALL FOLLOW STANDARD DETAIL DRAWING LONGITUDINAL MARKING (MAINLINE).

UTILITIES

COMMUNICATIONS

AT&T LEGACY
KENNETH NINE
JMC ENGINEERS & ASSOCIATES, INC
110 N MAIN ST
CULVER, IN 46511
(574) 842-8830
knine@jmceainc.com
CC: VANESSA ROSS
VF2021@att.com

LUMEN (FORMERLY CENTURYLINK)
STEVE BISHOP
130 4TH STREET
BARABOO, WI 53913
(608) 355-7501
Steven.Bishop@lumen.com

CHARTER COMMUNICATIONS
EDWIN DAVY
2701 DANIELS ST
MADISON, WI 53718
(608) 301-7713
edwin.davy@charter.com

TDS METROCOM LLC
MATT WEISE
525 JUNCTION RD
MADISON, WI 53717
(715) 409-9888
Matthew.Weise@tdstelecom.com

ELECTRICITY

ALLIANT ENERGY
KAI GRAFF
6462 BLANCHAR'S CROSSING
WINDSOR, WI 53598
(608) 459-5797
KaiGraff@alliantenergy.com

ATC MANAGEMENT, INC
DOUG VOSBERG
2489 RINDEN RD
COTTAGE GROVE, WI 53527
(608) 877-7650
dvosberg@atcllc.com

WATER

VILLAGE OF DEFOREST
GREG HALL
120 S. STEVENSON ST
DEFOREST, WI 53532
(608) 807-7023
hallg@vi.deforest.wi.us

ABBREVIATIONS

AHEAD	AH
BACK	BK
CENTERLINE	CL or C/L
CONCRETE	CONC
COUNTY TRUNK HIGHWAY	CTH
EXISTING	EX
GRID NORTH	GN
LEFT	LT
POINT OF TANGENCY	PT
REFERENCE LINE	RL or R/L
POINT OF CURVATURE	PC
POINT OF INTERSECTION	PI
RIGHT	RT
RIGHT OF WAY	RW or R/W
SQUARE FEET	SF
STATE TRUNK HIGHWAY	STH
STATION	STA
VOLUME	V

WISDOT DESIGN PROJECT MANAGER

AMY COUGHLIN
SOUTHWEST REGION, MADISON OFFICE
2101 WRIGHT ST
MADISON, WI 53704
(608) 245-5358
amy.coughlin@dot.wi.gov

DESIGN CONTACT

AECOM
ZACH LARSON
1350 DEMING WAY, STE 100
MIDDLETON, WI 53562
(608) 828-8165
zachary.larson@aecom.com

WISDNR

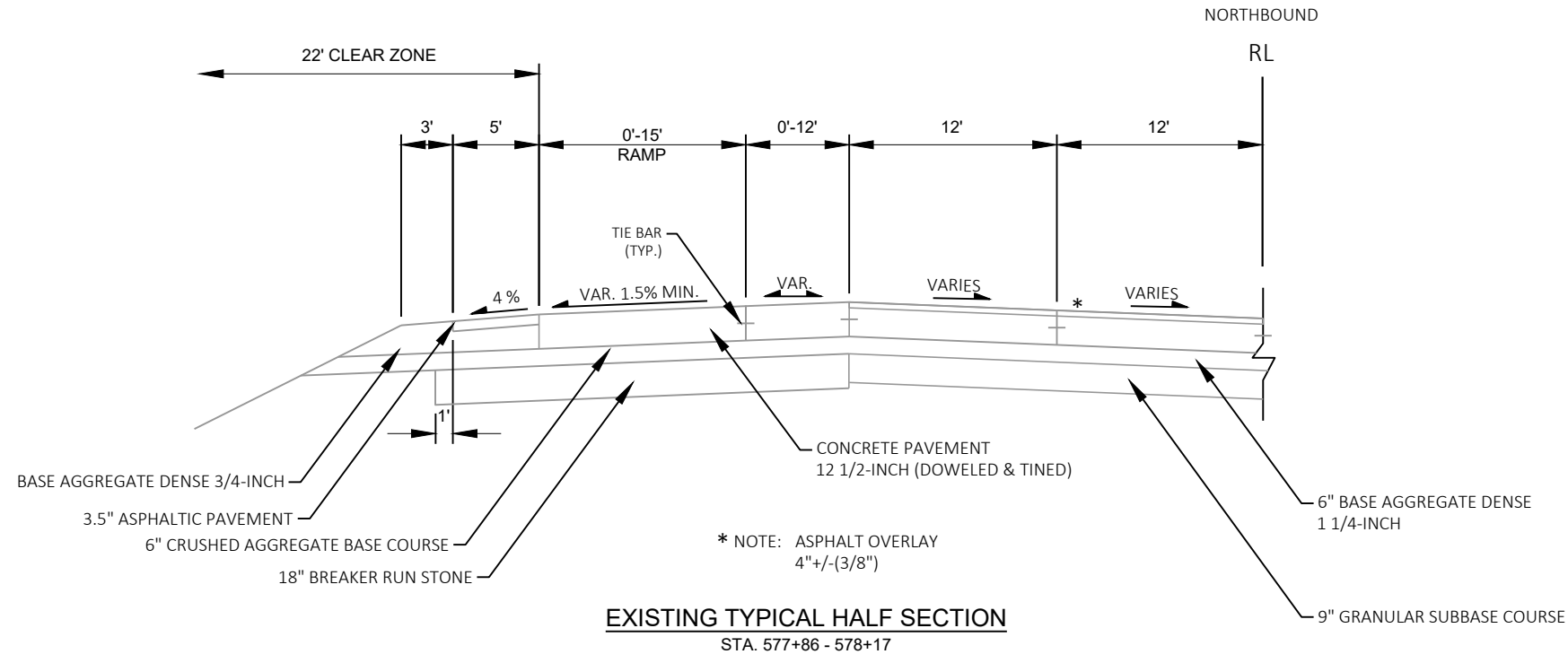
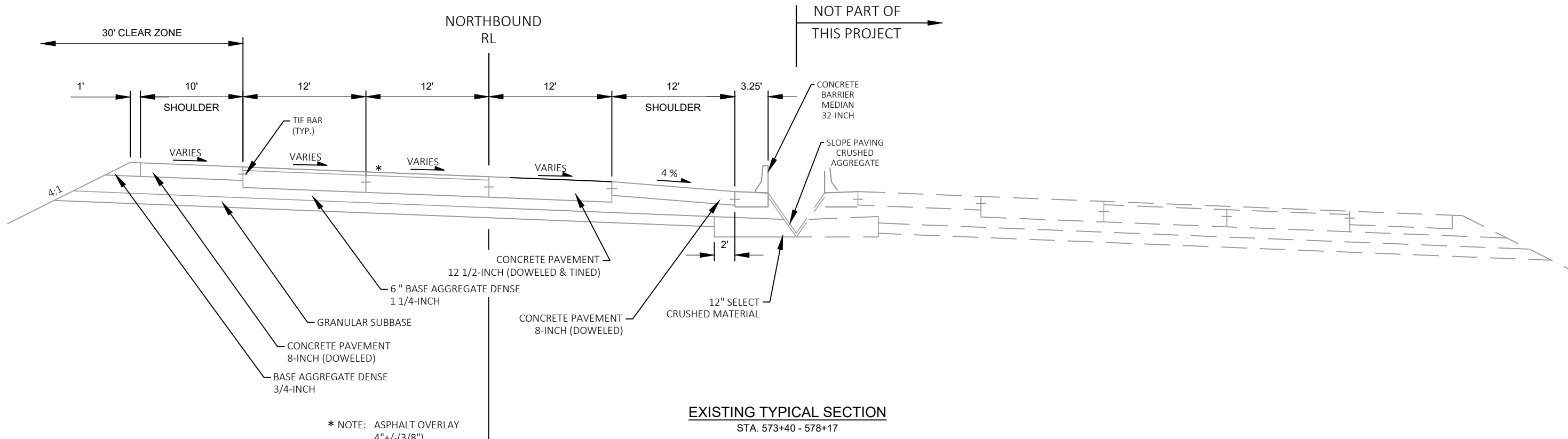
(SOUTHWEST REGION)
ERIC HEGGELUND
3911 FISH HATCHERY RD
FITCHBURG, WI 53711
(608) 228-7927
eric.heggelund@wisconsin.gov

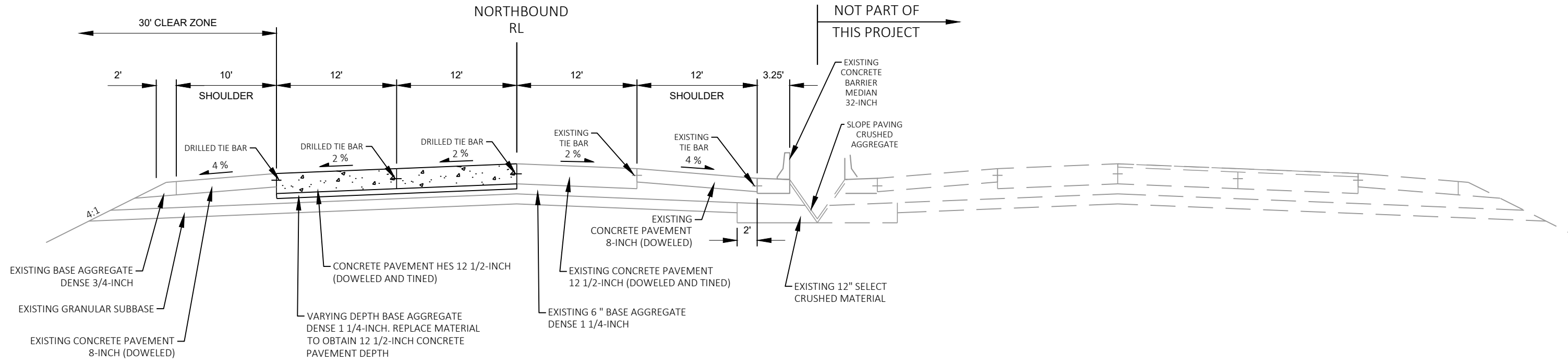
DETAIL SHEET INDEX

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PAVEMENT ELEVATIONS
- PAVEMENT MARKING
- TRAFFIC CONTROL
- DETOUR PLANS
- ALIGNMENT DATA

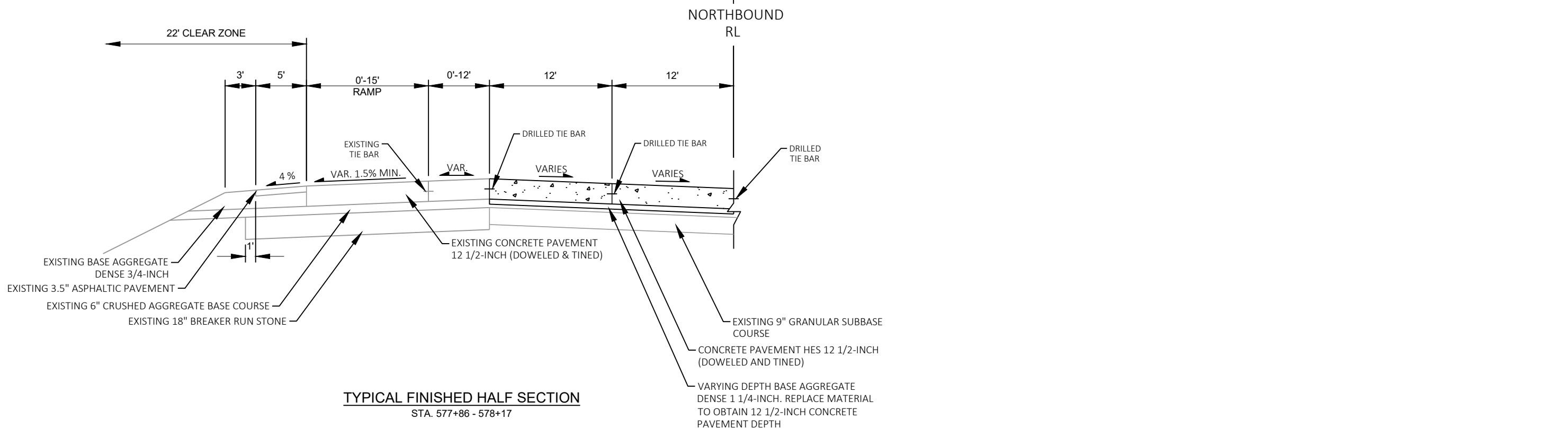
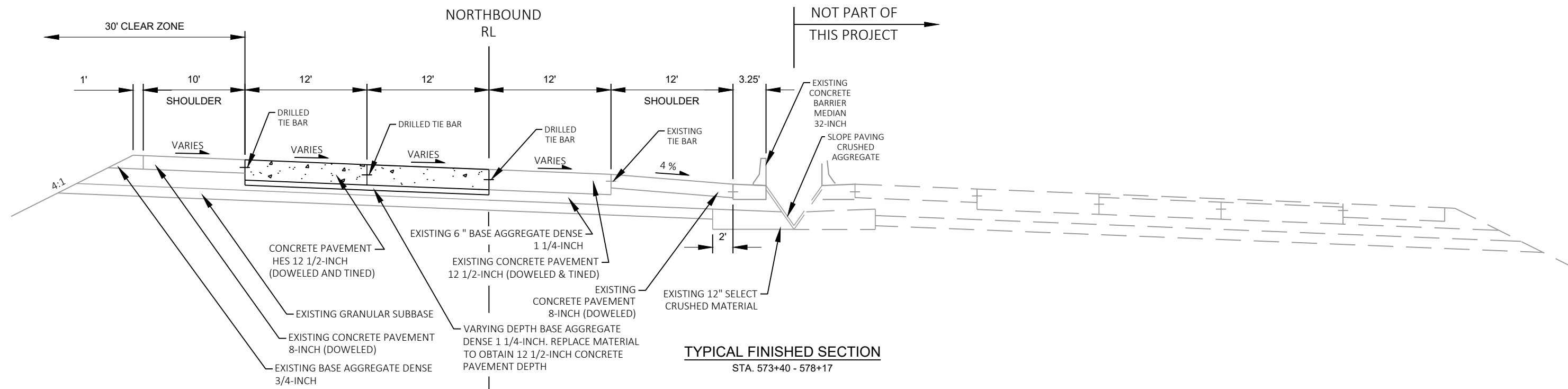


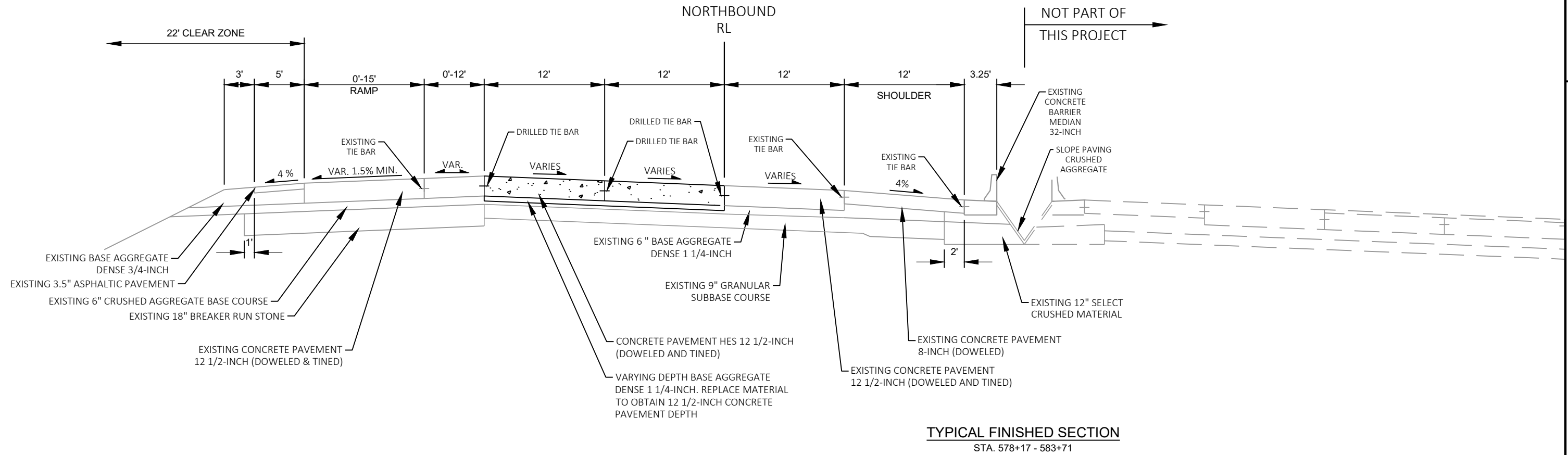
Dial **811** or (800)242-8511
www.DiggersHotline.com

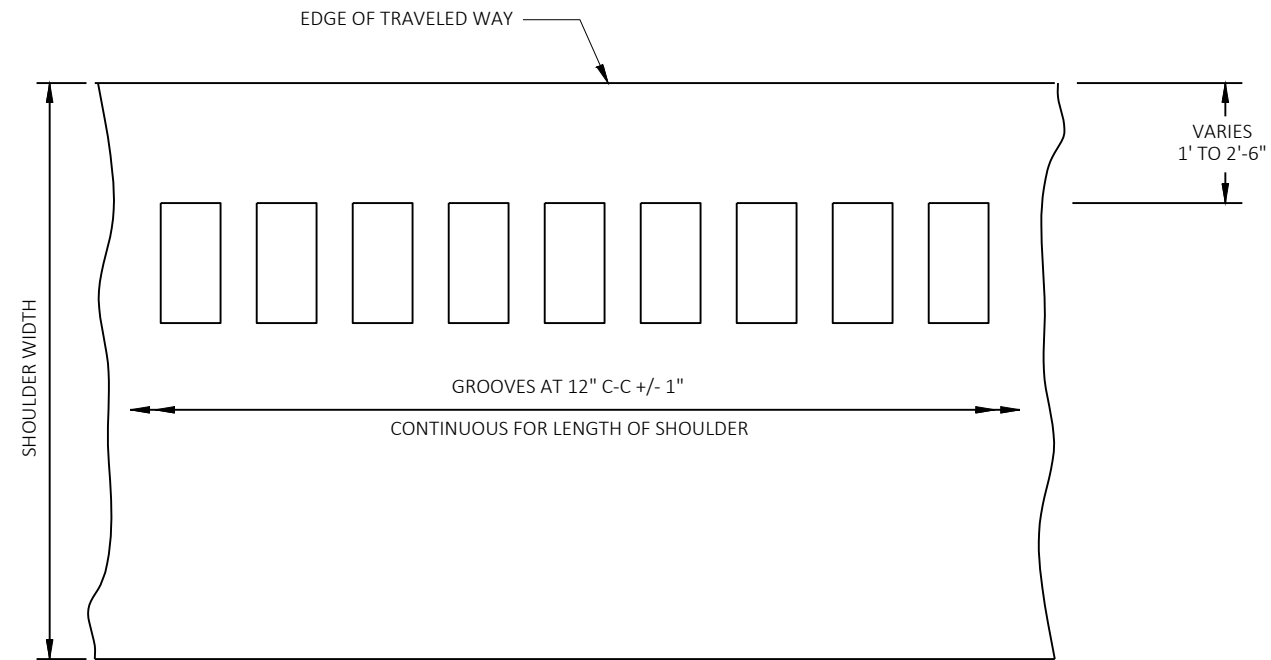




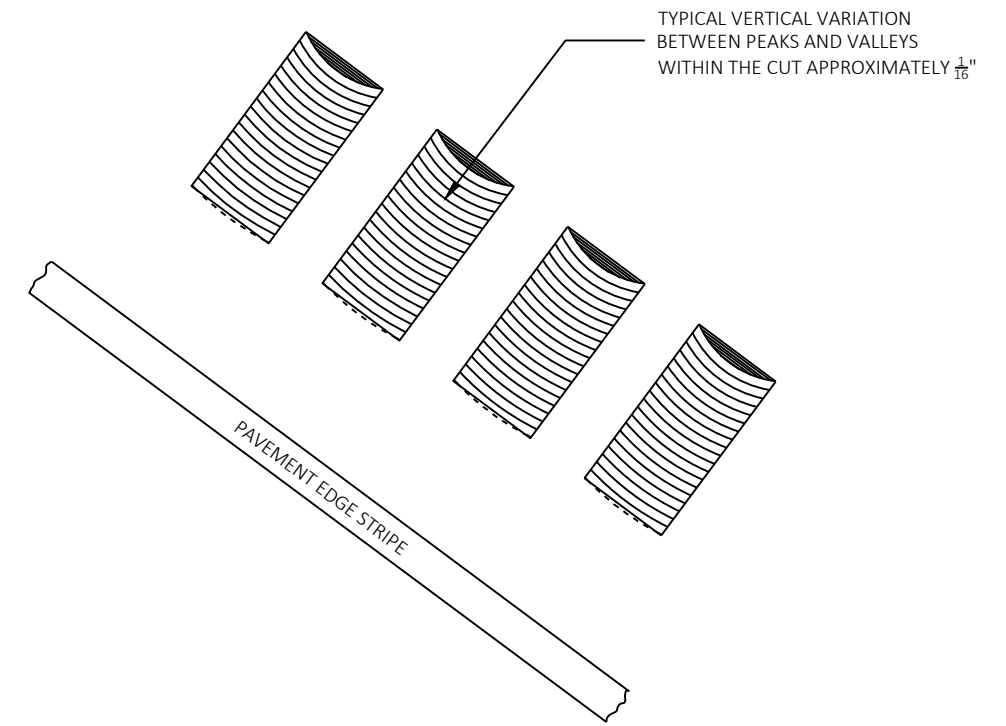
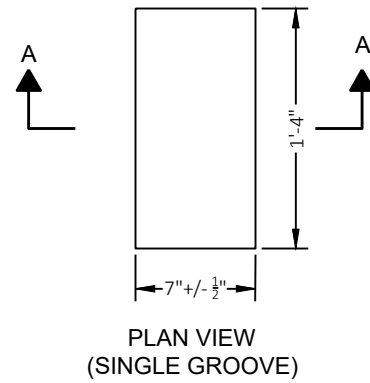
TYPICAL FINISHED SECTION
 STA. 552+11 - 573+40



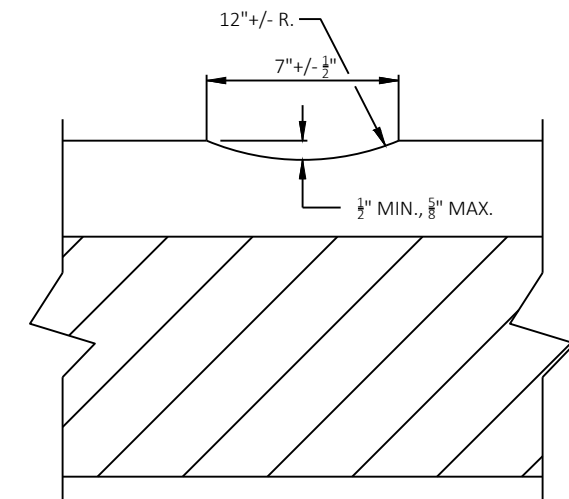
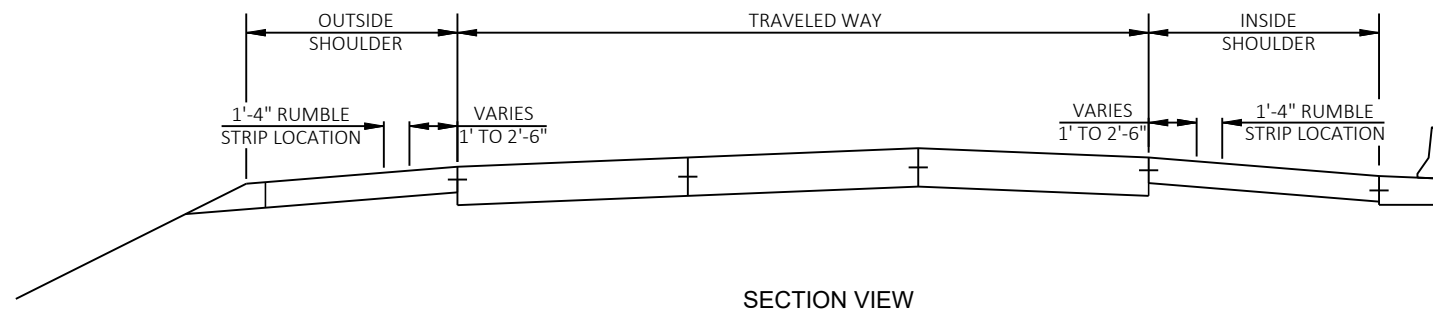




PLAN VIEW SHOULDER WITH GROOVES



ISOMETRIC



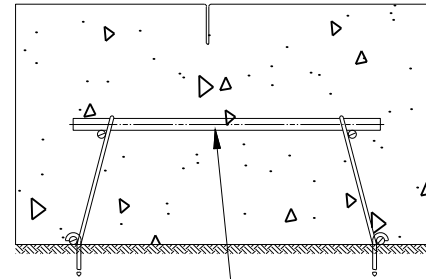
SECTION A-A

NOTES:
 DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE RUMBLE STRIPS MILLED

NOTES:

- 1) THE FIRST 10 JOINTS USING DOWEL BASKETS (APPROXIMATELY STA. 552+11 - 553+61) (0'-24' LT) SHALL USE 1 1/2-INCH DOWEL BARS. ALL OTHER LOCATIONS SHALL USE 1 1/4-INCH DOWEL BARS.
- 2) ALL OTHER ASPECTS OF SDD "RURAL DOWELED CONCRETE PAVEMENT" AND SDD "CONCRETE PAVEMENT REPAIR AND REPLACEMENT" SHALL APPLY.
- 3) NOTIFY REGION PAVEMENT ENGINEER OF EXACT LOCATIONS ONCE INSTALLED.



1 1/4" DIAMETER DOWEL BARS

DOWEL BAR SIZE FOR CONCRETE PAVEMENT HES 12 1/2-INCH

SEE FOLLOWING PAGES FOR PAVEMENT ELEVATION TABLES



MATCHLINE STA. 559+00



MATCHLINE STA. 559+00

MATCHLINE STA. 574+00

PROJECT NO: 1011-01-75	HWY: IH 39	COUNTY: DANE	PAVEMENT ELEVATIONS	SHEET	E
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PROJECT NO: 1011-01-75	HWY: IH 39	COUNTY: DANE	PAVEMENT ELEVATIONS	SHEET	E
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NOTE: CONTRACTOR TO FIELD VERIFY ELEVATIONS AND CROSS-SLOPES TO MATCH FINAL CONFIGURATION.

STATION & OFFSET TABLE with columns: POINT, STATION, OFFSET, ELEVATION. Rows include points 286, 158, 30, 287, 159, 31, 288, 160, 32, 289, 161, 33, 290, 162, 34, 291, 163, 35.

STATION & OFFSET TABLE with columns: POINT, STATION, OFFSET, ELEVATION. Rows include points 292, 164, 36, 293, 165, 37, 294, 166, 38, 295, 167, 39, 296, 168, 40, 297, 169, 41.

STATION & OFFSET TABLE with columns: POINT, STATION, OFFSET, ELEVATION. Rows include points 298, 170, 42, 299, 171, 43, 300, 172, 44, 301, 173, 45, 302, 174, 46, 303, 175, 47.

STATION & OFFSET TABLE with columns: POINT, STATION, OFFSET, ELEVATION. Rows include points 304, 176, 48, 305, 177, 49, 306, 178, 50, 307, 179, 51, 308, 180, 52, 309, 181, 53.

STATION & OFFSET TABLE with columns: POINT, STATION, OFFSET, ELEVATION. Rows include points 310, 182, 54, 311, 183, 55, 312, 184, 56, 313, 185, 57, 314, 186, 58, 315, 187, 59.

STATION & OFFSET TABLE with columns: POINT, STATION, OFFSET, ELEVATION. Rows include points 316, 188, 60, 317, 189, 61, 318, 190, 62, 319, 191, 63, 320, 192, 64, 321, 193, 65.

STATION & OFFSET TABLE with columns: POINT, STATION, OFFSET, ELEVATION. Rows include points 322, 194, 66, 323, 195, 67, 324, 196, 68, 325, 197, 69, 326, 198, 70, 327, 199, 71.

STATION & OFFSET TABLE with columns: POINT, STATION, OFFSET, ELEVATION. Rows include points 328, 200, 72, 329, 201, 73, 330, 202, 74, 331, 203, 75, 332, 204, 76, 333, 205, 77.

STATION & OFFSET TABLE with columns: POINT, STATION, OFFSET, ELEVATION. Rows include points 334, 206, 78, 335, 207, 79, 336, 208, 80, 337, 209, 81, 338, 210, 82, 339, 211, 83.

STATION & OFFSET TABLE with columns: POINT, STATION, OFFSET, ELEVATION. Rows include points 340, 212, 84, 341, 213, 85, 342, 214, 86, 343, 215, 87, 344, 216, 88, 345, 217, 89.

STATION & OFFSET TABLE with columns: POINT, STATION, OFFSET, ELEVATION. Rows include points 346, 218, 90, 347, 219, 91, 348, 220, 92, 349, 221, 93, 350, 222, 94, 351, 223, 95.

STATION & OFFSET TABLE with columns: POINT, STATION, OFFSET, ELEVATION. Rows include points 352, 224, 96, 353, 225, 97, 354, 226, 98, 355, 227, 99, 356, 228, 100, 357, 229, 101.

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	ELEVATION
358	570+00.00	24.00 LT	978.33
230	570+00.00	12.00 LT	978.53
102	570+00.00	0.00	978.73
359	570+25.00	24.00 LT	978.00
231	570+25.00	12.00 LT	978.21
103	570+25.00	0.00 LT	978.42
360	570+50.00	24.00 LT	977.75
232	570+50.00	12.00 LT	977.95
104	570+50.00	0.00 RT	978.14
361	570+75.00	24.00 LT	977.47
233	570+75.00	12.00 LT	977.70
105	570+75.00	0.00 RT	977.89
362	571+00.00	24.00 LT	977.22
234	571+00.00	12.00 LT	977.42
106	571+00.00	0.00	977.62
363	571+25.00	24.00 LT	976.98
235	571+25.00	12.00 LT	977.18
107	571+25.00	0.00 LT	977.38

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	ELEVATION
364	571+50.00	24.00 LT	976.72
236	571+50.00	12.00 LT	976.92
108	571+50.00	0.00	977.12
365	571+75.00	24.00 LT	976.46
237	571+75.00	12.00 LT	976.66
109	571+75.00	0.00 LT	976.86
366	572+00.00	24.00 LT	976.22
238	572+00.00	12.00 LT	976.44
110	572+00.00	0.00 LT	976.66
367	572+25.00	24.00 LT	975.99
239	572+25.00	12.00 LT	976.20
111	572+25.00	0.00 RT	976.41
368	572+50.00	24.00 LT	975.76
240	572+50.00	12.00 LT	975.97
112	572+50.00	0.00 LT	976.18
369	572+75.00	24.00 LT	975.53
241	572+75.00	12.00 LT	975.76
113	572+75.00	0.00 LT	975.96

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	ELEVATION
370	573+00.00	24.00 LT	975.30
242	573+00.00	12.00 LT	975.51
114	573+00.00	0.00 RT	975.72
371	573+25.00	24.00 LT	975.10
243	573+25.00	12.00 LT	975.29
115	573+25.00	0.00 RT	975.48
372	573+50.00	24.00 LT	974.90
244	573+50.00	12.00 LT	975.09
116	573+50.00	0.00 LT	975.28
373	573+75.00	24.00 LT	974.73
245	573+75.00	12.00 LT	974.89
117	573+75.00	0.00 RT	975.05
374	574+00.00	24.00 LT	974.60
246	574+00.00	12.00 LT	974.72
118	574+00.00	0.00 LT	974.84
375	574+25.00	24.00 LT	974.45
247	574+25.00	12.00 LT	974.52
119	574+25.00	0.00	974.59

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	ELEVATION
376	574+50.00	24.00 LT	974.34
248	574+50.00	12.00 LT	974.34
120	574+50.00	0.00 RT	974.34
377	574+75.00	24.00 LT	974.28
249	574+75.00	12.00 LT	974.19
121	574+75.00	0.00 RT	974.10
378	575+00.00	24.00 LT	974.16
250	575+00.00	12.00 LT	973.99
122	575+00.00	0.00 LT	973.82
379	575+25.00	24.00 LT	974.06
251	575+25.00	12.00 LT	973.82
123	575+25.00	0.00 LT	973.58
380	575+50.00	24.00 LT	973.93
252	575+50.00	12.00 LT	973.63
124	575+50.00	0.00	973.33
381	575+75.00	24.00 LT	973.77
253	575+75.00	12.00 LT	973.40
125	575+75.00	0.00 LT	973.03

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	ELEVATION
382	576+00.00	24.00 LT	973.55
254	576+00.00	12.00 LT	973.16
126	576+00.00	0.00 LT	972.77
383	576+25.00	24.00 LT	973.26
255	576+25.00	12.00 LT	972.82
127	576+25.00	0.00 RT	972.38
384	576+50.00	24.00 LT	972.96
256	576+50.00	12.00 LT	972.55
128	576+50.00	0.00 LT	972.14
385	576+75.00	24.00 LT	972.67
257	576+75.00	12.00 LT	972.26
129	576+75.00	0.00 LT	971.85
386	577+00.00	24.00 LT	972.39
258	577+00.00	12.00 LT	971.98
130	577+00.00	0.00 RT	971.57
387	577+25.00	24.00 LT	972.07
259	577+25.00	12.00 LT	971.64
131	577+25.00	0.00 RT	971.21

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	ELEVATION
388	577+50.00	24.00 LT	971.71
260	577+50.00	12.00 LT	971.29
132	577+50.00	0.00 RT	970.87
389	577+75.00	24.00 LT	971.37
261	577+75.00	12.00 LT	970.95
133	577+75.00	0.00 LT	970.53
390	578+00.00	24.00 LT	971.04
262	578+00.00	12.00 LT	970.61
134	578+00.00	0.00	970.18
391	578+25.00	24.00 LT	970.70
263	578+25.00	12.00 LT	970.29
135	578+25.00	0.00 RT	969.88
392	578+50.00	24.00 LT	970.38
264	578+50.00	12.00 LT	969.97
136	578+50.00	0.00 RT	969.56
393	578+75.00	24.00 LT	970.04
265	578+75.00	12.00 LT	969.62
137	578+75.00	0.00	969.20

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	ELEVATION
394	579+00.00	24.00 LT	969.69
266	579+00.00	12.00 LT	969.28
138	579+00.00	0.00 RT	968.87
395	579+25.00	24.00 LT	969.33
267	579+25.00	12.00 LT	968.93
139	579+25.00	0.00 RT	968.53
396	579+50.00	24.00 LT	968.95
268	579+50.00	12.00 LT	968.56
140	579+50.00	0.00	968.17
397	579+75.00	24.00 LT	968.59
269	579+75.00	12.00 LT	968.20
141	579+75.00	0.00 RT	967.81
398	580+00.00	24.00 LT	968.23
270	580+00.00	12.00 LT	967.84
142	580+00.00	0.00 RT	967.45
399	580+25.00	24.00 LT	967.89
271	580+25.00	12.00 LT	967.49
143	580+25.00	0.00 LT	967.09

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	ELEVATION
400	580+50.00	24.00 LT	967.54
272	580+50.00	12.00 LT	967.13
144	580+50.00	0.00	966.72
401	580+75.00	24.00 LT	967.19
273	580+75.00	12.00 LT	966.78
145	580+75.00	0.00 LT	966.38
402	581+00.00	24.00 LT	966.85
274	581+00.00	12.00 LT	966.44
146	581+00.00	0.00	966.03
403	581+25.00	24.00 LT	966.50
275	581+25.00	12.00 LT	966.08
147	581+25.00	0.00 RT	965.68
404	581+50.00	24.00 LT	966.13
276	581+50.00	12.00 LT	965.73
148	581+50.00	0.00 RT	965.33
405	581+75.00	24.00 LT	965.77
277	581+75.00	12.00 LT	965.36
149	581+75.00	0.00	964.97

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	ELEVATION
406	582+00.00	24.00 LT	965.42
278	582+00.00	12.00 LT	965.01
150	582+00.00	0.00	964.62
407	582+25.00	24.00 LT	965.07
279	582+25.00	12.00 LT	964.66
151	582+25.00	0.00 LT	964.27
408	582+50.00	24.00 LT	964.72
280	582+50.00	12.00 LT	964.31
152	582+50.00	0.00 LT	963.92
409	582+75.00	24.00 LT	964.37
281	582+75.00	12.00 LT	963.97
153	582+75.00	0.00 LT	963.56
410	583+00.00	24.00 LT	963.98
282	583+00.00	12.00 LT	963.58
154	583+00.00	0.00 RT	963.17
411	583+25.00	24.00 LT	963.62
283	583+25.00	12.00 LT	963.21
155	583+25.00	0.00 RT	962.78

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	ELEVATION
412	583+50.00	24.00 LT	963.28
284	583+50.00	12.00 LT	962.84
156	583+50.00	0.00 LT	962.42
413	583+71.00	24.00 LT	962.99
285	583+71.00	12.00 LT	962.55
157	583+71.00	0.00 RT	962.11

NOTE: CONTRACTOR TO FIELD VERIFY ELEVATIONS AND CROSS-SLOPES TO MATCH FINAL CONFIGURATION.

PROJECT NO: 1011-01-75

HWY: IH 39

COUNTY: DANE

PAVEMENT ELEVATIONS

SHEET

E



PROJECT NO: 1011-01-75	HWY: IH 39	COUNTY: DANE	PERMANENT PAVEMENT MARKING	SHEET	E
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PROJECT NO: 1011-01-75	HWY: IH 39	COUNTY: DANE	PERMANENT PAVEMENT MARKING	SHEET	E
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STAGE 1A:
CONSTRUCTION ACTIVITIES

- 1) FILL IN EXISTING RUMBLE STRIPS ON INSIDE SHOULDER.

TRAFFIC

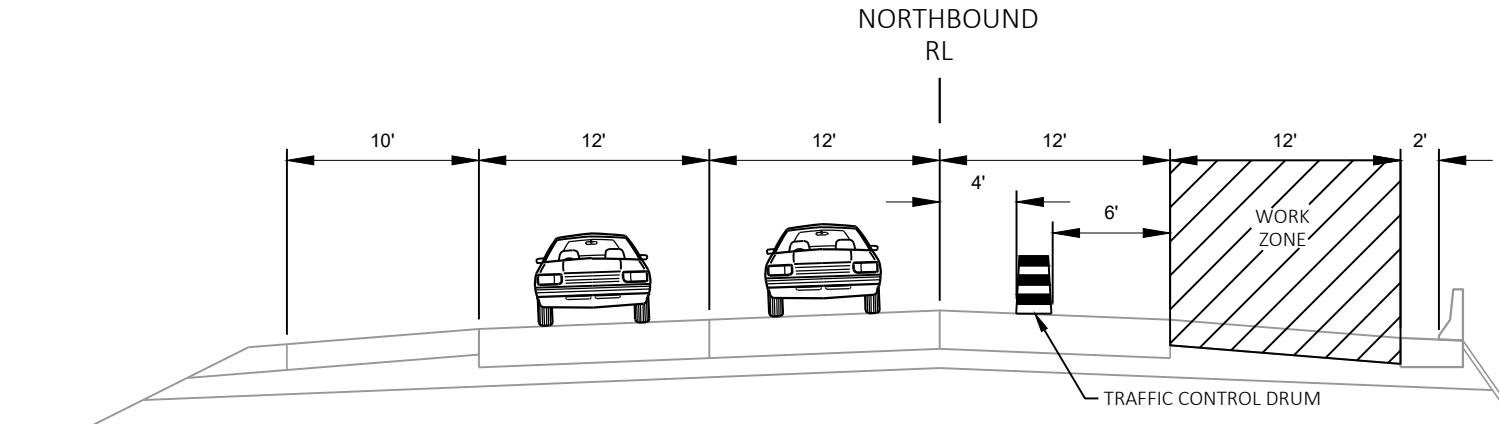
INSIDE LANE CLOSED

STANDARD DETAIL DRAWINGS REQUIRED

TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

INSTALL TRAFFIC CONTROL SIGNS PCMS FOR PRE-WARN PURPOSES 7 DAYS PRIOR TO STAGE 1A. PLACE PCMS AT APPROXIMATE STA. 573+00 LT ON THE NORTHBOUND OUTSIDE SHOULDER WITH THE FOLLOWING MESSAGES:

ROAD {DAY}
 WORK {DATE}
 BEGINS



TRAFFIC CONTROL TYPICAL SECTION
 STAGE 1A
 LANE CLOSURE

STAGE 1B:
CONSTRUCTION ACTIVITIES

- 1) FILL IN EXISTING RUMBLE STRIPS ON OUTSIDE SHOULDER.

TRAFFIC

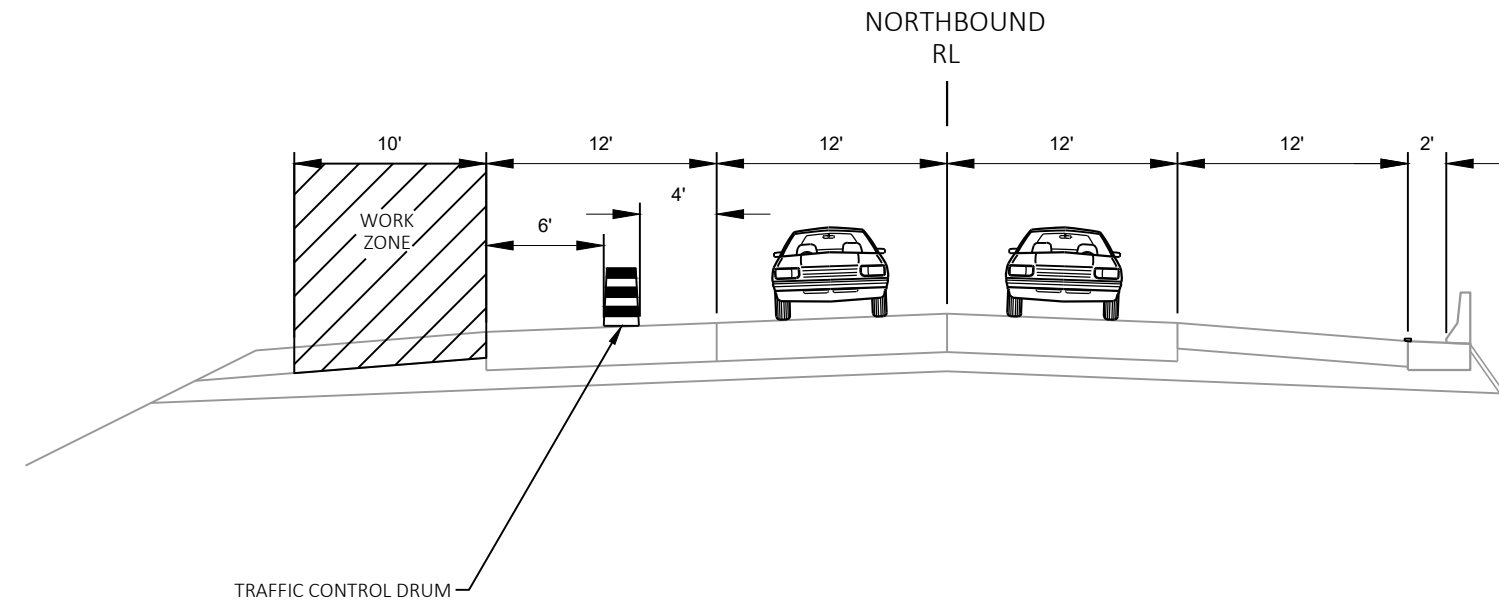
OUTSIDE LANE CLOSED

STANDARD DETAIL DRAWINGS REQUIRED

TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
 TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE

INSTALL TRAFFIC CONTROL SIGNS PCMS FOR PRE-WARN PURPOSES 7 DAYS PRIOR TO STAGE 1A. PLACE PCMS AT APPROXIMATE STA. 573+00 LT ON THE NORTHBOUND OUTSIDE SHOULDER WITH THE FOLLOWING MESSAGES:

ROAD {DAY}
 WORK {DATE}
 BEGINS



TRAFFIC CONTROL TYPICAL SECTION
 STAGE 1B
 NIGHT TIME LANE CLOSURE

STAGE 2:
CONSTRUCTION ACTIVITIES

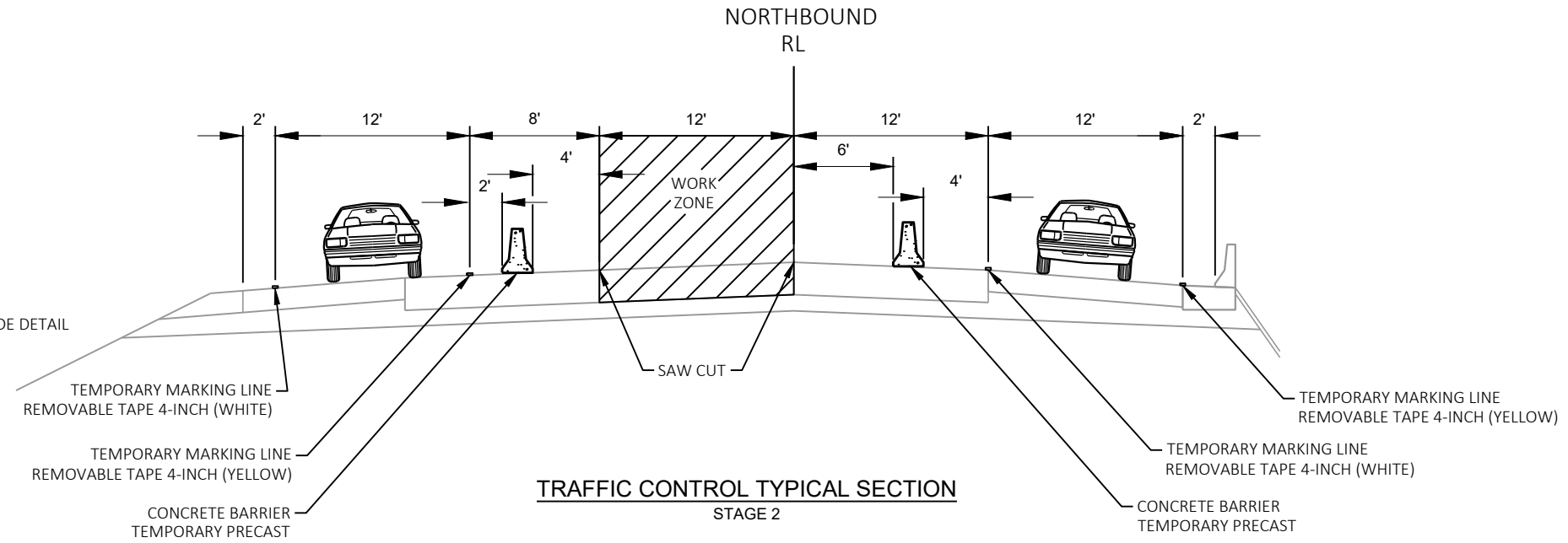
- 1) CONSTRUCT CENTER LANE REPLACEMENT.

TRAFFIC

- 1) CENTER LANE CLOSED, TRAFFIC SHIFTED TO INSIDE AND OUTSIDE.
- 2) CTH V ON RAMP CLOSED.

STANDARD DETAIL DRAWINGS REQUIRED

TRAFFIC CONTROL, MULTIPLE LANE SHIFT, MULTILANE DIVIDED ROAD
 TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
 TRAFFIC CONTROL, FULL LANE SHIFT MULTILANE DIVIDED 50 MPH AND OVER
 BARRICADES AND SIGN FOR VARIOUS CLOSURES, DETAIL D, ROAD CLOSURE BARRICADE DETAIL
 TRAFFIC CONTROL, LANE CLOSURE, TRAFFIC QUEUE WARNING SYSTEM



POST STAGE 2:
CONSTRUCTION ACTIVITIES

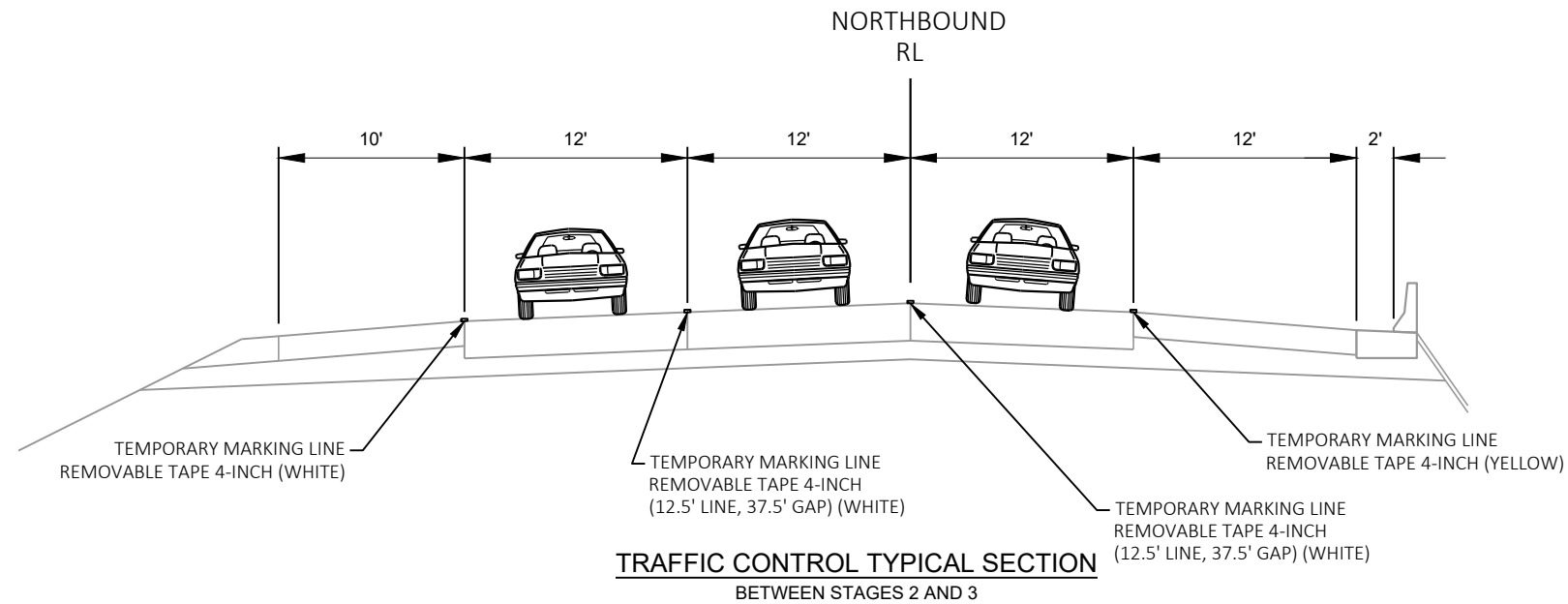
- 1) NONE

TRAFFIC

- 1) ALL LANES OPEN ON ORIGINAL CONFIGURATION.

STANDARD DETAIL DRAWINGS REQUIRED

NONE



STAGE 3:
CONSTRUCTION ACTIVITIES

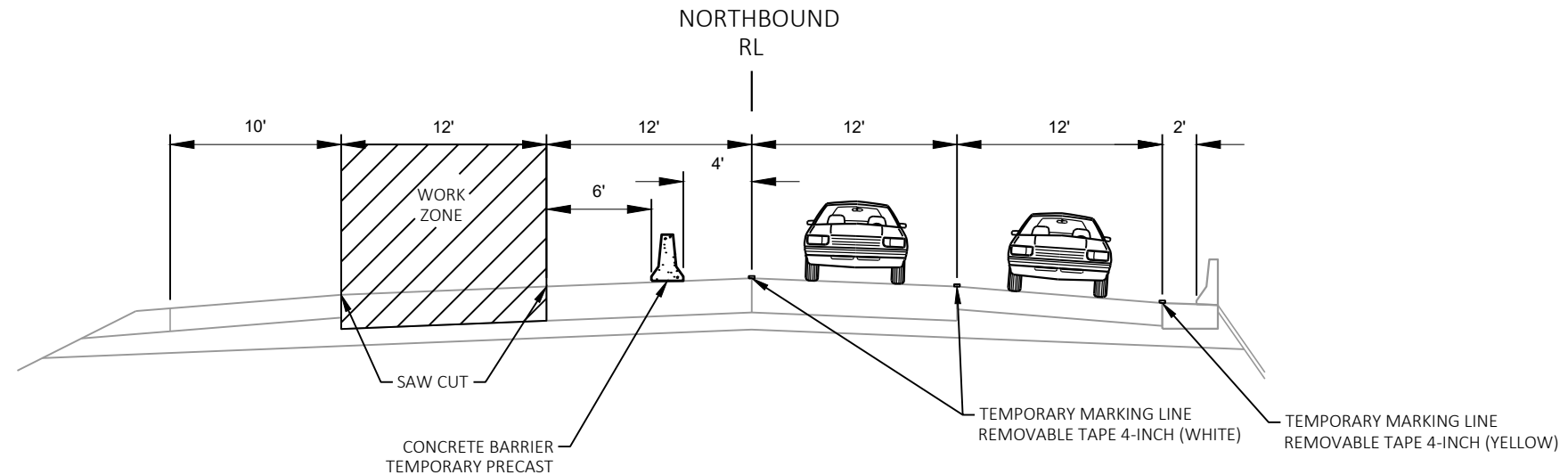
- 1) CONSTRUCT OUTSIDE LANE REPLACEMENT.

TRAFFIC

- 1) OUTSIDE LANE CLOSED, TRAFFIC SHIFTED TO INSIDE.
- 2) CTH V ON RAMP WILL BE CLOSED.

STANDARD DETAIL DRAWINGS REQUIRED

TRAFFIC CONTROL, MULTIPLE LANE SHIFT, MULTILANE DIVIDED ROAD
 TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
 TRAFFIC CONTROL, FULL LANE SHIFT MULTILANE DIVIDED 50 MPH AND OVER
 BARRICADES AND SIGN FOR VARIOUS CLOSURES, DETAIL D, ROAD CLOSURE
 BARRICADE DETAIL
 TRAFFIC CONTROL, LANE CLOSURE, TRAFFIC QUEUE WARNING SYSTEM



TRAFFIC CONTROL TYPICAL SECTION
STAGE 3

STAGE 4:
CONSTRUCTION ACTIVITIES

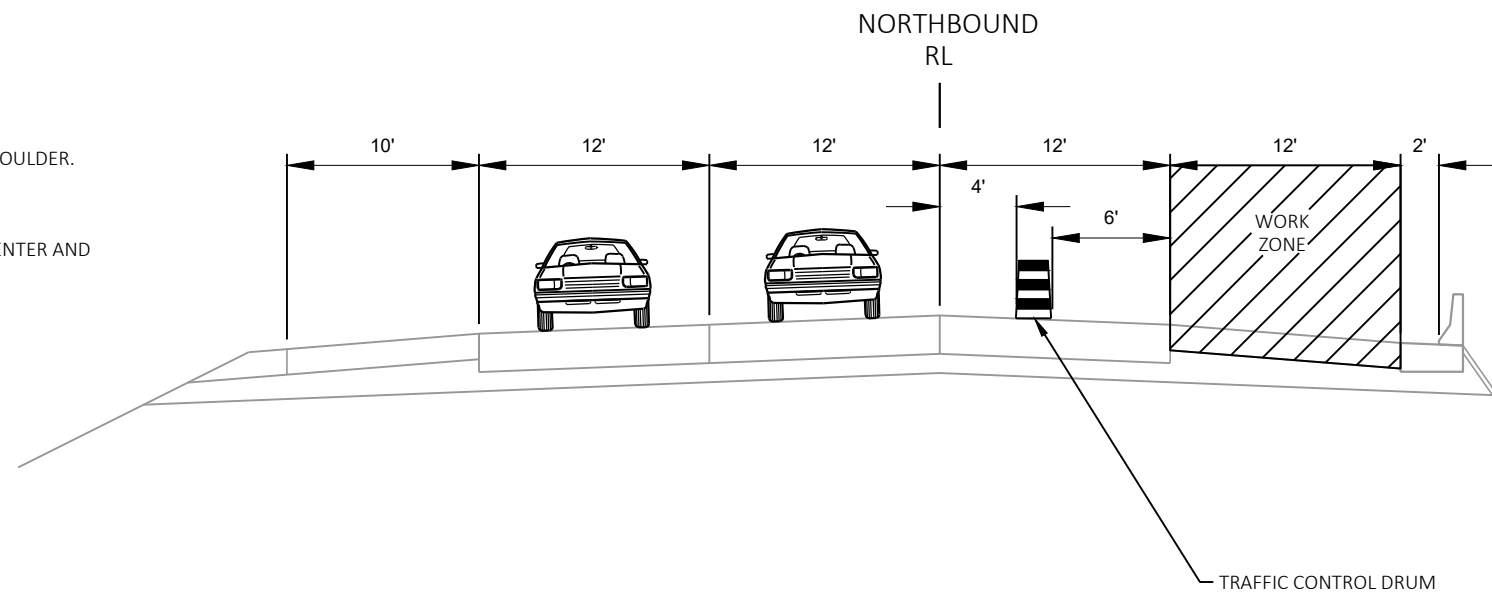
- 1) CONSTRUCT CONCRETE SHOULDER RUMBLE STRIPS ON INSIDE SHOULDER.

TRAFFIC

- 1) INSIDE LANE CLOSED DURING NIGHT TIME HOURS. TRAFFIC ON CENTER AND OUTSIDE LANES

STANDARD DETAIL DRAWINGS REQUIRED

TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
 TRAFFIC CONTROL, LANE CLOSURE, TRAFFIC QUEUE WARNING SYSTEM



TRAFFIC CONTROL TYPICAL SECTION
STAGE 4
NIGHT TIME LANE CLOSURE

STAGE 5:
CONSTRUCTION ACTIVITIES

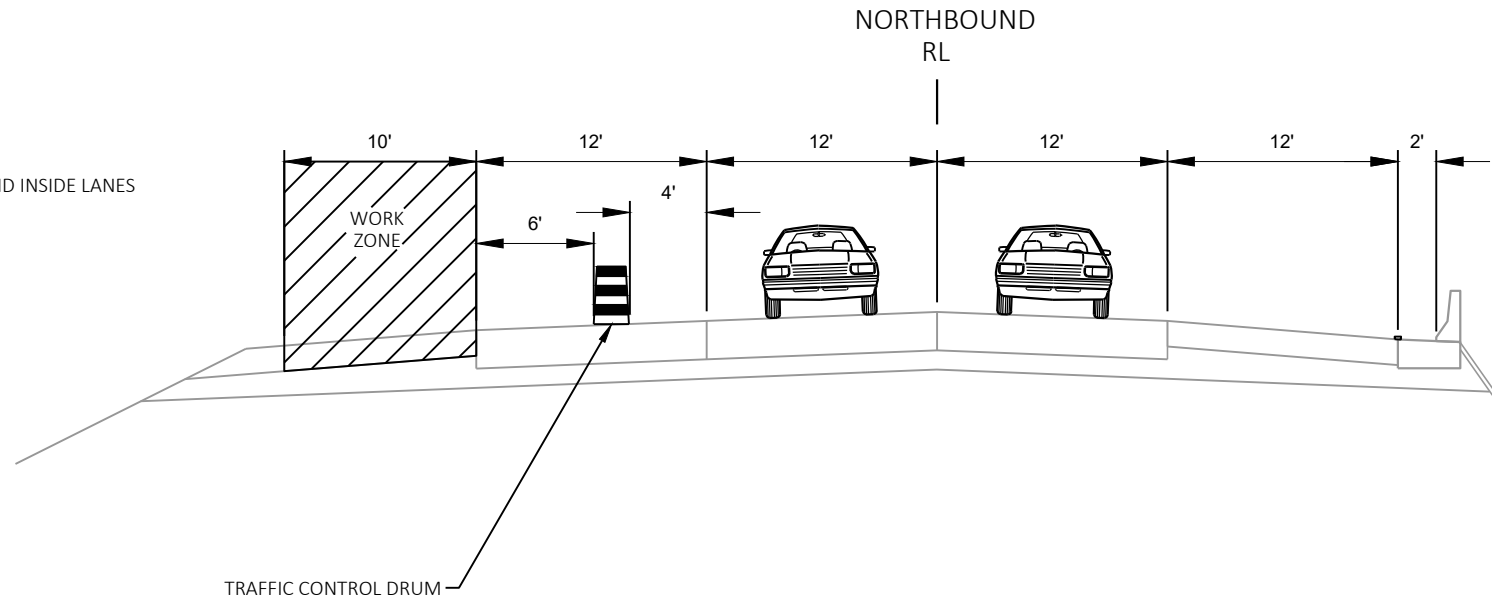
- 1) CONSTRUCT CONCRETE SHOULDER RUMBLE STRIPS ON OUTSIDE SHOULDER.

TRAFFIC

- 1) OUTSIDE LANE CLOSED DURING NIGHT TIME HOURS. TRAFFIC ON CENTER AND INSIDE LANES

STANDARD DETAIL DRAWINGS REQUIRED

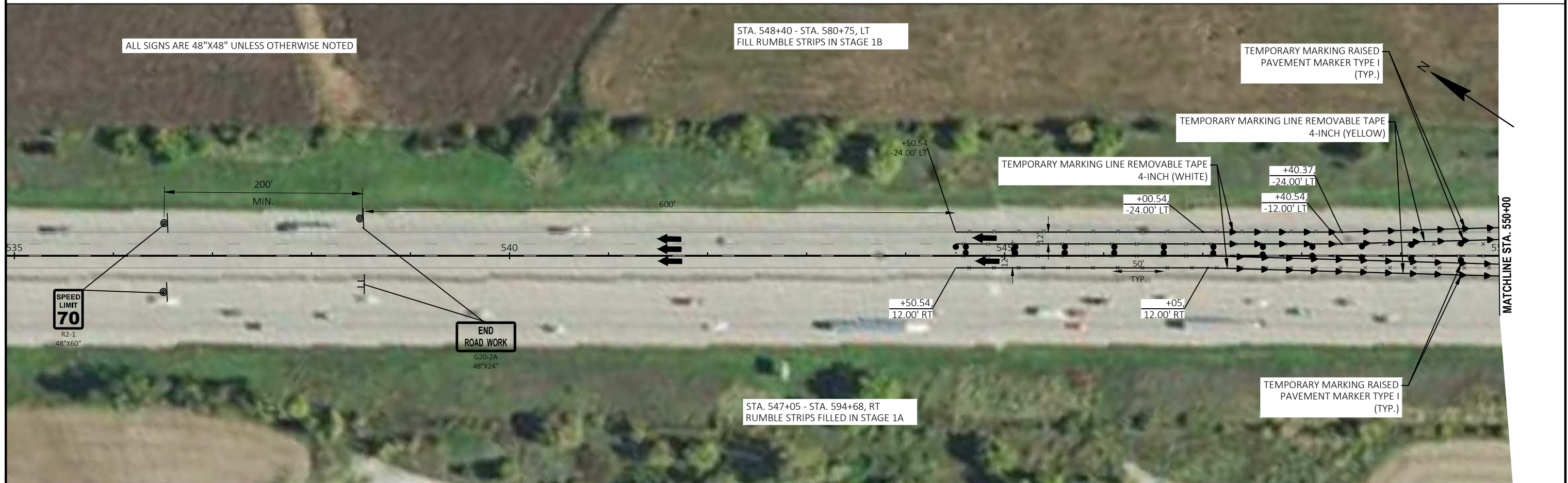
- TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
- TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
- TRAFFIC CONTROL, LANE CLOSURE, TRAFFIC QUEUE WARNING SYSTEM

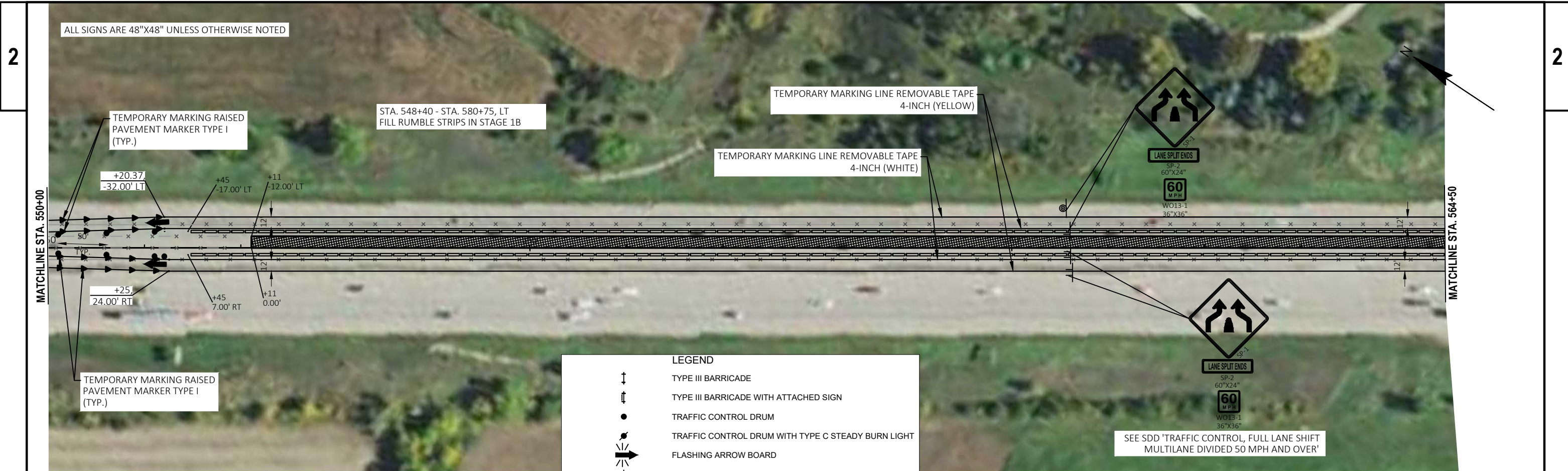


TRAFFIC CONTROL TYPICAL SECTION

STAGE 5
NIGHT TIME LANE CLOSURE

LEGEND	
	TYPE III BARRICADE
	TYPE III BARRICADE WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	MARKING REMOVAL LINE WATER BLASTING
	TRAFFIC CHANNELIZING CURB SYSTEM
	WORK AREA
	DIRECTION OF TRAFFIC
	CRASH CUSHION TEMPORARY
	PORTABLE CHANGEABLE MESSAGE BOARD





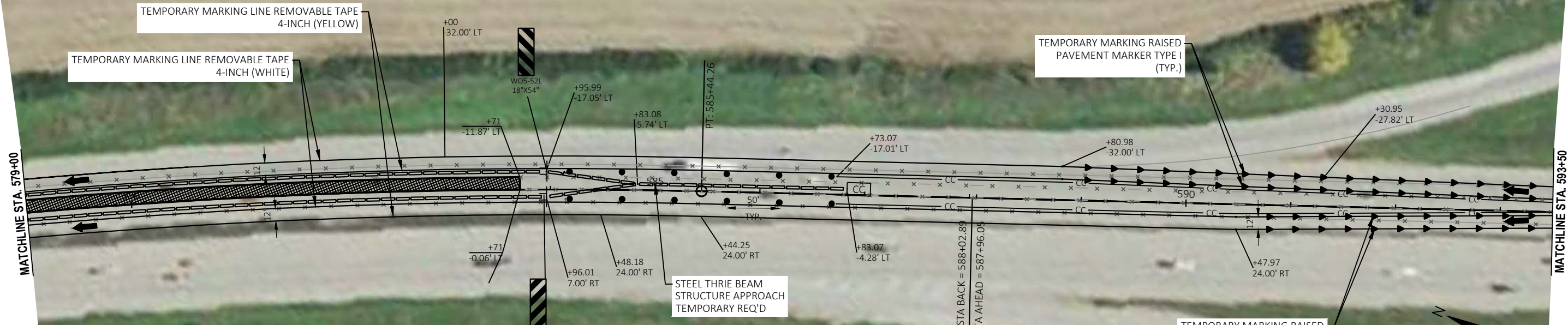
LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	MARKING REMOVAL LINE WATER BLASTING
	TRAFFIC CHANNELIZING CURB SYSTEM
	WORK AREA
	DIRECTION OF TRAFFIC
	CRASH CUSHION TEMPORARY
	PORTABLE CHANGEABLE MESSAGE BOARD



ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED

STA. 590+50 - STA. 593+61, LT
FILL RUMBLE STRIPS IN STAGE 1B



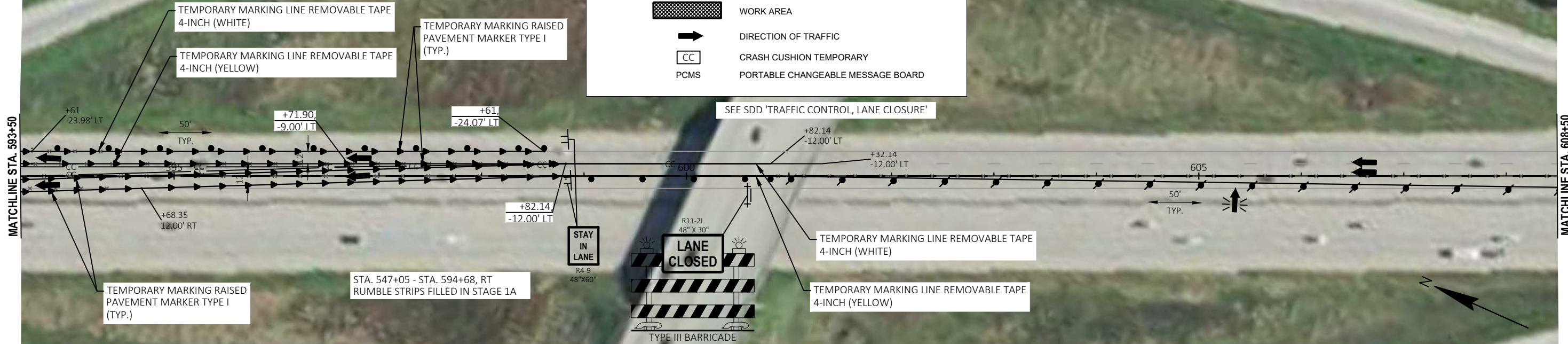
LEGEND

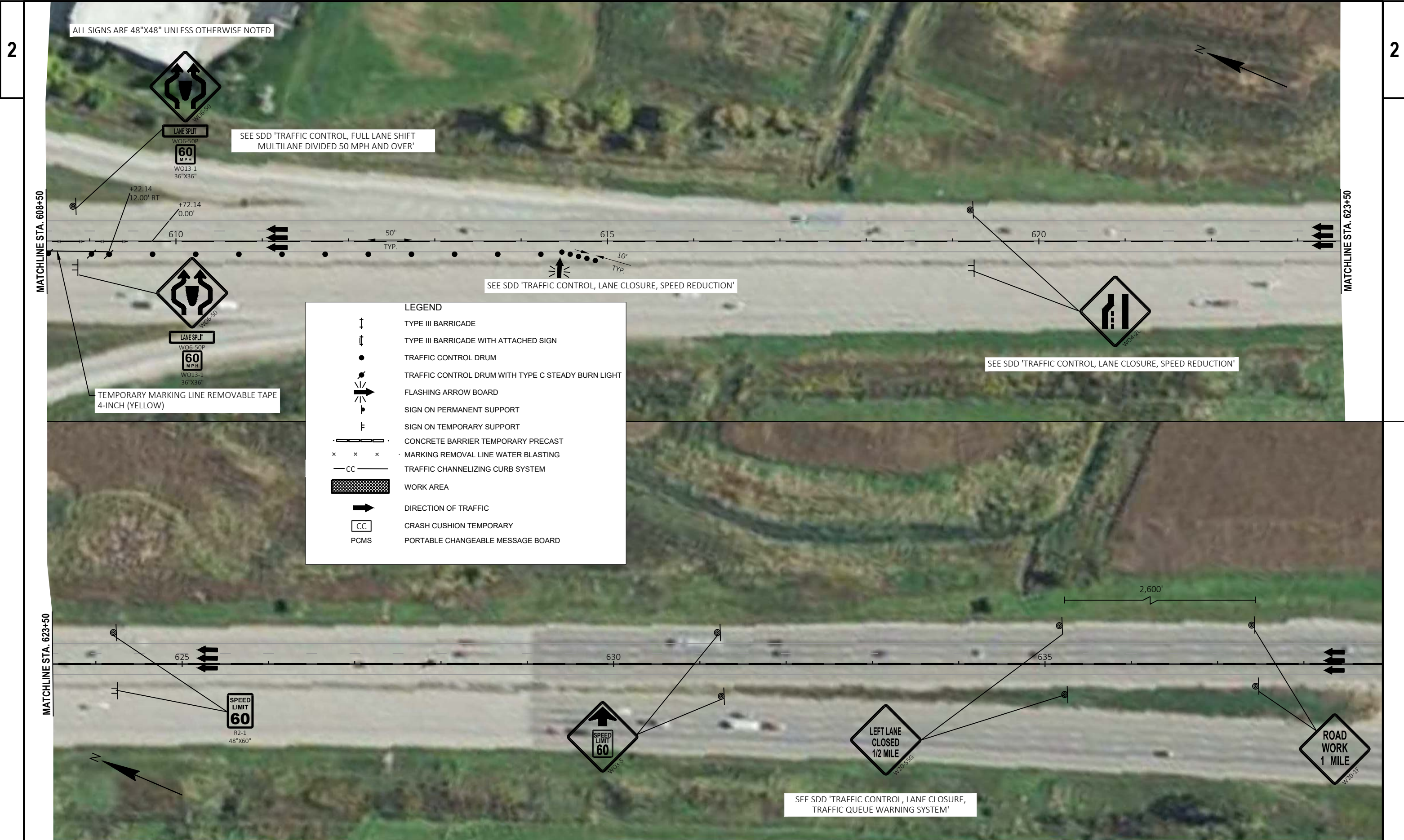
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- MARKING REMOVAL LINE WATER BLASTING
- TRAFFIC CHANNELIZING CURB SYSTEM
- WORK AREA
- DIRECTION OF TRAFFIC
- CRASH CUSHION TEMPORARY
- PORTABLE CHANGEABLE MESSAGE BOARD

DETOUR ROUTE FOR CTH V ON RAMP CLOSURE TO BE IN USE DURING STAGE 2. SEE DETOUR ROUTE SHEETS FOR DETAILS.

SEE SDD 'BARRICADES AND SIGN FOR VARIOUS CLOSURES, DETAIL D, ROAD CLOSURE BARRICADE DETAIL' FOR CTH V TO IH 39 NB ON RAMP CLOSURE

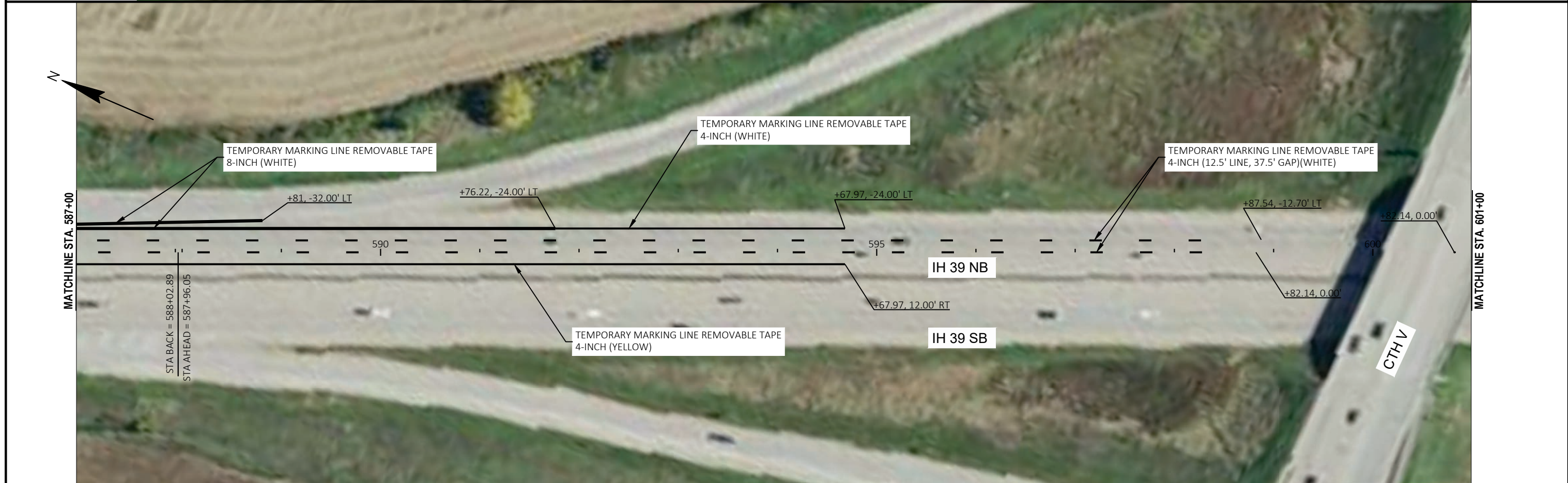
SEE SDD 'TRAFFIC CONTROL, LANE CLOSURE'







PROJECT NO: 1011-01-75 HWY: IH 39 COUNTY: DANE TEMPORARY PAVEMENT MARKING BETWEEN STAGES 2 & 3 SHEET E





PROJECT NO: 1011-01-75

HWY: IH 39

COUNTY: DANE

TEMPORARY PAVEMENT MARKING BETWEEN STAGES 2 & 3

SHEET

E

FILE NAME : 0251018-TC.DWG
LAYOUT NAME - 03

PLOT DATE : 3/14/2022 10:47 AM

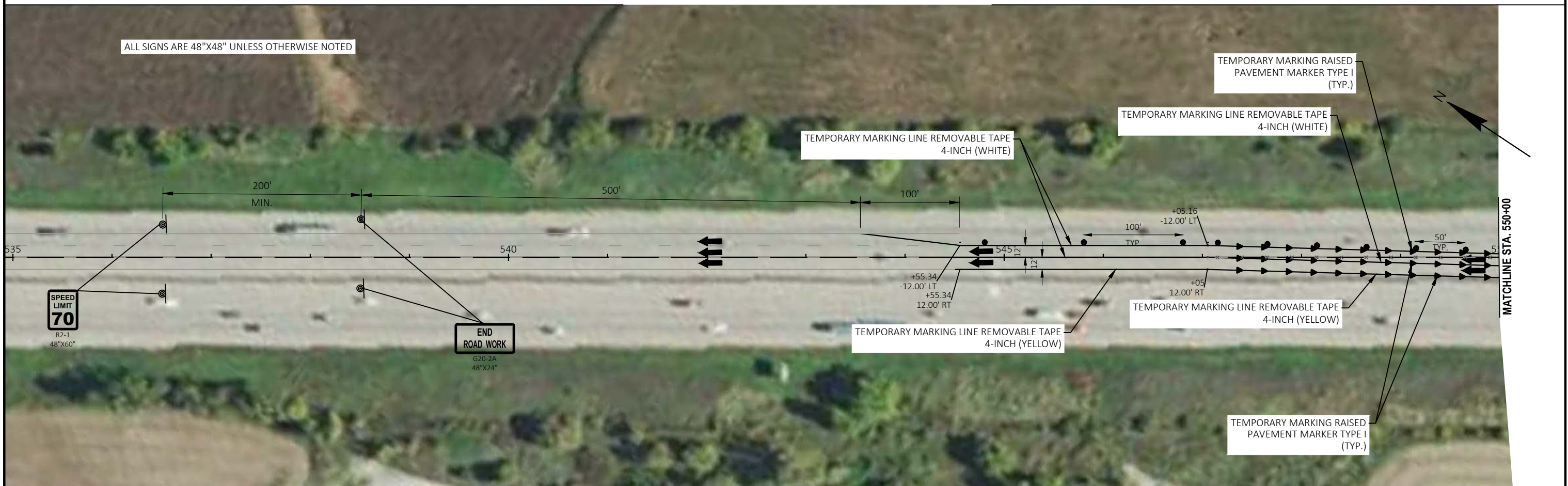
PLOT BY : ARBUCKLE, ADRIAN

PLOT NAME :

PLOT SCALE : #####

WISDOT/CADD SHEET 44

LEGEND	
	TYPE III BARRICADE
	TYPE III BARRICADE WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	MARKING REMOVAL LINE WATER BLASTING
	WORK AREA
	DIRECTION OF TRAFFIC
	CRASH CUSHION TEMPORARY
	PORTABLE CHANGEABLE MESSAGE BOARD



PROJECT NO: 1011-01-75	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL PLAN STAGE 3	SHEET	E
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ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE I (TYP.)

+11
-24.00' LT
+11
-10.00' LT

+45
-5.38' LT

+25.34
0.00'

TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE I (TYP.)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)















TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

MATCHLINE STA. 550+00

MATCHLINE STA. 564+50

LEGEND

-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  FLASHING ARROW BOARD
-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  CONCRETE BARRIER TEMPORARY PRECAST
-  MARKING REMOVAL LINE WATER BLASTING
-  WORK AREA
-  DIRECTION OF TRAFFIC
-  CRASH CUSHION TEMPORARY
-  PCMS
-  PORTABLE CHANGEABLE MESSAGE BOARD

SPEED LIMIT 70 COVER

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

+31.72
-24.00' LT
+31.72
-10.00' LT

+31.72
0.00'

PC: 575+31.72

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

MATCHLINE STA. 564+50

MATCHLINE STA. 579+00



SEE SDD 'TRAFFIC CONTROL, FULL LANE SHIFT MULTILANE DIVIDED 50 MPH AND OVER'

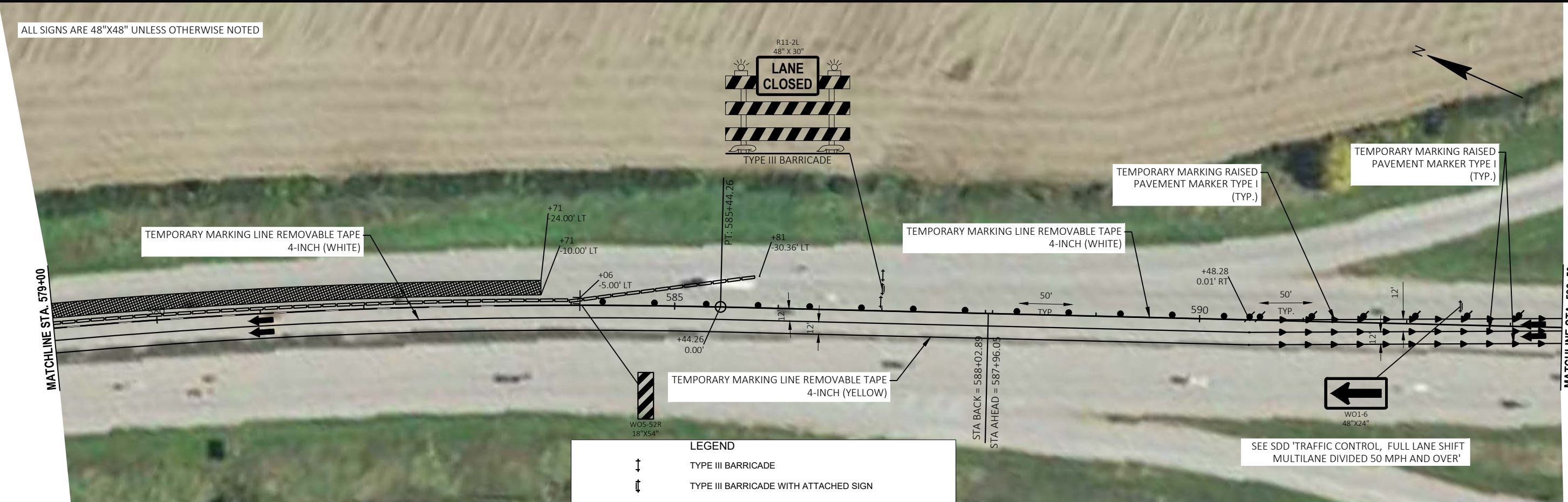
ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED

2

2

MATCHLINE STA. 579+00

MATCHLINE STA. 593+50

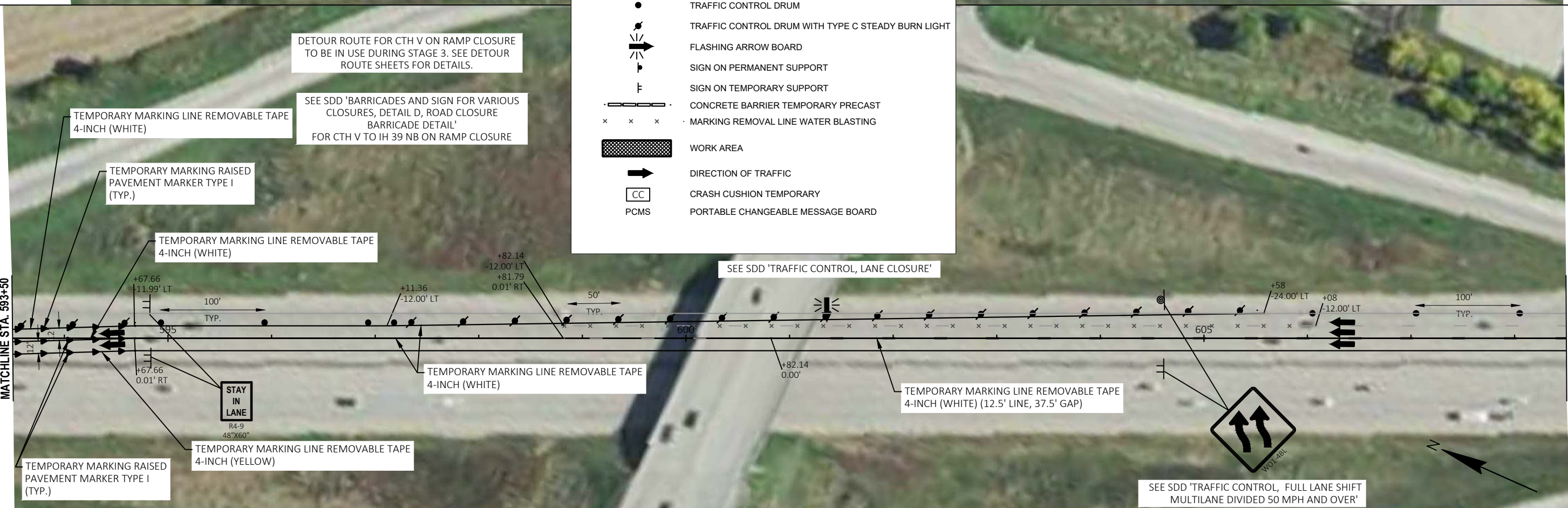


LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- MARKING REMOVAL LINE WATER BLASTING
- WORK AREA
- DIRECTION OF TRAFFIC
- CRASH CUSHION TEMPORARY
- PORTABLE CHANGEABLE MESSAGE BOARD

DETOUR ROUTE FOR CTH V ON RAMP CLOSURE TO BE IN USE DURING STAGE 3. SEE DETOUR ROUTE SHEETS FOR DETAILS.

SEE SDD 'BARRICADES AND SIGN FOR VARIOUS CLOSURES, DETAIL D, ROAD CLOSURE BARRICADE DETAIL' FOR CTH V TO IH 39 NB ON RAMP CLOSURE



MATCHLINE STA. 593+50

MATCHLINE STA. 608+50

PROJECT NO: 1011-01-75

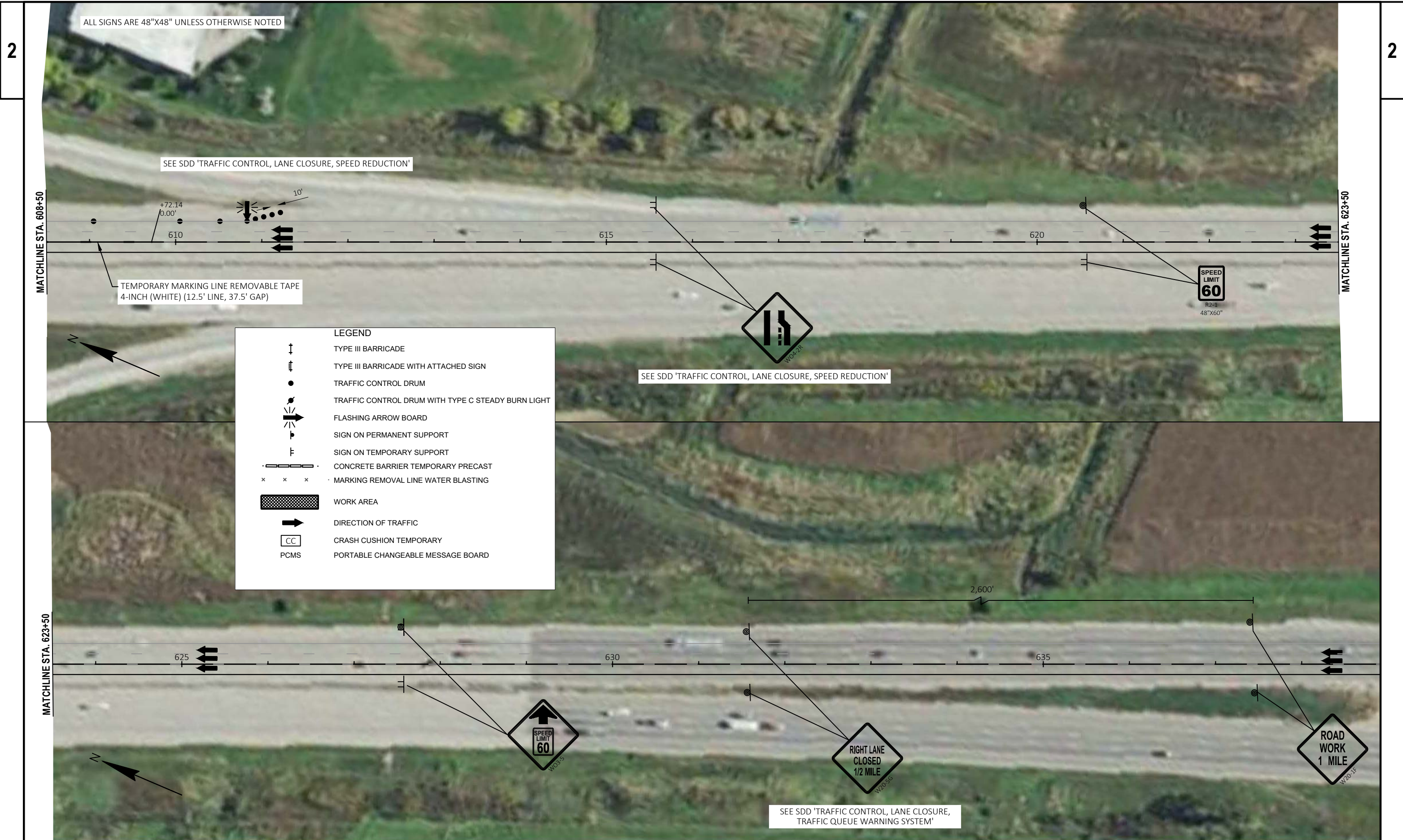
HWY: IH 39

COUNTY: DANE

TRAFFIC CONTROL PLAN STAGE 3

SHEET

E



ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED

SEE SDD 'TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION'

MATCHLINE STA. 608+50

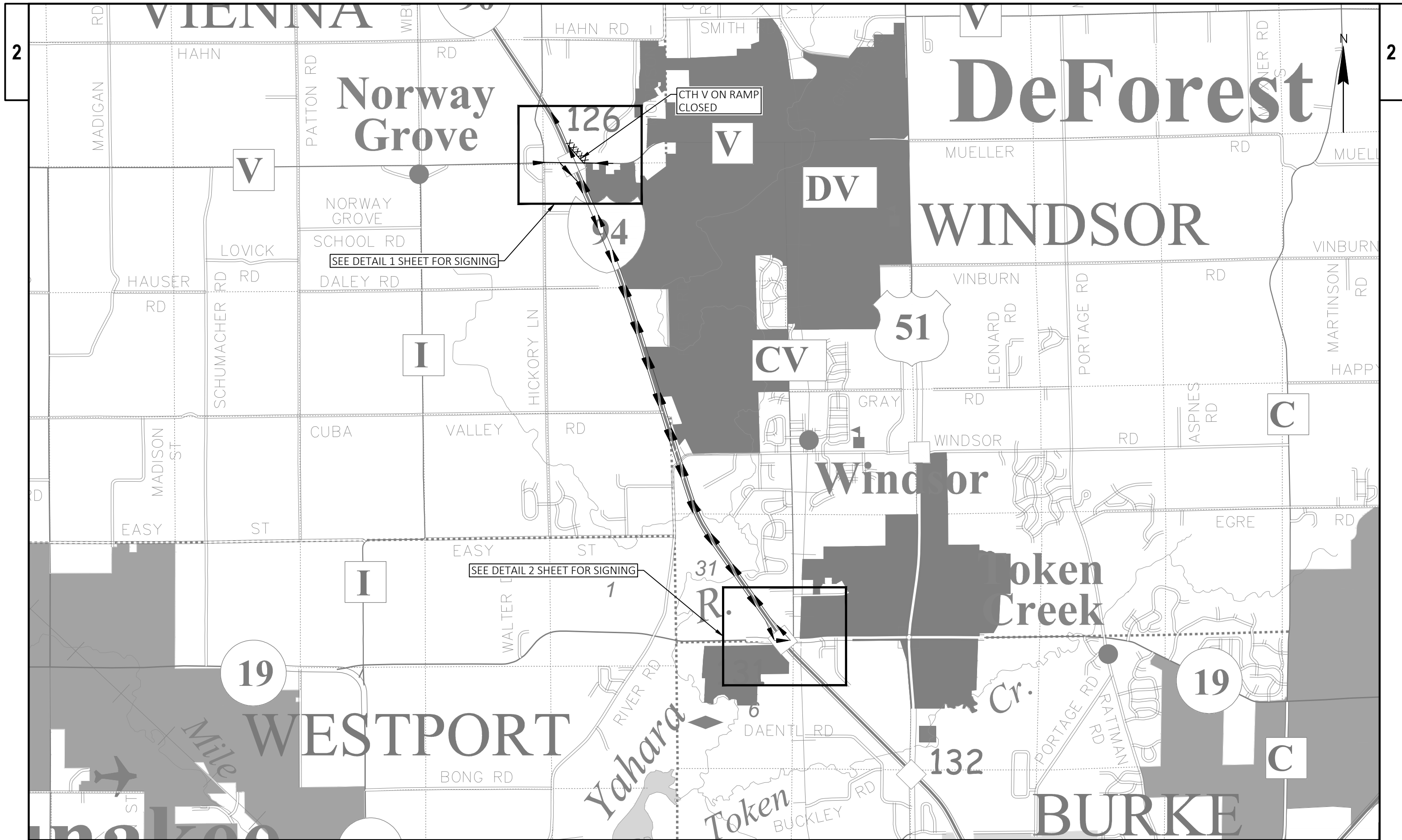
MATCHLINE STA. 623+50

TEMPORARY MARKING LINE REMOVABLE TAPE
4-INCH (WHITE) (12.5' LINE, 37.5' GAP)

LEGEND	
	TYPE III BARRICADE
	TYPE III BARRICADE WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	MARKING REMOVAL LINE WATER BLASTING
	WORK AREA
	DIRECTION OF TRAFFIC
	CRASH CUSHION TEMPORARY
	PORTABLE CHANGEABLE MESSAGE BOARD

SEE SDD 'TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION'

SEE SDD 'TRAFFIC CONTROL, LANE CLOSURE,
TRAFFIC QUEUE WARNING SYSTEM'



PROJECT NO: 1011-01-75

HWY: IH 39

COUNTY: DETOUR ROUTE

DETOUR - CTH V ON RAMP TO IH 39 NB (STAGE 2 & 3) - OVERVIEW

SHEET

E



TO	TO	TO
MO4-5	MO4-5	MO4-5
24"x12"	24"x12"	24"x12"
NORTH	WEST	WEST
MB3-1	MB3-4	MB3-4
24"x12"	24"x12"	24"x12"
39	90	94
M1-1	M1-1	M1-1
24"x24"	24"x24"	24"x24"
←	←	←
MO6-1	MO6-1	MO6-1
21"x21"	21"x21"	21"x21"

JCT	JCT	JCT
39	90	94
TO	TO	TO
MO4-5	MO4-5	MO4-5
24"x12"	24"x12"	24"x12"
NORTH	WEST	WEST
MB3-1	MB3-4	MB3-4
24"x12"	24"x12"	24"x12"
39	90	94
M1-1	M1-1	M1-1
24"x24"	24"x24"	24"x24"
→	→	→
MO5-1R	MO5-1R	MO5-1R
21"x21"	21"x21"	21"x21"

SOUTH	EAST	EAST
39	90	94
↩	↩	↩

TO	TO	TO
MO4-5	MO4-5	MO4-5
24"x12"	24"x12"	24"x12"
NORTH	WEST	WEST
MB3-1	MB3-4	MB3-4
24"x12"	24"x12"	24"x12"
39	90	94
M1-1	M1-1	M1-1
24"x24"	24"x24"	24"x24"
↩	↩	↩
MO5-1L	MO5-1L	MO5-1L
21"x21"	21"x21"	21"x21"

FRAME 1	FRAME 2
RAMP CLOSED BEGINS	XXXDAY XX XX XX

NORTH	WEST	WEST
39	90	94
↑	↑	↑
MO6-1	MO6-1	MO6-1
21"x21"	21"x21"	21"x21"

COVER

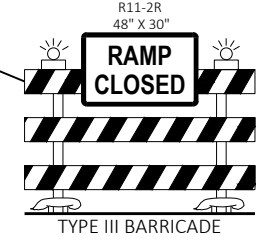
WSD	DELLS
-----	-------

COVER

NORTH	WEST	WEST
39	90	94
M1-1	M1-1	M1-1
24"x24"	24"x24"	24"x24"

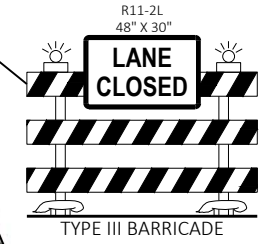


SEE SDD BARRICADES AND SIGN FOR VARIOUS CLOSURES, DETAIL D, ROAD CLOSURE BARRICADE DETAIL



NORTH	WEST	WEST
39	90	94
↩	↩	↩

COVER



NORTH	WEST	WEST
MB3-1	MB3-4	MB3-4
24"x12"	24"x12"	24"x12"
39	90	94
M1-1	M1-1	M1-1
24"x24"	24"x24"	24"x24"

RAMP CLOSED AHEAD
W20-53A

SOUTH	EAST	EAST
39	90	94
→	→	→
TO	TO	TO
MO4-5	MO4-5	MO4-5
24"x12"	24"x12"	24"x12"
NORTH	WEST	WEST
MB3-1	MB3-4	MB3-4
24"x12"	24"x12"	24"x12"
39	90	94
M1-1	M1-1	M1-1
24"x24"	24"x24"	24"x24"
→	→	→
MO6-1	MO6-1	MO6-1
21"x21"	21"x21"	21"x21"

NORTH	WEST	WEST
39	90	94
↩	↩	↩

COVER



TO	TO	TO
MO4-5	MO4-5	MO4-5
36"X18"	36"X18"	36"X18"
NORTH	WEST	WEST
MB3-1	MB3-4	MB3-4
36"X18"	36"X18"	36"X18"
39	90	94
M1-1	M1-1	M1-1
36"X36"	36"X36"	36"X36"
↗	↗	↗
MO5-2R	MO5-2R	MO5-2R
30"X30"	30"X30"	30"X30"

TO	TO	TO
MO4-5	MO4-5	MO4-5
36"X18"	36"X18"	36"X18"
NORTH	WEST	WEST
MB3-1	MB3-4	MB3-4
36"X18"	36"X18"	36"X18"
39	90	94
M1-1	M1-1	M1-1
36"X36"	36"X36"	36"X36"
↗	↗	↗
MO6-2	MO6-2	MO6-2
30"X30"	30"X30"	30"X30"

TO	TO	TO
MO4-5	MO4-5	MO4-5
24"X12"	24"X12"	24"X12"
NORTH	WEST	WEST
MB3-1	MB3-4	MB3-4
24"X12"	24"X12"	24"X12"
39	90	94
M1-1	M1-1	M1-1
24"X24"	24"X24"	24"X24"
↖	↖	↖
MO5-1L	MO5-1L	MO5-1L
21"X21"	21"X21"	21"X21"

TO	TO	TO
MO4-5	MO4-5	MO4-5
24"X12"	24"X12"	24"X12"
NORTH	WEST	WEST
MB3-1	MB3-4	MB3-4
24"X12"	24"X12"	24"X12"
39	90	94
M1-1	M1-1	M1-1
24"X24"	24"X24"	24"X24"
←	←	←
MO6-1	MO6-1	MO6-1
21"X21"	21"X21"	21"X21"

NORTH	WEST	WEST
39	90	94
←	←	←

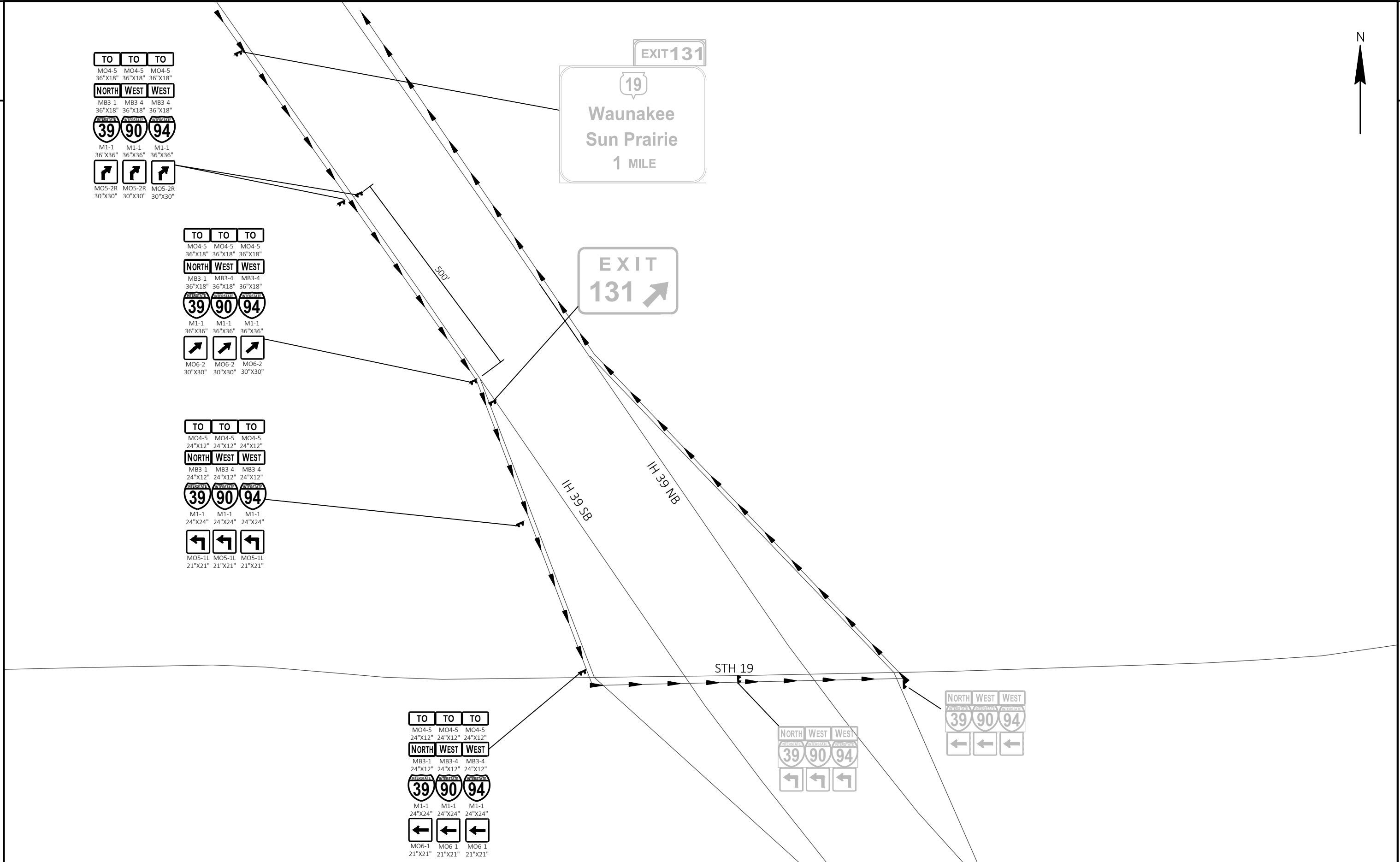
EXIT 131

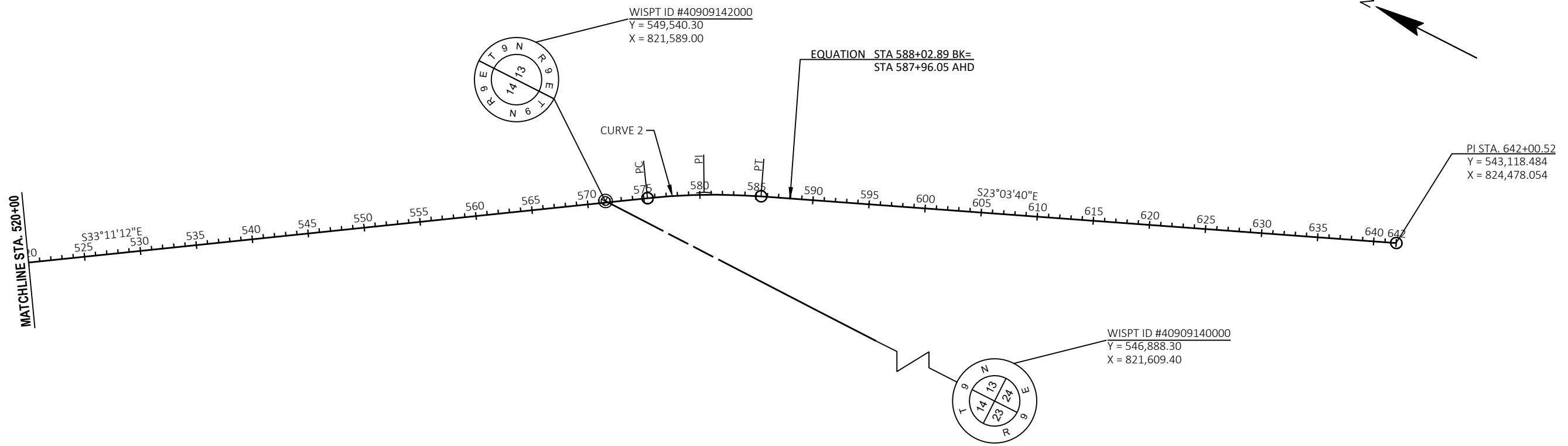
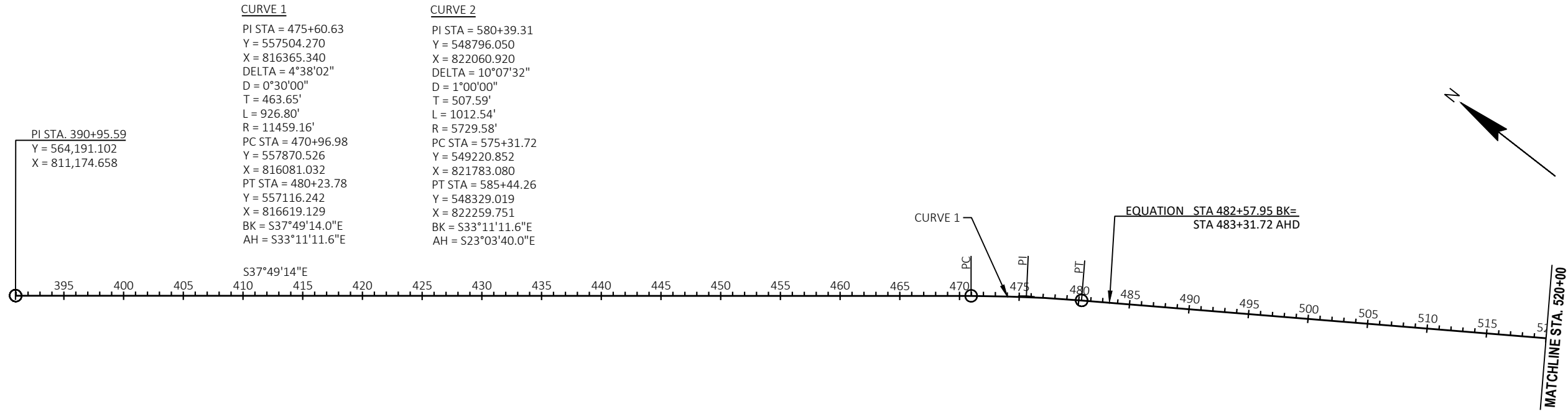
19

Waunakee
Sun Prairie

1 MILE

EXIT 131 ↗





Estimate Of Quantities By Plan Sets

1011-01-75

Line	Item	Item Description	Unit	Total	Qty
0002	204.0100	Removing Concrete Pavement	SY	8,434.000	8,434.000
0008	211.0200	Prepare Foundation for Concrete Pavement (project) 01. 1011-01-75	LS	1.000	1.000
0012	213.0100	Finishing Roadway (project) 02. 1011-01-75	EACH	1.000	1.000
0016	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	468.000	468.000
0020	415.1125	Concrete Pavement HES 12 1/2-Inch	SY	8,434.000	8,434.000
0022	416.0610	Drilled Tie Bars	EACH	3,797.000	3,797.000
0024	416.0620	Drilled Dowel Bars	EACH	32.000	32.000
0026	416.1110	Concrete Shoulder Rumble Strips	LF	8,600.000	8,600.000
0036	416.9116.S	Filling Concrete Shoulder Rumble Strips 16-Inch	LF	8,176.000	8,176.000
0038	603.8000	Concrete Barrier Temporary Precast Delivered	LF	10,313.000	10,313.000
0040	603.8125	Concrete Barrier Temporary Precast Installed	LF	10,313.000	10,313.000
0042	614.0250	Steel Thrie Beam Structure Approach Temporary	LF	16.000	16.000
0044	614.0905	Crash Cushions Temporary	EACH	1.000	1.000
0048	619.1000	Mobilization	EACH	0.660	0.660
0050	624.0100	Water	MGAL	9.400	9.400
0052	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0054	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0056	628.7010	Inlet Protection Type B	EACH	2.000	2.000
0058	642.5001	Field Office Type B	EACH	0.660	0.660
0060	643.0300	Traffic Control Drums	DAY	2,402.000	2,402.000
0062	643.0420	Traffic Control Barricades Type III	DAY	198.000	198.000
0064	643.0650.S	Traffic Channelizing Curb System	LF	2,470.000	2,470.000
0066	643.0705	Traffic Control Warning Lights Type A	DAY	240.000	240.000
0068	643.0715	Traffic Control Warning Lights Type C	DAY	681.000	681.000
0070	643.0800	Traffic Control Arrow Boards	DAY	68.000	68.000
0072	643.0900	Traffic Control Signs	DAY	3,739.000	3,739.000
0074	643.0920	Traffic Control Covering Signs Type II	EACH	18.000	18.000
0076	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0078	643.1200.S	Portable Automated Real-Time Traffic Queue Warning System	DAY	26.000	26.000
0080	643.4100.S	Traffic Control Interim Lane Closure	EACH	4.000	4.000
0082	643.5000	Traffic Control	EACH	0.660	0.660
0084	646.1020	Marking Line Epoxy 4-Inch	LF	12,621.000	12,621.000
0086	646.3020	Marking Line Epoxy 8-Inch	LF	1,325.000	1,325.000
0088	646.6464	Cold Weather Marking Epoxy 4-Inch	LF	12,621.000	12,621.000
0090	646.6468	Cold Weather Marking Epoxy 8-Inch	LF	1,325.000	1,325.000
0092	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	12,621.000	12,621.000
0094	646.9110	Marking Removal Line Water Blasting 8-Inch	LF	1,325.000	1,325.000
0096	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	52,341.000	52,341.000
0098	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	1,305.000	1,305.000
0100	649.0760	Temporary Marking Raised Pavement Marker Type I	EACH	1,958.000	1,958.000
0102	650.7000	Construction Staking Concrete Pavement	LF	3,160.000	3,160.000
0108	650.9910	Construction Staking Supplemental Control (project) 02. 1011-01-75	LS	1.000	1.000
0112	690.0250	Sawing Concrete	LF	12,696.000	12,696.000
0114	715.0715	Incentive Flexural Strength Concrete Pavement	DOL	2,530.000	2,530.000
0116	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	2,530.000	2,530.000
0118	740.0440	Incentive IRI Ride	DOL	2,394.000	2,394.000
0120	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0122	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	200.000	200.000
0124	SPV.0060	Special 01. Verify Landmark Reference Monuments	EACH	4.000	4.000

Estimate Of Quantities By Plan Sets

					1011-01-75	
0126	SPV.0060	Special 02. Landmark Reference Monuments Special	EACH	1.000	1.000	

3

3

REMOVING PAVEMENT

204.0100
REMOVING
CONCRETE
PAVEMENT

STATION TO STATION	(SY)	COMMENT
552+11 - 583+71	4,217	STAGE 2
552+11 - 583+71	4,217	STAGE 3
PROJECT TOTALS	8,434	

BASE AGGREGATE DENSE

305.0120
BASE
AGGREGATE
DENSE
1 1/4-INCH
(TON)

STATION TO STATION	(TON)	624.0100 WATER (MGAL)	COMMENTS
552+11 - 583+71	234	4.7	STAGE 2
552+11 - 583+71	234	4.7	STAGE 3
PROJECT TOTALS	468	9.4	

CONCRETE PAVEMENT

415.1125
CONCRETE
PAVEMENT HES
12 1/2-INCH
(SY)

416.0610
DRILLED
TIE BARS
(EACH)

416.0620
DRILLED
DOWEL BARS
(EACH)

STATION TO STATION	(SY)	(EACH)	(EACH)	COMMENT
552+11 - 583+71	4,217	1,266	16	STAGE 2
552+11 - 583+71	4,217	2,531	16	STAGE 3
PROJECT TOTALS	8,434	3,797	32	

CONCRETE SHOULDER RUMBLE STRIPS

416.1110
CONCRETE
SHOULDER
RUMBLE STRIPS
(LF)

STATION TO STATION	(LF)	COMMENTS
546+83 - 594+68	4,785	STAGE 4
594+68 - 629+24	140	STAGE 4 (SHOULDER PATCHING FROM PROJECT 1011-01-60)
548+40 - 581+96	3,356	STAGE 5
590+50 - 593+61	311	STAGE 5
593+61 - 629+24	8	STAGE 5 (SHOULDER PATCHING FROM PROJECT 1011-01-60)
PROJECT TOTALS	8,600	

***ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED.

FILLING CONCRETE SHOULDER RUMBLE STRIPS 16-INCH

STEEL THRIE BEAM STRUCTURE APPROACH TEMPORARY

416.9116.S
FILLING CONCRETE
RUMBLE STRIPS
16-INCH

614.0250
STEEL THRIE
BEAM STRUCTURE
APPROACH
TEMPORARY

STATION TO	STATION	(LF)	COMMENTS
547+05	- 594+68	4,763	STAGE 1A
548+40	- 579+42	3,102	STAGE 1B
590+50	- 593+61	311	STAGE 1B
PROJECT TOTALS		8,176	

STATION	TO	STATION	(LF)	COMMENT
584+83	-	584+99	16	STAGE 2
PROJECT TOTALS			16	

3

3

TRAFFIC CONTROL - CONCRETE BARRIER TEMPORARY PRECAST AND CRASH CUSHIONS TEMPORARY

ROADWAY	LOC.	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED (LF)	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED (LF)	614.0905 CRASH CUSHION TEMPORARY (EACH)	SIGN PLATE	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
<u>IH 39 - STAGE 2</u>									
551+45	- 583+96	RT.	3,251	3,251	--	--	--	--	--
551+45	- 583+96	LT.	3,251	3,251	--	--	--	--	--
583+96	- 584+84	RT.	88	88	--	--	--	--	--
583+96	- 584+84	LT.	88	88	--	--	--	--	--
584+83	- 586+83	LT.	200	200	--	--	--	--	--
586+83		4.3' LT	--	--	1	OM-3C(W5-58D)	TL-3	UNIDIRECTIONAL	L/R
STAGE 2 SUBTOTAL			6,877	6,877	1				TEMPORARY CONCRETE BARRIER IN CENTER LANE
<u>IH 39 - STAGE 3</u>									
551+45	- 585+81		3,436	3,436	--	--	--	--	--
PROJECT TOTALS			10,313	10,313	1				

***ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED.

***ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED.

INLET PROTECTION TYPE B

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)	628.7010 INLET PROTECTION TYPE B (EACH)	COMMENTS
UNDISTRIBUTED	1	1	2	MEDIAN INLET PROTECTION AGAINST SAW SLURRY IF DETERMINED BY ENGINEER
PROJECT TOTALS	<u>1</u>	<u>1</u>	<u>2</u>	

3

3

TRAFFIC CONTROL - DRUMS, BARRICADES, WARNING LIGHTS, ARROW BOARDS, AND SIGNS

ROADWAY	DAYS IN SERVICE	643.0300 TRAFFIC CONTROL DRUMS NO. (DAY)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO. (DAY)	643.0650.S TRAFFIC CHANNELIZING CURB SYSTEM (LF)	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO. (DAY)	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C NO. (DAY)	643.0800 TRAFFIC CONTROL ARROW BOARDS NO. (DAY)	643.0900 TRAFFIC CONTROL SIGNS NO. (DAY)	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II (EACH) LOCATIONS CYCLE	643.1050 TRAFFIC CONTROL PCMS NO. (DAY)	643.1200.S PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM (DAYS)	643.4100.S TRAFFIC CONTROL INTERIM LANE CLOSURE (EACH)
PRE WARNING MAINLINE												
WB	7	5 35	-- --	-- --	-- --	-- --	-- --	-- --	-- --	1 7	--	--
IH 39 - STAGE 1A												
ADV. WARNING	1	5 5	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	--	1
DAYTIME/NIGHTTIME	1	50 50	2 2	--	4 4	17 17	2 2	20 20	3 1 3	-- --	--	--
IH 39 - STAGE 1B												
ADV. WARNING	1	5 5	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	--	1
DAYTIME/NIGHTTIME	1	50 50	2 2	--	4 4	17 17	2 2	20 20	3 1 3	-- --	--	--
IH 39 - STAGE 2												
DAYTIME/NIGHTTIME	13	83 1,079	-- --	2,470	-- --	17 218	2 26	24 312	1 1 1	-- --	13	--
DETOUR PREWARN	7	5 35	-- --	--	-- --	-- --	-- --	-- --	-- --	1 7	--	--
DETOUR	13	-- --	5 65	--	6 78	-- --	-- --	114 1482	4 4 1	-- --	--	--
BETWEEN STAGE 2 & 3	2	-- --	-- --	--	-- --	-- --	-- --	2 4	-- --	-- --	--	--
IH 39 - STAGE 3												
DAYTIME/NIGHTTIME	13	63 813	4 52	--	4 52	25 326	2 26	23 299	1 1 1	-- --	13	--
DETOUR	13	-- --	5 65	--	6 78	-- --	-- --	114 1482	-- --	-- --	--	--
IH 39 - STAGE 4												
ADV. WARNING/DAYTIME	3	5 15	-- --	--	-- --	-- --	-- --	-- --	-- --	-- --	--	1
NIGHTTIME	3	50 150	2 6	--	4 12	17 51	2 6	20 60	3 1 3	-- --	--	--
IH 39 - STAGE 5												
ADV. WARNING/DAYTIME	3	5 15	-- --	--	-- --	-- --	-- --	-- --	-- --	-- --	--	1
NIGHTTIME	3	50 150	2 6	--	4 12	17 51	2 6	20 60	3 1 3	-- --	--	--
PROJECT TOTALS		<u>2,402</u>	<u>198</u>	<u>2,470</u>	<u>240</u>	<u>681</u>	<u>68</u>	<u>3,739</u>	<u>18</u>	<u>14</u>	<u>26</u>	<u>4</u>

PROJECT NO: 1011-01-75	HWY: IH 39	COUNTY: DANE	MISCELLANEOUS QUANTITIES	SHEET	E
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PAVEMENT MARKING

STATION	- STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH		646.3020	646.6464	646.6468	646.9010	646.9110	COMMENTS
			YELLOW (LF)	WHITE (LF)	MARKING LINE EPOXY 8-INCH WHITE (LF)	WEATHER MARKING EPOXY 4-INCH (LF)	WEATHER MARKING EPOXY 8-INCH (LF)	REMOVAL LINE WATER BLASTING 4-INCH (LF)	REMOVAL LINE WATER BLASTING 8-INCH (LF)	
544+50	- 597+18	NB IH 39	--	--	--	--	--	12,621	1,325	STAGE 2
544+55	- 600+82	NB IH 39	5,020	7,601	1,325	12,621	1,325	--	--	STAGE 3 END
SUBTOTALS			5,020	7,601	1,325	12,621	1,325	12,621	1,325	
TOTAL FOR 646.1020			12,621							
PROJECT TOTALS			12,621		1,325	12,621	1,325	12,621	1,325	

TEMPORARY PAVEMENT MARKING

STATION	- STATION	LOCATION	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH		649.0250	649.0760	COMMENTS
			YELLOW (LF)	WHITE (LF)	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH WHITE (LF)	TEMPORARY MARKING RAISED PAVMENT MARKER TYPE 1 (EACH)	
544+50	- 609+72	NB IH 39	11,918	11,061	--	1,328	STAGE 2
544+50	- 609+72	NB IH 40	5,013	7,601	1,305	--	MARKING BETWEEN STAGES 2 & 3
543+55	- 605+58	NB IH 39	5,013	11,735	--	630	STAGE 3
SUBTOTALS			21,944	30,397	1,305	1,958	
TOTAL FOR 649.0150			52,341				
PROJECT TOTALS			52,341		1,305	1,958	

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CONSTRUCTION STAKING CONCRETE PAVEMENT

		650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT		
STATION	- STATION	(LF)		COMMENT
552+11	- 583+71	3,160		STAGE 2
PROJECT TOTALS		3,160		

SAWING CONCRETE

		690.0250 SAWING CONCRETE		
STATION	TO STATION	(LF)		COMMENTS
552+11	- 583+71	6,348		STAGE 2
552+11	- 583+71	6,348		STAGE 3
PROJECT TOTALS		12,696		

VERIFY LANDMARK REFERENCE MONUMENTS

		SPV.0060.01 VERIFY LANDMARK REFERENCE MONUMENTS		
STA	OFF	(EACH)		DESCRIPTION
--	---		4	VARIOUS LOCATIONS
PROJECT TOTALS			4	

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

		650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL		
LOCATION		(LS)		COMMENTS
PROJECT			1	
PROJECT TOTALS			1	

LANDMARK REFERENCE MONUMENTS SPECIAL

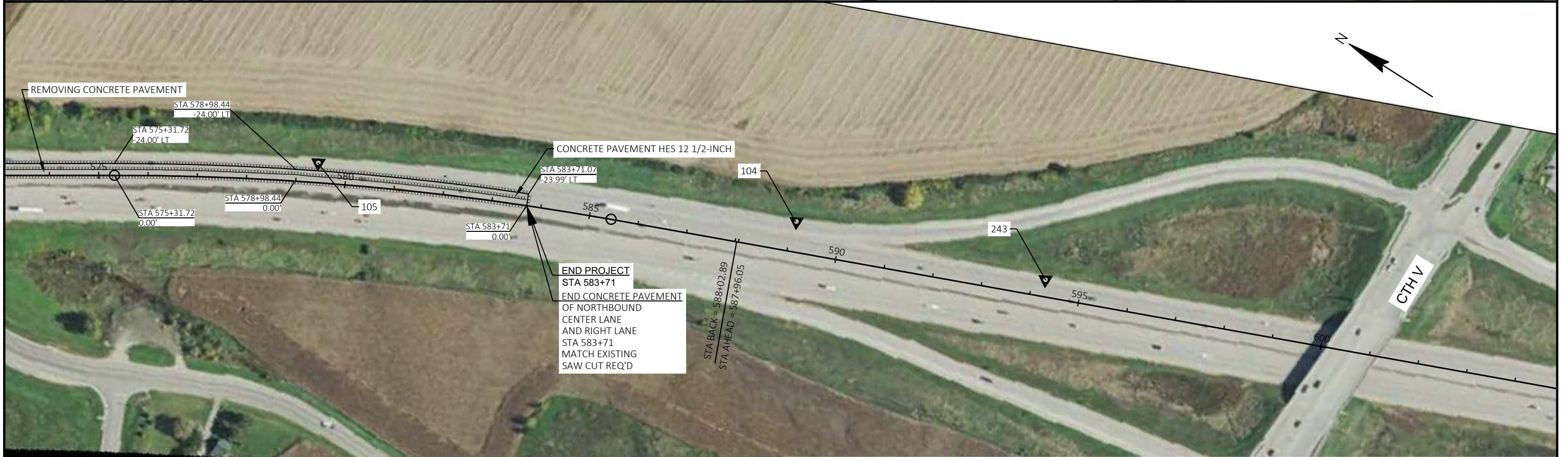
		SPV.0060.02 LANDMARK REFERENCE MONUMENTS SPECIAL		
STATION	OFFSET	(EACH)		DESCRIPTION
571+58.14	12.43' LT		1	SECTION 13 WEST QUARTER CORNER TOWNSHIP 9 NORTH, RANGE 9 EAST
PROJECT TOTALS			1	

***ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED.

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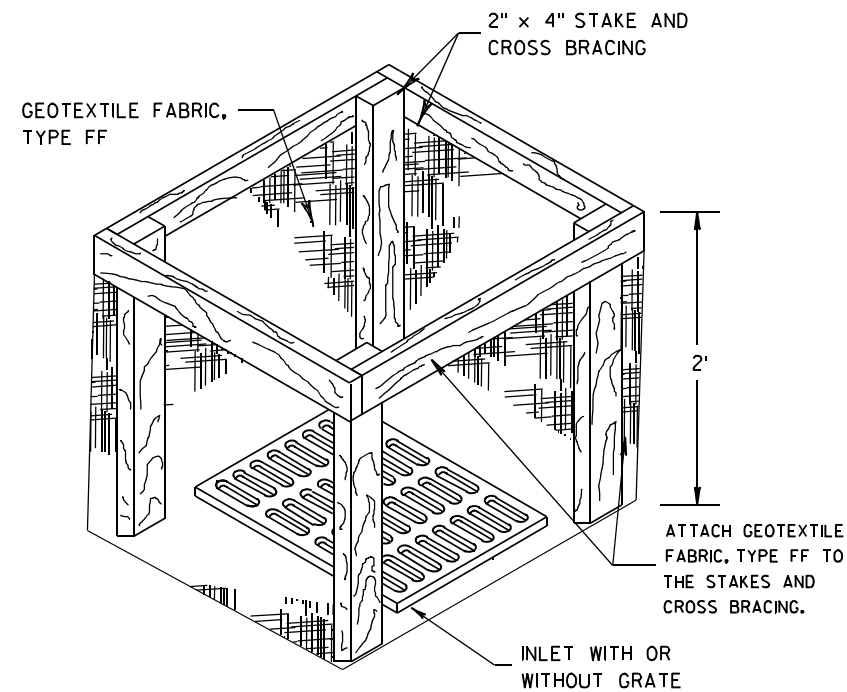
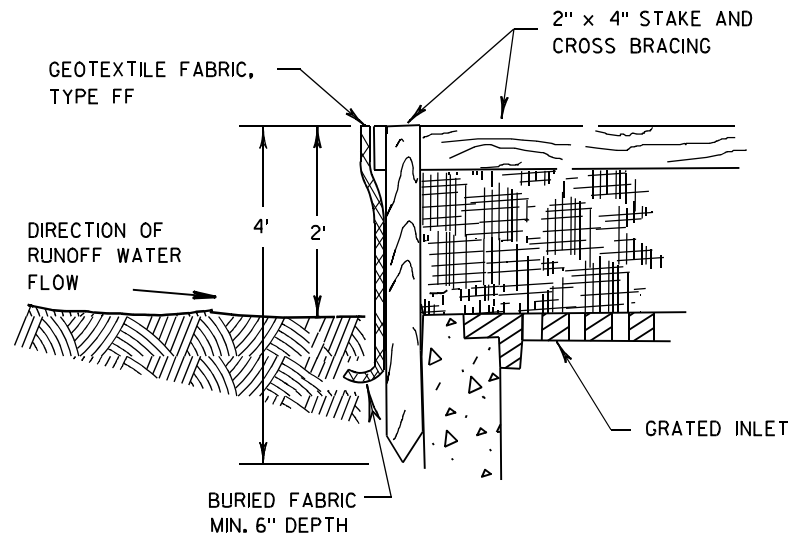


Control Points							
Point #	Station	Offset		Northing	Easting	Elevation	Description
104	589+08.33	61.58	LT	548011.880	822461.691	951.873	CP 3/4" REBAR
105	579+42.75	39.86	LT	548888.467	822030.375	968.781	CP 3/4" REBAR
106	570+59.00	42.37	LT	549639.658	821559.784	977.221	CP 3/4" REBAR
243	594+26.23	34.42	LT	547524.725	822639.576	946.444	CP 3/4" REBAR
107	558+49.95	38.94	LT	550649.626	820895.122	990.966	CP 3/4" REBAR
108	547+53.25	39.74	LT	551567.888	820295.497	1000.235	CP 3/4" REBAR



Standard Detail Drawing List

08E10-02	INLET PROTECTION TYPE A, B, C AND D
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-15A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C11-12A	RURAL DOWELED CONCRETE PAVEMENT
13C11-12B	RURAL DOWELED CONCRETE PAVEMENT
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
13C18-07F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C18-07G	CONCRETE PAVEMENT JOINTING ACCELERATION/DECELERATION LANE
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-08D	ON RAMP LANE CLOSURE
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C31-04C	PAVEMENT MARKING ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
15D12-09A	TRAFFIC CONTROL, LANE CLOSURE
15D12-09B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D12-09E	TRAFFIC CONTROL, LANE CLOSURE, TRAFFIC QUEUE WARNING SYSTEM
15D14-04	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-05A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D40-02B	TRAFFIC CONTROL, FULL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER
15D41-01	TRAFFIC CONTROL, MULTIPLE LANE SHIFT, MULTILANE DIVIDED ROAD
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS



INLET PROTECTION, TYPE A

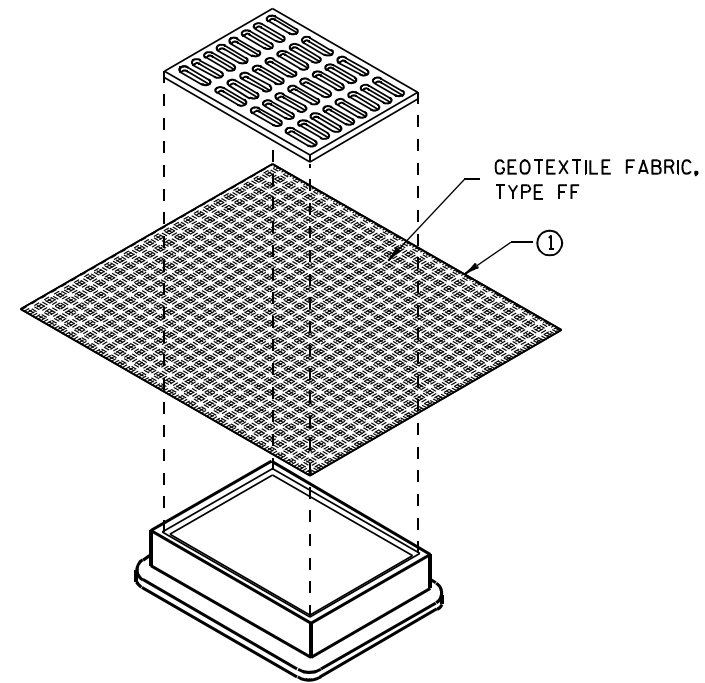
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

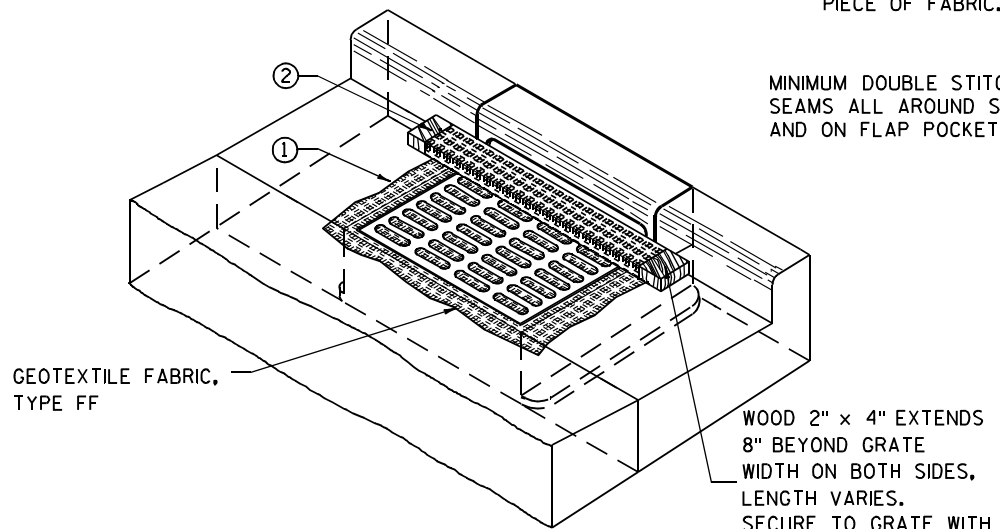
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

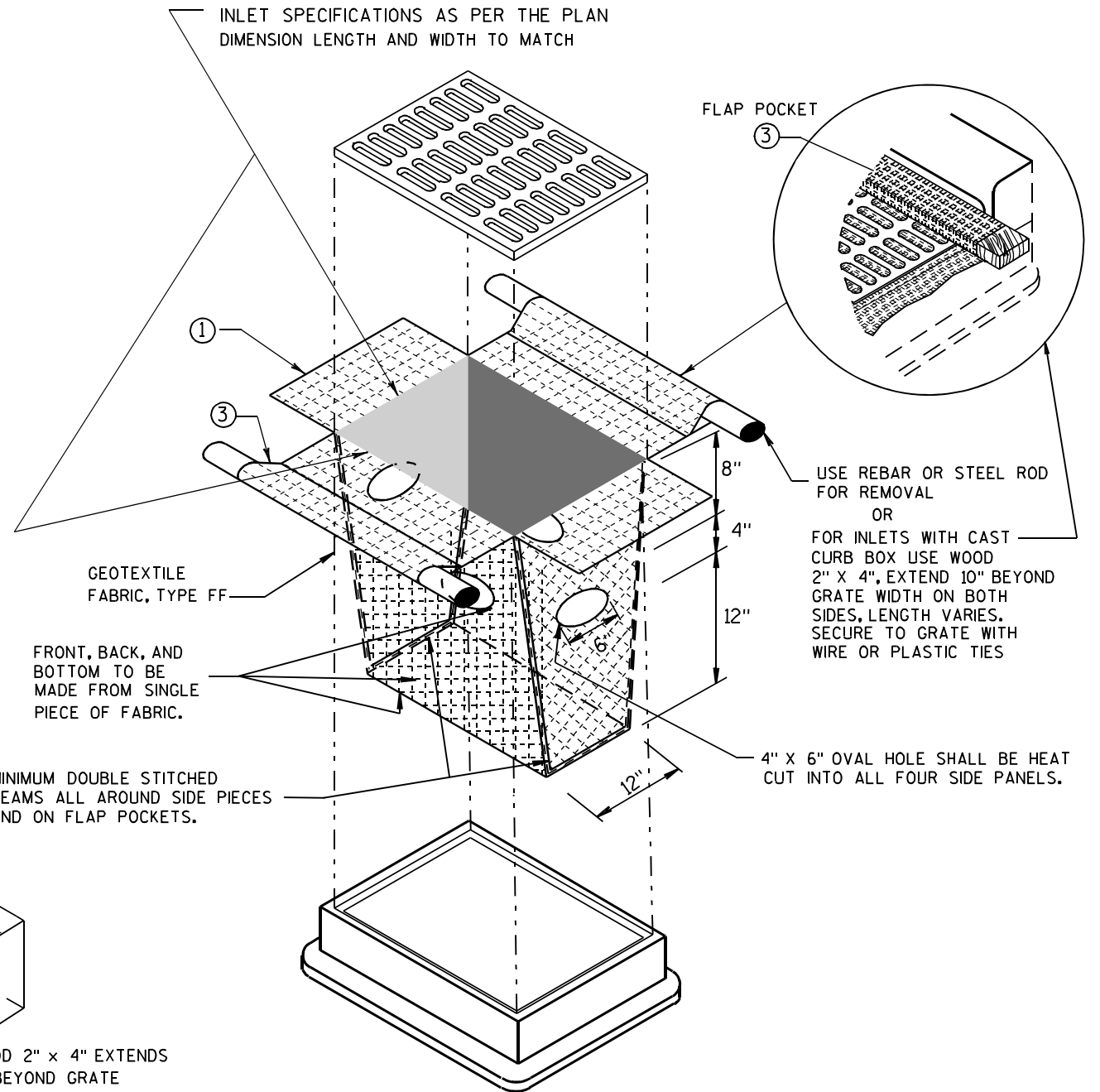
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



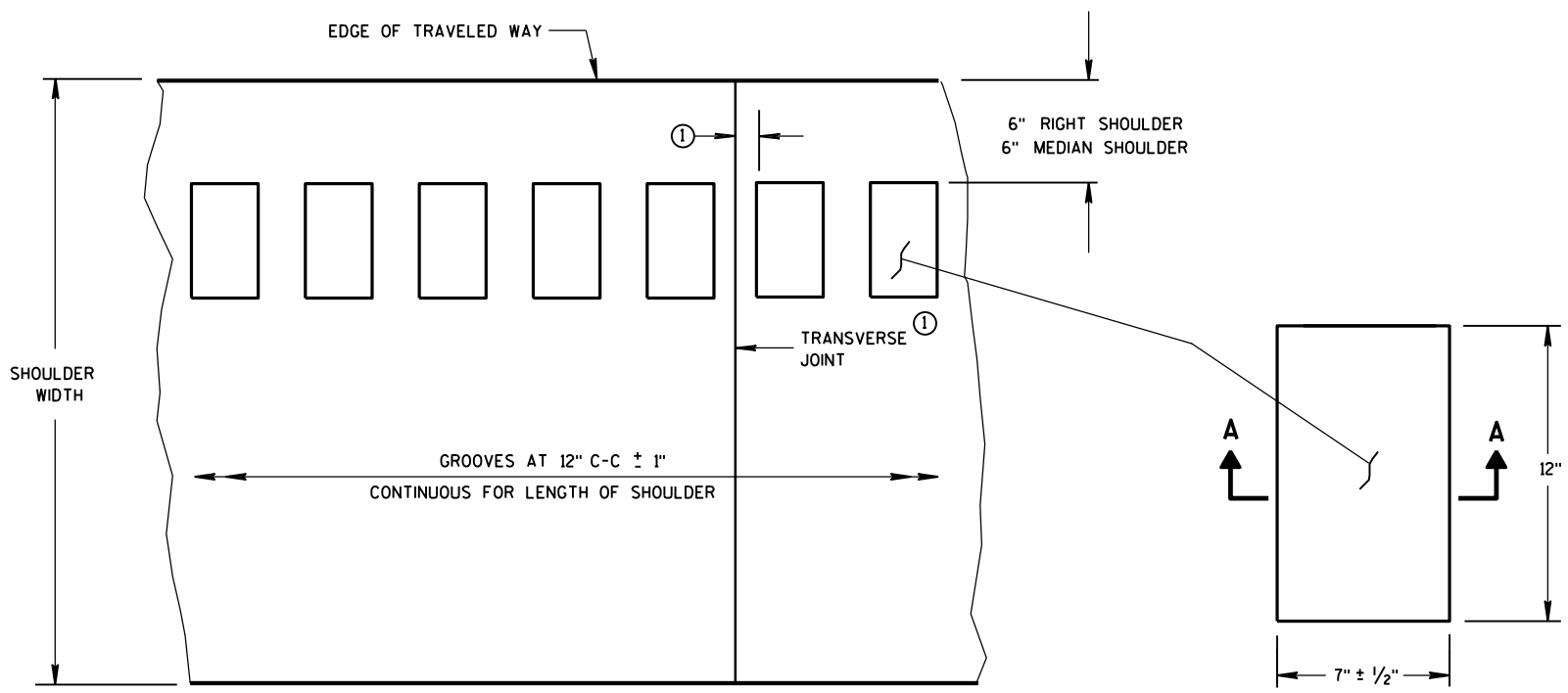
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connestra
DATE
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

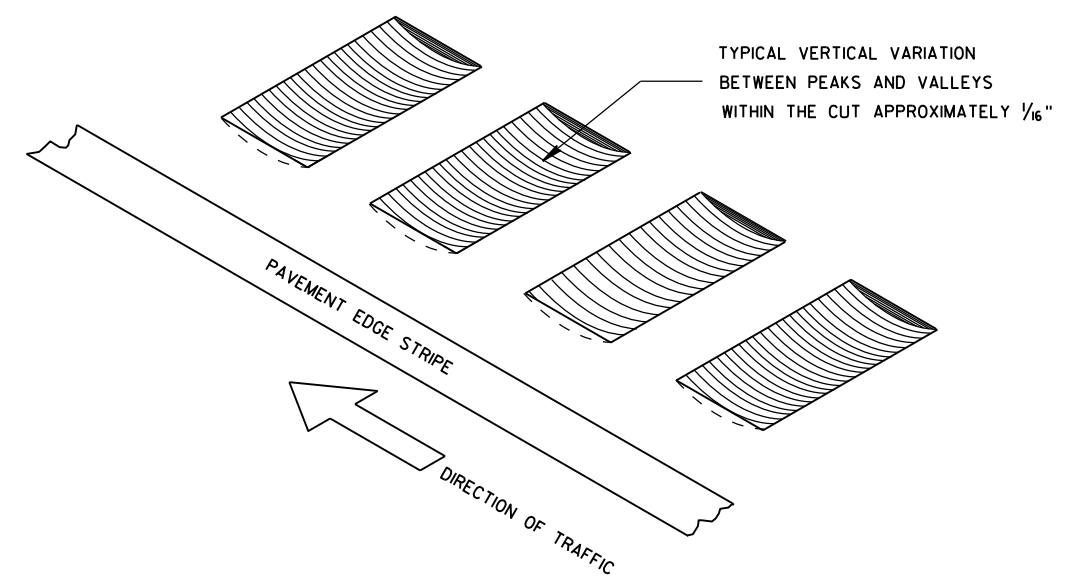
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

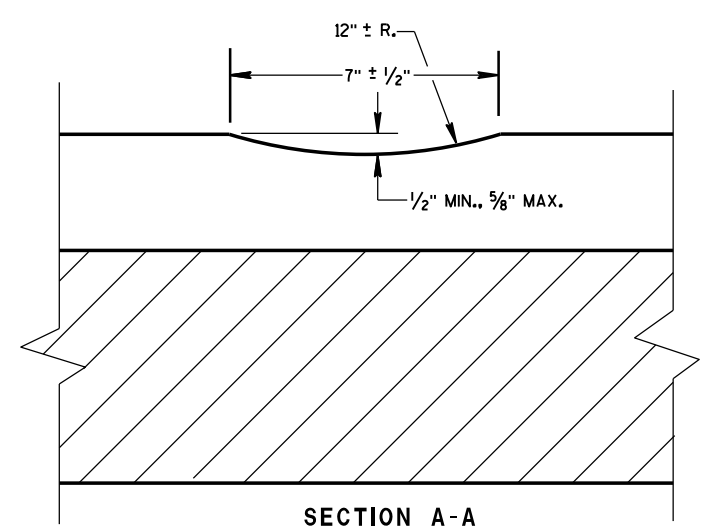
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

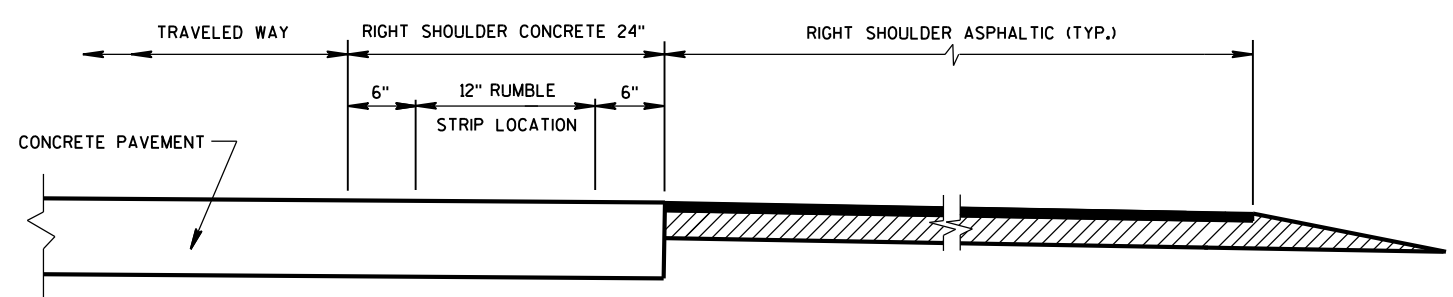
① CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



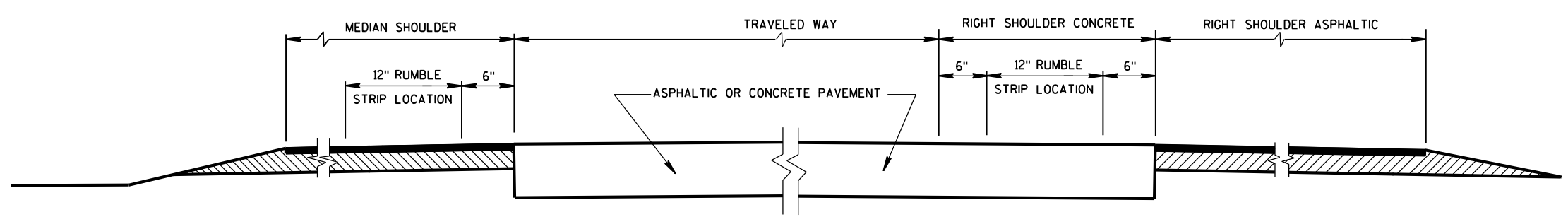
ISOMETRIC



SECTION A-A



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW
TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS
IN RURAL DIVIDED HIGHWAYS
(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIP,
MILLING

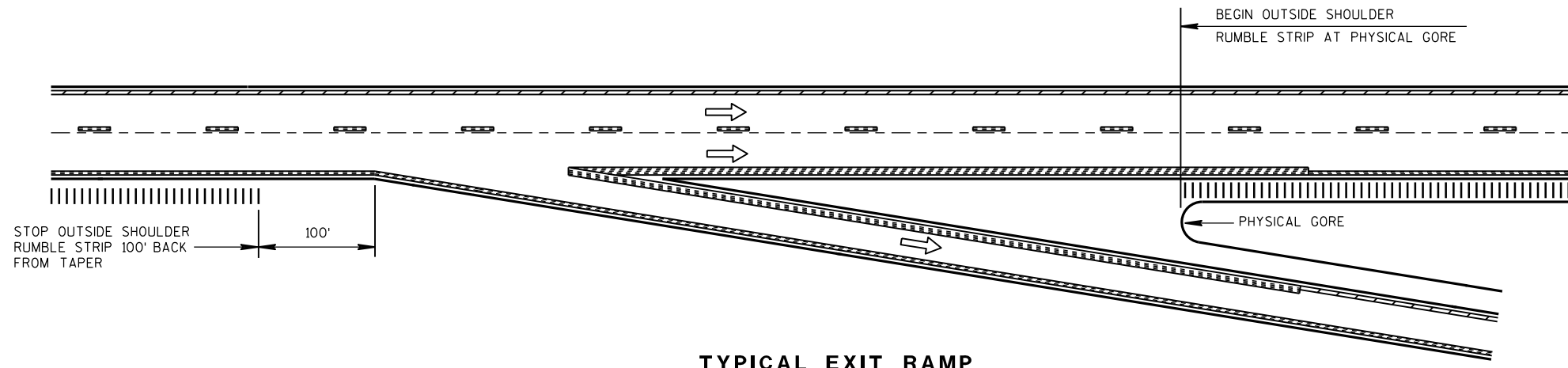
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

S.D.D. 13 A 5-5a

S.D.D. 13 A 5-5a

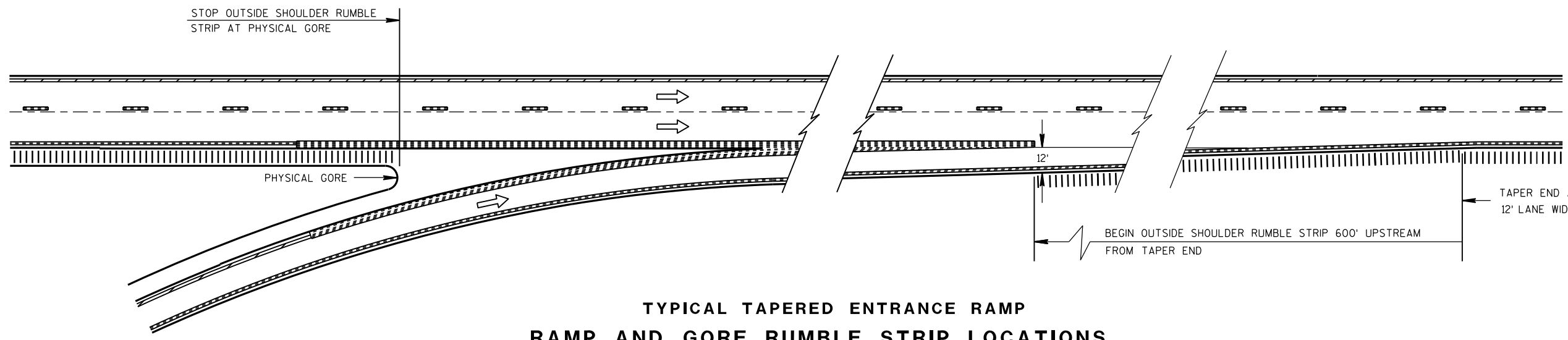


TYPICAL EXIT RAMP

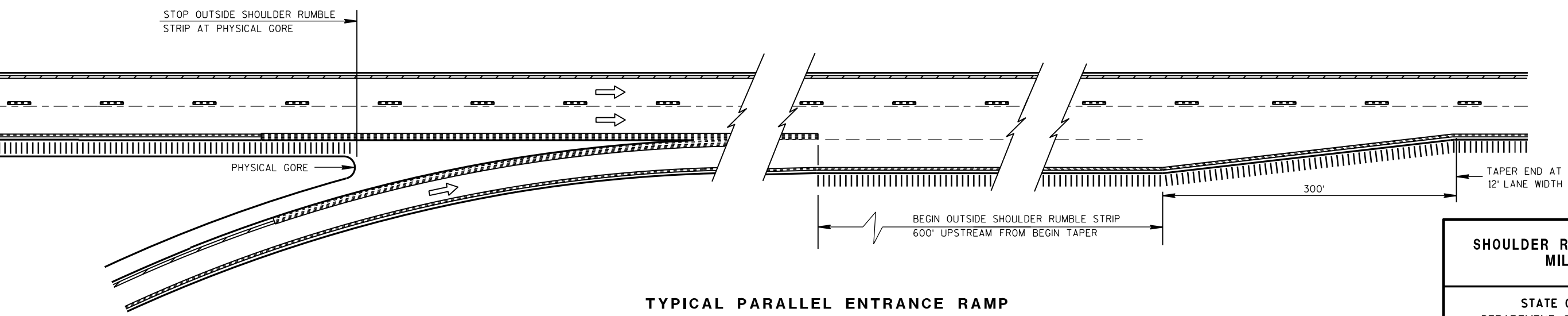
NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMP, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.
 PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
 ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP
 RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP
 RAMP AND GORE RUMBLE STRIP LOCATIONS

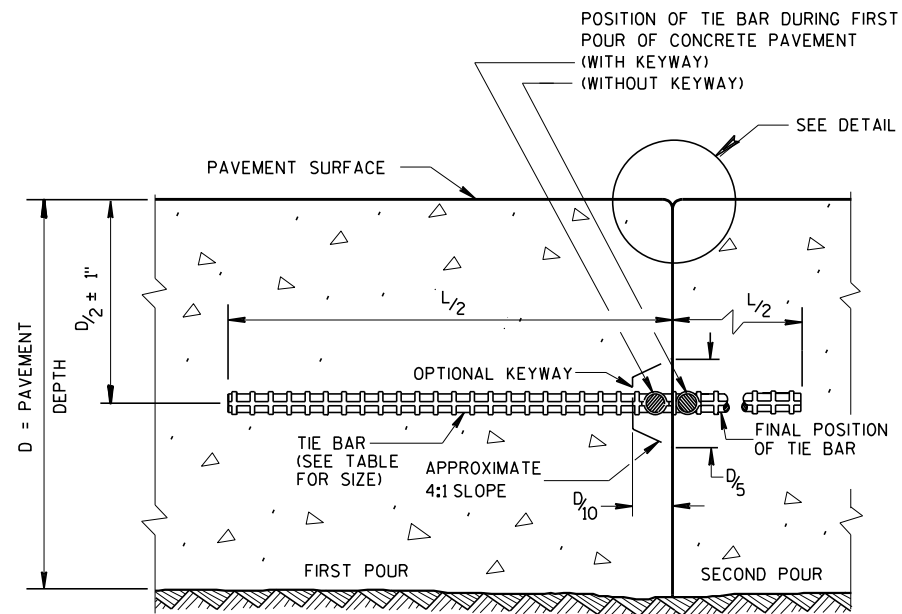
6

6

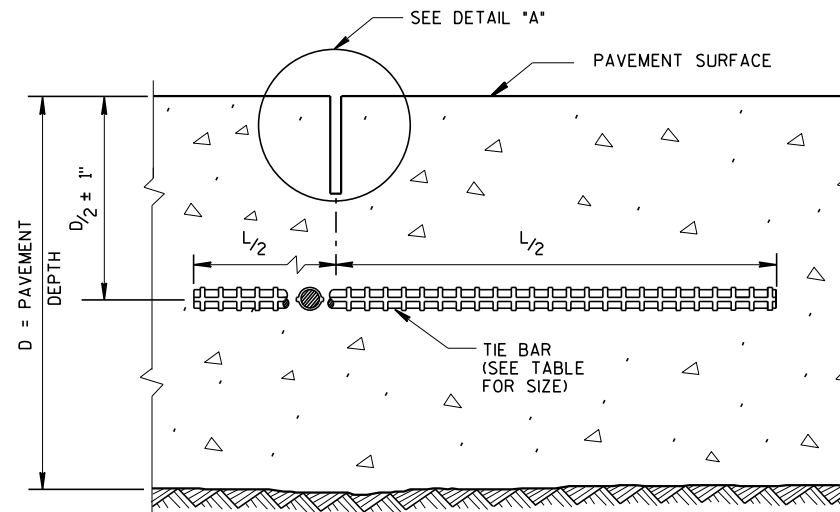
S.D.D. 13 A 5-5b

S.D.D. 13 A 5-5b

SHOULDER RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 12/17/2012	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



CONSTRUCTION JOINT



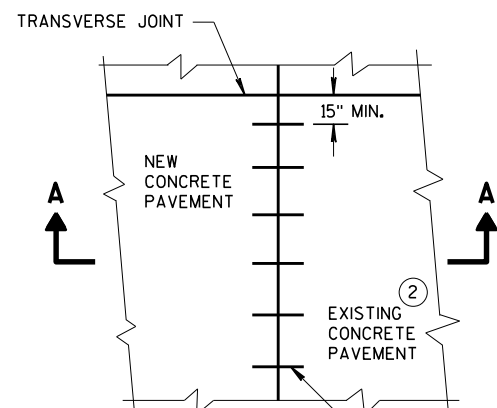
SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

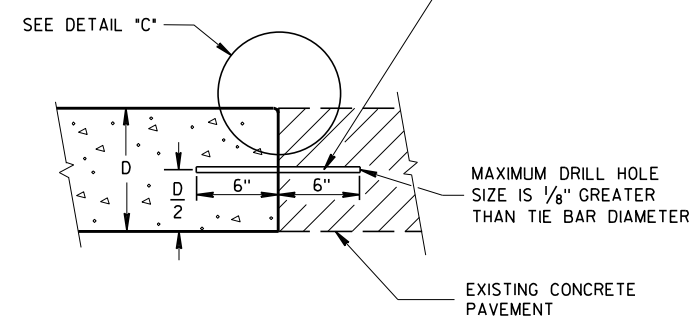
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

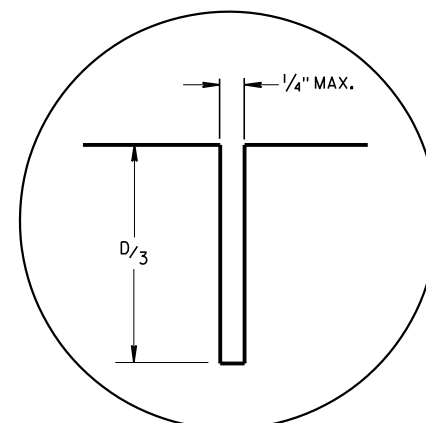


PLAN VIEW

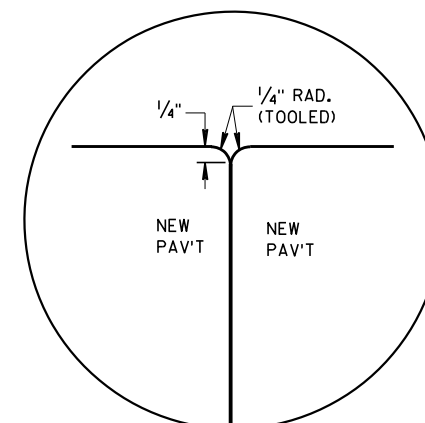
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



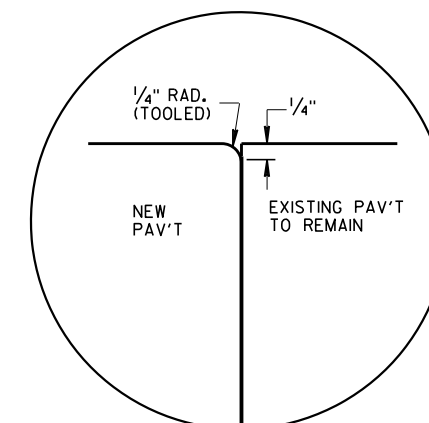
**SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT**



DETAIL "A"



DETAIL "B"



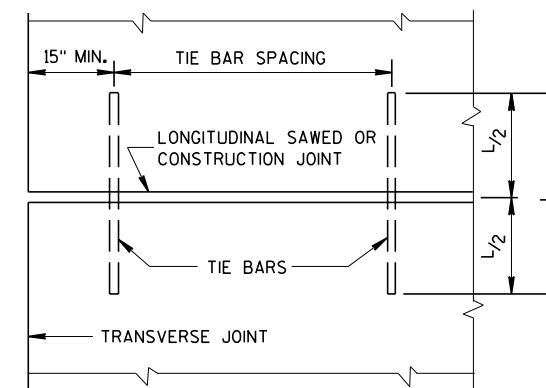
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



**PLAN VIEW
SHOWING LOCATION OF TIE BARS**

**CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA

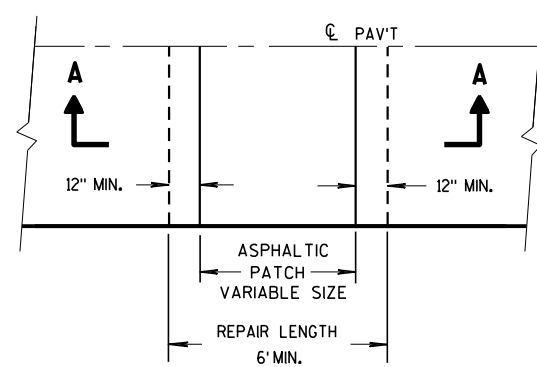
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

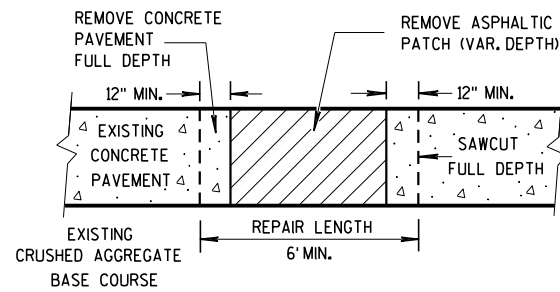
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

① DOWEL BARS MIGHT NOT EXIST.

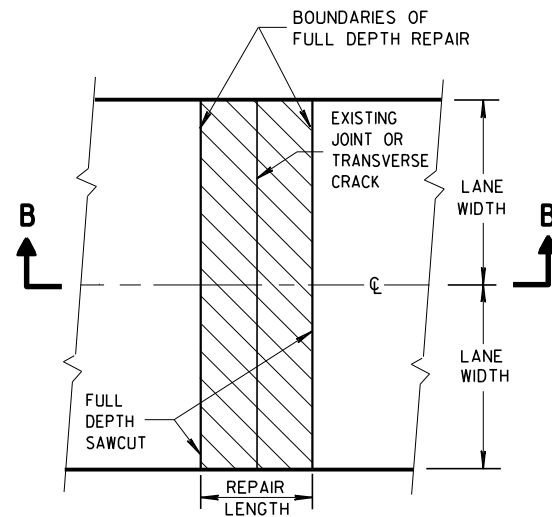


PLAN VIEW

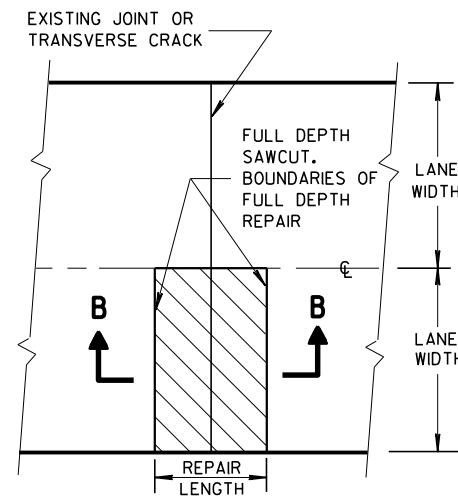


SECTION A-A

HMA PATCH REMOVAL

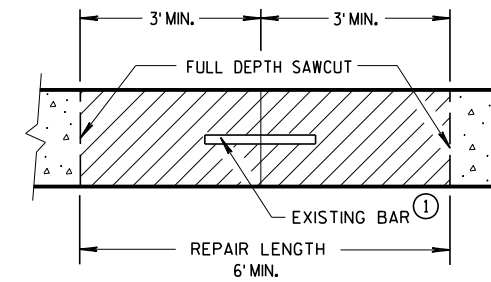


**PLAN VIEW
(DOUBLE LANE REPAIR)**



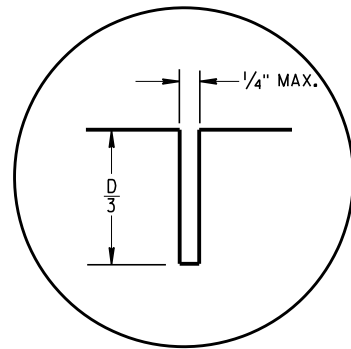
**PLAN VIEW
(SINGLE LANE REPAIR)**

FULL DEPTH CONCRETE PAVEMENT REMOVAL

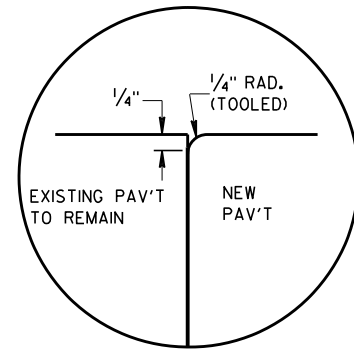


**SECTION B-B
CONCRETE REMOVAL**

<p>CONCRETE PAVEMENT REPAIR AND REPLACEMENT</p>
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>

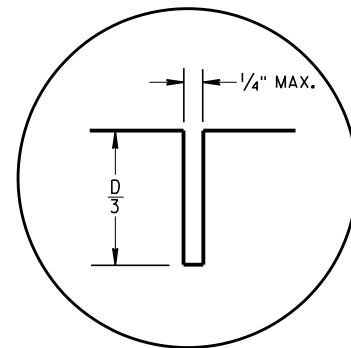


C1

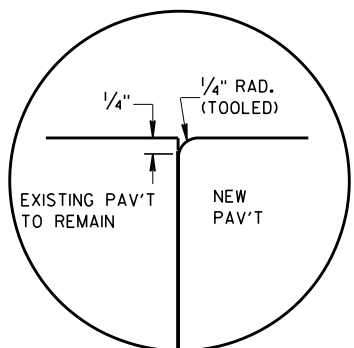


C2

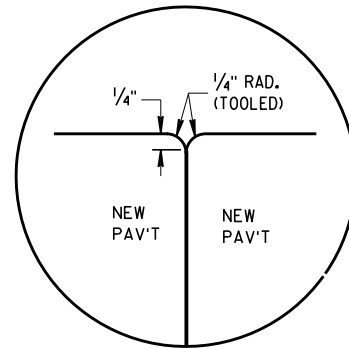
TRANSVERSE JOINTS



L1



L2



L3

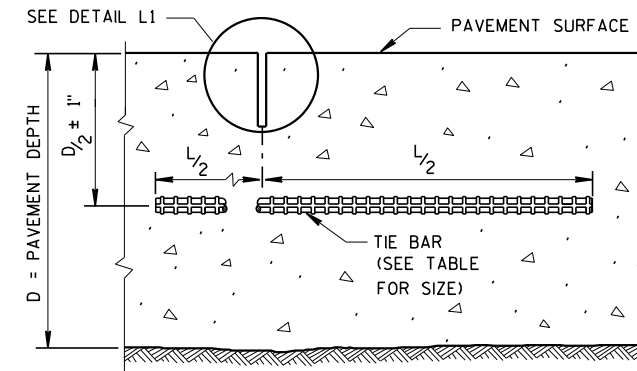
LONGITUDINAL JOINTS

TIE BAR TABLE

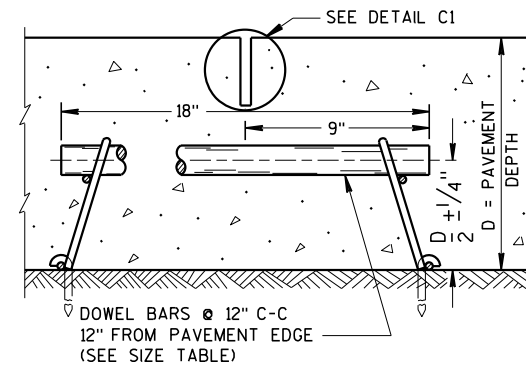
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



**SECTION C-C
SAWED LONGITUDINAL JOINT**



**SECTION F-F
CONTRACTION JOINT**

GENERAL NOTES

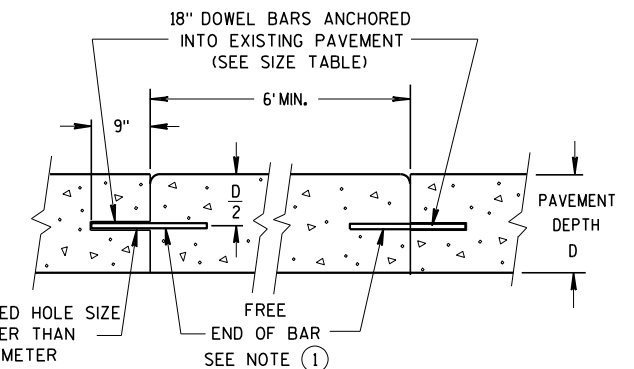
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

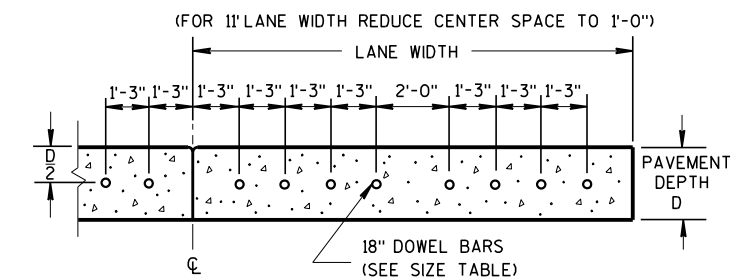
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

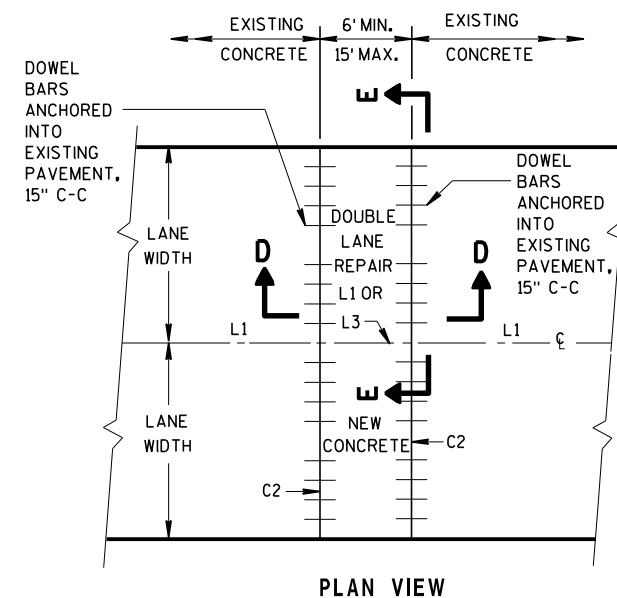
- ① APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION D-D

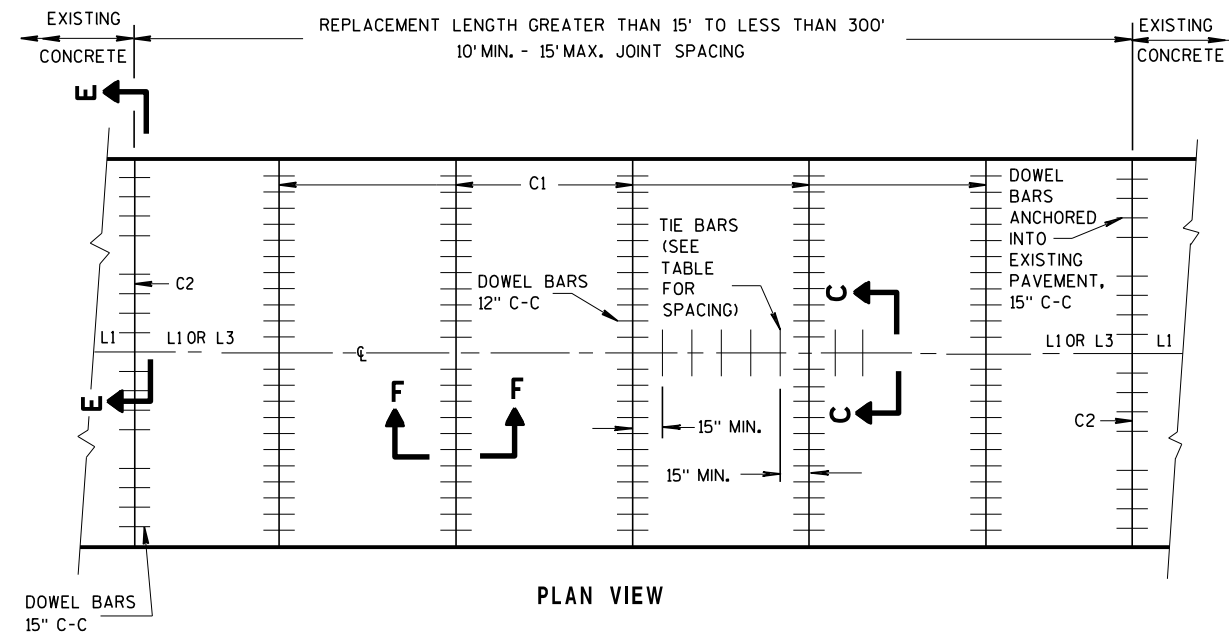


**SECTION E-E
DRILLED DOWEL BAR CONSTRUCTION JOINT**



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

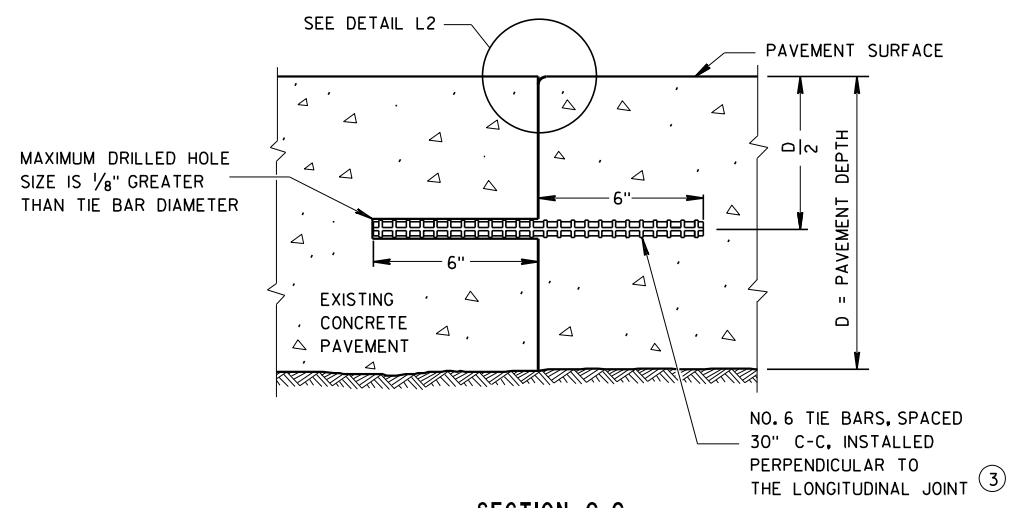
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	NONE	12'
7", 7 1/2"	1"	1"	14'
8", 8 1/2"	1 1/4"	1 1/4"	15'
9", 9 1/2"	1 1/4"	1 1/4"	15'
10" & ABOVE	1 1/2"	1 1/4"	15'

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

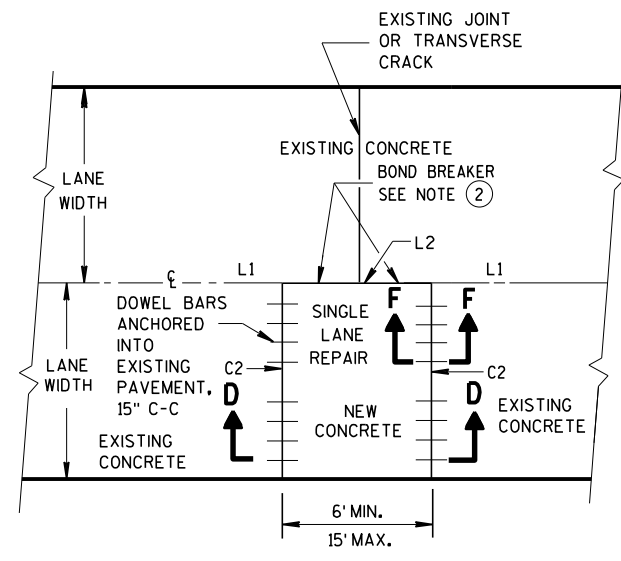
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

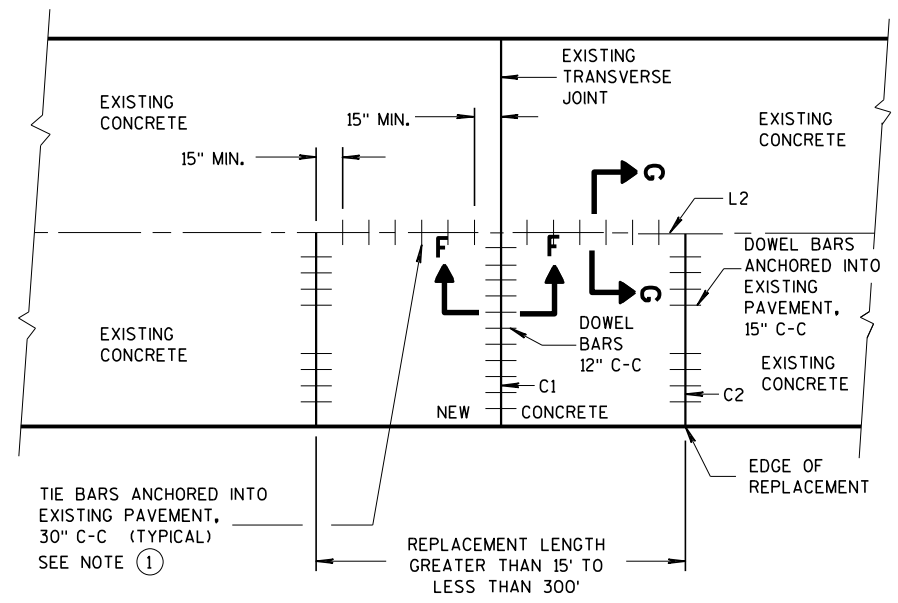
- ① WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
- ② USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.
- ③ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



SECTION G-G
**TIE BARS ANCHORED
 INTO EXISTING PAVEMENT**

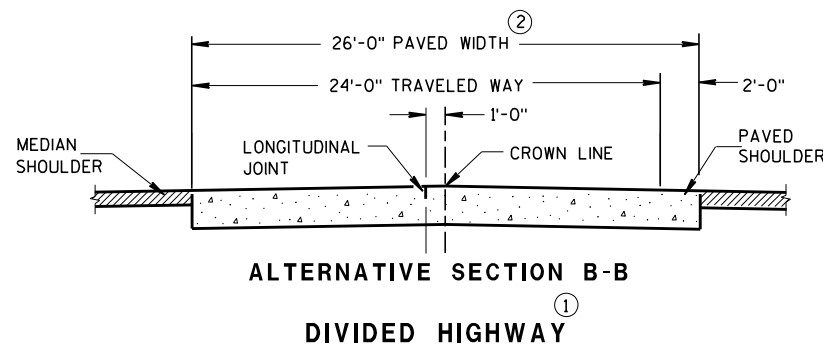
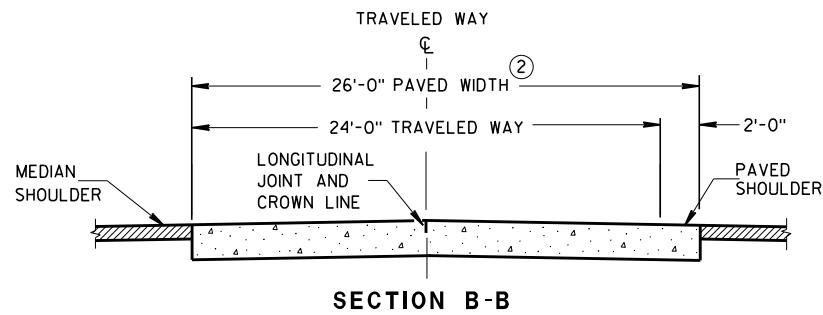
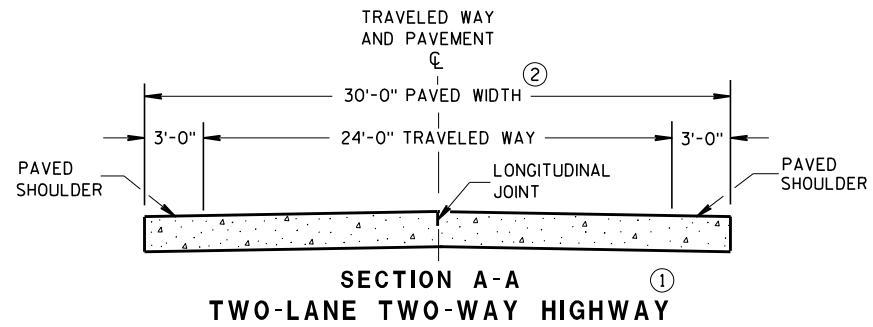


PLAN VIEW
**SINGLE LANE
 CONCRETE PAVEMENT REPAIR**



PLAN VIEW
**SINGLE LANE
 CONCRETE PAVEMENT REPLACEMENT**

CONCRETE PAVEMENT REPAIR AND REPLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/s/ Peter Kemp, P.E. PAVEMENT SUPERVISOR
FHWA	



GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

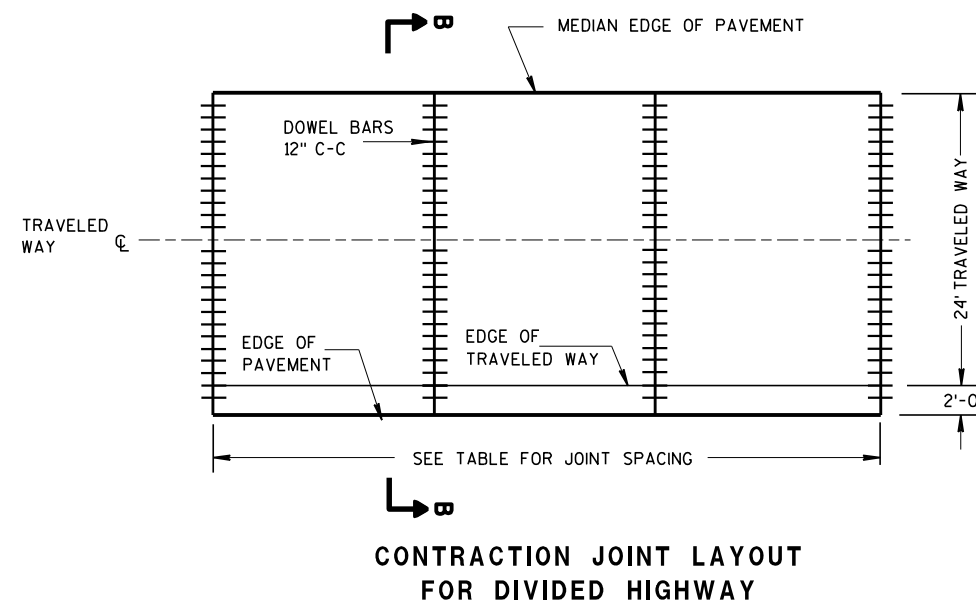
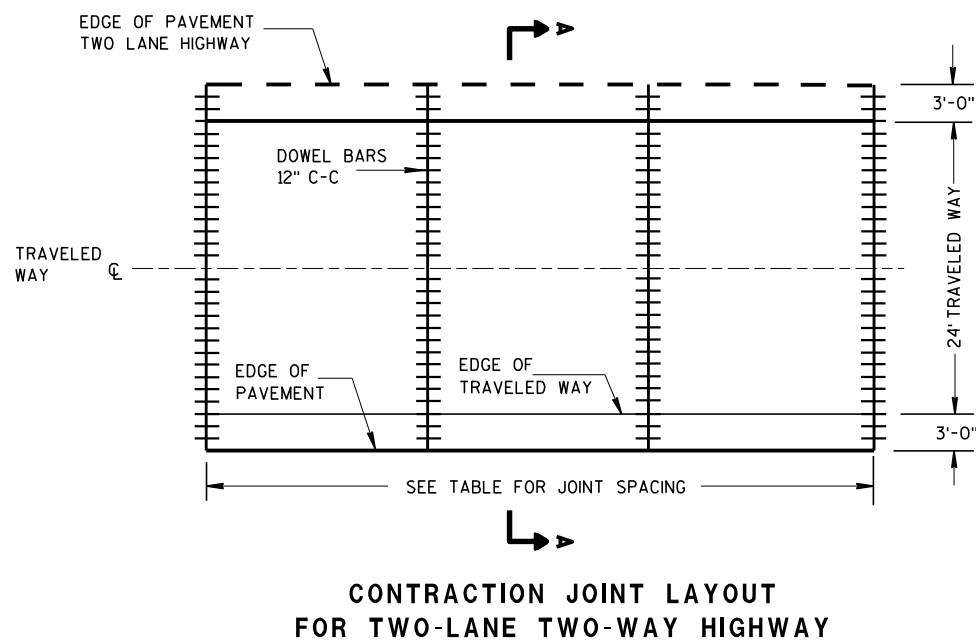
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

- ① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.
- ② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

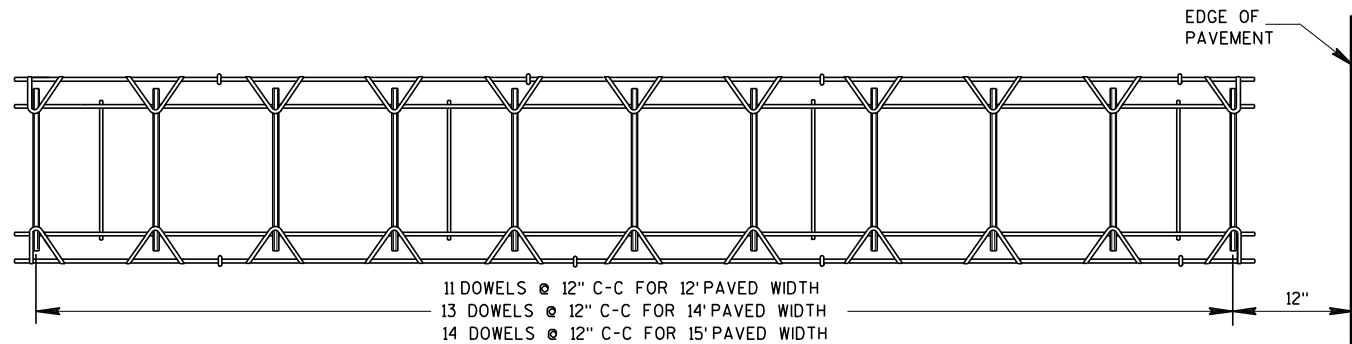
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'



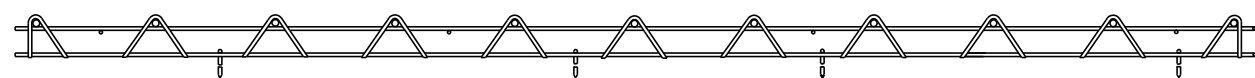
RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION



11 DOWELS @ 12" C-C FOR 12' PAVED WIDTH
 13 DOWELS @ 12" C-C FOR 14' PAVED WIDTH
 14 DOWELS @ 12" C-C FOR 15' PAVED WIDTH

PLAN VIEW

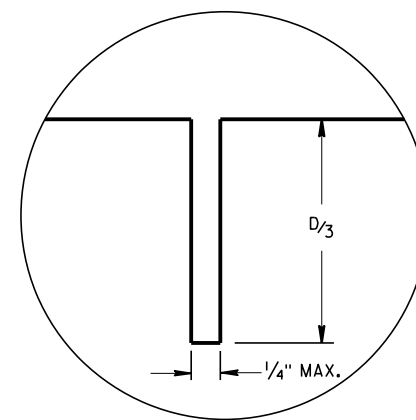


②

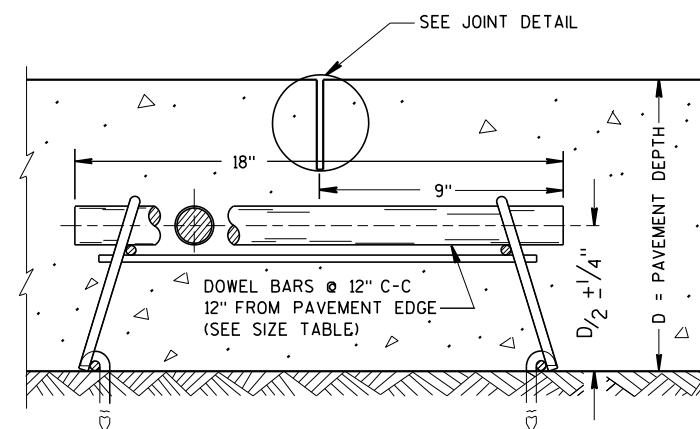
SIDE VIEW

(NORMAL TO CENTERLINE)

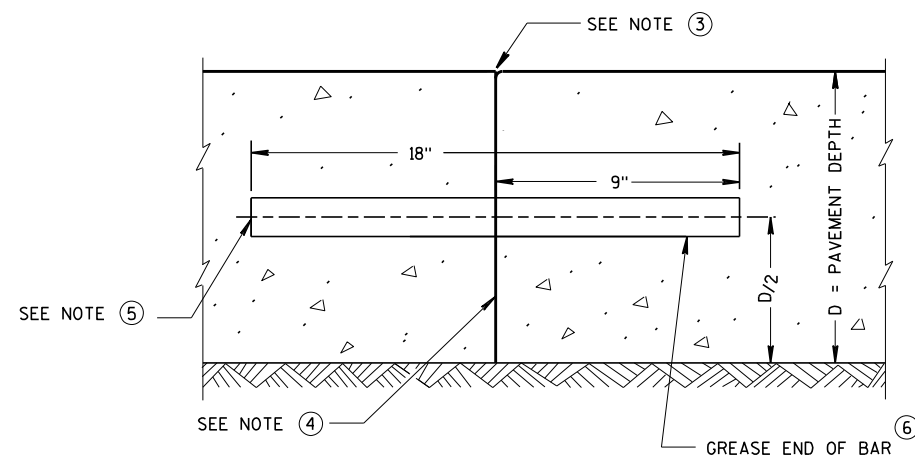
CONTRACTION JOINT DOWEL ASSEMBLY ①



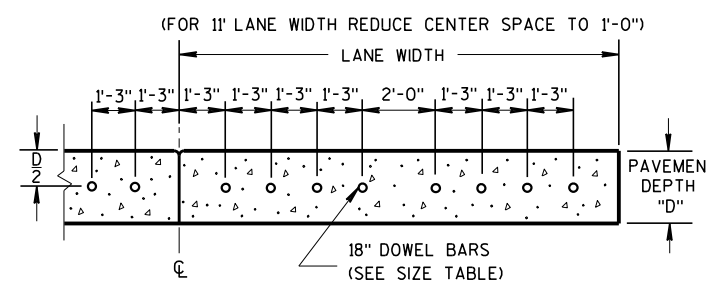
JOINT DETAIL



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT

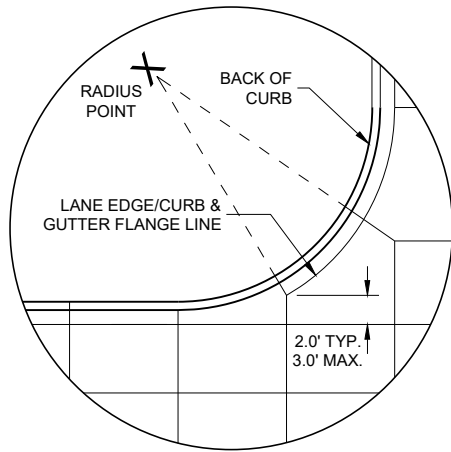


DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

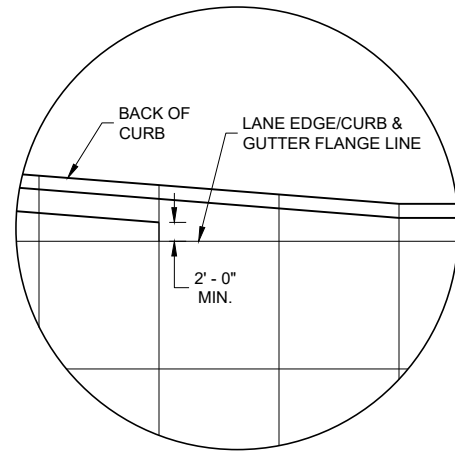
GENERAL NOTES

- ① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- ③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- ④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- ⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- ⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.

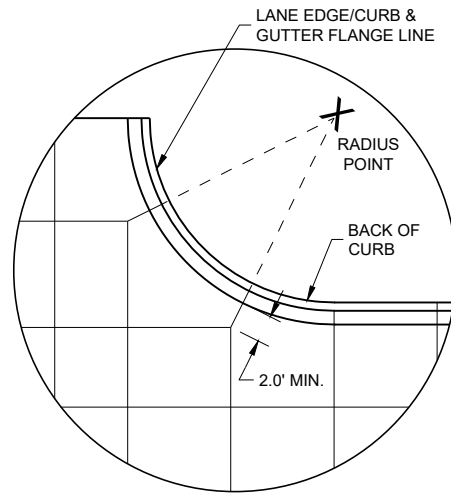
RURAL DOWELED CONCRETE PAVEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/s/ Peter Kemp, P.E. PAVEMENT SUPERVISOR
FHWA	



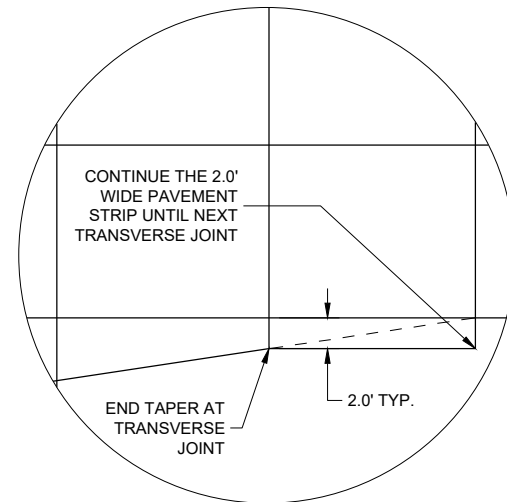
DETAIL "A"



DETAIL "B"



DETAIL "C"

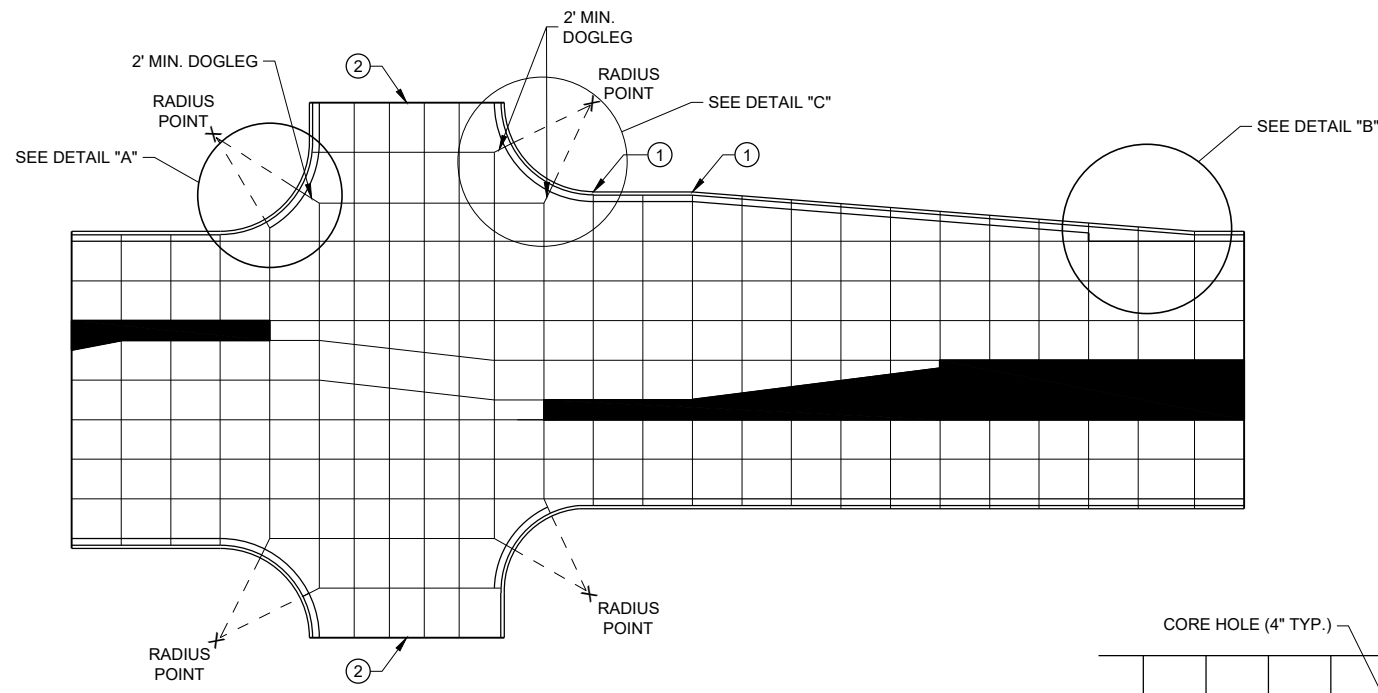


DETAIL "D"

GENERAL NOTES

- THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.
- ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.
- CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.
- ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.
- AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.
- SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.
- AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.
- CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

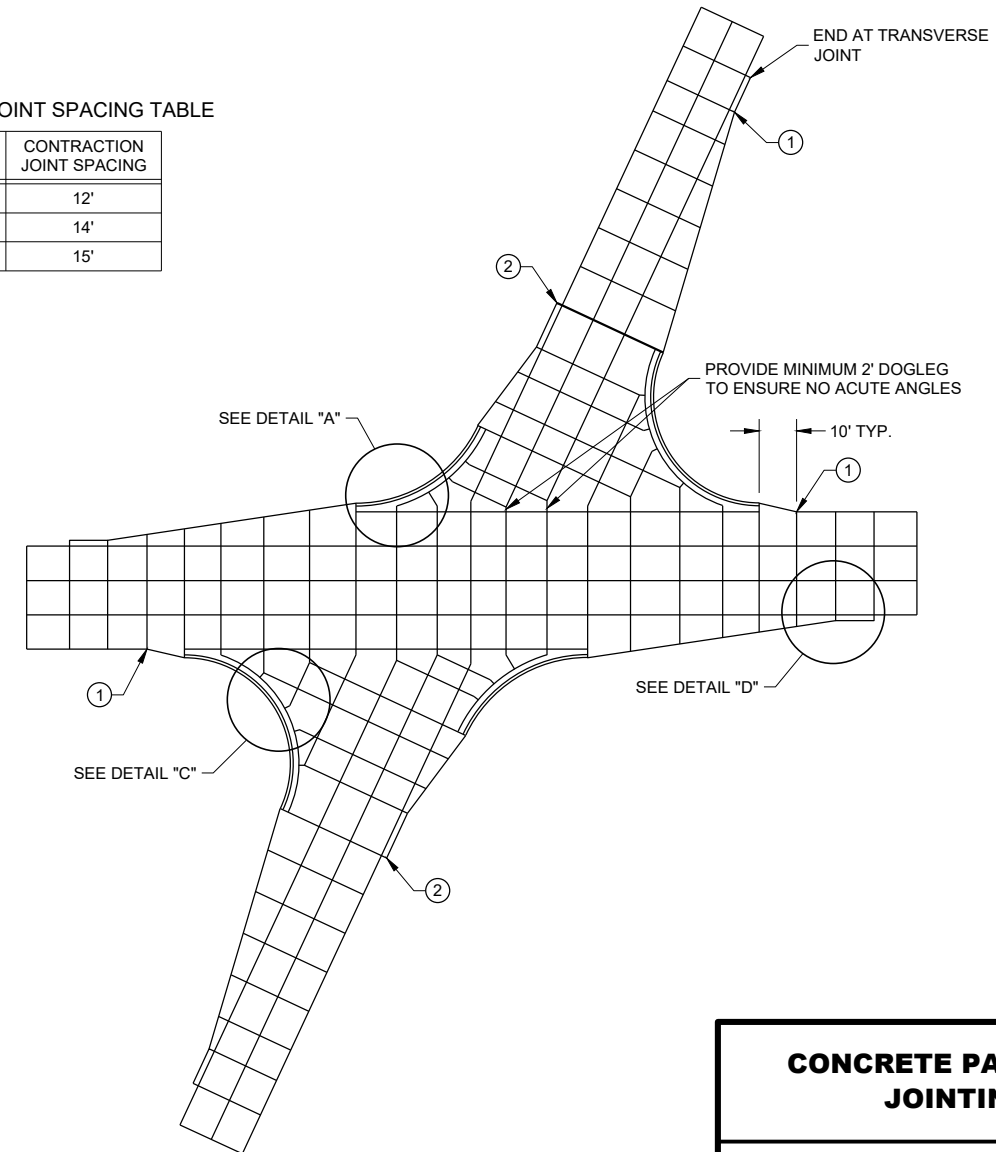
- ① PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
- ② CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
- ③ THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



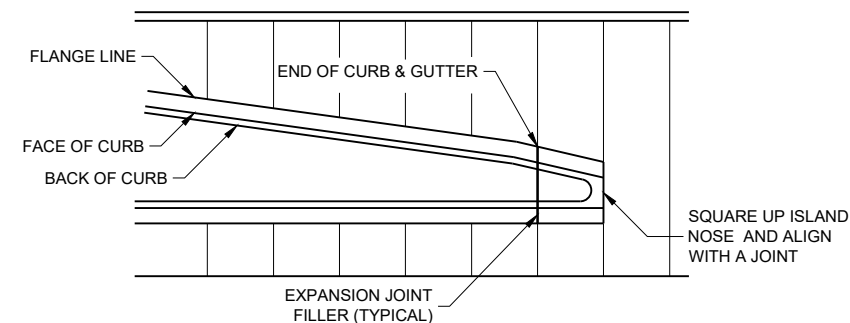
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

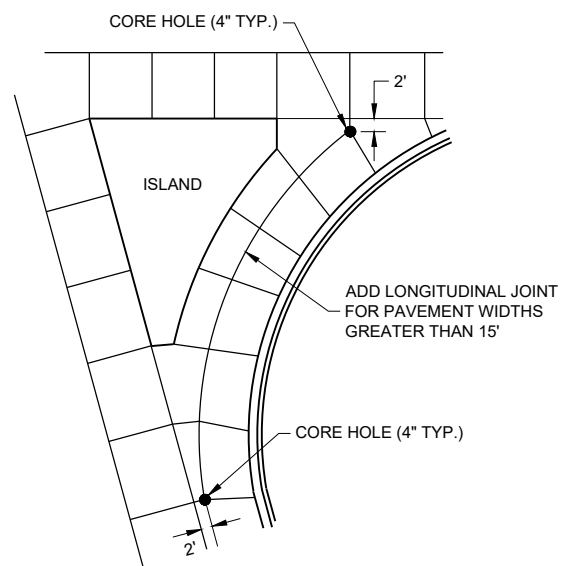
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

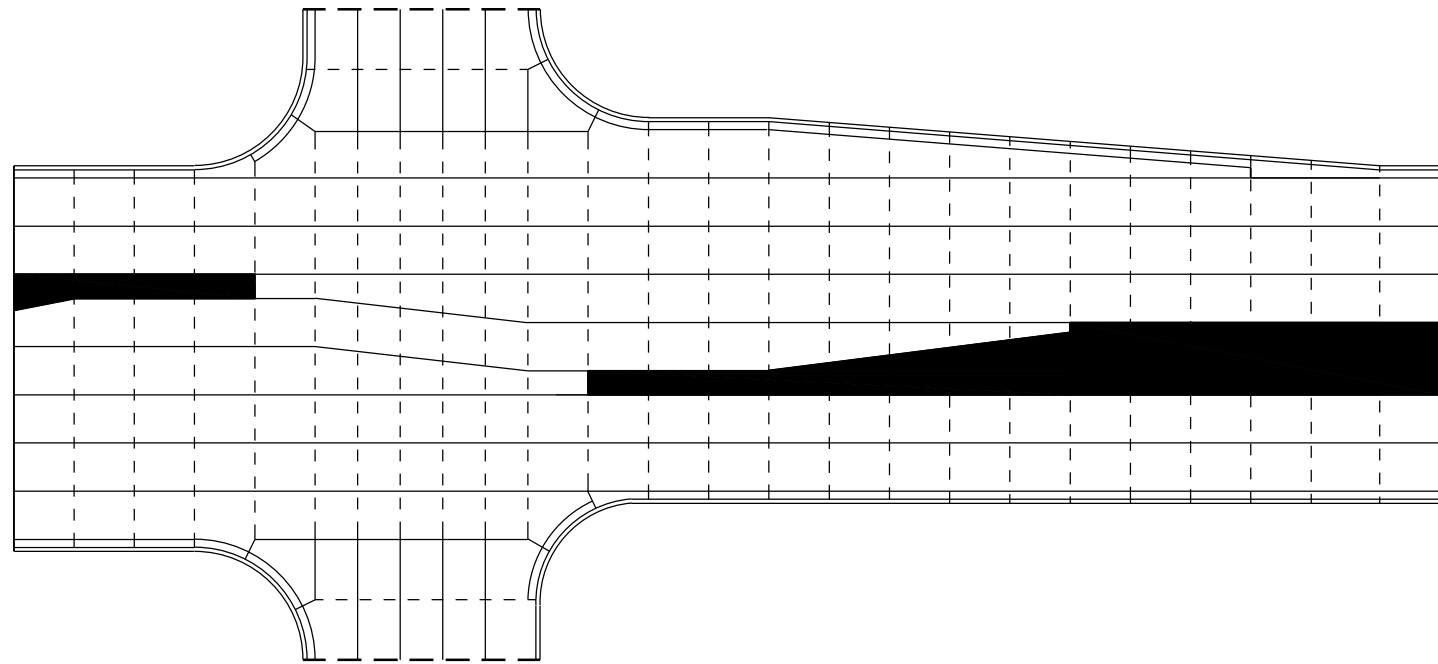
LEGEND

- - - - - POTENTIAL DOWELED EXPANSION JOINT
- - - - - DOWELED JOINT
- TIED JOINT

GENERAL NOTES

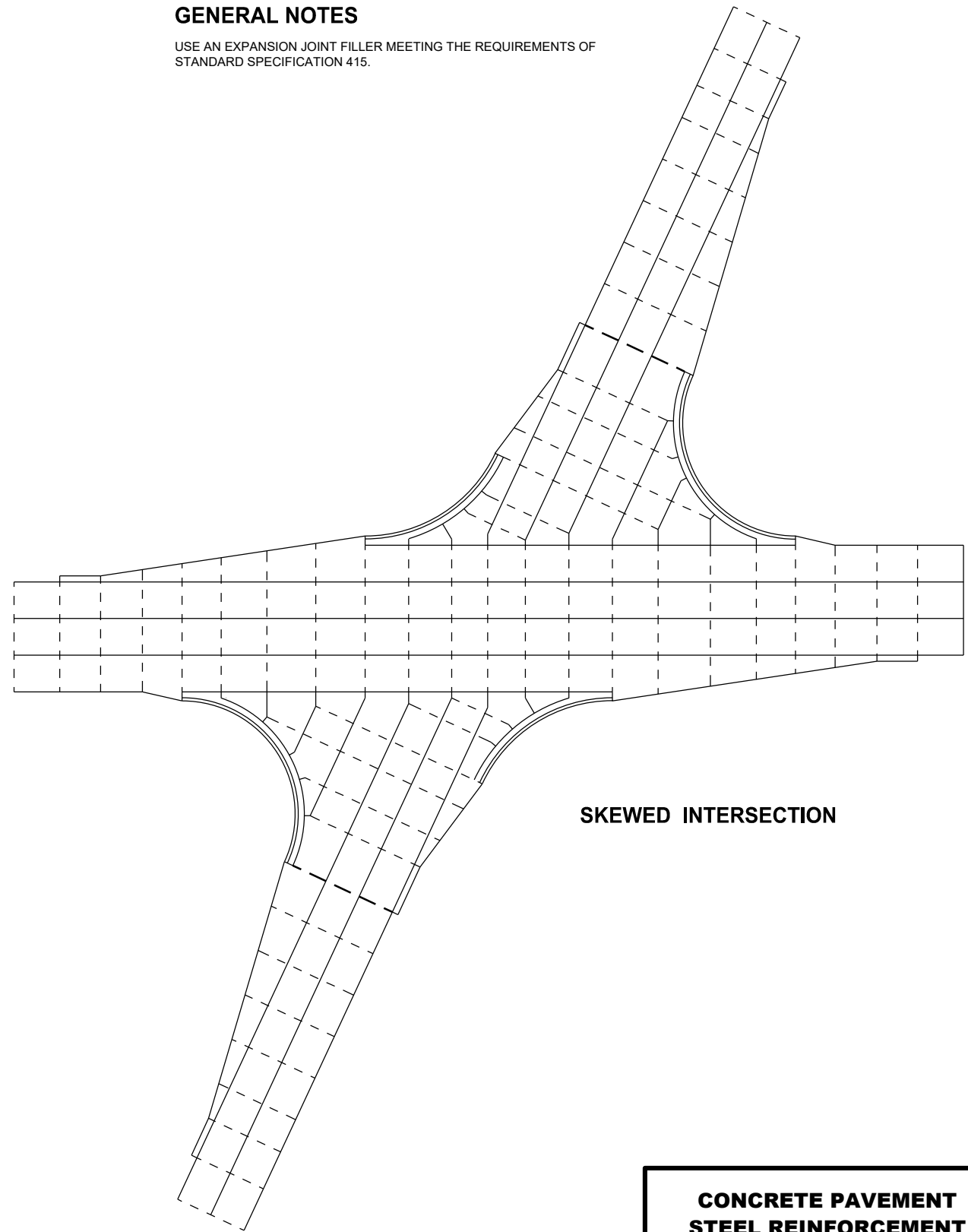
USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.

6



STANDARD INTERSECTION

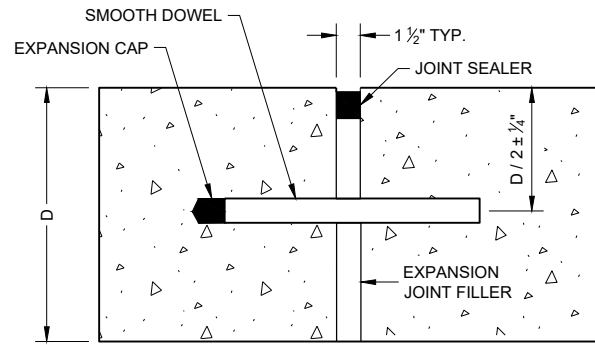
6



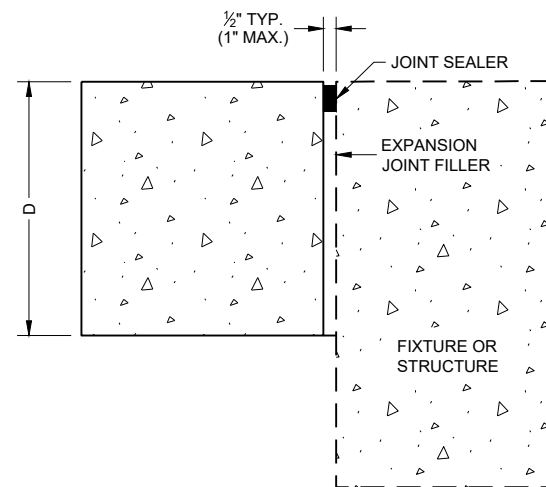
SKewed INTERSECTION

**CONCRETE PAVEMENT
STEEL REINFORCEMENT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DOWELED TRANSVERSE ①



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

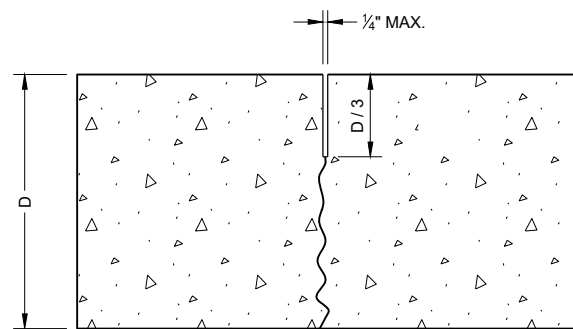
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

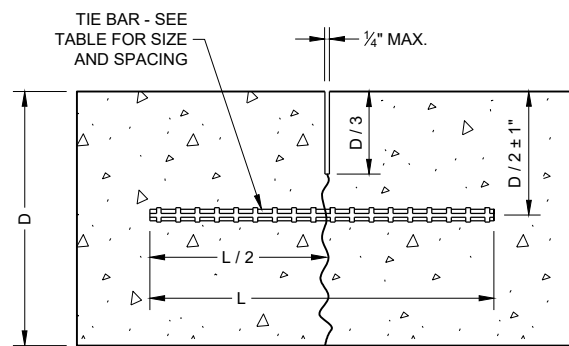
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

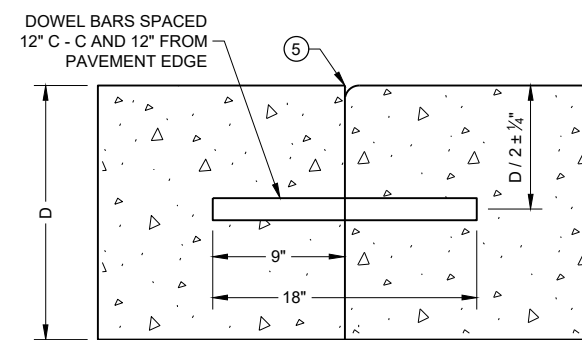
- ① USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
- ② SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
- ③ LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
- ④ CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
- ⑤ IF JOINT IS FORMED, PROVIDE A 1/4" RADIUS.
- ⑥ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



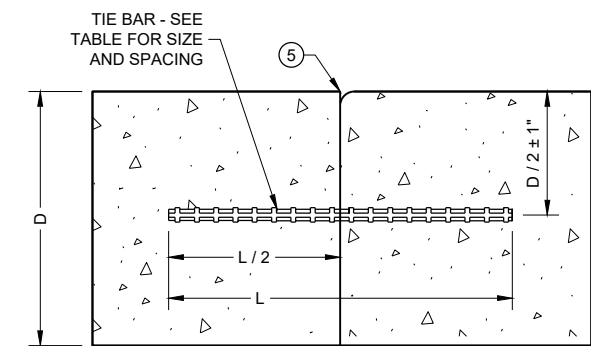
UNDOWELED TRANSVERSE



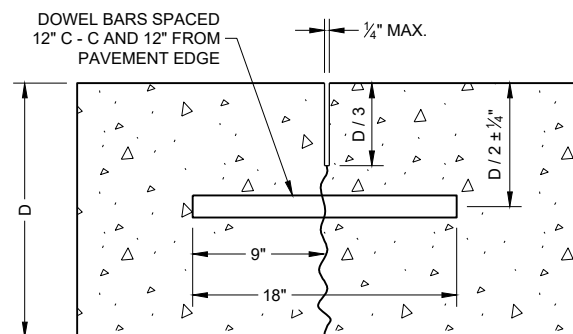
TIED LONGITUDINAL



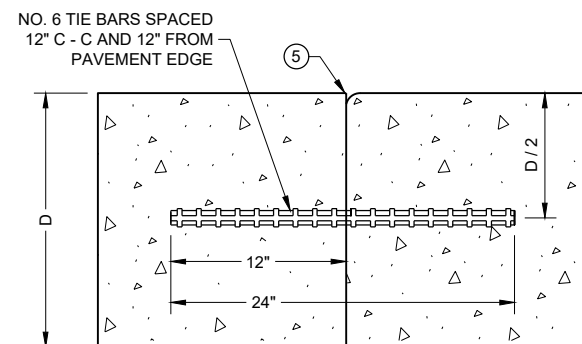
DOWELED TRANSVERSE ③



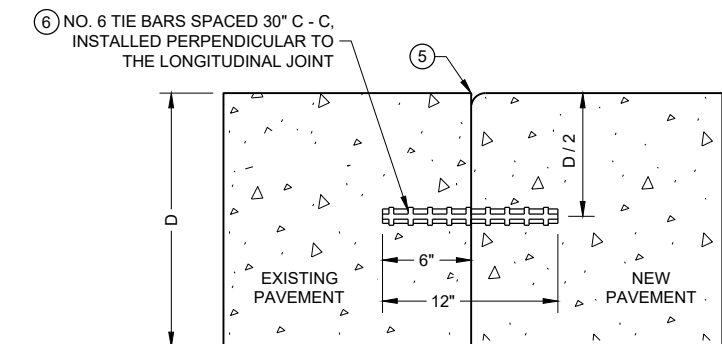
TIED LONGITUDINAL



DOWELED TRANSVERSE



TIED TRANSVERSE ③
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



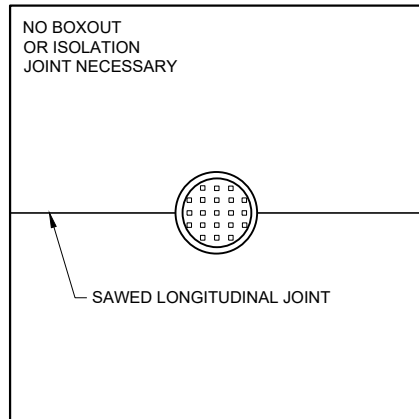
TIED LONGITUDINAL TO EXISTING

CONTRACTION JOINTS ②

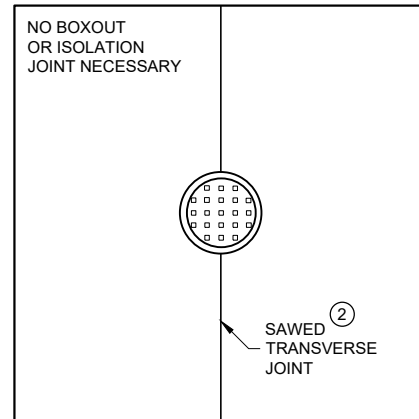
CONSTRUCTION JOINTS ④

CONCRETE PAVEMENT JOINT TYPES

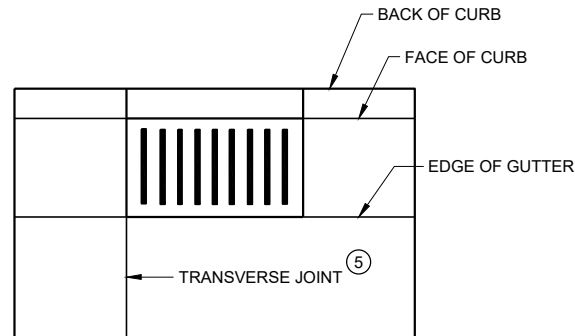
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MANHOLE WITH LONGITUDINAL JOINT



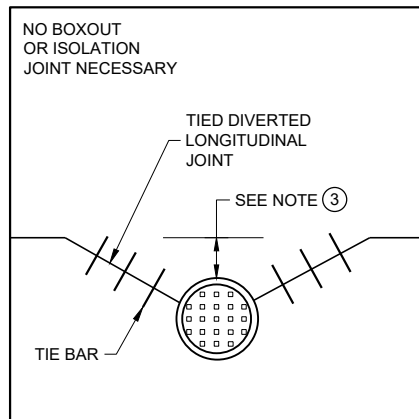
MANHOLE WITH TRANSVERSE JOINT



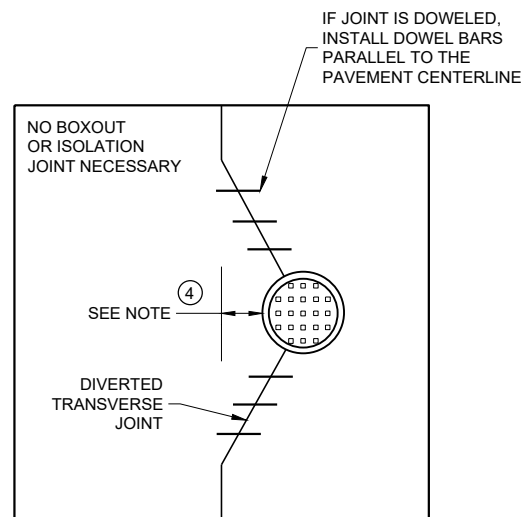
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

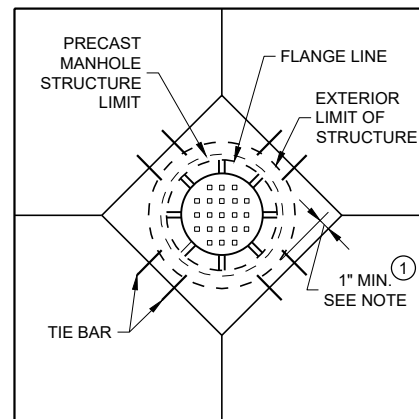
- ① USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- ② ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- ③ IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- ④ IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- ⑤ ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

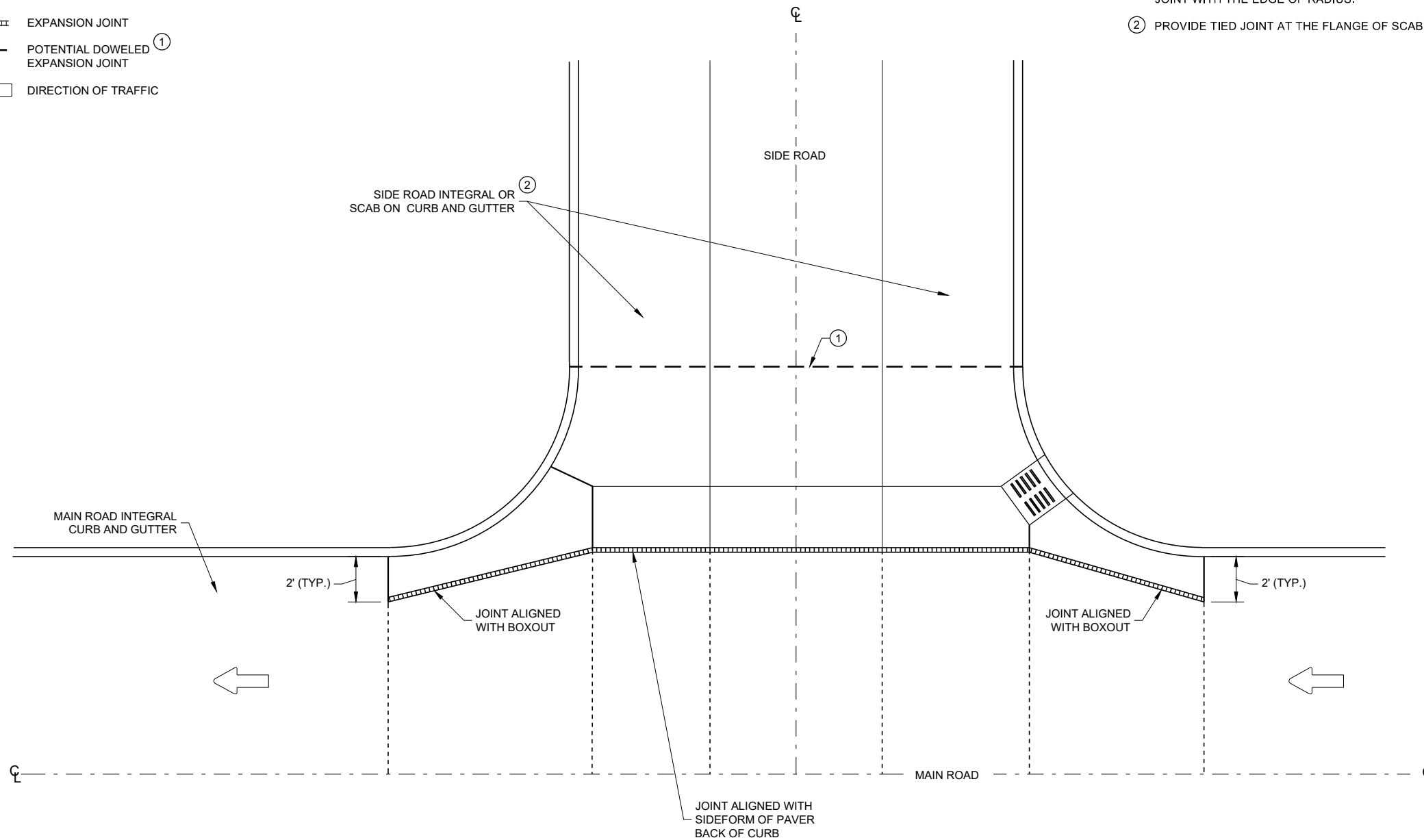
APPROVED
 November 2018 /S/ Peter Kemp P.E.
 DATE PAVEMENT SUPERVISOR
 FHWA

LEGEND

- DOWELED JOINT
- TIED JOINT
- ▨▨▨▨ EXPANSION JOINT
- — — — POTENTIAL DOWELED ^① EXPANSION JOINT
- ← DIRECTION OF TRAFFIC

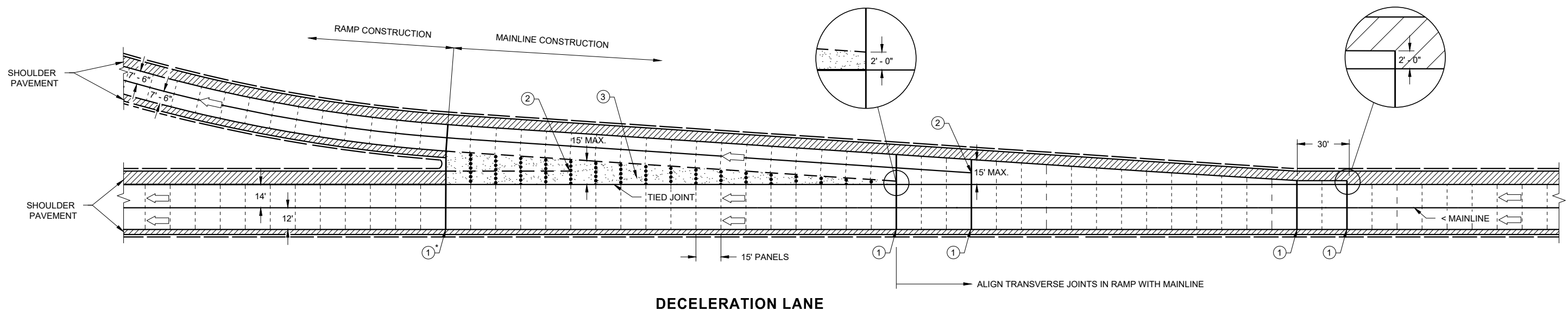
GENERAL NOTES

- ① CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.
- ② PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

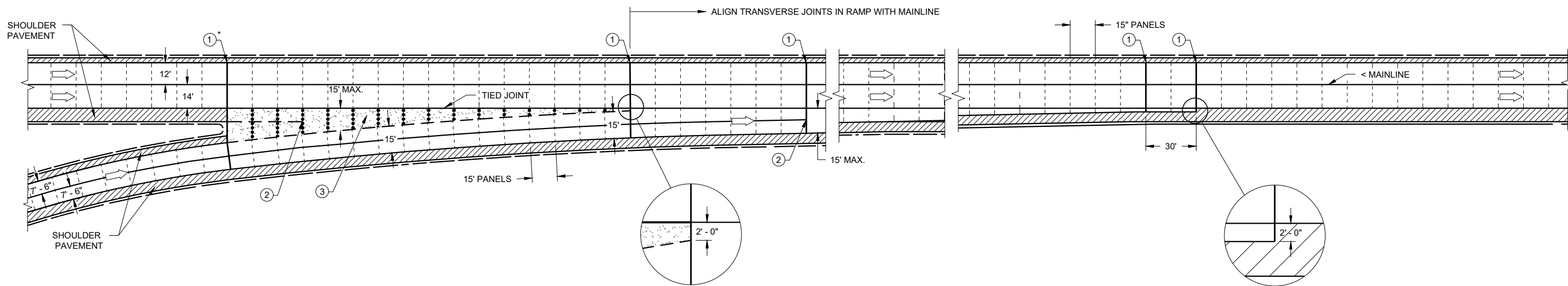


INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2018 DATE	/S/ Peter Kemp P.E. ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



DECELERATION LANE



ACCELERATION LANE

GENERAL NOTES

PAVEMENT AND BASE THICKNESS, PANEL LENGTHS, JOINTS AND REINFORCEMENT FOR THE DECELERATION AND ACCELERATION LANES, INCLUDING TAPERS, SHALL BE THE SAME AS THE MAINLINE, EXCEPT WHERE OTHERWISE NOTED.

ALL REINFORCEMENT BARS SHALL BE EPOXY COATED CONFORMING TO SUBSECTION 505.2.6 OF THE STANDARD SPECIFICATIONS.

LANE AND SHOULDER WIDTHS MAY VARY FROM SHOWN. SEE CONSTRUCTION PLANS FOR ACTUAL PROPOSED WIDTHS.

- ① CRITICAL TRANSVERSE JOINT LOCATIONS AT PAVEMENT WIDTH CHANGES.
(①* IS NOT A CRITICAL TRANSVERSE JOINT WHEN ASPHALTIC GORE IS INSTALLED).
- ② STOP LONGITUDINAL JOINT WITH CORE HOLE (2" TYP.) WHEN IT MEETS THE FIRST TRANSVERSE JOINT LESS THAN 15' WIDE OR STOP LONGITUDINAL JOINT WHEN IT MEETS 2' AWAY FROM THE TIED JOINT OF THE MAINLINE.
- ③ DISREGARD THE JOINT DETAILS IN AND AROUND THE GORE WHEN ASPHALTIC GORE IS INSTALLED.

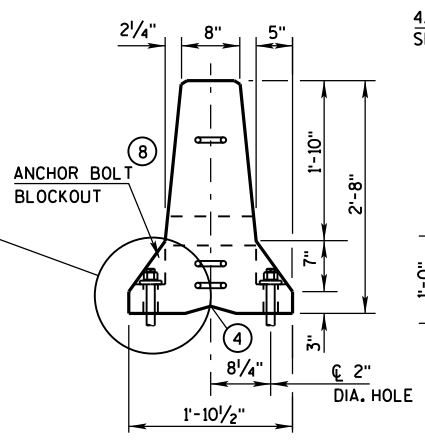
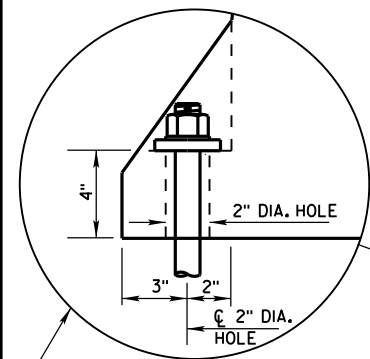
LEGEND

- DOWELED JOINT
- UNDOWELED JOINT
- TIED JOINT
- - - - - UNTIED JOINT
- ▨ GORE
- ⇨ DIRECTION OF TRAVEL

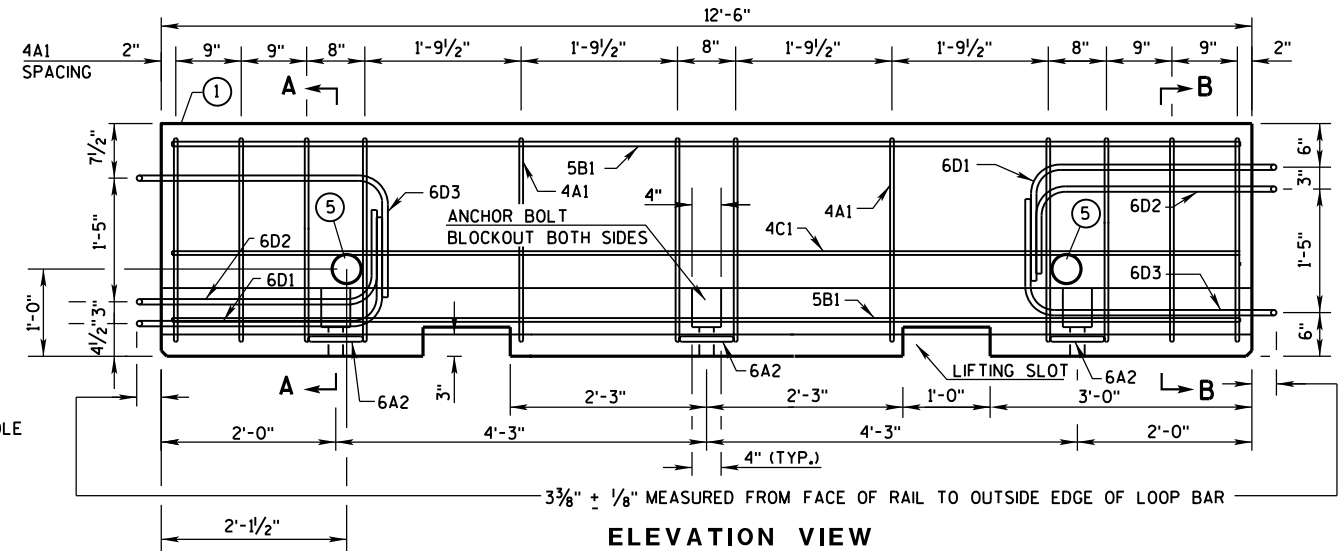
**CONCRETE PAVEMENT JOINTING
ACCELERATION/
DECELERATION LANE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

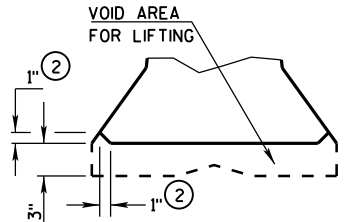
APPROVED
November 2018 /S/ Peter Kemp P.E.
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER



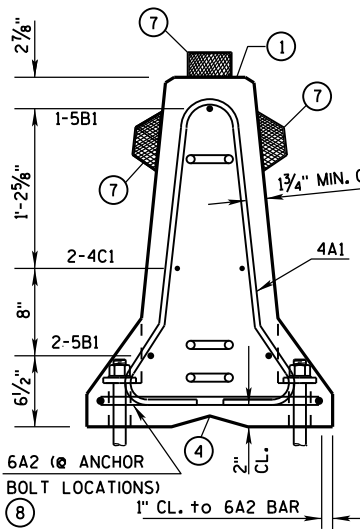
END VIEW



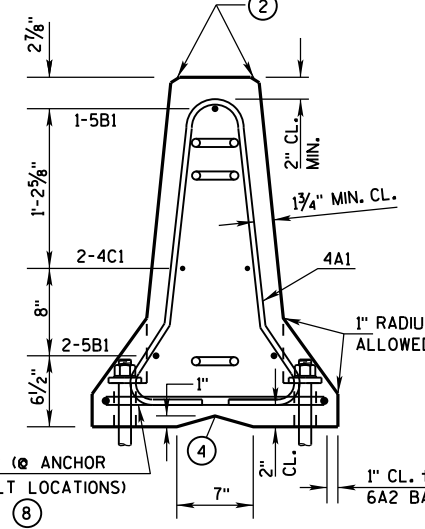
ELEVATION VIEW



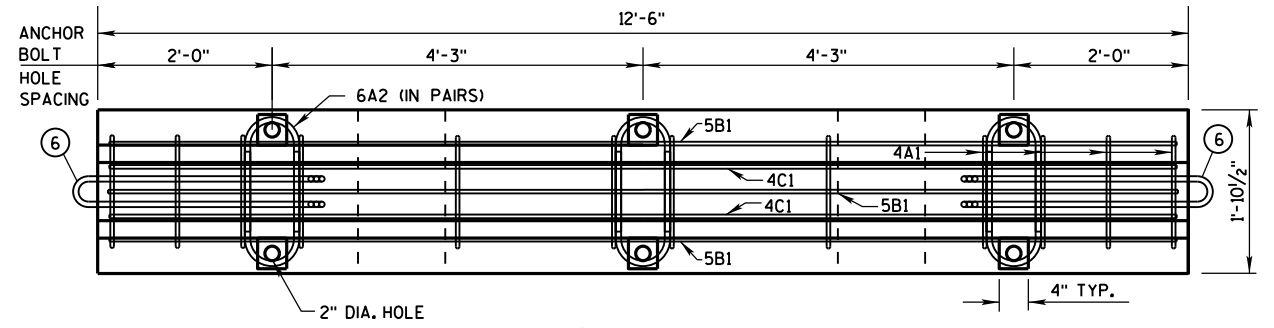
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)



PLAN VIEW

DETAILS OF BARRIER SECTION

GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(d) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE 3/4" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-1/2" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN 1/8" OF THE PLAN DIMENSION.

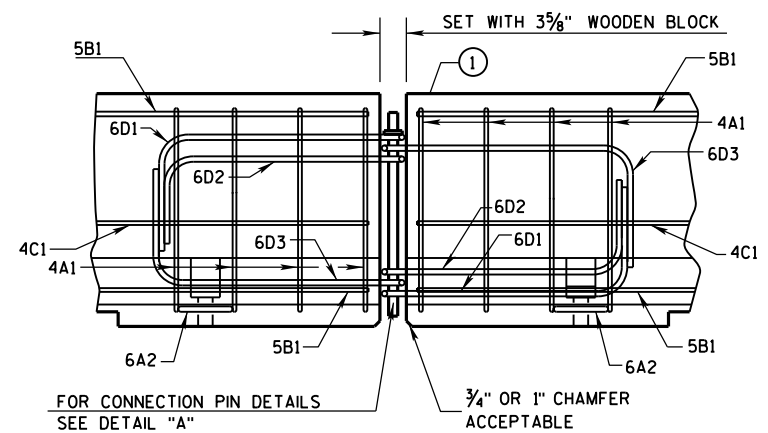
CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

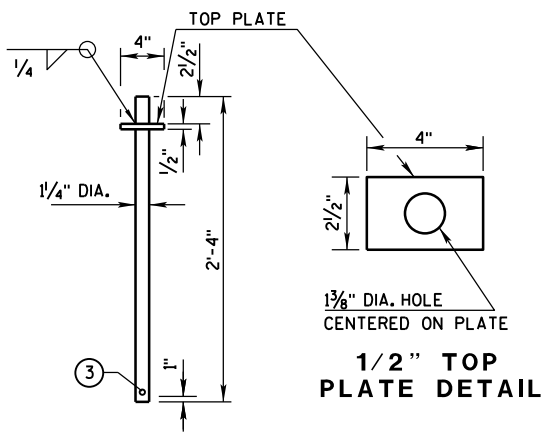
INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE: WICBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ A 3/8" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..
- ④ "V" NOTCH IS OPTIONAL.
- ⑤ THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).
- ⑥ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.
- ⑦ USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURER'S INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.
- ⑧ SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.
- ⑨ 1" CHAMFER OPTIONAL.

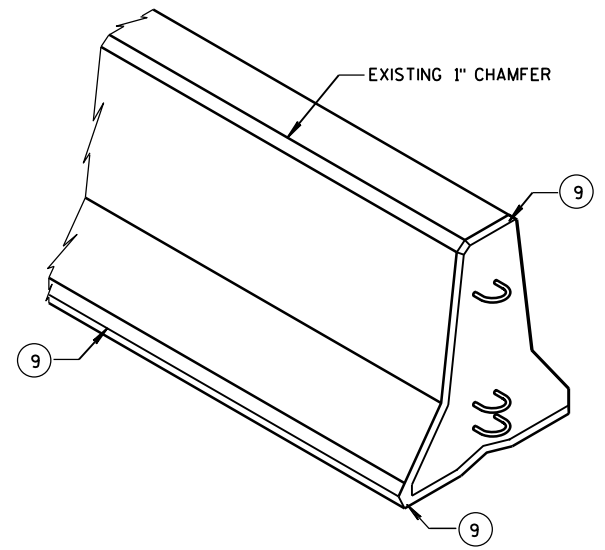
f'c = 4,000 psi



DETAILS OF BARRIER CONNECTION



DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

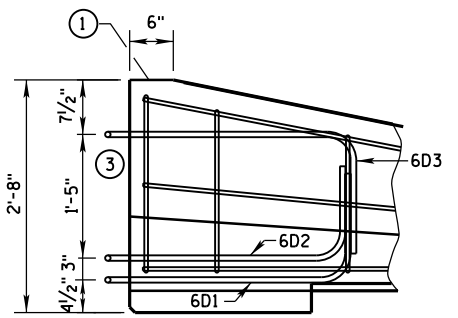
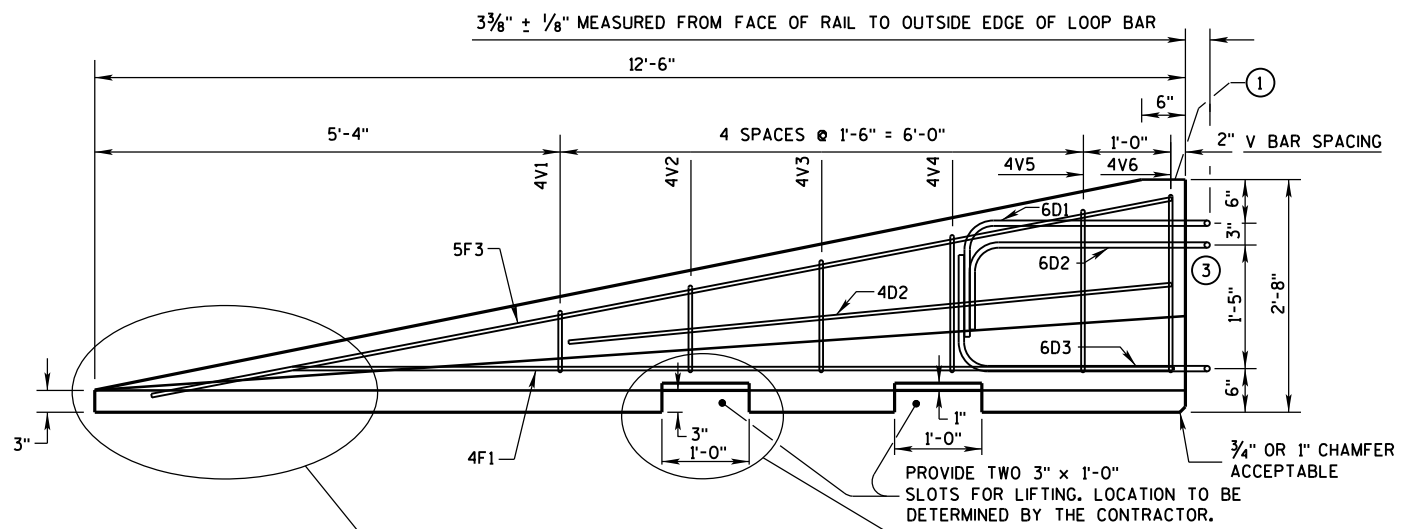
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

S.D.D. 14 B 7-15a

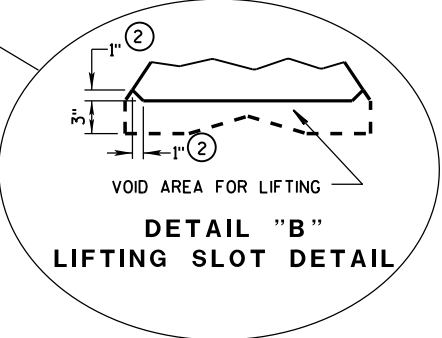
S.D.D. 14 B 7-15a



GENERAL NOTES

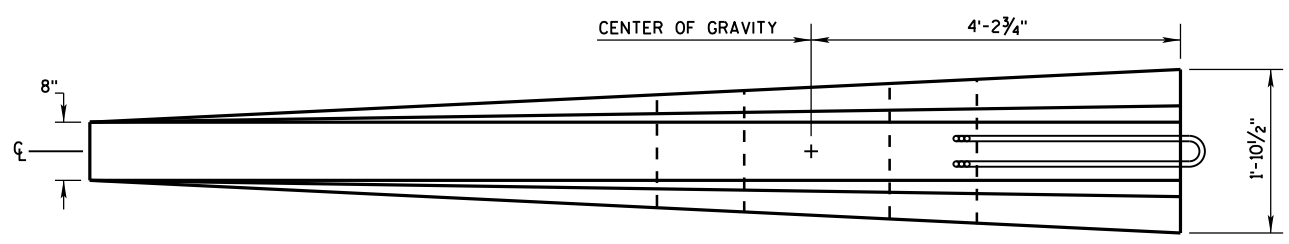
- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE WICBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

SIDE ELEVATION
 LOOP BAR ASSEMBLY INVERTED FOR OPPOSITE END.
 (FOR CONNECTION TO RIGHT END OF BARRIER)

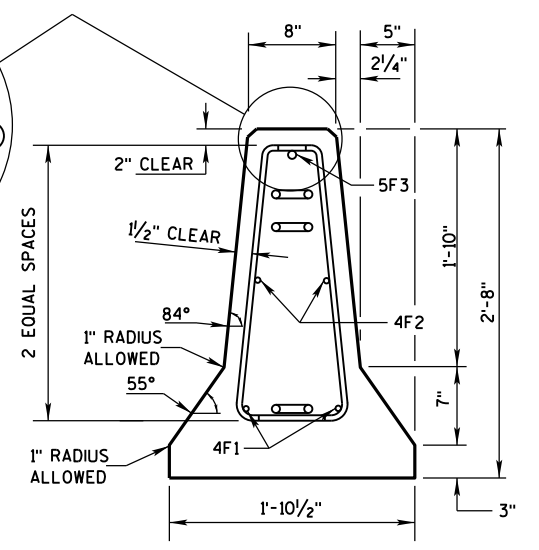
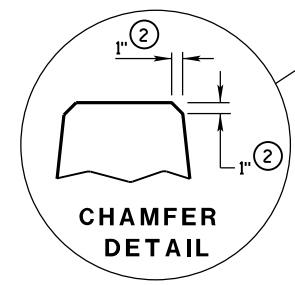


SIDE ELEVATION
 (FOR CONNECTION TO LEFT END OF BARRIER)

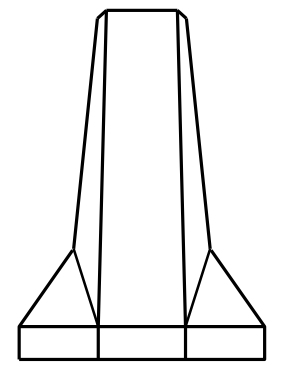
SEE DETAIL "C", BENT BAR DETAIL



PLAN VIEW

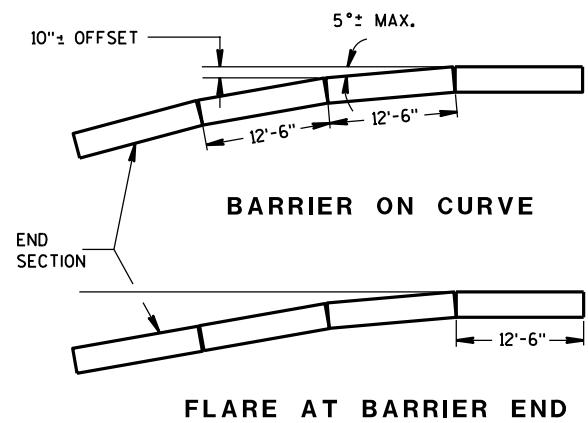


END SECTION



FRONT ELEVATION

DETAILS OF BARRIER TAPER SECTION



POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

**CONCRETE BARRIER
 TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

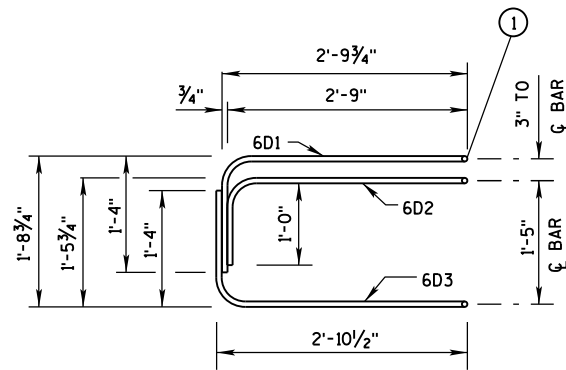
① NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

**BARRIER TAPER SECTION
BILL OF MATERIALS**

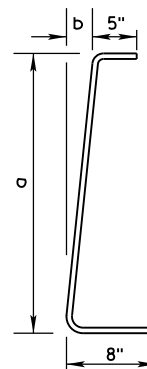
(PER 12'-6" BARRIER TAPER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"

LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"

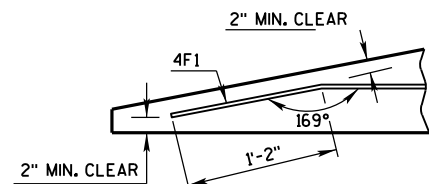


**ELEVATION
LOOP BAR ASSEMBLY**



BAR	a	b
V1	10"	1"
V2	1'-1"	1 1/4"
V3	1'-5"	1 5/8"
V4	1'-8"	1 7/8"
V5	2'-0 1/2"	2 3/8"
V6	2'-3"	2 3/4"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY



**DETAIL "C"
BENT BAR DETAIL**

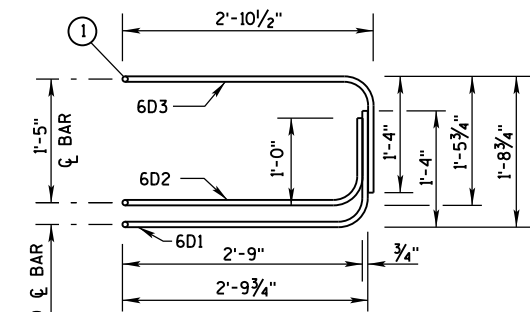
TAPER BARRIER SECTION

**BARRIER SECTION
BILL OF MATERIALS**

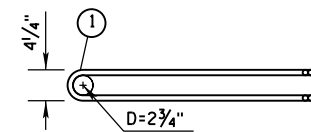
(PER 12'-6" BARRIER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"

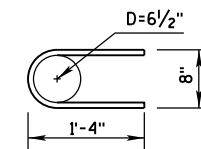
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



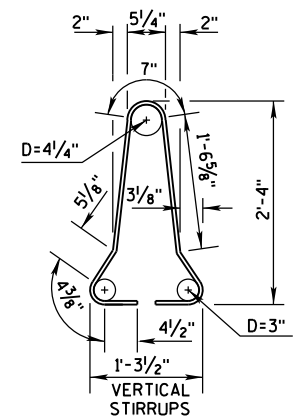
ELEVATION VIEW



**PLAN VIEW
LOOP BAR ASSEMBLY**
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2

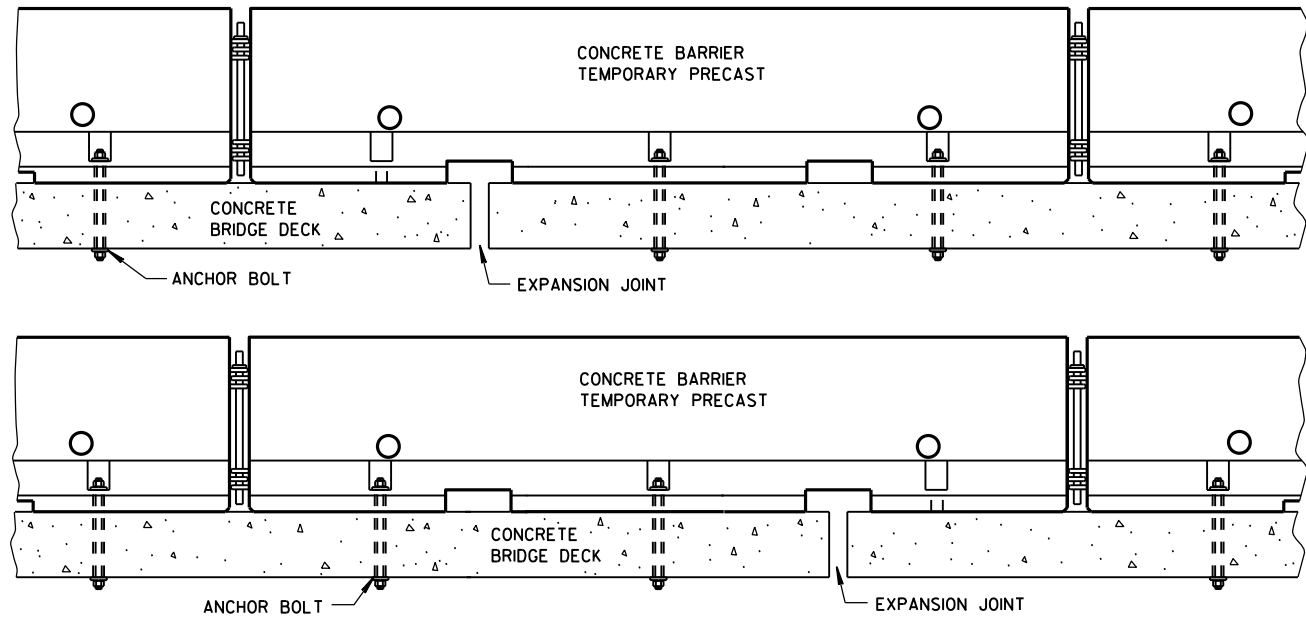


4A1

BARRIER SECTION

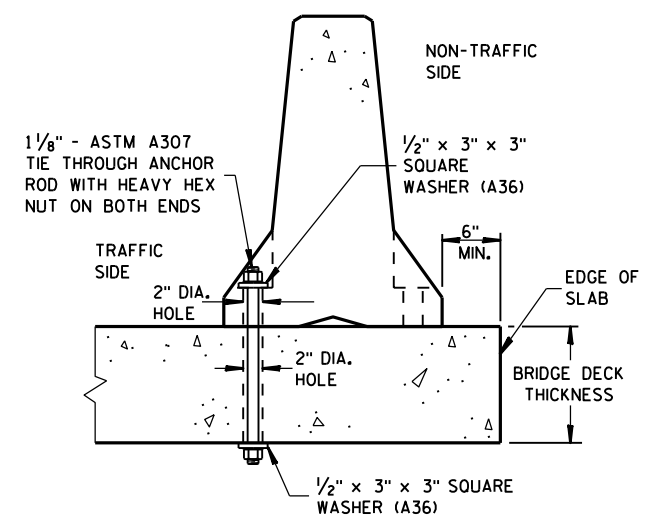
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



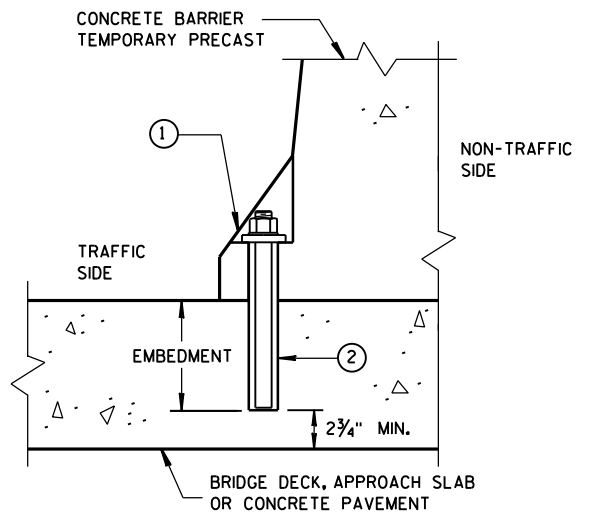
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

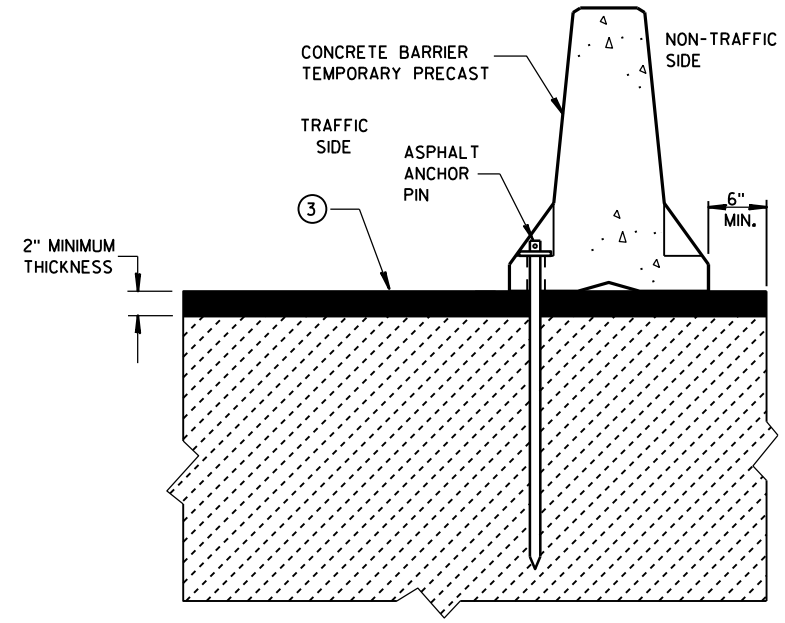
(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

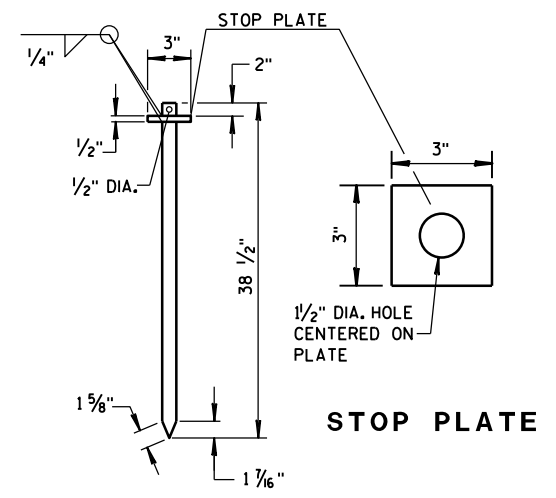
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

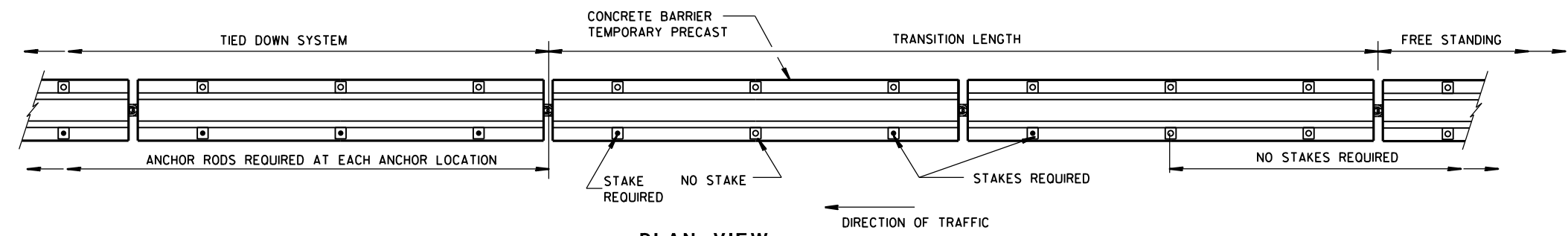
- ① 1/8" DIAMETER A307 THREADED ROD, 1/2" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.
- ② ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5/4" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.
- ③ ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THEN DRIVE ASPHALT ANCHOR PIN.



STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



ASPHALT ANCHOR PIN
(ASTM A36 STEEL)



FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

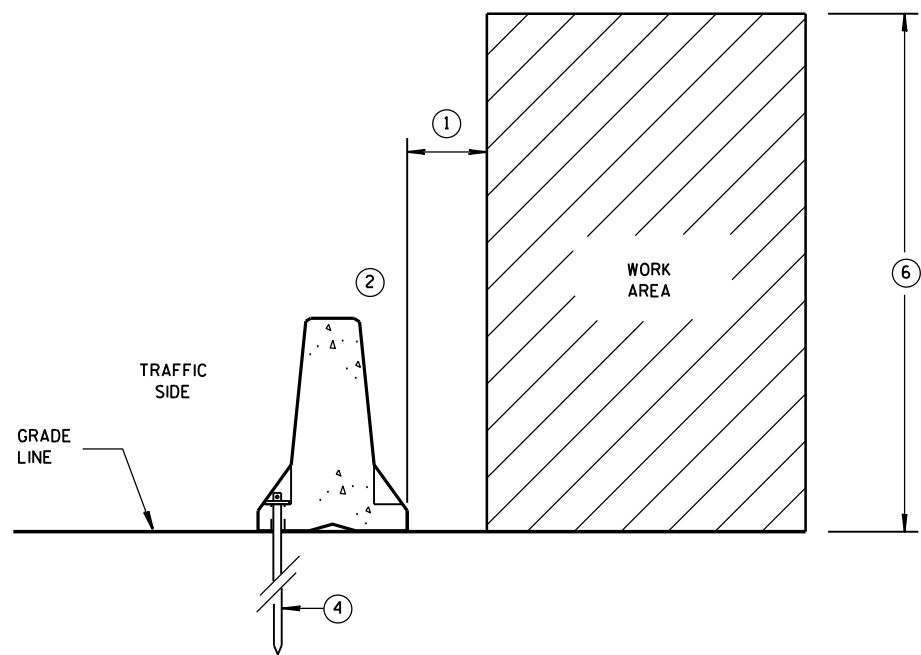
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

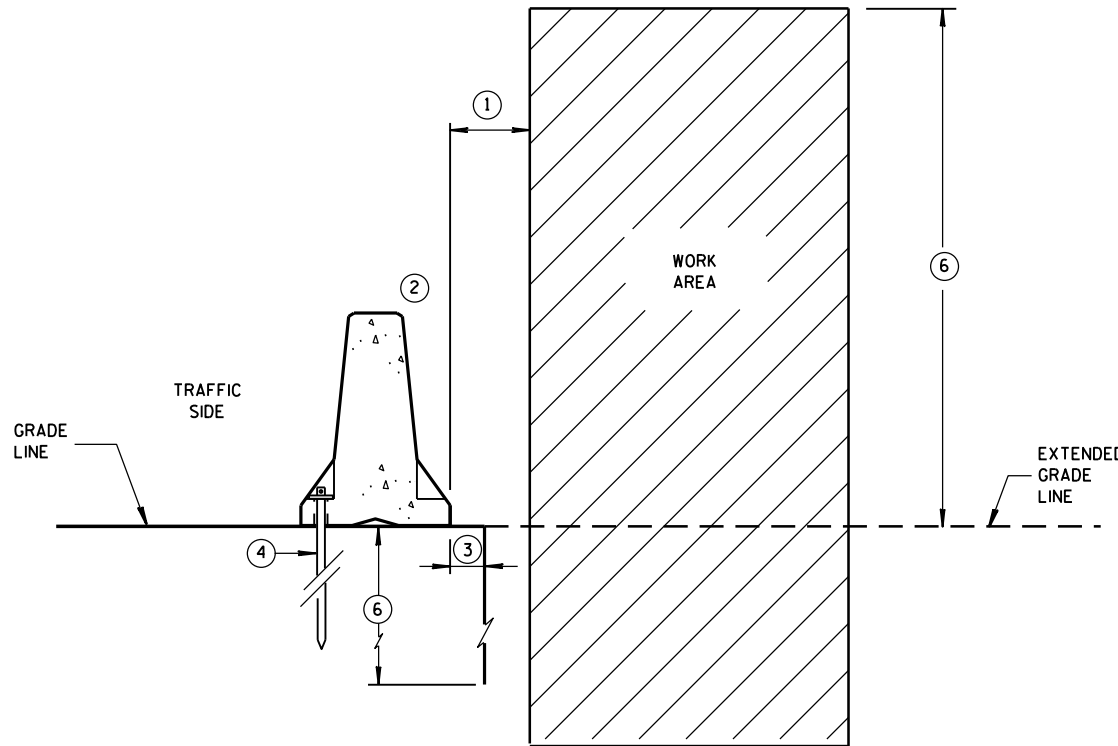
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

- ① WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
- ② OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
- ③ SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
- ④ SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
- ⑤ DEPTH OF 3 FEET OR MORE.
- ⑥ Y = 6'-6".

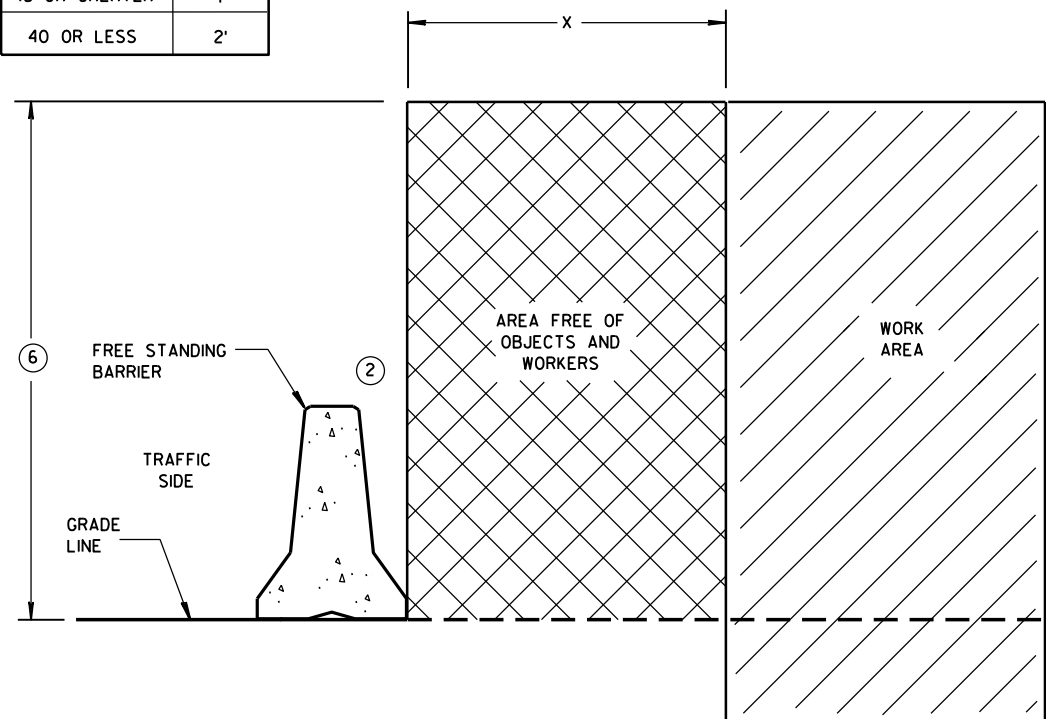


ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

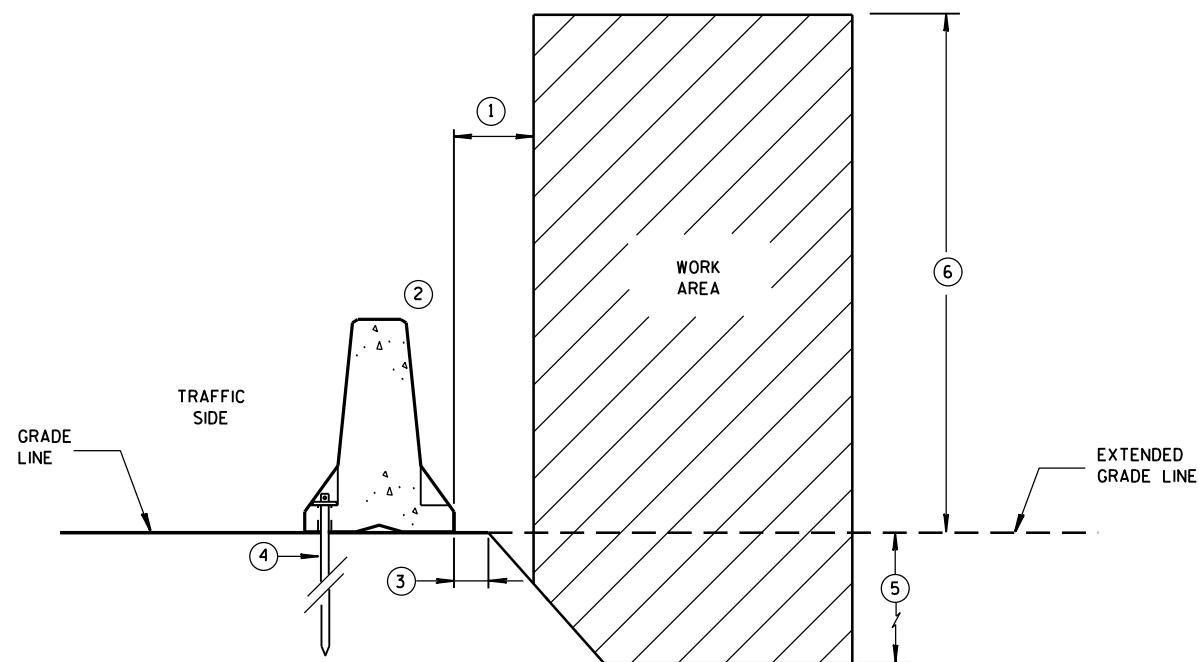


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



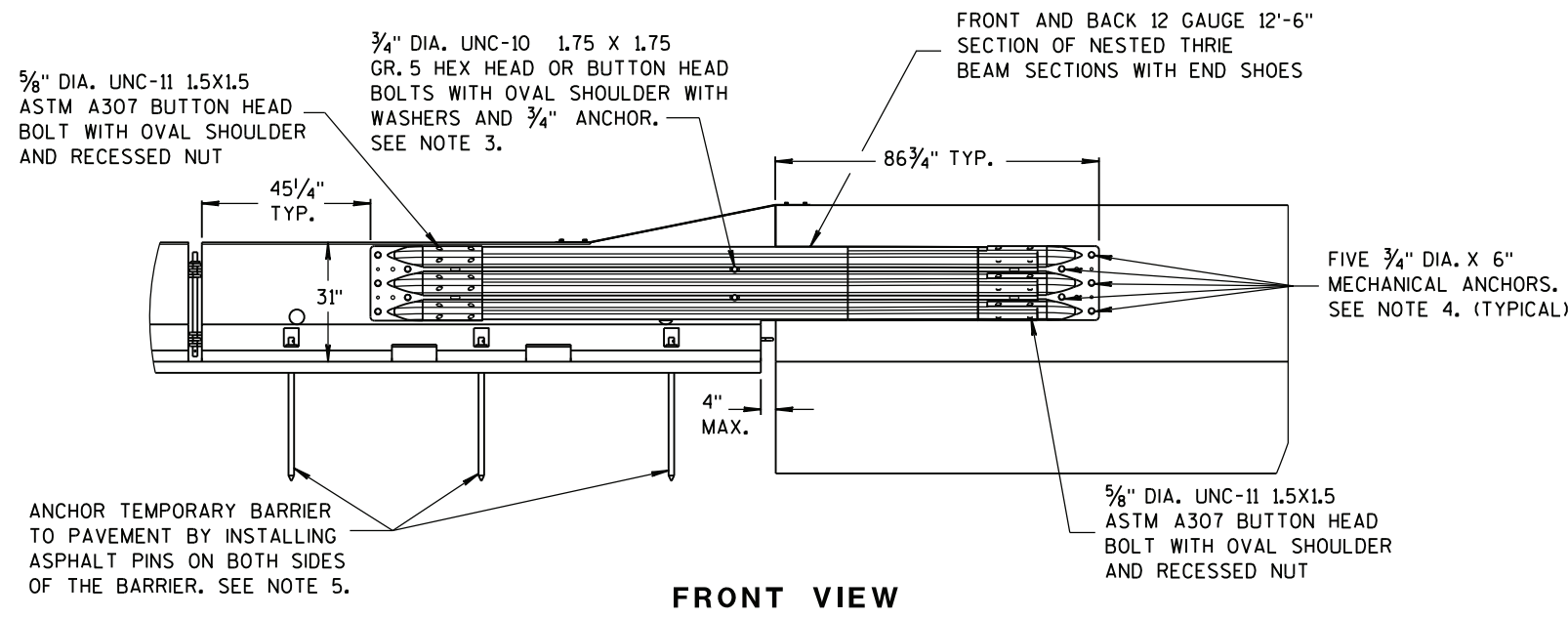
FREE STANDING BARRIER SPACE REQUIREMENTS



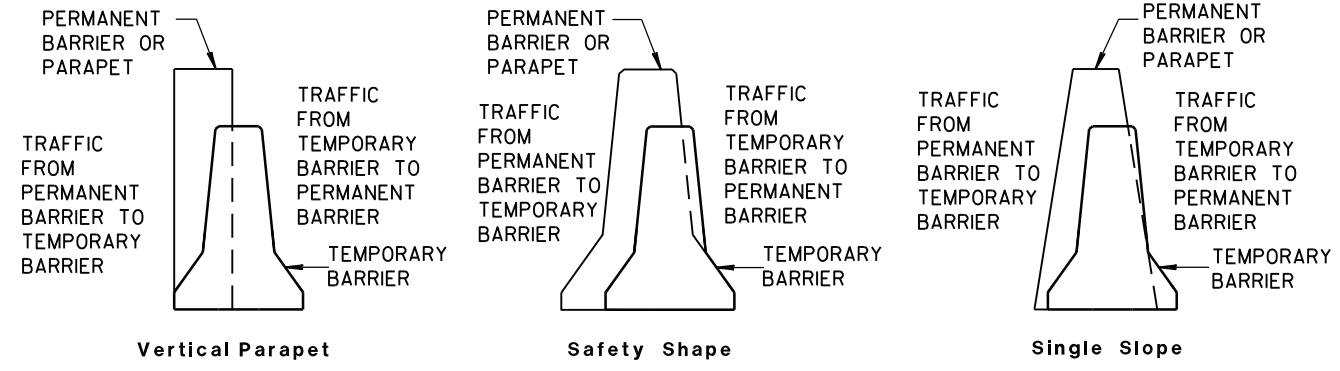
ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

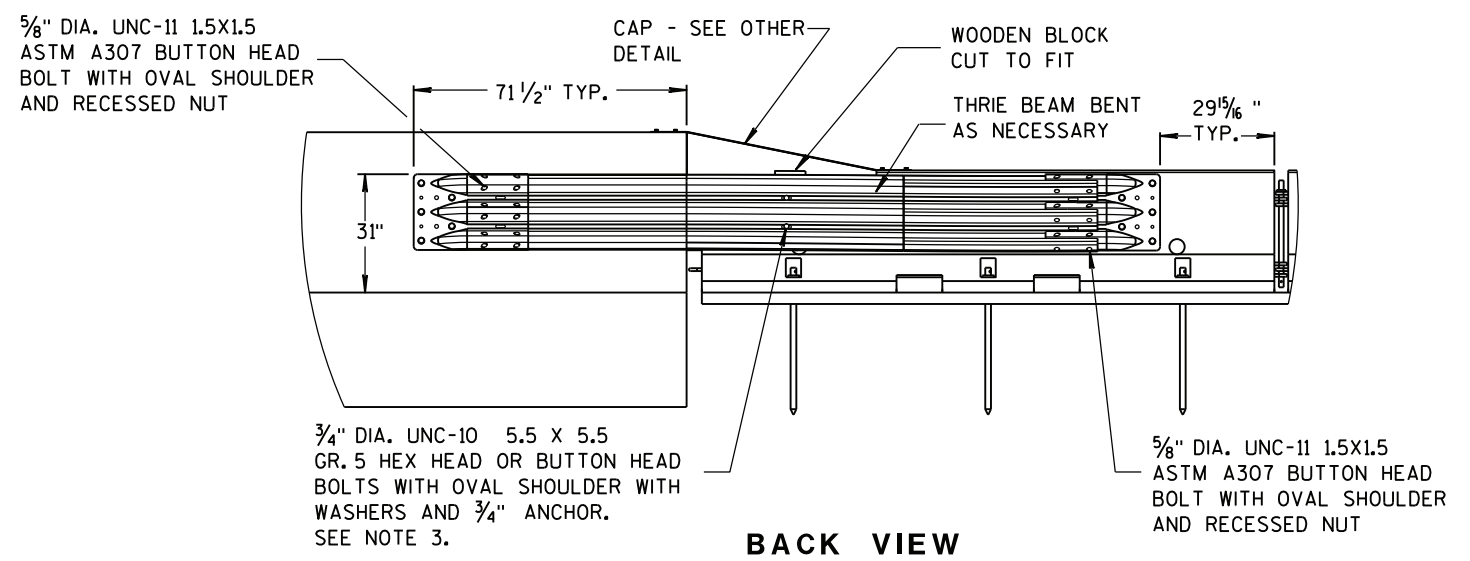


FRONT VIEW

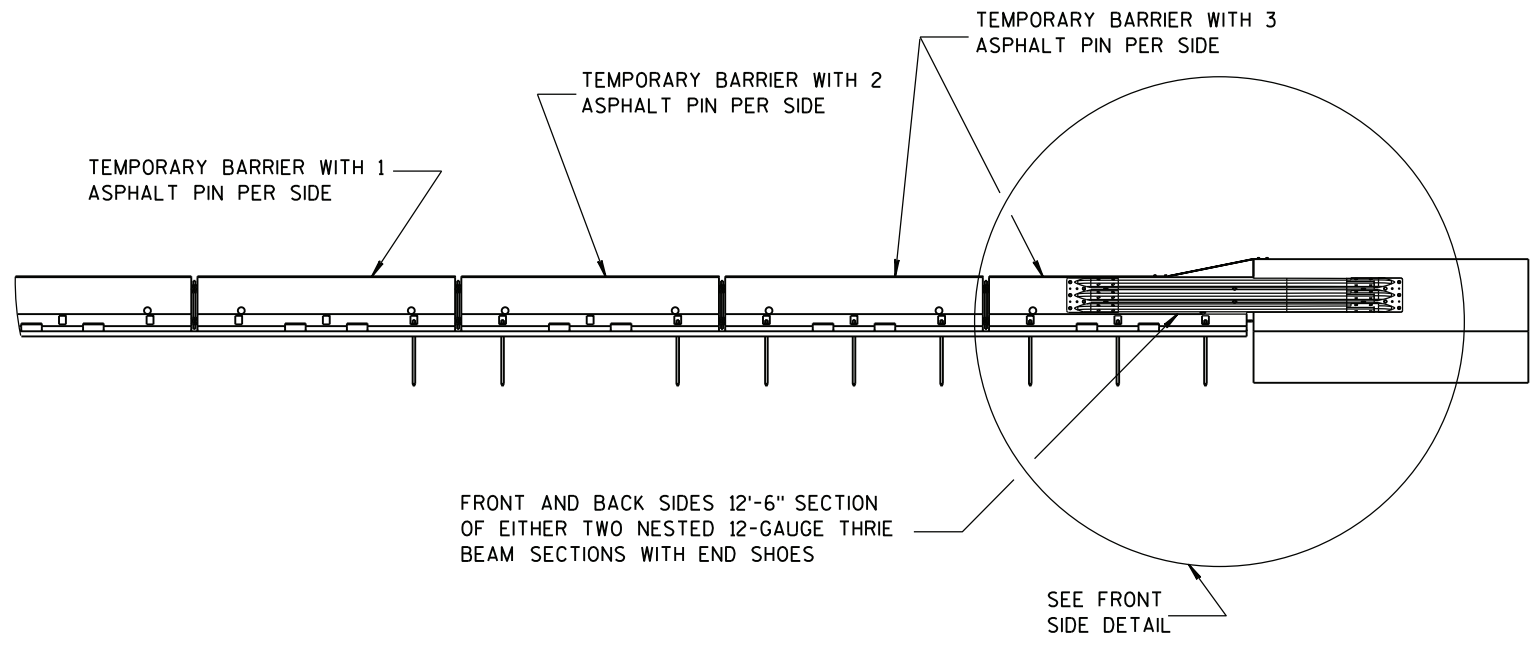


TEMPORARY BARRIER PLACEMENT FOR TRANSITION TO TIED DOWN SYSTEM

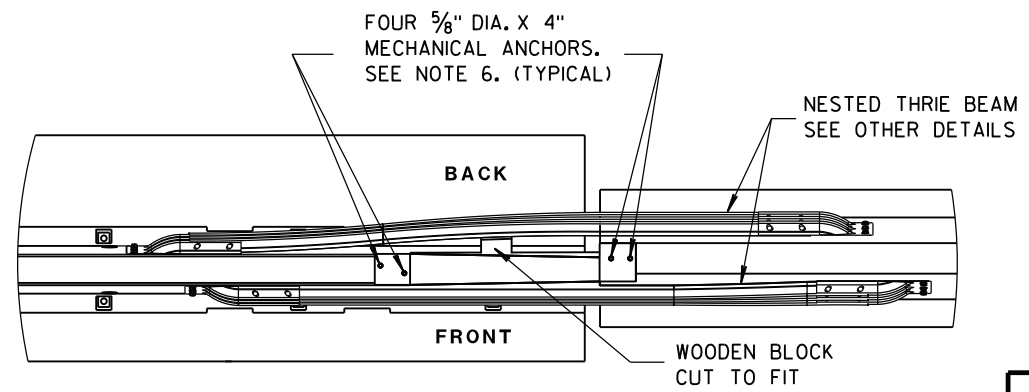
- NOTES**
- NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.
- CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
 - THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
 - MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
 - MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
 - MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
 - MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW

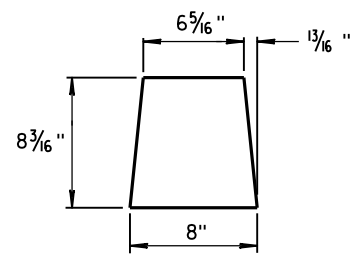


PLAN VIEW

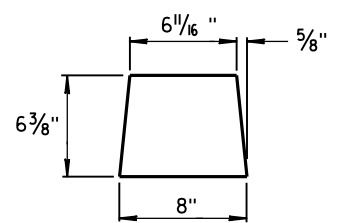
**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

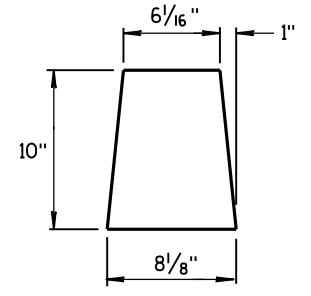
TRANSITION TO TIED DOWN SYSTEM



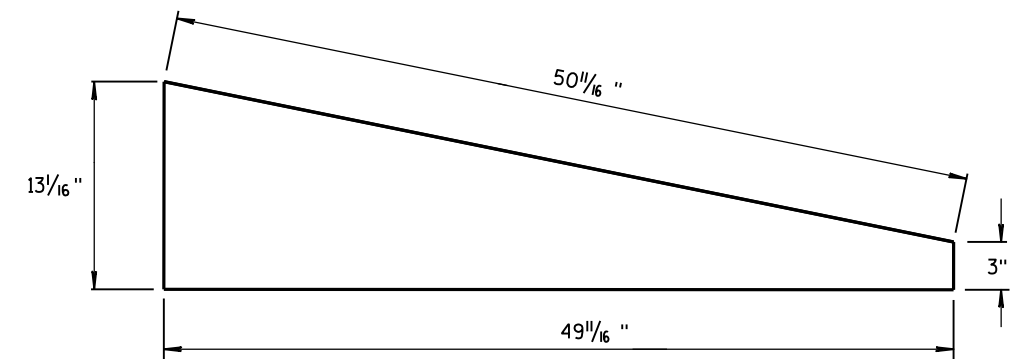
GUSSET 1



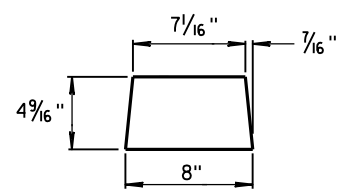
GUSSET 2



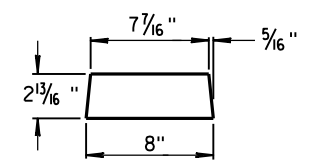
END PLATE



SIDE PLATE

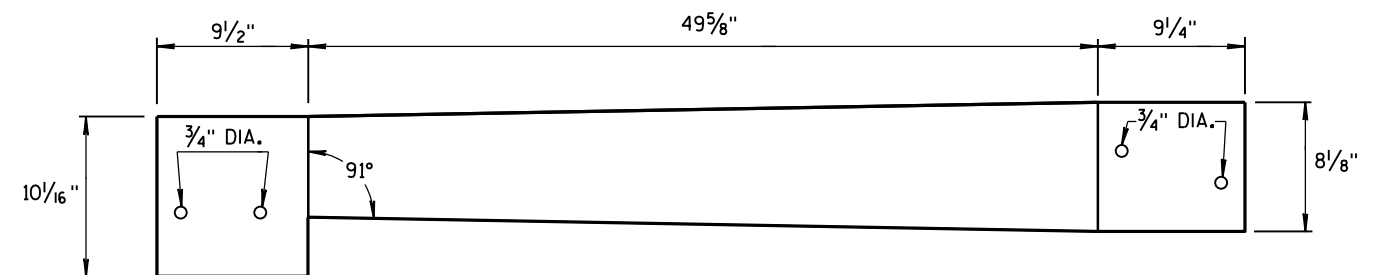


GUSSET 3

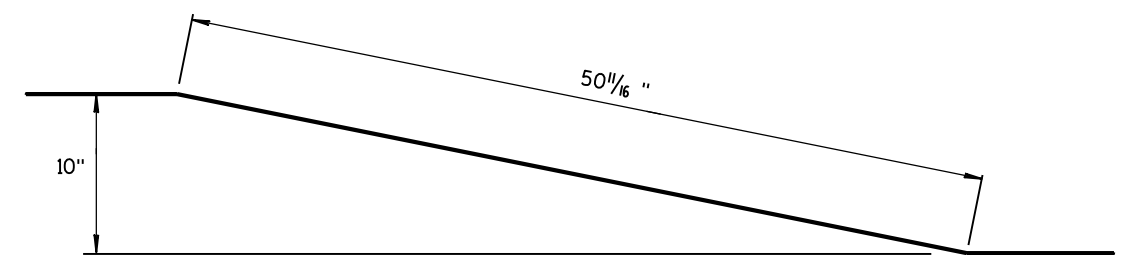


GUSSET 4

GUSSETS

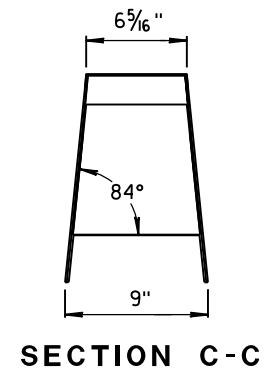
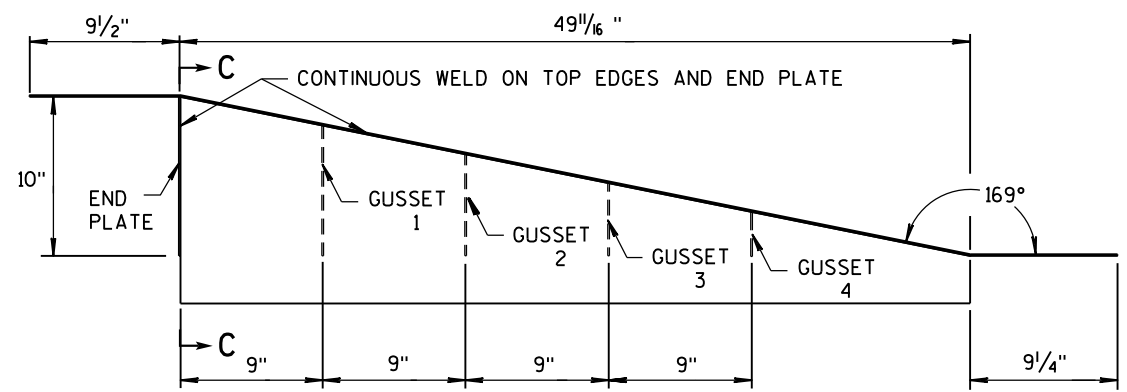
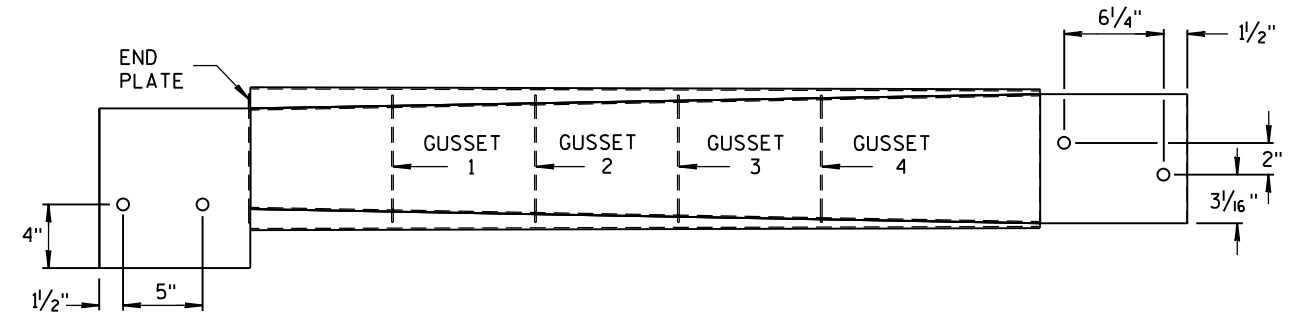


TOP PLATE



SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.



SECTION C-C

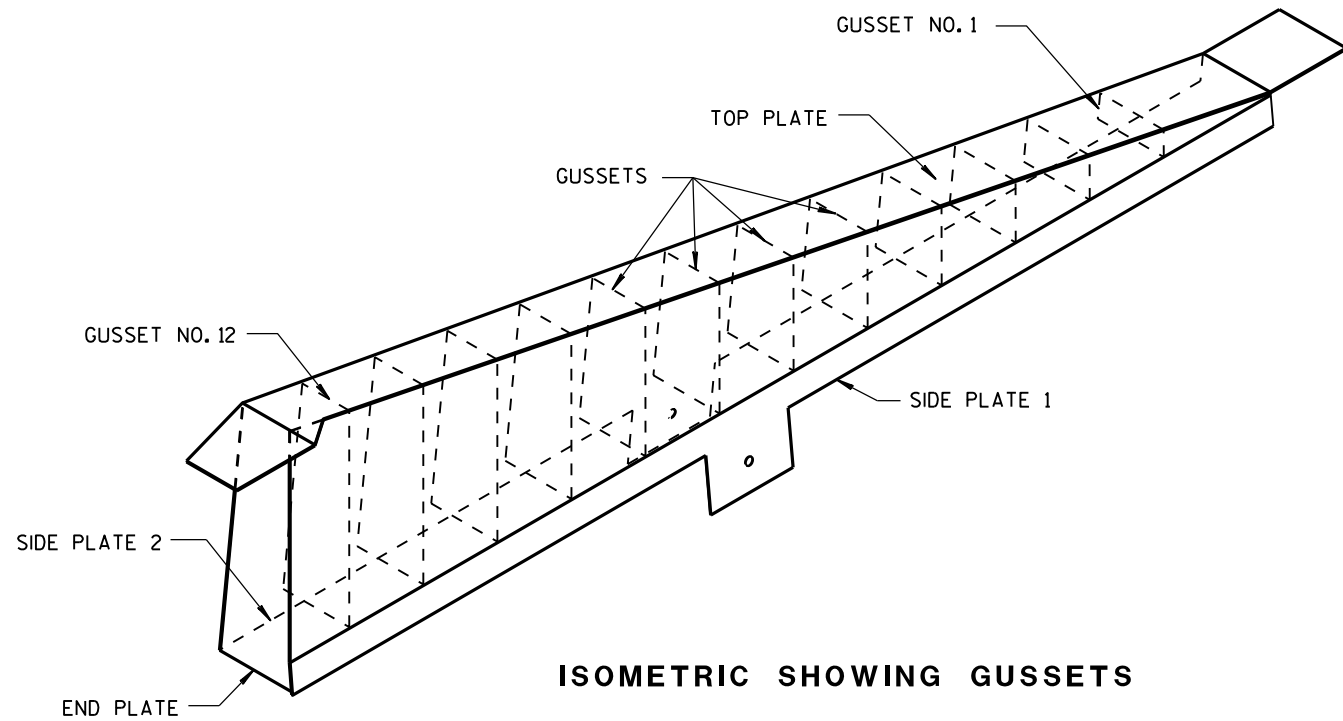
NOTES

- FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
- TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

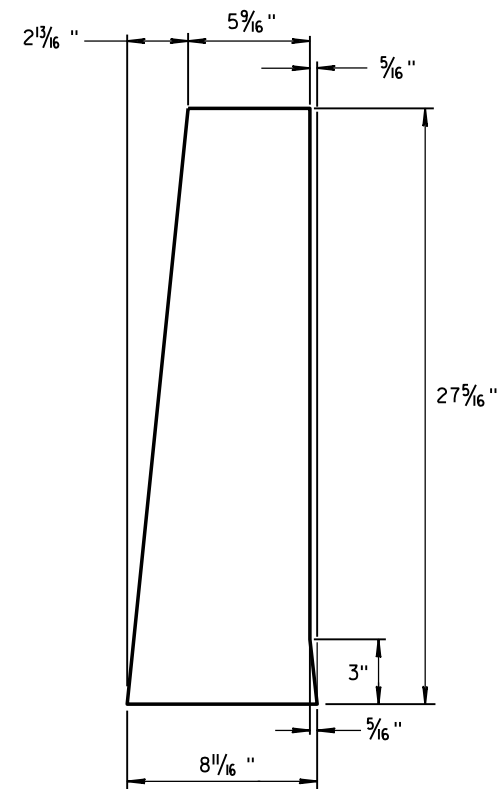
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

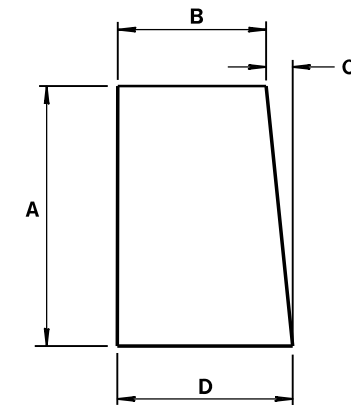


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



GUSSETS 1 - 12

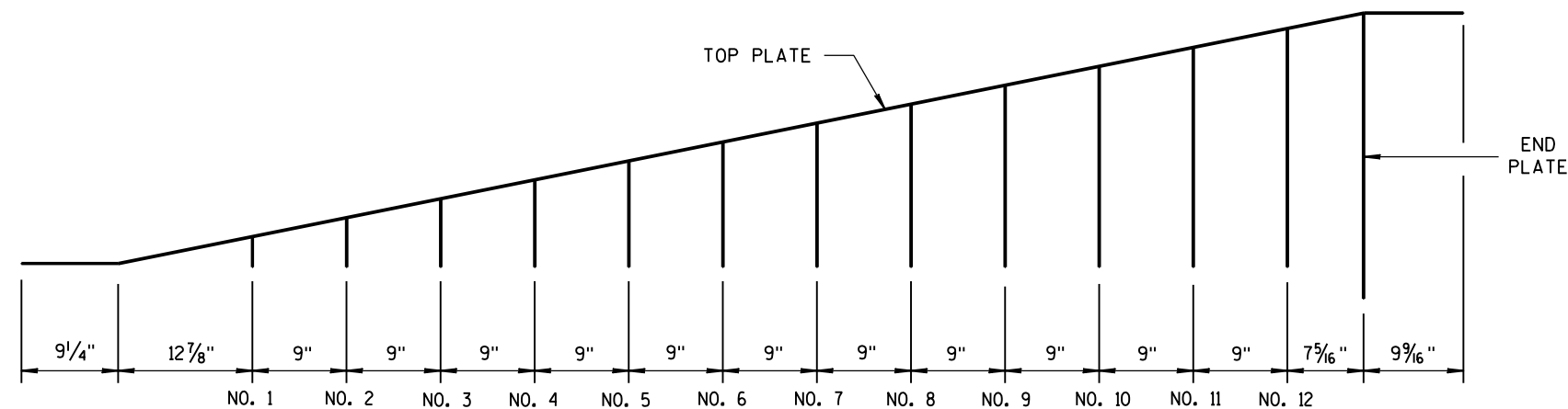
ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS

GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 1/16"	7 7/16"	1/2"	8
3	6 1/2"	7 3/8"	1 1/16"	8 1/16"
4	8 5/16"	7 3/16"	7/8"	8 1/16"
5	10 1/8"	7"	1 1/16"	8 1/16"
6	11 5/16"	6 13/16"	1 1/4"	8 1/16"
7	13 3/4"	6 5/8"	1 7/16"	8 1/16"
8	15 3/16"	6 7/16"	1 9/16"	8 1/16"
9	17 3/8"	6 1/4"	1 13/16"	8 1/16"
10	19 3/16"	6 1/16"	1 15/16"	8 1/16"
11	21"	5 7/8"	2 3/16"	8 1/16"
12	22 13/16"	5 1/16"	2 5/16"	8 1/16"

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.

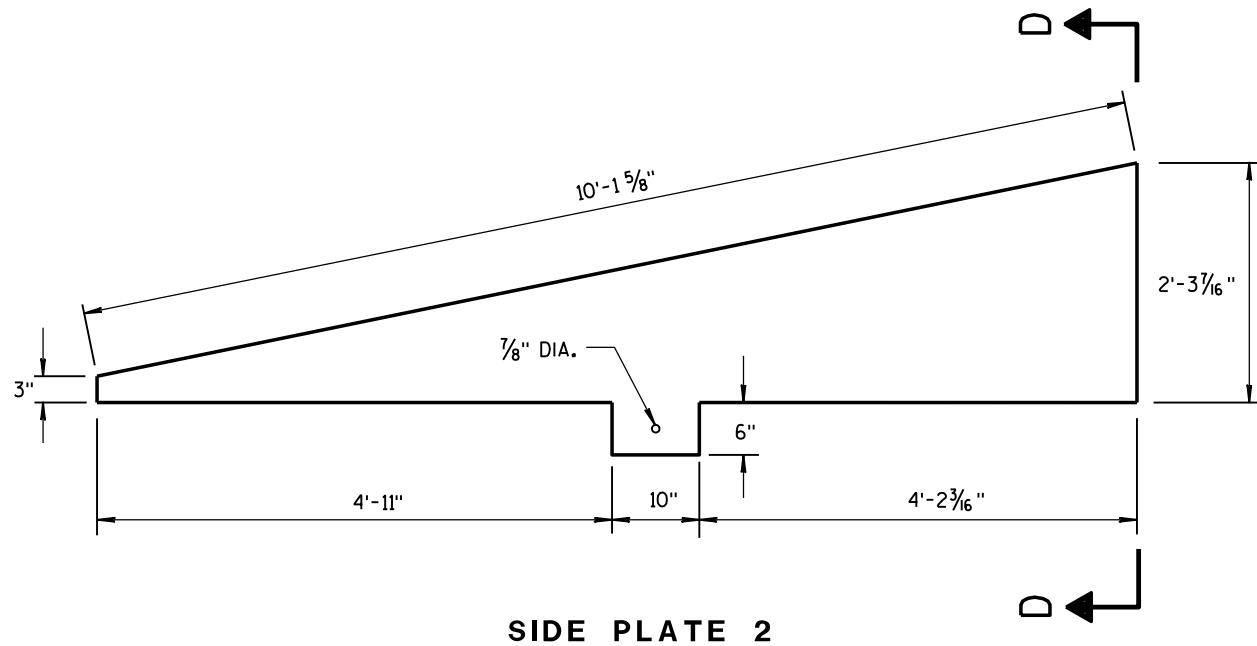


GUSSET LOCATION

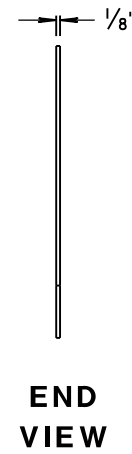
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

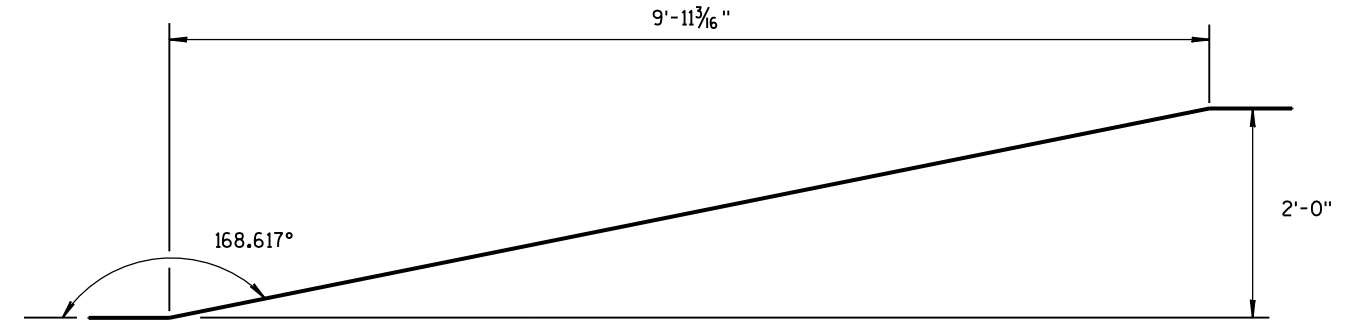
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



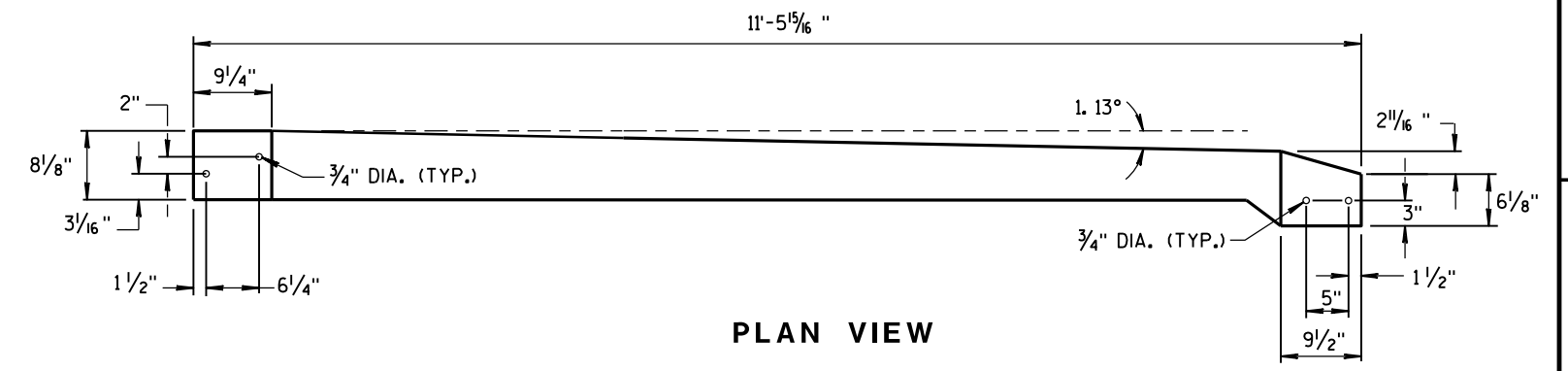
SIDE PLATE 2



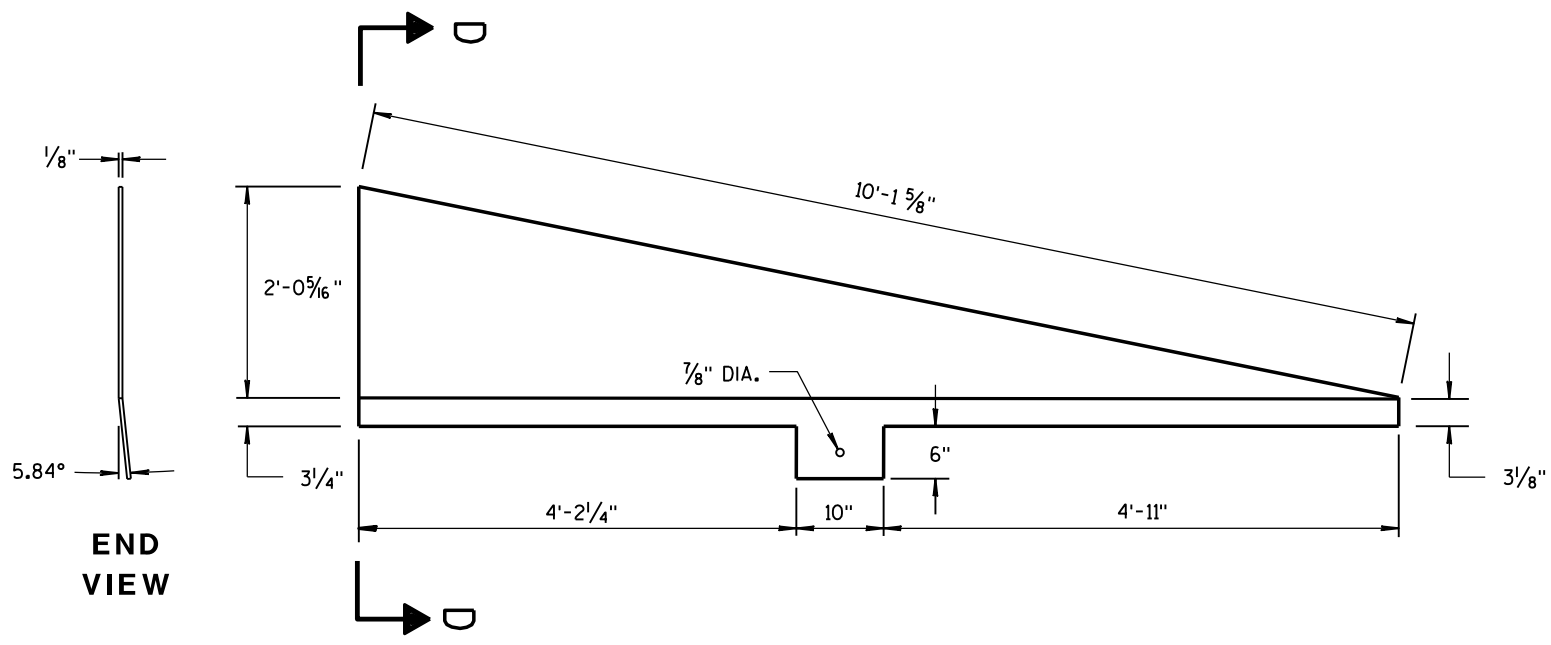
END VIEW



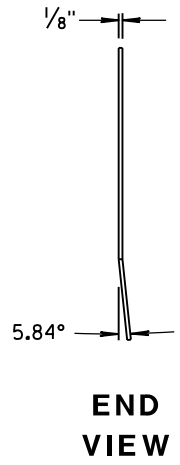
**SIDE VIEW
TOP PLATE**



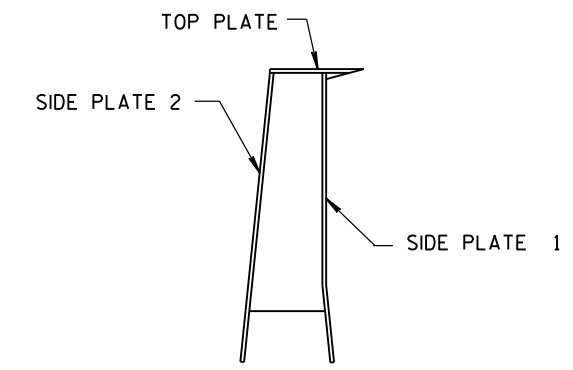
**PLAN VIEW
TOP PLATE**



SIDE PLATE 1



END VIEW



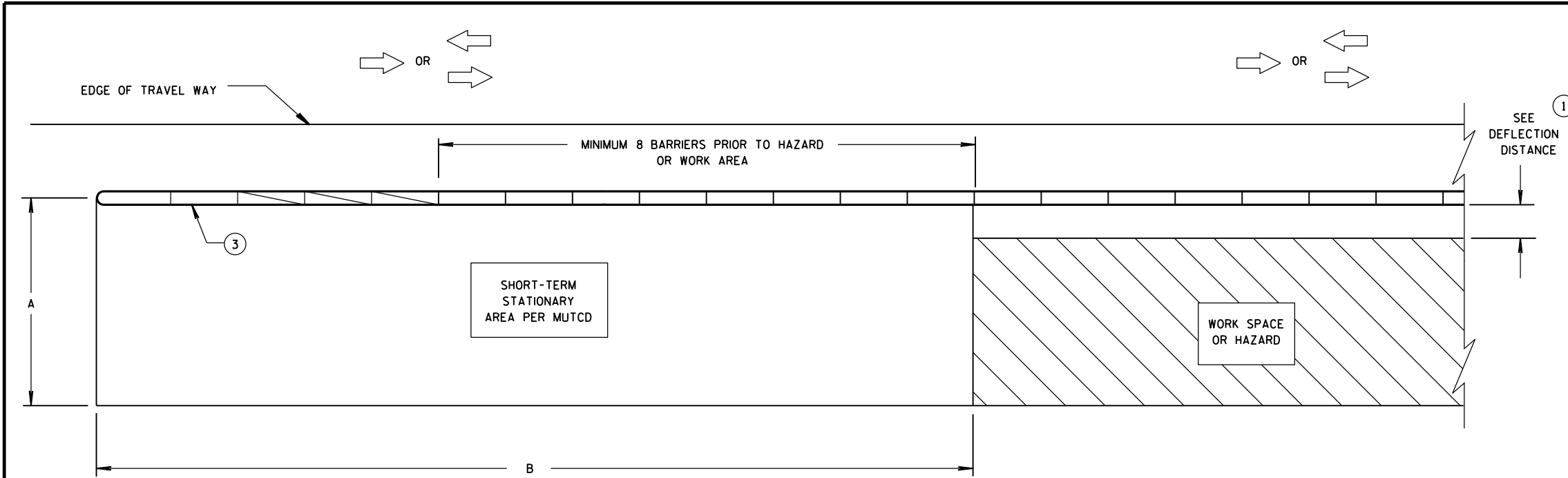
SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARD DEVELOPMENT
FHWA UNIT SUPERVISOR



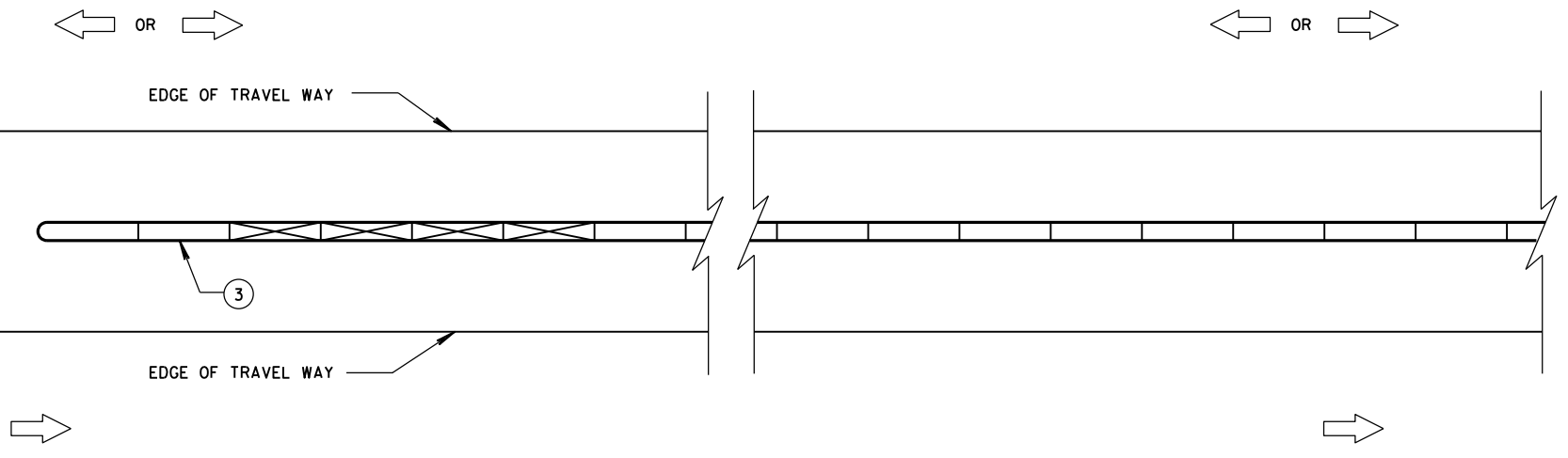
DIMENSION A TABLE ⁽²⁾

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER**

DIMENSION B TABLE ⁽²⁾

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER**

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

- FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.
- SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.
- ⁽¹⁾ FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.
- ⁽²⁾ VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.
- ⁽³⁾ ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

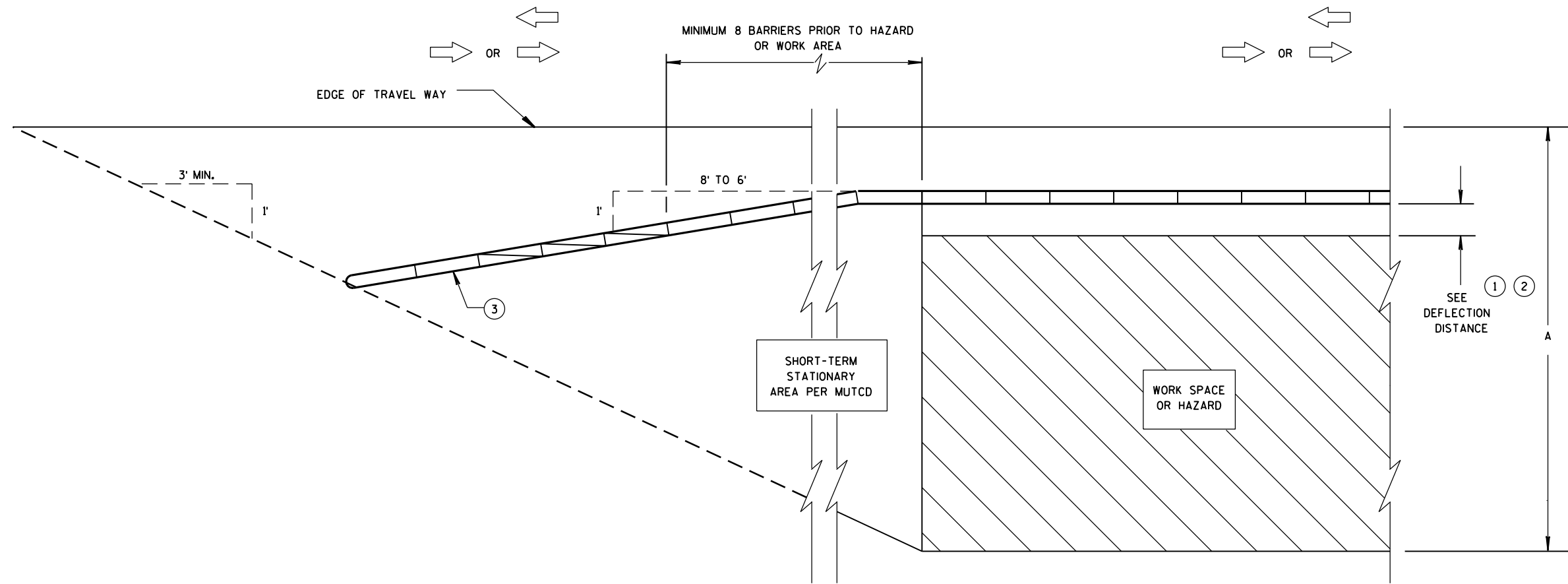
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

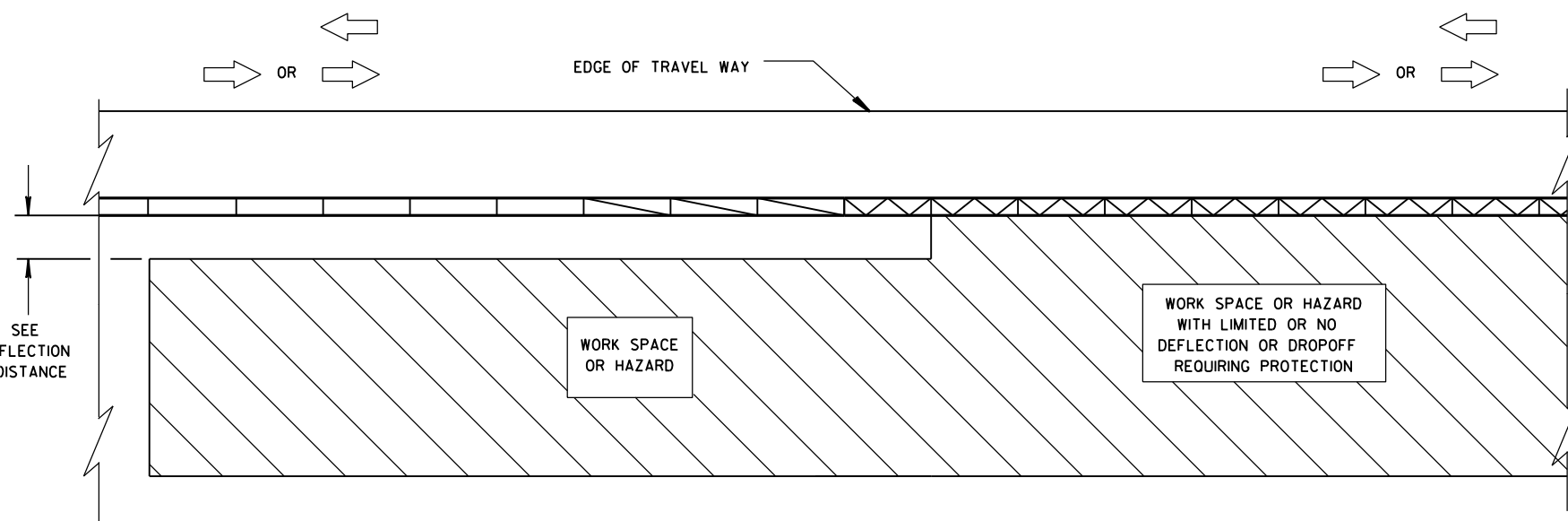
6

S.D.D. 14 B 8-2a

S.D.D. 14 B 8-2a



**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION**



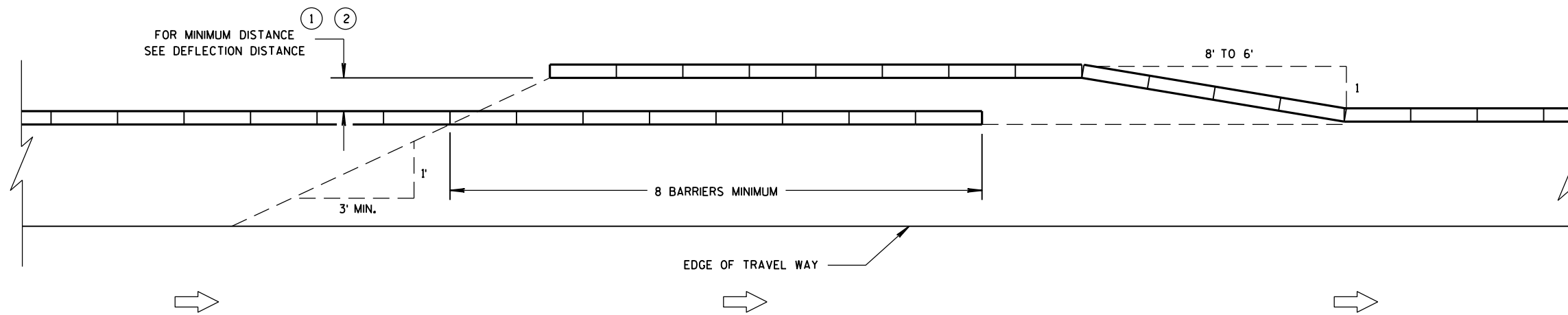
**TRANSITION FROM FREE STANDING TEMPORARY BARRIER
TO ANCHORED BARRIER**

LEGEND

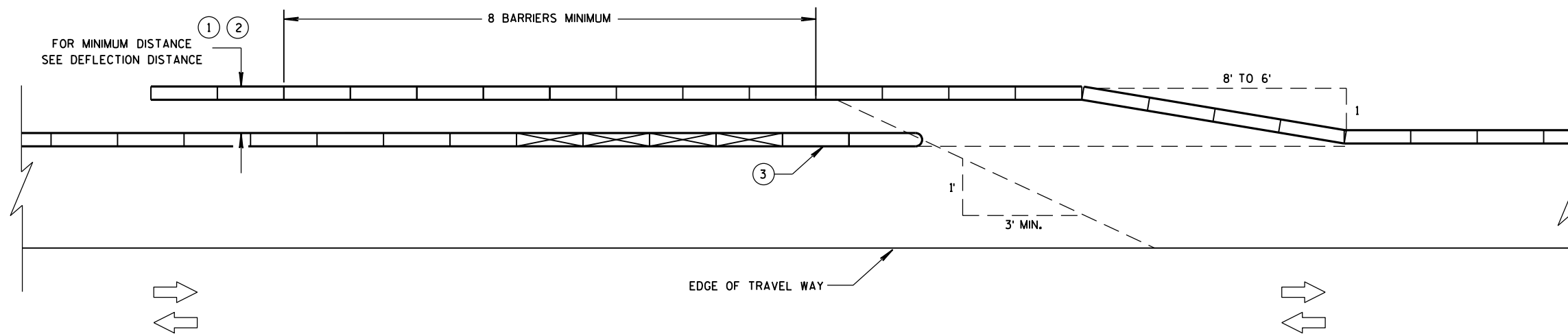
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

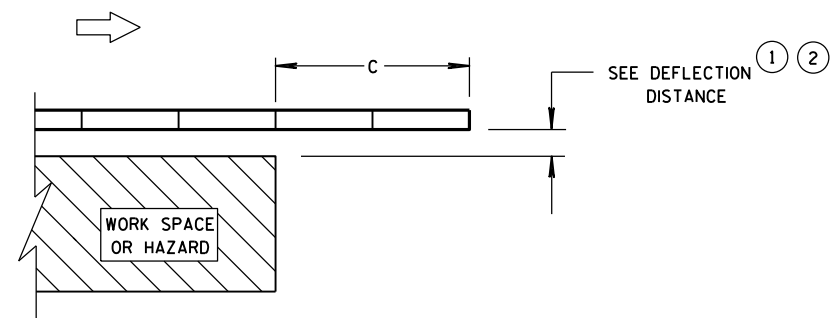
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



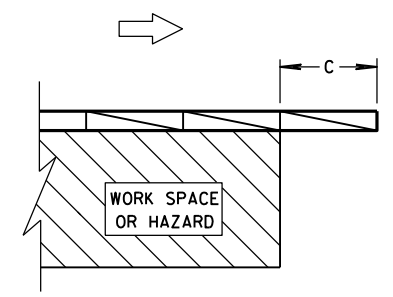
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



**ENDING TEMPORARY BARRIER
DOWNSTREAM - UNANCHORED**



**ENDING TEMPORARY BARRIER
DOWNSTREAM - ANCHORED**

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

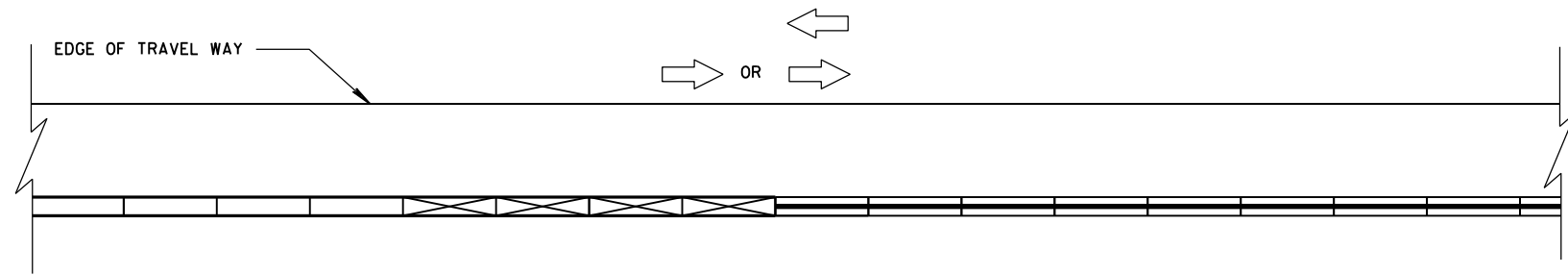
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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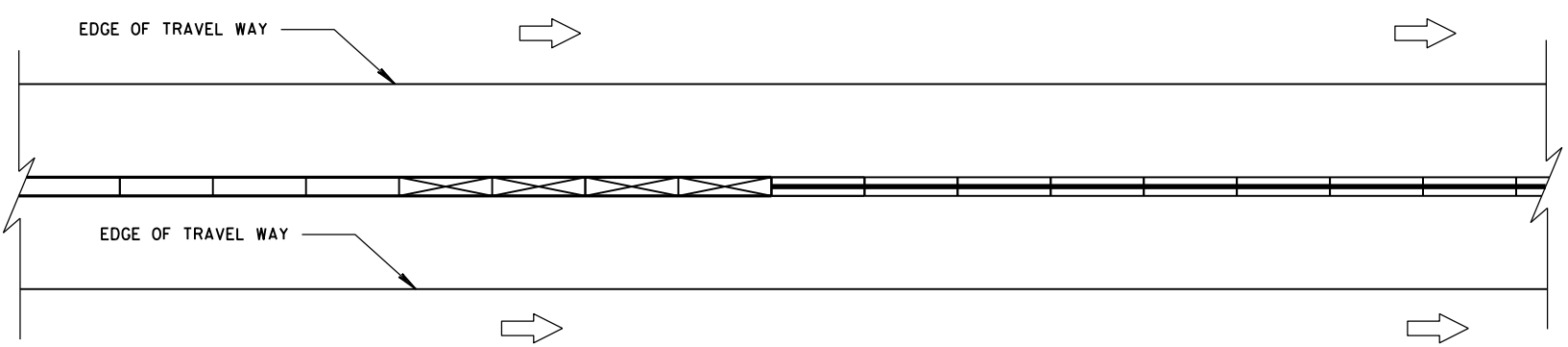
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S.D.D. 14 B 8-2c

S.D.D. 14 B 8-2c



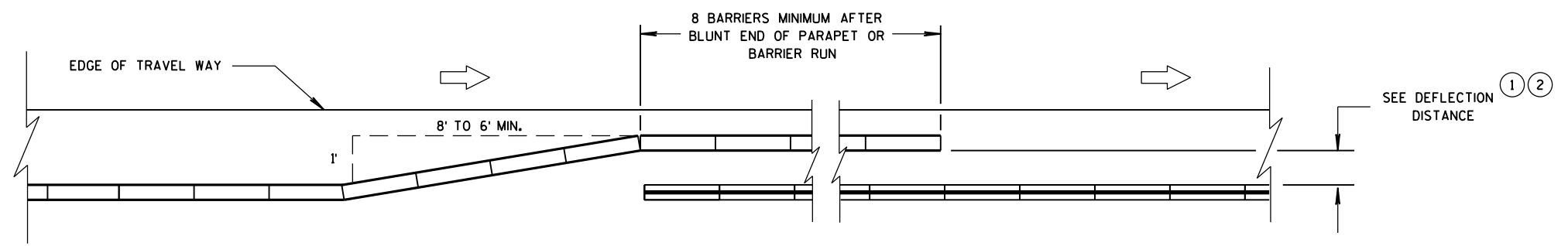
**CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE**



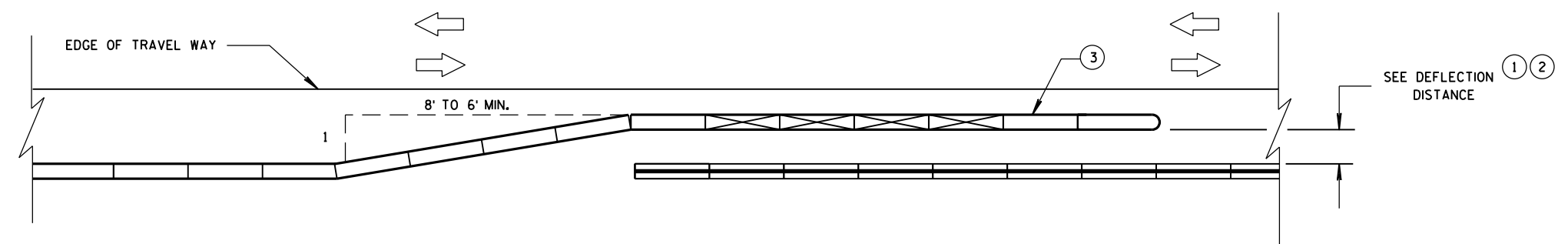
**CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES**

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER



**OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC**



**OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC**

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

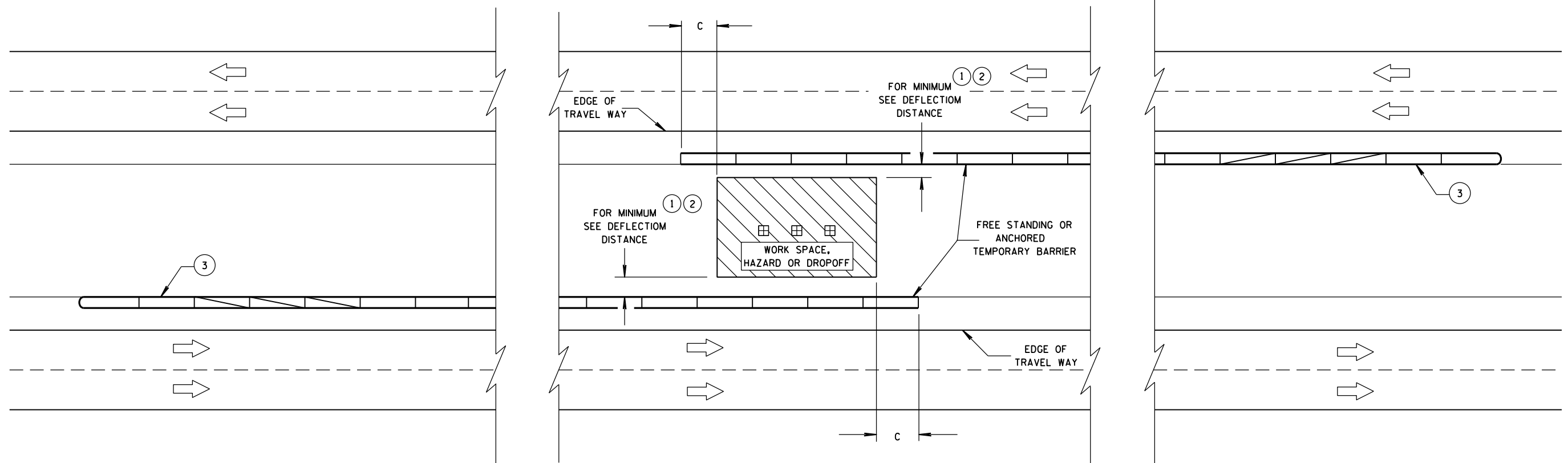
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE ²

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



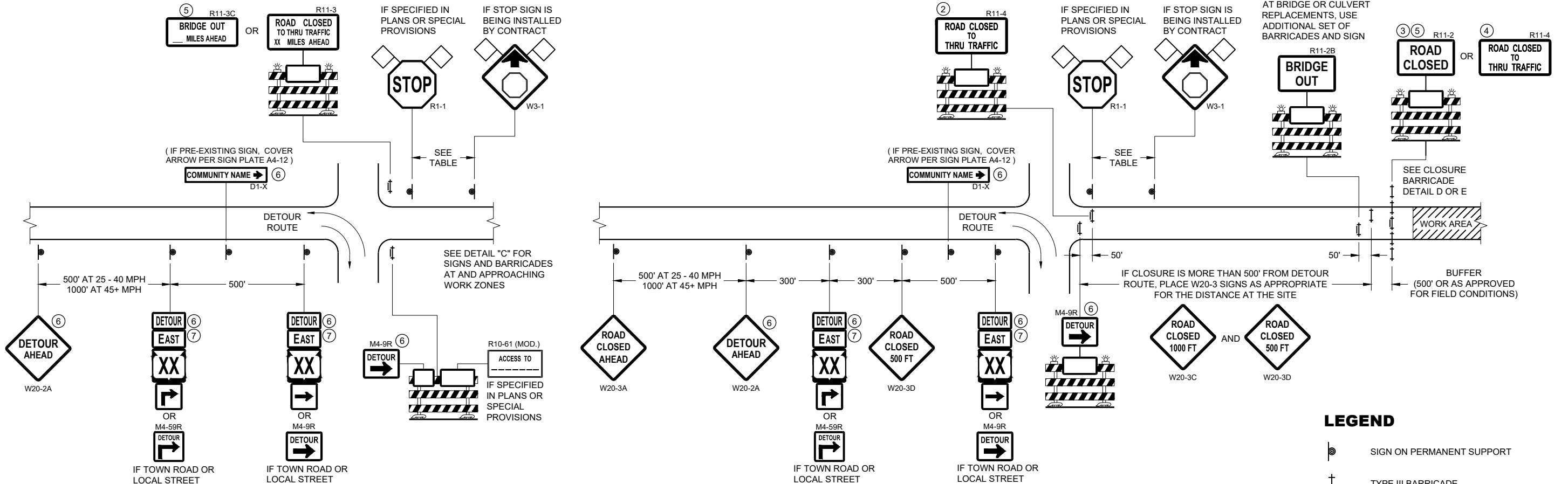
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S.D.D. 14 B 8-2e

S.D.D. 14 B 8-2e

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June, 2015 DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

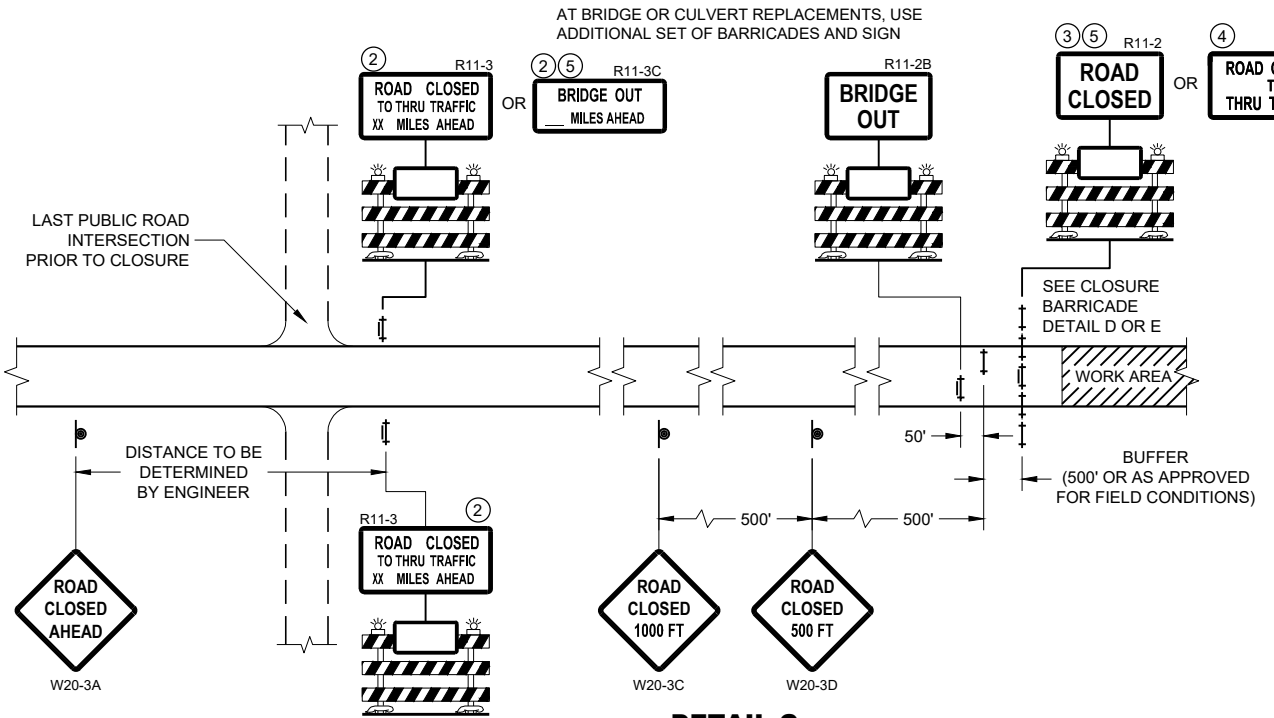
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



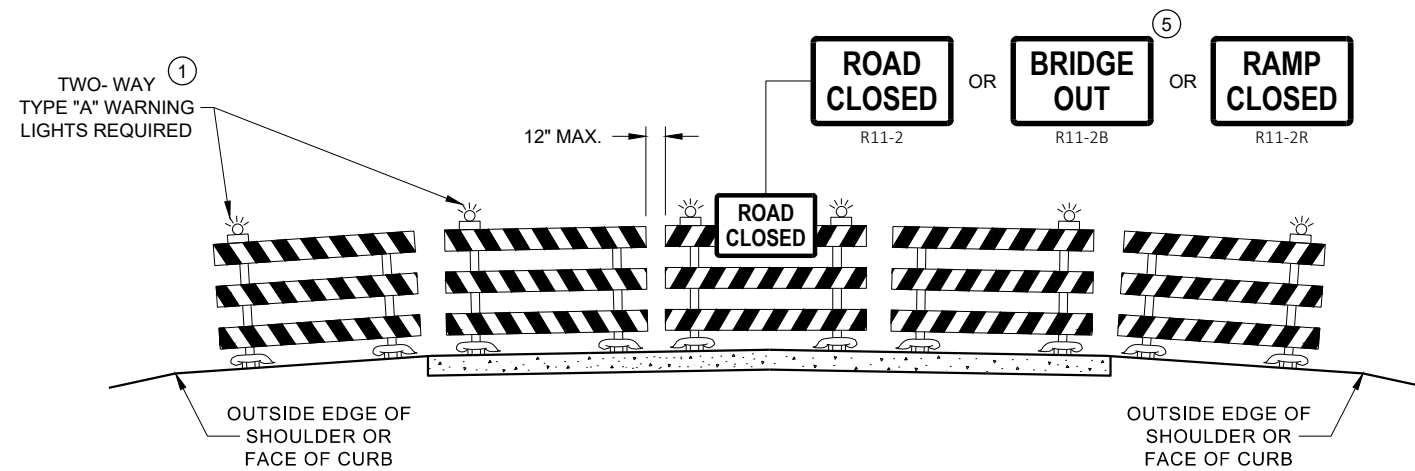
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

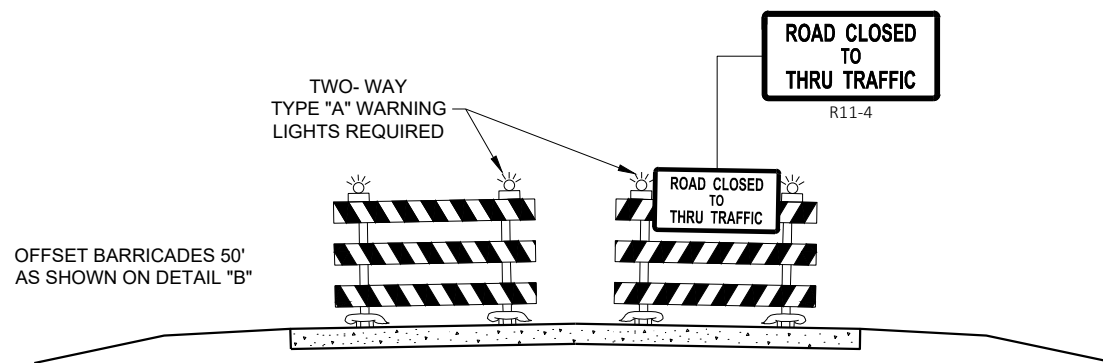
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE DATE WORK ZONE ENGINEER
FHWA



**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 THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL 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 SHALL, 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" (36" X 18" 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)
- MO5 - 1 AND MO6 - 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"

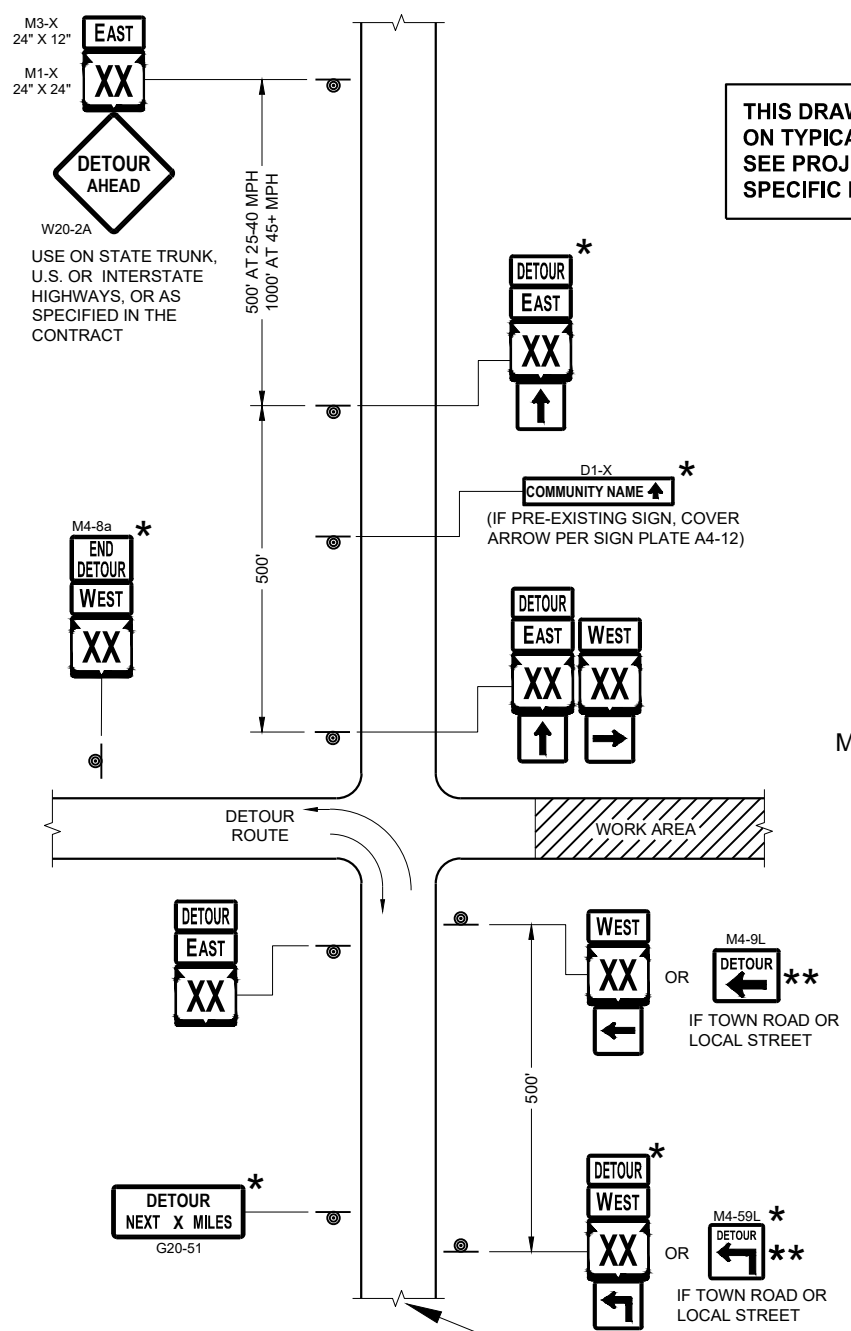
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN 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 ROAD 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
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

GENERAL NOTES

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

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. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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.

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

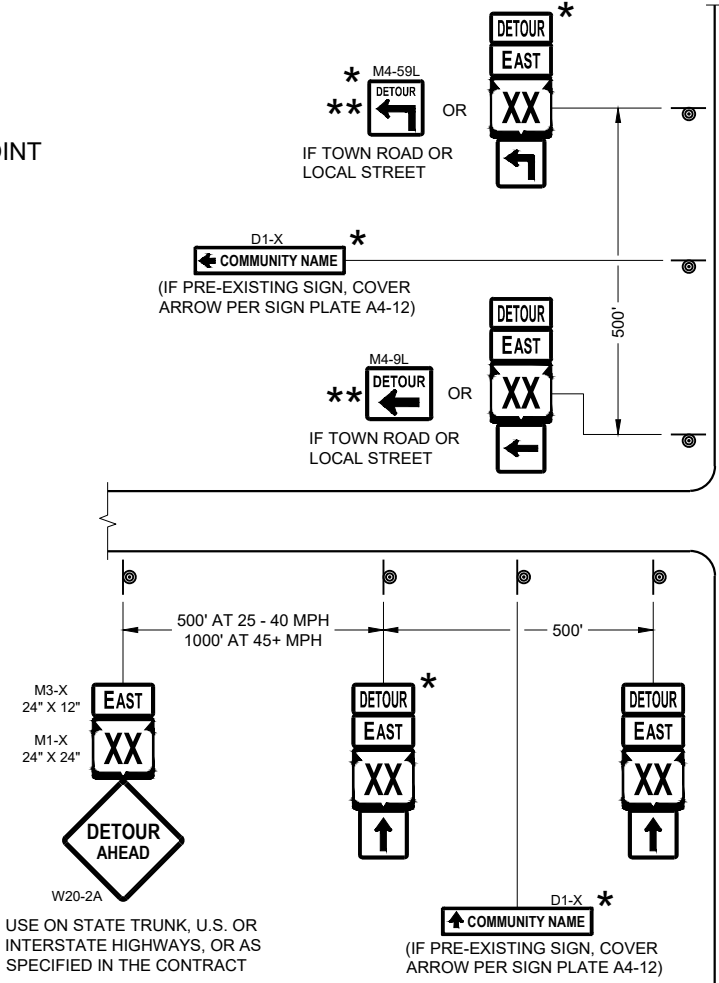
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

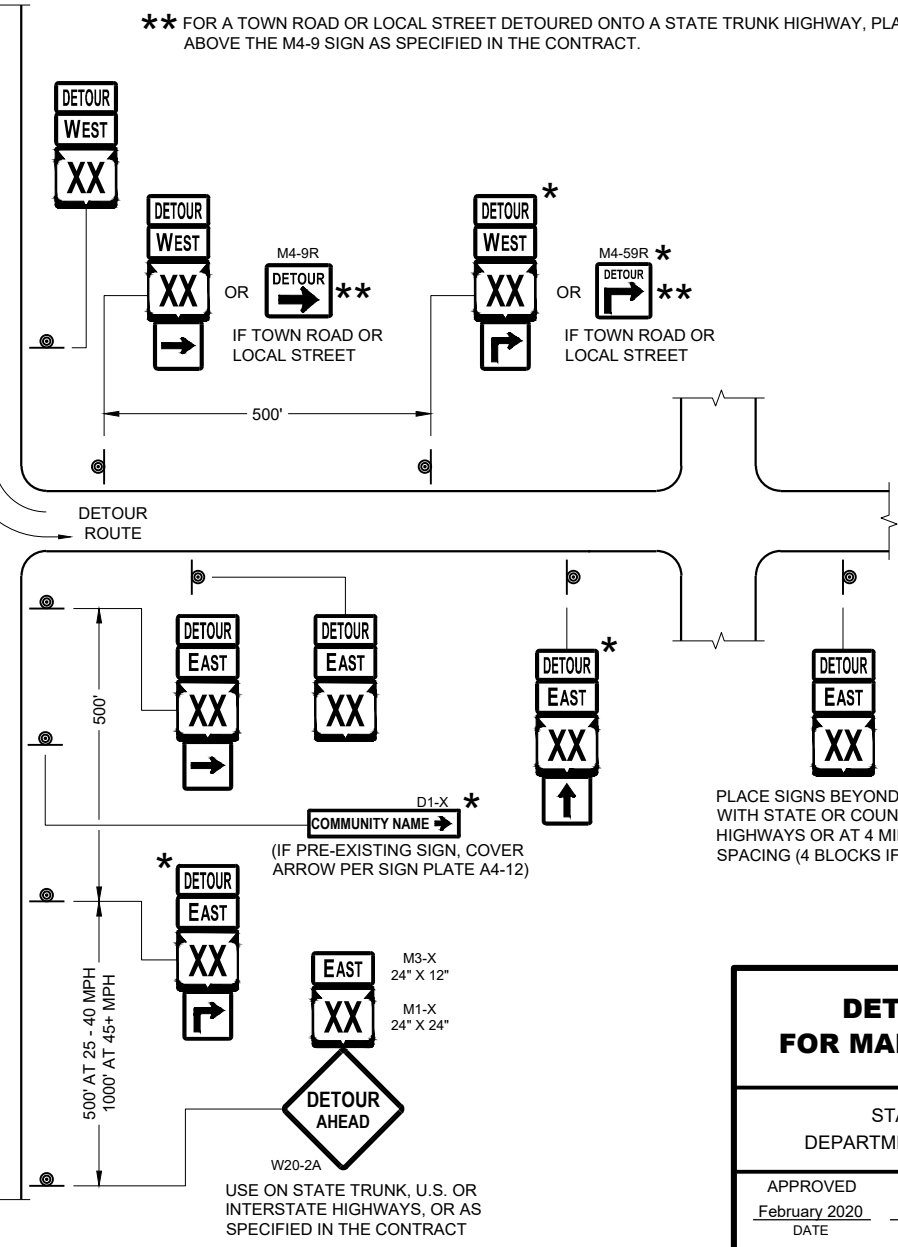
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

MATCH POINT



**DETAIL F
DETOUR SIGNING**



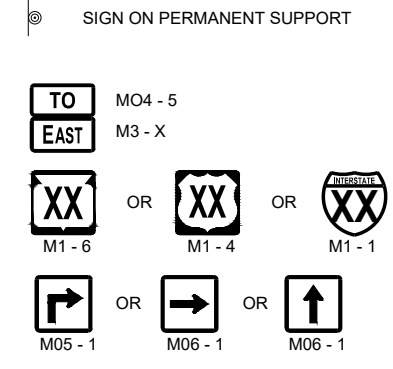
PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL TO SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND



GENERAL NOTES

- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE TO ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.
- THE SPACING BETWEEN TRAFFIC CONTROL AND TO SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- 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.
- SIGNS THAT SHALL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- SIGN SIZES SHALL BE AS FOLLOW:
M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
M04 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
M05 - 1, M05 - 2, AND M06 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
W20 - 53A SHALL BE 48" X 48"
- * PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

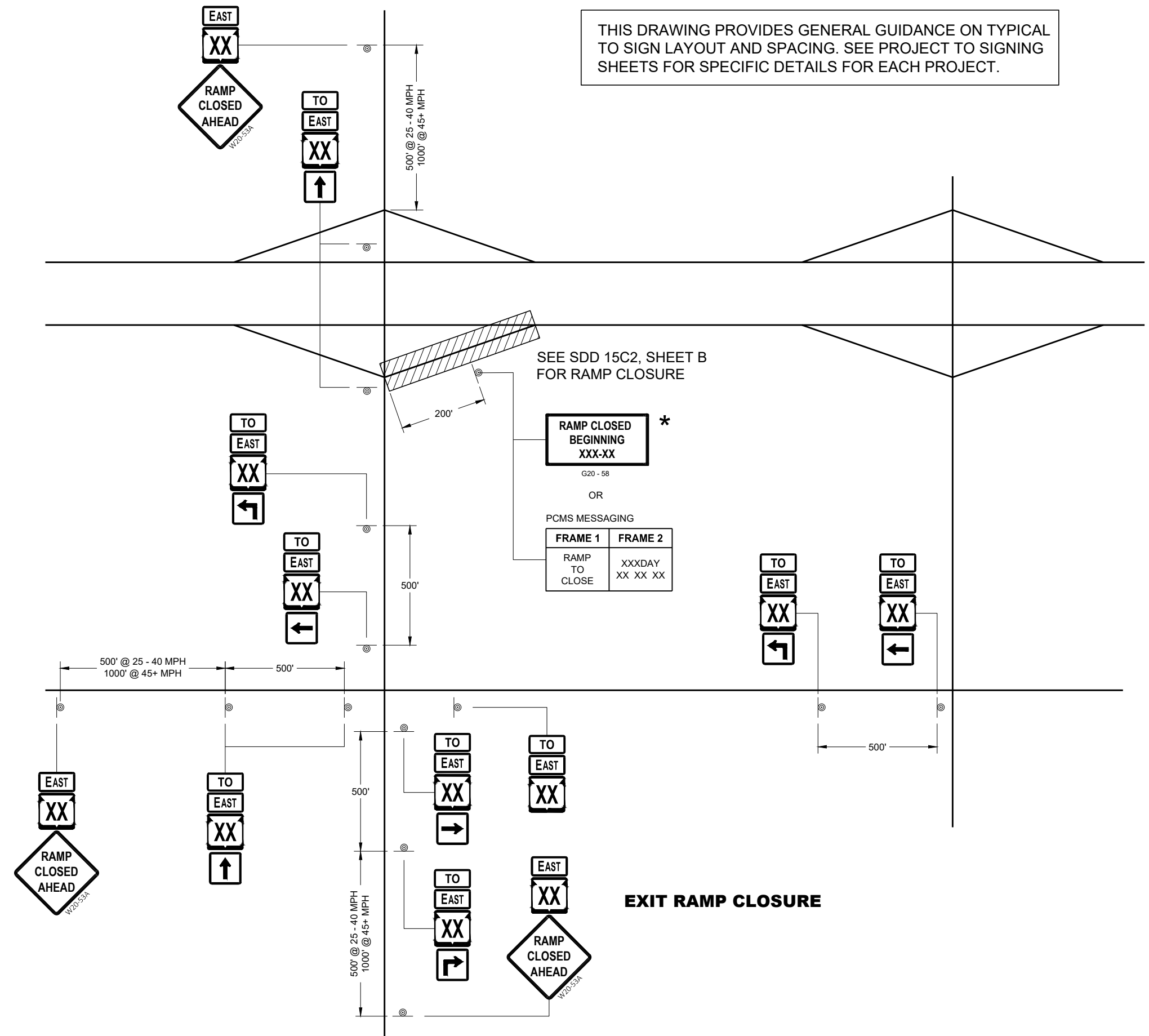
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SDD 15C02 - 08d

SDD 15C02 - 08d

EXIT RAMP CLOSURE

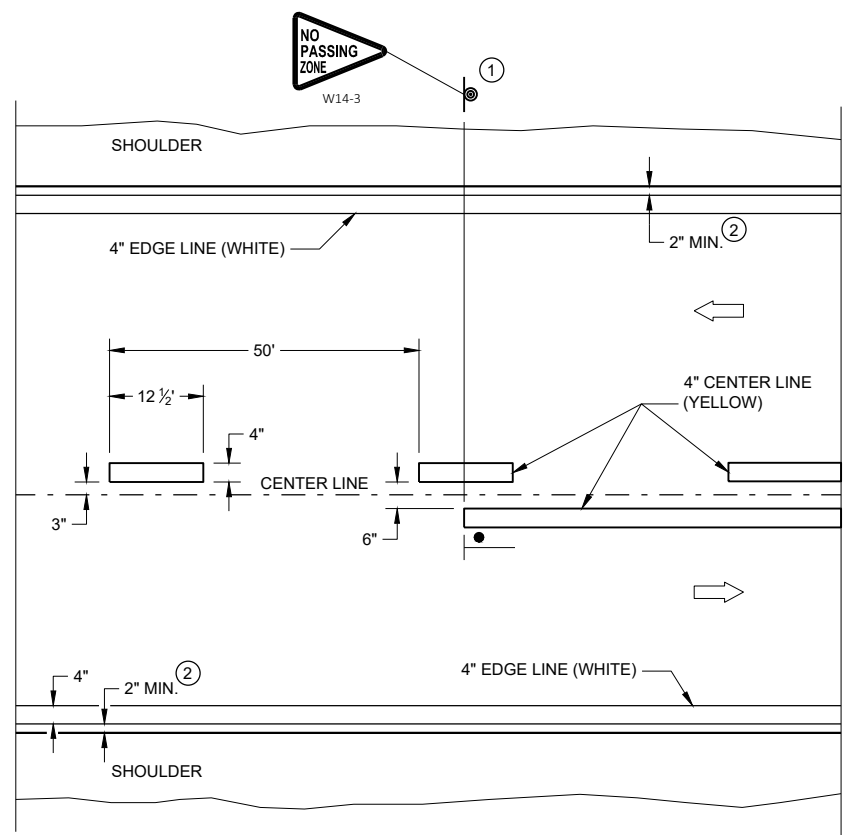


**ON RAMP
LANE CLOSURE**

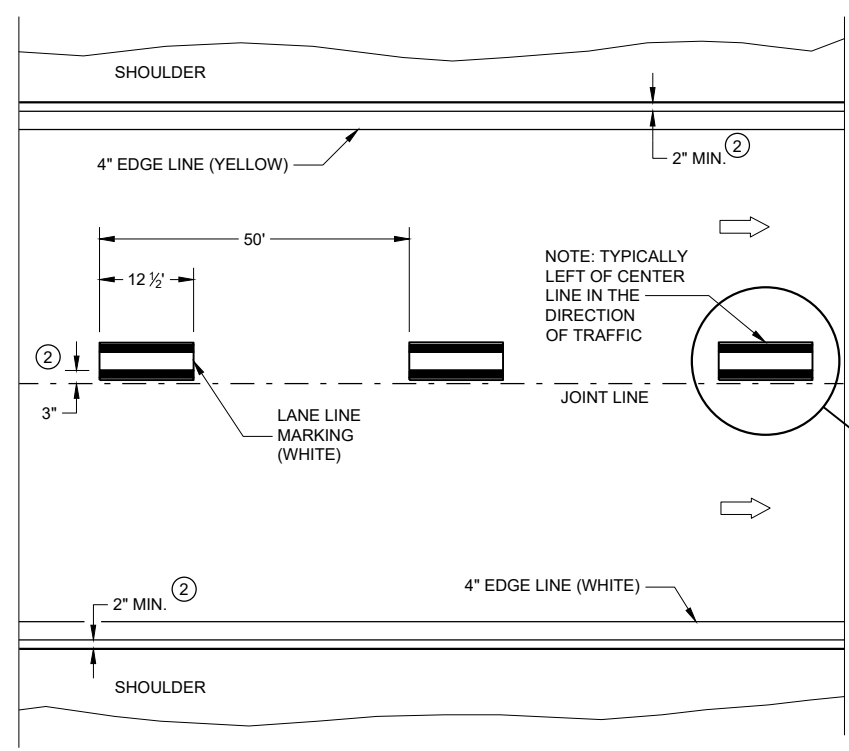
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

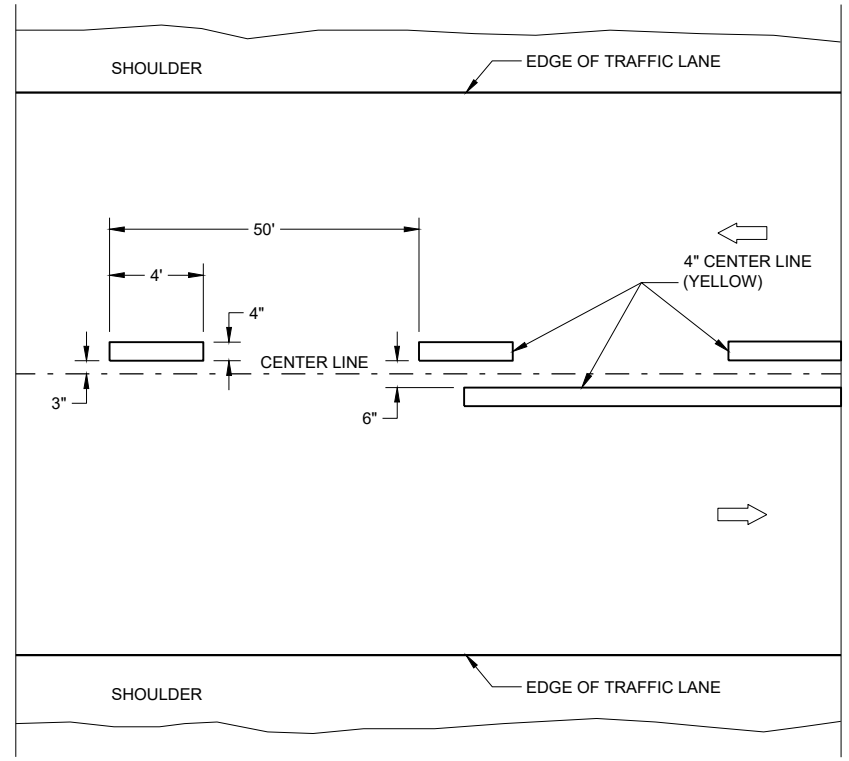


TWO WAY TRAFFIC

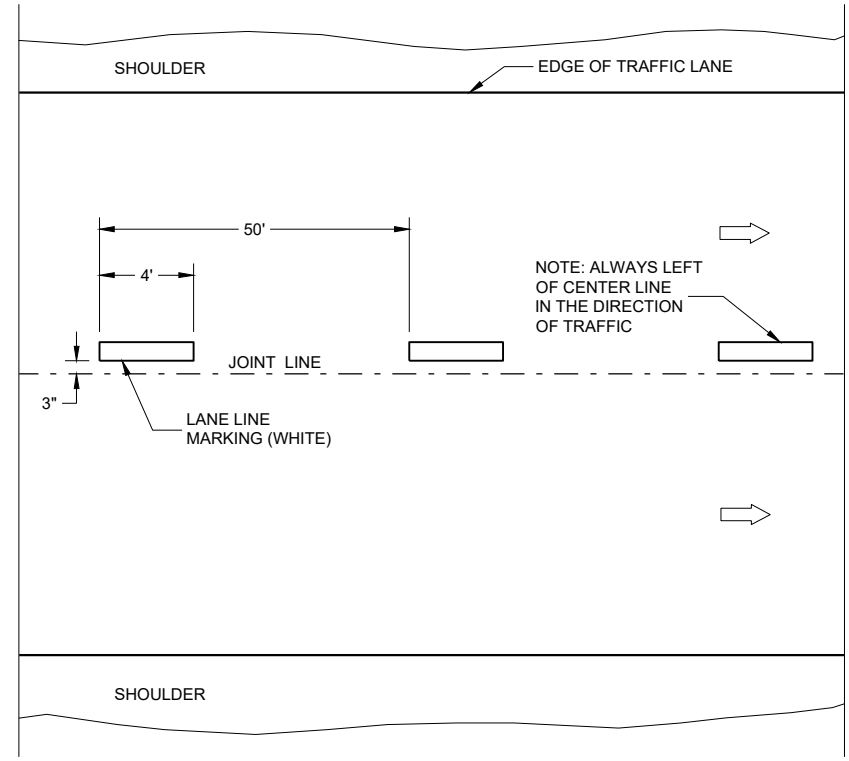


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

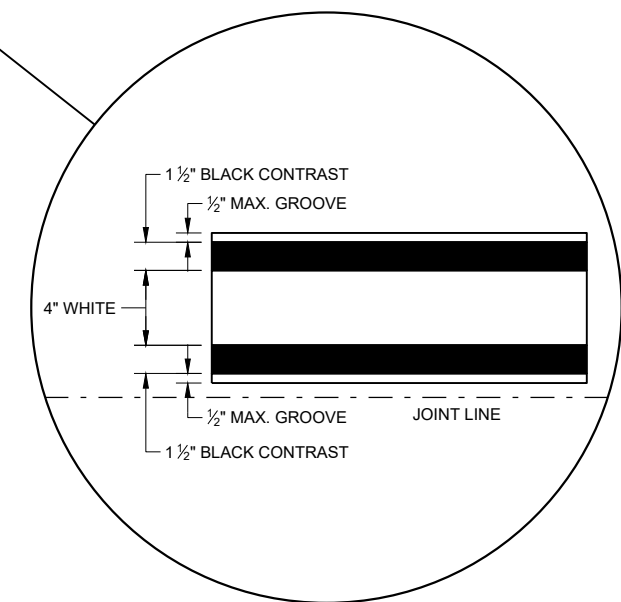
GENERAL NOTES

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
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

- |• "T" MARKING
- |⊙ SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

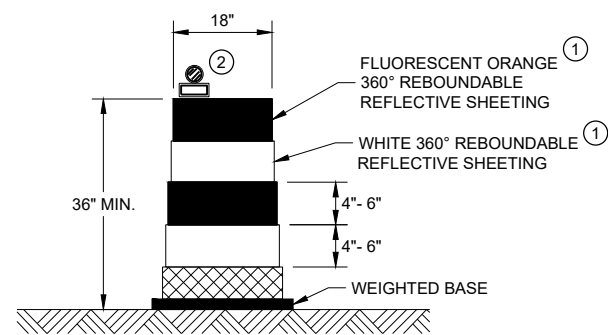


LONGITUDINAL MARKING (MAINLINE)

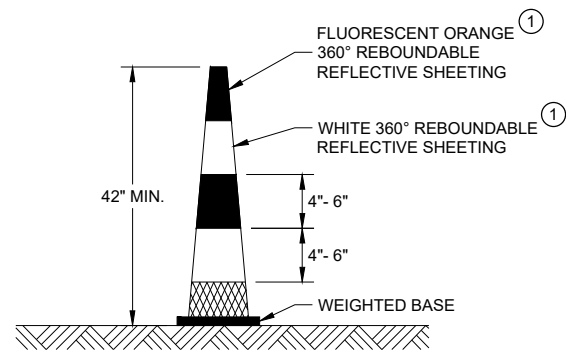
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Matthew Rauch
DATE STATEWIDE SIGNING AND MARKING
ENGINEER

FHWA

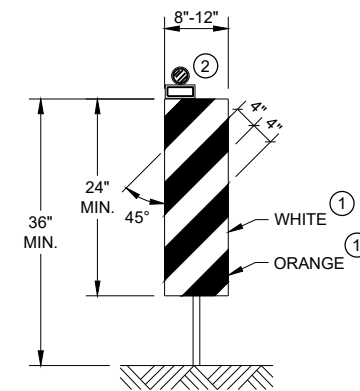


DRUM



42" CONE

DO NOT USE IN TAPERS
 1/2 SPACING OF DRUMS

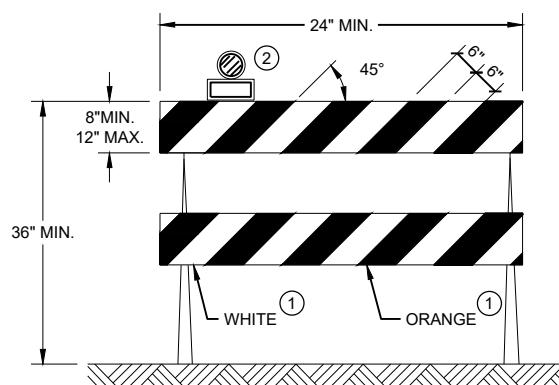


VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.

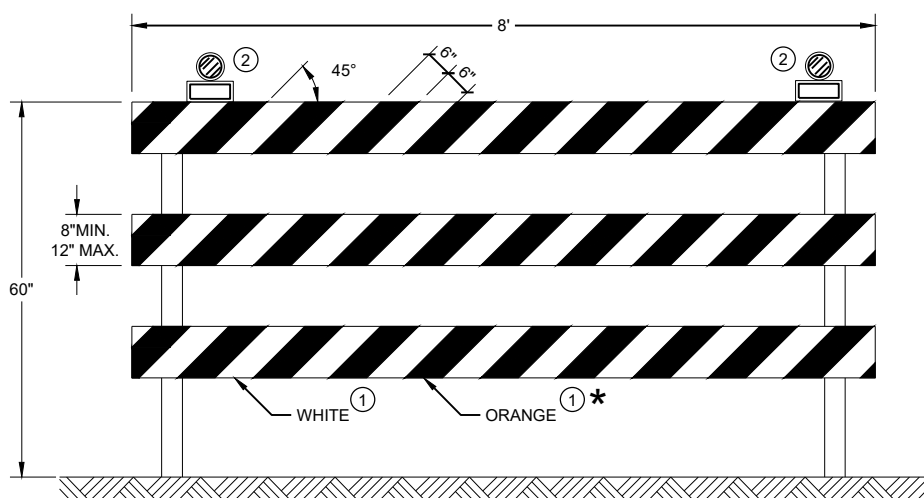
GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

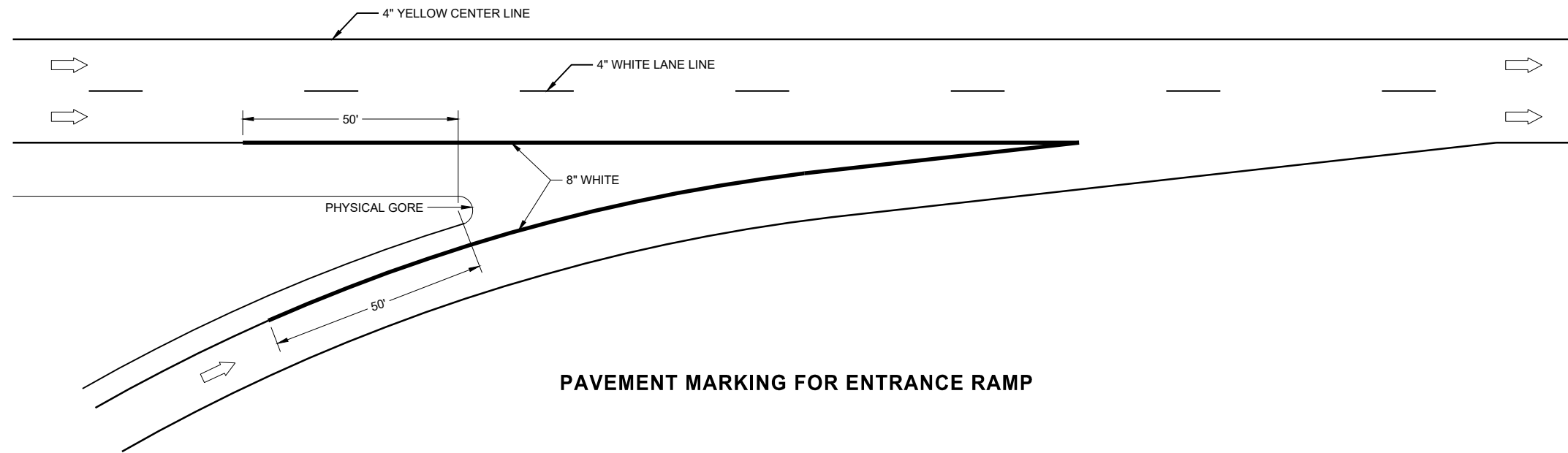
CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
<small>FHWA</small>	

GENERAL NOTES

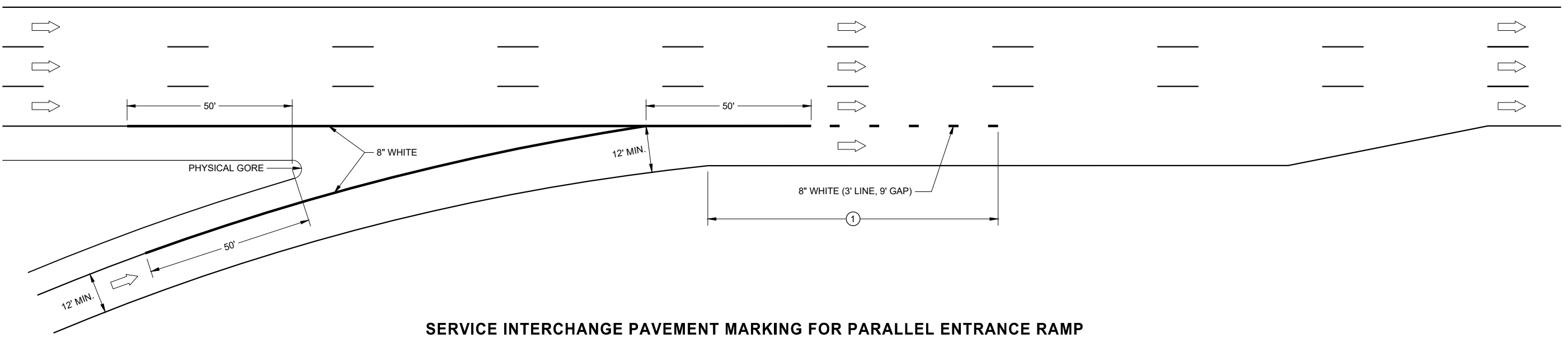
- PLACE GROOVE 3 INCHES LEFT OF JOINT.
- ① ½ LENGTH OF FULL WIDTH ACCELERATION LANE.

LEGEND

➡ DIRECTION OF TRAVEL



PAVEMENT MARKING FOR ENTRANCE RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE RAMP

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SDD 14C31 - 04c

SDD 14C31 - 04c

PAVEMENT MARKING, ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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 TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.










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

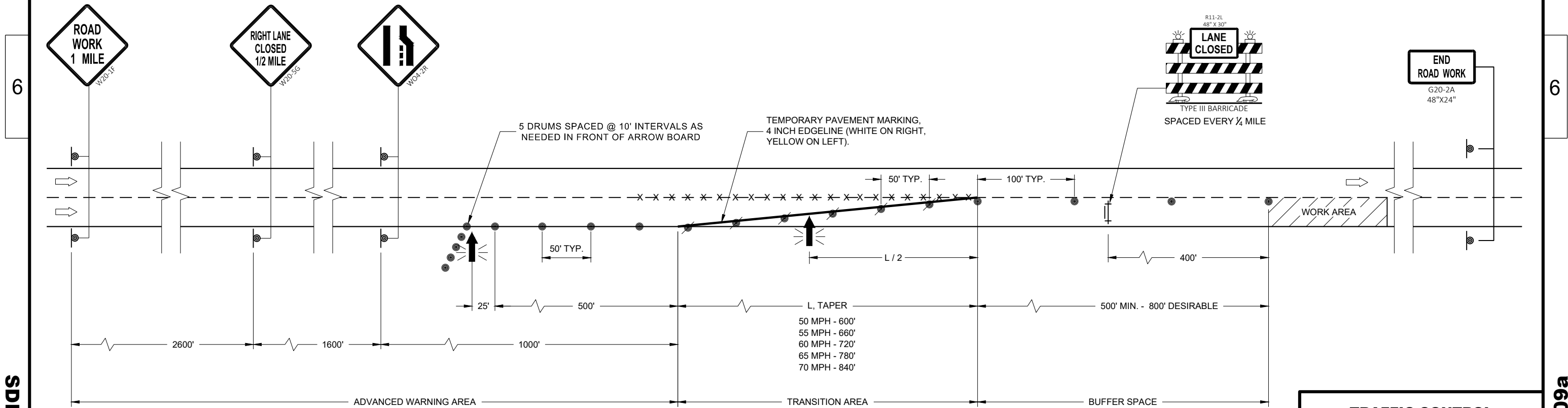
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

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



TRAFFIC CONTROL LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

GENERAL NOTES

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 TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.










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

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

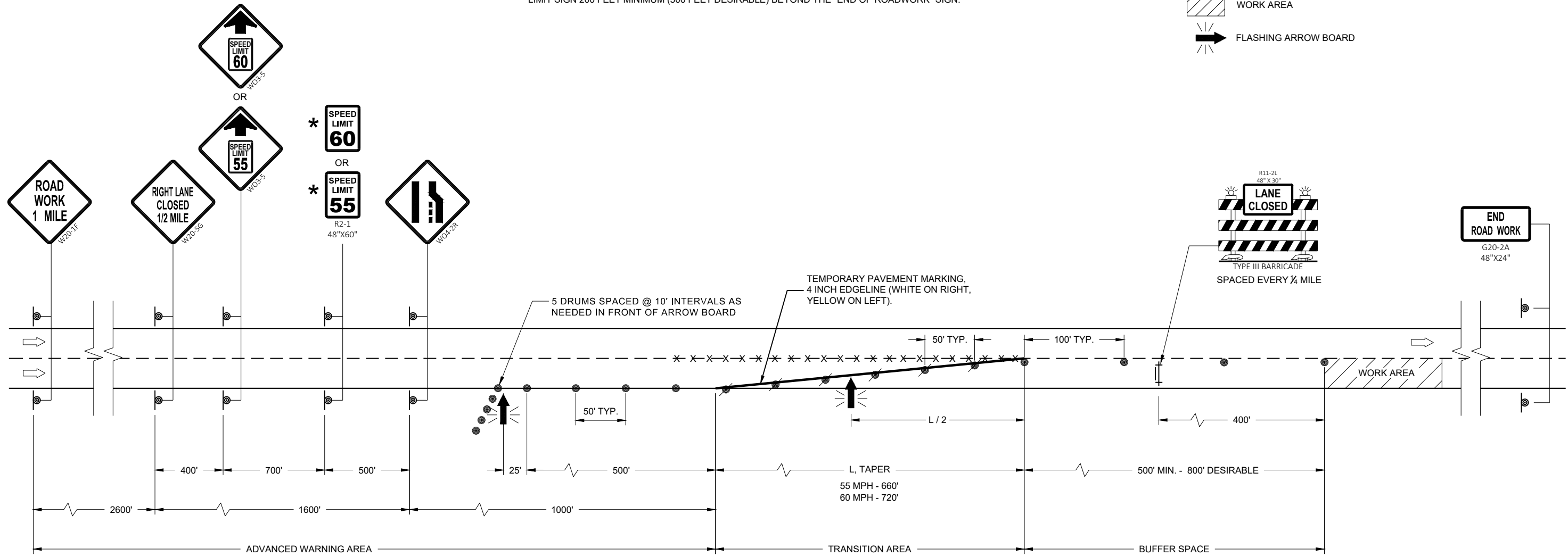
* A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

LEGEND

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

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SDD 15D12 - 09b














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SDD 15D12 - 09b

TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  REMOVING PAVEMENT MARKINGS
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLASHING ARROW BOARD
-  PORTABLE CHANGEABLE MESSAGE SIGN
-  PORTABLE TRAFFIC SENSOR (PTS)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, INCLUDING FBS 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 TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS. WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

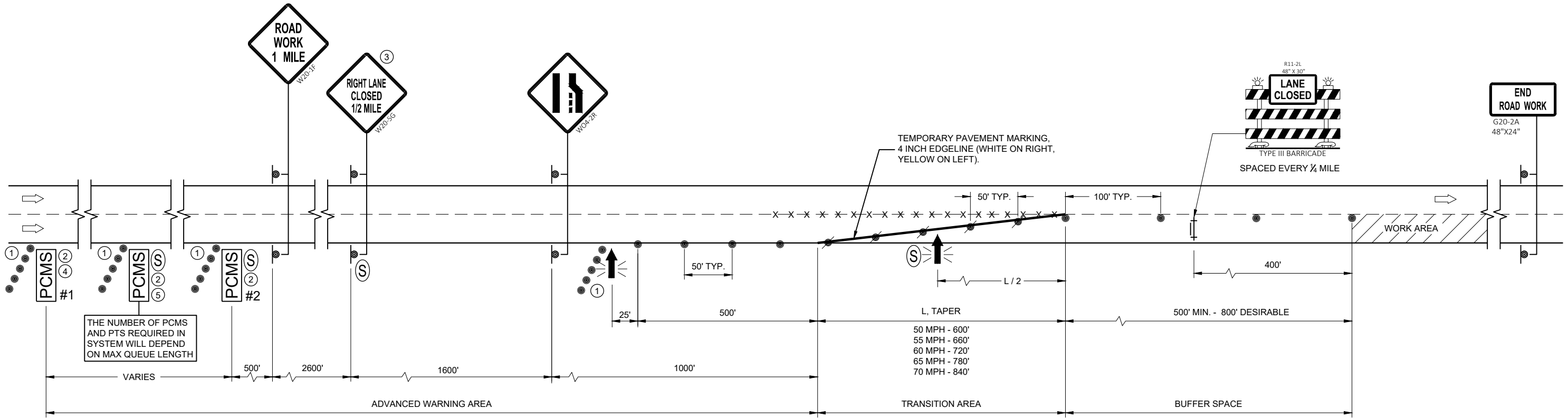
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

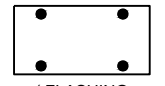
PORTABLE TRAFFIC SENSOR (PTS) MAY BE MOUNTED ON PCMS, ARROW BOARD OR OTHER TRAILER DEVICES.

- ① 5 DRUMS SPACED AT 10 FOOT INTERVALS AS NEEDED.
- ② IF THERE ARE MORE THAN TWO LANES OR IF SPECIFIED IN THE PLANS, PLACE PCMS ON BOTH SIDES OF THE ROADWAY.
- ③ IF THERE IS AN APPROVED TEMPORARY SPEED DECLARATION, ADD WO-3-5 SIGNS 400 FEET AFTER THE W20-5G SIGNS AND ADD R2-1 SIGNS (48"x60") 700 FEET AFTER THE WO3-5 SIGNS. A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A "RESUME SPEED LIMIT" SIGN 200 FEET MINIMUM (800 FEET DESIRABLE) BEYOND THE G30-3A "END ROAD WORK" SIGN.
- ④ PLACE PCMS #1 ONE MILE BEYOND ESTIMATED MAXIMUM QUEUE LENGTH, OR AS THE ENGINEER DIRECTS.
- ⑤ PLACE PCMS EVERY ONE MILE BETWEEN PCMS #1 AND PCMS #2, OR AS THE ENGINEER DIRECTS. THE NUMBER OF PCMS MAY BE MORE THAN SHOWN ON THIS DETAIL.
- ⑥ PCMS SHALL FOLLOW ARROW BOARD STANDARDS WHEN DISPLAYING FLASHING FOUR CORNER CAUTION MODE OR FLASHING ARROW MERGE MODE.



THE NUMBER OF PCMS AND PTS REQUIRED IN SYSTEM WILL DEPEND ON MAX QUEUE LENGTH

⑥ PCMS MESSAGING

SPEEDS 0 MPH TO 19 MPH		SPEEDS 20 MPH TO 39 MPH		SPEEDS 40 MPH AND GREATER
FRAME 1	FRAME 2	FRAME 1	FRAME 2	
STOPPED TRAFFIC AHEAD	EXPECT DELAYS	SLOW TRAFFIC AHEAD	PREPARE TO STOP	 (FLASHING CAUTION MODE)










TRAFFIC CONTROL, LANE CLOSURE, TRAFFIC QUEUE WARNING SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  FLASHING ARROW BOARD
-  DIRECTION OF TRAFFIC
-  WORK AREA

GENERAL NOTES

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

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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 TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

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

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

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

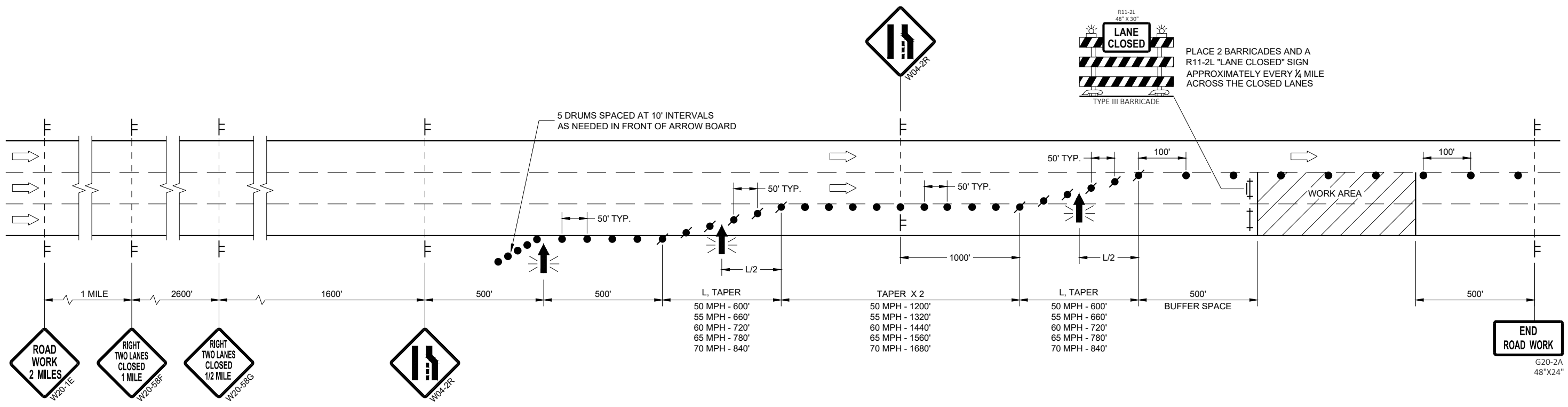
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

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SDD 15D14 - 04

SDD 15D14 - 04

TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 DATE /S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

LEGEND

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

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

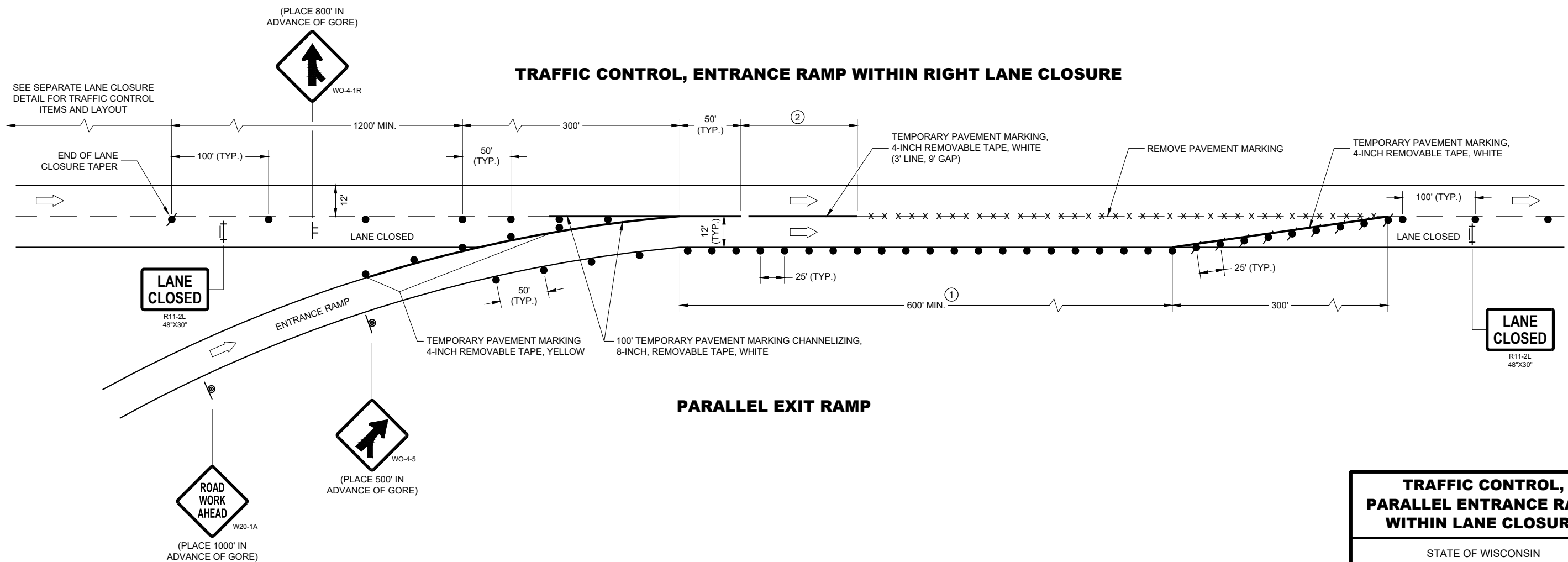
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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.

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

- ① EXTEND THE LENGTH OF THE MERGE ARE IF THE ENTERING (DESIGN) SPEED IS LESS THAN 50MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.
- ② END TEMPORARY MARKING AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE



PARALLEL EXIT RAMP









**TRAFFIC CONTROL,
PARALLEL ENTRANCE RAMP
WITHIN LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2019 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  FLAGS, 16" X 16" MIN., ORANGE
-  DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

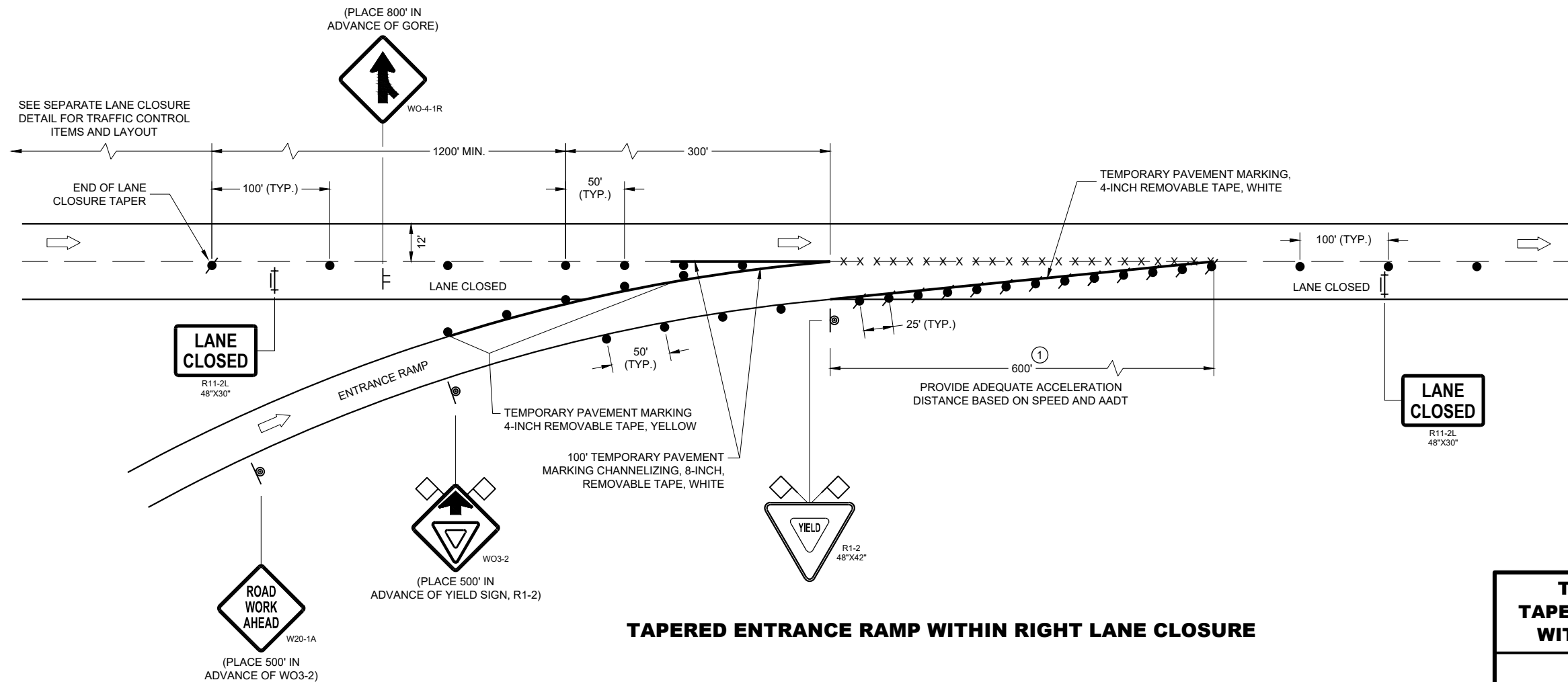
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

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

① CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.



TAPERED ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE








**TRAFFIC CONTROL,
TAPERED ENTRANCE RAMP
WITHIN LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2019 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  FLAGS, 16" X 16" MIN., ORANGE
-  DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

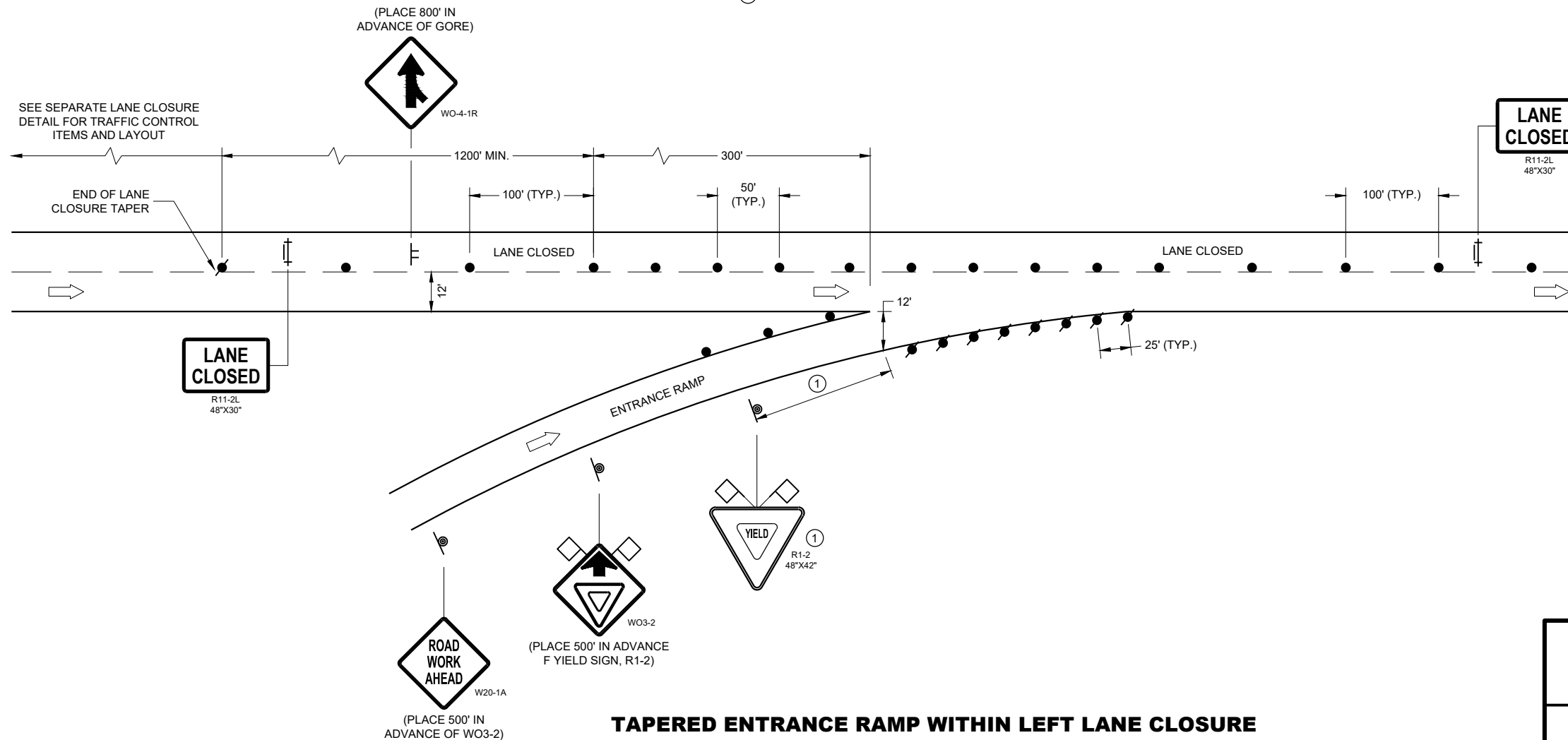
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

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

① PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE

**TRAFFIC CONTROL,
TAPERED ENTRANCE RAMP
WITHIN LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

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

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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.

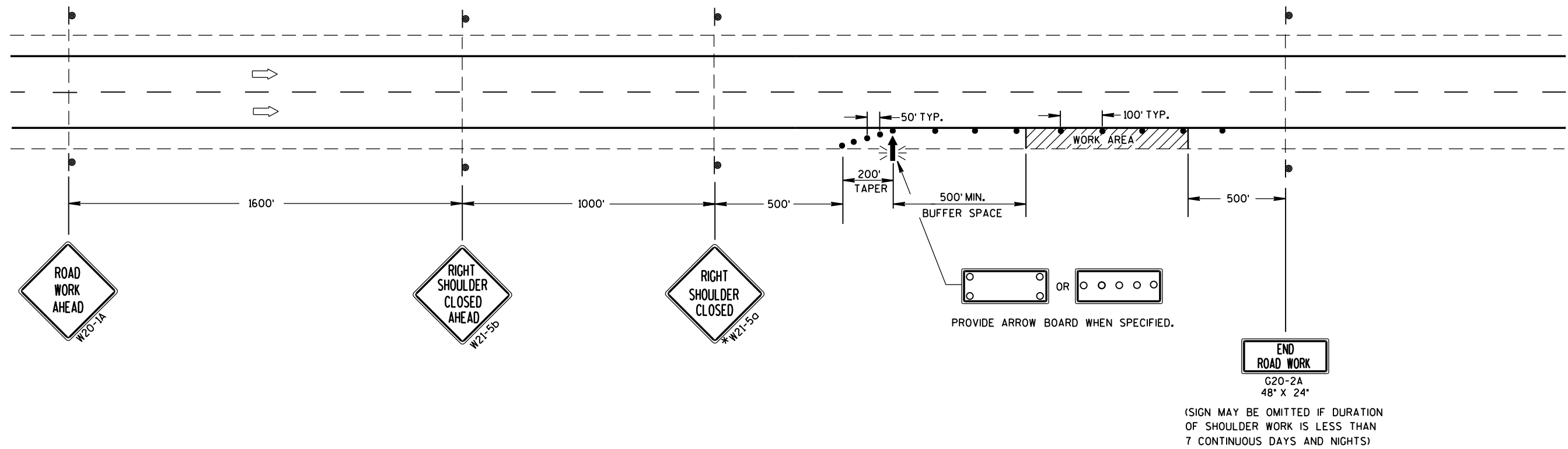
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-50 SIGN MAY BE OMITTED.

LEGEND









- TRAFFIC CONTROL DRUM
- ⊙ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ⚡ FLASHING ARROW BOARD
- ▨ WORK AREA



(SIGN MAY BE OMITTED IF DURATION OF SHOULDER WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS)

TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2016 DATE	/s/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	

LEGEND

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

GENERAL NOTES

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 TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

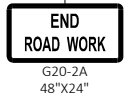
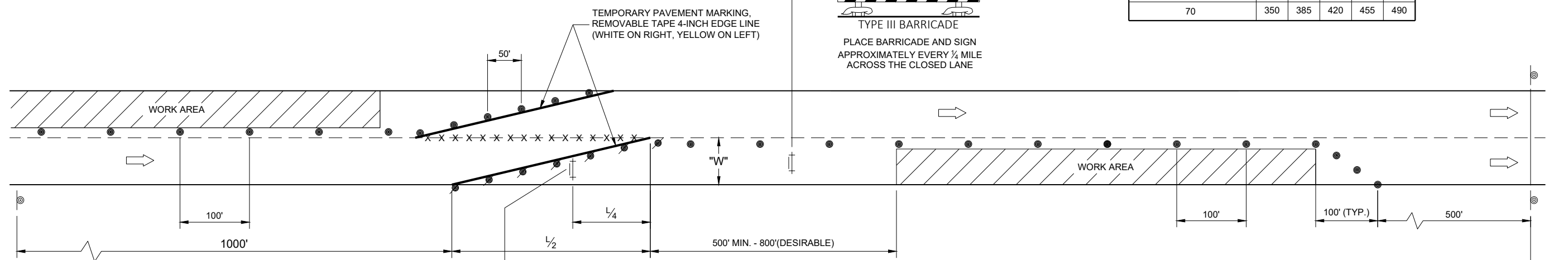
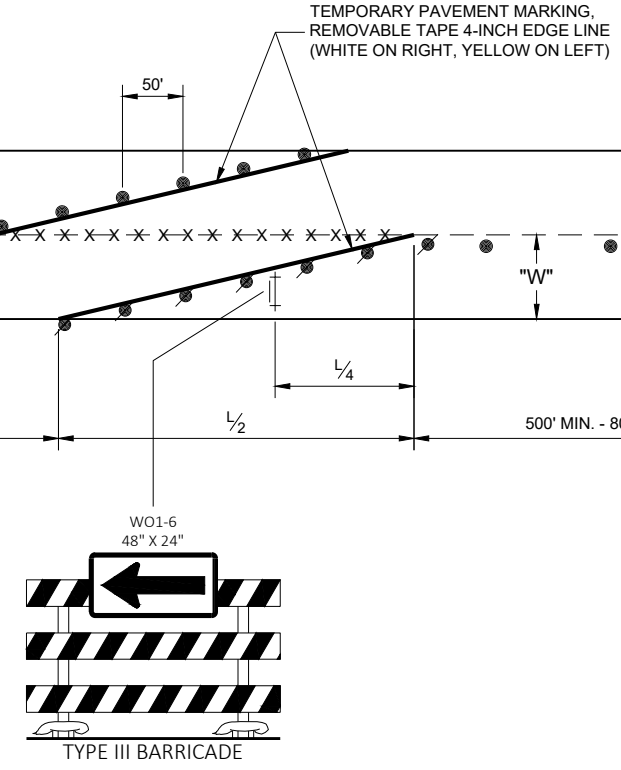
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER 1/2 W, LATERAL OFFSET (FT)				
	10	11	12	13	14
50	250	275	300	325	350
55	275	303	330	358	385
60	300	330	360	390	420
65	325	358	390	423	455
70	350	385	420	455	490



* USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED







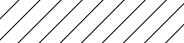
TRAFFIC CONTROL, FULL LANE SHIFT, MULTI-LANE DIVIDED 50 MPH AND OVER

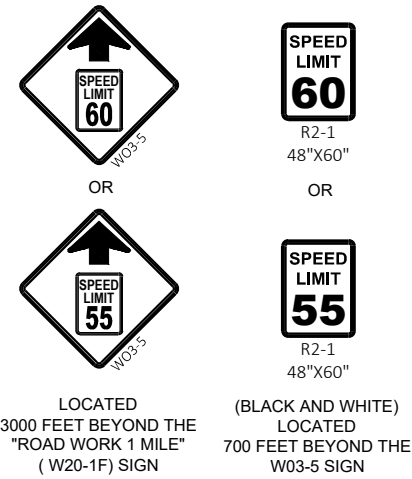
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

LEGEND

-  TYPE III BARRICADE WITH ATTACHED SIGN
-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  CONCRETE BARRIER TEMPORARY PRECAST
-  TYPE "A" WARNING LIGHT (FLASHING)
-  WORK AREA



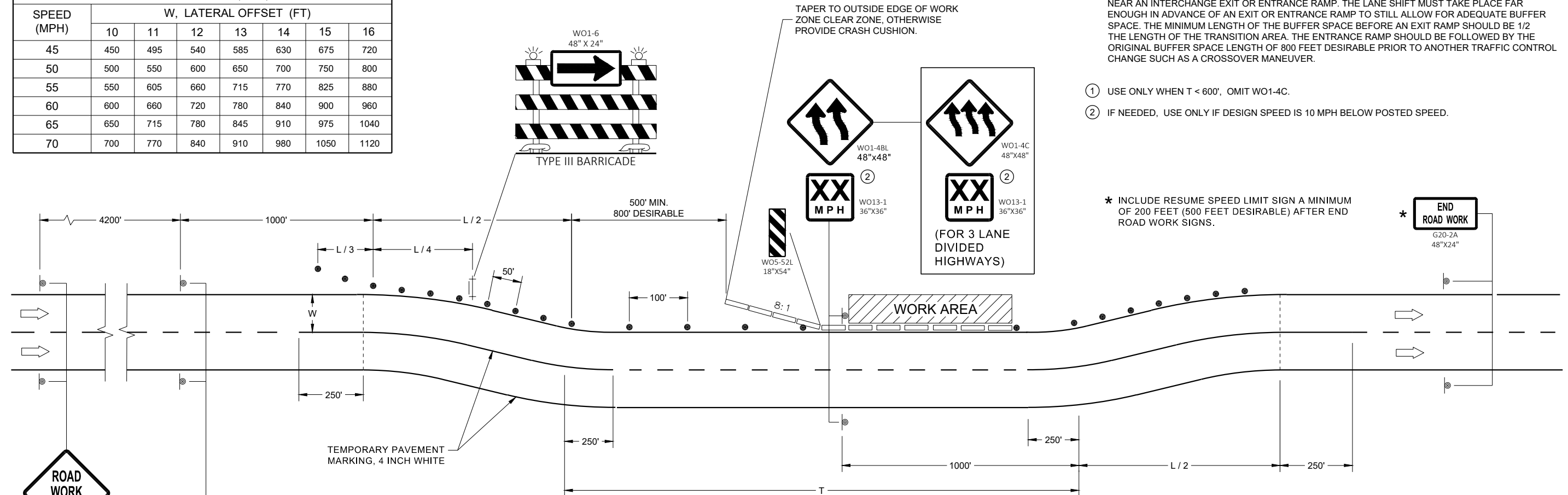
IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 3 MILES.

GENERAL NOTES

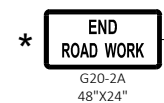
- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.
- THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.
- ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.
- "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- 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.
- FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.
- IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.
- ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

- ① USE ONLY WHEN T < 600', OMIT WO1-4C.
- ② IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

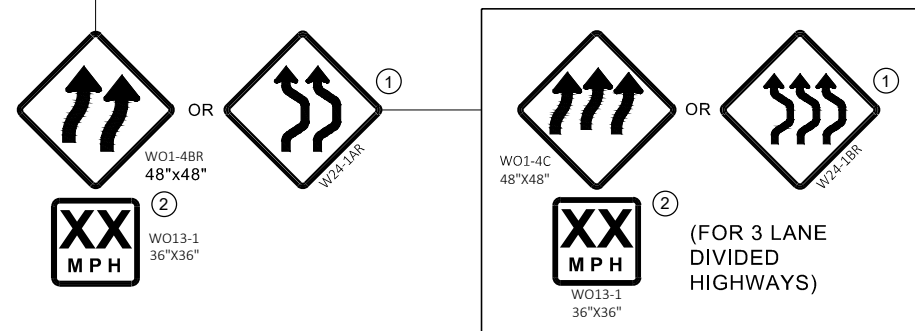
SPEED (MPH)	L, TAPER LENGTH (MPH)						
	W, LATERAL OFFSET (FT)						
	10	11	12	13	14	15	16
45	450	495	540	585	630	675	720
50	500	550	600	650	700	750	800
55	550	605	660	715	770	825	880
60	600	660	720	780	840	900	960
65	650	715	780	845	910	975	1040
70	700	770	840	910	980	1050	1120



* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.



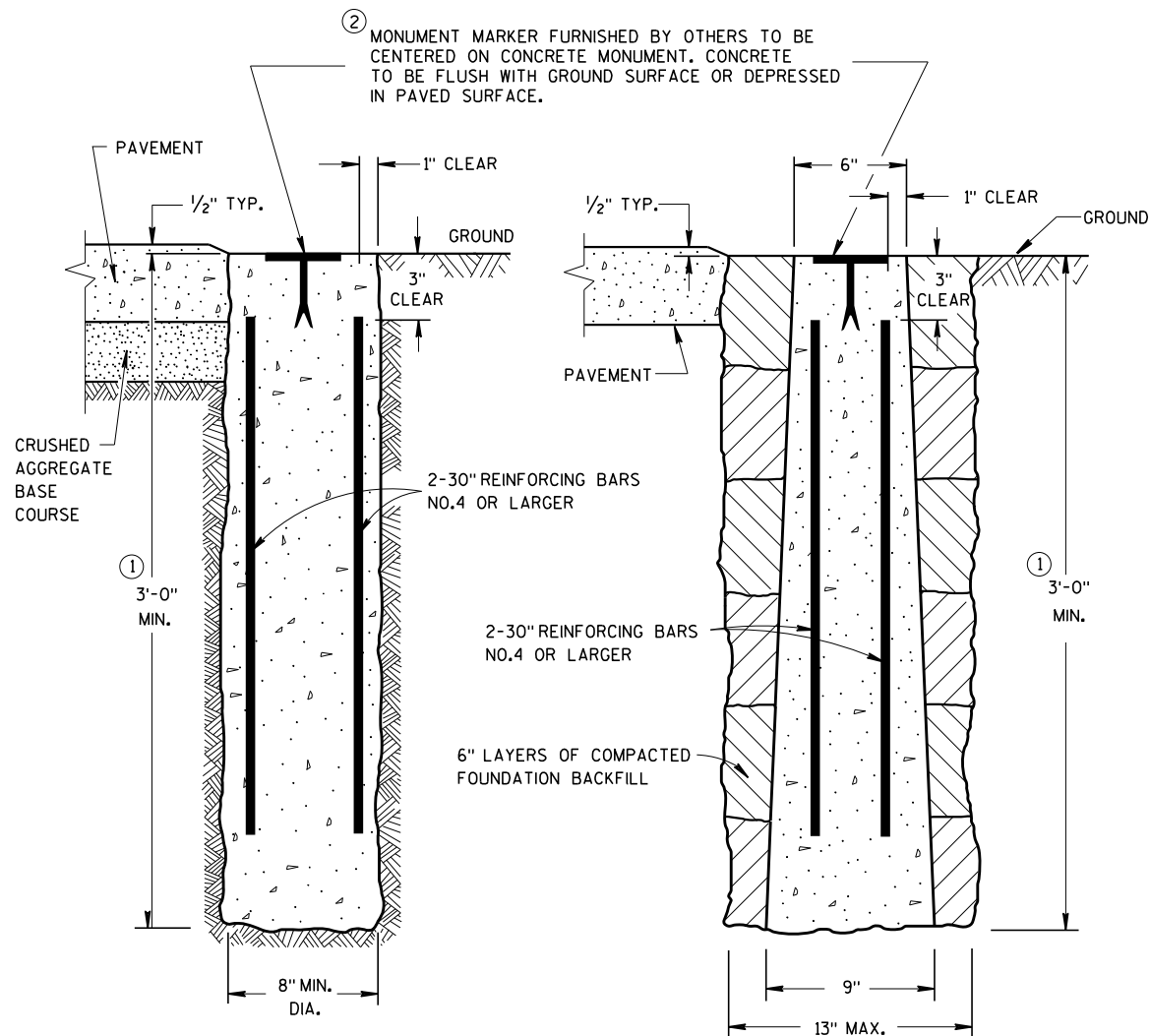
MULTIPLE LANE SHIFT MULTILANE DIVIDED ROAD



TRAFFIC CONTROL MULTIPLE LANE SHIFT MULTILANE DIVIDED ROAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

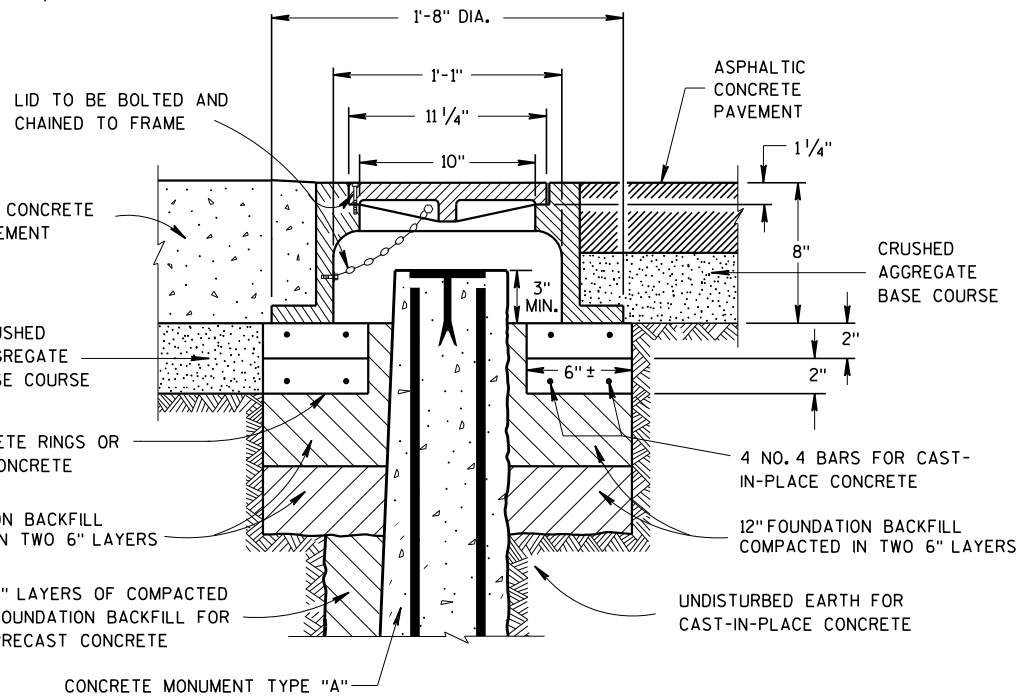
6

6



**CAST-IN-PLACE
CONCRETE MONUMENTS
TYPE A**

PRECAST



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT 95 LBS)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

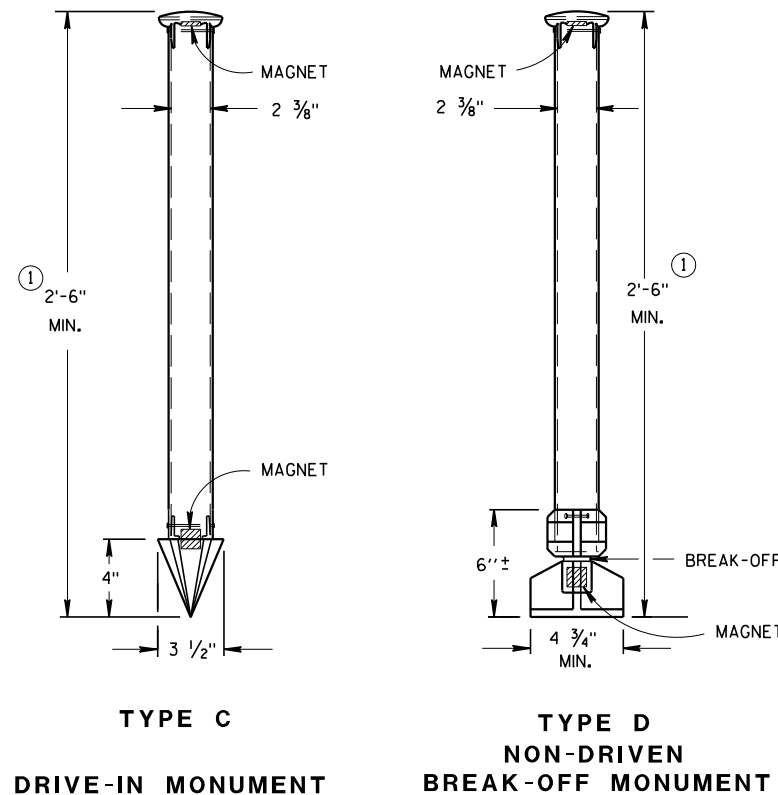
MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER

- ① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.
- ② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TYPE C

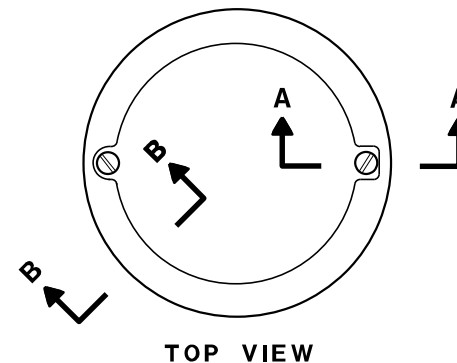
DRIVE-IN MONUMENT

TYPE D

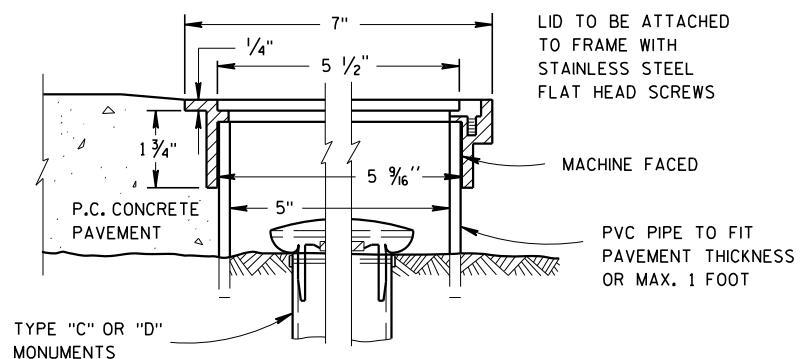
**NON-DRIVEN
BREAK-OFF MONUMENT**

ALUMINUM MONUMENTS

(INCLUDES MARKER)



TOP VIEW



SECTION B-B SECTION A-A

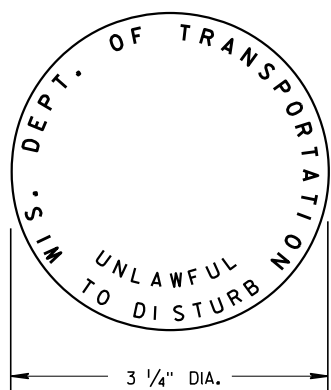
ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

**LANDMARK REFERENCE
MONUMENTS AND COVERS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

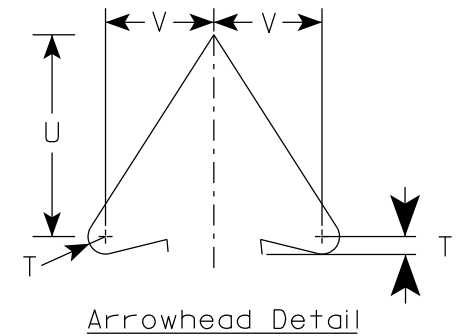
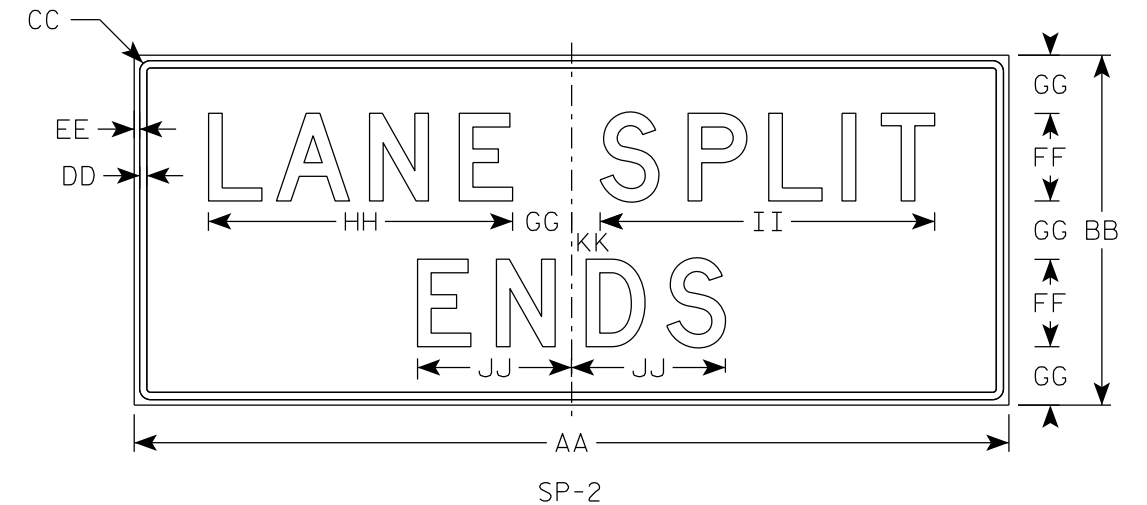
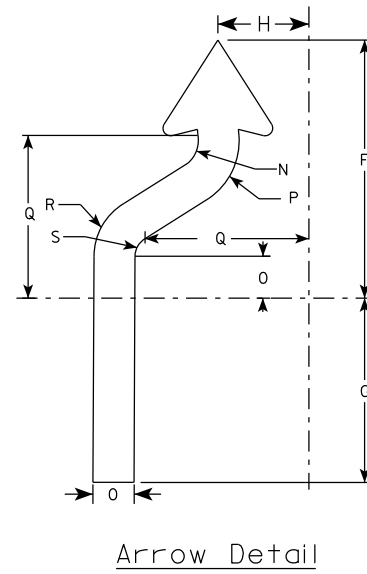
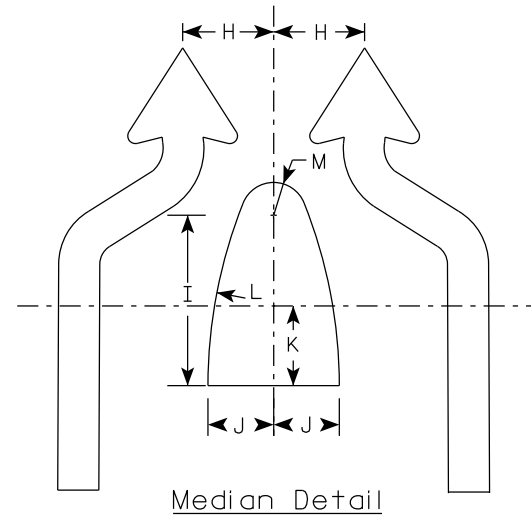
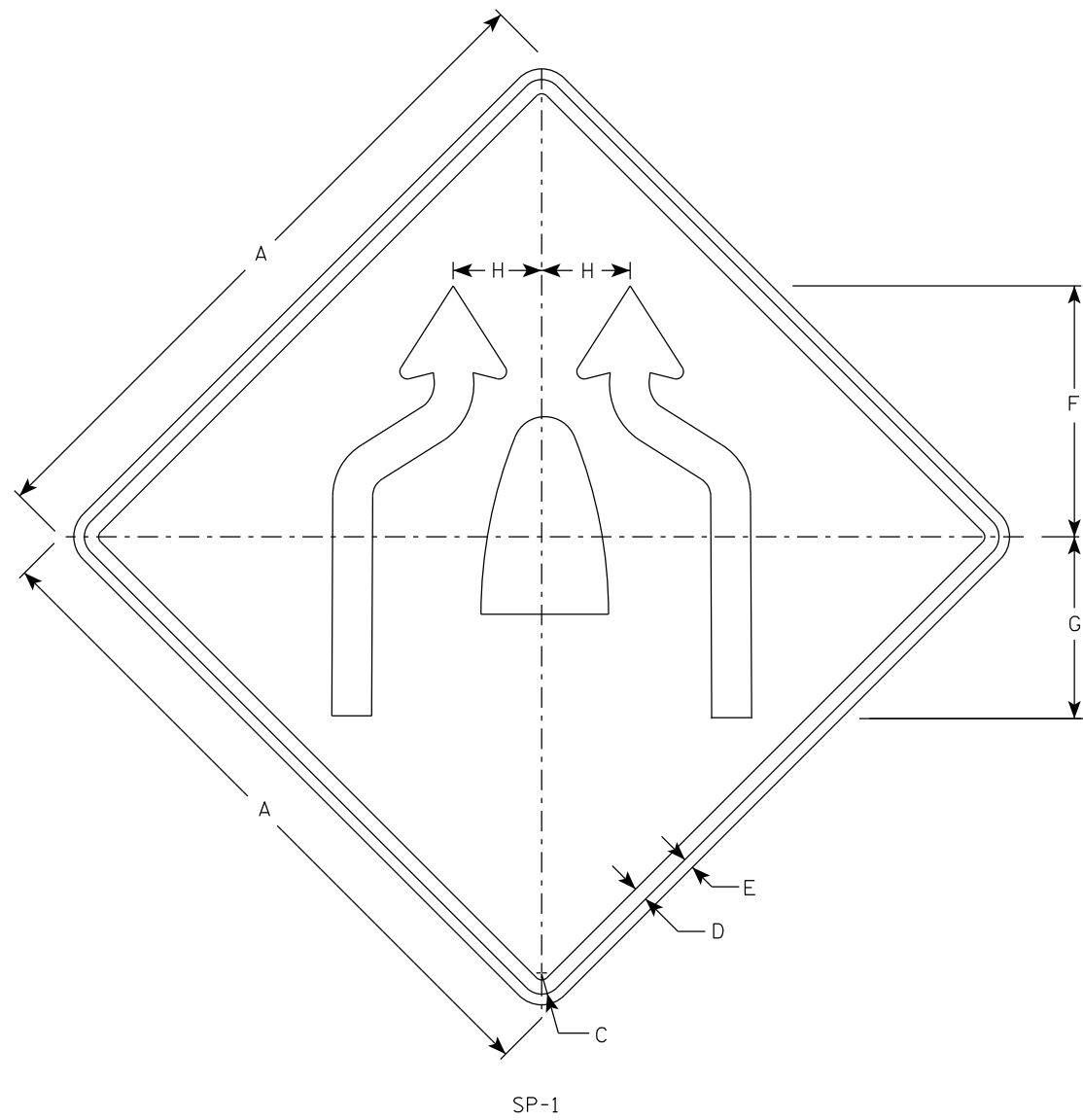
APPROVED
March 2018 /S/ Raymond A. Kumapayi
DATE CHIEF SURVEYING AND MAPPING ENGINEER
FHWA



② **WIS DOT MONUMENT
MARKER LOGO**
FOR TYPES "A", "C", & "D"

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	SP-1 Area sq. ft.	SP-2 Area sq. ft.
1																												
2S	48		2 1/4	1	3/4	17 3/4	12 7/8	6 1/4	11 3/4	4 1/2	5 1/2	33 3/4	2 1/4	2 1/8	2 3/4	4 3/4	11 1/4	4 1/4	1 3/8	1/2	5 3/4	3 1/4					16.0	10.0
2M	48		2 1/4	1	3/4	17 3/4	12 7/8	6 1/4	11 3/4	4 1/2	5 1/2	33 3/4	2 1/4	2 1/8	2 3/4	4 3/4	11 1/4	4 1/4	1 3/8	1/2	5 3/4	3 1/4					16.0	10.0
3	48		2 1/4	1	3/4	17 3/4	12 7/8	6 1/4	11 3/4	4 1/2	5 1/2	33 3/4	2 1/4	2 1/8	2 3/4	4 3/4	11 1/4	4 1/4	1 3/8	1/2	5 3/4	3 1/4					16.0	10.0
4	48		2 1/4	1	3/4	17 3/4	12 7/8	6 1/4	11 3/4	4 1/2	5 1/2	33 3/4	2 1/4	2 1/8	2 3/4	4 3/4	11 1/4	4 1/4	1 3/8	1/2	5 3/4	3 1/4					16.0	10.0
5	48		2 1/4	1	3/4	17 3/4	12 7/8	6 1/4	11 3/4	4 1/2	5 1/2	33 3/4	2 1/4	2 1/8	2 3/4	4 3/4	11 1/4	4 1/4	1 3/8	1/2	5 3/4	3 1/4					16.0	10.0

SIZE	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY	ZZ
1																										
2S	60	24	1 1/8	1/2	3/8	6	4	20 7/8	22 7/8	10 1/2	2															
2M	60	24	1 1/8	1/2	3/8	6	4	20 7/8	22 7/8	10 1/2	2															
3	60	24	1 1/8	1/2	3/8	6	4	20 7/8	22 7/8	10 1/2	2															
4	60	24	1 1/8	1/2	3/8	6	4	20 7/8	22 7/8	10 1/2	2															
5	60	24	1 1/8	1/2	3/8	6	4	20 7/8	22 7/8	10 1/2	2															

PROJECT NO: 1011-01-75

HWY: IH 39

COUNTY: DANE

TEMPORARY SIGNING

SHEET NO:

E

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>