WKE June 08, 2021

PROJECT ID: 1310-17-70
WITH: N/A

COUNTY: WALWORTH & KENOSHA

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control)
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right-of-Way Plat~~
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	Cross Sections

TOTAL SHEETS = 256



N

DESIGN DESIGNATION

A.A.D.T.	(2025)	=	14,700
A.A.D.T.	(2045)	=	17,300
D.H.V.		=	-- -- --
D.D.		=	50/50
T.		=	8.1%
DESIGN SPEED		=	65 MPH
ESALS		=	3,000,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE	300'EB'	ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

GENEVA RD, TOWN WHEATLAND

GRAND GENEVA WAY TO CTH O

STH 50

WALWORTH AND KENOSHA COUNTIES

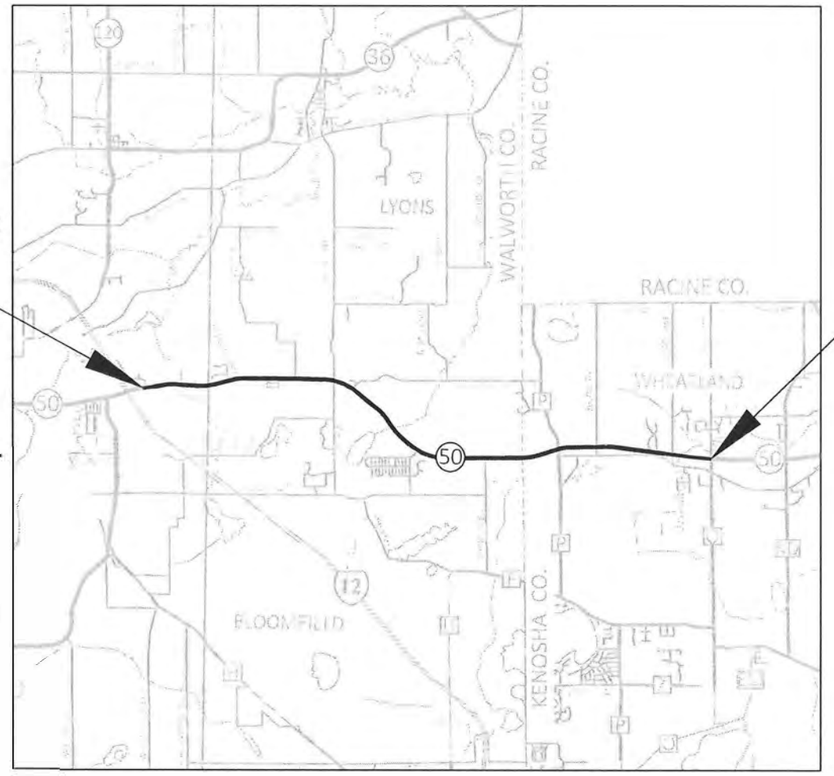
STATE PROJECT NUMBER
1310-17-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1310-17-70	WISC 2021346	1

R-18-E | R-19-E

T-2-N

T-1-N



BEGIN PROJECT
STA. 194+00.00
X = 799,955.54
Y = 337,319.18

END PROJECT
STA. 612+78.95

LAYOUT

SCALE 0 2.0 MI

TOTAL NET LENGTH OF CENTERLINE = 7.932

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WALWORTH COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD88 (2012).

ORIGINAL PLANS PREPARED BY:

STRAND ASSOCIATES®
910 WEST WINGRA DRIVE
MADISON, WISCONSIN 53715-1943
(608) 251-4843

WISCONSIN ERIC D. HANSON E-38350 MADISON, WI PROFESSIONAL ENGINEER
1-27-21

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	STRAND ASSOCIATES, INC.
Designer	STRAND ASSOCIATES, INC.
Project Manager	GARY METZER, P.E.
Regional Examiner	WISDOT SE REGION
Regional Supervisor	JANET CANNON, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 27 Jan 2021 Gary Metzer (Signature)

E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\010101-TI.DWG PLOT DATE : 1/15/2021 3:30 PM PLOT BY : NOTSON, ERIC PLOT NAME :

GENERAL NOTES

DISTURBED AREAS WITHIN THE RIGHT OF WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

WHEN THE QUANTITY OF BASE AGGREGATE DENSE IS MEASURED FOR PAYMENT IN TONS, THE DEPTH OR THICKNESS AS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND UPON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

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

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

CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND SEWRPC (ROB MERRY); AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY SECTION CORNER MONUMENT.

HMA PAVEMENT SUMMARY TABLE

4" HMA PAVEMENT (MAINLINE OVERLAY)*		
LAYER	THICKNESS	HMA TYPE
UPPER LAYER	1 3/4"	4 MT 58-28 S
LOWER LAYER	2 1/4"	3 MT 58-28 S
7" HMA PAVEMENT (381ST AVENUE RIGHT TURN LANE)*		
LAYER	THICKNESS	HMA TYPE
UPPER LAYER	1 3/4"	4 MT 58-28 S
MIDDLE LAYER	2 1/4"	3 MT 58-28 S
LOWER LAYER	3"	3 MT 58-28 S
2 1/4" HMA PAVEMENT (MAINLINE OVERLAY AT CTH P)*		
LAYER	THICKNESS	HMA TYPE
UPPER LAYER	2 1/4"	4 MT 58-28 S
4" HMA PAVEMENT (RIGHT TURN LANE PAVING)*		
LAYER	THICKNESS	HMA TYPE
UPPER LAYER	1 3/4"	4 MT 58-28 S
LOWER LAYER	2 1/4"	3 MT 58-28 S
1 3/4" HMA PAVEMENT (MAINLINE OUTSIDE SHOULDERS ADJACENT TO ASPHALT)*		
LAYER	THICKNESS	HMA TYPE
UPPER LAYER	1 3/4"	4 MT 58-28 S
2" HMA PAVEMENT (MAINLINE INSIDE SHOULDERS ADJACENT TO ASPHALT)*		
LAYER	THICKNESS	HMA TYPE
UPPER LAYER	1 3/4"	4 MT 58-28 S
3 1/2" HMA PAVEMENT (MAINLINE SHOULDERS ADJACENT TO CONCRETE)*		
LAYER	THICKNESS	HMA TYPE
UPPER LAYER	3 1/2"	4 MT 58-28 S

* SEE TYPICAL SECTIONS FOR HMA PAVEMENT LOCATIONS

UTILITY CONTACTS

ANR PIPELINE CO - GAS/PETROLEUM
TODD BRISTER
W3925 PIPELINE LANE
EDEN, WI 53019
(920) 477-2235
TODD_BRISTER@TCENERGY.COM

AT&T WISCONSIN - COMMUNICATION LINE
MICHAEL VANBOVEN
411 7TH STREET
RACINE, WI 53403
(262) 636-0514
MV3658@ATT.COM

ATC MANAGEMENT, INC. - ELECTRICITY-TRANSMISSION
CHRIS DAILEY
P.O. BOX 47
WAUKESHA, WI 53187-0047
(262) 506-6884
CDAILEY@ATCLLC.COM

ALLIANT ENERGY - ELECTRICITY
DEANNA SCHUETT
400 KOOPMAN LANE
ELKHORN, WI 53511
(608) 364-6569
DEANNASCHUETT@ALLIANTENERGY.COM

MIDWEST FIBER NETWORKS - COMMUNICATION LINE
CORY SCHMUKI
6070 NORTH FLINT ROAD
GLENDALE, WI 53209
(414) 459-3561
CSCHMUKI@MIDWESTFIBERNETWORKS.COM

PAETEC COMMUNICATIONS, LLC - COMMUNICATION LINE
ERIC BECKER
314 N DANZ AVENUE
GREEN BAY, WI 54302-3526
(920) 461-9825
ERIC.BECKER@WINDSTREAM.COM

SPECTRUM - COMMUNICATION LINE
BEAU ABUYA
1320 N DR MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212
(414) 758-9241
BEAU.ABUYA@CHARTER.COM

TDS TELECOM - COMMUNICATION LINE
JASON GRIFFITHS
311ELIZABETH STREET
PO BOX 190
WATERFORD, WI 53185
(262) 741-8806
JASON.GRIFFITHS@TDSMETRO.COM

WISCONSIN DEPARTMENT OF TRANSPORTATION - STREET LIGHTING
ERIC PEREA
141 NW BARSTOW STREET
WAUKESHA, WI 53188
(262) 574-5422
ERIC.PEREA@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION - WISCONSIN SIGNAL
PARWINDER VIRK
141 NW BARSTOW STREET
WAUKESHA, WI 53188
(414) 852-0829
PARWINDER.VIRK@DOT.WI.GOV

WE ENERGIES - ELECTRICITY
ADAM PSICIHULIS
700 S KANE STREET
BURLINGTON, WI 53105
(262) 763-1011
ADAM.PSICIHULIS@WE-ENERGIES.COM
ELECTRICAL DISPATCH: 1-800-662-4797

WE ENERGIES - GAS/PETROLEUM
SCOTT HOLSTEIN
700 S KANE STREET
BURLINGTON, WI 53105
(262) 763-1084
SCOTT.HOLSTEIN@WE-ENERGIES.COM
GAS DISPATCH: 1-800-261-5325

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

SECTION 2 ORDER OF SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS (INCLUDES EROSION CONTROL)
INTERSECTION DETAILS
PLAN DETAILS
PERMANENT SIGNING
TRAFFIC SIGNAL PLAN
PAVEMENT MARKING
TRAFFIC CONTROL

DESIGNER NOTES

DESIGN, PLANS, SPECIFICATIONS, AND ESTIMATE FOR PERMANENT SIGNING AND TRAFFIC SIGNAL COMPONENTS PROVIDED BY WISDOT.

DESIGN, PLANS, SPECIFICATIONS, AND ESTIMATE FOR REMAINING ITEMS PROVIDED BY STRAND ASSOCIATES, INC.

SEWRPC CONTACT

ROB MERRY
SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
(262) 953-4289
RMERRY@SEWRPC.ORG

DNR LIAISON

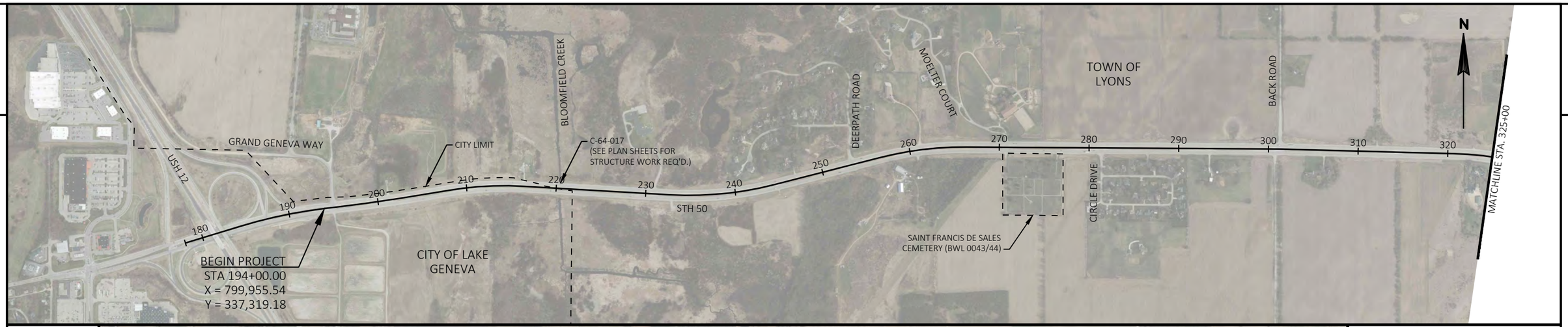
CRAIG WEBSTER
DNR SERVICE CENTER
141 NW BARSTOW STREET
WAUKESHA, WI 53188
(262) 574-2141
CRAIG.WEBSTER@WISCONSIN.GOV

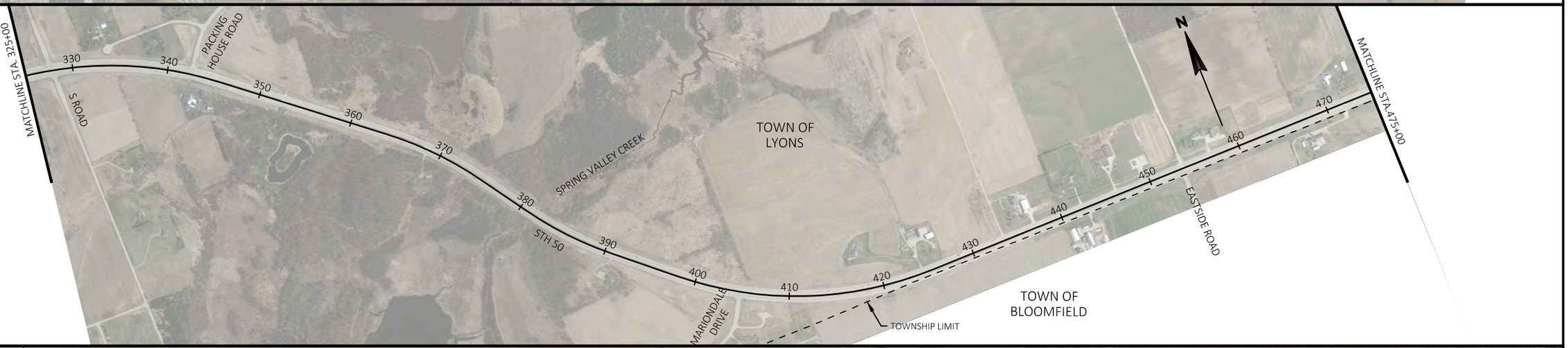
WISDOT REGION CONTACT

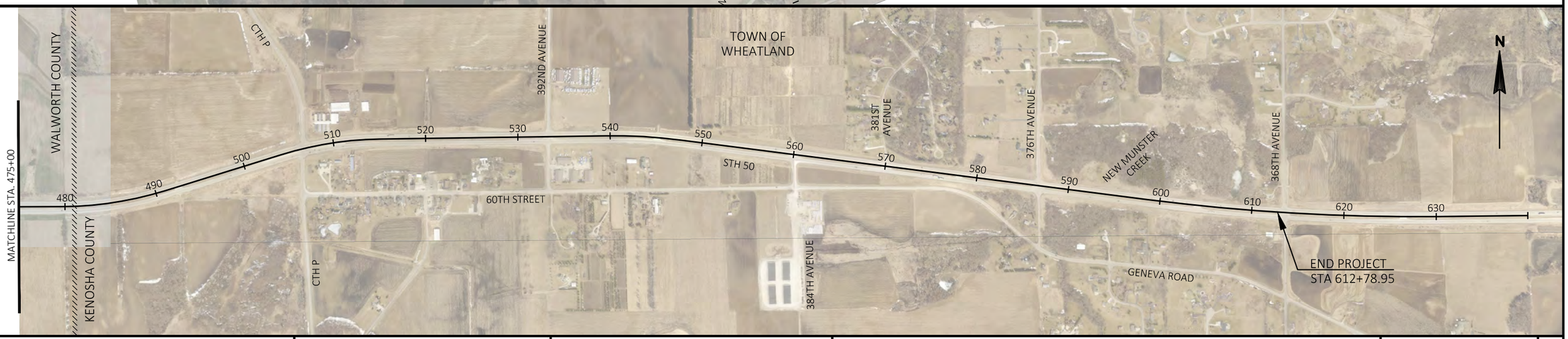
GARY METZER, P.E.
WISDOT SOUTHEAST REGION
WAUKESHA OFFICE
141 NW BARSTOW STREET
WAUKESHA, WI 53188
(262) 548-5685
GARY.METZER@DOT.WI.GOV

DESIGN CONSULTANT

ERIC HANSON, P.E.
STRAND ASSOCIATES, INC.
910 WEST WINGRA DRIVE
MADISON, WI 53715
(608) 251-4843
ERIC.HANSON@STRAND.COM

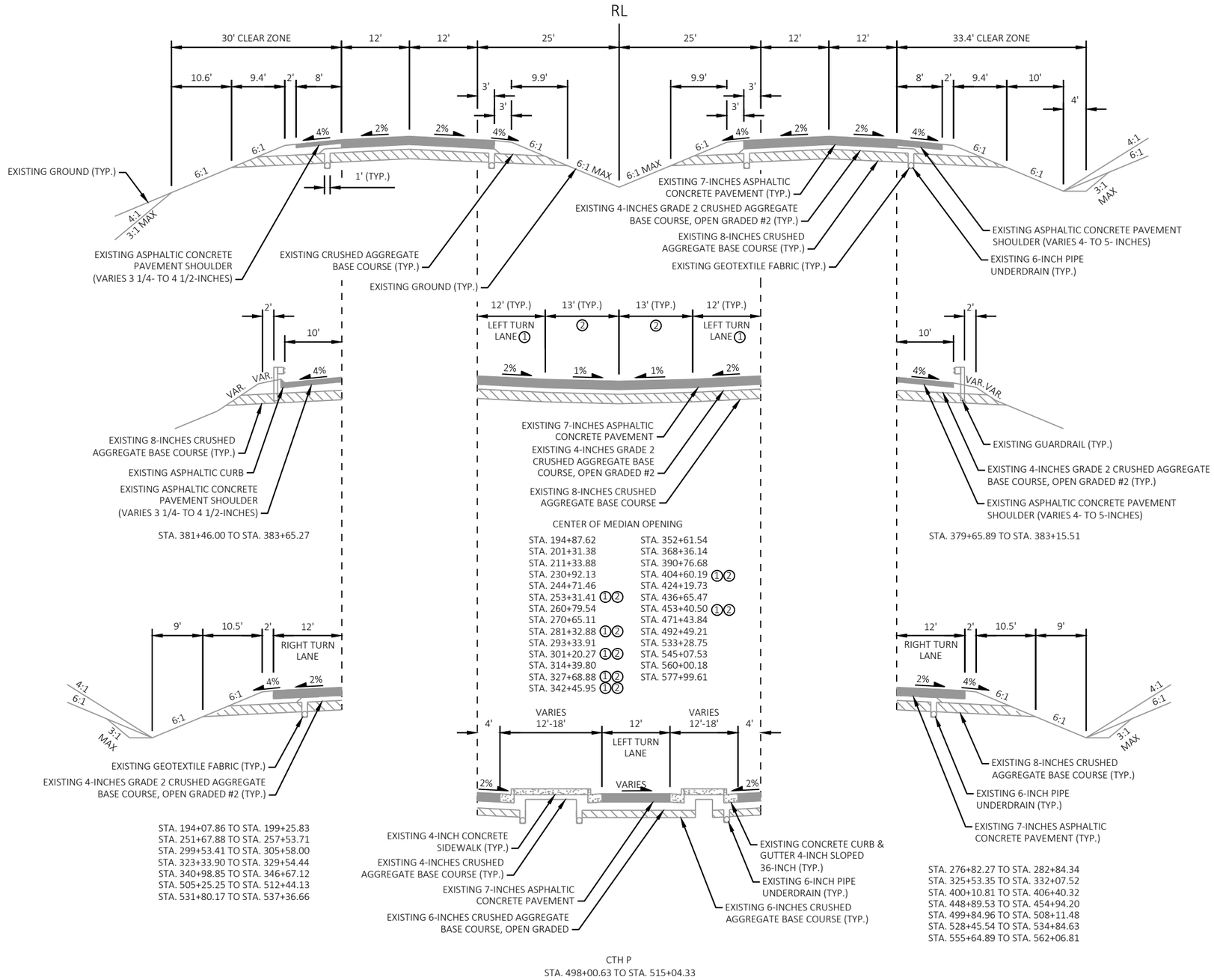






PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201_po
PLOT DATE : 1/15/2021 3:32 PM
PLOT BY : NOTSON, ERIC
PLOT NAME :
PLOT SCALE : 1:1100
WISDOT/CADDS SHEET 42

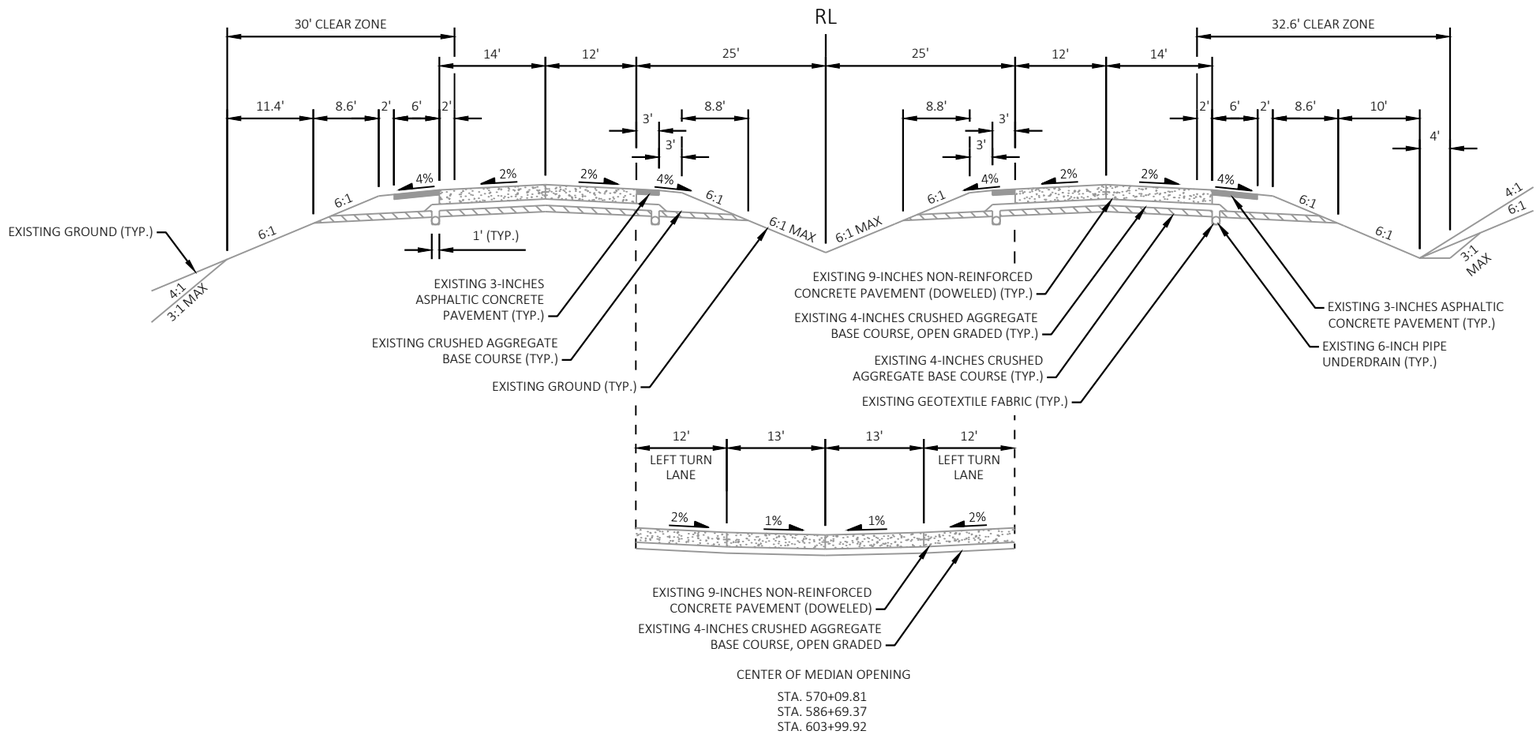


EXISTING TYPICAL SECTION - STH 50 MAINLINE

STA. 194+00.00 TO STA. 567+98.53
STA. 575+75.81 TO STA. 581+01.00

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PLAN: TYPICAL SECTIONS	SHEET 4	E

2



CENTER OF MEDIAN OPENING

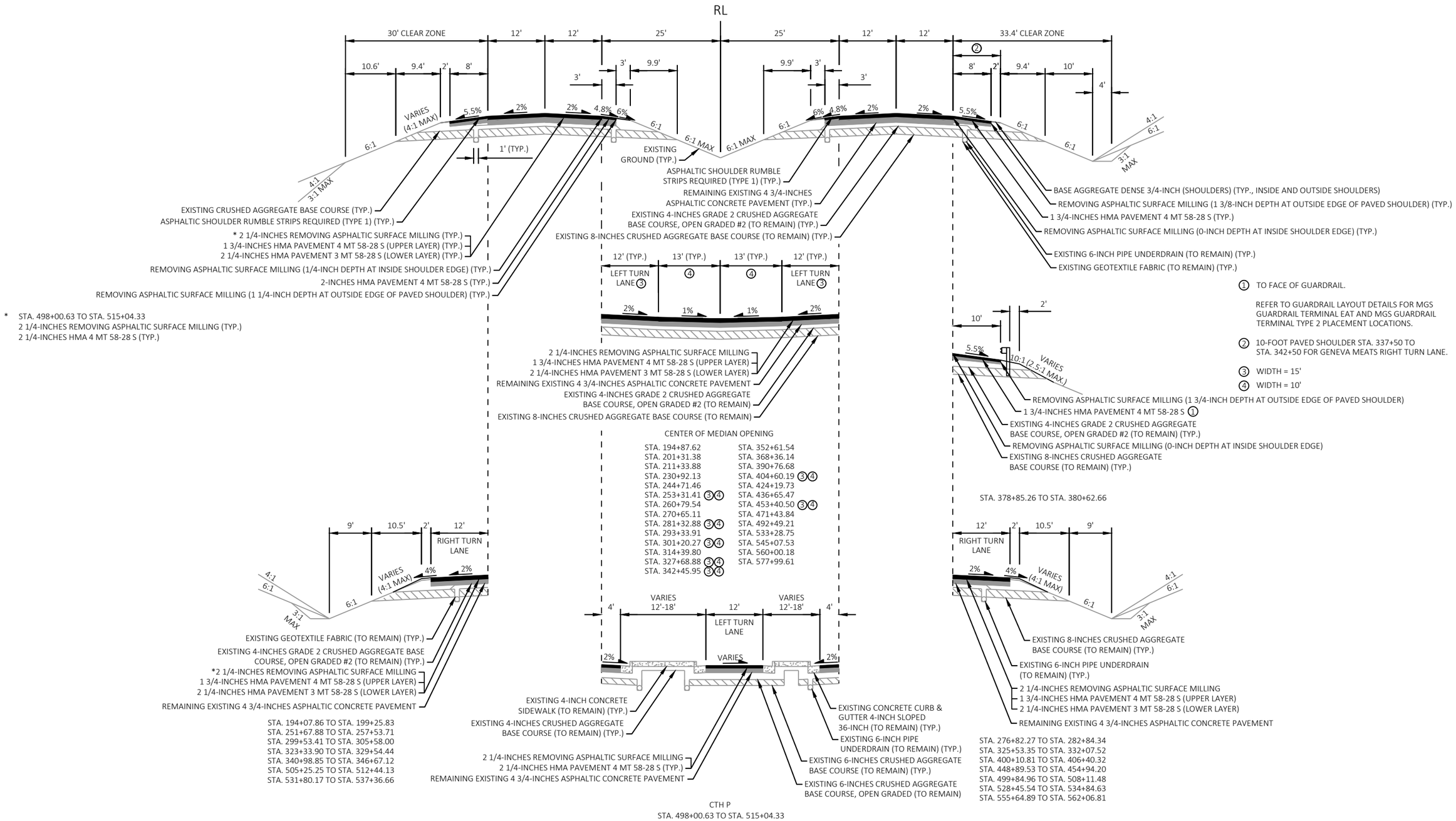
STA. 570+09.81
STA. 586+69.37
STA. 603+99.92

EXISTING TYPICAL SECTION - STH 50 MAINLINE

STA. 567+98.53 TO STA. 575+75.81
STA. 581+01.00 TO STA. 612+78.95

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PLAN: TYPICAL SECTIONS	SHEET 5	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020302-ts
PLOT DATE : 2/3/2021 8:37 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT



* STA. 498+00.63 TO STA. 515+04.33
2 1/4-INCHES REMOVING ASPHALTIC SURFACE MILLING (TYP.)
2 1/4-INCHES HMA 4 MT 58-28 S (TYP.)

① TO FACE OF GUARDRAIL.

REFER TO GUARDRAIL LAYOUT DETAILS FOR MGS GUARDRAIL TERMINAL EAT AND MGS GUARDRAIL TERMINAL TYPE 2 PLACEMENT LOCATIONS.

② 10-FOOT PAVED SHOULDER STA. 337+50 TO STA. 342+50 FOR GENEVA MEATS RIGHT TURN LANE.

③ WIDTH = 15'

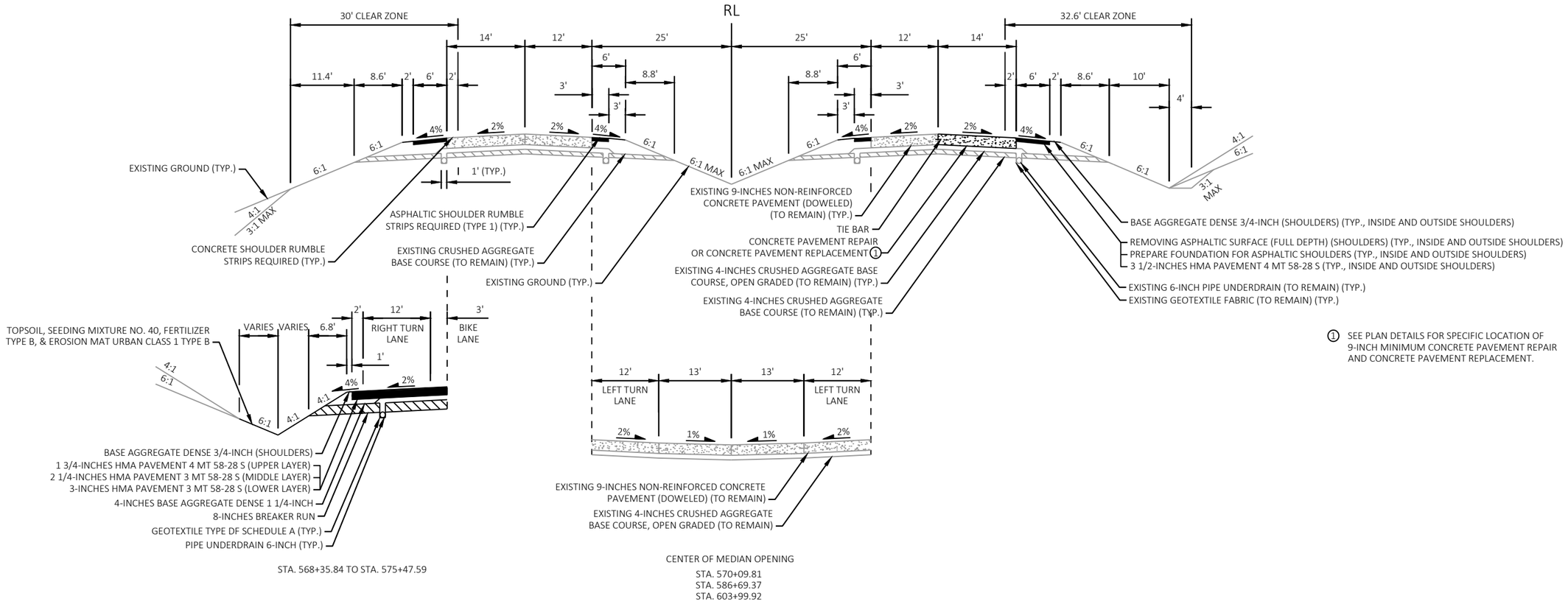
④ WIDTH = 10'

PROPOSED TYPICAL SECTION - STH 50 MAINLINE

STA. 194+00.00 TO STA. 567+98.53
STA. 575+75.81 TO STA. 581+01.00

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PLAN: TYPICAL SECTIONS	SHEET 6	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020303-ts
PLOT DATE : 2/3/2021 8:37 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42



(1) SEE PLAN DETAILS FOR SPECIFIC LOCATION OF 9-INCH MINIMUM CONCRETE PAVEMENT REPAIR AND CONCRETE PAVEMENT REPLACEMENT.

STA. 568+35.84 TO STA. 575+47.59

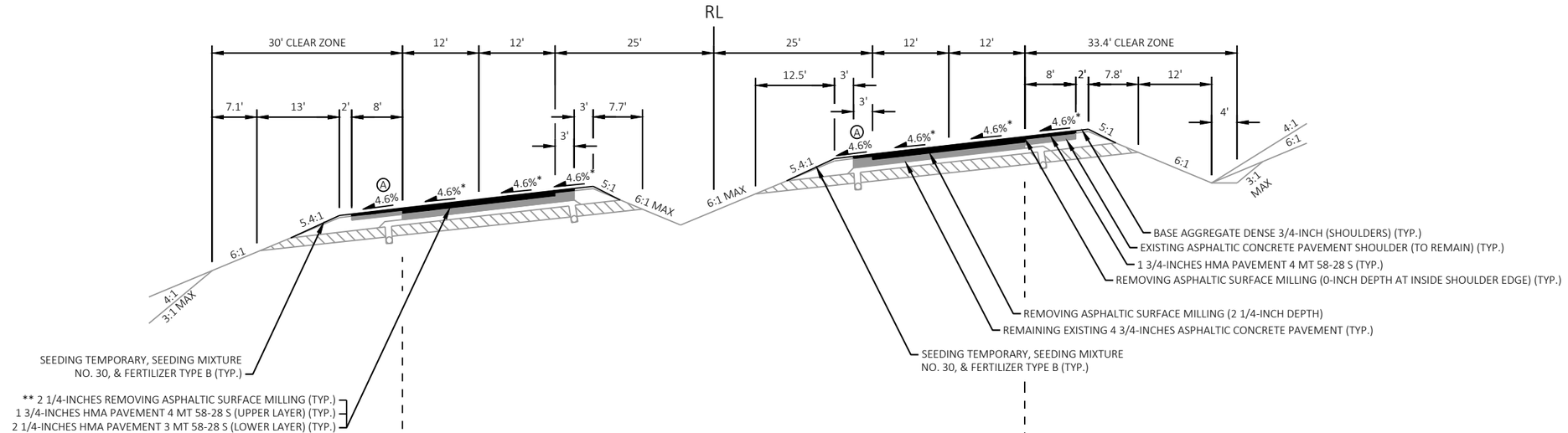
CENTER OF MEDIAN OPENING
STA. 570+09.81
STA. 586+69.37
STA. 603+99.92

PROPOSED TYPICAL SECTION - STH 50 MAINLINE

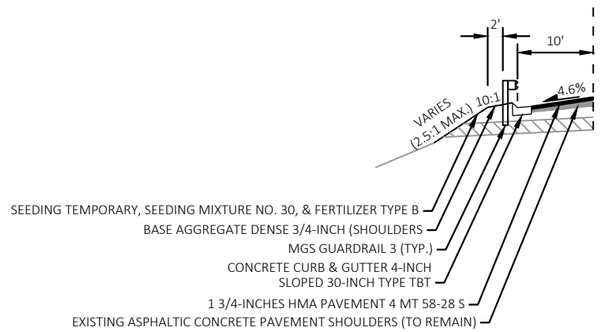
STA. 567+98.53 TO STA. 575+75.81
STA. 581+01.00 TO STA. 612+78.95

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PLAN: TYPICAL SECTIONS	SHEET 7	E

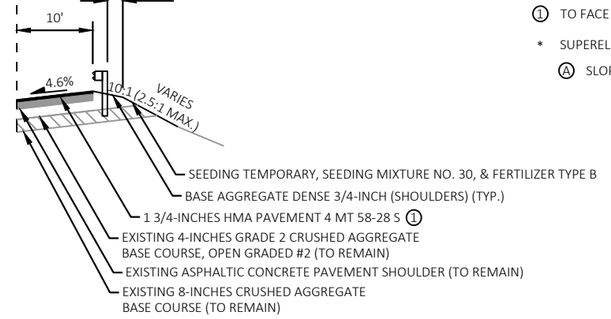
FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020304-ts
PLOT DATE : 2/3/2021 8:37 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT



** STA. 498+00.63 TO STA. 515+04.33
2 1/4-INCHES REMOVING ASPHALTIC SURFACE MILLING (TYP.)
2 1/4-INCHES HMA 4 MT 58-28 S (TYP.)



STA. 381+43 TO STA. 384+13



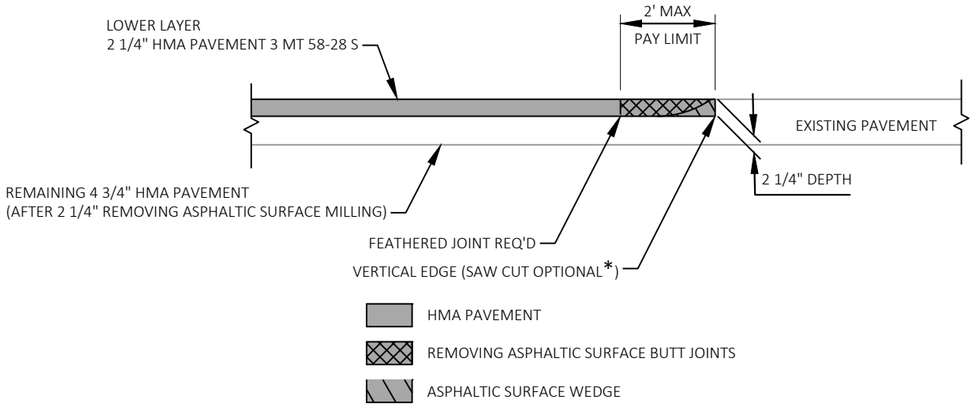
STA. 380+63 TO STA. 383+10

① TO FACE OF GUARDRAIL.
* SUPERELEVATION = 3.2%
Ⓐ SLOPE = 3.2%

PROPOSED TYPICAL SECTION - STH 50 MAINLINE SUPERELEVATION

CURVE 3 - STA. 207+77 TO STA. 216+46
CURVE 4 - STA. 232+68 TO STA. 244+46
CURVE 5 - STA. 256+52 TO STA. 266+34
CURVE 6 - STA. 320+55 TO STA. 345+58
CURVE 7 - STA. 363+78 TO STA. 375+08
CURVE 8 - STA. 380+63 TO STA. 390+75
CURVE 9 - STA. 398+03 TO STA. 425+38
CURVE 10 - STA. 479+71 TO STA. 491+04
CURVE 11 - STA. 504+10 TO STA. 515+06
CURVE 12 - STA. 539+55 TO STA. 547+64 *

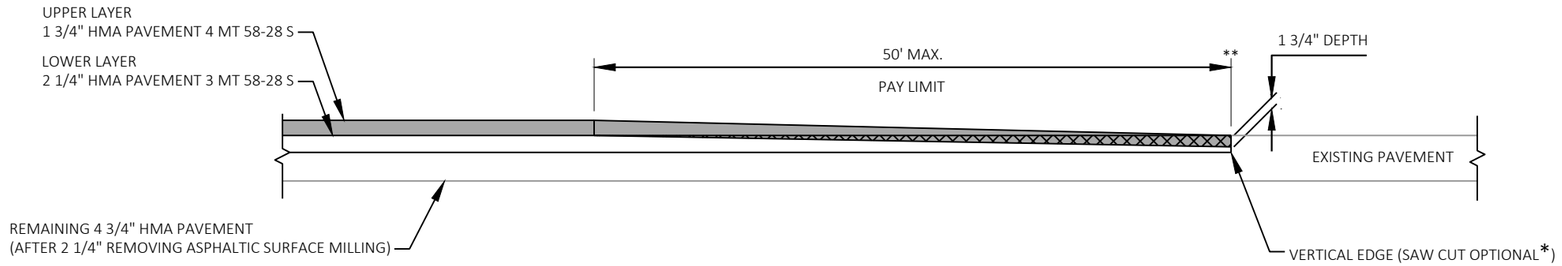
NOT TO SCALE



LOWER PAVEMENT LAYER

* NOT PAID FOR SEPARATELY

** TRANSITION PAVEMENT CROSS SLOPE TO MATCH EXISTING CROSS SLOPE.



UPPER PAVEMENT LAYER

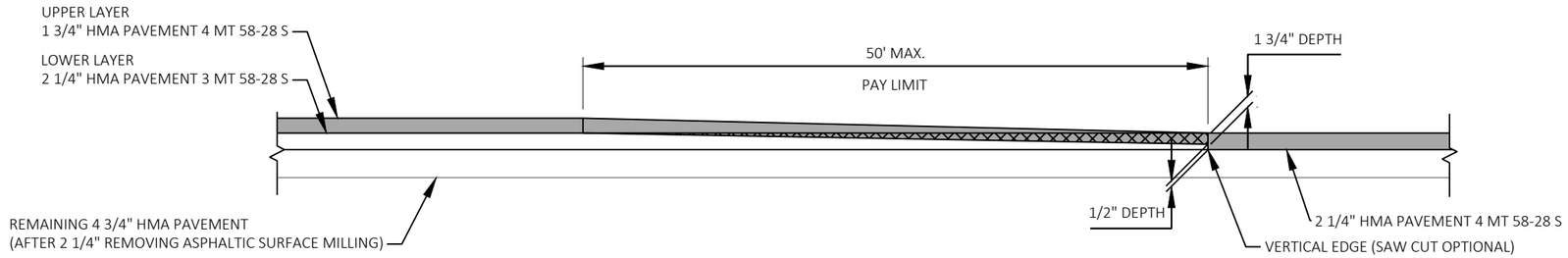
NOTE:

REMOVE ASPHALTIC SURFACE WEDGE PRIOR TO PAVING UPPER PAVEMENT LAYER TO CREATE A VERTICAL FACE AT BUTT JOINT. PAID FOR UNDER REMOVING ASPHALTIC SURFACE BUTT JOINTS.

REMOVING ASPHALTIC SURFACE BUTT JOINTS DETAIL

STA. 194+00.00
STA. 567+98.53
STA. 575+75.81
STA 581+01.00

NOT TO SCALE



NOTE:

REMOVE ASPHALTIC SURFACE WEDGE PRIOR TO PAVING UPPER PAVEMENT LAYER TO CREATE A VERTICAL FACE AT BUTT JOINT. PAID FOR UNDER REMOVING ASPHALTIC SURFACE BUTT JOINTS.

HMA PAVEMENT

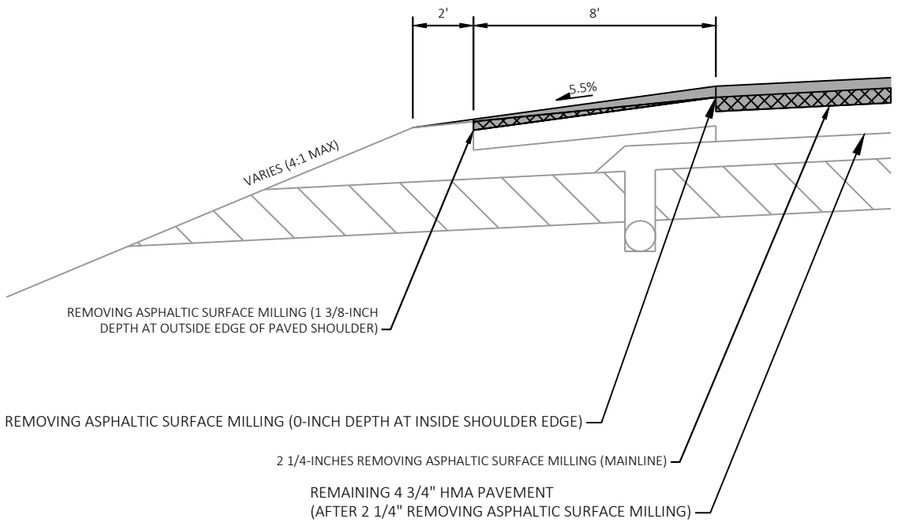
REMOVING ASPHALTIC SURFACE BUTT JOINTS

UPPER PAVEMENT LAYER

REMOVING ASPHALTIC SURFACE BUTT JOINTS DETAIL

STA. 498+00.63
STA. 515+04.33

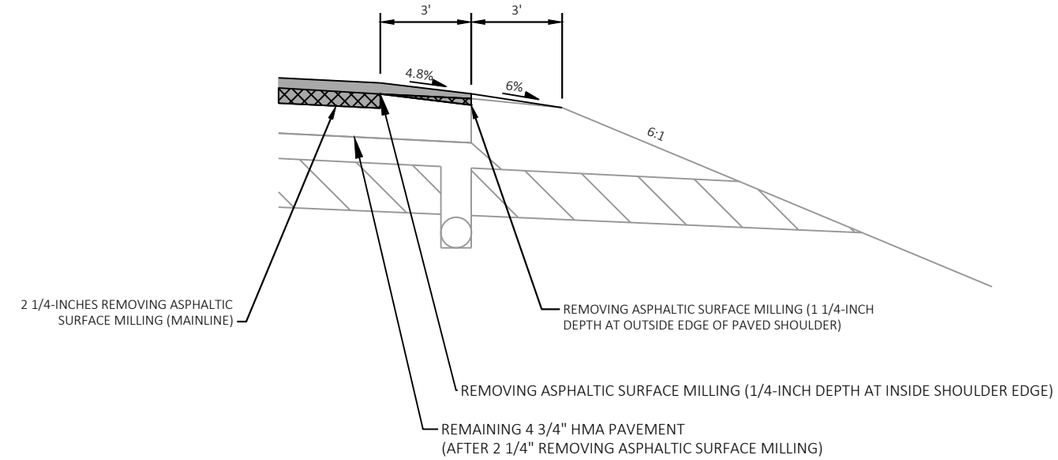
REMOVING ASPHALTIC SURFACE MILLING



VARIABLE DEPTH MILLING OUTSIDE SHOULDER

(NON-SUPERELEVATED LOCATIONS)

REMOVING ASPHALTIC SURFACE MILLING

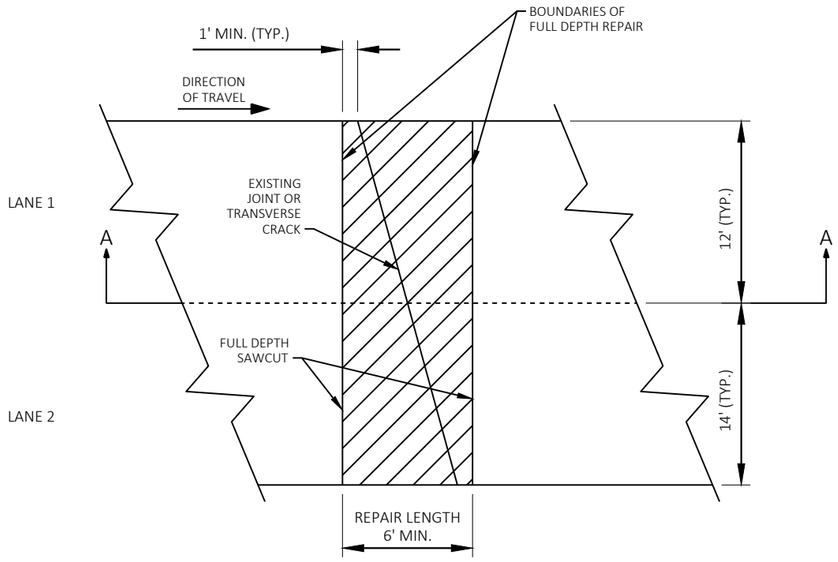


VARIABLE DEPTH MILLING INSIDE SHOULDER

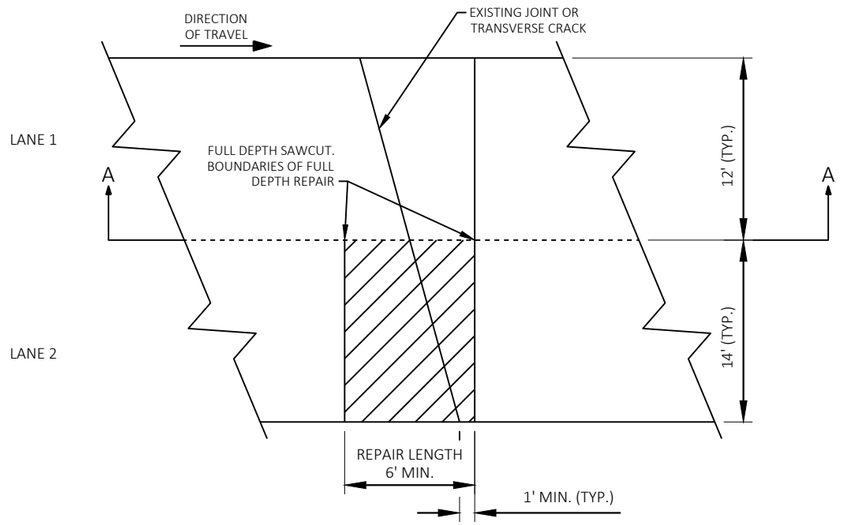
(NON-SUPERELEVATED LOCATIONS)

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CONSTRUCTION DETAILS	SHEET 10	E

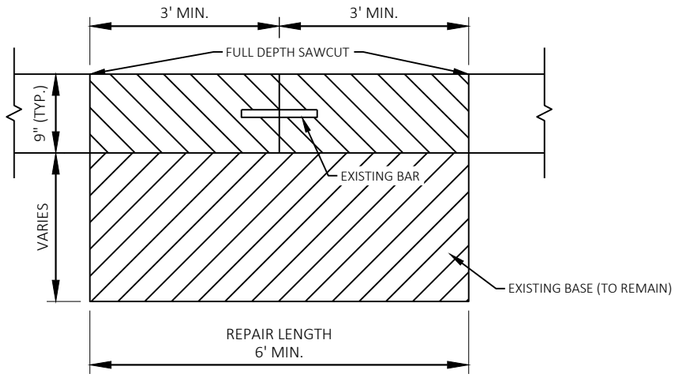
FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 021002-cd
PLOT DATE : 1/29/2021 11:32 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)



SECTION A-A
CONCRETE REMOVAL

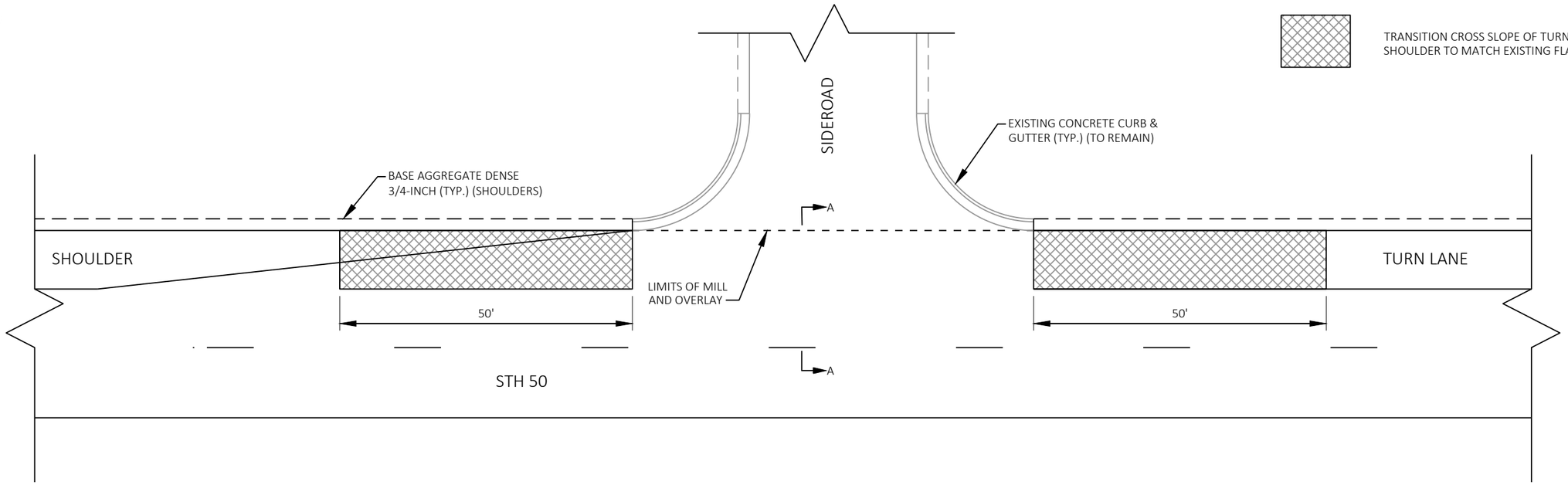
NOTE:

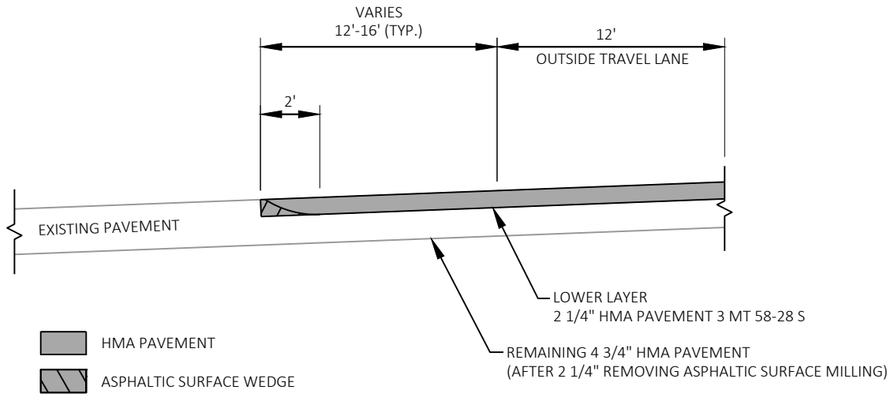
REFER TO SDD "CONCRETE PAVEMENT REPAIR AND REPLACEMENT" FOR ADDITIONAL INFORMATION.

FULL DEPTH CONCRETE PAVEMENT REMOVAL

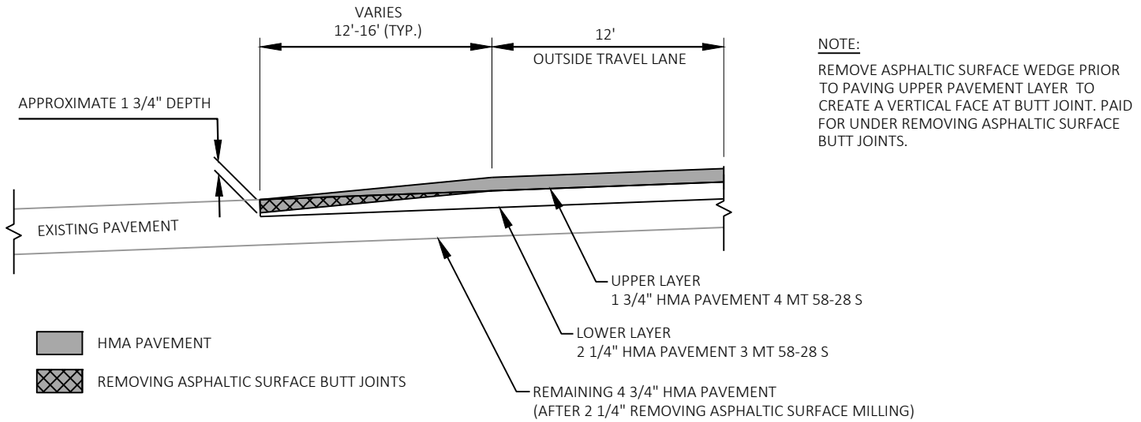
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CONSTRUCTION DETAILS	SHEET 11	E

NOT TO SCALE





SECTION A-A
LOWER PAVEMENT LAYER



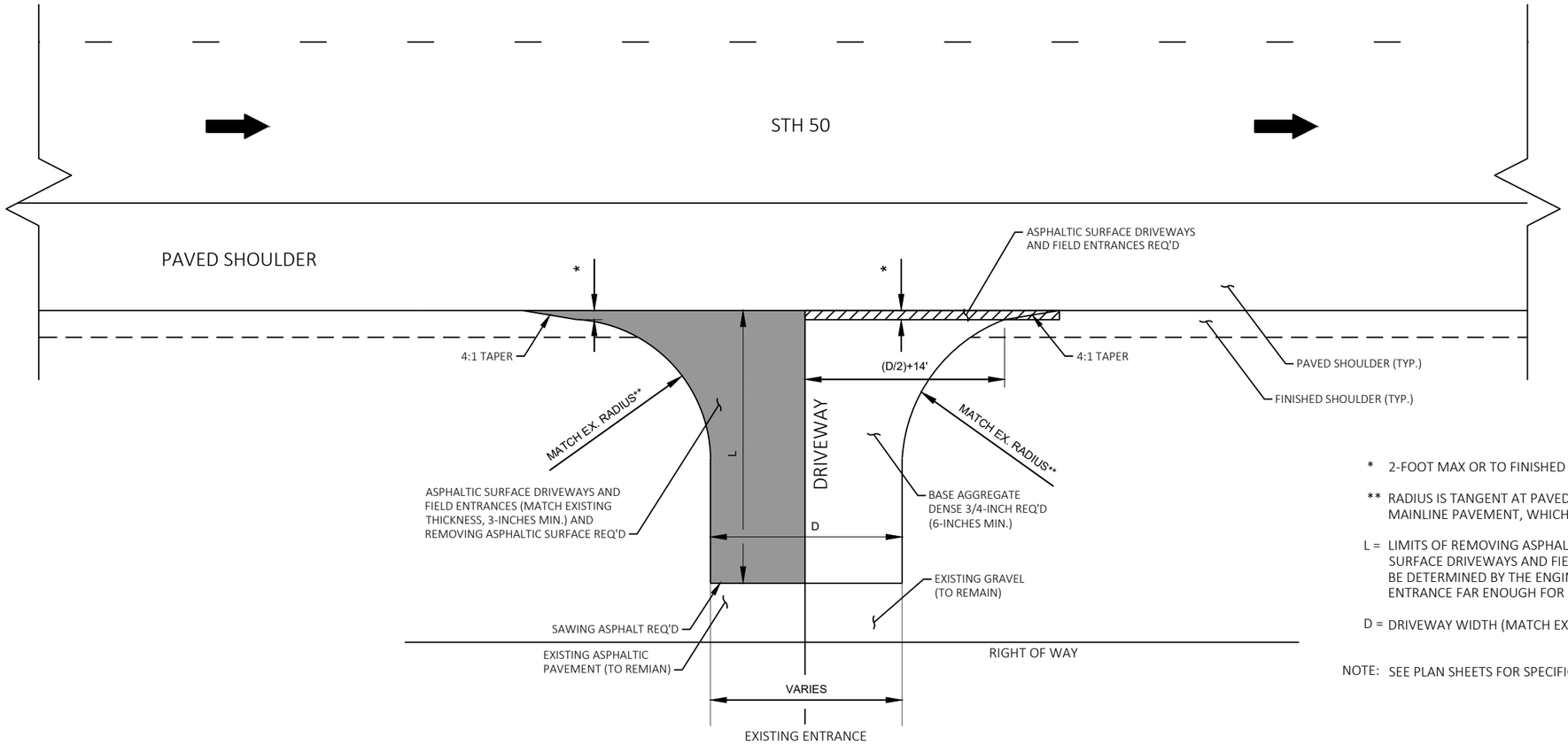
SECTION A-A
UPPER PAVEMENT LAYER

NOTE:

REMOVE ASPHALTIC SURFACE WEDGE PRIOR TO PAVING UPPER PAVEMENT LAYER TO CREATE A VERTICAL FACE AT BUTT JOINT. PAID FOR UNDER REMOVING ASPHALTIC SURFACE BUTT JOINTS.

DETAIL OF REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT AT SIDEROADS

NOT TO SCALE



PLAN VIEW

RURAL DRIVEWAY DETAIL

* 2-FOOT MAX OR TO FINISHED SHOULDER, WHICHEVER IS LESS.

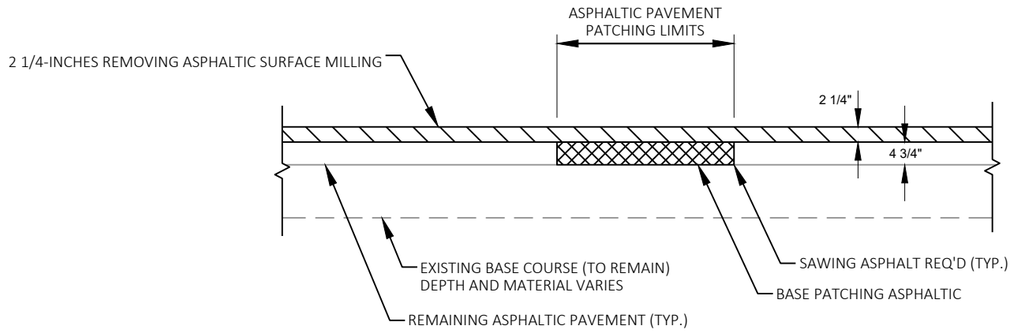
** RADIUS IS TANGENT AT PAVED SHOULDER EDGE OR 10' OFF OF MAINLINE PAVEMENT, WHICHEVER IS LESS.

L = LIMITS OF REMOVING ASPHALTIC SURFACE AND ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. EXACT LENGTH TO BE DETERMINED BY THE ENGINEER IN THE FIELD. BLEND BACK THE ENTRANCE FAR ENOUGH FOR A SMOOTH PROFILE TRANSITION.

D = DRIVEWAY WIDTH (MATCH EXISTING)

NOTE: SEE PLAN SHEETS FOR SPECIFIC LOCATIONS.

NOT TO SCALE



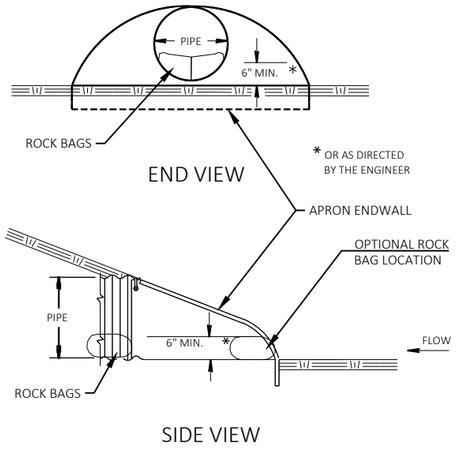
ASPHALTIC PAVEMENT PATCHING

LOCATION AND LIMITS TO BE DETERMINED BY
ENGINEER IN THE FIELD

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP - TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

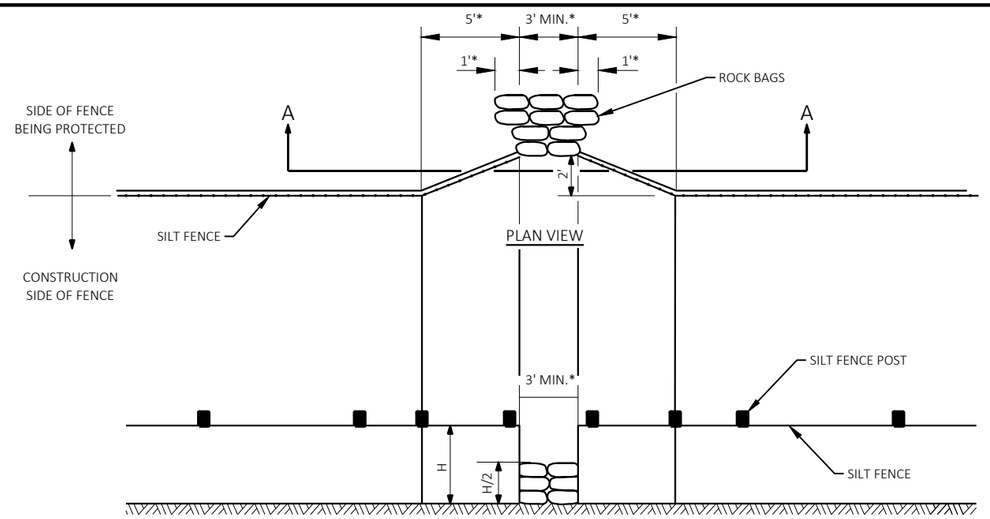
TOTAL PROJECT AREA = 253.0 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 3.4 ACRES



ESTIMATED BAG SIZE = 18" X 12" X 6"	
PIPE SIZE	ESTIMATED NO. OF BAGS
12"	1
15"	2
18"	2
21"	3
14" X 23"	3
24"	3
27"	4
30"	5
19" X 30"	5
36"	7
24" X 38"	8
42"	8
29" X 45"	10
48"	10
34" X 53"	10
38" X 60"	13
60"	13
66"	15
53" X 83"	19

CULVERT PIPE CHECKS

SEE INTERSECTION DETAILS AND MISCELLANEOUS QUANTITIES FOR LOCATIONS



SECTION A-A (ELEVATION VIEW)

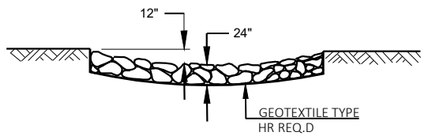
NOTE:

* = DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY ENGINEER

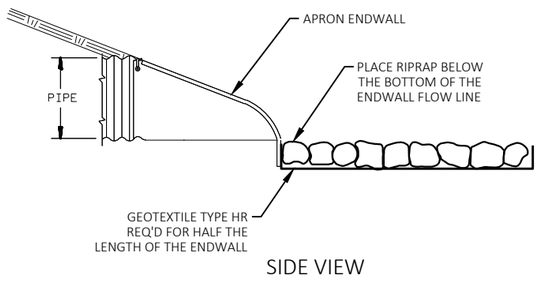
H = HEIGHT OF SILT FENCE

SILT FENCE DRAINAGE RELIEF DETAIL

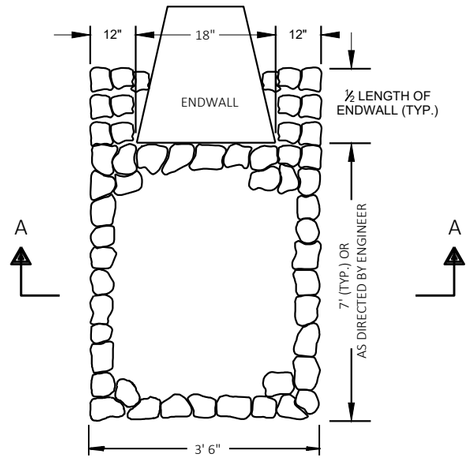
SEE GUARDRAIL LAYOUT DETAILS AND MISCELLANEOUS QUANTITIES FOR LOCATIONS

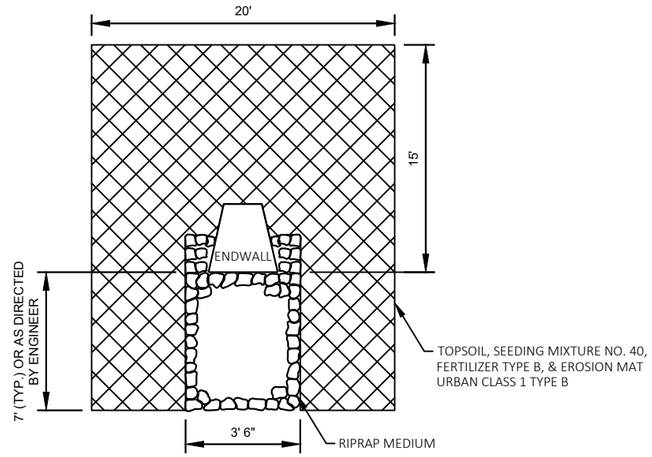


SECTION A-A



SIDE VIEW

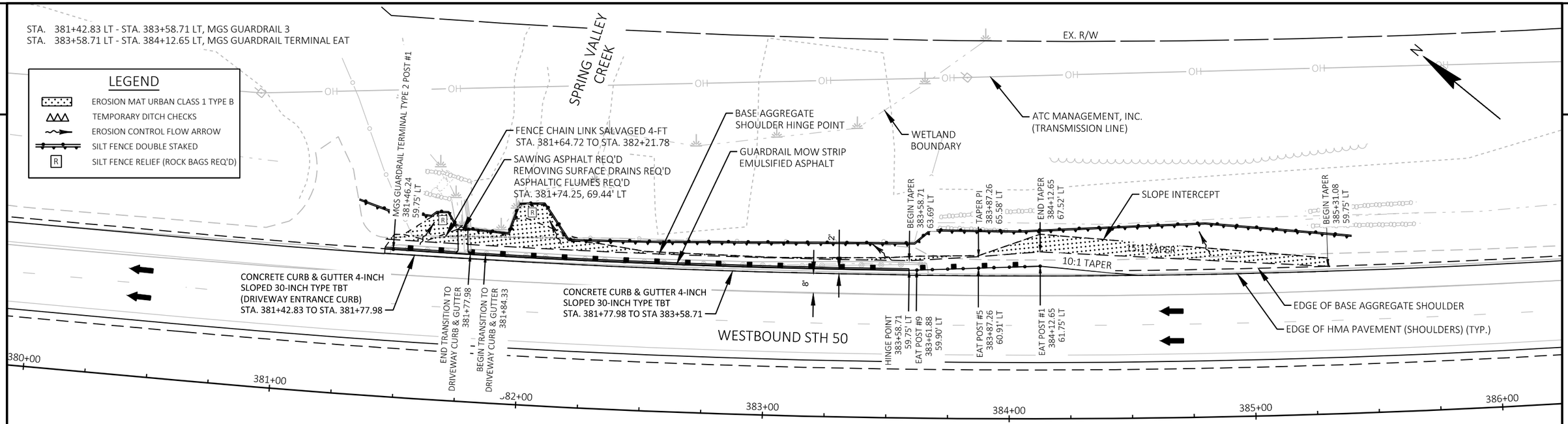




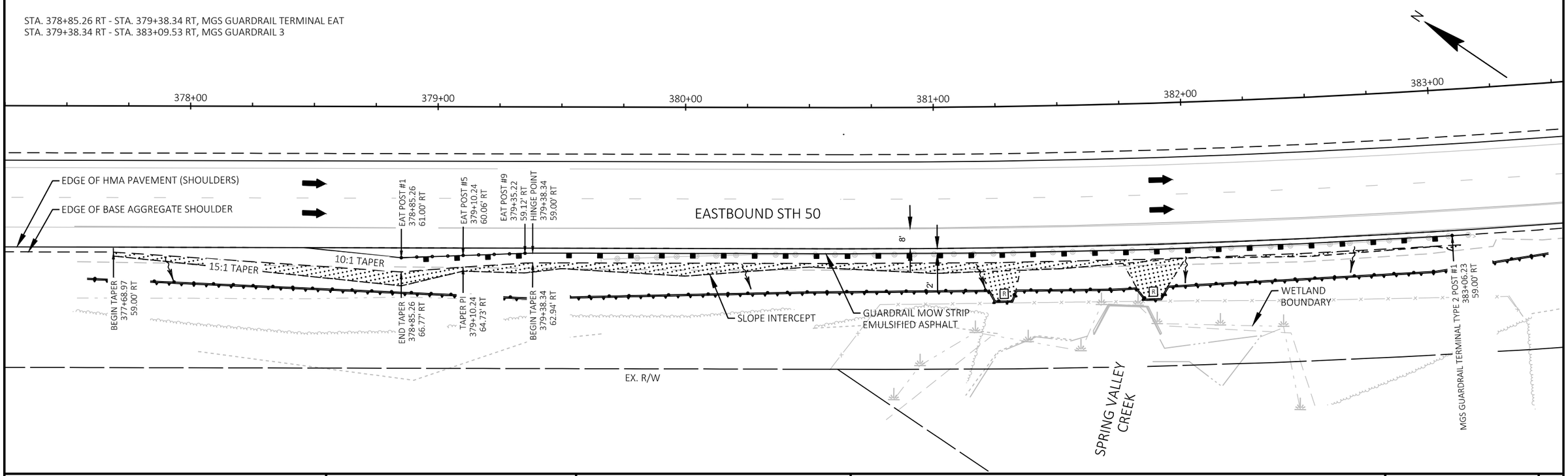
EROSION CONTROL AND RIPRAP MEDIUM TREATMENT AT APRON ENDWALL REPLACEMENT LOCATIONS

STA. 254+57 RT
STA. 485+50 RT

STA. 381+42.83 LT - STA. 383+58.71 LT, MGS GUARDRAIL 3
STA. 383+58.71 LT - STA. 384+12.65 LT, MGS GUARDRAIL TERMINAL EAT

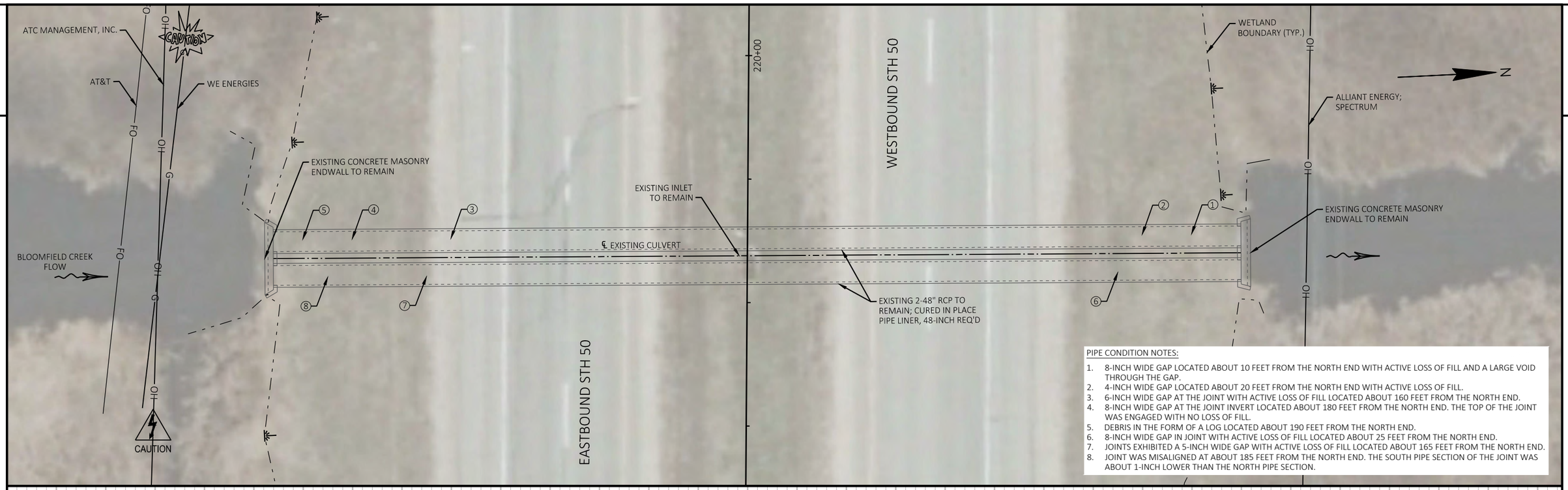


STA. 378+85.26 RT - STA. 379+38.34 RT, MGS GUARDRAIL TERMINAL EAT
STA. 379+38.34 RT - STA. 383+09.53 RT, MGS GUARDRAIL 3



PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	GUARDRAIL LAYOUT DETAILS	SHEET 16	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 021010-cd
PLOT DATE : 3/17/2021 9:57 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

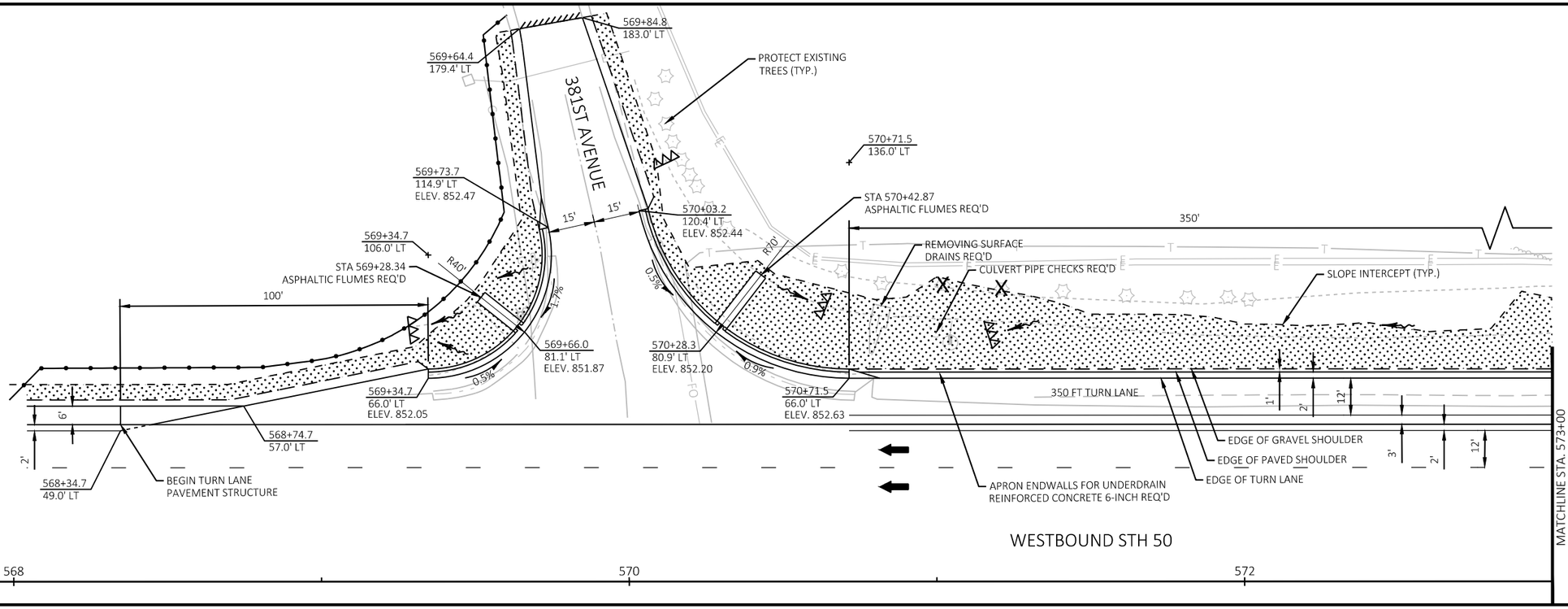


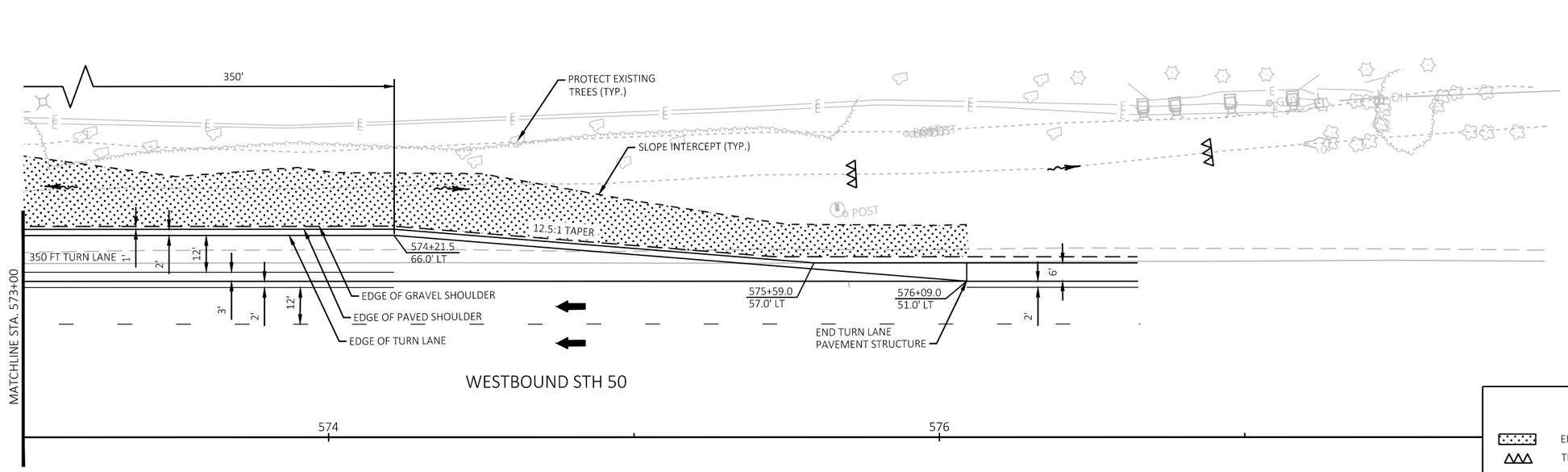
PIPE CONDITION NOTES:

1. 8-INCH WIDE GAP LOCATED ABOUT 10 FEET FROM THE NORTH END WITH ACTIVE LOSS OF FILL AND A LARGE VOID THROUGH THE GAP.
2. 4-INCH WIDE GAP LOCATED ABOUT 20 FEET FROM THE NORTH END WITH ACTIVE LOSS OF FILL.
3. 6-INCH WIDE GAP AT THE JOINT WITH ACTIVE LOSS OF FILL LOCATED ABOUT 160 FEET FROM THE NORTH END.
4. 8-INCH WIDE GAP AT THE JOINT INVERT LOCATED ABOUT 180 FEET FROM THE NORTH END. THE TOP OF THE JOINT WAS ENGAGED WITH NO LOSS OF FILL.
5. DEBRIS IN THE FORM OF A LOG LOCATED ABOUT 190 FEET FROM THE NORTH END.
6. 8-INCH WIDE GAP IN JOINT WITH ACTIVE LOSS OF FILL LOCATED ABOUT 25 FEET FROM THE NORTH END.
7. JOINTS EXHIBITED A 5-INCH WIDE GAP WITH ACTIVE LOSS OF FILL LOCATED ABOUT 165 FEET FROM THE NORTH END.
8. JOINT WAS MISALIGNED AT ABOUT 185 FEET FROM THE NORTH END. THE SOUTH PIPE SECTION OF THE JOINT WAS ABOUT 1-INCH LOWER THAN THE NORTH PIPE SECTION.



PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH	BLOOMFIELD CREEK CULVERT DETAIL	SHEET 17	E





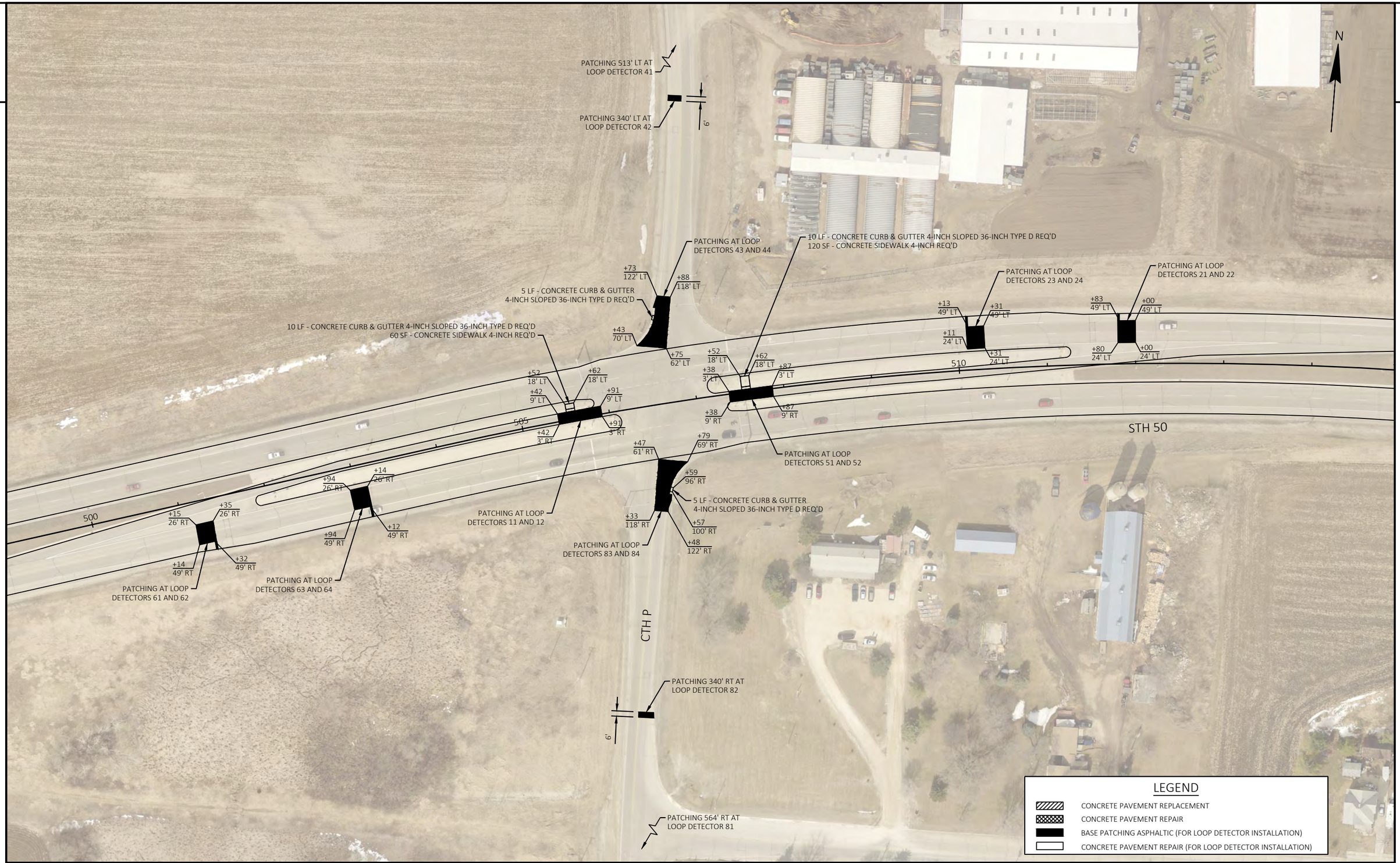
LEGEND

- EROSION MAT URBAN CLASS 1 TYPE B
- TEMPORARY DITCH CHECKS
- EROSION CONTROL FLOW ARROW
- SILT FENCE
- SAWING ASPHALT
- X — CLEARING; GRUBBING

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	INTESECTION DETAILS	SHEET 18	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\021101-ID.DWG
LAYOUT NAME - 021101-id
PLOT DATE : 1/15/2021 3:40 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ############
WISDOT/CADDS SHEET 44

2



PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	PLAN DETAILS - PAVEMENT REHAB	SHEET 19	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 021201-pd

PLOT DATE : 1/29/2021 8:36 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

ASPHALT | CONCRETE

CONCRETE | ASPHALT

ASPHALT | CONCRETE

+97

+70

+96

+15

+77

+71

570

575

580

+54

+77

+95

+27

+89

+22

+02

+33

+62

+86

+00

+29

+55

+80

STH 50

60TH STREET

MATCHLINE STA. 583+00

N

NEW MUNSTER CREEK

+79

+73

+05

+18

+04

585

590

595

+73

+64

+28

+10

+30

+15

+09

+18

+82

+76

STH 50

376TH AVENUE

MATCHLINE STA. 583+00

MATCHLINE STA. 598+00

N

LEGEND

- CONCRETE PAVEMENT REPLACEMENT
- CONCRETE PAVEMENT REPAIR
- BASE PATCHING ASPHALTIC (FOR LOOP DETECTOR INSTALLATION)
- CONCRETE PAVEMENT REPAIR (FOR LOOP DETECTOR INSTALLATION)

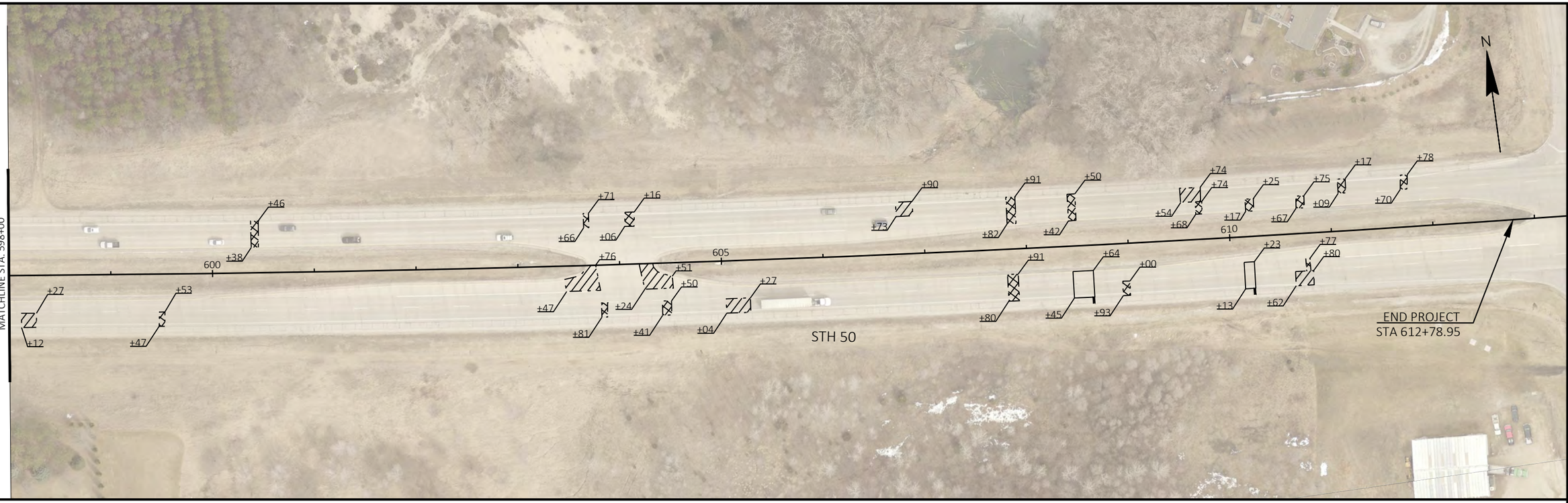
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	PLAN DETAILS - PAVEMENT REHAB	SHEET 20	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 021202-pd

PLOT DATE : 1/29/2021 8:36 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2



2

LEGEND

- CONCRETE PAVEMENT REPLACEMENT
- CONCRETE PAVEMENT REPAIR
- BASE PATCHING ASPHALTIC (FOR LOOP DETECTOR INSTALLATION)
- CONCRETE PAVEMENT REPAIR (FOR LOOP DETECTOR INSTALLATION)

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	PLAN DETAILS - PAVEMENT REHAB	SHEET 21	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 021203-pd

PLOT DATE : 1/29/2021 8:36 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : ##########

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SIGNING NOTES

TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE COUNTY SIGN SHOP. CONTACT THE FOLLOWING INDIVIDUAL AT THE SIGN SHOP FOR DISTRIBUTION COUNTY LOCATION.

SIGNING COORDINATOR COUNTY(S) PHONE #

- DENNIS NEWTON RACINE 414-750-0257
- JENNY BUCKETT KENOSHA 414-750-2427

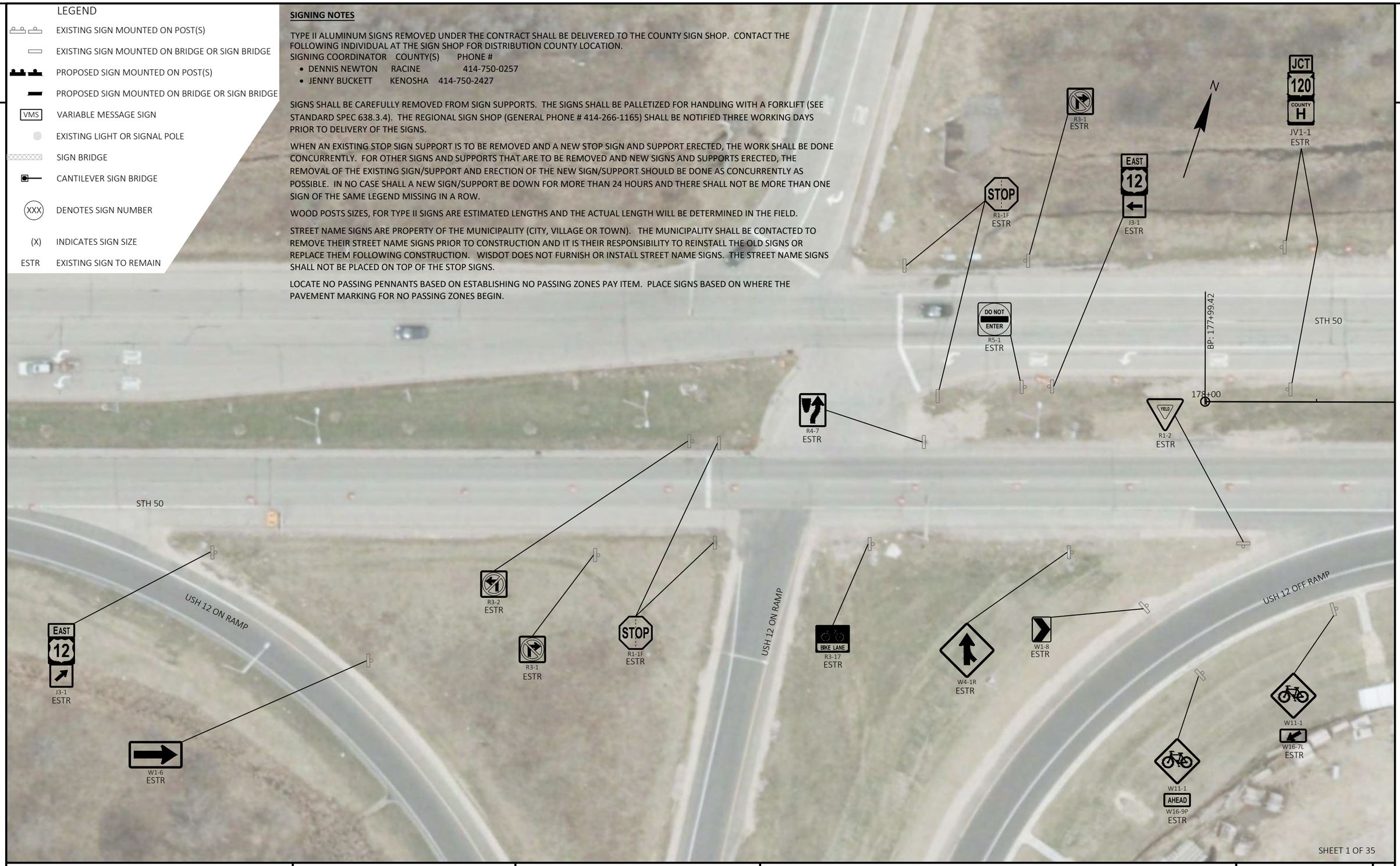
SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE STANDARD SPEC 638.3.4). THE REGIONAL SIGN SHOP (GENERAL PHONE # 414-266-1165) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

WHEN AN EXISTING STOP SIGN SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED, THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNS ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

STREET NAME SIGNS ARE PROPERTY OF THE MUNICIPALITY (CITY, VILLAGE OR TOWN). THE MUNICIPALITY SHALL BE CONTACTED TO REMOVE THEIR STREET NAME SIGNS PRIOR TO CONSTRUCTION AND IT IS THEIR RESPONSIBILITY TO REINSTALL THE OLD SIGNS OR REPLACE THEM FOLLOWING CONSTRUCTION. WISDOT DOES NOT FURNISH OR INSTALL STREET NAME SIGNS. THE STREET NAME SIGNS SHALL NOT BE PLACED ON TOP OF THE STOP SIGNS.

LOCATE NO PASSING PENNANTS BASED ON ESTABLISHING NO PASSING ZONES PAY ITEM. PLACE SIGNS BASED ON WHERE THE PAVEMENT MARKING FOR NO PASSING ZONES BEGIN.



SHEET 1 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 22	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023201_PS

PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

USH 12

USH 12 OFF RAMP

USH 12 ON RAMP

STH 50

N

BP: 177+99.42

PC: 184+36.64

178+00 179+00 180+00 181+00 182+00 183+00 184+00 185+00 186+00 187+00 188+00 189+00

WRONG WAY R5-1A ESTR

Chicago ESTR

W3-3 ESTR

W4-2R ESTR

EAST 12 J2-1 ESTR

W4-1R ESTR

DO NOT ENTER R5-1

WRONG WAY R5-1A ESTR

WEST 50 J3-1 ESTR

STOP R1-1

DIVIDED HIGHWAY R6-3A ESTR

FREEWAY ENTRANCE D13-3 ESTR

R3-1 ESTR

NORTH 120 WEST 12 COUNTY H JV2-2 ESTR

SPEED LIMIT 45 R2-1 ESTR

NORTH 120 WEST 12 COUNTY H JV2-2 ESTR

Madison ESTR

W3-3 ESTR

W4-2R ESTR

NORTH 120 WEST 12 COUNTY H JV3-2 ESTR

ONE WAY R6-2L ESTR

R4-7 ESTR

DO NOT ENTER R5-1 ESTR

DO NOT ENTER R5-1 ESTR

SHEET 2 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 23	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023202_PS

PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

ONE WAY
R6-1R (2S)
NEW SIGN
ABOVE STOP SIGN
1

STOP
R1-1
MOVE
2

DIVIDED HIGHWAY
R6-3A
MOVE
3

N

NORTH 120
WEST 12 COUNTY H
JV3-2
ESTR

EAST 12 | WEST 50 | SOUTH 120 | SOUTH COUNTY H
J2-4
ESTR

SPEED LIMIT 45
R2-1

BEGIN RIGHT TURN LANE YIELD TO BIKES
R4-4
ESTR

SPEED LIMIT 45
R2-1
ESTR

RAMP 35 MPH
W13-3
ESTR

BIKE LANE
R3-17
ESTR

USH 12 ON RAMP

GRAND GENEVA WAY

PT: 194+32.27

PC: 194+85.99

R4-7
ESTR

DO NOT ENTER
R5-1
ESTR

WRONG WAY
R5-1A
ESTR

Chicago
Lake Geneva
Madison
ESTR

BY-PASS LAKE GENEVA
Delavan VIA FREEWAY
ESTR

Grand Geneva Way
M1-94
ESTR

Ski Area
D7-82R

Mountain Top
D7-82B
ESTR

SOUTH 120 | NORTH 120
EAST 12 | WEST 50 | WEST 12 | COUNTY H
JV2-5
ESTR

189+00 190+00 191+00 192+00 193+00 194+00 195+00 196+00 197+00 198+00 199+00 200+00 201+00 202+00 203+00

STH 50

STH 50

EAST 50
J4-1

Paddock Lake 16
Kenosha 30
ESTR

WRONG WAY
R5-1A
ESTR

Grand Geneva Way
M1-94
ESTR

Ski Area
D7-82L

Mountain Top
D7-82B
ESTR

SPEED LIMIT 55
R2-1
ESTR

ONE WAY
R6-2L (2S)
4

ONE WAY
R6-2L (2S)
5

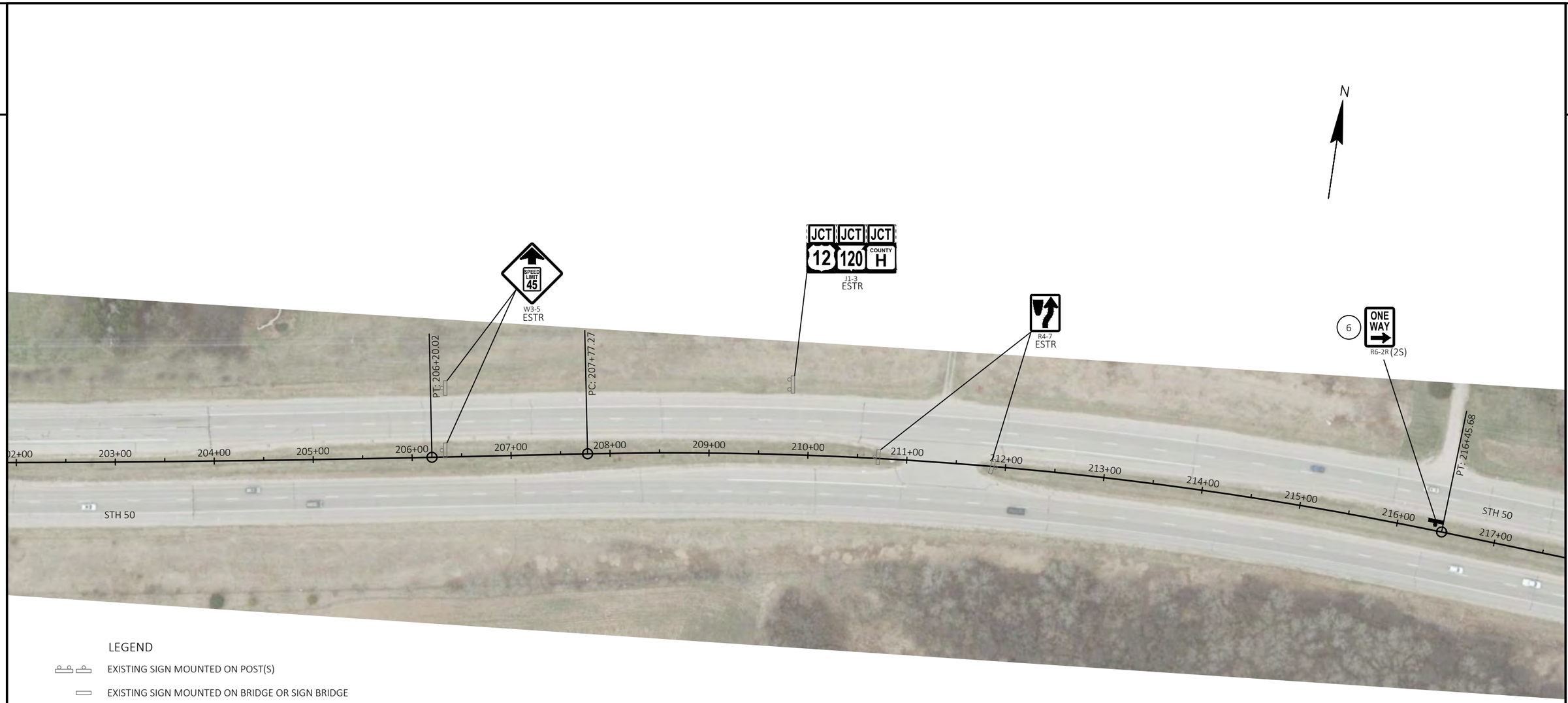
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 24	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023203_PS
PLOT DATE : 11/9/2020 1:16 PM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 4 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 25	E

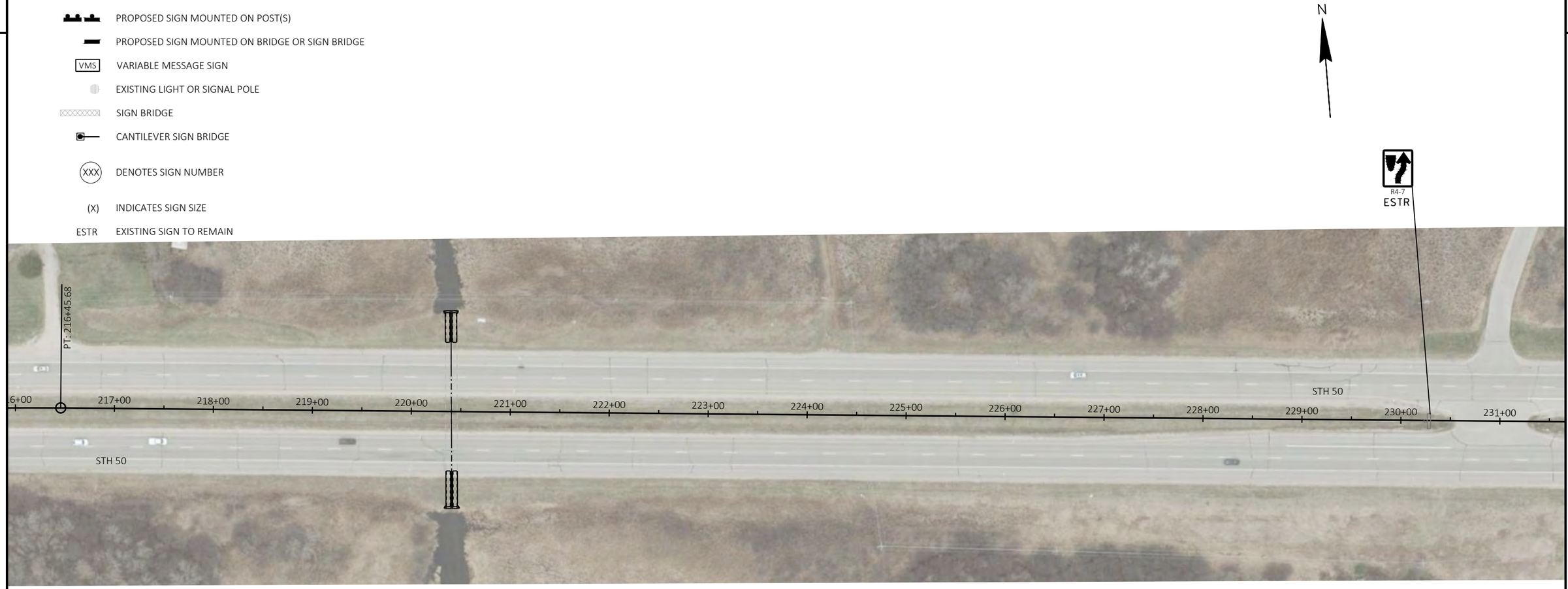
FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023204_PS
PLOT DATE : 11/9/2020 1:16 PM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 5 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 26	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023205_PS

PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 6 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 27	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023206_PS

PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

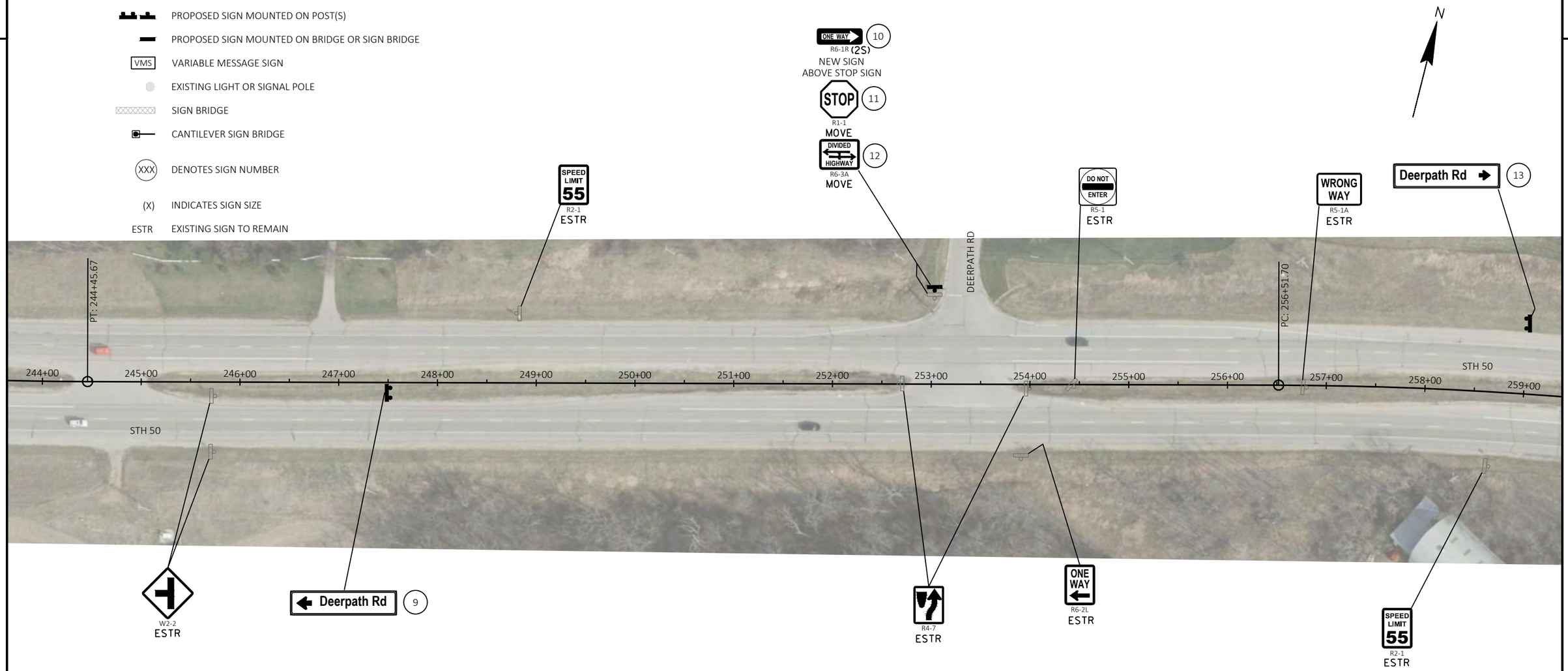
WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 7 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 28	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023207_PS

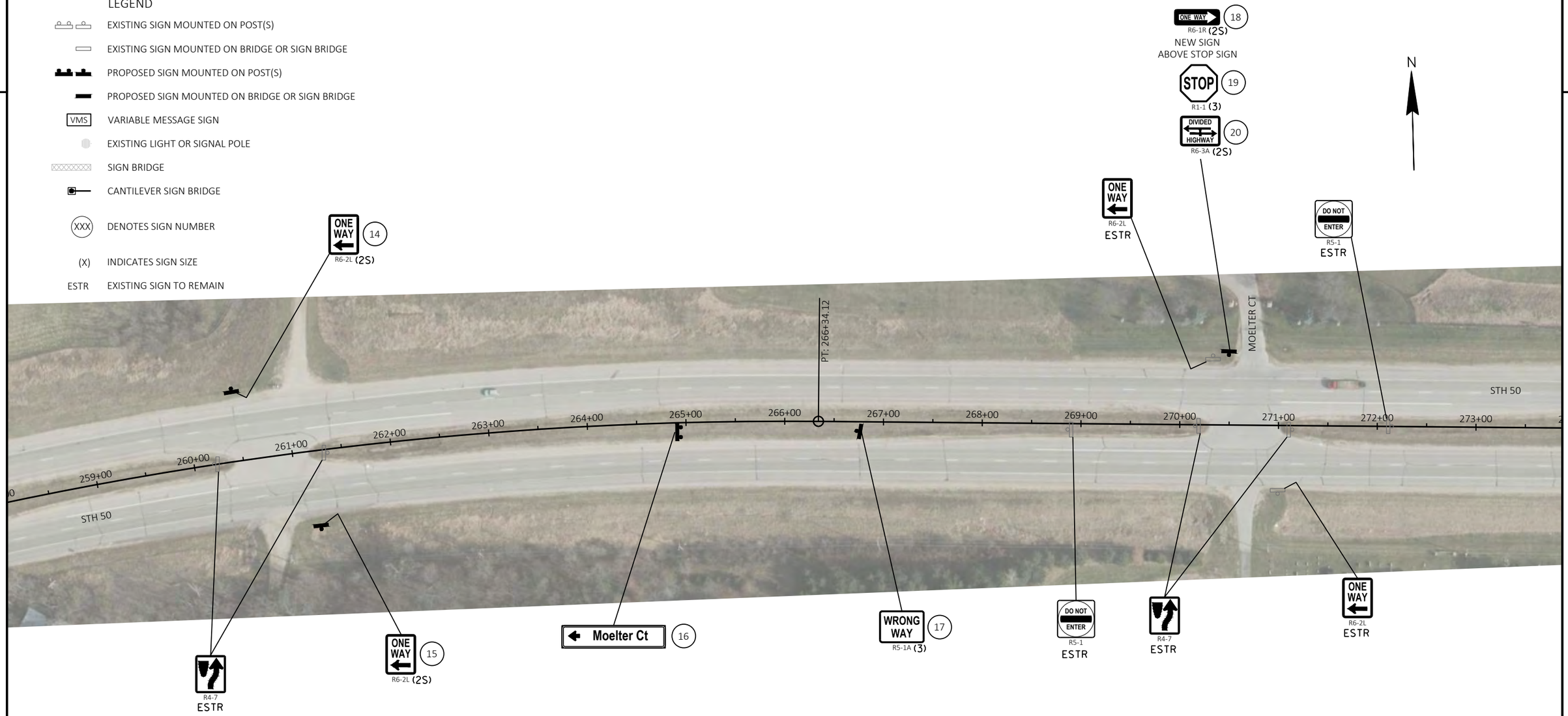
PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 8 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 29	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023208_PS

PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

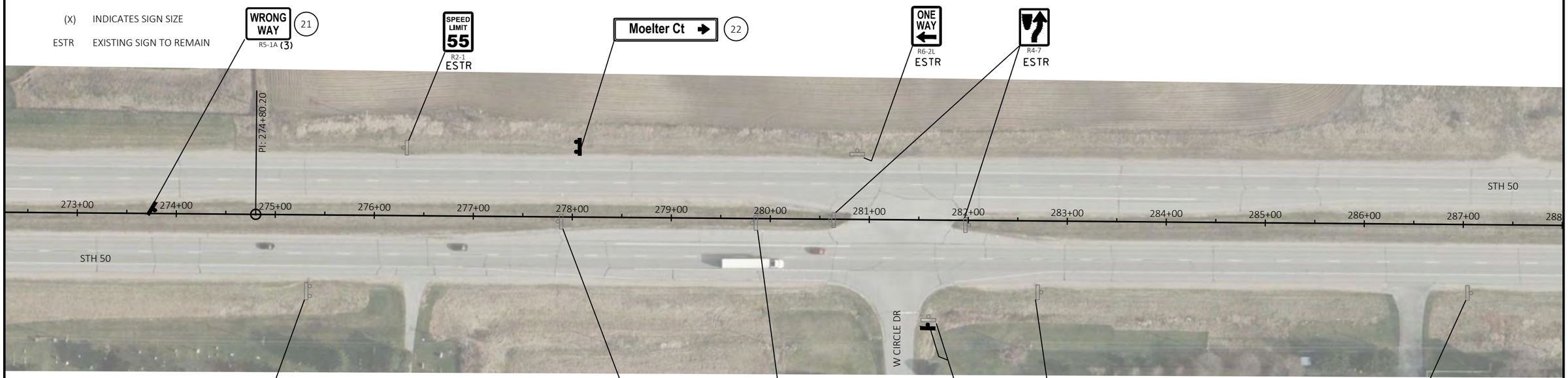
2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 9 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 30	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023209_PS

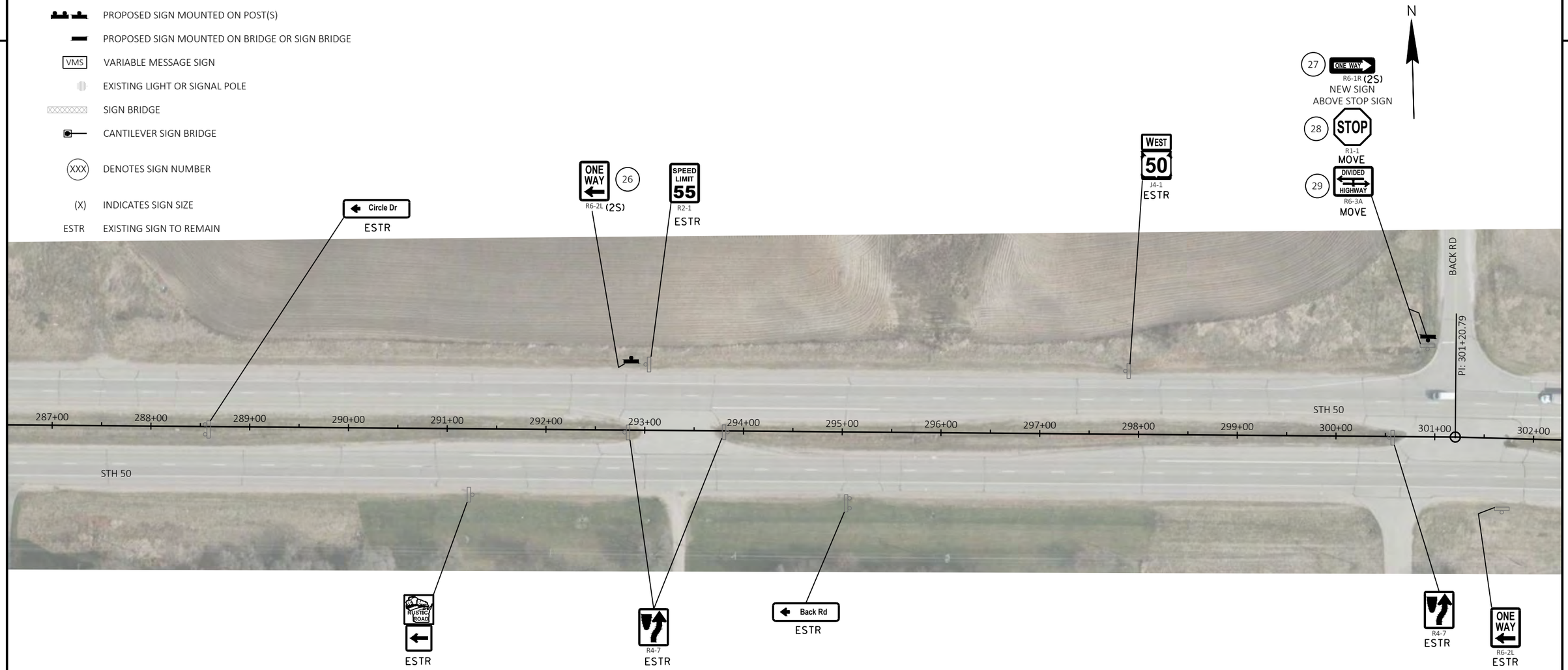
PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 10 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 31	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023210_PS

PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

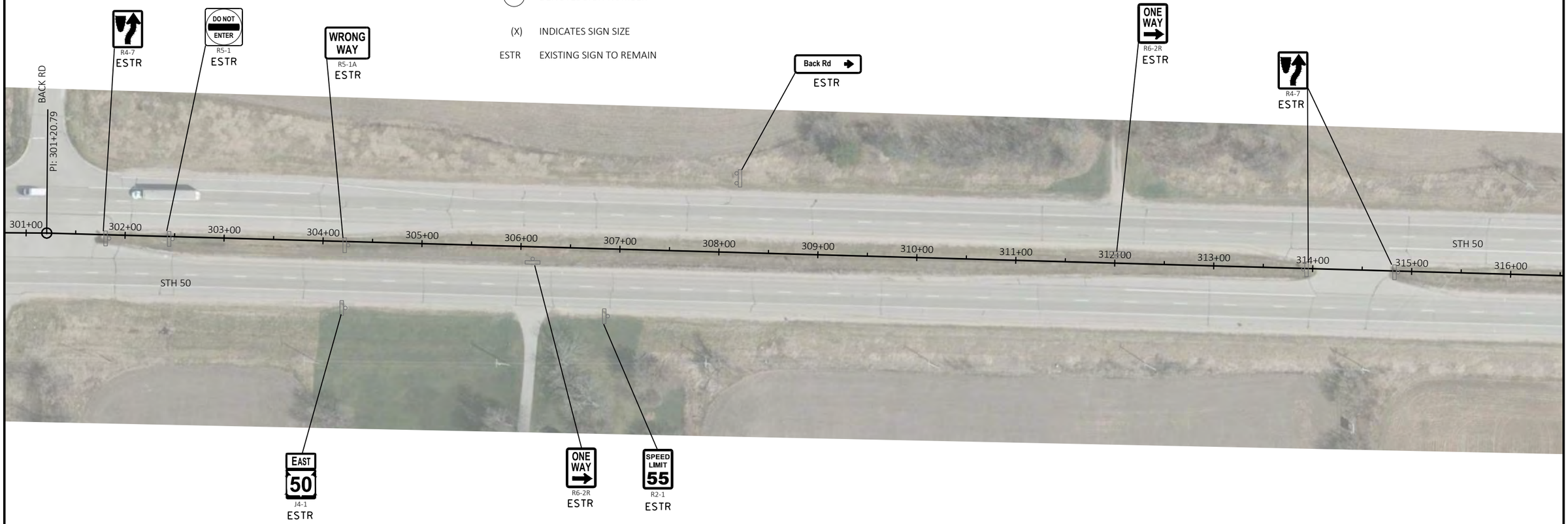
2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 11 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 32	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023211_PS

PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N

316+00 317+00 318+00 319+00 320+00 321+00 322+00 323+00 324+00 325+00 326+00 327+00 328+00 329+00 330+00 331+00

STH 50

PC: 320+55.48

S RD

SPEED LIMIT 55 — R2-1 — ESTR

WEST 50 — J4-1 — ESTR

ADOPT A HIGHWAY — I55-56 — LAKE GENEVA SYMPHONY ORCHESTRA — I55-56P — ESTR

ONE WAY — 30 — REMOVE

50 — J13-1 — ESTR

ONE WAY — R6-1R (2S) — 31 — NEW SIGN ABOVE STOP SIGN

STOP — R1-1 — 32 — MOVE

DIVIDED HIGHWAY — R6-3 — 33 — MOVE

ONE WAY — R6-1L (2S) — 34

WEIGHT LIMIT CLASS B — R12-53 — ESTR

R4-7 — ESTR

DO NOT ENTER — R5-1 — ESTR

RUSTIC ROAD — ESTR

South Rd / Lyons Rd / Lyons — ESTR

WRONG WAY — R5-1A — ESTR

DO NOT ENTER — R5-1 — ESTR

35 ONE WAY — R6-1L (2S)

36 ONE WAY — R6-1R (2S) — NEW SIGN ABOVE STOP SIGN

37 STOP — R1-1 — MOVE

38 DIVIDED HIGHWAY — R6-3 — MOVE

50 — J13-1 — ESTR

ONE WAY — 39 — REMOVE

SHEET 12 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 33	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023212_PS

PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N

WRONG WAY R5-1A ESTR

RUSTIC ROAD ESTR

Lyons Rd / South Rd ESTR

Lyons ESTR

SPEED LIMIT 55 R2-1 ESTR

ONE WAY R6-1R (2S) 41
NEW SIGN ABOVE STOP SIGN

STOP 42 R1-1

50 J13-1 ESTR

MOVE

DIVIDED HIGHWAY 43 R6-3

MOVE

WEIGHT LIMIT CLASS B R12-53 ESTR

DO NOT ENTER R5-1 ESTR

CRANBERRY RD

330+00 331+00 332+00 333+00 334+00 335+00 336+00 337+00 338+00 339+00 340+00 341+00 342+00 343+00 344+00 345+00

STH 50

STH 50

RUSTIC ROAD ESTR

Cranberry Rd 40

SPEED LIMIT 55 R2-1 ESTR

WRONG WAY R5-1A ESTR

DO NOT ENTER R5-1 ESTR

ONE WAY R6-2L ESTR

R4-7 ESTR

ONE WAY R6-2L ESTR

SHEET 13 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 34	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023213_PS

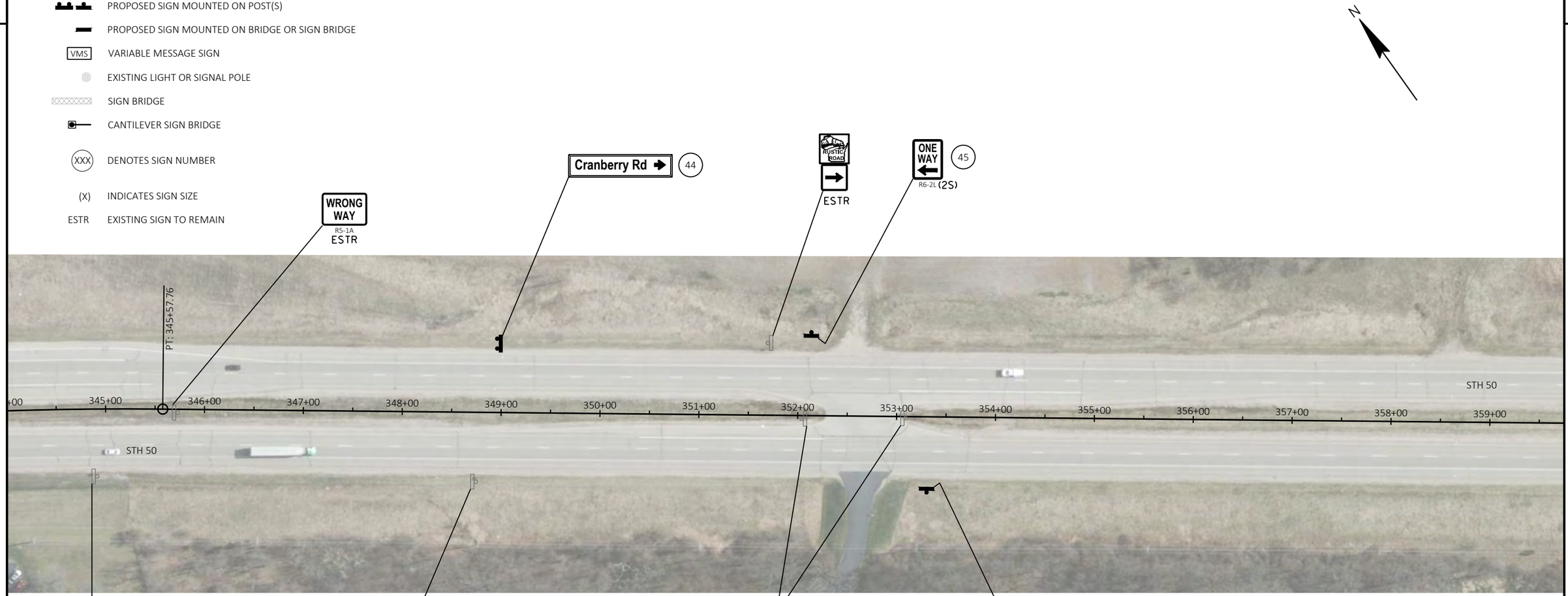
PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 14 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 35	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023214_PS

PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

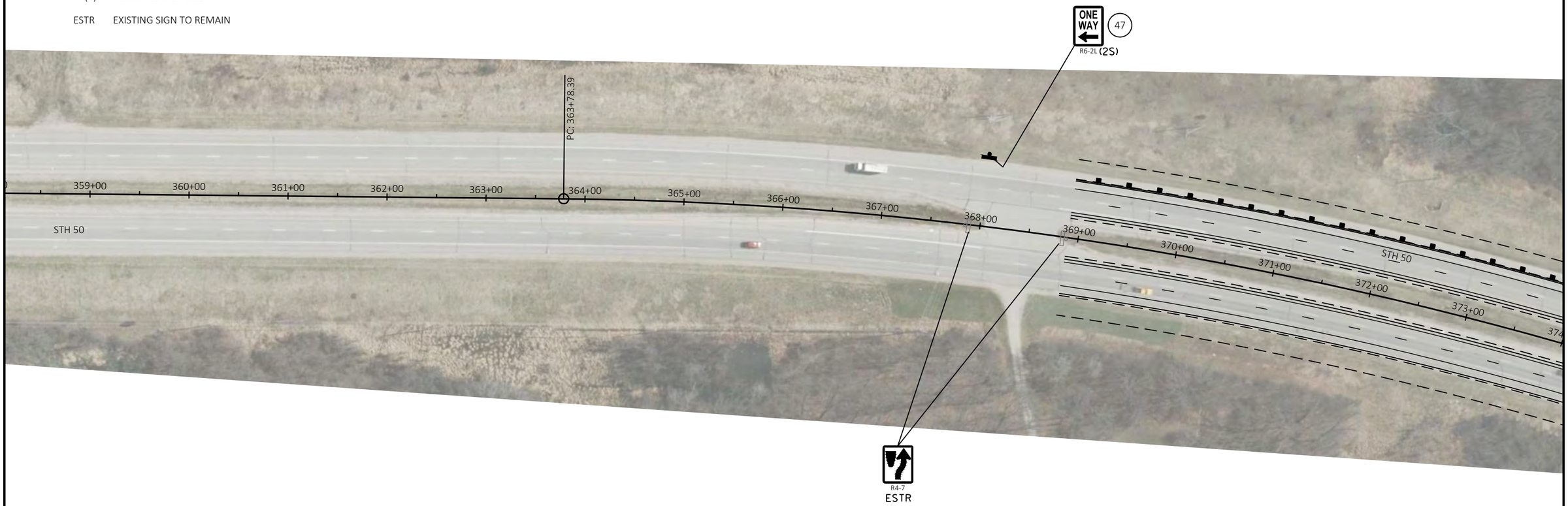
WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 15 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 36	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023215_PS

PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

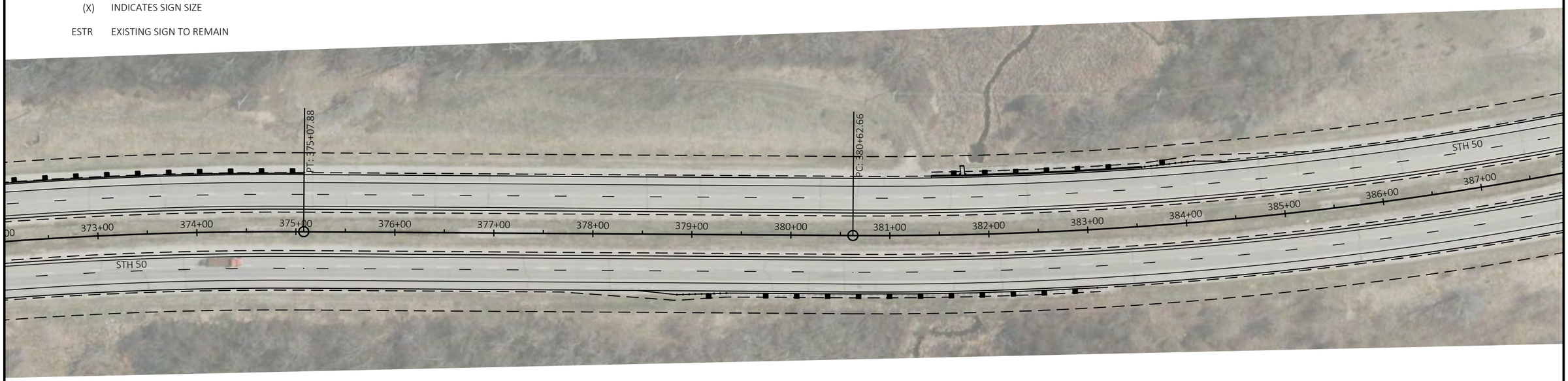
2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

NO SIGNS
THIS SHEET

N



SHEET 16 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 37	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023216_PS

PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 17 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 38	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023217_PS

PLOT DATE : 11/9/2020 1:16 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N

WEST 50 J4-1 ESTR

ONE WAY R6-2L ESTR

R4-7 ESTR

52 Lake Ivanhoe
53 Mariondale Rd
Lake Ivanhoe Mariondale
REMOVE

STH 50

400+00 401+00 402+00 403+00 404+00 405+00 406+00 407+00 408+00 409+00 410+00 411+00 412+00 413+00 414+00 415+00

MARIONDALE RD

DO NOT ENTER R5-1 ESTR

49 ONE WAY R6-1R (2S) NEW SIGN ABOVE STOP SIGN

50 STOP R1-1 MOVE

51 DIVIDED HIGHWAY R6-3 MOVE

50 J13-1 ESTR

EAST 50 J4-1 ESTR

ADOPT A HIGHWAY I55-56

KNIGHTS OF COLUMBUS 1647 LAKE GENEVA I55-56P ESTR

SPEED LIMIT 55 R2-1 ESTR

SHEET 18 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 39	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023218_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

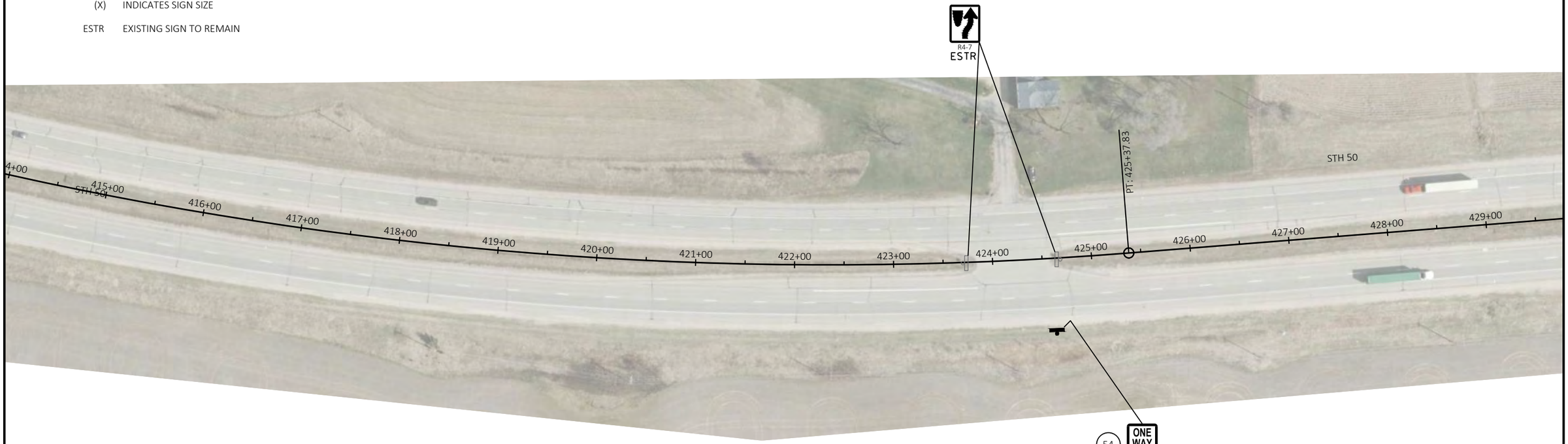
2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 19 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 40	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023219_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

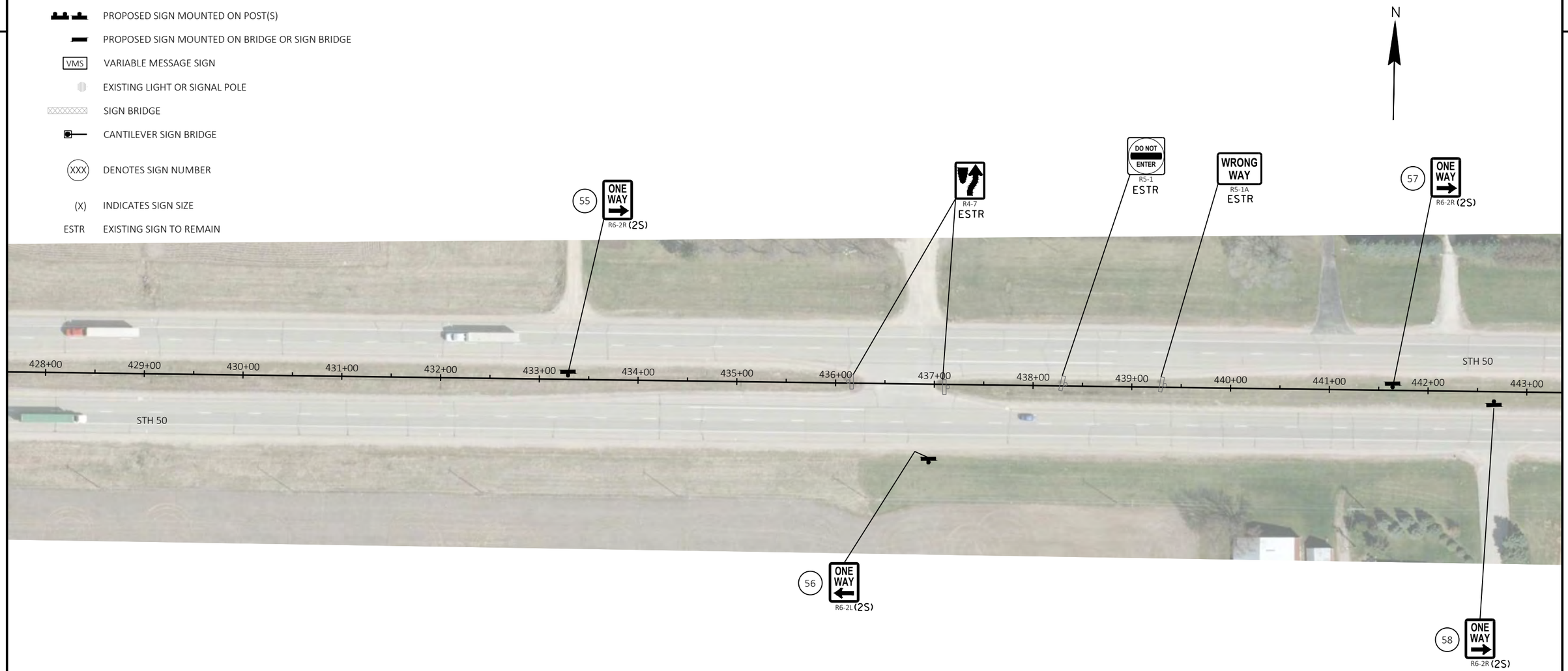
WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 20 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 41	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023220_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

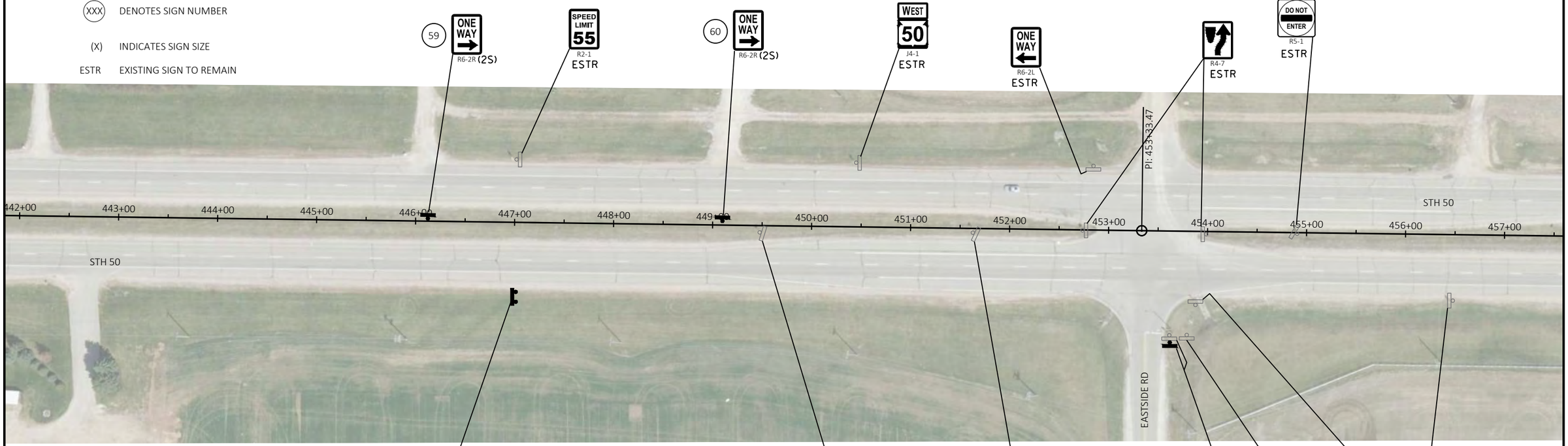
2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 21 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 42	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023221_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

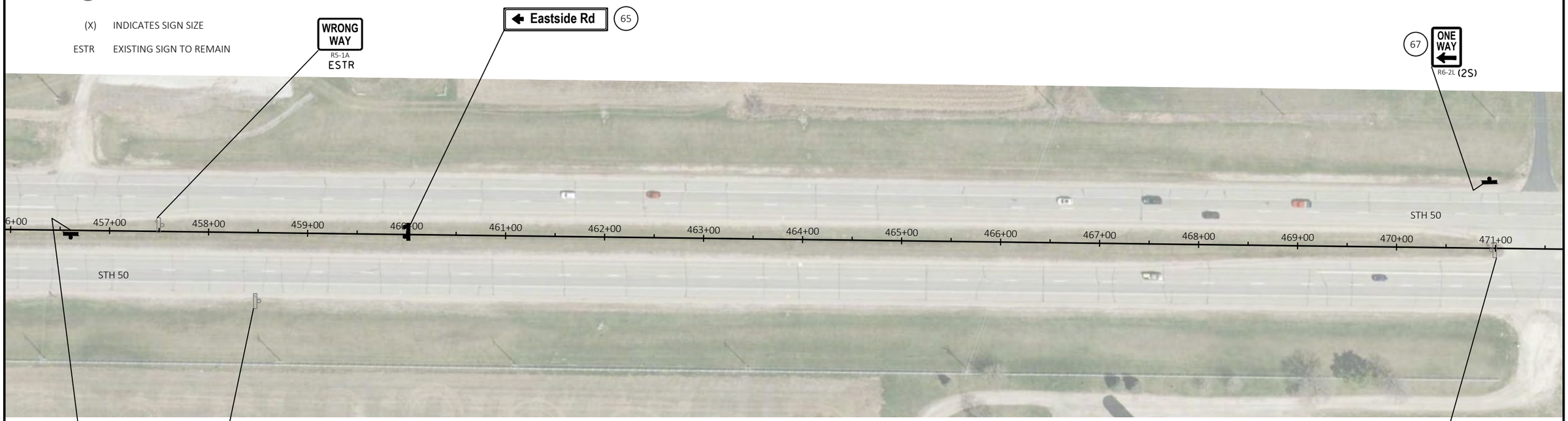
2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 22 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 43	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023222_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

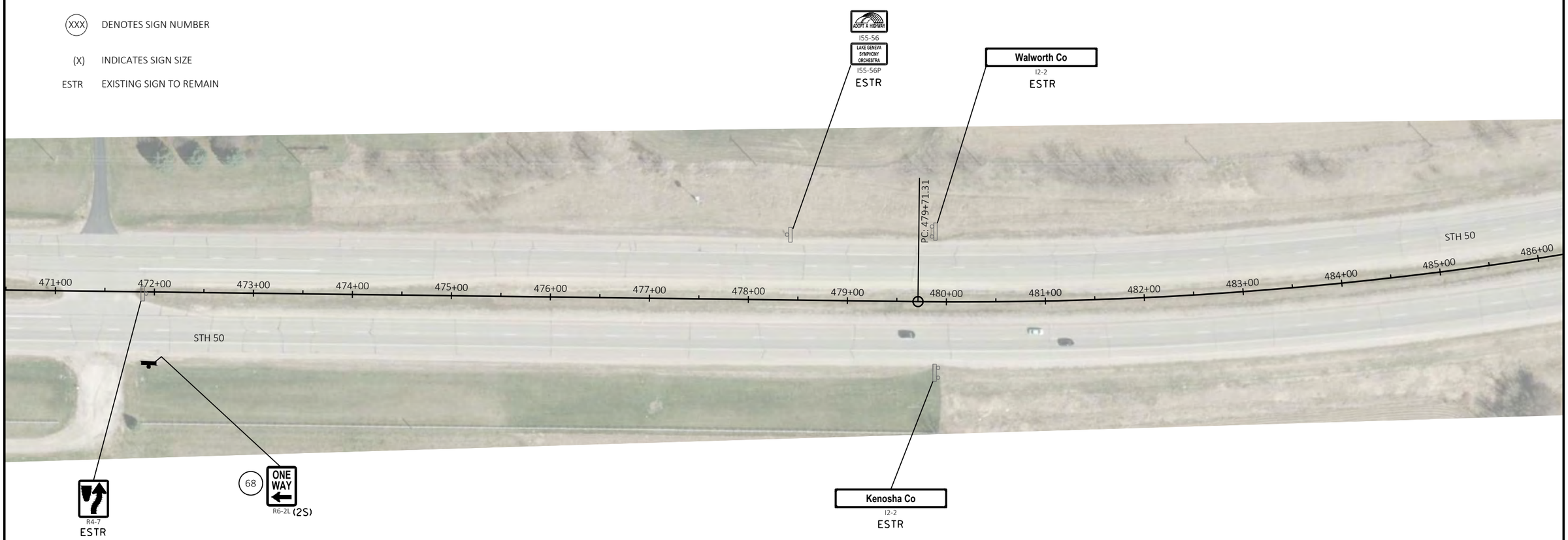
2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 23 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 44	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023223_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

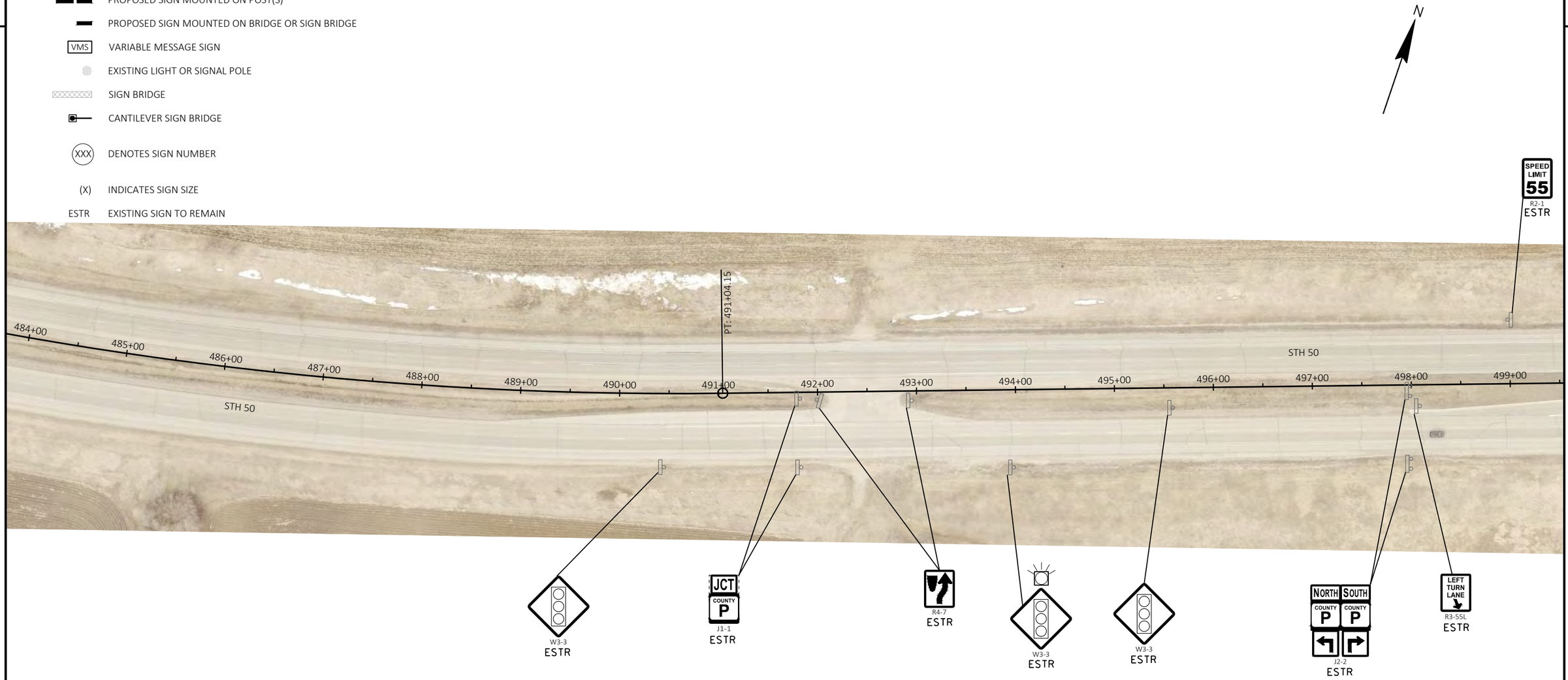
WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 24 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 45	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023226_PS_18.DWG
LAYOUT NAME - 023224_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

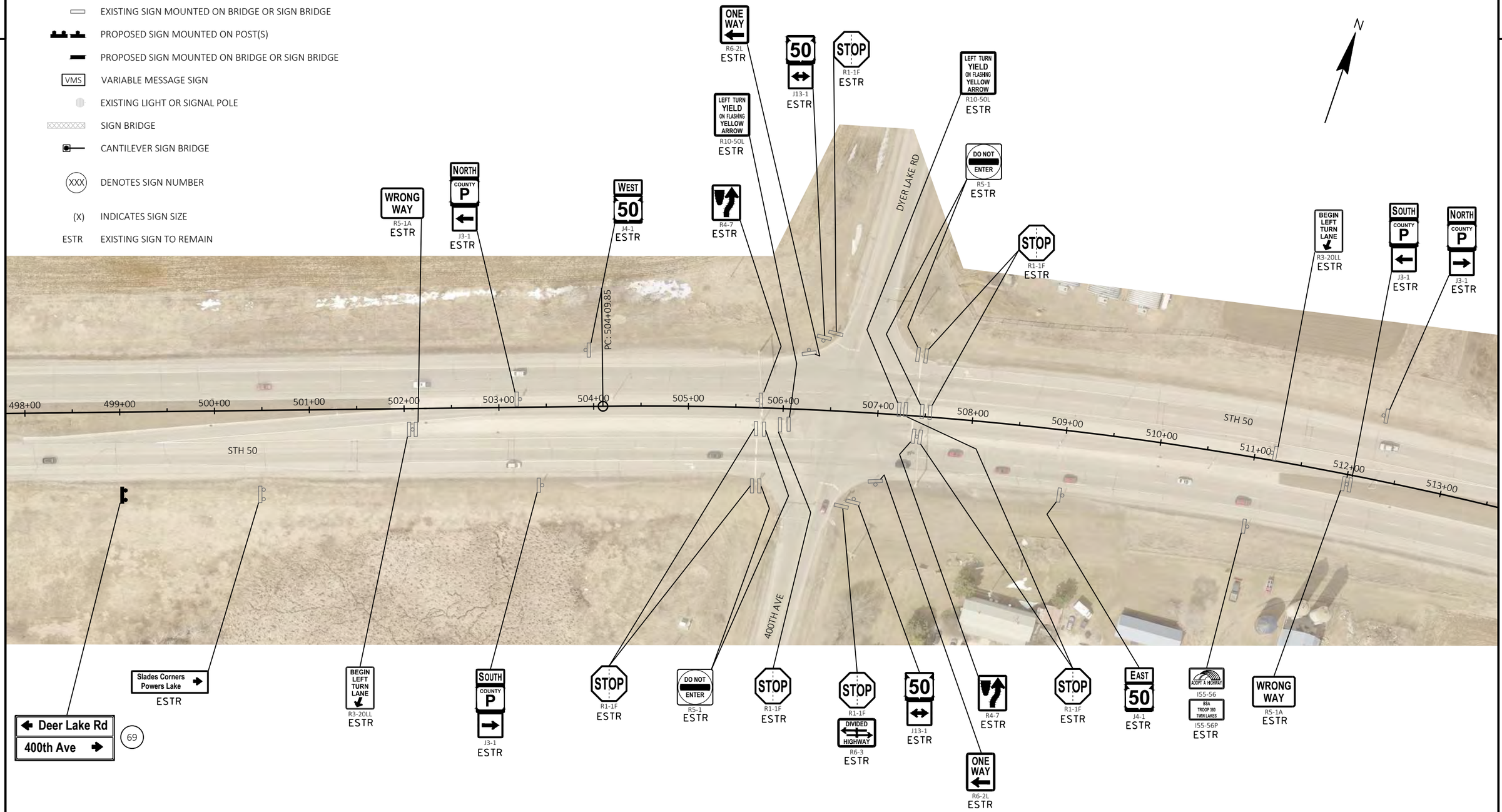
WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 25 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 46	E

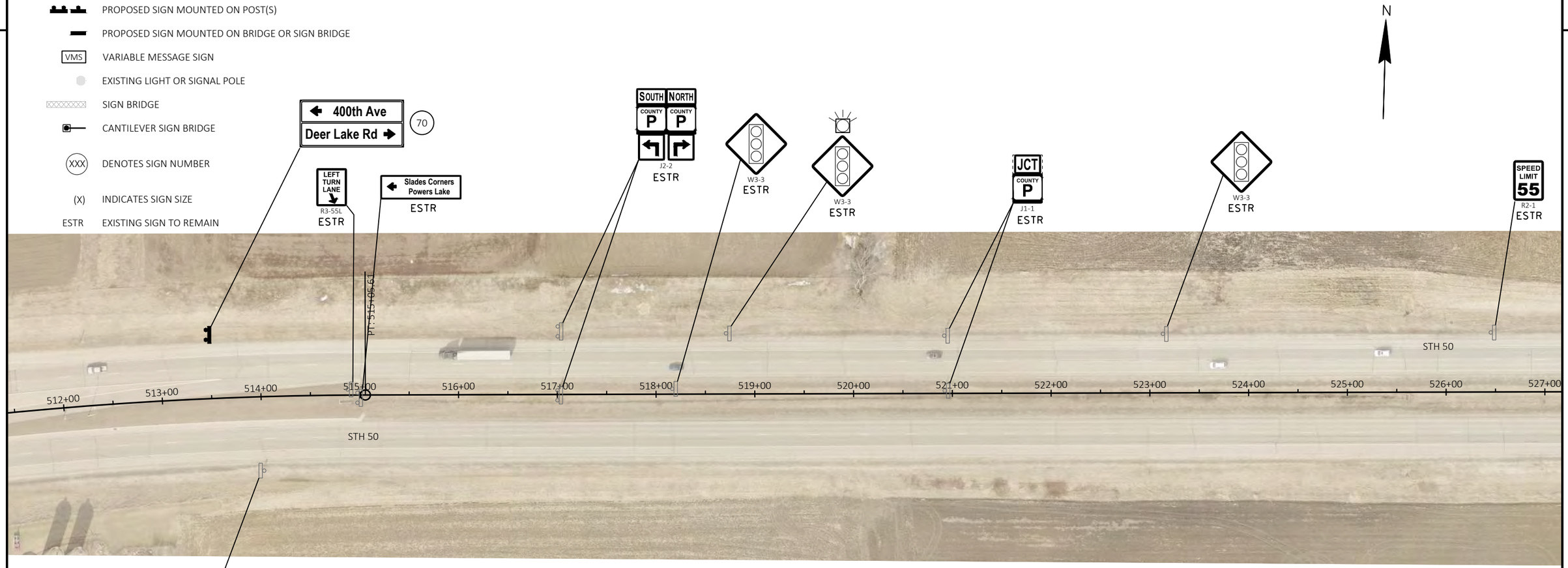
FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023226_PS_18.DWG
LAYOUT NAME - 023225_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 26 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 47	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023226_PS_18.DWG
LAYOUT NAME - 023226_PS

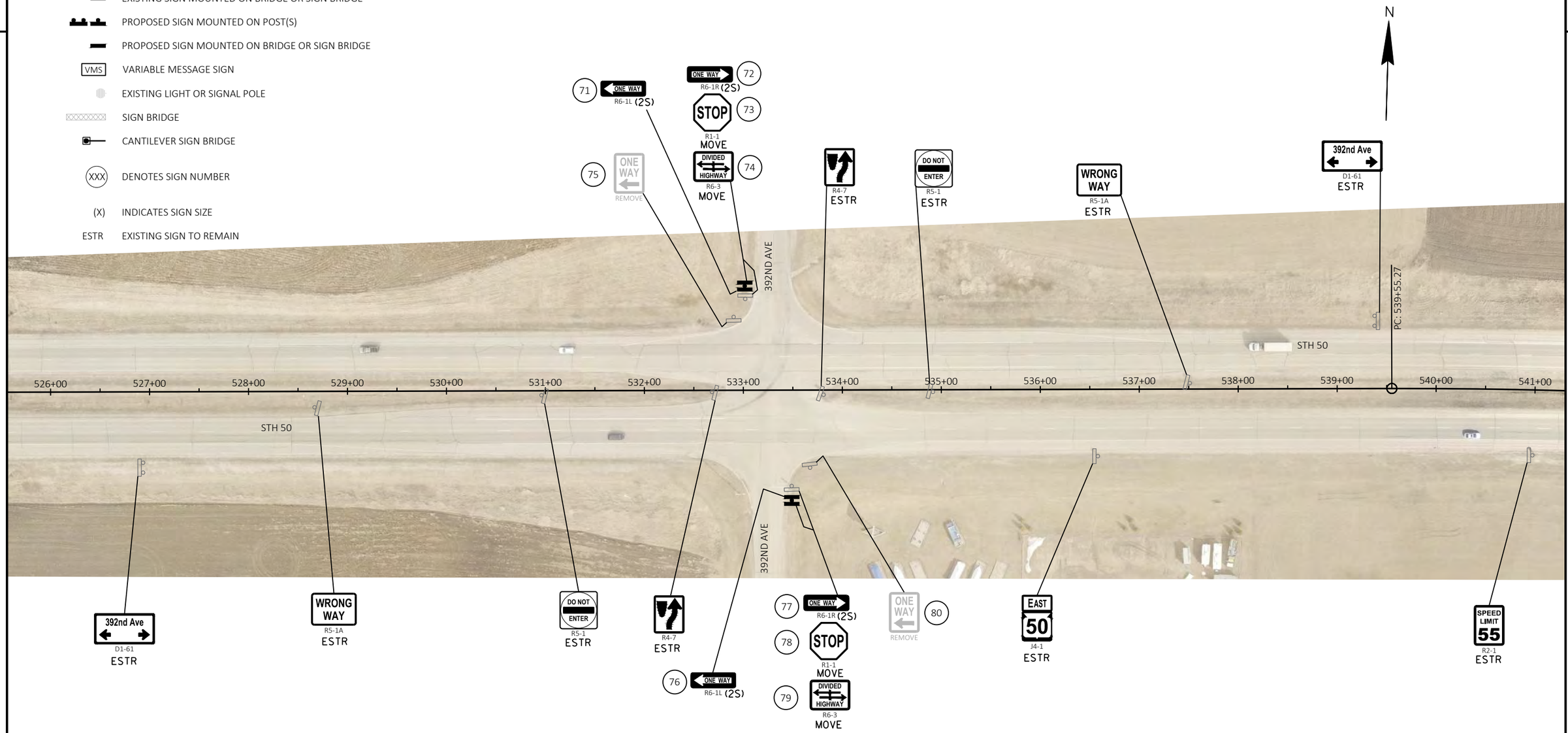
PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 27 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 48 E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023226_PS_18.DWG
LAYOUT NAME - 023227_PS

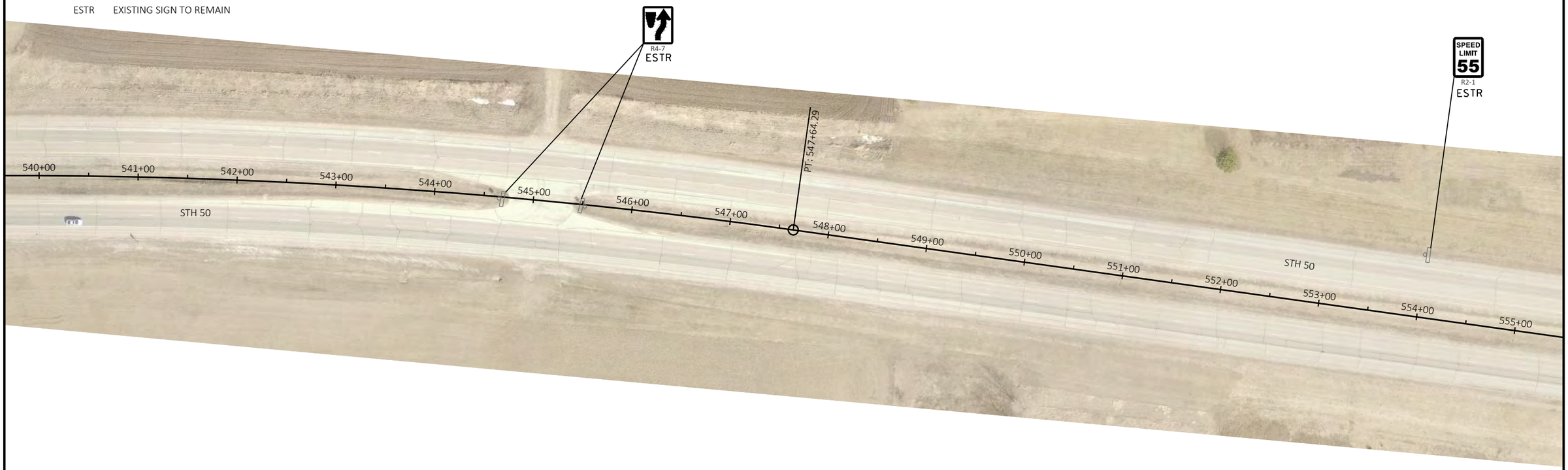
PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 28 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 49	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023226_PS_18.DWG
LAYOUT NAME - 023228_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

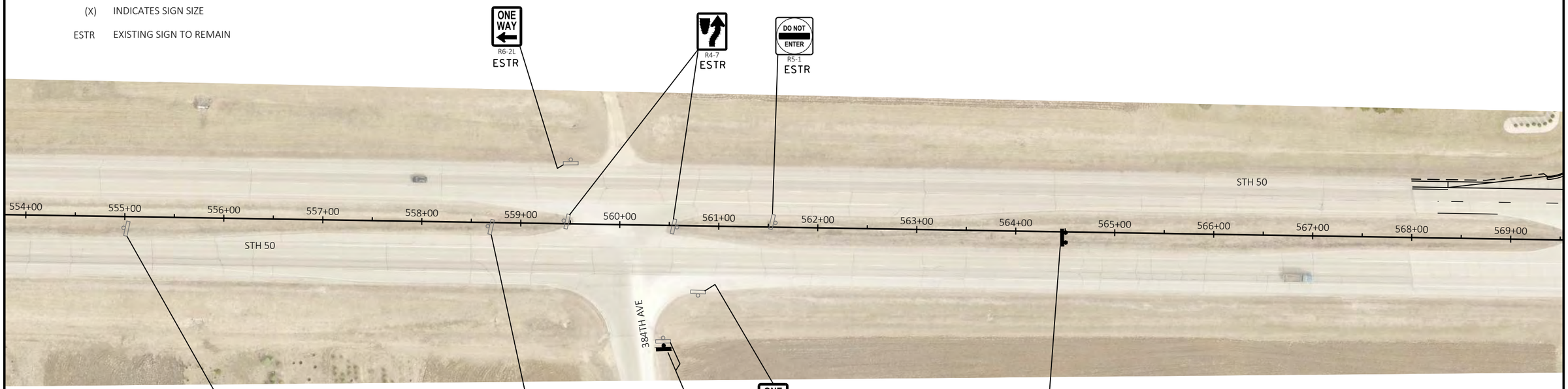
2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 29 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 50	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023226_PS_18.DWG
LAYOUT NAME - 023229_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

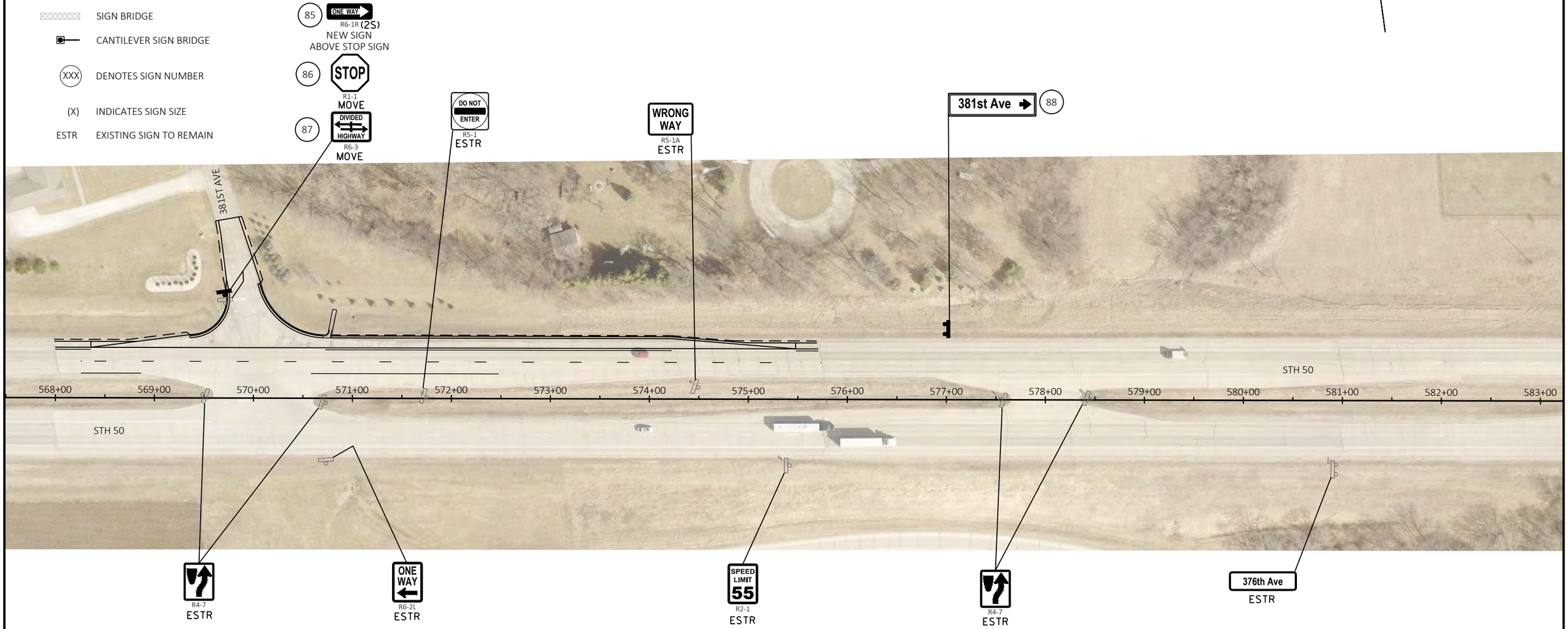
2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 30 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 51	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023226_PS_18.DWG
LAYOUT NAME - 023230_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

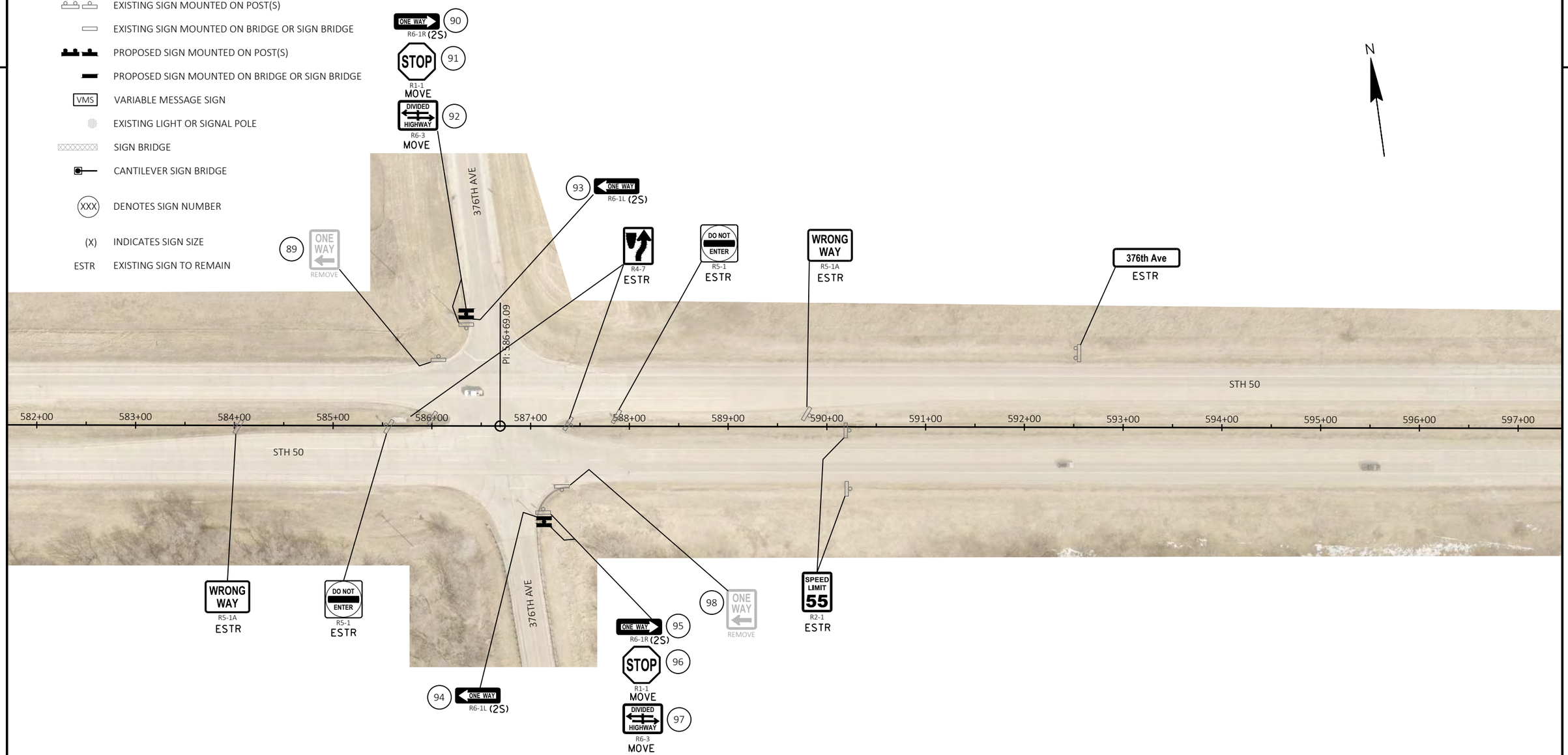
WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 31 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 52	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023226_PS_18.DWG
LAYOUT NAME - 023231_PS

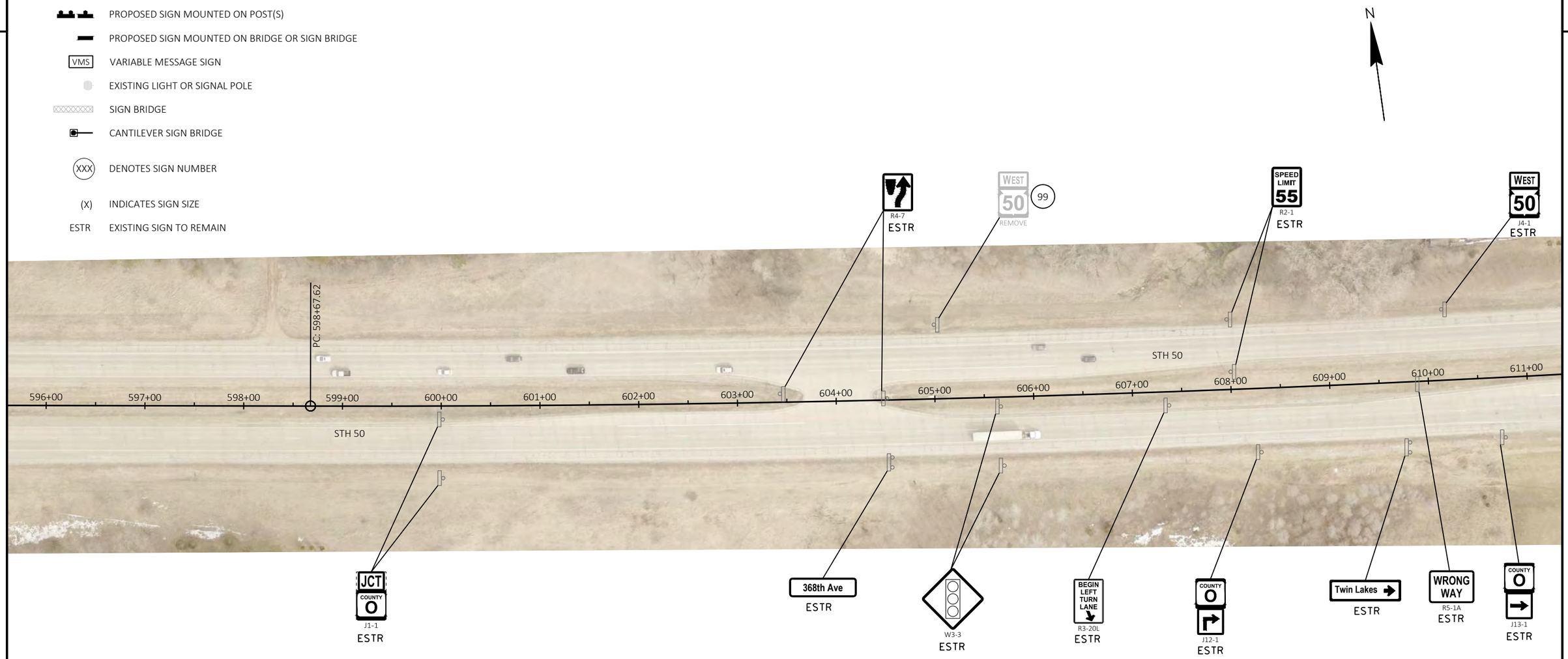
PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 32 OF 35

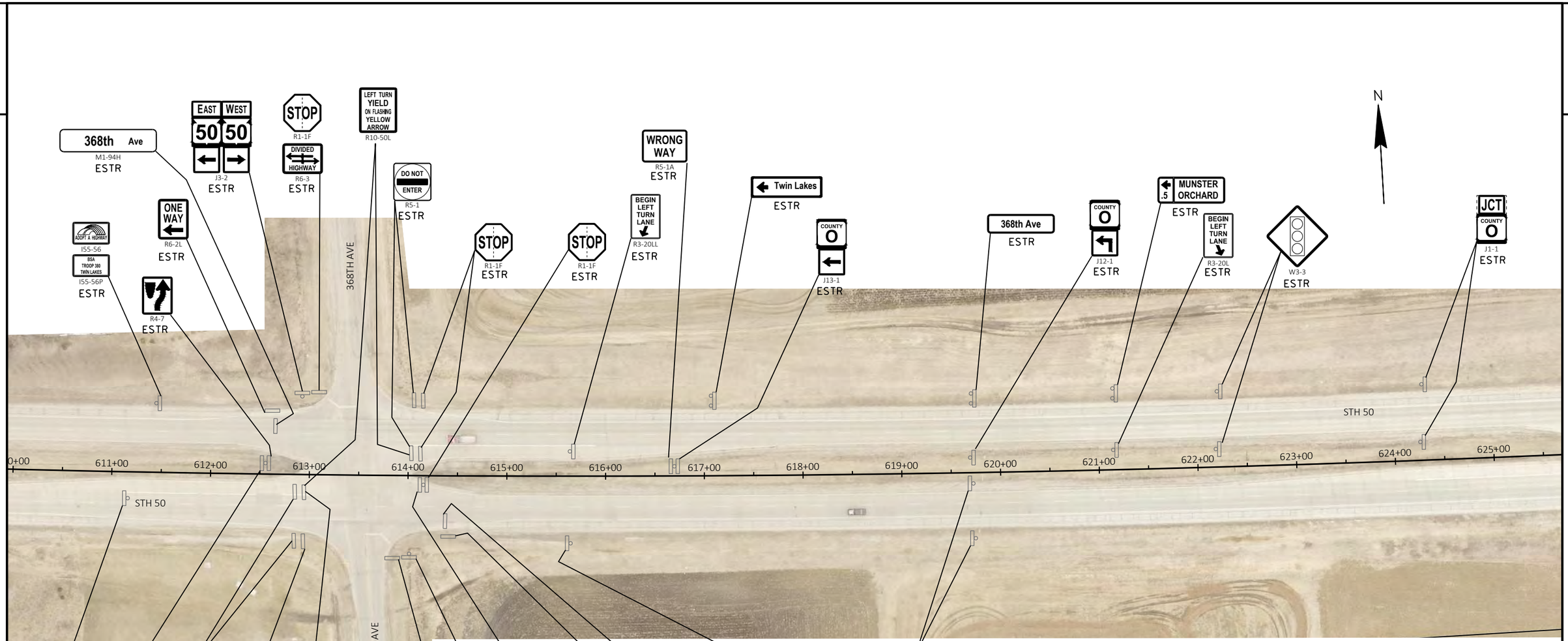
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 53	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023226_PS_18.DWG
LAYOUT NAME - 023232_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 33 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 54	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023226_PS_18.DWG
LAYOUT NAME - 023233_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

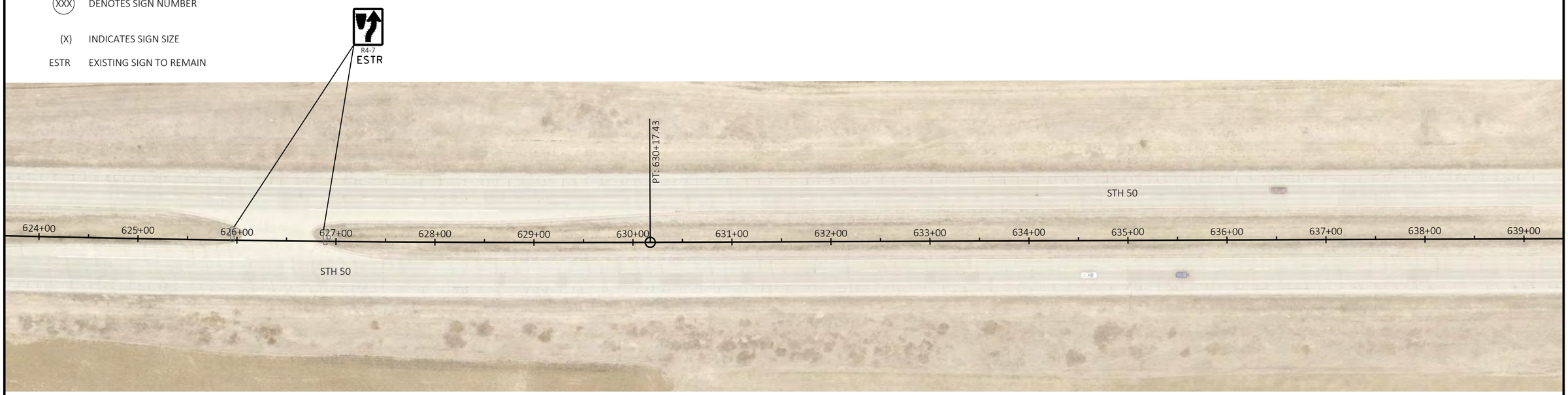
2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 34 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 55	E

FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023226_PS_18.DWG
LAYOUT NAME - 023234_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

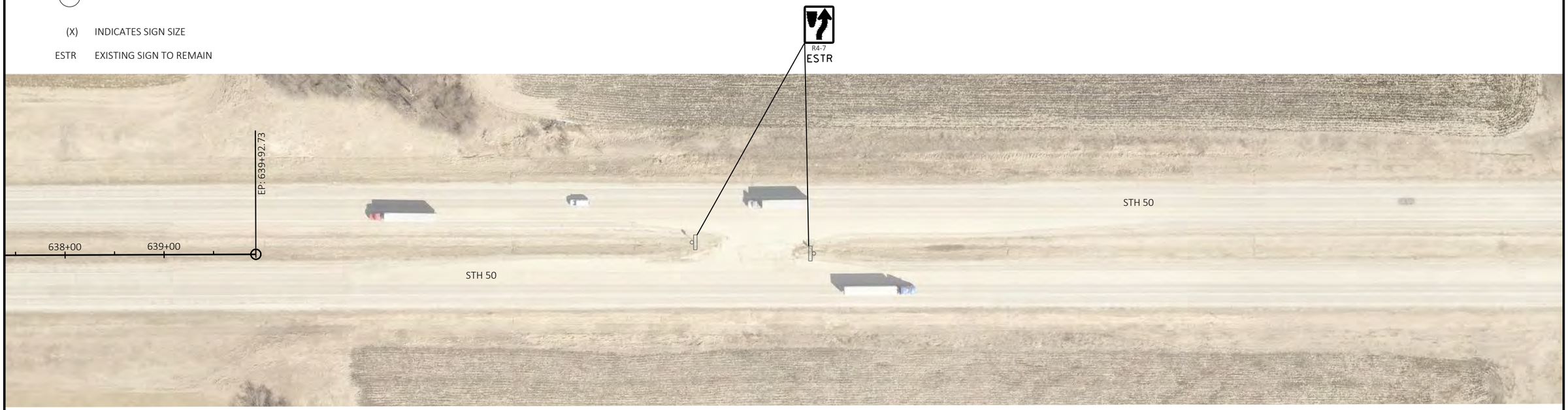
2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N



SHEET 35 OF 35

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH/KENOSHA	PERMANENT SIGNING PLAN	SHEET 56	E

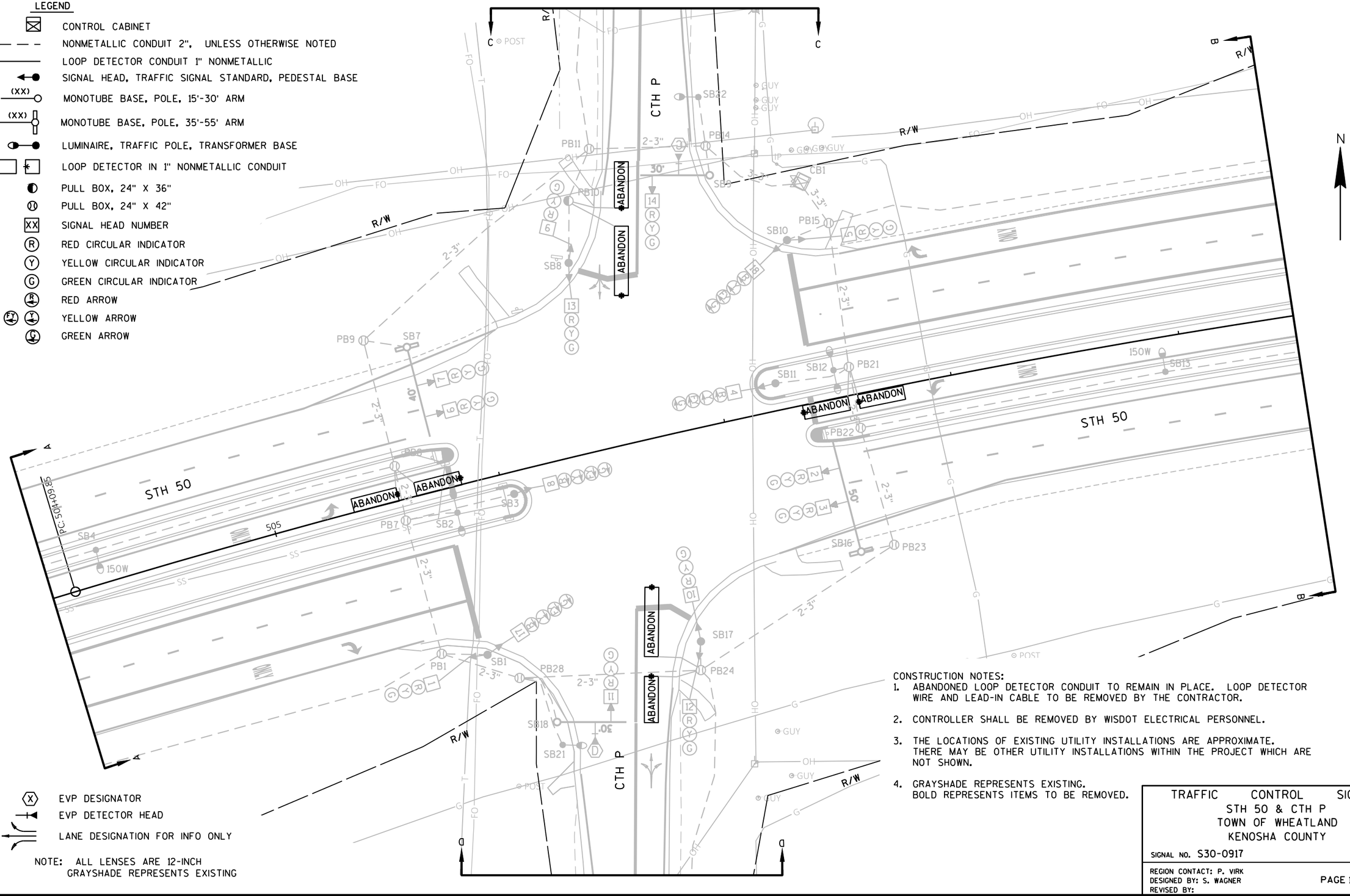
FILE NAME : C:\CIVIL 3D PROJECTS\13101700\SIGN\023226_PS_18.DWG
LAYOUT NAME - 023235_PS

PLOT DATE : 11/9/2020 1:17 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- FY YELLOW ARROW
- GREEN ARROW



- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
2. CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.

TRAFFIC CONTROL SIGNAL
STH 50 & CTH P
TOWN OF WHEATLAND
KENOSHA COUNTY

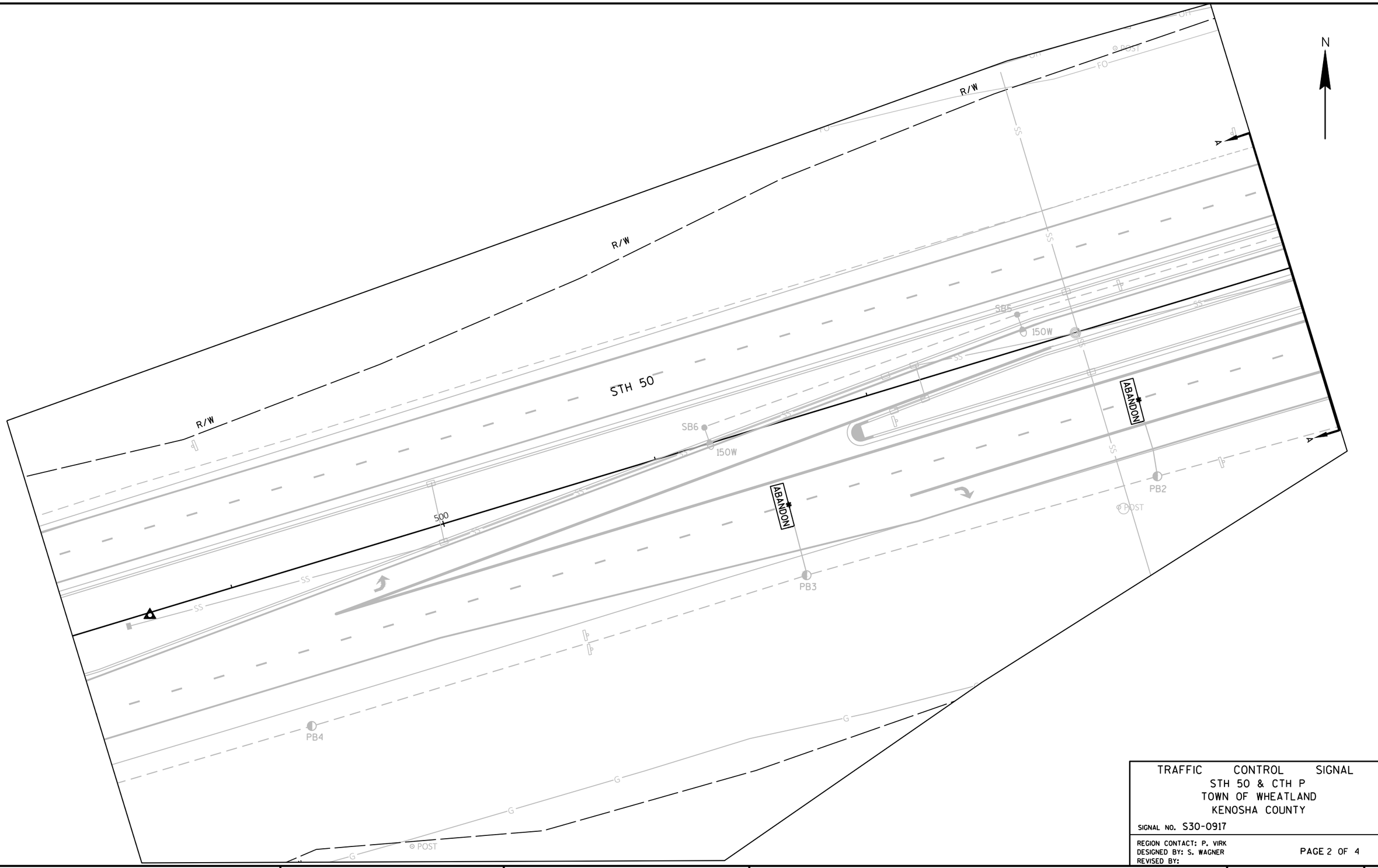
SIGNAL NO. S30-0917

REGION CONTACT: P. VIRK
DESIGNED BY: S. WAGNER
REVISED BY:

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 57	E

FILE NAME : N:\PDS\C3D\CAD\13101700\SIG\S30-0917\S30-0917_R4_18_REM.DWG
LAYOUT NAME - S30-0917_R4_18_PG1
PLOT DATE : 1/27/2021 6:56 AM
PLOT BY : VANDE LEEST, CYNTHIA
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2



TRAFFIC CONTROL SIGNAL
STH 50 & CTH P
TOWN OF WHEATLAND
KENOSHA COUNTY

SIGNAL NO. S30-0917

REGION CONTACT: P. VIRK
DESIGNED BY: S. WAGNER
REVISED BY:

PAGE 2 OF 4

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 58	E

FILE NAME : N:\PDS\C3D\CAD\13101700\SIG\S30-0917\S30-0917_R4_18_REM.DWG
LAYOUT NAME - S30-0917_R4_18_PG2

PLOT DATE : 1/27/2021 6:56 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

R/W

B

FO

OH

POST

PB16

PB17

PB18

ABANDON

ABANDON

150W

SB14

SB15

510

SS

STH 50

G

R/W

B

TRAFFIC CONTROL SIGNAL
STH 50 & CTH P
TOWN OF WHEATLAND
KENOSHA COUNTY

SIGNAL NO. S30-0917

REGION CONTACT: P. VIRK
DESIGNED BY: S. WAGNER
REVISED BY:

PAGE 3 OF 4

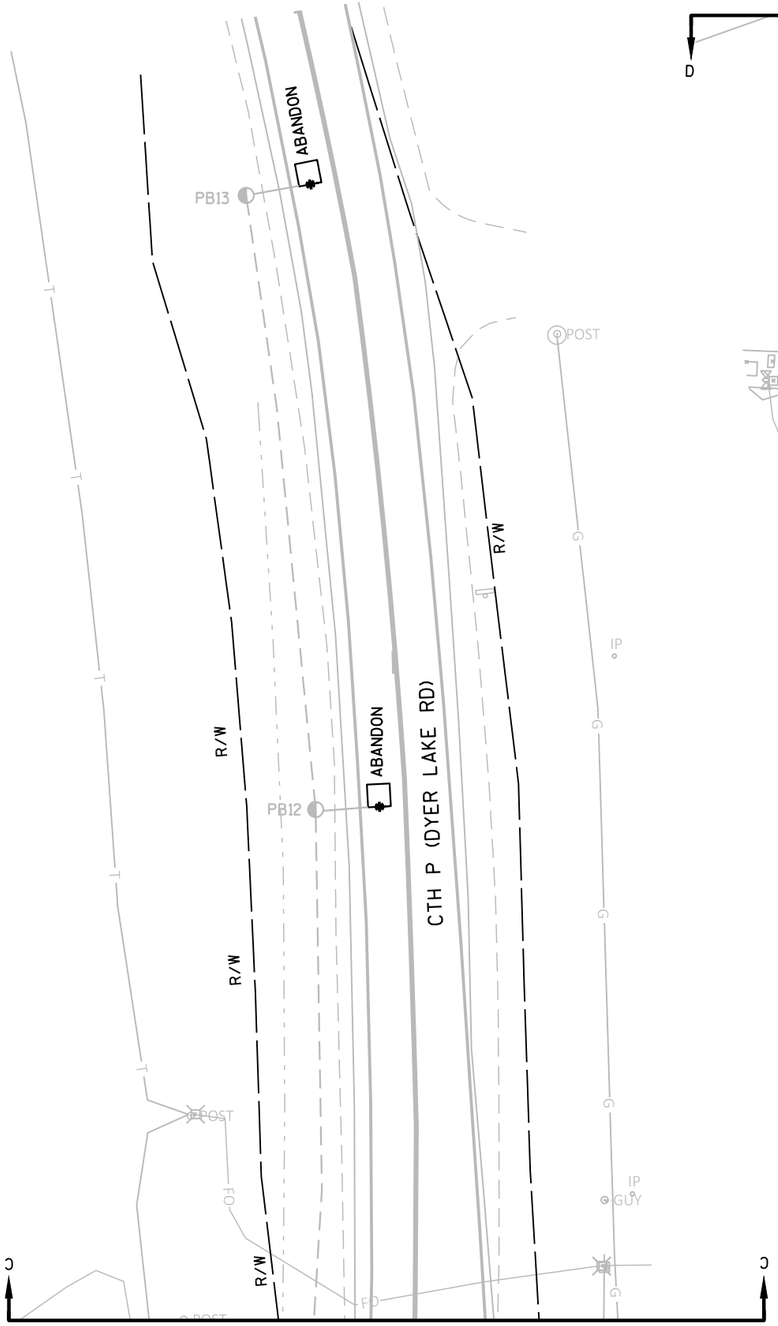
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 59	E

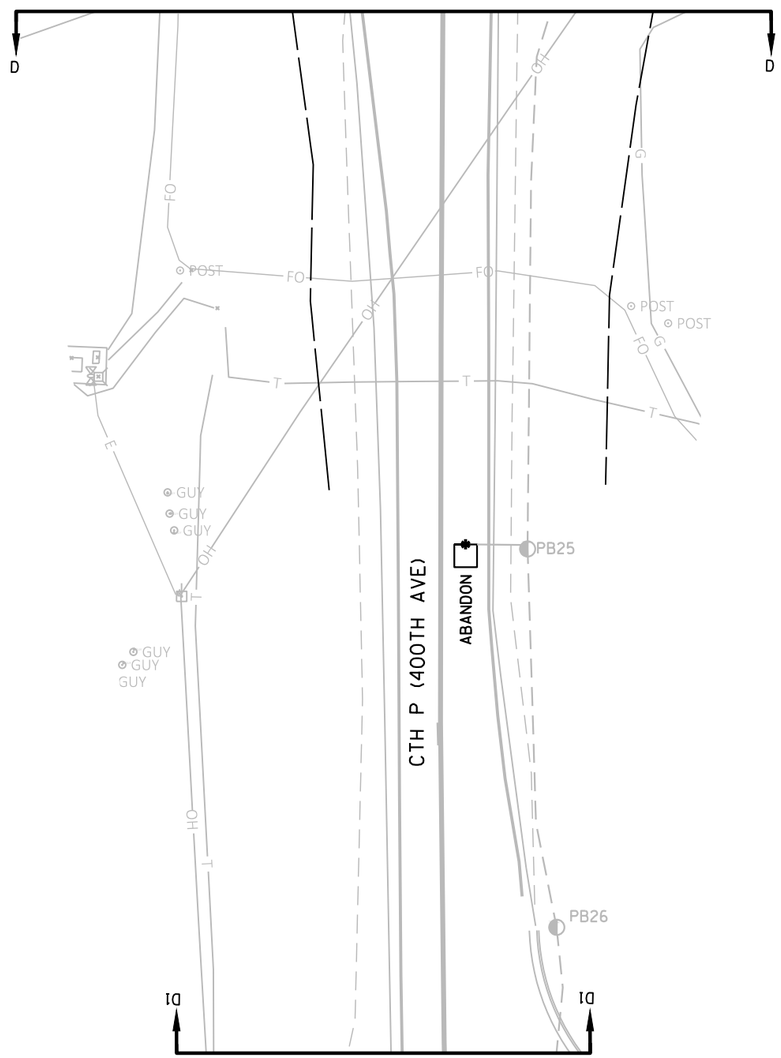
FILE NAME : N:\PDS\C3D\CAD\13101700\SIG\S30-0917\S30-0917_R4_18_REM.DWG
LAYOUT NAME - S30-0917_R4_18_PG3

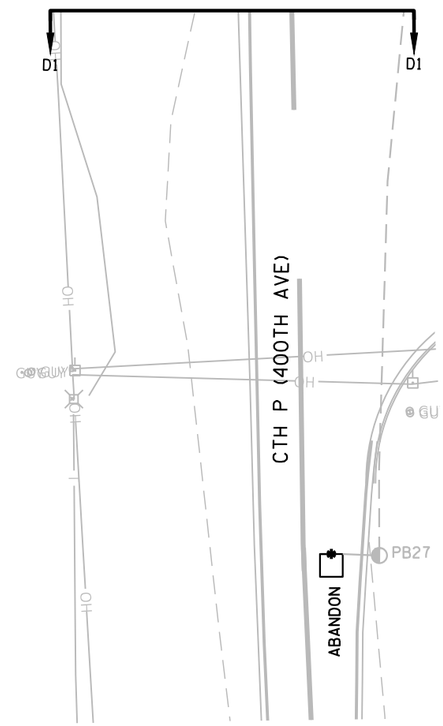
PLOT DATE : 1/27/2021 6:56 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N







TRAFFIC CONTROL SIGNAL
STH 50 & CTH P
TOWN OF WHEATLAND
KENOSHA COUNTY

SIGNAL NO. S30-0917

REGION CONTACT: P. VIRK
DESIGNED BY: S. WAGNER
REVISED BY:

PAGE 4 OF 4

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 60	E

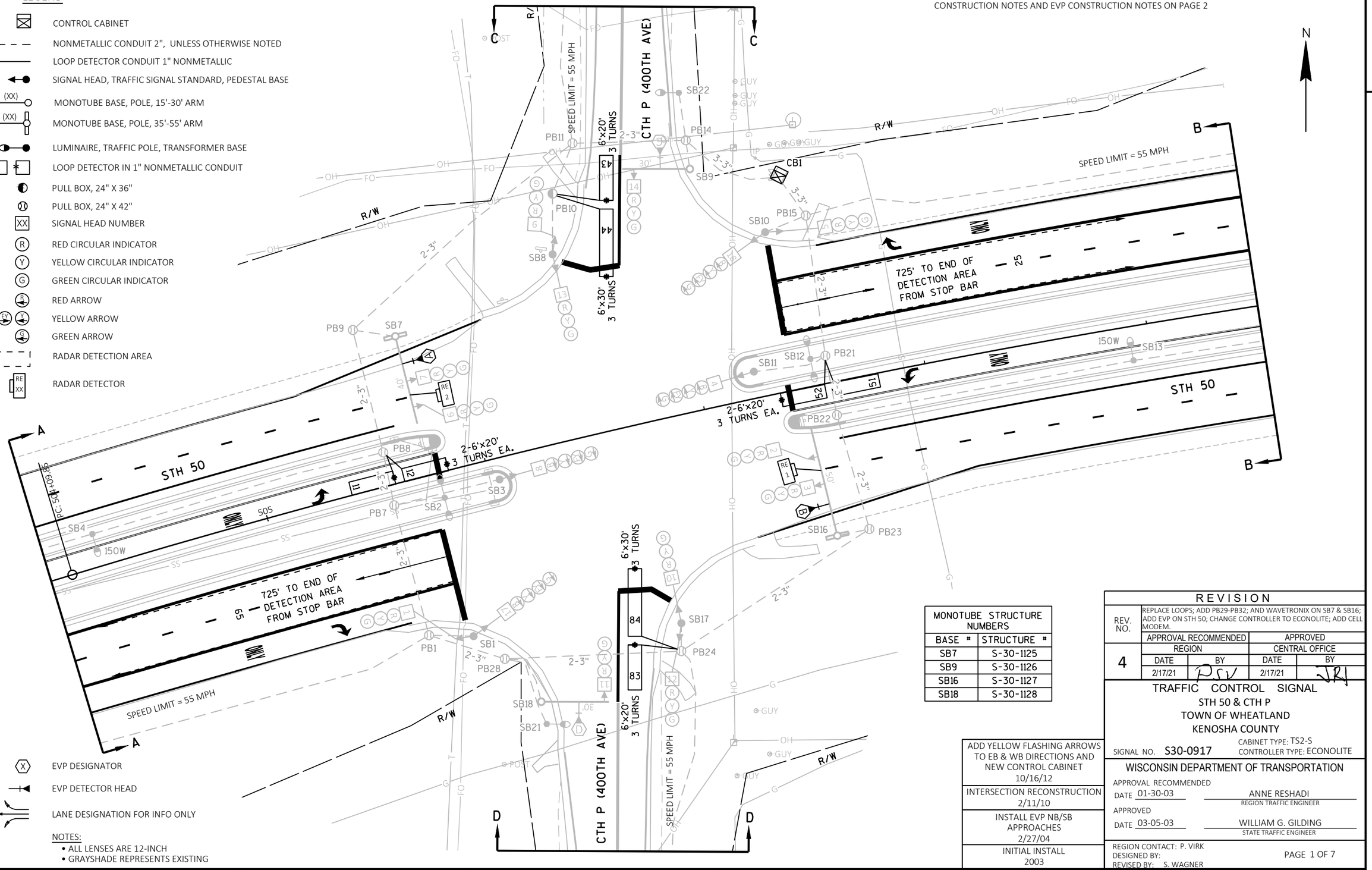
FILE NAME : N:\PDS\C3D\CAD\13101700\SIG\S30-0917\S30-0917_R4_18_REM.DWG
LAYOUT NAME - S30-0917_R4_18_PG4

PLOT DATE : 1/27/2021 6:56 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- FY Y YELLOW ARROW
- G GREEN ARROW
- RADAR DETECTION AREA
- RE XX RADAR DETECTOR

CONSTRUCTION NOTES AND EVP CONSTRUCTION NOTES ON PAGE 2



- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

MONOTUBE STRUCTURE NUMBERS	
BASE #	STRUCTURE #
SB7	S-30-1125
SB9	S-30-1126
SB16	S-30-1127
SB18	S-30-1128

ADD YELLOW FLASHING ARROWS TO EB & WB DIRECTIONS AND NEW CONTROL CABINET 10/16/12

INTERSECTION RECONSTRUCTION 2/11/10

INSTALL EVP NB/SB APPROACHES 2/27/04

INITIAL INSTALL 2003

REVISION

REV. NO.				
	APPROVAL RECOMMENDED		APPROVED	
4	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
	2/17/21	PSV	2/17/21	JRJ

REPLACE LOOPS; ADD PB29-PB32; AND WAVETRONIX ON SB7 & SB16; ADD EVP ON STH 50; CHANGE CONTROLLER TO ECONOLITE; ADD CELL MODEM.

TRAFFIC CONTROL SIGNAL
STH 50 & CTH P
TOWN OF WHEATLAND
KENOSHA COUNTY

SIGNAL NO. S30-0917 CABINET TYPE: TS2-S CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 01-30-03 ANNE RESHADI, REGION TRAFFIC ENGINEER

APPROVED
DATE 03-05-03 WILLIAM G. GILDING, STATE TRAFFIC ENGINEER

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 1 OF 7

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	TRAFFIC SIGNAL PLAN	SHEET 61	E

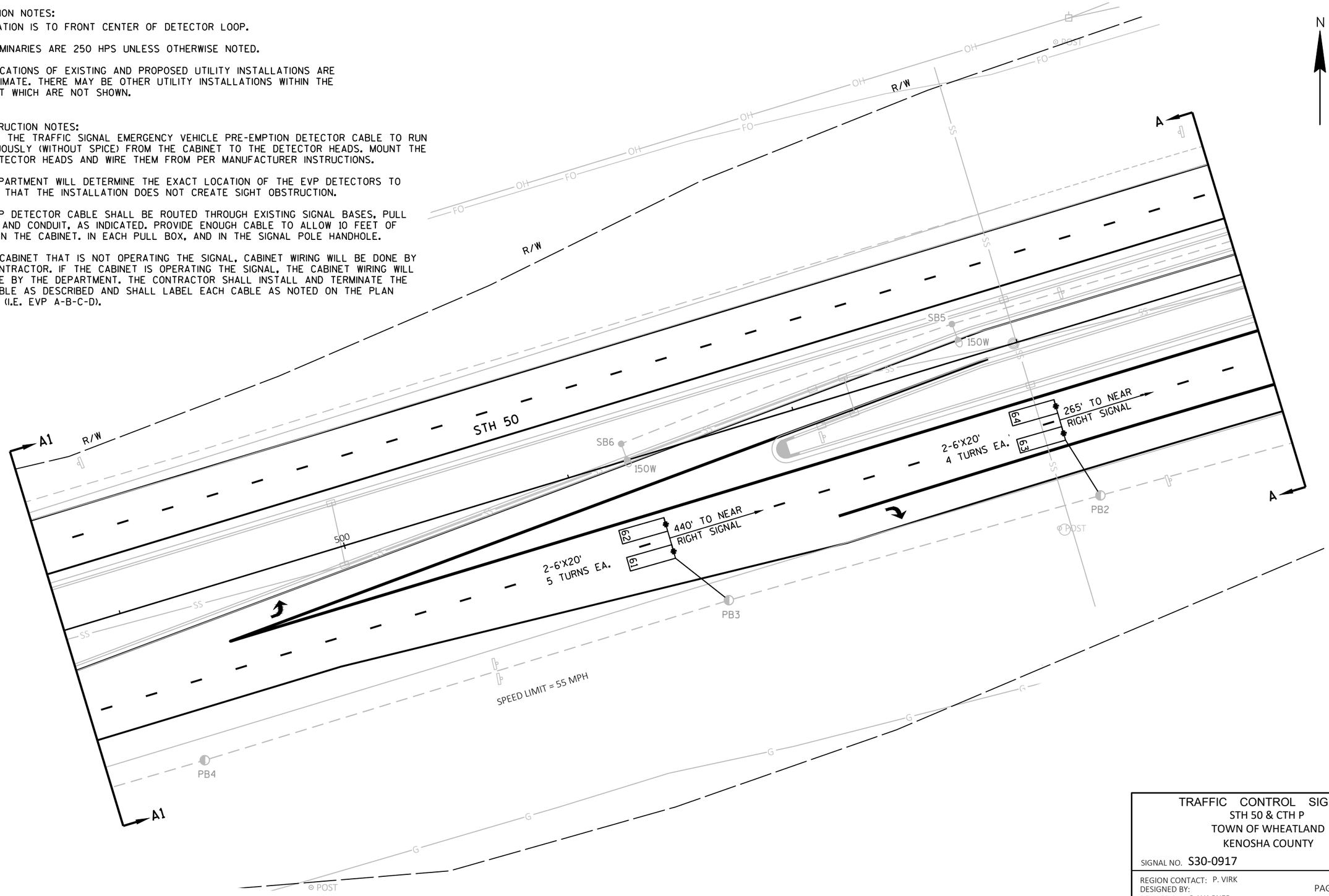
FILE NAME : N:\PDS\C3D\CAD\13101700\SIG\S30-0917\S30-0917_R4.DWG
LAYOUT NAME - S30-0917_R4_PG1
PLOT DATE : 2/18/2021 7:15 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : ########## WISDOT/CADDS SHEET 42

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. ALL LUMINARIES ARE 250 HPS UNLESS OTHERWISE NOTED.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPICE) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM FROM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH EXISTING SIGNAL BASES, PULL BOXES, AND CONDUIT, AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET. IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.
4. FOR A CABINET THAT IS NOT OPERATING THE SIGNAL, CABINET WIRING WILL BE DONE BY THE CONTRACTOR. IF THE CABINET IS OPERATING THE SIGNAL, THE CABINET WIRING WILL BE DONE BY THE DEPARTMENT. THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E. EVP A-B-C-D).



TRAFFIC CONTROL SIGNAL
STH 50 & CTH P
TOWN OF WHEATLAND
KENOSHA COUNTY

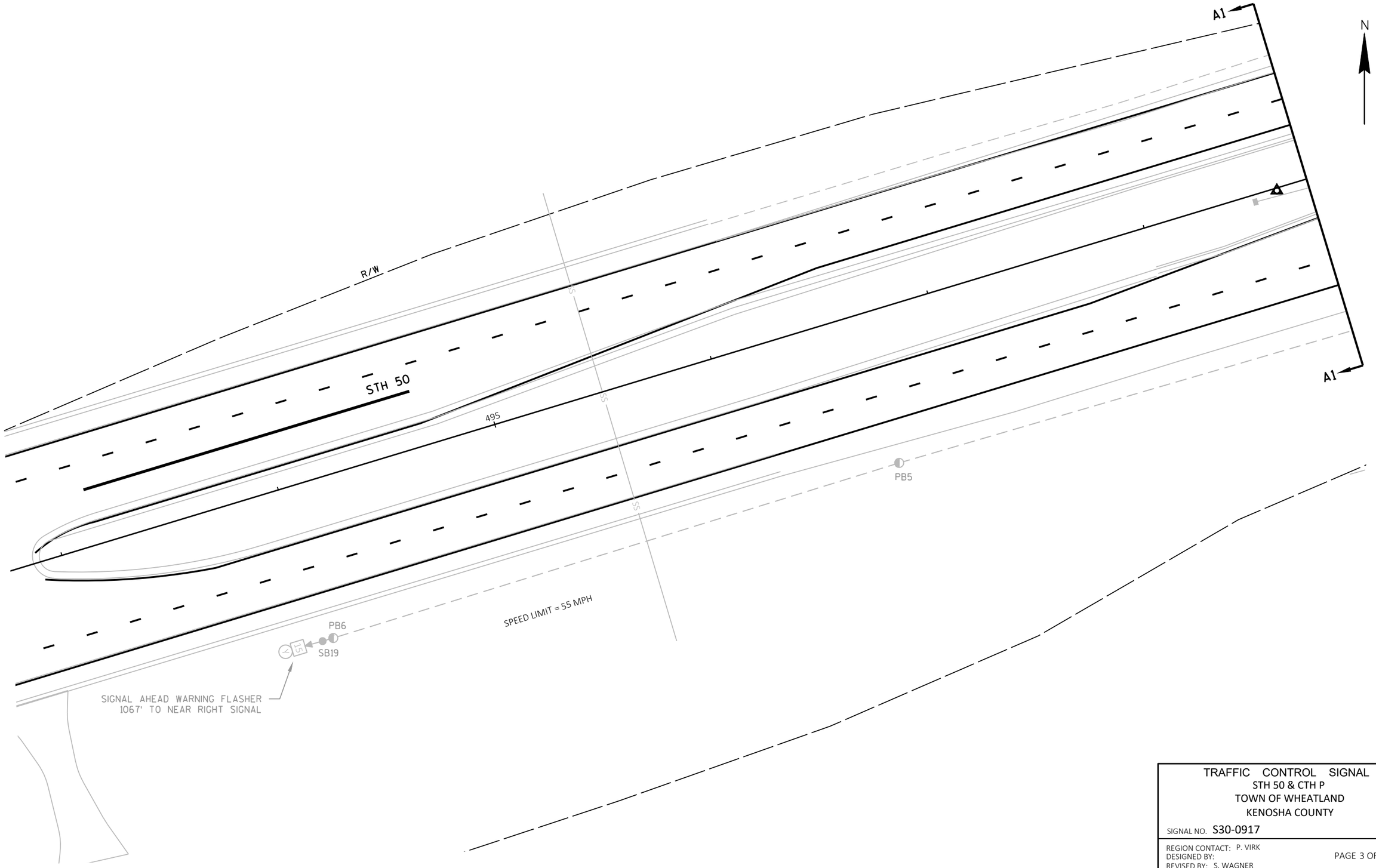
SIGNAL NO. S30-0917

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 2 OF 7

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	TRAFFIC SIGNAL PLAN	SHEET 62	E

2



TRAFFIC CONTROL SIGNAL
STH 50 & CTH P
TOWN OF WHEATLAND
KENOSHA COUNTY

SIGNAL NO. S30-0917

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 3 OF 7

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	TRAFFIC SIGNAL PLAN	SHEET 63	E

FILE NAME : N:\PDS\C3D\CAD\13101700\SIG\S30-0917\S30-0917_R4.DWG
LAYOUT NAME - S30-0917_R4_PG3

PLOT DATE : 2/18/2021 7:15 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

R/W

FO

OH

POST

SPEED LIMIT = 55 MPH

B

B1

PB16

PB17

PB31

PB18

265' TO NEAR RIGHT SIGNAL
2-6'X20'
3 TURNS EA.

23

24

440' TO NEAR RIGHT SIGNAL

21

22

2-6'X20'
4 TURNS EA.

510

150W

SB14

SB15

SS

STH 50

G

R/W

TRAFFIC CONTROL SIGNAL
STH 50 & CTH P
TOWN OF WHEATLAND
KENOSHA COUNTY

SIGNAL NO. S30-0917

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 4 OF 7

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	TRAFFIC SIGNAL PLAN	SHEET 64	E

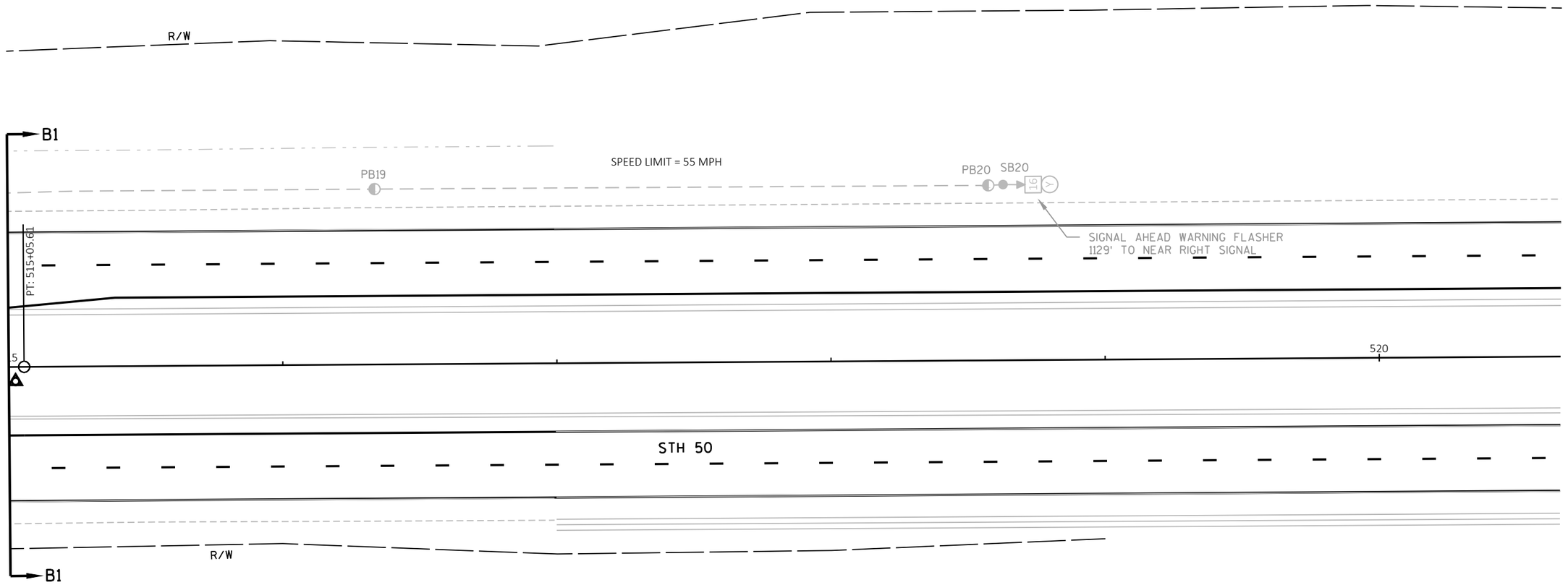
FILE NAME : N:\PDS\C3D\CAD\13101700\SIG\S30-0917\S30-0917_R4.DWG
LAYOUT NAME - S30-0917_R4_PG4

PLOT DATE : 2/18/2021 7:15 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N



TRAFFIC CONTROL SIGNAL
STH 50 & CTH P
TOWN OF WHEATLAND
KENOSHA COUNTY

SIGNAL NO. S30-0917

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 5 OF 7

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	TRAFFIC SIGNAL PLAN	SHEET 65	E

FILE NAME : N:\PDS\C3D\CAD\13101700\SIG\S30-0917\S30-0917_R4.DWG
LAYOUT NAME - S30-0917_R4_PG5

PLOT DATE : 2/18/2021 7:15 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

PB30

6'X10' 5 TURNS

440' TO NEAR RIGHT SIGNAL

PB13

POST

SPEED LIMIT = 55 MPH

R/W

PB29

6'X6' 5 TURNS

265' TO NEAR RIGHT SIGNAL

CTH P (DYER LAKE RD)

PB12

R/W

R/W

POST

C

C

D

D

FO

POST

FO

FO

POST

POST

G

OH

T

T

T

GUY

GUY

GUY

OH

T

PB25

SPEED LIMIT = 55 MPH

265' TO NEAR RIGHT SIGNAL

PB32

82

6'X10' 5 TURNS

PB26

D1

D1

D1

D1

CTH P (400TH AVE)

OH

OH

OH

OH

GUY

GUY

OH

OH

T

T

OH

495' TO NEAR RIGHT SIGNAL

PB27

81

6'X16' 5 TURNS

SPEED LIMIT = 55 MPH

TRAFFIC CONTROL SIGNAL
STH 50 & CTH P
TOWN OF WHEATLAND
KENOSHA COUNTY

SIGNAL NO. S30-0917

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

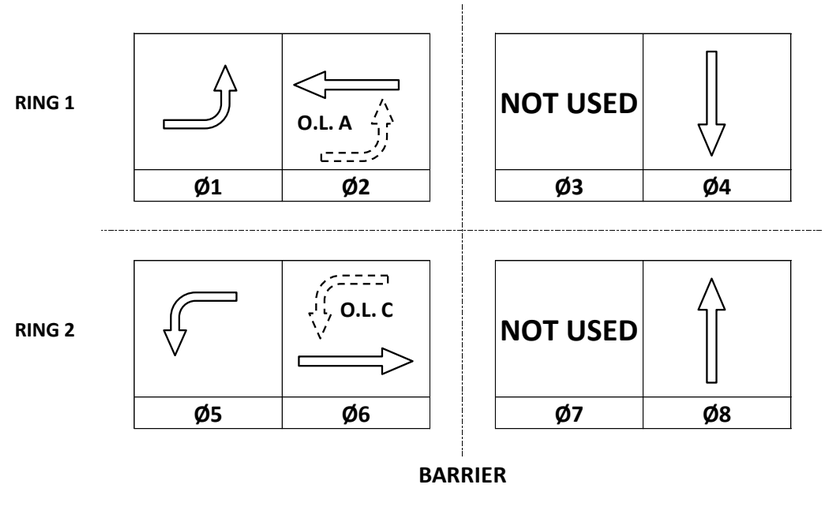
PAGE 6 OF 7

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	TRAFFIC SIGNAL PLAN	SHEET 66	E

FILE NAME : N:\PDS\C3D\CAD\13101700\SIG\S30-0917\S30-0917_R4.DWG
LAYOUT NAME - S30-0917_R4_PG6

PLOT DATE : 2/18/2021 7:15 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : ##########

	HEAD NUMBERS	FLASH
Ø1	4,18	-
Ø2	5,6,7	R
Ø3		
Ø4	9,10,11	R
Ø5	8,17	-
Ø6	1,2,3	R
Ø7		
Ø8	12,13,14	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA	4,18	R ←
OLB		
OLC	8,17	R ←
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7				
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	←	→	↑↓	↑↓
PHASE	2+5	1+6	4+8	8+4

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6
AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21			33	35	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	11	21	23	41	43	51	61	63	81	83					25		PLAN LOOP DETECTOR*(S)
CALLED PHASE	6	2	2	4	4	2	6	6	8	8					2		CALLED PHASE
CALL OPTION	X	X	X		X	X	X	X		X					X		CALL OPTION
DELAY TIME					X					X							DELAY TIME
EXTENTION OPTION	X	X	X	X	X	X	X	X	X	X					X		EXTENTION OPTION
EXTEND TIME				X					X								EXTEND TIME
USE ADDED INITIAL		X	X				X	X									USE ADDED INITIAL
CROSS SWITCH PHASE	2					6											CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22			34	36	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	12	22	24	42	44	52	62	64	82	84					65		PLAN LOOP DETECTOR*(S)
CALLED PHASE	6	2	2	4	4	2	6	6	8	8					6		CALLED PHASE
CALL OPTION	X	X	X		X	X	X	X		X					X		CALL OPTION
DELAY TIME					X					X							DELAY TIME
EXTENTION OPTION	X	X	X	X	X	X	X	X	X	X					X		EXTENTION OPTION
EXTEND TIME				X					X								EXTEND TIME
USE ADDED INITIAL		X	X				X	X									USE ADDED INITIAL
CROSS SWITCH PHASE	2					6											CROSS SWITCH PHASE

GENERAL NOTES:

1. LOOPS 11 AND 12 ARE CALLNG PHASE 6
2. LOOPS 51 AND 52 ARE CALLING PHASE 2

STH 50 & CTH P (DYER LAKE RD/400TH AVE)
TOWN OF WHEATLAND
KENOSHA COUNTY

SIGNAL NO: S30-0917 CABINET TYPE: TS2-S
CONTROLLER TYPE: ECONOLITE
DATE: FEBURARY 2021 PAGE NUMBER: 7 OF 7

PROJECT ID:	1310-17-70
INTERSECTION:	STH 50 & CTH P

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

Emergency Vehicle Preemption	
From	To
CB1	SB7 (HEAD A)
CB1	SB16 (HEAD B)

Radar Detection Cable	
From	To
CB1	SB7
CB1	SB16

2

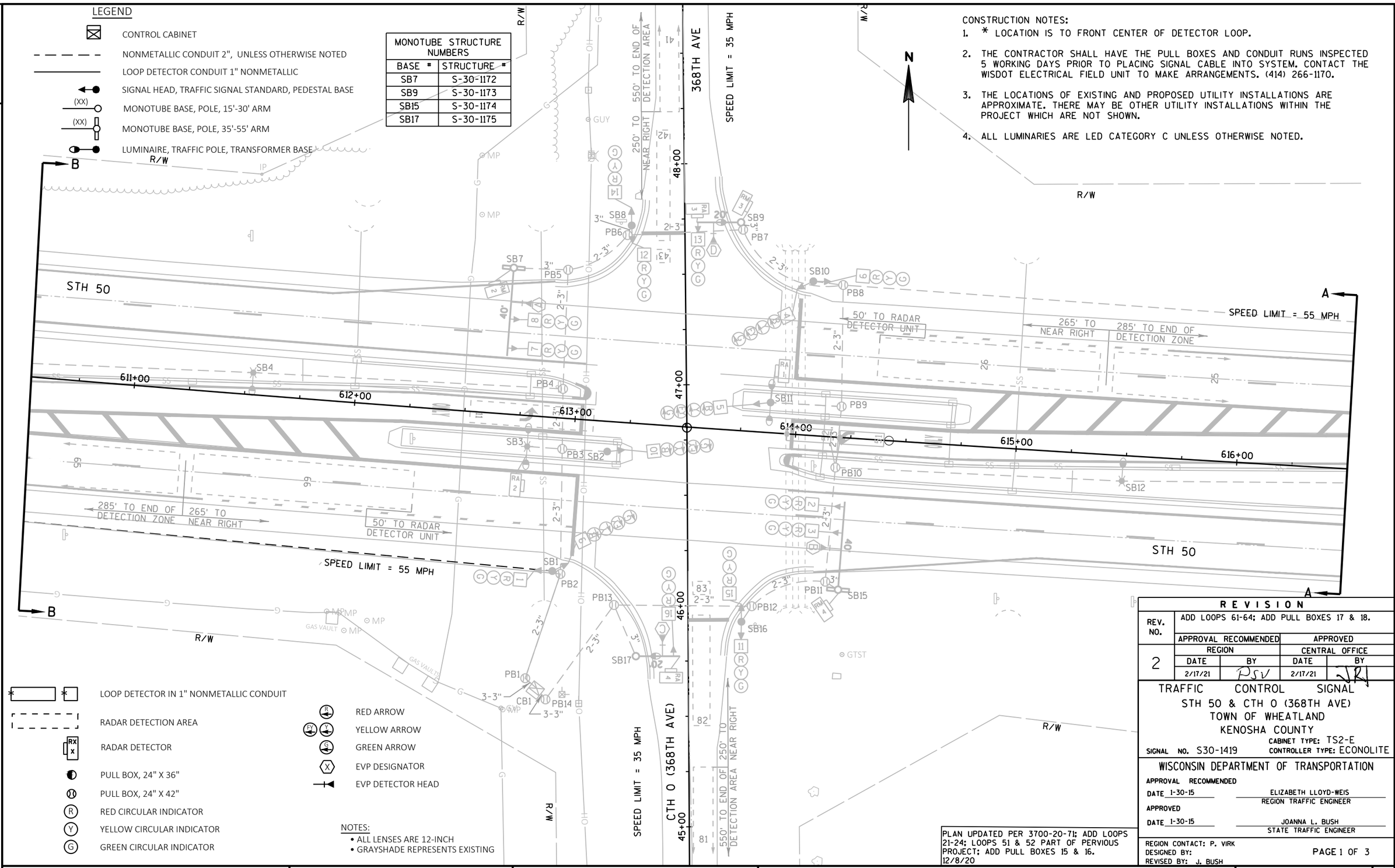
LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE

MONOTUBE STRUCTURE NUMBERS	
BASE #	STRUCTURE #
SB7	S-30-1172
SB9	S-30-1173
SB15	S-30-1174
SB17	S-30-1175

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL LUMINARIES ARE LED CATEGORY C UNLESS OTHERWISE NOTED.



- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- RADAR DETECTION AREA
- RADAR DETECTOR
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTES:

- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

PLAN UPDATED PER 3700-20-71; ADD LOOPS 21-24; LOOPS 51 & 52 PART OF PERVIOUS PROJECT; ADD PULL BOXES 15 & 16. 12/8/20

REVISION

REV. NO.	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
2	2/17/21	PSV	2/17/21	JBJ

ADD LOOPS 61-64; ADD PULL BOXES 17 & 18.

TRAFFIC CONTROL SIGNAL
STH 50 & CTH O (368TH AVE)
TOWN OF WHEATLAND
KENOSHA COUNTY

SIGNAL NO. S30-1419
CABINET TYPE: TS2-E
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 1-30-15 — ELIZABETH LLOYD-WEIS, REGION TRAFFIC ENGINEER

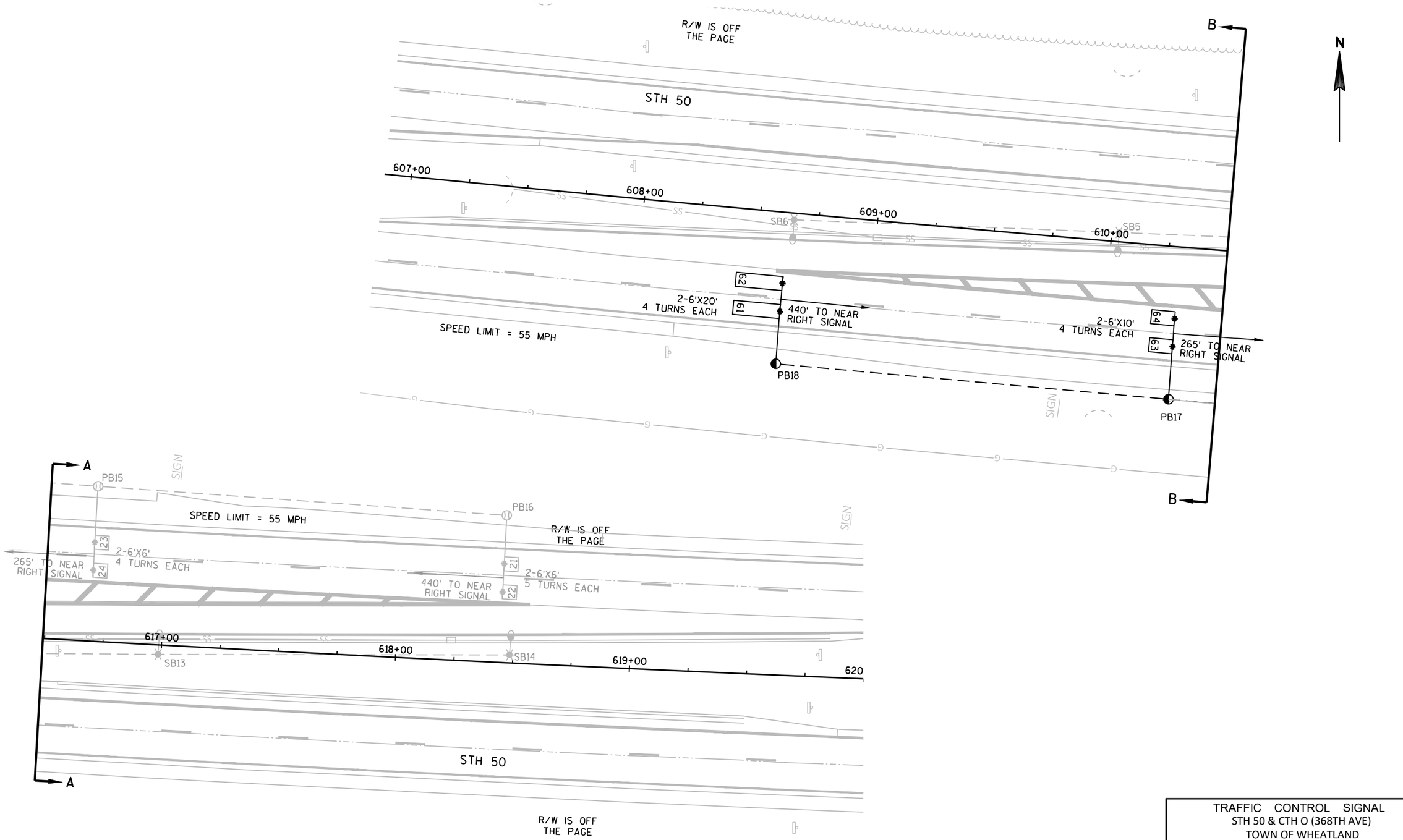
APPROVED
DATE 1-30-15 — JOANNA L. BUSH, STATE TRAFFIC ENGINEER

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: J. BUSH

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	TRAFFIC SIGNAL PLAN	SHEET 69	E

FILE NAME : N:\PDS\C3D\CAD\13101700\SIG\S30-1419\S30-1419_R2_18.DWG
LAYOUT NAME - S30-1419_R2_18_PG1
PLOT DATE : 2/18/2021 7:12 AM
PLOT BY : WAGNER, SCOTT H
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



TRAFFIC CONTROL SIGNAL
STH 50 & CTH O (368TH AVE)
TOWN OF WHEATLAND
KENOSHA COUNTY

SIGNAL NO. S30-1419

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: J. BUSH

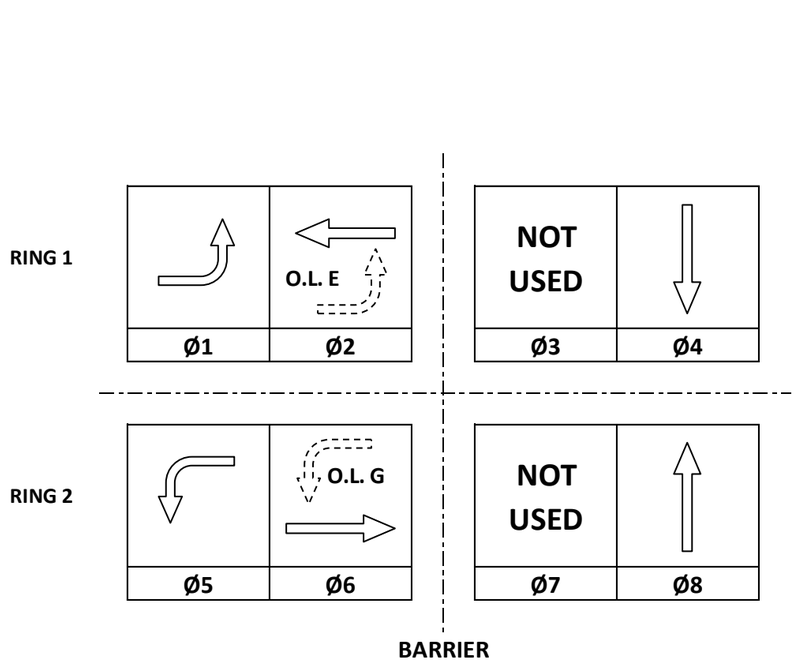
PAGE 2 OF 3

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	TRAFFIC SIGNAL PLAN	SHEET 70	E

FILE NAME : N:\PDS\C3D\CAD\13101700\SIG\S30-1419\S30-1419_R2_18.DWG
LAYOUT NAME - S30-1419_R2_18_PG2

PLOT DATE : 2/18/2021 7:12 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1	4,5	R ←
Ø2	6,7,8	R
Ø3		
Ø4	14,15,16	R
Ø5	9,10	R ←
Ø6	1,2,3	R
Ø7		
Ø8	11,12,13	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLE	4,5	-
OLF		
OLG	9,10	-
OLH		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7				
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	←	→	↑	↑
PHASE	2+5	6+1	4+8	8+4

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)		21	23	51	61	63		
CALLED PHASE		2	2	5	6	6		
CALL OPTION		X	X	X	X	X		
DELAY TIME								
EXTENTION OPTION		X	X	X	X	X		
EXTEND TIME								
USE ADDED INITIAL		X	X		X	X		
CROSS SWITCH PHASE				6				

	19	17	23	21	27	25	31	29
	11		43					
	1		4					
	X		X					
	X		X					
	2							

	35	33	39	37	43	41	47	45	DETECTOR INPUT
	25	41	65						PLAN LOOP DETECTOR*(S)
	2	4	6						CALLED PHASE
	X		X						CALL OPTION
									DELAY TIME
	X	X	X						EXTENTION OPTION
		X							EXTEND TIME
									USE ADDED INITIAL
									CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)		22	24	52	62	64		
CALLED PHASE		2	2	5	6	6		
CALL OPTION		X	X	X	X	X		
DELAY TIME								
EXTENTION OPTION		X	X	X	X	X		
EXTEND TIME								
USE ADDED INITIAL		X	X		X	X		
CROSS SWITCH PHASE				6				

	20	18	24	22	28	26	32	30
	42	82	83					
	4	8	8					
	X	X	X					
	X	X						
	X	X	X					

	36	34	40	38	44	42	48	46	DETECTOR INPUT
	26	65	81						PLAN LOOP DETECTOR*(S)
	2	6	8						CALLED PHASE
	X	X							CALL OPTION
									DELAY TIME
	X	X	X						EXTENTION OPTION
			X						EXTEND TIME
									USE ADDED INITIAL
									CROSS SWITCH PHASE

STH 50 AND CTH O (368TH AV)
TOWN OF WHEATLAND
KENOSHA COUNTY COUNTY

SIGNAL NO: S30-1419 CABINET TYPE: TS2
CONTROLLER TYPE: ECONOLITE
DATE: FEBURARY - 2021 PAGE NUMBER: 3 OF 3

FILE NAME: C:\Users\DOTMXC\Desktop\0077_CR\TS2-S_E_FYA_EFGH_Econolite_SEQ.xlsx PLOT DATE: PLOT NAME: TS2-S_E_FYA_EFGH_Econolite_SEQ.xlsx PLOT BY: _____ PLOT SCALE: 1:1

2

2

PELLER ROAD

EAST DRIVE

EDWARDS BOULEVARD

STH 50

N

WE (TYP.)

AE (TYP.)

MATCHLINE A

W4

EXISTING MARKINGS (TO REMAIN) (TYP.)

PAVEMENT MARKING LEGEND

WT4	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
SL	MARKING STOP LINE EPOXY 18-INCH

USH 12 WB EXIT

N

MATCHLINE A

178 179 180 181 182 183 184

MATCHLINE STA. 180+00

W4

STH 50

USH 12 EB ENTRANCE

USH 12 EB ENTRANCE

USH 12 EB EXIT

EXISTING MARKINGS (TO REMAIN) (TYP.)

USH 12 EB

USH 12 WB

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 72	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-pm

PLOT DATE : 1/21/2021 10:13 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

USH 12 WB EXIT

USH 12 WB EXIT

USH 12 WB ENTRANCE

USH 12 WB ENTRANCE

MARKING DIAGONAL EPOXY 12-INCH (WHITE) (TYP.)

BEGIN PROJECT
STA. 194+00.00
X = 799,955.54
Y = 337,319.18

GRAND GENEVA WAY

N

MATCHLINE STA. 185+00

MATCHLINE STA. 200+00

EXISTING MARKINGS (TO REMAIN) (TYP.)

WT4 (TYP.)

STH 50

W4

WT8

Y4

+07

+44

+64

+97

+69

+17

+01

+72

+25

+13

+50

+43

+77

+10

+03

+94

+21

+18

+74

+35

+20

185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214

MATCHLINE STA. 215+00

PAVEMENT MARKING LEGEND

WT4	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
SL	MARKING STOP LINE EPOXY 18-INCH

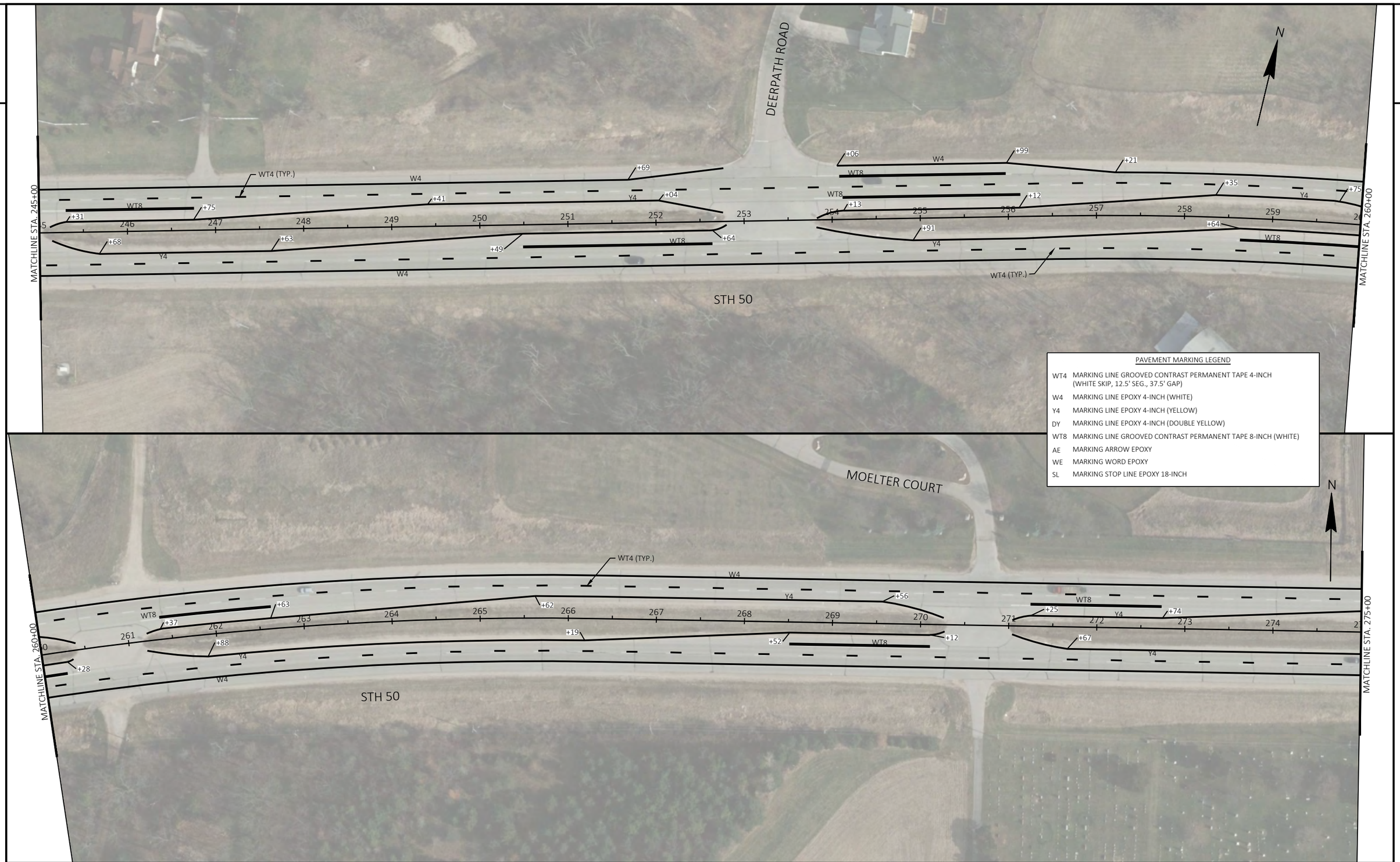
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 73 E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024502-pm

PLOT DATE : 1/27/2021 2:58 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT


N
MATCHLINE STA. 215+00
MATCHLINE STA. 230+00
WT4 (TYP.)
W4
Y4
WT8
+46
+78
+87
+58
+84
216
217
218
219
220
221
222
223
224
225
226
227
228
229
BLOOMFIELD CREEK
STH 50
PAVEMENT MARKING LEGEND
WT4 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4 MARKING LINE EPOXY 4-INCH (WHITE)
Y4 MARKING LINE EPOXY 4-INCH (YELLOW)
DY MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE MARKING ARROW EPOXY
WE MARKING WORD EPOXY
SL MARKING STOP LINE EPOXY 18-INCH
MATCHLINE STA. 245+00
+40
+52
+03
+96
+61
+68
+34
+14
+17
+46
231
232
233
234
235
236
237
238
239
240
241
242
243
244
STH 50

2



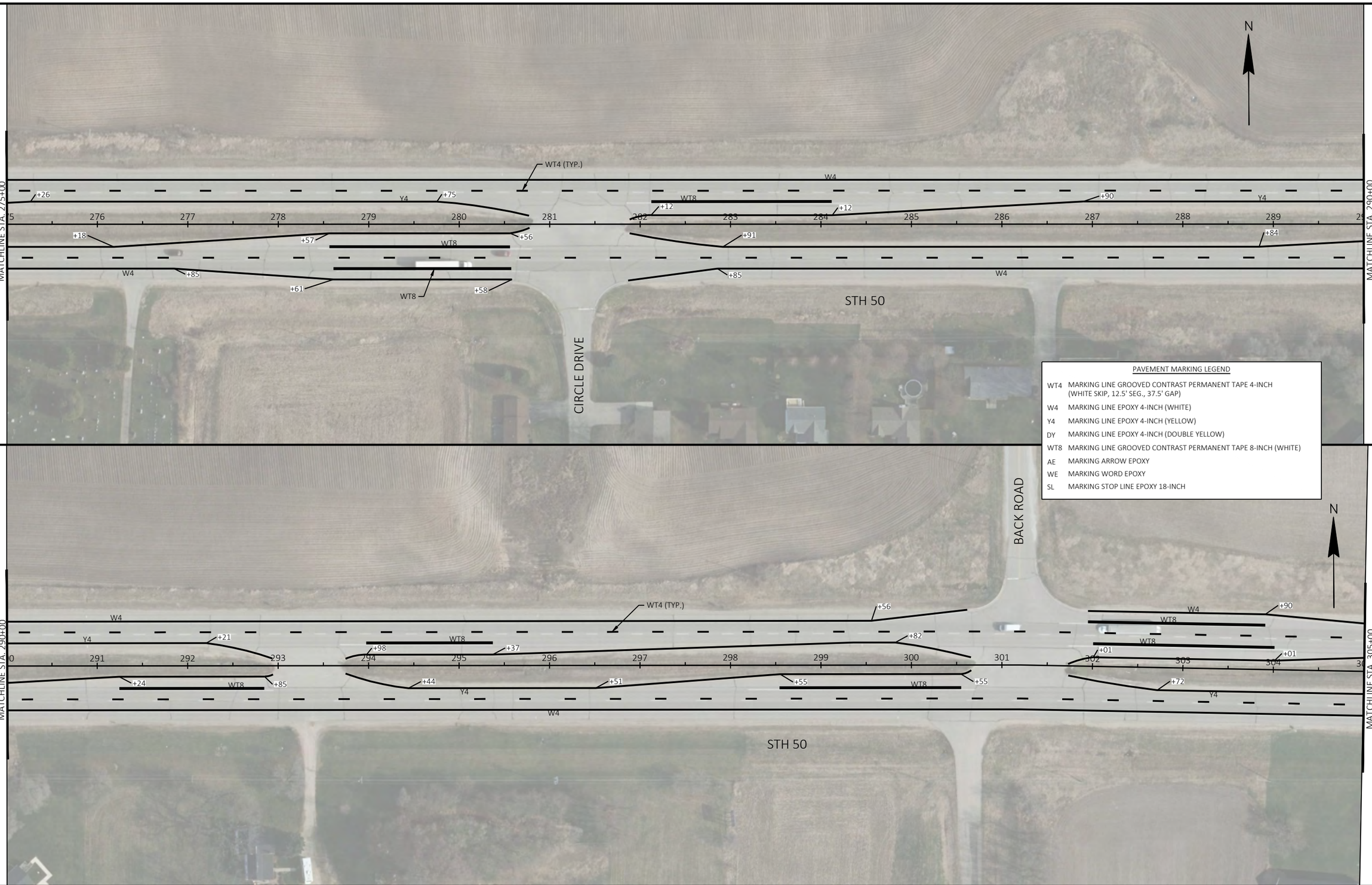
PAVEMENT MARKING LEGEND

WT4	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
SL	MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 75	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024504-pm

PLOT DATE : 1/21/2021 10:13 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT



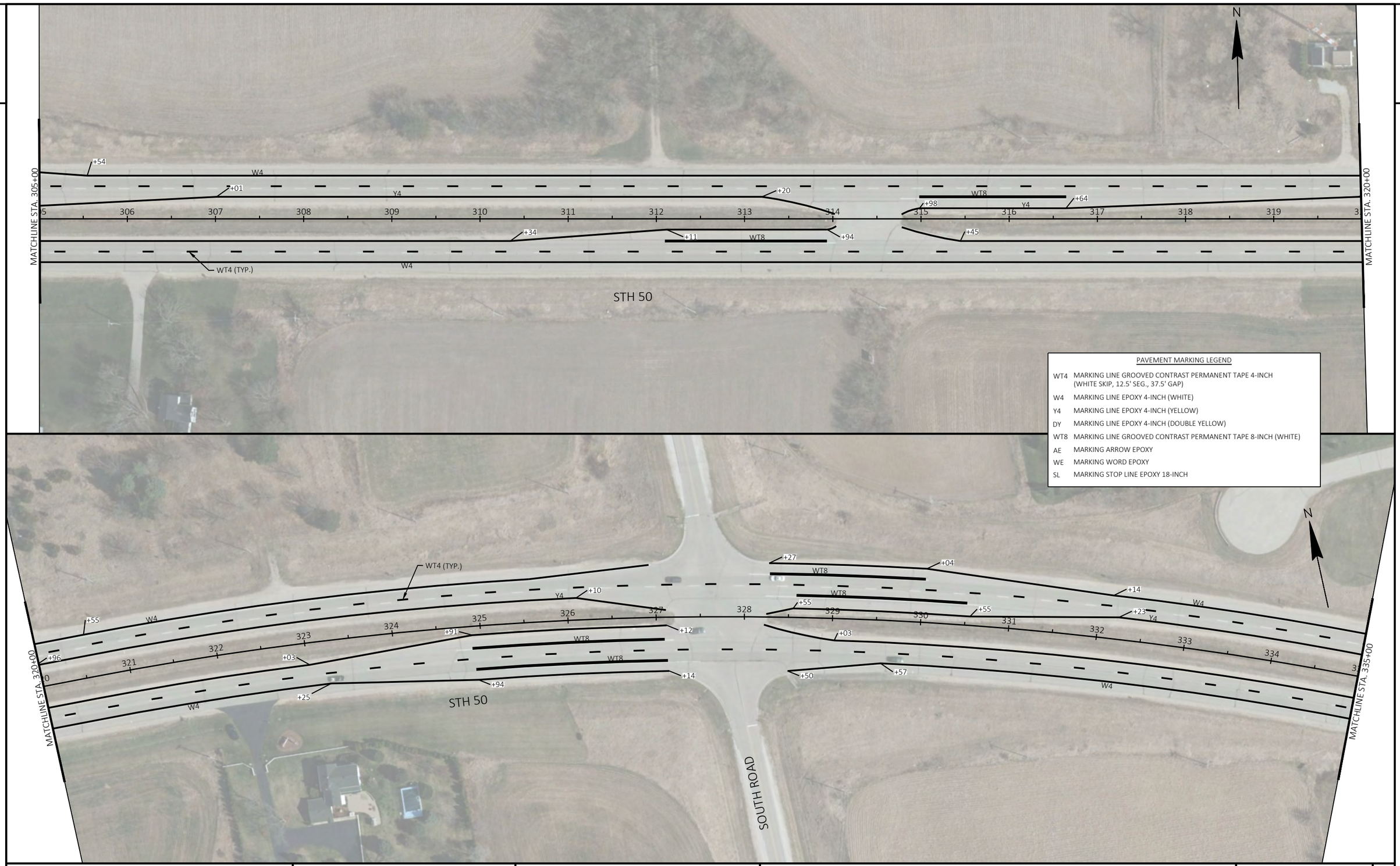
PAVEMENT MARKING LEGEND

WT4	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
SL	MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 76 E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024505-pm
PLOT DATE : 1/21/2021 10:13 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PAVEMENT MARKING LEGEND

WT4	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
SL	MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 77	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024506-pm
PLOT DATE : 1/21/2021 10:13 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

PACKING HOUSE ROAD

N

MATCHLINE STA. 335+00

MATCHLINE STA. 350+00

WT4 (TYP.)

W4 Y4 WT8 W4 Y4 WT8 W4 Y4 W4 WT8 W4 Y4 W4

+96 +86 +74 +73 +51 +13 +22 +83 +21 +70 +29 +39

336 337 338 339 340 341 342 343 344 345 346 347 348 349

STH 50

PAVEMENT MARKING LEGEND

WT4	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
SL	MARKING STOP LINE EPOXY 18-INCH

N

MATCHLINE STA. 350+00

MATCHLINE STA. 365+00

WT4 (TYP.)

W4 Y4 WT8 W4 Y4 WT8 W4 Y4 W4

+45 +28 +85 +94 +34 +07 +58 +45

351 352 353 354 355 356 357 358 359 360 361 362 363 364

STH 50

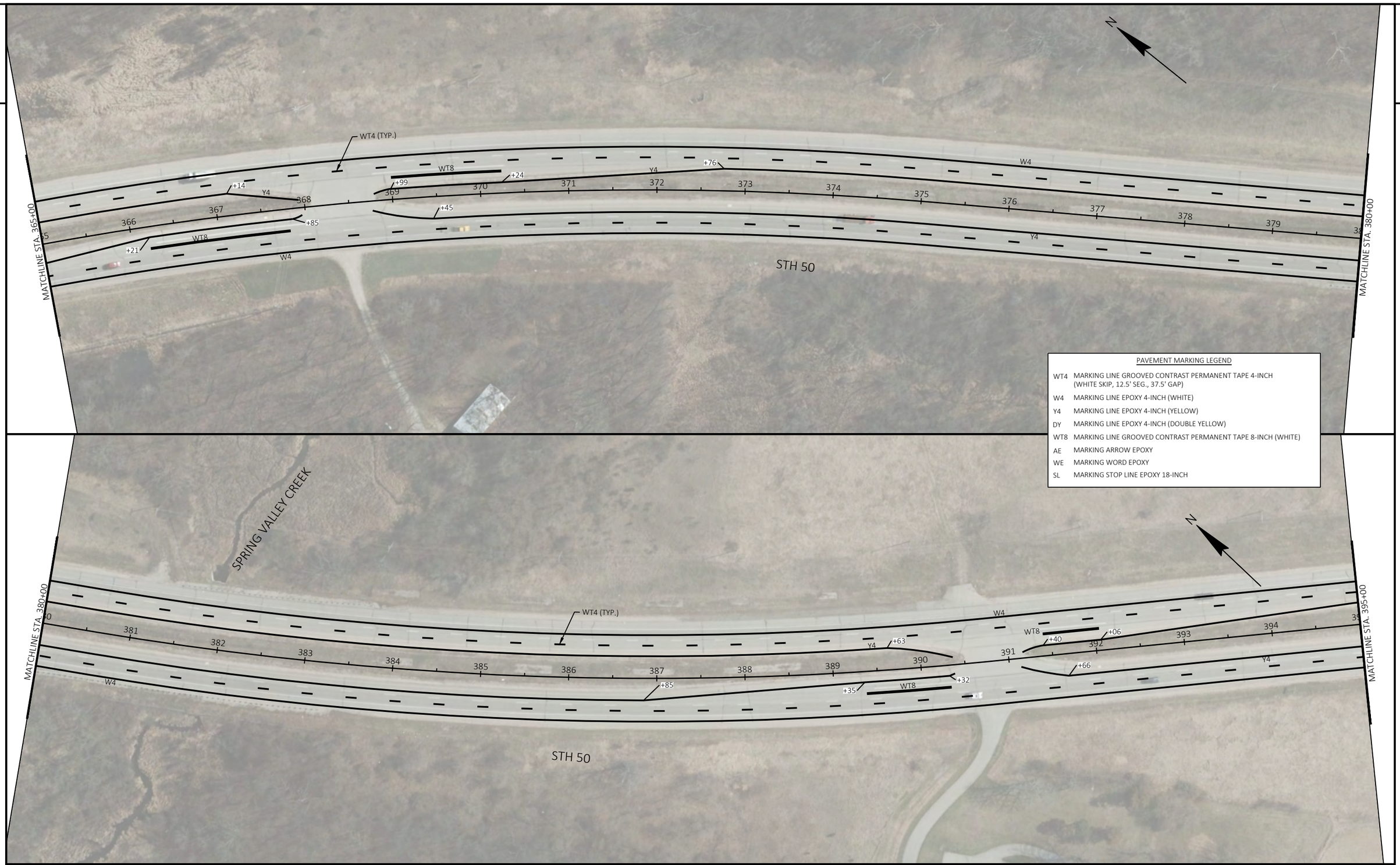
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 78 E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024507-pm

PLOT DATE : 1/21/2021 10:14 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

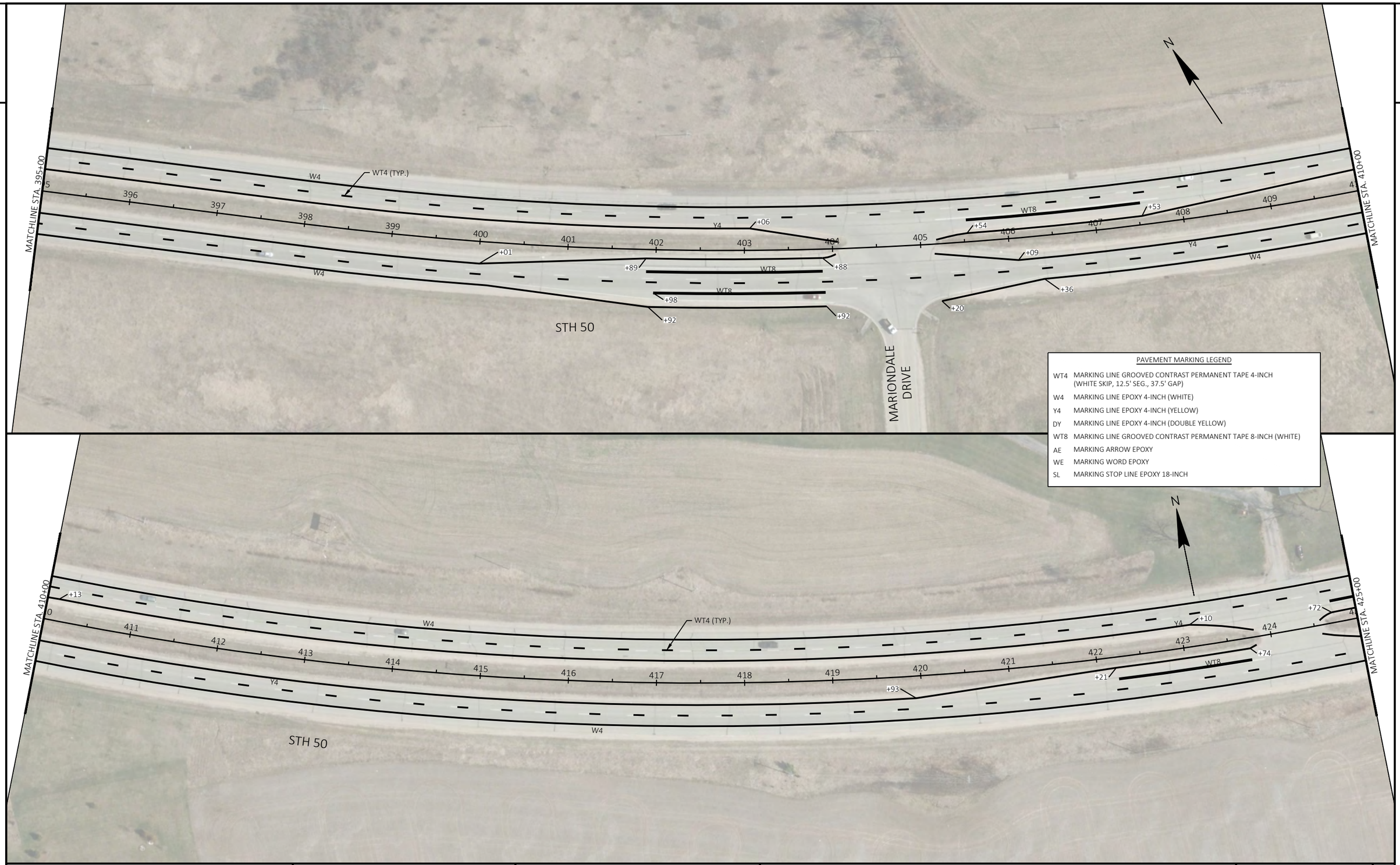


PAVEMENT MARKING LEGEND

WT4	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
SL	MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 79 E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024508-pm
PLOT DATE : 1/21/2021 10:14 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



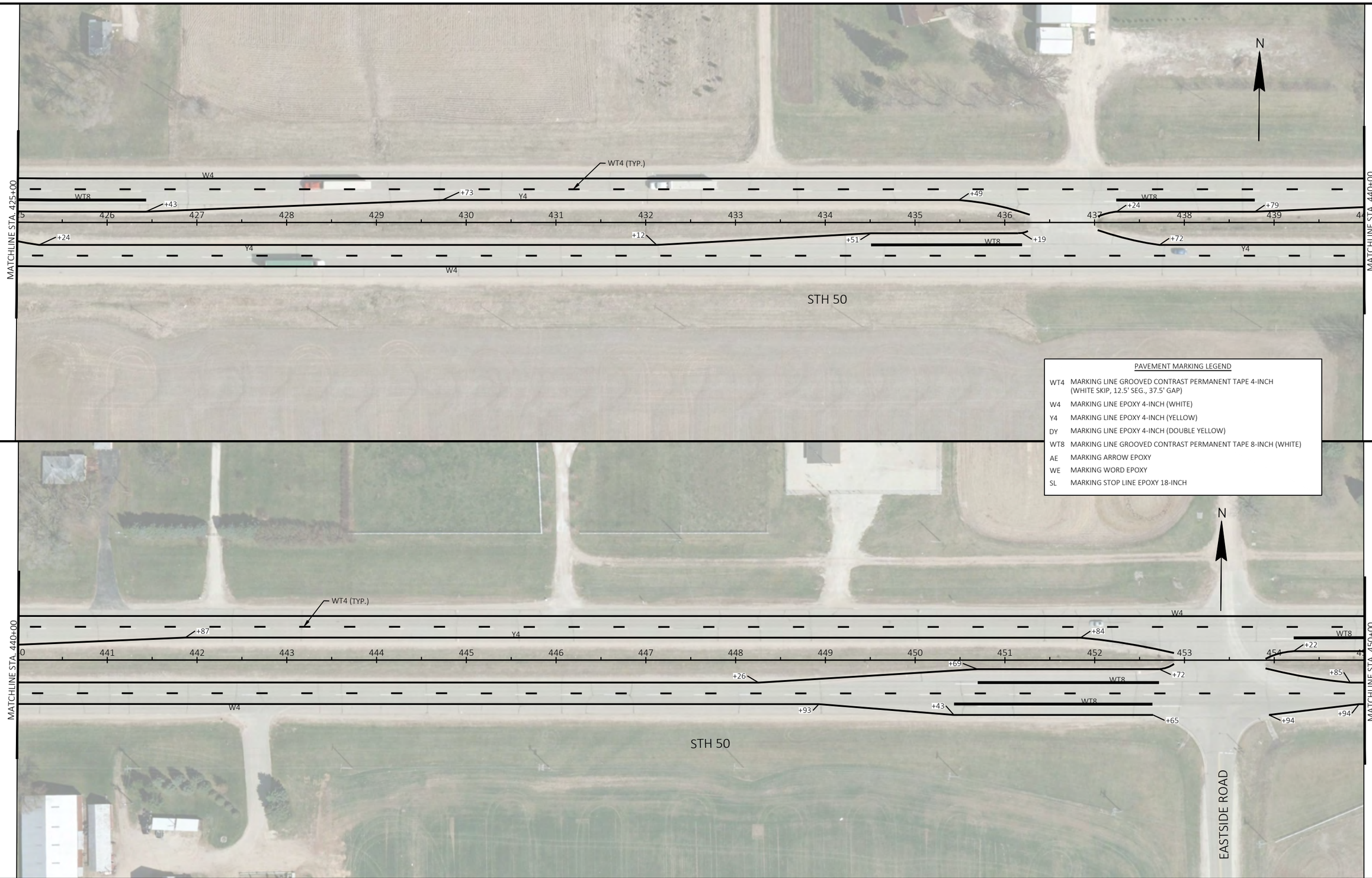
PAVEMENT MARKING LEGEND

WT4	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
SL	MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 80 E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024509-pm
PLOT DATE : 1/21/2021 10:14 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

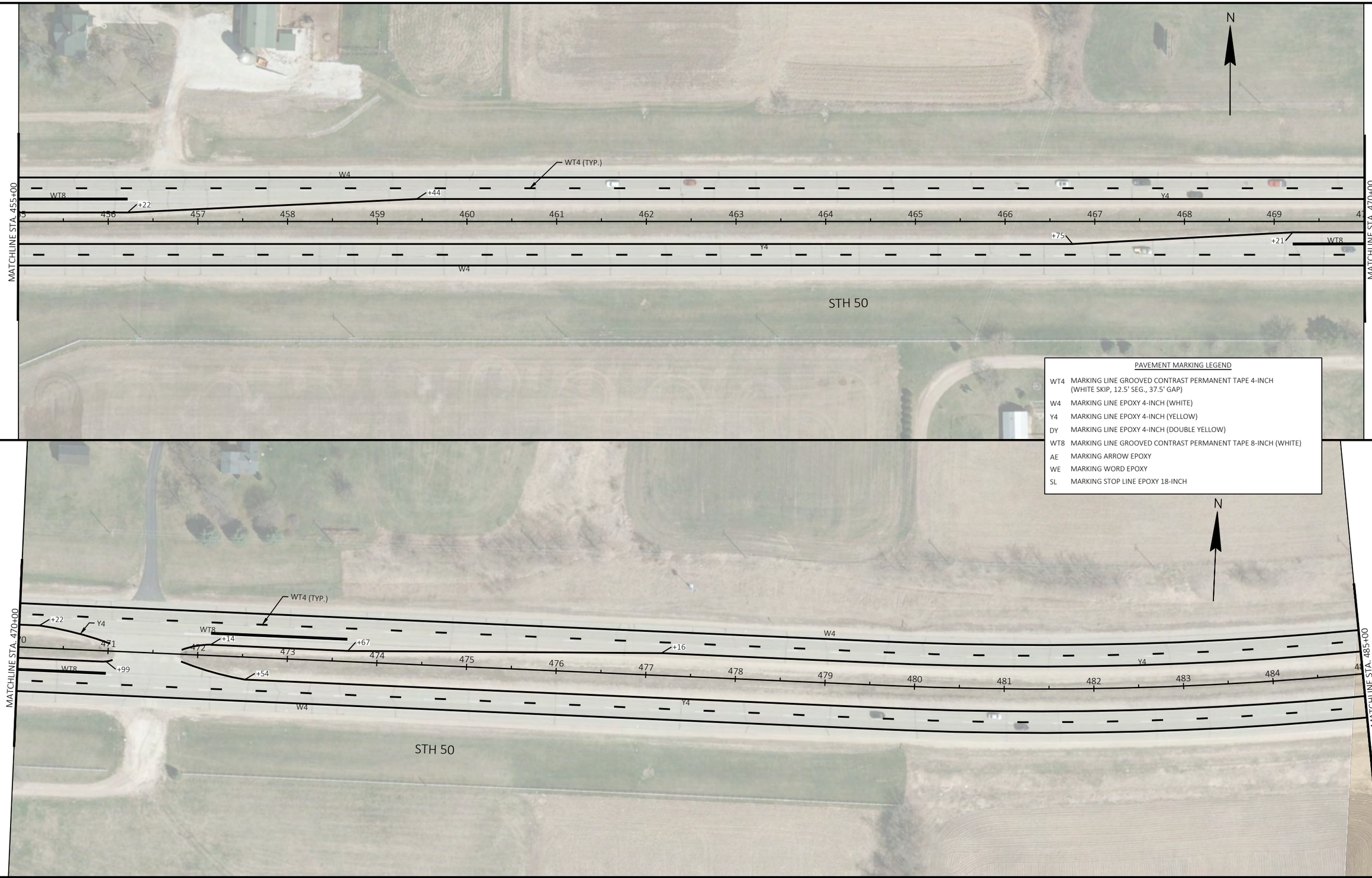


2

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 81	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024510-pm
PLOT DATE : 1/21/2021 10:14 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PAVEMENT MARKING LEGEND

WT4	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
SL	MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 82 E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024511-pm

PLOT DATE : 1/21/2021 10:14 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

2

MATCHLINE STA. 485+00

MATCHLINE STA. 500+00

MATCHLINE STA. 500+00

MATCHLINE STA. 515+00

STH 50

STH 50

CTH P

N

N

WT4 (TYP.)

WT4 (TYP.)

W4

Y4

WT8

DY

SL*

SL

AE

WE

DY

SL*

PAVEMENT MARKING LEGEND

WT4	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
SL	MARKING STOP LINE EPOXY 18-INCH

* REFER TO STANDARD DETAIL DRAWING "STOP LINE AND CROSSWALK PAVEMENT MARKING" FOR ADDITIONAL INFORMATION.

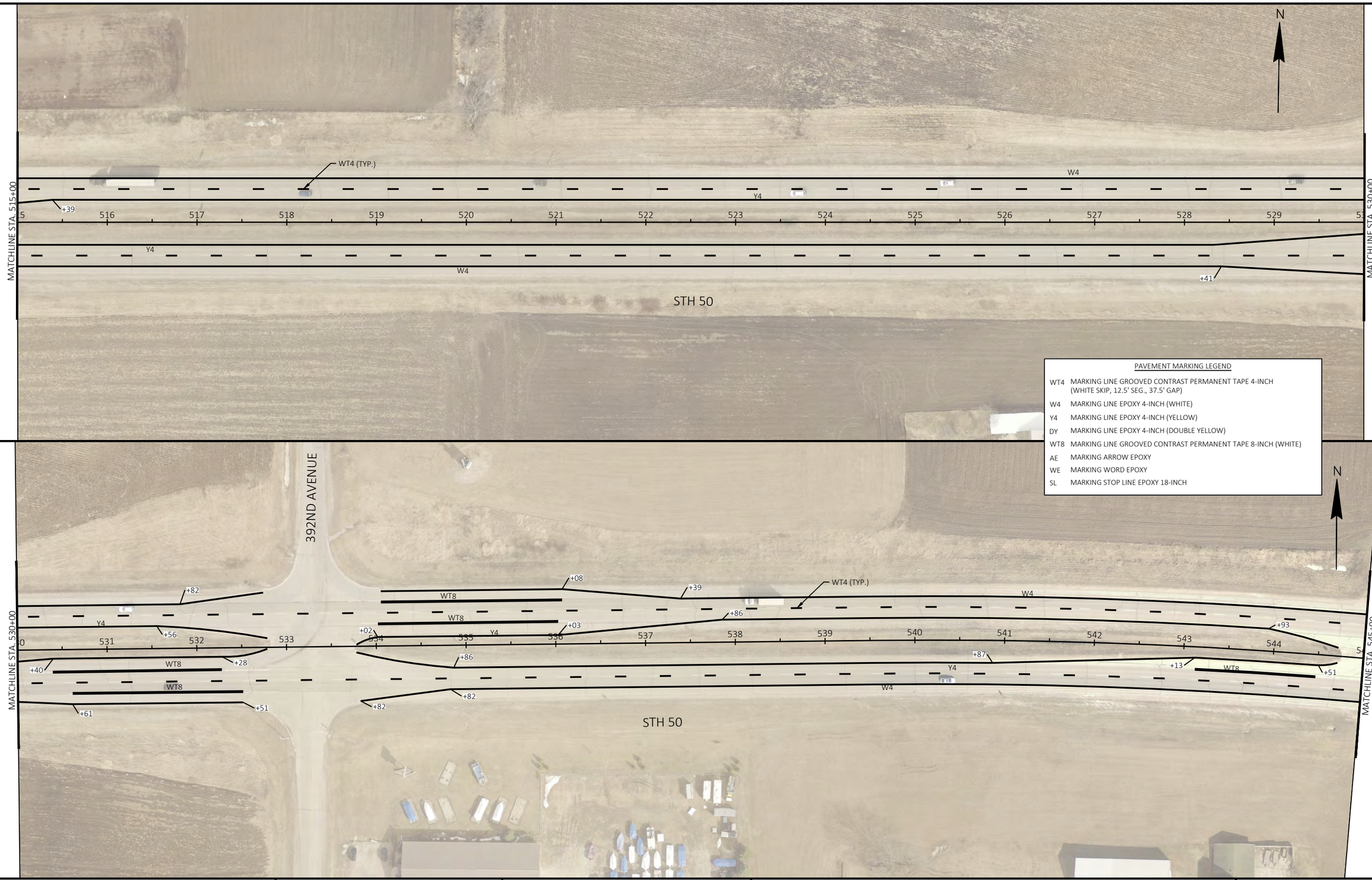
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 83	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024512-pm

PLOT DATE : 1/21/2021 10:14 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2



PAVEMENT MARKING LEGEND

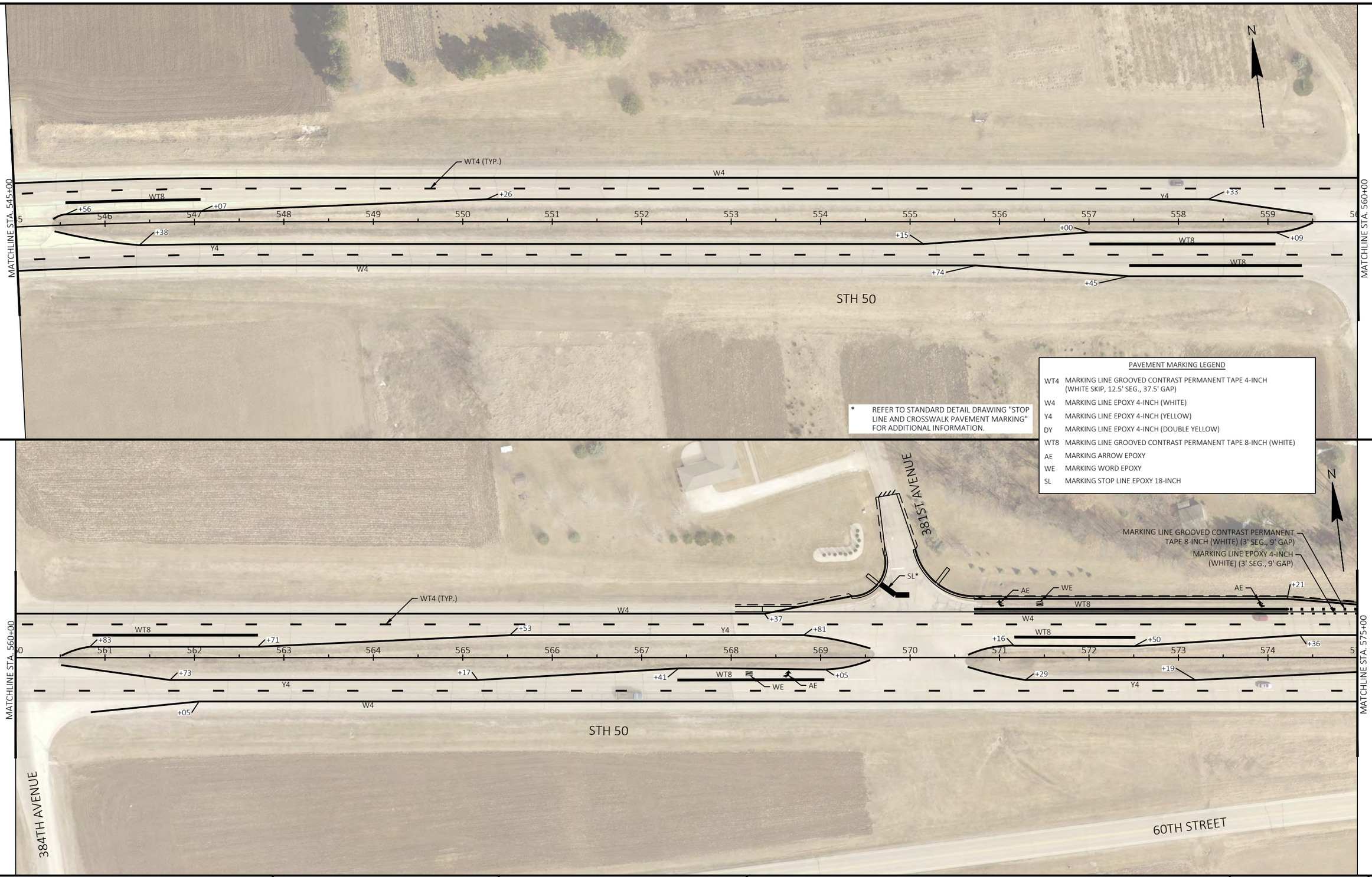
WT4	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
SL	MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 84	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024513-pm

PLOT DATE : 1/21/2021 10:14 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT

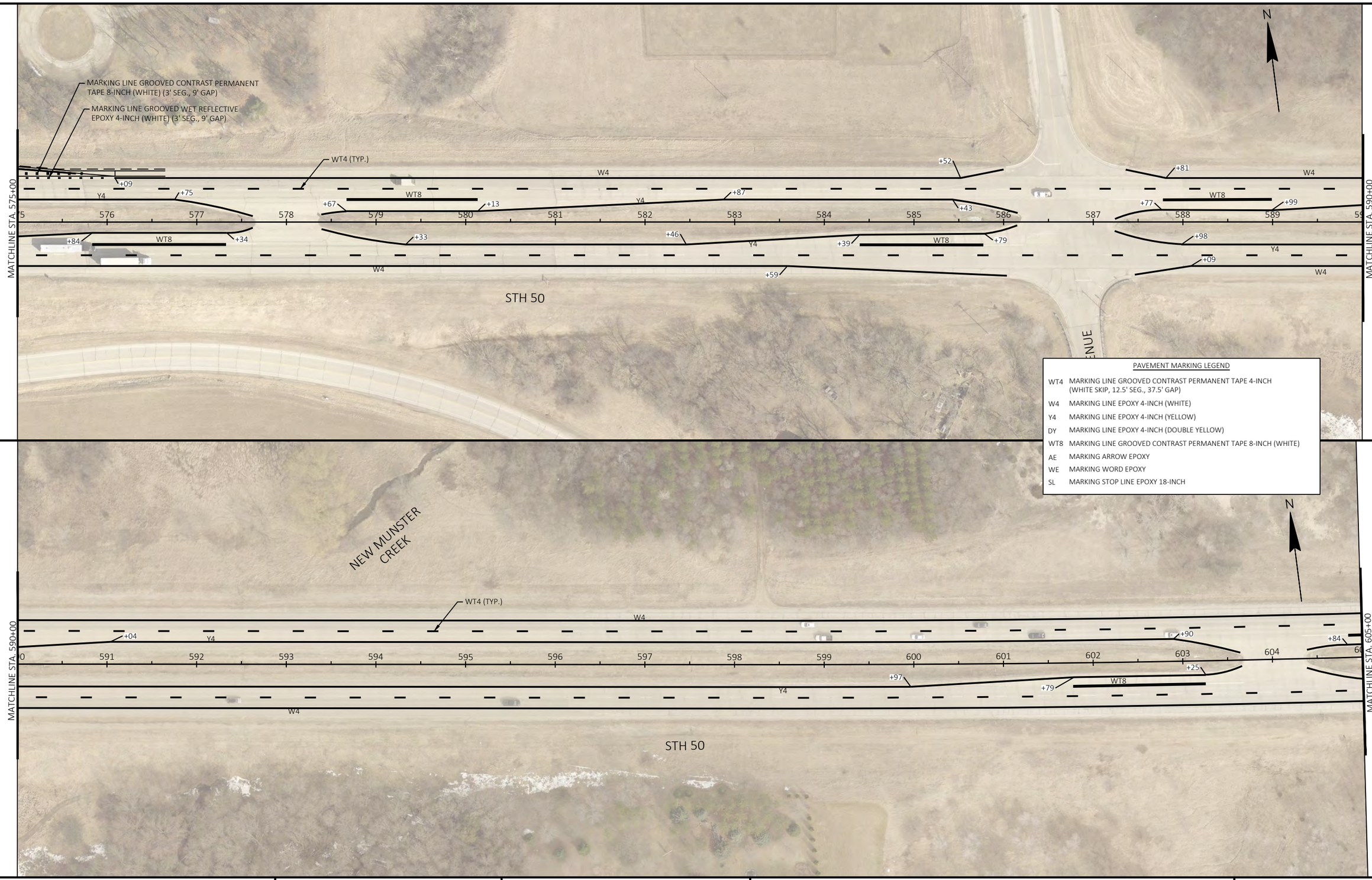
WISDOT/CADDS SHEET 44



2

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 85	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024514-pm
PLOT DATE : 1/25/2021 9:07 AM
PLOT BY : NOTSON, ERIC
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



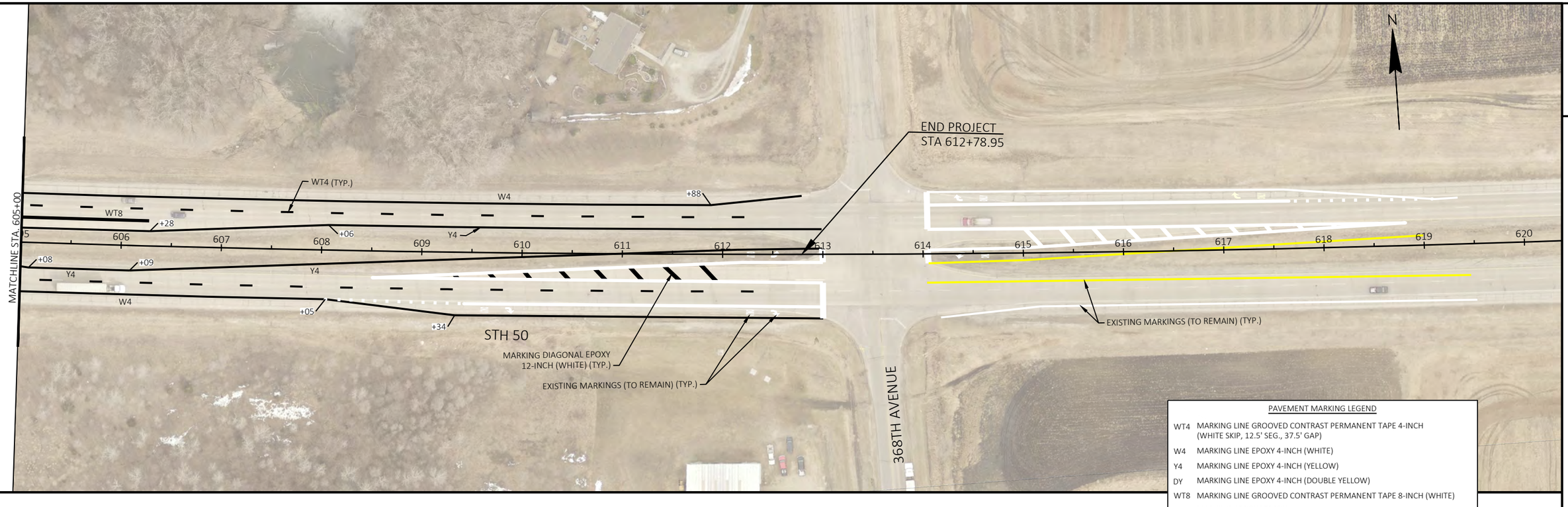
PAVEMENT MARKING LEGEND

WT4	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
SL	MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 86 E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024515-pm
PLOT DATE : 1/21/2021 10:15 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PAVEMENT MARKING LEGEND

WT4	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
WT8	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
SL	MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	PAVEMENT MARKING	SHEET 87	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024516-pm
PLOT DATE : 1/21/2021 10:15 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

GENERAL NOTES FOR TRAFFIC CONTROL

PLACE SIGNS AS INDICATED ON EACH SIDE OF EASTBOUND AND WESTBOUND LANES.

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.

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

"WO" SERIES SIGNS ARE "W" SERIES EXCEPT THE BACKGROUND IS ORANGE.

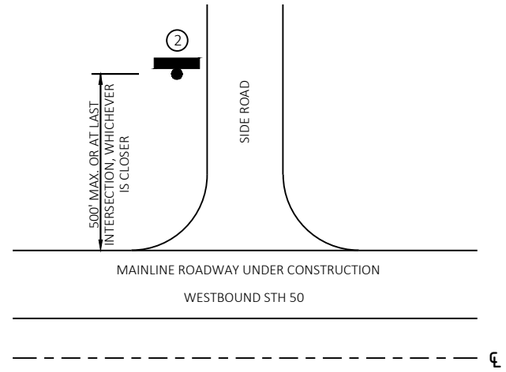
ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

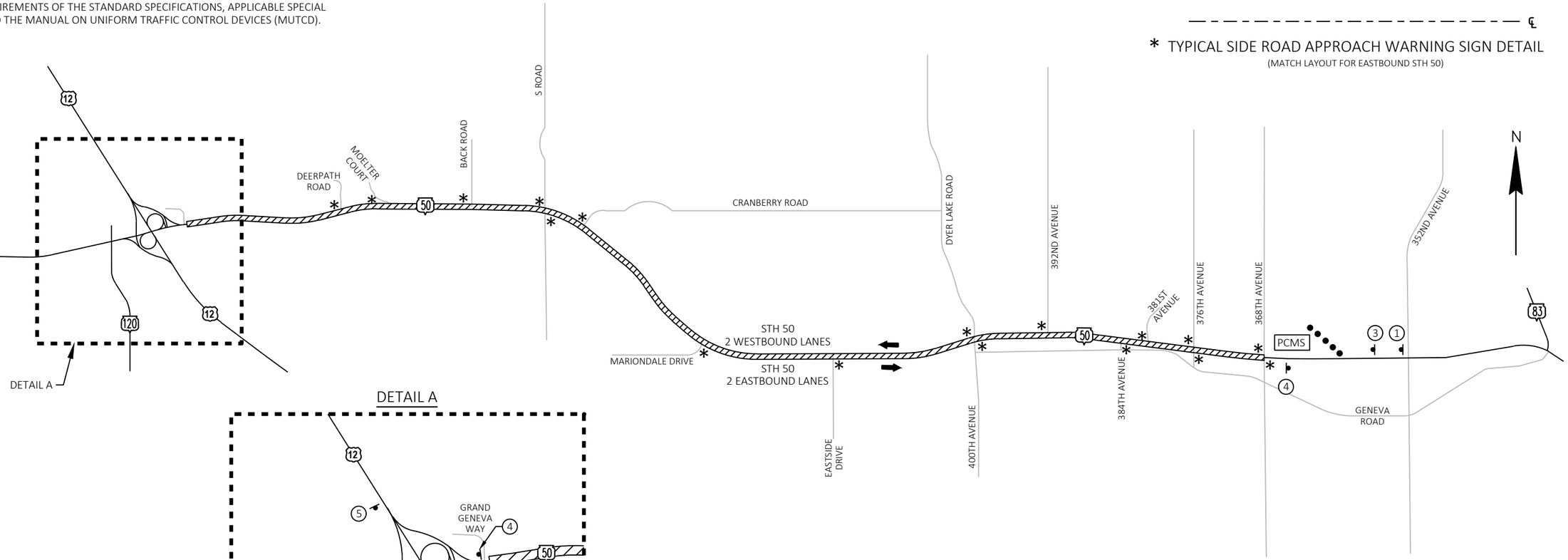
LEGEND

- SIGNS MOUNTED ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK ZONE
- TRAFFIC CONTROL DRUMS
- PCMS — TRAFFIC CONTROL SIGNS PCMS
- PCMS MESSAGE 3 DAYS PRIOR TO BEGINNING CONSTRUCTION IN BOTH 2021 AND 2022 — PANEL 1: ROAD WORK BEGINS; PANEL 2: [START DATE/TIME]
- PCMS MESSAGE 3 DAYS PRIOR TO BEGINNING EACH CONSTRUCTION STAGE — PANEL 1: NEW TRAFFIC PATTERN; PANEL 2: [START DATE/TIME]

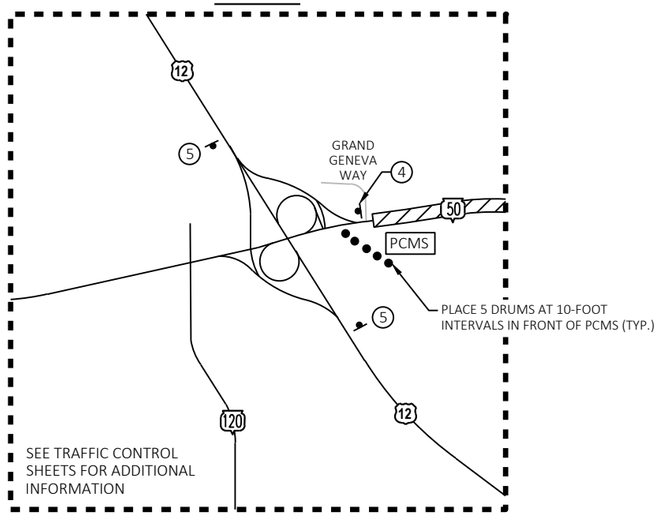
FOR ADDITIONAL INFORMATION SEE STANDARD DETAIL DRAWINGS:
"TRAFFIC CONTROL, LANE CLOSURE"
"TRAFFIC CONTROL, DROP-OFF SIGNING"



* TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL
(MATCH LAYOUT FOR EASTBOUND STH 50)

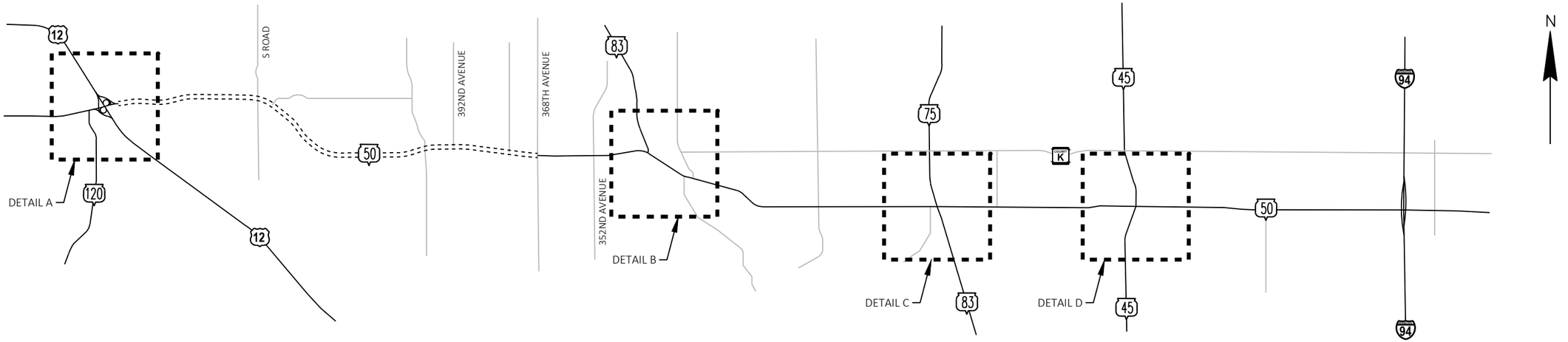


DETAIL A

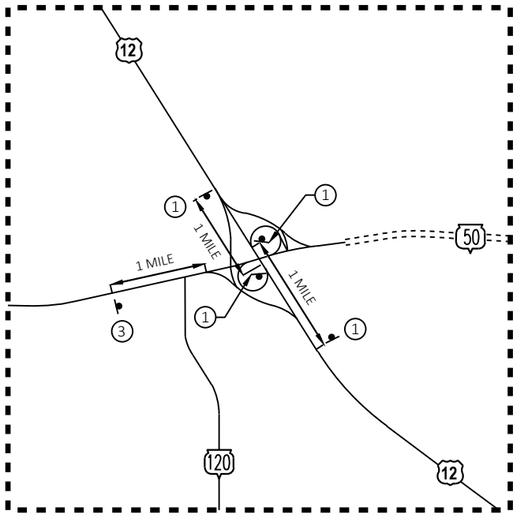




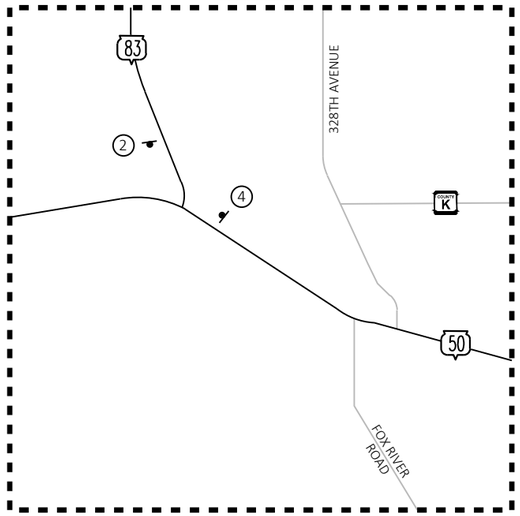
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - ADVANCED WARNING SIGNING	SHEET 88	E



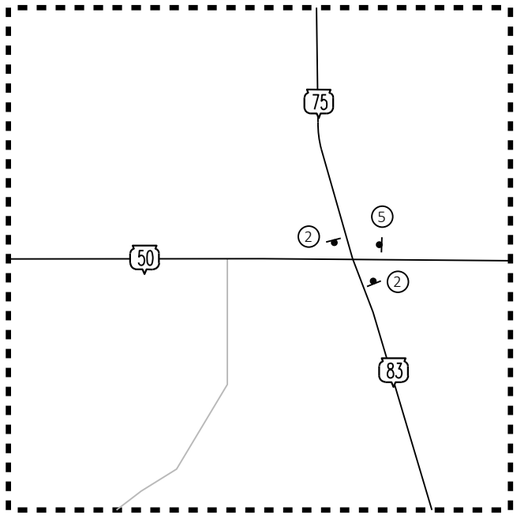
DETAIL A



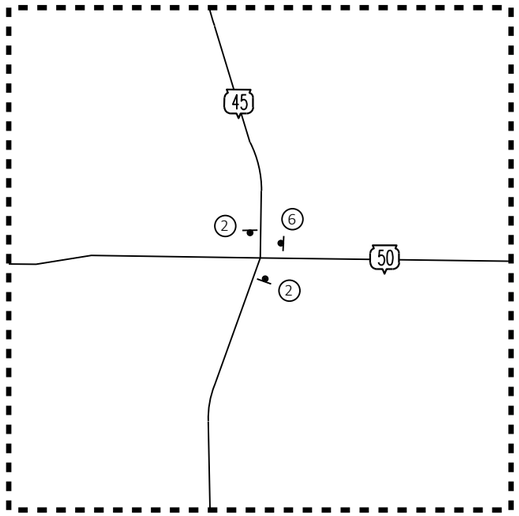
DETAIL B



DETAIL C



DETAIL D















* STAGES 1 AND 3: MAX 13' WIDTH
STAGE 2: MAX 12' WIDTH

FOR ADDITIONAL INFORMATION SEE STANDARD DETAIL DRAWINGS:
"BARRICADES AND SIGNS FOR MAINLINE, DETOUR, ON RAMP, OFF RAMP CLOSURES AND ADVANCED WIDTH RESTRICTIONS - SHEET F (TRAFFIC CONTROL, ADVANCED WIDTH RESTRICTION SIGNING")

LEGEND

- SIGNS MOUNTED ON PERMANENT SUPPORT
- WORK ZONE

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - WIDTH RESTRICTION SIGNING STAGES 1, 2, AND 3	SHEET 89	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\025002-AW.DWG
LAYOUT NAME - 025002-aw
PLOT DATE : 2/15/2021 2:03 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:2 MI
WISDOT/CADDS SHEET 42

GENERAL NOTES FOR TRAFFIC CONTROL

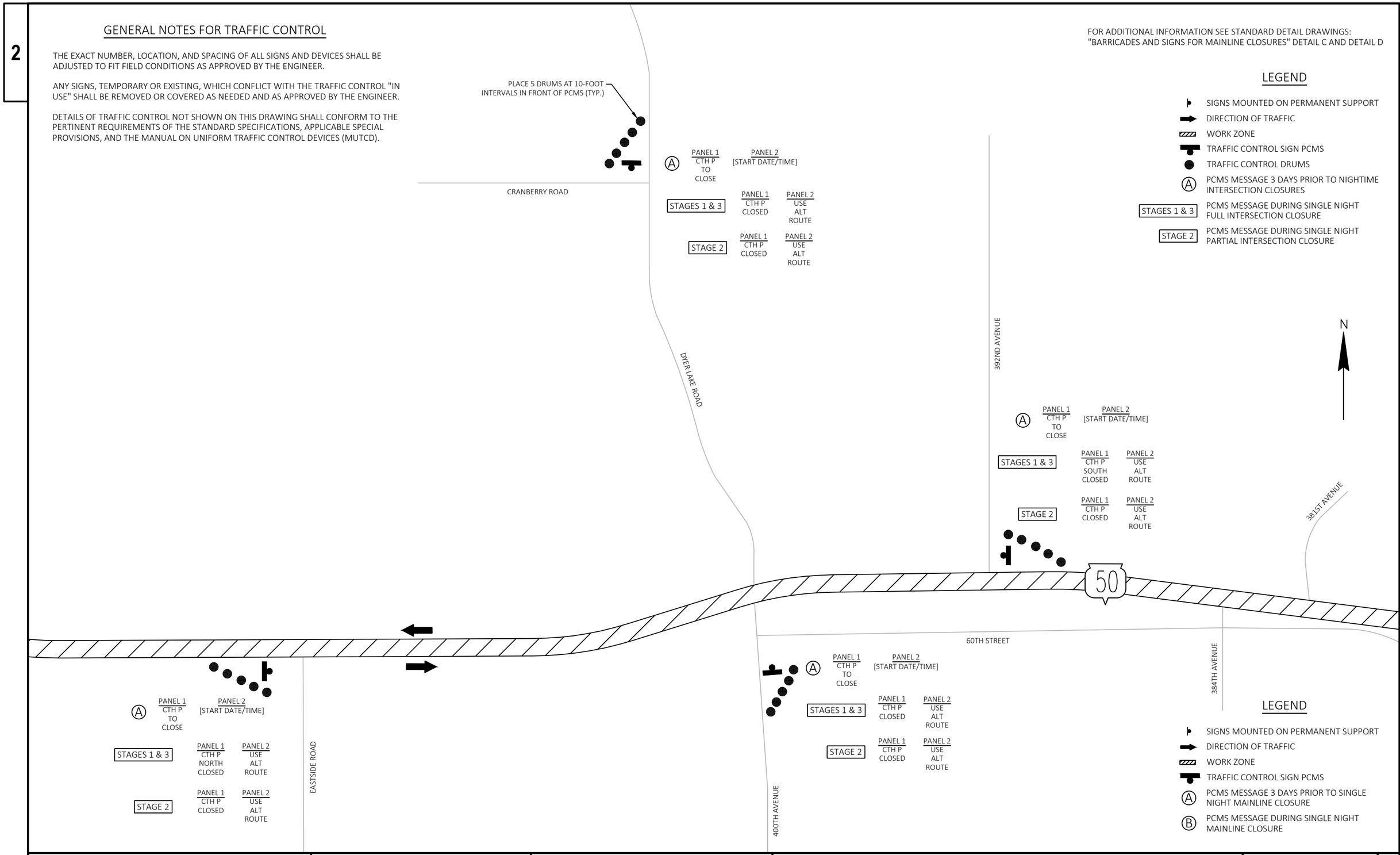
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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.

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

FOR ADDITIONAL INFORMATION SEE STANDARD DETAIL DRAWINGS:
"BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL C AND DETAIL D

2



PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - CTH P ADVANCED WARNING SIGNING	SHEET 90	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\025003-AW.DWG
LAYOUT NAME - 025003-aw
PLOT DATE : 2/15/2021 2:03 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL CONES 42-INCH
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVE PAVEMENT MARKING

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)								
	1	2	3	4	5	6	7	8	9
50	25	50	75	100	125	150	175	200	225
55	28	55	83	110	138	165	193	220	248
60	30	60	90	120	150	180	210	240	270
65	33	65	98	130	163	195	228	260	293
70	35	70	105	140	175	210	245	280	315

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 LEFT - REVERSE FOR SHIFTING RIGHT.

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.

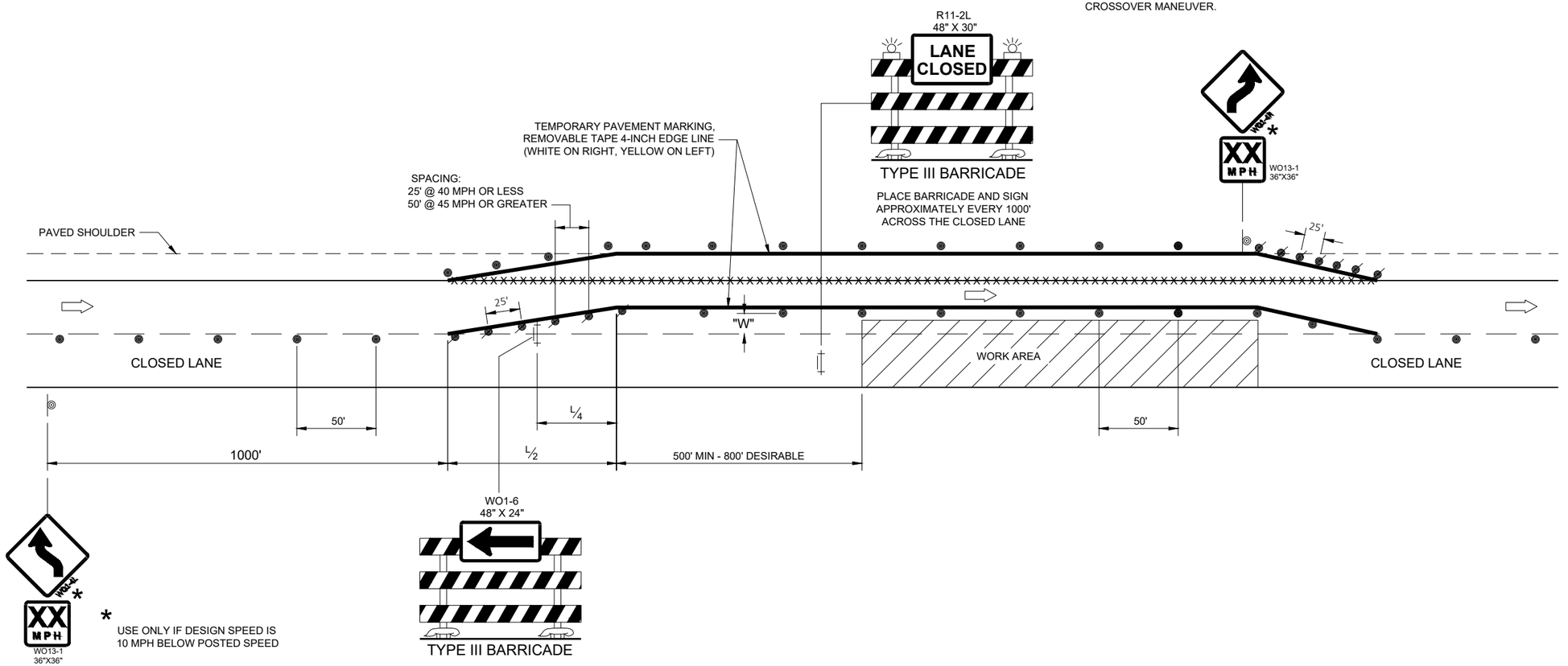
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 25 FEET.

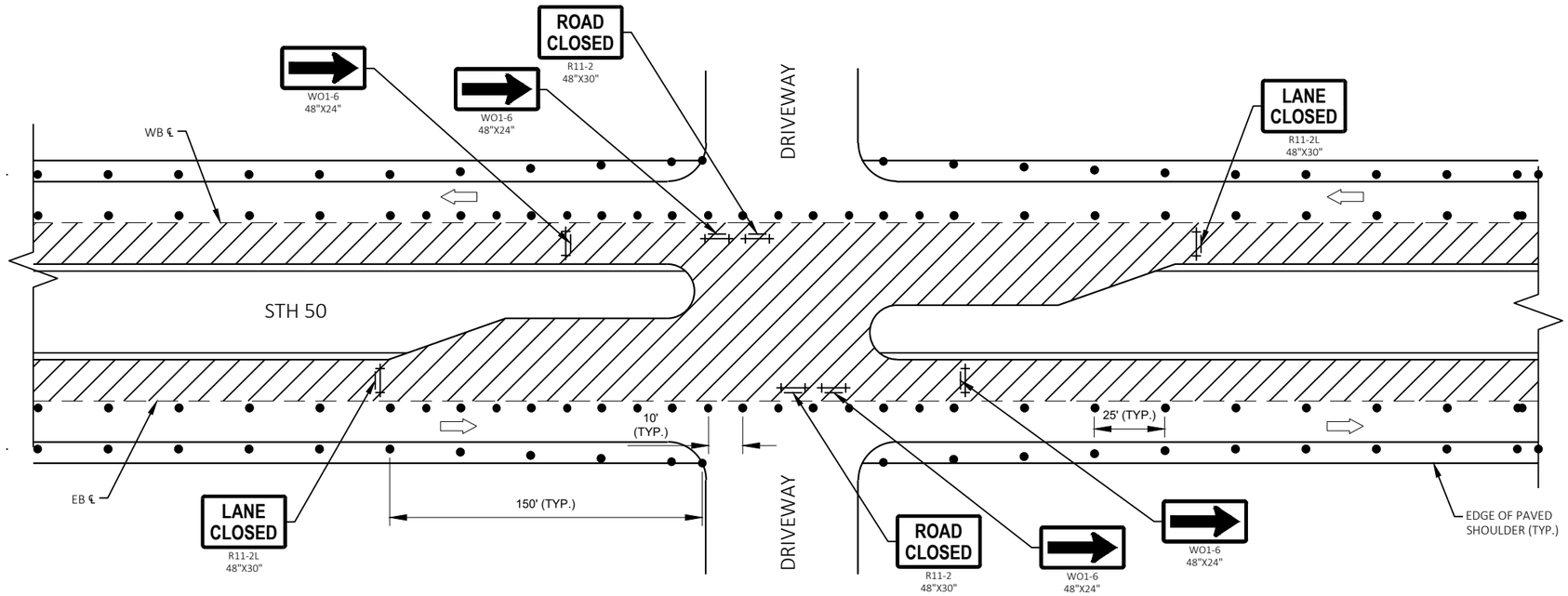
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP 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.



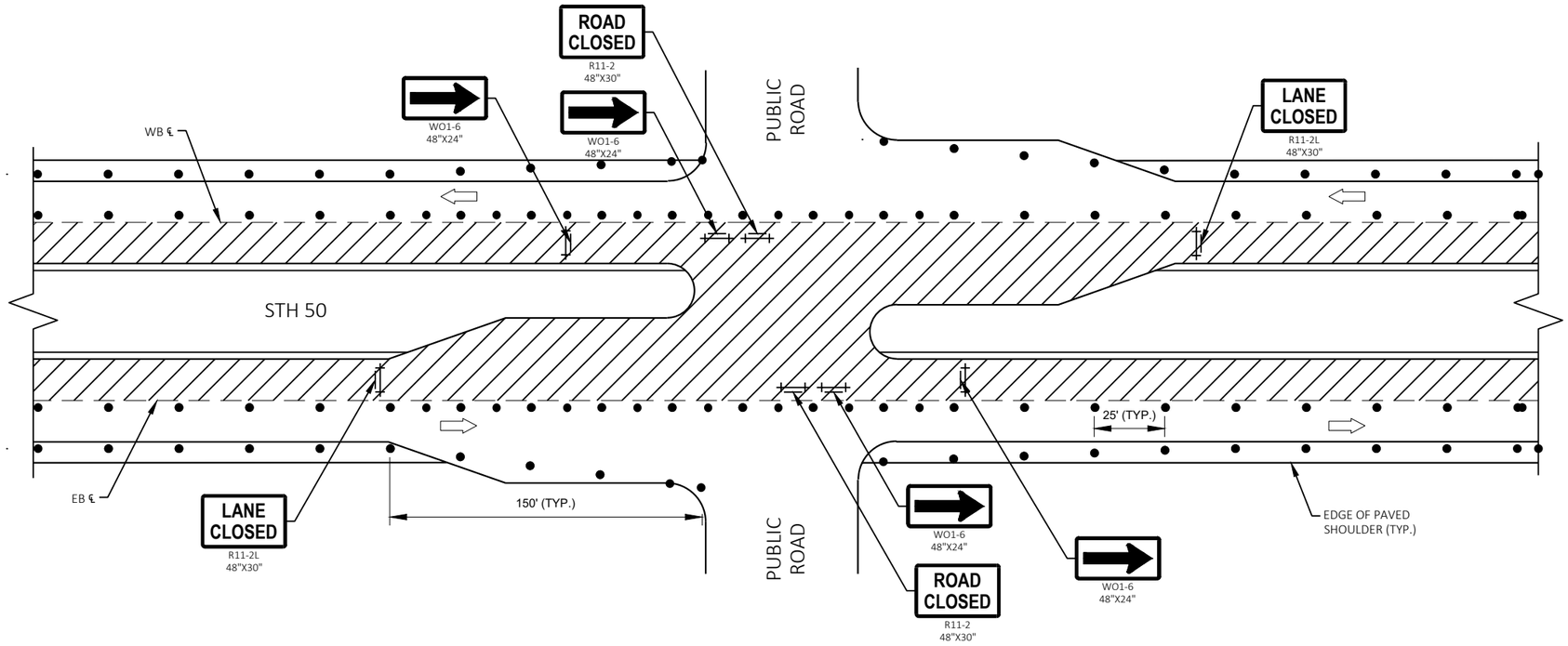
PARTIAL LANE SHIFT MULTI□LANE DIVIDED □□ MPH AND GREATER

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - CONSTRUCTION DETAILS	SHEET 91	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\021004-CD.DWG
LAYOUT NAME - 021041-cd
PLOT DATE : 2/25/2021 9:09 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:1 FT



STAGES 1 AND □AT DRIVEWA□ MEDIAN
OPENING WITHIN PARTIAL LANE SHIFT MULTI□LANE DIVIDED □□MPH AND GREATER



STAGES 1 AND □AT PUBLIC ROAD INTERSECTION
MEDIAN OPENING WITHIN PARTIAL LANE SHIFT MULTI□LANE DIVIDED □□MPH AND GREATER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE" FOR ADDITIONAL INFORMATION AND FOR TRAFFIC CONTROL AT MEDIAN OPENINGS OUTSIDE OF THE PARTIAL LANE SHIFT.

SEE CONSTRUCTION STAGING TYPICAL SECTIONS FOR LOCATION OF TRAFFIC CONTROL CONES 42-INCH IN RELATION TO THE ROADWAY CENTERLINE.

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

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

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

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.

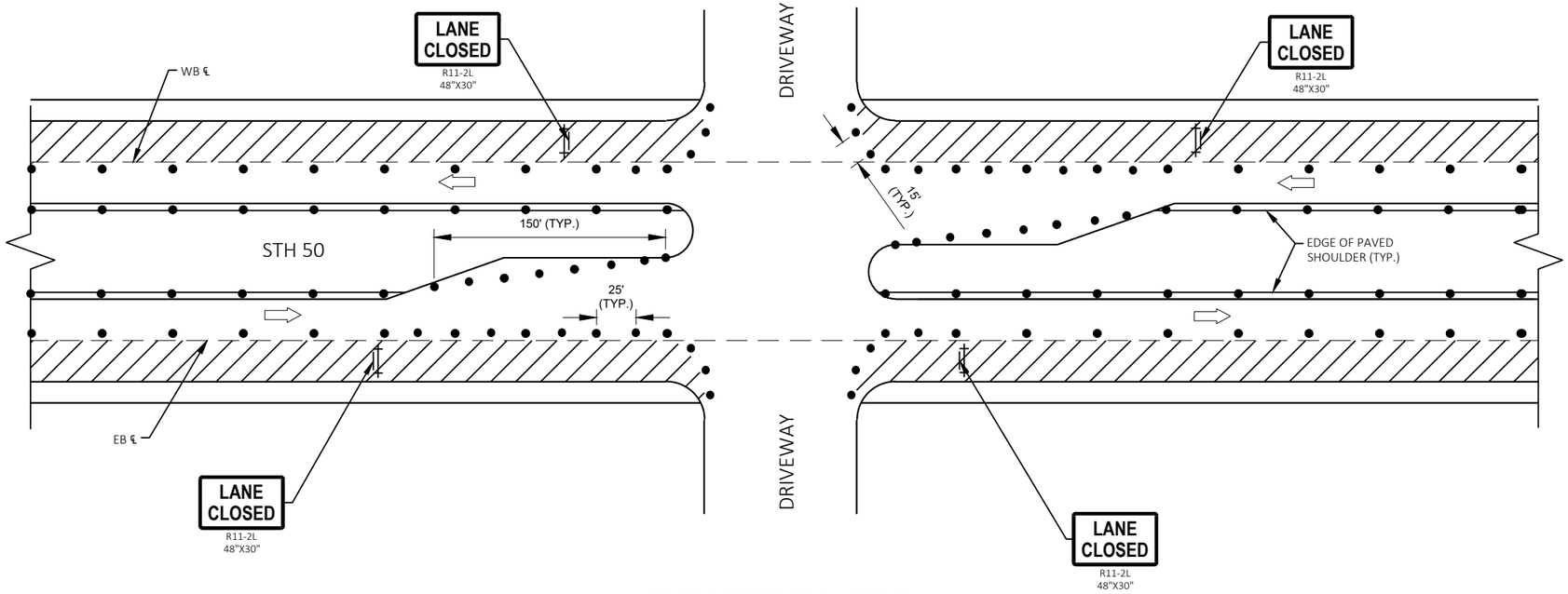
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

LEGEND

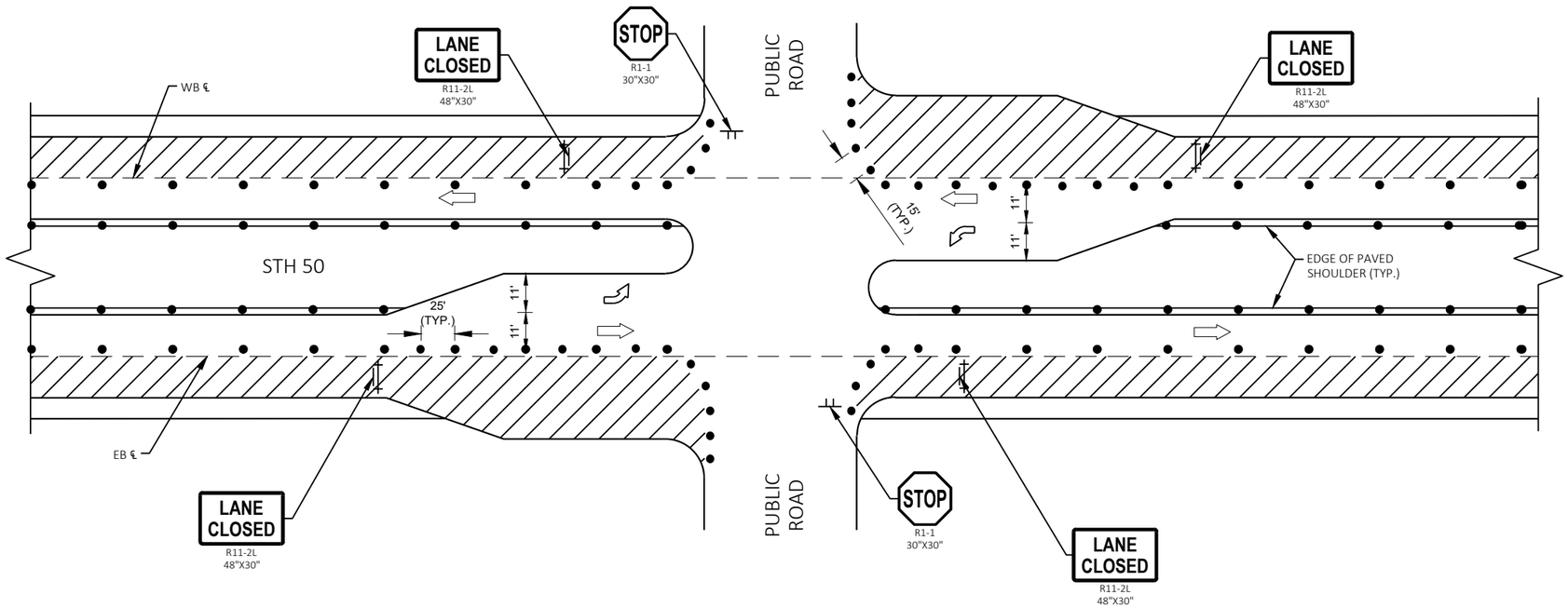
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL CONES 42-INCH
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- WORK AREA

2

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - CONSTRUCTION DETAILS	SHEET 92	E



STAGE 2 AT DRIVEWA□ MEDIAN
OPENING WITHIN PARTIAL LANE SHIFT MULTI□LANE DIVIDED □□ MPH AND GREATER



STAGE 2 AT PUBLIC ROAD INTERSECTION
MEDIAN OPENING WITHIN PARTIAL LANE SHIFT MULTI□LANE DIVIDED □□ MPH AND GREATER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE" FOR ADDITIONAL INFORMATION AND FOR TRAFFIC CONTROL AT MEDIAN OPENINGS OUTSIDE OF THE PARTIAL LANE SHIFT.

SEE CONSTRUCTION STAGING TYPICAL SECTIONS FOR LOCATION OF TRAFFIC CONTROL CONES 42-INCH IN RELATION TO THE ROADWAY CENTERLINE.

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

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

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

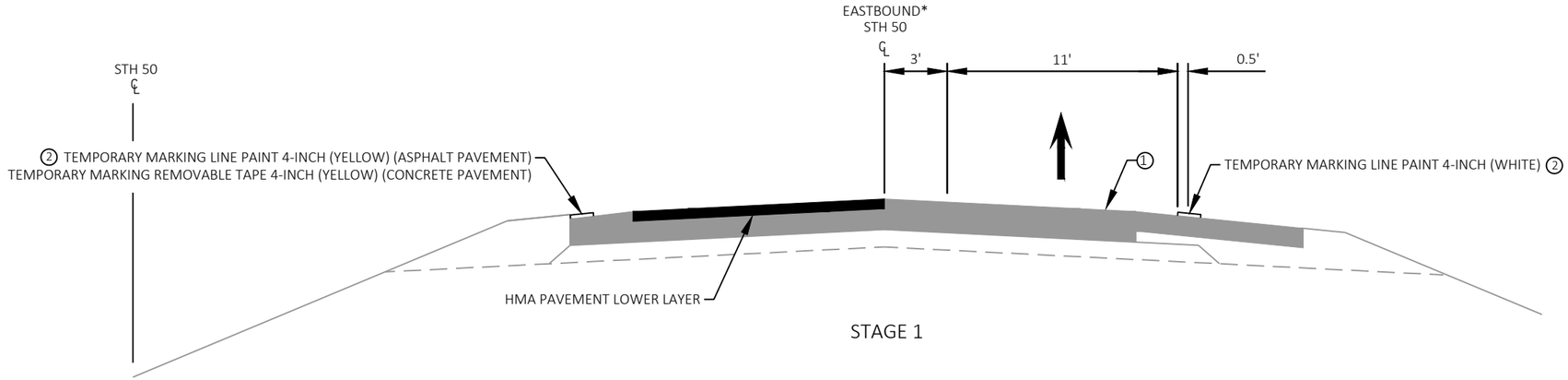
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

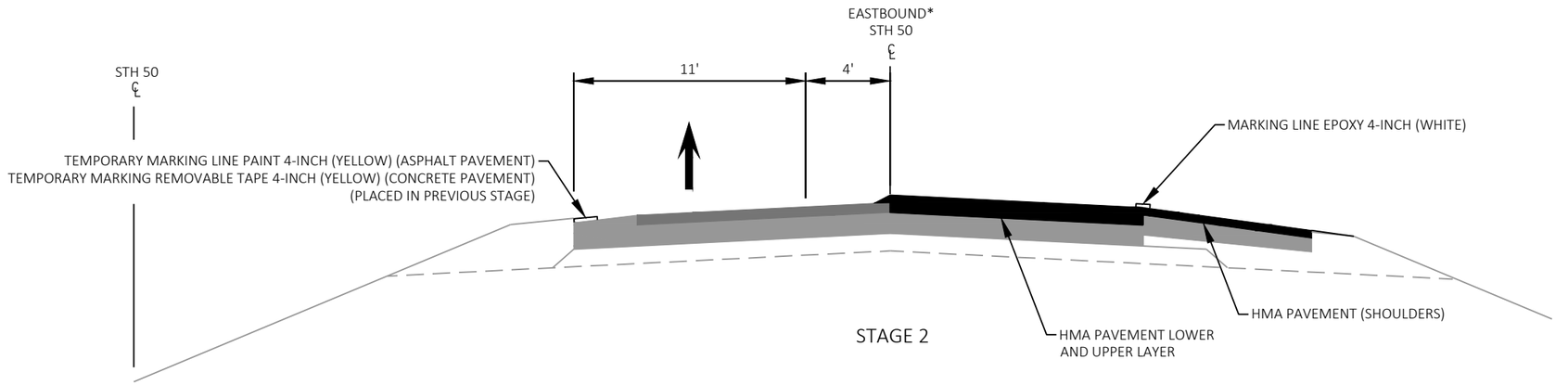
LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL CONES 42-INCH
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- WORK AREA

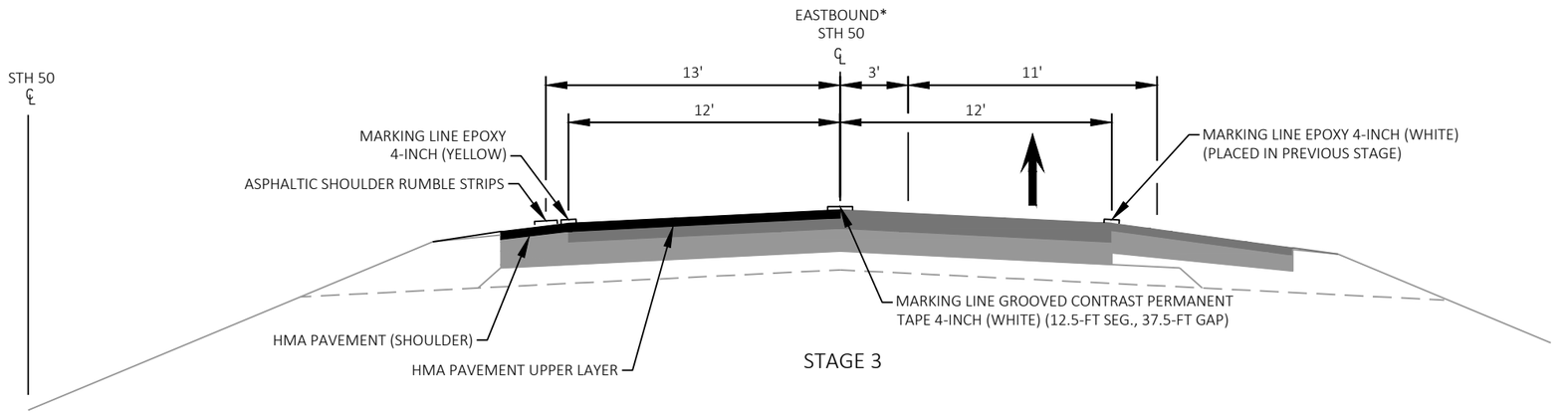
NOT TO SCALE



STAGE 1



STAGE 2



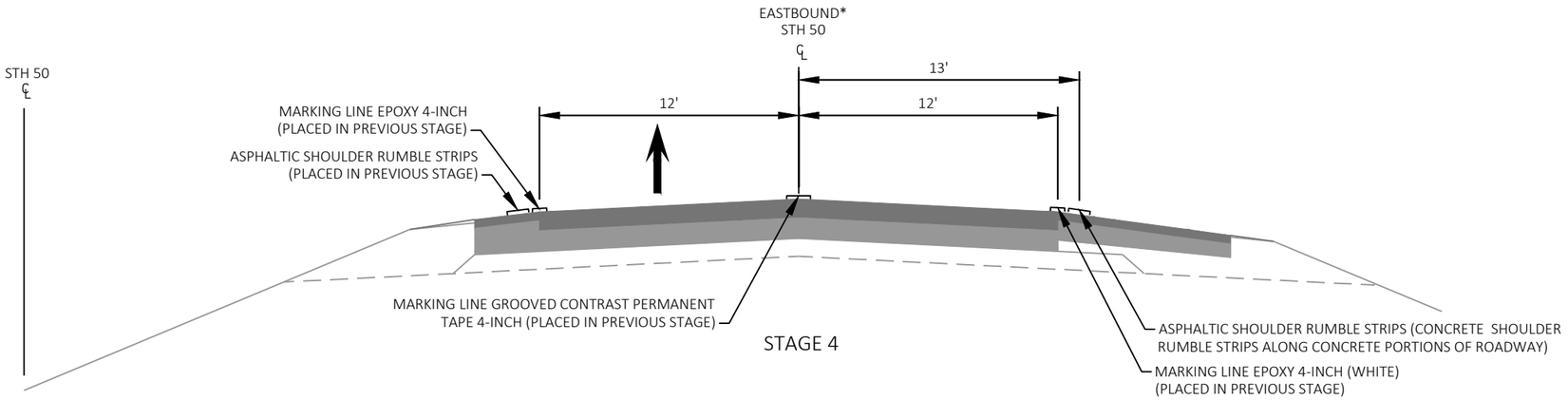
STAGE 3

① MARKING REMOVAL LINE WATER BLASTING 4-INCH (WHITE EDGELINE) FROM STA. 567+98.53 TO STA. 575+75.81 AND STA. 581+01.00 TO STA. 612+78.95. EXISTING MARKINGS OUTSIDE OF THESE STATION RANGES TO REMAIN UNLESS PARTIAL LANE SHIFT IN PLACE DURING NIGHT TIME HOURS. SEE NOTE 2 BELOW.

② TEMPORARY MARKINGS REQUIRED IF ADJACENT TO CONCRETE THAT IS CURING OR IF PARTIAL LANE SHIFT WILL BE IN PLACE DURING NIGHT TIME HOURS. SEE DETAIL FOR "PARTIAL LANE SHIFT MULTI-LANE DIVIDED 50 MPH AND GREATER".

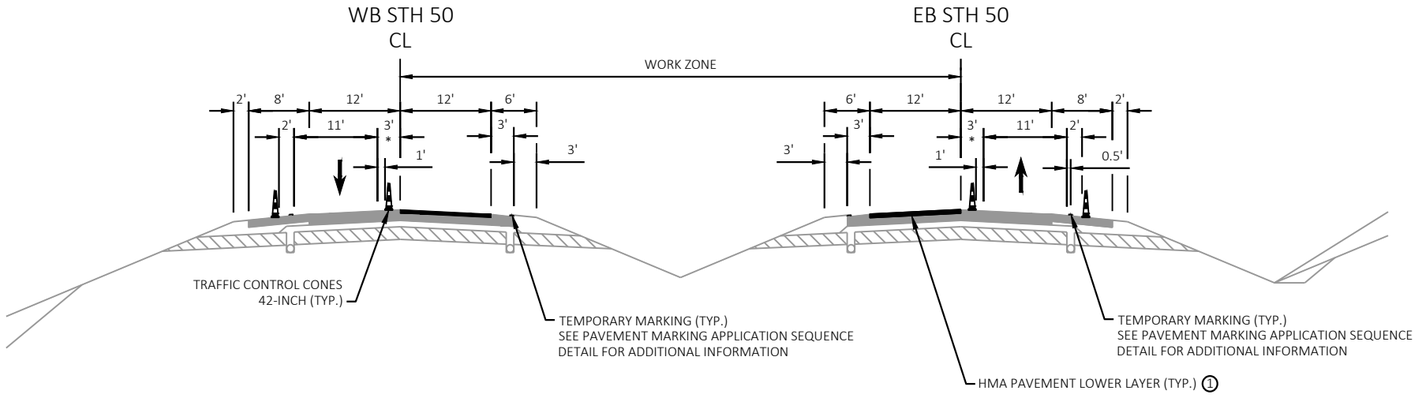
PAVEMENT MARKING APPLICATION SEQUENCE DETAIL

* MIRROR PAVEMENT MARKING APPLICATION AND DIRECTIONS FOR WESTBOUND STH 50



PAVEMENT MARKING APPLICATION SEQUENCE DETAIL (CONTINUED)

* MIRROR PAVEMENT MARKING APPLICATION AND DIRECTIONS FOR WESTBOUND STH 50



CONSTRUCTION STAGE 1 TYPICAL SECTION AT PARTIAL LANE SHIFT

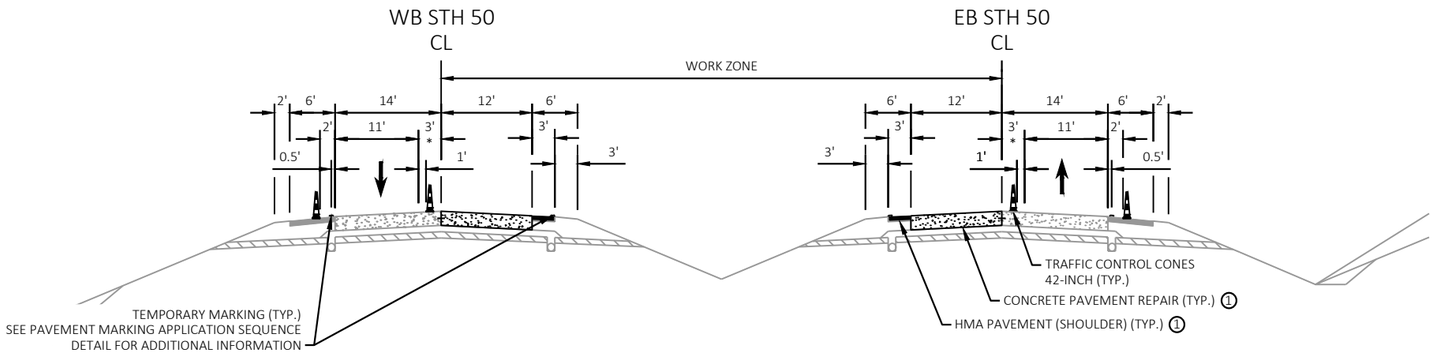
(LOOKING EAST)
STA. 194+00.00 TO STA. 567+98.53
STA. 575+75.81 TO STA. 581+01.00

1 SEE TYPICAL SECTIONS FOR PAVEMENT MATERIAL TYPE, THICKNESS, AND ADDITIONAL INFORMATION.

* SHIFT TRAFFIC ADJACENT TO AN ACTIVE WORK ZONE OR CONCRETE THAT IS CURING IN ACCORDANCE WITH CONSTRUCTION DETAIL "PARTIAL LANE SHIFT MULTI-LANE DIVIDED 50 MPH AND GREATER". WHEN TRAFFIC CONTROL CONES ARE OUTSIDE OF AN ACTIVE WORK ZONE, UNLESS ADJACENT TO CONCRETE THAT IS CURING, PLACE THE TRAFFIC CONTROL CONE AT THE LANE EDGE OF THE CLOSED LANE, ALONG THE CENTERLINE.

NOTE:

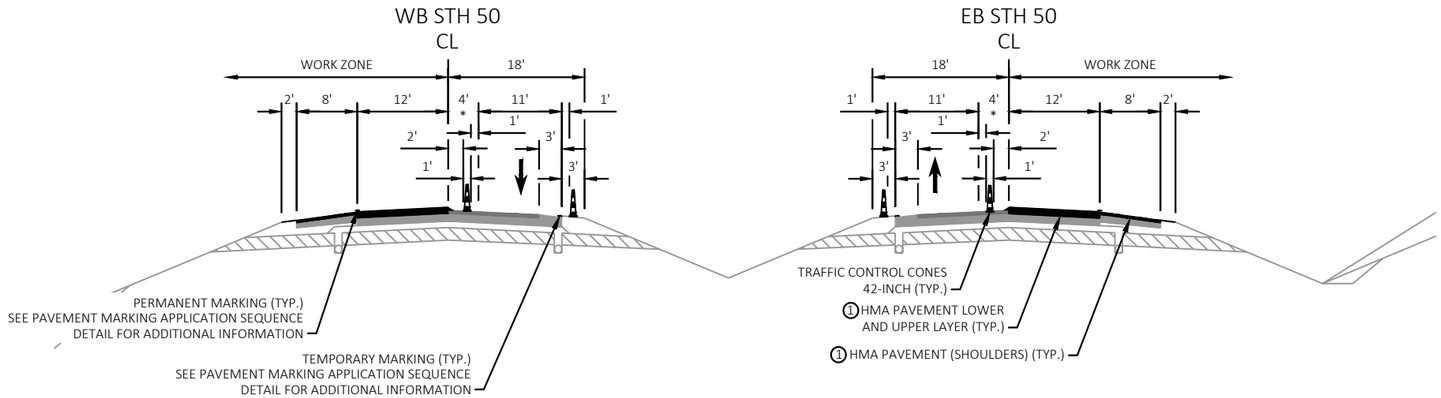
SEE PAVEMENT MARKING APPLICATION SEQUENCE DETAIL FOR MARKING LINE LOCATIONS.



CONSTRUCTION STAGE 1 TYPICAL SECTION AT PARTIAL LANE SHIFT

(LOOKING EAST)
STA. 567+98.53 TO STA. 575+75.81
STA. 581+01.00 TO STA. 612+78.95

2



CONSTRUCTION STAGE 2 TYPICAL SECTION AT PARTIAL LANE SHIFT

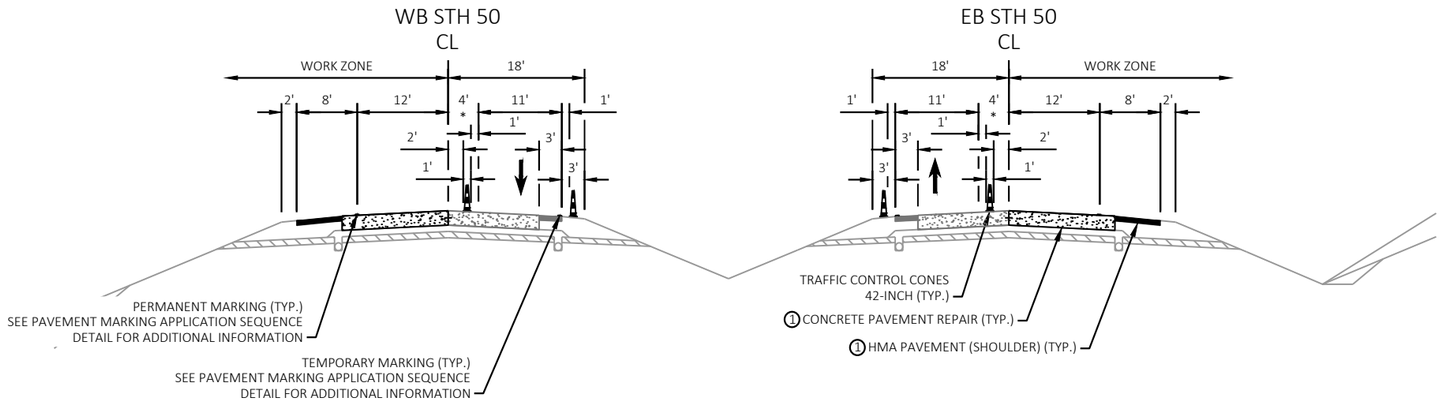
(LOOKING EAST)
STA. 194+00.00 TO STA. 567+98.53
STA. 575+75.81 TO STA. 581+01.00

① SEE TYPICAL SECTIONS FOR PAVEMENT MATERIAL TYPE, THICKNESS, AND ADDITIONAL INFORMATION.

* SHIFT TRAFFIC ADJACENT TO AN ACTIVE WORK ZONE OR CONCRETE THAT IS CURING IN ACCORDANCE WITH CONSTRUCTION DETAIL "PARTIAL LANE SHIFT MULTI-LANE DIVIDED 55 MPH AND GREATER". WHEN TRAFFIC CONTROL CONES ARE OUTSIDE OF AN ACTIVE WORK ZONE, UNLESS ADJACENT TO CONCRETE THAT IS CURING, PLACE THE TRAFFIC CONTROL CONE AT THE LANE EDGE OF THE CLOSED LANE, ALONG THE CENTERLINE.

NOTE:

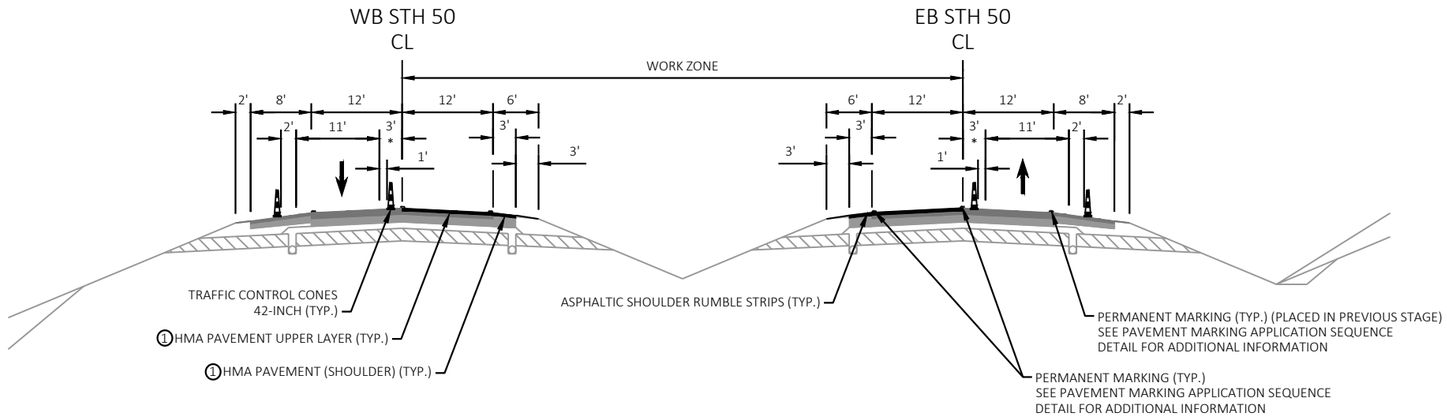
SEE PAVEMENT MARKING APPLICATION SEQUENCE DETAIL FOR MARKING LINE LOCATIONS.



CONSTRUCTION STAGE 2 TYPICAL SECTION AT PARTIAL LANE SHIFT

(LOOKING EAST)
STA. 567+98.53 TO STA. 575+75.81
STA. 581+01.00 TO STA. 612+78.95

2



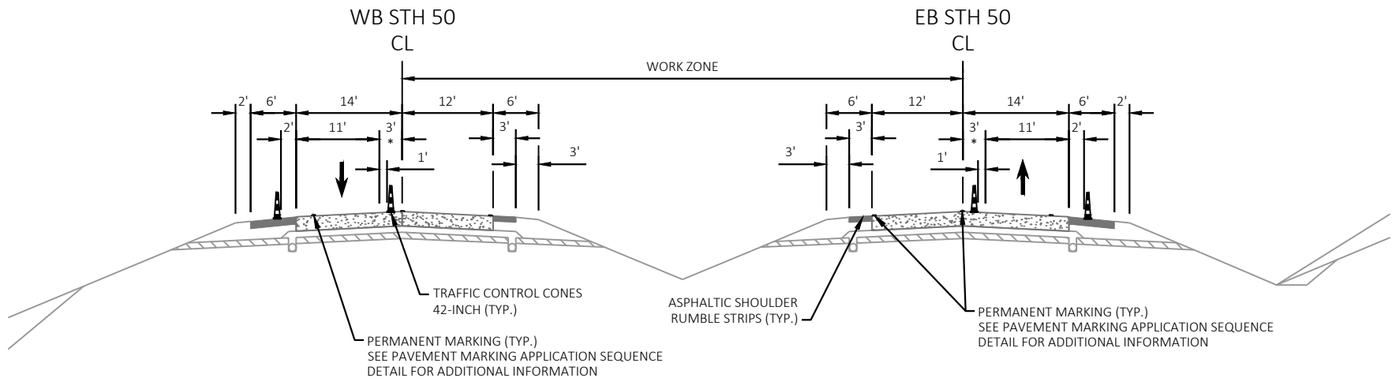
CONSTRUCTION STAGE 3 TYPICAL SECTION AT PARTIAL LANE SHIFT

(LOOKING EAST)
STA. 194+00.00 TO STA. 567+98.53
STA. 575+75.81 TO STA. 581+01.00

1 SEE TYPICAL SECTIONS FOR PAVEMENT MATERIAL TYPE, THICKNESS, AND ADDITIONAL INFORMATION.

* SHIFT TRAFFIC ADJACENT TO AN ACTIVE WORK ZONE OR CONCRETE THAT IS CURING IN ACCORDANCE WITH CONSTRUCTION DETAIL "PARTIAL LANE SHIFT MULTI-LANE DIVIDED 50 MPH AND GREATER". WHEN TRAFFIC CONTROL CONES ARE OUTSIDE OF AN ACTIVE WORK ZONE, UNLESS ADJACENT TO CONCRETE THAT IS CURING, PLACE THE TRAFFIC CONTROL CONE AT THE LANE EDGE OF THE CLOSED LANE, ALONG THE CENTERLINE.

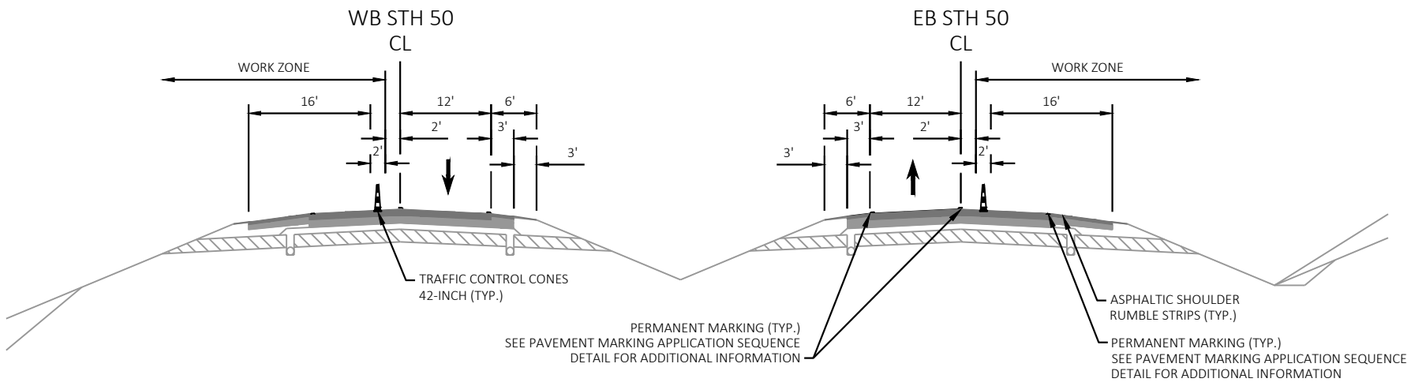
NOTE:
SEE PAVEMENT MARKING APPLICATION SEQUENCE DETAIL FOR MARKING LINE LOCATIONS.



CONSTRUCTION STAGE 3 TYPICAL SECTION AT PARTIAL LANE SHIFT

(LOOKING EAST)
STA. 567+98.53 TO STA. 575+75.81
STA. 581+01.00 TO STA. 612+78.95

2



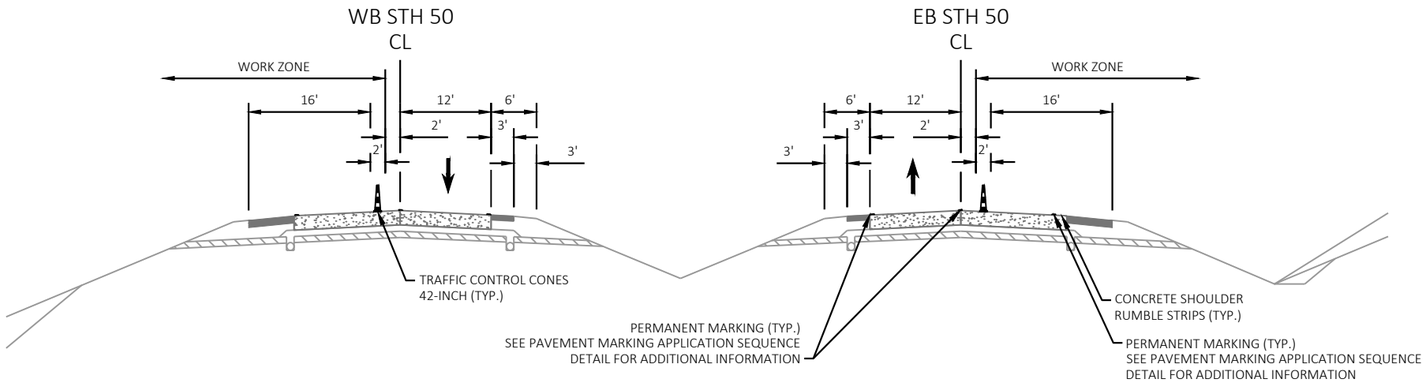
CONSTRUCTION STAGE 4 TYPICAL SECTION

(LOOKING EAST)
STA. 194+00.00 TO STA. 567+98.53
STA. 575+75.81 TO STA. 581+01.00

① SEE TYPICAL SECTIONS FOR PAVEMENT MATERIAL TYPE, THICKNESS, AND ADDITIONAL INFORMATION.

NOTE:

SEE PAVEMENT MARKING APPLICATION SEQUENCE DETAIL FOR MARKING LINE LOCATIONS.



CONSTRUCTION STAGE 4 TYPICAL SECTION

(LOOKING EAST)
STA. 567+98.53 TO STA. 575+75.81
STA. 581+01.00 TO STA. 612+78.95

2

2

ROAD WORK AHEAD
W20-1A
48"X48"

200'

PELLER ROAD

N

WO12-1D
48"X48"

TEMPORARY MARKING LINE
REMOVABLE TAPE 8-INCH (WHITE)

5' (TYP.)

6.5:1 TAPER

12'

50'

25' (TYP.)

MATCHLINE A

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

STH 50

350'

350'

ROAD WORK NEXT 9 MILES
G20-1
60"X24"

ROAD WORK AHEAD
W20-1A
48"X48"

LANE CLOSED
R11-2L
48"X30"

ONLY ONLY ONLY ONLY ONLY
R3-8

ONLY
R3-50R
30"X36"

ONLY
R3-50R
30"X36"

MARKING REMOVAL SPECIAL MARKING (TYP.)

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (WHITE)

EAST DRIVE

200'

ROAD WORK AHEAD
W20-1A
48"X48"

LEGEND

- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT ATTACHED SIGN AND TWO TYPE A LIGHTS
- TRAFFIC CONTROL SIGNS ON POST
- TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE C LIGHT
- DIRECTION OF TRAFFIC
- MARKING REMOVAL
- TRAFFIC CONTROL COVERING SIGNS TYPE 2

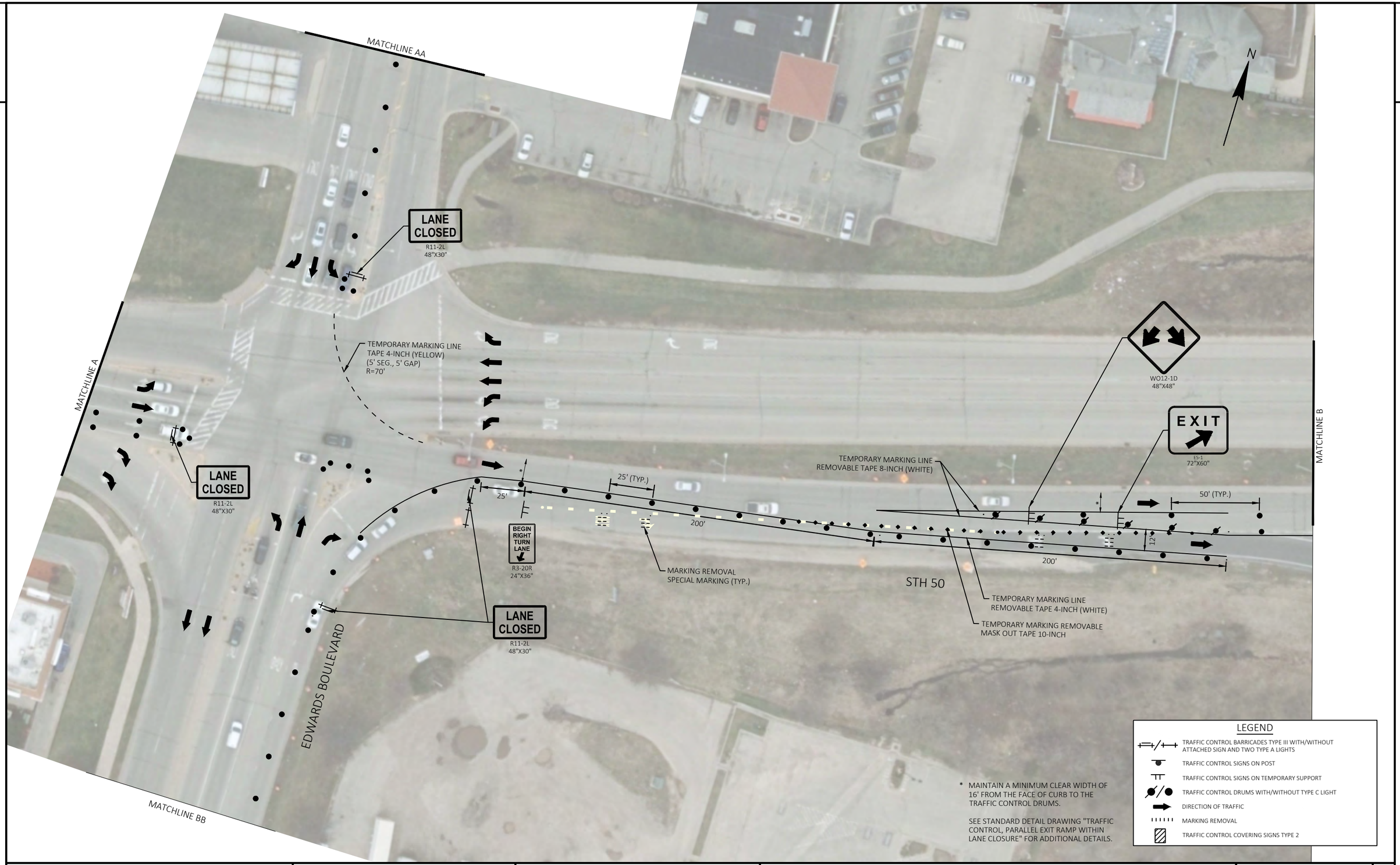
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - ALL STAGES	SHEET 100	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 025121-tc

PLOT DATE : 2/15/2021 2:04 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

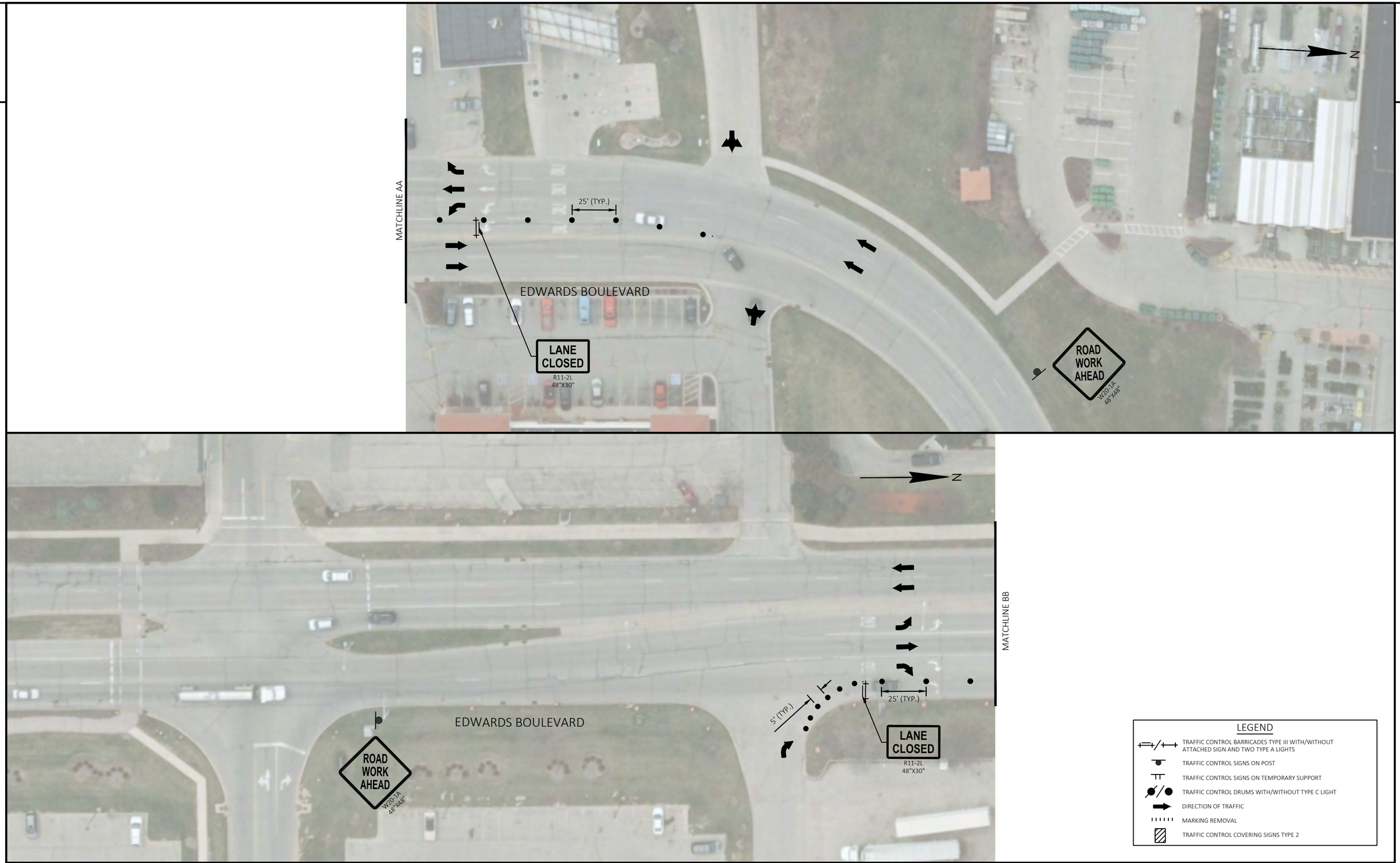


PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - ALL STAGES	SHEET 101	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 025122-tc

PLOT DATE : 2/15/2021 2:04 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:50 FT

2



LEGEND

- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT ATTACHED SIGN AND TWO TYPE A LIGHTS
- TRAFFIC CONTROL SIGNS ON POST
- TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE C LIGHT
- DIRECTION OF TRAFFIC
- MARKING REMOVAL
- TRAFFIC CONTROL COVERING SIGNS TYPE 2

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - ALL STAGES	SHEET 102	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 025127-tc

PLOT DATE : 2/15/2021 2:04 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2

N

USH 12 EB EXIT

MATCHLINE B

MATCHLINE STA. 179+50

178+00

179+00

EXISTING MARKINGS (TO REMAIN) (TYP.)

TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

+93'

50' (TYP.)

LANE CLOSED
R11-2L
48"X30"

STH 50

WO4-1R
48"X48"

LANE CLOSED
R11-2L
48"X30"

WO4-5
48"X48"

+63'

R=850'

USH 12 EB ENTRANCE

USH 12 EB EXIT

TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

500' TO YIELD SIGN

END ROAD WORK
G20-2A
48"X24"

END ROAD WORK
G20-2A
48"X24"

USH 12 EB ENTRANCE

500'

W3-2
36"X36"

ROAD WORK AHEAD
W20-1A
48"X48"

* MAINTAIN A MINIMUM CLEAR WIDTH OF 16' FROM THE FACE OF CURB TO THE TRAFFIC CONTROL DRUMS.

LEGEND

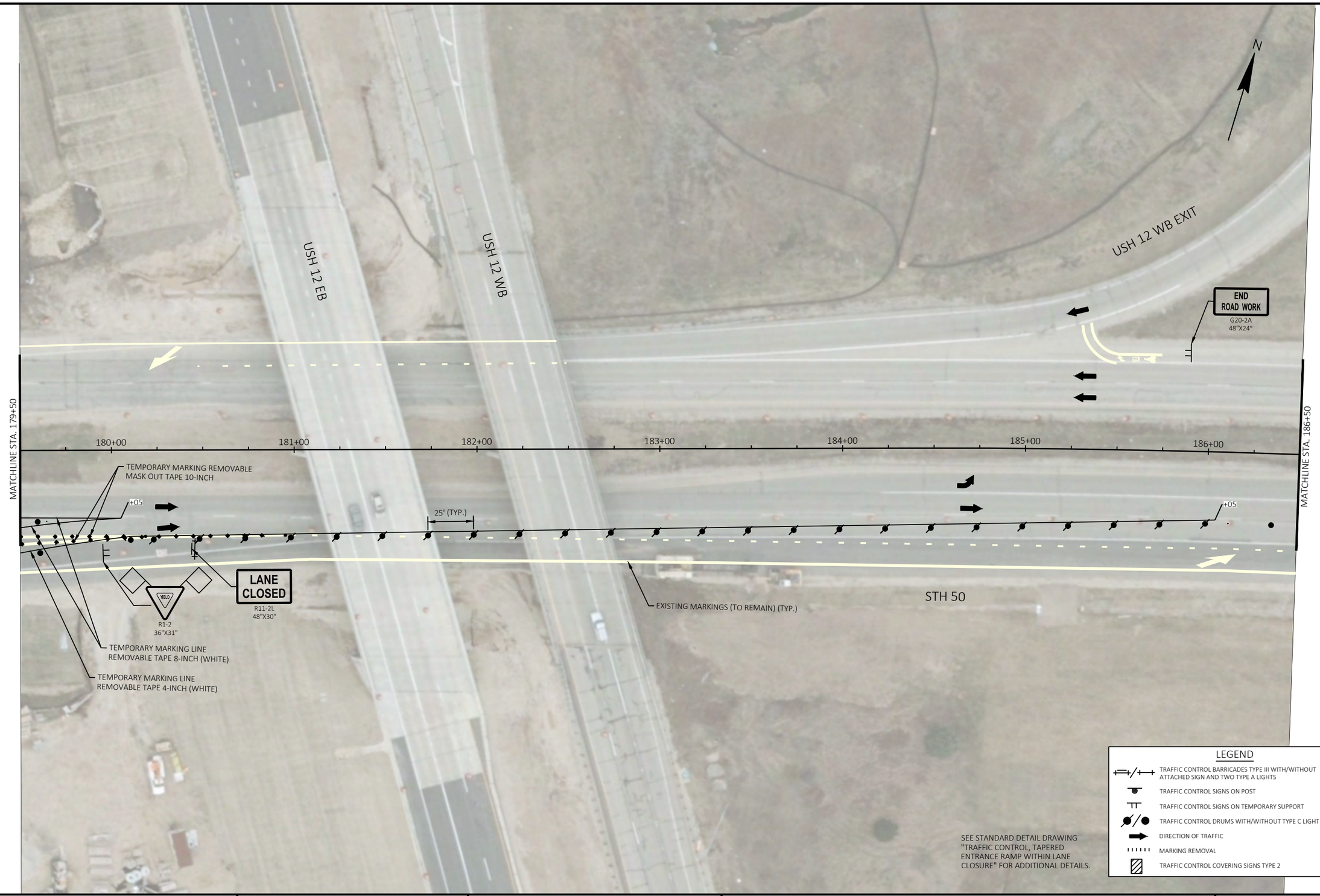
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT ATTACHED SIGN AND TWO TYPE A LIGHTS
- TRAFFIC CONTROL SIGNS ON POST
- TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE C LIGHT
- DIRECTION OF TRAFFIC
- MARKING REMOVAL
- TRAFFIC CONTROL COVERING SIGNS TYPE 2

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - ALL STAGES	SHEET 103	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 025123-tc

PLOT DATE : 2/15/2021 2:04 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:50 FT

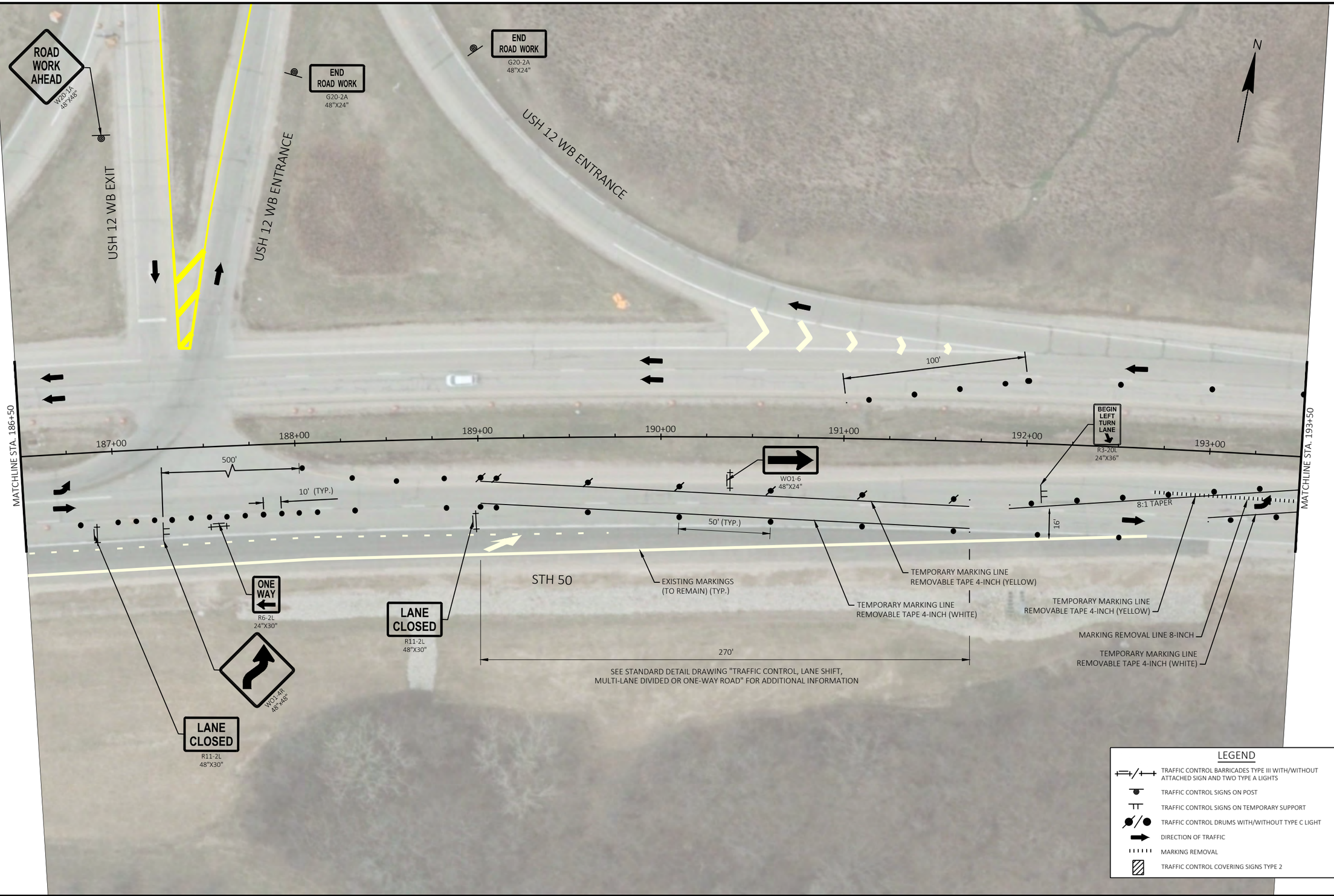
2



PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - ALL STAGES	SHEET 104	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 025124-tc
PLOT DATE : 2/15/2021 2:04 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - STAGES 1 AND 3	SHEET 105	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\025102-TC.DWG
LAYOUT NAME - 025133-tc
PLOT DATE : 2/15/2021 2:04 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

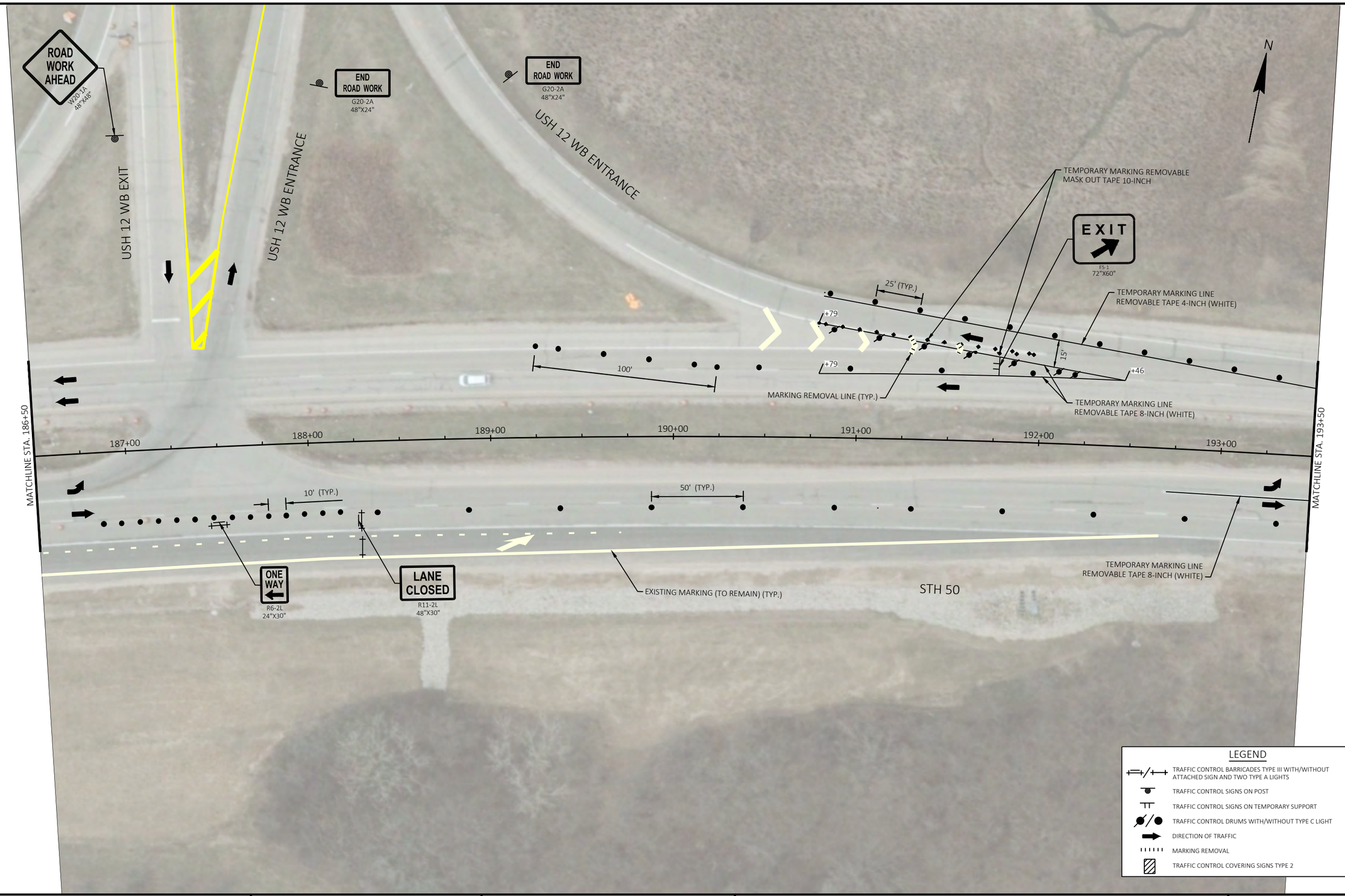
2



PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - STAGES 1 AND 3	SHEET 106	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\025102-TC.DWG
LAYOUT NAME - 025134-tc
PLOT DATE : 2/15/2021 2:04 PM
PLOT BY : NOTSON, ERIC
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2



2

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - STAGES 2 AND 4	SHEET 107	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 025125-tc

PLOT DATE : 2/15/2021 2:05 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	TRAFFIC CONTROL - STAGES 2 AND 4	SHEET 108	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 025126-tc
PLOT DATE : 2/15/2021 2:05 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

1310-17-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0120	Clearing	ID	20.000	20.000
0004	201.0220	Grubbing	ID	20.000	20.000
0006	204.0110	Removing Asphaltic Surface	SY	9,150.000	9,150.000
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	8,720.000	8,720.000
0010	204.0120	Removing Asphaltic Surface Milling	SY	334,450.000	334,450.000
0012	204.0150	Removing Curb & Gutter	LF	185.000	185.000
0014	204.0155	Removing Concrete Sidewalk	SY	20.000	20.000
0016	204.0165	Removing Guardrail	LF	565.000	565.000
0018	204.0190	Removing Surface Drains	EACH	3.000	3.000
0020	204.9060.S	Removing (item description) 01. Apron Endwalls	EACH	2.000	2.000
0022	204.9105.S	Removing (item description) 01. Loop Detector Wire & Lead-in Cable	LS	1.000	1.000
0024	205.0100	Excavation Common	CY	912.000	912.000
0026	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	1,680.000	1,680.000
0028	213.0100	Finishing Roadway (project) 01. 1310-17-70	EACH	1.000	1.000
0030	305.0110	Base Aggregate Dense 3/4-Inch	TON	6,680.000	6,680.000
0032	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,410.000	1,410.000
0034	310.0115	Base Aggregate Open-Graded	CY	41.000	41.000
0036	311.0110	Breaker Run	TON	1,250.000	1,250.000
0038	390.0203	Base Patching Asphaltic	SY	10,060.000	10,060.000
0040	416.0610	Drilled Tie Bars	EACH	303.000	303.000
0042	416.0620	Drilled Dowel Bars	EACH	1,296.000	1,296.000
0044	416.1110	Concrete Shoulder Rumble Strips	LF	6,451.000	6,451.000
0046	416.1710	Concrete Pavement Repair	SY	420.000	420.000
0048	416.1720	Concrete Pavement Replacement	SY	2,320.000	2,320.000
0050	455.0605	Tack Coat	GAL	37,050.000	37,050.000
0052	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0054	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0056	460.2005	Incentive Density PWL HMA Pavement	DOL	52,620.000	52,620.000
0058	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	67,006.000	67,006.000
0060	460.2010	Incentive Air Voids HMA Pavement	DOL	70,330.000	70,330.000
0062	460.6223	HMA Pavement 3 MT 58-28 S	TON	34,840.000	34,840.000
0064	460.6224	HMA Pavement 4 MT 58-28 S	TON	35,490.000	35,490.000
0066	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	417.000	417.000
0068	465.0315	Asphaltic Flumes	SY	22.000	22.000
0070	465.0400	Asphaltic Shoulder Rumble Strips	LF	112,598.000	112,598.000
0072	520.8700	Cleaning Culvert Pipes	EACH	2.000	2.000
0074	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000
0076	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	30.000	30.000

1310-17-70

Line	Item	Item Description	Unit	Total	Qty
0078	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	160.000	160.000
0080	601.0584	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type TBT	LF	215.000	215.000
0082	602.0405	Concrete Sidewalk 4-Inch	SF	180.000	180.000
0084	606.0200	Riprap Medium	CY	6.000	6.000
0086	612.0106	Pipe Underdrain 6-Inch	LF	712.000	712.000
0088	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	EACH	1.000	1.000
0090	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	295.000	295.000
0092	614.2300	MGS Guardrail 3	LF	588.000	588.000
0094	614.2610	MGS Guardrail Terminal EAT	EACH	2.000	2.000
0096	614.2620	MGS Guardrail Terminal Type 2	EACH	2.000	2.000
0098	616.0404	Fence Chain Link Salvaged 4-FT	LF	57.000	57.000
0100	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1310-17-70	EACH	1.000	1.000
0102	619.1000	Mobilization	EACH	1.000	1.000
0104	624.0100	Water	MGAL	4.000	4.000
0106	625.0100	Topsoil	SY	2,409.000	2,409.000
0108	627.0200	Mulching	SY	2,909.000	2,909.000
0110	628.1104	Erosion Bales	EACH	10.000	10.000
0112	628.1504	Silt Fence	LF	660.000	660.000
0114	628.1520	Silt Fence Maintenance	LF	2,690.000	2,690.000
0116	628.1905	Mobilizations Erosion Control	EACH	10.000	10.000
0118	628.1910	Mobilizations Emergency Erosion Control	EACH	10.000	10.000
0120	628.2008	Erosion Mat Urban Class I Type B	SY	3,009.000	3,009.000
0122	628.7504	Temporary Ditch Checks	LF	192.000	192.000
0124	628.7555	Culvert Pipe Checks	EACH	15.000	15.000
0126	628.7570	Rock Bags	EACH	110.000	110.000
0128	629.0210	Fertilizer Type B	CWT	27.400	27.400
0130	630.0130	Seeding Mixture No. 30	LB	720.000	720.000
0132	630.0140	Seeding Mixture No. 40	LB	53.000	53.000
0134	630.0200	Seeding Temporary	LB	1,145.000	1,145.000
0136	630.0500	Seed Water	MGAL	46.000	46.000
0138	633.5200	Markers Culvert End	EACH	42.000	42.000
0140	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	62.000	62.000
0142	637.2210	Signs Type II Reflective H	SF	441.085	441.085
0144	638.2102	Moving Signs Type II	EACH	26.000	26.000
0146	638.2602	Removing Signs Type II	EACH	10.000	10.000
0148	638.3000	Removing Small Sign Supports	EACH	24.000	24.000
0150	642.5201	Field Office Type C	EACH	1.000	1.000

1310-17-70

Line	Item	Item Description	Unit	Total	Qty
0152	643.0300	Traffic Control Drums	DAY	38,173.000	38,173.000
0154	643.0420	Traffic Control Barricades Type III	DAY	13,621.000	13,621.000
0156	643.0705	Traffic Control Warning Lights Type A	DAY	19,992.000	19,992.000
0158	643.0715	Traffic Control Warning Lights Type C	DAY	13,025.000	13,025.000
0160	643.0800	Traffic Control Arrow Boards	DAY	325.000	325.000
0162	643.0900	Traffic Control Signs	DAY	27,086.000	27,086.000
0164	643.0920	Traffic Control Covering Signs Type II	EACH	12.000	12.000
0166	643.1050	Traffic Control Signs PCMS	DAY	54.000	54.000
0168	643.1070	Traffic Control Cones 42-Inch	DAY	313,150.000	313,150.000
0170	643.5000	Traffic Control	EACH	1.000	1.000
0172	645.0111	Geotextile Type DF Schedule A	SY	475.000	475.000
0174	645.0120	Geotextile Type HR	SY	24.000	24.000
0176	646.1020	Marking Line Epoxy 4-Inch	LF	160,286.000	160,286.000
0178	646.1555	Marking Line Grooved Contrast Permanent Tape 4-Inch	LF	20,940.000	20,940.000
0180	646.3555	Marking Line Grooved Contrast Permanent Tape 8-Inch	LF	15,078.000	15,078.000
0182	646.5020	Marking Arrow Epoxy	EACH	19.000	19.000
0184	646.5120	Marking Word Epoxy	EACH	17.000	17.000
0186	646.6120	Marking Stop Line Epoxy 18-Inch	LF	205.000	205.000
0188	646.7120	Marking Diagonal Epoxy 12-Inch	LF	195.000	195.000
0190	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	7,910.000	7,910.000
0192	646.9100	Marking Removal Line 8-Inch	LF	3,424.000	3,424.000
0194	646.9300	Marking Removal Special Marking	EACH	6.000	6.000
0196	649.0105	Temporary Marking Line Paint 4-Inch	LF	228,250.000	228,250.000
0198	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	11,720.000	11,720.000
0200	649.0205	Temporary Marking Line Paint 8-Inch	LF	10,395.000	10,395.000
0202	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	2,565.000	2,565.000
0204	649.0970	Temporary Marking Removable Mask Out Tape 10-Inch	LF	1,035.000	1,035.000
0206	650.8000	Construction Staking Resurfacing Reference	LF	83,750.000	83,750.000
0208	650.9910	Construction Staking Supplemental Control (project) 01. 1310-17-70	LS	1.000	1.000
0210	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	500.000	500.000
0212	652.0800	Conduit Loop Detector	LF	2,294.000	2,294.000
0214	653.0135	Pull Boxes Steel 24x36-Inch	EACH	6.000	6.000
0216	655.0700	Loop Detector Lead In Cable	LF	10,030.000	10,030.000
0218	655.0800	Loop Detector Wire	LF	8,660.000	8,660.000
0220	655.0900	Traffic Signal EVP Detector Cable	LF	380.000	380.000
0222	690.0150	Sawing Asphalt	LF	16,139.000	16,139.000
0224	690.0250	Sawing Concrete	LF	2,719.000	2,719.000
0226	740.0440	Incentive IRI Ride	DOL	58,889.000	58,889.000
0228	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	3,000.000	3,000.000

1310-17-70

Line	Item	Item Description	Unit	Total	Qty
0230	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	7,200.000	7,200.000
0232	SPV.0060	Special 01. Section Corner Monuments	EACH	2.000	2.000
0234	SPV.0060	Special 02. Mobilizations Emergency Shoulder Pavement Repair	EACH	2.000	2.000
0236	SPV.0090	Special 01. Silt Fence Double Staked	LF	2,030.000	2,030.000
0238	SPV.0090	Special 02. Cured In Place Pipe Liner, 48-Inch	LF	392.000	392.000
0240	SPV.0105	Special 01. Transporting and Install State Furnished EVP Detector Head	LS	1.000	1.000
0242	SPV.0105	Special 02. Trnspt and Install State Furn Radar Detect Sys	LS	1.000	1.000

3

CLEARING AND GRUBBING

CATEGORY	STATION	LOCATION	201.0120 CLEARING ID	201.0220 GRUBBING ID
0010	485+50	RT	12	12
	571+00	LT	4	4
	571+21	LT	4	4
	TOTALS		20	20

REMOVING ASPHALTIC SURFACE

CATEGORY	STATION - STATION	LOCATION	204.0115 BUTT JOINTS SY	204.0110 SY	204.0120 MILLING SY	390.0203 BASE PATCHING ASPHALTIC SY
0010	194+00 - 321+00	LT/RT	3,550	950	114,300	3,430
	321+00 - 479+96	LT/RT	3,310	1,100	137,100	4,120
	479+96 - 567+99	LT/RT	1,250	50	77,700	2,340
	567+99 - 612+79	LT/RT	610	7,050	5,350	170
	TOTALS		8,720	9,150	334,450	10,060

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

CATEGORY	STATION - STATION	LOCATION	211.0400 STA
0010	194+00 - 321+00	LT/RT	508
	321+00 - 479+96	LT/RT	636
	479+96 - 567+99	LT/RT	356
	567+99 - 612+79	LT/RT	180
	TOTAL		1,680

FINISHING ROADWAY

CATEGORY	PROJECT	213.0100 1310-17-70 EACH
0010	1310-17-70	1

BASE AGGREGATE DENSE

CATEGORY	STATION - STATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	311.0110* BREAKER RUN TON
0010	194+00 - 321+00	1,950	--	--
	321+00 - 479+96	2,450	30	--
	479+96 - 567+99	1,300	--	--
	567+99 - 612+79	660	1,250	1,050
	UNDISTRIBUTED	320	130	110
	TOTALS	6,680	1,410	1,160

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

PAVEMENT BARS

CATEGORY	STATION - STATION	LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
0010	567+99 - 612+79	LT/RT	303	1,296

EARTHWORK SUMMARY

CATEGORY	STAGE	LOCATION	STA	TO	STA	(C) CUT CY	(E) UNDISTRIBUTED EBS EXCAVATION CY	(2) 205.0100 EXCAVATION COMMON CY	(S) SALVAGED/ UNUSABLE PAVEMENT MATERIAL CY	(4) AVAILABLE MATERIAL CY	(5) 0% REDUCED EBS IN FILL CY	(6) 110.0% EXPANDED EBS BACKFILL CY	UNEXPANDED FILL CY	(7) 100.0% UNDISTRIBUTED 311.0110* BREAKER RUN TON***	(8) ** 120.00% EXPANDED FILL CY	(9) MASS ORDINATE EXCESS (SHORTAGE) CY	(10) 208.0100 BORROW CY
0010	1	381ST STREET	---	-	---	358	18	358	132	226	--	20	--	36	--	226	--
		STH 50	377+69	-	385+31	67	3	67	--	67		3		6	--	67	--
		STH 50	569+35	-	576+00	487	24	487	40	447	--	26	58	48	70	378	--
		GRAND TOTAL				912	45	912	172	740	--	50	58	90	70	671	--

NOTES

1) UNDISTRIBUTED EBS EXCAVATION (E) = 5% OF EXCAVATION AREA
2) EXCAVATION COMMON IS THE SUM OF THE CUT (C) AND EBS EXCAVATION (S).
3) EBS EXCAVATION (E) TO BE BACKFILLED WITH BREAKER RUN.
4) AVAILABLE MATERIAL = CUT (C) - (S).
5) SOILS REMOVED AS EBS MUST BE WASTED OFFSITE AND NOT REUSED AS FILL.
6) EXPANDED EBS BACKFILL. THIS IS TO BE FILLED WITH BREAKER RUN. EBS EXPANSION FACTOR 1.10.
7) UNDISTRIBUTED QUANTITY OF BREAKER RUN USED TO FILL EBS.
8) EXPANDED FILL = {UNEXPANDED FILL * 120% FILL FACTOR}.
9) MASS ORDINATE =AVAILABLE MATERIAL (5) - EXPANDED FILL (10) = BORROW AND SELECT BORROW OR WASTE
10) BORROW = MASS ORDINATE (SHORTAGE) (11) - SELECT BORROW

* CY TO TON CONVERSION FACTOR = 1.8 TON/CY
** FILL EXPANSION FACTOR = 1.20
*** ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

ASPHALTIC ITEMS

CATEGORY	STATION - STATION	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	455.0605 TACK COAT GAL
0010	194+00 - 321+00	11,830	11,820	12,500
	321+00 - 479+96	13,840	14,220	14,800
	479+96 - 567+99	8,190	8,050	8,500
	567+99 - 612+79	580	1,270	1,100
	381ST AVENUE	400	130	150
	TOTALS	34,840	35,490	37,050

NOTE: HMA PAVEMENT WEIGHT CALCULATIONS BASED ON 112 LB/SY/IN.

CONCRETE PAVEMENT

CATEGORY	STATION - STATION	LOCATION	416.1710 REPAIR SY	416.1720 REPLACEMENT SY
0010	567+99 - 612+79	LT/RT	420	2,320

HMA PAVEMENT PWL ITEMS

CATEGORY	STATION - STATION	460.0105.S HMA PWL TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PWL TEST STRIP DENSITY EACH
0010	194+00 - 581+01	2	2

PWL MIXTURE USE TABLE

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: MIXTURE ACCEPTANCE	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: DENSITY ACCEPTANCE
12-FOOT DRIVING LANES	194+00 to 498+00 515+04 to 567+98 575+76 to 581+01	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	28,930	2.25"	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12-FOOT DRIVING LANES	194+00 to 498+00 515+04 to 567+98 575+76 to 581+01	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	22,490	1.75"	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12-FOOT DRIVING LANES	498+00 to 515+04	SINGLE LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	1,200	2.25"	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE
3-FOOT INSIDE SHOULDERS	194+00 to 498+00 515+04 to 612+79	SINGLE LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	1,630	2.0"	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
4-FOOT INSIDE SHOULDERS	498+00 to 515+04	SINGLE LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	90	2.0"	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
8-FOOT OUTSIDE SHOULDERS	194+00 to 567+98 575+76 to 581+01	SINGLE LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	6,800	1.75"	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
10-FOOT OUTSIDE SHOULDERS	337+50 to 342+50 378+85 to 380+63	SINGLE LAYER	3 MT 58-28 S	4 MT 58-28 S	80	1.75"	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
TURN LANES AND MEDIANS	194+00 to 567+98 575+76 to 581+01	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	6,190	2.25"	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
TURN LANES AND MEDIANS	194+00 to 567+98 575+76 to 581+01	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	3,840	1.75"	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	STATION	STATION	LOCATION	465.0120 TON
0010	194+00 -	321+00	LT/RT	185
	321+00 -	479+96	LT/RT	218
	479+96 -	567+99	LT/RT	10
	567+99 -	612+79	LT/RT	3
	TOTAL			417

ASPHALTIC FLUME ITEMS

CATEGORY	STATION	LOCATION	204.0190 REMOVING SURFACE DRAINS EACH	465.0315 ASPHALTIC FLUMES SY
0010	378+85	LT	1	5
	569+65	LT	1	7
	570+00	LT	1	10
	TOTALS		3	22

3

SHOULDER RUMBLE STRIPS

CATEGORY	STATION	STATION	LOCATION	ASPHALTIC 465.0400 LF	CONCRETE 416.1100 LF
0010	194+00	321+00	LT/RT	34,795	--
	321+00	479+96	LT/RT	48,603	--
	479+96	581+01	LT/RT	23,786	--
	479+96	581+01	LT/RT	5,414	6,451
	TOTALS			112,598	6,451

RIPRAP

CATEGORY	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
0010	254+57	RT	3	12
	485+50	RT	3	12
	TOTALS		6	24

CULVERT ITEMS

CATEGORY	STATION	LOCATION	204.9060.S.01 REMOVING APRON ENDWALLS EACH	520.8700 CLEANING CULVERT PIPES EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPES REINFORCED CONCRETE 18-INCH EACH
0010	254+57	RT	1	1	1
	485+50	RT	1	1	1
	TOTALS		2	2	2

CONCRETE SIDEWALK

CATEGORY	STATION	LOCATION	204.0155 REMOVING SY	602.0405 4-INCH SF
0010	505+50	LT	7	60
	507+50	LT	13	120
	TOTALS		20	180

CONCRETE CURB & GUTTER

CATEGORY	STATION	STATION	204.0150 REMOVING CURB & GUTTER LF	601.0553 4-INCH SLOPED 36-INCH TYPE D LF	601.0557 6-INCH SLOPED 36-INCH TYPE D LF	601.0584 4-INCH SLOPED 30-INCH TYPE TBT LF
0010	381+43	383+59	---	---	---	215
	505+00	508+00	30	30	---	---
	569+36	570+70	155	---	160	---
	TOTALS		185	30	160	215

FENCE CHAIN LINK SALVAGED 4-FT

CATEGORY	STATION	STATION	616.0404 LF
0010	381+65	382+22	57

PIPE UNDERDRAIN

CATEGORY	STATION	STATION	LOCATION	612.0106 PIPE UNDERDRAIN 6-INCH LF	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH	310.0115 BASE AGGREGATE OPEN GRADED CY	645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY
0010	568+35	575+47	LT	712	1	41	475

MGS GUARDRAIL ITEMS

CATEGORY	STATION	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF	614.0397* GUARDRAIL MOW STRIP EMULSIFIED ASPHALT SY	614.2300 MGS GUARDRAIL 3 LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH
0010	378+85	384+13	RT	351	190	375	1	1
	381+42	383+10	LT	214	105	213	1	1
	TOTALS			565	295	588	2	2

* TO BE PLACED BETWEEN EDGE OF PAVEMENT OR BACK OF CURB AND SHOULDER HINGE POINT

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	PROJECT	618.0100 1310-17-70 EACH
0010	1310-17-70	1

MOBILIZATION

CATEGORY	PROJECT	619.1000 EACH
0010	1310-17-70	1

WATER

CATEGORY	STATION - STATION	LOCATION	624.0100 MGAL
0010	194+00 - 612+79	RT/LT	4

SECTION CORNER MONUMENTS

CATEGORY	STATION	LOCATION	SPV.0060.01 EACH
0010	327+65.32	25.13' LT	1
	586+69.09	0 ' LT	1
	TOTAL		2

MOBILIZATIONS EROSION CONTROL

CATEGORY	PROJECT	628.1905 EACH
0010	1310-17-70	10

MOBILIZATIONS EMERGENCY EROSION CONTROL

CATEGORY	PROJECT	628.1910 EACH
0010	1310-17-70	10

FIELD OFFICE TYPE C

CATEGORY	PROJECT	642.5201 1310-17-70 EACH
0010	1310-17-70	1

TRAFFIC CONTROL

CATEGORY	PROJECT	643.5000 1310-17-70 EACH
0010	1310-17-70	1

EROSION CONTROL ITEMS

CATEGORY	STATION - STATION	LOCATION	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	SPV.0090.01 SILT FENCE DOUBLE STAKED LF
0010	219+00 - 222+00	LT/RT	---	300	900	60	---	80	600
	377+50 - 385+50	LT/RT	---	---	1,030	---	---	---	1,030
	567+75 - 575+75	LT	---	260	260	72	5	---	---
	UNDISTRIBUTED		10	100	500	60	10	30	400
	TOTALS		10	660	2,690	192	15	110	2,030

FINISHING ITEMS

CATEGORY	STATION - STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
0010	219+00 - 222+00	LT/RT	556	556	556	0.35	--	10	15	12
	254+55 - 254+55	RT	44	44	44	0.03	--	1	1	1
	377+50 - 385+50	LT/RT	375	375	375	0.24	--	7	10	--
	485+50 - 485+50	RT	44	44	44	0.03	--	1	1	1
	567+75 - 576+00	LT	1,390	1,390	1,390	0.88	--	25	38	31
	SUPERELEVATION SECTIONS	LT/RT	--	--	--	24.85	710	--	1,065	--
	UNDISTRIBUTED		--	500	600	1.00	10	10	15	--
	TOTALS		2,409	2,909	3,009	27.4	720	53	1,145	46

MARKERS CULVERT END

CATEGORY	STATION	LOCATION	633.5200 EACH
0010	210+57	LT	1
	220+43	RT	1
	252+09	LT/RT	2
	254+56	RT	1
	279+94	RT	1
	326+65	LT	1
	329+07	LT	1
	330+68	LT	1
	367+47	LT	1
	372+93	RT	2
	381+81	LT/RT	2
	400+62	LT	1
	403+12	LT/RT	2
	437+75	LT	1
	452+50	LT	1
	462+00	LT	1
	464+01	LT	1
	477+09	LT/RT	2
	503+00	LT/RT	2
	543+75	RT	1
	558+77	RT	1
	571+00	LT	1
	577+25	LT	1
	579+30	LT	1
	585+69	LT/RT	2
	UNDISTRIBUTED		10
	TOTAL		42

TRAFFIC CONTROL AND DETOUR ITEMS

CATEGORY	STATION - STATION	STAGE	DAYS	643.1070 TRAFFIC CONTROL CONES 42-INCH DAY	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.0920 TRAFFIC CONTROL COVER/UNCOVER CYCLES EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY
0010	194+00 - 612+79	STAGE 1	42	99,540	11,466	4,410	6,384	3,906	42	8,190	3	3	24
	194+00 - 612+79	STAGE 2	42	113,190	11,424	4,326	6,216	3,906	42	8,022	3	3	12
	194+00 - 612+79	STAGE 3	31	73,470	8,463	3,255	4,712	2,883	31	7,564	3	3	12
	194+00 - 612+79	STAGE 4	10	26,950	2,520	1,030	1,480	930	10	1,910	3	3	---
	BLOOMFIELD CREEK		50	---	4,300	600	1,200	1,400	200	1,400	---	---	6
	TOTALS			313,150	38,173	13,621	19,992	13,025	325	27,086	12		54

PAVEMENT MARKING ITEMS

CATEGORY	STATION - STATION	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH SOLID YELLOW LF	646.1555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (DASHED WHITE 12.5-FOOT SEG., 37.5-FOOT GAP) LF	646.3555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE) LF	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH LF
0010	194+00 - 321+00	25,470	23,325	6,350	4,686	12	11	---	75
	321+00 - 479+96	31,140	30,036	7,948	4,365	---	---	---	---
	479+96 - 567+99	16,895	16,770	4,402	4,533	4	4	165	---
	567+99 - 612+79	8,390	8,260	2,240	1,494	3	2	40	120
	SUBTOTALS	81,895	78,391	20,940	15,078	19	17	205	195
	TOTALS	160,286		20,940	15,078	19	17	205	195

CONSTRUCTION STAKING SUMMARY

CATEGORY	STATION - STATION	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF
0010	194+00 - 612+79	83,750

CONSTRUCTION STAKING

CATEGORY	PROJECT	SUPPLEMENTAL CONTROL 650.9910 LS
0010	1310-17-70	1

TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	STATION - STATION	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH SOLID YELLOW LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH SOLID WHITE LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH SOLID YELLOW LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH SOLID WHITE LF	649.0205 TEMPORARY MARKING LINE PAINT 8-INCH SOLID WHITE LF	649.0250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH SOLID WHITE LF	649.0970 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH
0010	194+00 - 321+00	---	869	24,200	49,900	1,000	2,810	3,815	1,420	1,035	6
	321+00 - 479+96	---	1,098	30,790	62,085	---	---	3,360	---	---	---
	479+96 - 567+99	---	1,457	17,105	33,710	---	---	3,220	---	---	---
	567+99 - 612+79	7,910	---	1,050	9,410	7,910	---	---	1,145	---	---
	SUBTOTALS	7,910	3,424	73,145	155,105	8,910	2,810	10,395	2,565	1,035	6
	TOTALS	7,910	3,424	228,250		11,720		10,395	2,565	1,035	6

SAWING EXISTING PAVEMENT

CATEGORY	STATION - STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
0010	194+00 - 321+00	LT/RT	264	---
	321+00 - 479+96	LT/RT	248	---
	479+96 - 567+99	LT/RT	---	---
	567+99 - 612+79	LT/RT	577	2,719
	ASPAHLT BASE PATCHING	---	15,050	---
	TOTALS		16,139	2,719

BLOOMFIELD CREEK CULVERT PIPES

CATEGORY	STATION - STATION	LOCATION	SPV.0090.02 CURED IN PLACE PIPE LINER, 48-INCH LF
0020	220+35 - 222+50	LT/RT	392

MOBILIZATION EMERGENCY SHOULDER PAVEMENT REPAIR

CATEGORY	PROJECT	SPV.0060.02 EACH
0010	1310-17-70	2

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	R6-1R(2S)	--	36	x	12	3.000	--	--	--	--	2	--
2	R1-1	--	--	x	--	--	--	1	1	1	--	--
3	R6-3A	--	--	x	--	--	--	--	--	1	2	--
4	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
5	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
6	R6-2R(2S)	--	24	x	30	5.000	--	--	1	--	--	--
7	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
8	R5-1(3)	--	36	x	36	9.000	--	--	1	--	--	--
9	D1-1	[A] DEERPATH RD	108	x	21	15.750	--	--	2	--	--	--
10	R6-1R(2S)	--	36	x	12	3.000	--	--	--	--	11	--
11	R1-1	--	--	x	--	--	--	1	1	--	--	--
12	R6-3A	--	--	x	--	--	--	--	--	--	11	--
13	D1-1	DEERPATH RD [A]	108	x	21	15.750	--	--	2	--	--	--
14	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
15	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
16	D1-1	[A] MOELTER CT	102	x	21	14.875	--	--	2	--	--	--
17	R5-1A(3)	--	42	x	30	8.750	--	--	1	--	--	--
18	R6-1R(2S)	--	36	x	12	3.000	--	--	1	--	--	--
19	R1-1(3)	--	36	x	36	7.460	--	--	--	--	18	--
20	R6-3A(2S)	--	30	x	24	5.000	--	--	--	--	18	--
21	R5-1A(3)	--	42	x	30	8.750	--	--	1	--	--	--
22	D1-1	MOELTER CT [A]	102	x	21	14.875	--	--	2	--	--	--
23	R6-1R(2S)	--	36	x	12	3.000	--	--	--	--	24	--
24	R1-1	--	--	x	--	--	--	1	1	1	--	--
25	R6-2A	--	--	x	--	--	--	--	--	1	24	--
26	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
27	R6-1R(2S)	--	36	x	12	3.000	--	--	--	--	28	--
28	R1-1	--	--	x	--	--	--	1	1	1	--	--
29	R6-3A	--	--	x	--	--	--	--	--	1	28	--
30	R6-2L	--	--	x	--	--	1	1	--	--	--	REMOVE SIGN

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
31	R6-1R(2S)	--	36	x	12	3.000	--	1	1	--	--	--
32	R1-1	--	--	x	--	--	--	--	--	1	31	--
33	R6-3	--	--	x	--	--	--	--	--	1	31	--
34	R6-1L(2S)	--	36	x	12	3.000	--	--	--	--	31	PLACE BEHIND SIGN #31
35	R6-1L(2S)	--	36	x	12	3.000	--	--	--	--	36	PLACE BEHIND SIGN #36
36	R6-1R(2S)	--	36	x	12	3.000	--	1	1	--	--	--
37	R1-1	--	--	x	--	--	--	--	--	1	36	--
38	R6-3	--	--	x	--	--	--	--	--	1	36	--
39	R6-2L	--	--	x	--	--	1	1	--	--	--	REMOVE SIGN
40	D1-1	[A] CRANBERRY RD	120	x	21	17.500	--	--	2	--	--	--
41	R6-1R(2S)	--	36	x	12	3.000	--	--	--	--	42	--
42	R1-1	--	--	x	--	--	--	1	1	1	--	--
43	R6-3	--	--	x	--	--	--	--	--	1	42	--
44	D1-1	CRANBERRY RD [A]	120	x	21	17.500	--	--	2	--	--	--
45	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
46	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
47	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
48	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
49	R6-1R(2S)	--	36	x	12	3.000	--	--	--	--	50	--
50	R1-1	--	--	x	--	--	--	1	1	1	--	--
51	R6-3	--	--	x	--	--	--	--	--	1	50	--
52	D1-1	[A] LAKE IVANHOE	114	x	21	16.625	1	2	2	--	--	--
53	D1-1	[A] MARIONDALE RD	120	x	21	17.500	--	--	--	--	52	--
54	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
55	R6-2R(2S)	--	24	x	30	5.000	--	--	1	--	--	--
56	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
57	R6-2R(2S)	--	24	x	30	5.000	--	--	1	--	--	--
58	R6-2R(2S)	--	24	x	30	5.000	--	--	1	--	--	--
59	R6-2R(2S)	--	24	x	30	5.000	--	--	1	--	--	--
60	R6-2R(2S)	--	24	x	30	5.000	--	--	1	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
61	D1-1	EASTSIDE RD [A]	108	x	21	15.750	--	--	2	--	--	--
62	R6-1R(2S)	--	36	x	12	3.000	--	--	--	--	63	--
63	R1-1	--	--	x	--	--	--	1	1	1	--	--
64	R6-3	--	--	x	--	--	--	--	--	--	63	--
65	D1-1	[A] EASTSIDE RD	--	x	--	--	--	--	--	--	--	--
66	R6-2R(2S)	--	24	x	30	5.000	--	--	1	--	--	--
67	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
68	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--
69	D1-2	[A] DEER LAKE RD 400TH AVE [A]	114	x	36	28.500	--	--	2	--	--	--
70	D1-2	[A] 400TH AVE DEER LAKE RD [A]	114	x	36	28.500	--	--	2	--	--	--
71	R6-1L(2S)	--	36	x	12	3.000	--	--	--	--	72	PLACE BEHIND SIGN #72
72	R6-1R(2S)	--	36	x	12	3.000	--	1	1	--	--	--
73	R1-1	--	--	x	--	--	--	--	--	1	72	--
74	R6-3	--	--	x	--	--	--	--	--	1	72	--
75	R6-2L	--	--	x	--	--	1	1	--	--	--	REMOVE SIGN
76	R6-1L(2S)	--	36	x	12	3.000	--	--	--	--	77	PLACE BEHIND SIGN #77
77	R6-1R(2S)	--	36	x	12	3.000	--	1	1	--	--	--
78	R1-1	--	--	x	--	--	--	--	--	1	77	--
79	R6-3	--	--	x	--	--	--	--	--	1	77	--
80	R6-2L	--	--	x	--	--	1	1	--	--	--	REMOVE SIGN
81	R6-1R(2S)	--	36	x	12	3.000	--	--	--	--	82	--
82	R1-1	--	--	x	--	--	--	1	1	1	--	--
83	R6-3	--	--	x	--	--	--	--	--	1	82	--
84	D1-1	[A] 381 ST AVE	96	x	21	14.000	--	--	2	--	--	--
85	R6-1R(2S)	--	36	x	12	3.000	--	--	--	--	86	--
86	R1-1	--	--	x	--	--	--	1	1	1	--	--
87	R6-3	--	--	x	--	--	--	--	--	1	86	--
88	D1-1	381ST AVE [A]	96	x	21	14.000	--	--	2	--	--	--
89	R6-2L	--	--	x	--	--	1	1	--	--	--	REMOVE SIGN
90	R6-1R(2S)	--	36	x	12	3.000	--	1	1	--	--	--

3

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
91	R1-1	--	--	x	--	--	--	--	--	1	90	--
92	R6-3	--	--	x	--	--	--	--	--	1	90	--
93	R6-1L(2S)	--	36	x	12	3.000	--	--	--	--	90	PLACE BEHIND SIGN #90
94	R6-1L(2S)	--	36	x	12	3.000	--	--	--	--	95	PLACE BEHIND SIGN #95
95	R6-1R(2S)	--	36	x	12	3.000	--	1	1	--	--	--
96	R1-1	--	--	x	--	--	--	--	--	1	95	--
97	R6-3	--	--	x	--	--	--	--	--	1	95	--
98	R6-2L	--	--	x	--	--	1	1	--	--	--	REMOVE SIGN
99	J4-1	WEST - 50	--	x	--	--	1	1	--	--	--	REMOVE SIGN
--	--	--	--	x	--	--	--	--	--	--	--	--
TOTALS						441.085	10	24	62	26		

3

STH 50 & CTH P
KENOSHA COUNTY
CATEGORY 0010
S30-0917

3

STATE FURNISHED MATERIALS SUMMARY

EACH	DESCRIPTION
1	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8 PHASE
1	ETHERNET SWITCH
1	CELLULAR MODEM
2	RADAR DETECTOR
2	EVP DETECTOR HEADS

PULL BOXES

PULL BOX NO.	LOCATION^	653.0135 PULL BOXES STEEL 24x36-INCH EACH
PB-29	507+06.8, 338.6' LT	1
PB-30	507+18.5, 512.7' LT	1
PB-31	511+78.5, 66.6' LT	1
PB-32	505+98.8, 347.0' RT	1
	TOTAL	4*

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRANSPORT AND INSTALL STATE FURNISHED RADAR DETECTION SYSTEM

LOCATION	SPV.0105.02 TRNSPT AND INSTALL STATE FURN RADAR DETECT SYS L.S.
STH 50 & CTH P	1
TOTAL	1

3

REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION	204.9105.S.01 REMOVING LOOP DETECTOR WIRE & LEAD-IN CABLE L.S.
STH 50 & CTH P	1
TOTAL	1

CONDUIT

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.
PB13	PB30	45
	TOTAL	45*

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

EVP DETECTOR HEAD INSTALLATION

LOCATION	SPV.0105.01 TRANSPORTING AND INSTALL STATE FURNISHED EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD L.S.
STH 50 & CTH P	1
TOTAL	1

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1	SB7 (HEAD A)	120
CB1	SB16 (HEAD B)	260
	TOTAL	380

3

3

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION** ^	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
11	PB8	505+59.0, 2.8' LT	6X20	3	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	70	303	210
12	PB8	505+83.2, 2.8' LT	6X20	3	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	303	234
21	PB31	511+77.5, 43.0' LT	6X20	4	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	92	477	368
22	PB31	511+77.5, 31.0' LT	6X20	4	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	156	477	624
23	PB16	510+03.9, 43.0' LT	6X20	3	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	106	275	318
24	PB16	510+03.9, 31.0' LT	6X20	3	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	130	275	390
41	PB30	507+34.1, 512.8' LT	6X10	5	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	52	520	260
42	PB29	507+23.8, 336.1' LT	6X6	5	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	62	336	310
43	PB10	506+78.1, 100.0' LT	6X20	3	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	102	141	306
44	PB10	506+70.7, 67.1' LT	6X30	3	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	116	141	348
51	PB21	507+58.6, 3.3' RT	6X20	3	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	76	100	228
52	PB21	507+34.4, 3.2' RT	6X20	3	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	72	100	216
61	PB3	501+33.8, 43.0' RT	6X20	5	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	120	813	600
62	PB3	501+34.0, 31.0' RT	6X20	5	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	144	813	720
63	PB2	503+07.8, 43.0' RT	6X20	4	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	116	643	464
64	PB2	503+07.8, 31.0' RT	6X20	4	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	140	643	560
81	PB27	505+19.2, 566.4' RT	6X16	5	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	795	390
82	PB32	505+80.5, 342.7' RT	6X10	5	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	76	555	380
83	PB24	506+45.9, 95.0' RT	6X20	3	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	102	295	306
84	PB24	506+53.8, 62.0' RT	6X30	3	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	116	295	348
					TOTAL	1948*	8300*	7276*

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN
** LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

STH 50 & CTH O
KENOSHA COUNTY
CATEGORY 0010
S30-1419

3

3

CONDUIT

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.
PB2	PB17	270
PB17	PB18	185
	TOTAL	455*

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

PULL BOXES

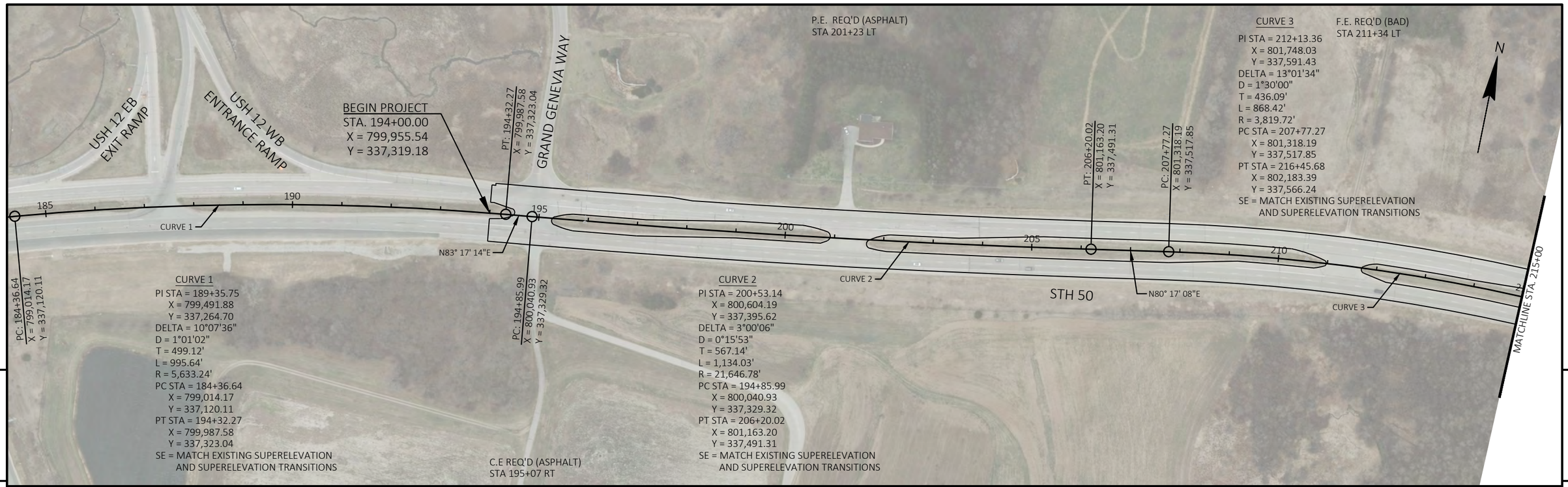
PULL BOX NO.	LOCATION^	653.0135 PULL BOXES STEEL 24x36-INCH EACH
PB17	610+30.1, 65.0' RT	1
PB18	608+62.2, 65.0' RT	1
	TOTAL	2*

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION** ^	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
61	PB18	608+62.0, 42.4' RT	6X20	4	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	66	520	264
62	PB18	608+62.0, 30.4' RT	6X20	4	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	114	520	456
63	PB17	610+29.9, 42.8' RT	6X10	4	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	72	345	288
64	PB17	610+29.9, 30.7' RT	6X10	4	9F15-4B LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	94	345	376
					TOTAL	346*	1730*	1384*

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN
** LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.



CONTROL POINT DATA TABLE						
POINT NO.	STATION	OFFSET	DESCRIPTION	X	Y	ELEVATION
15	218+31.00	5.61' RT	BERNTSEN FENO MARKER WITH 2-INCH ALUMINUM CAP	802,368.07	337,549.93	838.32
20	222+56.23	5.10' LT	BERNTSEN FENO MARKER WITH 2-INCH ALUMINUM CAP	802,793.21	337,536.06	838.36



PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH	PLAN	SHEET 126	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050202-pn

PLOT DATE : 1/29/2021 11:28 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

P.E. REQ'D (BAD)
STA 312+00 LT

C.E. REQ'D (BAD)
STA 319+81 LT

C.E. REQ'D (BAD)
STA 322+73 LT

PC: 320+55.48
X = 812,532.03
Y = 337,930.55

1-SECTION CORNER
MONUMENTS REQ'D

CURVE 6

N

MATCHLINE STA. 305+00

310

315

320

325

330

S88° 30' 25"E

STH 50

EXISTING MONUMENT
CONCRETE MONUMENT

T 2 N
R 27 E
34
18

SOUTH ROAD

MATCHLINE STA. 335+00

CURVE 6

PI STA = 333+53.37
X = 813,829.48
Y = 337,896.73
DELTA = 37°32'03"
D = 1°30'00"
T = 1297.89'
L = 2,502.28'
R = 3,819.72'
PC STA = 320+55.48
X = 812,532.03
Y = 337,930.55
PT STA = 345+57.76
X = 814,837.74
Y = 337,079.47
SE = MATCH EXISTING SUPERELEVATION
AND SUPERELEVATION TRANSITIONS

P.E. REQ'D (ASPHALT)
STA 306+12 RT

C.E. REQ'D (ASPHALT)
STA 322+24 RT

5

5

F.E. REQ'D (BAD)
STA 352+49 LT

P.E. REQ'D (BAD)
STA 358+57 LT

PACKING HOUSE ROAD

PT: 345+57.76
X = 814,837.74
Y = 337,079.47

N

PC: 363+78.39
X = 816,252.09
Y = 335,933.03

MATCHLINE STA. 335+00

340

345

350

355

360

S50° 58' 22"E

STH 50

MATCHLINE STA. 365+00

CURVE 6

CURVE 7

10' WIDE PAVED SHOULDER REQ'D
FROM STA. 337+50 TO STA. 342+50

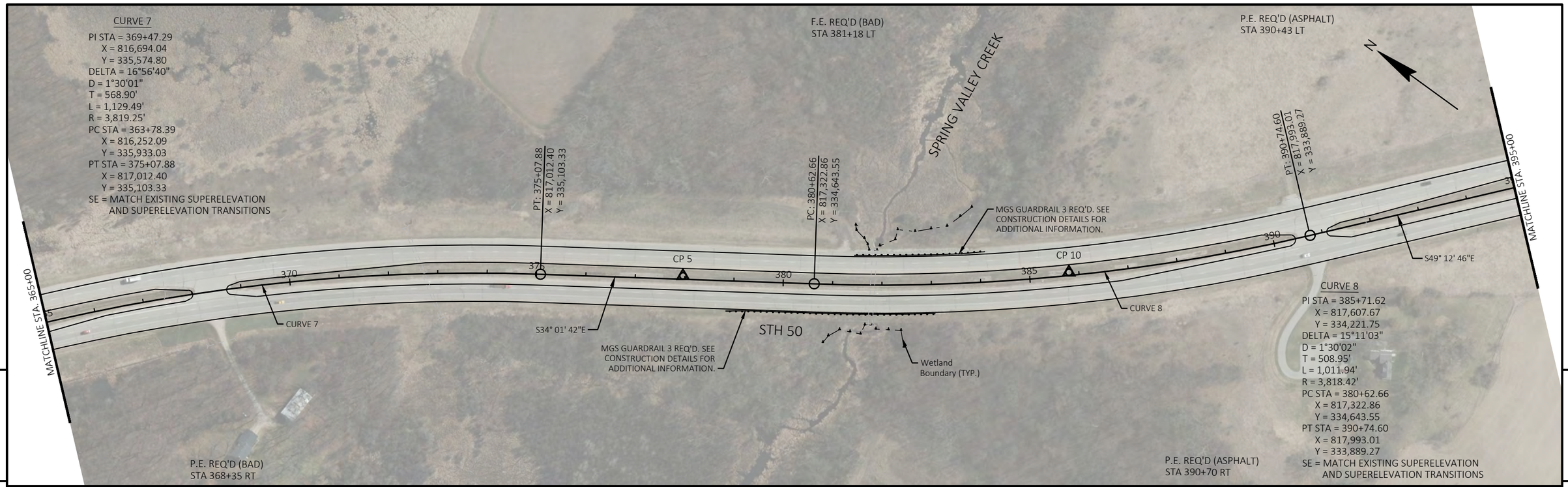
C.E. REQ'D (ASPHALT)
STA 342+41 RT

P.E. REQ'D (ASPHALT)
STA 352+62 RT

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH	PLAN	SHEET 127	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050203-pn

PLOT DATE : 1/29/2021 11:28 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:200 FT

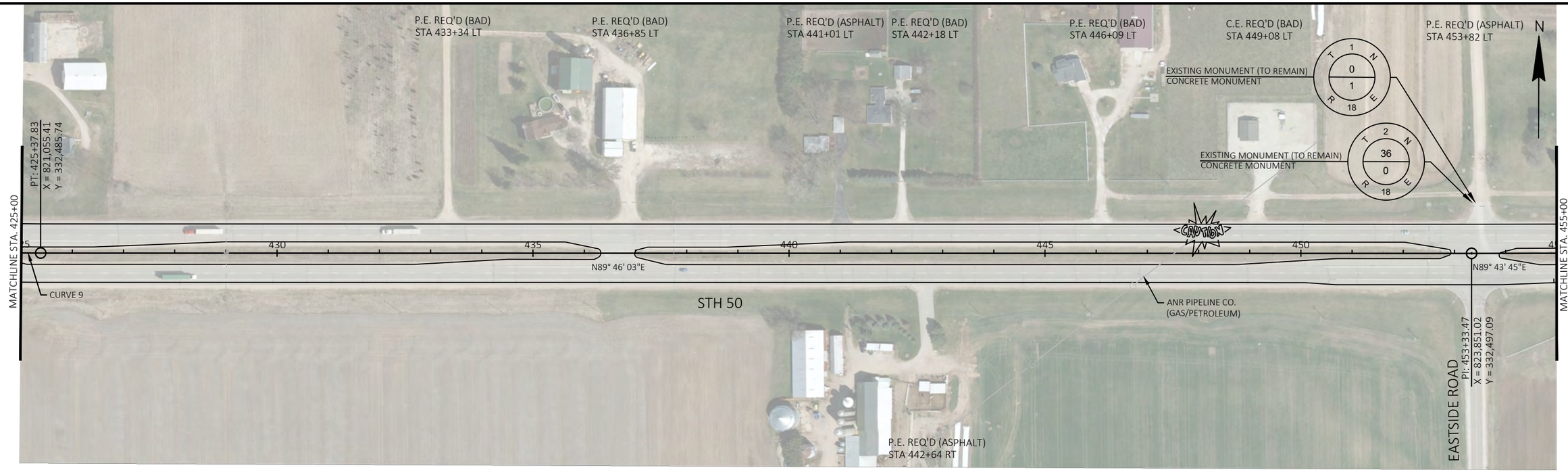


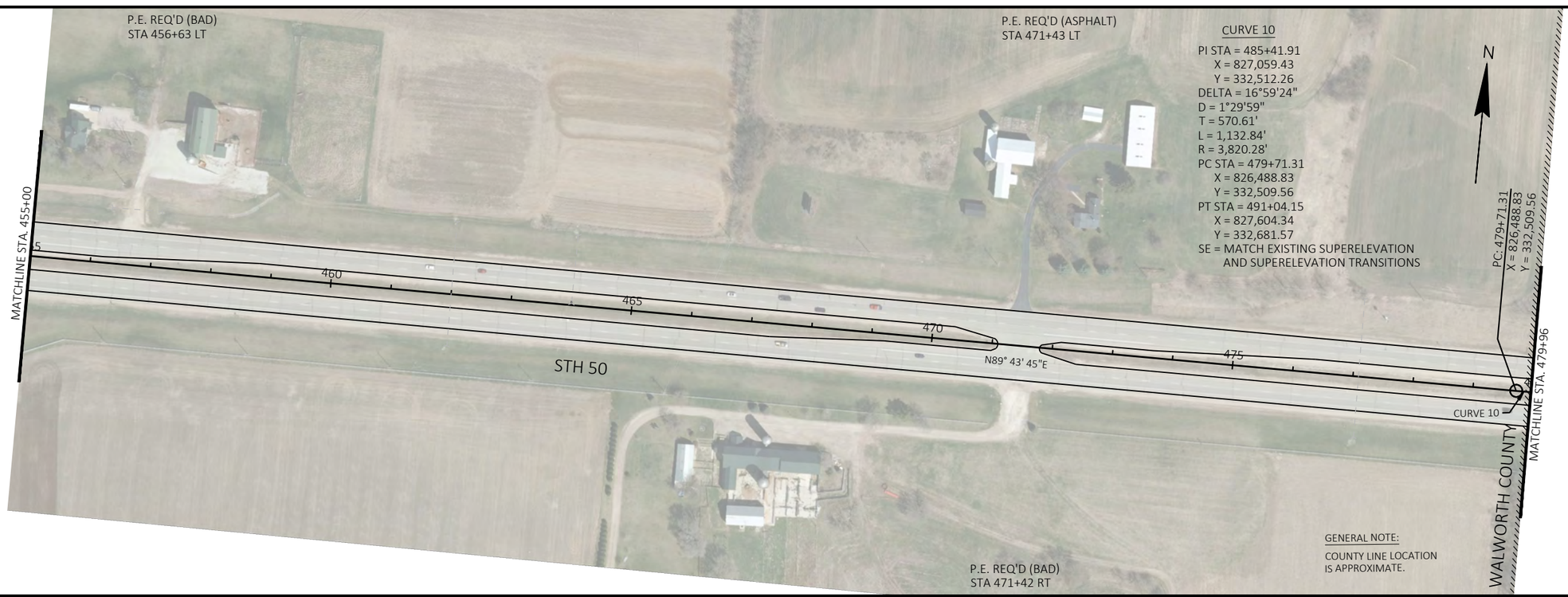
CONTROL POINT DATA TABLE						
POINT NO.	STATION	OFFSET	DESCRIPTION	X	Y	ELEVATION
5	377+96.33	6.81' LT	BERNTSEN FENO MARKER WITH 2-INCH ALUMINUM CAP	817,179.46	334,868.08	857.22
10	385+79.80	6.77' LT	BERNTSEN FENO MARKER WITH 2-INCH ALUMINUM CAP	817,645.39	334,240.35	860.81

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH	PLAN	SHEET 128	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050204-pn
PLOT DATE : 1/29/2021 11:28 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44



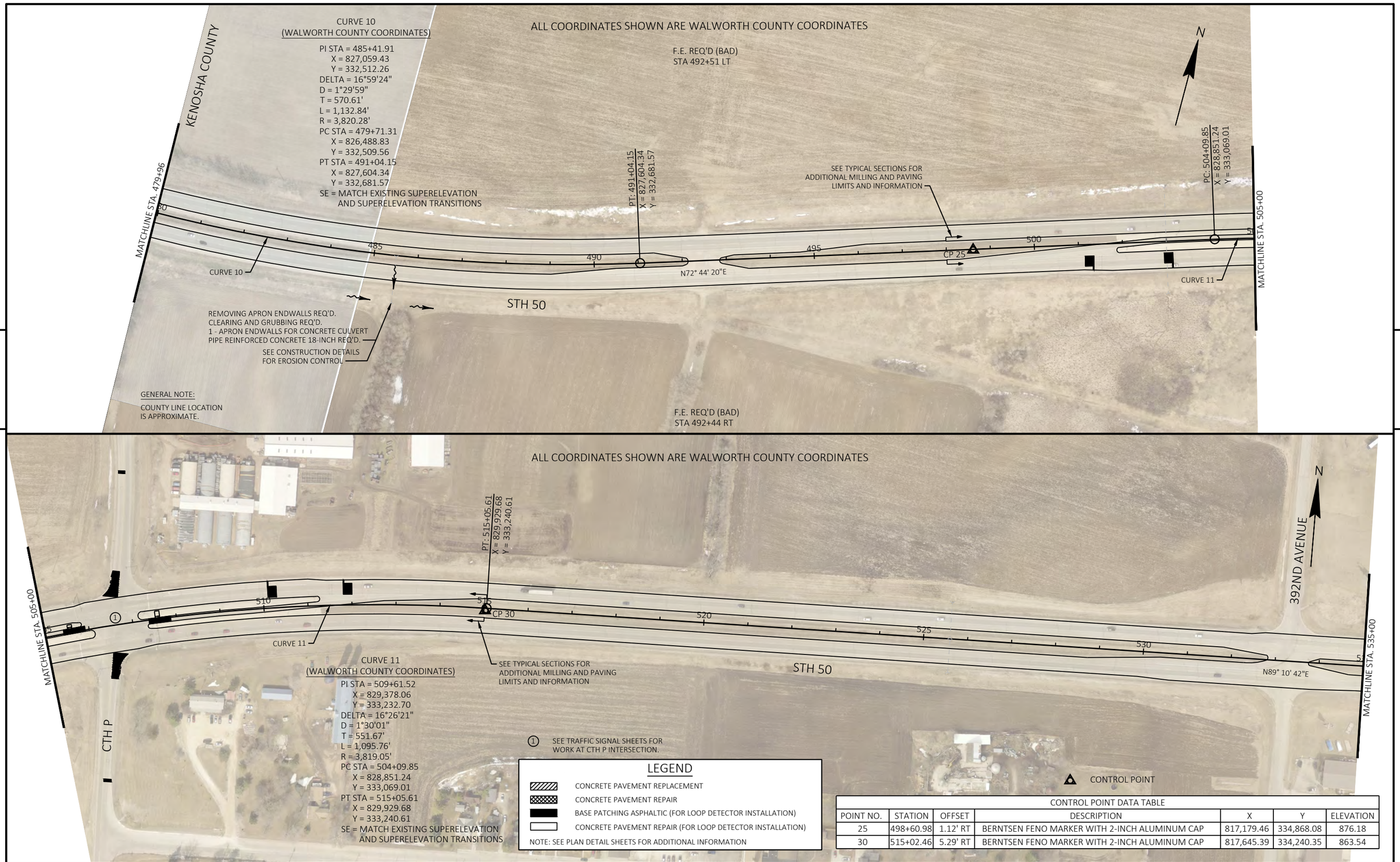


PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH	PLAN	SHEET 129	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050205-pn

PLOT DATE : 1/29/2021 11:28 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44



CONTROL POINT DATA TABLE						
POINT NO.	STATION	OFFSET	DESCRIPTION	X	Y	ELEVATION
25	498+60.98	1.12' RT	BERNTSEN FENO MARKER WITH 2-INCH ALUMINUM CAP	817,179.46	334,868.08	876.18
30	515+02.46	5.29' RT	BERNTSEN FENO MARKER WITH 2-INCH ALUMINUM CAP	817,645.39	334,240.35	863.54

F.E. REQ'D (BAD)
STA 545+08 LT

ALL COORDINATES SHOWN ARE WALWORTH COUNTY COORDINATES

C.E. REQ'D (BAD)
STA 560+00 LT

N

PC: 539+55.27
X = 832,379.08
Y = 333,275.75

PT: 547+64.29
X = 833,186.15
Y = 333,230.30

CURVE 12

MATCHLINE STA. 535+00

540 545 550 555 560

MATCHLINE STA. 565+00

STH 50

N89° 10' 42"E

S82° 43' 58"E

384TH AVENUE

60TH STREET

CURVE 12
WALWORTH COUNTY COORDINATES

PI STA = 543+60.45
X = 832,784.23
Y = 333,281.56
DELTA = 8°05'21"
D = 1°00'00"
T = 405.18'
L = 809.02'
R = 5,730.37'
PC STA = 539+55.27
X = 832,379.08
Y = 333,275.75
PT STA = 547+64.29
X = 833,186.15
Y = 333,230.30
SE = MATCH EXISTING SUPERELEVATION
AND SUPERELEVATION TRANSITIONS

ALL COORDINATES SHOWN ARE WALWORTH COUNTY COORDINATES

N

381ST AVENUE

RIGHT-TURN LANE REQ'D
SEE CONSTRUCTION DETAIL

EXISTING MONUMENT
CONCRETE MONUMENT

T 1 N R 19 E
32 33
5 4
T 2 N R 19 E

PI: 586+69.09
X = 837,059.58
Y = 332,736.35

NEW MUNSTER CREEK

MATCHLINE STA. 565+00

CP 35 CP 40

570 575 580 585 590

MATCHLINE STA. 595+00

S82° 43' 58"E

ASPHALT CONCRETE

CONCRETE ASPHALT

ASPHALT CONCRETE

STH 50

60TH STREET

376TH AVENUE

1-SECTION CORNER
MONUMENTS REQ'D

CONTROL POINT

LEGEND

- CONCRETE PAVEMENT REPLACEMENT
- CONCRETE PAVEMENT REPAIR
- BASE PATCHING ASPHALTIC (FOR LOOP DETECTOR INSTALLATION)
- CONCRETE PAVEMENT REPAIR (FOR LOOP DETECTOR INSTALLATION)

NOTE: SEE PLAN DETAIL SHEETS FOR ADDITIONAL INFORMATION

CONTROL POINT DATA TABLE

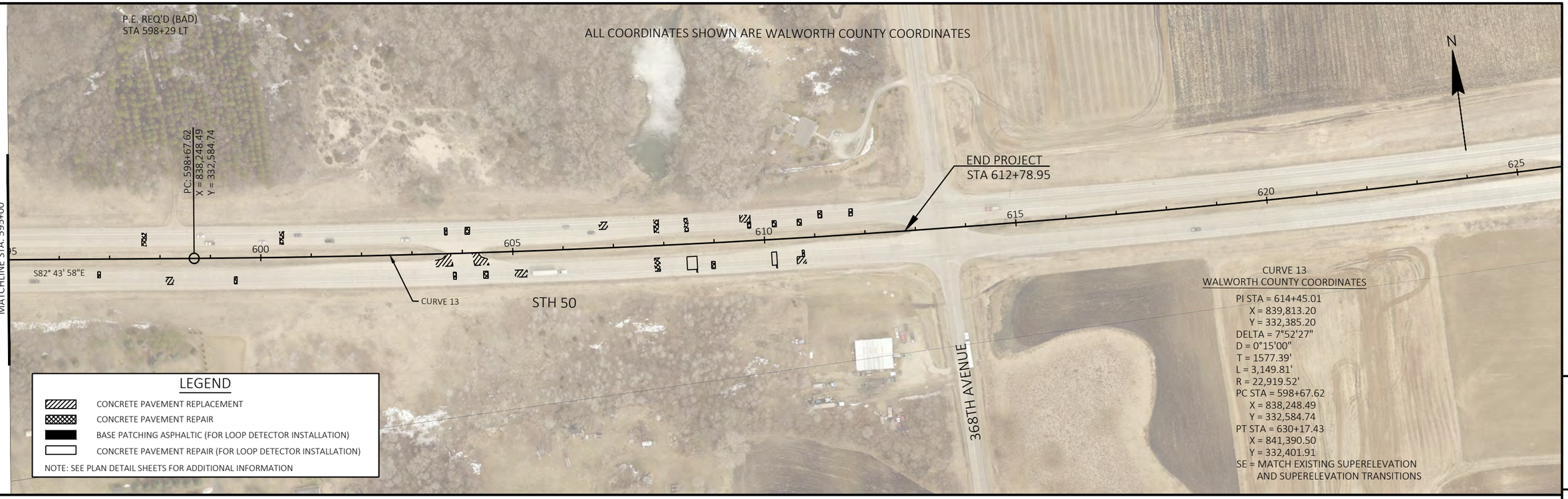
POINT NO.	STATION	OFFSET	DESCRIPTION	X	Y	ELEVATION
35	569+10.65	5.32' LT	BERNTSEN FENO MARKER WITH 2-INCH ALUMINUM CAP	835,315.95	332,964.07	850.43
40	578+92.68	0.92' RT	BERNTSEN FENO MARKER WITH 2-INCH ALUMINUM CAP	836,289.30	332,833.65	849.78

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	PLAN	SHEET 131	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050207-pn

PLOT DATE : 1/29/2021 11:28 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44



5

5

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: KENOSHA	PLAN	SHEET 132	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050208-pn

PLOT DATE : 1/29/2021 11:28 AM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

08D01-21A	CONCRETE CURB & GUTTER
08D01-21B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08D15-05B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D15-05C	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09B02-10	CONDUIT
09B04-11	PULL BOX
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
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
13C19-03	HMA LONGITUDINAL JOINTS
14B28-04A	GUARDRAIL MOW STRIP
14B28-04B	GUARDRAIL MOW STRIP
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-08B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C29-07A	BICYCLE LANE MARKING
15C31-03A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-03C	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D12-09A	TRAFFIC CONTROL, LANE CLOSURE
15D15-05C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D20-05A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D40-01	TRAFFIC CONTROL, LANE SHIFT, MULTILANE DIVIDED OR ONE WAY ROAD

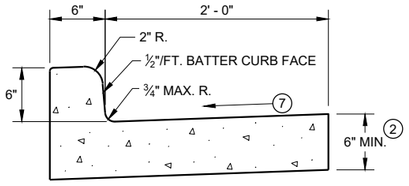
6

Standard Detail Drawing List

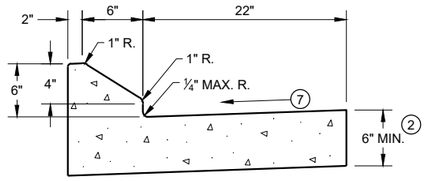
15D44-02 TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

6

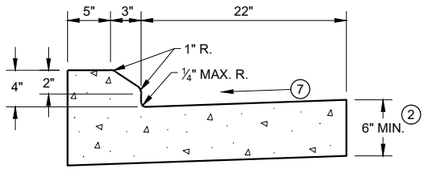
6



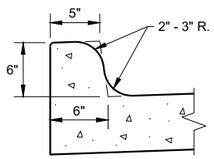
TYPES A (1) & D



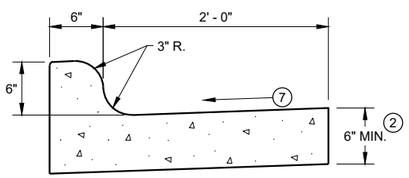
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

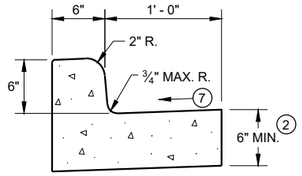


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



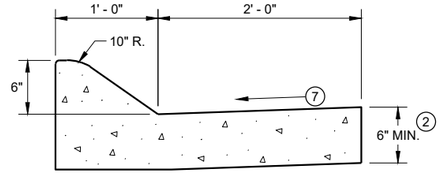
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

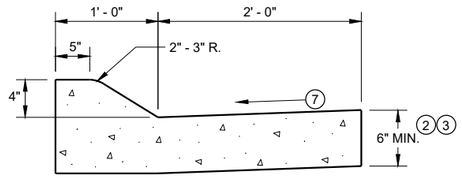


TYPES A (1) & D

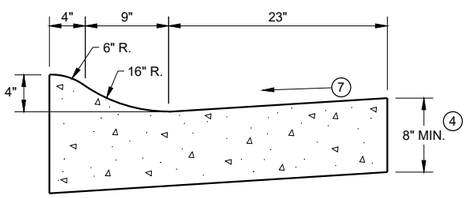
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A (1) & D



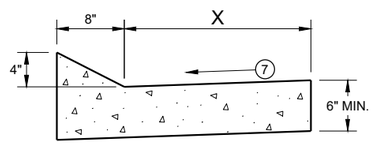
4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

CONCRETE CURB AND GUTTER 36"

TBT & TBTT	X
30"	22"
36"	28"

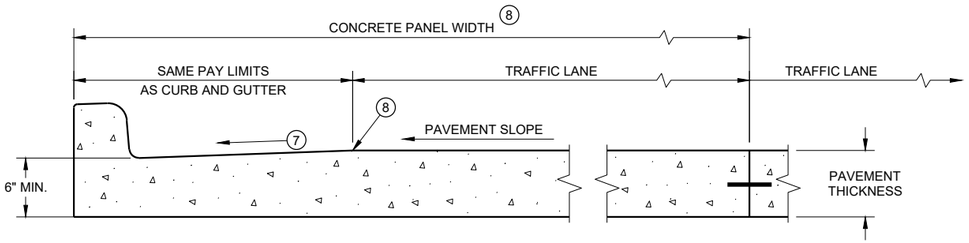


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

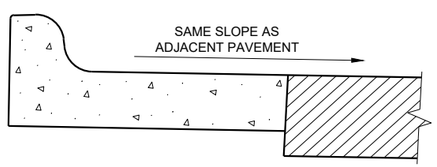
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

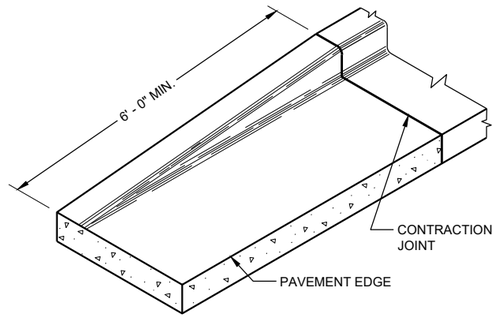
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

CONCRETE CURB AND GUTTER

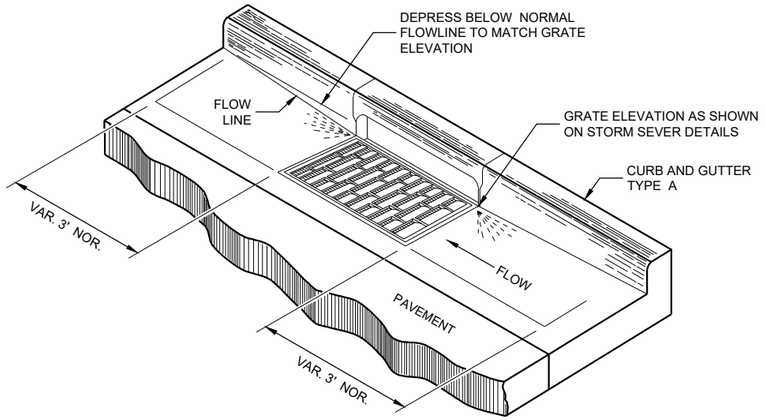
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 21a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

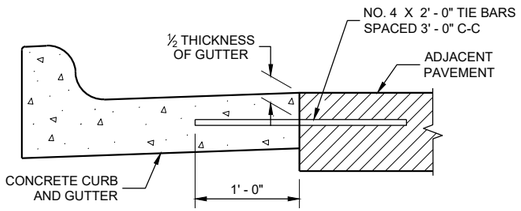
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

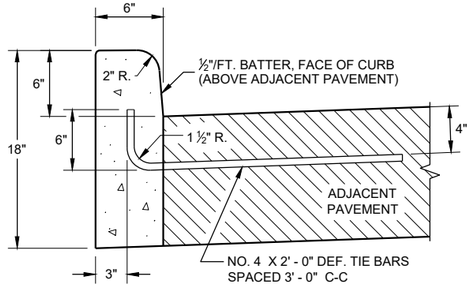
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

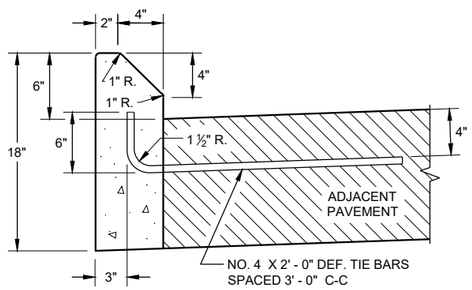
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

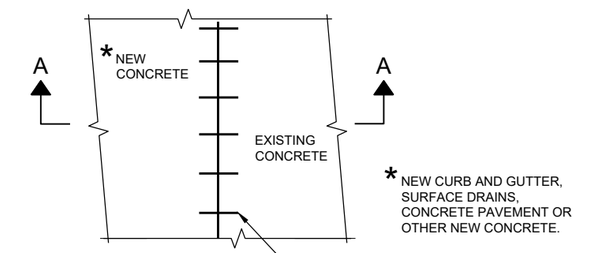


TYPES A (1) & D

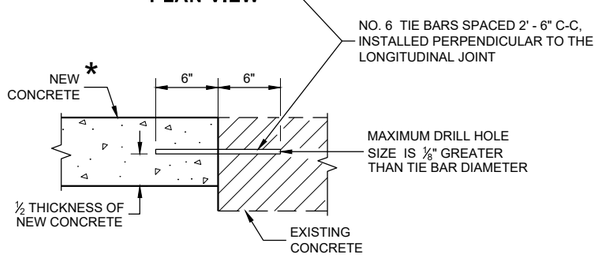


TYPES G (1) & J

CONCRETE CURB

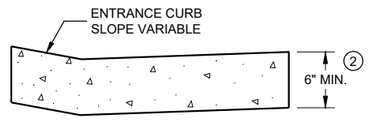


PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

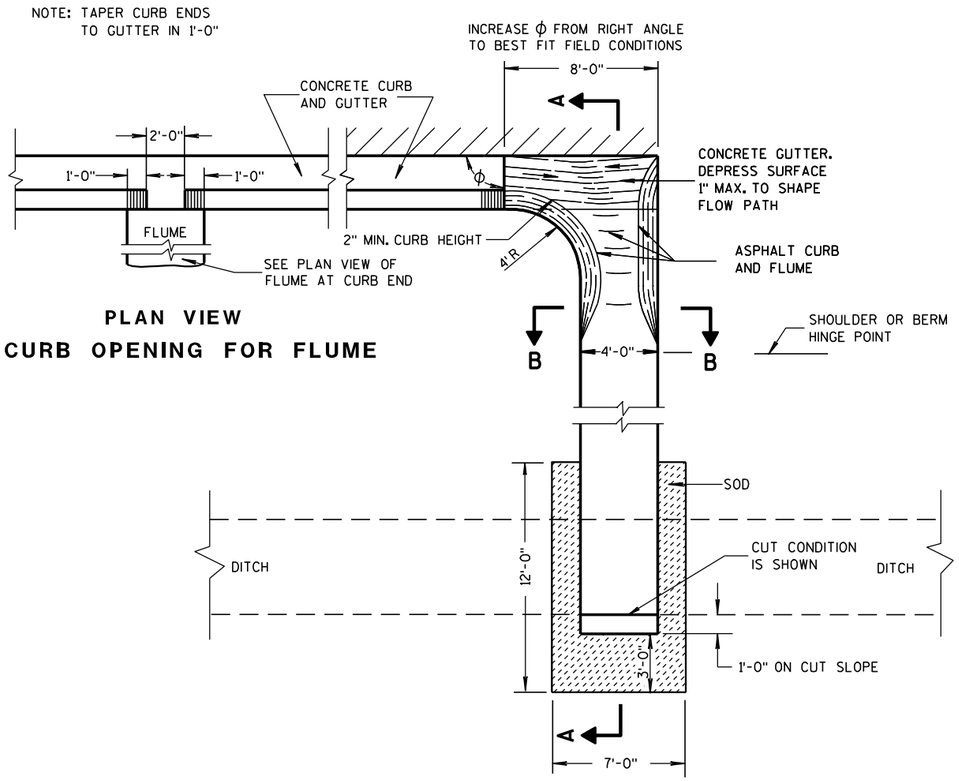
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

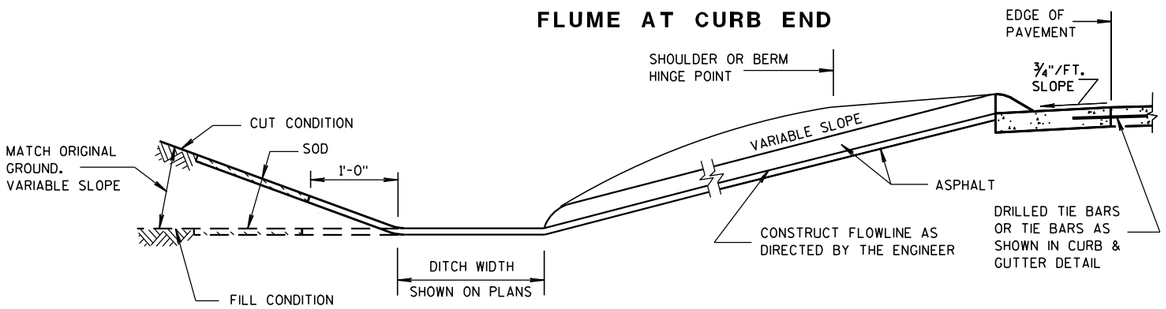
SDD08D01 - 21b

ASPHALTIC FLUME

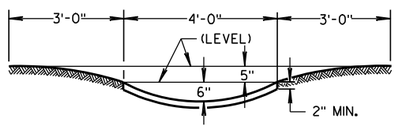


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

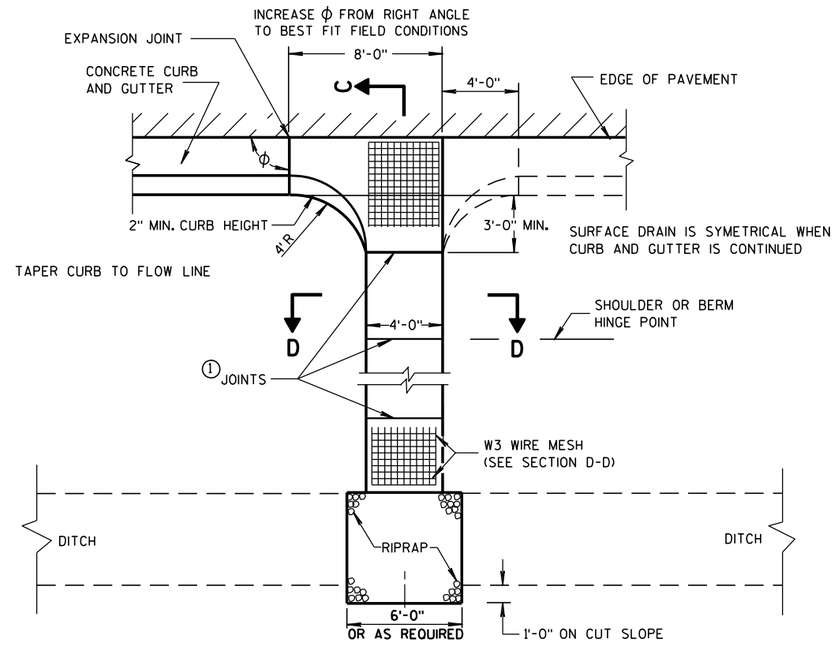
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE ⅛ TO ¼ INCH WIDE BY 1½ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

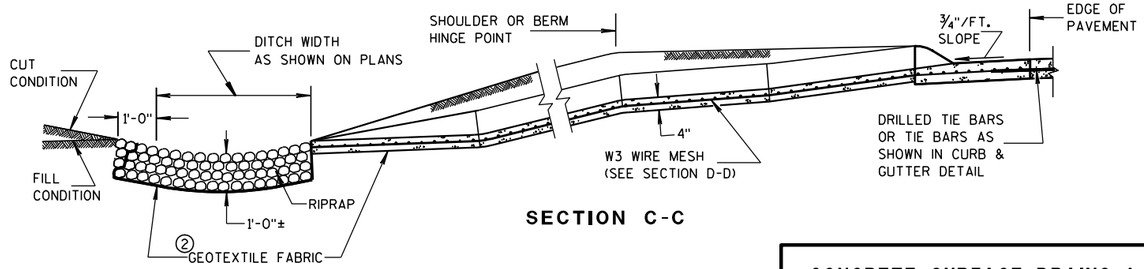
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

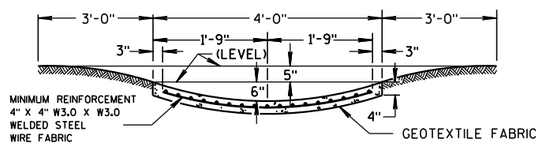
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA

6

S.D.D. 8 D 4-5

6

S.D.D. 8 D 4-5

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.

(1) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

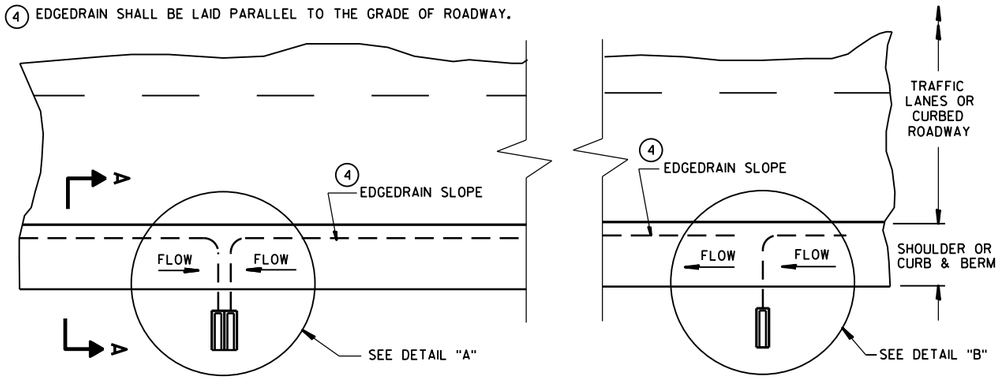
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

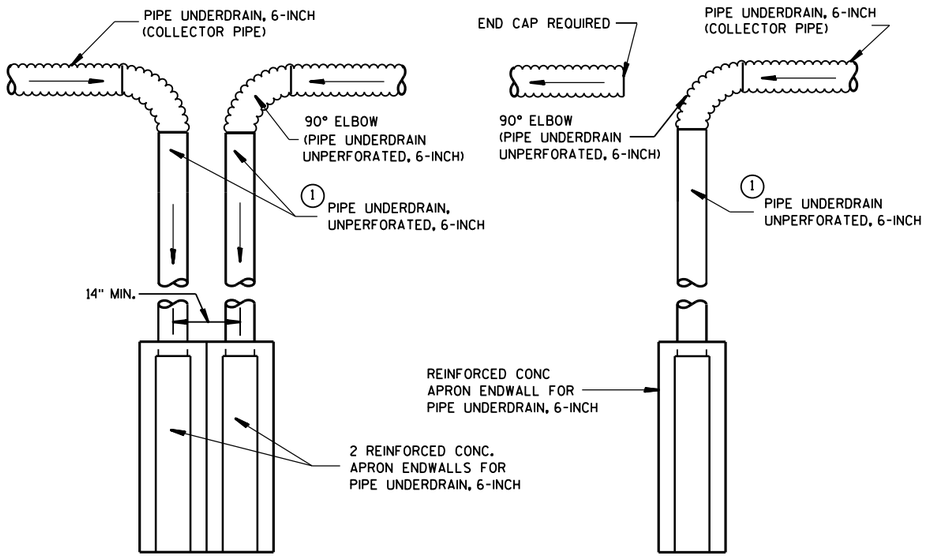
(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS

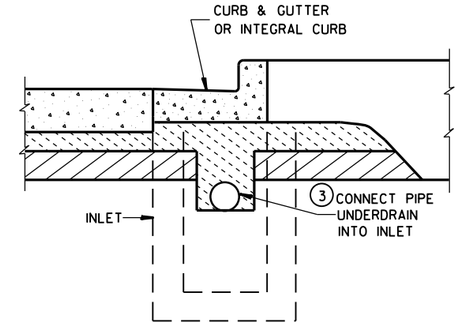
(EDGEDRAIN OUTLETS TO ROADSIDE)(2)



DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS

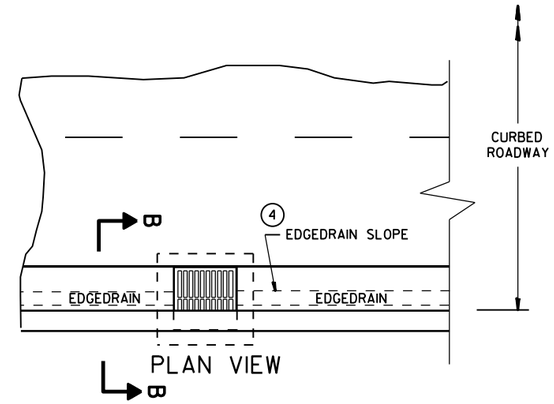
DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



SECTION B-B

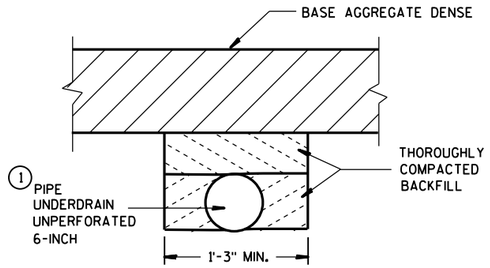
URBAN CROSS SECTION



PLAN VIEW

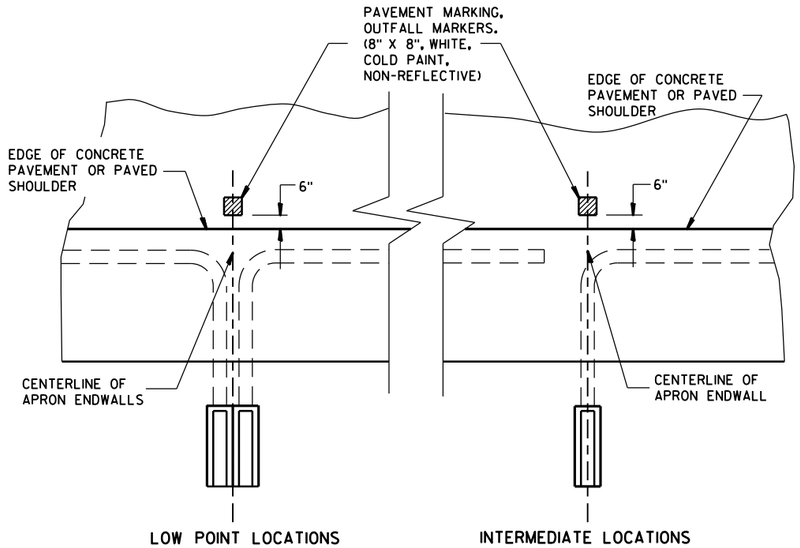
ROADWAY WITH CURBS

(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)



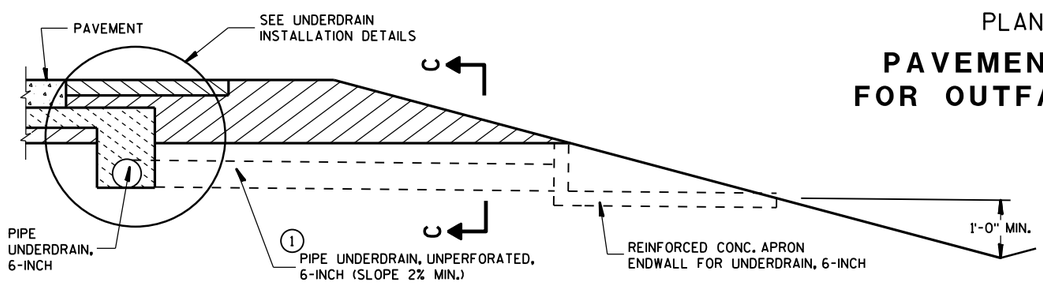
SECTION C-C

(TRENCH FOR OUTFALL PIPE)



PLAN VIEW

PAVEMENT MARKING FOR OUTFALL MARKERS



SECTION A-A

RURAL CROSS SECTION

EDGEDRAIN OUTLET AND OUTFALL MARKERS

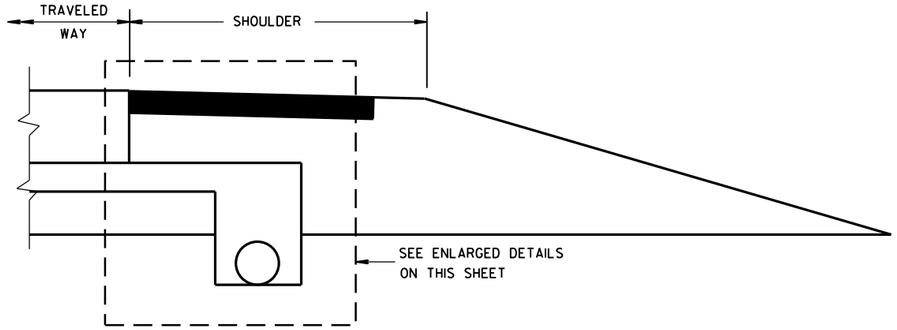
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 15-5a

6

S.D.D. 8 D 15-5a



RURAL CROSS SECTION

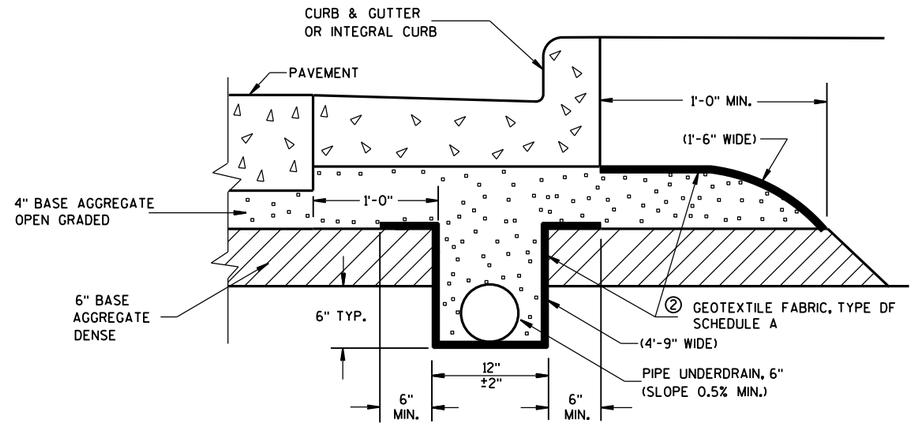
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

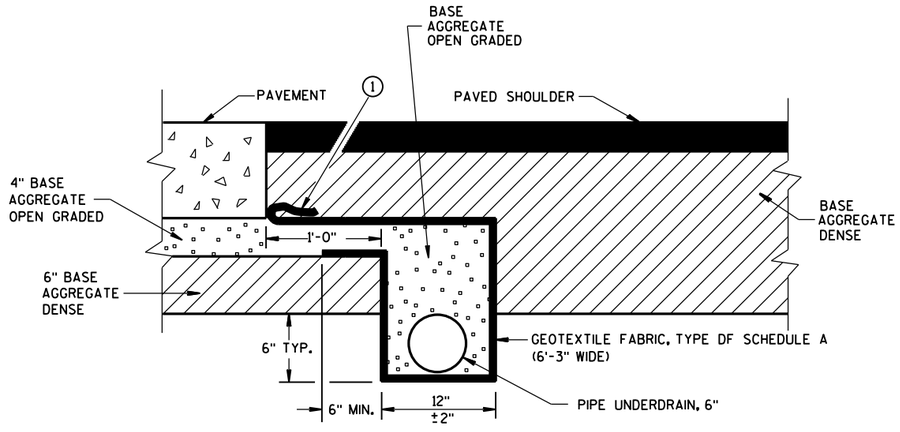
PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

① FOLD OVER EXCESS GEOTEXTILE FABRIC AT THIS LOCATION.

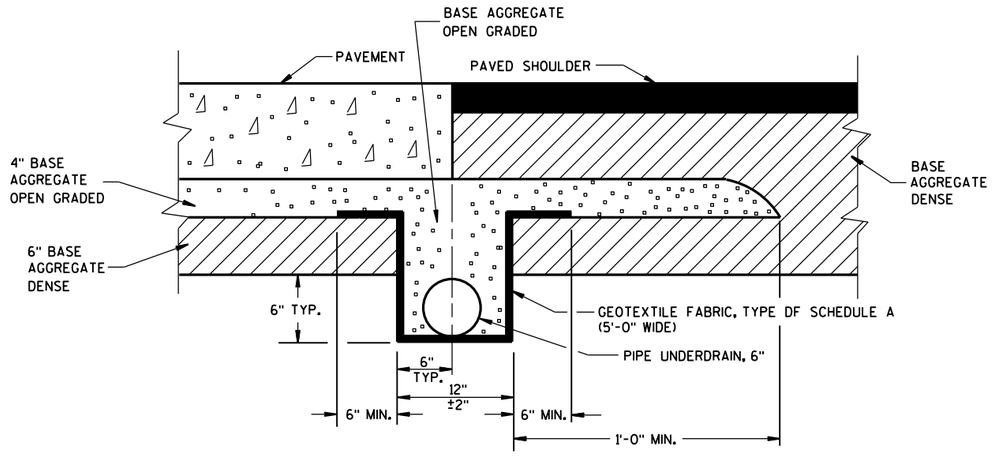
② TOTAL FABRIC WIDTH IS 6'-3" FOR PAYMENT.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATE

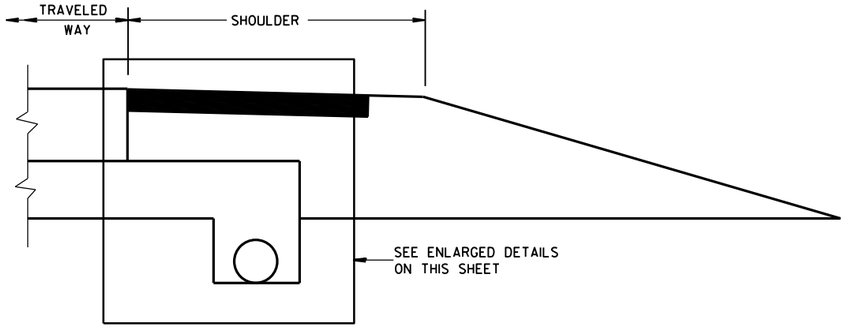
EDGEDRAIN IN RURAL ROADWAY

EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPE
FHWA

6
S.D.D. 8 D 15-5b

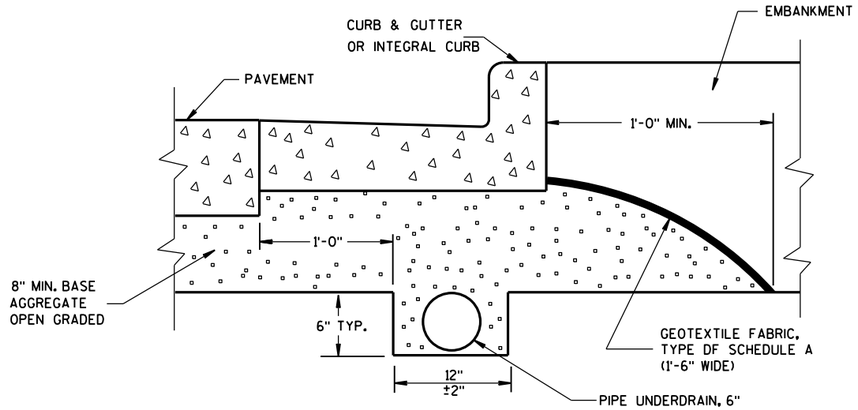


RURAL CROSS SECTION

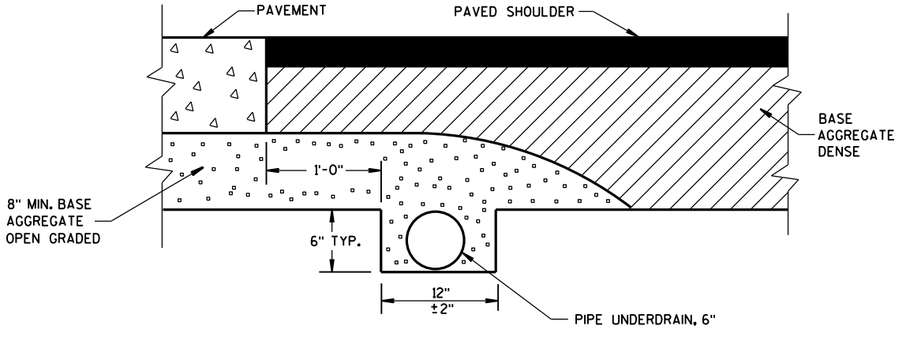
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

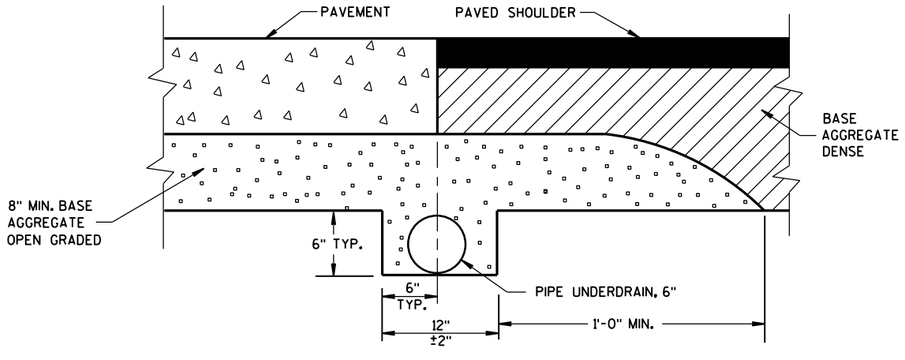
PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



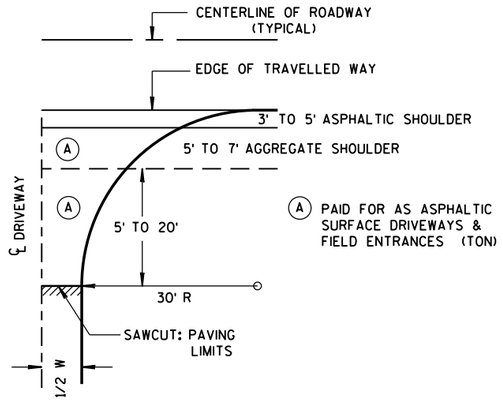
PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

6

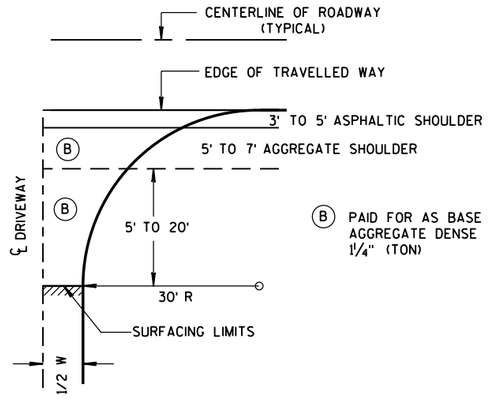
EDGEDRAIN AND BASE AGGREGATE OPEN GRADED	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept. 2015	/S/ Peter Kemp, P.E.
DATE	PAVEMENT SUPE
FHWA	

S.D.D. 8 D 15-5c



PLAN VIEW
HALF SECTION

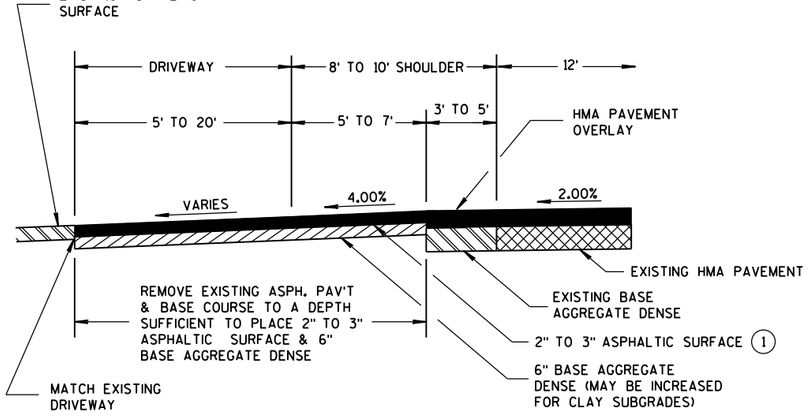
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION

GENERAL NOTES

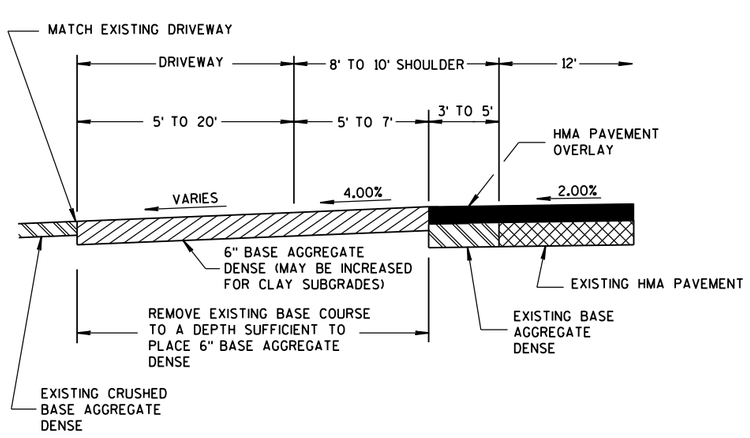
(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PROFILE VIEW

RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

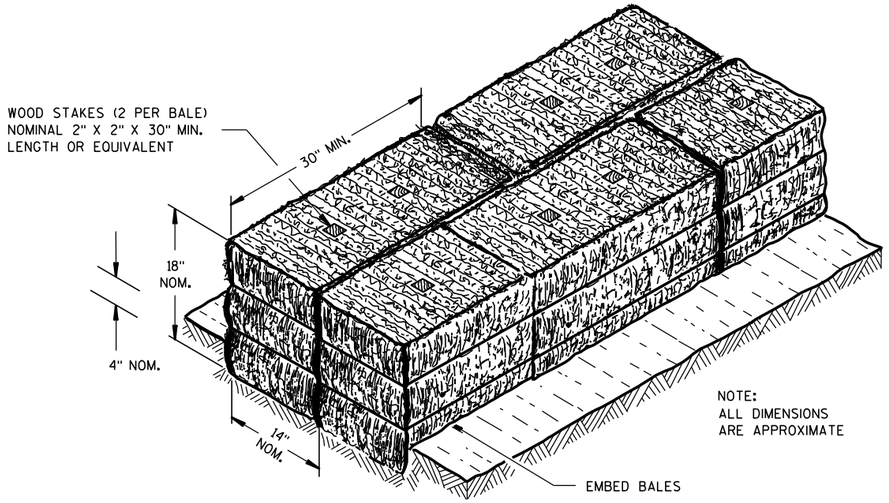
DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

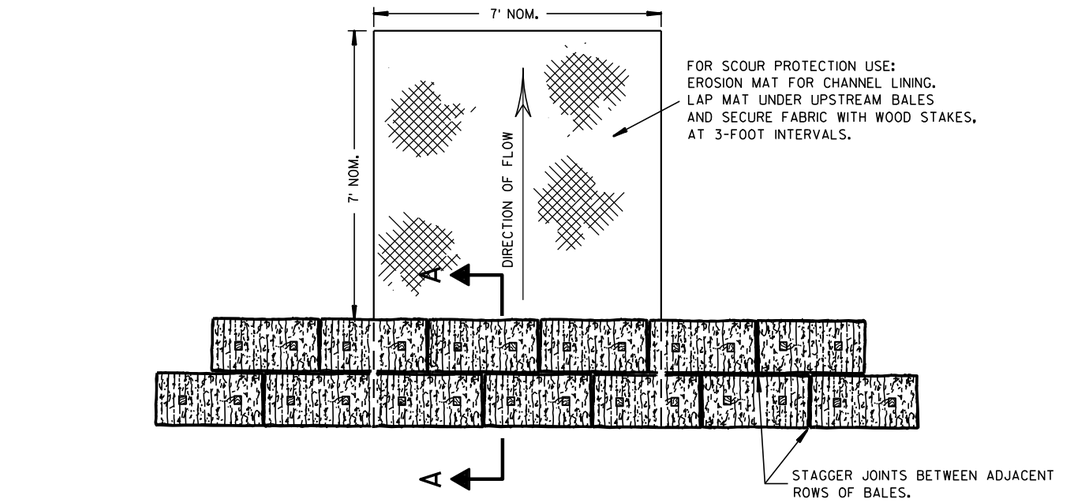
APPROVED
December, 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

6

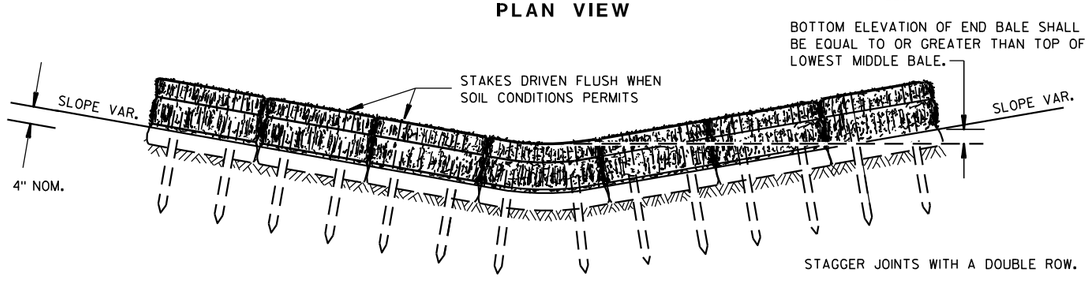
S.D.D. 8 D 22-1



SECTION A-A



PLAN VIEW



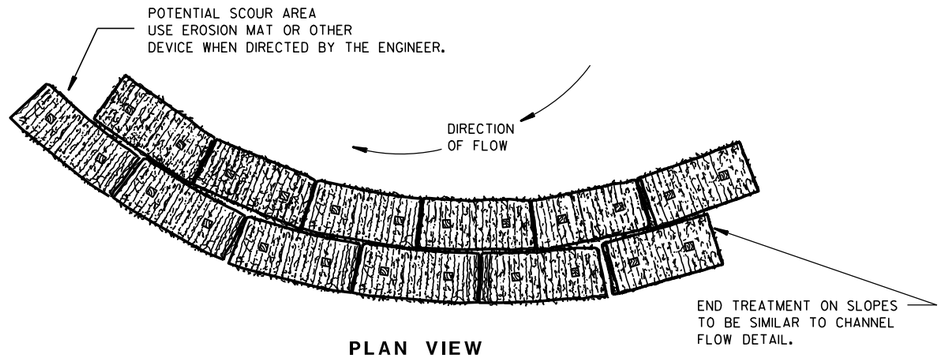
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

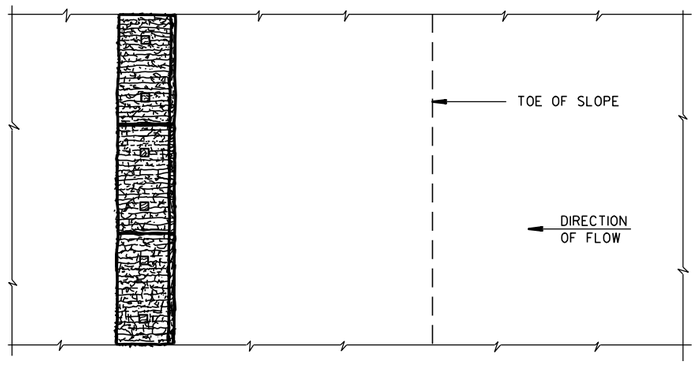
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

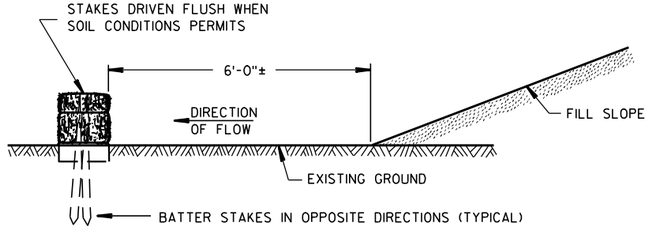


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

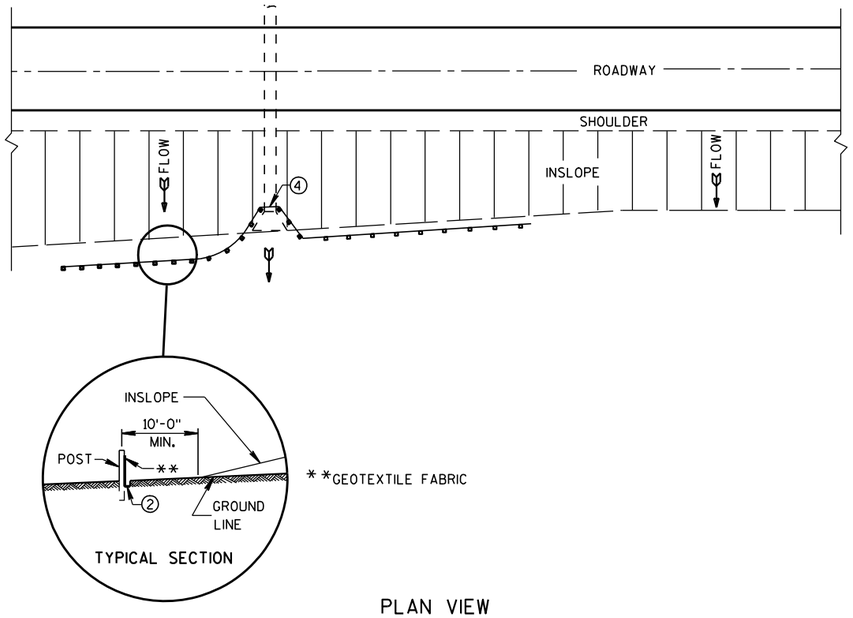
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

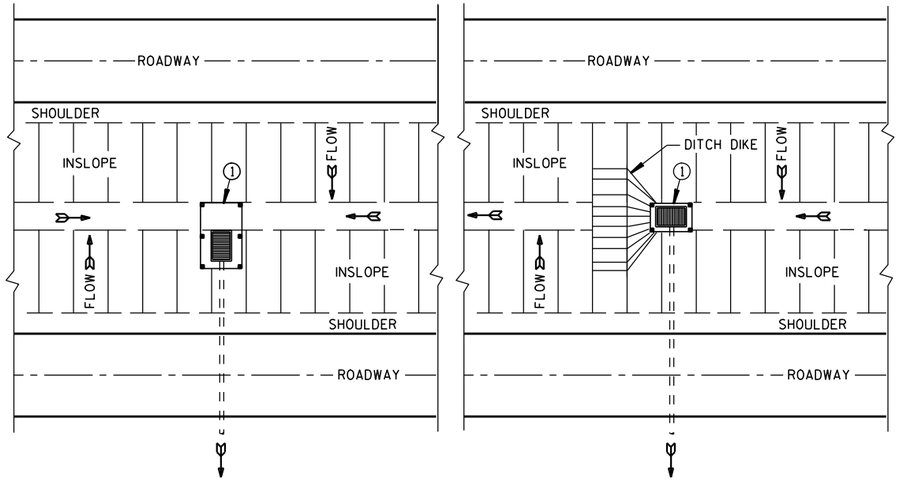
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

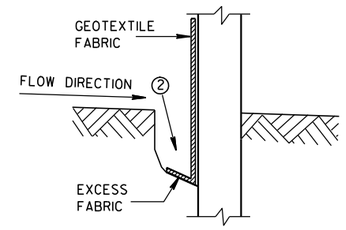
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

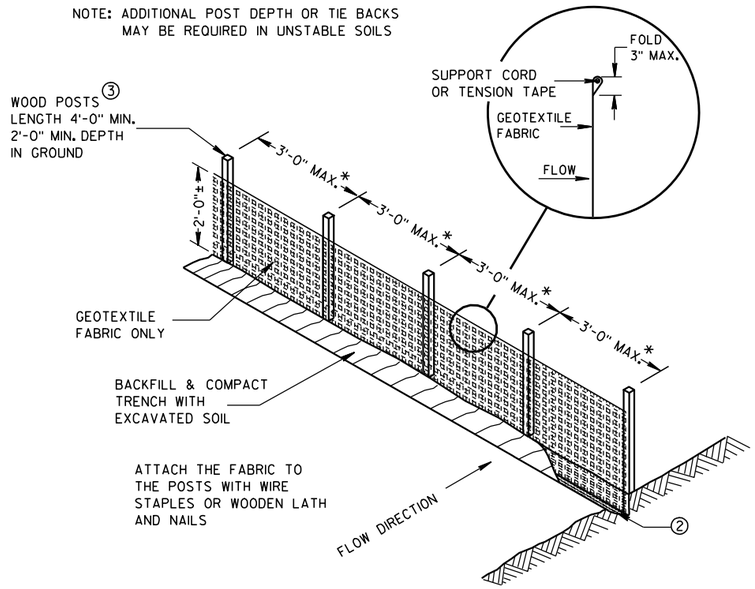
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

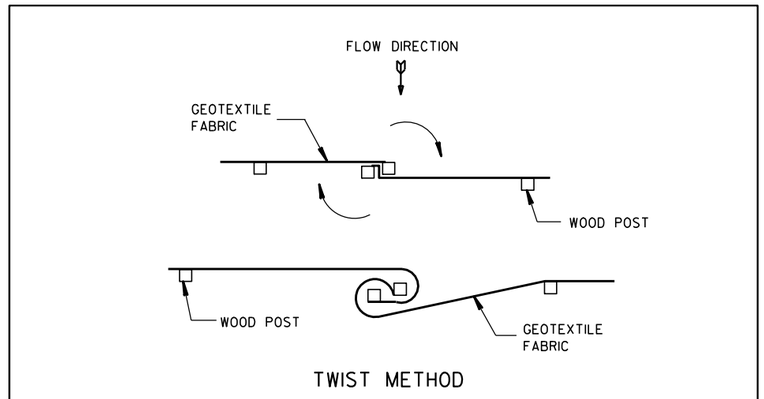
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



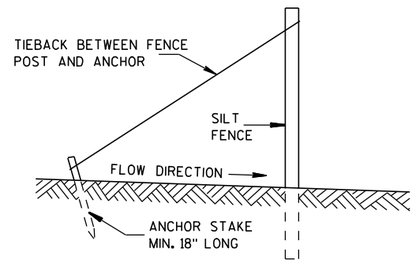
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

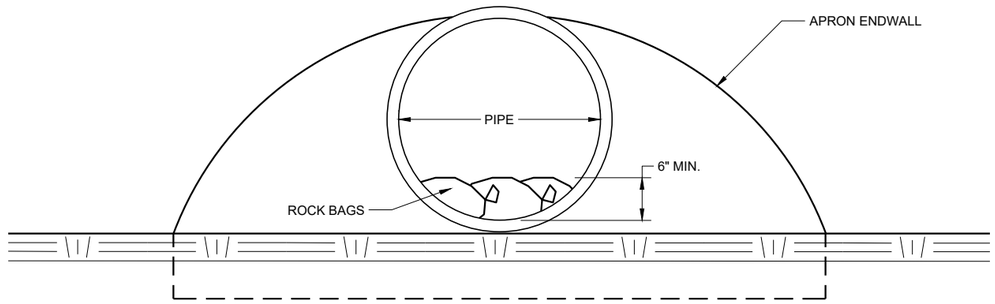
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

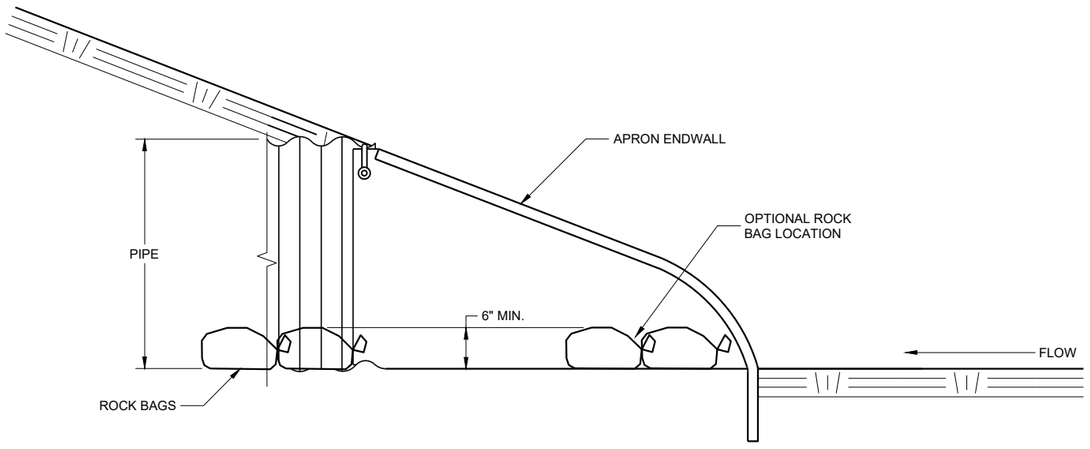
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Daniel Schave
EROSION CONTROL ENGI

FHWA

6

SDD 08E15 - 01

6

SDD 08E15 - 01

METAL APRON ENDWALLS

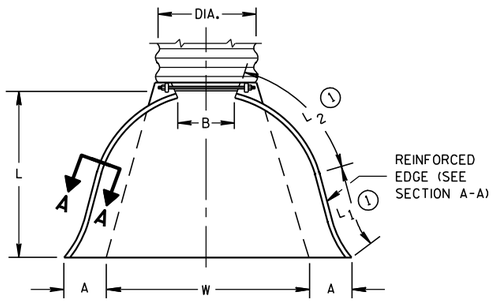
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

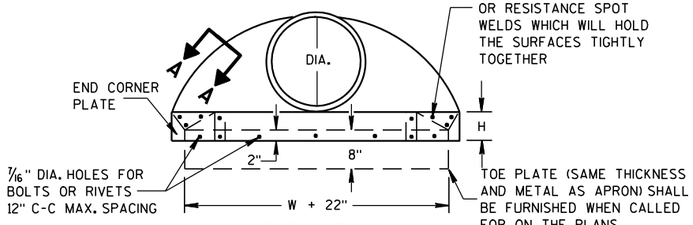
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

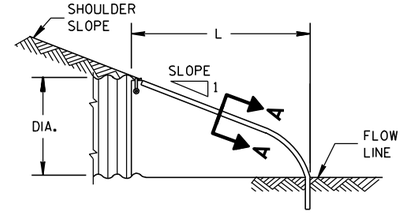
* MINIMUM
** MAXIMUM



PLAN VIEW

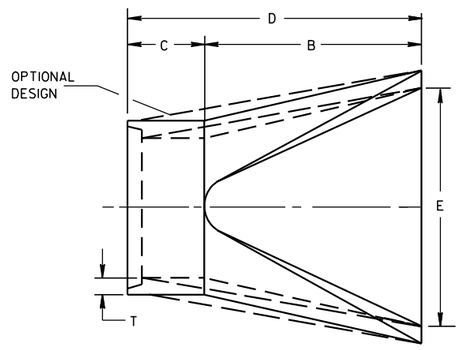


END VIEW

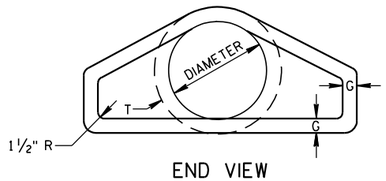


SIDE ELEVATION

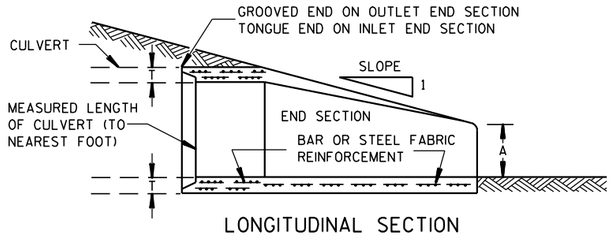
METAL ENDWALLS



PLAN

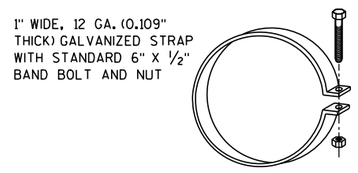


END VIEW



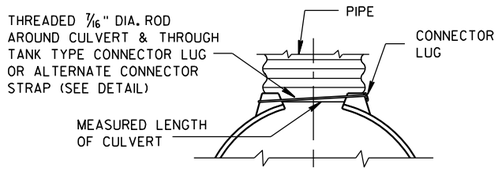
LONGITUDINAL SECTION

CONCRETE ENDWALLS

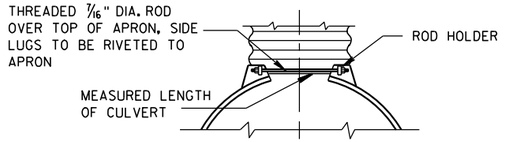


ALTERNATE FOR TYPE 1 CONNECTION

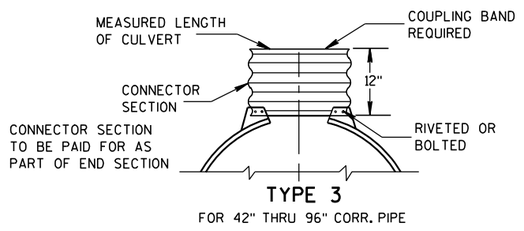
END SECTION CONNECTOR STRAP



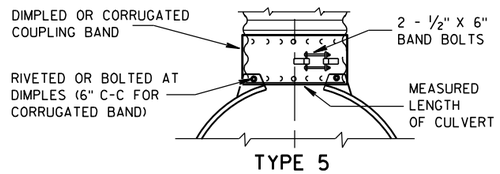
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

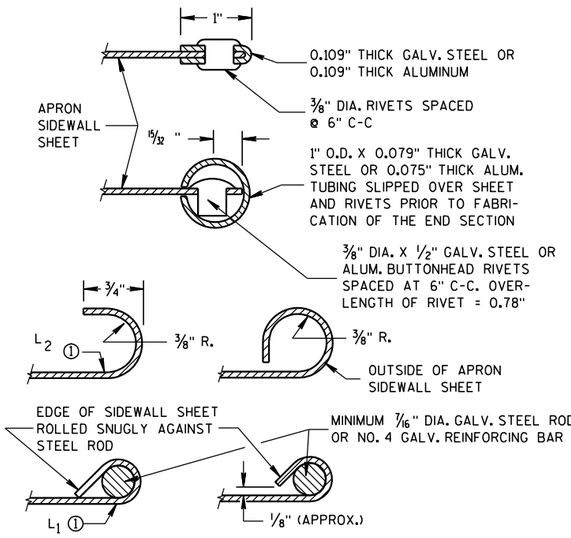
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

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.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

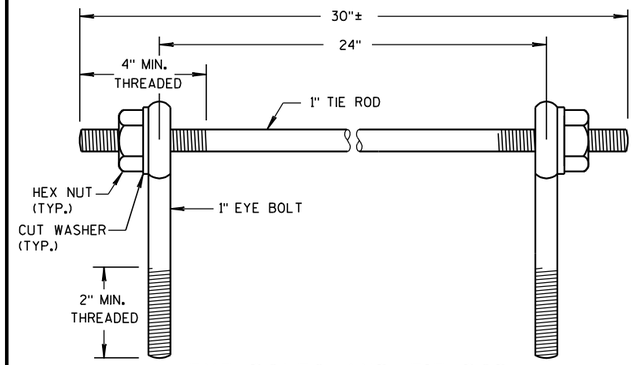
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

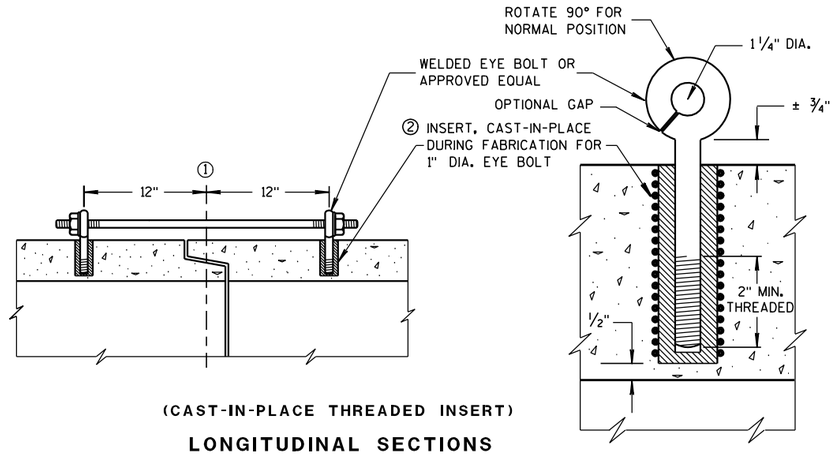
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

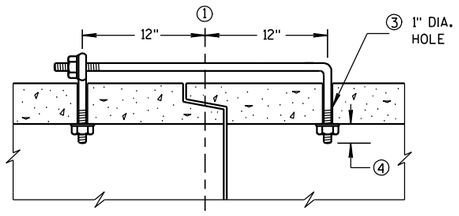
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

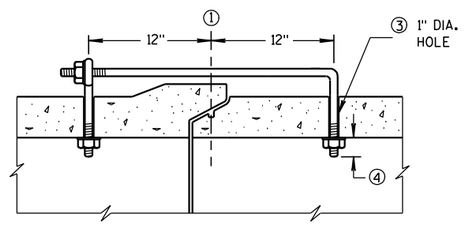
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

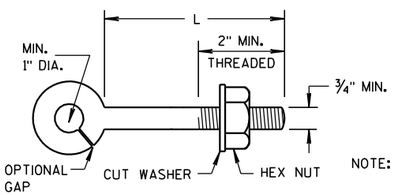


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

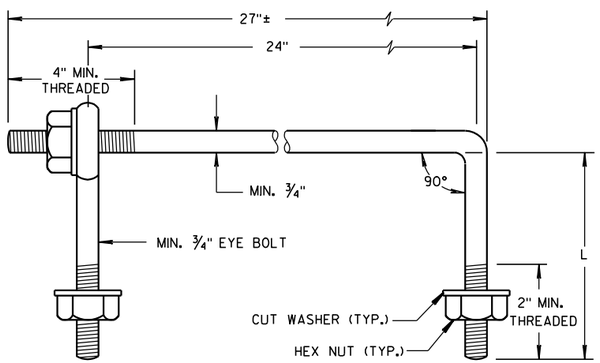
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

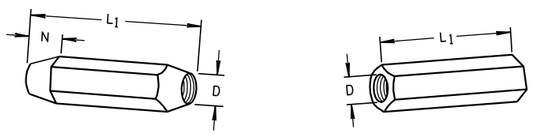
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

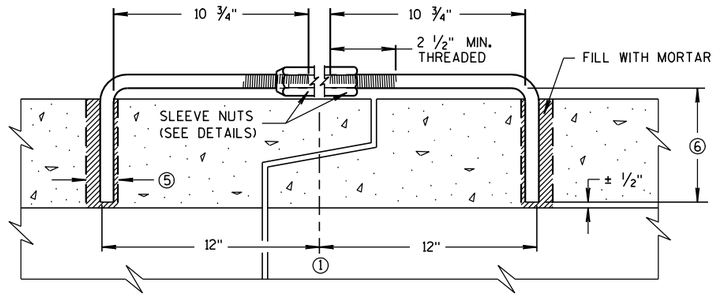
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

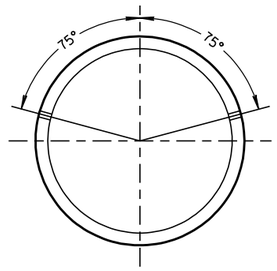
SLEEVE NUTS



LONGITUDINAL SECTION

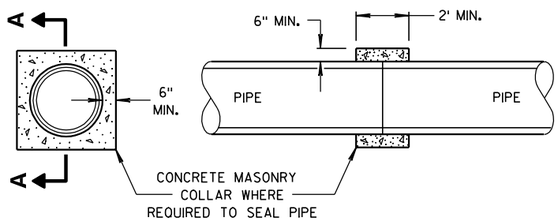
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

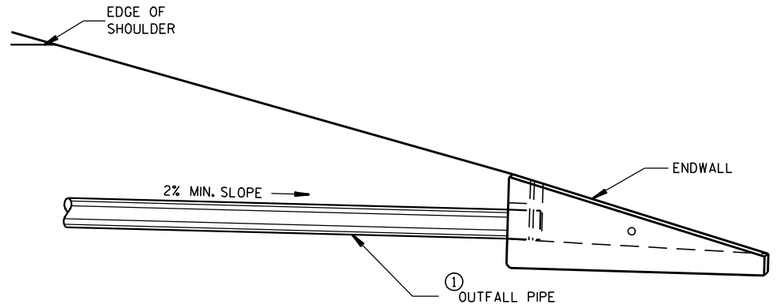
S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION DETAIL

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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

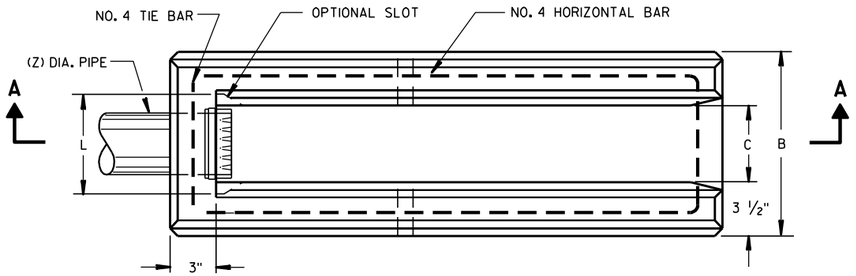
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

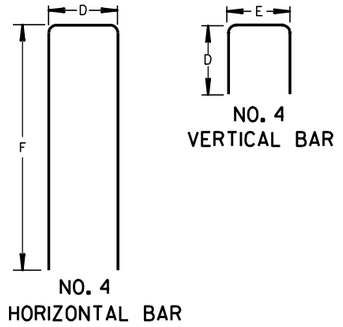
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

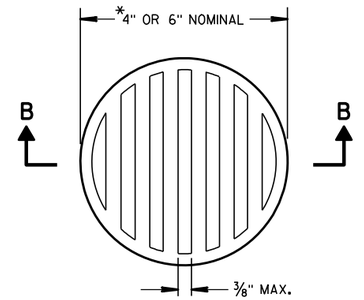
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

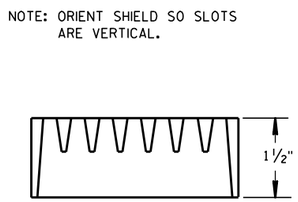


PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

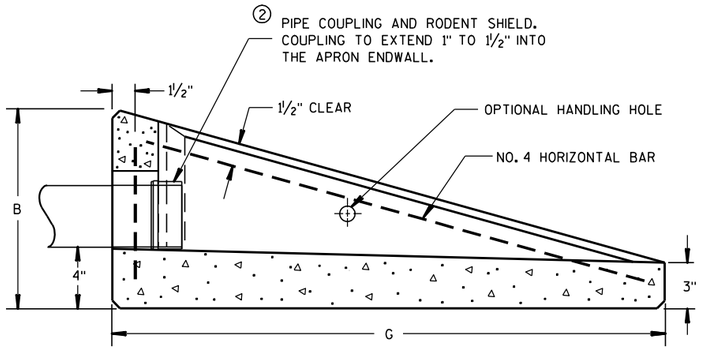




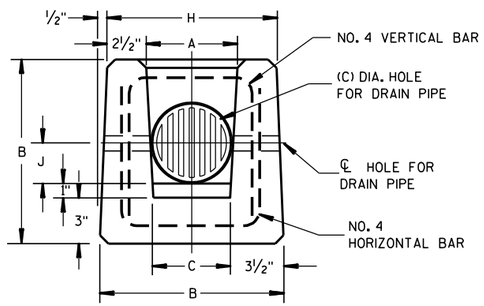
SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN

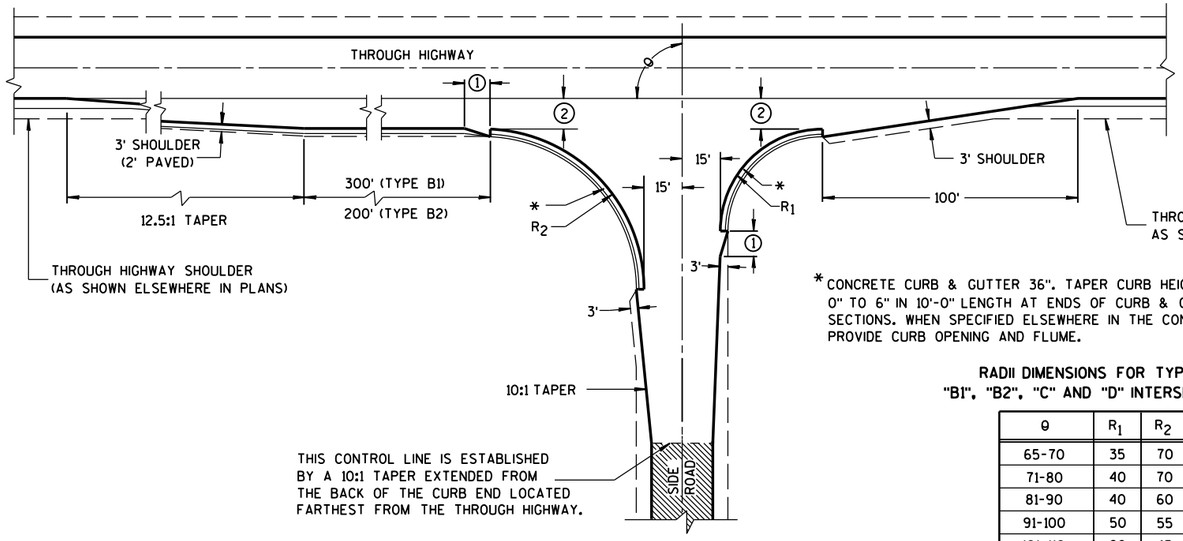
REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/10/98 DATE
/S/ Rory L. Rhinehart
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 6-4

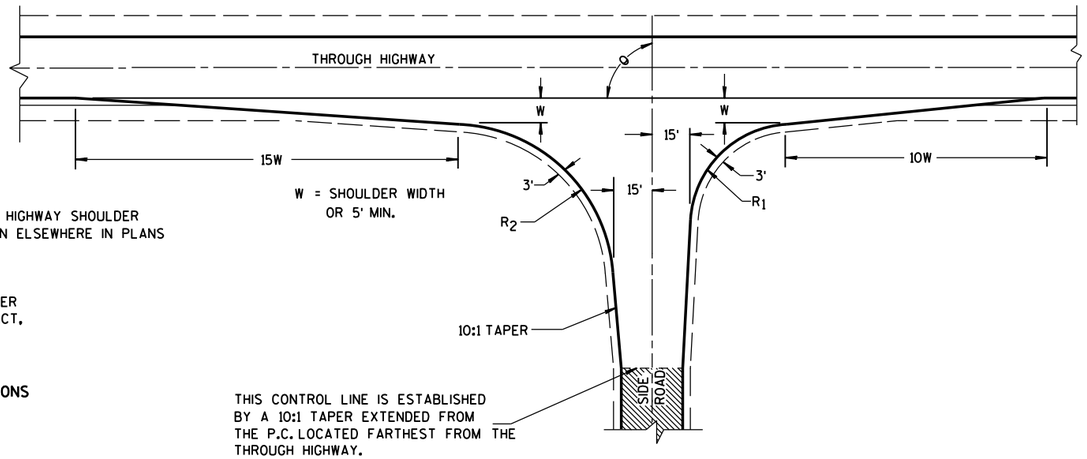


TYPE "B1" AND "B2"

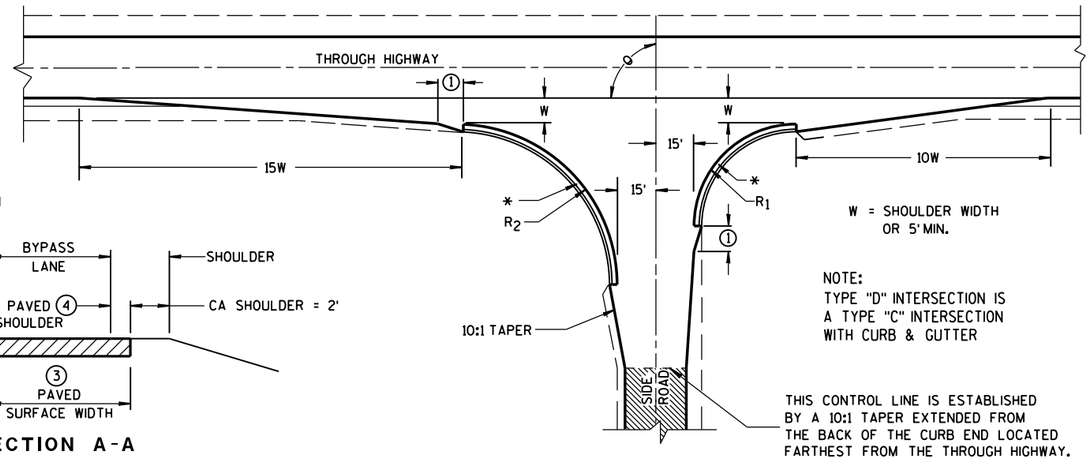
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

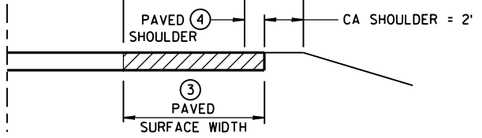
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

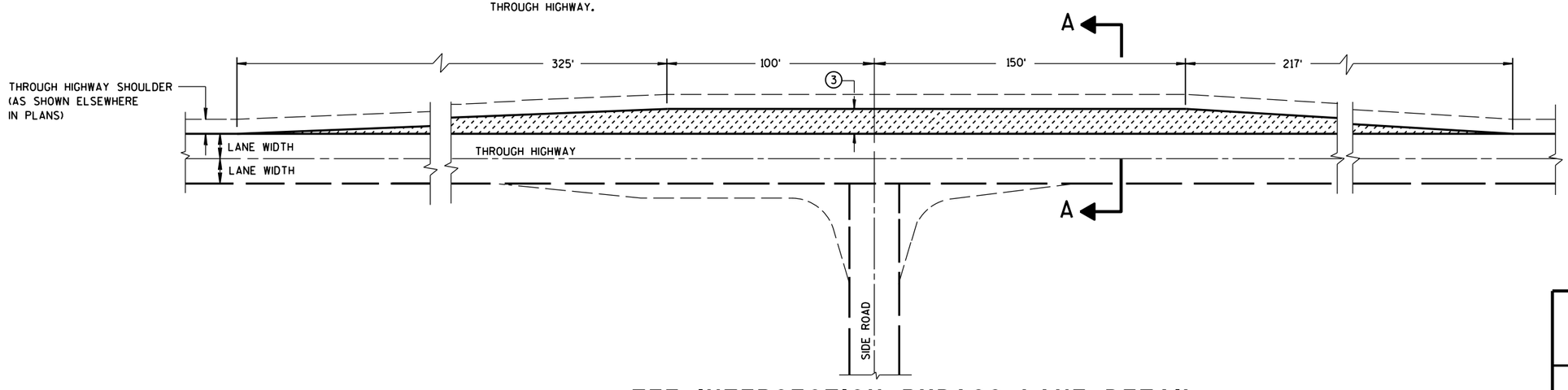
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



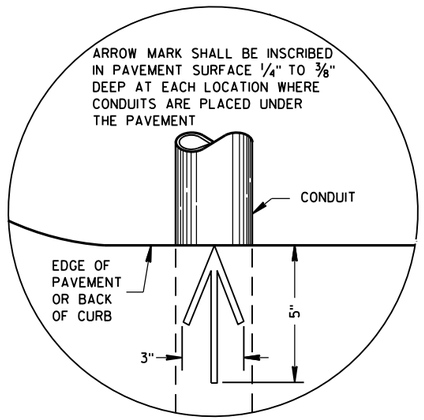
TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

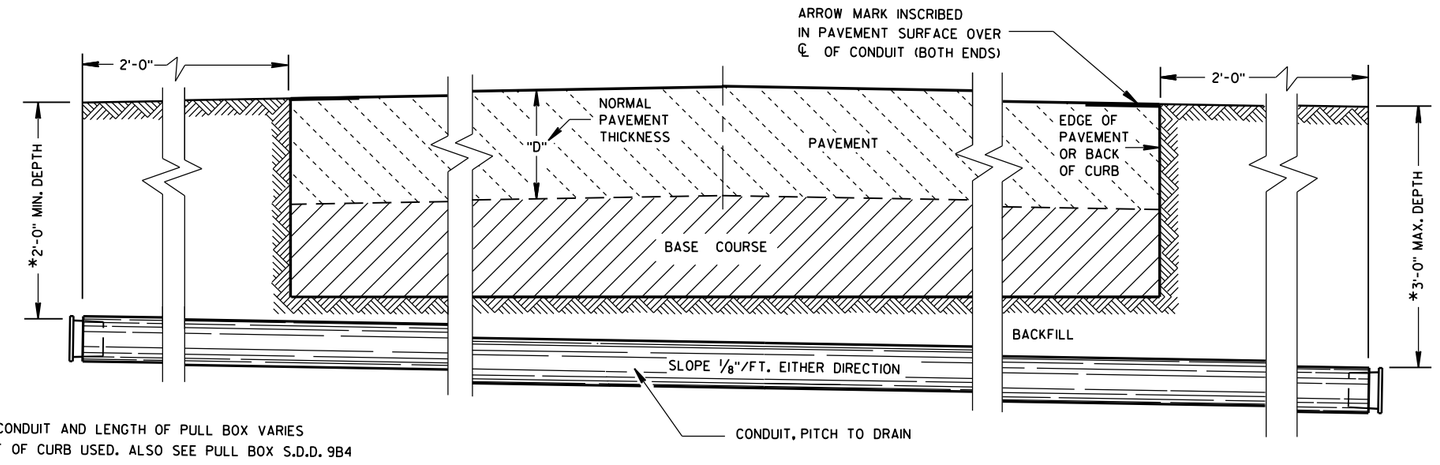
6

S.D.D. 9 A 1-13a



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

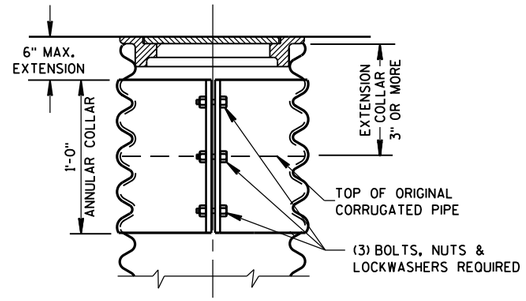
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

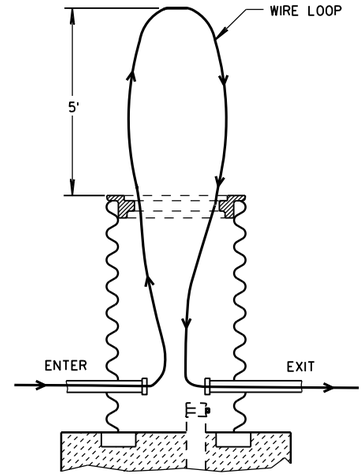
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

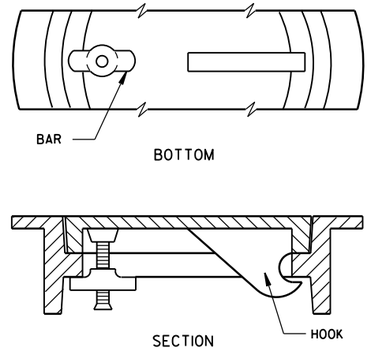
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

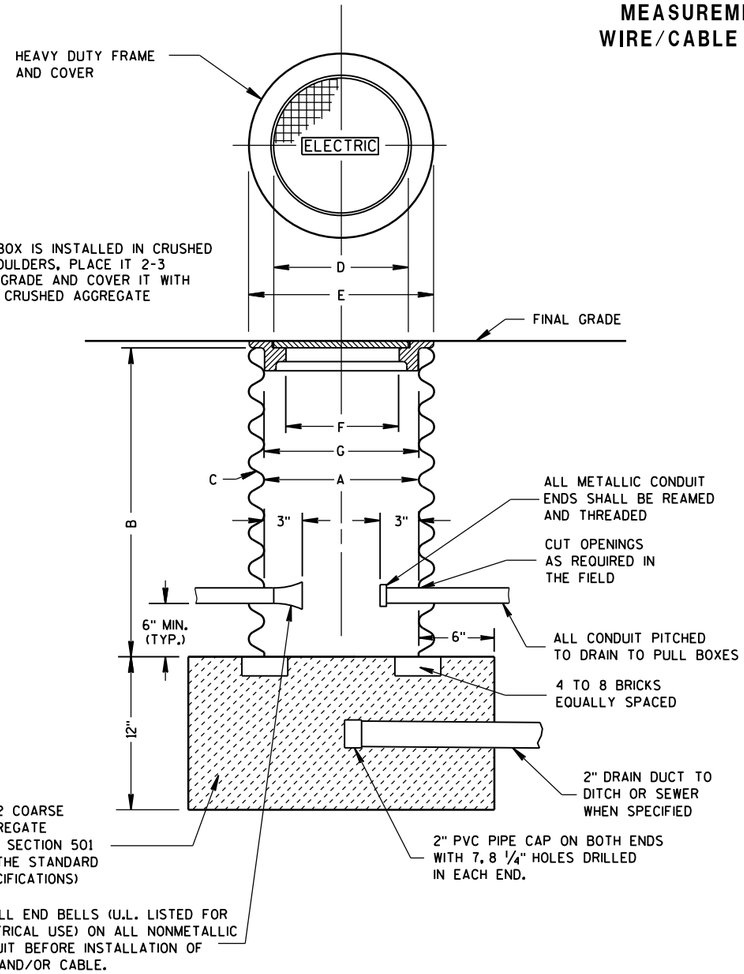


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



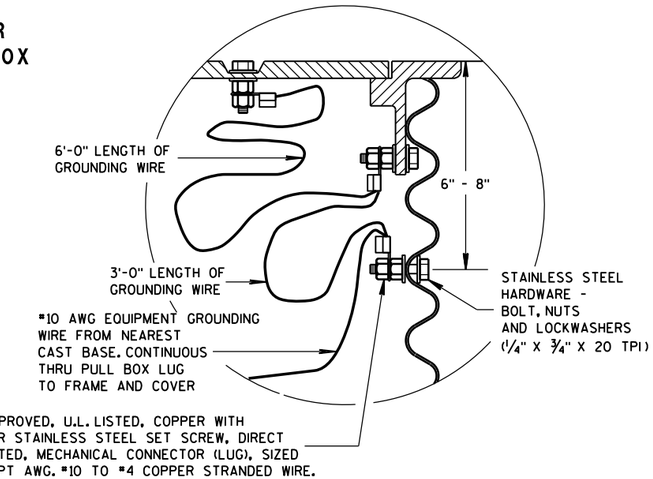
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

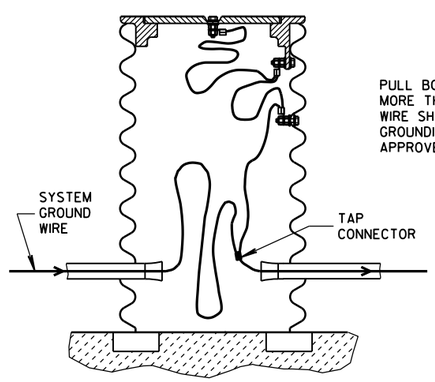


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

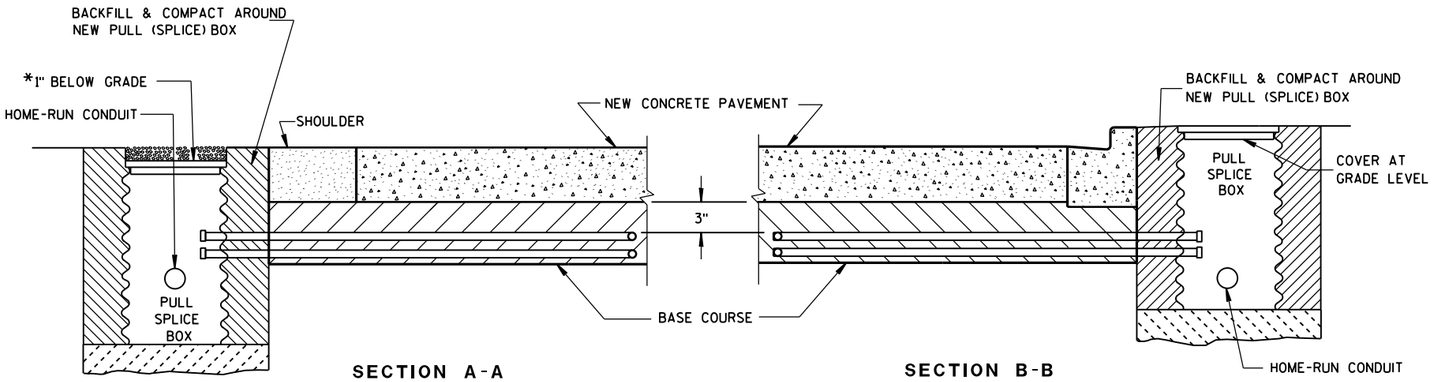
ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

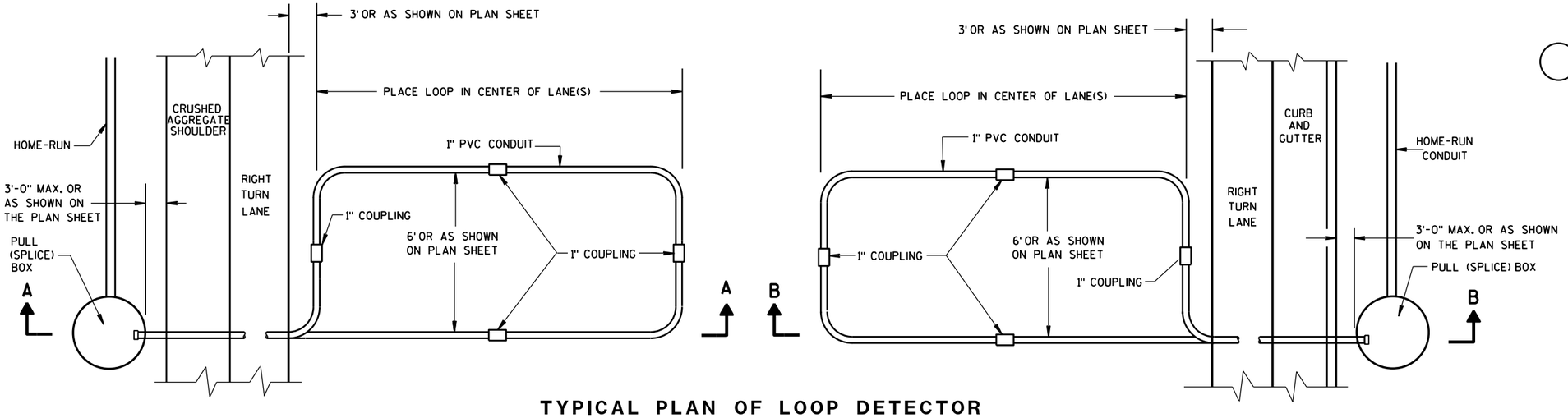
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

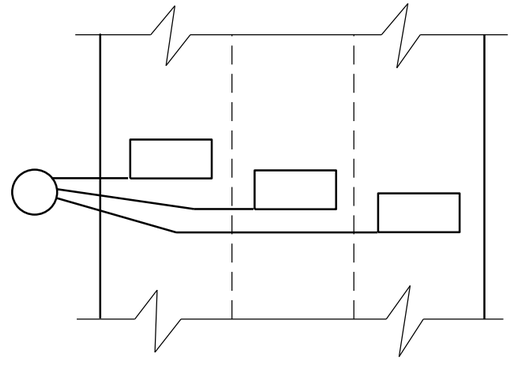
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

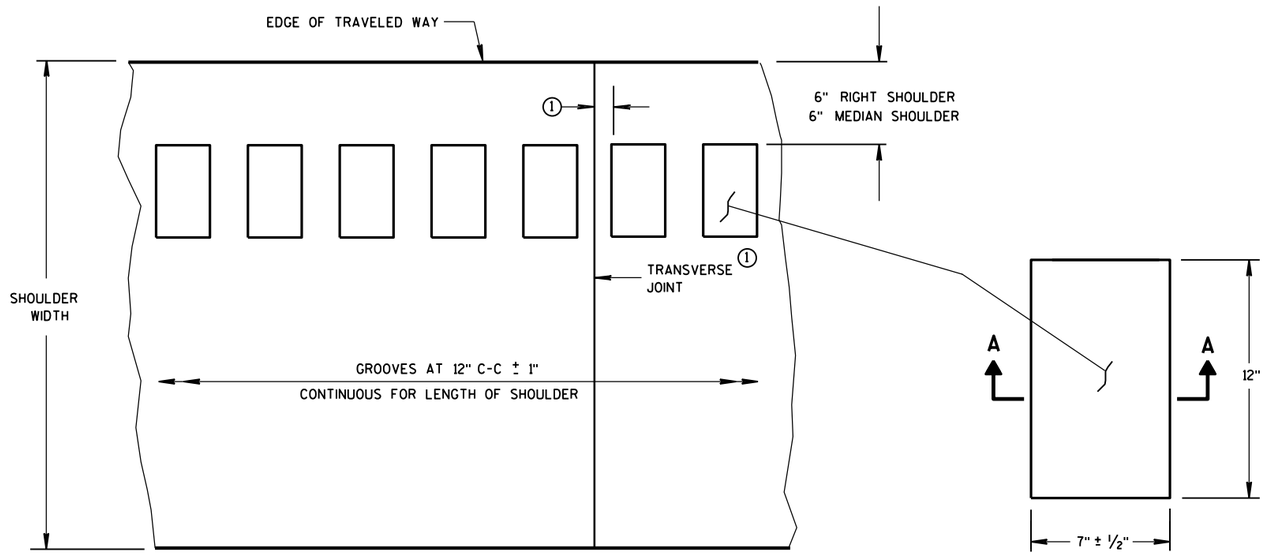
APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

6

S.D.D. 9 F 15-4b

6

S.D.D. 9 F 15-4b



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

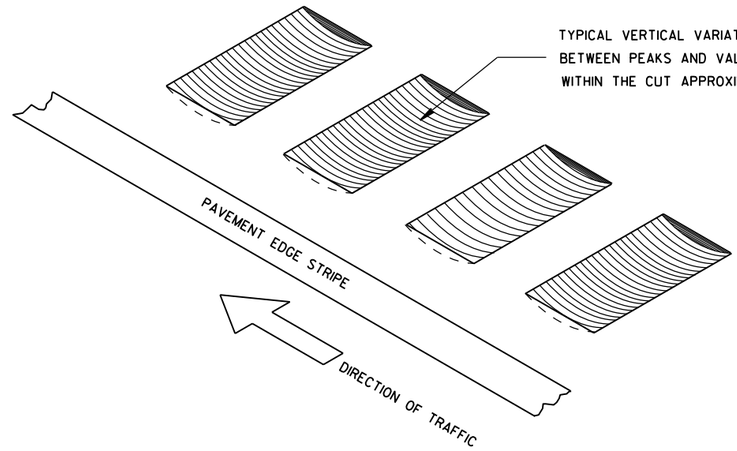
GENERAL NOTES

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

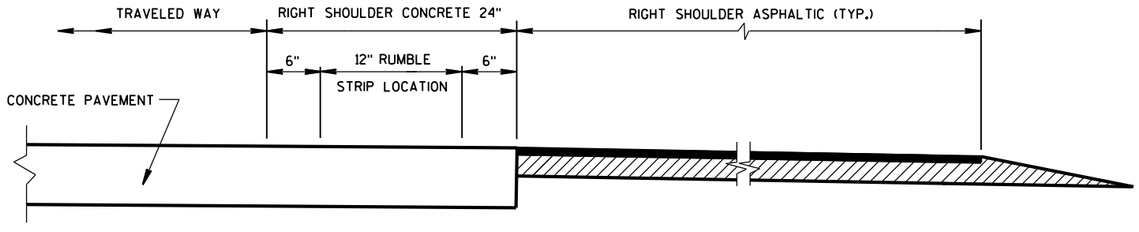
RUMBLE STRIPS ON EXPRESSWAYS

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.

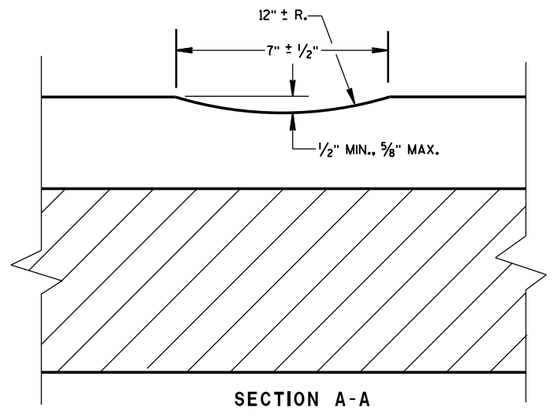
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



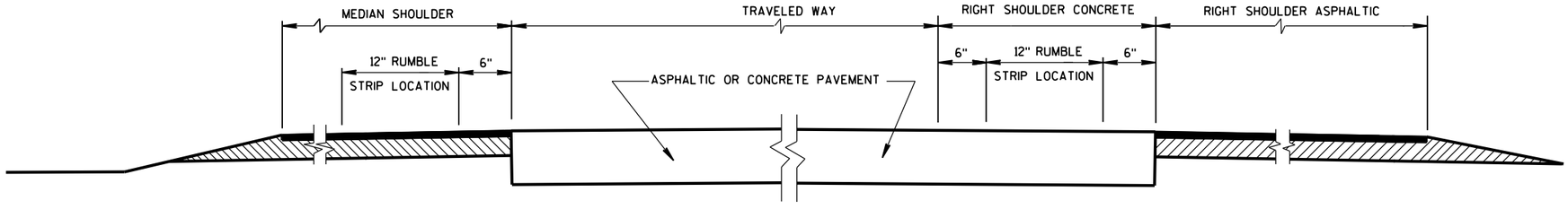
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION A-A



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIP, MILLING

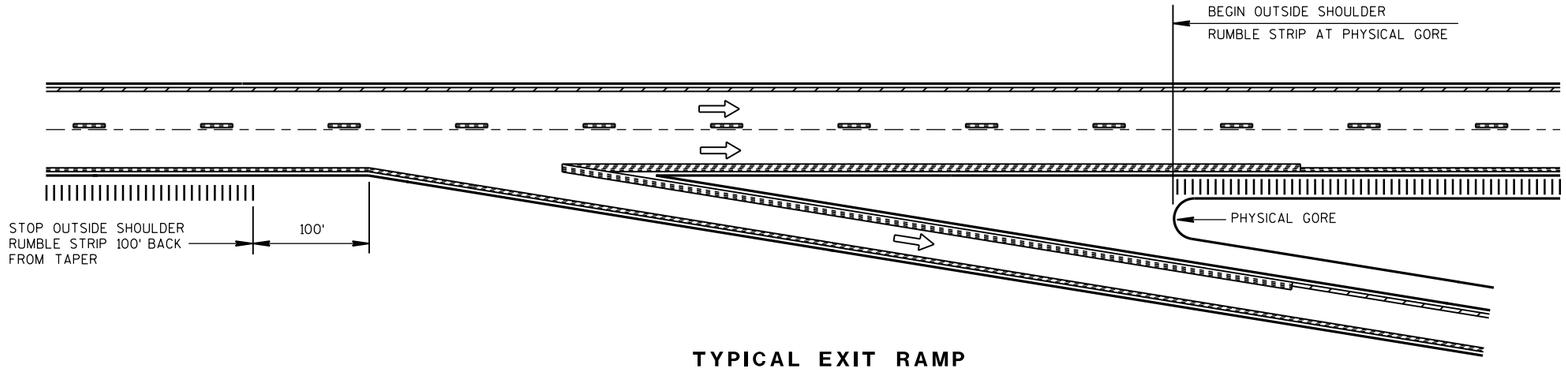
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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

6

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



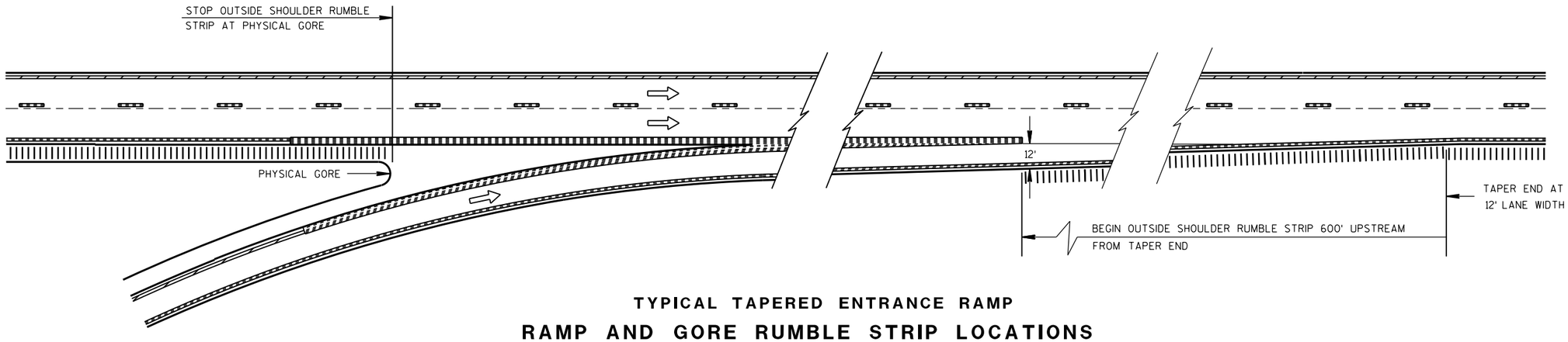
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

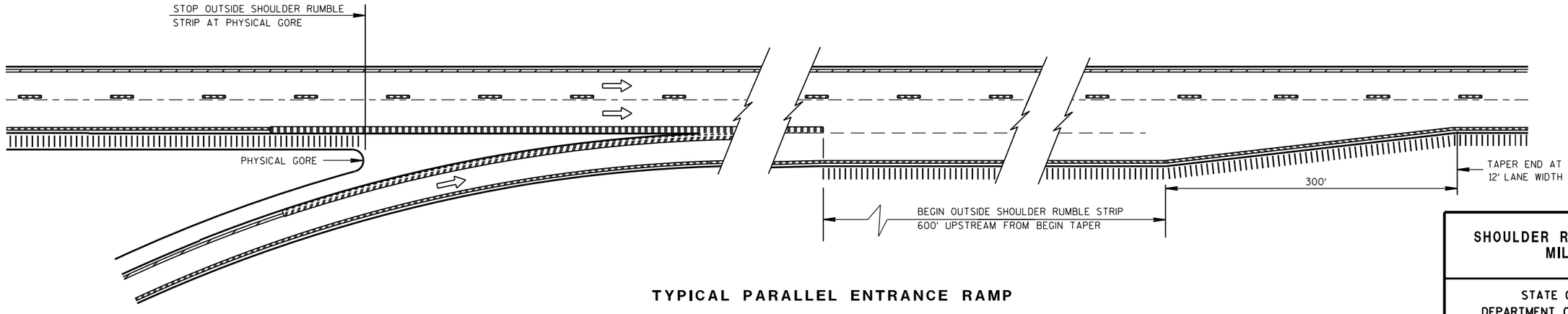
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

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

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

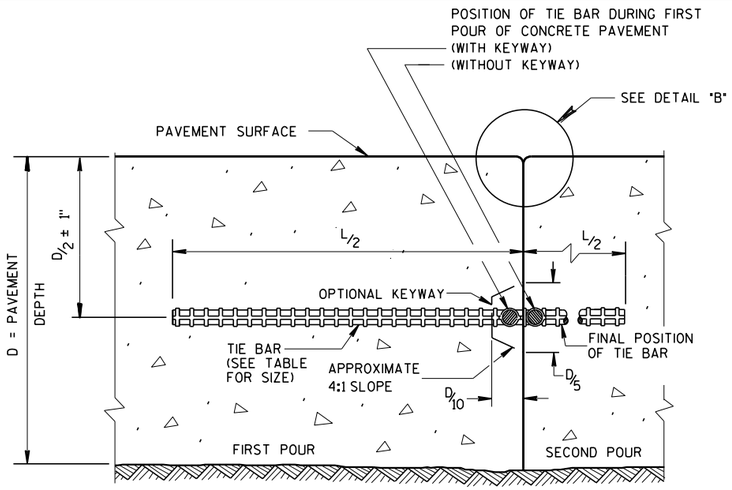
APPROVED
12/17/2012
DATE
/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER
FHWA

6

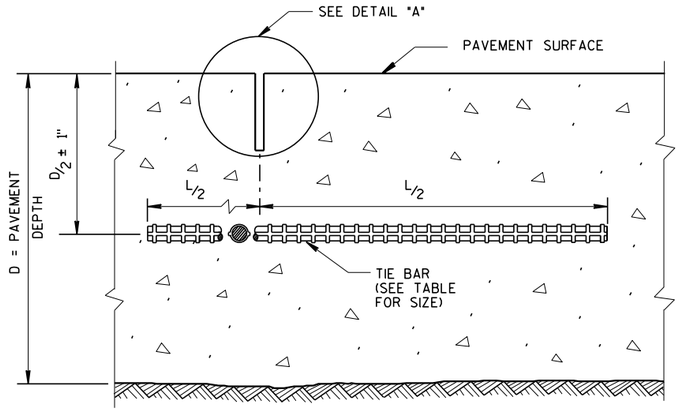
S.D.D. 13 A 5-5b

6

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



CONSTRUCTION JOINT



SAWED JOINT

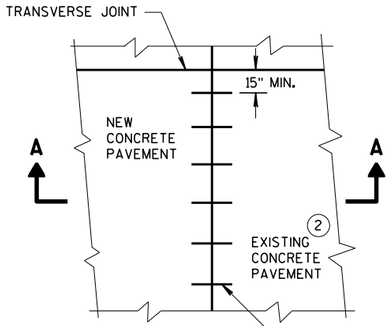
GENERAL NOTES

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

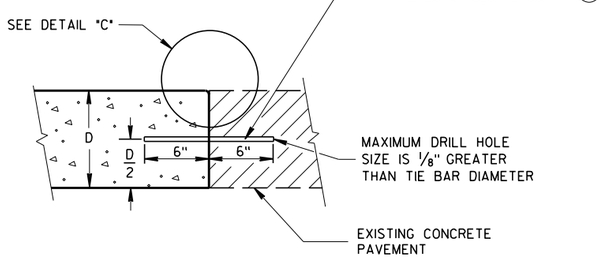
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

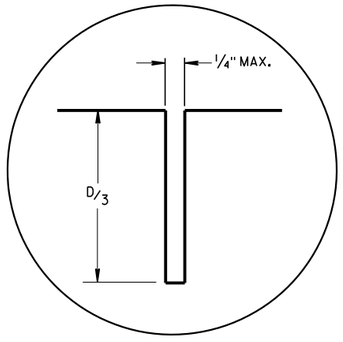


PLAN VIEW

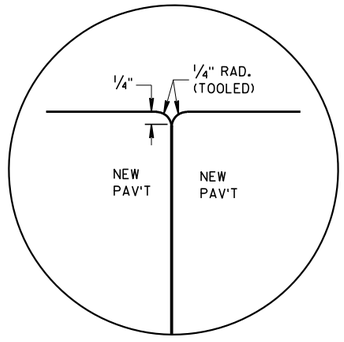


SECTION A-A

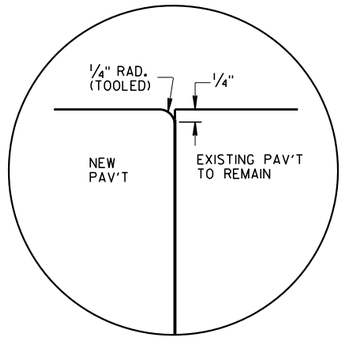
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



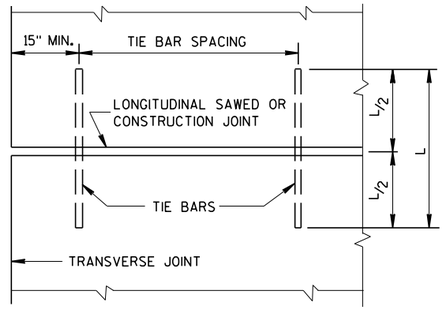
DETAIL "C"

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" MINUMUM 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
DATE
/S/ Peter Kemp PE
PAVEMENT SUPE
FHWA

6
S.D.D. 13 C 1-19

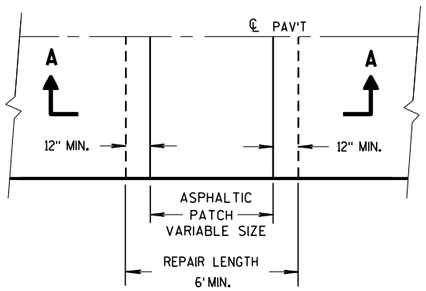
GENERAL NOTES

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.

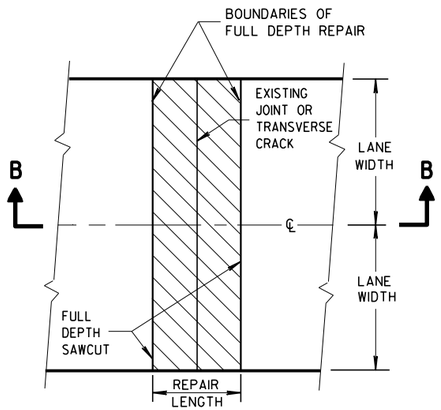
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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.

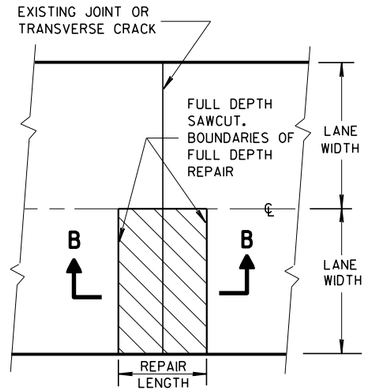
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

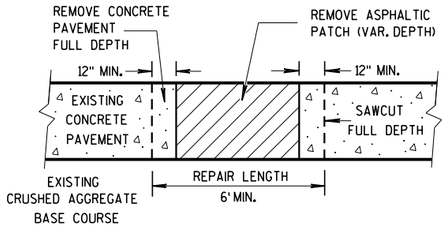


PLAN VIEW
(DOUBLE LANE REPAIR)



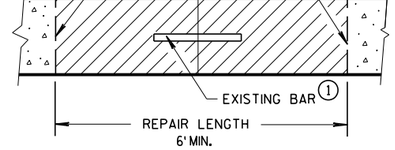
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

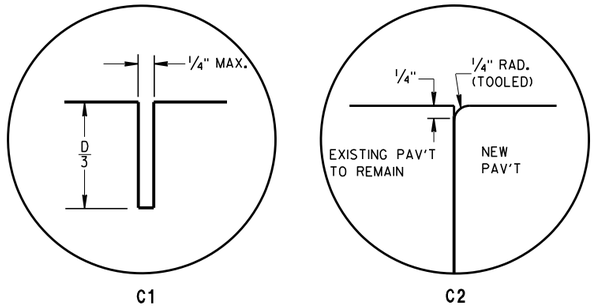
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 9-15a

6

S.D.D. 13 C 9-15a



C1 C2

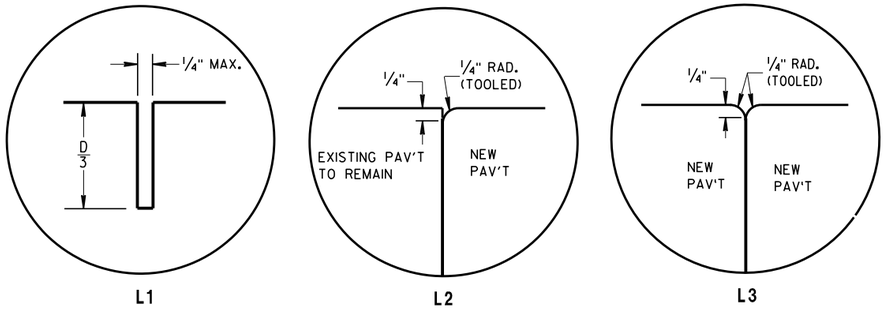
TRANSVERSE JOINTS

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" **

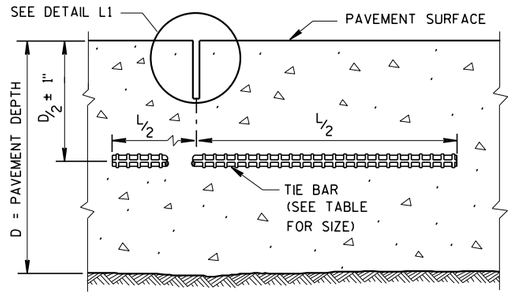
* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

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



L1 L2 L3

LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

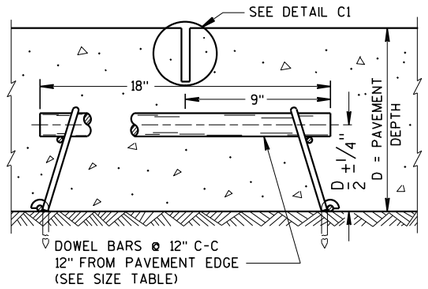
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

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.

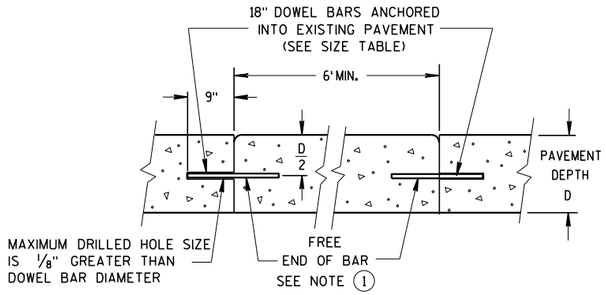
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

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

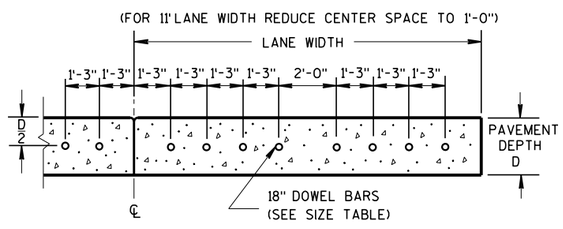


SECTION F-F

CONTRACTION JOINT



SECTION D-D

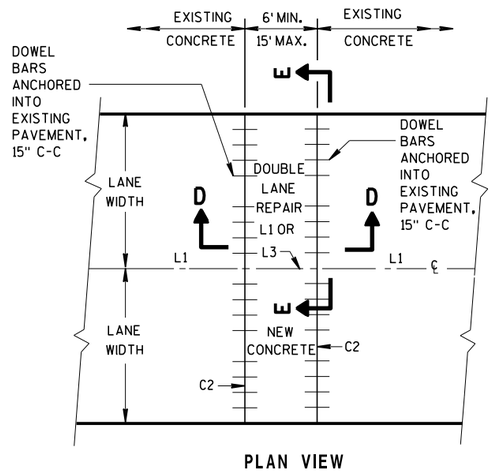


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

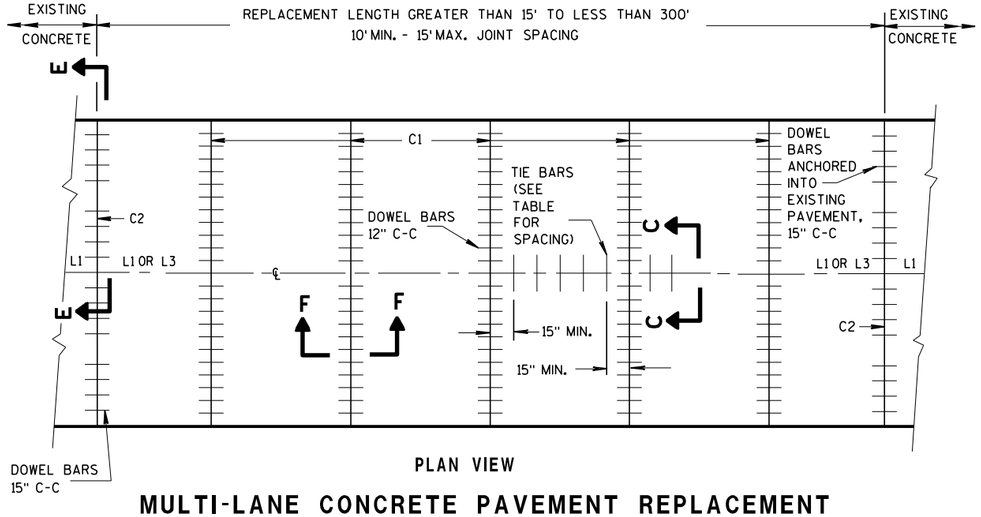
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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

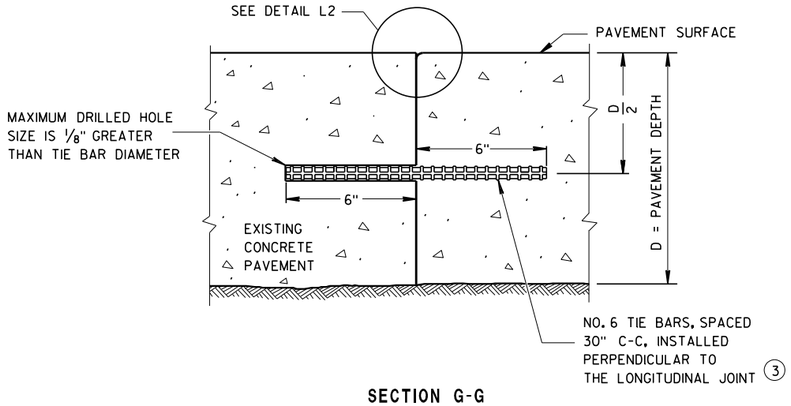


PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SECTION G-G

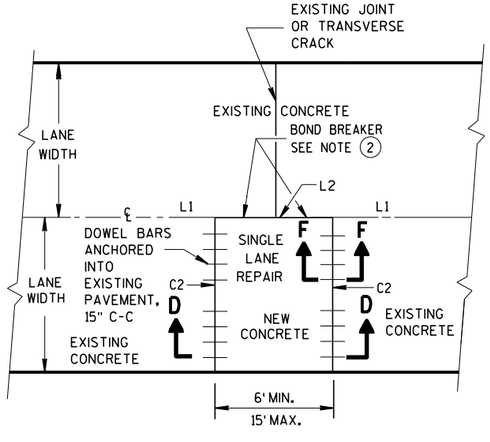
TIE BARS ANCHORED INTO EXISTING PAVEMENT

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.

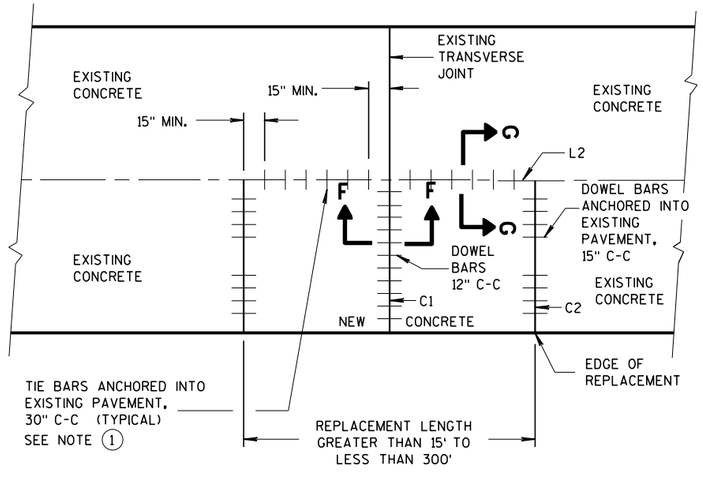
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

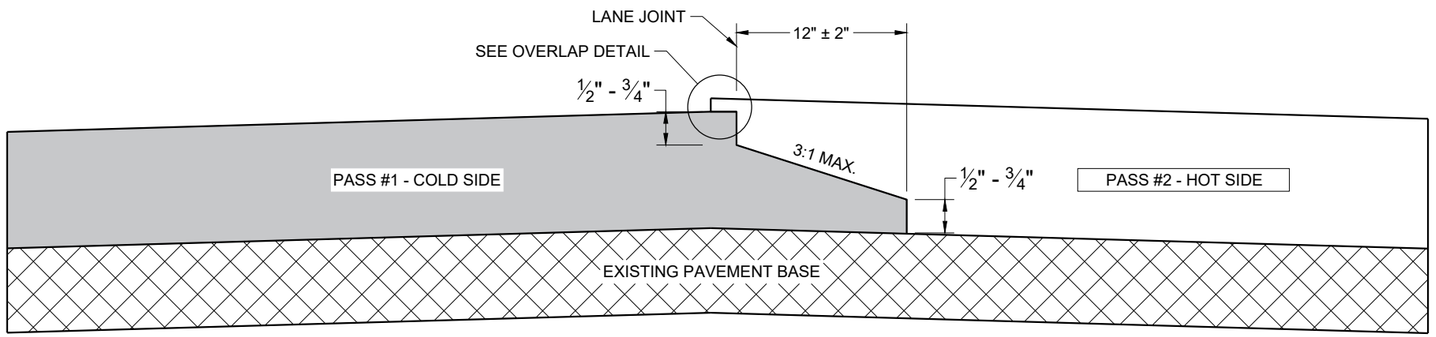
SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

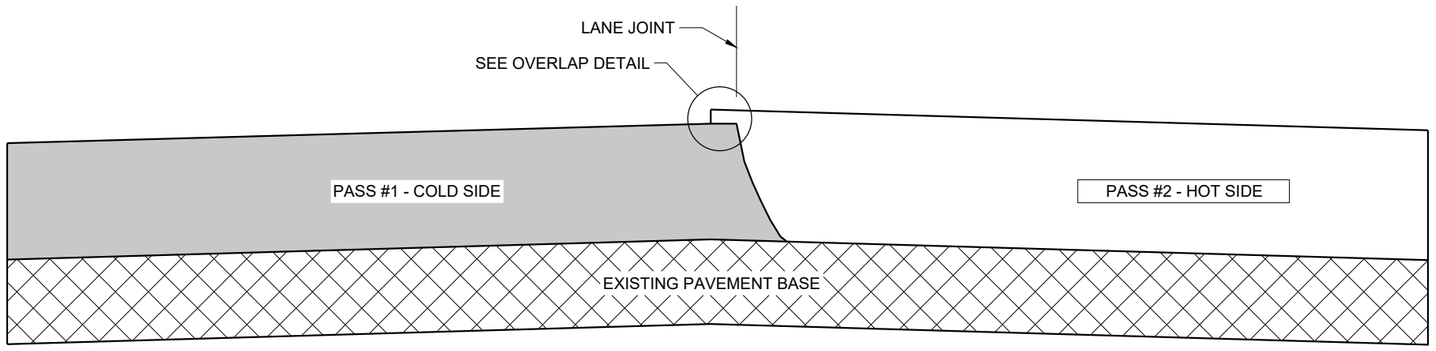
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Ken... — PAVEMENT SUPE...
FHWA

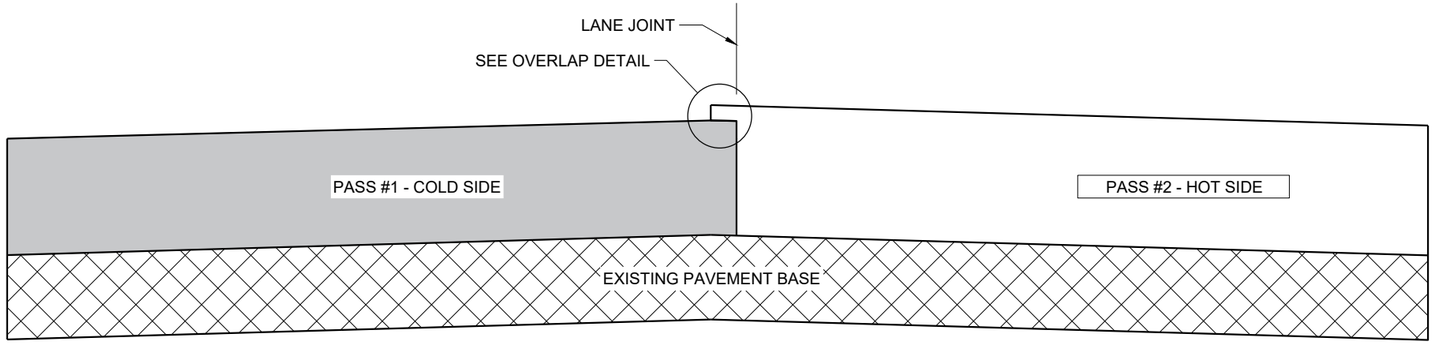
6
S.D.D. 13 C 9-15c



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

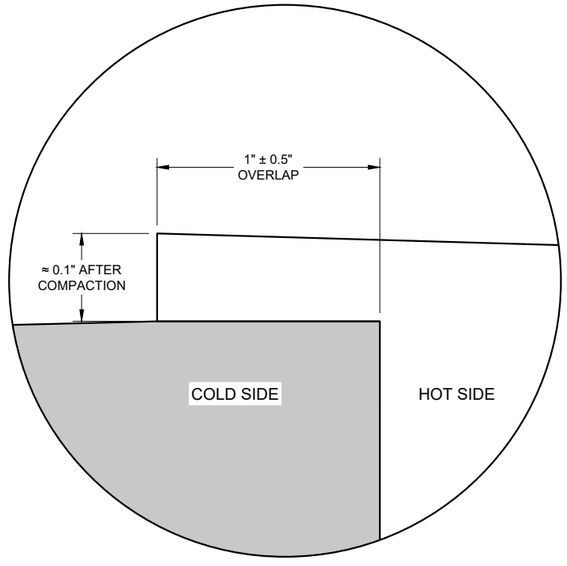
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

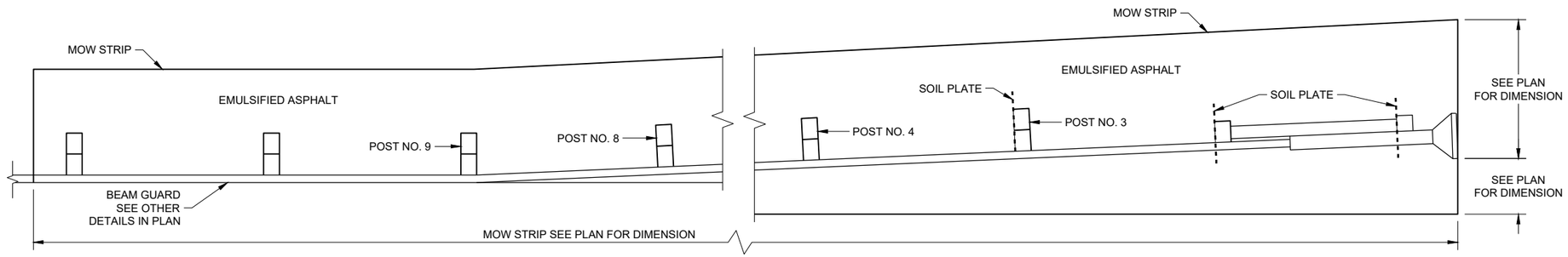
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



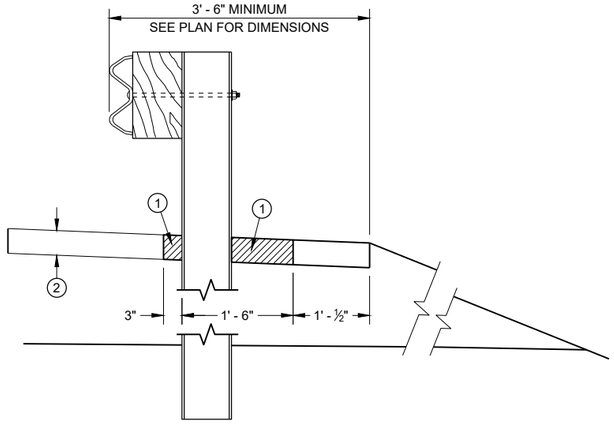
PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABSORBING TERMINAL

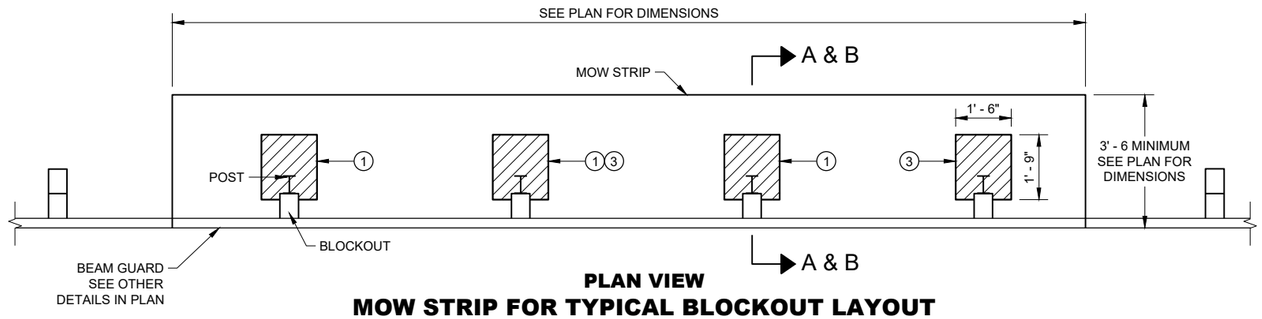
GENERAL NOTES

ONLY USE STEEL POSTS IN CONCRETE AND ASPHALT MOW STRIPS.

1. CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.
2. DEPTH OF MOW STRIP:
   ASPHALT - 4"
   CONCRETE - 4"
   EMULSIFIED ASPHALT - 1" OR LESS
3. FOR EMULSIFIED ASPHALT, MOW STRIP STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS)

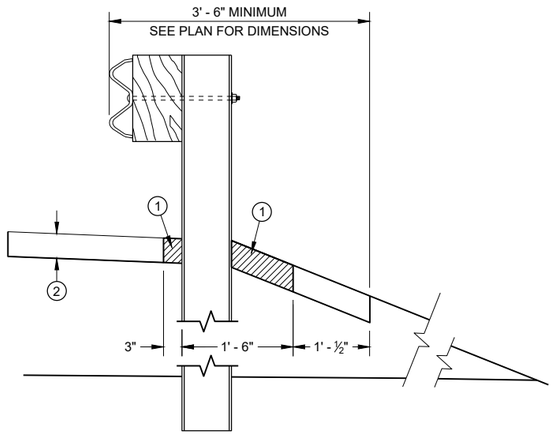


SECTION A - A

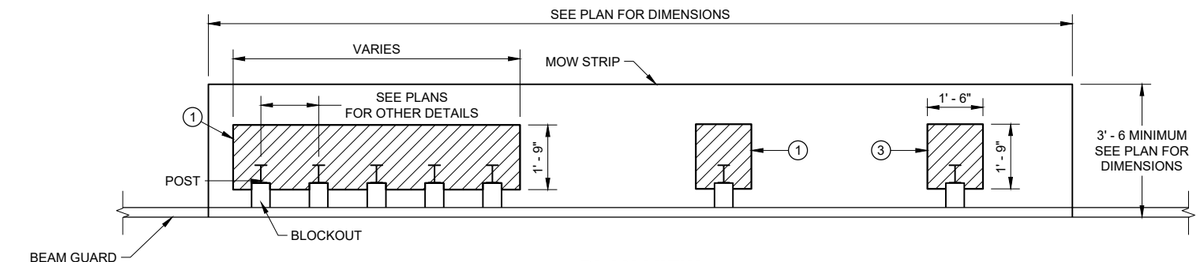


PLAN VIEW

MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT

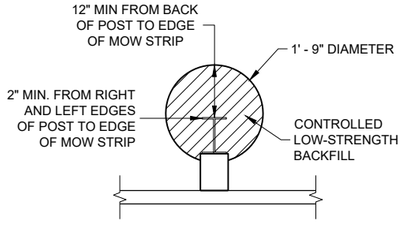


SECTION B - B

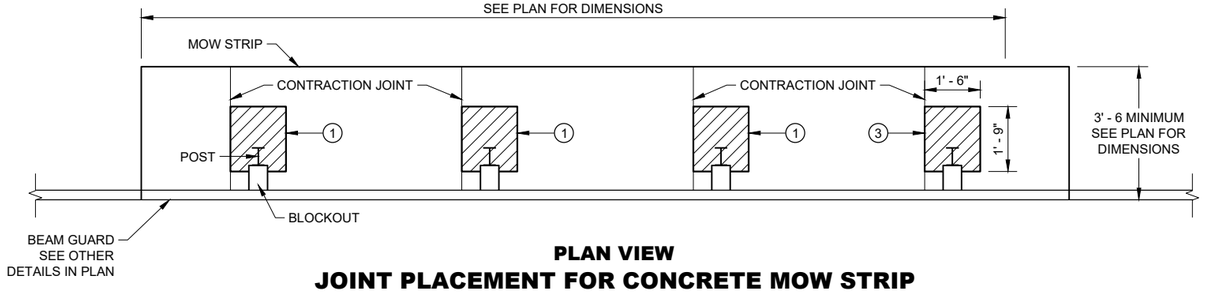


PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



ALTERNATIVE HMA MOW STRIP DESIGN



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B28 - 04a

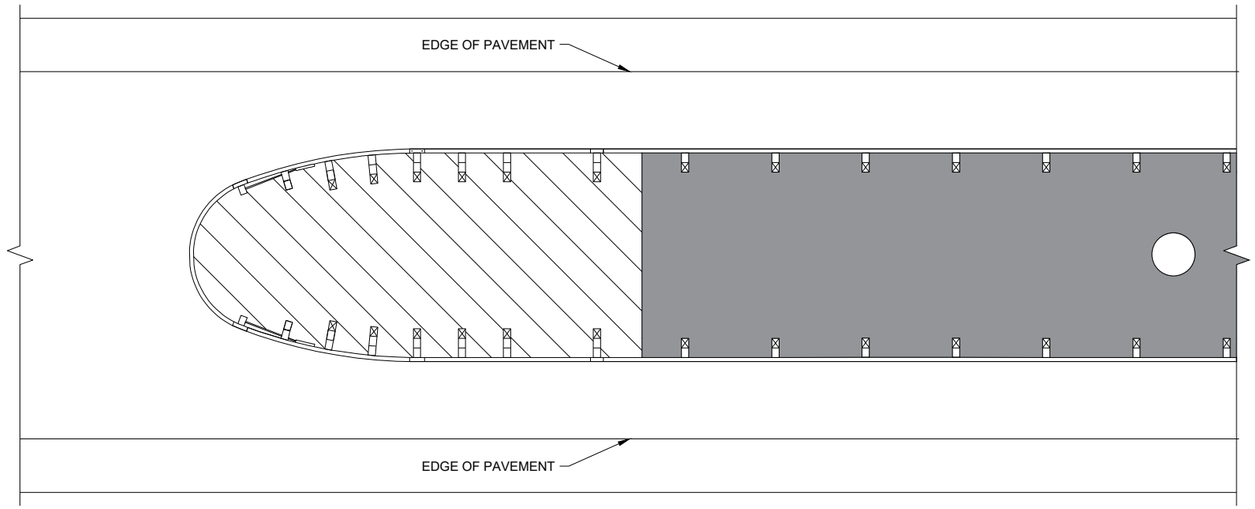
LEGEND

CONCRETE, ASPHALT, OR EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

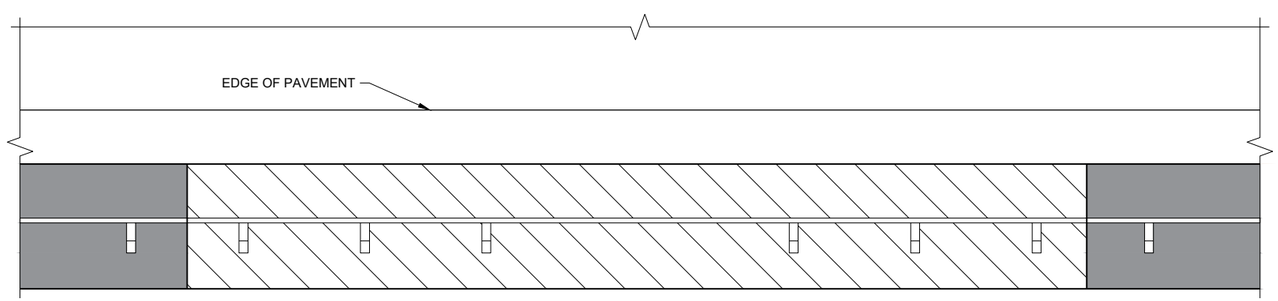
EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

GENERAL NOTES

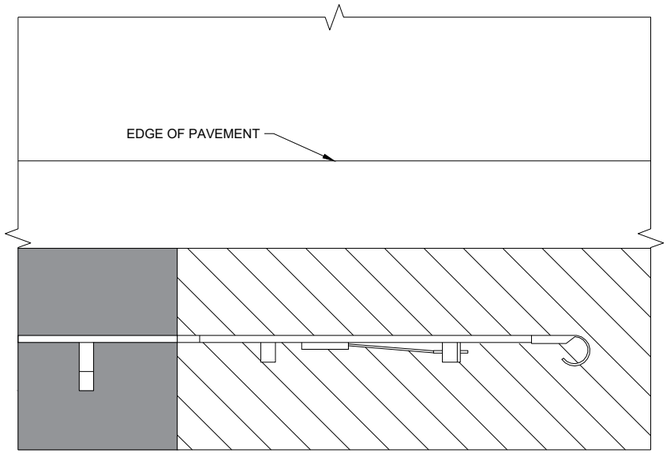
EXISTING THRIE BEAM BULLNOSES MAY HAVE WOOD POSTS. NEW THRIE BEAM BULLNOSE WILL HAVE STEEL POSTS.



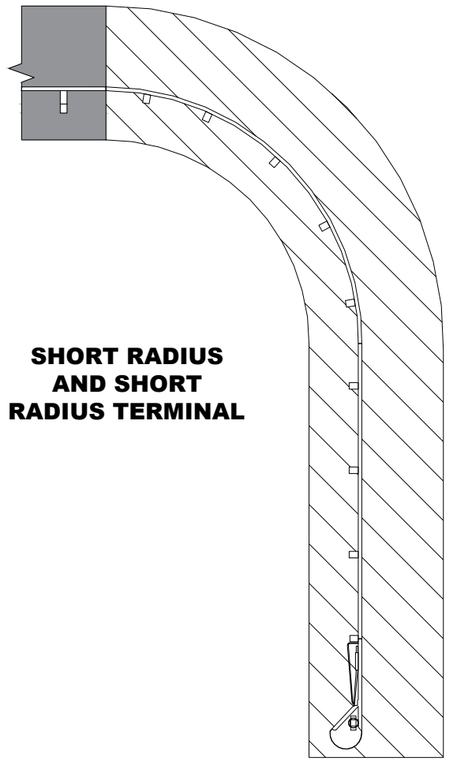
THRIE BEAM BULLNOSE



LONG - SPAN



TYPE 2 TERMINAL



SHORT RADIUS AND SHORT RADIUS TERMINAL

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
ENGINEER

FHWA

6

SDD 14B28 - 04b

6

SDD 14B28 - 04b

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

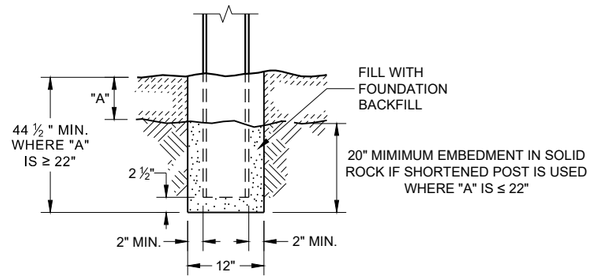
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

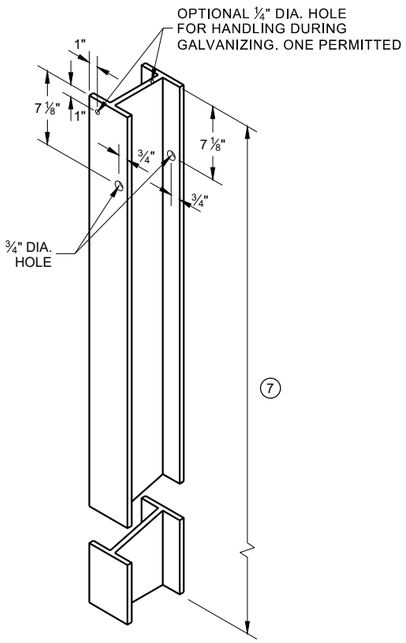
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

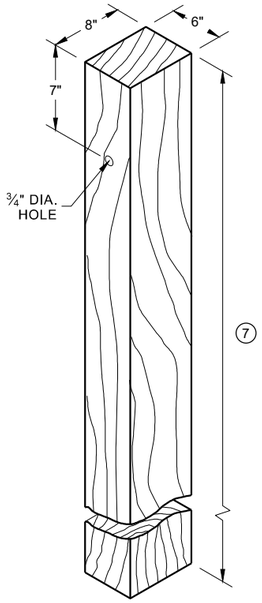
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



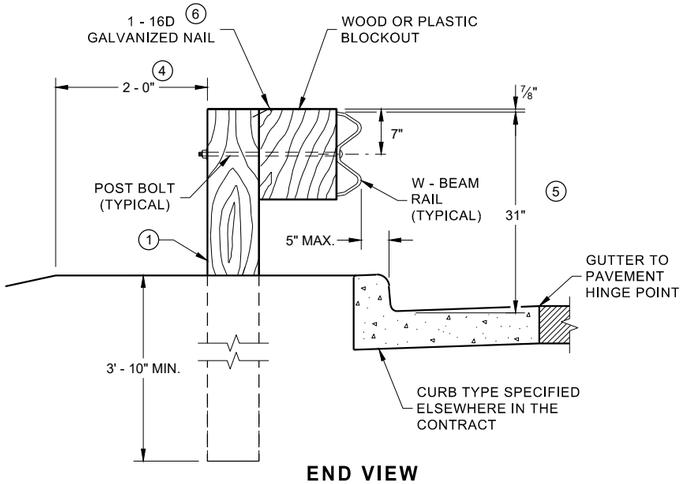
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



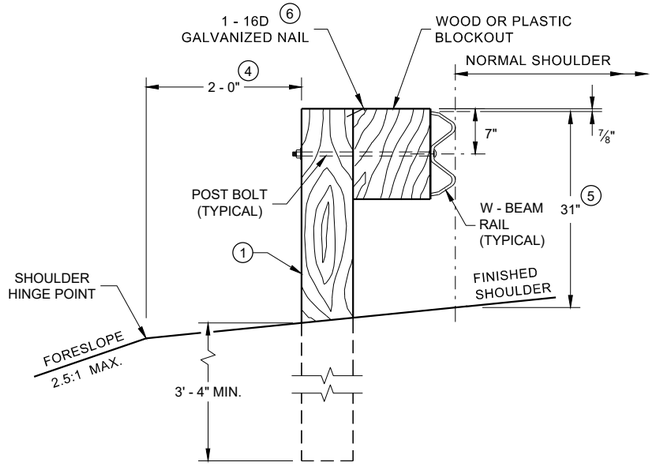
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



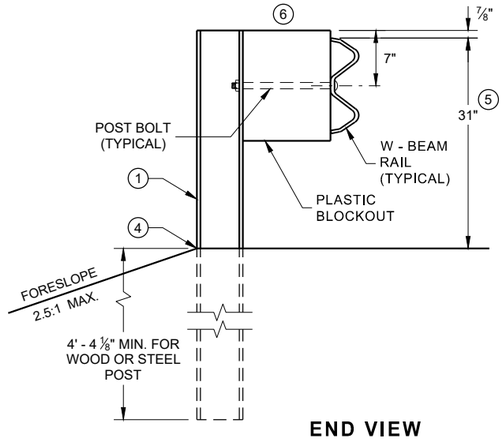
WOOD POST (6" X 8") NOMINAL (1)



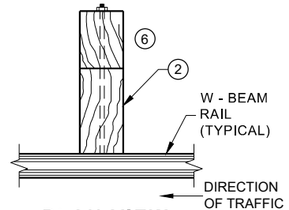
END VIEW
LOCATED ALONG A CURBED ROADWAY



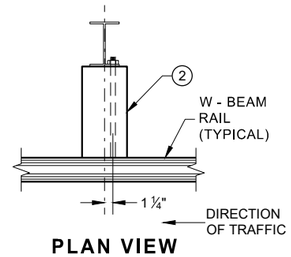
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



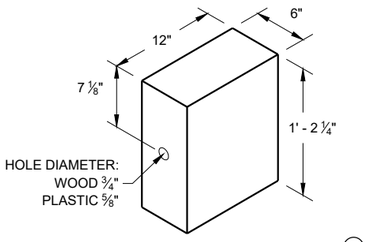
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



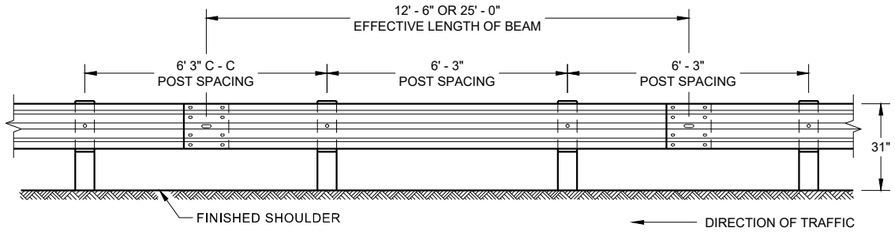
WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

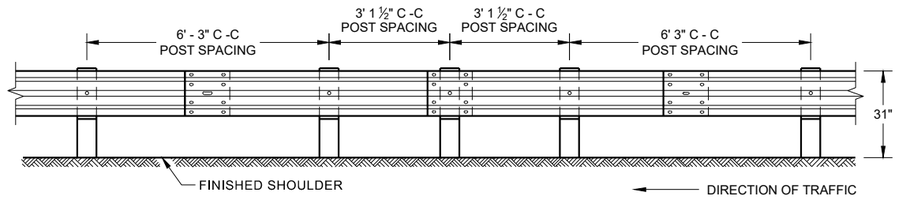
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

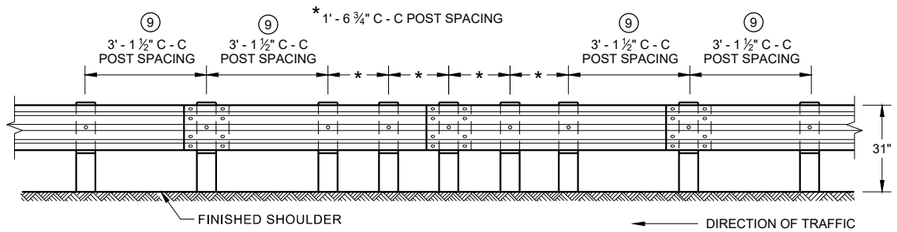
SDD 14B42 - 06a



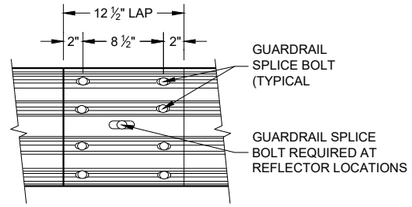
FRONT VIEW
POST SPACING STANDARD INSTALLATION



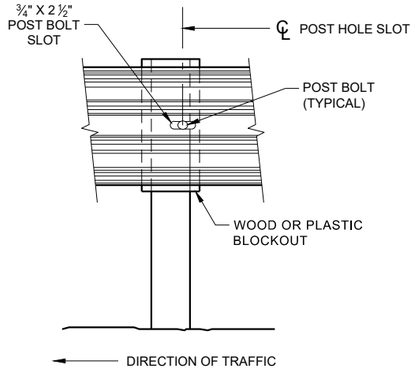
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



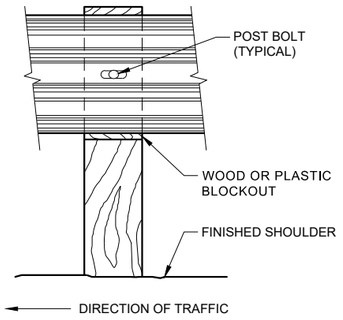
FRONT VIEW
QUARTER POST SPACING (QS)



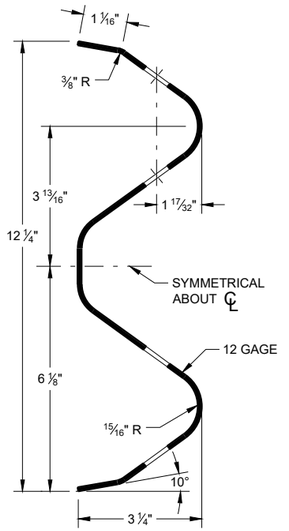
FRONT VIEW
MID-SPAN BEAM SPLICE



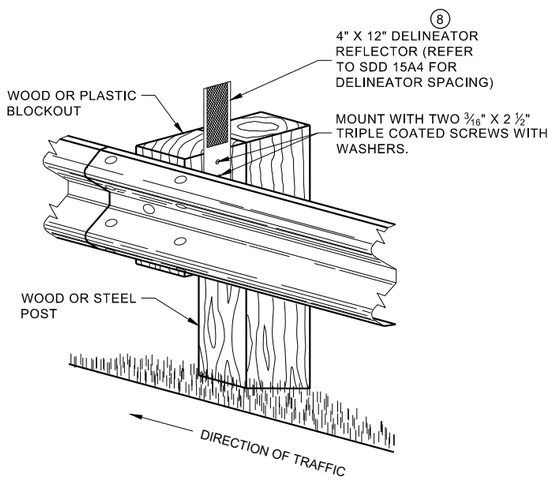
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

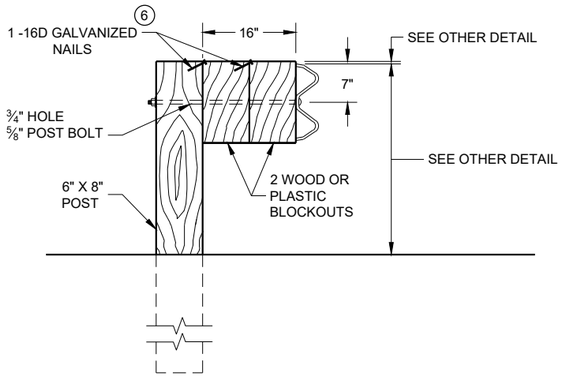
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 06b

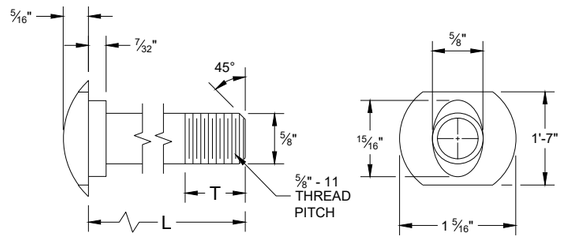


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

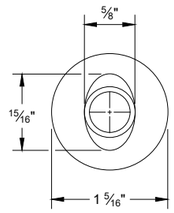
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

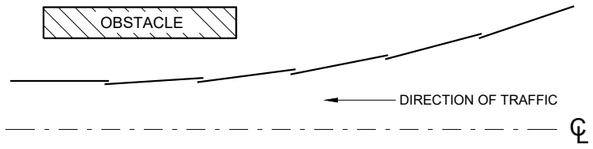


POST BOLT TABLE

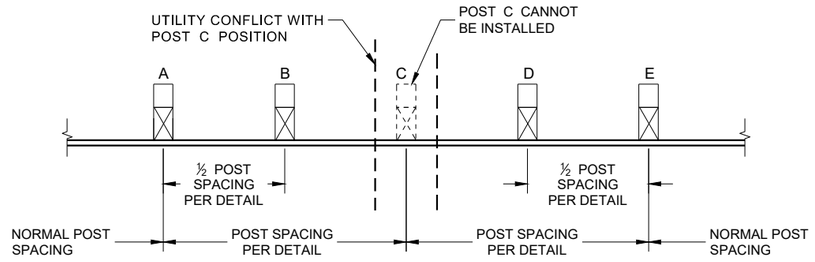
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



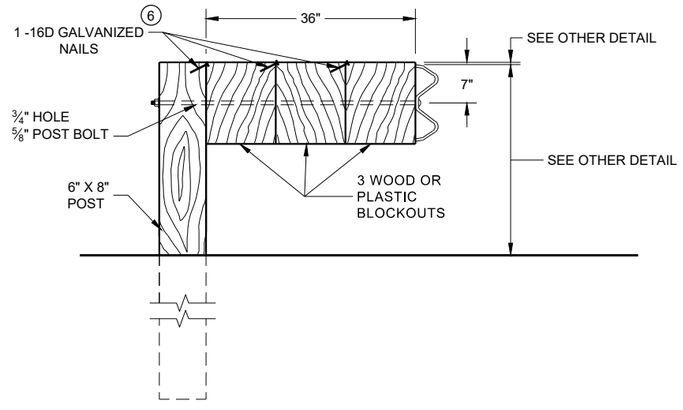
ALTERNATE BOLT HEAD



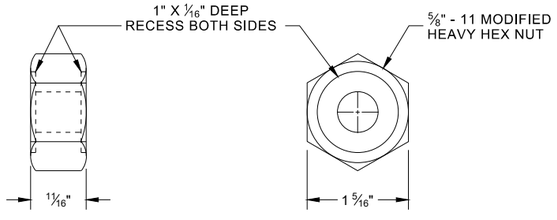
PLAN VIEW
BEAM LAPPING DETAIL



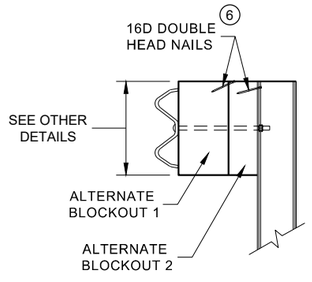
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



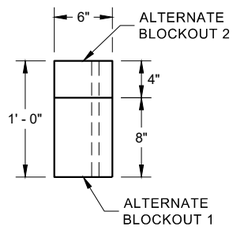
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

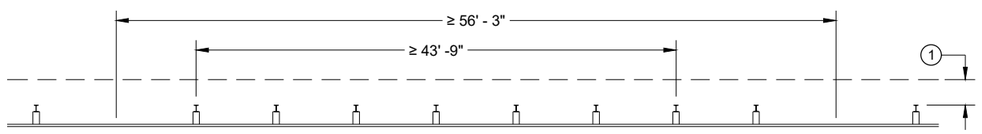
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

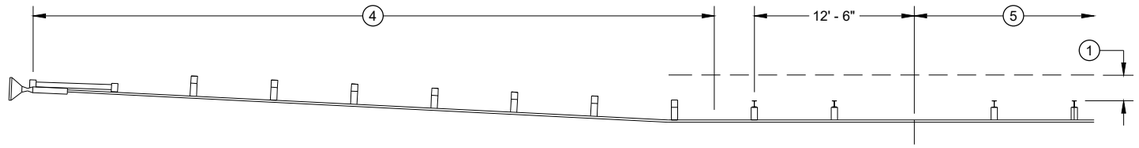
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

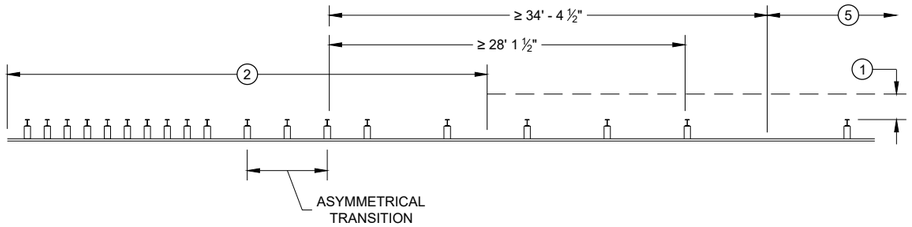
6
SDD 14B42 - 06c



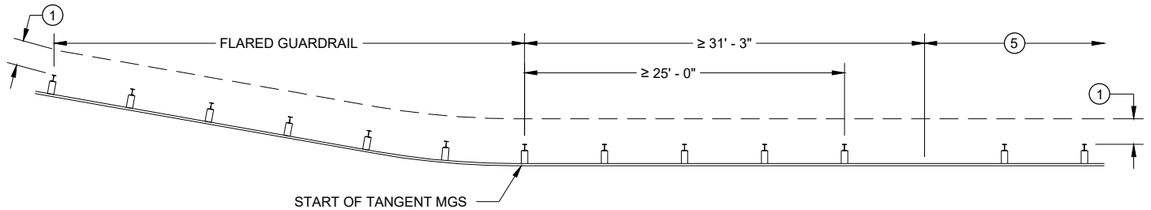
MISSING POST IN NORMAL BEAM GUARD RUN



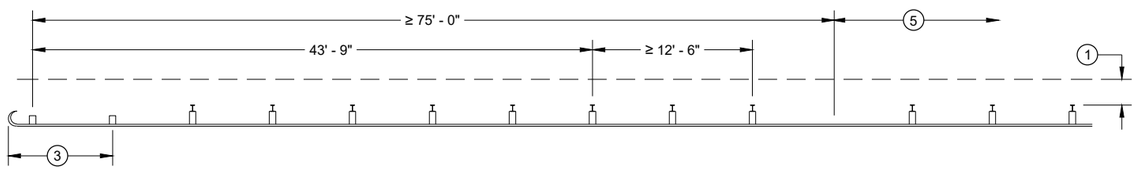
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



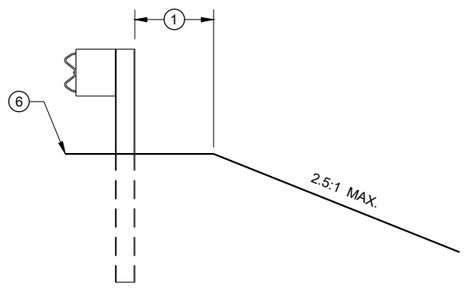
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

(1) MINIMUM OF 2 FEET OF GRADING BEHIND POST.

(2) SEE SDD 14B45 FOR MORE DETAILS.

(3) SEE SDD 14B47 FOR MORE DETAILS.

(4) SEE SDD 14B44 FOR MORE DETAILS.

(5) SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.

(6) SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

6

SDD 14B42 - 06d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

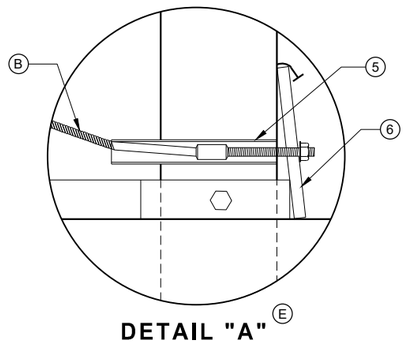
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

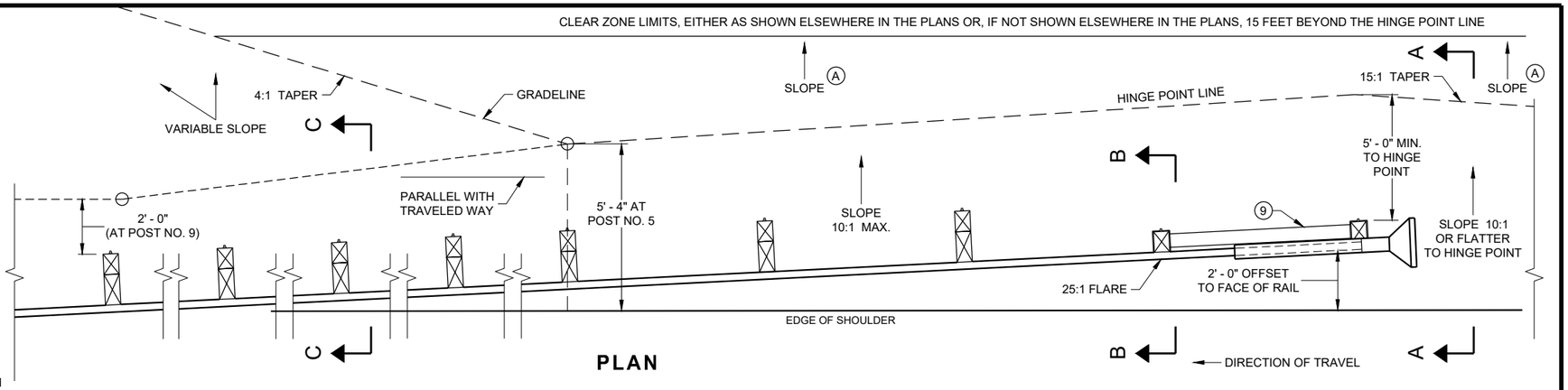
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

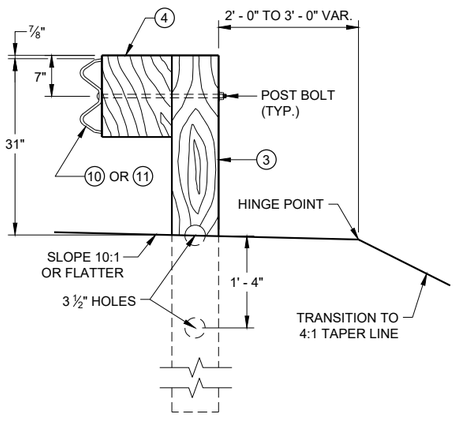
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

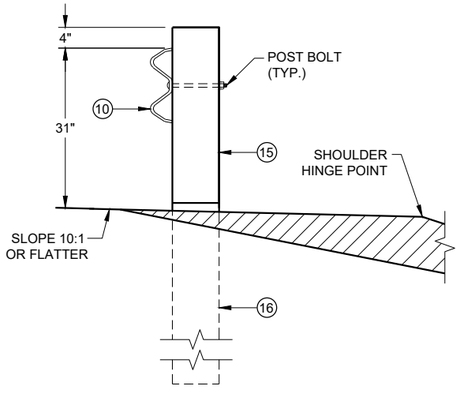


DETAIL "A" (E)

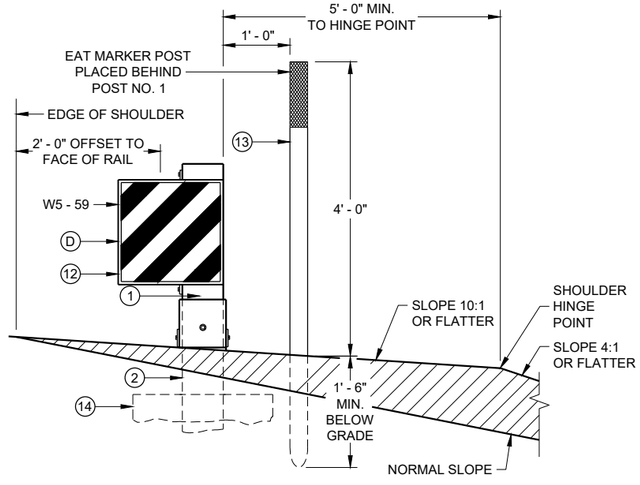




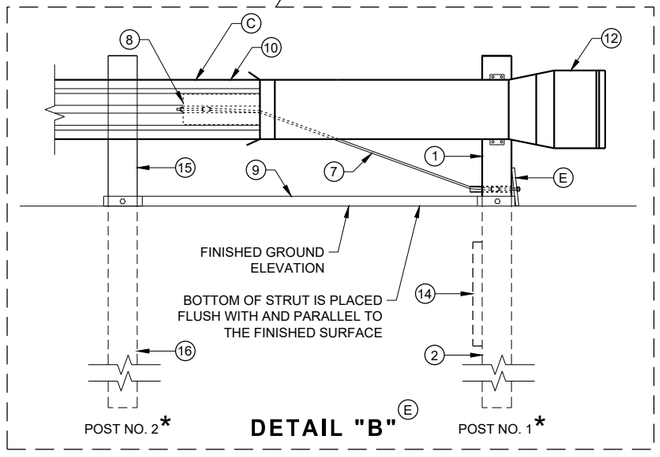
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



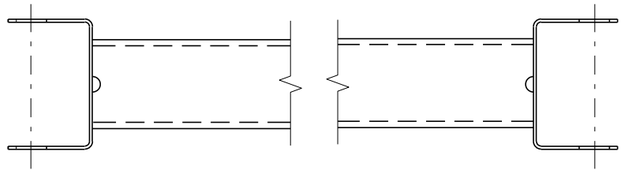
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

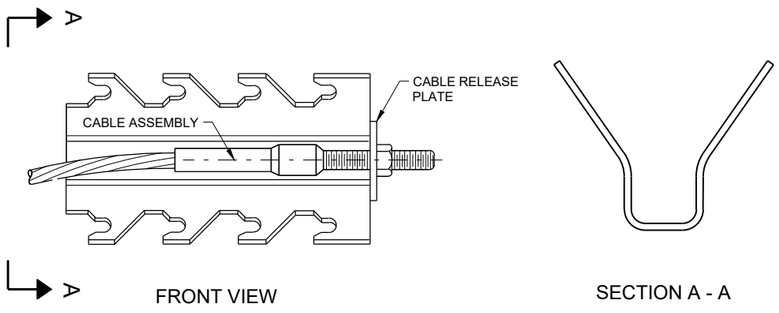
SDD 14B44 - 04a



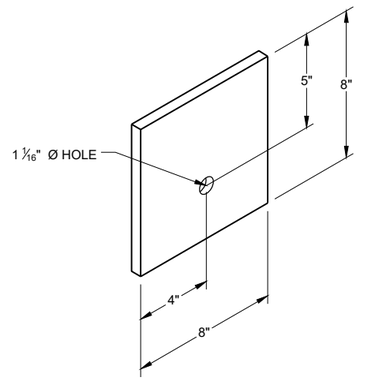
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

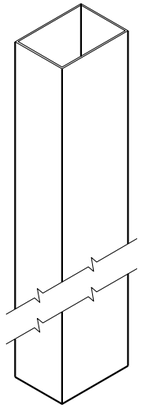
6

SDD 14B44 - 04b

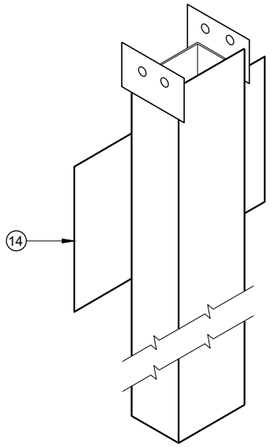
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

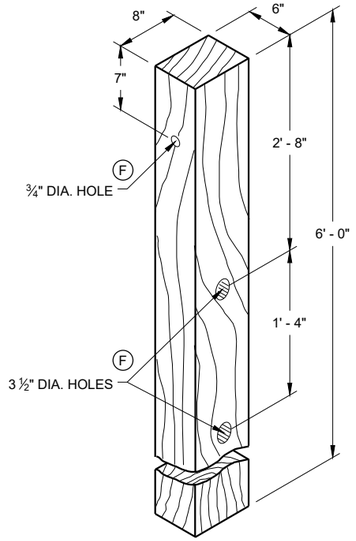
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



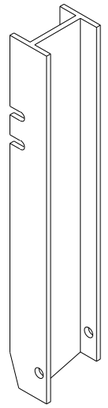
UPPER POST NO. 1 (1) (E)



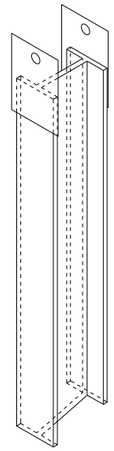
LOWER POST NO. 1 (2) (E)



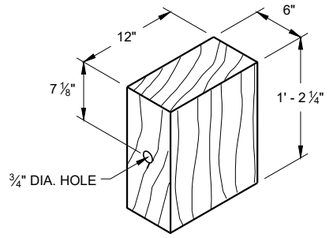
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



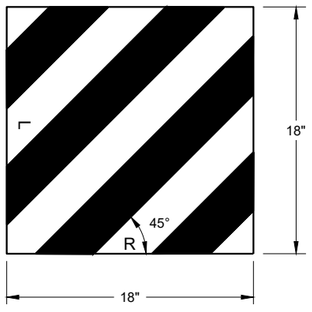
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

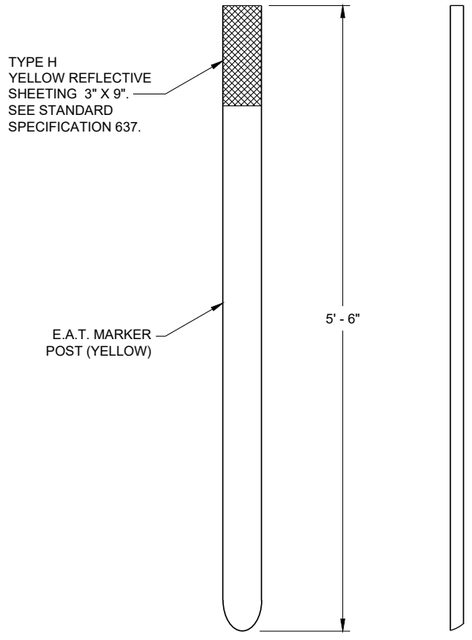


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



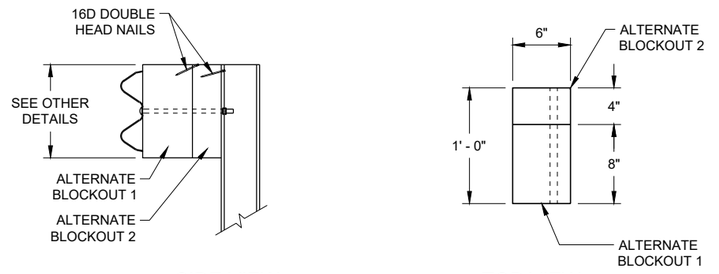
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

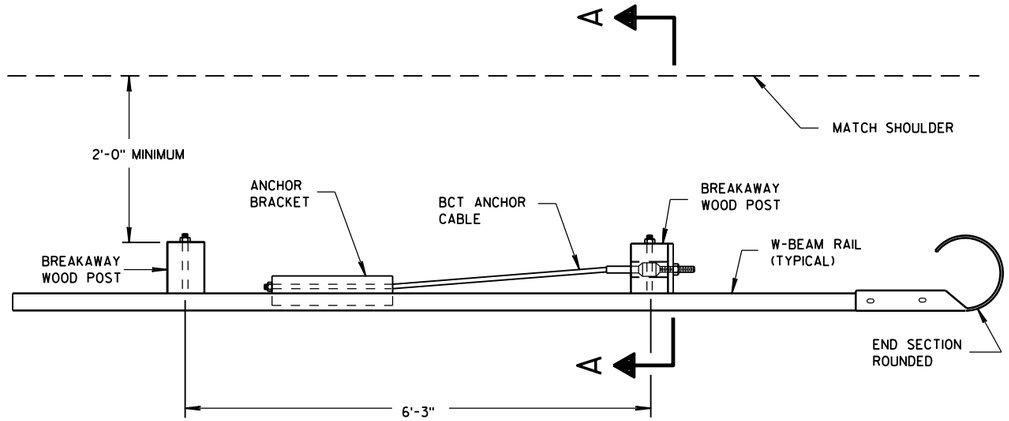
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

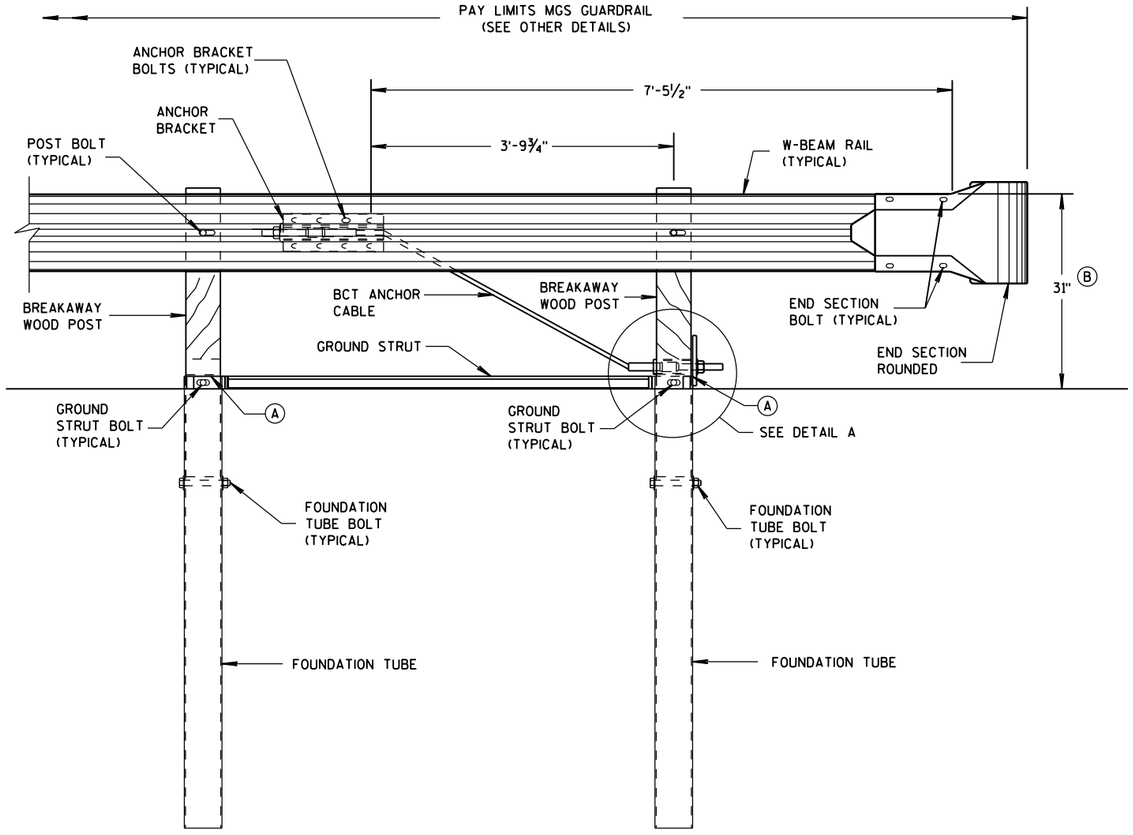
FHWA

6

SDD 14B44 - 04c

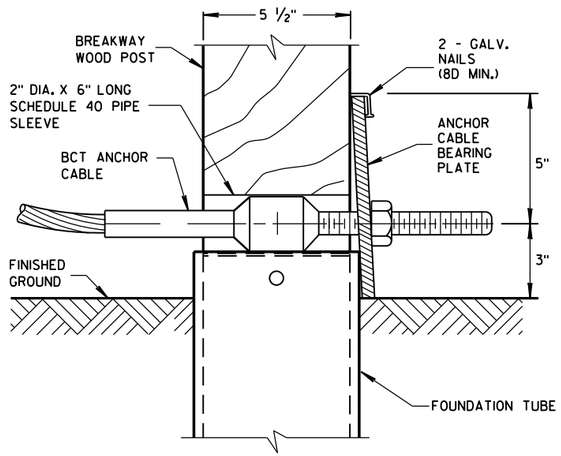


PLAN VIEW



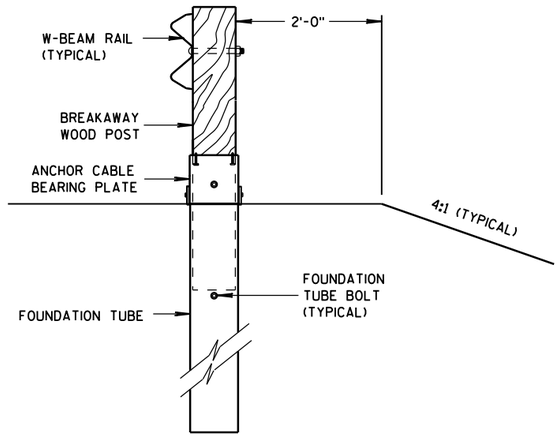
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

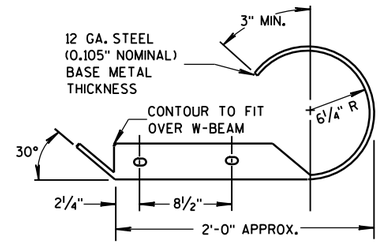
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

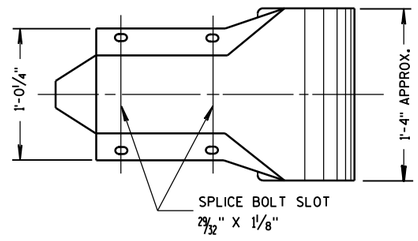
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



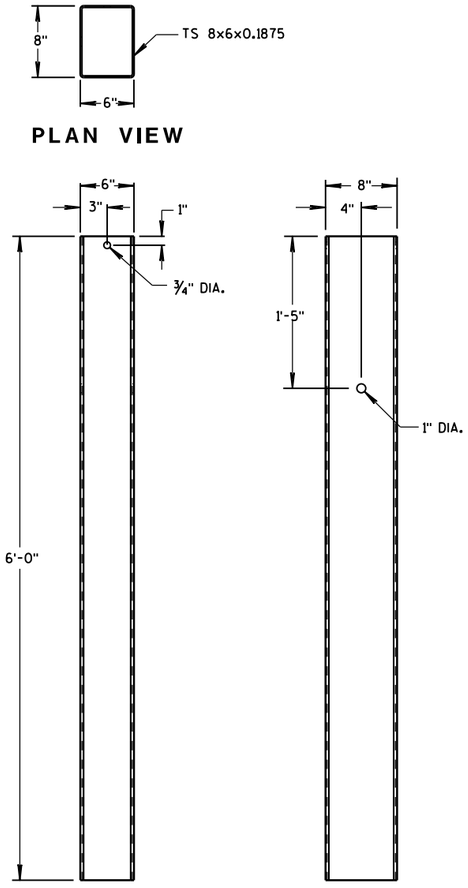
FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

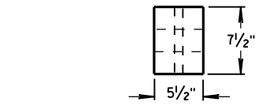
6
S.D.D. 14 B 47-2a



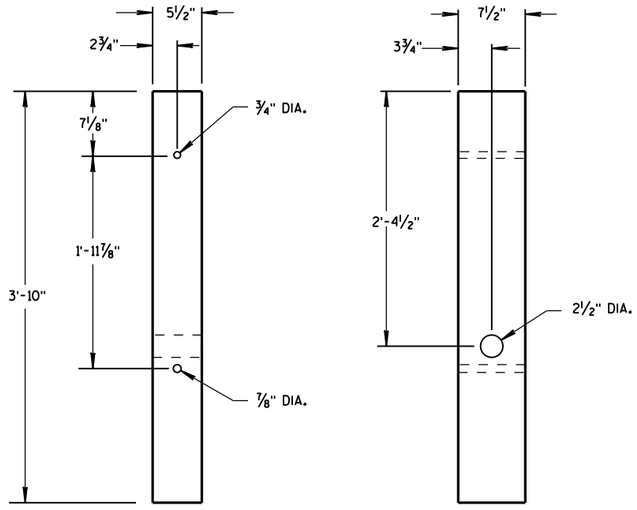
PLAN VIEW

FRONT VIEW SIDE VIEW

FOUNDATION TUBE



PLAN VIEW

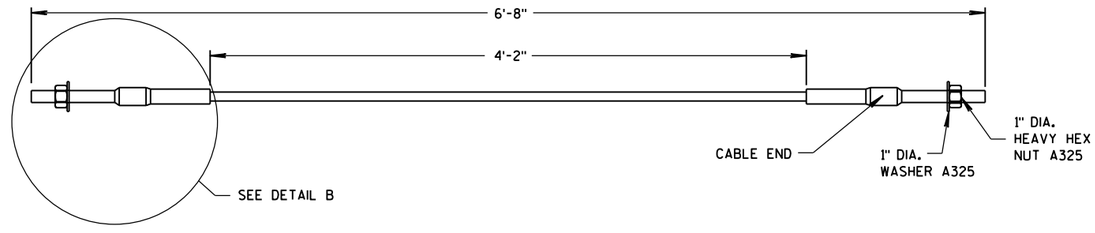


FRONT VIEW SIDE VIEW

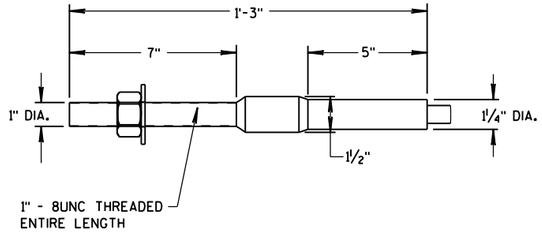
BREAKAWAY WOOD POST

GENERAL NOTES

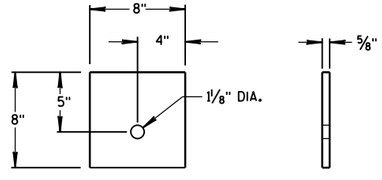
BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.



BCT ANCHOR CABLE



DETAIL B



SIDE VIEW FRONT VIEW

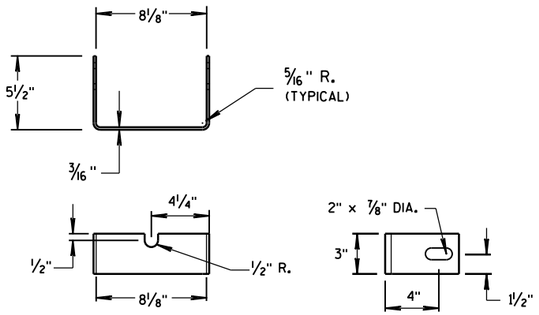
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

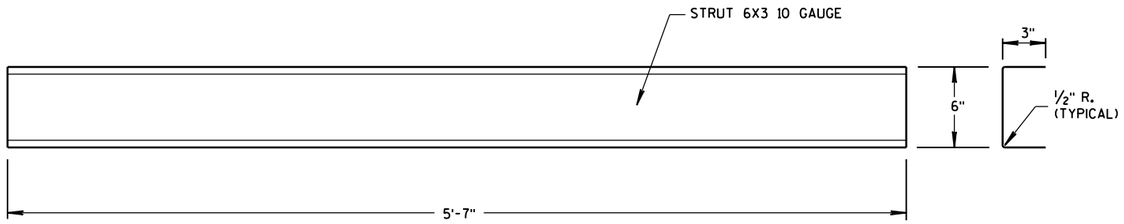
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

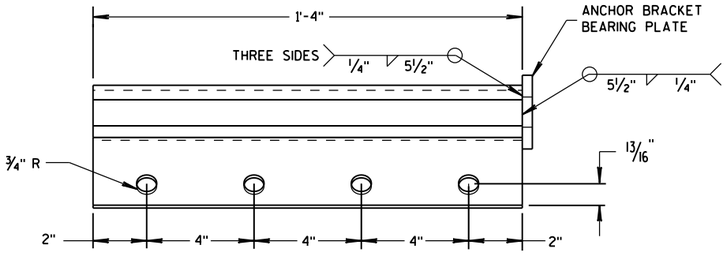
S.D.D. 14 B 47-2b

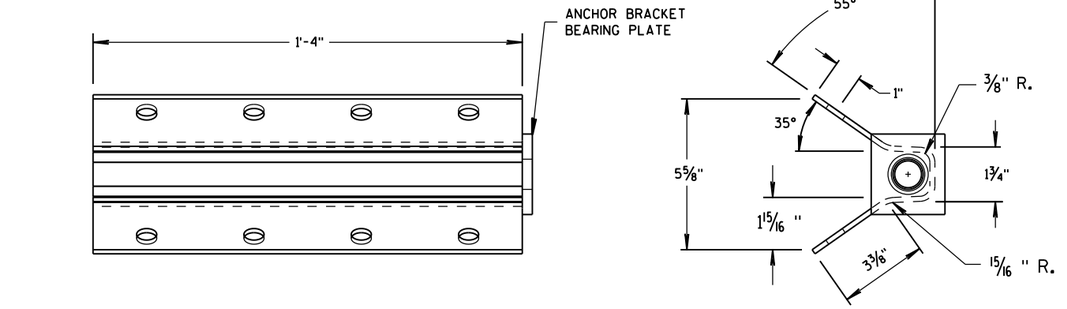


YOKE DETAIL

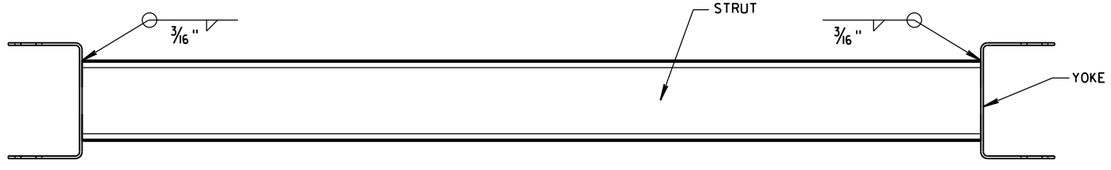


STRUT DETAIL

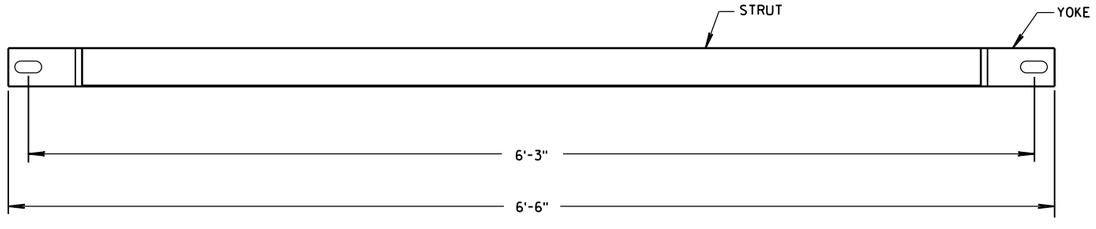




ANCHOR BRACKET

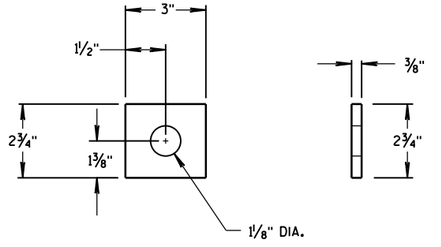


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

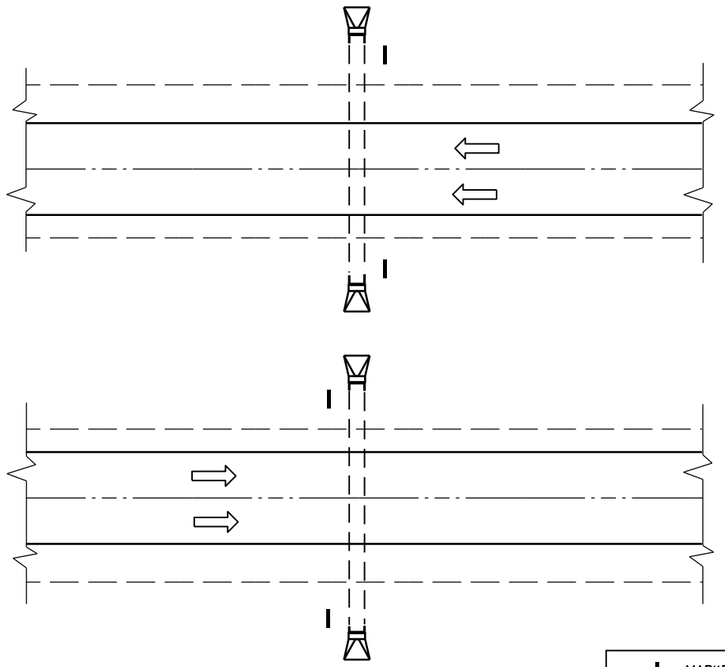
APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 47-2c

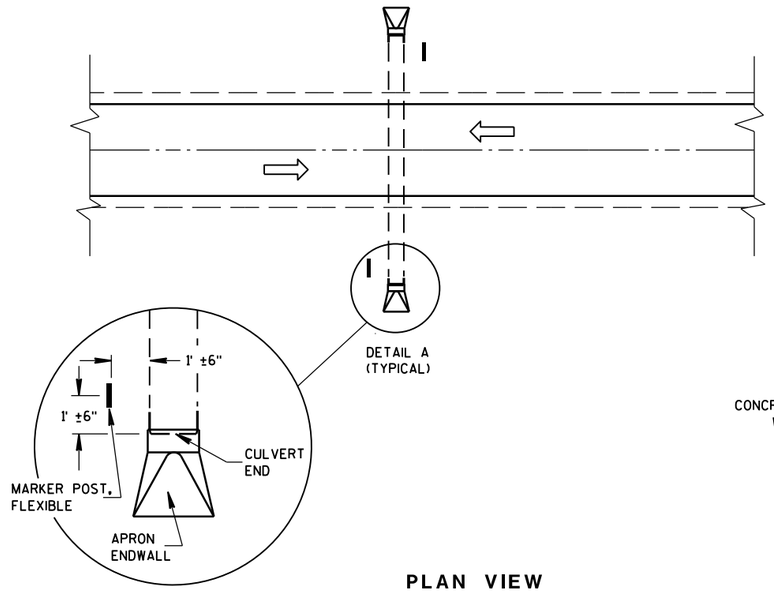
6

S.D.D. 14 B 47-2c



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

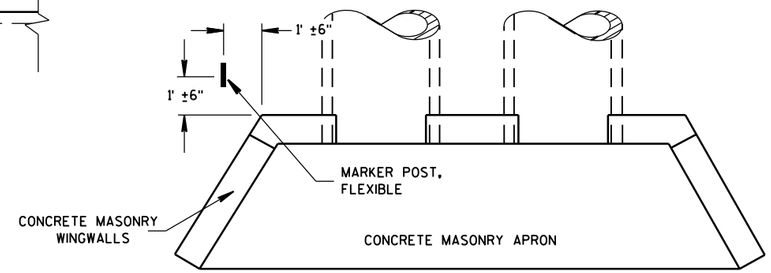
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

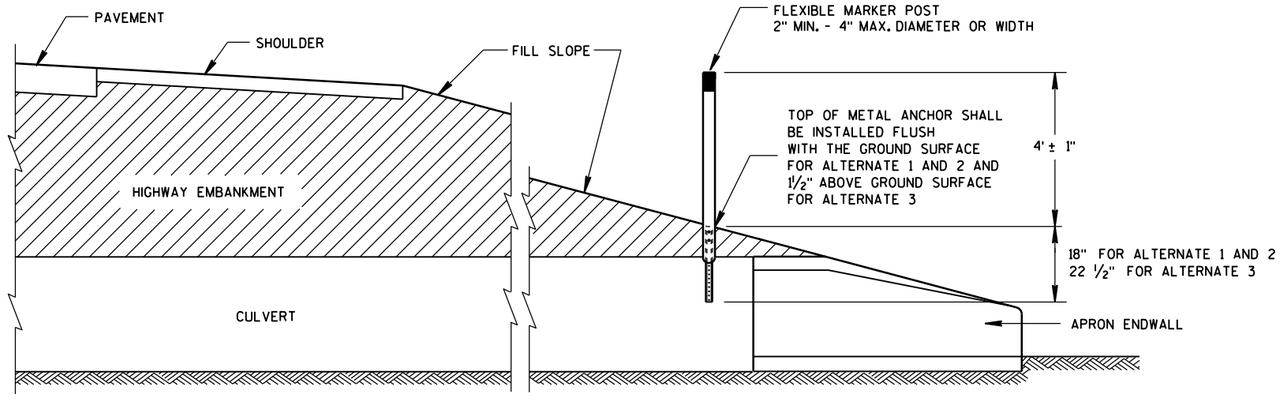
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

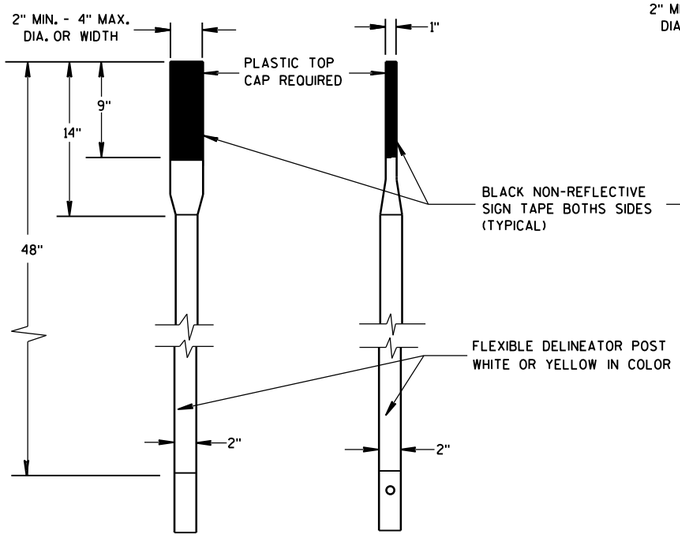
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

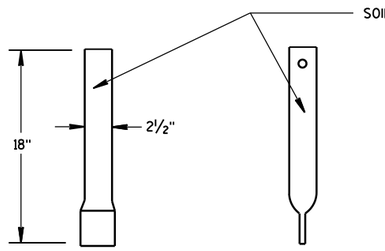
6

S.D.D. 15 A 3-2a

6

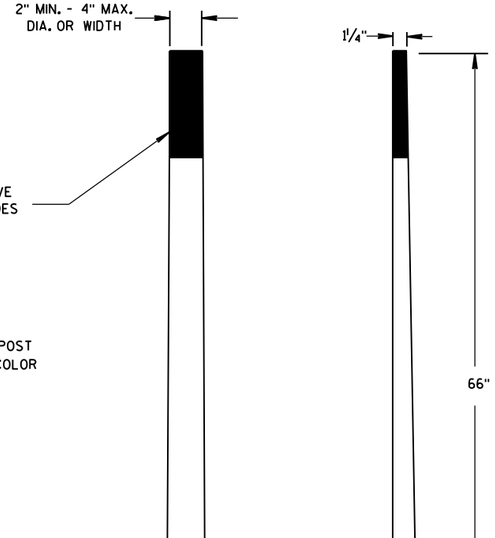
S.D.D. 15 A 3-2a





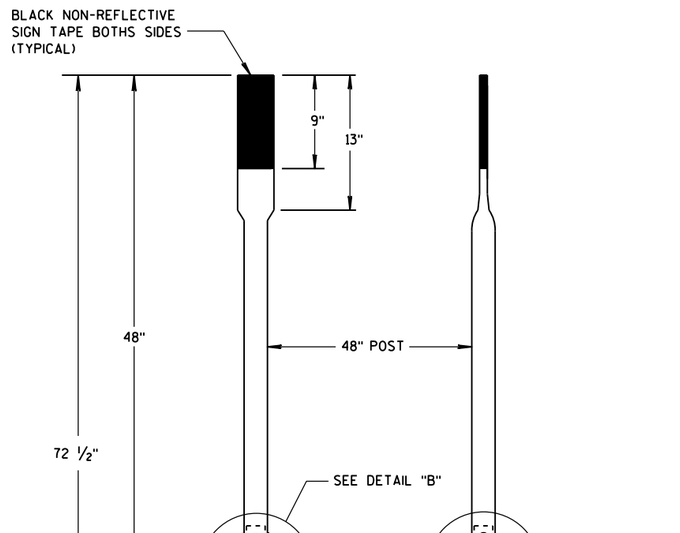
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

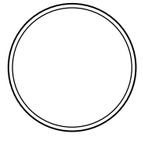
ALTERNATE 2



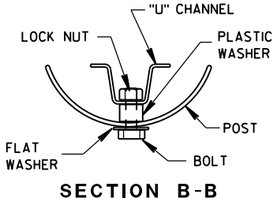
FRONT VIEW SIDE VIEW

ALTERNATE 3

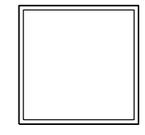
FLEXIBLE MARKER POSTS



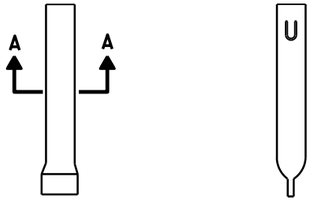
SECTION A-A



SECTION B-B

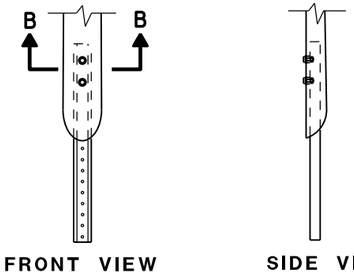


SECTION C-C



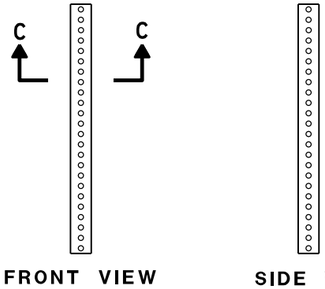
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

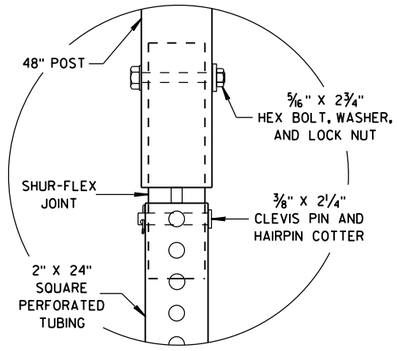
ALTERNATE 2



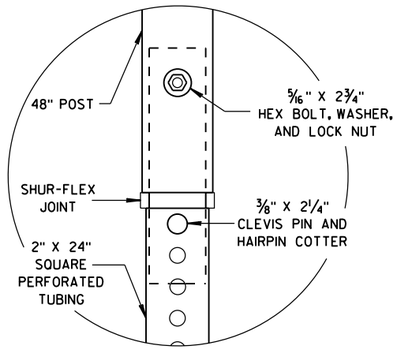
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

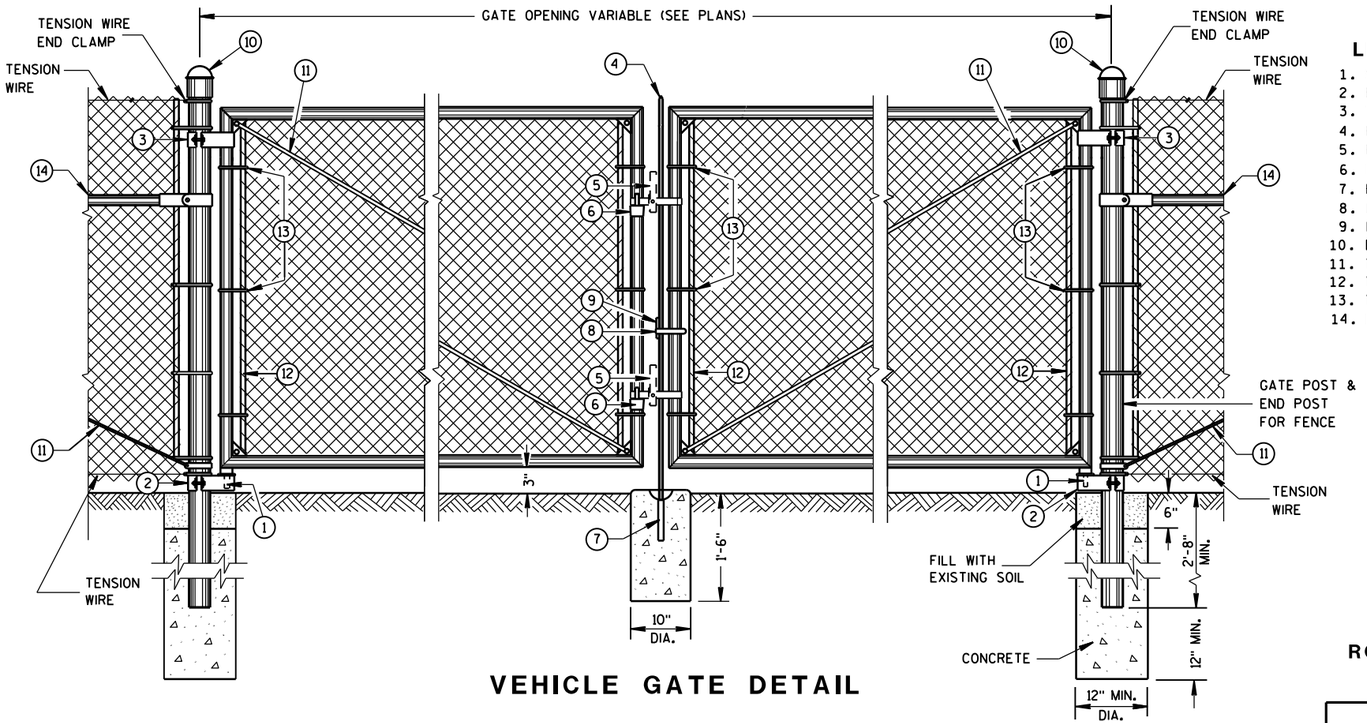
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

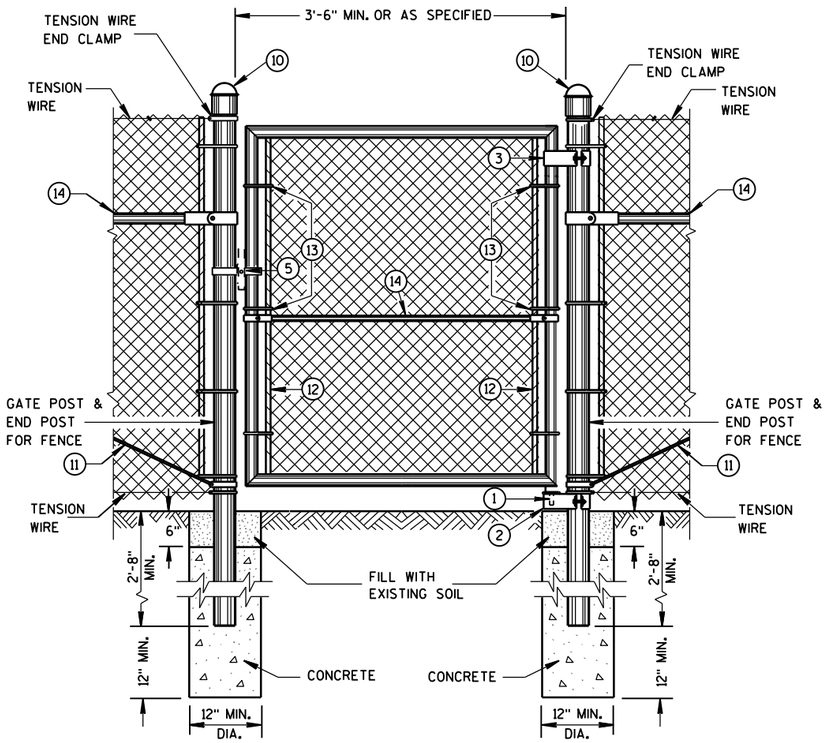
S.D.D. 15 A 3-2b

6

S.D.D. 15 A 3-2b



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

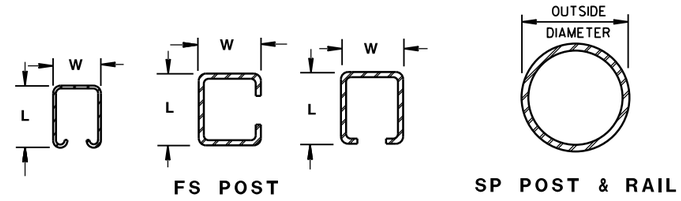
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



CROSS SECTIONS OF POSTS AND RAILS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

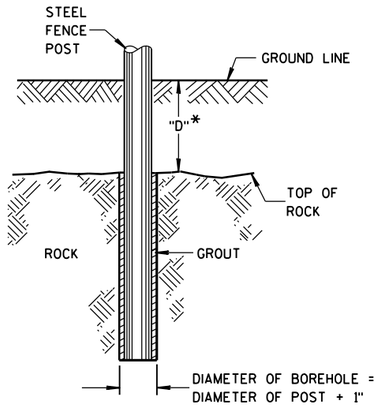
** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

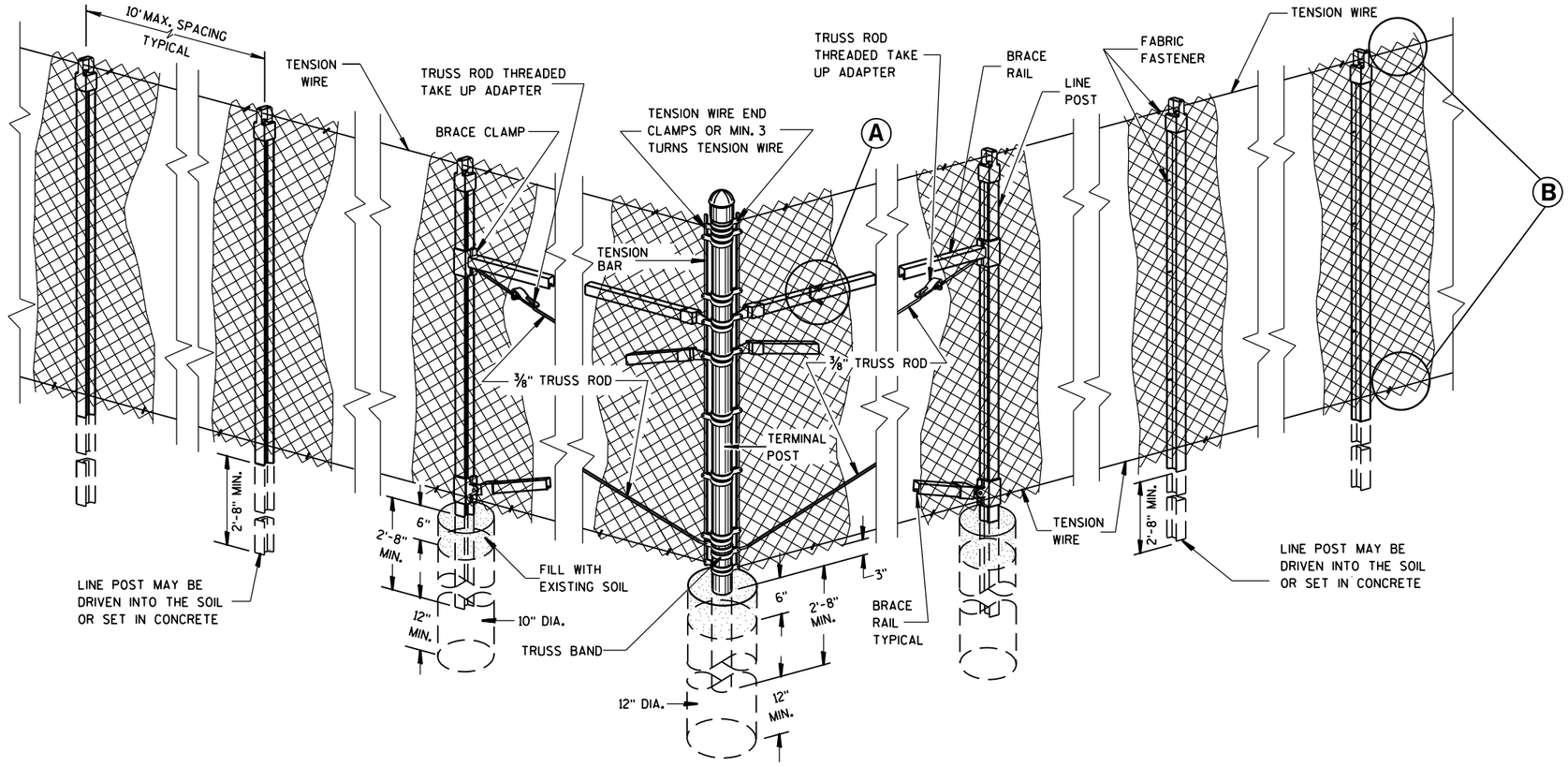
6

S.D.D. 15 B 3-15a

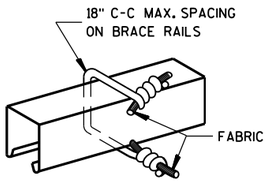


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



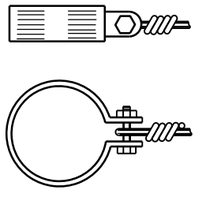
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



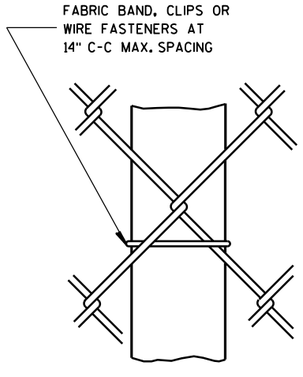
BRACE RAIL

FABRIC FASTENER

Ⓐ



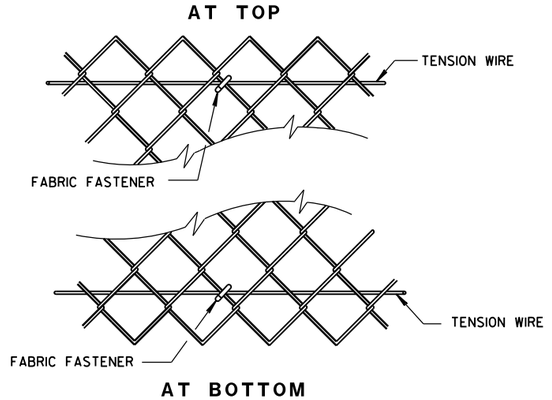
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

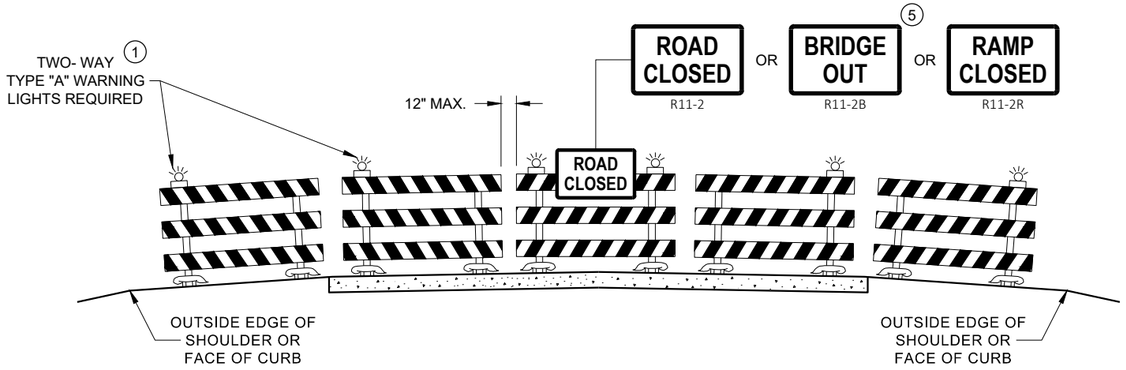
APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

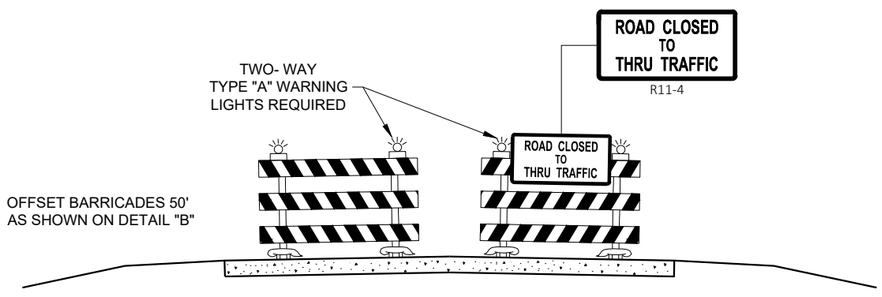
S.D.D. 15 B 3-15b

6

S.D.D. 15 B 3-15b



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

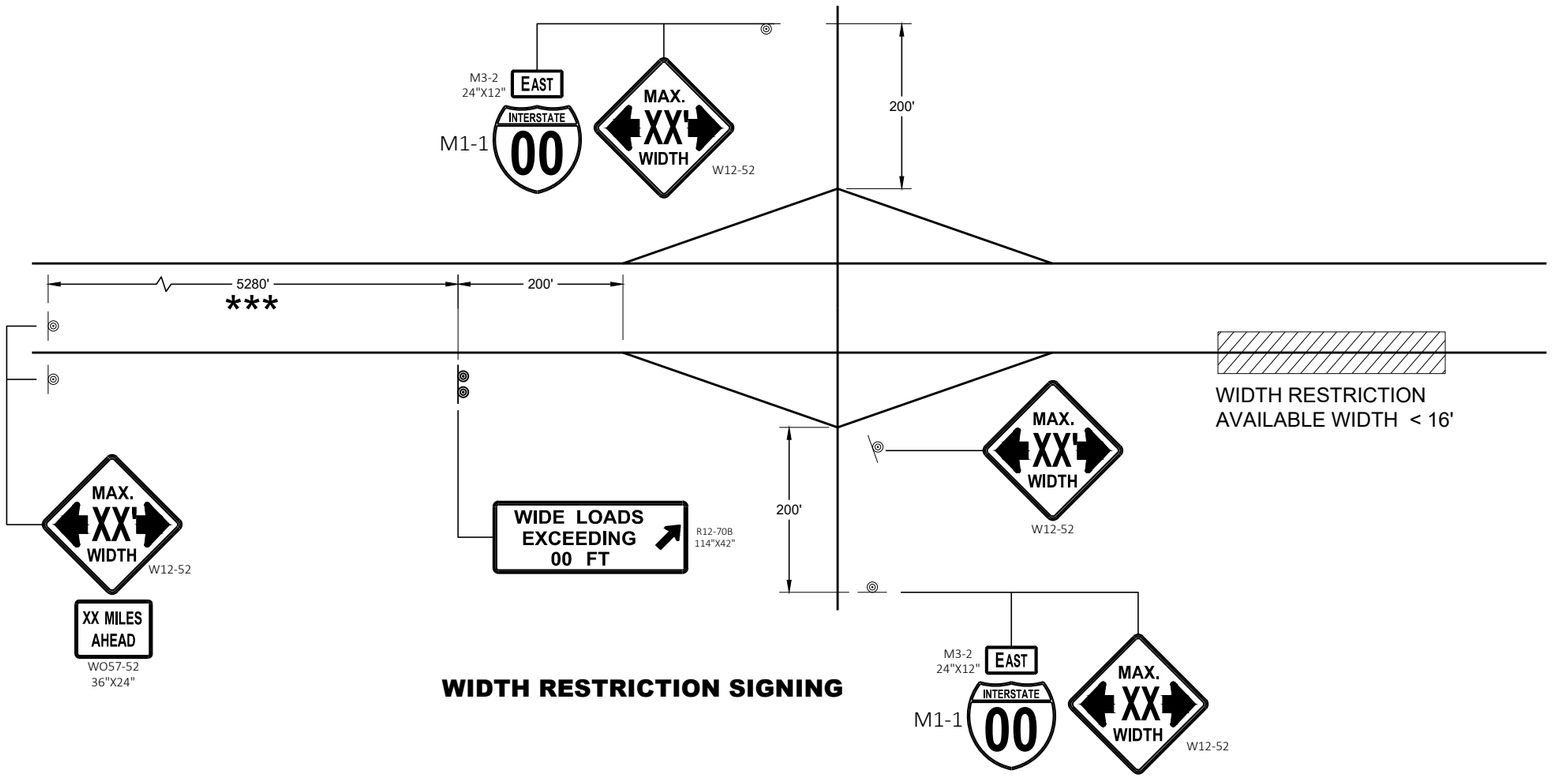
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 08b

6

SDD 15C02 - 08b



WIDTH RESTRICTION SIGNING

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS 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 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.

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

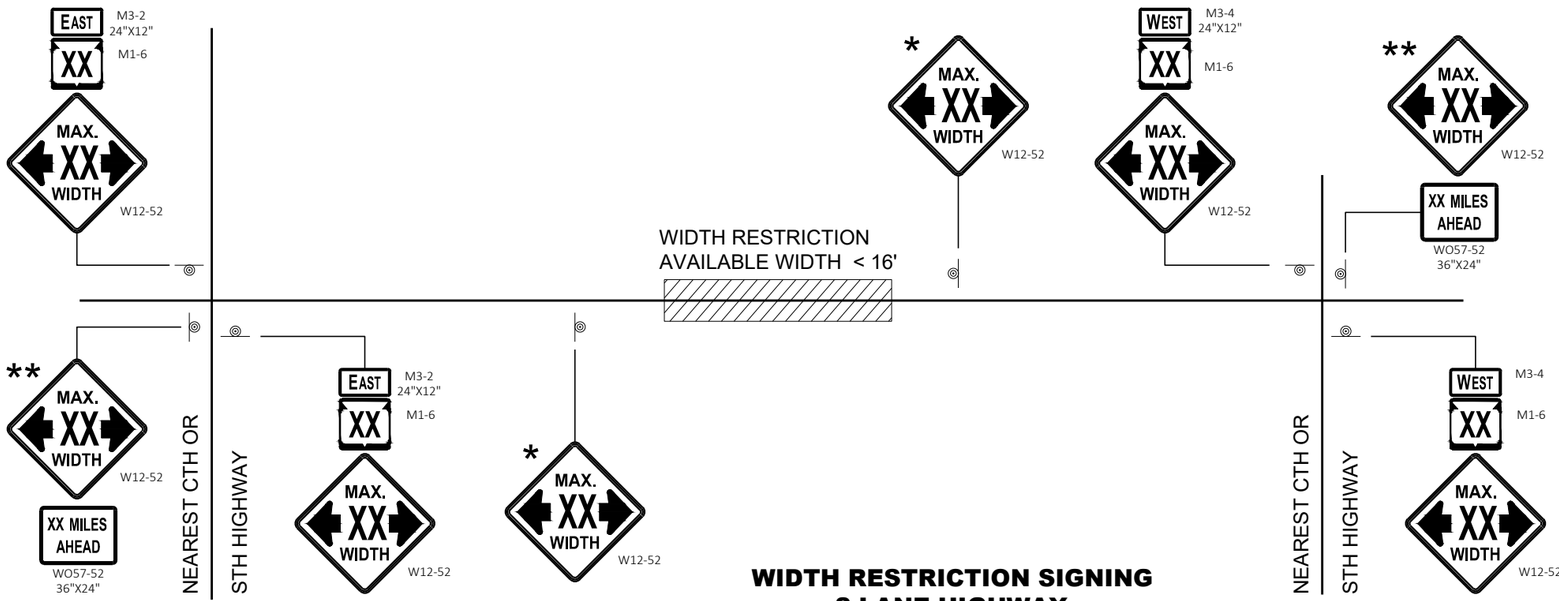
* PLACE 500 FEET BEFORE THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

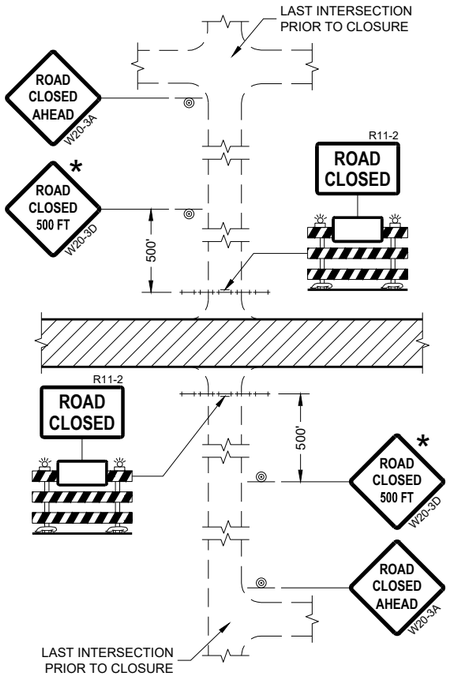
APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

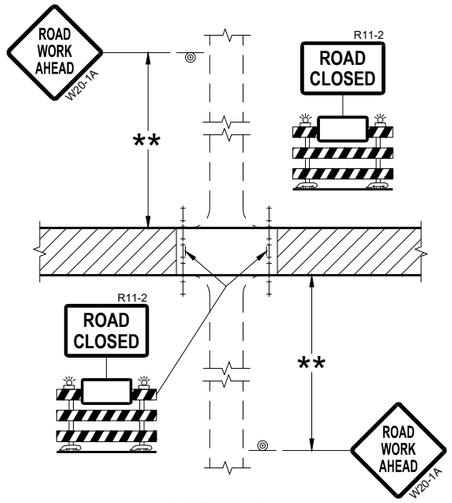
FHWA

6

SDD 15C02 - 08f



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO 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.

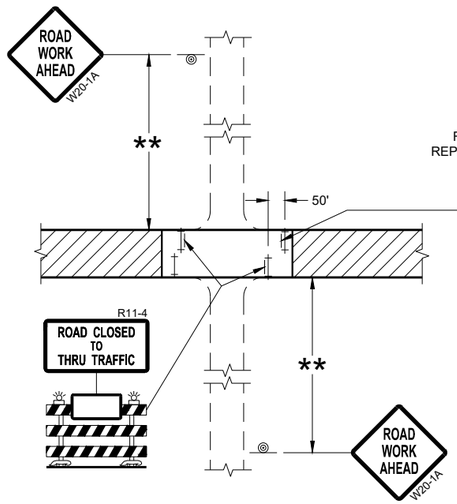
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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.

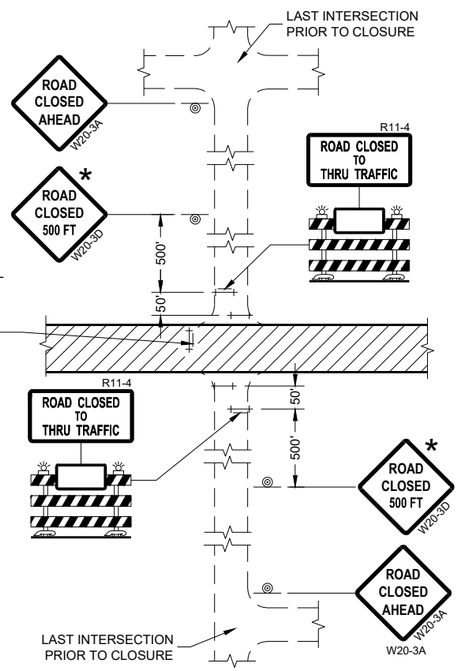
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* 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.



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



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

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
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

SDD 15C03 - 05

GENERAL NOTES

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

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.

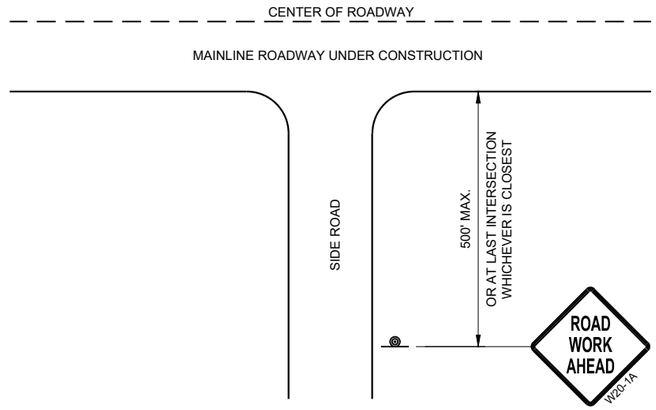
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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.

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

** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



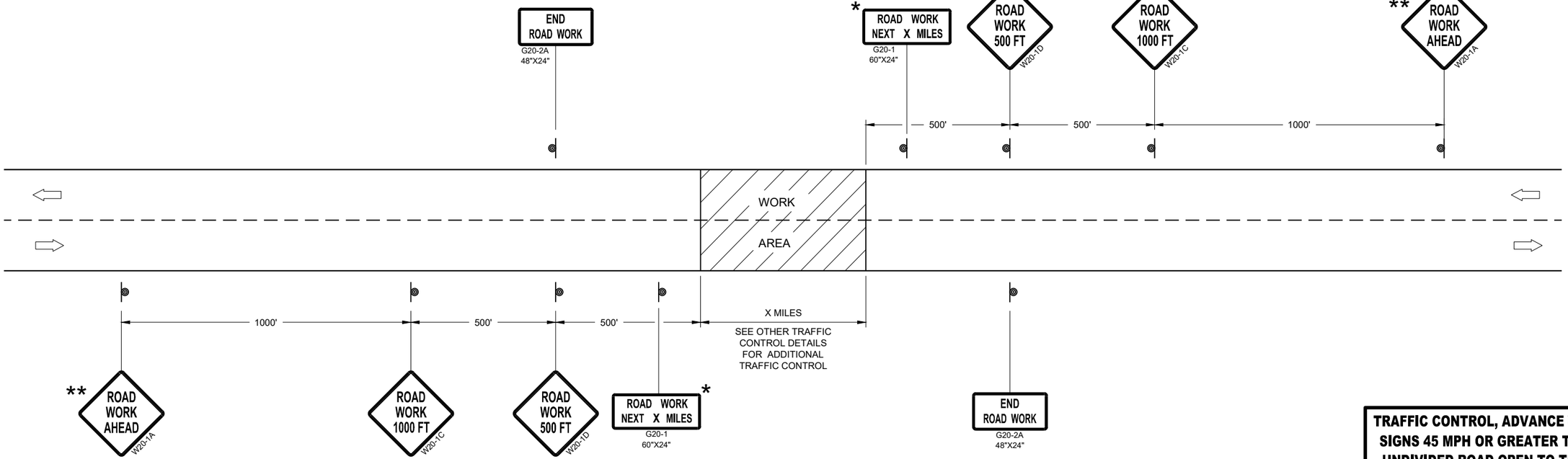
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

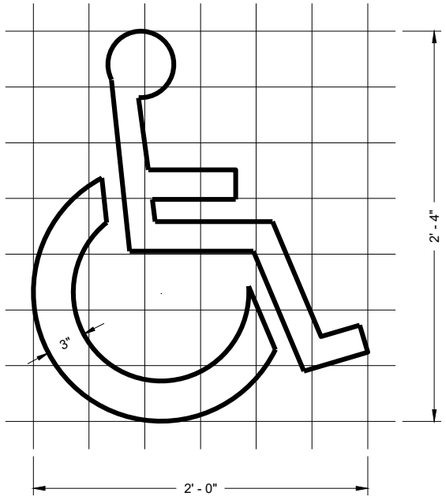
FHWA

6

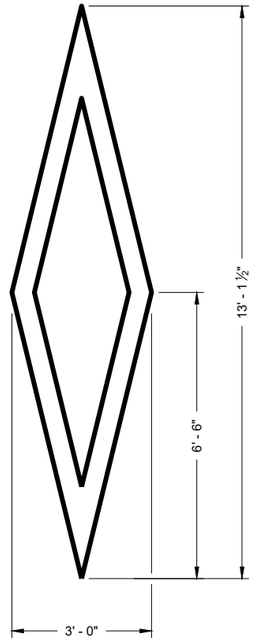
SDD 15C04 - 05

GENERAL NOTES

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



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

SDD 15C07 - 15a

SDD 15C07 - 15a

PAVEMENT MARKING SYMBOLS

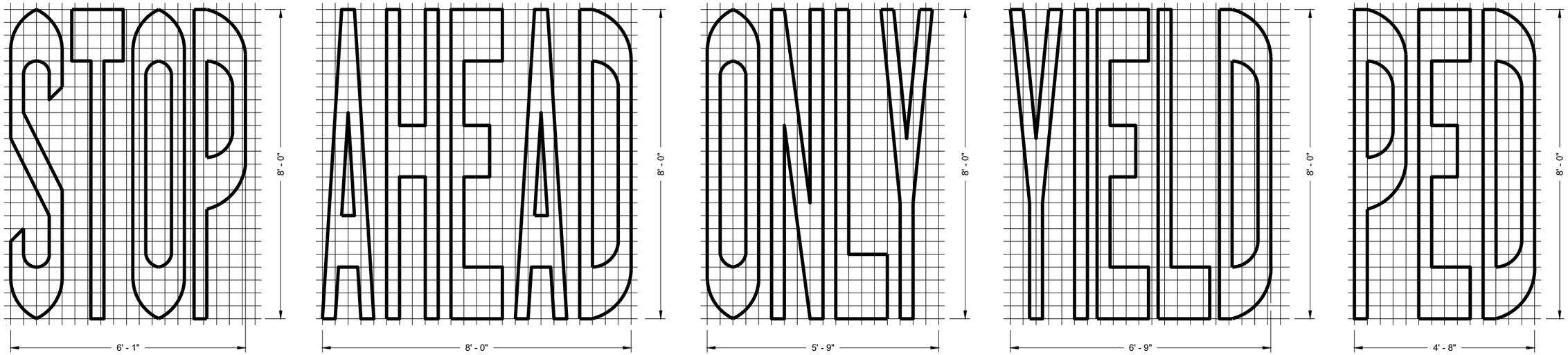
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

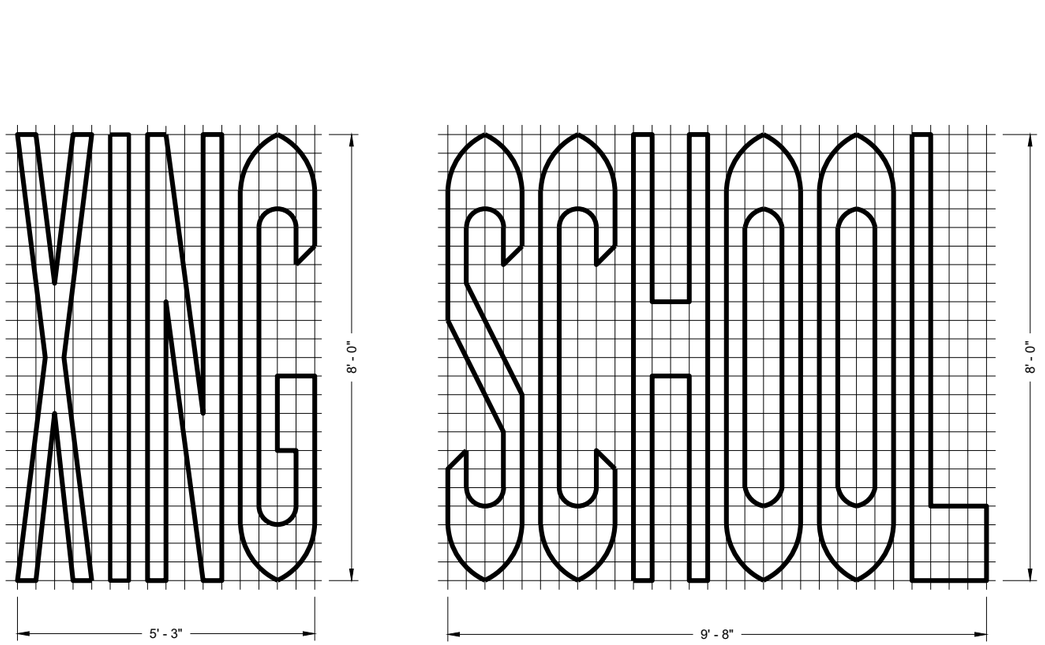
APPROVED

November 2019
DATE

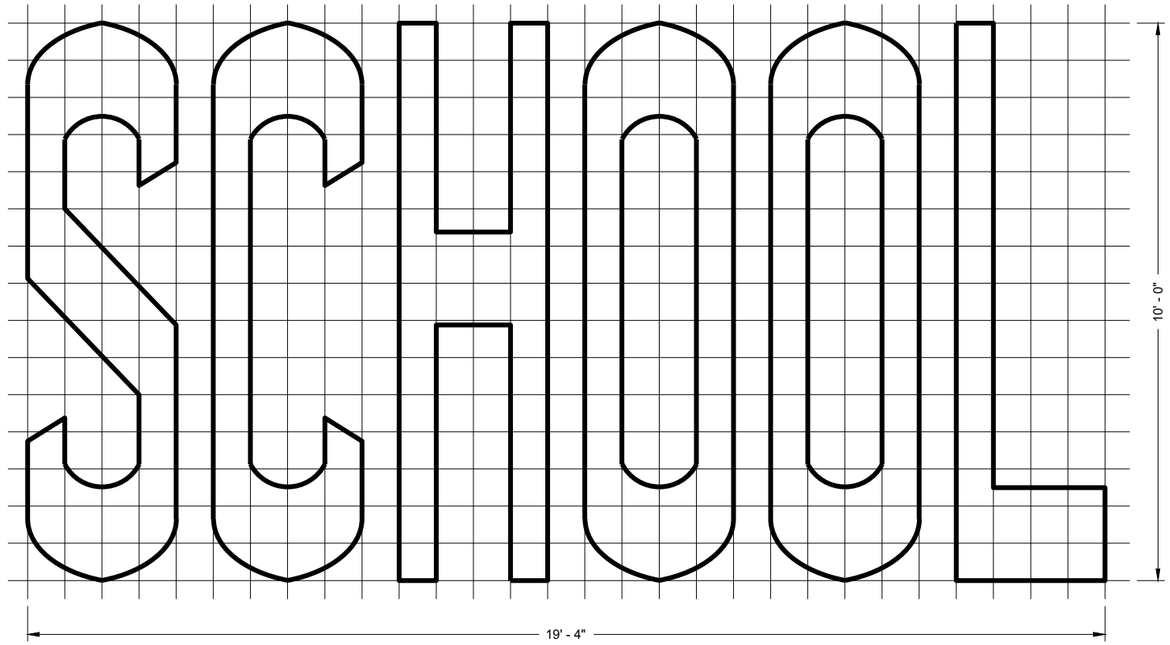
/S/ Matthew Rauch
STATE SIGNING AND MAR ENGINEER

FHWA





SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

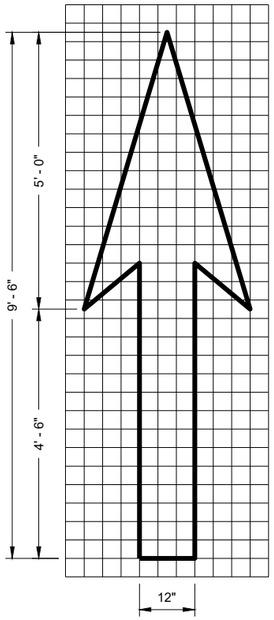
6

SDD 15C07 - 15b

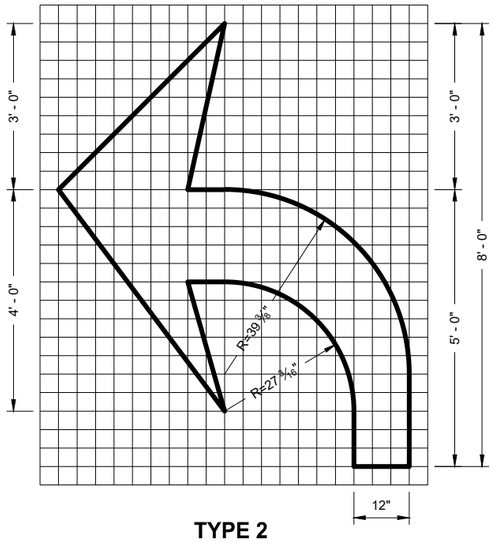
SDD 15C07 - 15b

GENERAL NOTES

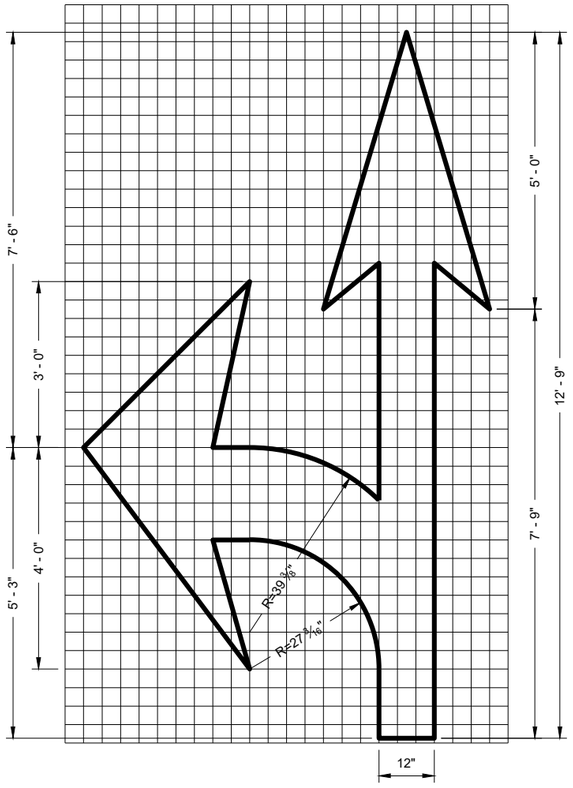
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



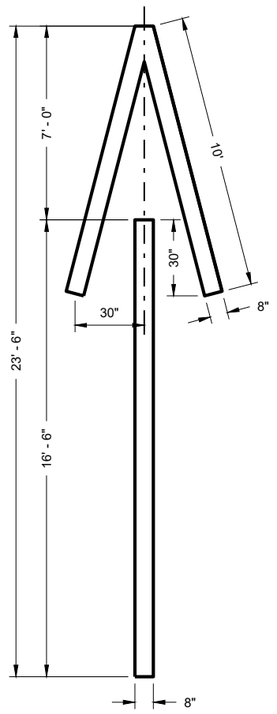
TYPE 1



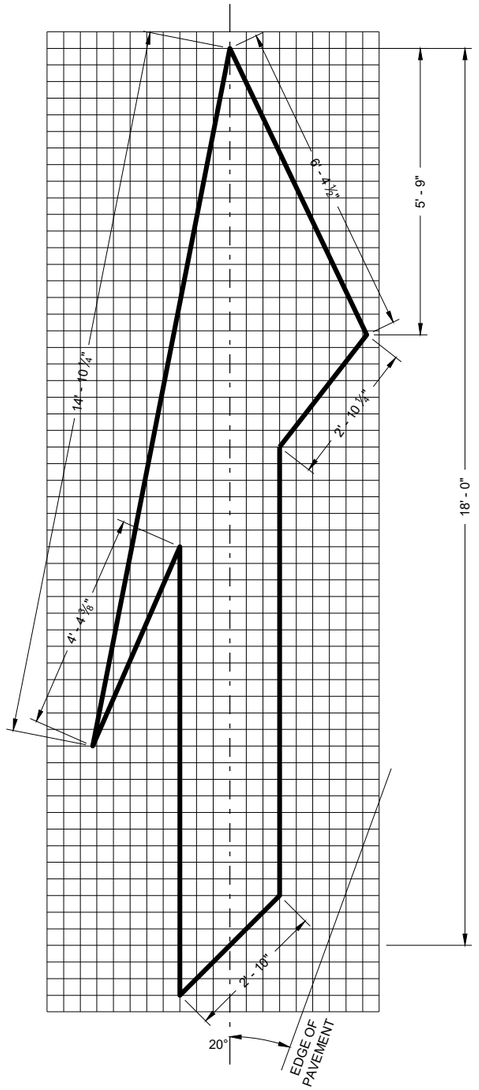
TYPE 2



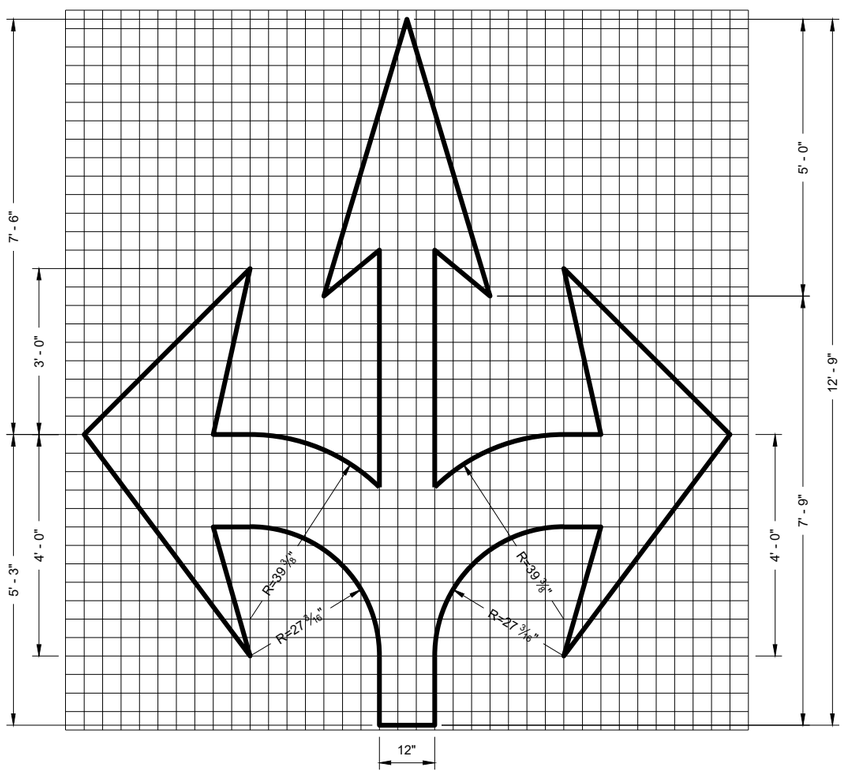
TYPE 3



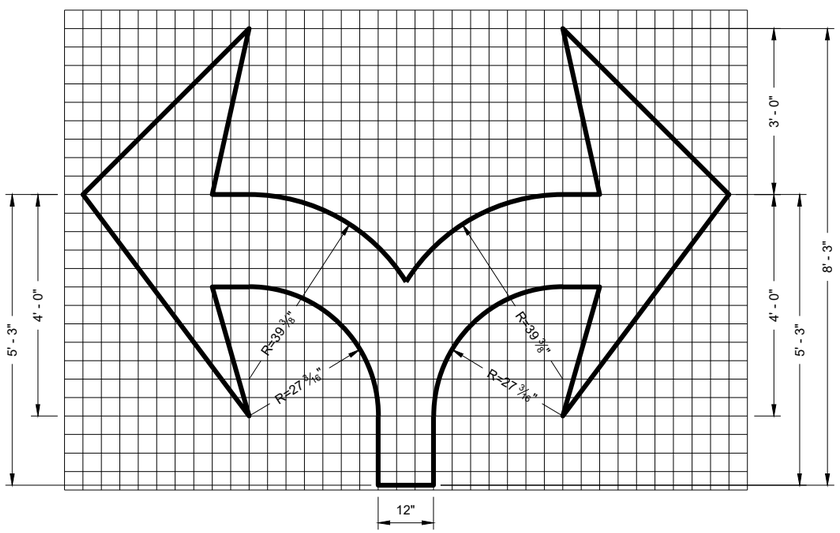
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

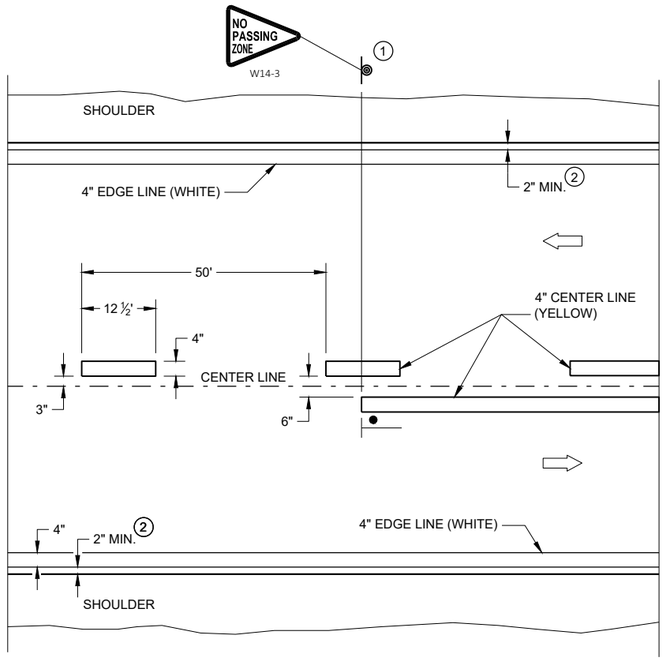
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

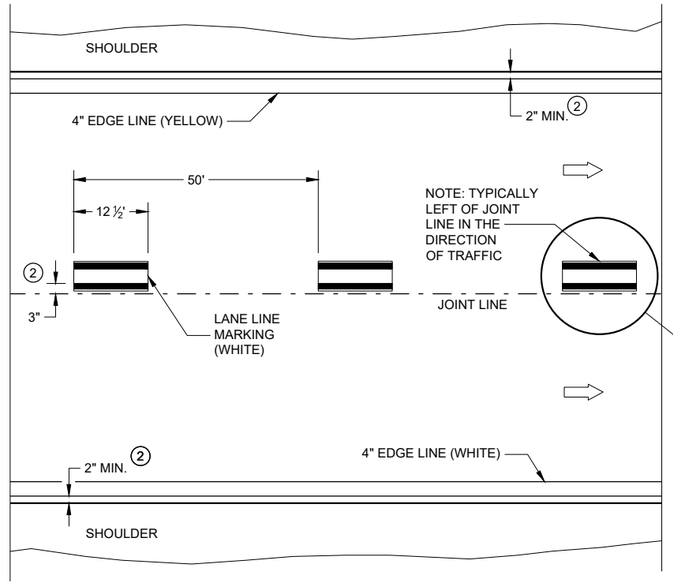
FHWA

SDD 15C07 - 15c

SDD 15C07 - 15c

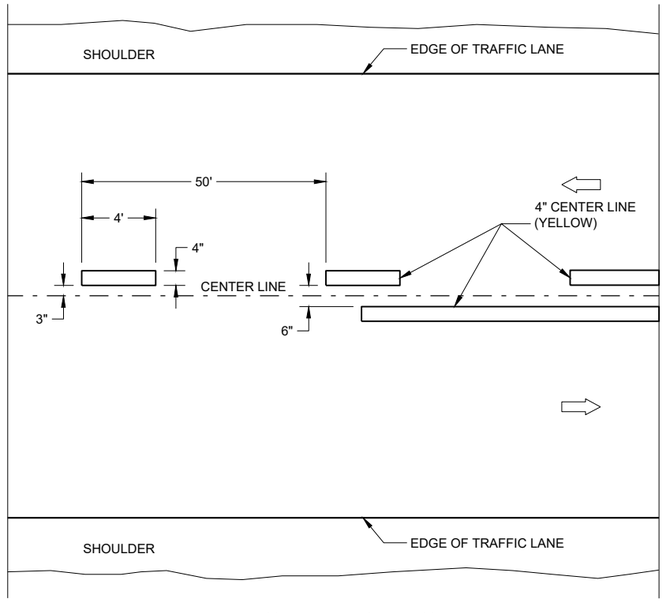


TWO WAY TRAFFIC

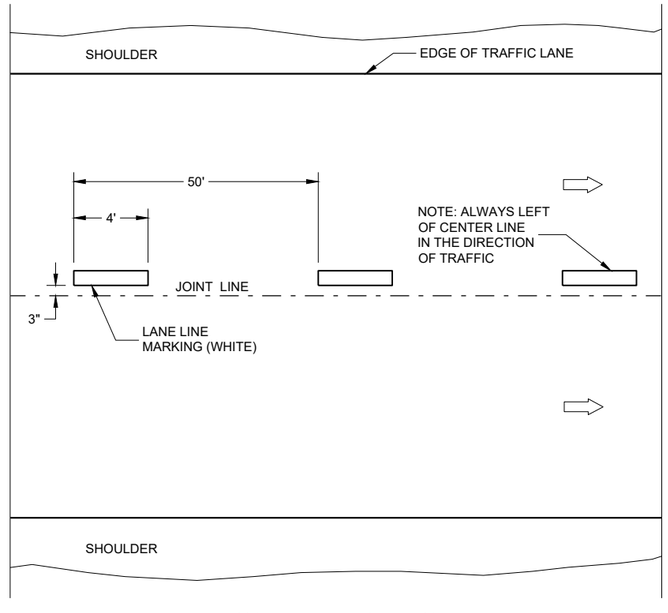


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

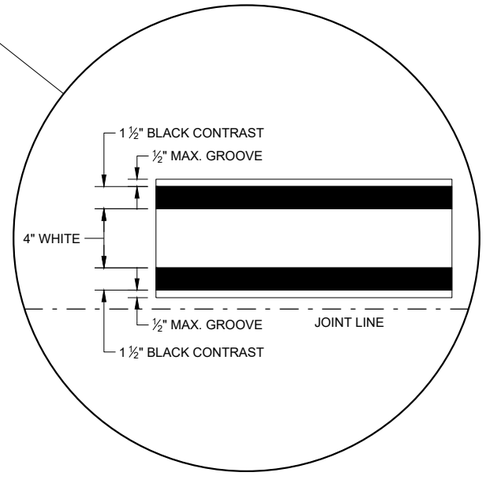
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

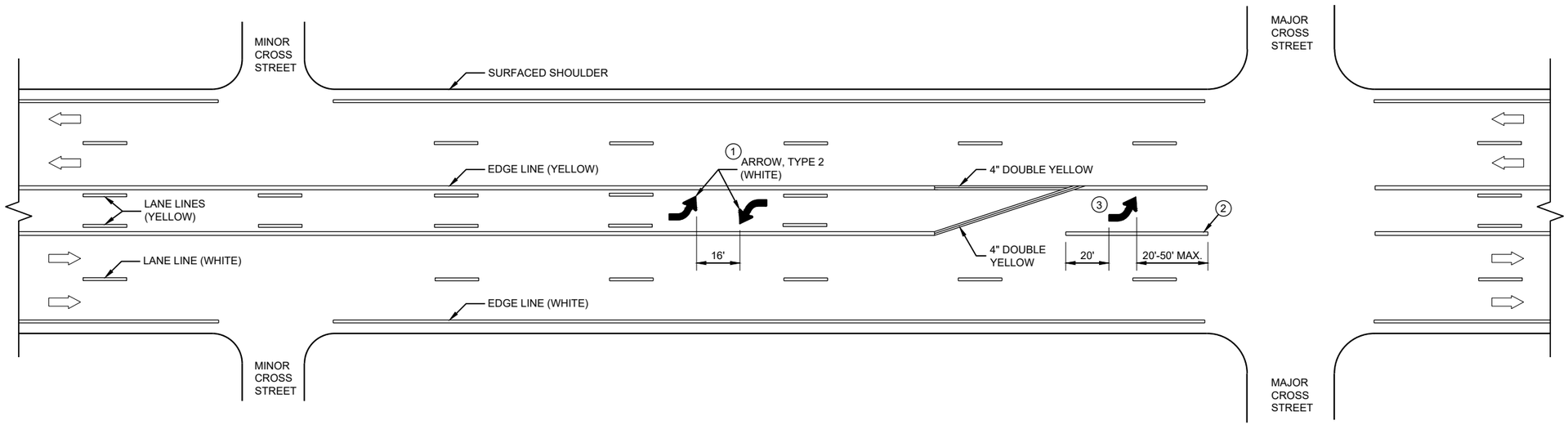
SDD 15C08 - 20a

SDD 15C08 - 20a

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

6

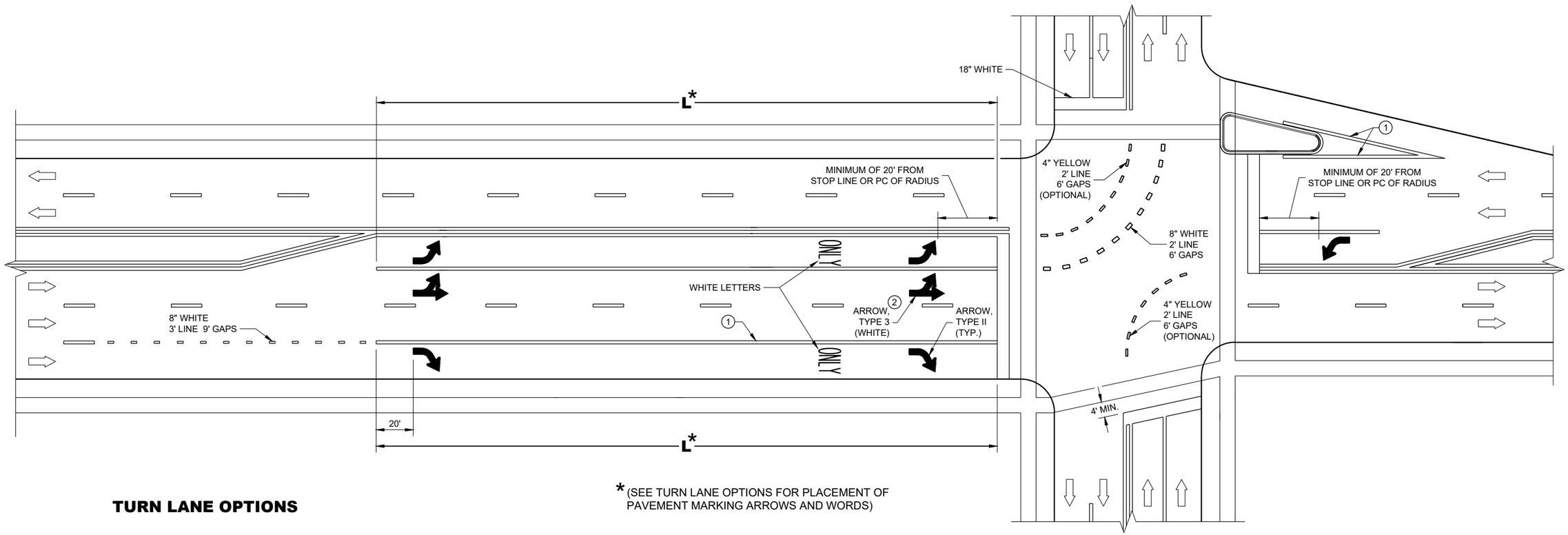
6

SDD 15C08 - 20b

SDD 15C08 - 20b

PAVEMENT MARKING (TURN LANES)

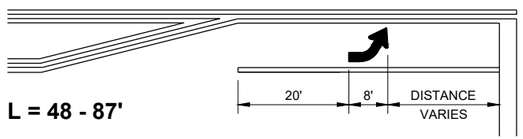
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



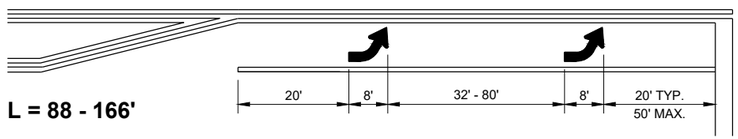
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

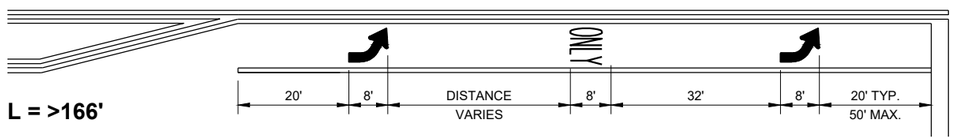
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

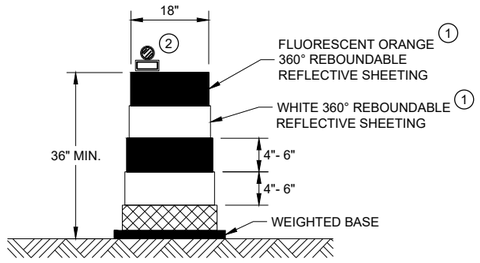
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

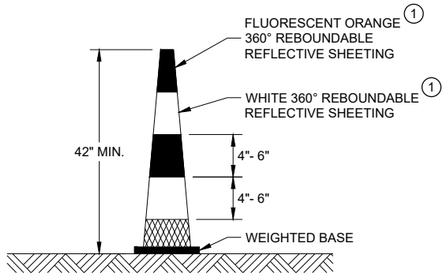
SDD 15C08 - 20c

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.

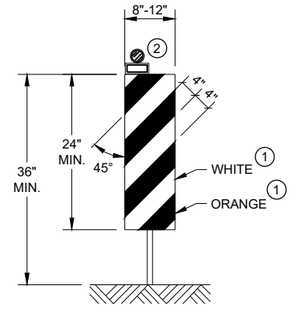


DRUM



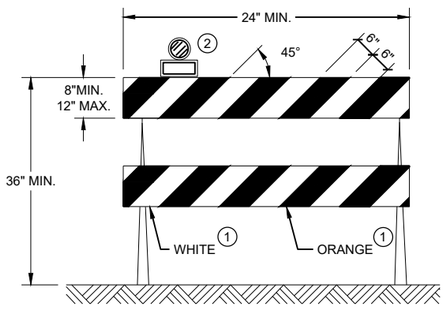
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



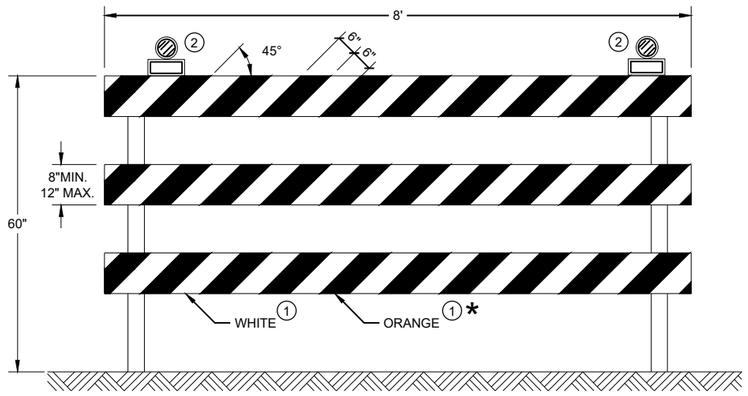
VERTICAL PANEL

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



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
November 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD15C11 - 08b

6

SDD15C11 - 08b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

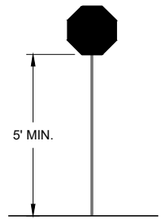
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



STOP/SLOW PADDLE ON SUPPORT STAFF

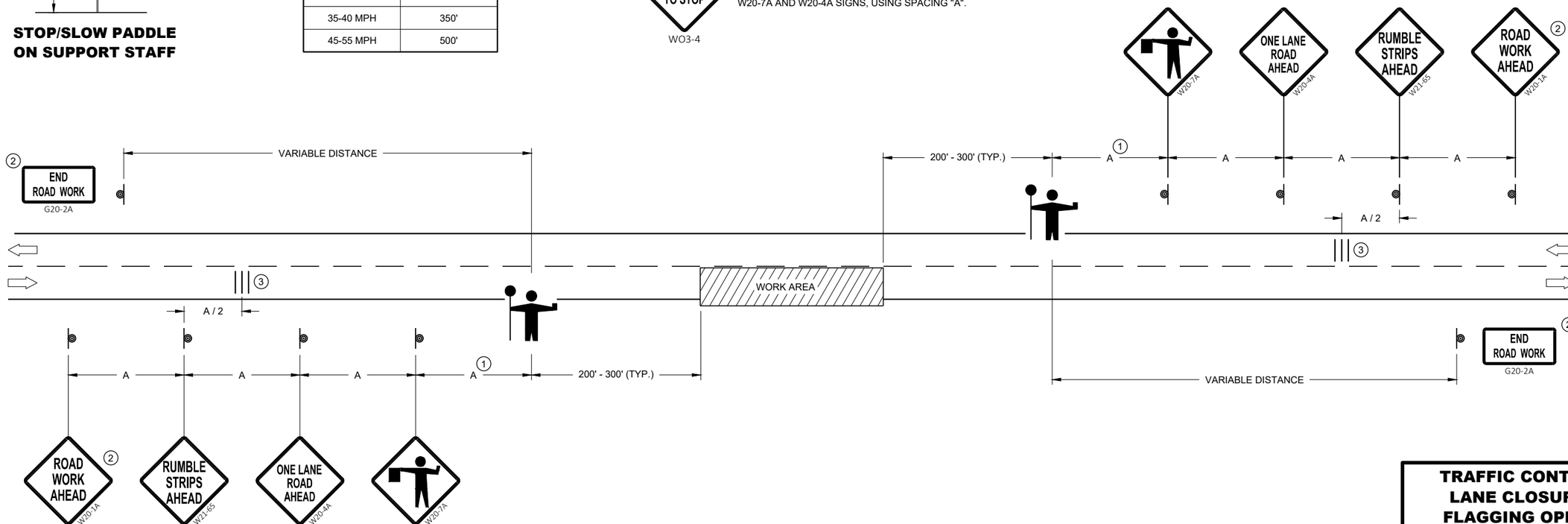
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

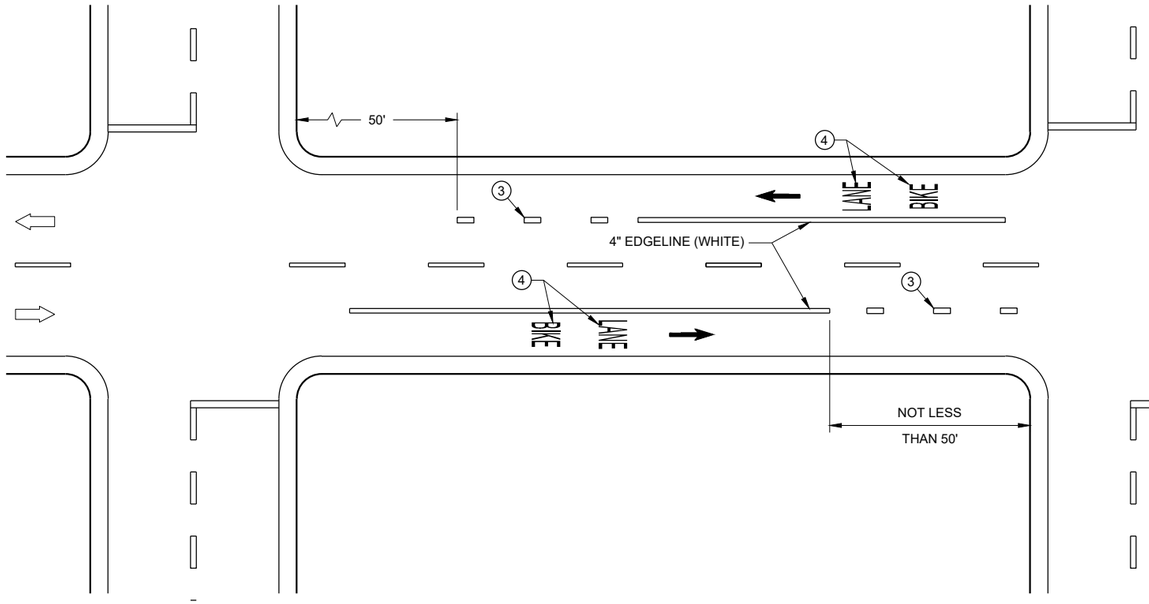
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

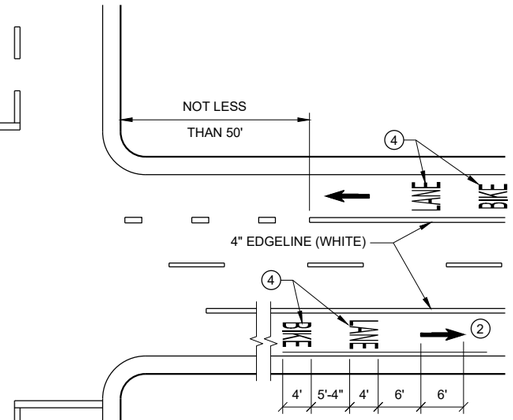
APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15C12 - 07



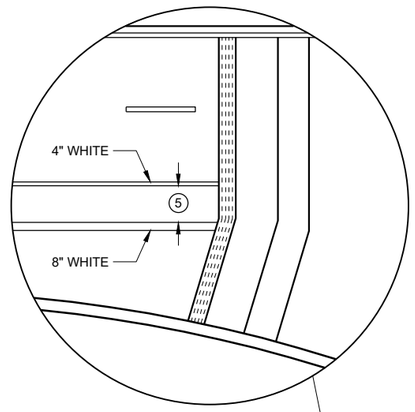


GENERAL NOTES

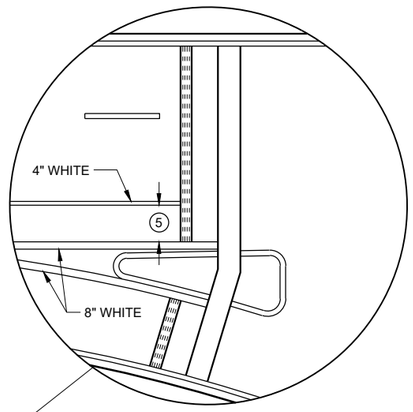
1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. BIKE SYMBOLS OR WORDS MAY BE USED.
5. BIKE ACCOMMODATION IS TYPICAL 5 FEET WIDE AND MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT ≥ 45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FOOT WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

DIRECTION OF TRAVEL

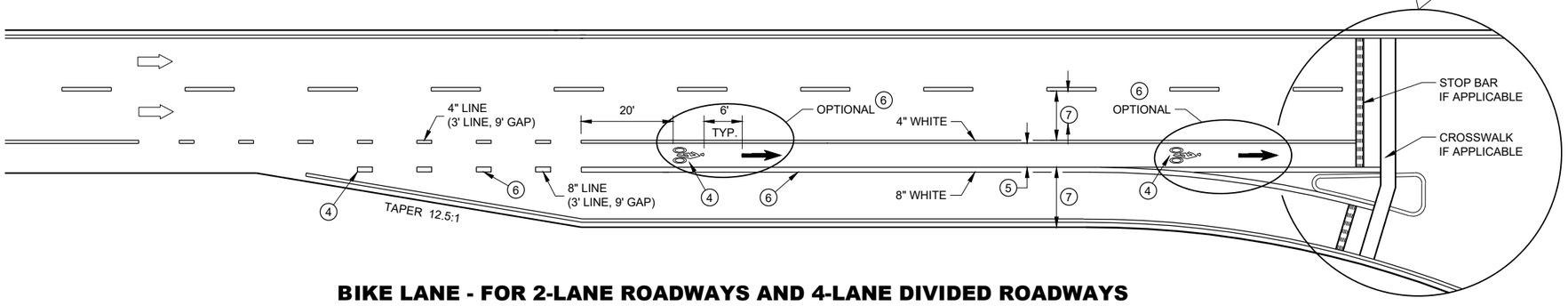
DESIGNATED BIKE LANE - NO PARKING



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

BIKE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

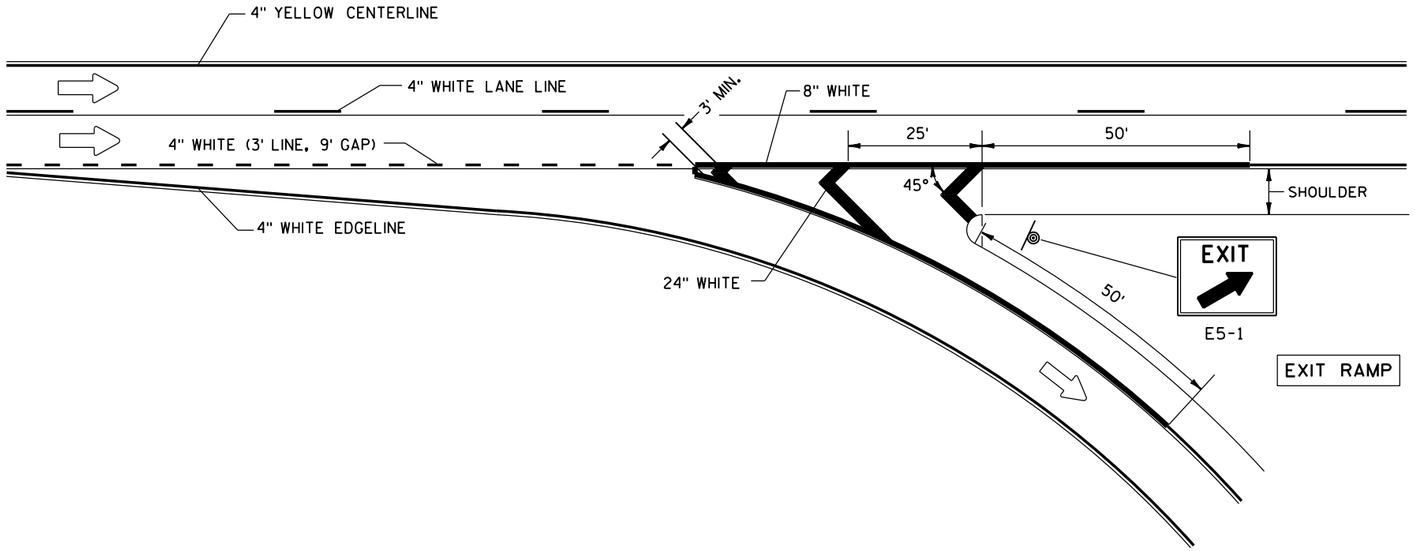
APPROVED
May 2020 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER
FHWA

6

SDD 15C29 - 07a

6

SDD 15C29 - 07a



PAVEMENT MARKING FOR EXIT RAMP

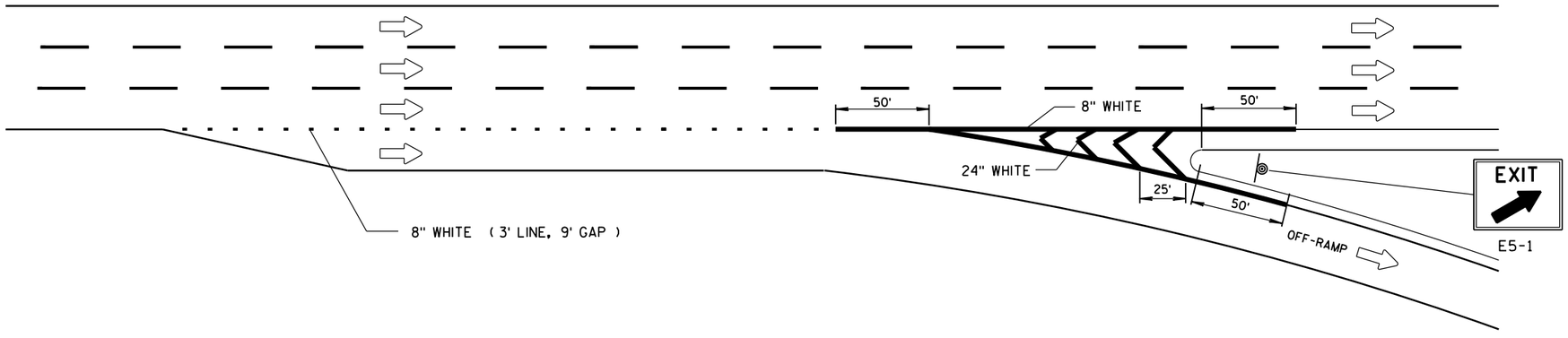
GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

DIRECTION OF TRAVEL

SIGN ON PERMANENT SUPPORT



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

6

6

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

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

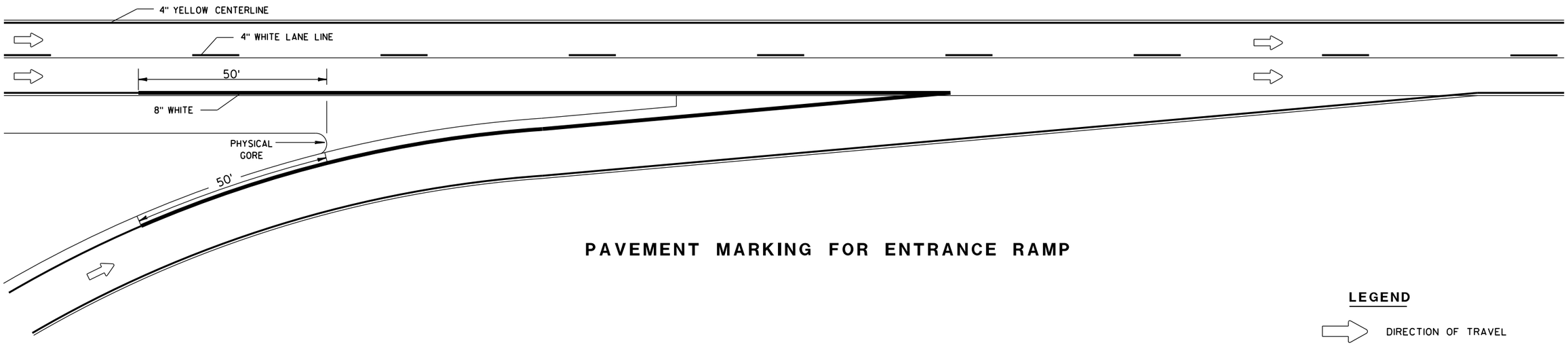
PAVEMENT MARKING (RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

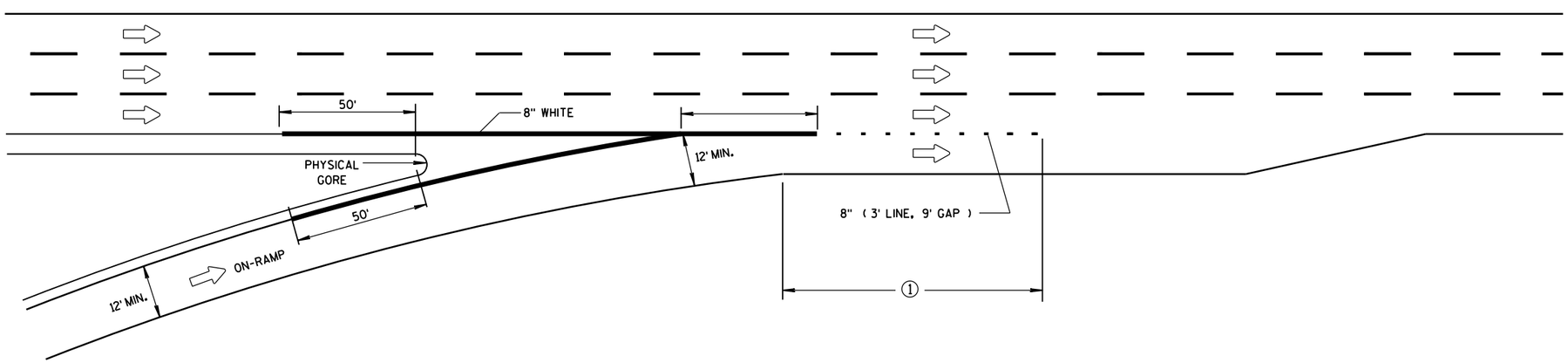
① ½ LENGTH OF FULL WIDTH ACCELERATION LANE.



PAVEMENT MARKING FOR ENTRANCE RAMP

LEGEND

DIRECTION OF TRAVEL



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE-RAMP

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017
DATE

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

FHWA

6

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

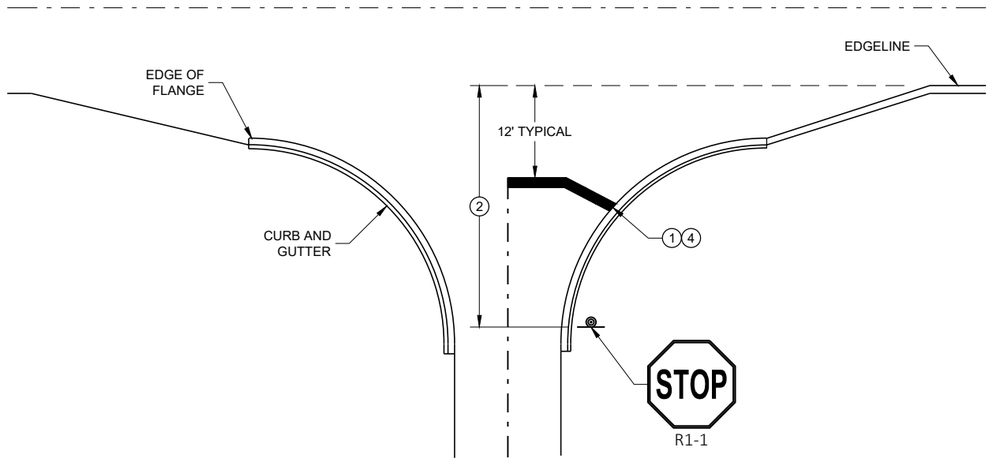
6

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

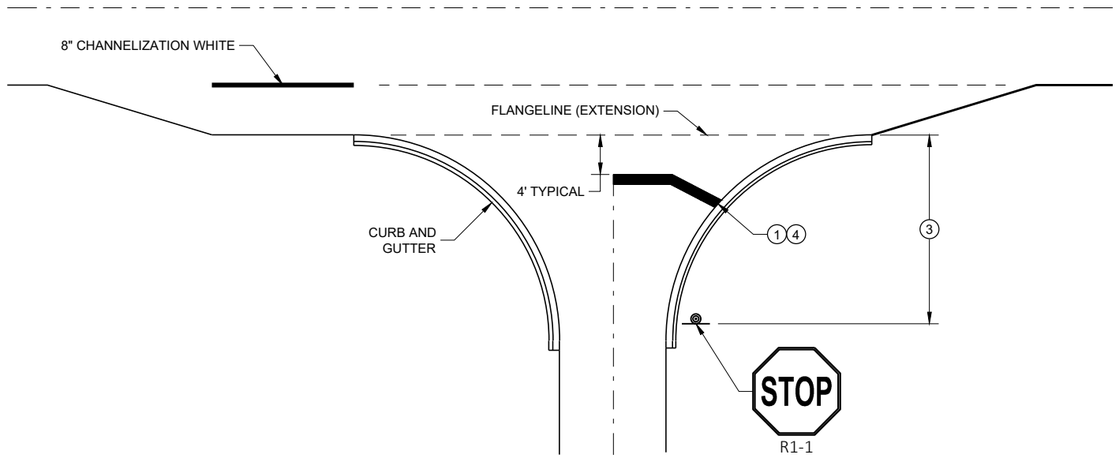
GENERAL NOTES

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

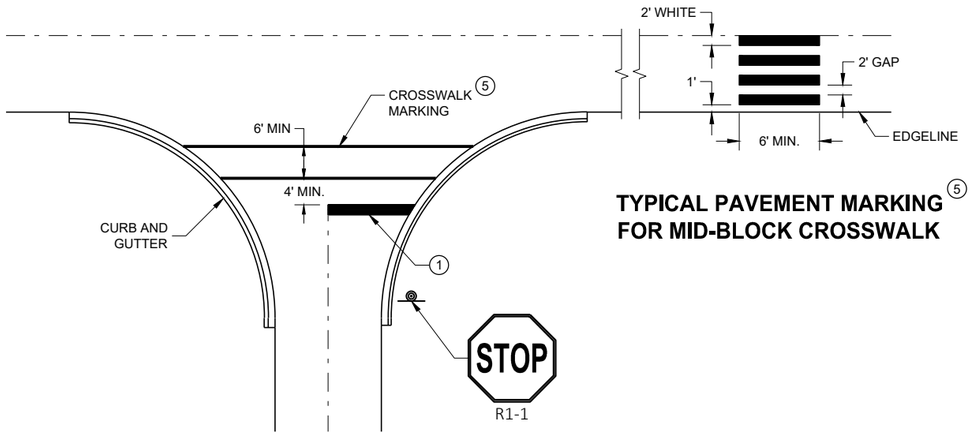
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

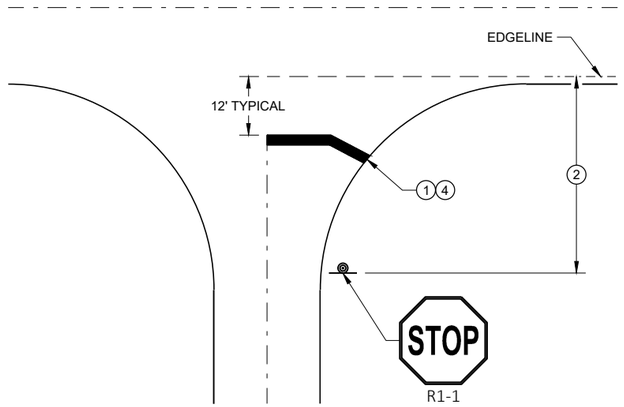


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

6

SDD 15C33 - 04

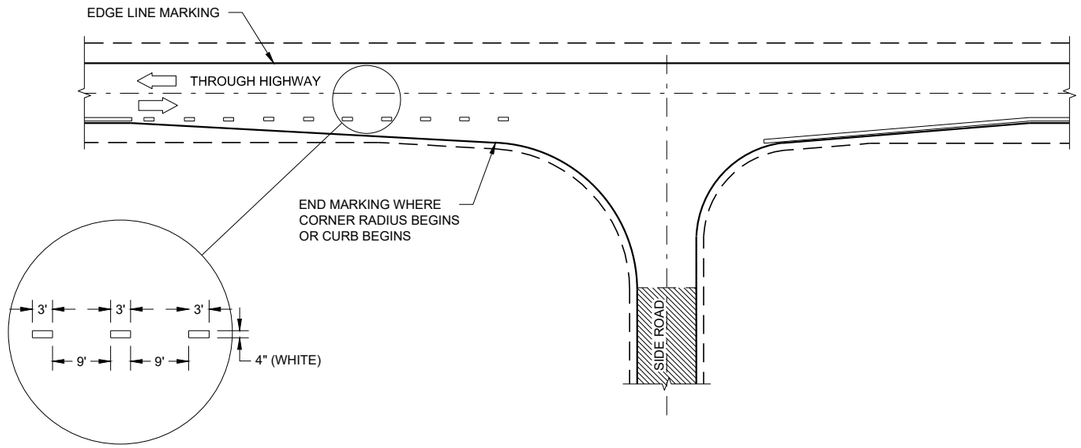
GENERAL NOTES

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

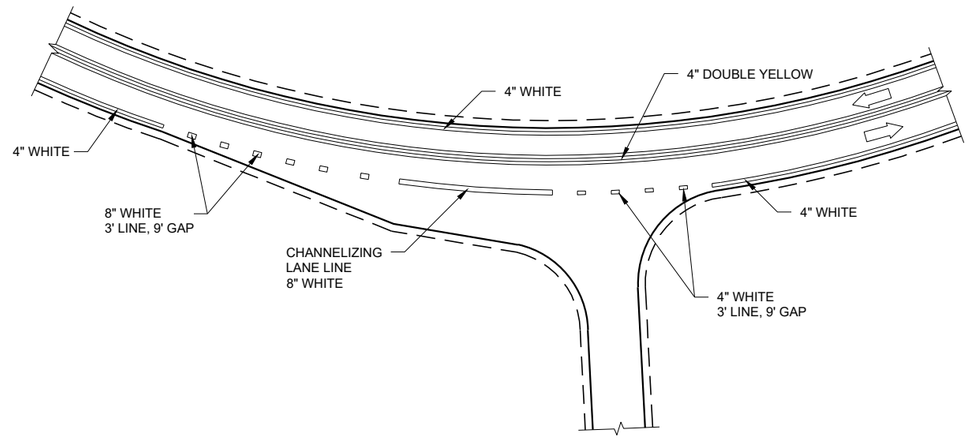
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

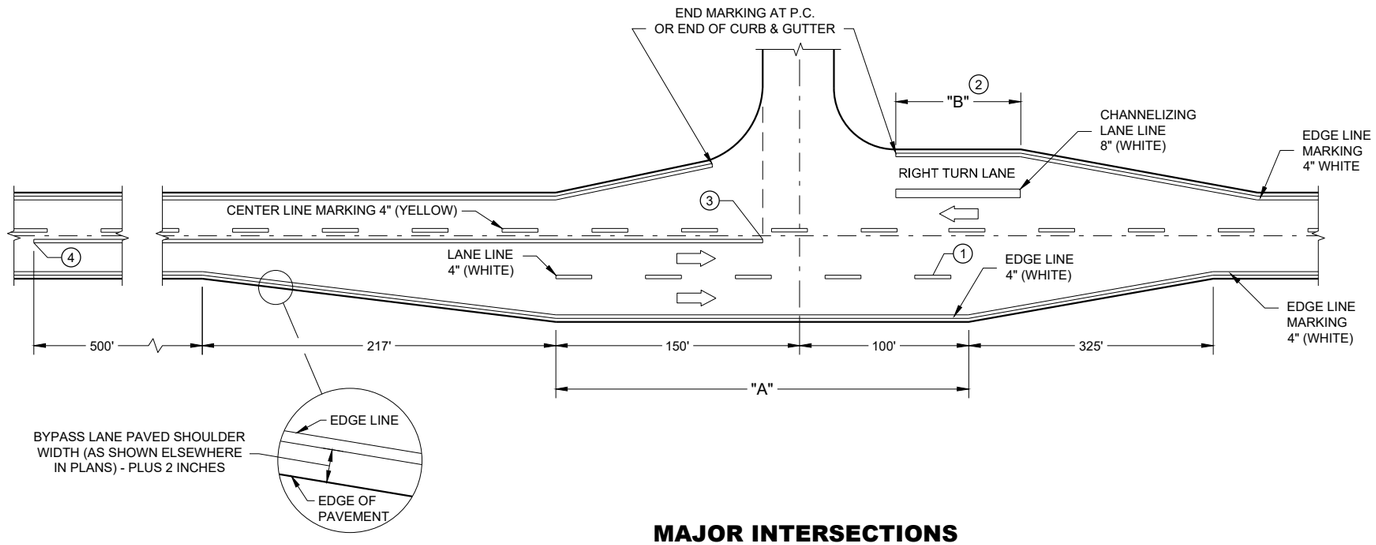
DIRECTION OF TRAVEL



MINOR INTERSECTION



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C35 - 04a

6

SDD 15C35 - 04a

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.

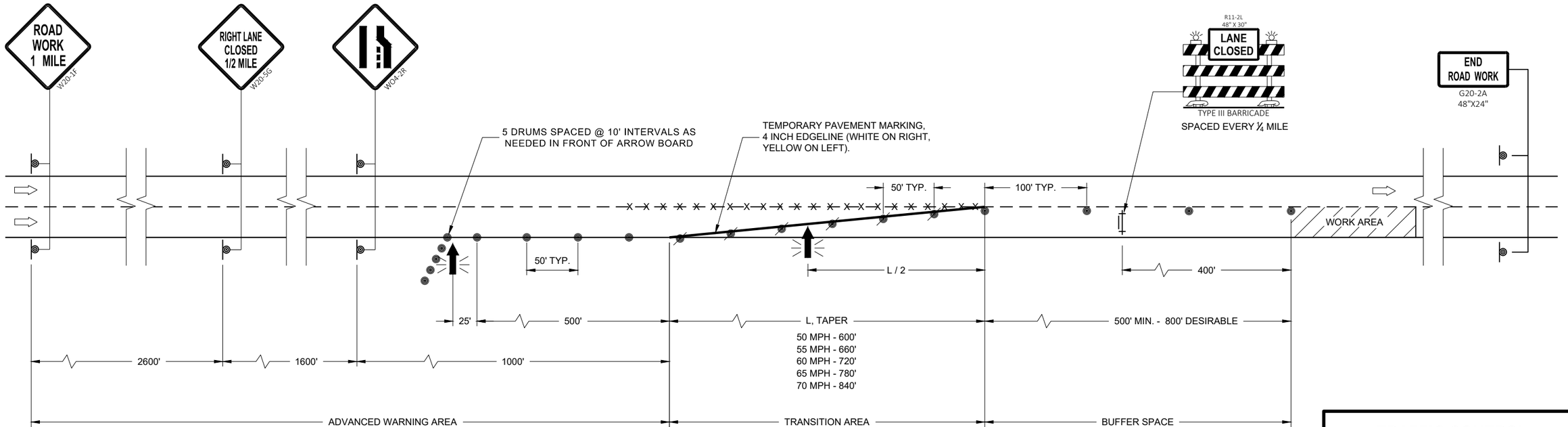
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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 ENGINEE

FHWA

6

SDD 15D12 - 09a

6

SDD 15D12 - 09a

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.

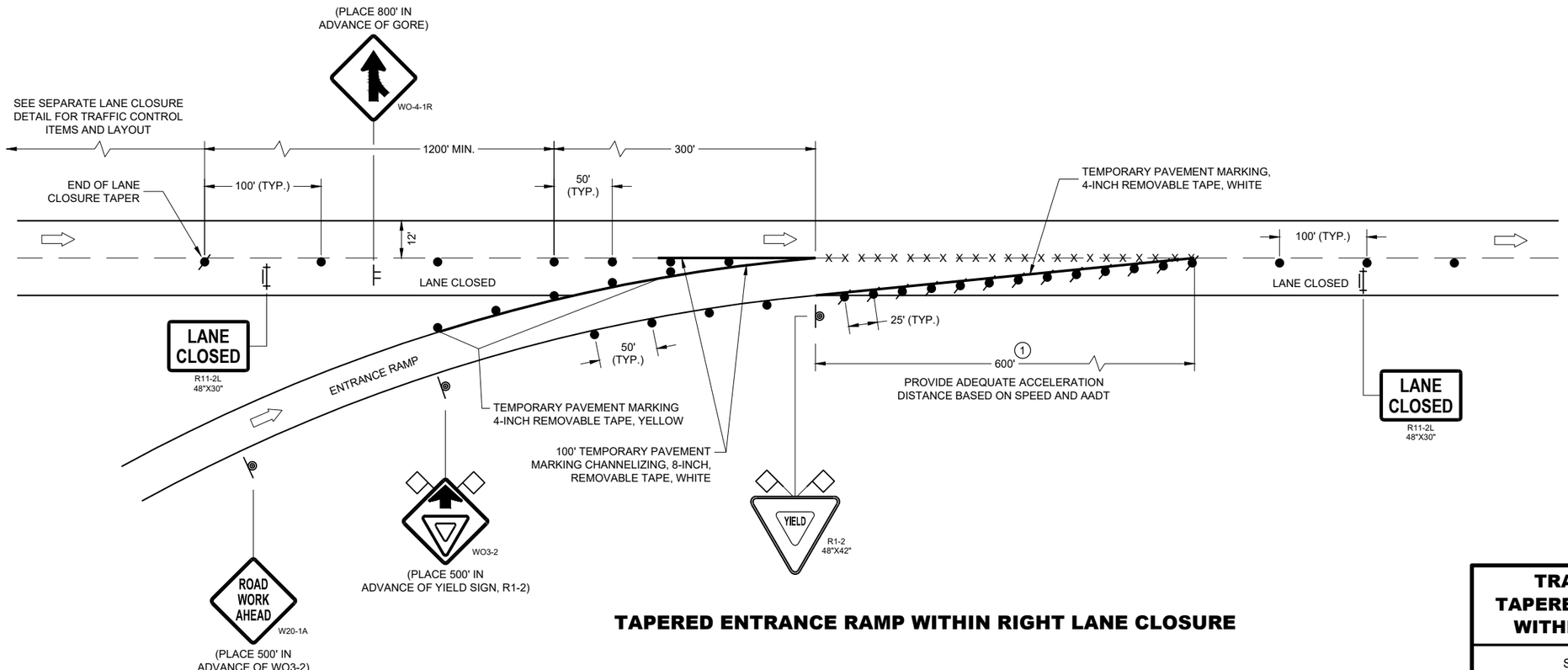
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 05c

6

SDD 15D15 - 05c

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.

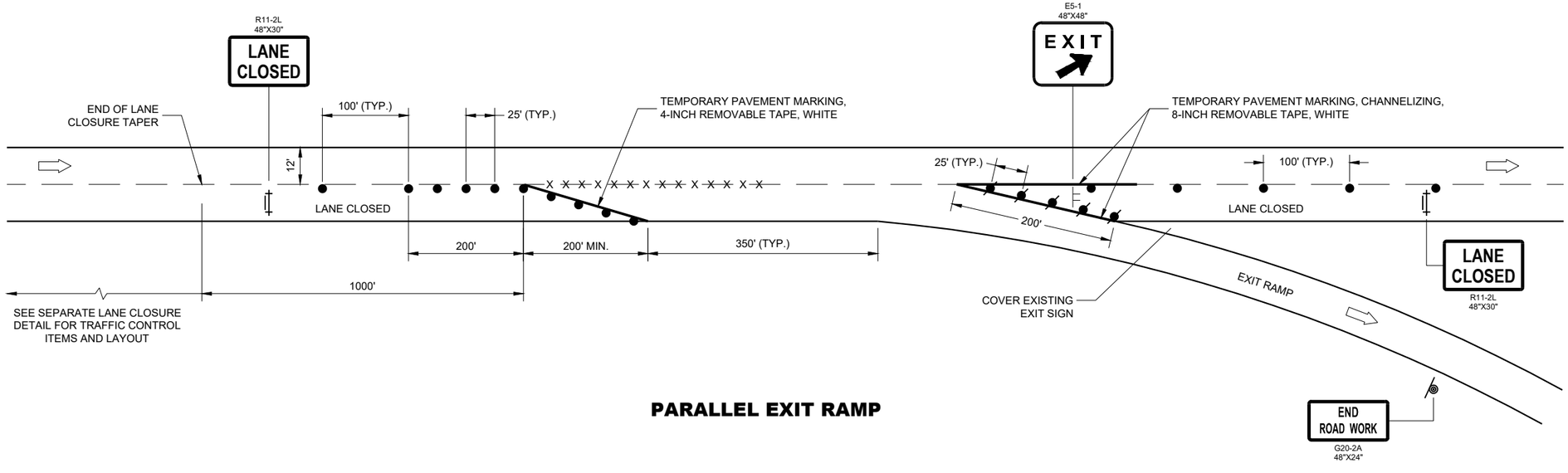
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.



PARALLEL EXIT RAMP

TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 05e

6

SDD15D15 - 05e

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)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

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

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

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

"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.

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

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

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

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.

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

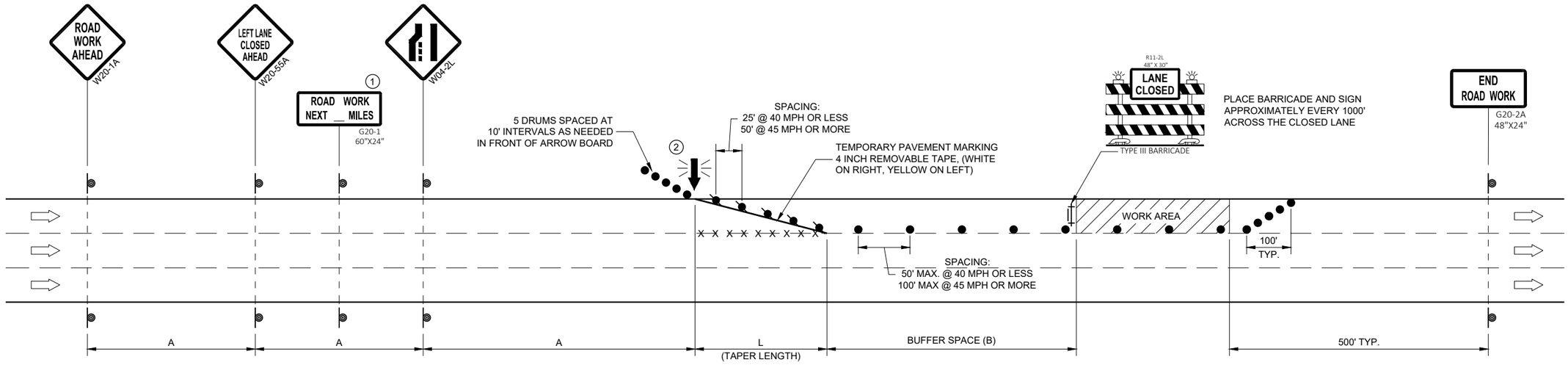
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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.

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

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

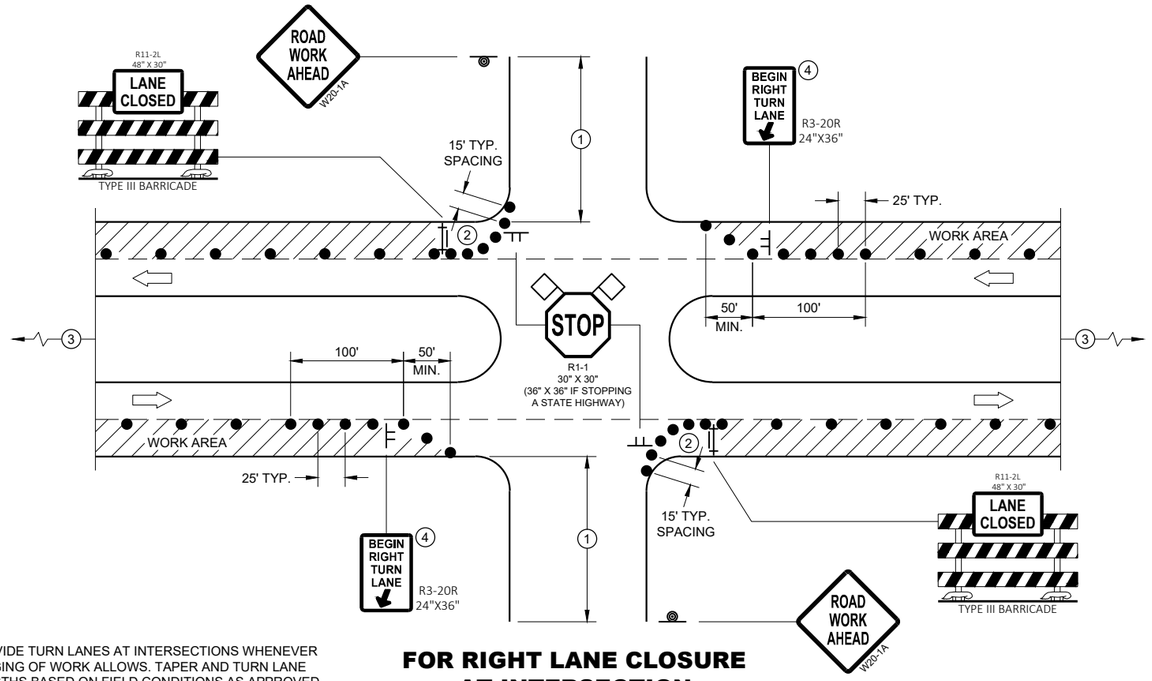
FHWA

6

SDD 15D20 - 05a

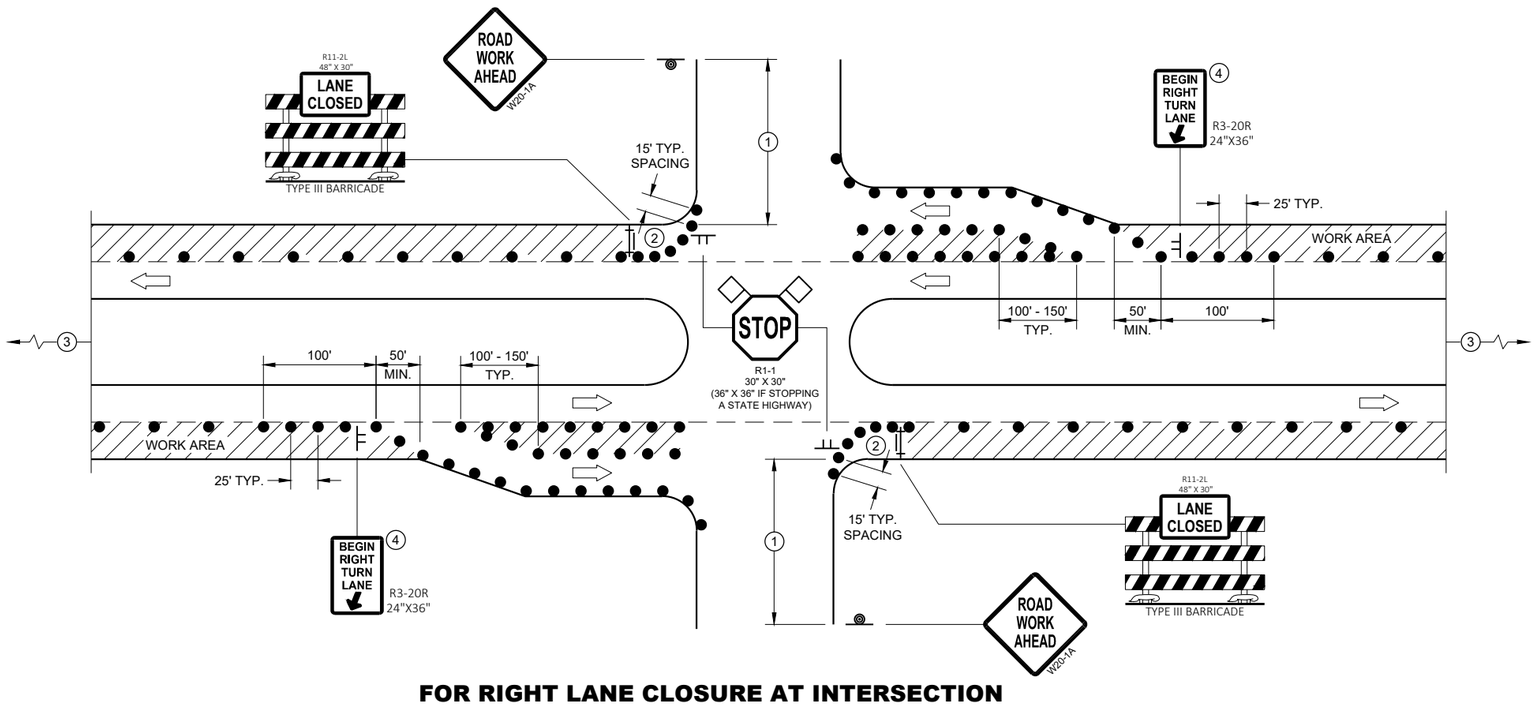
6

SDD15D20 - 05a



FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"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

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

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

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.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

LEGEND

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

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

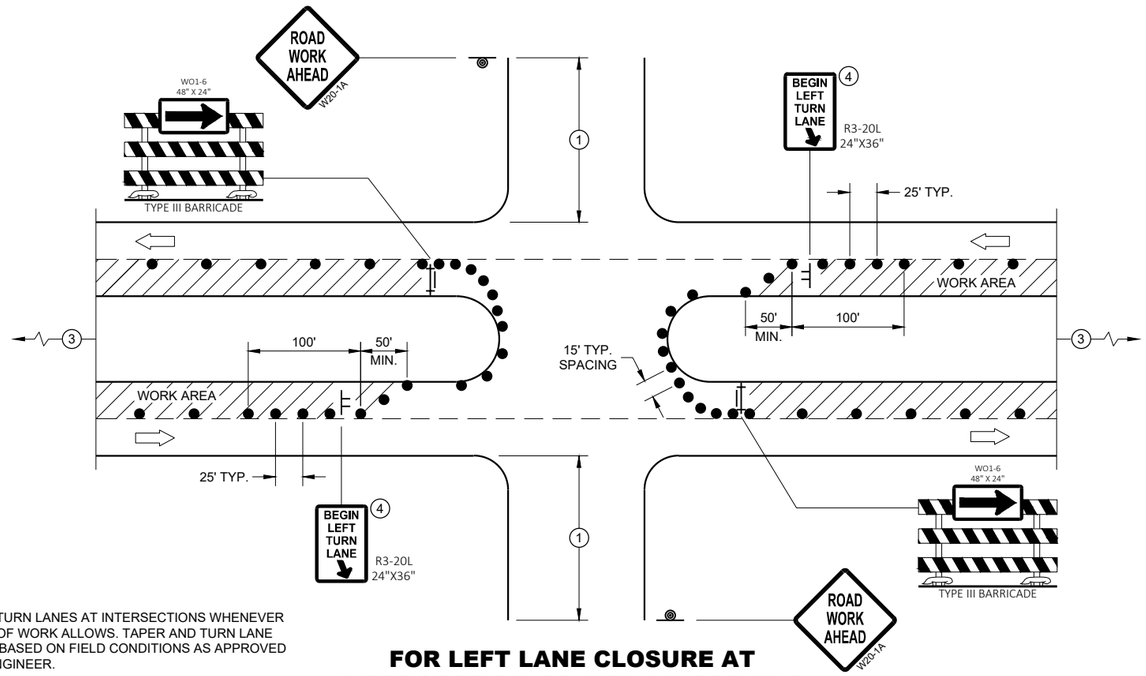
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT

6

SDD 15D21 - 07a

6

SDD15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"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

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

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

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.

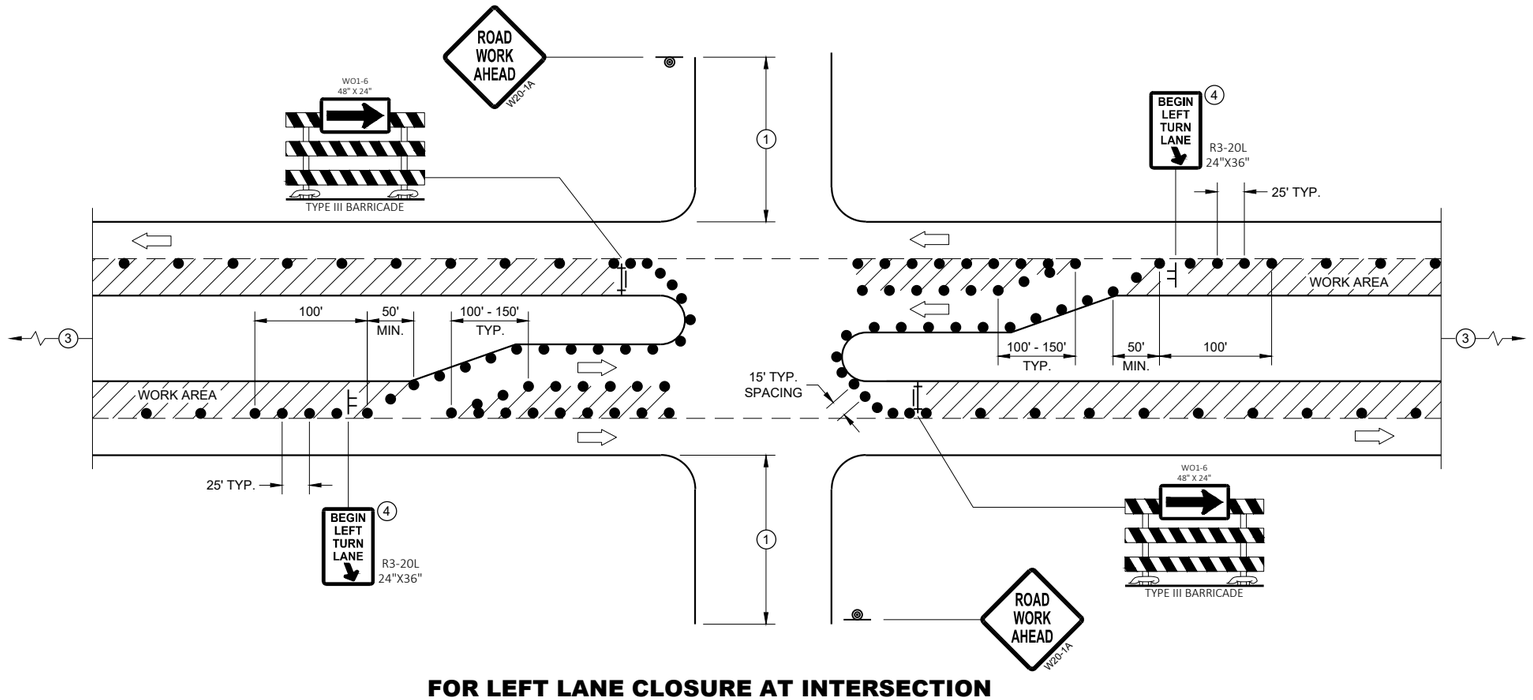
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

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

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

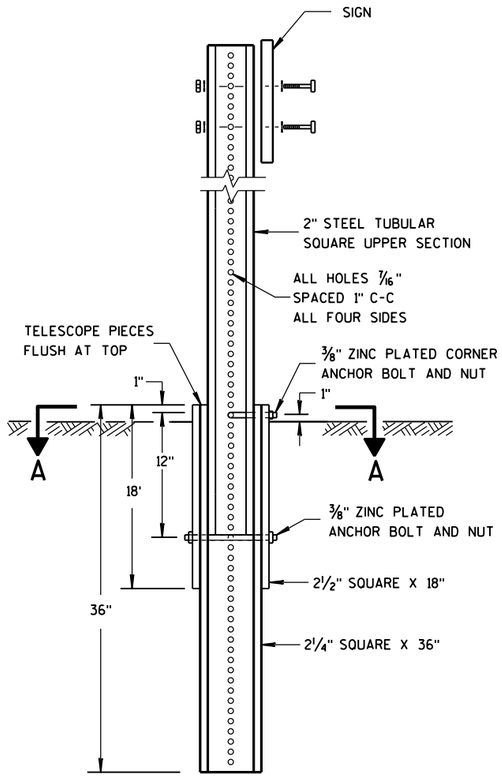
APPROVED
August 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

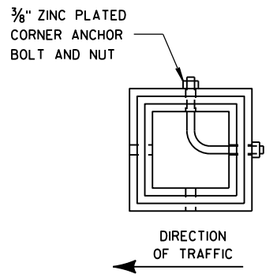
SDD 15D21 - 07b

6

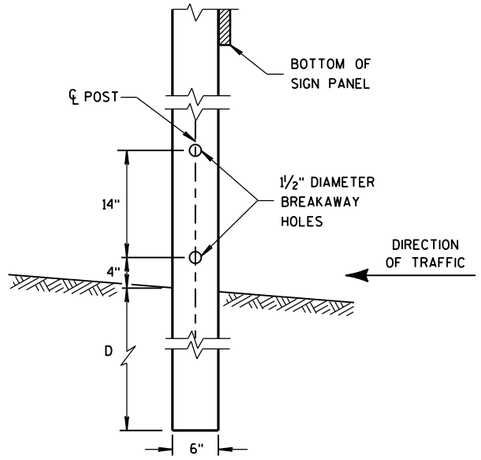
SDD 15D21 - 07b



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



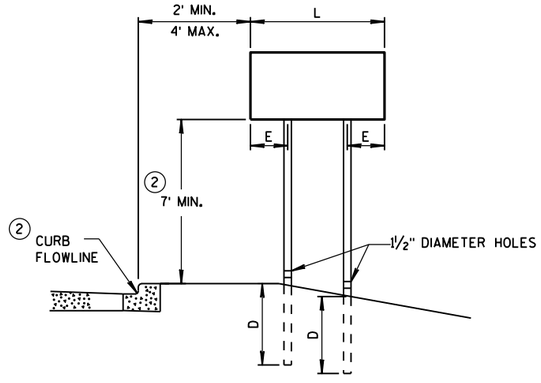
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

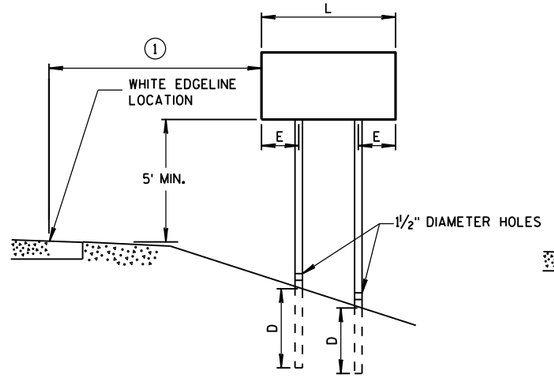
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

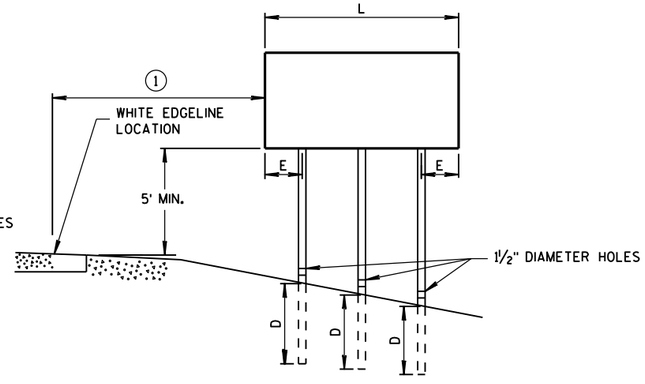
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

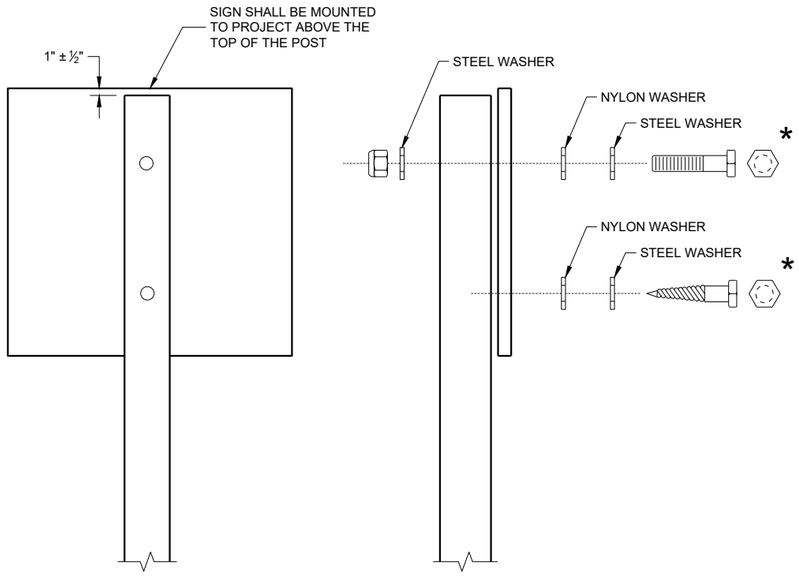
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 38-2a



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x 1/16" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

SDD 15D38 - 02b

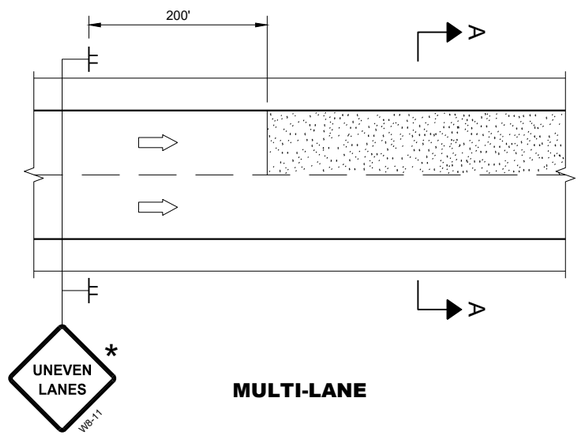
SDD15D38 - 02b

ATTACHMENT OF SIGNS TO POSTS

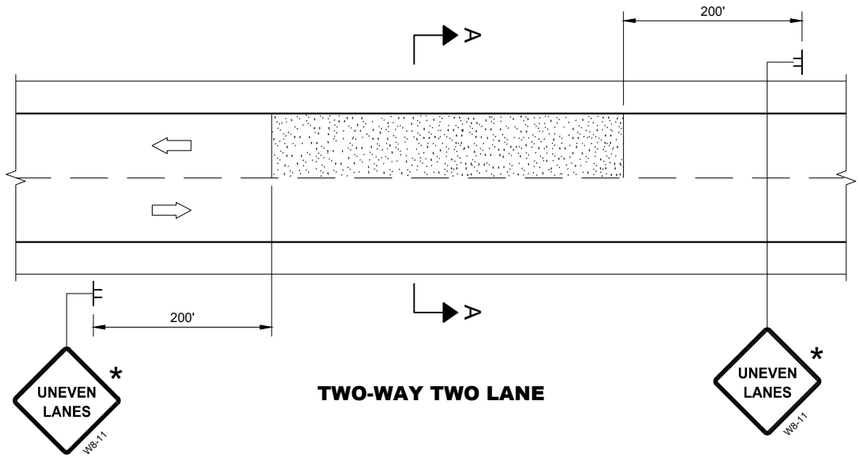
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA



MULTI-LANE



TWO-WAY TWO LANE

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.

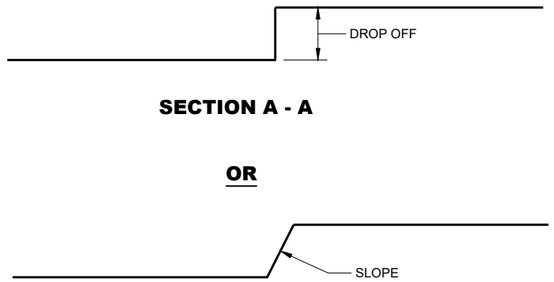
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* 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.

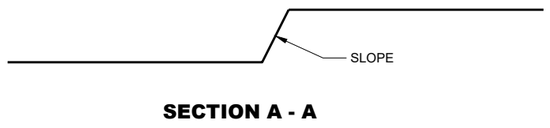
LEGEND

- 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

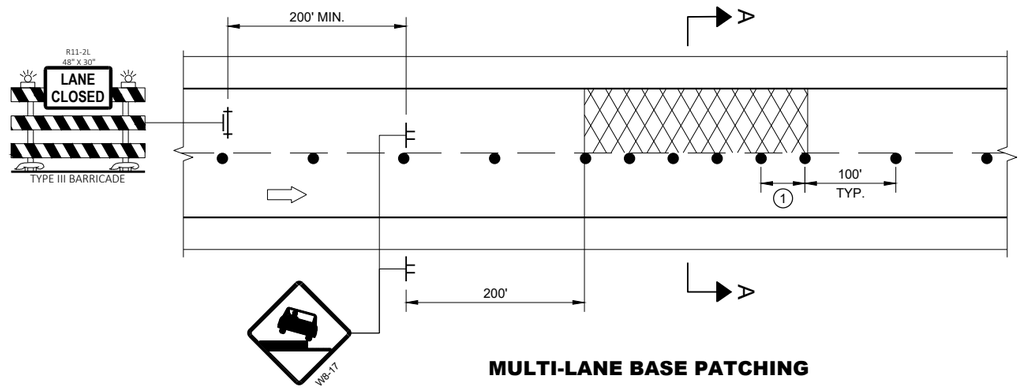


SECTION A - A

OR

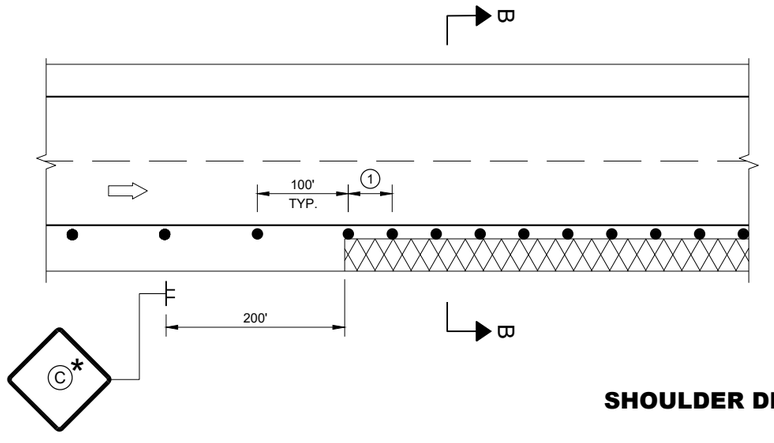


SECTION A - A

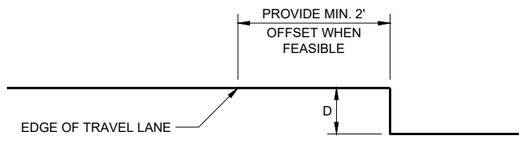


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15D39 - 02

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- (A) 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 SHIFTING RIGHT LANE - REVERSE FOR SHIFTING LEFT LANE.

ALL SIGNS ARE 48"×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 AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

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

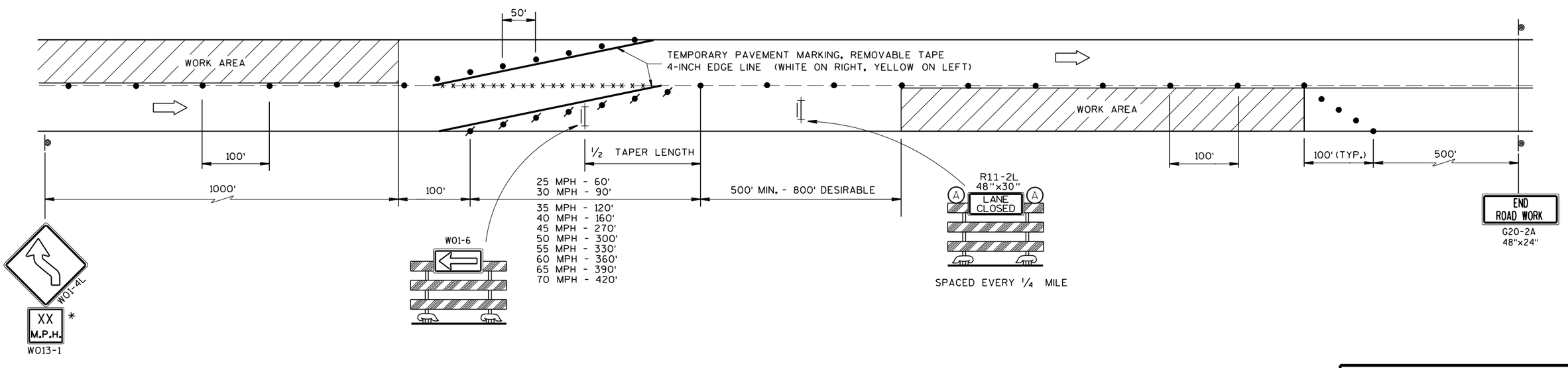
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST 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.



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

LANE SHIFT MULTI-LANE DIVIDED OR ONE WAY ROAD

TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE WAY ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Andrew I
WORK ZONE E
FHWA

6

S.D.D. 15 D 40-1

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

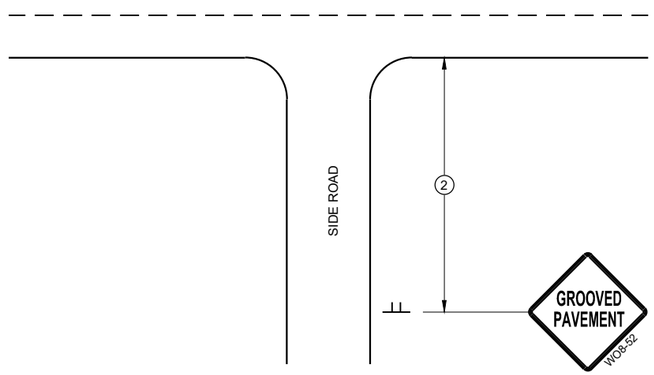
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

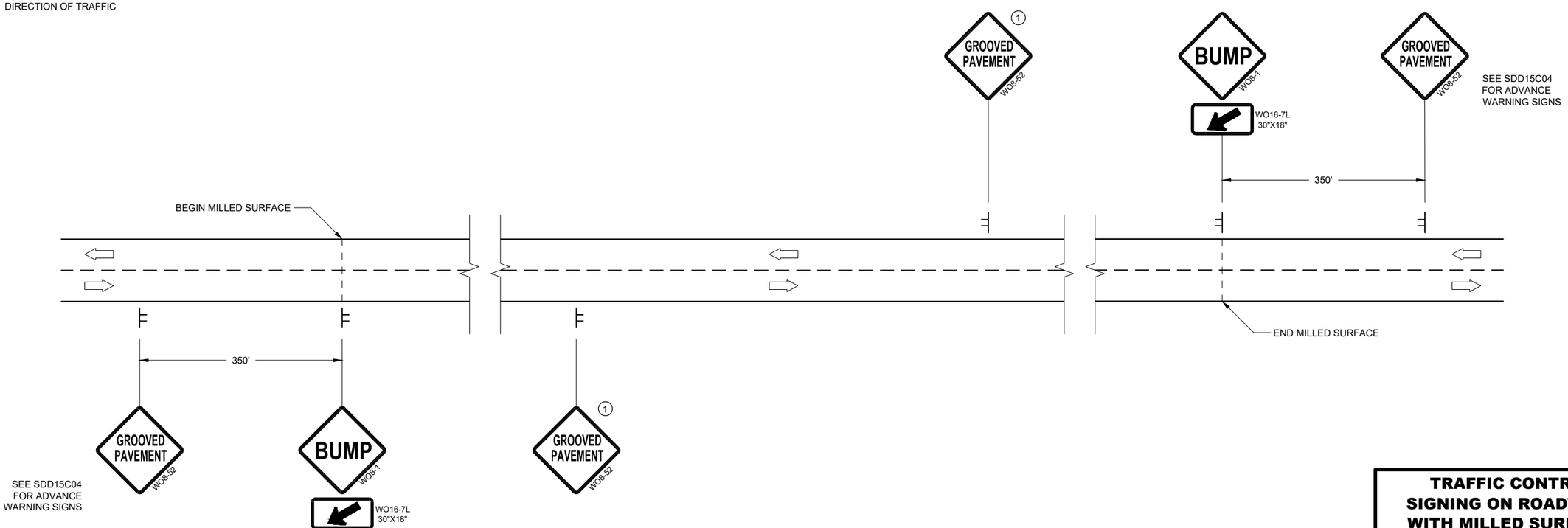
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

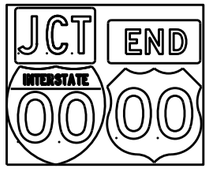
FHWA

6
SDD 15D44 - 02

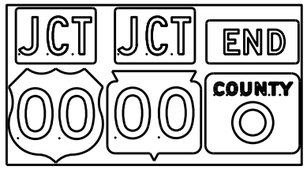
TYPICAL ASSEMBLIES



J1-1



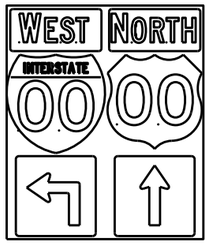
J1-2



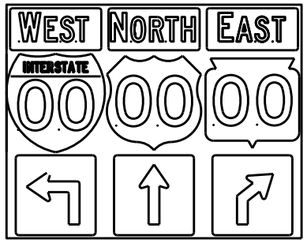
J1-3



J2-1



J2-2

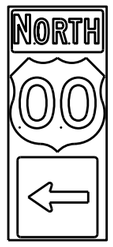


J2-3

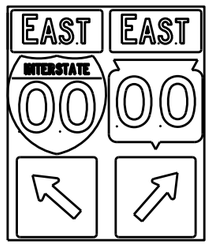


JV

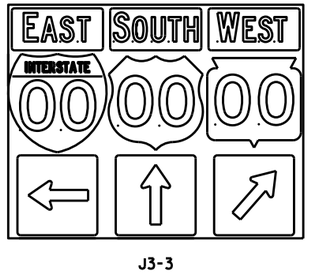
(Typical Vertical J-Assembly
See Note 10 and 11)



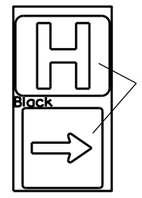
J3-1



J3-2



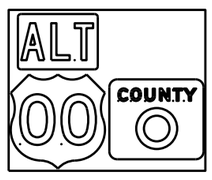
J3-3



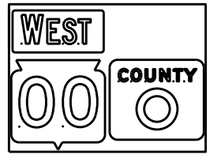
JH-1



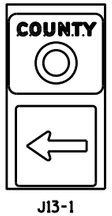
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

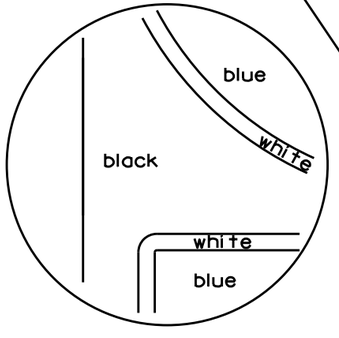


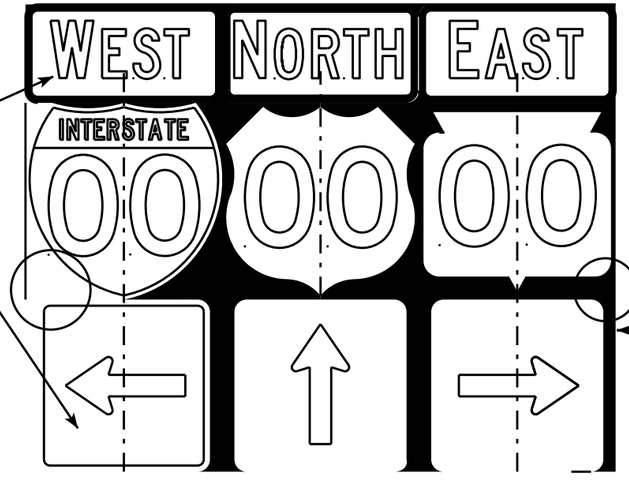
J23-1

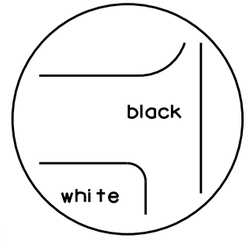


J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

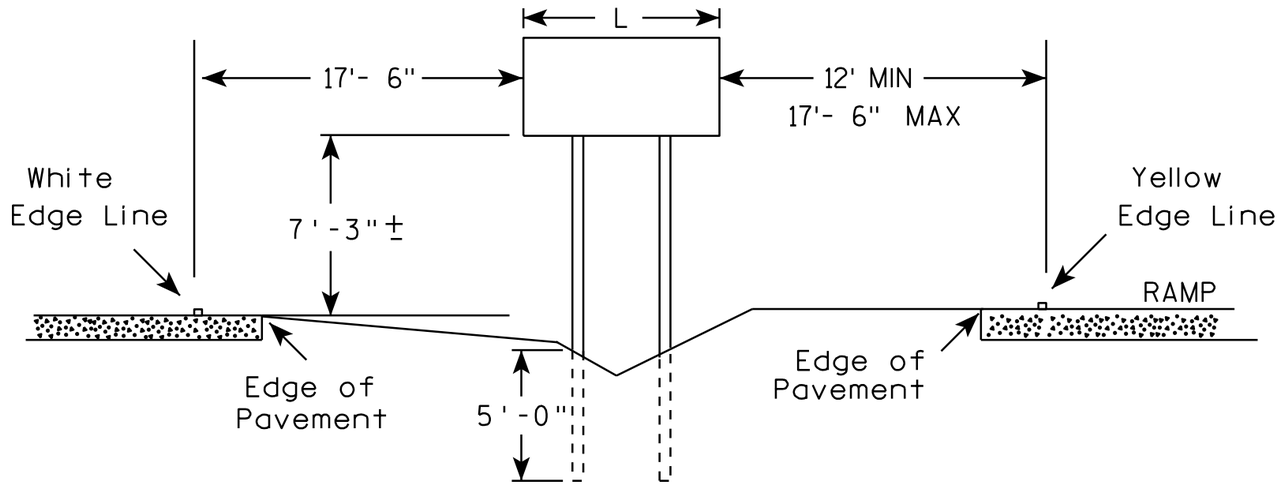
APPROVED Matthew R Rauch
for State Traffic Engineer

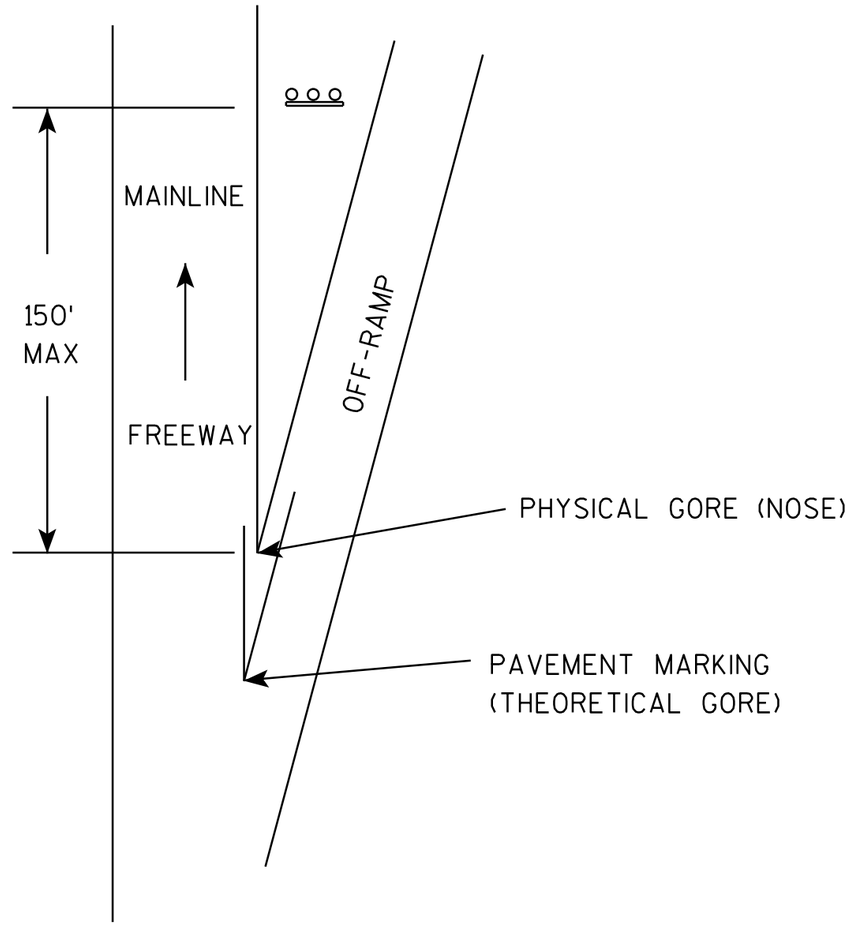
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

WISDOT/CADDS SHEET 42





GENERAL NOTES

1. The 150 foot distance from the physical gore (where pavement ends) will normally provide the offsets as shown.
2. If roadway geometrics permit, the sign may be closer than the 150 foot distance as long as the offsets are maintained.
3. At no time shall the location be greater than 150 feet. If the normal offsets cannot be maintained, they can be reduced to 6 feet from the edge of the paved shoulder (both freeway and ramp).
4. The offset from edge of sign to the yellow edge line on the ramp is shown as a minimum of 12 feet and a maximum of 17 feet, 6 inches. Preference is adhering to the maximum rather than the minimum dimension.
5. When L is equal to or exceeds 10 feet, use 3 posts as per A4-4.
6. The (∓) tolerance for the mounting height is 3 inches.

7

7

TYPICAL INSTALLATION
OF TYPE II SIGNS ON
WOOD POSTS IN GORE

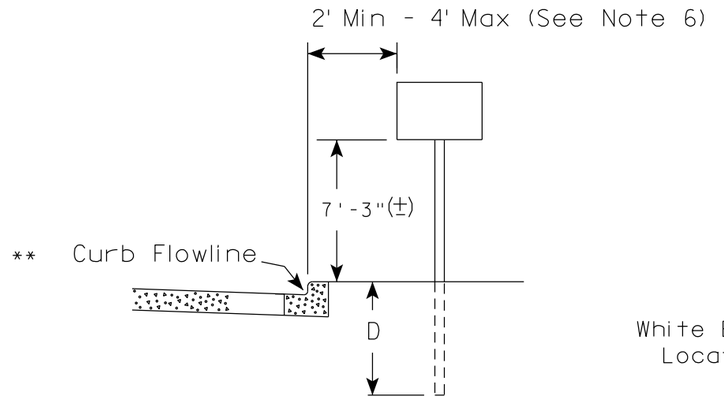
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

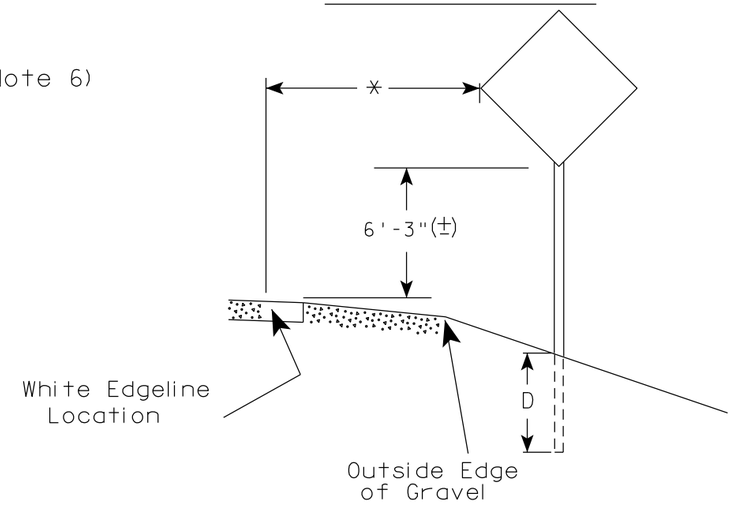
DATE 2/06/14 PLA 204 A4-2.3

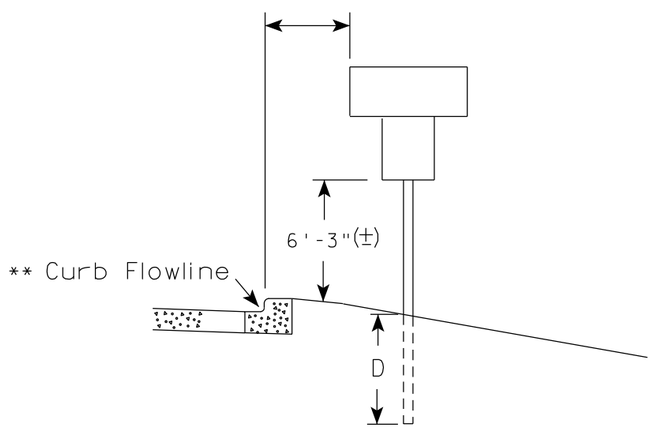
PROJECT NO: | SHEET NO: E

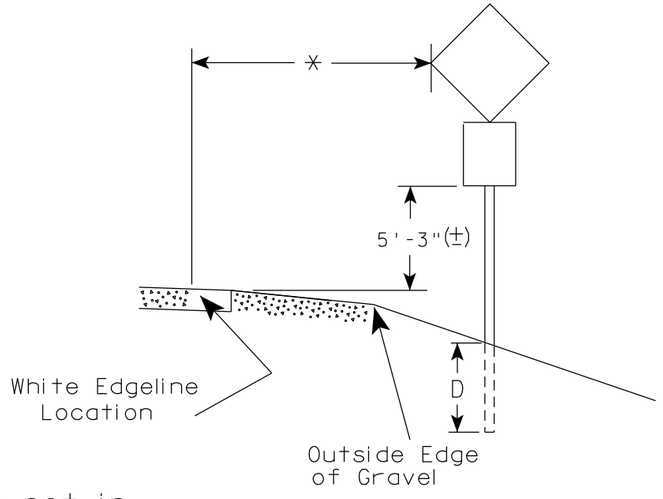
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

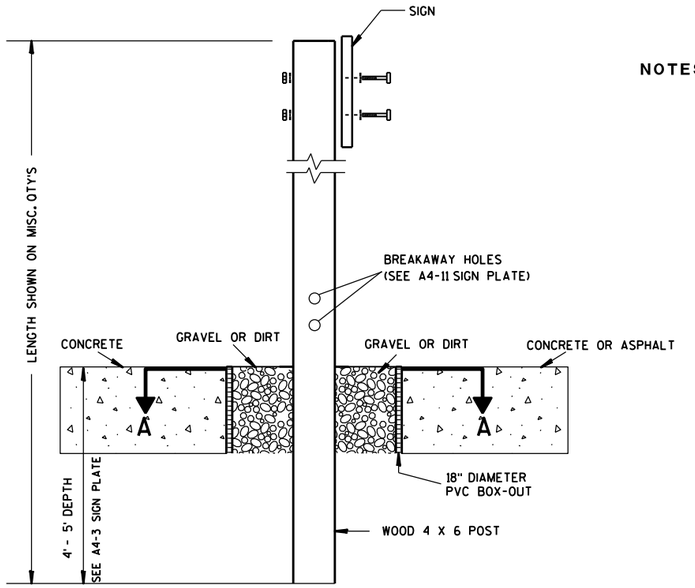
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

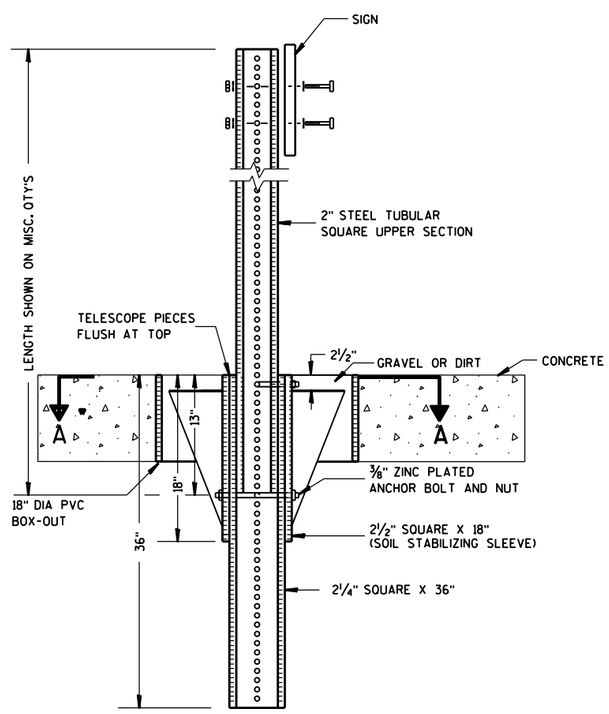
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 205	E



ELEVATION VIEW

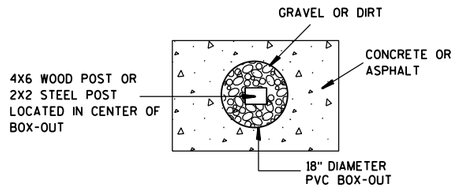
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

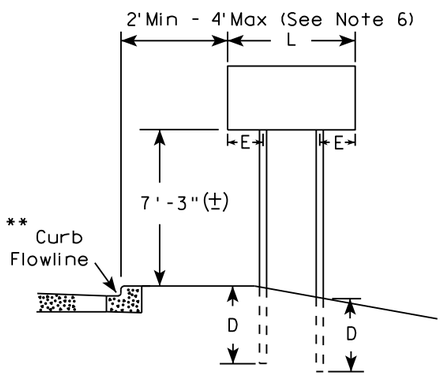
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

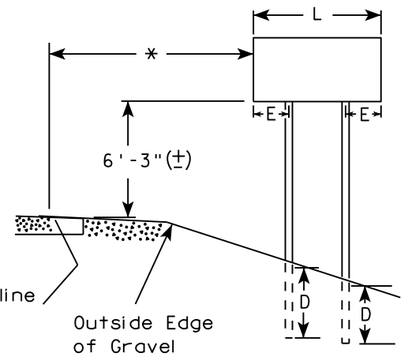
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

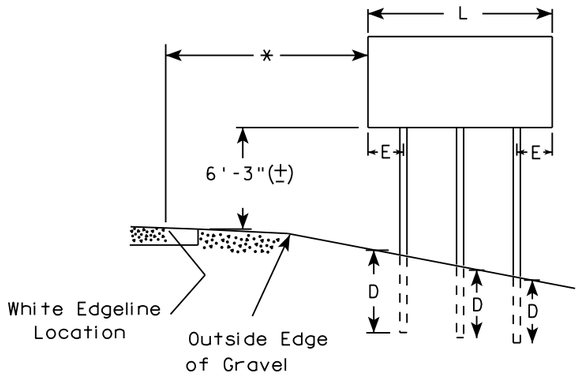
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

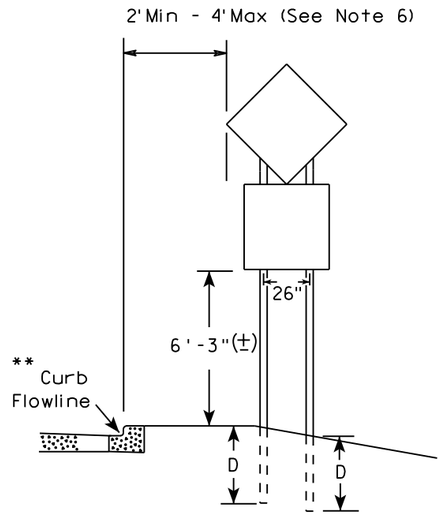
URBAN AREA



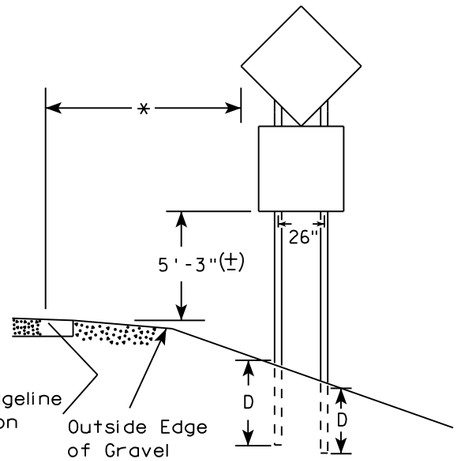
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

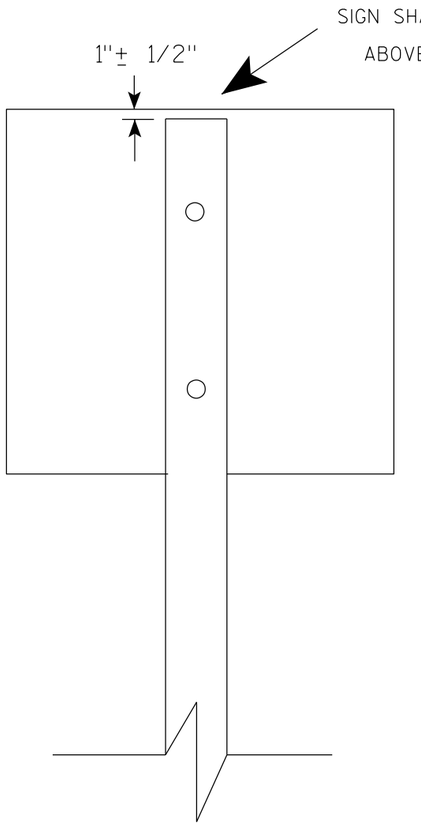
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

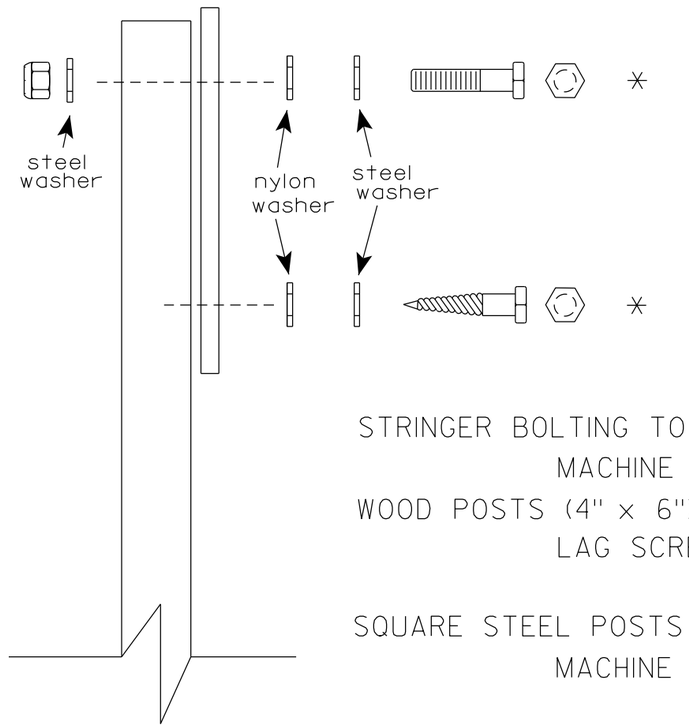
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 207	E





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

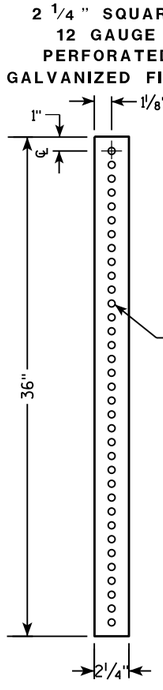
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

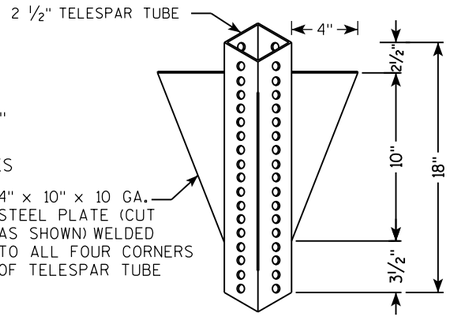
SHEET NO: 208 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

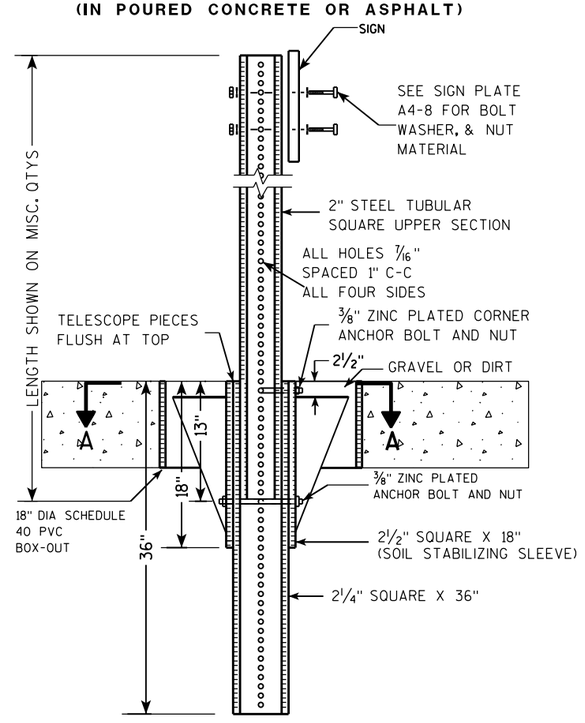
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



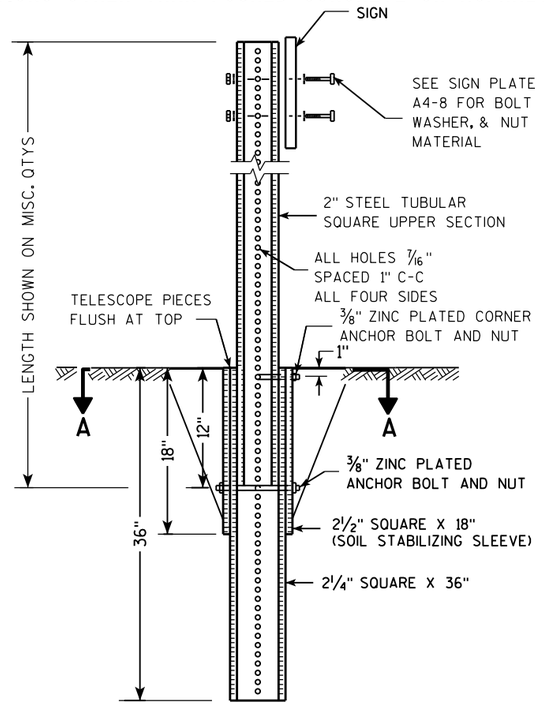
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

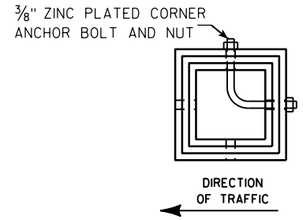


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

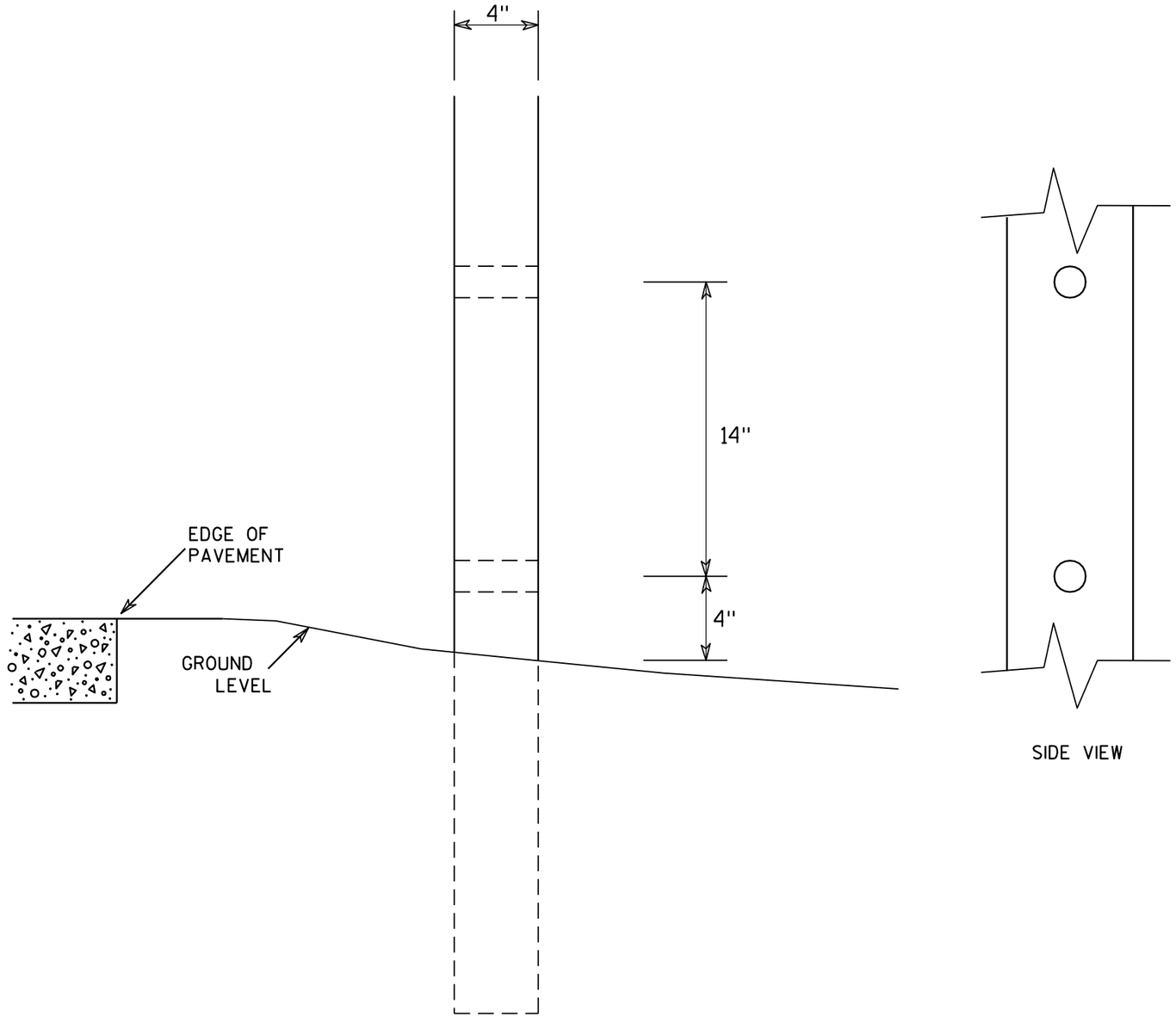
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 209 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

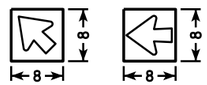
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

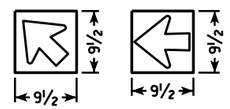
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 210	E

SIGN LAYOUT WITH VARIOUS SIZED MESSAGES

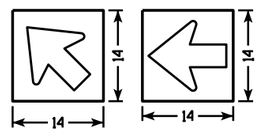




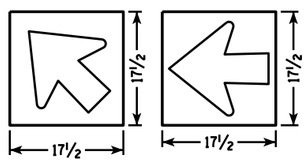










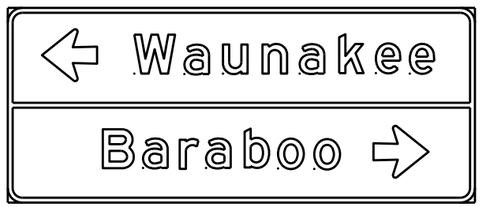


GENERAL NOTES

1. Materials shall conform to Standard Specification Section 637.
   Base - Sheet Aluminum 0.040" Thickness
   Sheeting - Orange Type F Reflective
   Arrow - Black Non-Reflective
2. Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws. There shall be a minmum of 2 fasteners used per arrow sign.
3. There shall be a spacer consisting of a 0.08" nylon washer between the back of the arrow sign and the face of the permanent sign.
4. Arrows are per standard plate A1-2
5. Use separate arrow sign for each destination
6. Tilt arrow is always at 45 degrees
7. Arrow is centered on arrow sign

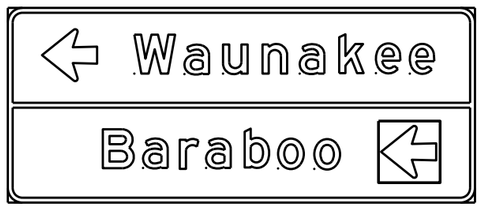
Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3¾" Series C	8	9 ½	14 ½	8
4½" Series D & E	9 ½	10	15	9 ½
6" Series D & E	14	16	20 ½	14
8" Series E	17 ½	20 ½	25	17 ½

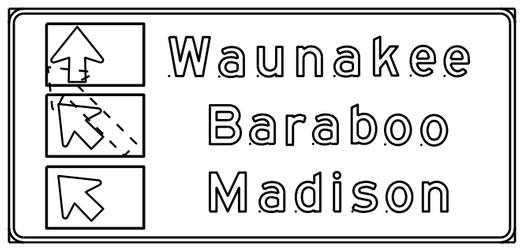
BEFORE





AFTER





DESTINATION DIRECTIONAL ARROW FOR DETOUR SIGNS

WISCONSIN DEPT OF TRANSPORTATION

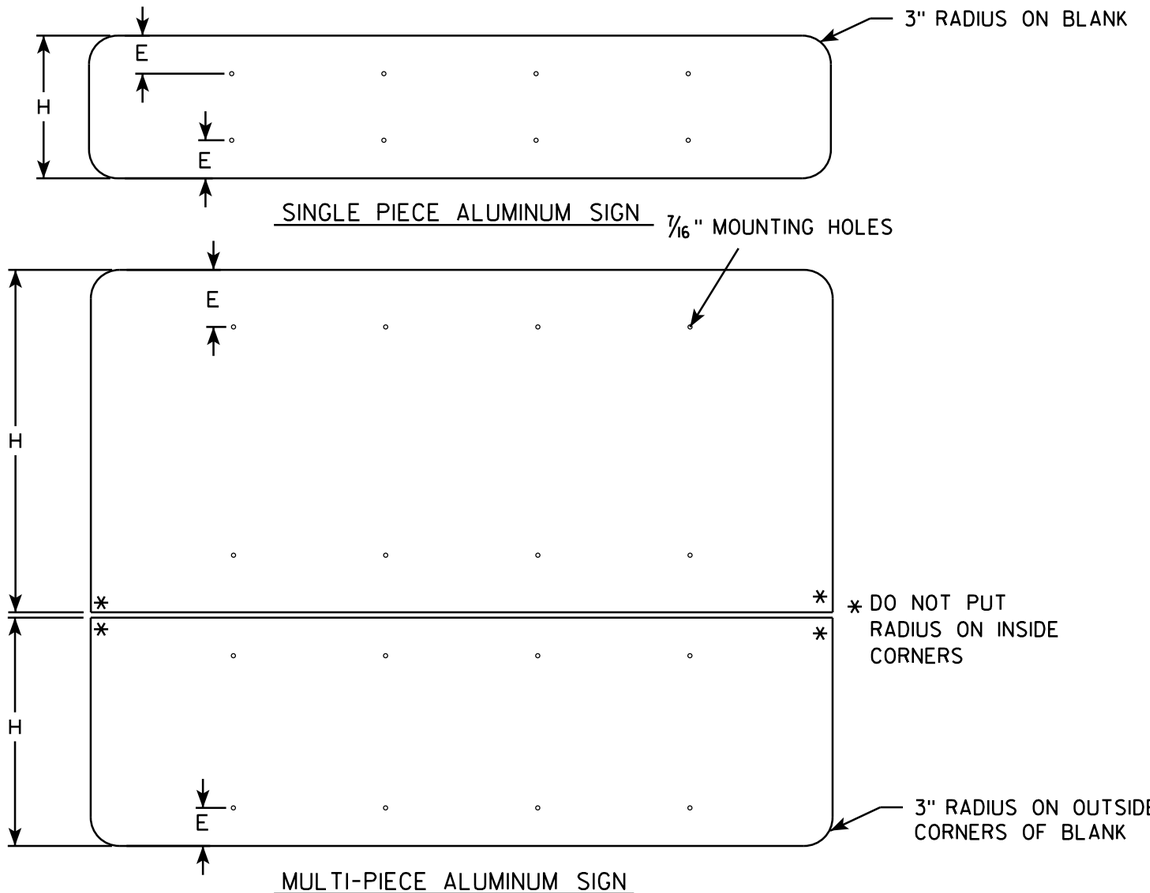
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/08/14

A4-12.2

PROJECT NO:

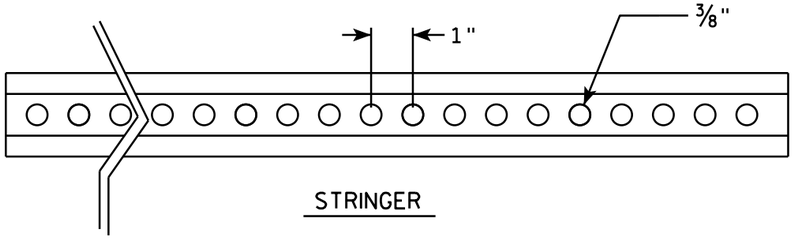
SHEET NO: E



GENERAL NOTES

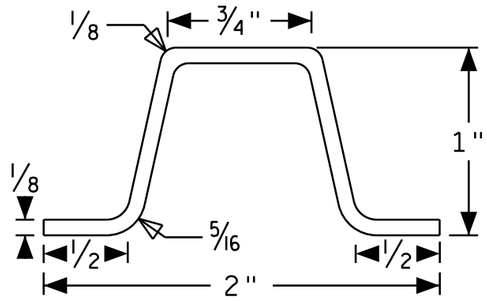
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

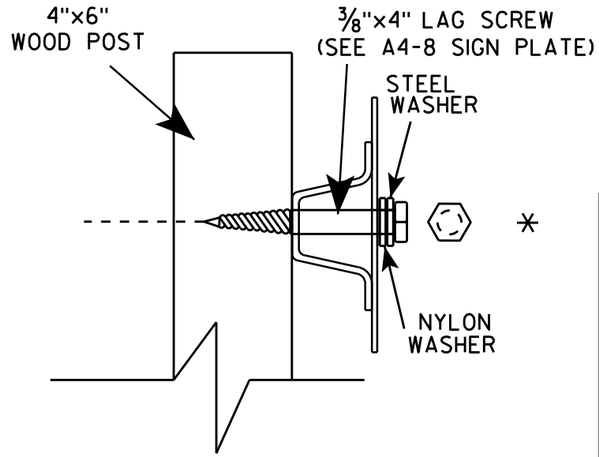


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

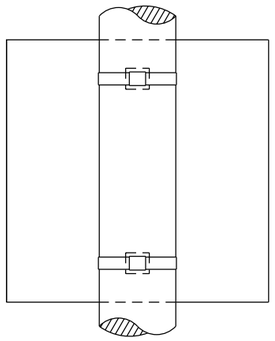
DATE 4/26/16 PLATE NO A4-18.1

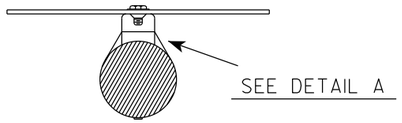
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

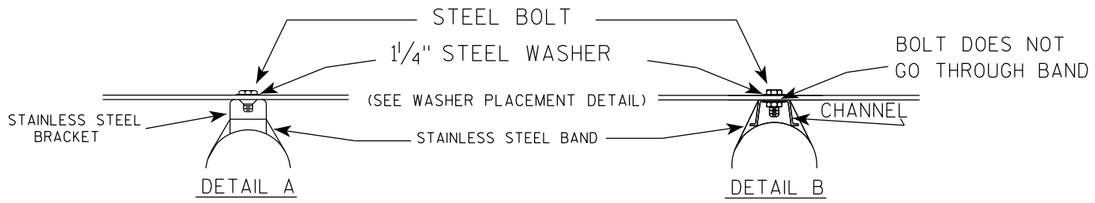
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

BANDING

SINGLE SIGN



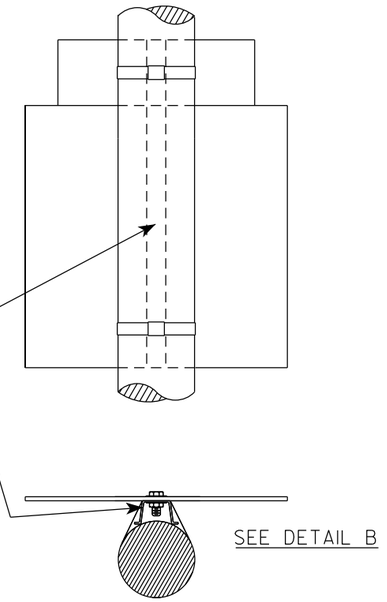




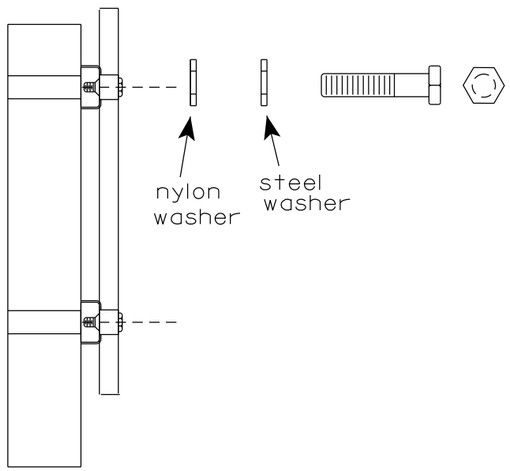
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

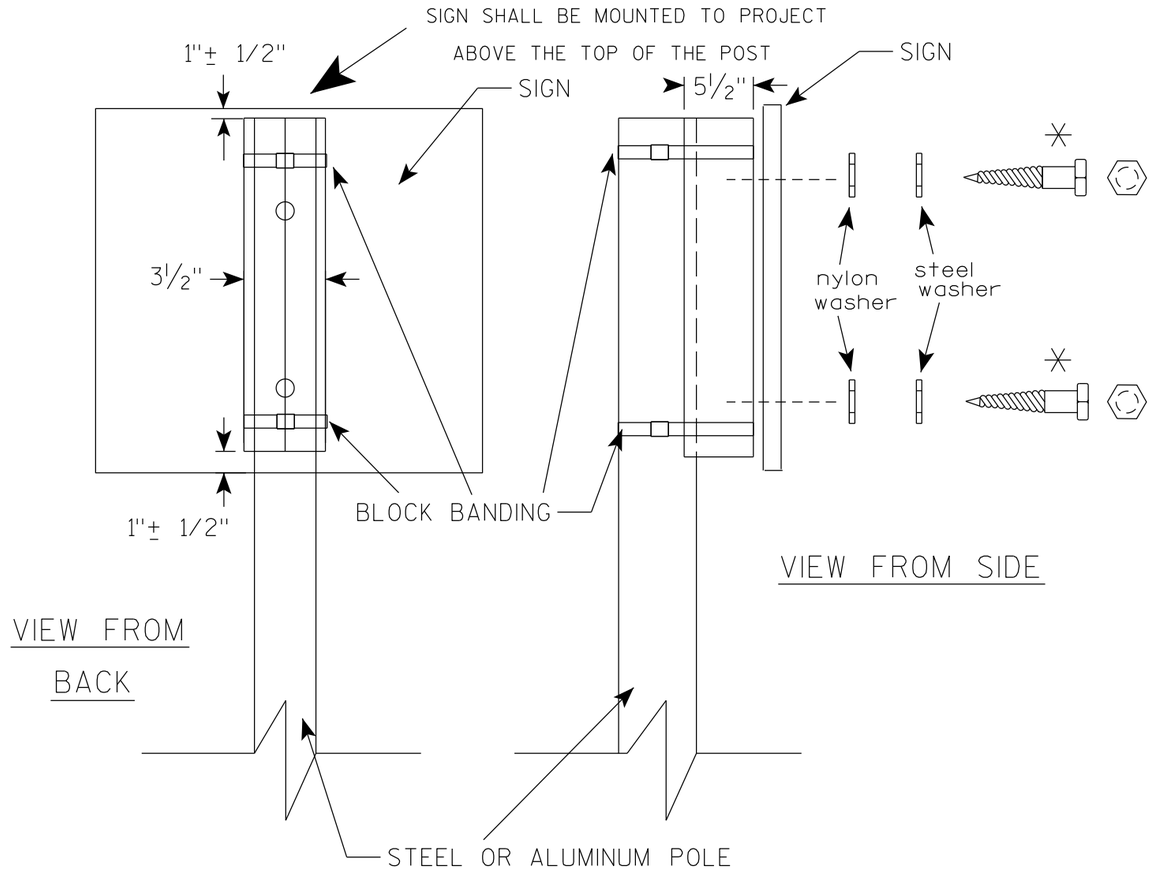
WISCONSIN DEPT OF TRANSPORTATION

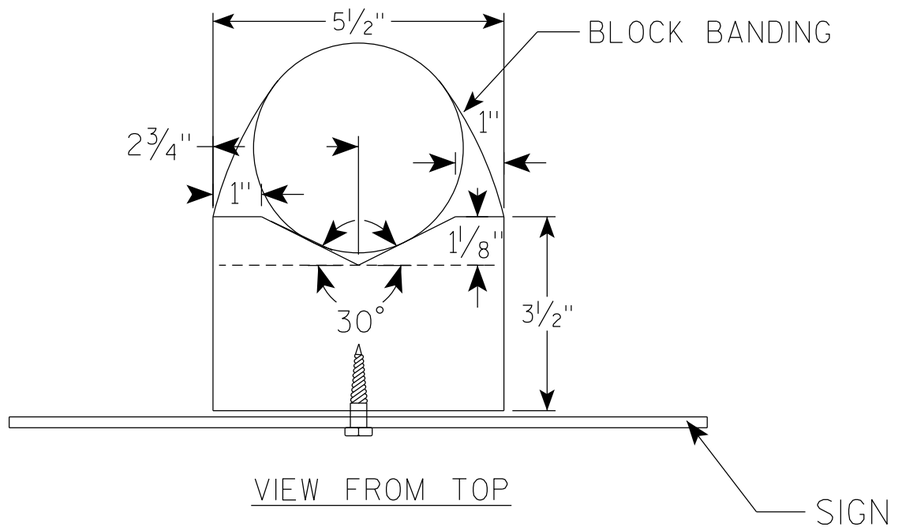
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 213	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

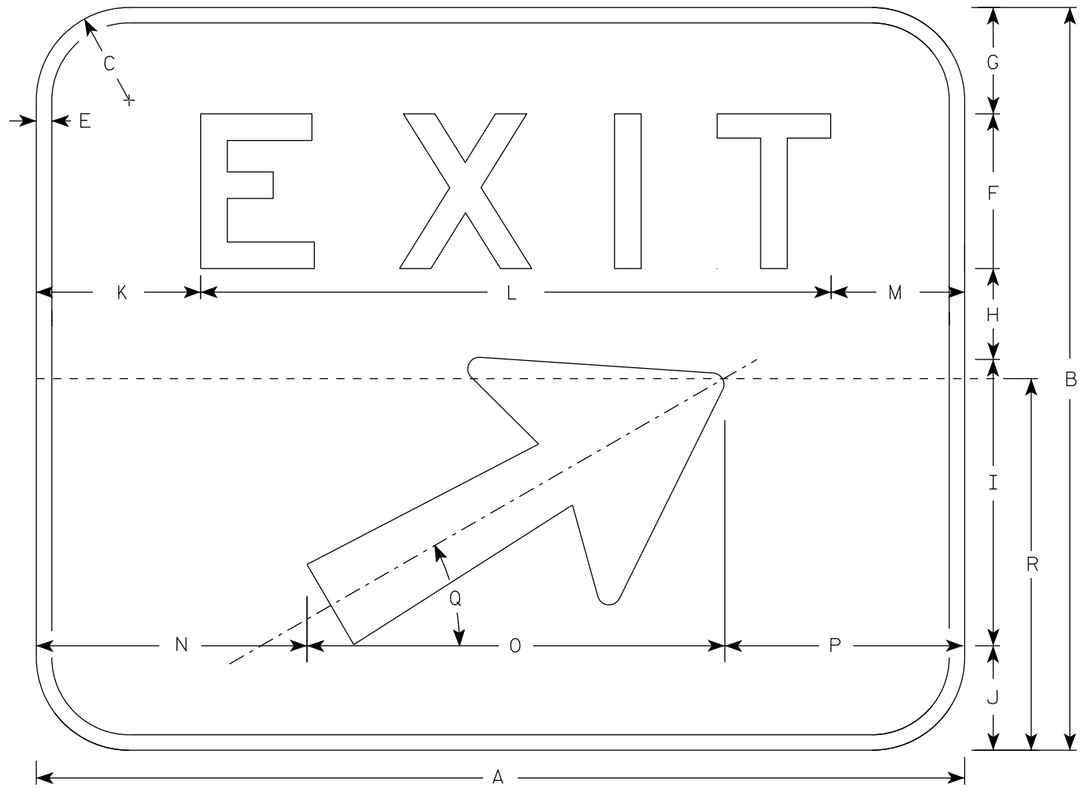
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO: | SHEET NO: 214 | E



E5-1

NOTES

1. Sign is Type II - Type H reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E
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.
5. When Base material for this sign is plywood sign shall be split into two seperate pieces for the 72 x 60 size as shown on the detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. As per the Standard Spec's, this sign shall not have a vertical joint.
8. Size 3 E5-1 shall only be used in a Work Zone application with a Temporary Sign Support

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	Area sq. ft.
1																											
2																											
3	48	48	6		1	10	6 7/8	5 7/8	18 1/2	6 3/4	8 1/2	31 1/8	8 3/8	11 1/2	27	9 1/2	30°	30									16.0
4	60	48	6		1	10	6 7/8	5 7/8	18 1/2	6 3/4	10 5/8	40 3/4	8 5/8	17 1/2	27	15 1/2	30°	30									20.0
5	72	60	6		1	12	9 3/4	10	18 1/2	9 3/4	13 1/4	48 1/2	10 1/4	23 1/2	27	21 1/2	30°	30									30.0

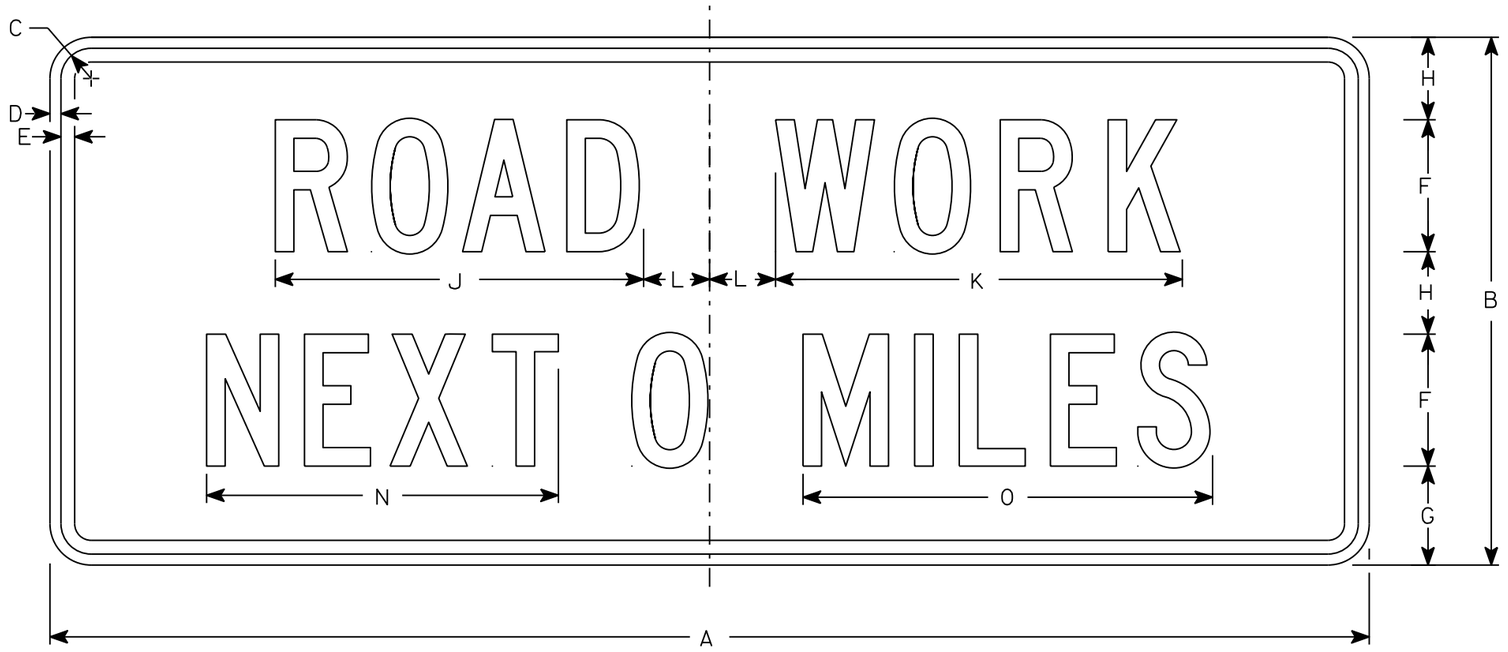
STANDARD SIGN
E5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/26/18 PLATE NO. E5-1.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 215 | E



G20-1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
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.
5. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance

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	Area sq. ft.
1																											
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10
5																											

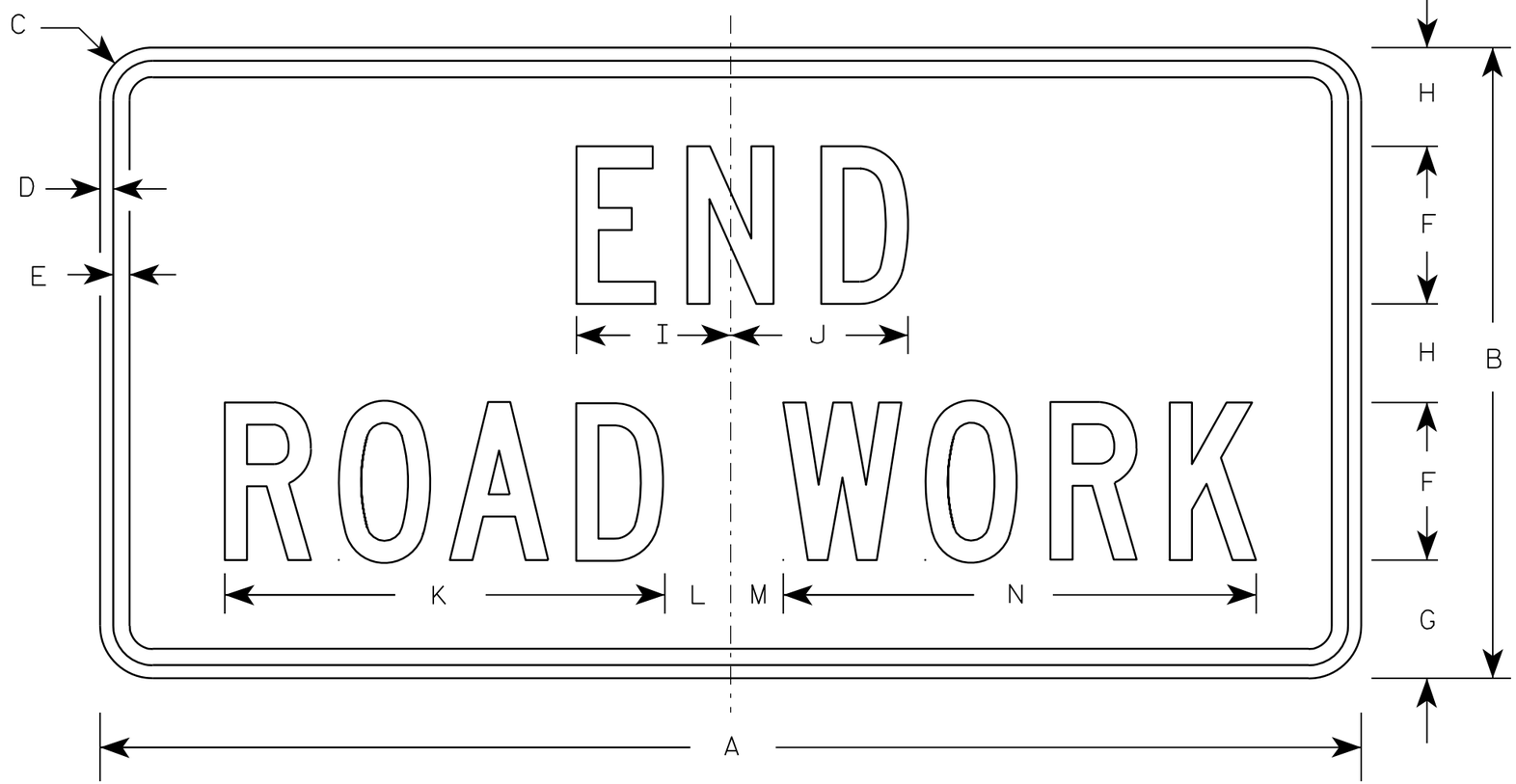
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 216 | E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
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.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

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	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

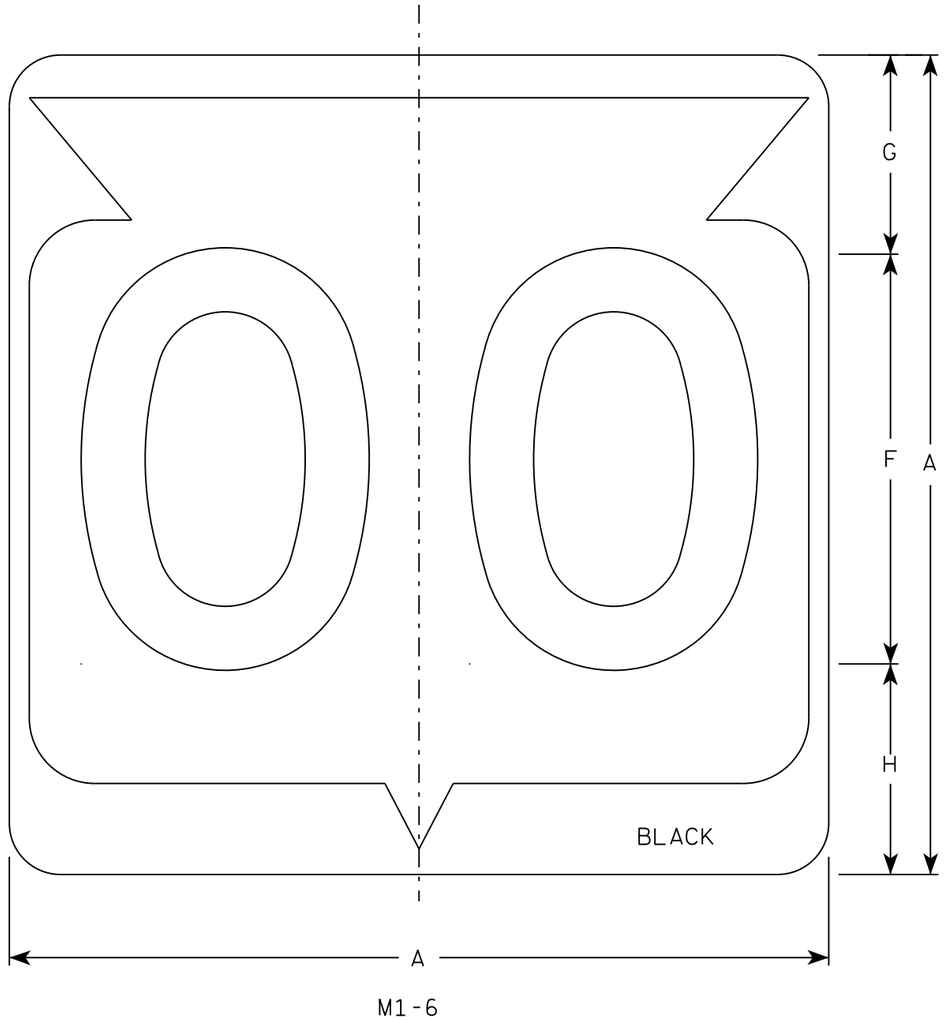
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

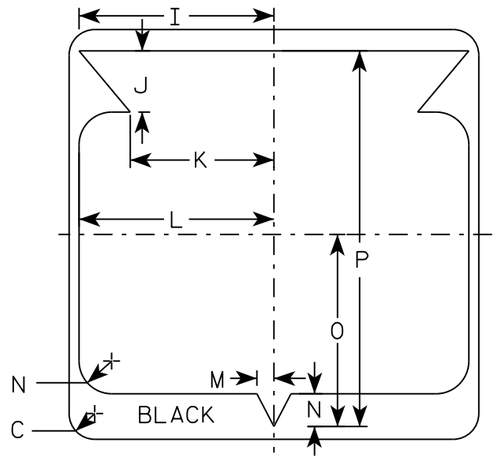
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 217	E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
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	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

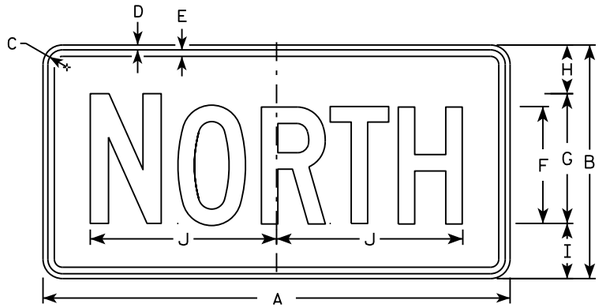
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

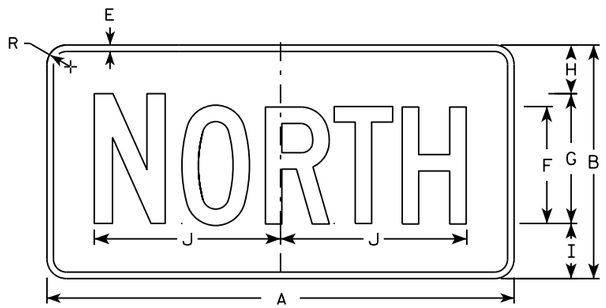
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 218 | E



M3-1
MM3-1
MP3-1



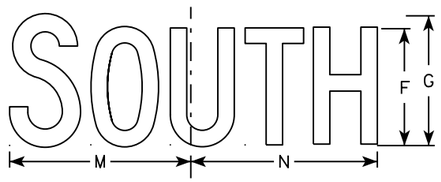
MB3-1
MK3-1
MN3-1



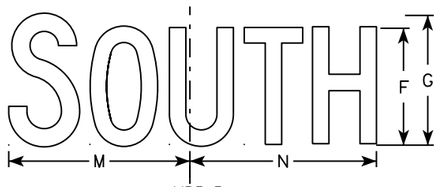
M3-2
MM3-2
MP3-2



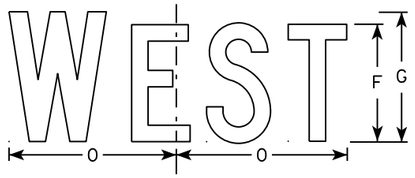
MB3-2
MK3-2
MN3-2



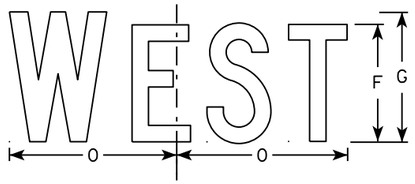
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
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.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

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	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

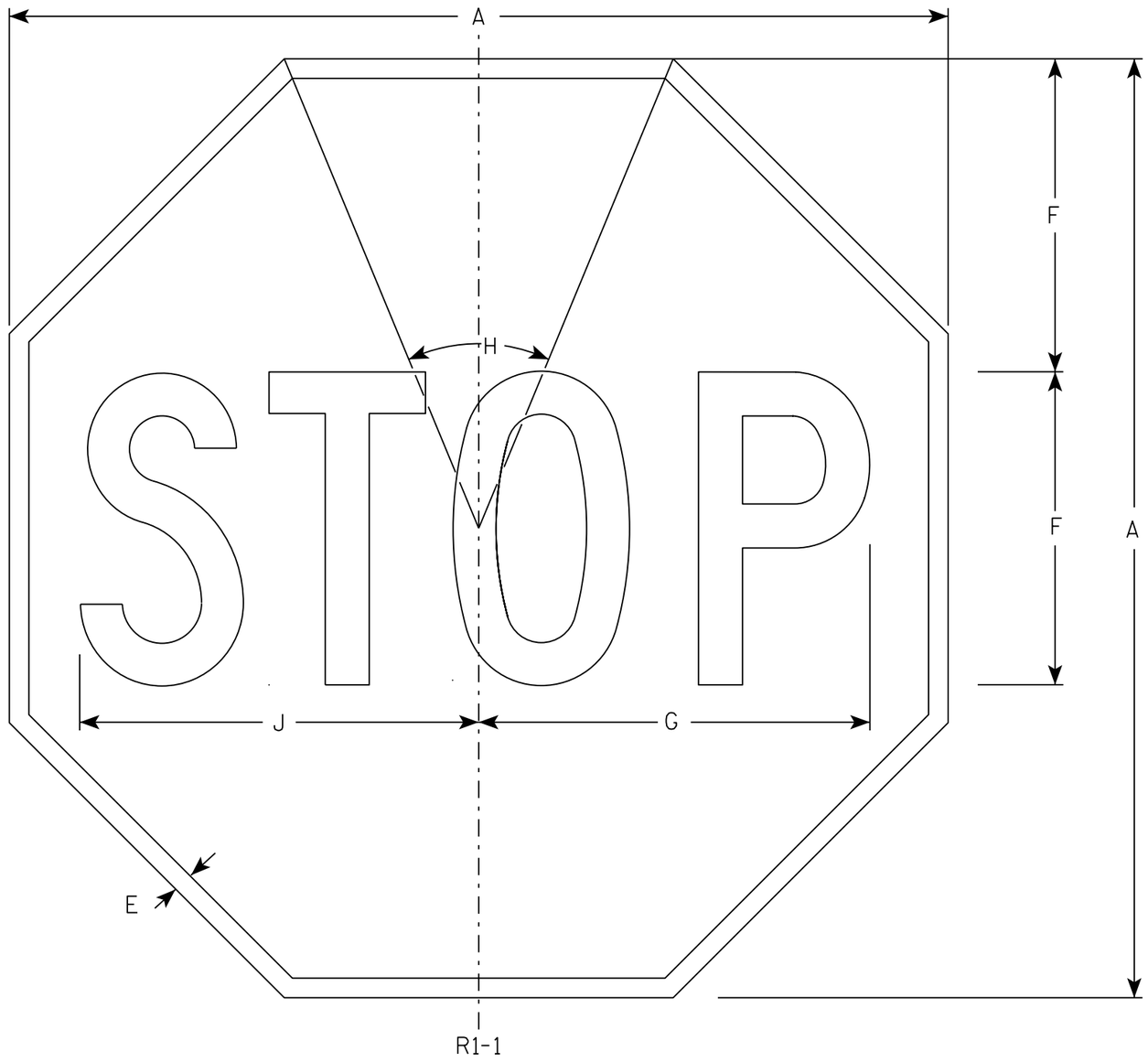
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

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	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN

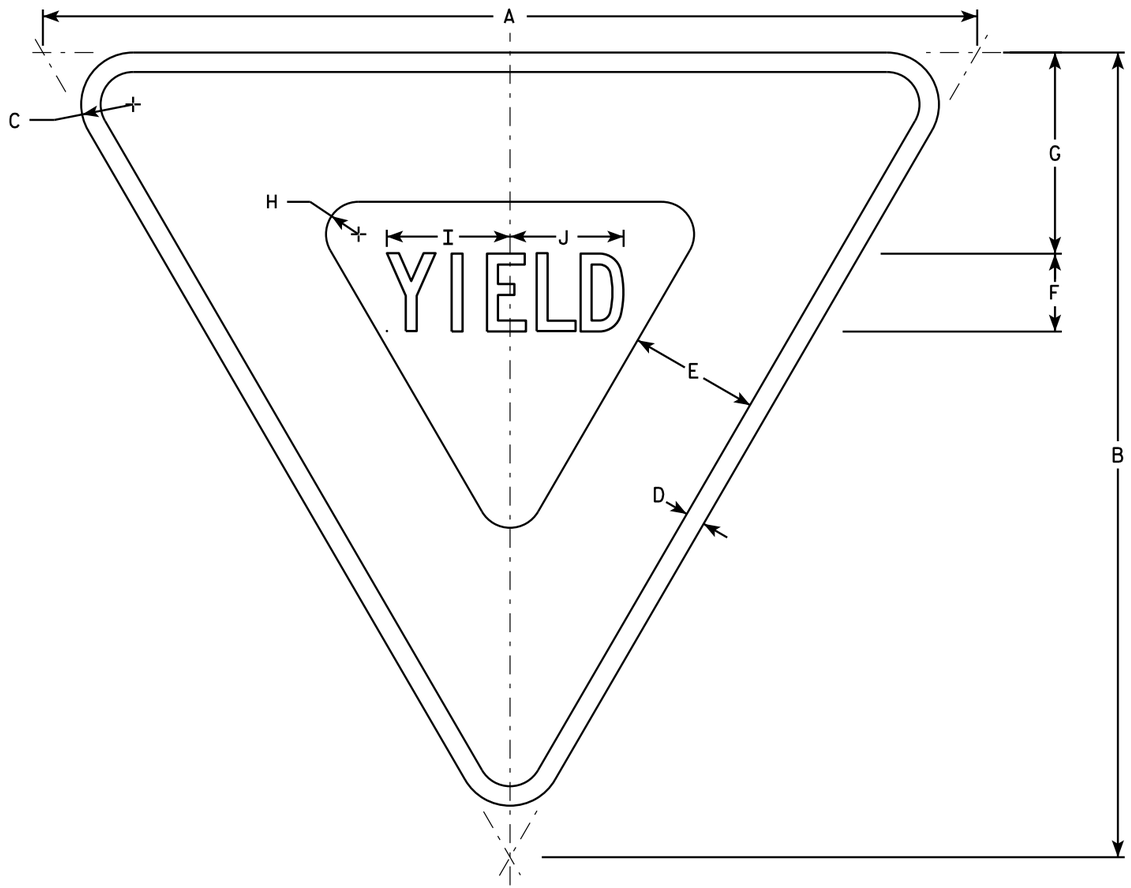
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 220	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
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.
5. The border strip and word message are reflectorized red.

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	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

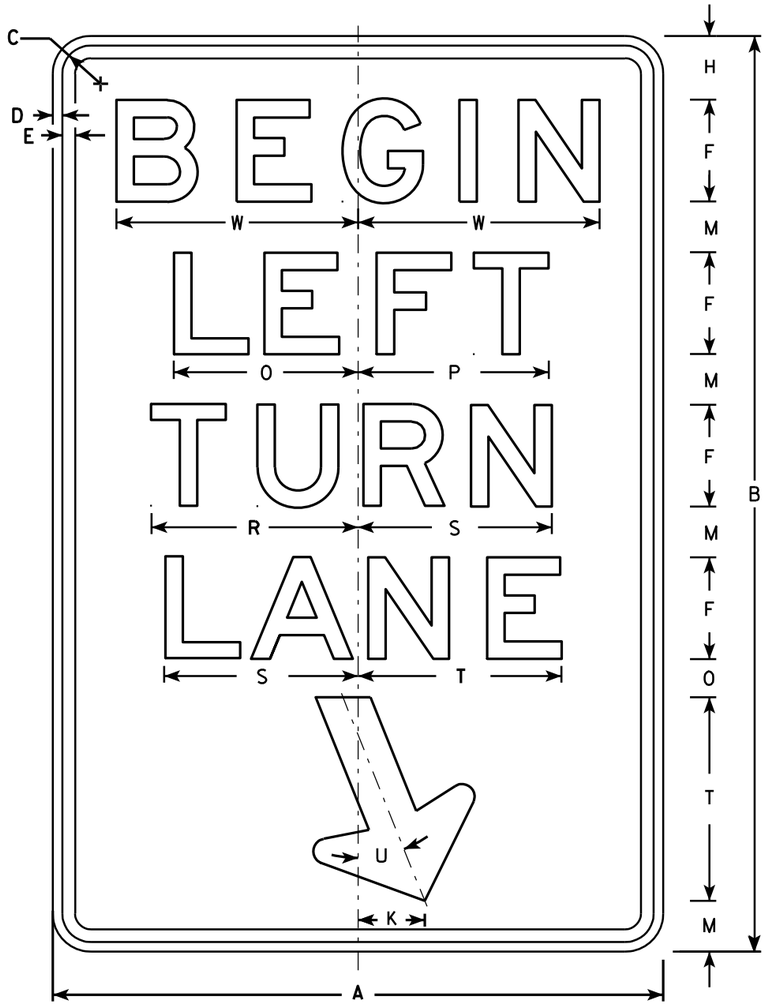
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

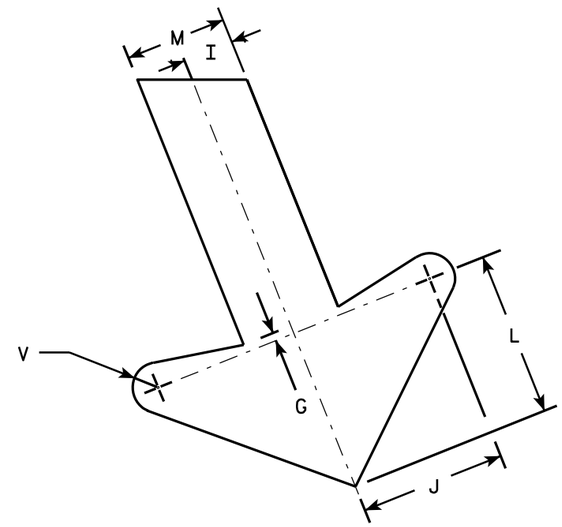
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



R3-20L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
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.



ARROW DETAIL

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	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

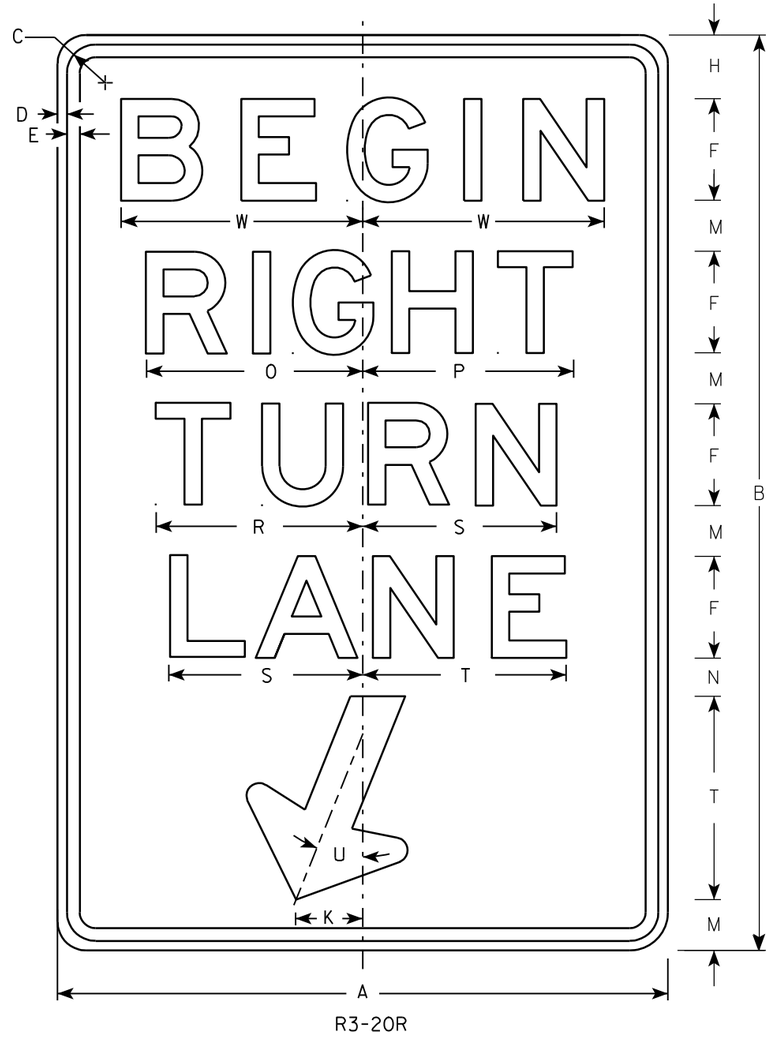
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

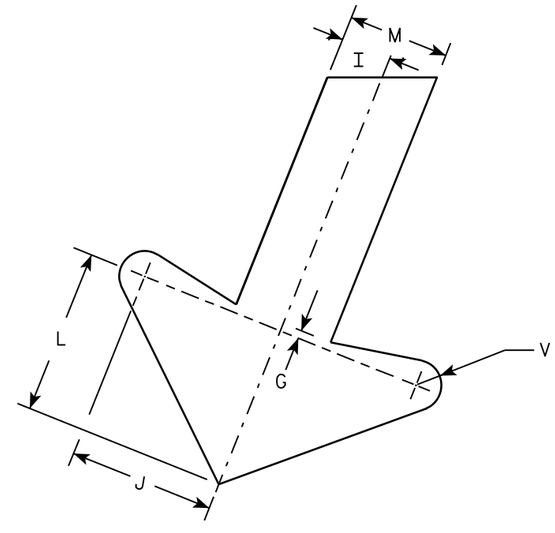
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 222 | E



R3-20R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
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.



ARROW DETAIL

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	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

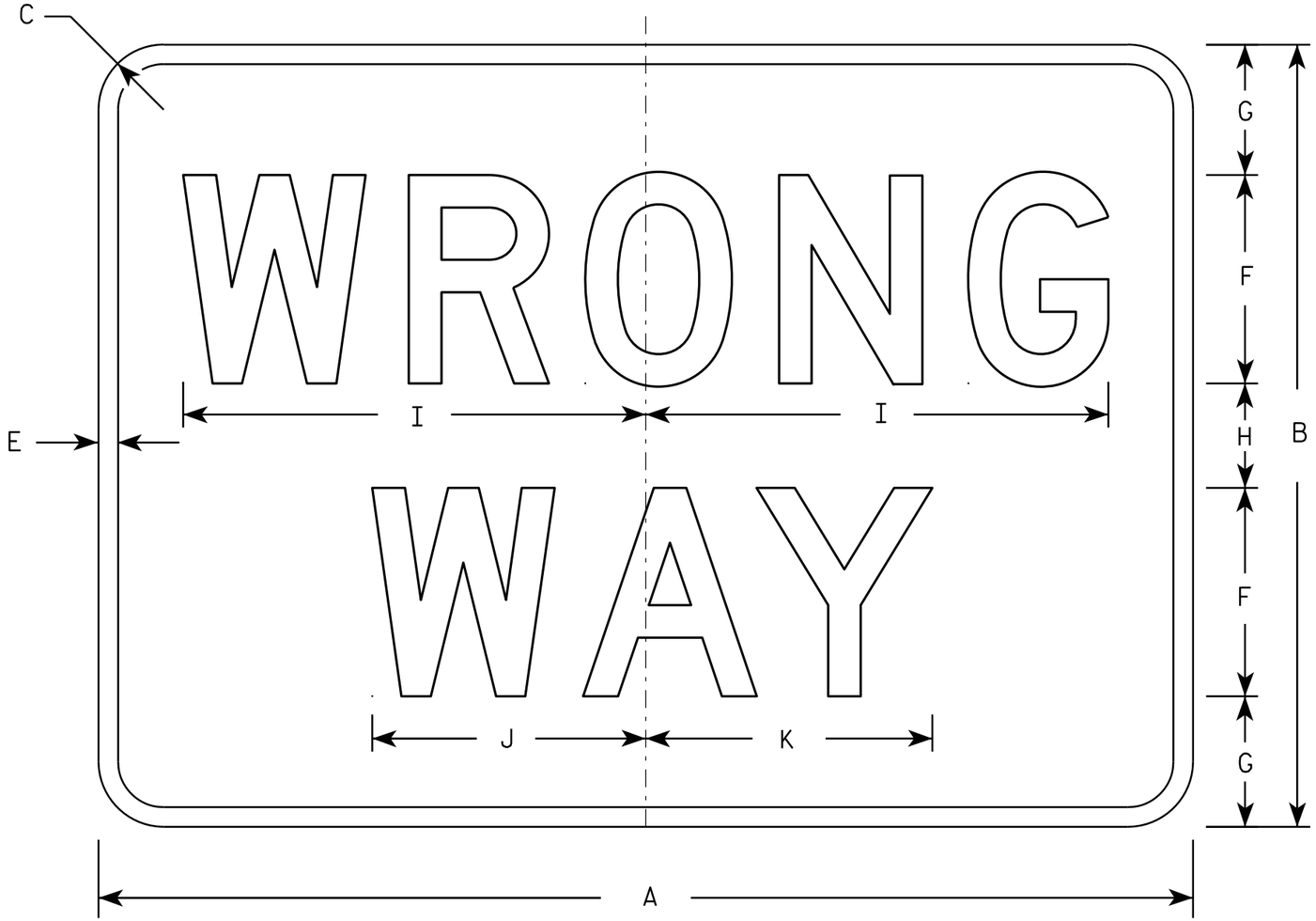
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 223 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
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	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

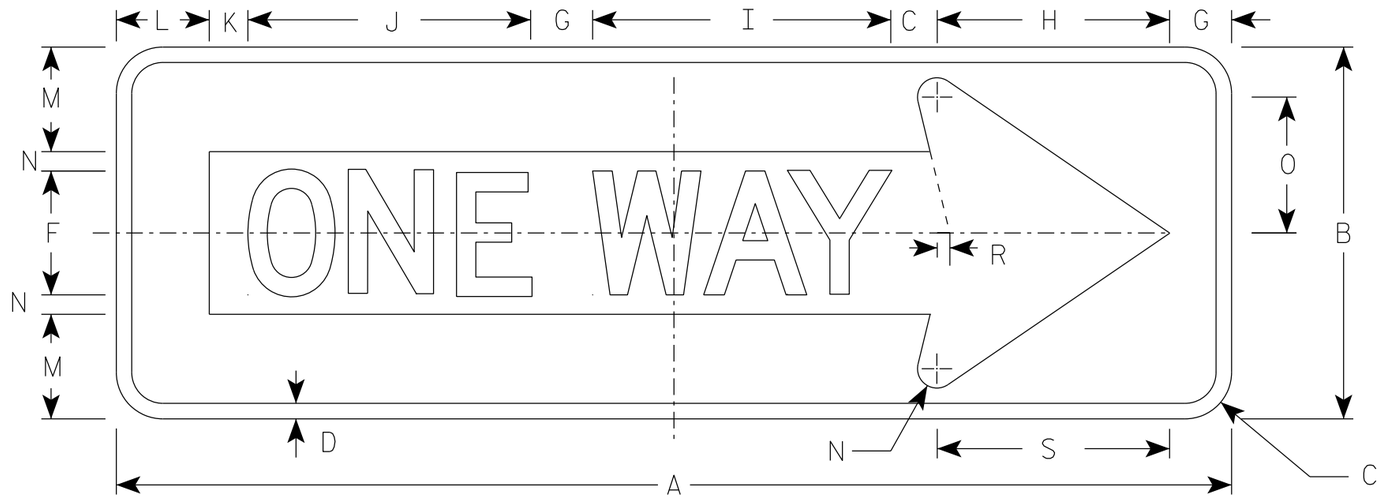
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

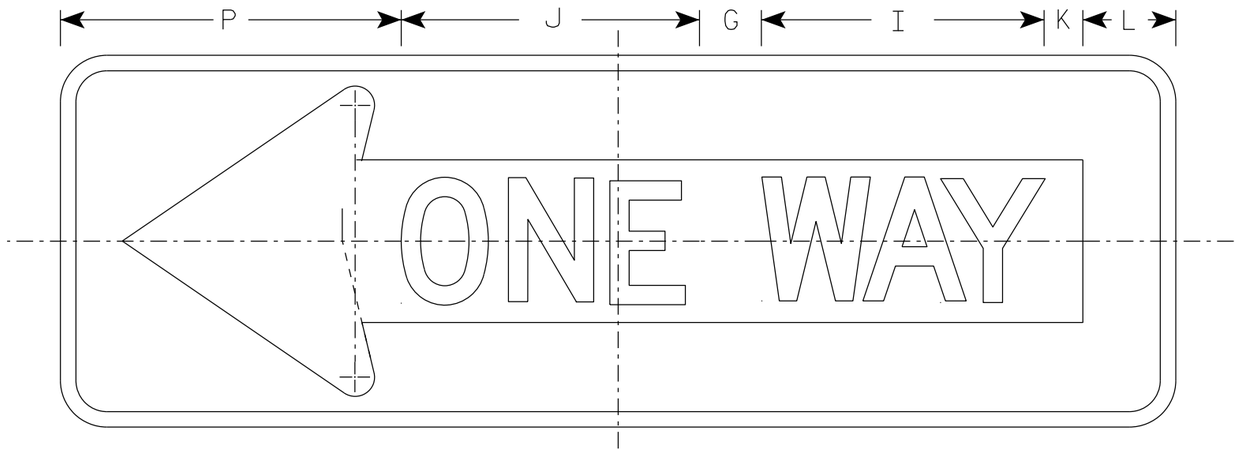
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 224	E



R6-1R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLACK
   Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D



R6-1L

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	Area sq. ft.
1																											
2S	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
3	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
4	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
5																											

STANDARD SIGN
R6-1 L & R

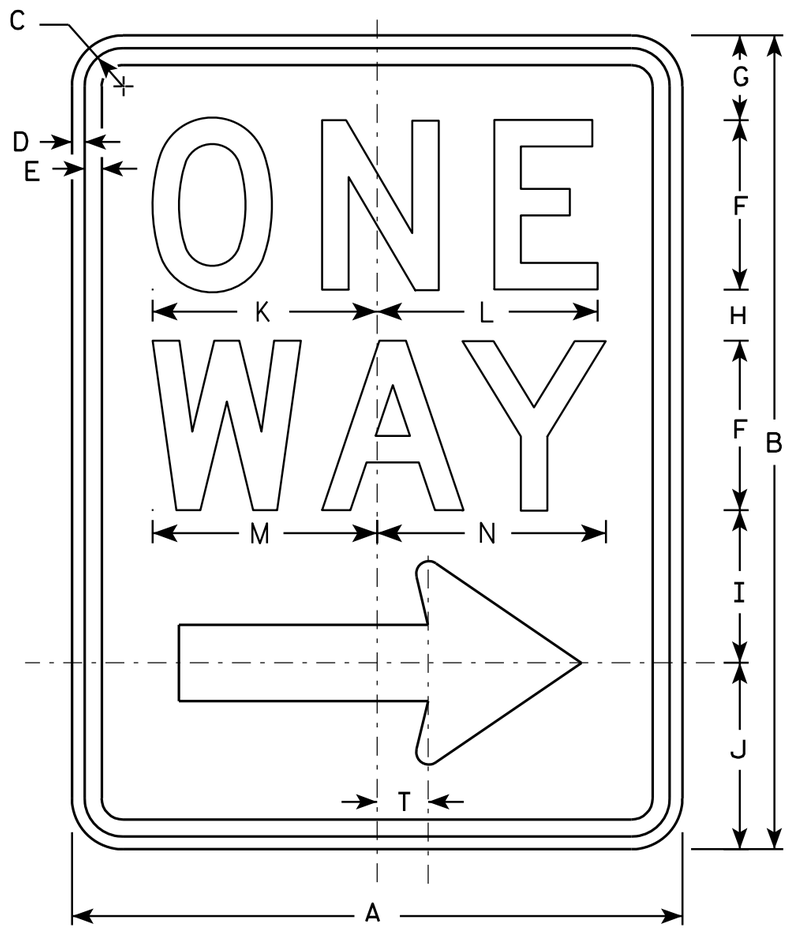
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 07/11/18 PLATE NO. R6-1.3

PROJECT NO:

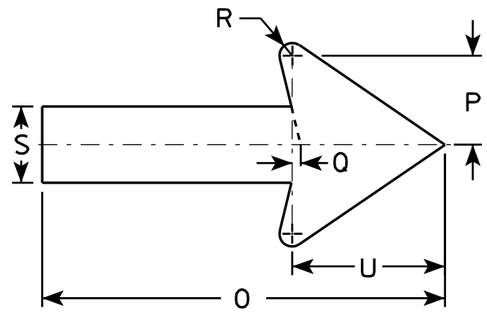
SHEET NO: 225 E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   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.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

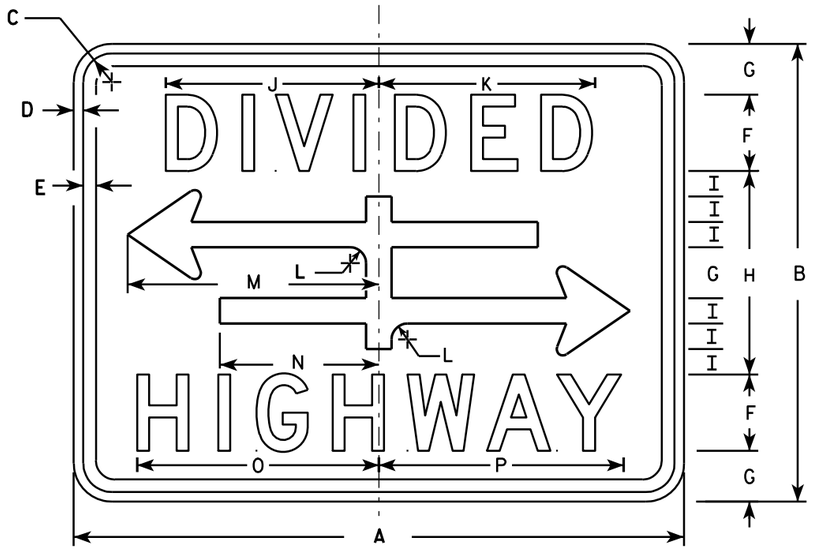
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

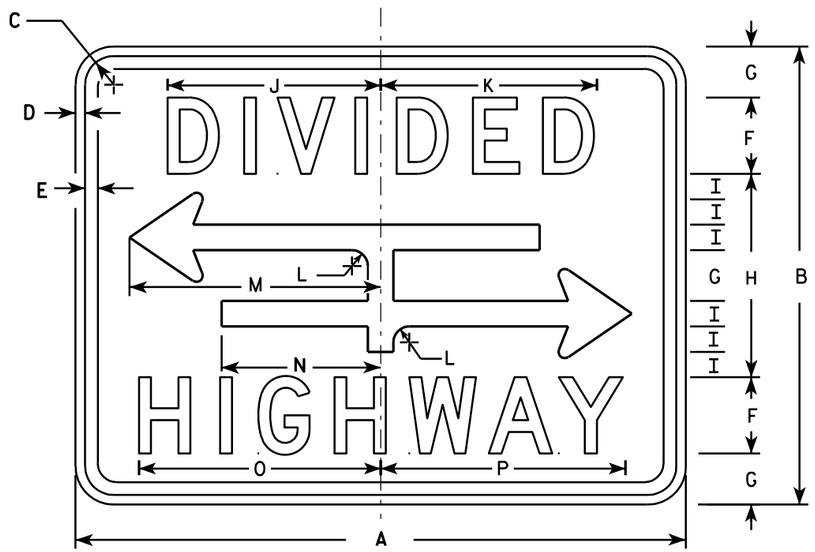
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 226	E



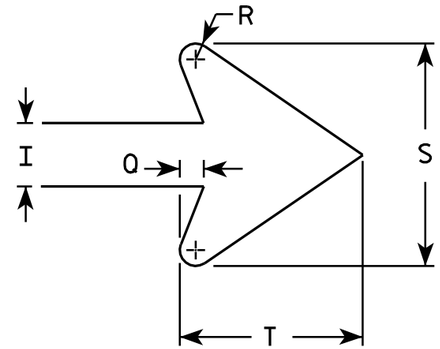
R6-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   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.



R6-3A



ARROW DETAIL

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	Area sq. ft.
1	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

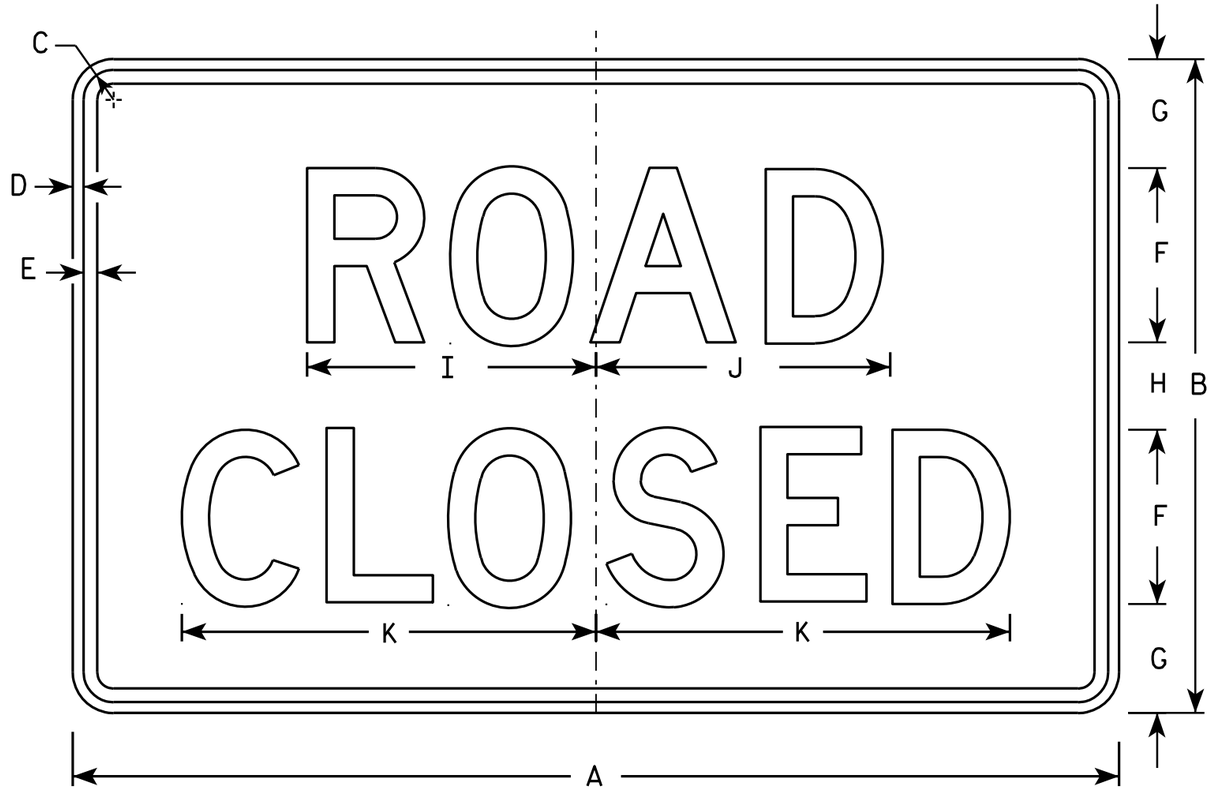
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

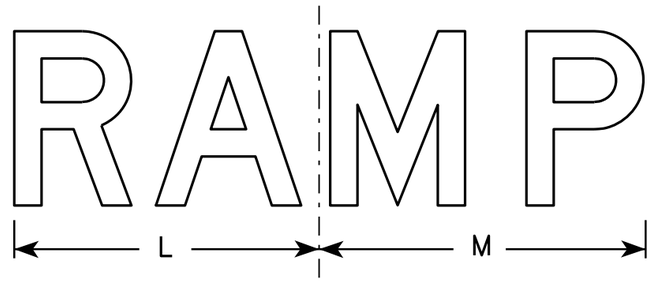
SHEET NO: 227 E



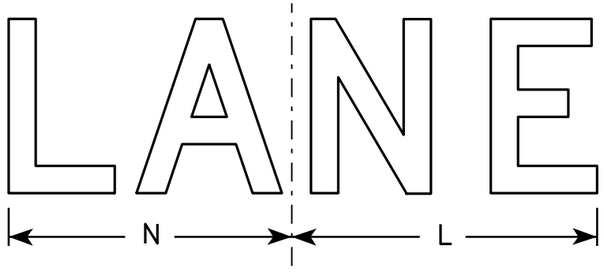
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   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.
5. Modify the message as required.



R11-2R



R11-2L

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	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

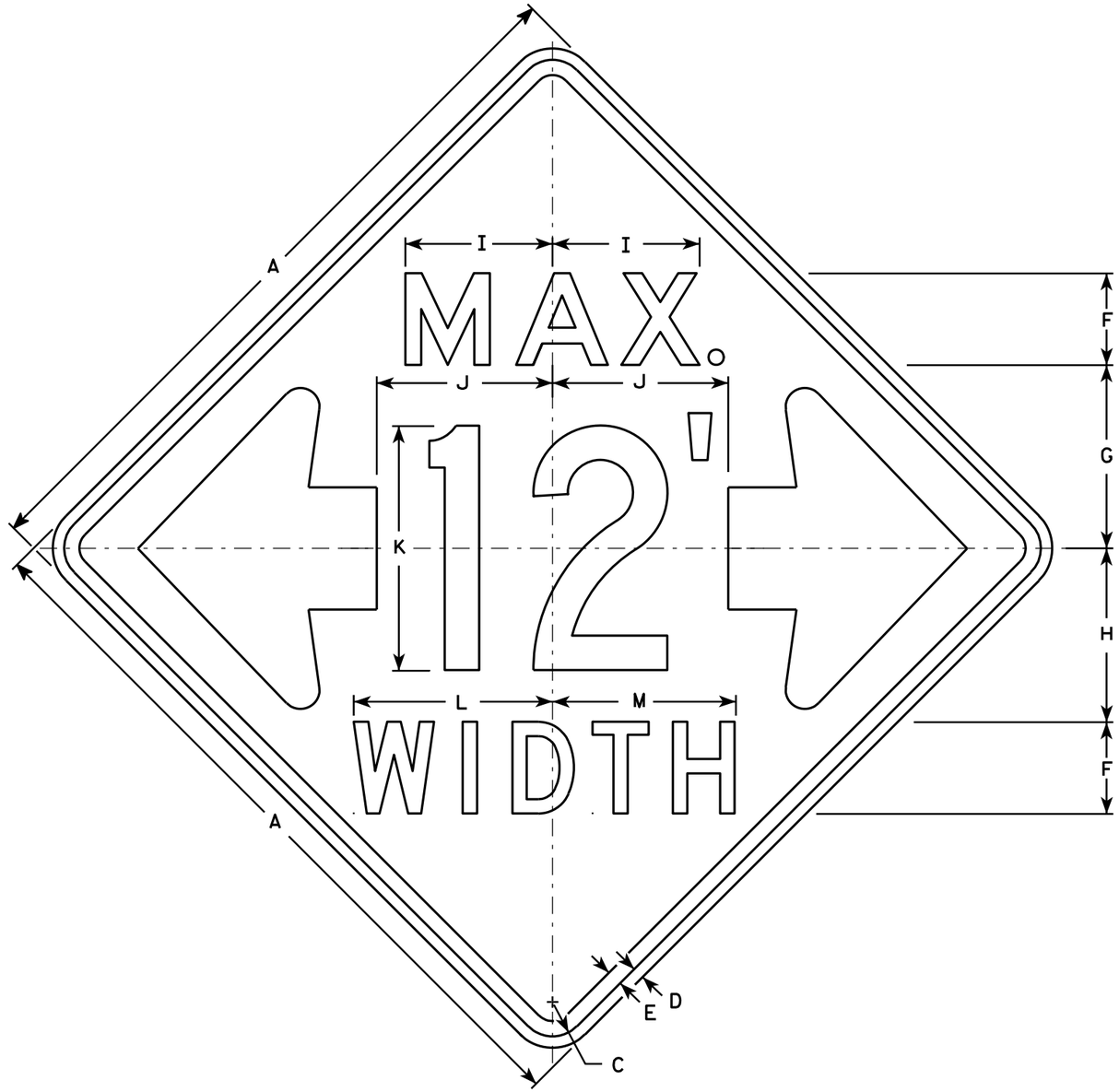
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

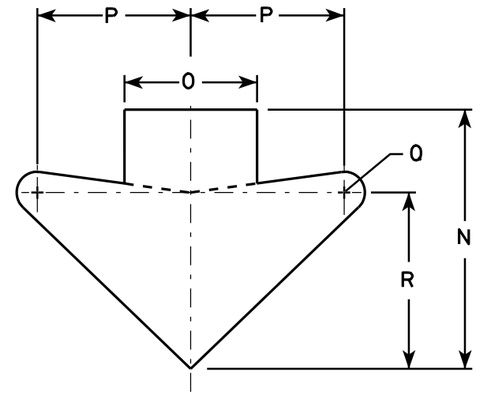
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 228	E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
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.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

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	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

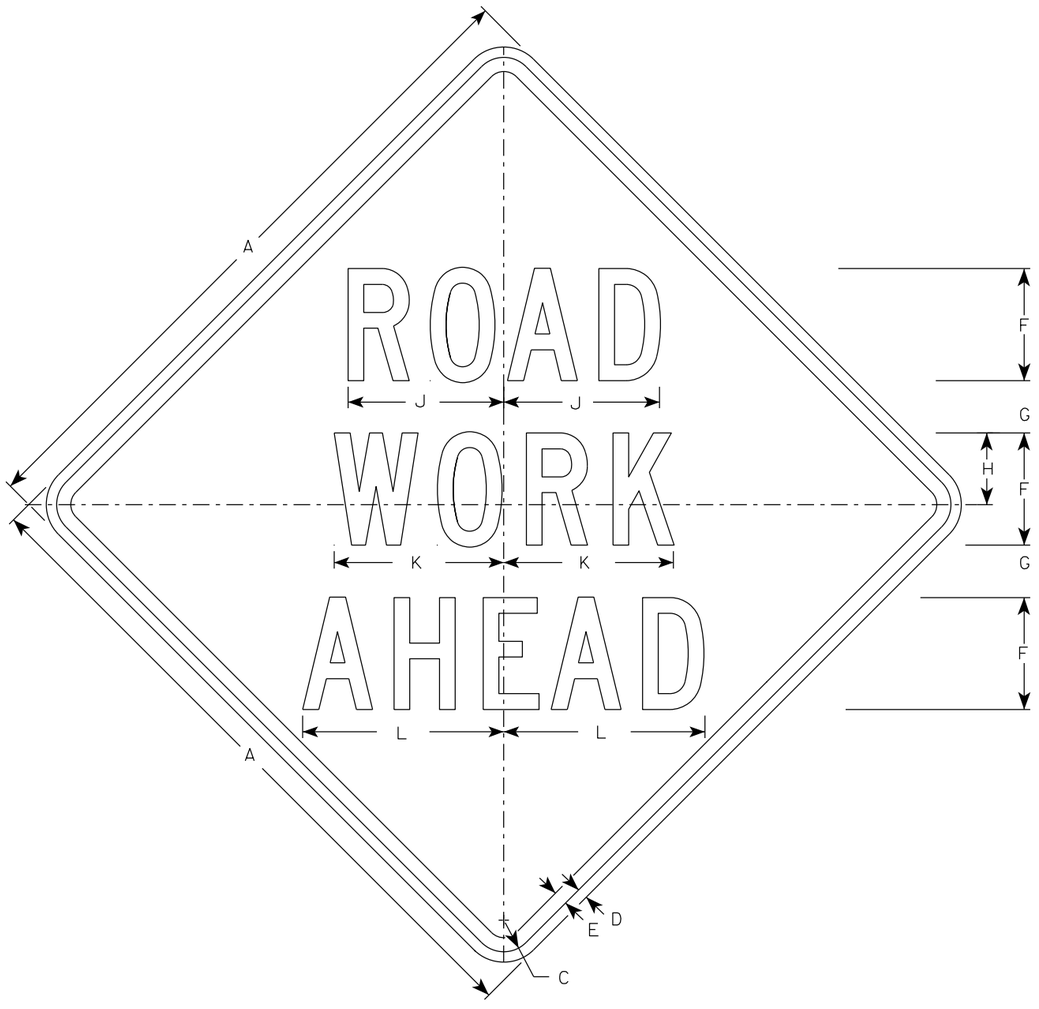
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 229 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000

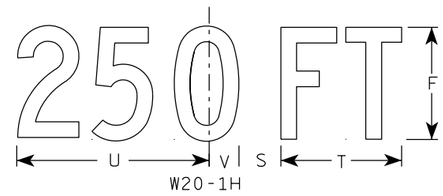
WISDOT/CADDS SHEET 42

7

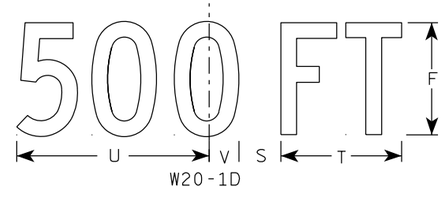
7



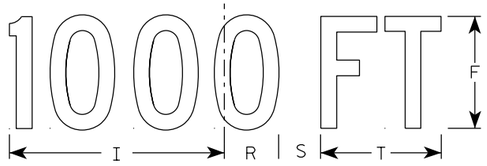
W20-1A



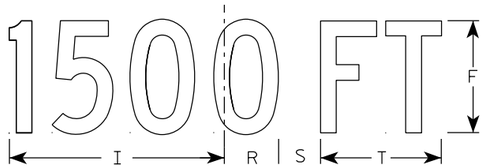
W20-1H



W20-1D



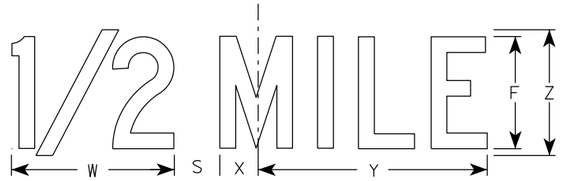
W20-1C



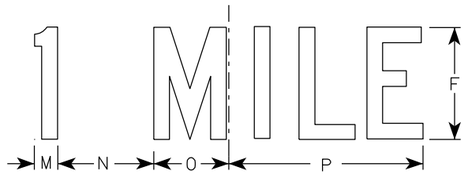
W20-1B

NOTES

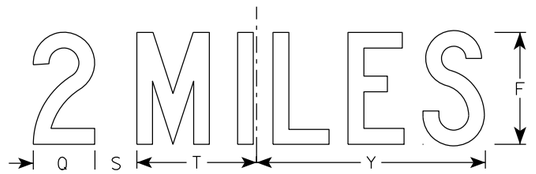
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

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	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

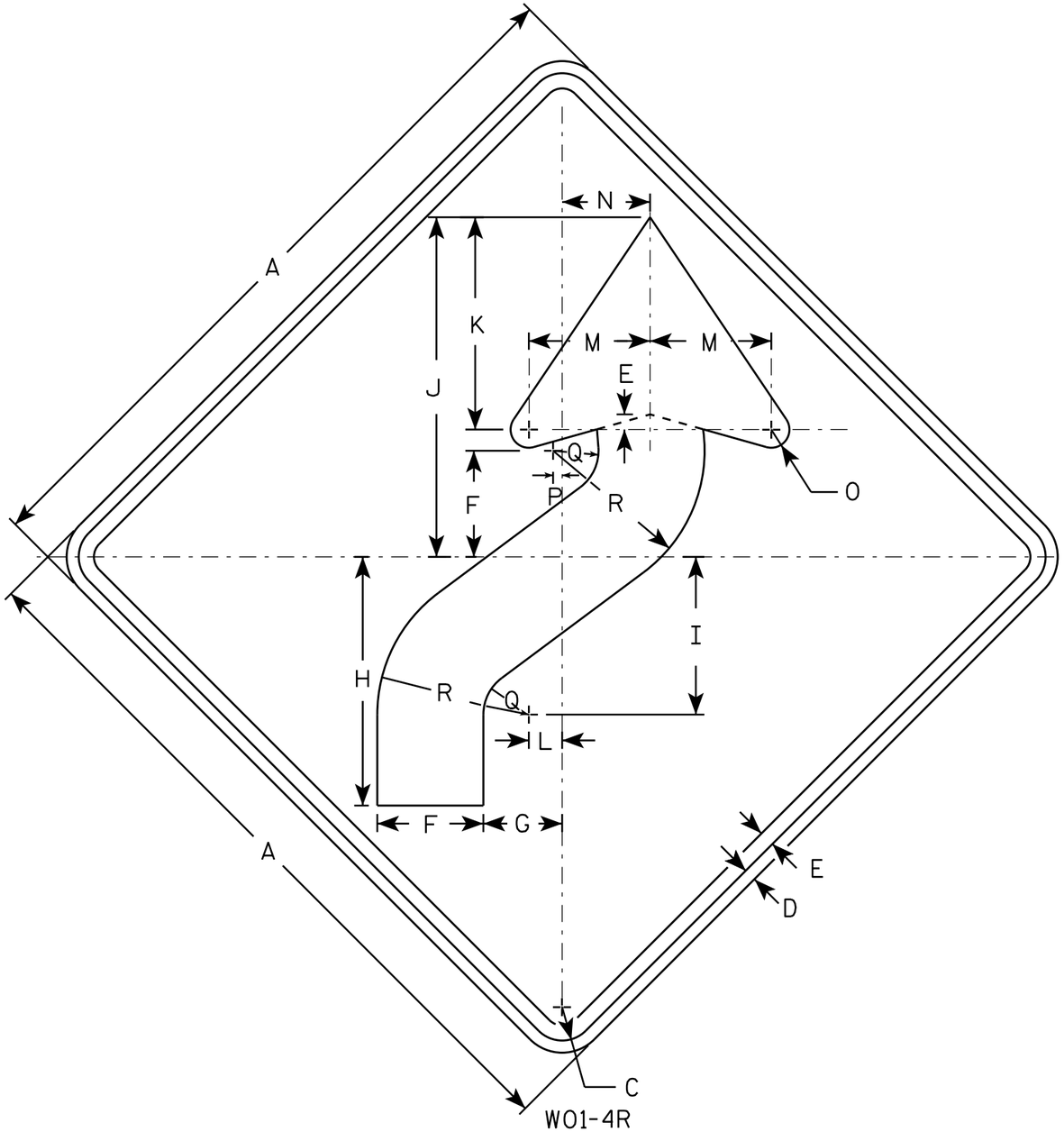
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

7

7



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. 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.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

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	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

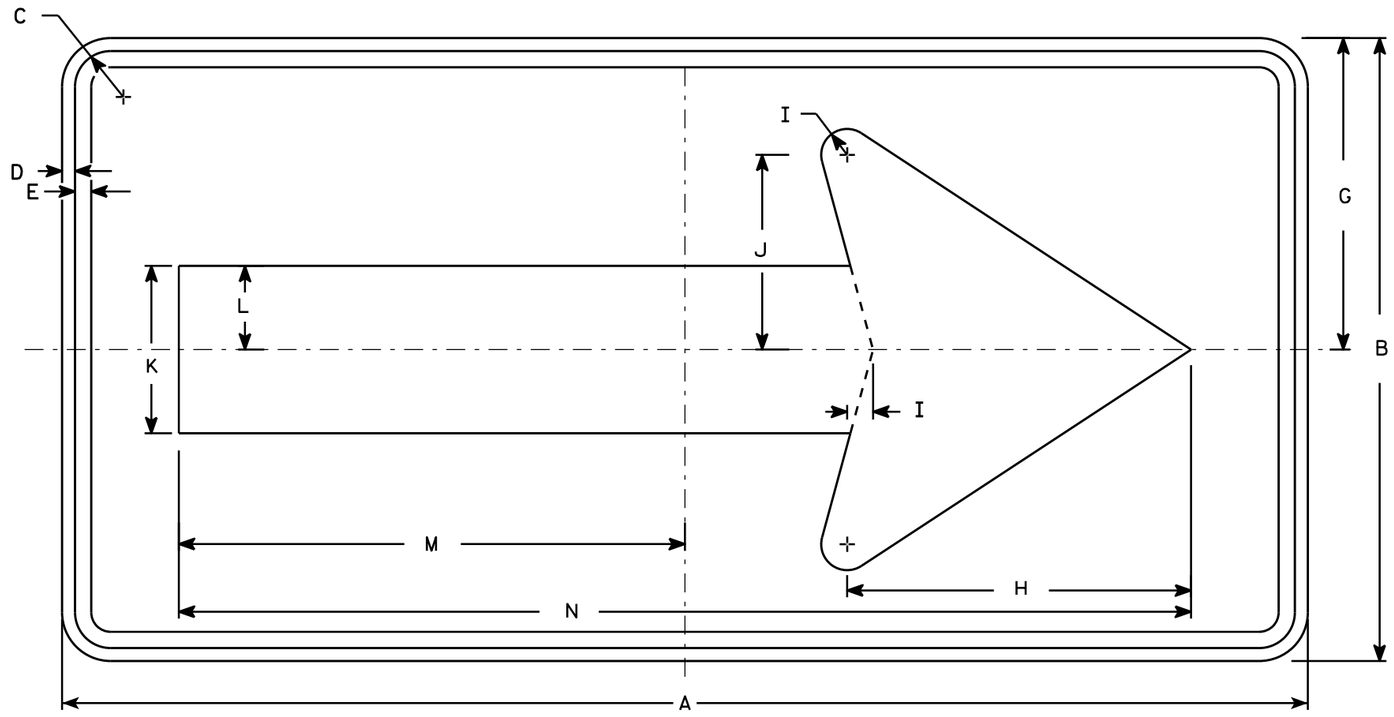
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000 WISDOT/CADDS SHEET 42



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. 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	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

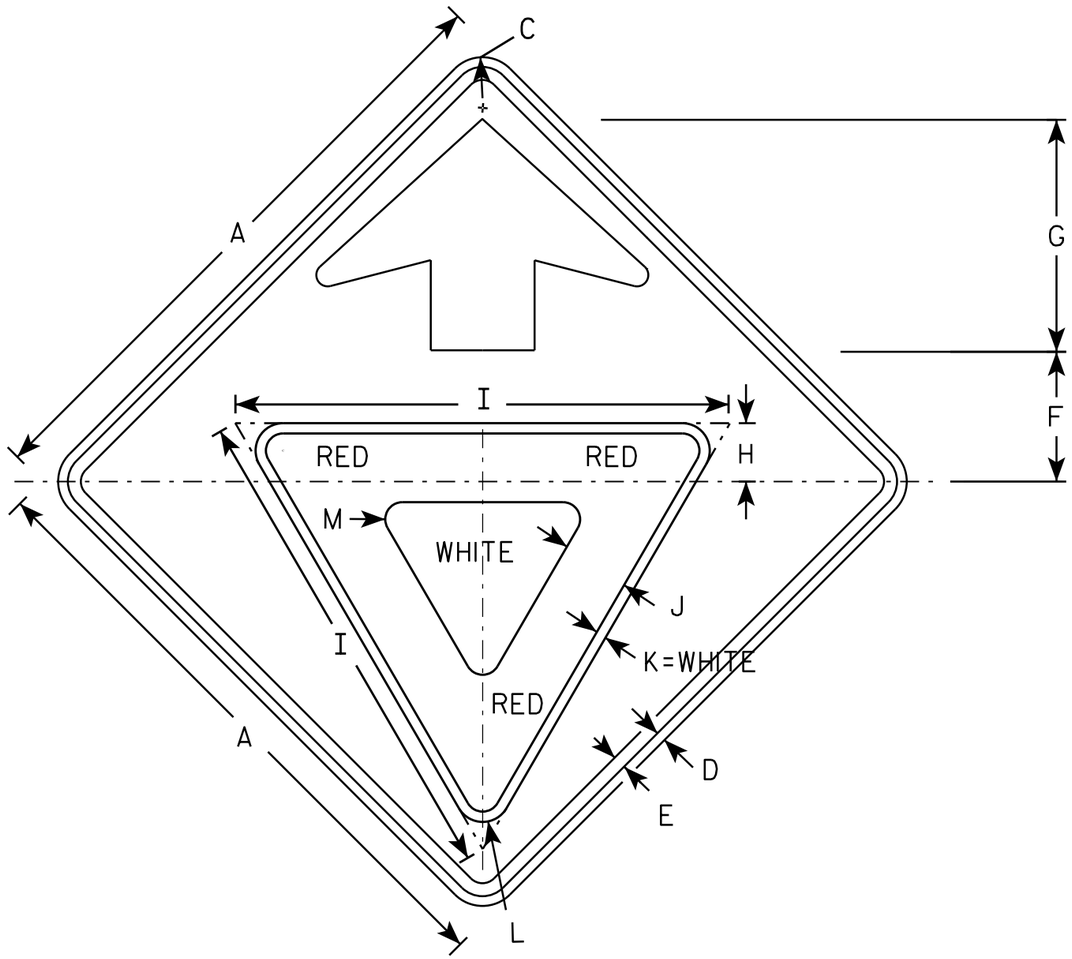
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

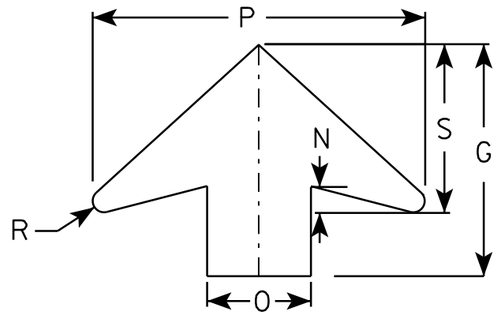
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W03-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

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	Area sq. ft.
1	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

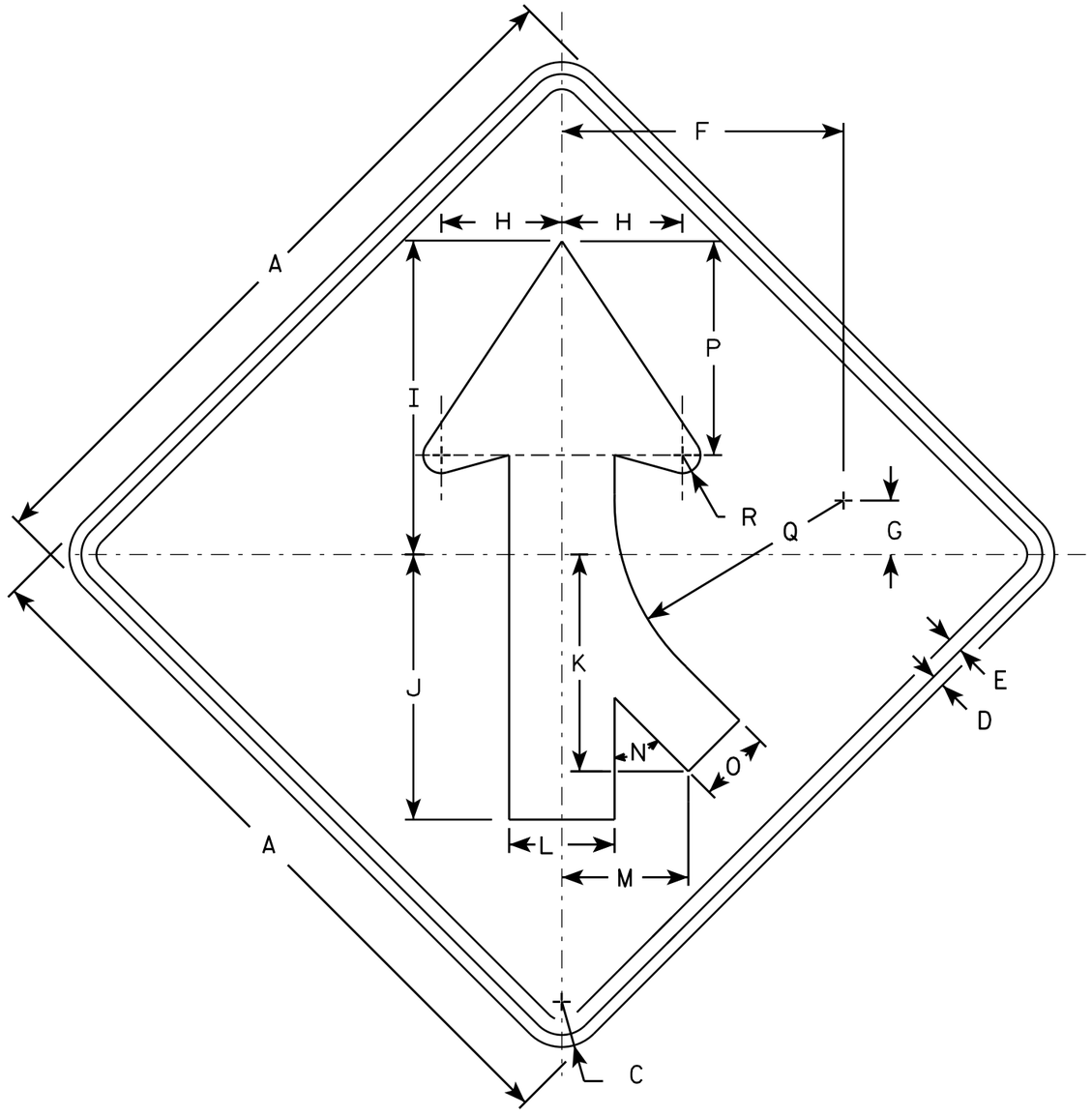
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W03-2.1

PROJECT NO:

SHEET NO: E



W04-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. 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.
4. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

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	Area sq. ft.
1	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2S	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
2M	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
3	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

STANDARD SIGN
W04-1

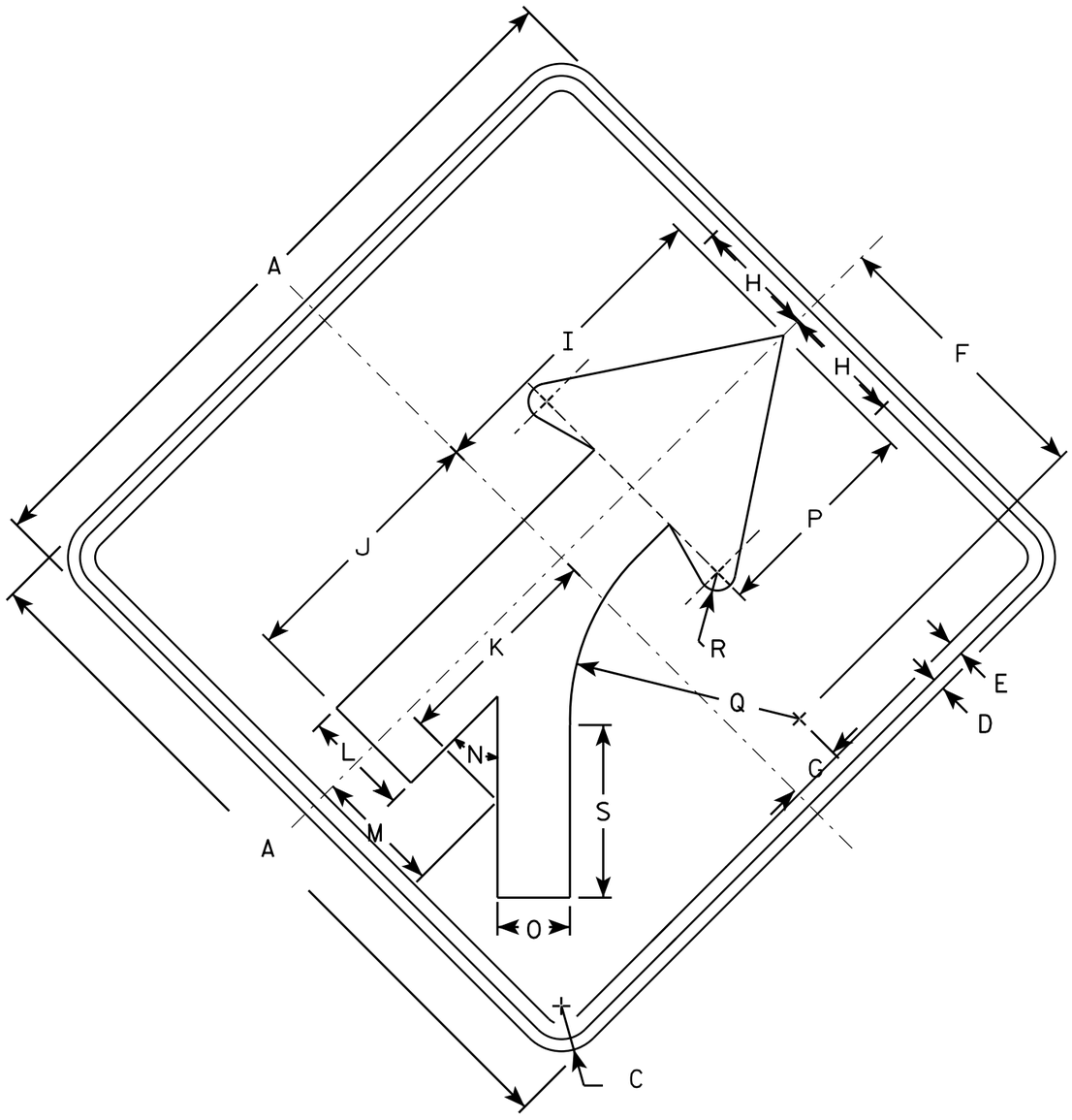
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO W04-1.1

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W041.DGN PLOT DATE : 20-NOV-2013 11:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.080757:1.000000
WISDOT/CADDS SHEET 42



W04-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. 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	Area sq. ft.
1	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8	8 1/2								9.0
2S	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
2M	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
3	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0

STANDARD SIGN
W04-5

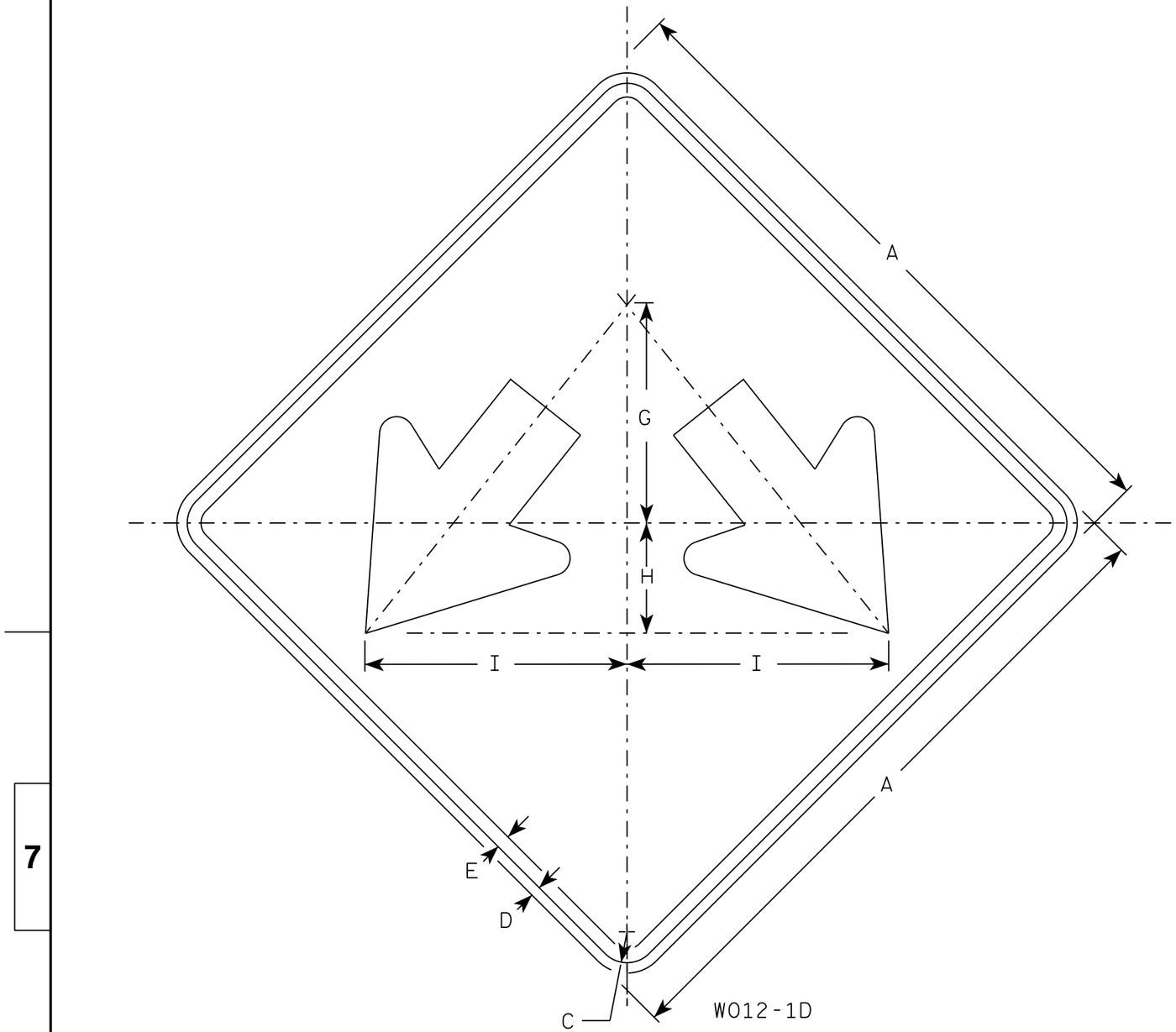
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/28/16 PLATE NO W04-5.1

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

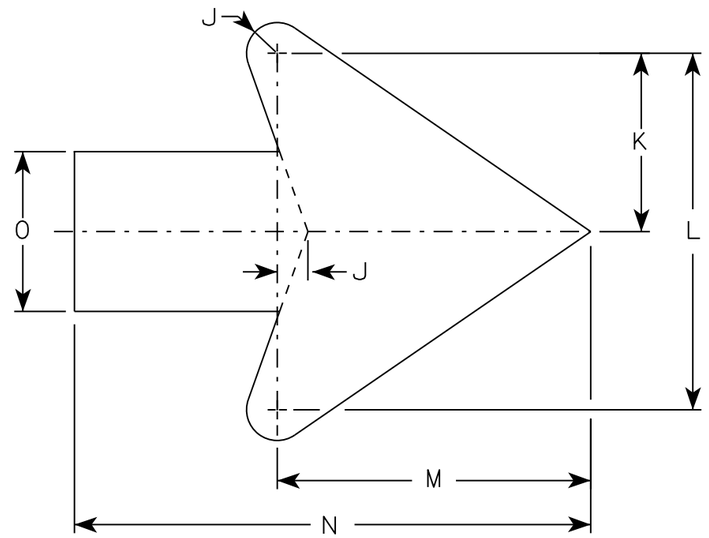
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W045.DGN PLOT DATE : 28-APR-2016 13:30 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.080757:1.000000 WISDOT/CADDS SHEET 42



W012-1D

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. 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.



Arrow Detail

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	Area sq. ft.
1	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0

STANDARD SIGN
W012-1D

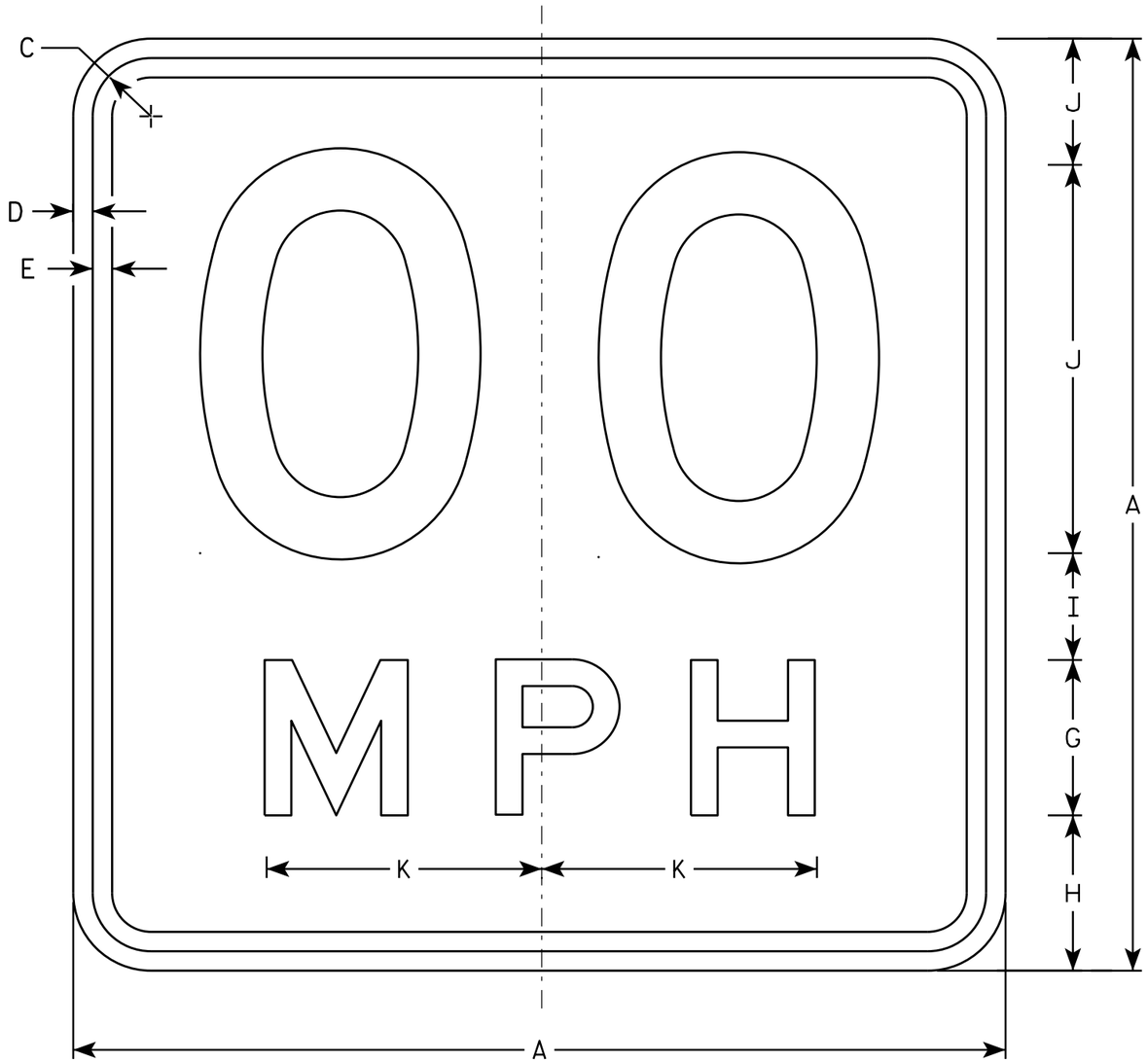
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/16 PLATE NO W012-1D.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\W0121D.DGN PLOT DATE : 11-AUG-2016 11:28 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.621375:1.000000



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 6
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.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

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	Area sq. ft.
1	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

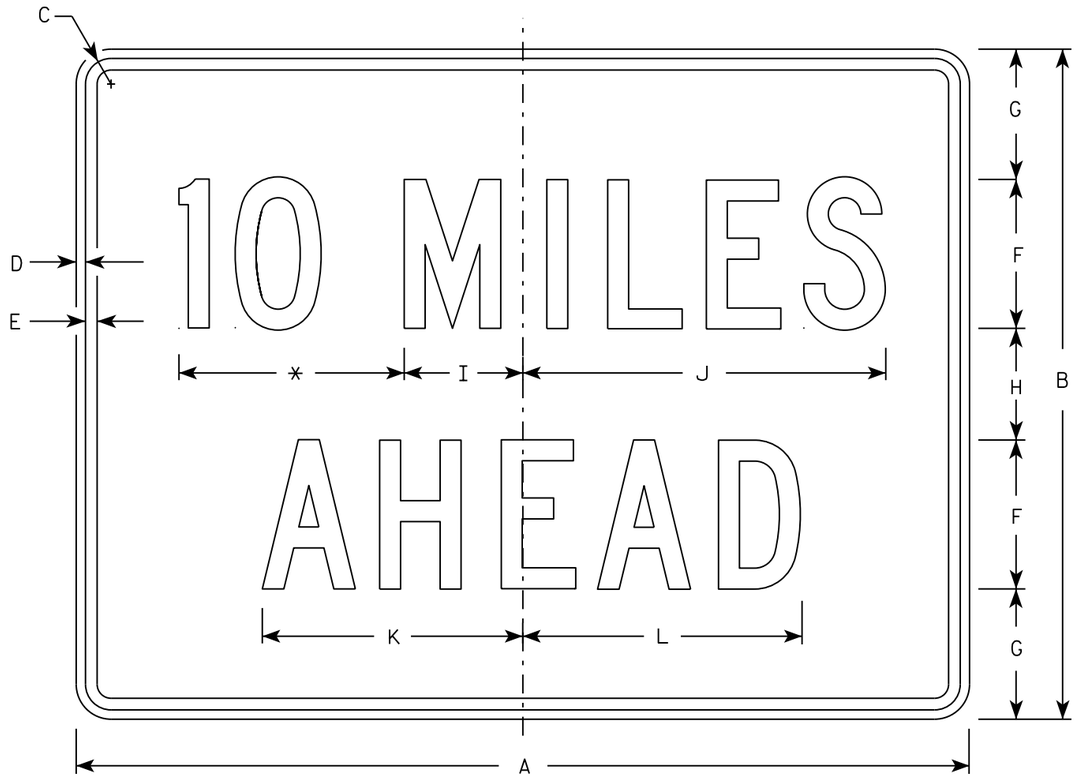
STANDARD SIGN
W013-1

WISCONSIN DEPT OF TRANSPORTATION

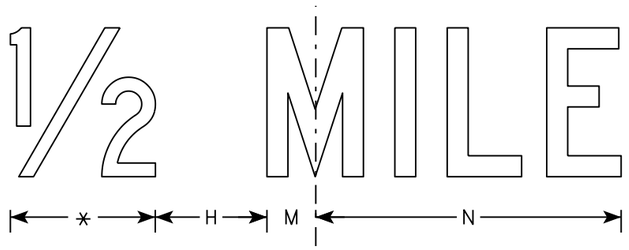
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/13 PLATE 237 W013-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W057-52



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
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.
5. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.

* See note 5

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	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

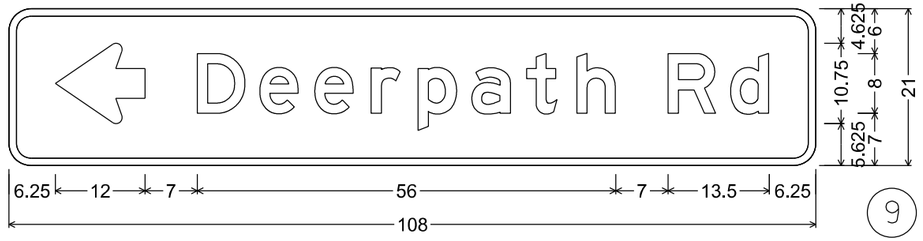
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2

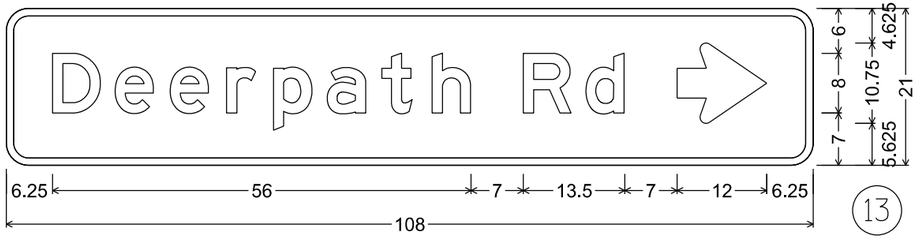
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 238	E

NOTES

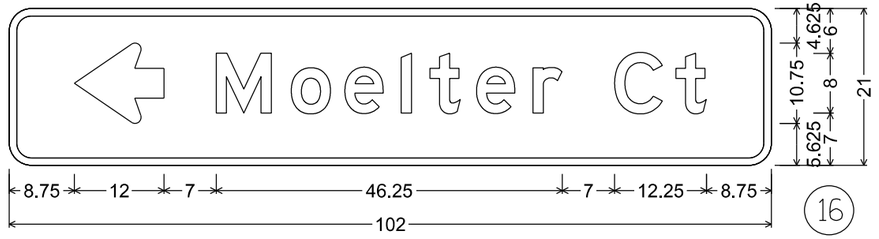
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E



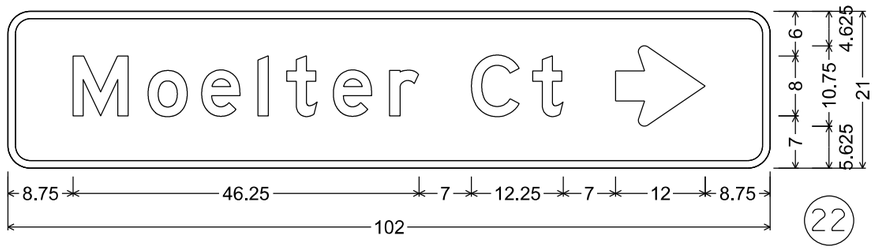
D1-1; 3.000" Radius, 1.000" Border



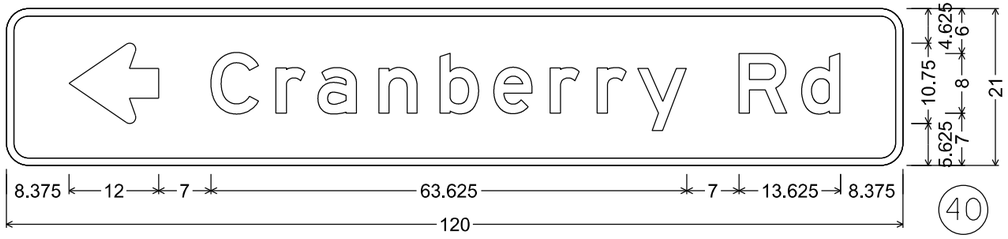
D1-1; 3.000" Radius, 1.000" Border



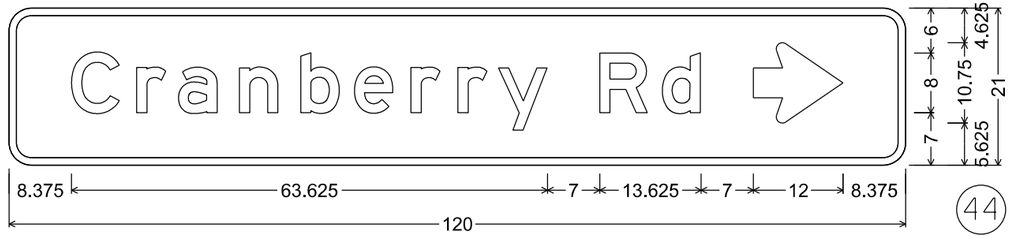
D1-1; 3.000" Radius, 1.000" Border



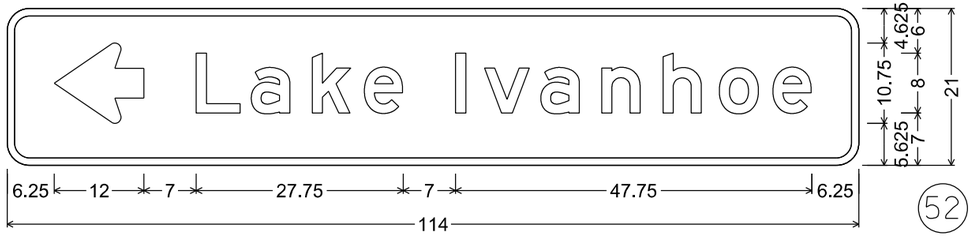
D1-1; 3.000" Radius, 1.000" Border



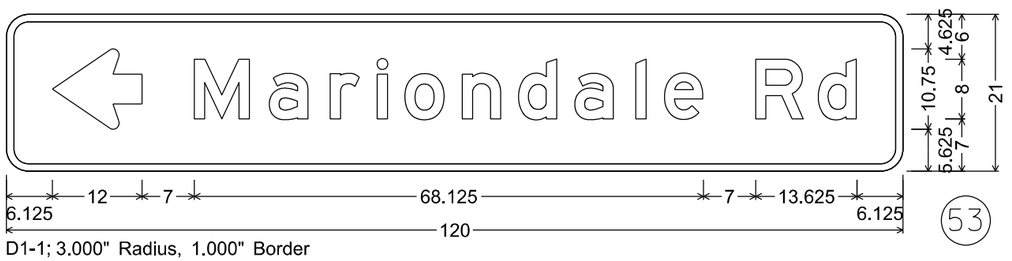
D1-1; 3.000" Radius, 1.000" Border



D1-1; 3.000" Radius, 1.000" Border



D1-1; 3.000" Radius, 1.000" Border



D1-1; 3.000" Radius, 1.000" Border

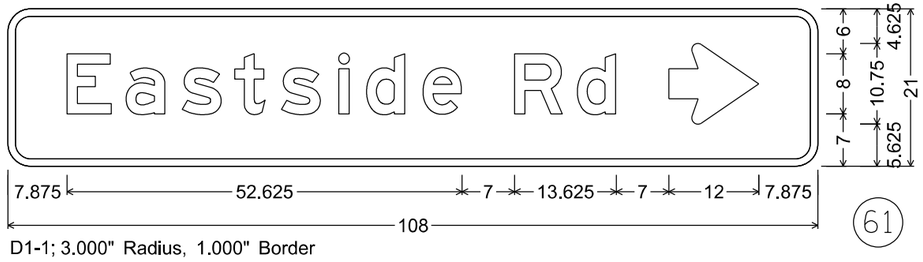
7

7

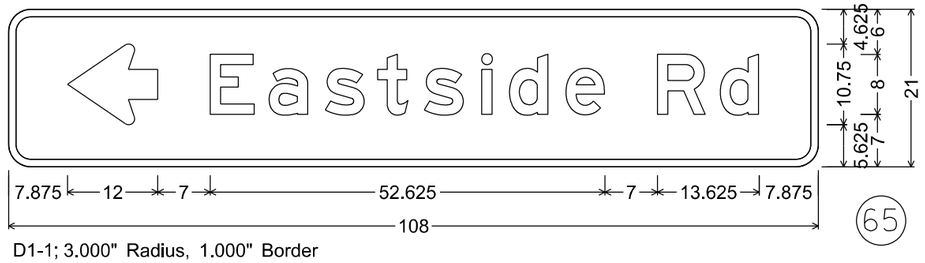
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET NO: 239	E

NOTES

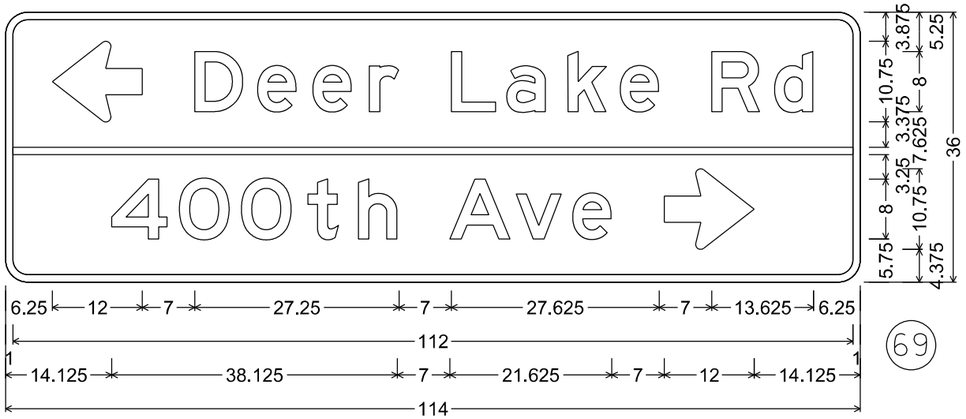
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E



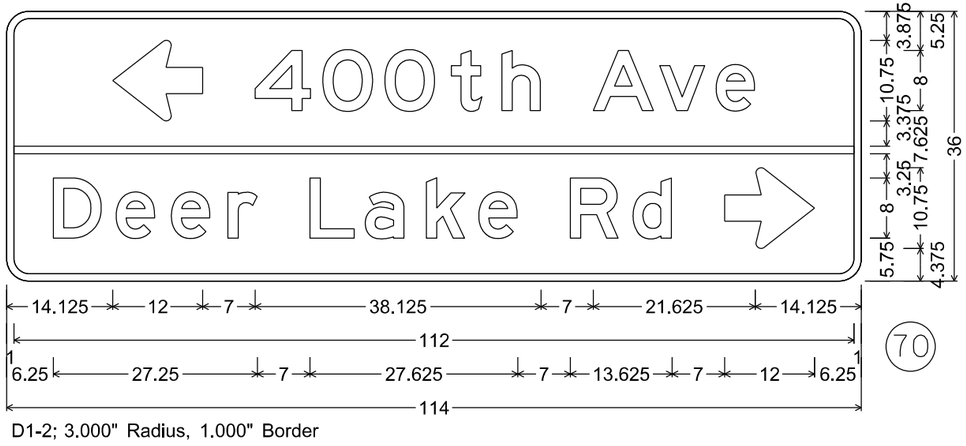
D1-1; 3.000" Radius, 1.000" Border



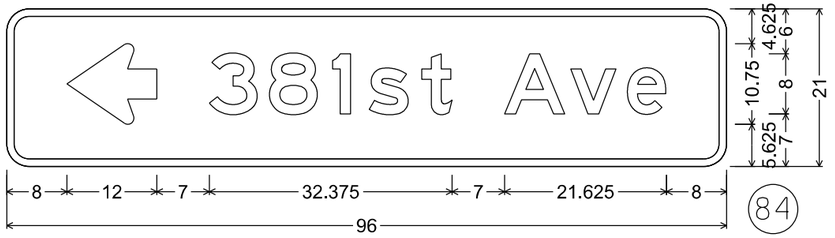
D1-1; 3.000" Radius, 1.000" Border



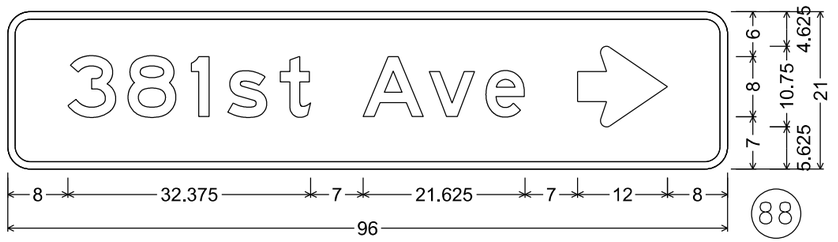
D1-2; 3.000" Radius, 1.000" Border



D1-2; 3.000" Radius, 1.000" Border



D1-1; 3.000" Radius, 1.000" Border



D1-1; 3.000" Radius, 1.000" Border

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET NO: 240	E

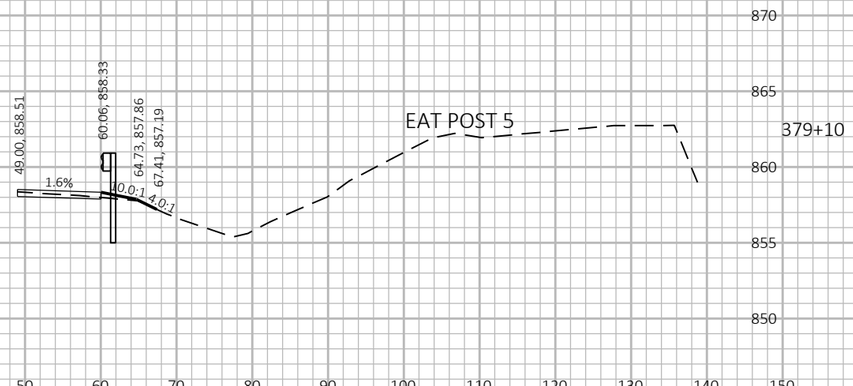
STH 50

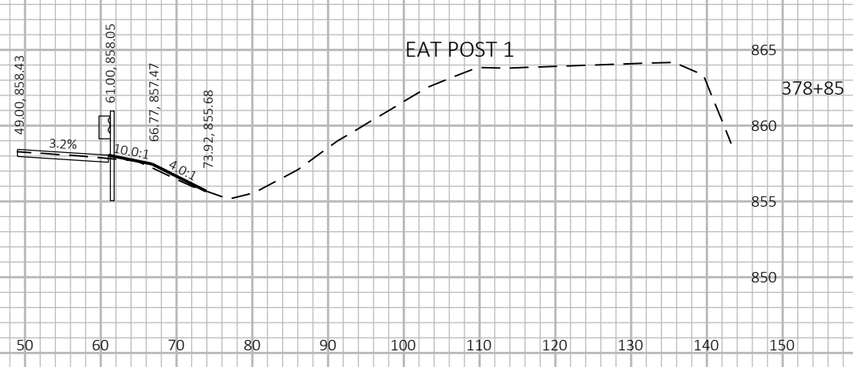
CATEGORY	REFERENCE LINE STATION	EXCAVATION DISTANCE (FT)	EXCAVATION END AREA CUT (SF)	EXCAVATION VOLUME CUT (CY)	EXCAVATION CUMM VOLUME CUT (CY)	EMBANKMENT END AREA FILL (SF)	EMBANKMENT VOLUME FILL (CY)	EMBANKMENT FILL FACTOR	EMBANKMENT EXPANDED VOLUME FILL (CY)	EMBANKMENT CUMM VOLUME FILL (CY)	EXCESS/ (SHORTAGE) CUMM VOLUME (CY)
0010	377+69		2.9			0.2					
		116		13.8	13.8		4.4	1.3	5.7	5.7	8.2
	378+85		3.5			1.9					
		25		2.7	16.6		1.4	1.3	1.8	7.5	9.1
	379+10		2.4			1.1					
		25		2.0	18.5		1.2	1.3	1.6	9.1	9.5
	379+35		1.8			1.6					
		15		1.0	19.5		0.9	1.3	1.1	10.2	9.3
	379+50		1.7			1.6					
		50		3.12	23		3	1.30	3	14	
	380+00		1.6			1.3					
		50		3.1	25.8		1.9	1.3	2.5	16.2	9.5
	380+50		1.7			0.8					
		50		4.0	29.8		1.2	1.3	1.6	17.9	11.9
	381+00		2.6			0.6					
		46		8.4	38.2		1.0	1.3	1.3	19.1	19.0
	381+46		7.3			0.6					
		4		1.1	39.3		0.1	1.3	0.1	19.2	20.0
	381+50		7.6			0.4					
		50		13.54	52.8		5	1.30	7	26	
	382+00		7.0			5.5					
		50		13.5	66.3		5.9	1.3	7.6	34.0	32.3
	382+50		7.6			0.8					
		50		13.7	80.1		1.5	1.3	2.0	36.0	44.1
	383+00		7.3			0.8					
		6		1.6	81.7		0.2	1.3	0.3	36.3	45.4
	383+06		7.2			1.3					
		44		9.5	91.2		1.7	1.3	2.3	38.5	52.7
	383+50		4.5			0.8					
		12		1.80	93		0	1.30	0	39	
	383+62		3.6			0.3					
		25		3.7	96.7		0.1	1.3	0.2	39.0	57.7
	383+87		4.4			0.0					
		26		4.1	100.8		1.1	1.3	1.4	40.4	60.4
	384+13		4.1			2.2					
		118		14.7	115.5		6.3	1.3	8.2	48.6	66.9
	385+31		2.6			0.7					
TOTALS					116		37			49	67

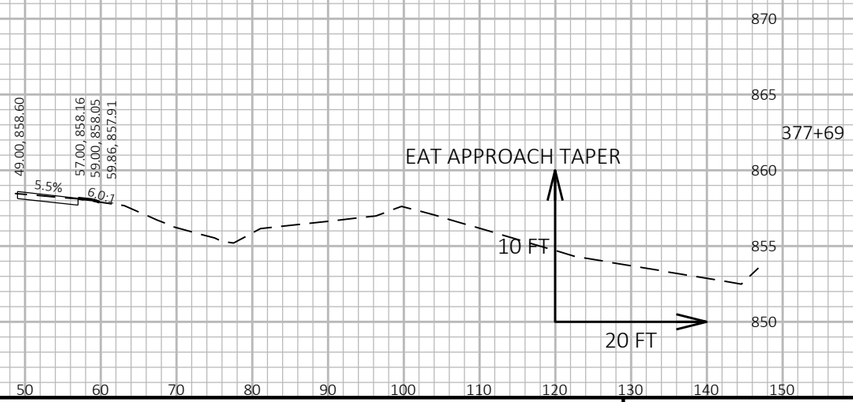
STH 50

CATEGORY	REFERENCE LINE STATION	DISTANCE (FT)	EXCAVATION END AREA CUT (SF)	EXCAVATION VOLUME CUT (CY)	EXCAVATION CUMM VOLUME CUT (CY)	EMBANKMENT END AREA FILL (SF)	EMBANKMENT VOLUME FILL (CY)	EMBANKMENT FILL FACTOR	EMBANKMENT EXPANDED VOLUME FILL (CY)	EMBANKMENT CUMM VOLUME FILL (CY)	EXCESS/ (SHORTAGE) CUMM VOLUME (CY)
0010	569+35		32.2			2.3					
		65		71.6	71.6		2.8	1.3	3.6	3.6	67.9
	570+00		27.2			0.0					
		70		83.1	154.7		0.6	1.3	0.8	4.5	150.2
	570+70		36.9			0.5					
		30		37.4	192.1		2.5	1.3	3.3	7.8	184.4
	571+00		30.5			4.1					
		50		48.1	240.2		8.1	1.3	10.5	18.2	222.0
	571+50		21.5			4.6					
		50		38.26	279		8	1.30	11	29	
	572+00		19.8			4.3					
		50		36.9	315.4		9.0	1.3	11.6	40.6	274.7
	572+50		20.0			5.4					
		50		38.0	353.4		9.8	1.3	12.7	53.3	300.1
	573+00		21.1			5.2					
		50		39.9	393.3		8.6	1.3	11.2	64.5	328.8
	573+50		22.0			4.2					
		50		39.4	432.7		9.8	1.3	12.7	77.2	355.5
	574+00		20.6			6.4					
		50		39.62	472.3		9	1.30	11	88	
	574+50		22.2			2.9					
		50		38.7	511.0		3.6	1.3	4.7	93.1	418.0
	575+00		19.6			1.0					
		50		34.9	545.9		0.9	1.3	1.2	94.3	451.7
	575+50		18.1			0.0					
		50		35.1	581.0		0.0	1.3	0.0	94.3	486.7
	576+00		19.7			0.0					
TOTALS					581		73			94	487







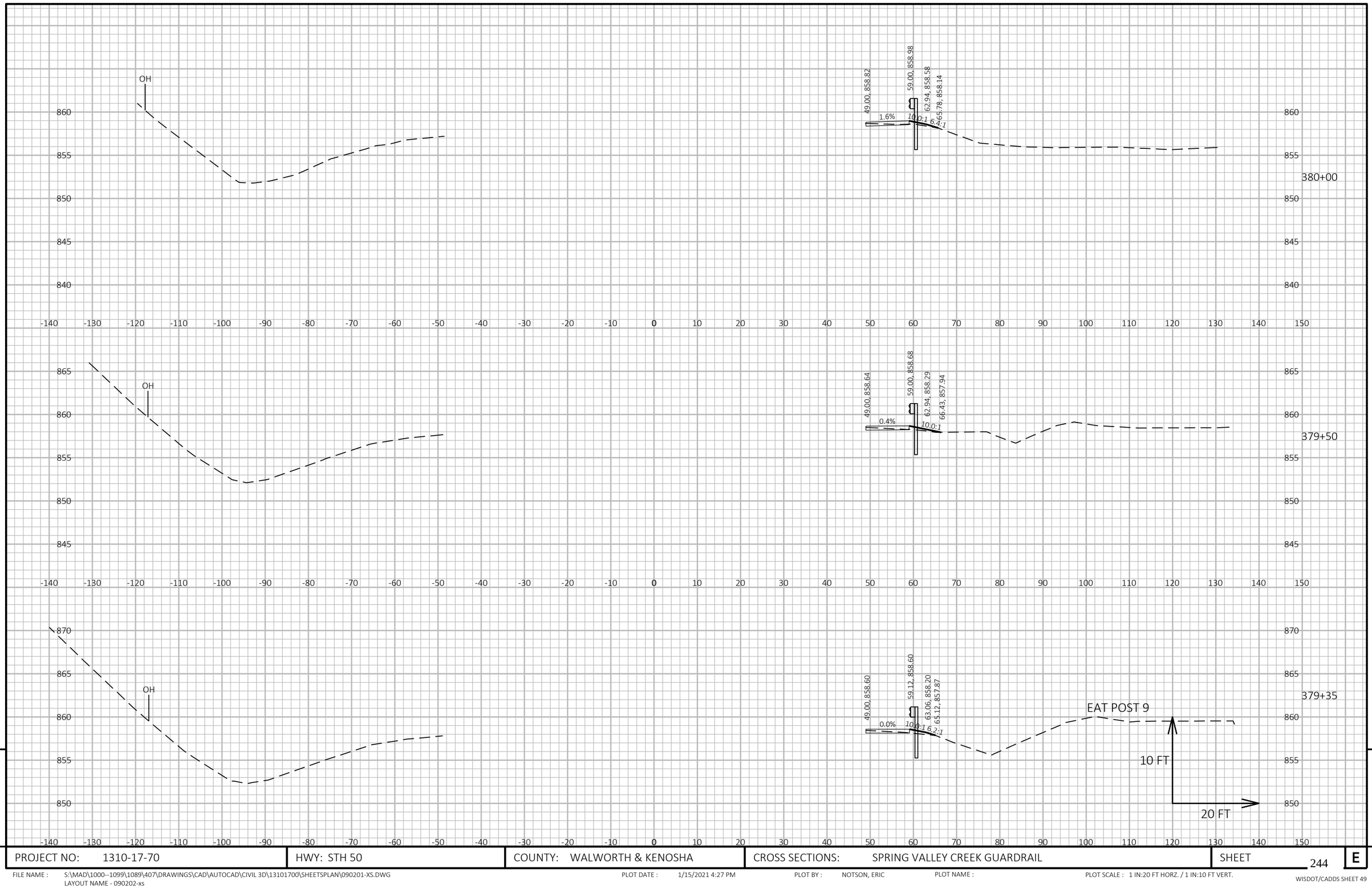


9

9

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CROSS SECTIONS: SPRING VALLEY CREEK GUARDRAIL	SHEET 243	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xs
PLOT DATE : 1/15/2021 4:27 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



9

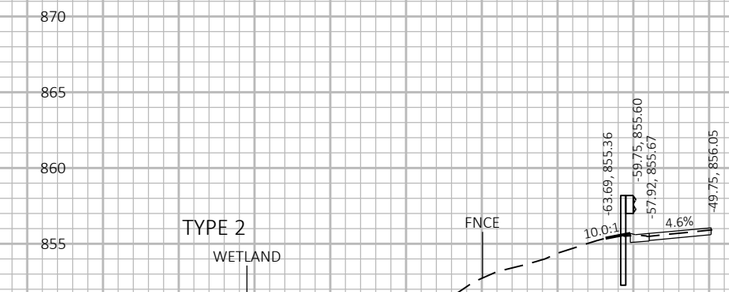
9

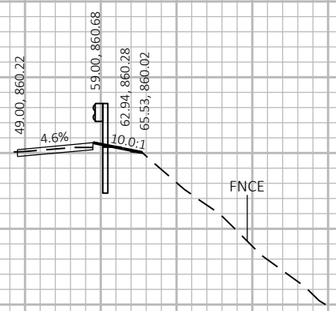
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CROSS SECTIONS: SPRING VALLEY CREEK GUARDRAIL	SHEET 244	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090202-xs

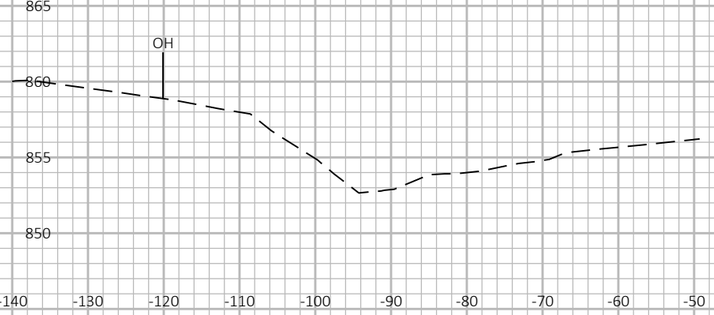
PLOT DATE : 1/15/2021 4:27 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

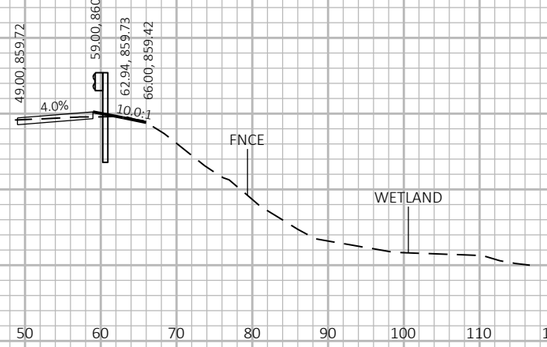
WISDOT/CADDS SHEET 49



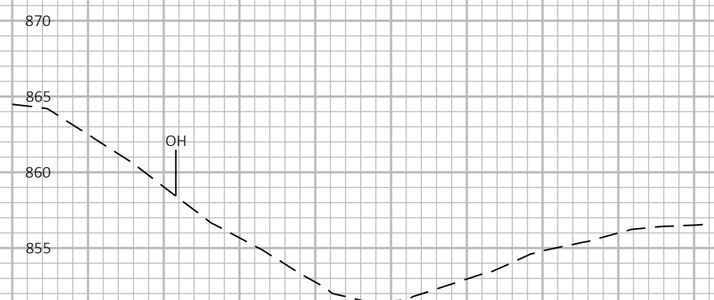


381+46





381+00





380+50

9

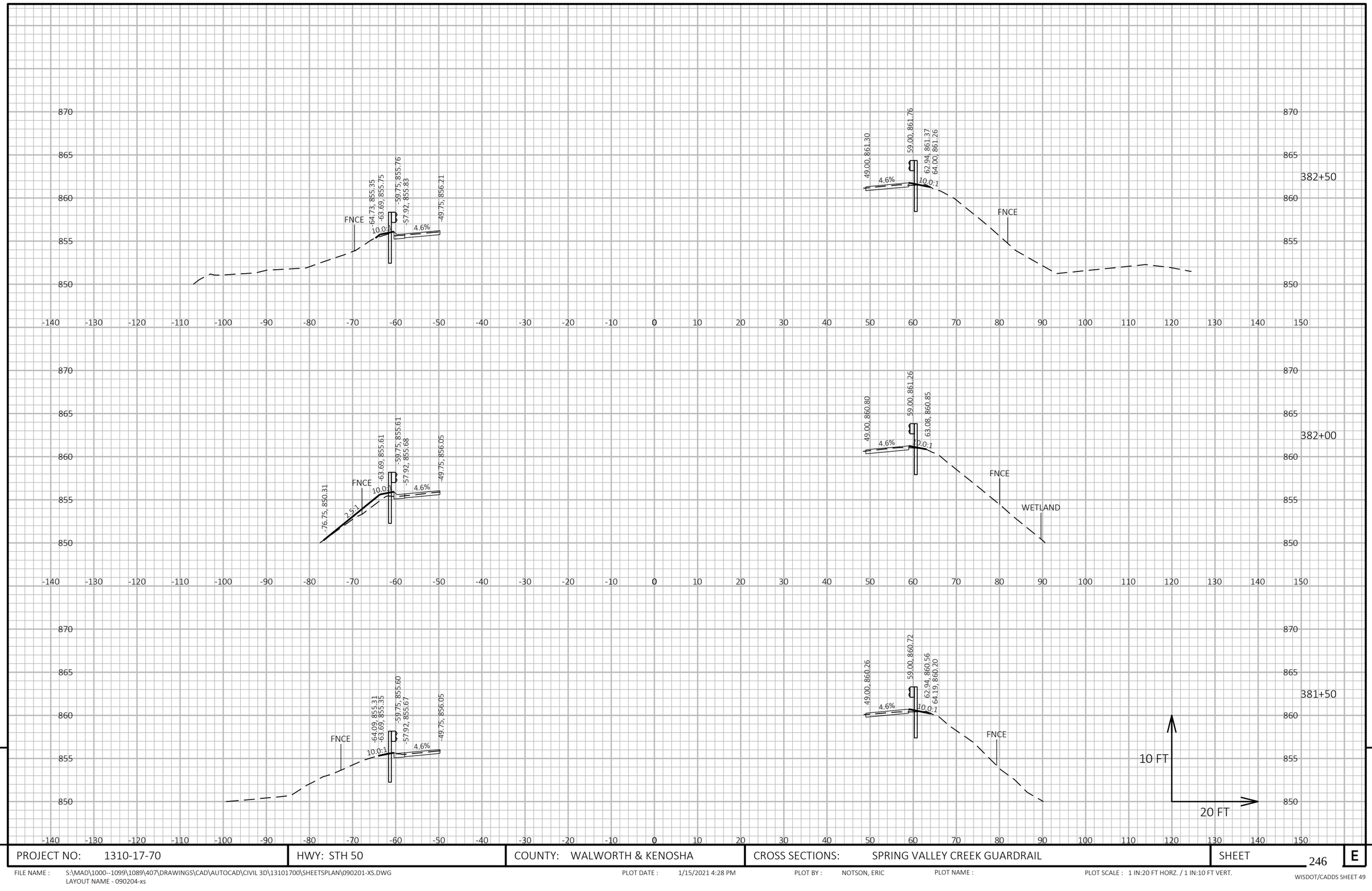
9

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CROSS SECTIONS: SPRING VALLEY CREEK GUARDRAIL	SHEET 245	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090203-xs

PLOT DATE : 1/15/2021 4:27 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

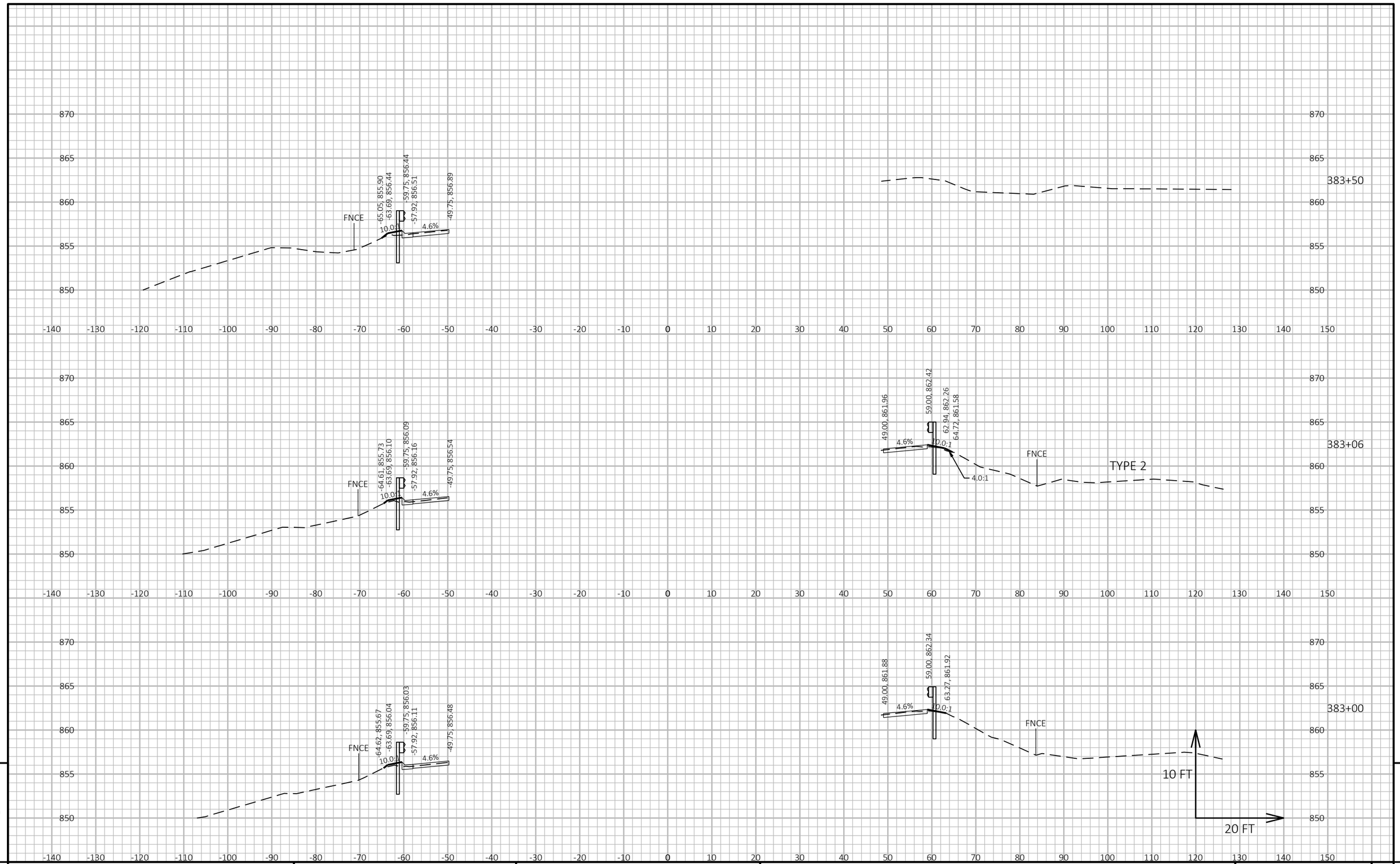
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CROSS SECTIONS: SPRING VALLEY CREEK GUARDRAIL	SHEET 246	E

9

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090204-xs

PLOT DATE : 1/15/2021 4:28 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

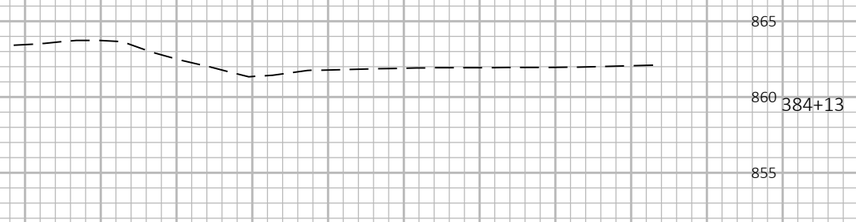
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CROSS SECTIONS: SPRING VALLEY CREEK GUARDRAIL	SHEET 247	E

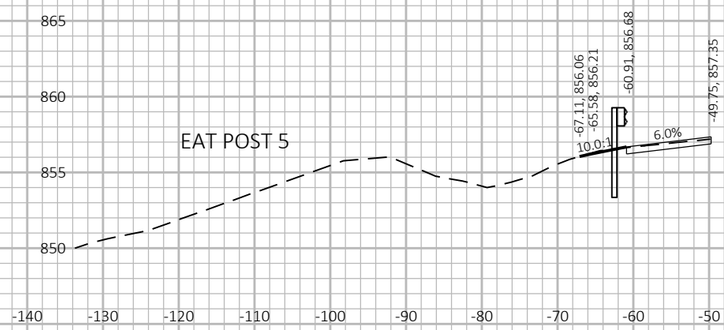
FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090205-xs

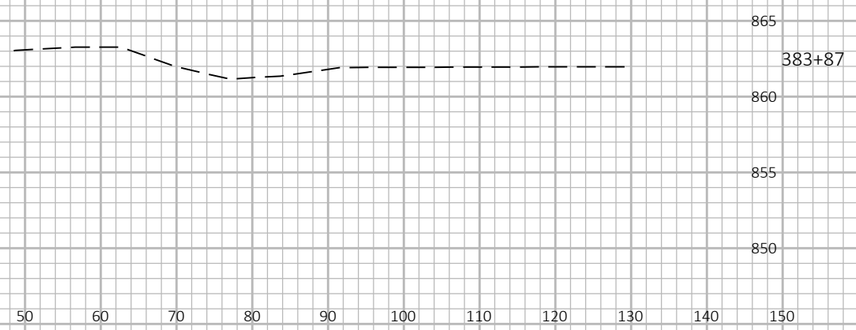
PLOT DATE : 1/15/2021 4:28 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

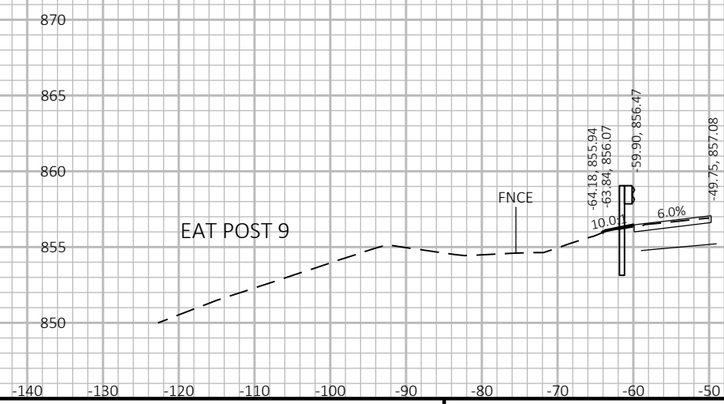
WISDOT/CADDS SHEET 49

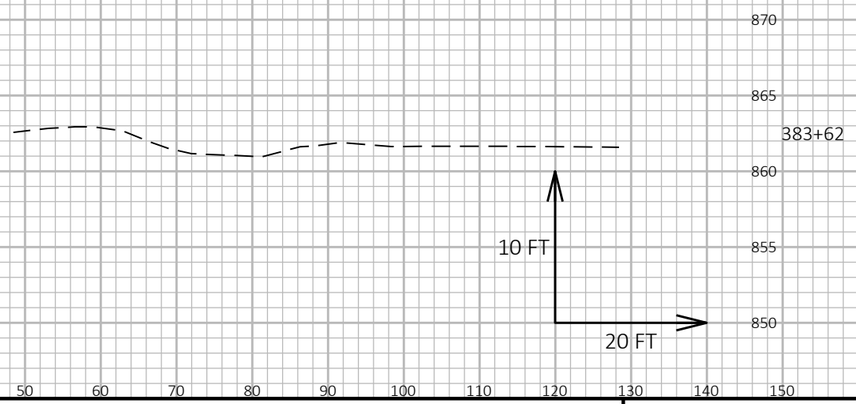










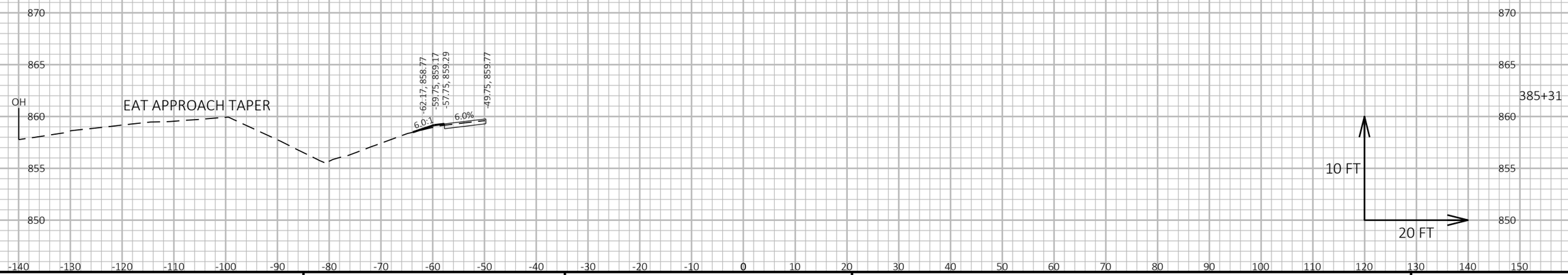


9

9

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CROSS SECTIONS: SPRING VALLEY CREEK GUARDRAIL	SHEET 248	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090206-xs
PLOT DATE : 1/15/2021 4:28 PM
PLOT BY : NOTSON, ERIC
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



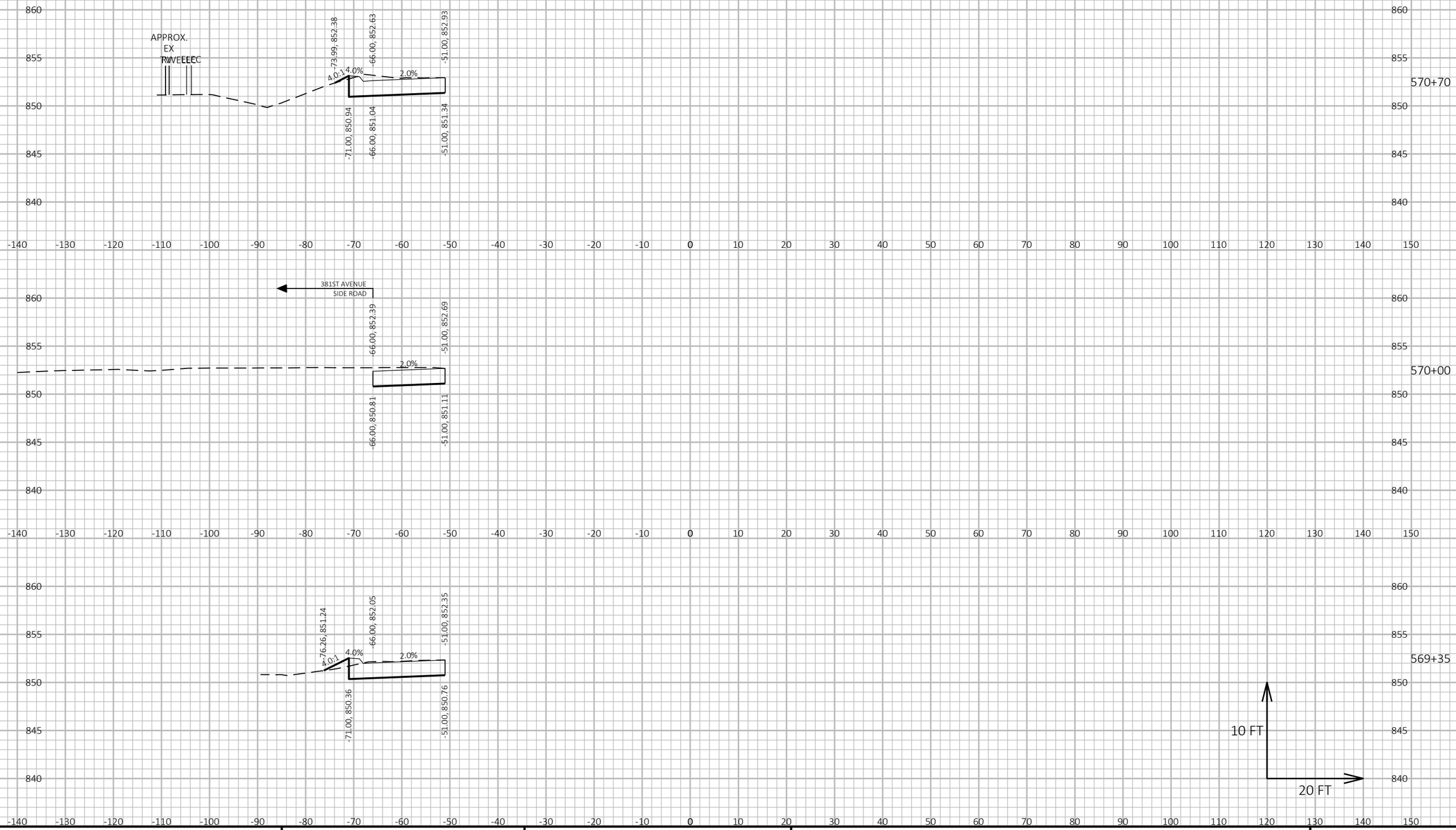
9

9

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CROSS SECTIONS: SPRING VALLEY CREEK GUARDRAIL	SHEET 249	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090207-xs

PLOT DATE : 1/15/2021 4:28 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



9

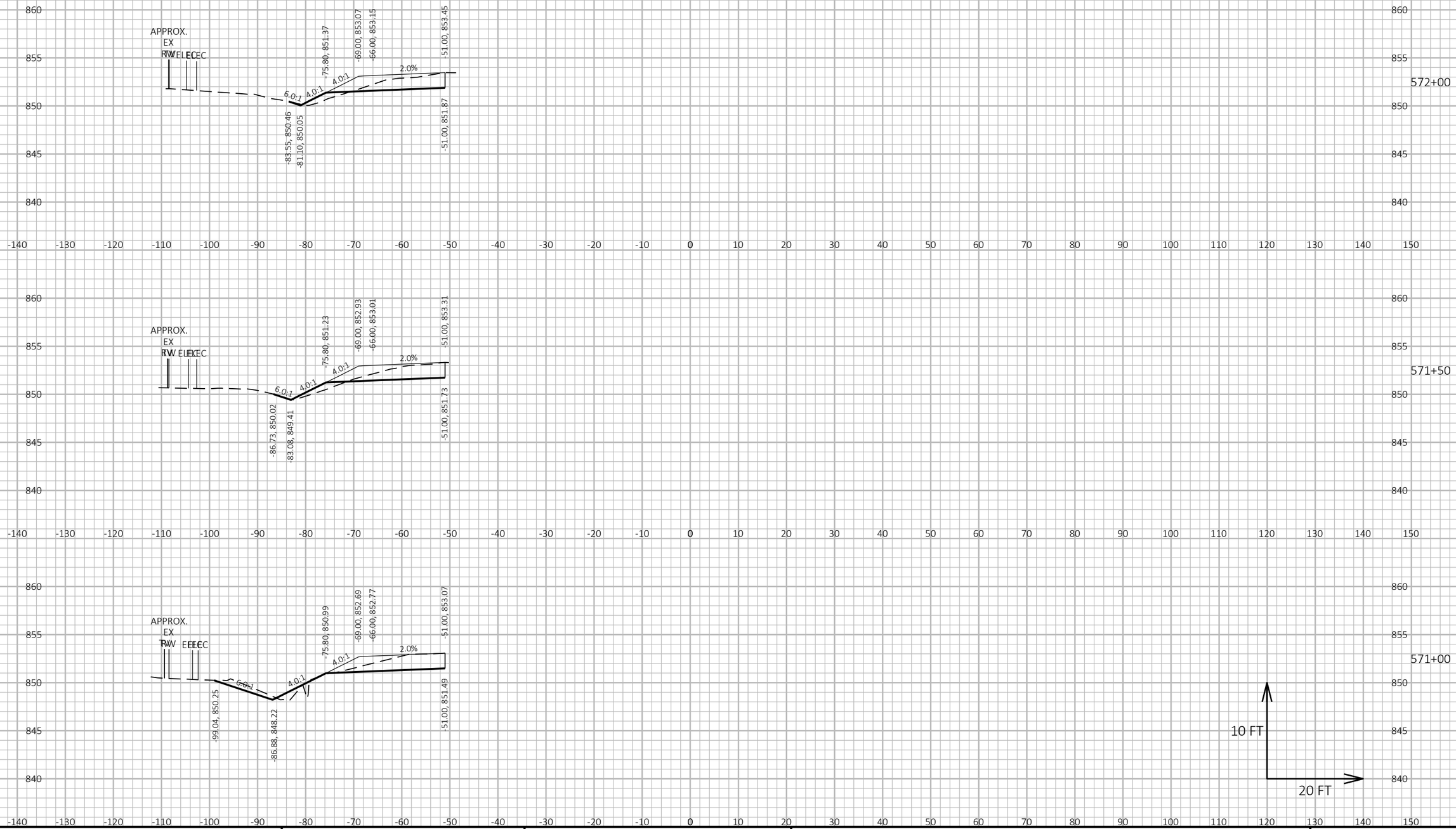
9

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CROSS SECTIONS: 381ST AVENUE RIGHT-TURN LANE	SHEET 250	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 090221-xs

PLOT DATE : 1/15/2021 4:28 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

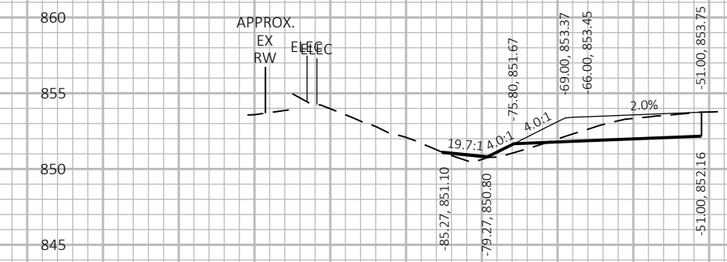


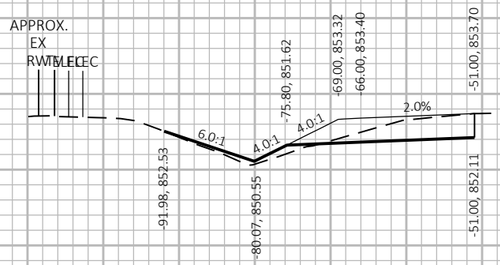
PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CROSS SECTIONS: 381ST AVENUE RIGHT-TURN LANE	SHEET 251	E

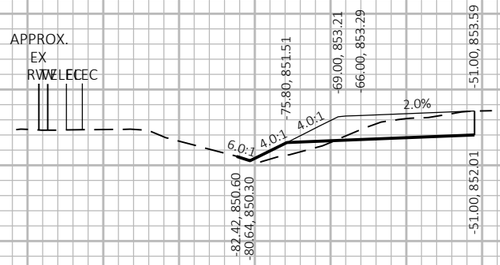
FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 090222-xs

PLOT DATE : 1/15/2021 4:28 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







573+50

573+00

572+50

10 FT

20 FT

9

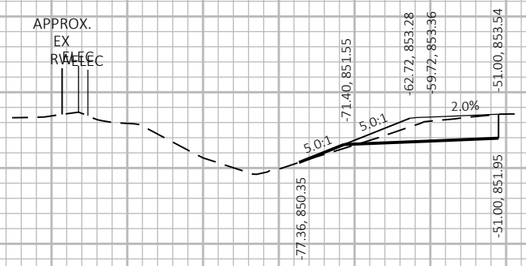
9

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CROSS SECTIONS: 381ST AVENUE RIGHT-TURN LANE	SHEET 252	E

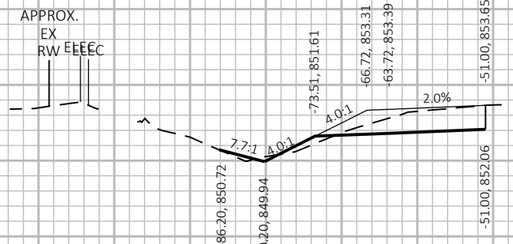
FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 090223-xs

PLOT DATE : 1/15/2021 4:28 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

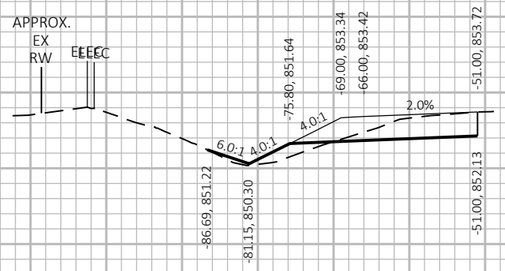
WISDOT/CADDS SHEET 49



575+00



574+50



574+00

10 FT

20 FT

9

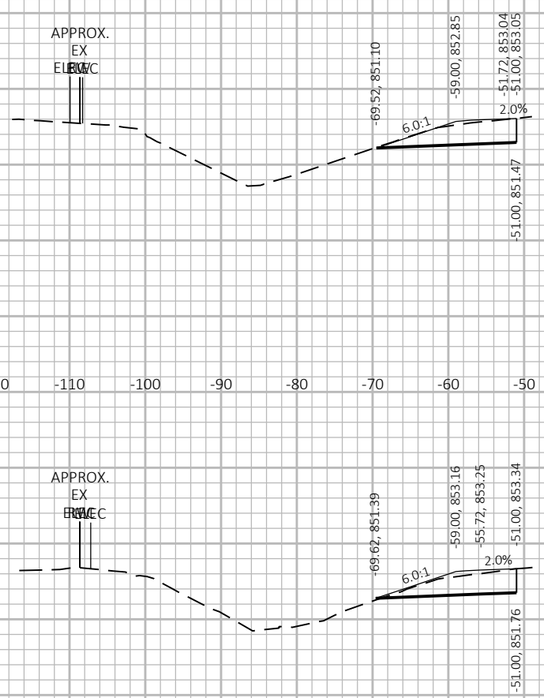
9

PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CROSS SECTIONS: 381ST AVENUE RIGHT-TURN LANE	SHEET 253	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 090224-xs

PLOT DATE : 1/15/2021 4:28 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1310-17-70	HWY: STH 50	COUNTY: WALWORTH & KENOSHA	CROSS SECTIONS: 381ST AVENUE RIGHT-TURN LANE	SHEET 254	E

FILE NAME : S:\MAD\1000--1099\1089\407\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\13101700\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 090225-xs

PLOT DATE : 1/15/2021 4:28 PM PLOT BY : NOTSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov