EAU MAY 2016

PROJECT ID: 7130-01-72
WITH: 7130-01-74

COUNTY: TREMPEALEAU

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way 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 = 198

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7130-01-72	WISC 2016189	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C ARCADIA, STH 93

DETLOFF DRIVE - STH 95

STH 93

TREMPEALEAU COUNTY

STATE PROJECT NUMBER
7130-01-72

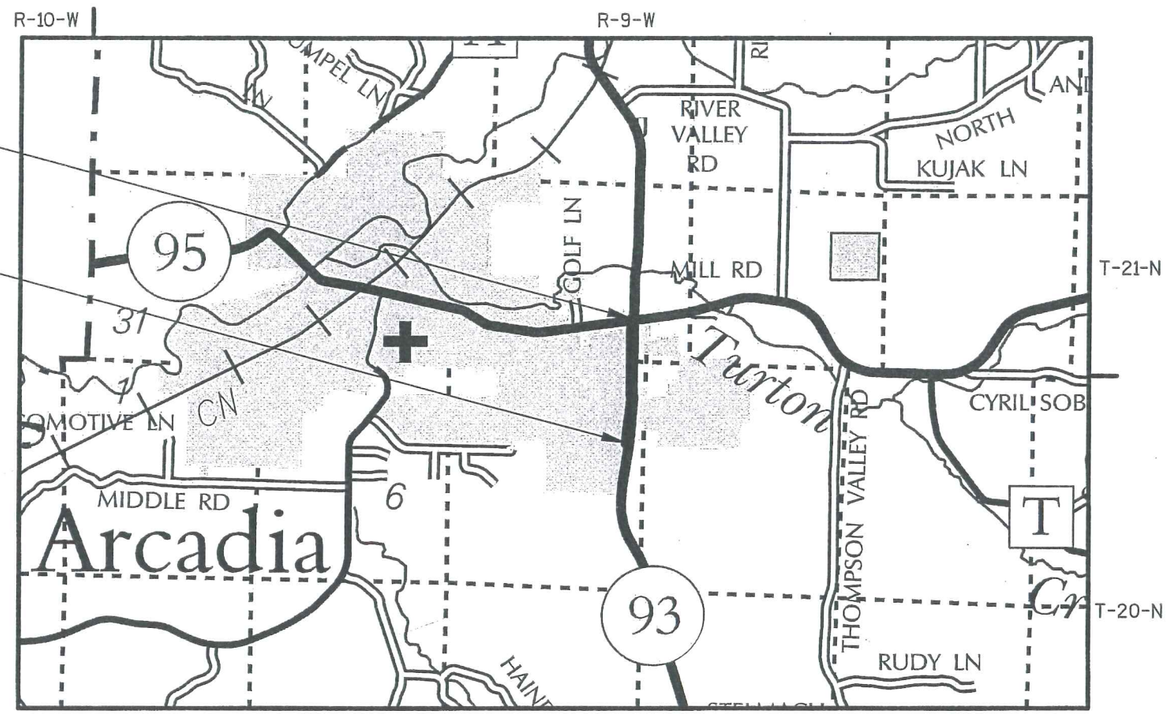


PROJECT LOCATION

N

END PROJECT 7130-01-72
STA. 708+57.43

BEGIN PROJECT 7130-01-72
STA. 672+23.47
Y = 393,487.89
X = 814,949.49



DESIGN DESIGNATION

A.A.D.T.	(2016) =	8,100
A.A.D.T.	(2036) =	9,000
D.H.V.	=	12.5%
D.D.	=	60/40
T.	=	14.8%
DESIGN SPEED	=	50 MPH
ESALS	=	5,486,279

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		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	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

LAYOUT
SCALE 0 — 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.688 MILES

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS) TREMPEALEAU COUNTY, NAD 83 (91)
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAV 88 (2007)

ORIGINAL PLANS PREPARED BY
AECOM
AECOM
1350 Deming Way, Suite 100, Middleton, WI 53562
T 608.836.9800 www.aecom.com

WISCONSIN
SEAN M. HADFIELD
E-34941
MADISON, WI
PROFESSIONAL ENGINEER

2-15-16
(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AECOM
Designer	AECOM
Project Manager	NICOLE PASSUELLO
Regional Examiner	CHRISTINE KOSKI
Regional Supervisor	TIM MASON
CO. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 2/15/16 (Signature)

E

GENERAL NOTES

THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

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

CROSS DRAIN PIPES ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, SHALL BE ADJUSTED TO FIT THE EXISTING FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

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

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

EXACT LOCATION OF ALL DRIVEWAY ENTRANCES TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDAL JOINTS FROM BEING LOCATED WITHIN A DRIVING LANE.

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

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

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

THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 110 LBS/SY/IN OF DEPTH.

THE QUANTITY OF THE ITEM OF BASE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON. THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIAL AS DIRECTED BY THE ENGINEER.

6-INCH HMA OVERLAY SHALL BE CONSTRUCTED IN TWO (2) LAYERS. HMA PAVEMENT 3 MT 58-34 H SHALL BE THE LOWER 4-INCH LAYER AND HMA PAVEMENT 4 MT 58-34 H SHALL BE THE UPPER 2-INCH LAYER.

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 = 5.22 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 5.22 ACRES

UTILITIES

TIM PUTZ
ARCADIA ELECTRIC UTILITY - ELECTRIC
115 S JACKSON ST
ARCADIA, WI 54612
(608) 323-7347
ELECTRICSUPT@CITYOFARCADIAWI.COM

ROLLIE CONRAD
ARCADIA STREET DEPARTMENT - STORMSEWER
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ARCADIA, WI 54612

GARY SKROCK
ARCADIA WATER AND WASTEWATER
401 SABOTTA ST
ARCADIA, WI 54612
(608) 323-3452
RDKWATER@TRIWEST.NET

BRIAN STELPLUGH
CENTURYLINK - COMMUNICATION LINE
333 NORTH FRONT ST
LA CROSSE, WI 54601
(608) 796-5142
(608) 780-1238
BRIAN.STELPLUGH@CENTURYLINK.COM

MIKE MARGAN
MIDWEST NATURAL GAS INCORPORATED - GAS/PETROLEUM
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INDEPENDENCE, WI 54747
(715) 985-5500
(608) 769-5840

DAVE WOYICKI
RIVERLAND ENERGY COOPERATIVE - ELECTRICITY
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ARCADIA, WI 54612-0277
(608) 323-3381

BRIAN MELSNESS
TRI-COUNTY COMMUNICATIONS COOPERATIVE - COMMUNICATION LINE
417 5TH AVE NORTH
STRUM, WI 54758
(715) 530-0081
BMELSNESS@TCC.COOP

WISDOT

WISDOT PROJECT MANAGER
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718 W. CLAIREMONT AVE.
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PHONE: (715)836-3920
NICOLE.PASSUELLO@DOT.WI.GOV

WISDNR

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
(WEST CENTRAL REGION)
TREMPEALEAU COUNTY
KAREN KALVELAGE
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LA CROSSE, WI 54601
PHONE: (608)785-9115
KAREN.KALVELAGE@WISCONSIN.GOV

DESIGNER

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AECOM
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MIDDLETON, WI 53562
PHONE: (608)828-8141
SEAN.HADFIELD@AECOM.COM

TYPICAL SECTION AND DETAIL SHEET INDEX

GENERAL NOTES AND UTILITY CONTACTS
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVING DETAILS
EROSION CONTROL
STORM SEWER
SIGNING PLAN
LIGHTING PLAN
TRAFFIC SIGNAL PLAN
PAVEMENT MARKING
TRAFFIC CONTROL

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

2

N

CITY OF
ARCADIA

STH 93

BP: 664+31.10

665

670

DETLOFF CT.

PC: 674+31.10

675

DETLOFF DR.

680

PT: 681+35.43

685

690

695

700

705

709

WANEK AVE.

STH 95

EP: 709+02.65

END PROJECT
STA. 708+57.43

STH 93

NELSON DR.

BEGIN CONSTRUCTION
STA. 677+12.54

BEGIN PROJECT
STA. 672+23.47

BLASCHKO AVE.

HARVEST LN.

WILSON AVE.

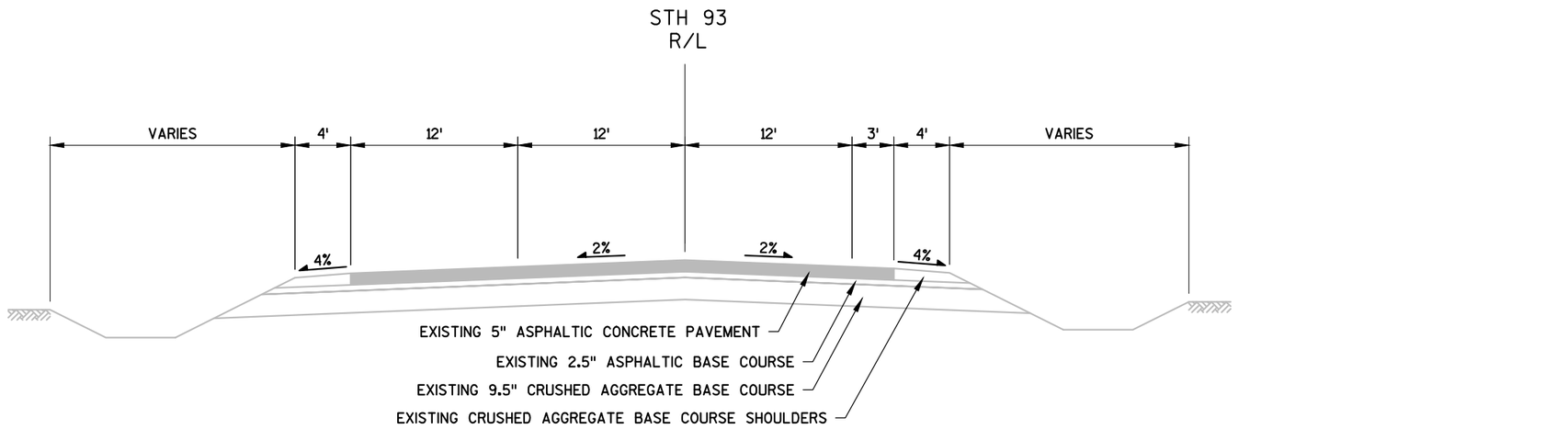
END CONSTRUCTION
STA. 706+51.09

LEGEND

CITY OF ARCADIA LIMITS

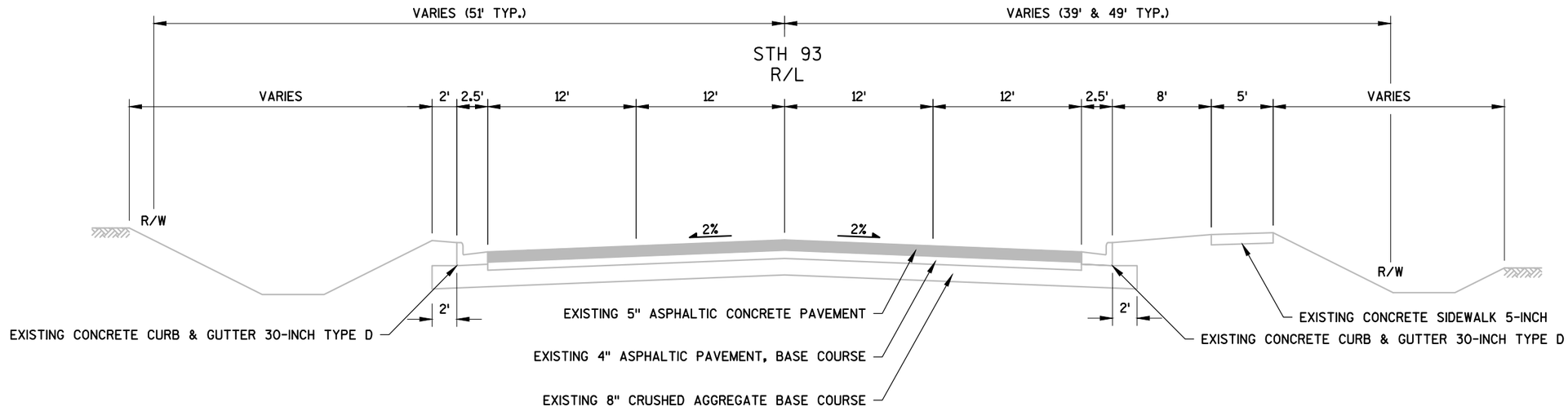
PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	PROJECT OVERVIEW	SHEET 3	E

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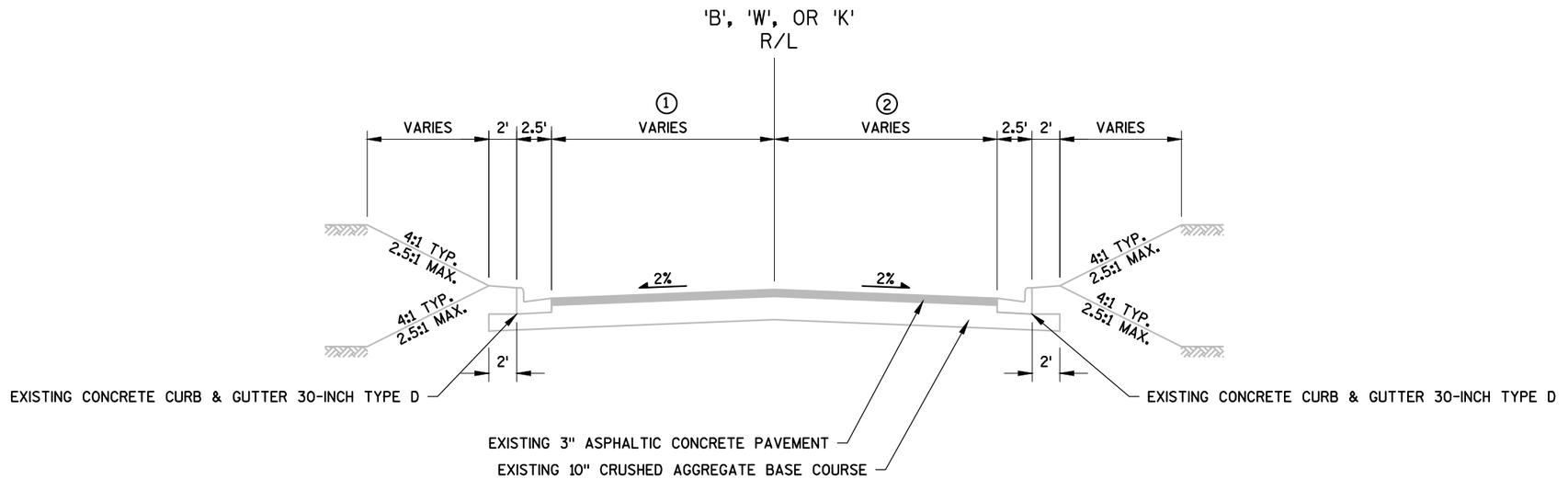
EXISTING TYPICAL SECTION
STH 93

STA. 672+23 - STA. 680+00



EXISTING TYPICAL SECTION
STH 93

STA. 680+00 - STA. 681+90
STA. 682+84 - STA. 692+02
STA. 693+02 - STA. 699+65
STA. 700+88 - STA. 705+75

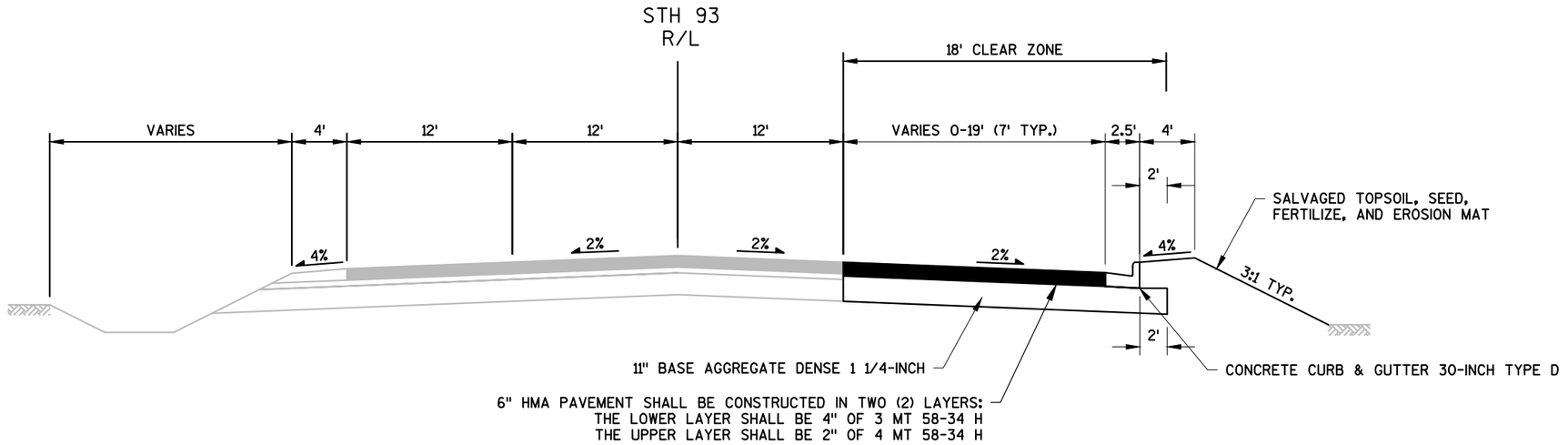


EXISTING TYPICAL SECTION

BLASCHKO AVE. ('B' - LINE)
① 17.5' FROM STA. 10'B'+25.00 - STA. 10'B'+80.58
WILSON AVE. ('W' - LINE)
17.3' FROM STA. 10'W'+25.00 - STA. 10'W'+75.25
WANEK AVE. ('K' - LINE)
16.5' FROM STA. 8'K'+77.19 - STA. 9'K'+50.00
22' FROM STA. 10'K'+25.00 - STA. 11'K'+44.00

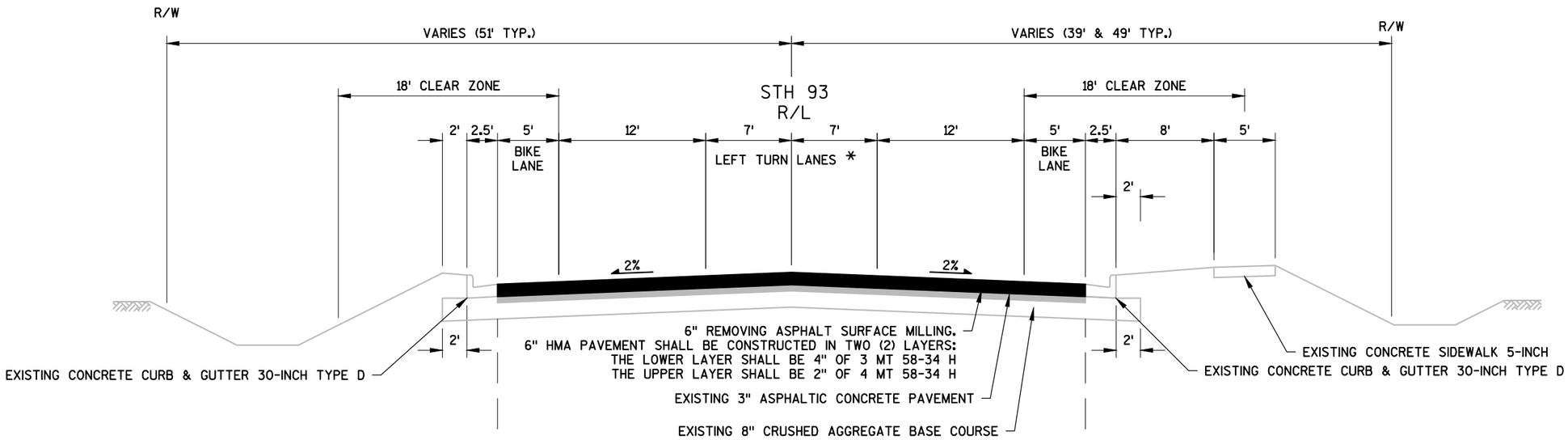
BLASCHKO AVE. ('B' - LINE)
② 17.5' FROM STA. 10'B'+25.00 - STA. 11'B'+26.08
WILSON AVE. ('W' - LINE)
17.3' FROM STA. 10'W'+25.00 - STA. 11'W'+64.06
WANEK AVE. ('K' - LINE)
22' FROM STA. 10'K'+25.00 - STA. 11'K'+44.00

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TYPICAL SECTIONS	SHEET 5	E



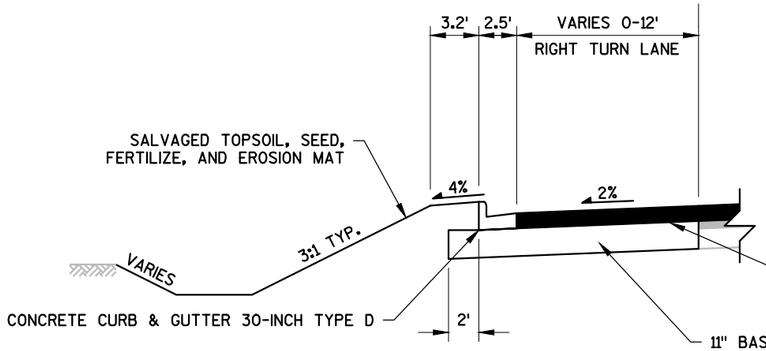
TYPICAL FINISHED SECTION
STH 93
STA. 677+12.54 - STA. 679+93.73

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TYPICAL SECTIONS	SHEET 6	E

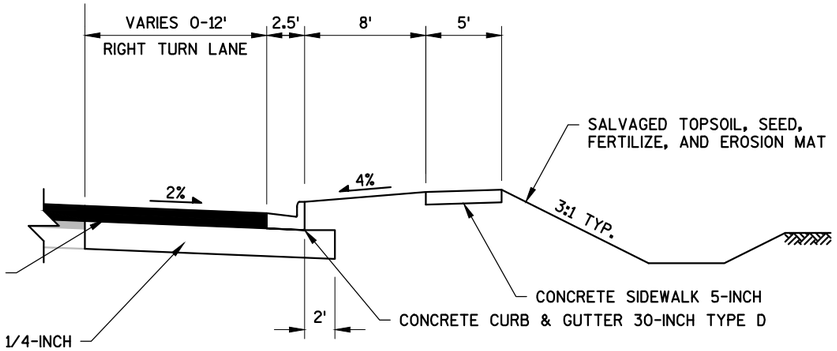


TYPICAL FINISHED SECTION
STH 93
STA. 679+97.73 - STA. 706+51.41

*NOTE: LEFT TURN LANE VARIES 0-14'
AT THE FOLLOWING LOCATIONS:
STA. 678+29.64 - STA. 679+43.57
STA. 685+76.48 - STA. 687+51.48
STA. 696+06.40 - STA. 697+76.42
STA. 702+44.58 - STA. 704+19.58



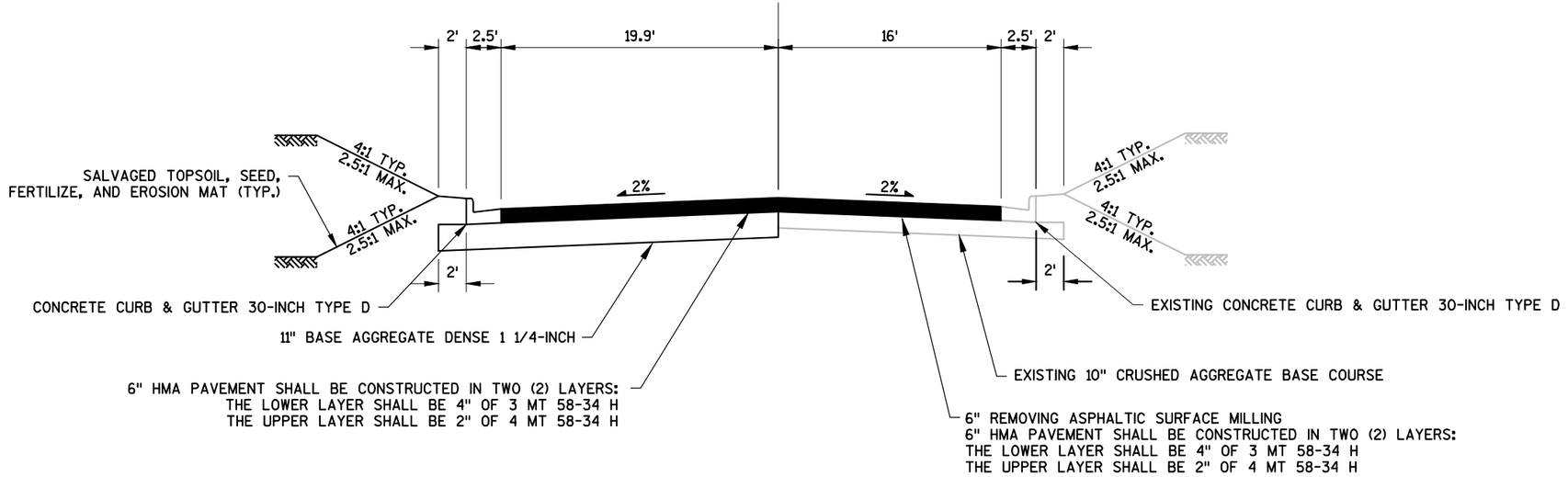
RIGHT TURN LANE
STA. 682+92 - STA. 687+26.67 LT
STA. 693+27.36 - STA. 697+56.59 LT
STA. 700+90.92 - STA. 705+19.78 LT



RIGHT TURN LANE
STA. 677+12.39 - STA. 681+75.22 RT

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TYPICAL SECTIONS	SHEET 7	E

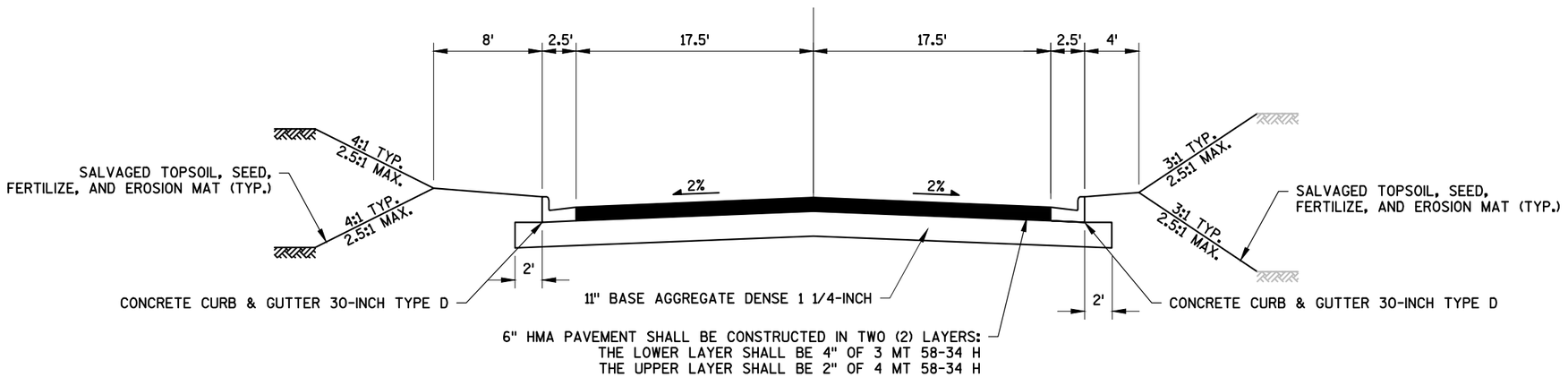
BLASCHKO AVENUE 'B'
R/L



TYPICAL FINISHED SECTION

BLASCHKO AVENUE
STA 9'B'+23.25 - STA 9'B'+50.00

BLASCHKO AVENUE 'B'
R/L

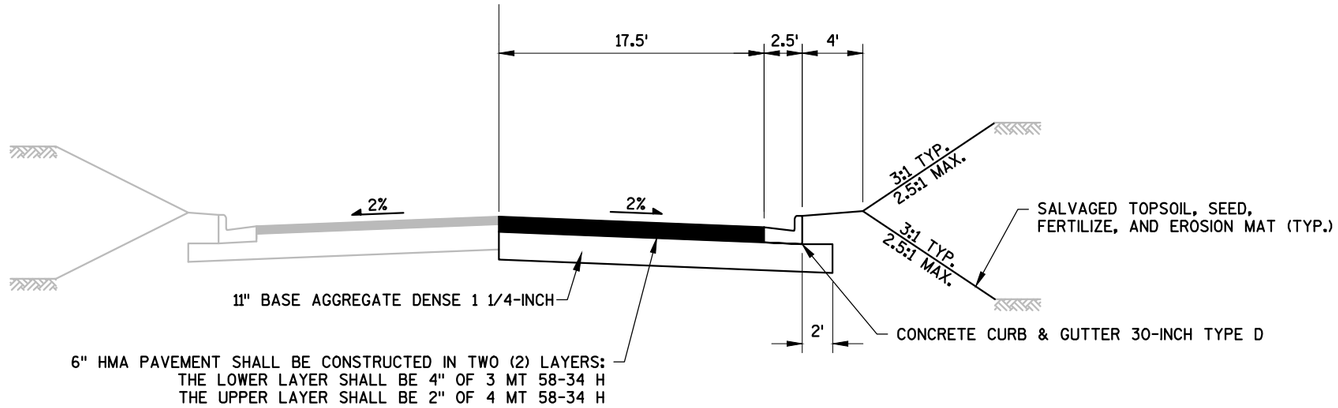


TYPICAL FINISHED SECTION

BLASCHKO AVENUE
STA 10'B'+25 - STA 10'B'+80.51

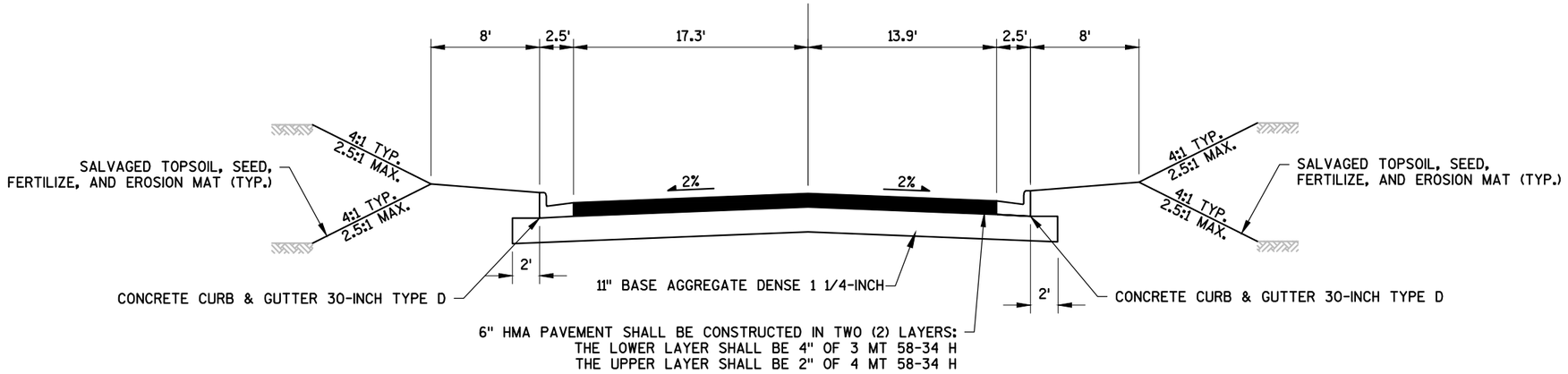
PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TYPICAL SECTIONS	SHEET 8	E

BLASCHKO AVENUE 'B'
R/L



TYPICAL FINISHED SECTION
BLASCHKO AVENUE
STA 10'B'+80.51 - STA 11'B'+26.08

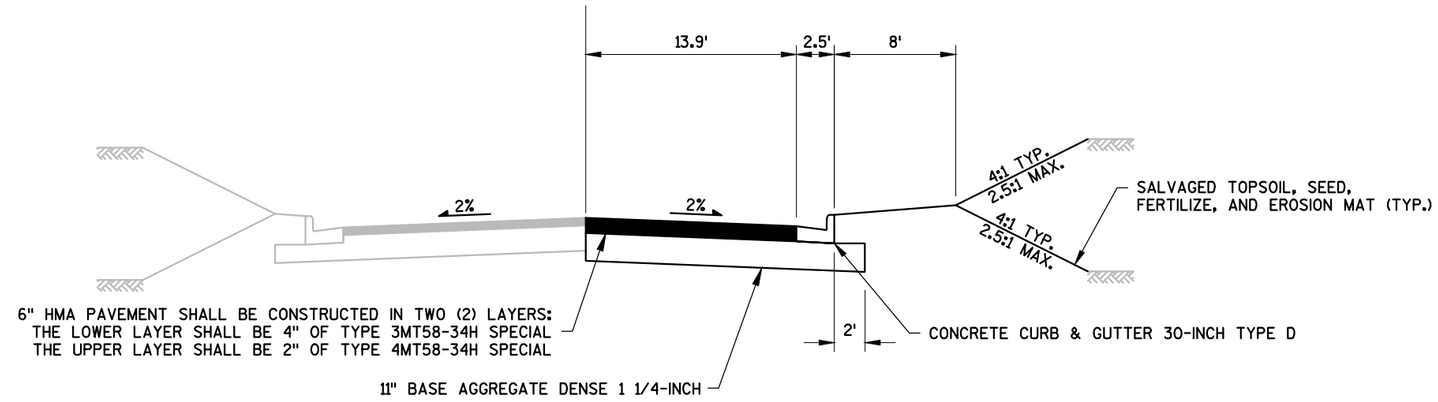
WILSON AVENUE 'W'
R/L



TYPICAL FINISHED SECTION
WILSON AVENUE
STA 10'W'+25 - STA 10'W'+73.50

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TYPICAL SECTIONS	SHEET 9	E

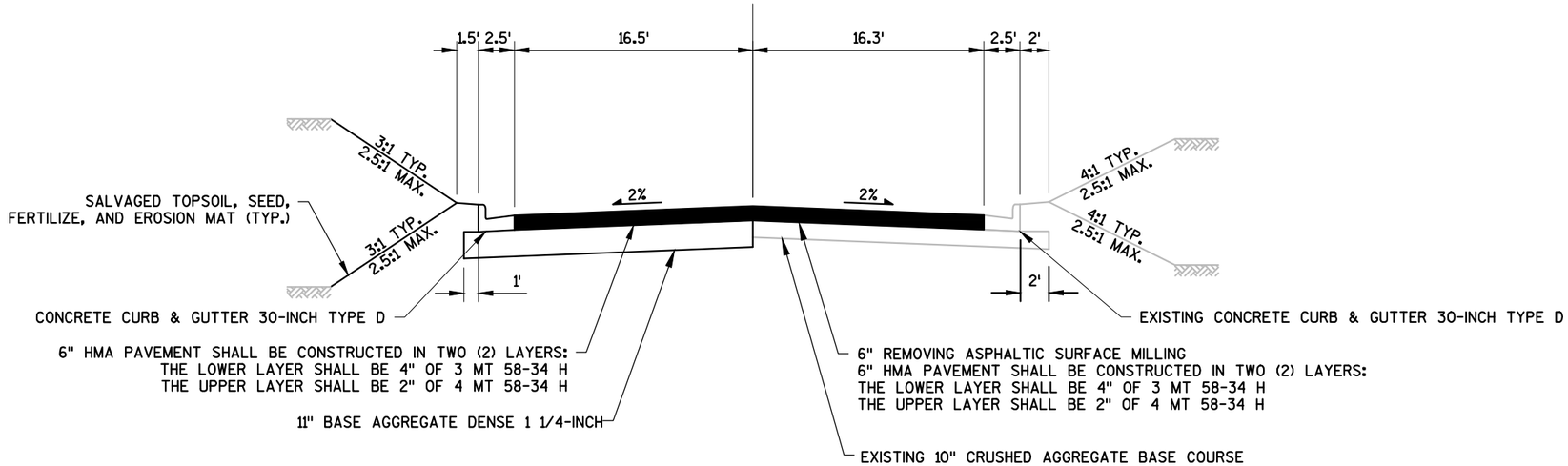
WILSON AVENUE 'W'
R/L



TYPICAL FINISHED SECTION

WILSON AVENUE
STA 10'W'+73.50 - STA 11'W'+64.26

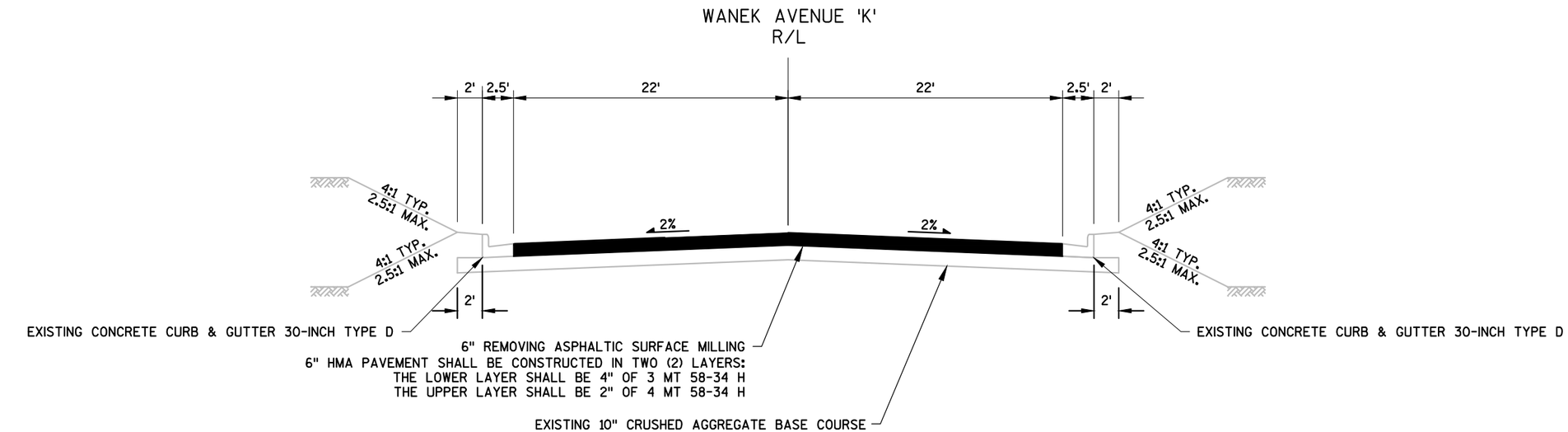
WANEK AVENUE 'K'
R/L



TYPICAL FINISHED SECTION

WANEK AVENUE
RECONSTRUCT STA. 8'K'+77.27 - STA. 9'K'+50.00
RESURFACING STA. 9'K'+29.46 - STA. 9'K'+50.00

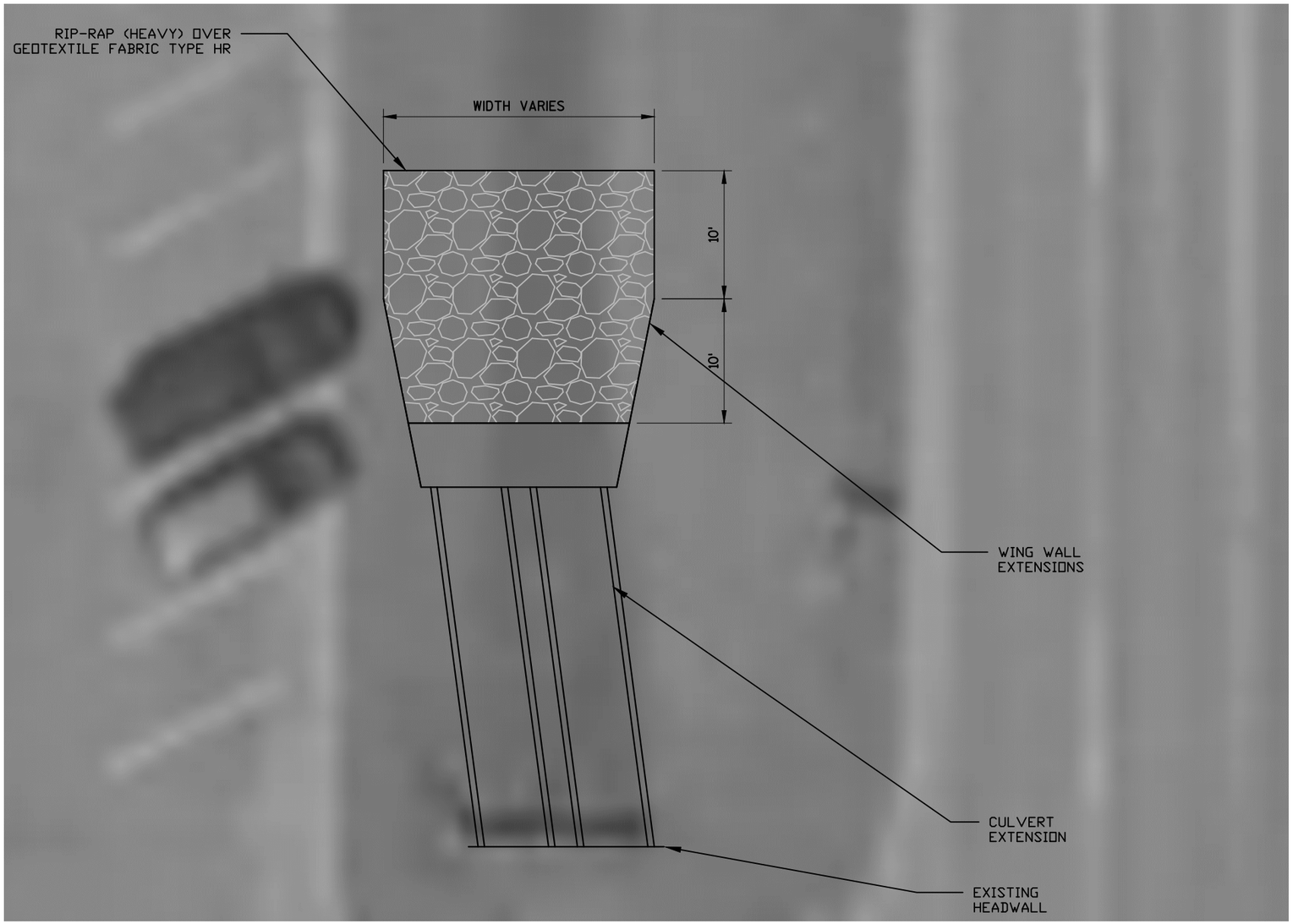
PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TYPICAL SECTIONS	SHEET 10	E



TYPICAL FINISHED SECTION

WANEK AVENUE
STA. 10'K'+25.00 - STA. 10'K'+73.50

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TYPICAL SECTIONS	SHEET 11	E

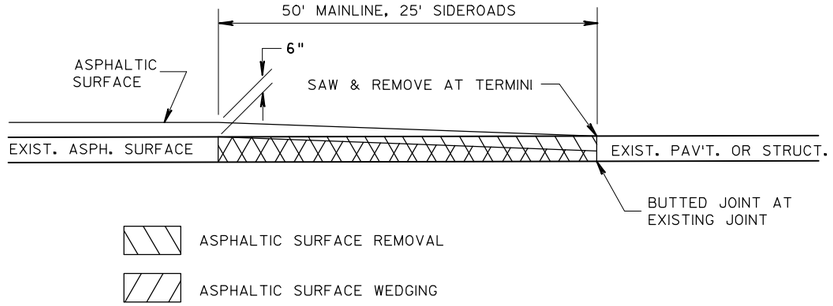


CULVERT PIPE EXTENTION RIPRAP DETAIL

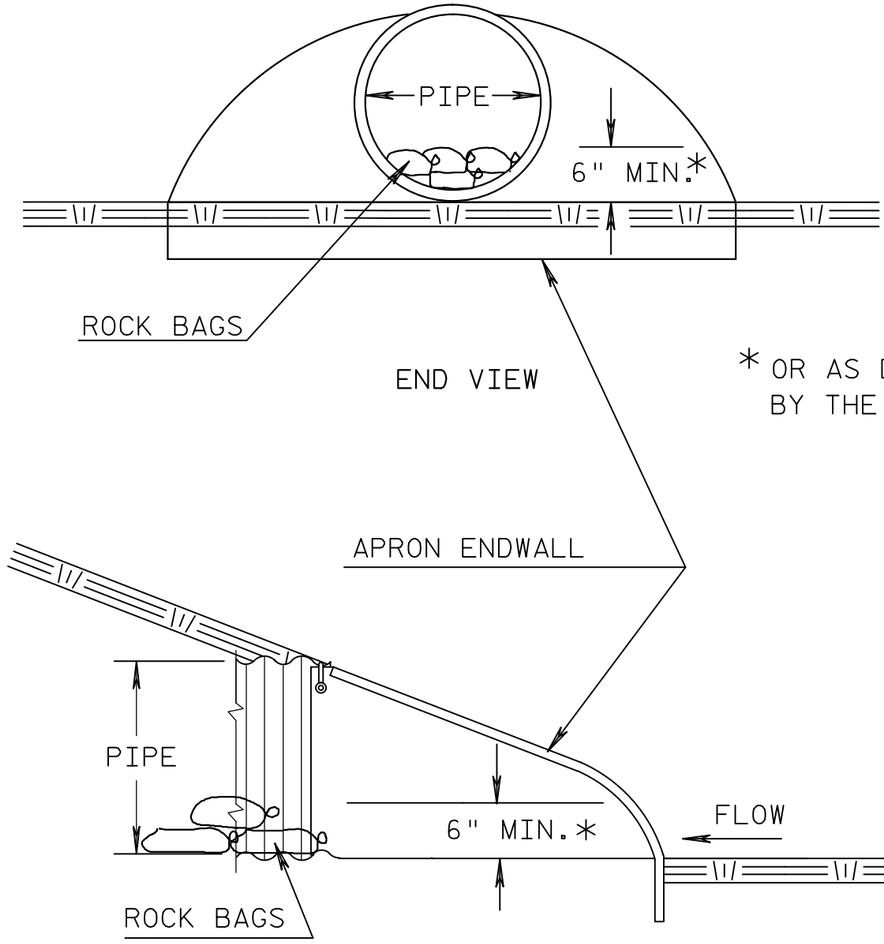
PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CONSTRUCTION DETAILS	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\021001_CD.DWG PLOT DATE : 2/1/2016 4:18 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



OVERLAP JOINT, BUTTED DETAIL



CULVERT PIPE CHECKS

DETLOFF CT.

DETLOFF DR.

N

REVERSE SLOPE

STH 93

N07°10'40"E

PC: 674+31.10

675

BEGIN CONSTRUCTION
STA. 677+12.39

MATCH LINE STA. 678+00

BEGIN PROJECT 7130-01-72
STA. 672+23.47
Y = 393,487.89
X = 814,949.49

+12.39

LEGEND

- (A) CONCRETE CURB & GUTTER 30-INCH TYPE D
- (B) 6" REMOVING ASPHALTIC SURFACE MILLING
- (C) 6" HMA PAVEMENT
  - 4" LOWER LAYER: HMA PAVEMENT 3 MT 58-34 H
  - 2" UPPER LAYER: HMA PAVEMENT 4 MT 58-34 H
- (D) CONCRETE SIDEWALK 5-INCH
- (E) CURB RAMP TYPE 4B1
- (F) CURB RAMP DETECTABLE WARNING FIELD YELLOW
- (G) 9" BASE PATCHING ASPHALTIC
- (H) 3" ASPHALTIC SURFACE PATCHING

BEGIN CONSTRUCTION
STA. 9'B'+23.25

DETLOFF DR.

N

STA 682+92.00, 82.30' LT
RAD 46.3'

MATCH LINE STA. 678+00

STH 93

+97.73

PT: 681+35.43

S89°25'54"E

680

90.7°

10'B'

STA. 682+37.75 =
STA. 10'B'+00.00

N00°08'04"E

MATCH LINE STA. 685+00

31'

36'

12.5:1 TAPER

+43.45

STA 681+74.91, 66.00' RT
RAD 35'

+89.35

28'

17'

+80.51

BLASCHKO AVE.

+35.93, 26.4' RT

+37.20, 39.4' RT

+84.69, 51.1' RT

STA 682+89.46, 70.00' RT
RAD 35'

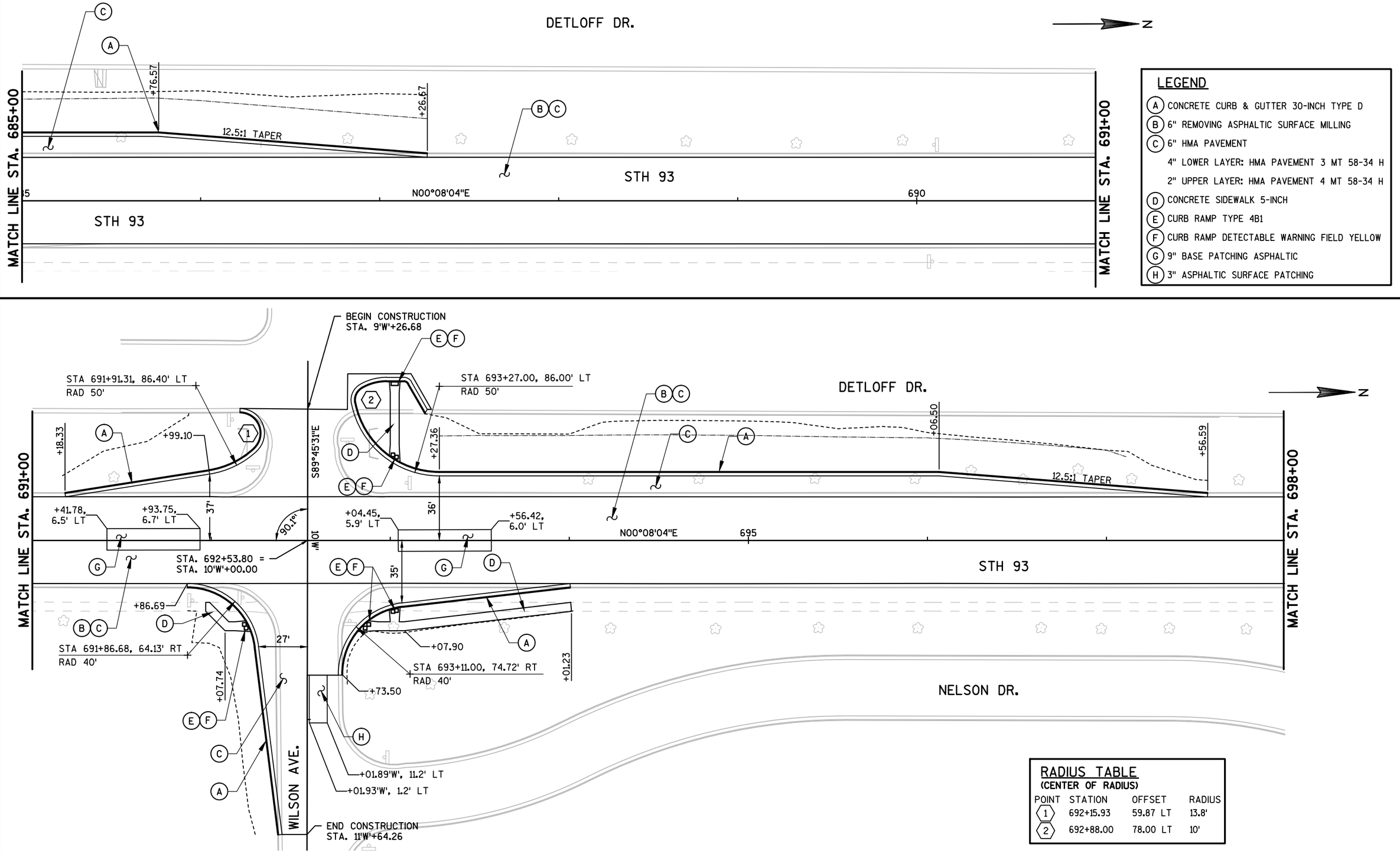
END CONSTRUCTION
STA. 11'B'+26.08

RADIUS TABLE
(CENTER OF RADIUS)

POINT	STATION	OFFSET	RADIUS
1	672+40.04	59.92 LT	3'
2	672+26.47	33.00 LT	3'
3	672+58.48	33.00 LT	3'
4	682+71.71	63.16 LT	13.8'
5	671+85.34	70.61 LT	52.7'
6	673+14.92	91.45 LT	78.3'

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	PAVING DETAILS	SHEET	E

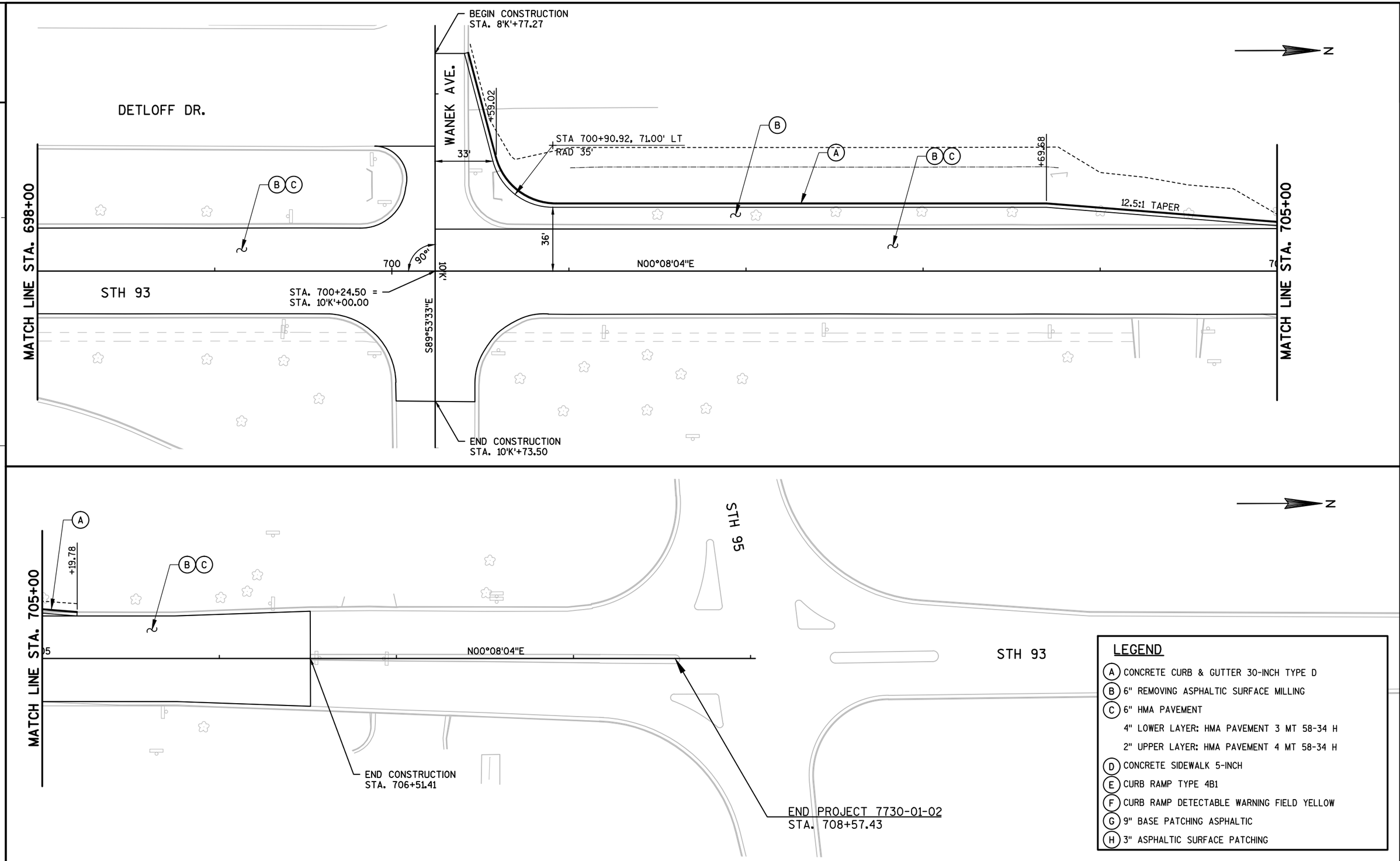
FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\021202_PD.DWG PLOT DATE : 3/2/2016 4:08 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	PAVING DETAILS	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\021202_PD.DWG PLOT DATE : 3/2/2016 4:08 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

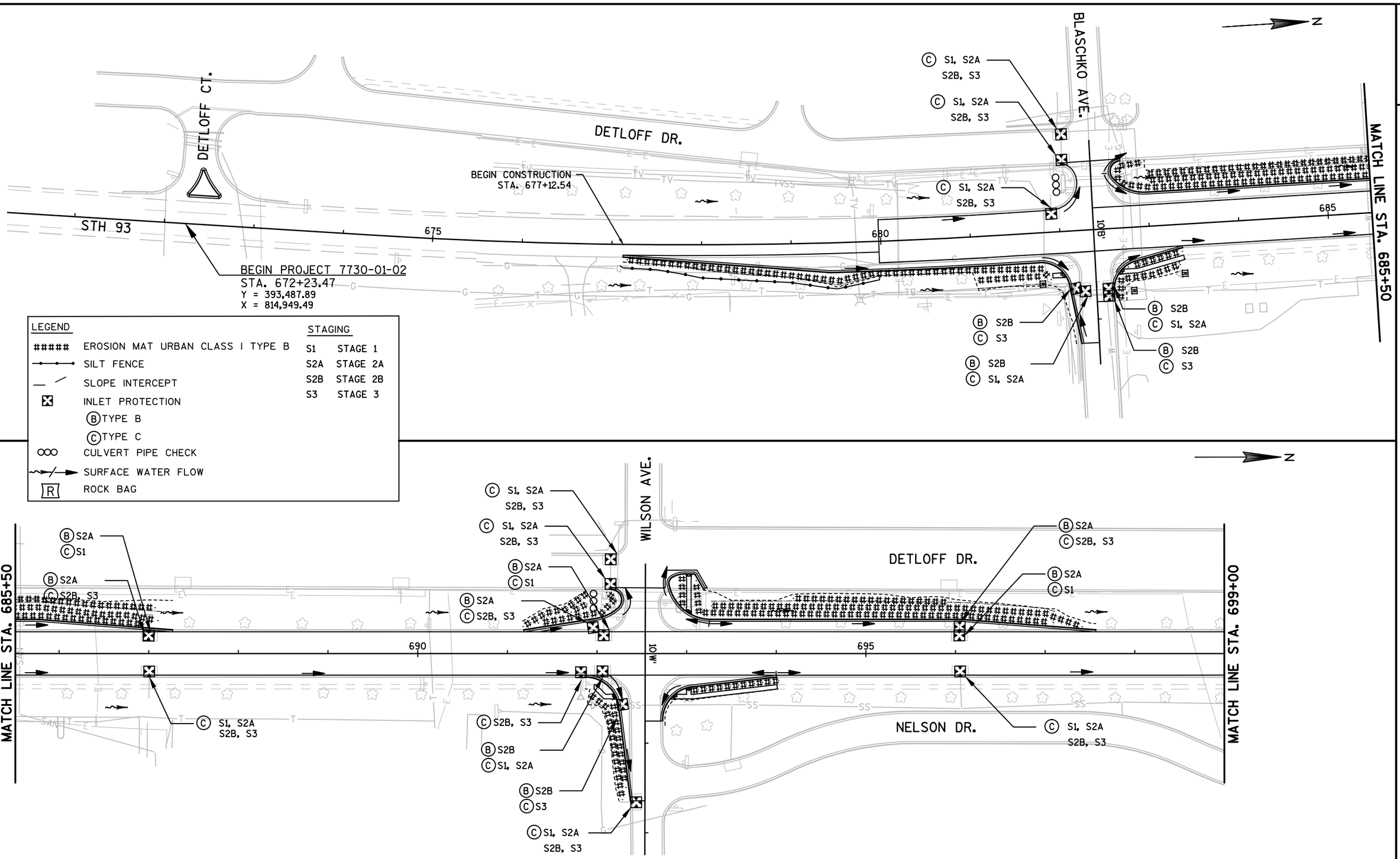


LEGEND

- (A) CONCRETE CURB & GUTTER 30-INCH TYPE D
- (B) 6" REMOVING ASPHALTIC SURFACE MILLING
- (C) 6" HMA PAVEMENT
  - 4" LOWER LAYER: HMA PAVEMENT 3 MT 58-34 H
  - 2" UPPER LAYER: HMA PAVEMENT 4 MT 58-34 H
- (D) CONCRETE SIDEWALK 5-INCH
- (E) CURB RAMP TYPE 4B1
- (F) CURB RAMP DETECTABLE WARNING FIELD YELLOW
- (G) 9" BASE PATCHING ASPHALTIC
- (H) 3" ASPHALTIC SURFACE PATCHING

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	PAVING DETAILS	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\021202_PD.DWG PLOT DATE : 3/2/2016 4:08 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42



LEGEND

#####	EROSION MAT URBAN CLASS I TYPE B
—•—•—	SILT FENCE
— /	SLOPE INTERCEPT
⊠	INLET PROTECTION
Ⓑ	TYPE B
Ⓒ	TYPE C
ooo	CULVERT PIPE CHECK
~~→	SURFACE WATER FLOW
R	ROCK BAG

STAGING

S1	STAGE 1
S2A	STAGE 2A
S2B	STAGE 2B
S3	STAGE 3

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	EROSION CONTROL	SHEET	E

FILE NAME : \\USGRB1FP001\ATG\60317362\900-WORKINGDOCS-CAD\022001_EC.DWG PLOT DATE : 2/1/2016 4:04 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

WANEK AVE.

STH 95

STH 93

MATCH LINE STA. 699+00

NELSON DR.

Ⓑ S2A
Ⓒ S1

Ⓒ S1, S2A
S2B, S3

Ⓑ S2A
Ⓒ S2B, S3

700

705

10K'

END CONSTRUCTION
STA. 706+51.41

END PROJECT 7730-01-02
STA. 708+57.43

LEGEND

#####	EROSION MAT URBAN CLASS I TYPE B
—•—•—	SILT FENCE
— ⁄	SLOPE INTERCEPT
⊠	INLET PROTECTION
Ⓑ	TYPE B
Ⓒ	TYPE C
∞∞∞	CULVERT PIPE CHECK
~~→/→	SURFACE WATER FLOW
[R]	ROCK BAG

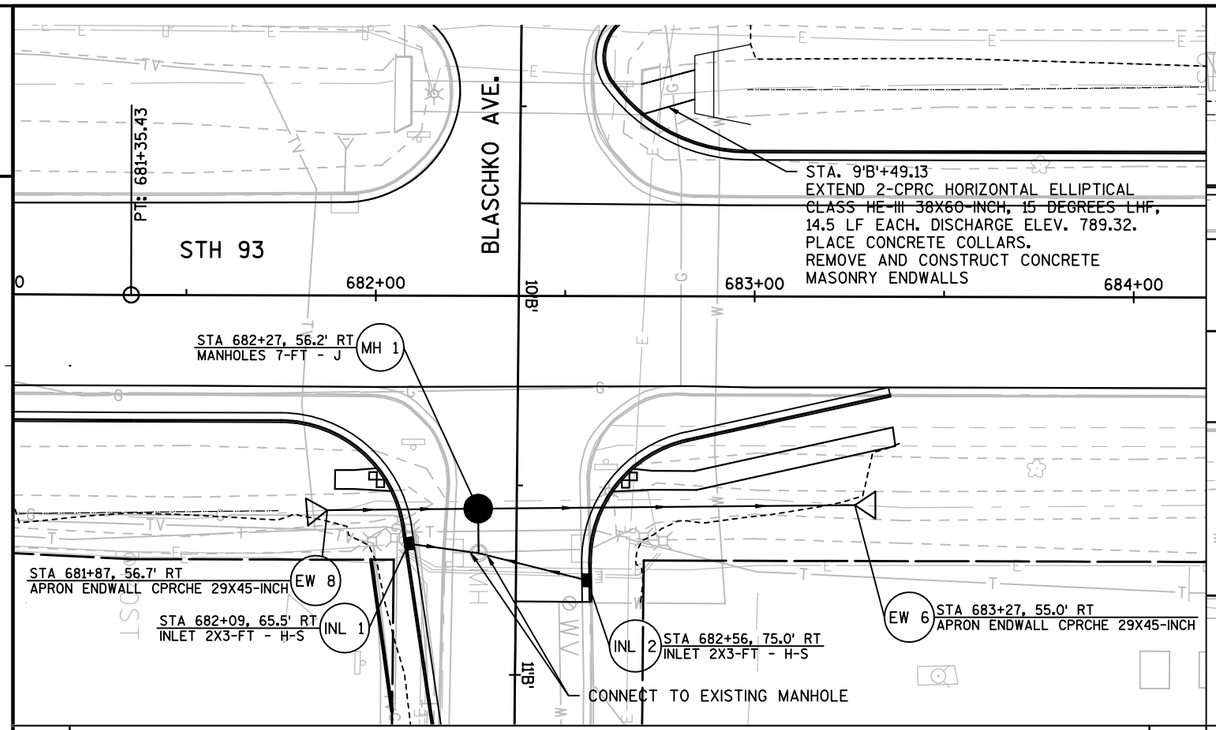
STAGING

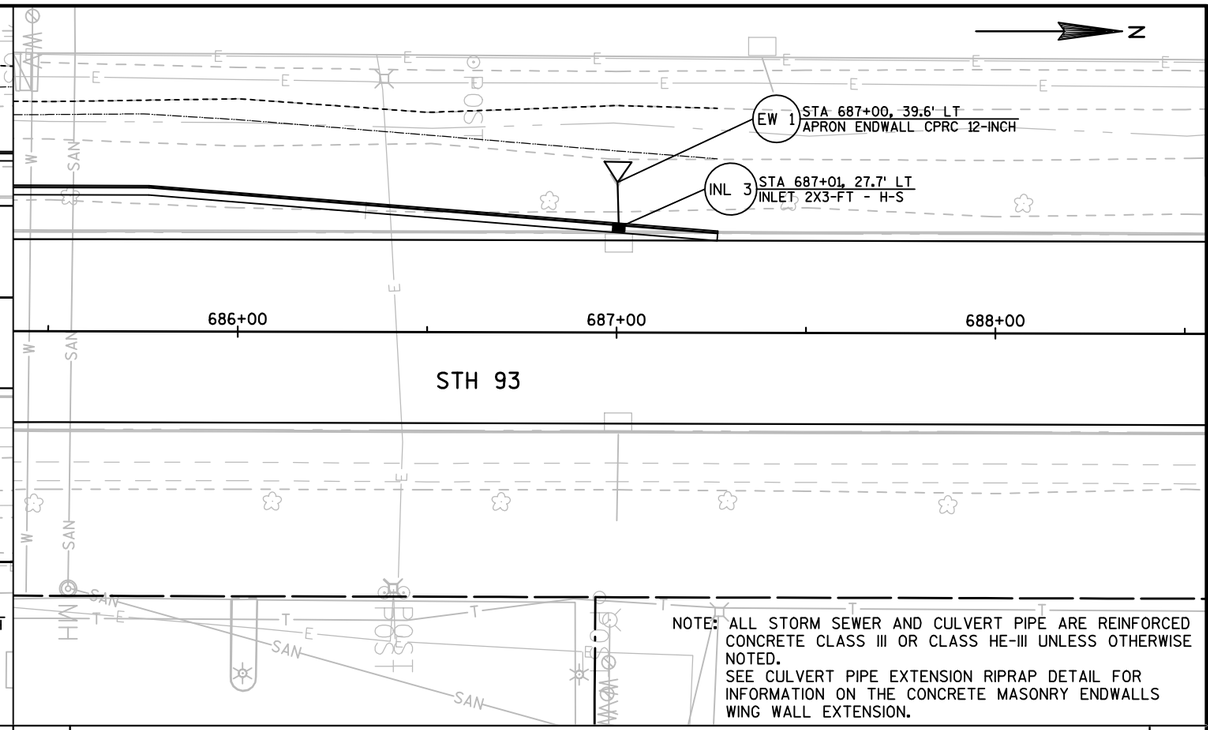
S1	STAGE 1
S2A	STAGE 2A
S2B	STAGE 2B
S3	STAGE 3

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	EROSION CONTROL	SHEET	E

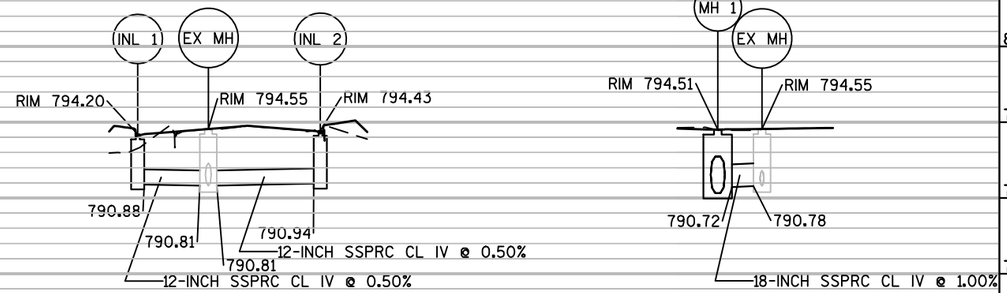
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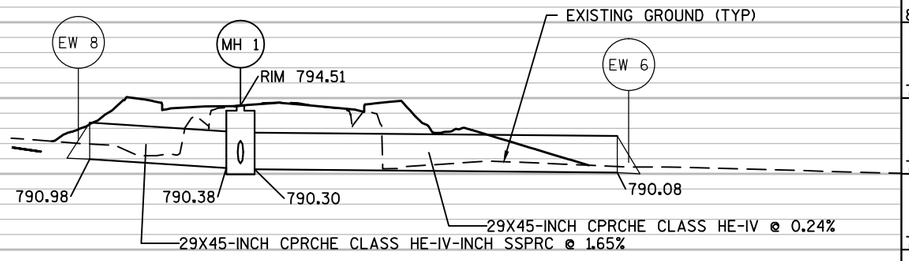
WISDOT/CADDS SHEET 42

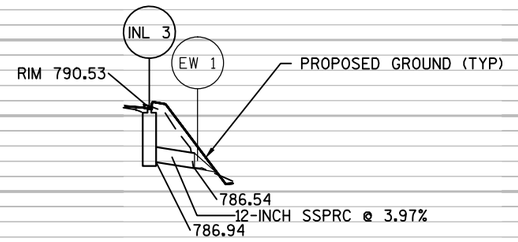




NOTE: ALL STORM SEWER AND CULVERT PIPE ARE REINFORCED CONCRETE CLASS III OR CLASS HE-III UNLESS OTHERWISE NOTED.
SEE CULVERT PIPE EXTENSION RIPRAP DETAIL FOR INFORMATION ON THE CONCRETE MASONRY ENDWALLS WING WALL EXTENSION.







PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	STORM SEWER	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\022501_SS.DWG PLOT DATE : 3/3/2016 8:58 AM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 41

CONNECT EX 12" SS TO CULVERT EXTENSION.
INCIDENTAL TO CULVERT EXTENSION.
EXTEND PIPE AND PLACE CONCRETE COLLAR.

CONNECT TO CONCRETE MASONRY ENDWALL

STA 691+84, 43.2' LT
APRON ENDWALL CPRC 12-INCH
EW 3

STA 691+85, 35.9' LT
INLET 2X3-FT - H-S
INL 5

STA. 9'W'+45.62
EXTEND 2-CPRC HORIZONTAL ELLIPTICAL
CLASS HE-III 38X60-INCH, 15 DEGREES LHF
15.5 LF EACH. DISCHARGE ELEV. 780.04.
PLACE CONCRETE COLLARS. REMOVE AND
CONSTRUCT CONCRETE MASONRY ENDWALLS

WILSON AVE.

691+00 692+00 693+00

STH 93

10W'

STA. 9'W'+45.62
EXTEND 2-CPRC HORIZONTAL ELLIPTICAL
CLASS HE-III 38X60-INCH, 7.5 DEGREES LHF
28.4 LF EACH. DISCHARGE ELEV. 779.24.
PLACE CONCRETE COLLARS. REMOVE AND
CONSTRUCT CONCRETE MASONRY ENDWALLS

N

EW 5 STA 696+03, 50.6' LT
APRON ENDWALL CPRC 12-INCH

INL 6 STA 696+02, 37.4' LT
INLET 2X3-FT - H-S

695+00 696+00 697+00

STH 93

STA 691+82, 25.5' RT
INLET 2X3-FT - H-S
INL 4

STA 691+82, 45.0' RT
APRON ENDWALL CPRC 12-INCH
EW 2

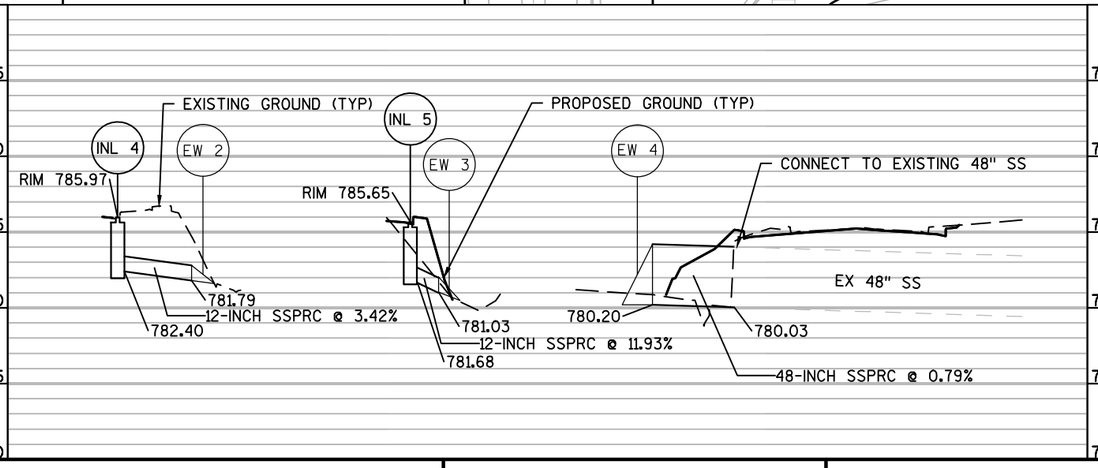
STA 692+00, 57.8' RT
APRON ENDWALL CPRC 48-INCH
EW 4

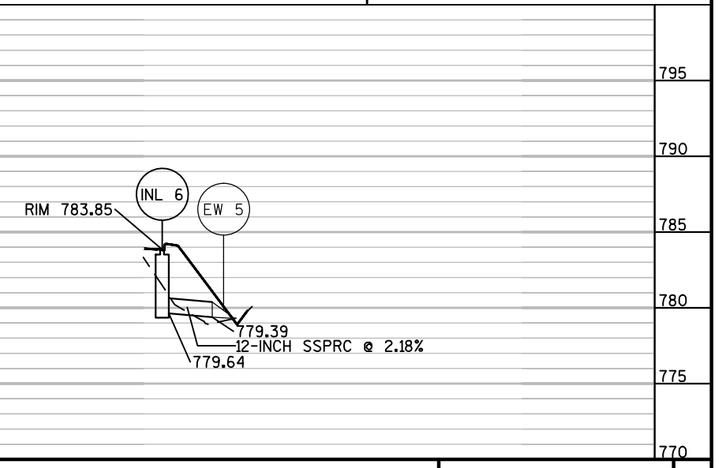
REMOVE EXISTING CONCRETE ENDWALL
AND GRATE.

11W'

STA 11+66'W', 15.0' RT
INLET COVER TYPE H-S
INL 9

NOTE: ALL STORM SEWER AND CULVERT PIPE ARE REINFORCED CONCRETE CLASS III OR CLASS HE-III UNLESS OTHERWISE NOTED.
SEE CULVERT PIPE EXTENSION RIPRAP DETAIL FOR INFORMATION ON THE CONCRETE MASONRY ENDWALLS WING WALL EXTENSION.





PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	STORM SEWER	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\022501_SS.DWG PLOT DATE : 3/3/2016 8:58 AM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 41

STA. 9'K'+51.86
EXTEND 2-CPRC HORIZONTAL ELLIPTICAL
CLASS HE-III 38X60-INCH, 15 DEGREES LHF
30 LF EACH. DISCHARGE ELEV. 776.53.
PLACE CONCRETE COLLAR.
REMOVE AND CONSTRUCT CONCRETE MASONRY ENDWALLS.

INL 7 STA 702+52, 37.4' LT
INLET 2X3-FT - H-S

INL 8 STA 703+65, 37.4' LT
INLET 2X3-FT - H-S

MH 2 STA 703+76, 30.7' LT
MANHOLE 7-FT - J

CONCRETE COLLAR REQ'D

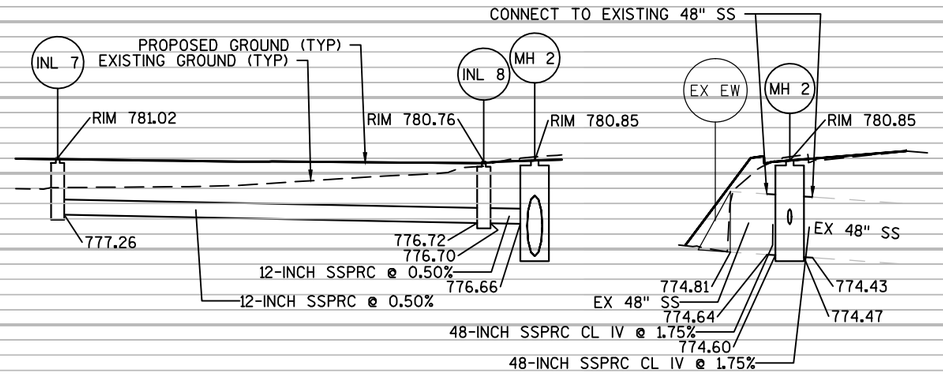
N

WANEK AVE.

699+00 700+00 10'K' 701+00 702+00 703+00 704+00 705+00

STH 93

NOTE: ALL STORM SEWER AND CULVERT PIPE ARE REINFORCED CONCRETE CLASS III OR CLASS HE-III UNLESS OTHERWISE NOTED.
SEE CULVERT PIPE EXTENSION RIPRAP DETAIL FOR INFORMATION ON THE CONCRETE MASONRY ENDWALLS WING WALL EXTENSION.



PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	STORM SEWER	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\022501_SS.DWG PLOT DATE : 3/3/2016 8:58 AM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : **********

2

N

STOP
REMOVE
R1

P3A
R3-2
24"X24"
INSTALL AT
BEGINING OF
STAGE 2A

DETLOFF CT.

DETLOFF DR.

STOP
P3
R1-1
36" X 36"

DO NOT
ENTER
P2
R5-1
30"X30"

NO
PASSING
ZONE
R2
REMOVE

P4
NO
PASSING
ZONE
W14-3
48" X 36"

STH 93

675

MATCH LINE STA. 678+00

P1
R3-2
24"X24"
INSTALL AT
BEGINING OF
STAGE 2A

SPEED
LIMIT
45
P5
R2-1
24"X30"

SPEED
LIMIT
45
R3
REMOVE

ONLY ONLY ONLY
P6
R3-8W
54"X30"

P7
BEGIN
RIGHT
TURN
LANE
R3-20R
24"X36"

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- (XXX) DENOTES SIGN NUMBER

PROJECT NO: 7130-01-02	HWY: STH 93	COUNTY: TREMPEALEAU	SIGNING PLAN	SHEET E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\023201_PS.DWG PLOT DATE : 2/1/2016 1:05 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : **********

2

N

BLASCHKO AVE.

DETLOFF DR.

STA. 678+00

STH 93

680

MATCH LINE STA.

P12 — SPEED LIMIT 45 — R2-1 30"X36"

STOP — R8 — REMOVE

SPEED LIMIT 45 — R6 — REMOVE

P13 — STOP — R1-1 36" X 36"

M2 — DETTLOFF DR / BLASCHKO AVE — MOVE INSTALL ON NEW POST TUBULAR STEEL

DETLOFF DR.

TWO

ONLY

STA. 685+00

MATCH LINE STA.

101'

R5 — NO ENGINE BRAKING EXCEPT IN EMERGENCY — REMOVE

R7 — SPEED LIMIT 45 — REMOVE

P10 — RIGHT LANE MUST TURN RIGHT — R3-7R 30"X30"

HWY 93 / BLASCHKO AVE — M1 — MOVE INSTALL ON NEW POST TUBULAR STEEL

P11 — SPEED LIMIT 45 — R2-1 30"X36"

R4 — ARCADIA POPULATION 2925 — REMOVE

NO ENGINE BRAKING EXCEPT IN EMERGENCY — P9 — R10-64 30" X 36"

P8 — ARCADIA POPULATION 2925 — I2-3 60" X 24"

R9 — STOP — REMOVE

P14 — STOP — R1-1 36" X 36"

P15 — BIKE LANE — R3-17 30"X24"

P16 — W3-3 36" X 36" INSTALL AT BEGINNING OF STAGE 2A

ONLY — P17 — R3-8A 36"X30'

BLASCHKO AVE.

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- (XXX) DENOTES SIGN NUMBER

PROJECT NO: 7130-01-02	HWY: STH 93	COUNTY: TREMPEALEAU	SIGNING PLAN	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\023201_PS.DWG PLOT DATE : 2/1/2016 1:05 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : ********** WISDOT/CADDS SHEET 42

2

N

DRAFT HORSE INN MOTEL 1

P19

E10-82
48" X 14"

DRAFT HORSE INN MOTEL 1

R10

REMOVE

RIGHT LANE MUST TURN RIGHT

P18

R3-7R
30"X30"

P20

BEGIN RIGHT TURN LANE YIELD TO BIKES

R4-4
36"X30"

SPEED LIMIT 45

P23

R2-1
24"X30"
MOUNT ON LIGHT POLE

SPEED LIMIT 45

R12

REMOVE

DETLOFF DR.

P21

ONLY ONLY ONLY

R3-8W
54"X30"

MATCH LINE STA. 685+00

STH 93

690

MATCH LINE STA. 691+00

SPEED LIMIT 45

P22

R2-1
24"X30"
MOUNT ON LIGHT POLE

SPEED LIMIT 45

R11

REMOVE

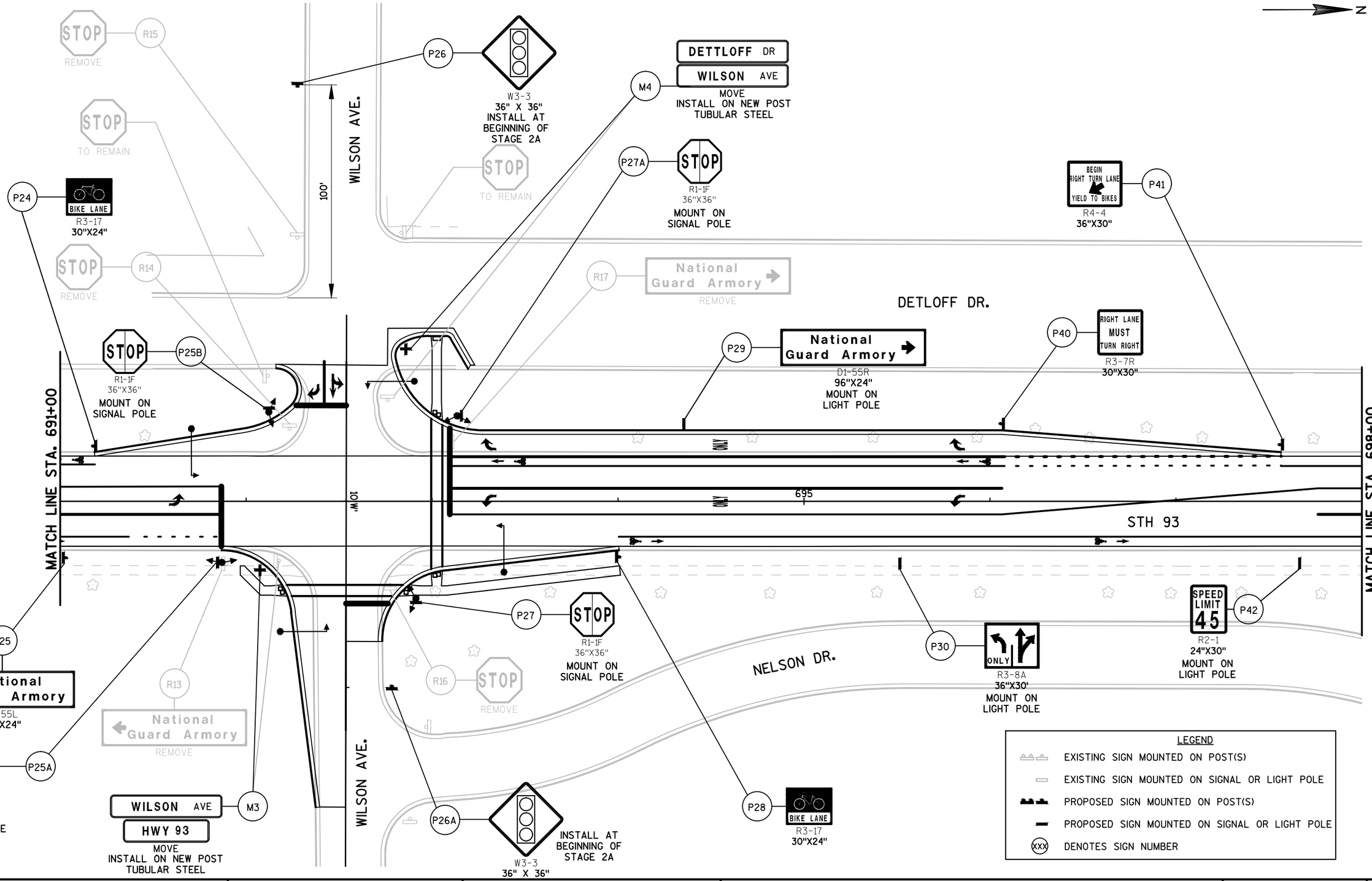
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- (XXX) DENOTES SIGN NUMBER

PROJECT NO: 7130-01-02	HWY: STH 93	COUNTY: TREMPEALEAU	SIGNING PLAN	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\023201_PS.DWG PLOT DATE : 2/1/2016 1:05 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 7130-01-02	HWY: STH 93	COUNTY: TREMPEALEAU	SIGNING PLAN	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\023201_PS.DWG PLOT DATE : 2/1/2016 1:05 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : **********

2

N

P44 — ONLY ONLY ONLY
R3-8W
54"X30"

P47 — BIKE LANE
R3-17
30"X24"

P48 — STOP
R1-1
36" X 36"

R21 — STOP
REMOVE

WANEK AVE.

DETLOFF DR.

P43
W3-3
36" X 36"
INSTALL AT BEGINNING OF STAGE 2A

P46 — SPEED LIMIT 45
R2-1
24"X30"

R20 — SPEED LIMIT 45
REMOVE

M5 — DETLOFF DR / WANEK AVE
MOVE
INSTALL ON NEW POST
TUBULAR STEEL

R24 — WEST NORTH EAST 95 93 95
REMOVE

P57 — RIGHT LANE MUST TURN RIGHT
R3-7R
30"X30"

R25 — INDEPENDENCE / BUSINESS DIST / BLAIR
REMOVE

MATCH LINE STA. 698+00

700

STH 93

MATCH LINE STA. 705+00

P53
W3-1
36" X 36"

P55 — WEST NORTH EAST 95 93 95
J2-3
72" X 57"

P56 — INDEPENDENCE / BUSINESS DIST / BLAIR
D1-3
90"X42"

P58 — STOP
R1-1
36" X 36"

R26 — STOP
REMOVE

STREET SIGNS TO REMAIN

NELSON DR.

P49 — STOP
R1-1
36" X 36"

P52 — BIKE LANE
R3-17
30"X24"

R22 — STOP
REMOVE
REMOVE SNOWMOBILE ROUTE ASSEMBLE ON REVERSE SIDE

R23
REMOVE

R19 — SPEED LIMIT 45
REMOVE

R18 — JCT 95
REMOVE

P45 — JCT 95
J1-1
24" X 39"

WANEK AVE.

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- (XXX) DENOTES SIGN NUMBER

PROJECT NO: 7130-01-02	HWY: STH 93	COUNTY: TREMPEALEAU	SIGNING PLAN	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\023201_PS.DWG PLOT DATE : 2/1/2016 1:05 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

N

P61
ONLY ONLY ONLY
R3-8-W
54"X30"

R28
TRUCK ROUTE TO WINONA, MN
REMOVE

P62
BIKE LANE
R3-17
30"X30"

P59
BEGIN RIGHT TURN LANE
YIELD TO BIKES
R4-4
36"X30"

STH 95

STH 93

MATCH LINE STA. 705+00

R27
ONLY
REMOVE

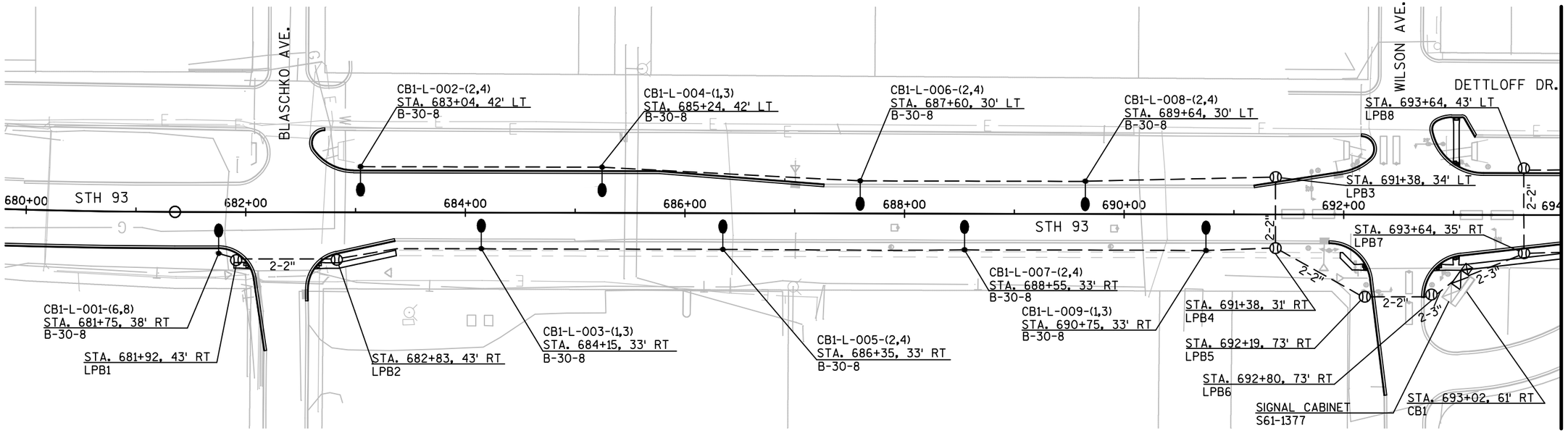
P60
ONLY
R3-8A
36"X30'

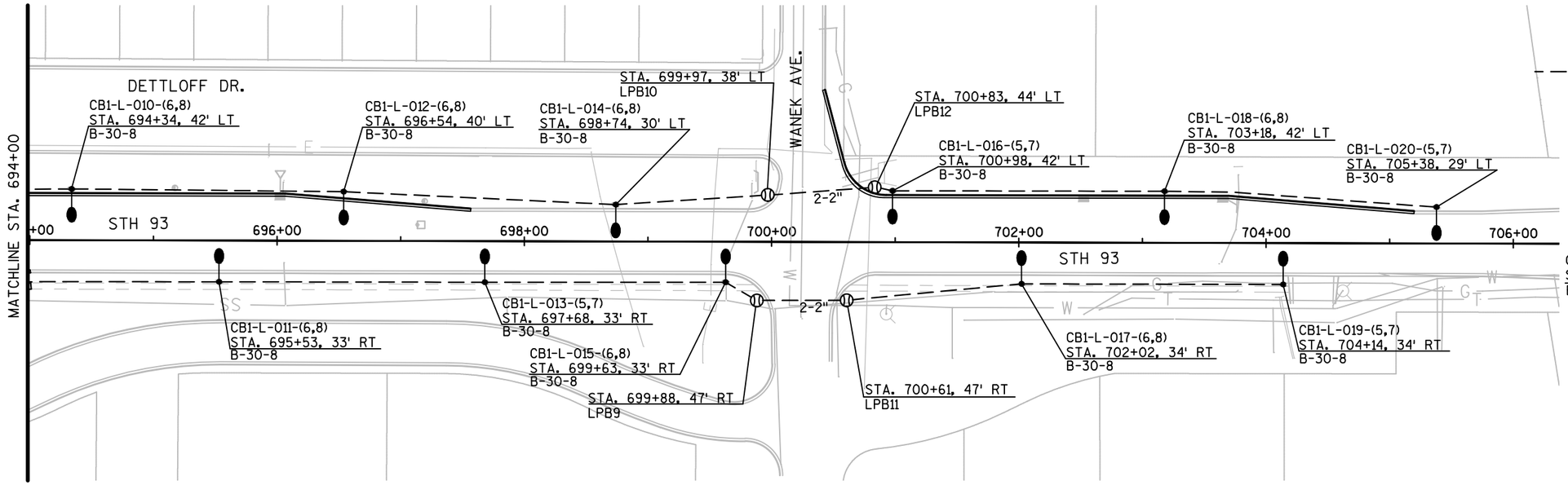
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- (XXX) DENOTES SIGN NUMBER

PROJECT NO: 7130-01-02	HWY: STH 93	COUNTY: TREMPEALEAU	SIGNING PLAN	SHEET 27	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\023201_PS.DWG PLOT DATE : 2/1/2016 1:05 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : **********





LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2"
- SINGLE ARM LIGHTING UNIT
- PULL BOX, 24" X 42"
- ELECTRICAL SERVICE METER BREAKER PEDESTAL

CB1-L-024-(6,8)
STA. 703+33', 33' RT
B-30-8

- CONCRETE CABINET DESIGNATOR
- POLE NUMBER
- LIGHTING CIRCUITS
- LOCATION (TO CENTER OF POLE)
- LUMINAIRE ARM LENGTH (FT)
- NOMINAL MOUNTING HEIGHT (FT)
- LUMINAIRES UTILITY LED CATEGORY

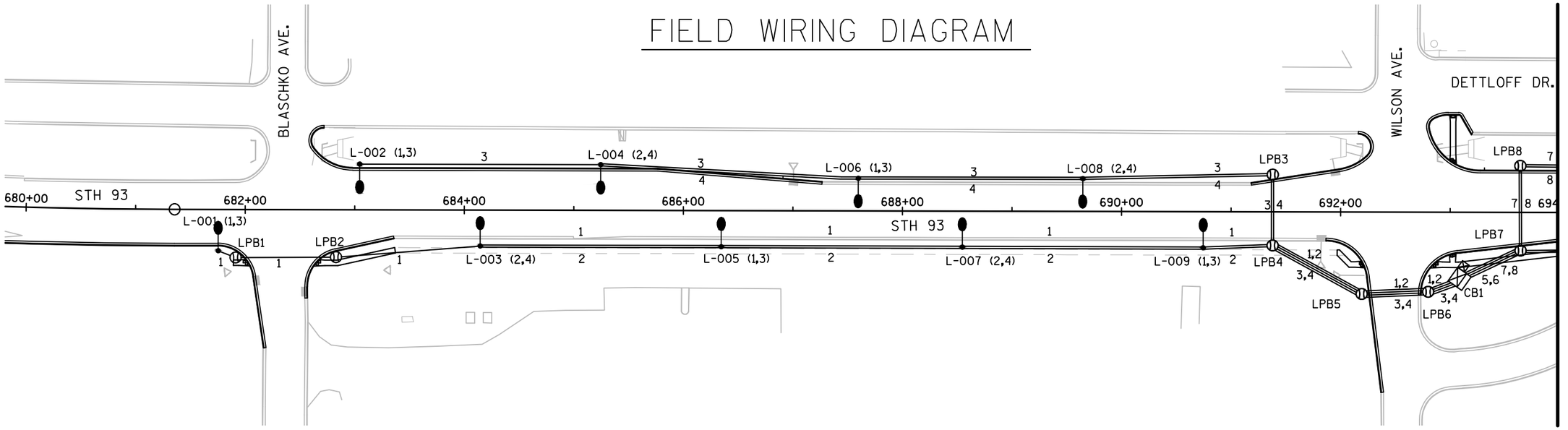
NOTE: GRAYSHADE REPRESENTS EXISTING

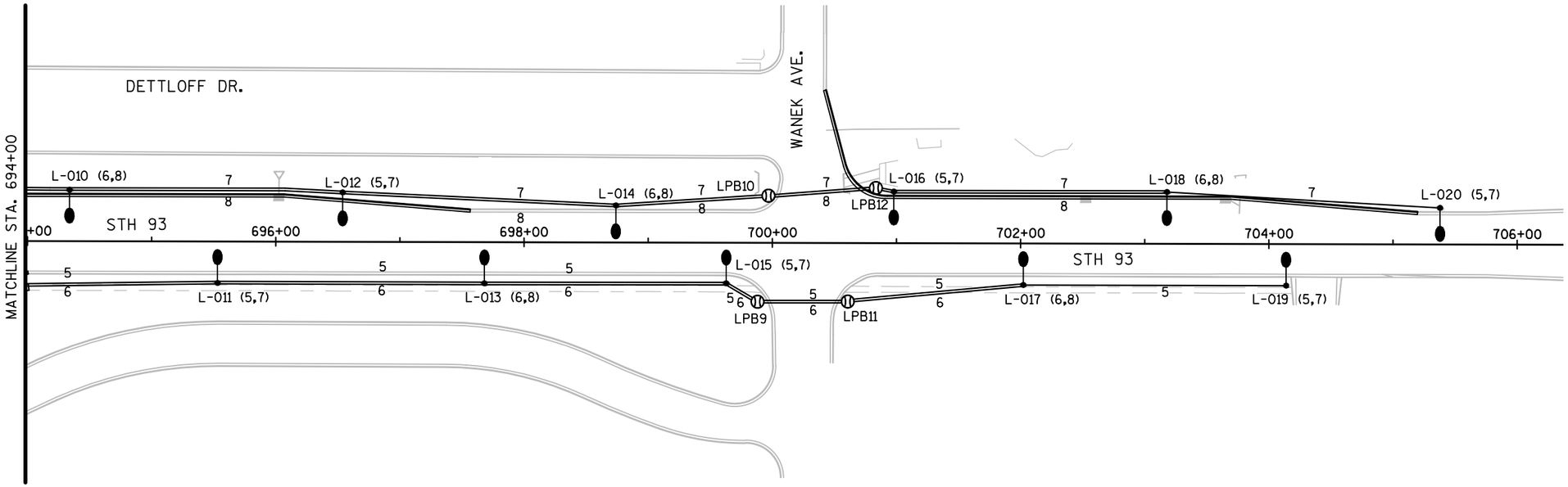
CONSTRUCTION NOTE:

1. BORE ALL CONDUIT WITHIN 10' OF TREES TO REMAIN

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	LIGHTING PLAN	SHEET 28	E

FIELD WIRING DIAGRAM

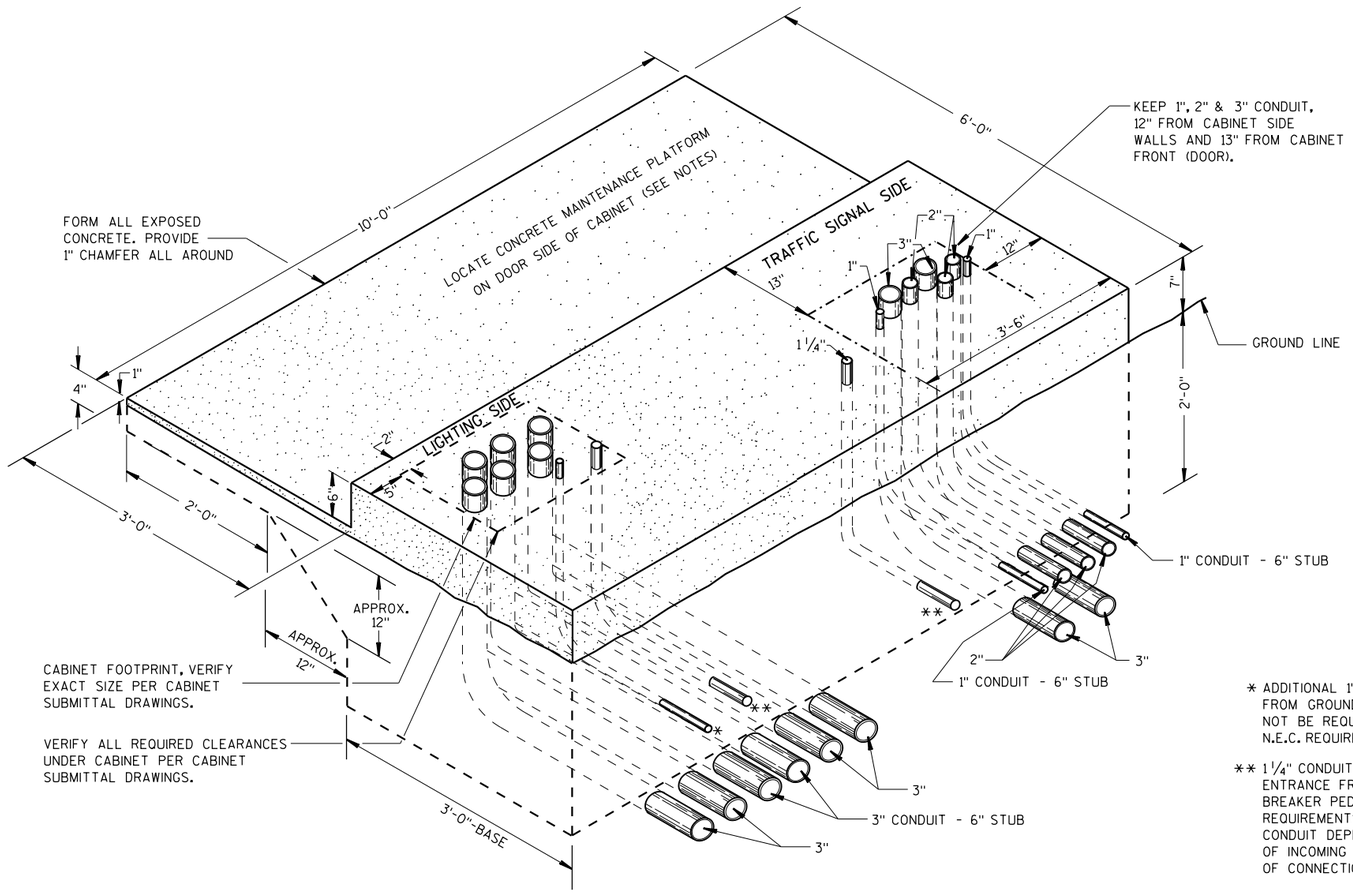




1,3 = CIRCUIT 1:	2-10AWG
CIRCUIT 2:	2-10AWG
LIGHTING-240V	1-10AWG GND
2,4= CIRCUIT 3:	2-10AWG
CIRCUIT 4:	2-10AWG
LIGHTING-240V	1-10AWG GND
5,7= CIRCUIT 5:	2-10AWG
CIRCUIT 6:	2-10AWG
LIGHTING-240V	1-10AWG GND
6,8= CIRCUIT 7:	2-10AWG
CIRCUIT 8:	2-10AWG
LIGHTING-240V	1-10AWG GND

NOTE: GRAYSHADE REPRESENTS EXISTING

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	LIGHTING PLAN	SHEET 29	E



* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

** 1¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, SPECIAL

(C.Y. CONCRETE = APPROX. 3.47)

GENERAL NOTES

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

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO BASE. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

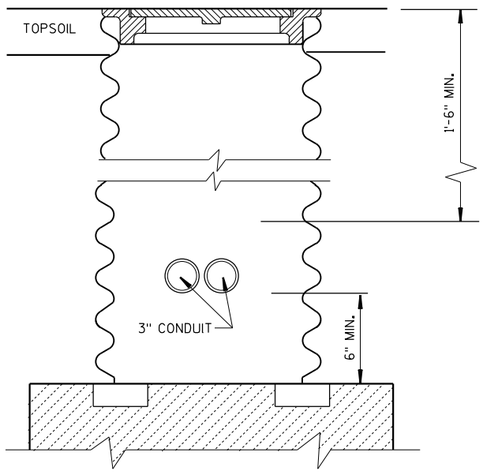
PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOX(ES) AS SHOWN ON THE PLANS.

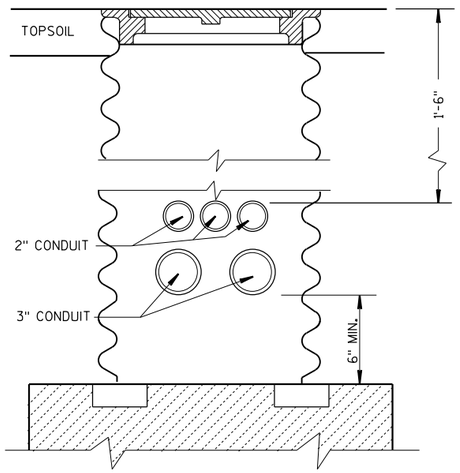
CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.



CONDUIT LOCATIONS IN 24" X 42" LIGHTING PULL BOXES

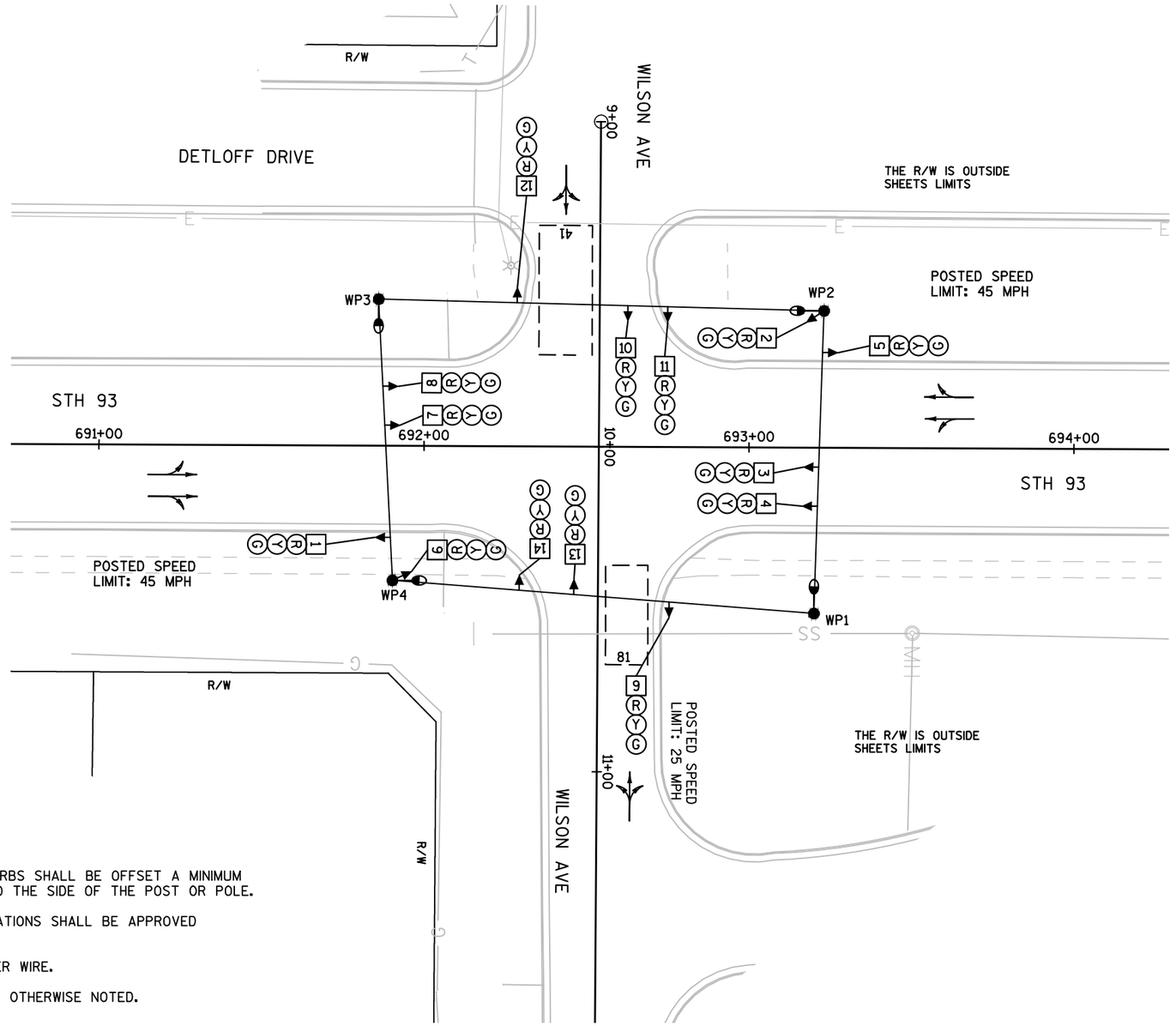
(LEADING TO CONTROLLER CABINET BASE SPECIAL)



CONDUIT LOCATIONS IN 24" X 42" TRAFFIC SIGNAL PULL BOX

(LEADING TO CONTROLLER CABINET BASE SPECIAL)

SUMMARY OF MATERIALS FOR INFORMATION ONLY	
4	WOOD POLES, CLASS 4
1,000 (FEET)	SPAN WIRE
4	LUMINAIRES, 250 W
12	TRAFFIC SIGNAL FACES
1	NON-INTRUSIVE VEHICLE DETECTION SYSTEM



LEGEND

- SPAN WIRE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- LUMINAIRE (250 W)
- NON-INTRUSIVE DETECTION AREA
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

NOTES:

1. ADJUST THE LOCATION OF SIGNAL HEADS 2, 3, 4, 6, 7, AND 8 AS NEEDED TO BEST ACCOMMODATE LANE CHANGES DURING CONSTRUCTION. MAINTAIN MUTCD SIGNAL HEAD LOCATION REQUIREMENTS.

CONSTRUCTION NOTES:

1. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE.
4. ALL LUMINAIRES ARE 250 W HPS UNLESS OTHERWISE NOTED.

0' 10 20 40'
SCALE

TRAFFIC CONTROL SIGNAL
STH 93 & WILSON AVENUE
CITY OF ARCADIA
TREMPEALEAU COUNTY

SIGNAL NO. S61-1377

REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

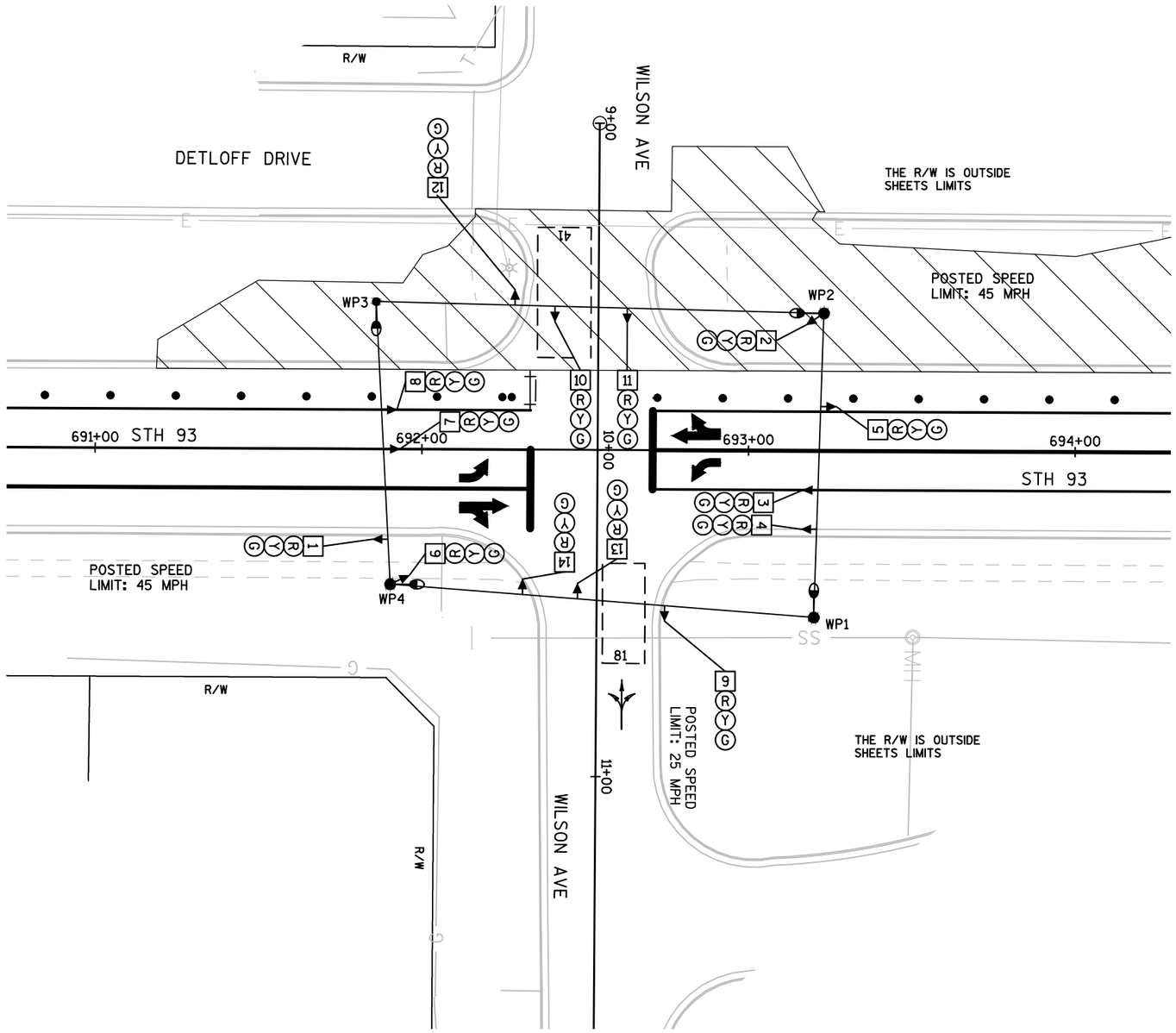
PAGE 1 OF 5

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TEMPORARY TRAFFIC SIGNAL PLAN - PRECONSTRUCTION / STAGE 1	SHEET 31	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\SIGNALS\TEMP SIG.DWG PLOT DATE : 2/22/2016 4:44 PM PLOT BY : GREUEL, KELLY PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2



LEGEND

- SPAN WIRE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- LUMINAIRE (250 W)
- NON-INTRUSIVE DETECTION AREA
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR

LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

NOTES:

1. ADJUST THE LOCATION OF THE NON-INTRUSIVE SIGNAL DETECTION AREA 41 AND SIGNAL HEADS 13 AND 14 AS NEEDED TO BEST ACCOMMODATE VEHICLE STOPPING LOCATIONS ON THE WEST APPROACH.

TRAFFIC CONTROL SIGNAL
STH 93 & WILSON AVENUE
CITY OF ARCADIA
TREMPEALEAU COUNTY

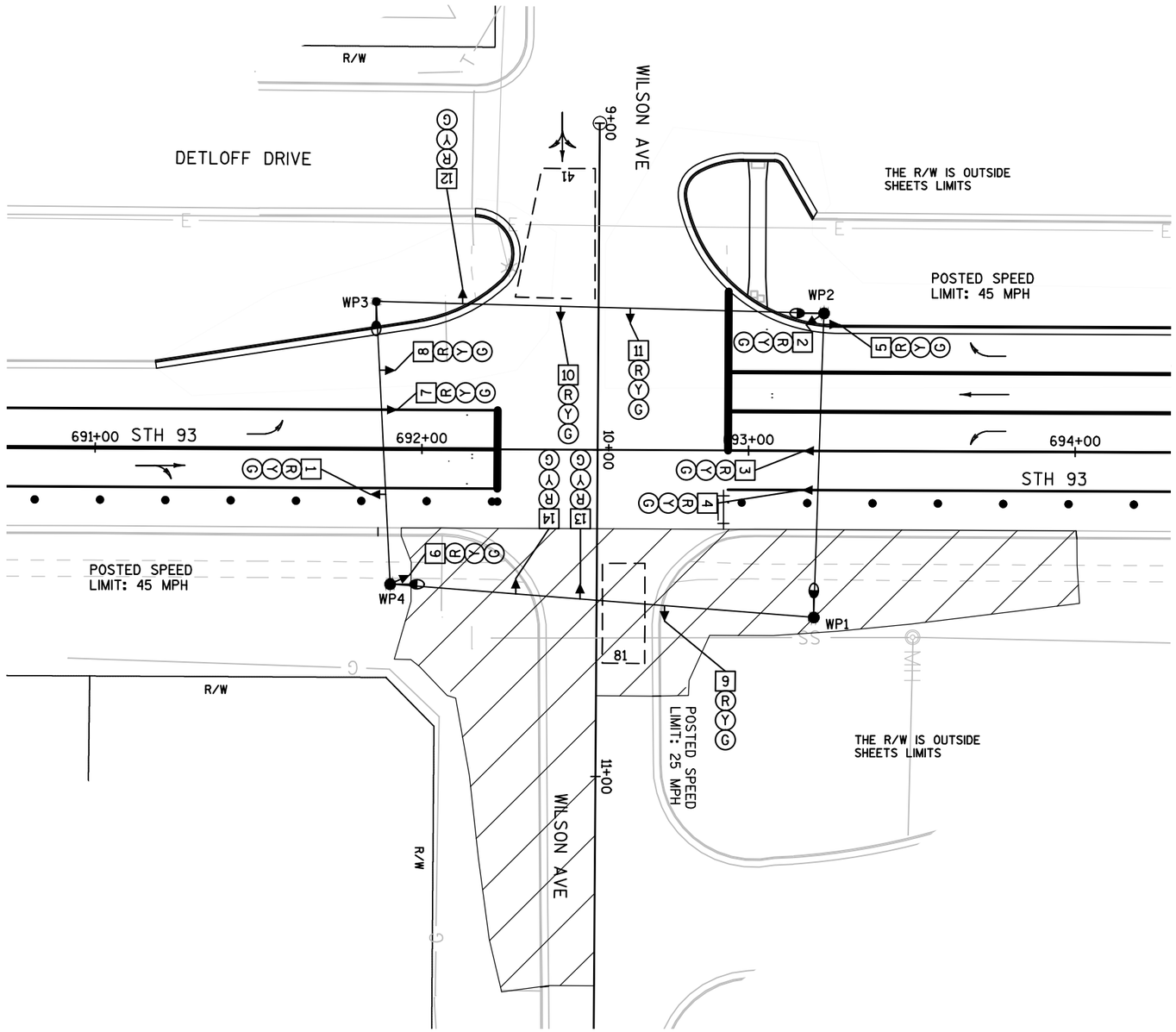
SIGNAL NO. S61-1377

REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 5

0' 10 20 40'
SCALE

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET 32	E



LEGEND

- SPAN WIRE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- LUMINAIRE (250 W)
- NON-INTRUSIVE DETECTION AREA
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR

LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

NOTES:

1. ADJUST THE LOCATION OF THE NON-INTRUSIVE SIGNAL DETECTION AREA 81 AND SIGNAL HEADS 10 AND 11 AS NEEDED TO BEST ACCOMMODATE VEHICLE STOPPING LOCATIONS ON THE EAST APPROACH.

0' 10 20 40'
SCALE

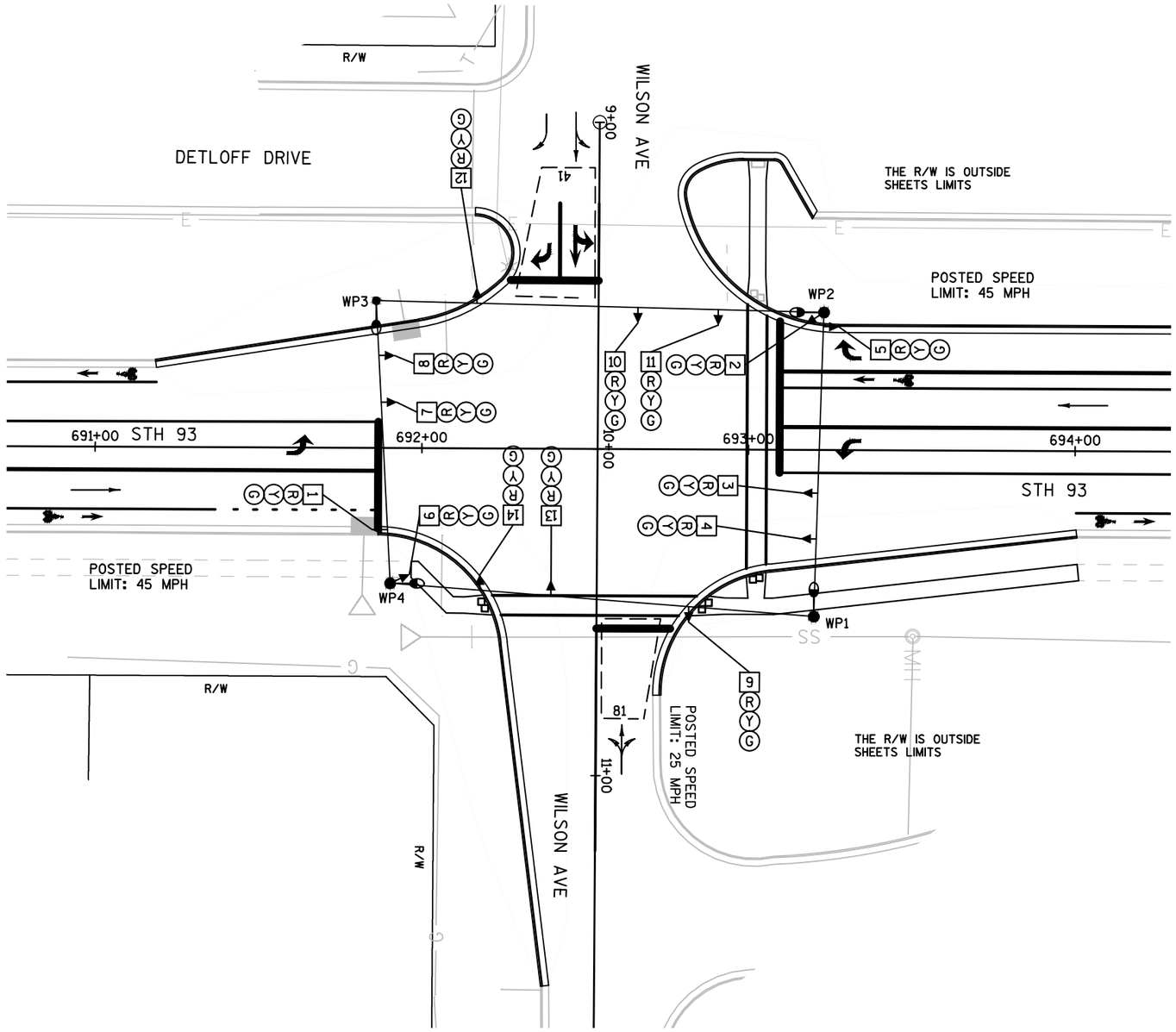
TRAFFIC CONTROL SIGNAL
STH 93 & WILSON AVENUE
CITY OF ARCADIA
TREMPEALEAU COUNTY

SIGNAL NO. S61-1377

REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 5

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET 33	E



LEGEND

- SPAN WIRE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- LUMINAIRE (250 W)
- NON-INTRUSIVE DETECTION AREA
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR

LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

NOTES:

1. ADJUST THE LOCATION OF SIGNAL HEADS 2, 3, 4, AND 6, 7, 8 AS NEEDED TO BEST ACCOMMODATE LANE CHANGES DURING CONSTRUCTION. MAINTAIN MUTCD SIGNAL HEAD LOCATION REQUIREMENTS.

0' 10 20 40'
SCALE

TRAFFIC CONTROL SIGNAL
STH 93 & WILSON AVENUE
CITY OF ARCADIA
TREMPEALEAU COUNTY

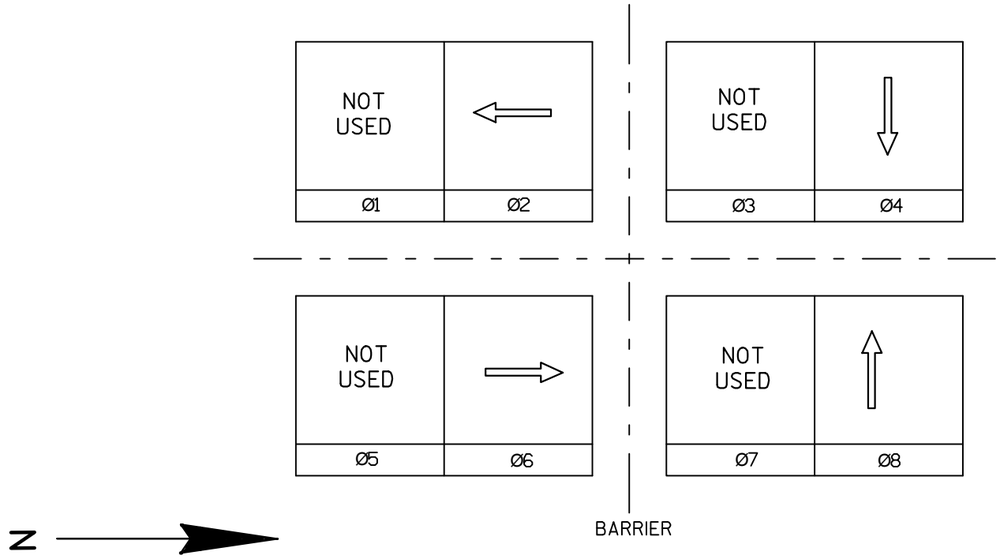
SIGNAL NO. S61-1377

REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

PAGE 4 OF 5

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 3/POSTCONSTRUCTION	SHEET 34	E

	HEAD NUMBERS	FLASH
Ø2	5,6,7,8	R
Ø4	12,13,14	R
Ø6	1,2,3,4	R
Ø8	9,10,11	R
Ø2 PED		
Ø4 PED		
Ø6 PED		
Ø8 PED		
OLA		
OLB		
OLC		
OLD		



CONTROLLER LOGIC

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

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

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

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

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	41							
PHASE CALLED	4							
PHASE EXTENDED	4							
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	81							
PHASE CALLED	8							
PHASE EXTENDED	8							
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TRAFFIC CONTROL SIGNAL
STH 93 & WILSON AVENUE
CITY OF ARCADIA
TREMPEALEAU COUNTY

SIGNAL NO. S61-1377

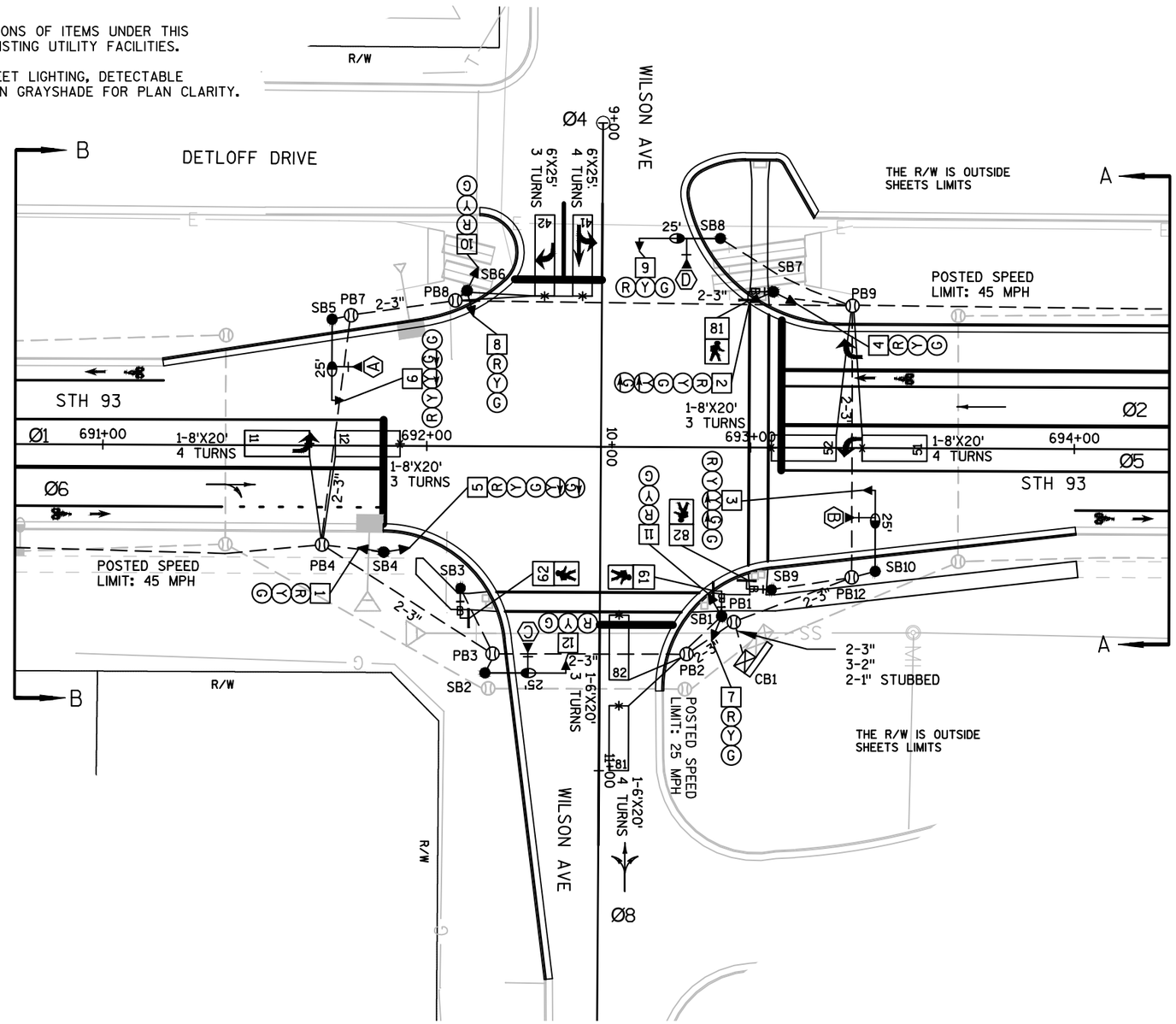
REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

PAGE 5 OF 5

PROJECT NO: 7130-01-72 | HWY: STH 93 | COUNTY: TREMPEALEAU | TEMPORARY SEQUENCE OF OPERATIONS | SHEET 35 | E

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT OF 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 DEPARTMENT'S ELECTRICAL SHOP AT (715) 839-3787.
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. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
5. PROPOSED DRAINAGE STRUCTURES, STREET LIGHTING, DETECTABLE WARNING FIELDS, AND EXISTING SHOWN IN GRAYSHADE FOR PLAN CLARITY.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC CONDUIT FOR MUNICIPAL LIGHTING
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE, LED, TYPE C (UNLESS OTHERWISE NOTED)
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- PULL BOX FOR MUNICIPAL LIGHTING
- PULL BOX, 24" X 36"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 16" WALK INDICATOR 16"
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
STH 93 & WILSON AVENUE
CITY OF ARCADIA
TREMPEALEAU COUNTY

CABINET TYPE: TS2
SIGNAL NO. S61-1377 CONTROLLER TYPE: ASC/3-1000

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE_____ REGION TRAFFIC SIGNAL ENGINEER
APPROVED
DATE_____ STATE TRAFFIC SIGNAL ENGINEER

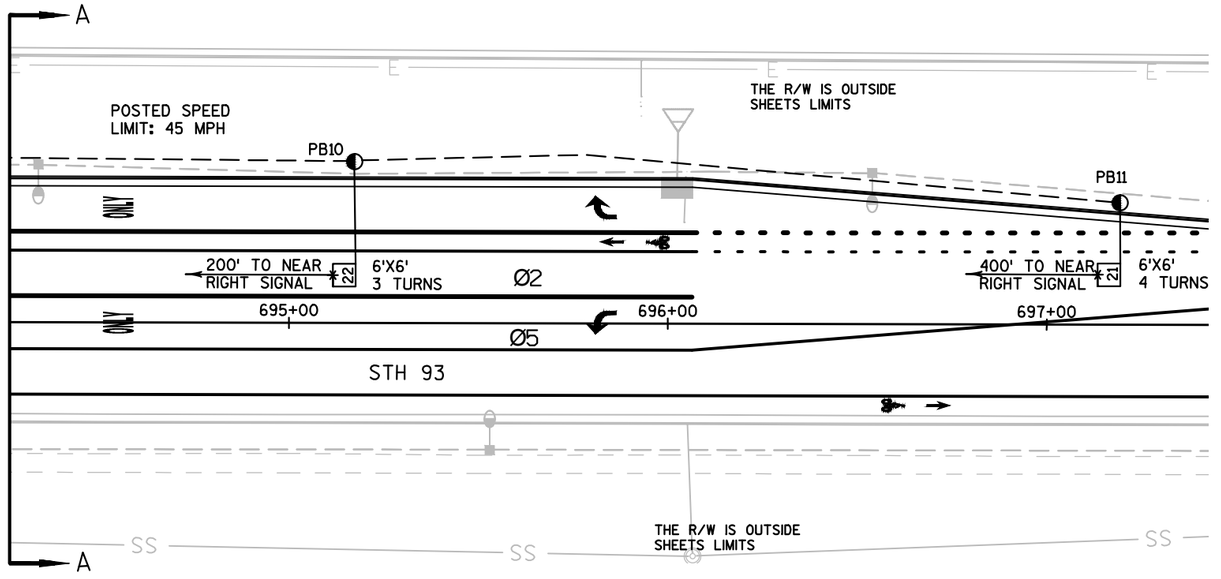
REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

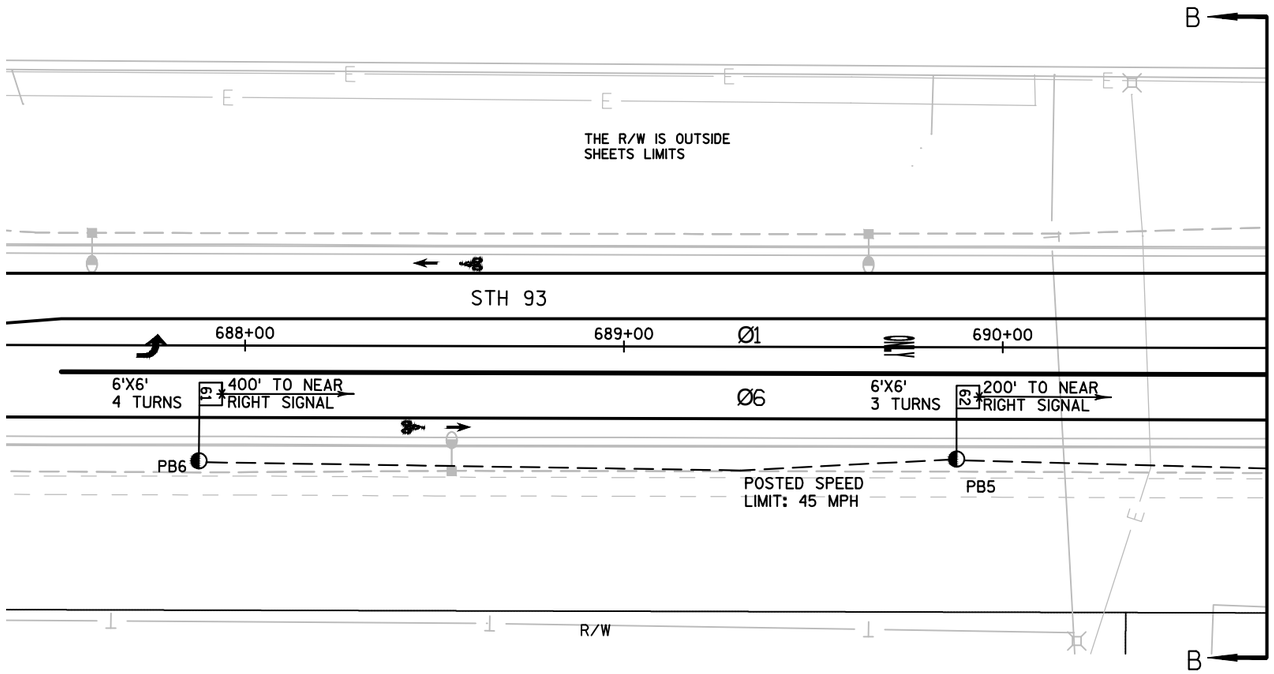
PAGE 1 OF 3

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TRAFFIC SIGNAL PLAN	SCALE 0' 10 20 40'	SHEET 36	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\SIGNALS\P_SIG.DWG PLOT DATE : 2/23/2016 10:23 AM PLOT BY : GREUEL, KELLY PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42





TRAFFIC CONTROL SIGNAL
STH 93 & WILSON AVENUE
CITY OF ARCADIA
TREMPEALEAU COUNTY

SIGNAL NO. S61-1377

REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

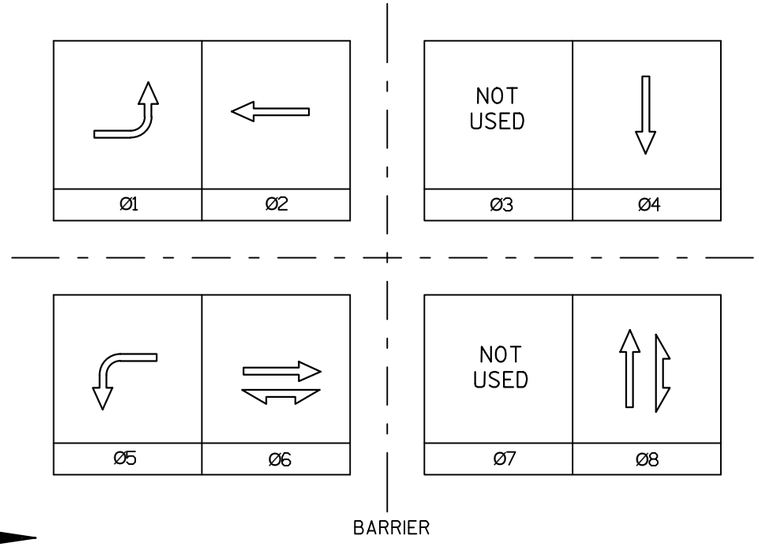
PAGE 2 OF 3

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TRAFFIC SIGNAL PLAN	SCALE 0' 10 20 40'	SHEET 37	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\SIGNALS\P_SIG.DWG PLOT DATE : 2/23/2016 10:23 AM PLOT BY : GREUEL, KELLY PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	2,3	-
Ø2	4,5,6	R
Ø3		
Ø4	10,11,12	R
Ø5	5,6	-
Ø6	1,2,3	R
Ø7		
Ø8	7,8,9	R
Ø6 PED	61,62	
Ø8 PED	81,82	



CONTROLLER LOGIC

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

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

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

* WISDOT OWNS AND OPERATES THE LIGHTING UNITS ON THE SIGNAL MAST ARMS.

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

TYPE OF REMOTE COMMUNICATION	
NONE	
FIBER	
CELL MODEM	X
PHONE	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR *(S)	11	21	41	51	61	81		
PHASE CALLED	1	2	4	5	6	8		
PHASE EXTENDED	1	2	4	5	6	8		
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								DETECTOR *(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR *(S)	12	22	42	52	62	82		
PHASE CALLED	1	2	4	5	6	8		
PHASE EXTENDED	1	2	4	5	6	8		
DISCONNECT TIME								
CALLING DELAY			X					
EXTENSION STRETCH								
LOOP FUNCTION								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								DETECTOR *(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

STH 93 & WILSON AVENUE
CITY OF ARCADIA
TREMPEALEAU COUNTY

SIGNAL NO. S61-1377

CONTROLLER TYPE: ASC/3-1000

DATE

PROJECT NO: 7130-01-72 | HWY: STH 93 | COUNTY: TREMPEALEAU | SEQUENCE OF OPERATIONS | SHEET 38 | E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\SIGNALS\P_SIG.DWG PLOT DATE : 2/23/2016 10:23 AM PLOT BY : GREUEL, KELLY PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

PROJECT ID:	7130-01-72
INTERSECTION:	STH 93 & WILSON AVE

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: Feb-16

CB1 TO	AWG 14 # OF COND.	HEAD NO.	SIGNAL INDICATION WIRE COLOR								PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	D/WALK	WALK		
SB1	12	7	RED	ORG	GRN							
		11	RED/BLK	ORG/BLK	GRN/BLK							
		61							BLK	BLU		
		PB									WHT/BLK	
SB2	5	12	RED	ORG	GRN							
SB3	5	62							RED	GRN		
		PB									BLK	
SB4	9	1	RED	ORG	GRN							
		5	RED/BLK	WHT/BLK	GRN/BLK		BLK	BLU				
SB5	7	6	RED	ORG	GRN		BLK	BLU				
SB6	7	8	RED	ORG	GRN							
		10	BLK	WHT/BLK	BLU							
SB7	12	4	RED	ORG	GRN							
		2	RED/BLK	ORG/BLK	GRN/BLK		BLK	BLU				
		81							BLK/WHT	BLU/BLK		
		PB									WHT/BLK	
SB8	5	9	RED	ORG	GRN							
SB9	5	82							RED	GRN		
		PB									BLK	
SB10	7	3	RED	ORG	GRN		BLK	BLU				

EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	CB1
PB2	SB1
PB3	SB2
PB4	SB4
PB7	SB5
PB8	SB6
PB9	SB7
PB12	SB10

LIGHTING UF 12 AWG W/ GROUND	
FROM	TO
CB1	SB2
SB2	SB5
CB1	SB10
SB10	SB8

NOTES:

1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.

2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.

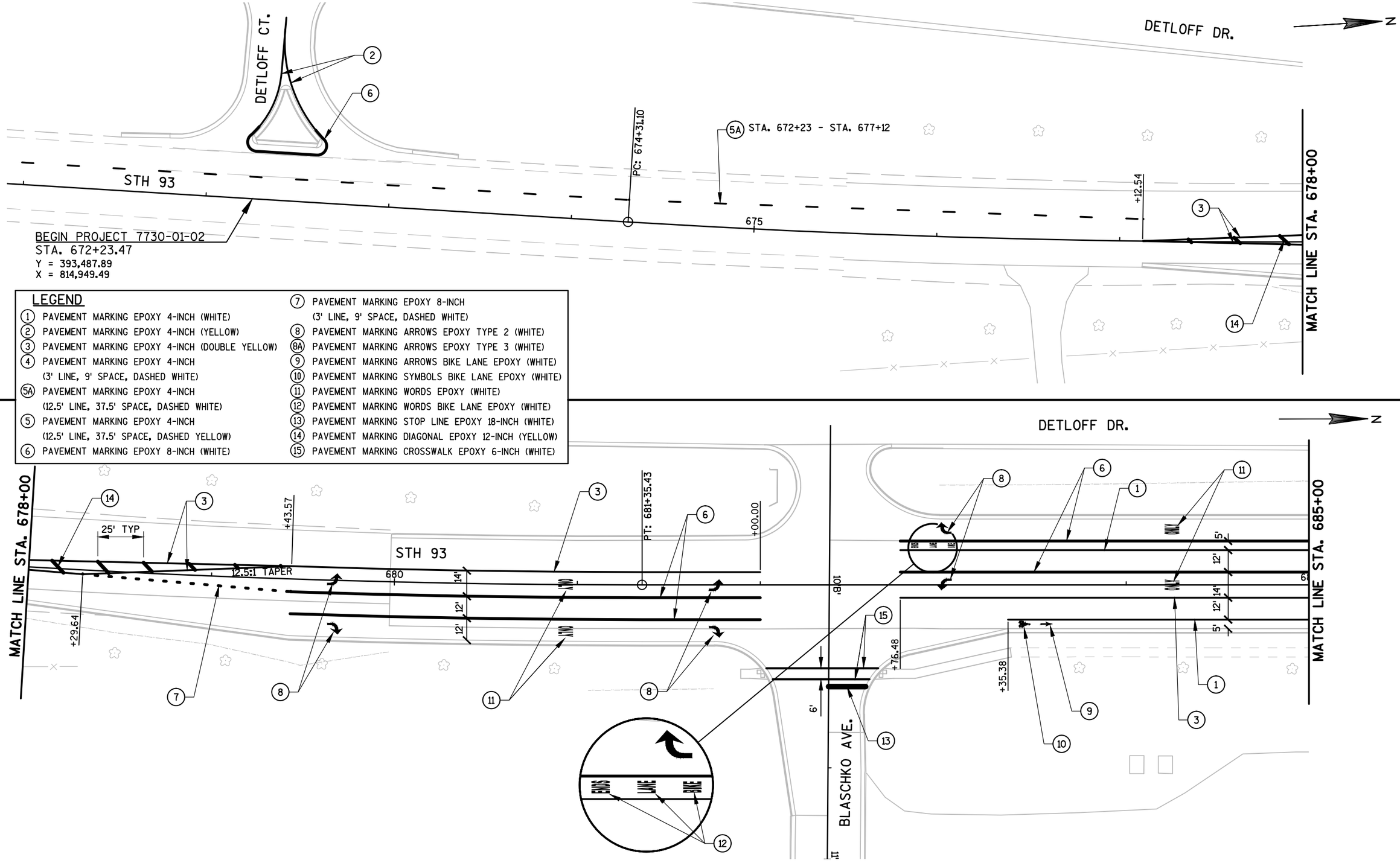
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

STH 93 & WILSON AVENUE
CITY OF ARCADIA
TREMPEALEAU COUNTY

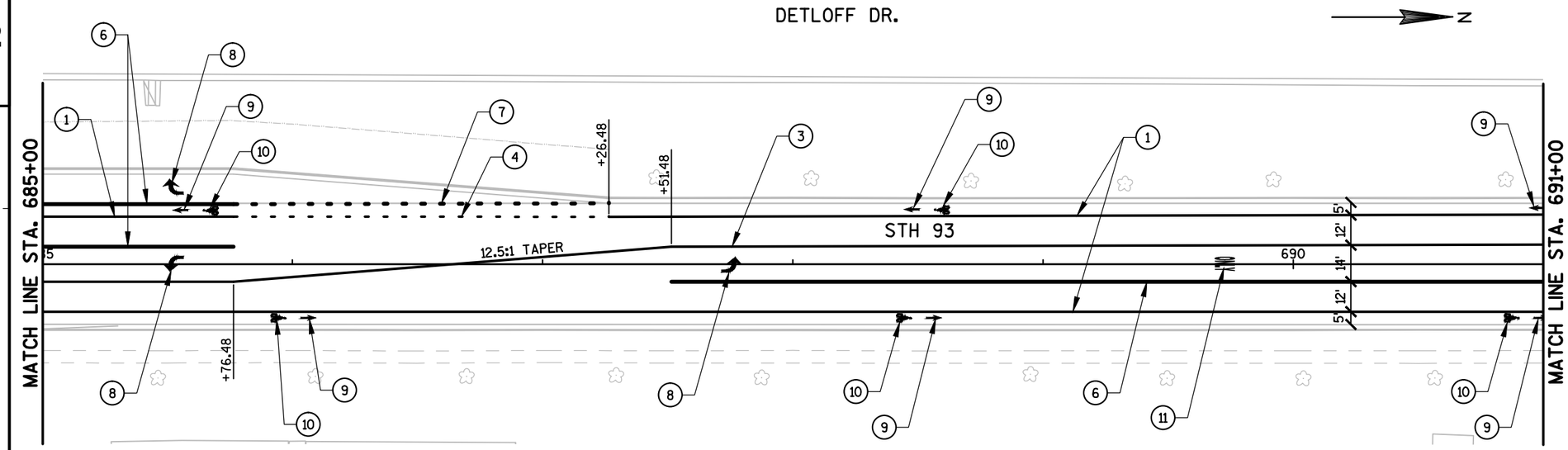
SIGNAL NO: S61-1377 CABINET TYPE: TS2

CONTROLLER TYPE: ASC/3-1000

DATE: FEBRUARY 2016 PAGE NO. 1 OF 1

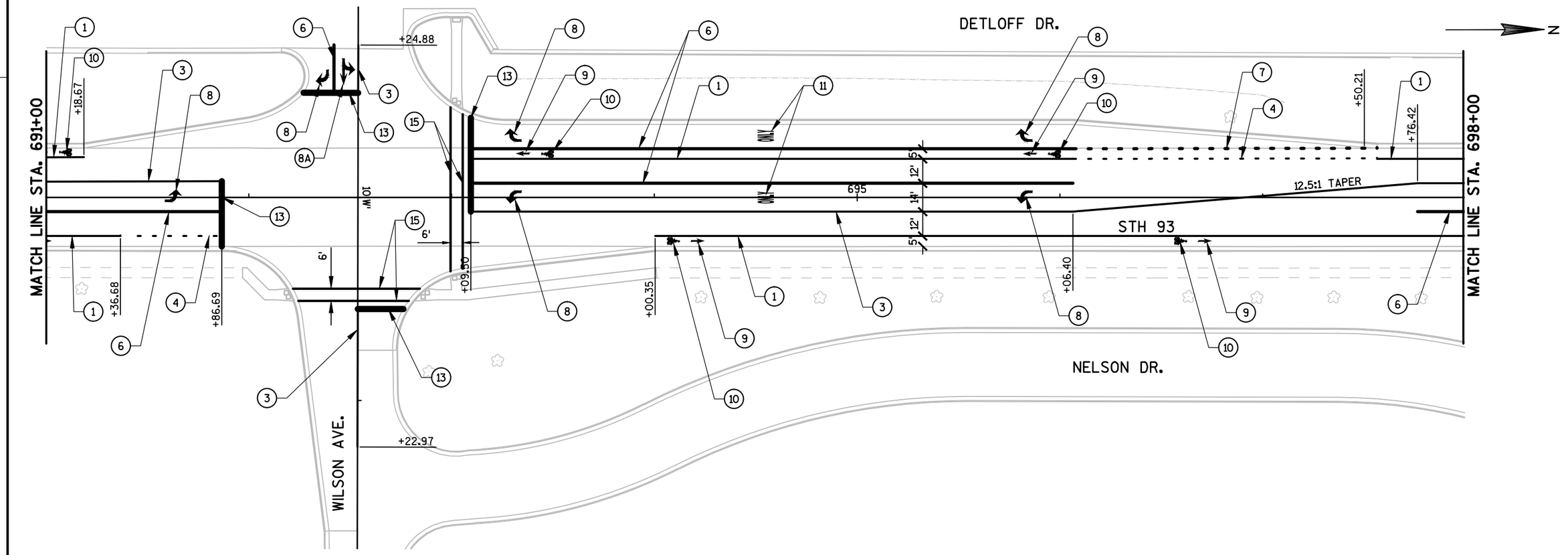


PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	PAVEMENT MARKING	SHEET 40	E



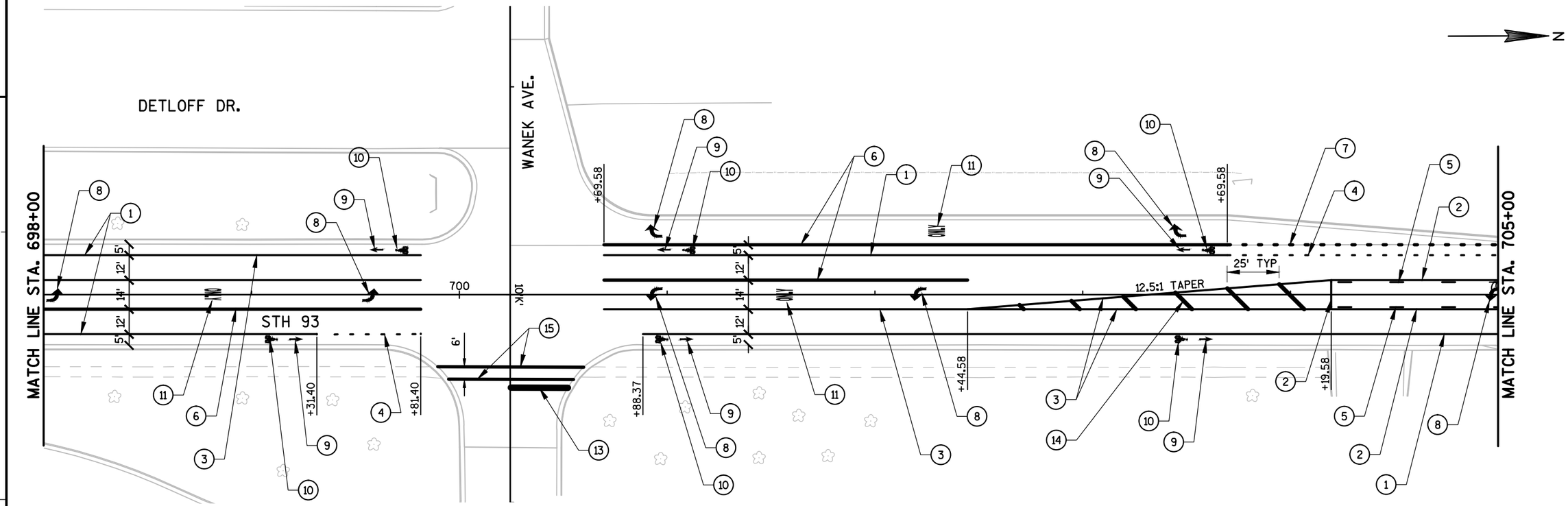
LEGEND

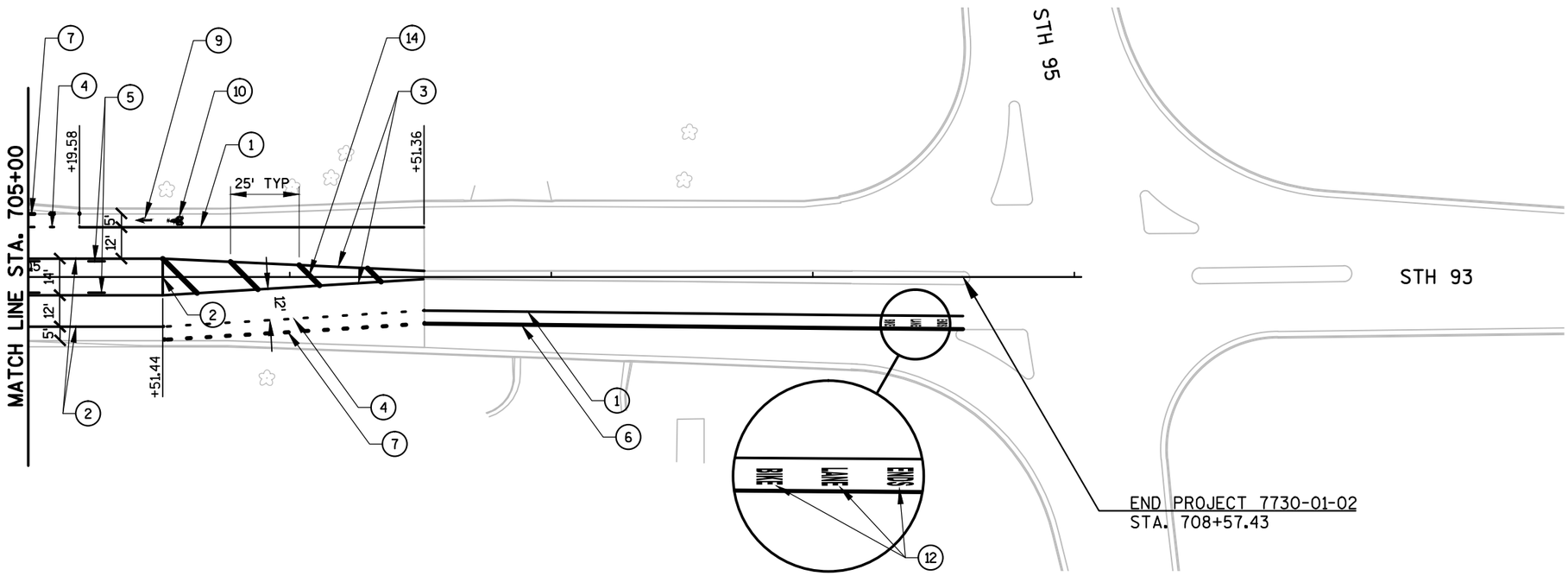
1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. PAVEMENT MARKING EPOXY 4-INCH (3' LINE, 9' SPACE, DASHED WHITE)
5A. PAVEMENT MARKING EPOXY 4-INCH (12.5' LINE, 37.5' SPACE, DASHED WHITE)
5. PAVEMENT MARKING EPOXY 4-INCH (12.5' LINE, 37.5' SPACE, DASHED YELLOW)
6. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
7. PAVEMENT MARKING EPOXY 8-INCH (3' LINE, 9' SPACE, DASHED WHITE)
8. PAVEMENT MARKING ARROWS EPOXY TYPE 2 (WHITE)
8A. PAVEMENT MARKING ARROWS EPOXY TYPE 3 (WHITE)
9. PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
10. PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
11. PAVEMENT MARKING WORDS EPOXY (WHITE)
12. PAVEMENT MARKING WORDS BIKE LANE EPOXY (WHITE)
13. PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
14. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
15. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)



PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	PAVEMENT MARKING	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\024501_PM.DWG PLOT DATE : 2/1/2016 4:06 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1 IN:50 FT





LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. PAVEMENT MARKING EPOXY 4-INCH (3' LINE, 9' SPACE, DASHED WHITE)
5A. PAVEMENT MARKING EPOXY 4-INCH (12.5' LINE, 37.5' SPACE, DASHED WHITE)
5. PAVEMENT MARKING EPOXY 4-INCH (12.5' LINE, 37.5' SPACE, DASHED YELLOW)
6. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
7. PAVEMENT MARKING EPOXY 8-INCH (3' LINE, 9' SPACE, DASHED WHITE)
8. PAVEMENT MARKING ARROWS EPOXY TYPE 2 (WHITE)
8A. PAVEMENT MARKING ARROWS EPOXY TYPE 3 (WHITE)
9. PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
10. PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
11. PAVEMENT MARKING WORDS EPOXY (WHITE)
12. PAVEMENT MARKING WORDS BIKE LANE EPOXY (WHITE)
13. PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
14. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
15. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	PAVEMENT MARKING	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\024501_PM.DWG PLOT DATE : 2/1/2016 4:07 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

STAGE 1

TRAFFIC

STH 93 REDUCED TO 1-LANE TRAFFIC IN EACH DIRECTION, CLOSING UP TO A 17-FOOT SECTION OF ROADWAY AT A TIME. A LEFT TURN LANE IS PROVIDED AT ALL INTERSECTIONS. A TEMPORARY TRAFFIC SIGNAL WILL BE IN OPERATION AT WILSON AVENUE.

BLASCHKO AVENUE, WILSON AVENUE, AND WANEK AVENUE INTERSECTIONS WILL REMAIN FULLY OPEN TO TRAFFIC. FLAGGERS WILL BE USED DURING CONSTRUCTION ACTIVITIES. THE DRIVEWAY AT THE NORTH END OF THE PROJECT WITH ACCESS EAST OF STH 93 WILL BE REDUCED TO RIGHT-IN/RIGHT-OUT ACCESS.

CONSTRUCTION

PERFORM 6-INCH SURFACE MILLING AND PLACE 4-INCH LOWER LAYER HMA PAVEMENT 3 MT 58-34 H CONCURRENTLY IN 17' THRU LANES (WITH A BICYCLE LANE AND 14' TWLTL SECTIONS OF ROADWAY.

INSTALL TEMPORARY PAVEMENT MARKINGS FOR STAGE 2A.

STAGE 2A

TRAFFIC

STH 93 REDUCED TO 1-LANE TRAFFIC IN EACH DIRECTION USING NORTHBOUND LANES. A LEFT TURN LANE IS PROVIDED AT ALL INTERSECTIONS. A TEMPORARY TRAFFIC SIGNAL WILL BE IN OPERATION AT WILSON AVENUE.

TWO ADJACENT SIDE ROADS WILL NOT BE CLOSED FOR CONSTRUCTION AT THE SAME TIME. DETLOFF COURT WILL BE REDUCED TO RIGHT-IN/RIGHT-OUT ACCESS WITH WB-65 TRUCK ACCESS RESTRICTED. THE DRIVEWAY AT THE NORTH END OF THE PROJECT WITH ACCESS EAST OF STH 93 WILL BE REDUCED TO RIGHT-IN/RIGHT-OUT ACCESS.

CONSTRUCTION

CONSTRUCT SOUTHBOUND RIGHT TURN LANES AND SIDEROAD IMPROVEMENTS, ONLY PLACING THE 4-INCH LOWER LAYER HMA PAVEMENT 3 MT 58-34 H AT BLASCHKO AVENUE, WILSON AVENUE, AND WANEK AVENUE.

CONSTRUCT MEDIAN ISLAND AT DETLOFF COURT.

INSTALL CULVERT PIPE EXTENSIONS AT BLASCHKO AVENUE, WILSON AVENUE, AND WANEK AVENUE, ON THE WEST SIDE OF STH 93. GRADE AND LANDSCAPE DITCHES ON THE WEST SIDE OF STH 93.

INSTALL TEMPORARY PAVEMENT MARKINGS FOR STAGE 2B.

STAGE 2B

TRAFFIC

STH 93 REDUCED TO 1-LANE TRAFFIC IN EACH DIRECTION USING SOUTHBOUND LANES. A LEFT TURN LANE IS PROVIDED AT ALL INTERSECTIONS. A RIGHT TURN LANE IS PROVIDED AT ALL INTERSECTIONS FOR SOUTHBOUND TRAFFIC ONLY. A TEMPORARY TRAFFIC SIGNAL WILL BE IN OPERATION AT WILSON AVENUE.

TWO ADJACENT SIDE ROADS WILL NOT BE CLOSED FOR CONSTRUCTION AT THE SAME TIME. DETLOFF COURT IS PERMANENTLY REDUCED TO RIGHT-IN/RIGHT-OUT ACCESS. THE DRIVEWAY AT THE NORTH END OF THE PROJECT WITH ACCESS EAST OF STH 93 WILL BE REDUCED TO RIGHT-IN/RIGHT-OUT ACCESS.

CONSTRUCTION

CONSTRUCT NORTHBOUND RIGHT TURN LANE AND SIDEROAD IMPROVEMENTS AT BLASCHKO AVENUE AND NORTHBOUND INTERSECTION FLARES AT BLASCHKO AVENUE AND WILSON AVENUE, ONLY PLACING THE 4-INCH LOWER LAYER HMA PAVEMENT 3 MT 58-34 H.

INSTALL CULVERT PIPE EXTENSIONS AT BLASCHKO AVENUE, WILSON AVENUE, AND WANEK AVENUE, ON THE EAST SIDE OF STH 93.

STAGE 3

TRAFFIC

STH 93 REDUCED TO 1-LANE TRAFFIC IN EACH DIRECTION, CLOSING UP TO A 17-FOOT SECTION OF ROADWAY AT A TIME. A LEFT TURN LANE IS PROVIDED AT ALL INTERSECTIONS. A RIGHT TURN LANE IS PROVIDED AT ALL INTERSECTIONS FOR SOUTHBOUND TRAFFIC ONLY. A TEMPORARY TRAFFIC SIGNAL WILL BE IN OPERATION AT WILSON AVENUE.

BLASCHKO AVENUE, WILSON AVENUE, AND WANEK AVENUE INTERSECTIONS WILL REMAIN FULLY OPEN TO TRAFFIC. FLAGGERS WILL BE USED DURING CONSTRUCTION ACTIVITIES. THE DRIVEWAY AT THE NORTH END OF THE PROJECT WITH ACCESS EAST OF STH 93 WILL BE REDUCED TO RIGHT-IN/RIGHT-OUT ACCESS.

CONSTRUCTION

PLACE 2-INCH UPPER LAYER HMA PAVEMENT 4 MT 58-34 H IN 17' THRU LANES (WITH A BICYCLE LANE) AND 14' TWLTL SECTIONS OF ROADWAY FOR THE ENTIRE PROJECT AREA.

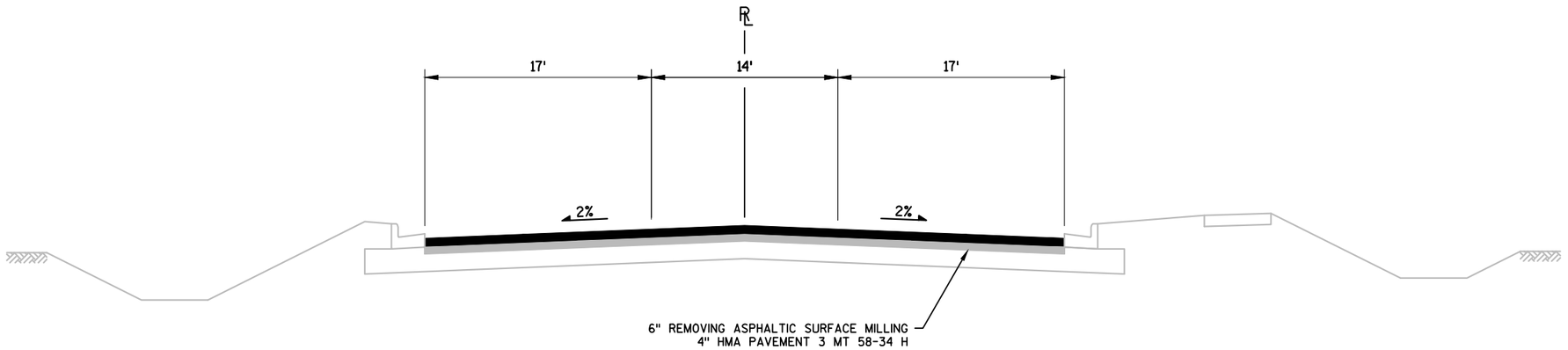
INSTALL PERMANENT PAVEMENT MARKINGS.

LEGEND

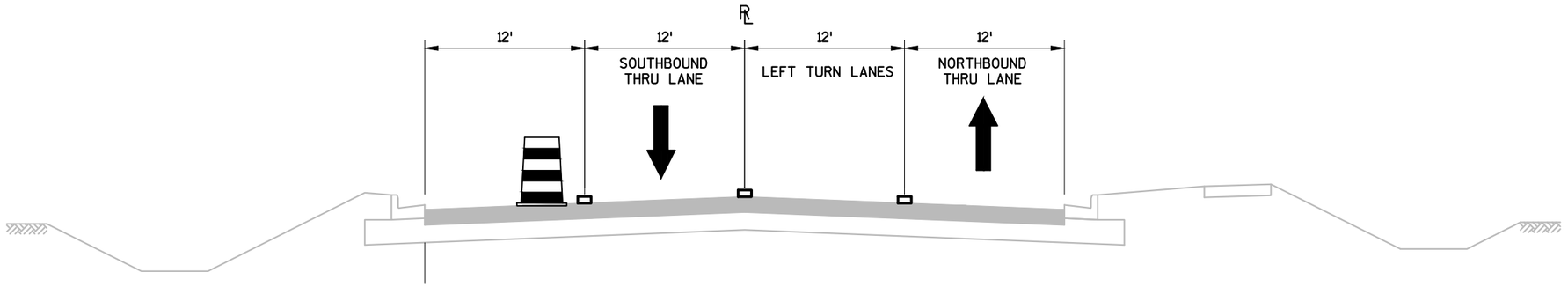
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

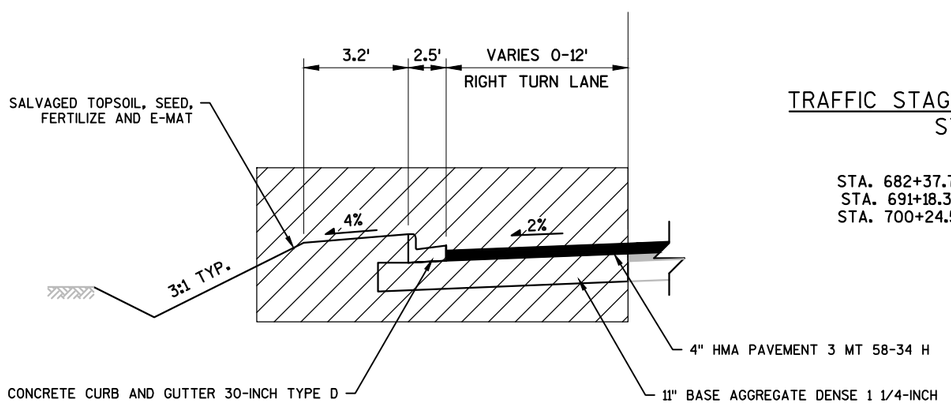
2

PROJECT NO: 7130-01-02	HWY: STH 93	COUNTY: TREMPEALEAU	TRAFFIC CONTROL - STAGING NOTES	SHEET 43	E



TRAFFIC STAGING TYPICAL SECTION
STAGE 1





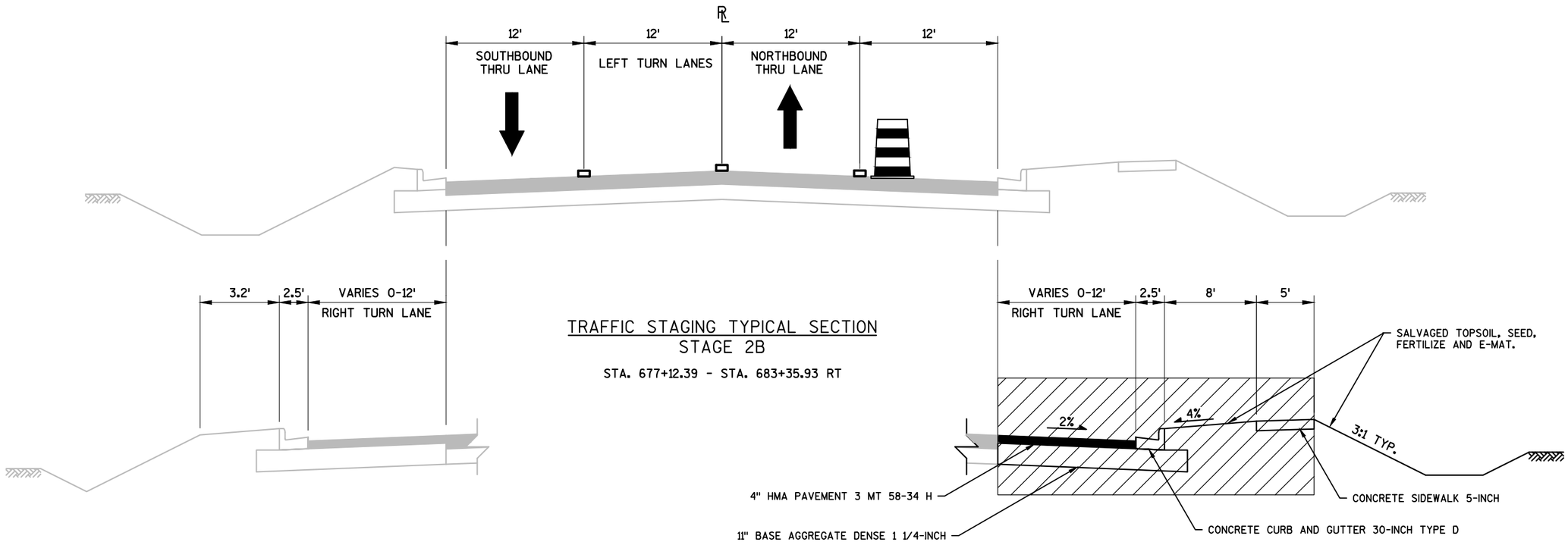
TRAFFIC STAGING TYPICAL SECTION
STAGE 2A

STA. 682+37.75 - STA. 687+26.67 LT
STA. 691+18.33 - STA. 697+56.59 LT
STA. 700+24.50 - STA. 705+19.78 LT

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 44	E

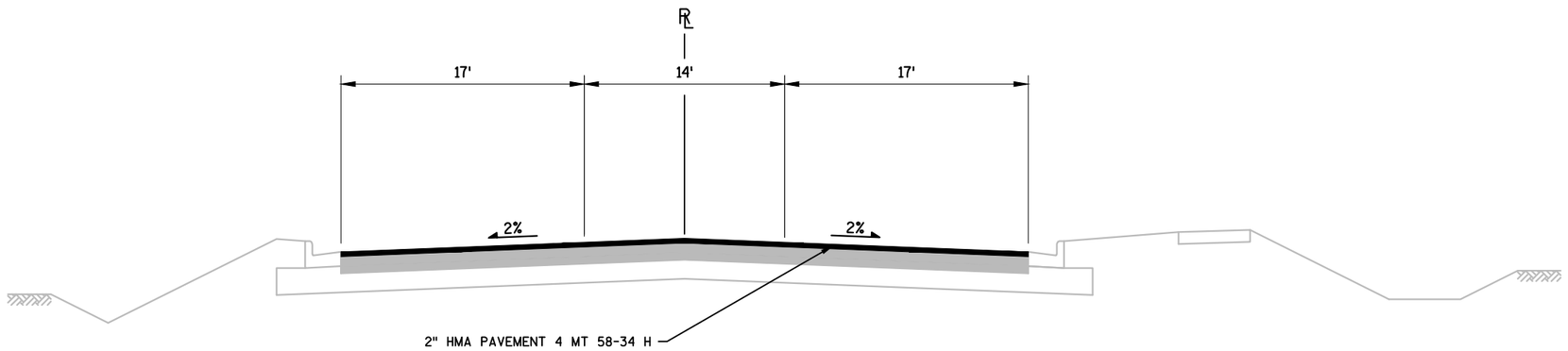
FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\025002_TC.DWG PLOT DATE : 3/2/2016 4:30 PM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42



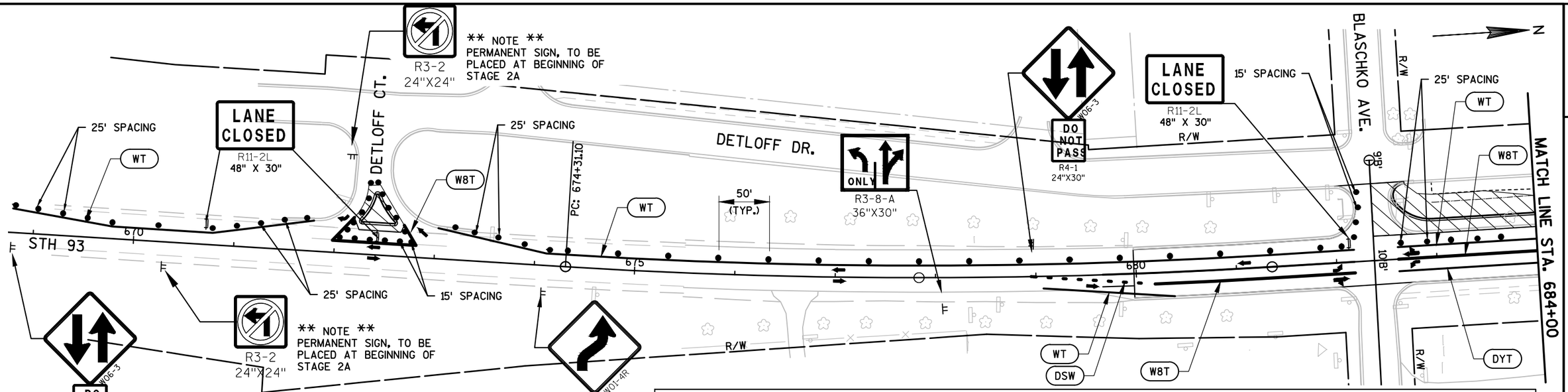
TRAFFIC STAGING TYPICAL SECTION
STAGE 2B

STA. 677+12.39 - STA. 683+35.93 RT



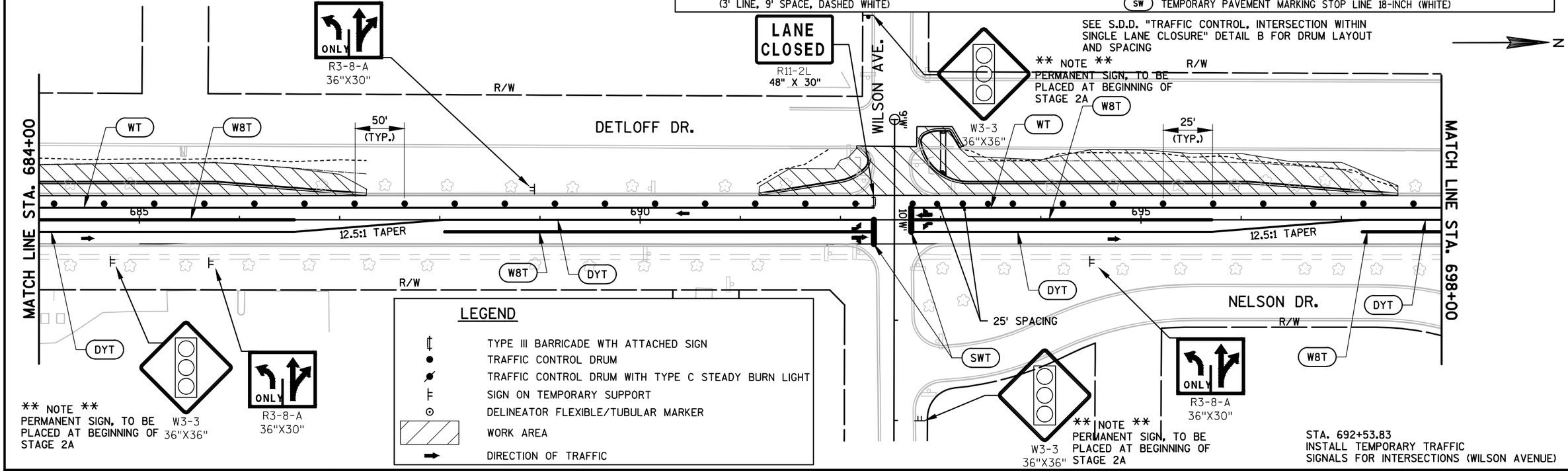
TRAFFIC STAGING TYPICAL SECTION
STAGE 3

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 45	E



TEMPORARY PAVEMENT MARKING LEGEND

- (WT) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (YT) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (DYT) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
- (DWT) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE) (3' LINE, 9' SPACE, DASHED WHITE)
- (DSW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (3' LINE, 9' SPACE, DASHED WHITE)
- (W8T) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (SWT) TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (DY) TEMPORARY PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)
- (W8) TEMPORARY PAVEMENT MARKING 8-INCH (WHITE)
- (SW) TEMPORARY PAVEMENT MARKING STOP LINE 18-INCH (WHITE)



PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TRAFFIC CONTROL - STAGE 2A	SHEET	E

FILE NAME : \\USGRB1FP001\ATG\60317362\900-WORKINGDOCS-CAD\025004_TC.DWG
PLOT DATE : 2/1/2016 4:05 PM
PLOT BY : WEBER, JESSE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

N

** NOTE **
PERMANENT SIGN, TO BE PLACED AT BEGINNING OF STAGE 2A

R3-8-A
36"X30"

W3-3
36"X36"

LANE CLOSED
R11-2L
48" X 30"

SEE S.D.D. "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE" DETAIL B FOR DRUM LAYOUT AND SPACING

LANE CLOSED
R11-2L
48" X 30"

W01-6
48"X24"

R3-8-A
36"X30"

WANEK AVE.

STH 95

STH 93

MATCH LINE STA. 698+00

NELSON DR.

R/W

8K

10K

12K

700

705

709

WT

W8T

DYT

50' SPACING

10' SPACING

15' SPACING

12.5:1 TAPER

50'
(TYP.)

R3-2
24"X24"

STA. 703+97.72 - STA. 706+47.72
FLEXIBLE TUBULAR MARKER
POSTS AND BASES AT 5' SPACING

SEE SHEET "TRAFFIC CONTROL - ADVANCED WARNING SIGNS DETAILS (ALL STAGES)" FOR ADVANCED WARNING SIGN DETAILS NOT SHOWN.

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC

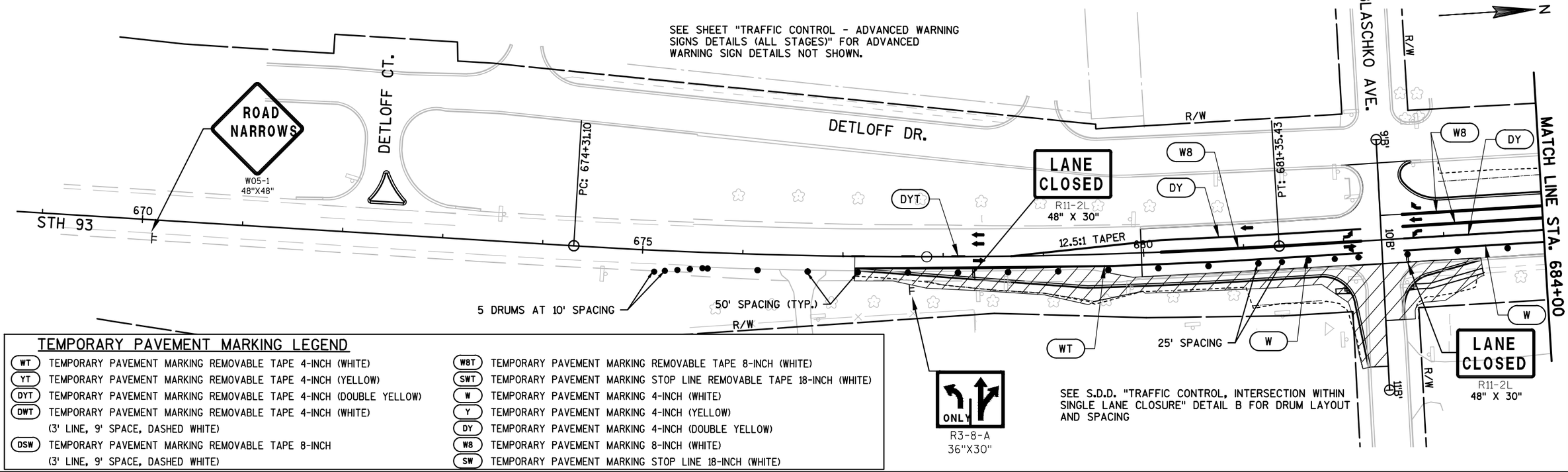
TEMPORARY PAVEMENT MARKING LEGEND

WT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
YT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
DYT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
DWT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE) (3' LINE, 9' SPACE, DASHED WHITE)
DSW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (3' LINE, 9' SPACE, DASHED WHITE)
W8T	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
SWT	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
DY	TEMPORARY PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)
W8	TEMPORARY PAVEMENT MARKING 8-INCH (WHITE)
SW	TEMPORARY PAVEMENT MARKING STOP LINE 18-INCH (WHITE)

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TRAFFIC CONTROL - STAGE 2A	SHEET 47 E

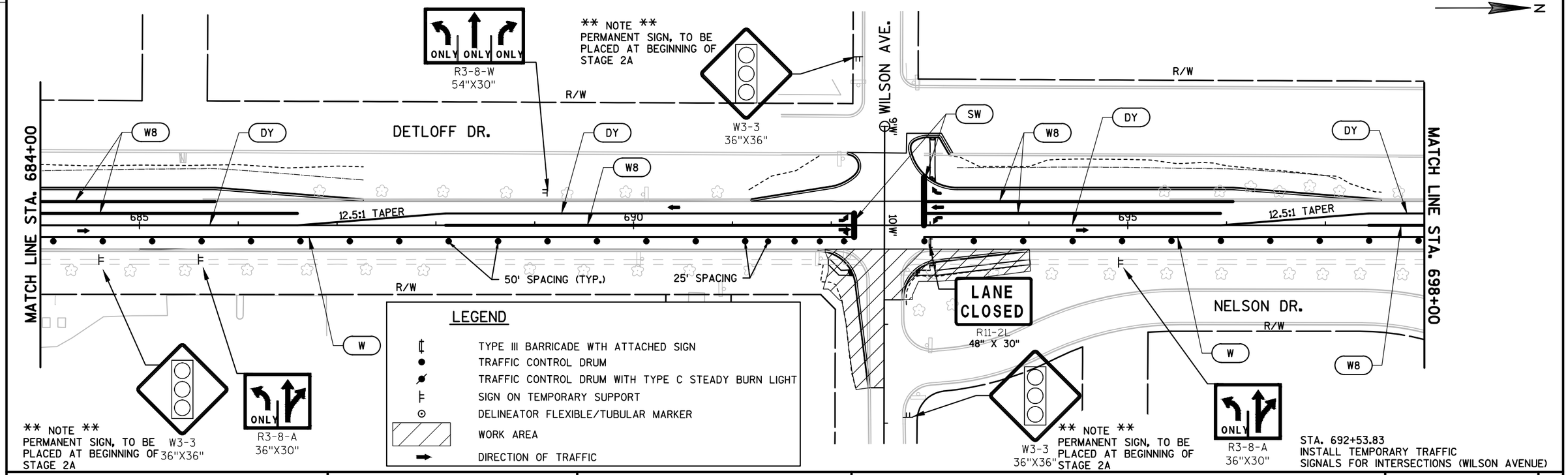
FILE NAME : \\USGRB1FP001\ATG\60317362\900-WORKINGDOCS-CAD\025004_TC.DWG PLOT DATE : 2/1/2016 4:05 PM PLOT BY : WEBER, JESSE PLOT NAME : PLOT SCALE : 1 IN:100 FT

SEE SHEET "TRAFFIC CONTROL - ADVANCED WARNING SIGNS DETAILS (ALL STAGES)" FOR ADVANCED WARNING SIGN DETAILS NOT SHOWN.



TEMPORARY PAVEMENT MARKING LEGEND

WT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
YT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
DYT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
DWT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE) (3' LINE, 9' SPACE, DASHED WHITE)
DSW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (3' LINE, 9' SPACE, DASHED WHITE)
W8T	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
SWT	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
DY	TEMPORARY PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)
W8	TEMPORARY PAVEMENT MARKING 8-INCH (WHITE)
SW	TEMPORARY PAVEMENT MARKING STOP LINE 18-INCH (WHITE)



PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TRAFFIC CONTROL - STAGE 2B	SHEET E

FILE NAME : \\USGRB1FP001\ATG\60317362\900-WORKINGDOCS-CAD\025006_TC.DWG PLOT DATE : 2/1/2016 4:05 PM PLOT BY : WEBER, JESSE PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

N

WANEK AVE.

STH 95

STH 93

R/W

ONLY ONLY ONLY
R3-8-W
54"X30"

** NOTE **
PERMANENT SIGN, TO BE PLACED AT BEGINNING OF STAGE 2A

W3-3
36"X36"

ONLY ONLY ONLY
R3-8W
54"X30"

W8

10' SPACING

Y

YT

25' SPACING

12.5:1 TAPER

EP: 709+02.65

700

705

709

8K'

10K'

12K'

MATCH LINE STA. 698+00

W

W8

DY

50'
(TYP.)

15' SPACING

NELSON DR.

LANE CLOSED
R11-2L
48" X 30"

R3-2
24"X24"

LANE CLOSED
R11-2L
48" X 30"

W01-6
48"X24"

STA. 704+17.72 - STA. 706+47.72
FLEXIBLE TUBULAR MARKER
POSTS AND BASES AT 5' SPACING

SEE SHEET "TRAFFIC CONTROL - ADVANCED WARNING SIGNS DETAILS (ALL STAGES)" FOR ADVANCED WARNING SIGN DETAILS NOT SHOWN.

TEMPORARY PAVEMENT MARKING LEGEND

WT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
YT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
DYT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
DWT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE) (3' LINE, 9' SPACE, DASHED WHITE)
DSW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (3' LINE, 9' SPACE, DASHED WHITE)
W8T	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
SWT	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
DY	TEMPORARY PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)
W8	TEMPORARY PAVEMENT MARKING 8-INCH (WHITE)
SW	TEMPORARY PAVEMENT MARKING STOP LINE 18-INCH (WHITE)

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TRAFFIC CONTROL - STAGE 2B	SHEET E

FILE NAME : \\USGRB1FP001\ATG\60317362\900-WORKINGDOCS-CAD\025006_TC.DWG PLOT DATE : 2/1/2016 4:05 PM PLOT BY : WEBER, JESSE PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

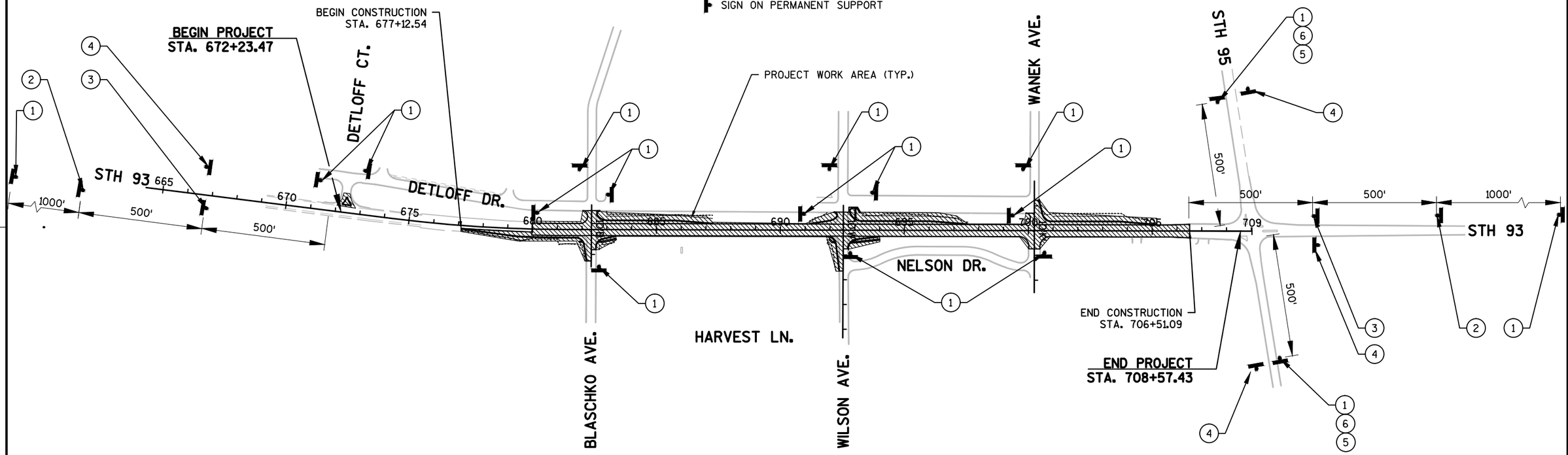
GENERAL NOTES:

1. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.
2. 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.
3. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
4. ADVANCED WARNING SIGNS FOR SIDEROAD APPROACH SHALL BE PLACED AT THE LAST INTERSECTION OR A MAXIMUM OF 500' FROM THE MAINLINE ROADWAY, WHICHEVER IS CLOSER.

N

LEGEND

SIGN ON PERMANENT SUPPORT



1 ROAD WORK AHEAD W20-1A

2 ROAD WORK 1000 FT W20-1C

3 ROAD WORK 500 FT W20-1D

4 END ROAD WORK G20-2A 48" X 24"

5 93 M1-6 24"X24"

6 SOUTH M3-3 24"X12"

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	TRAFFIC CONTROL - ADVANCED WARNING SIGN DETAILS (ALL STAGES)	SHEET 50	E

DATE 22MAR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7130-01-72 QUANTITY
0010	201.0105	Clearing	STA	14.000	14.000
0020	201.0205	Grubbing	STA	14.000	14.000
0030	204.0100	Removing Pavement	SY	170.000	170.000
0040	204.0110	Removing Asphaltic Surface	SY	110.000	110.000
0050	204.0115	Removing Asphaltic Surface Butt Joints	SY	752.000	752.000
0060	204.0120	Removing Asphaltic Surface Milling	SY	14,814.000	14,814.000
0070	204.0150	Removing Curb & Gutter	LF	2,615.000	2,615.000
0080	204.0155	Removing Concrete Sidewalk	SY	130.000	130.000
0090	204.0185	Removing Masonry	CY	10.000	10.000
0100	204.0220	Removing Inlets	EACH	8.000	8.000
0110	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	210.000	210.000
0120	204.0245	Removing Storm Sewer (size) 02. 18-Inch	LF	68.000	68.000
0130	204.0245	Removing Storm Sewer (size) 03. 48-Inch	LF	12.000	12.000
0140	204.0245	Removing Storm Sewer (size) 04. 29X45-Inch	LF	49.000	49.000
0150	204.0280	Sealing Pipes	EACH	2.000	2.000
0160	204.9060.S	Removing (item description) 01. Concrete Apron Endwalls	EACH	8.000	8.000
0170	205.0100	Excavation Common	CY	4,550.000	4,550.000
0190	208.0100	Borrow	CY	200.000	200.000
0200	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 7130-01-72	LS	1.000	1.000
0210	213.0100	Finishing Roadway (project) 01. 7130-01-72	EACH	1.000	1.000
0240	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,507.000	3,507.000
0260	390.0203	Base Patching Asphaltic	SY	140.000	140.000
0270	455.0605	Tack Coat	GAL	2,310.000	2,310.000
0280	460.2000	Incentive Density HMA Pavement	DOL	4,100.000	4,100.000
0290	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	12,196.000	12,196.000
0300	460.6444	HMA Pavement 4 MT 58-34 H	TON	2,123.000	2,123.000
0320	465.0110	Asphaltic Surface Patching	TON	41.000	41.000
0340	504.0900	Concrete Masonry Endwalls	CY	32.000	32.000
0350	520.8000	Concrete Collars for Pipe	EACH	11.000	11.000
0360	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	3.000	3.000
0380	522.1048	Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	EACH	1.000	1.000
0390	523.0138	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 38x60-Inch	LF	180.000	180.000
0400	523.0529	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	EACH	2.000	2.000
0410	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	2,828.000	2,828.000
0420	602.0410	Concrete Sidewalk 5-Inch	SF	1,833.000	1,833.000
0430	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	70.000	70.000
0440	606.0300	Riprap Heavy	CY	140.000	140.000
0450	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	185.000	185.000
0460	608.0348	Storm Sewer Pipe Reinforced Concrete Class III 48-Inch	LF	22.000	22.000
0470	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	49.000	49.000

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DATE 22MAR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7130-01-72 QUANTITY
0480	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	12.000	12.000
0490	608.0448	Storm Sewer Pipe Reinforced Concrete Class IV 48-Inch	LF	12.000	12.000
0500	610.0429	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	LF	139.000	139.000
0510	611.0530	Manhole Covers Type J	EACH	2.000	2.000
0520	611.0639	Inlet Covers Type H-S	EACH	9.000	9.000
0540	611.2007	Manholes 7-FT Diameter	EACH	2.000	2.000
0550	611.3230	Inlets 2x3-FT	EACH	8.000	8.000
0570	611.8110	Adjusting Manhole Covers	EACH	2.000	2.000
0580	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
0590	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7130-01-72	EACH	1.000	1.000
0610	619.1000	Mobilization	EACH	0.500	0.500
0620	624.0100	Water	MGAL	35.000	35.000
0640	625.0500	Salvaged Topsoil	SY	5,885.000	5,885.000
0650	628.1504	Silt Fence	LF	370.000	370.000
0660	628.1520	Silt Fence Maintenance	LF	370.000	370.000
0670	628.1905	Mobilizations Erosion Control	EACH	12.000	12.000
0680	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0690	628.2008	Erosion Mat Urban Class I Type B	SY	5,885.000	5,885.000
0710	628.7010	Inlet Protection Type B	EACH	16.000	16.000
0720	628.7015	Inlet Protection Type C	EACH	27.000	27.000
0740	628.7555	Culvert Pipe Checks	EACH	38.000	38.000
0750	628.7570	Rock Bags	EACH	15.000	15.000
0760	629.0210	Fertilizer Type B	CWT	3.700	3.700
0780	630.0130	Seeding Mixture No. 30	LB	95.000	95.000
0790	630.0140	Seeding Mixture No. 40	LB	10.000	10.000
0800	633.5200	Markers Culvert End	EACH	6.000	6.000
0810	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	26.000	26.000
0820	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	24.000	24.000
0830	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	2.000	2.000
0840	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	5.000	5.000
0850	637.2210	Signs Type II Reflective H	SF	366.680	366.680
0860	637.2215	Signs Type II Reflective H Folding	SF	29.840	29.840
0870	637.2230	Signs Type II Reflective F	SF	51.000	51.000
0880	638.2102	Moving Signs Type II	EACH	10.000	10.000
0890	638.2602	Removing Signs Type II	EACH	28.000	28.000
0900	638.3000	Removing Small Sign Supports	EACH	29.000	29.000
0910	642.5201	Field Office Type C	EACH	1.000	1.000
0920	643.0100	Traffic Control (project) 01. 7130-01-72	EACH	1.000	1.000
0940	643.0300	Traffic Control Drums	DAY	5,266.000	5,266.000
0950	643.0420	Traffic Control Barricades Type III	DAY	261.000	261.000
0960	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	94.000	94.000
0970	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	94.000	94.000
0980	643.0705	Traffic Control Warning Lights Type A	DAY	522.000	522.000
0990	643.0715	Traffic Control Warning Lights Type C	DAY	288.000	288.000
1000	643.0800	Traffic Control Arrow Boards	DAY	13.000	13.000
1010	643.0900	Traffic Control Signs	DAY	2,239.000	2,239.000
1020	645.0120	Geotextile Fabric Type HR	SY	200.000	200.000
1030	646.0106	Pavement Marking Epoxy 4-Inch	LF	12,252.000	12,252.000

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DATE 22MAR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7130-01-72 QUANTITY
1040	646.0126	Pavement Marking Epoxy 8-Inch	LF	3,297.000	3,297.000
1050	646.0600	Removing Pavement Markings	LF	6,640.000	6,640.000
1060	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	22.000	22.000
1070	647.0176	Pavement Marking Arrows Epoxy Type 3	EACH	1.000	1.000
1080	647.0206	Pavement Marking Arrows Bike Lane Epoxy	EACH	18.000	18.000
1090	647.0306	Pavement Marking Symbols Bike Lane Epoxy	EACH	18.000	18.000
1100	647.0356	Pavement Marking Words Epoxy	EACH	13.000	13.000
1110	647.0406	Pavement Marking Words Bike Lane Epoxy	EACH	6.000	6.000
1120	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	180.000	180.000
1130	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	173.000	173.000
1140	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	523.000	523.000
1150	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	9,239.000	9,239.000
1160	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	7,713.000	7,713.000
1170	649.0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	1,845.000	1,845.000
1180	649.0802	Temporary Pavement Marking Paint 8-Inch	LF	2,882.000	2,882.000
1190	649.1100	Temporary Pavement Marking Stop Line 18-Inch	LF	75.000	75.000
1200	649.1200	Temporary Pavement Marking Stop Line Removable Tape 18-Inch	LF	50.000	50.000
1210	650.4000	Construction Staking Storm Sewer	EACH	10.000	10.000
1230	650.5000	Construction Staking Base	LF	2,958.000	2,958.000
1240	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	2,828.000	2,828.000
1250	650.6000	Construction Staking Pipe Culverts	EACH	4.000	4.000
1260	650.8000	Construction Staking Resurfacing Reference	LF	2,939.000	2,939.000
1270	650.8500	Construction Staking Electrical Installations (project) 01. 7130-01-72	LS	1.000	1.000
1280	650.9910	Construction Staking Supplemental Control (project) 01. 7130-01-72	LS	1.000	1.000
1310	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	4,908.000	4,908.000
1320	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	760.000	760.000
1330	652.0605	Conduit Special 2-Inch	LF	940.000	940.000
1340	652.0615	Conduit Special 3-Inch	LF	352.000	352.000
1350	652.0800	Conduit Loop Detector	LF	1,208.000	1,208.000
1360	653.0135	Pull Boxes Steel 24x36-Inch	EACH	4.000	4.000
1370	653.0140	Pull Boxes Steel 24x42-Inch	EACH	20.000	20.000
1380	654.0101	Concrete Bases Type 1	EACH	6.000	6.000
1390	654.0102	Concrete Bases Type 2	EACH	4.000	4.000
1400	654.0105	Concrete Bases Type 5	EACH	20.000	20.000
1410	655.0230	Cable Traffic Signal 5-14 AWG	LF	952.000	952.000
1420	655.0240	Cable Traffic Signal 7-14 AWG	LF	897.000	897.000
1430	655.0250	Cable Traffic Signal 9-14 AWG	LF	242.000	242.000
1440	655.0260	Cable Traffic Signal 12-14 AWG	LF	251.000	251.000
1450	655.0305	Cable Type UF 2-12 AWG Grounded	LF	629.000	629.000
1460	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	1,466.000	1,466.000
1470	655.0610	Electrical Wire Lighting 12 AWG	LF	540.000	540.000
1480	655.0615	Electrical Wire Lighting 10 AWG	LF	27,983.000	27,983.000
1490	655.0700	Loop Detector Lead In Cable	LF	2,948.000	2,948.000
1500	655.0800	Loop Detector Wire	LF	4,378.000	4,378.000

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DATE 22MAR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7130-01-72 QUANTITY
1510	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. STH 93 & Wilson Ave	LS	1.000	1.000
1520	656.0200	Electrical Service Meter Breaker Pedestal (location) 02. STH 93 Lighting	LS	1.000	1.000
1530	657.0100	Pedestal Bases	EACH	6.000	6.000
1540	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	24.000	24.000
1550	657.0310	Poles Type 3	EACH	4.000	4.000
1560	657.0322	Poles Type 5-Aluminum	EACH	20.000	20.000
1570	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	2.000	2.000
1580	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	2.000	2.000
1590	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	2.000	2.000
1600	657.0595	Trombone Arms 25-FT	EACH	4.000	4.000
1610	657.0615	Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	EACH	20.000	20.000
1620	657.0704	Luminaire Arms Truss Type 4-Inch Clamp 10-FT	EACH	2.000	2.000
1630	657.0709	Luminaire Arms Truss Type 4-Inch Clamp 12-FT	EACH	2.000	2.000
1640	658.0190.S	Traffic Signal Face - LED State Furnished	EACH	12.000	12.000
1650	658.0420.S	Pedestrian Signal Face - LED State Furnished	EACH	4.000	4.000
1660	658.0500	Pedestrian Push Buttons	EACH	4.000	4.000
1670	659.1120	Luminaires Utility LED B	EACH	20.000	20.000
1680	659.1125	Luminaires Utility LED C	EACH	4.000	4.000
1690	659.2130	Lighting Control Cabinets 120/240 30-Inch	EACH	1.000	1.000
1700	661.0200	Temporary Traffic Signals for Intersections (location) 01. STH 93 & Wilson Ave	LS	1.000	1.000
1710	690.0150	Sawing Asphalt	LF	1,356.000	1,356.000
1720	690.0250	Sawing Concrete	LF	38.000	38.000
1730	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
1740	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
1750	SPV.0060	Special 01. Mailbox Removal And Reinstalling Mailboxes	EACH	3.000	3.000
1760	SPV.0060	Special 02. Traffic Signal And Lighting Concrete Control Cabinet Base Special	EACH	1.000	1.000
1770	SPV.0105	Special 01. Temp Non-Intrusive VEH Detection System For Intersect STH 93 & Wilson Ave	LS	1.000	1.000
1780	SPV.0105	Special 02. Install Department Furnished EVP Equipment STH 93 & Wilson Ave	LS	1.000	1.000
1790	SPV.0105	Special 03. Install Department Furnished Traffic Sig Mounting Hardware STH 93 & Wilson Av	LS	1.000	1.000
1800	SPV.0195	Special 01. HMA Pavement 3 MT 58-34 H	TON	4,246.000	4,246.000

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EARTHWORK

From/To Station	Location	Excavation Common (1) (item # 205.0100)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Rock Excavation (6)	Expanded Rock (7)	Unexpanded Fill	Expanded Fill (8)	Mass Ordinate +/- (9)	Waste	Borrow	Comment:
		Cut (2)	EBS Excavation (3)			(item #205.0200)	Factor 1.10		Factor 1.25			(item #208.0100)	
677+13 - 687+26	STH 93 - BLASCHKO AVENUE INTERSECTION	1,650	0	0	1,650	0	0	450	600	1,050	1,050	0	
691+19 - 697+56	STH 93 - WILSON AVENUE INTERSECTION	1,150	0	0	1,150	0	0	1,050	1,350	-200	0	200	
700+50 - 705+20	STH 93 - WANEK AVENUE INTERSECTION	550	0	0	550	0	0	500	650	-100	0	100	
9'B'+23 - 11'B'+26	BLASCHKO AVENUE	450	0	0	450	0	0	900	1,150	-700	0	700	
9'W'+27 - 11'W'+64	WILSON AVENUE	650	0	0	650	0	0	450	600	50	50	0	
8'K'+77 - 9'K'+50	WANEK AVENUE	100	0	0	100	0	0	300	400	-300	0	300	
Grand Total		4,550	0	0	4,550	0	0	3,650	4,750	-200	1,100	1,300	
		Total Exc Common	4,550								Total Borrow	200	

1) Excavation Common is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Subbase Material
4) Salvaged/Unusable Pavement Material = Existing Asphalt
5) Available Material = Cut - Salvaged/Unusable Pavement Material
6) Rock Excavation item number 205.0200
7) Expanded Rock - Factor = 1.1.
8) Expanded Fill. Factor = 1.25

Depending on selections:

Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor

Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced EBS) * Fill Factor

Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh) * Fill Factor

Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor) * Fill Factor

9) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division.
Minus indicates a shortage of material within the Division.

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

CLEARING AND GRUBBING

STATION	-	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
683+00	-	687+00	LT	4	4
691+00	-	692+00	LT	1	1
693+00	-	694+00	RT	1	1
694+00	-	698+00	LT	4	4
701+00	-	705+00	LT	4	4
TOTAL				14	14

REMOVING ASPHALTIC SURFACE MILLING

STATION	-	STATION	LOCATION	204.0120 SY
677+13	-	682+38	BEGIN CONSTRUCTION - BLASCHKO AVE.	1,415
682+38	-	692+54	BLASHKO AVE. - WILSON AVE.	5,442
692+54	-	700+25	WILSON AVE. - WANEK AVE.	4,413
700+25	-	706+51	WANEK AVE. - END CONSTRUCTION	3,544
TOTAL				14,814

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STATION	-	STATION	LOCATION	204.0115 SY
679+80	-	680+48	STH 93	268
706+01	-	706+51	STH 93	288
9'B'+23	-	9'B'+48	BLASCHKO	56
9'K'+29	-	9'K'+54	WANEK AVE	53
10'K'+48	-	10'K'+73	WANEK AVE	87
TOTAL				752

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REMOVING CURB & GUTTER

STATION	-	STATION	LOCATION	204.0150 LF
677+13	-	682+38	BEGIN CONSTRUCTION - BLASCHKO AVE.	317
682+38	-	692+54	BLASHKO AVE. - WILSON AVE.	992
692+54	-	700+25	WILSON AVE. - WANEK AVE.	740
700+25	-	706+51	WANEK AVE. - END CONSTRUCTION	566
TOTAL				2,615

REMOVING CONCRETE SIDEWALK

STATION	-	STATION	LOCATION	204.0155 SY
682+38	-	692+54	BLASHKO AVE. - WILSON AVE.	63
692+54	-	700+25	WILSON AVE. - WANEK AVE.	67
TOTAL				130

REMOVING ASPHALTIC SURFACE

STATION	-	STATION	LOCATION	204.0110 SY
672+21	-	672+64	DETLOFF CT.	110
TOTAL				110

REMOVING INLETS AND ENDWALLS

STATION	LOCATION	204.0220 REMOVING INLETS EACH	204.9060.S REMOVING CONCRETE APRON ENDWALLS EACH
682+14	RT	-	1
682+19	RT	1	-
682+55	RT	1	-
682+68	RT	-	2
687+01	LT	1	1
692+08	LT	1	1
692+08	RT	1	1
692+14	RT	-	1
696+05	LT	1	1
702+52	LT	1	-
703+63	LT	1	-
TOTALS		8	8

REMOVING STORM SEWER

STATION	-	STATION	LOCATION	204.0245.01 12-INCH LF	204.0245.02 18-INCH LF	204.0245.03 48-INCH LF	204.0245.04 29X45-INCH LF	204.0280 SEALING PIPE EACH
681+92			LT	15	-	-	-	-
682+14	-	628+68	RT	-	-	-	49	-
682+19	-	682+27	RT	7	-	-	-	-
682+27	-	682+68	RT	-	42	-	-	-
687+00			LT	15	-	-	-	-
692+08			LT	21	-	-	-	-
692+08			RT	-	26	-	-	-
696+05			LT	15	-	-	-	-
702+52		703+65	LT	111	-	-	-	1
703+63	-	703+75	LT	26	-	-	-	-
703+65			LT	-	-	12	-	1
TOTALS				210	68	12	49	2

REMOVING MASONRY

STATION	LOCATION	204.0185 REMOVING MASONRY CY
682+70	LT	2.5
692+20	LT	2.5
692+88	LT	2.5
700+57	LT	2.5
TOTAL		10

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

3

BASE PATCHING FOR LOOP DETECTORS

STATION	-	STATION	LOCATION	THICKNESS	204.0100 REMOVING PAVEMENT SY	390.0203 BASE PATCHING ASPHALTIC SY	465.0110 *ASPHALTIC SURFACE PATCHING TON	690.0150 *SAWING ASPHALT LF
691+42	-	691+94	STH 93	9-INCH	70	70	-	128
682+38	-	692+54	STH 93	9-INCH	70	70	-	128
692+54	-	700+25	WILSON AVE.	3-INCH	30	-	5	64
TOTALS					170	140	5	320

BASE AGGREGATE

STATION	-	STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TONS	624.0100 WATER MGAL	650.5000 CONSTRUCTION STAKING BASE LF
672+26	-	672+28	DETLOFF CT.	19	1	19
677+13	-	682+38	BEGIN CONSTRUCTION - BLASCHKO AVE.	704	7	525
682+38	-	692+54	BLASHKO AVE. - WILSON AVE.	1,252	12	1,016
692+54	-	700+25	WILSON AVE. - WANEK AVE.	845	8	771
700+25	-	706+51	WANEK AVE. - END CONSTRUCTION	687	7	627
TOTAL				3,507	35	2,958

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ASPHALT PAVEMENT ITEMS

STATION	-	STATION	LOCATION	455.0605 TACK COAT GAL	SPV.0195.01 HMA PAVEMENT 3 MT 58-34 H TONS	460.6444 HMA PAVEMENT 4 MT 58-34 H TONS	465.0110 *ASPHALTIC SURFACE PATCHING TON	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	NOTES
672+26	-	672+28	DETLOFF CT.	-	-	-	11	-	
677+13	-	682+38	BEGIN CONSTRUCTION - BLASCHKO AVE.	260	499	249	5	525	UNDISTRIBUTED QUANTITY OF ASPHALTIC SURFACE PATCHING FOR MINOR REPAIRS AFTER MILLING
682+38	-	692+54	BLASHKO AVE. - WILSON AVE.	870	1,558	779	9	1016	UNDISTRIBUTED QUANTITY OF ASPHALTIC SURFACE PATCHING FOR MINOR REPAIRS AFTER MILLING
692+54	-	700+25	WILSON AVE. - WANEK AVE.	620	1,205	603	6	771	UNDISTRIBUTED QUANTITY OF ASPHALTIC SURFACE PATCHING FOR MINOR REPAIRS AFTER MILLING
700+25	-	706+51	WANEK AVE. - END CONSTRUCTION	560	984	492	5	627	UNDISTRIBUTED QUANTITY OF ASPHALTIC SURFACE PATCHING FOR MINOR REPAIRS AFTER MILLING
TOTALS				2,310	4,246	2,123	36	2,939	

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS

STAGE	STATION	-	STATION	460.4110.S LF
STAGE 1	679+98	-	706+51	5,306
STAGE 2A	682+98	-	685+64	266
	691+18	-	695+42	424
	700+25	-	703+67	342
STAGE 2B	679+98	-	683+36	338
	691+87	-	694+01	214
STAGE 3	679+98	-	706+51	5,306
TOTAL				12,196

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

3

CULVERT PIPE, ENDWALLS, AND RIPRAP

STATION	-	STATION	LOCATION	504.0900 CONCRETE MASONRY ENDWALLS CY	520.8000 *CONCRETE COLLARS FOR PIPE EACH	523.0138 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 38X60-INCH LF	606.0300 RIPRAP HEAVY CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH
682+71	-	682+84	LT	8	2	30	35	50	1
692+05	-	692+20	LT	8	2	32	35	50	1
692+88	-	693+17	LT	8	2	58	35	50	1
700+57	-	700+86	LT	8	2	60	35	50	1
TOTALS				32	8	180	140	200	4

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE

STRUCTURE NUMBER	STATION	OFFSET	522.1012 12-INCH EACH	522.1048 48-INCH EACH	523.0529 HORIZONTAL ELLIPTICAL 29X45-INCH EACH	633.5200 MARKERS CULVERT END EACH
EW8	681+87	56.7' RT	-	-	1	1
EW6	683+27	55.0' RT	-	-	1	1
EW1	687+00	39.6' LT	1	-	-	1
EW2	691+82	45.0' RT	1	-	-	1
EW4	692+00	57.8' RT	-	1	-	1
EW5	696+03	50.6' LT	1	-	-	1
TOTALS			3	1	2	6

CONCRETE SIDEWALK 5-INCH

STATION	-	STATION	LOCATION	602.0410 SF
672+26	-	672+28	DETLOFF CT.	402
677+13	-	682+38	BEGIN CONSTRUCTION - BLASCHKO AVE.	69
682+38	-	692+54	BLASHKO AVE. - WILSON AVE.	514
692+54	-	700+25	WILSON AVE. - WANEK AVE.	848
TOTAL				1,833

CONCRETE CURB & GUTTER

STATION	-	STATION	LOCATION	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	NOTES
672+26	-	672+58	DETLOFF CT.	103	103	REVERSE SLOPE
677+12	-	682+38	BEGIN CONSTRUCTION - BLASCHKO AVE.	579	579	-
682+38	-	692+54	BLASHKO AVE. - WILSON AVE.	907	907	-
692+54	-	700+25	WILSON AVE. - WANEK AVE.	703	703	-
700+25	-	706+51	WANEK AVE. - END CONSTRUCTION	536	536	-
TOTAL				2,828	2,828	

CURB RAMP DETECTABLE WARNING FIELD YELLOW

STATION	-	STATION	LOCATION	602.0505 SF
677+13	-	682+38	BEGIN CONSTRUCTION - BLASCHKO AVE.	10
682+38	-	692+54	BLASHKO AVE. - WILSON AVE.	20
692+54	-	700+25	WILSON AVE. - WANEK AVE.	40
TOTAL				70

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

STORM SEWER PIPE REINFORCED CONCRETE CLASS III

FROM STRUCTURE NUMBER	TO STRUCTURE NUMBER	INVERT ELEVATION	DISCHARGE ELEVATION	608.0312 12-INCH LF	608.0348 48-INCH LF	520.8000 *CONCRETE COLLARS FOR PIPE EACH	NOTES
INL 3	EW 1	786.94	786.54	12	-	-	-
INL 4	EW 2	782.40	781.79	19	-	-	-
INL 5	EW 3	781.78	781.03	8	-	-	-
EX SS	CULVERT	-	-	8	-	1	9+40'W' RT, CONNECT EXISTING SS TO CULVERT EXTENTION
EW 4	EX SS	780.20	780.03	-	22		-
INL 6	EW 5	779.64	779.39	13	-	-	-
INL 7	INL 8	777.26	776.72	112	-	-	-
INL 8	MH 2	776.70	776.66	13	-	-	-
TOTALS				185	22	1	

STORM SEWER PIPE REINFORCED CONCRETE CLASS IV

FROM STRUCTURE NUMBER	TO STRUCTURE NUMBER	INVERT ELEVATION	DISCHARGE ELEVATION	608.0412 12-INCH LF	608.0418 18-INCH LF	608.0448 48-INCH LF	610.0429 HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH LF	520.8000 *CONCRETE COLLARS FOR PIPE EACH
INL 1	EX MH	790.88	790.81	19	-	-	-	-
INL 2	EX MH	790.94	790.81	30	-	-	-	-
EX MH	MH 1	790.78	790.72	-	12	-	-	-
EW 8	MH 1	790.98	790.38	-	-	-	40	-
MH 1	EW 6	790.30	790.08	-	-	-	99	-
EX SS	MH 2	774.64	774.60	-	-	6	-	1
MH 2	EX SS	774.47	774.43	-	-	6	-	1
TOTALS				49	12	12	139	2

MANHOLES, INLETS AND COVERS

STRUCTURE NUMBER	STATION	OFFSET	LOCATION	611.0530 MANHOLE COVERS TYPE J EACH	611.0639 INLET COVERS TYPE H-S EACH	611.2007 MANHOLES 7-FT DIAMETER EACH	611.3230 INLET 2x3-FT EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	RIM OR FLANGE LINE ELEVATION	STRUCTURE BOTTOM ELEVATION	DEPTH	NOTES
EX INL	628+14	15.0'	LT	--	--	--	--	--	1	--	795.79	--	--	--
MH 1	682+27	56.2'	RT	1	--	1	--	--	--	1	794.51	790.30	3.14	--
INL 1	628+09	65.5'	RT	--	1	--	1	--	--	1	794.20	790.88	2.49	--
INL 2	682+56	75.0'	RT	--	1	--	1	--	--	1	794.43	790.30	2.66	--
EX MH	10+68'B'	10.0'	RT	--	--	--	--	1	--	1	794.55	--	--	--
INL 3	687+01	27.7'	LT	--	1	--	1	--	--	1	790.53	786.94	2.76	--
INL 4	691+82	25.5'	RT	--	1	--	1	--	--	1	785.97	782.40	2.74	--
INL 5	691+85	35.9'	LT	--	1	--	1	--	--	1	785.65	781.68	3.14	--
INL 6	696+02	37.4'	LT	--	1	--	1	--	--	1	783.85	779.64	3.38	--
INL 7	702+52	37.4'	LT	--	1	--	1	--	--	1	781.02	777.26	2.93	--
INL 8	703+65	37.4'	LT		1	--	1	--	--	--	780.76	776.70	3.23	--
MH 2	703+76	30.7'	LT	1	--	1	--	--	--	1	780.85	774.47	5.31	--
EX MH	703+75	1.00	LT	--	--	--	--	1	--	--	781.44	--	--	--
INL 9	11+66'W'	15.0'	RT	--	1	--	--	--	--	-	--	--	--	REPLACE EXISTING COVER
TOTALS				2	9	2	8	2	1	10				

NOTE: DEPTH OF STRUCTURE IS GUTTER FLANGE OR RIM ELEVATION MINUS THE DEPTH OF FRAME AND RINGS MINUS THE STRUCTURE BOTTOM ELEVATION.

DEPTH OF FRAME AND RINGS FOR TYPE J COVER IS 1.07'. (INCLUDES 0..33' FOR RINGS)
DEPTH OF FRAME AND RINGS FOR TYPE H-S COVER IS 0.83'. (INCLUDES 0.33' FOR RINGS)

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

EROSION CONTROL ITEMS

STATION	-	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH
677+13	-	682+38	BEGIN CONSTRUCTION - BLASCHKO AVE.	300	300	2	5	10	3
682+38	-	692+54	BLASHKO AVE. - WILSON AVE.	-	-	8	11	10	9
692+54	-	700+25	WILSON AVE. - WANEK AVE.	-	-	2	5	10	-
700+25	-	706+51	WANEK AVE. - END CONSTRUCTION	-	-	4	6	-	-
UNDISTRIBUTED				70	70	-	-	8	3
TOTAL				370	370	16	27	38	15

EROSION CONTROL MOBILIZATION

STAGE	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
STAGE 1	3	-
STAGE 2A	3	-
STAGE 2B	3	-
STAGE 3	3	-
UNDISTRIBUTED	-	3
TOTALS	12	3

TOPSOIL, SEEDING, FERTILIZER, AND EROSION MAT

STATION	-	STATION	LOCATION	625.0100 TOPSOIL 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
677+13	-	682+38	BEGIN CONSTRUCTION - BLASCHKO AVE.	670	670	0.4	12	-
682+38	-	692+54	BLASHKO AVE. - WILSON AVE.	1,990	1,990	1.3	28	7
692+54	-	700+25	WILSON AVE. - WANEK AVE.	1,350	1,350	0.9	22	2
700+25	-	706+51	WANEK AVE. - END CONSTRUCTION	1,340	1,340	0.8	24	-
UNDISTRIBUTED				535	535	0.3	9	1
TOTALS				5,885	5,885	3.7	95	10

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

PERMANENT SIGNING

SIGN NO.	ROADWAY	DIRECTION	LOCATION	SIGN CODE	SIGN SIZE IN X IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4X6-INCH 14FT EACH	634.0616 POSTS WOOD 4X6-INCH 16 FT EACH	634.0618 POSTS WOOD 4X6-INCH 18 FT EACH	REMARKS
P1	STH 93	NB	SOUTH OF DETLOFF CT.	R3-2	24 X 24	4.00	-	-	-	1	-	
P2	DETLOFF CT.	EB	AT STH 93	R5-1	30 X 30	6.25	-	-	-	1	-	FACING STH 93
P3	DETLOFF CT.	EB	AT STH 93	R1-1	36 X 36	7.46	-	-	-	1	-	
P3A	DETLOFF CT.	EB	WEST OF STH 93	R3-2	24 X 24	4.00	-	-	-	1	-	
P4	STH 93	SB	NORTH OF DETLOFF CT.	W14-3	48 X 36	-	-	6.00	-	1	-	ON LEFT SIDE OF STH 93, FACING SOUTH
P5	STH 93	NB	AT SOUTH CEMETERY DRIVEWAY	R2-1	24 X 30	5.00	-	-	-	1	-	
P6	STH 93	NB	BETWEEN CEMETERY DRIVEWAYS	R3-8W	54 X 30	11.25	-	-	-	1	-	
P7	STH 93	NB	AT NB RIGHT TURN LANE TAPER START FOR BLASCHKO AVE.	R3-20R	24 X 36	6.00	-	-	-	1	-	
P8	STH 93	NB	IN NB RIGHT TURN LANE TAPER FOR BLASCHKO AVE.	I2-3	60 X 24	10.00	-	-	2	-	-	SEE SIGN PLATES FOR DESIGN DETAILS
P9	STH 93	NB	NEXT TO P8	R10-64	30 X 36	8	-	-	-	1	-	
P10	STH 93	NB	AT FULL WIDTH OF NB RIGHT TURN LANE FOR BLASCHKO AVE.	R3-7R	30 X 30	6.25	-	-	1	-	-	
P11	STH 93	NB	SOUTH OF BLASCHKO AVE.	R2-1	30 X 36	7.50	-	-	-	1	-	
P12	STH 93	SB	SOUTH OF BLASCHKO AVE.	R2-1	30 X 36	7.50	-	-	-	1	-	
P13	BLASCHKO AVE.	EB	AT STH 93	R1-1	36 X 36	7.46	-	-	1	-	-	
P14	BLASCHKO AVE.	WB	AT STH 93	R1-1	36 X 36	7.46	-	-	1	-	-	
P15	STH 93	NB	NORTH OF BLASCHKO AVE., AT START OF BIKE LANE	R3-17	30 X 24	5.00	-	-	1	-	-	
P16	STH 93	NB	NORTH OF BLASCHKO AVE., AT START OF BIKE LANE	W3-3	36 X 36	-	-	9.00	-	1	-	INSTALL AT BEGINNING OF STAGE 2A
P17	STH 93	NB	APPROX. 100 FT SOUTH OF NB LEFT TURN LANE TAPER FOR WILSON AVE.	R3-8A	36 X 30	7.50	-	-	1	-	-	
P18	STH 93	SB	AT FULL WIDTH OF SB RIGHT TURN LANE FOR BLASCHKO AVE.	R3-7R	30 X 30	6.25	-	-	1	-	-	
P19	STH 93	SB	IN SB RIGHT TURN LANE TAPER FOR BLASCHKO AVE.	E10-82	48 X 14	5	-	-	1	-	-	
P20	STH 93	SB	AT SB RIGHT TURN LANE TAPER START FOR BLASCHKO AVE.	R4-4	36 X 30	7.50	-	-	1	-	-	
P21	STH 93	SB	APPROX. 100 FT NORTH OF SB LEFT TURN LANE TAPER FOR BLASCHKO AVE.	R3-8W	54 X 30	11.25	-	-	-	2	-	
P22	STH 93	NB	SOUTH OF WILSON AVE.	R2-1	24 X 30	5.00	-	-	-	-	-	ON LIGHT POLE
P23	STH 93	SB	SOUTH OF WILSON AVE.	R2-1	24 X 30	5.00	-	-	-	-	-	ON LIGHT POLE
P24	STH 93	SB	SOUTH OF WILSON AVE., AT START OF BIKE LANE	R3-17	30 X 24	5.00	-	-	1	-	-	
P25	STH 93	NB	100' SOUTH OF WILSON AVE. STOP BAR	D1-55L	96 X 24	16.00	-	-	1	-	-	
P25A	STH 93	NB	AT WILSON AVE.	R1-1F	36 X 36	-	7.46	-	-	-	-	ON SIGNAL POLE
P25B	WILSON AVE.	EB	AT STH 93	R1-1F	36 X 36	-	7.46	-	-	-	-	ON SIGNAL POLE
P26	WILSON AVE.	EB	APPROX. 100 FT WEST OF DETLOFF DR.	W3-3	36 X 36	-	-	9.00	1	-	-	INSTALL AT BEGINNING OF STAGE 2A
P26A	WILSON AVE.	WB	EAST OF STH 93	W3-3	36 X 36	-	-	9.00	1	-	-	INSTALL AT BEGINNING OF STAGE 2A
P27	WILSON AVE.	WB	AT STH 93	R1-1F	36 X 36	-	7.46	-	-	-	-	ON SIGNAL POLE
P27A	STH 93	SB	AT WILSON AVE.	R1-1F	36 X 36	-	7.46	-	-	-	-	ON SIGNAL POLE
P28	STH 93	NB	NORTH OF WILSON AVE., AT START OF BIKE LANE	R3-17	30 X 24	5.00	-	-	1	-	-	
P29	STH 93	SB	NORTH OF WILSON AVE.	D1-55R	96 X 24	16.00	-	-	-	-	-	ON LIGHT POLE
P30	STH 93	NB	APPROX. 100 FT SOUTH OF NB LEFT TURN LANE TAPER FOR WANEK AVE.	R3-8A	36 X 30	7.50	-	-	-	-	-	ON LIGHT POLE
P40	STH 93	SB	AT FULL WIDTH OF SB RIGHT TURN LANE FOR WILSON AVE.	R3-7R	30 X 30	6.25	-	-	1	-	-	
P41	STH 93	SB	AT SB RIGHT TURN LANE TAPER START FOR WILSON AVE.	R4-4	36 X 30	7.50	-	-	1	-	-	
P42	STH 93	NB	SOUTH OF WANEK AVE.	R2-1	24 X 30	5.00	-	-	-	-	-	ON LIGHT POLE
P43	STH 93	SB	SOUTH OF WANEK AVE.	W3-3	36 X 36	-	-	9.00	-	1	-	INSTALL AT BEGINNING OF STAGE 2A
P44	STH 93	SB	APPROX. 100 FT NORTH OF SB LEFT TURN LANE TAPER FOR WILSON AVE.	R3-8W	54 X 30	11.25	-	-	-	2	-	
P45	STH 93	NB	SOUTH OF WANEK AVE.	J1-1	24 X 39	6.50	-	-	1	-	-	
P46	STH 93	SB	SOUTH OF WANEK AVE.	R2-1	24 X 30	5.00	-	-	-	1	-	
SUBTOTALS						240.80	29.84	42.00	18	18	0	

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

PERMANENT SIGNING (CONT.)

SIGN NO.	ROADWAY	DIRECTION	LOCATION	SIGN CODE	SIGN SIZE IN X IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4X6-INCH 14FT EACH	634.0616 POSTS WOOD 4X6-INCH 16 FT EACH	634.0618 POSTS WOOD 4X6-INCH 18 FT EACH	REMARKS
P47	STH 93	SB	SOUTH OF WANEK AVE., AT START OF BIKE LANE	R3-17	30 X 24	5.00	-	-	1	-	-	
P48	WANEK AVE.	EB	AT STH 93	R1-1	36 X 36	7.46	-	-	1	-	-	
P49	WANEK AVE.	WB	AT STH 93	R1-1	36 X 36	7.46	-	-	1	-	-	ON SAME POST AS SIGNS P50 AND P51
P52	STH 93	NB	NORTH OF WANEK AVE., AT START OF BIKE LANE	R3-17	30 X 24	5.00	-	-	1	-	-	
P53	STH 93	NB	NORTH OF WANEK AVE.	W3-1	36 X 36	-	-	9.00	-	1	-	
P55	STH 93	NB	NORTH OF WANEK AVE.	J2-3	72 X 57	28.50	-	-	-	-	2	
P56	STH 93	NB	SOUTH OF BUSINESS DRIVEWAY	D1-3	90 X 42	26.25	-	-	-	2	-	SEE SIGN PLATES FOR DESIGN DETAILS
P57	STH 93	SB	AT FULL WIDTH OF SB RIGHT TURN LANE FOR WANEK AVE.	R3-7R	30 X 30	6.25	-	-	1	-	-	
P58	DRIVEWAY	WB	AT STH 93	R1-1	36 X 36	7.46	-	-	1	-	-	
P59	STH 93	SB	AT SB RIGHT TURN LANE TAPER START FOR WANEK AVE.	R4-4	36 X 30	7.50	-	-	1	-	-	
P60	STH 93	NB	APPROX. 100 FT SOUTH OF NB RIGHT TURN LANE FOR STH 95	R3-8A	36 X 30	7.50	-	-	1	-		
P61	STH 93	SB	APPROX. 100 FT NORTH OF SB RIGHT TURN LANE TAPER FOR WANEK AVE.	R3-8W	54 X 30	11.25	-	-	-	2	-	
P62	STH 93	SB	SOUTH OF STH 95	R3-17	30 X 30	6.25	-	-	-	1	-	
SUBTOTALS						125.88	0.00	9.00	8	6	2	
TOTALS						**366.68**	**29.84**	**51.00**	**26**	**24**	**2**	

MOVING SIGNS

SIGN NO.	EXISTING LOCATION	NEW LOCATION	SIGN	638.2102 MOVING SIGNS TYPE II EACH	634.0814 POSTS TUBULAR STEEL 2X2-INCH 14 FT EACH
M1	STH 93 & BLASCHKO AVE. - SE QUAD.	STH 93 & BLASCHKO AVE., SE QUAD.	HWY 93 BLASCHKO AVE	1 1	1
M2	BLASCHKO AVE. & DETLOFF DR. - NE QUAD.	BLASCHKO AVE. & DETLOFF DR. - NE QUAD.	DETTLOFF DR BLASCHKO AVE	1 1	1
M3	STH 93 & WILSON AVE. - SE QUAD.	STH 93 & WILSON AVE. - SE QUAD.	HWY 93 WILSON AVE	1 1	1
M4	WILSON AVE. & DETLOFF DR. - NE QUAD.	WILSON AVE. & DETLOFF DR. - NE QUAD.	DETTLOFF DR WILSON AVE	1 1	1
M5	WANEK AVE. & DETLOFF DR. - NORTH SIDE	WANEK AVE. & DETLOFF DR. - SE QUAD.	DETTLOFF DR WANEK AVE	1 1	1
TOTAL				10	5

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

3

REMOVING SIGNS

SIGN NO.	ROADWAY	DIRECTION	LOCATION	SIGN CODE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
R1	DETLOFF CT.	EB	AT STH 93	R1-1	1	1
R2	STH 93	SB	NORTH OF DETLOFF CT.	W14-3	1	1
R3	STH 93	NB	NORTH OF DETLOFF CT.	R2-1	1	1
R4	STH 93	NB	IN NB RIGHT TURN LANE TAPER FOR BLASCHKO AVE.	I2-3	1	1
R5	STH 93	NB	IN NB RIGHT TURN LANE TAPER FOR BLASCHKO AVE.	R10-64	1	1
R6	STH 93	SB	SOUTH OF BLASCHKO AVE.	R2-1	1	1
R7	STH 93	NB	SOUTH OF BLASCHKO AVE.	R2-1	1	1
R8	BLASCHKO AVE.	EB	AT STH 93	R1-1	1	1
R9	BLASCHKO AVE.	WB	AT STH 93	R1-1	1	1
R10	STH 93	SB	IN SB RIGHT TURN LANE TAPER FOR BLASCHKO AVE.	E10-82	1	2
R11	STH 93	NB	SOUTH OF WILSON AVE.	R2-1	1	1
R12	STH 93	SB	SOUTH OF WILSON AVE.	R2-1	1	1
R13	STH 93	NB	SOUTH OF WILSON AVE.	D1-55L	1	1
R14	WILSON AVE.	EB	AT STH 93	R1-1	1	1
R15	WILSON AVE.	EB	AT DETLOFF DR.	R1-1	1	1
R16	WILSON AVE.	WB	AT STH 93	R1-1	1	1
R17	STH 93	SB	NORTH OF WILSON AVE.	D1-55R	1	1
R18	STH 93	NB	SOUTH OF WANEK AVE.	J1-1	1	1
R19	STH 93	NB	SOUTH OF WANEK AVE.	R2-1	1	1
R20	STH 93	SB	SOUTH OF WANEK AVE.	R2-1	1	1
R21	WANEK AVE.	EB	AT STH 93	R1-1	1	1
R22	WANEK AVE.	WB	AT STH 93	R1-1	1	1
R23	STH 93	NB	NORTH OF WANEK AVE.	W3-1	1	1
R24	STH 93	NB	NORTH OF WANEK AVE.	J2-3	1	1
R25	STH 93	NB	SOUTH OF BUSINESS DRIVEWAY	D1-3	1	1
R26	DRIVEWAY	WB	AT STH 93	R1-1	1	1
R27	STH 93	NB	SOUTH OF STH 95	R3-8A	1	1
R28	STH 93	SB	SOUTH OF STH 95	-	1	1
TOTALS					28	29

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

TRAFFIC CONTROL

STAGE	DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH	643.0800 TRAFFIC CONTROL ARROW BOARDS DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAYS
STAGE 1	8	132	1,056	4	32	8	64	10	80	1	8	40	320
STAGE 2A	17	125	2,125	7	119	14	238	4	68	0	0	57	969
STAGE 2B	15	95	1,425	6	90	12	180	6	90	0	0	50	750
STAGE 3	5	132	660	4	20	8	40	10	50	1	5	40	200
TOTALS			5,266		261		522		288		13		2,239

TEMPORARY PAVEMENT MARKING

STAGE	646.0600 REMOVING PAVEMENT MARKINGS LF	649.0402 PAINT 4-INCH WHITE LF	649.0402 PAINT 4-INCH YELLOW LF	649.0402 PAINT 4-INCH DOUBLE YELLOW LF	649.0802 PAINT 8-INCH WHITE LF	649.1100 STOP LINE 18-INCH LF	649.1200 REMOVABLE TAPE STOP LINE 18-INCH LF	649.0400 REMOVABLE TAPE 4-INCH WHITE LF	649.0400 REMOVABLE TAPE 4-INCH YELLOW LF	649.0400 REMOVABLE TAPE 4-INCH DOUBLE YELLOW LF	649.0400 REMOVABLE TAPE 4-INCH DOTTED WHITE 3' LINE 12' GAP LF	649.0801 REMOVABLE TAPE 8-INCH WHITE LF
STAGE 1	6,640	--	--	--	--	--	--	--	--	--	--	--
STAGE 2A	--	--	--	--	--	--	50	3,769	--	4,978	31	1,845
STAGE 2B	--	2,505	400	4,808	2,882	75	--	--	125	336	--	--
STAGE 3	--	--	--	--	--	--	--	--	--	--	--	--
SUBTOTALS	6,640	2,505	400	4,808	2,882	75	50	3,769	125	5,314	31	1,845
TOTALS	6,640		7,713		2,882	75	50			9,239		1,845

TRAFFIC CONTROL ITEMS

PROJECT	643.0100 TRAFFIC CONTROL (PROJECT) EACH
PROJECT 1730-01-72	1
TOTAL	1

FLEXIBLE TUBULAR MARKER POSTS

STAGE	643.0500 FLEXIBLE TUBULAR MARKER POSTS EACH	645.0600 FLEXIBLE TUBULAR MARKER BASES EACH
STAGE 2A	47	47
STAGE 2B	47	47
TOTALS	94	94

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

3

PAVEMENT MARKING ITEMS

STATION	-	STATION	646.0106 EPOXY 4-INCH YELLOW LF	WHITE LF	DOUBLE YELLOW LF	3' LINE, 9' GAP WHITE LF	12.5' LINE, 37.5' GAP WHITE LF	12.5' LINE, 37.5' GAP YELLOW LF	646.0126 EPOXY 8-INCH WHITE LF	3' LINE, 9' GAP WHITE LF	647.0566 STOP LINE EPOXY 18-IN LF	647.0726 DIAGONAL EPOXY 12-IN WHITE LF	647.0766 CROSSWALK EPOXY 6-IN LF
672+23	-	678+00	123	-	352	-	209	-	71	-	-	15	-
678+00	-	685+00	-	389	1538	-	-	-	963	29	22	42	115
685+00	-	691+00	-	1051	1204	38	-	-	503	38	-	-	-
691+00	-	698+00	-	797	1162	50	-	-	705	38	130	-	276
698+00	-	705+00	174	1026	1420	46	-	40	657	33	28	62	132
705+00	-	708+57	118	390	400	30	-	26	206	30	-	54	-
9'W+25	-	9'W+48	-	-	48	-	-	-	24	-	-	-	-
10'W+55	-	11'W+23	-	-	136	-	-	-	-	-	-	-	-
SUBTOTALS			415	3,653	6,260	164	209	66	3,129	168	180	173	523
TOTALS						12,252				3,297	180	173	523

SAWING CONCRETE

STATION	LOCATION	690.0250 LF
682+20	RT	2.5
682+55	RT	2.5
682+70	LT	2.5
683+35	RT	2.5
687+27	LT	2.5
691+19	LT	2.5
691+87	RT	2.5
692+20	LT	2.5
692+35	RT	2.5
692+70	RT	2.5
693+20	LT	2.5
694+01	RT	2.5
697+57	LT	2.5
700+40	LT	2.5
705+20	LT	2.5
TOTAL		38

3

PAVEMENT MARKING WORDS AND SYMBOLS

STATION	-	STATION	647.0166 ARROWS EPOXY TYPE 2 EACH	647.0176 ARROWS EPOXY TYPE 3 EACH	647.0206 ARROWS BIKE LANE EPOXY EACH	647.0306 SYMBOLS BIKE LANE EPOXY EACH	647.0356 WORDS EPOXY EACH	647.0406 WORDS BIKE LANE EPOXY EACH
672+23	-	678+00	-	-	-	-	-	-
678+00	-	685+00	6	-	1	1	4	3
685+00	-	691+00	3	-	5	5	1	-
691+00	-	698+00	6	1	5	5	2	-
698+00	-	705+00	7	-	6	6	3	-
705+00	-	708+57	-	-	1	1	3	3
TOTALS			22	1	18	18	13	6

*SAWING ASPHALT

STATION	-	STATION	LOCATION	690.0150 LF
672+23	-	672+60	LT	120
677+13	-	679+98	-	321
682+00	-	683+00	LT	65
682+00	-	683+00	RT	80
692+00	-	693+30	LT	138
692+00	-	693+30	RT	124
699+80	-	700+50	LT	89
700+00	-	700+50	RT	45
706+51		-	-	54
TOTAL				1,036

MAILBOX REMOVAL AND RE-INSTALLING MAILBOXES

STATION	LOCATION	SPV.0060.01 EACH
9'K'+22	RT	3
TOTAL		3

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

LIGHTING CONDUIT & ELECTRICAL WIRE

LOC.	TO	LOC.	LINEAR DISTANCE	NUMBER OF CONDUITS	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	* 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	652.0605 CONDUIT SPECIAL 2-INCH L.F.	IN CONDUIT RUN WIRE SLACK LF	IN CONDUIT RUN NUMBER OF WIRES (INCLUDING GROUND WIRE)	IN LIGHT POLE LENGTH OF WIRE IN POLE	IN LIGHT POLE NUMBER OF WIRES (INCLUDING GROUND WIRE)	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG L.F.
CB1		LPB6	25	2		50		25	10			500
LPB6		LPB5	61	2	122			34	10			950
LPB5		LPB4	93	2	186			34	10			1270
LPB4		L-009	63	1	63			22	5	42	3	551
L-009		L-007	220	1	220			10	5	42	3	1276
L-007		L-005	220	1	220			10	5	42	3	1276
L-005		L-003	220	1	220			10	5	42	3	1276
L-003		LPB2	133	1	133			22	5			775
LPB2		LPB1	90	2			180	34	3			372
LPB1		L-001	18	1	18			22	5	42	3	326
LPB4		LPB3	63	2			126	34	5			485
LBP3		L-008	173	1	133		40	22	5	42	3	1101
L-008		L-006	205	1	145		60	10	5	42	3	1201
L-006		L-004	235	1	235			10	5	42	3	1351
L-004		L-002	220	1	220			10	3	42	3	816
CB1		LPB7	68	2		136		25	10			930
LPB7		L-011	188	1	188			22	5	42	3	1176
L-011		L-013	215	1	215			10	5	42	3	1251
L-013		L-015	194	1	194			10	5	42	3	1146
L-015		LPB9	29	1	29			22	5			255
LPB9		LPB11	73	2			146	34	5			535
LPB11		L-017	142	1	142			22	5	42	3	946
L-017		L-019	212	1	212			10	3	42	3	792
LPB7		LPB8	77	2			154	34	5			555
LPB8		L-010	70	1	70			22	5	42	3	586
L-010		L-012	220	1	220			10	5	42	3	1276
L-012		L-014	220	1	180		40	10	5	42	3	1276
L-014		LPB10	123	1	123			22	5			725
LPB10		LPB12	87	2			174	34	5			605
LPB12		L-016	15	1	15			22	5	42	3	311
L-016		L-018	220	1	220			10	5	42	3	1276
L-018		L-020	220	1	200		20	10	3	42	3	816
		TOTAL			3923	186	940					27983

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

All ITEMS ON THIS SHEET ARE CATEGORY 0020

STH 93 LIGHTING
PAGE 1 OF 2

3

LIGHTING EQUIPMENT

BASE NO.	** LOCATION	654.0105 CONCRETE BASE TYPE 5 EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0322 POLES TYPE 5-ALUMINUM EACH	657.0615 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT EACH	659.1120 LUMINAIRES UTILITY LED-B EACH
L-001	681+75, 38' RT	1	1	1	1	1
L-002	683+04, 42' LT	1	1	1	1	1
L-003	684+15, 33' RT	1	1	1	1	1
L-004	685+24, 42' LT	1	1	1	1	1
L-005	686+35, 33' RT	1	1	1	1	1
L-006	687+60, 30' LT	1	1	1	1	1
L-007	688+55, 33' RT	1	1	1	1	1
L-008	689+64, 30' LT	1	1	1	1	1
L-009	690+75, 33' RT	1	1	1	1	1
L-010	694+34, 42' LT	1	1	1	1	1
L-011	695+53, 33' RT	1	1	1	1	1
L-012	696+54, 40' LT	1	1	1	1	1
L-013	697+68, 33' RT	1	1	1	1	1
L-014	698+74, 30' LT	1	1	1	1	1
L-015	699+63, 33' RT	1	1	1	1	1
L-016	700+98, 42' LT	1	1	1	1	1
L-017	702+02, 34' RT	1	1	1	1	1
L-018	703+18, 42' LT	1	1	1	1	1
L-019	704+14, 34' RT	1	1	1	1	1
L-020	705+38, 29' LT	1	1	1	1	1
	TOTAL	20	20	20	20	20

* PULL BOXES

PULL BOX NO.	** LOCATION	653.0140 PULL BOXES STEEL 24"x42" EACH
LPB1	681+92, 43' RT	1
LPB2	682+83, 43' RT	1
LPB3	691+38, 34' LT	1
LPB4	691+38, 31' RT	1
LPB5	692+19, 73' RT	1
LPB6	692+80, 73' RT	1
LPB7	693+64, 35' RT	1
LPB8	693+64, 43' LT	1
LPB9	699+88, 47' RT	1
LPB10	699+97, 38' LT	1
LPB11	700+61, 47' RT	1
LPB12	700+83, 44' LT	1
	TOTAL	12

LIGHTING CONTROL CABINET

CONTROL CABINET NO.	** LOCATION	659.2130 LIGHTING CONTROL CABINET 120/240 30-INCH EACH
CB1	693+02, 61' RT	1
	TOTAL	1

ELECTRICAL SERVICE METER BREAKER PEDESTAL

CONTROL CABINET NO.	** LOCATION	656.0200.02 ELECTRICAL SERVICE METER BREAKER PEDESTAL L.S.
CB1	STH 93 LIGHTING	1
	TOTAL	1

LEGEND

*** ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE**

**** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD**

All ITEMS ON THIS SHEET ARE CATEGORY 0020

STH 93 LIGHTING
PAGE 2 OF 2

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CONDUIT

LOC.	TO	LOC.	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	652.0615 CONDUIT SPECIAL 3-INCH L.F.
CB1		PB1	39	26	
PB1		PB2		36	
PB2		SB1	16		
PB2		PB3		120	
PB3		SB2	6		
PB3		SB3	23		
PB3		PB4		80	42
PB4		SB4	17		
PB4		PB5	180		
PB5		PB6	200		
PB4		PB7			142
PB7		SB5	6		
PB7		PB8		66	
PB8		SB6	5		
PB8		PB9		246	
PB9		SB7	25		
PB9		SB8	46		
PB9		PB10	186		
PB10		PB11	203		
PB9		PB12			168
PB12		SB9	25		
PB12		SB10	8		
PB12		PB1		78	
		TOTAL	985	574	352

ELECTRICAL SERVICE METER BREAKER PEDESTAL

CABINET NO.	LOCATION**	656.0200.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL L.S.
CB1	STH 93 & WILSON AVE	1
	TOTAL	1

CONCRETE BASES

SIGNAL BASE NO.	LOCATION**	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASE TYPE 2 EACH	SPV.0060.02 TRAFFIC SIGNAL & LIGHTING CONCRETE CONTROL CABINET BASE SPECIAL EACH
CB1	693+01, 64' RT			1
SB1	692+91, 52' RT	1		
SB2	692+18, 70' RT		1	
SB3	692+11, 44' RT	1		
SB4	691+87, 33' RT	1		
SB5	691+71, 39' LT		1	
SB6	692+12, 78' LT	1		
SB7	693+07, 48' LT	1		
SB8	692+90, 65' LT		1	
SB9	693+07, 44' RT	1		
SB10	693+39, 38' RT		1	
	TOTAL	6	4	1

PULL BOXES

PULL BOX NO.	LOCATION**	653.0135 PULL BOXES STEEL 24"x36" EACH	653.0140* PULL BOXES STEEL 24"x42" EACH
PB1	692+95, 54' RT		1
PB2	692+81, 64' RT		1
PB3	692+21, 64' RT		1
PB4	691+68, 31' RT		1
PB5	689+88, 30' RT	1	
PB6	687+88, 30' RT	1	
PB7	691+76, 40' LT		1
PB8	692+09, 45' LT		1
PB9	693+31, 44' LT		1
PB10	695+17, 43' LT	1	
PB11	697+19, 32' LT	1	
PB12	693+31, 40' RT		1
	TOTAL	4	8

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

STH 93 & WILSON AVE
PAGE 1 OF 4

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	MISCELLANEOUS QUANTITIES	SHEET NO: 68	E

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TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.
CB1		SB1				42		42	
CB1		SB2	152				152		
CB1		SB3	168						
CB1		SB4			242				
CB1		SB5		315					
CB1		SB6		333					
CB1		SB7				209			
CB1		SB8	237						
CB1		SB9	117						
CB1		SB10		99			99	99	
PB1		CB1						35	
PB2		SB1						40	
PB3		SB2						22	
PB4		SB4						35	
PB7		SB5						22	
PB8		SB6						21	
PB9		SB7						34	
PB12		SB10						23	
SB1		SB2						143	
SB2		SB3						54	
SB3		SB4						144	
SB4		SB5						137	
SB5		SB6						83	
SB6		SB7						185	
SB7		SB8						96	
SB8		SB9						194	
SB9		SB10						57	
SB2		SB5					201		
SB10		SB8					177		
SB1		HEAD 7	19						
SB1		HEAD 11	19						
SB1		HEAD 61	15						
SB2		HEAD 12	50						
SB2		LUMINAIRE							132
SB3		HEAD 62	15						
SB4		HEAD 1	21						
SB4		HEAD 5		23					
SB5		HEAD 6		52					
SB5		LUMINAIRE							138
SB6		HEAD 8	19						
SB6		HEAD 10	19						
SB7		HEAD 2		23					

3

TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.
SB7		HEAD 4	21						
SB7		HEAD 81	15						
SB8		HEAD 9	50						
SB8		LUMINAIRE							132
SB9		HEAD 82	15						
SB10		HEAD 3		52					
SB10		LUMINAIRE							138
		TOTAL	952	897	242	251	629	1466	540

EMERGENCY VEHICLE PREEMPTION

** LOCATION	SPV.0105.02 INSTALL DEPARTMENT FURNISHED EMERGENCY VEHICLE PREEMPTION (EVP) EQUIPMENT L.S.
STH 93 & WILSON AVE	1
TOTAL	1

LEGEND

*** ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE**

**** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD**

STH 93 & WILSON AVE
PAGE 2 OF 4

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	** LOCATION	SIZE (FT)		(FT)	NO. OF TURNS	PAVEMENT TYPE	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	PB4	691+64, 01' LT	8	X	20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	112	160	460
12	PB4	691+92, 01' LT	8	X	20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	112	160	348
21	PB11	697+13, 13' LT	6	X	6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	62	529	260
22	PB10	695+12, 13' LT	6	X	6	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	84	329	264
41	PB8	9+54, 6' RT	6	X	25	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	140	266	572
42	PB8	9+54, 18' RT	6	X	25	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	118	266	366
51	PB9	693+34, 00'	8	X	20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	136	143	556
52	PB9	693+07, 00'	8	X	20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	136	143	420
61	PB6	687+94, 13' RT	6	X	6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	60	538	252
62	PB5	689+94, 13' RT	6	X	6	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	56	338	180
81	PB2	10+80, 6' LT	6	X	20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	100	38	412
82	PB2	10+52, 6' LT	6	X	20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	92	38	288
								TOTAL	1208	2948	4378

TEMPORARY TRAFFIC SIGNALS

** LOCATION	661.0200.01 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS L.S.	SPV.0105.01 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS L.S.
STH 93 & WILSON AVE	1	1
TOTAL	1	1

LEGEND

* **ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE**

** **FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD**

STH 93 & WILSON AVE
PAGE 3 OF 4

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	MISCELLANEOUS QUANTITIES	SHEET NO: 70	E

TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	657.0100 PEDESTAL BASES EACH	657.0255* TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0310 POLES TYPE 3 EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0595 TROMBONE ARMS 25-FT EACH	657.0704 LUMINAIRE ARMS TRUSS TYPE 4-INCH CLAMP 10-FT EACH	657.0709 LUMINAIRE ARMS TRUSS TYPE 4-INCH CLAMP 12-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	658.0190.S TRAFFIC SIGNAL FACE - LED STATE FURNISHED EACH	658.0420.S PEDESTRIAN SIGNAL FACE - LED STATE FURNISHED EACH	659.1125 LUMINAIRES UTILITY LED-C EACH
SB1	1			1						1	2	1	
SB2		1	1				1	1			1		1
SB3	1					1				1		1	
SB4	1				1						2		
SB5		1	1				1		1		1		1
SB6	1			1							2		
SB7	1				1					1	2	1	
SB8		1	1				1	1			1		1
SB9	1					1				1		1	
SB10		1	1				1		1		1		1
TOTAL	6	4	4	2	2	2	4	2	2	4	12	4	4

SIGNAL MOUNTING HARDWARE

** LOCATION	SPV.0105.03 INSTALL DEPARTMENT FURNISHED TRAFFIC SIGNAL MOUNTING HARDWARE (ORNAMENTAL) L.S.
STH 93 & WILSON AVE	1
TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

STH 93 & WILSON AVE
PAGE 4 OF 4

TRANSPORTATION PROJECT PLAT NO: 7130-01-22 - 4.01

THAT PART OF LOT 1 OF CSM VOLUME 6, PAGE 267-269, LOCATED IN GOVERNMENT LOT 6 OF SECTION 5, T 20 N, R 9 W, CITY OF ARCADIA, TREMPEALEAU COUNTY, WISCONSIN.

RELOCATION ORDER : STH 93, CITY OF ARCADIA (DETLOFF DRIVE - STH 95), TREMPEALEAU COUNTY.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

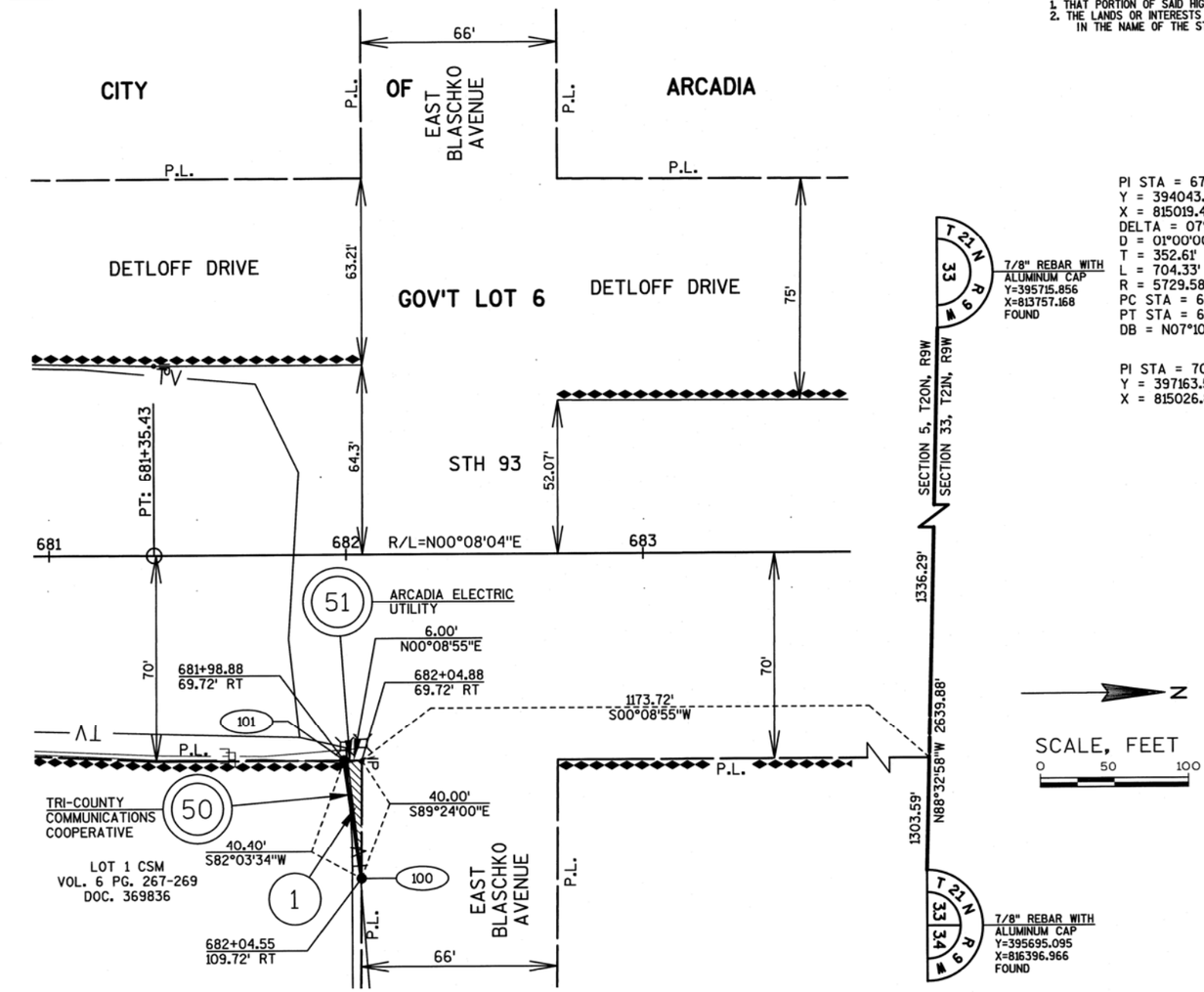
ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN TREMPEALEAU COUNTY, WISCONSIN AT 11:31 AM ON March 20, 2015 AS DOCUMENT # 434024 AND FILED IN Plats Cab. A page 116
Rose Ottum
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 7130-01-22-4.01
AMENDMENT NO:

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND AND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W SQ. FT. REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
1	WISCO LAND LLC	FEE	120 S.F.	-----	120 S.F.	-----



NOTES

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, TREMPEALEAU COUNTY, NAD 83 (2011) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER SURVEYS OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW R/W IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. EXCLUDING RIGHT OF WAY LINES, THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

ALL RIGHT OF WAY LINES DEPICTED IN NON-AQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT OF WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS OR FROM CENTERLINE OF EXISTING PAVEMENT.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" x 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

DISTANCES SHOWN FROM THE RIGHT OF WAY LINE TO BUILDINGS ARE APPROXIMATE ONLY.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

EXISTING HIGHWAY RIGHT OF WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING RIGHT OF WAY FOR STH 93 IS ESTABLISHED FROM PREVIOUS PROJECT 7132-01-21. EXISTING RIGHT OF WAY FOR E. BLASCHKO AVENUE IS ESTABLISHED FROM CSM VOL. 6 PG. 267-269.

EXISTING ACCESS CONTROL ALONG STH 93 ESTABLISHED FROM PREVIOUS PROJECT 7132-01-21.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION OFFICE.

UTILITY INTERESTS

UTILITY	UTILITY NAME	INTEREST	PARCEL
50	TRI-COUNTY COMMUNICATIONS COOPERATIVE	NO EASEMENT OF RECORD	1
51	ARCADIA ELECTRIC UTILITY	NO EASEMENT OF RECORD	1

CONVENTIONAL ABBREVIATIONS

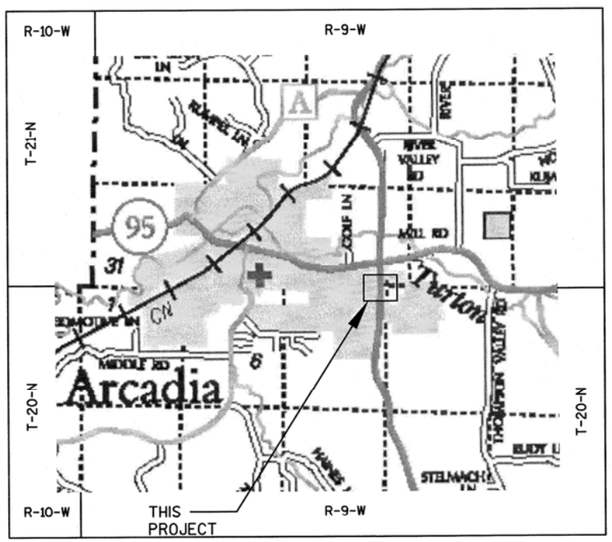
ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN
REFERENCE LINE	R/L		

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN (LG (1" UNLESS NOTED))	PROPOSED R/W LINE
	EXISTING H.E. LINE
R/W MONUMENT •(SET)	PROPERTY LINE
R/W STANDARD ▲(SET)	LOT & TIE LINES
SIGN |SIGN	SLOPE INTERCEPTS
SECTION CORNER MONUMENT	CORPORATE LIMITS
SECTION CORNER SYMBOL	ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)
FEE (HATCH VARIES)	ACCESS RESTRICTED (BY ACQUISTION)
TEMPORARY LIMITED EASEMENT	NO ACCESS (BY STATUTORY AUTHORITY)
PERMANENT LIMITED EASEMENT	SECTION LINE
R/W BOUNDARY POINT RWB20	QUARTER LINE
PARCEL NUMBER 102	SIXTEENTH LINE
UTILITY PARCEL NUMBER 92	EXISTING CENTERLINE
SIGN NUMBER (OFF PREMISE) 21-1	PROPOSED REFERENCE LINE
BUILDING	PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
	NON COMPENSABLE	COMPENSABLE
POWER POLE	ø	ø
TELEPHONE POLE	ø	ø
TELEPHONE PEDESTAL		
ELECTRIC TOWER	⊠	



UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
50	TRI-COUNTY COMMUNICATIONS COOPERATIVE	RELEASE OF RIGHTS
51	ARCADIA ELECTRIC UTILITY	RELEASE OF RIGHTS

AECOM

I, LANCE J. HABECK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 7130-01-22 - 4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Lance J. Habeck 3/12/2015
LANCE J. HABECK DATE
REGISTRATION NUMBER: S-1444

WISCONSIN LANCE J. HABECK S-1444 PLOVER, WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, NORTHWEST REGION.

MICHAEL PILLER Michael Piller 3/12/2015
PRINTED NAME SIGNATURE DATE

TRANSPORTATION PROJECT PLAT NO: 7130-01-22 - 4.02

THAT PART OF LOT 4 OF CSM 129, LOCATED IN SW 1/4 OF THE SE 1/4 OF SECTION 33, T 21 N, R 9 W, CITY OF ARCADIA, TREMPEALEAU COUNTY, WISCONSIN.

RELOCATION ORDER : STH 93, CITY OF ARCADIA (DETLOFF DRIVE - STH 95), TREMPEALEAU COUNTY.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN TREMPEALEAU COUNTY, WISCONSIN AT 11:31 AM ON March 20, 2015 AS DOCUMENT # 434025 AND FILED IN Plat Cab A page 117

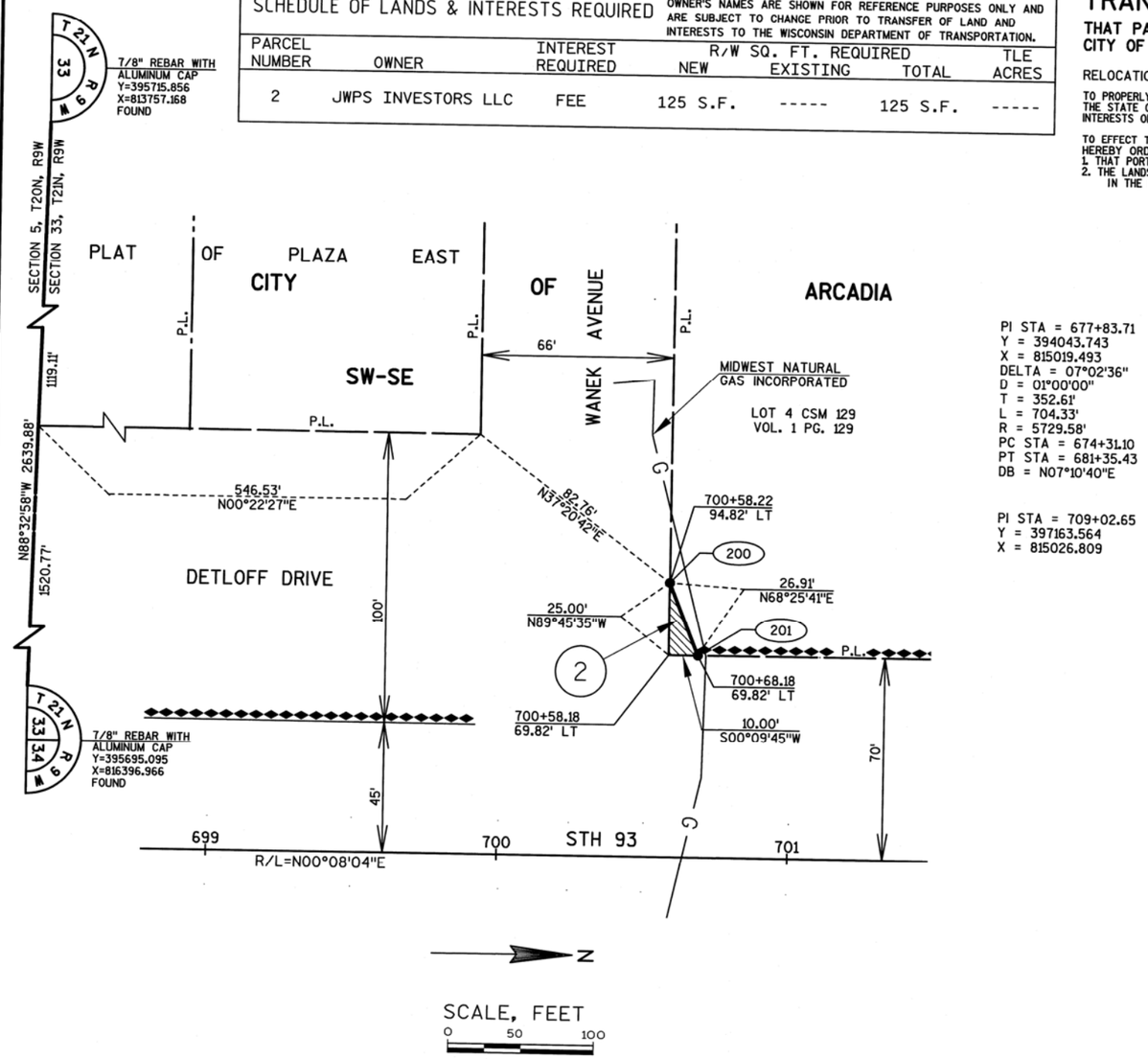
Rose Ottum
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 7130-01-22-4.02
AMENDMENT NO:

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND AND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W SQ. FT. REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
2	JWPS INVESTORS LLC	FEE	125 S.F.	-----	125 S.F.	-----



PI STA = 677+83.71
Y = 394043.743
X = 815019.493
DELTA = 07°02'36"
D = 01°00'00"
T = 352.61'
L = 704.33'
R = 5729.58'
PC STA = 674+31.10
PT STA = 681+35.43
DB = N07°10'40"E

PI STA = 709+02.65
Y = 397163.564
X = 815026.809

NOTES

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, TREMPEALEAU COUNTY, NAD 83 (2011) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER SURVEYS OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW R/W IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. EXCLUDING RIGHT OF WAY LINES, THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

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PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

EXISTING HIGHWAY RIGHT OF WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING RIGHT OF WAY FOR STH 93 IS ESTABLISHED FROM PREVIOUS PROJECT 7132-01-21.
EXISTING RIGHT OF WAY FOR WANEK AVENUE IS ESTABLISHED FROM CSM 129 AN THE PLAT OF PLAZA EAST.

EXISTING ACCESS CONTROL ALONG STH 93 ESTABLISHED FROM PREVIOUS PROJECT 7132-01-21.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION OFFICE.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.	**CURVE DATA**	
EASEMENT	EASE.	LONG CHORD	LCH
HIGHWAY EASEMENT	H.E.	LONG CHORD BEARING	LCB
LAND CONTRACT	LC	RADIUS	R
MONUMENT	MON.	DEGREE OF CURVE	D
PAGE	P.	CENTRAL ANGLE OR DELTA	DELTA
PERMANENT LIMITED EASEMENT	PLE	LENGTH OF CURVE	L
PROPERTY LINE	PL	TANGENT	TAN
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CONVENTIONAL SYMBOLS

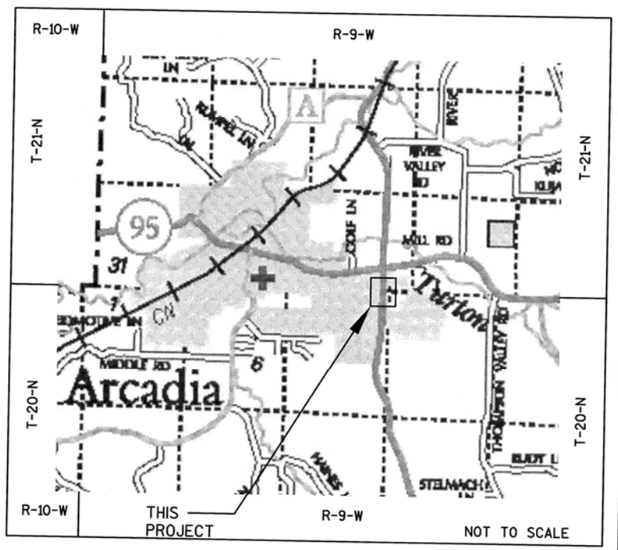
FOUND IRON PIPE/PIN (1" UNLESS NOTED)
R/W MONUMENT
R/W STANDARD
SIGN
SECTION CORNER MONUMENT
SECTION CORNER SYMBOL
FEE (HATCH VARIES)
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
R/W BOUNDARY POINT
PARCEL NUMBER
UTILITY PARCEL NUMBER
SIGN NUMBER (OFF PREMISE)
BUILDING

•(SET)
▲(SET)
ISIGN
RWB20
103
92
21-1

PROPOSED R/W LINE
EXISTING H.E. LINE
PROPERTY LINE
LOT & TIE LINES
SLOPE INTERCEPTS
CORPORATE LIMITS
ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)
ACCESS RESTRICTED (BY ACQUISITION)
NO ACCESS (BY STATUTORY AUTHORITY)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
PROPOSED REFERENCE LINE
PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

	NON COMPENSABLE	COMPENSABLE
WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		



AECOM

I, LANCE J. HABECK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 7130-01-22 - 4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

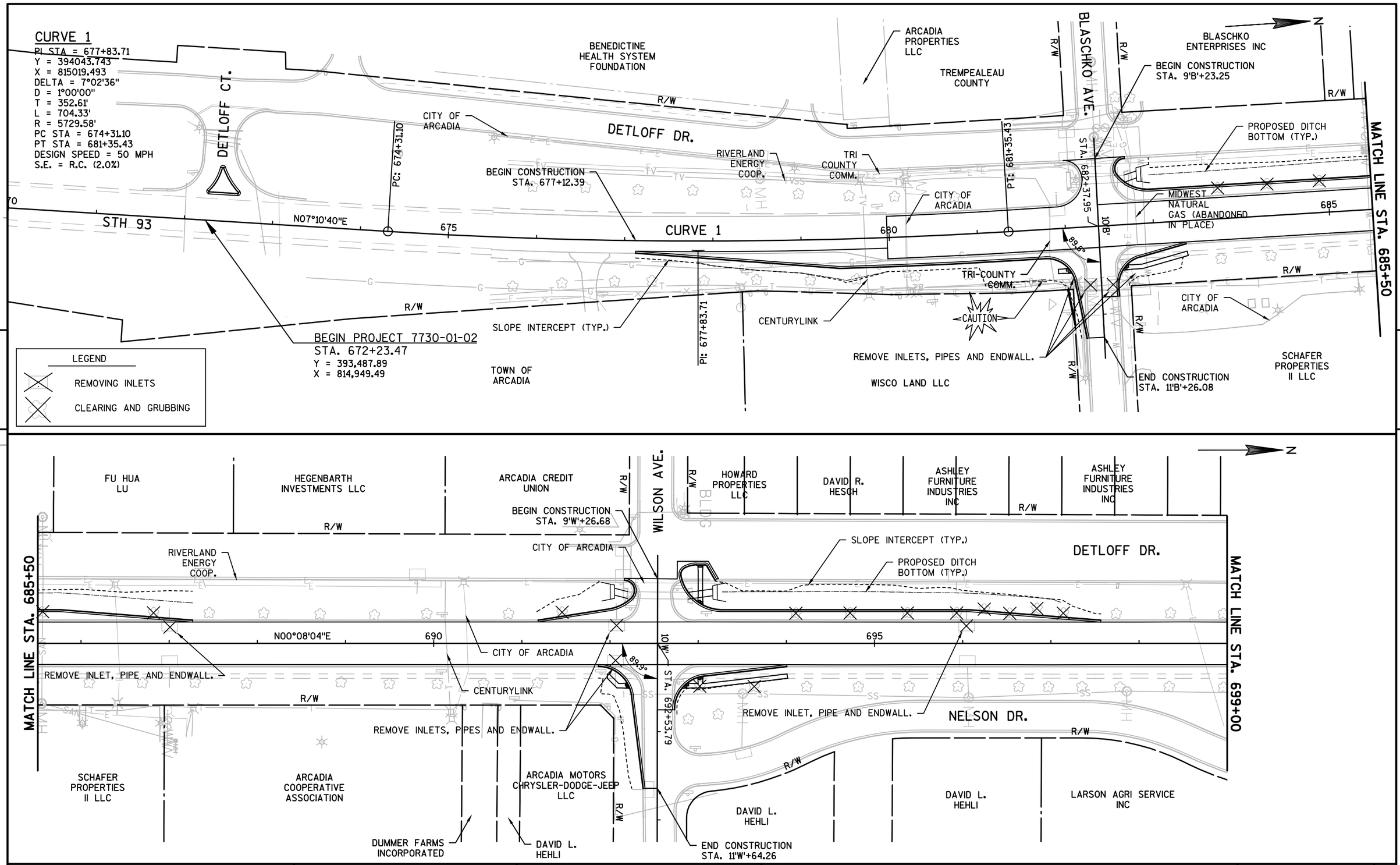
WISCONSIN LANCE J. HABECK S-1444 PLOVER, WI LAND SURVEYOR

Lance J Habeck 3/12/2015
LANCE J. HABECK DATE
REGISTRATION NUMBER: S-1444

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, NORTHWEST REGION.

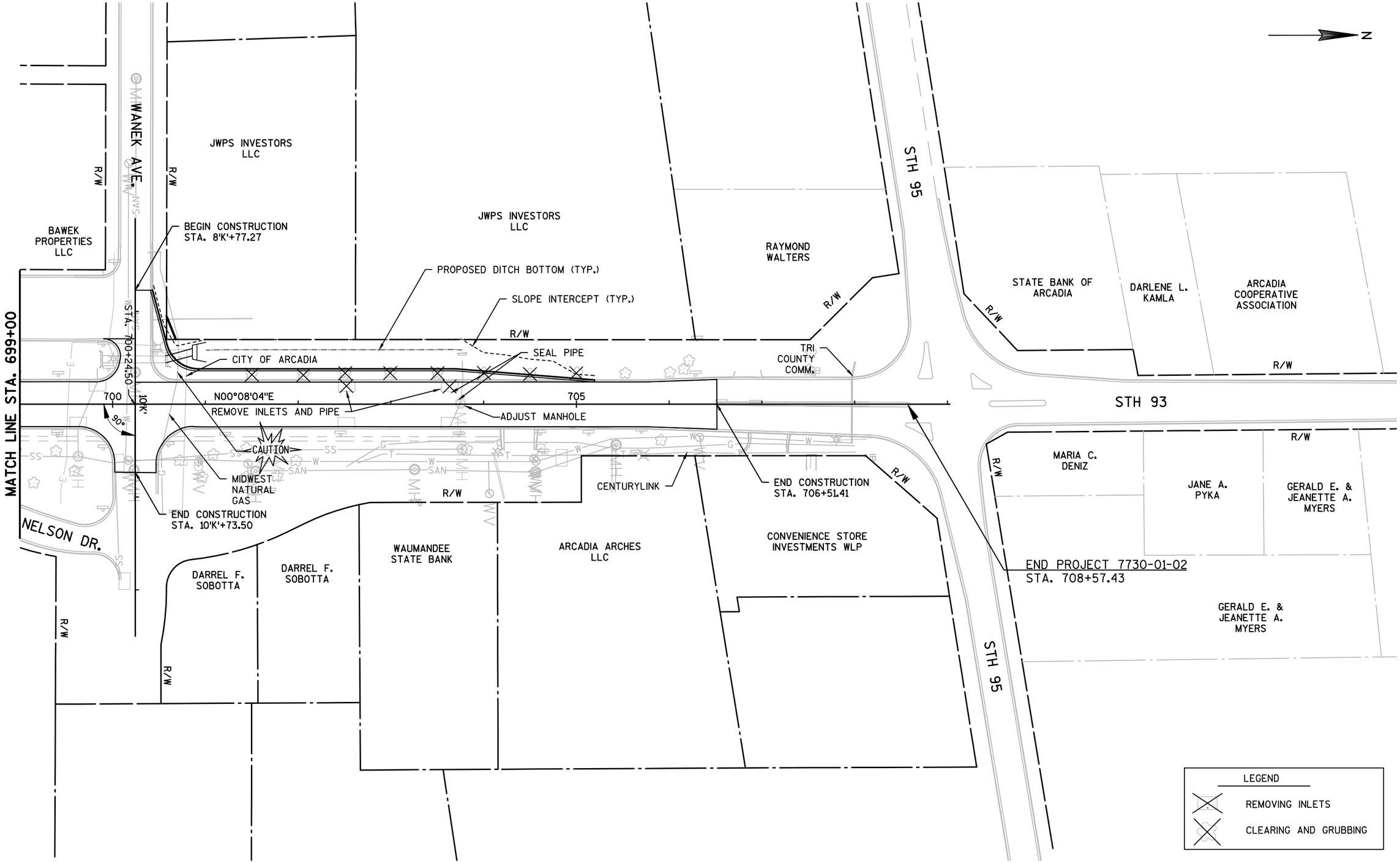
MICHAEL PILLER Michael J Piller 2015
PRINTED NAME SIGNATURE DATE

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\040102-RP.DWG
APPRAISAL PLAT DATE : 3-12-2015
PLOT DATE : 3/12/2015 9:03 AM PLOT BY : KOCH, LARRY PLOT NAME : PLOT SCALE : ==========



PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	PLAN	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\050201_PN.DWG PLOT DATE : 3/3/2016 11:26 AM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1:100_XREF

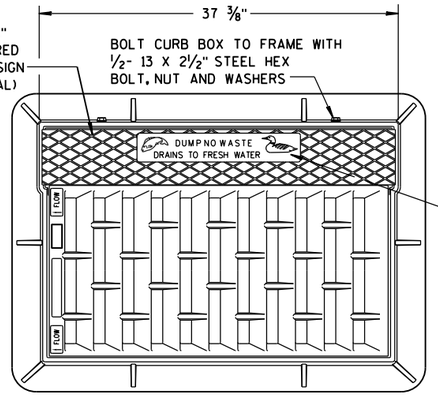


PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	PLAN	SHEET 75	E

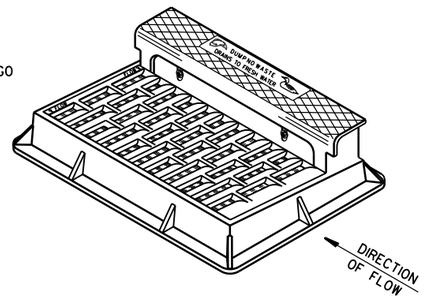
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F10-01	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-02	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-14B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-14D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E05-06	TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09F15-04A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-02	FLEXIBLE DELINEATOR POST
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-12A	PAVEMENT MARKING SYMBOLS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C11-06	FLEXIBLE TUBULAR MARKER POST
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C19-03B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C29-03A	BICYCLE LANE MARKING
15C29-03B	BICYCLE LANE MARKING
15C29-03C	URBAN BICYCLE LANE MARKING
15C29-03D	URBAN BICYCLE LANE MARKING
15C29-03E	PAVEMENT MARKING FOR BIKE LANES
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-05A	TRAFFIC CONTROL, LANE CLOSURE
15D21-03	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-02B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-02C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

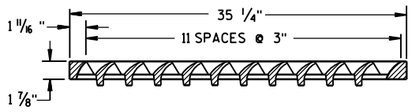
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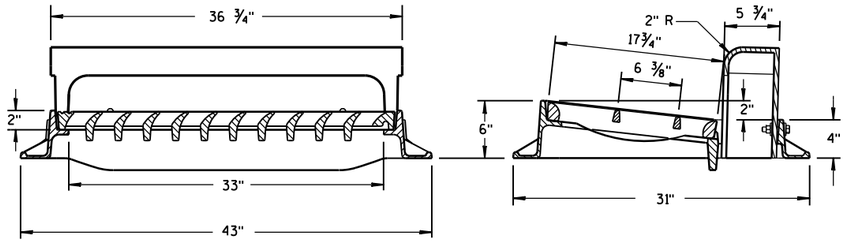


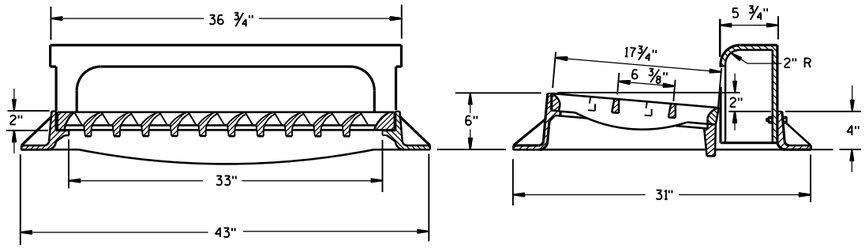
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

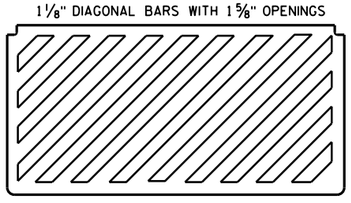






TYPE "H"

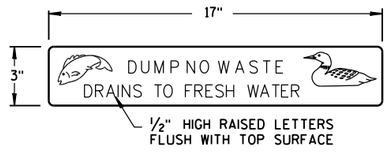
NOTE: EITHER CASTING IS ACCEPTABLE



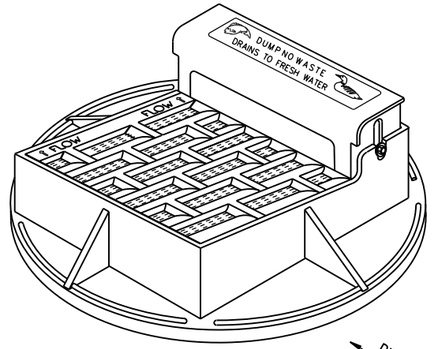
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

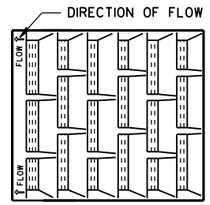
NOTE:
GRATE IS REVERSIBLE.

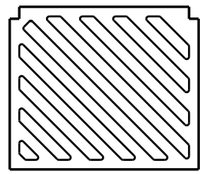
GENERAL NOTES

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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

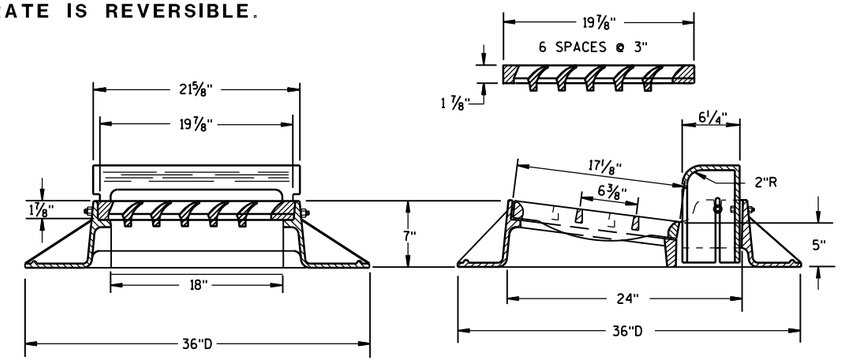




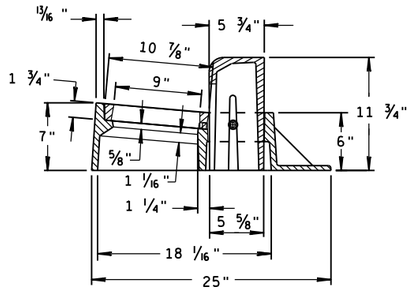
SPECIAL GRATE FOR TYPE "A" COVER

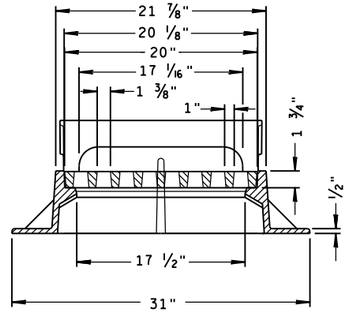
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

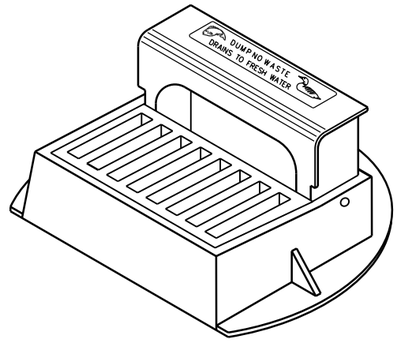


TYPE "A"





TYPE "Z"



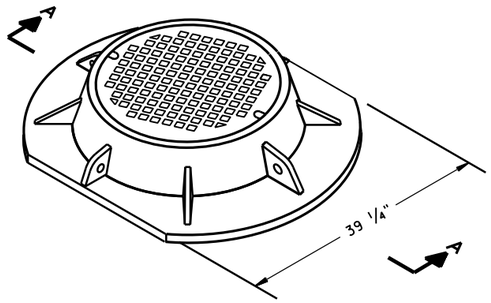
INLET COVERS
TYPE A, H, A-S, H-S & Z

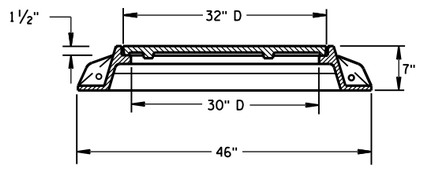
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

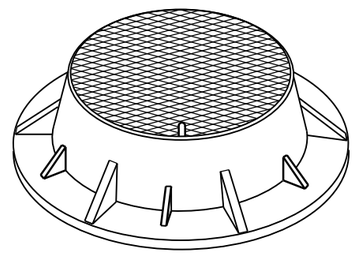
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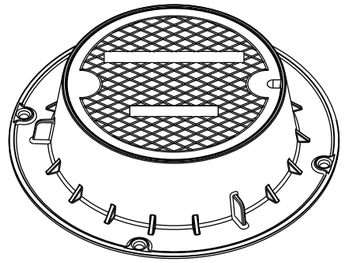
S.D.D. 8 A 5-19a

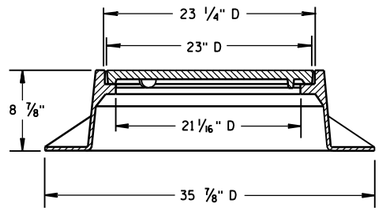


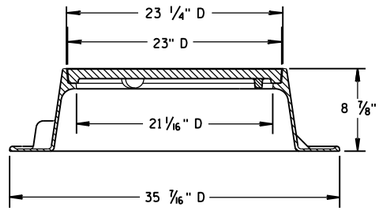


SECTION A-A
TYPE "K"









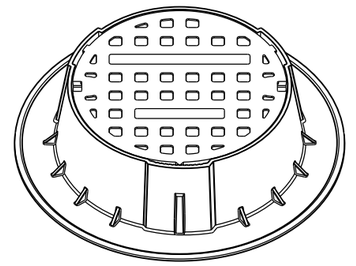
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

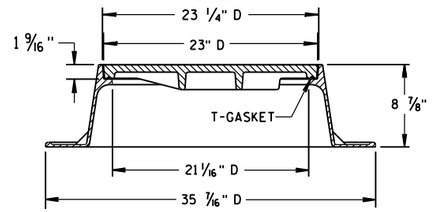
GENERAL NOTES

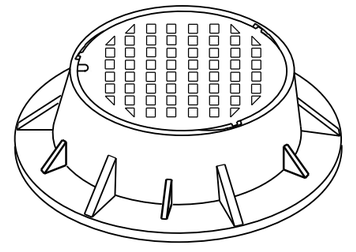
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

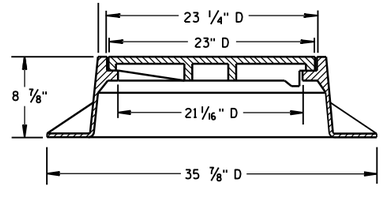
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

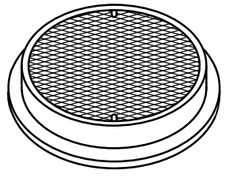


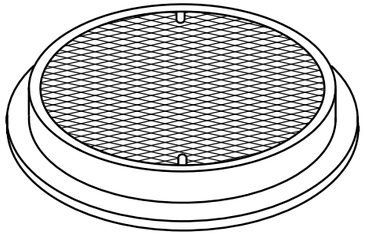


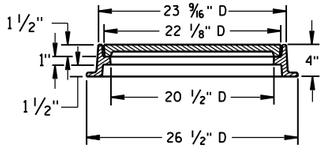




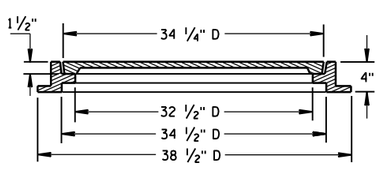
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



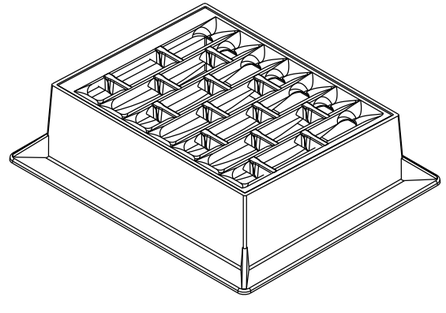


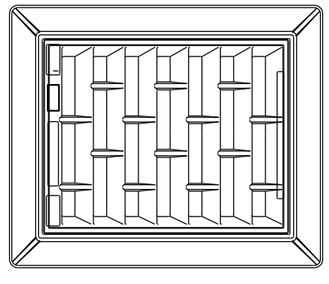


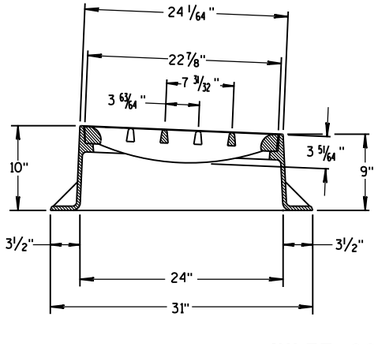
TYPE "L"

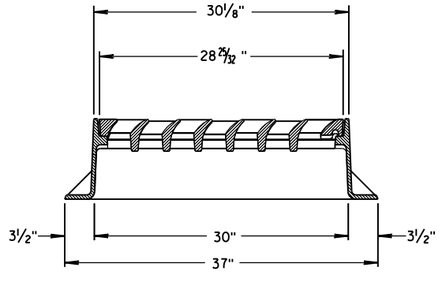


TYPE "M"









INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

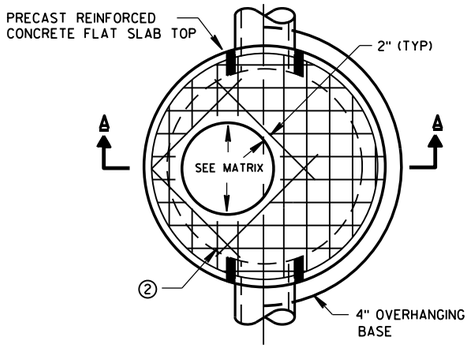
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

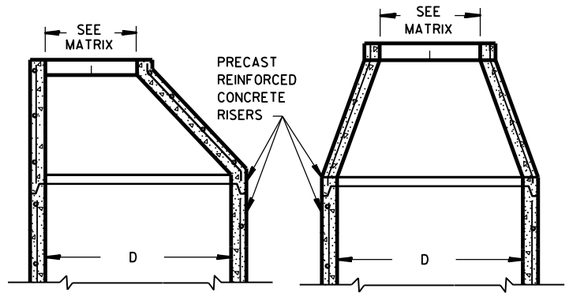
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

S.D.D. 8 A 5-19d

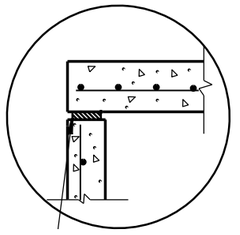


PLAN VIEW CIRCULAR OPENING

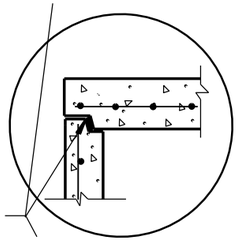


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

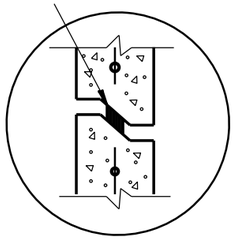


TOP WITH PLAIN END JOINT



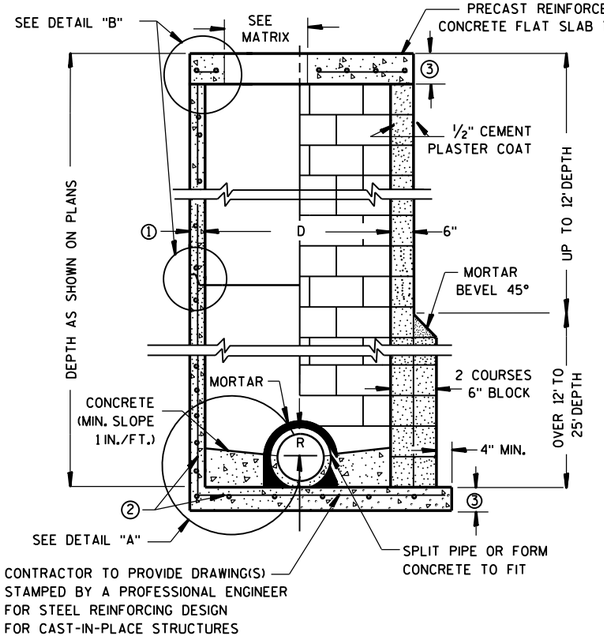
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



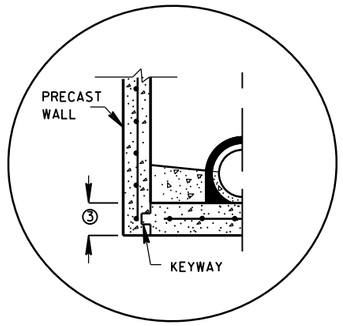
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

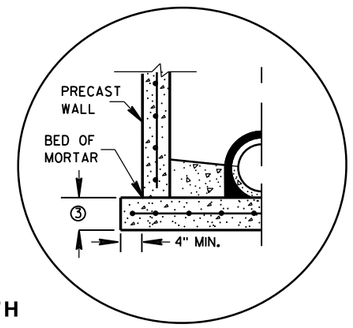


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

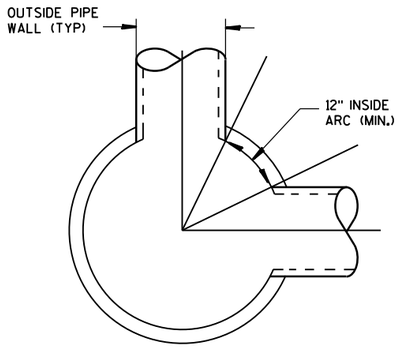


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

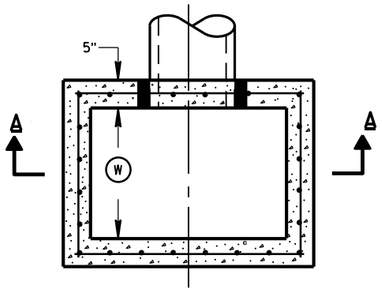
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

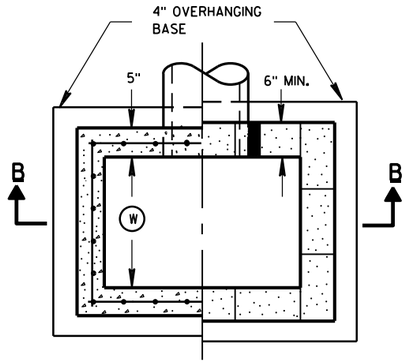
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

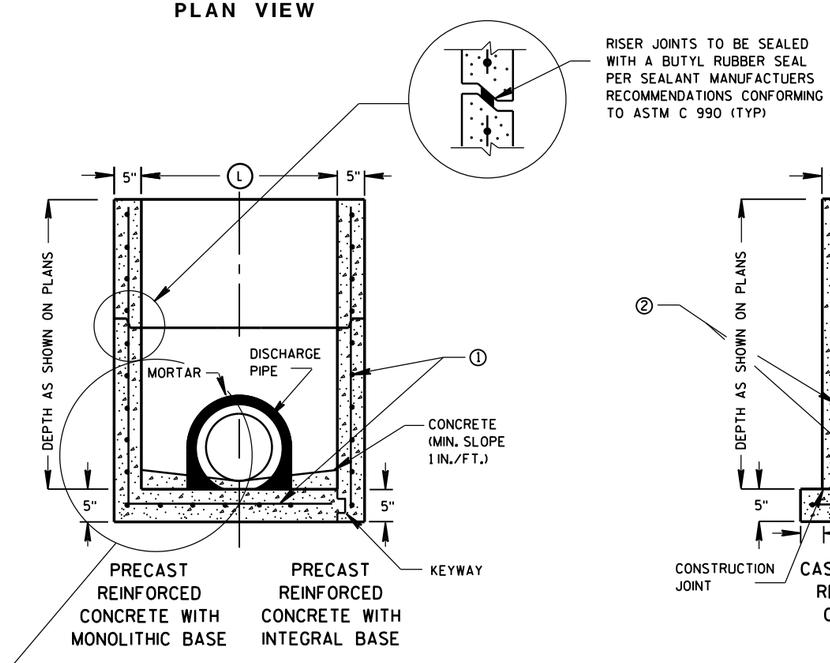
6
S.D.D. 8 B 9-1



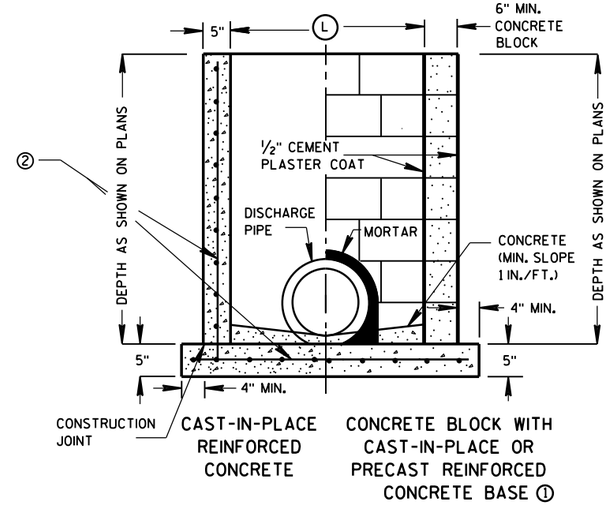
PLAN VIEW



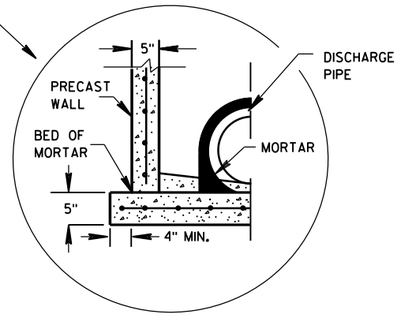
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

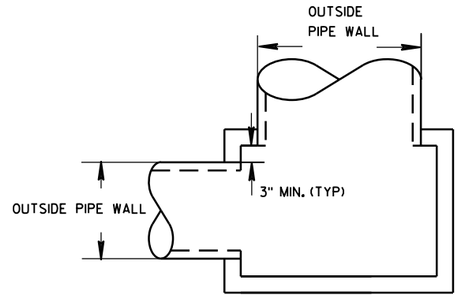
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



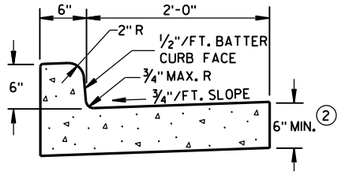
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

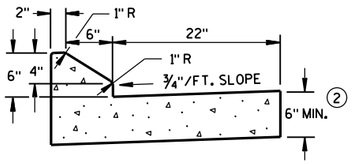
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

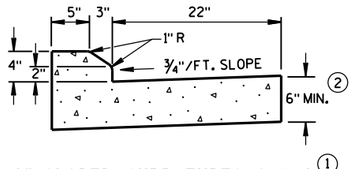
6
S.D.D. 8 C 7-1



TYPES A & D ①

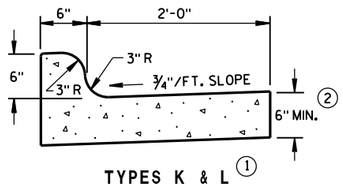


6" SLOPED CURB TYPES G & J ①

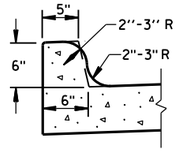


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

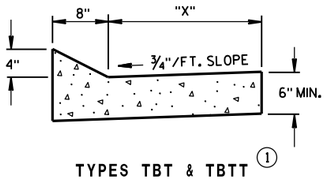


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

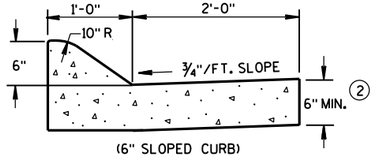
CONCRETE CURB & GUTTER 30"



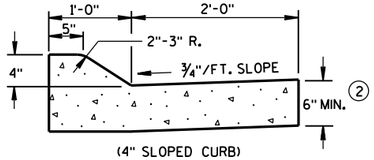
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

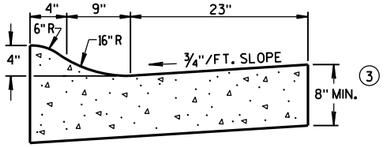


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS 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 & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

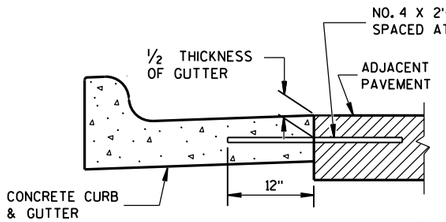
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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.

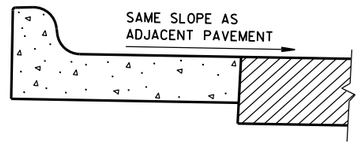
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

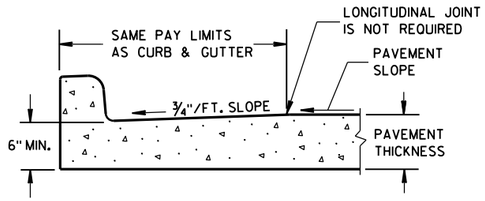
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



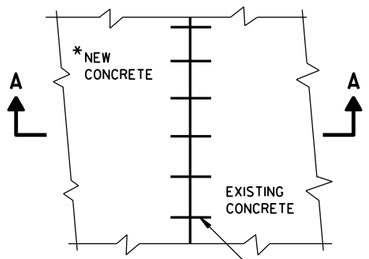
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

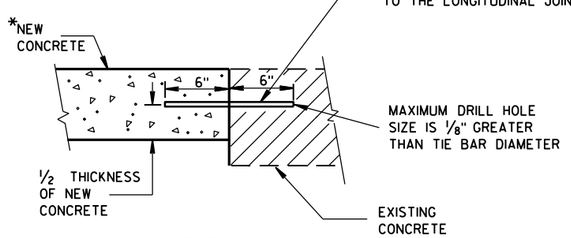


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



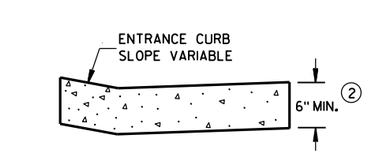
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

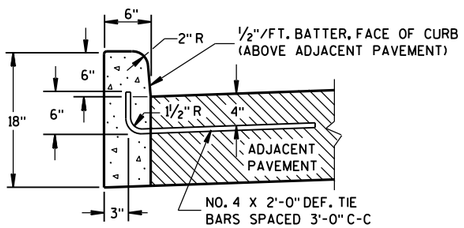


SECTION A-A

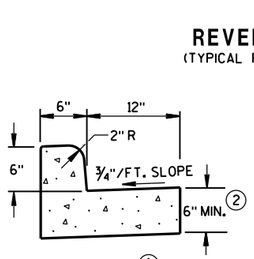
TIE BARS DRILLED
INTO EXISTING PAVEMENT



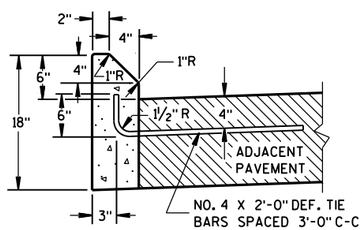
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



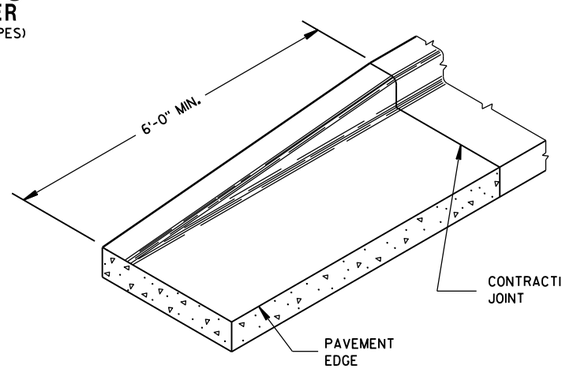
① TYPES A & D



① TYPES A & D
CONCRETE CURB & GUTTER 18"



① TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

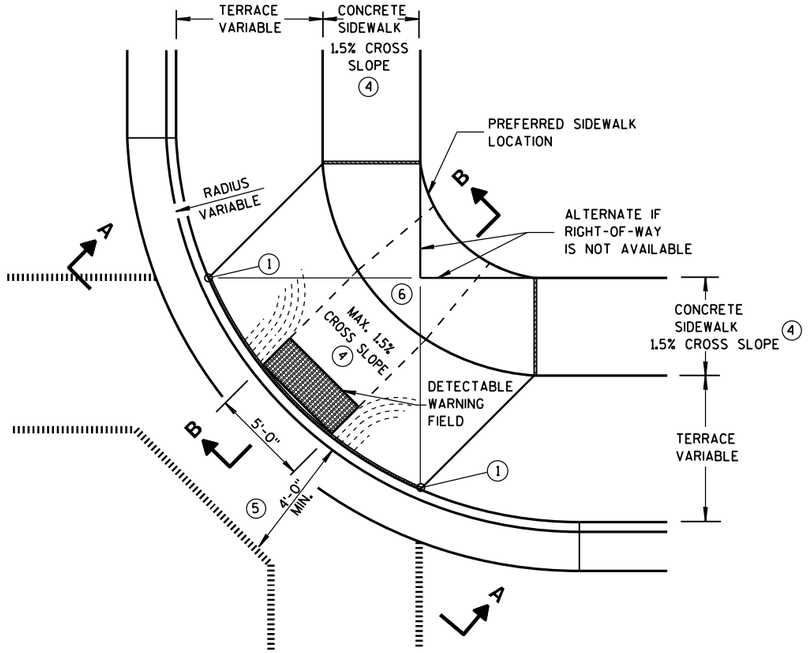
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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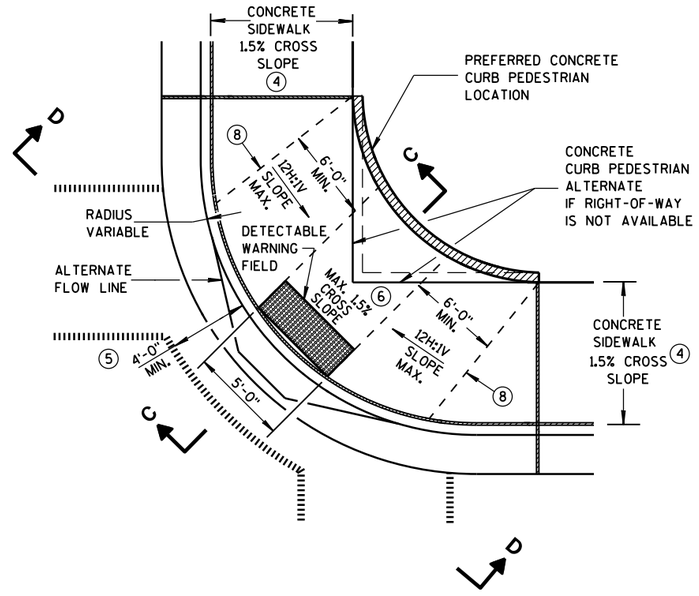
S.D.D. 8 D 1-18



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

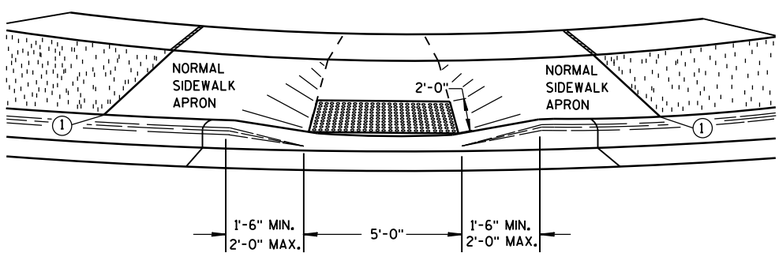
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

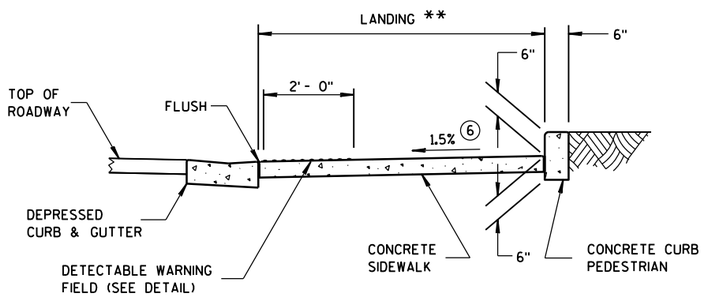
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A-A

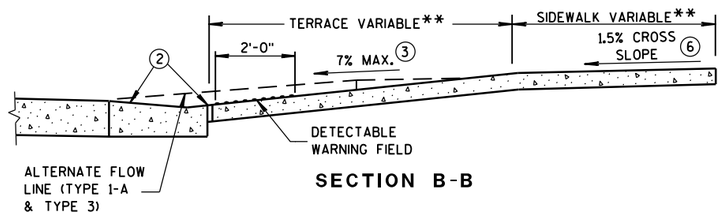
** WIDTH SHOWN ELSEWHERE IN THE PLANS



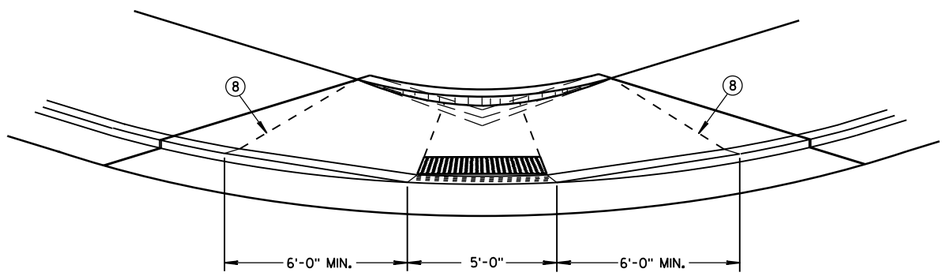
SECTION C-C

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



SECTION B-B



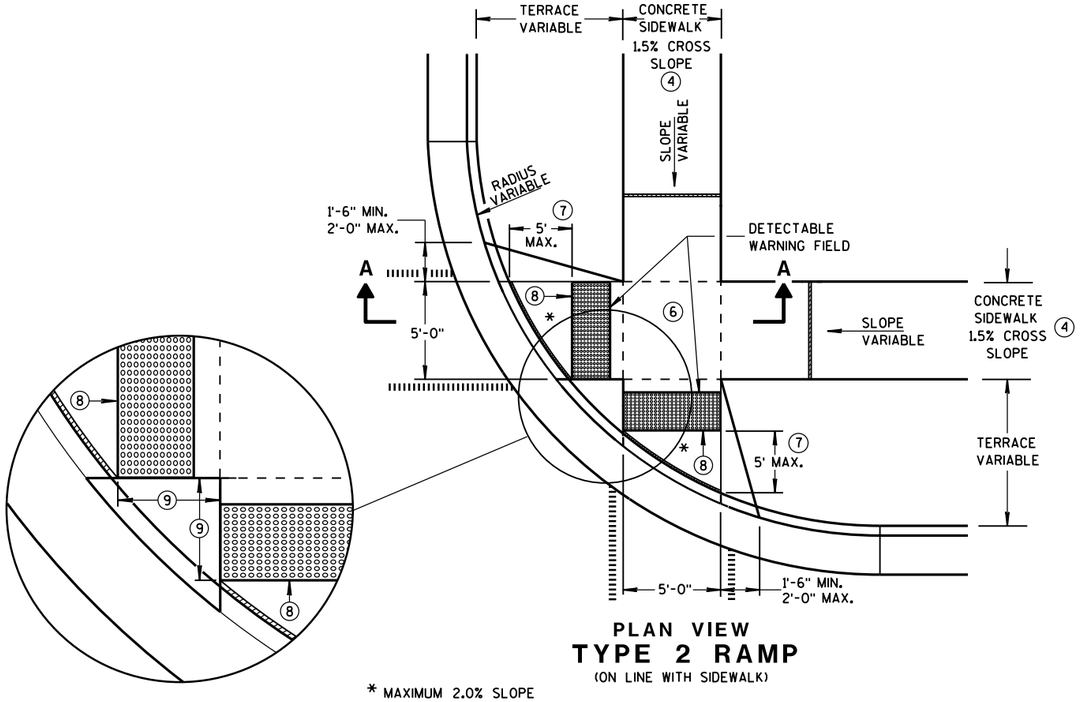
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 8 D 5-16a

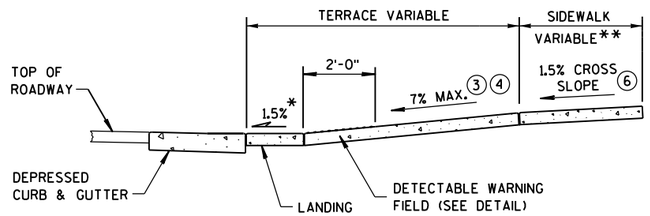


PLAN VIEW

TYPE 2 RAMP

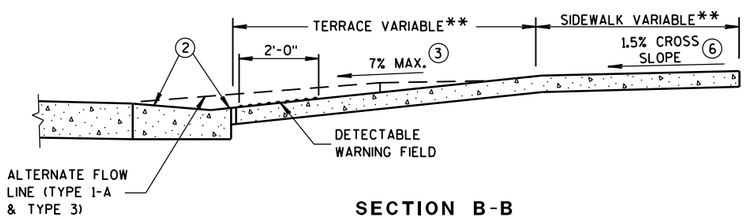
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

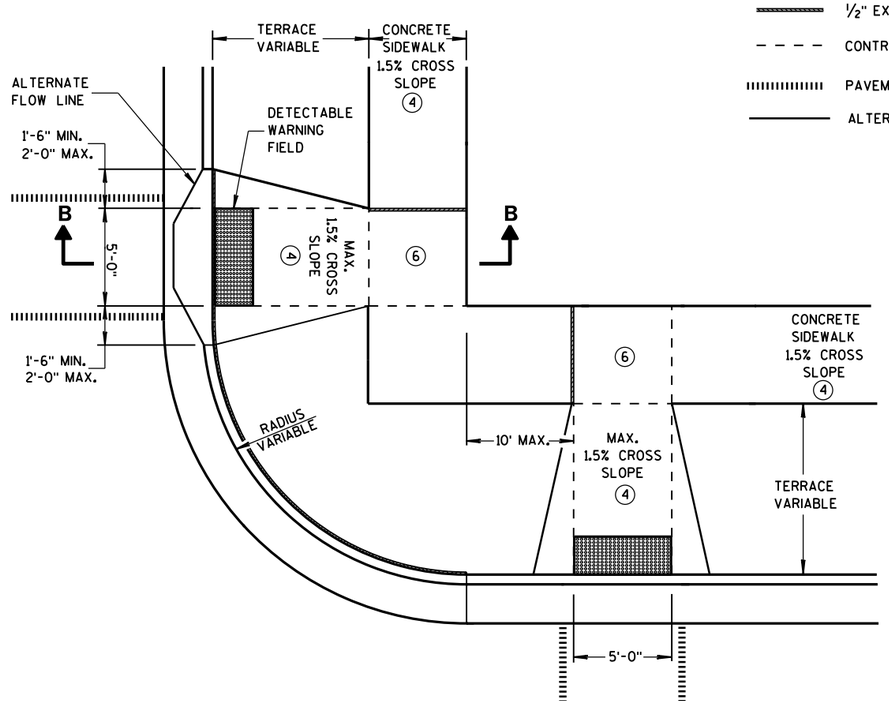
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. 2" MINIMUM CURB HEIGHT.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

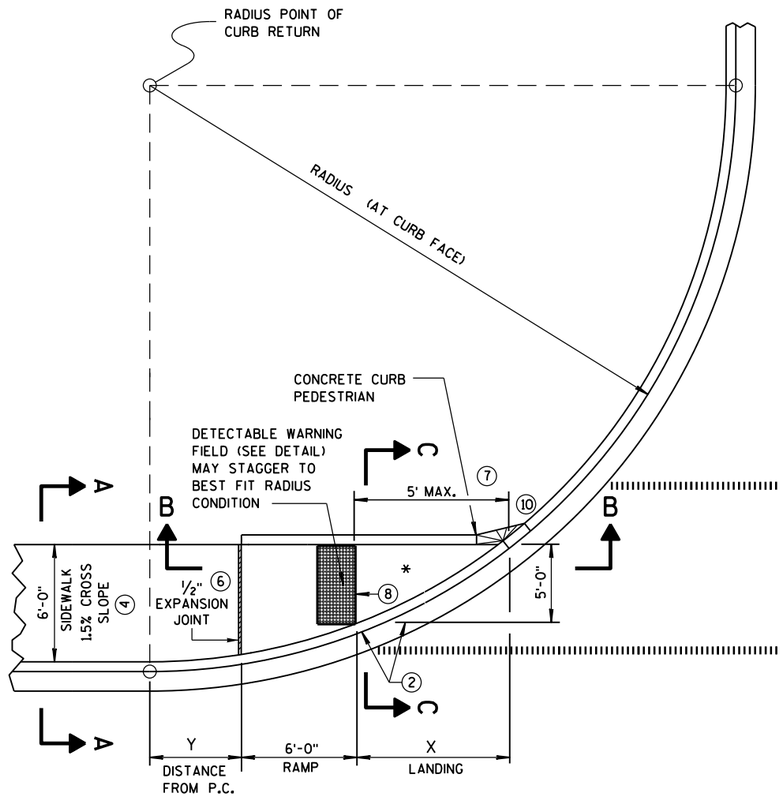
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

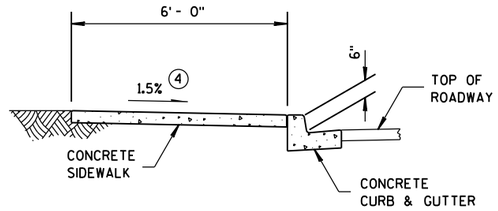
S.D.D. 8 D 5-16b



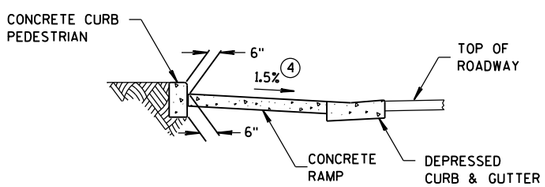
CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

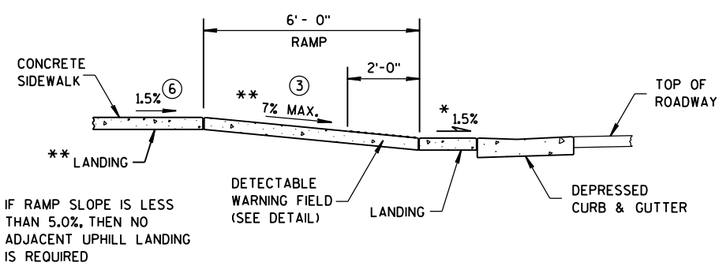
INTERMEDIATE RADII CAN BE INTERPOLATED



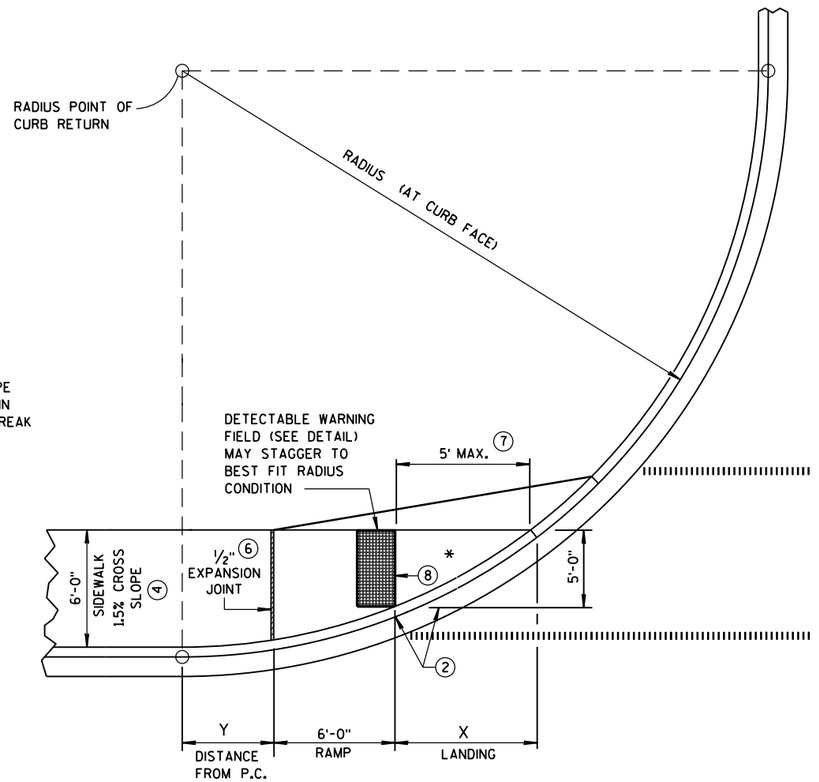
SECTION A-A FOR TYPE 4A



SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

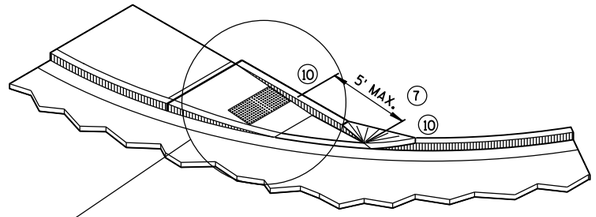
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

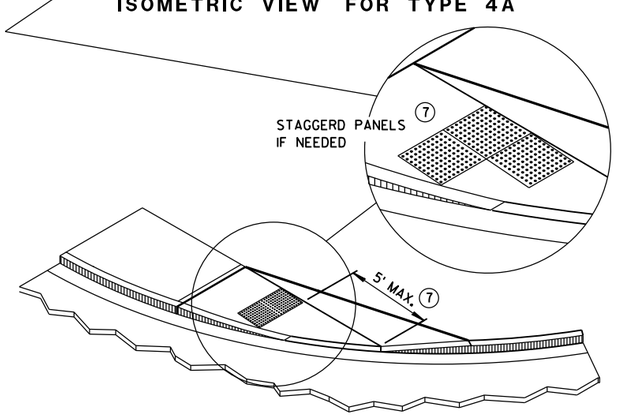
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

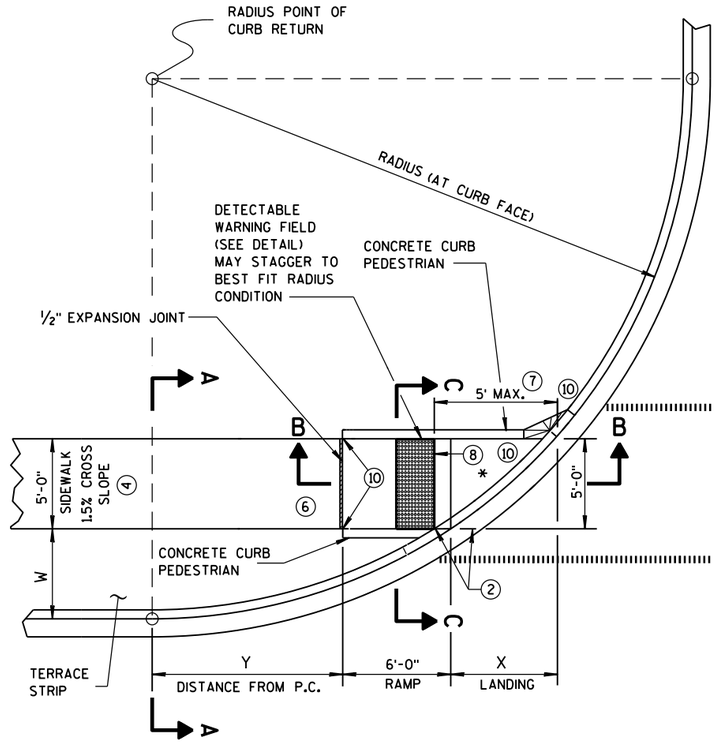
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

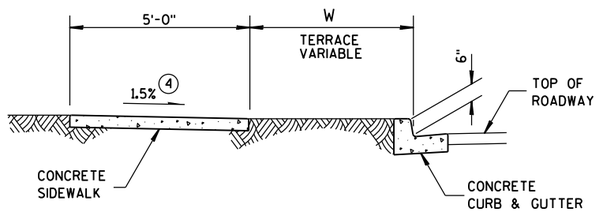
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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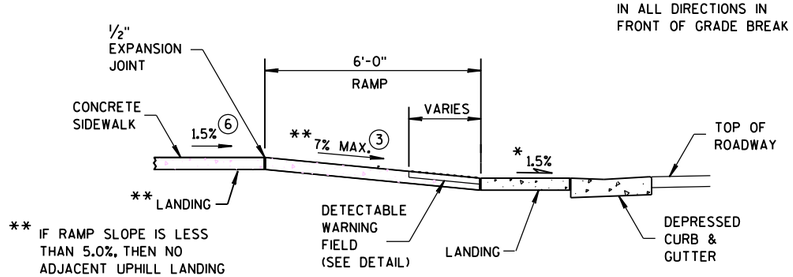
S.D.D. 8 D 5-16c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



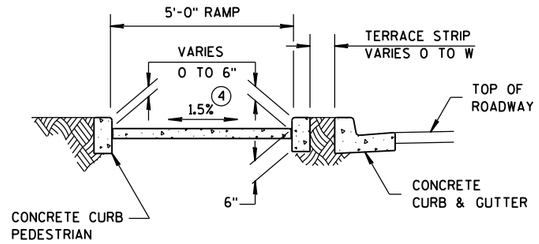
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

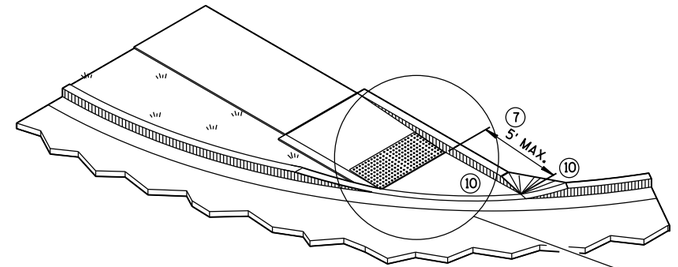
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

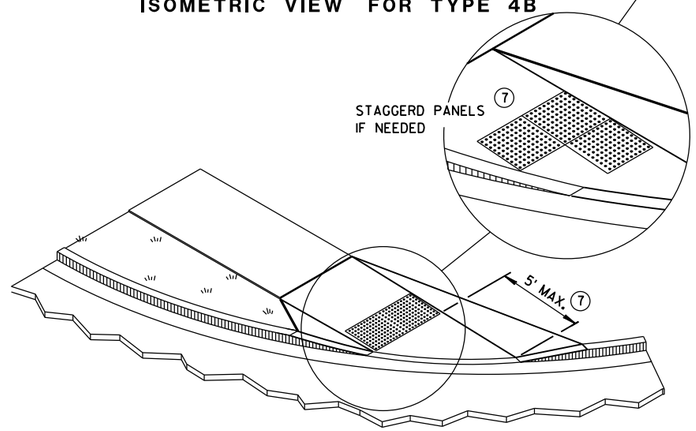
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

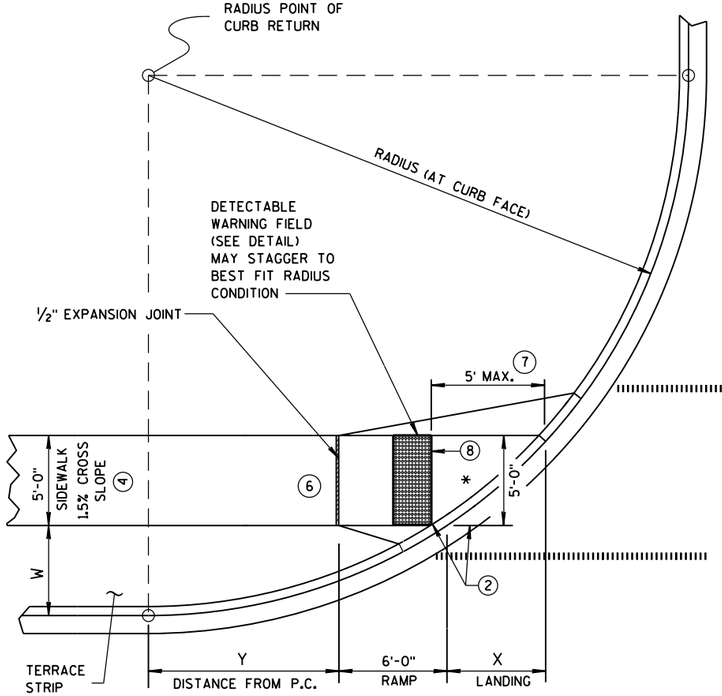
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



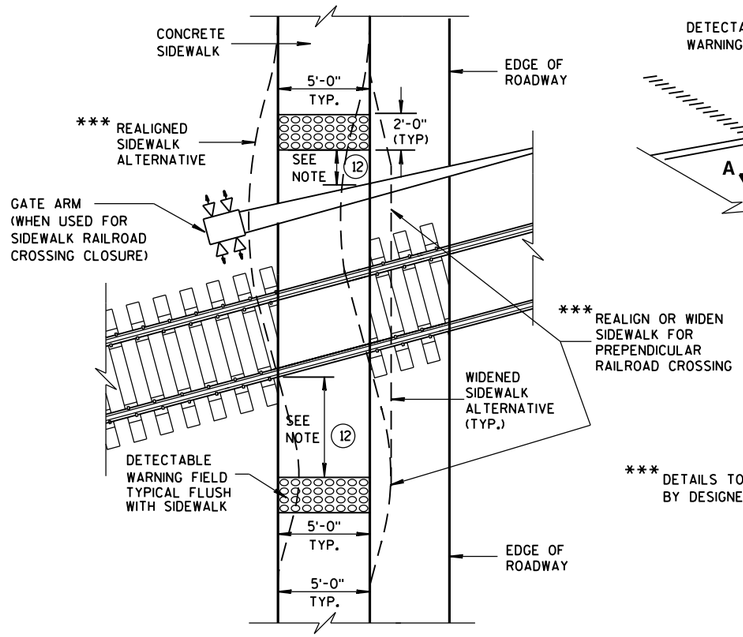
CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

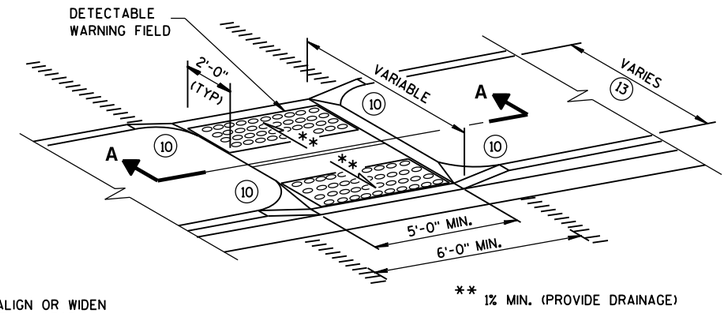
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S.D.D. 8 D 5-16d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

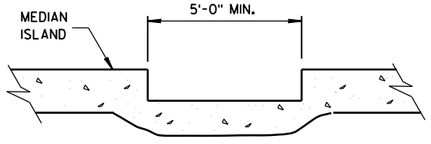
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

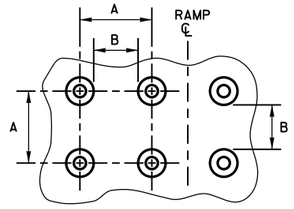
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



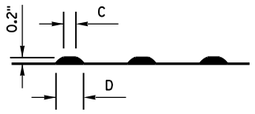
SECTION A-A

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

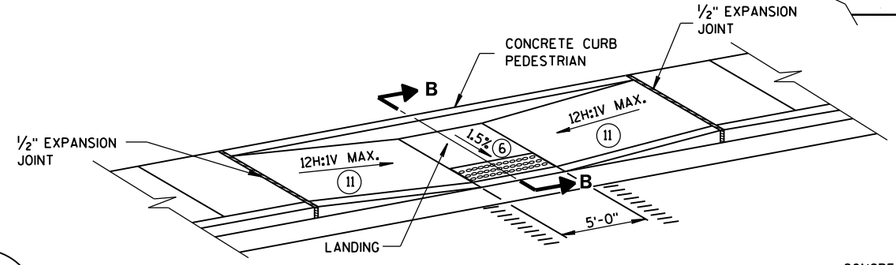


PLAN VIEW

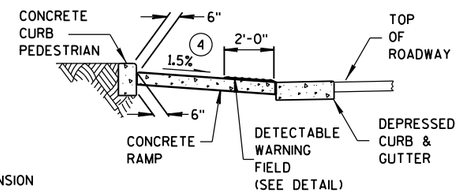


ELEVATION VIEW

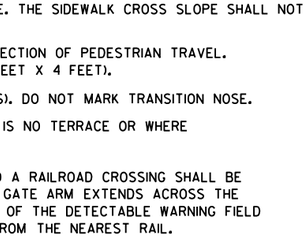
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



MID-BLOCK CROSSING
TYPE 7A



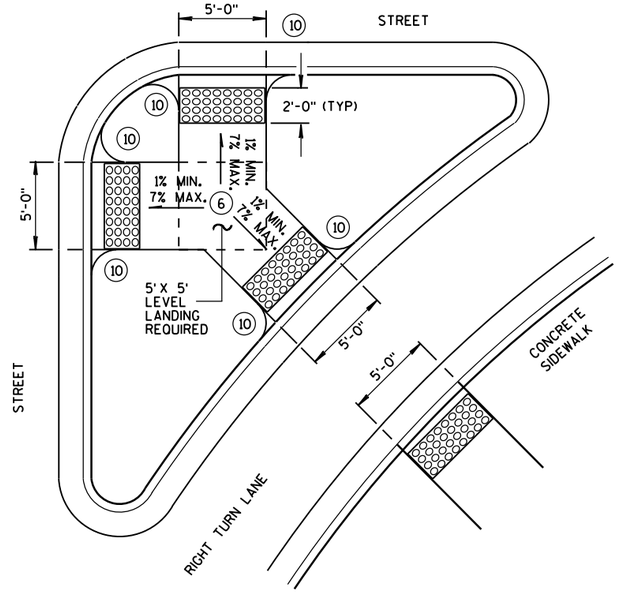
SECTION B-B



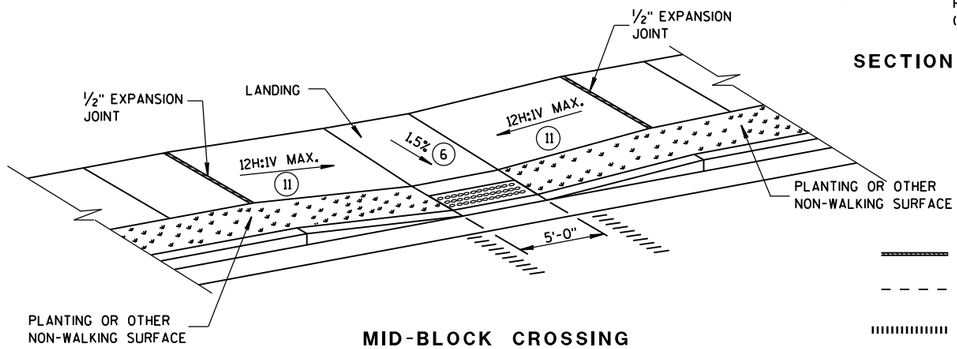
PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

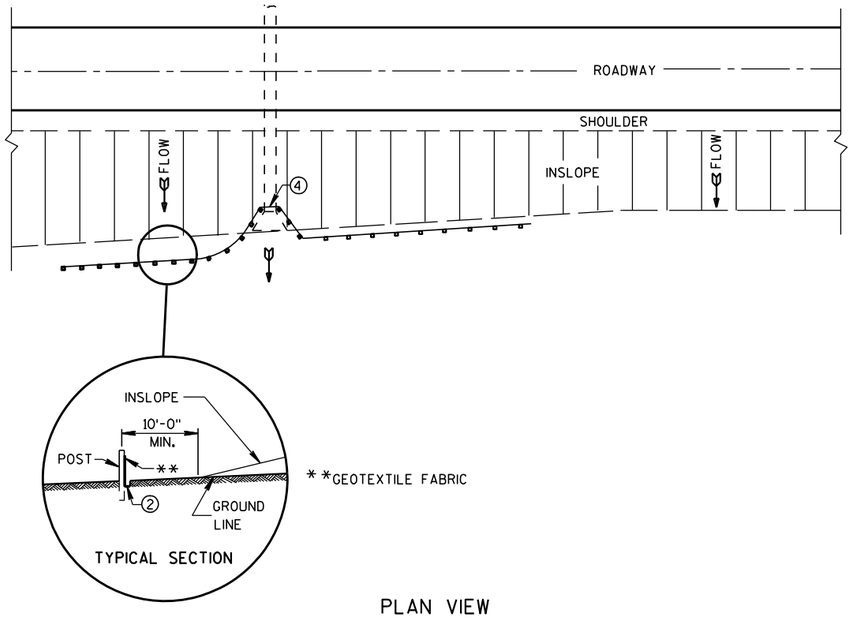
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

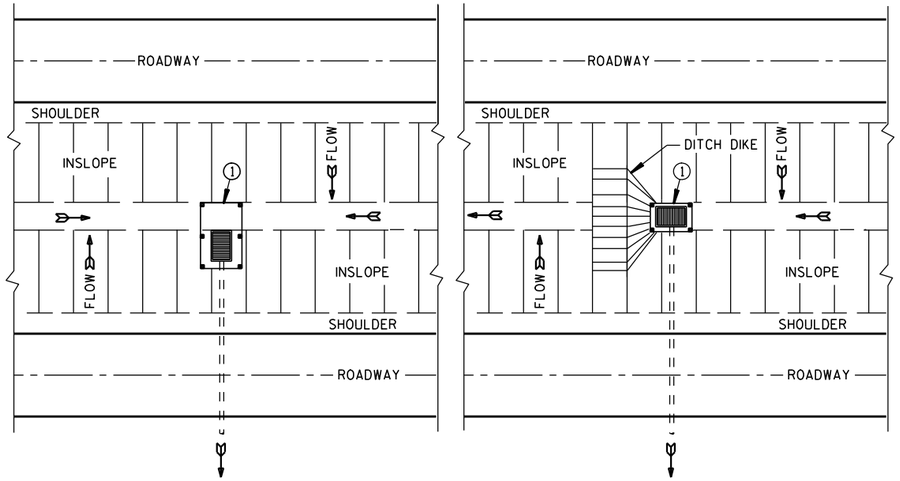
6

S.D.D. 8 D 5-16e



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.

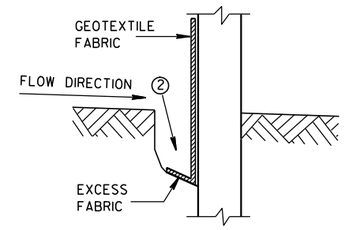
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

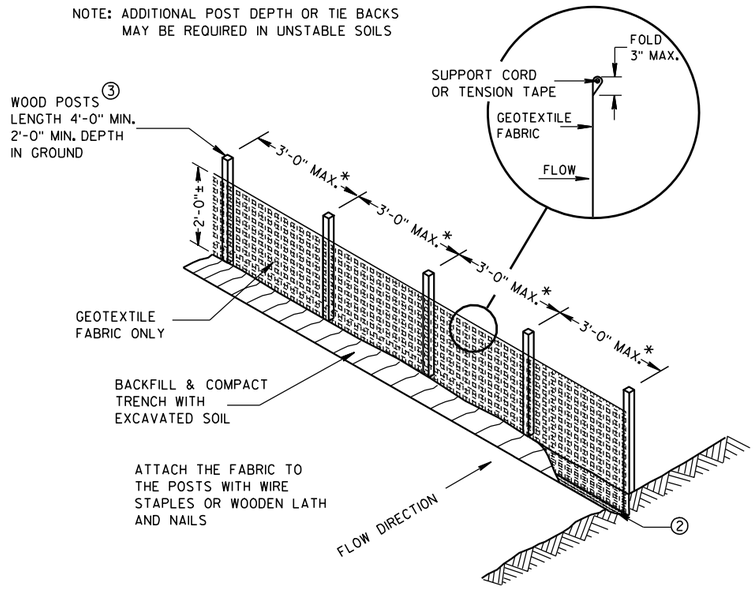
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

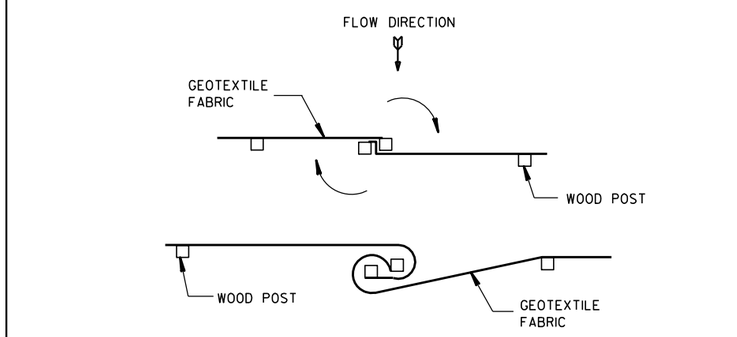
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



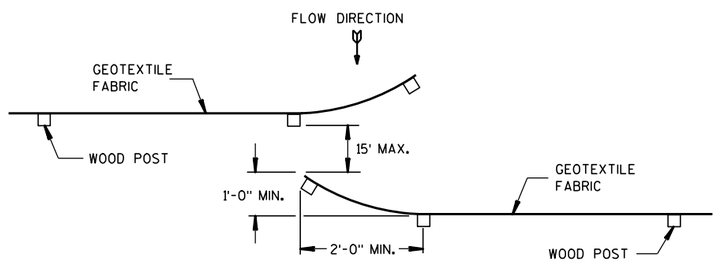
TRENCH DETAIL



SILT FENCE

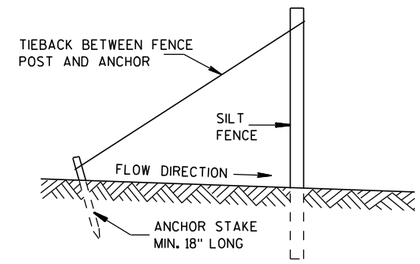


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

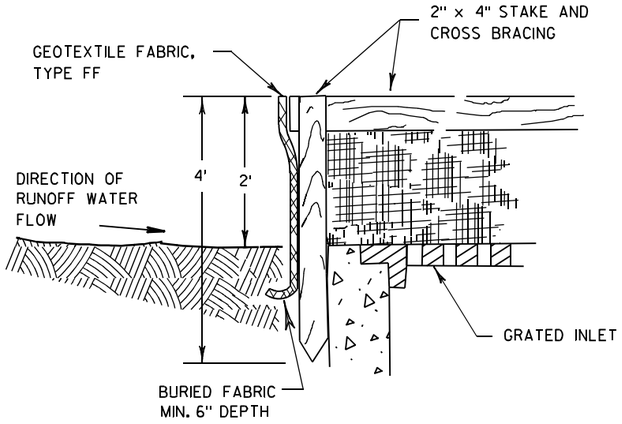
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

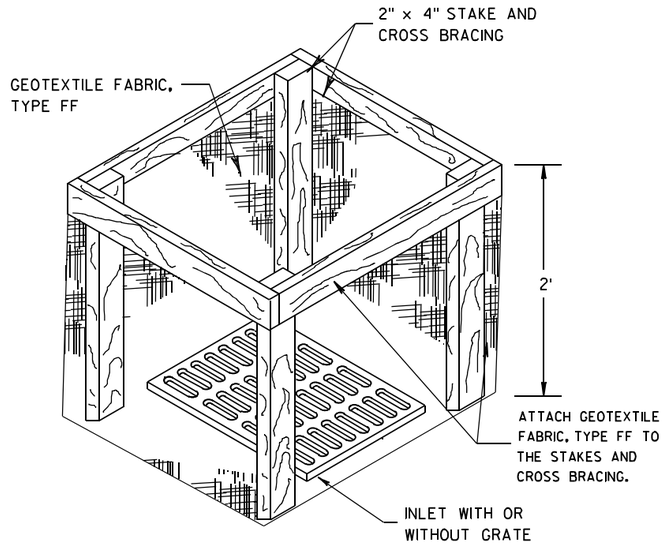
6

S.D.D. 8 E 9-6

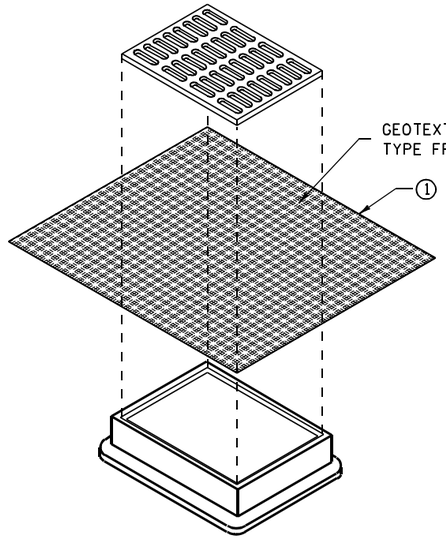
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S.D.D. 8 E 9-6



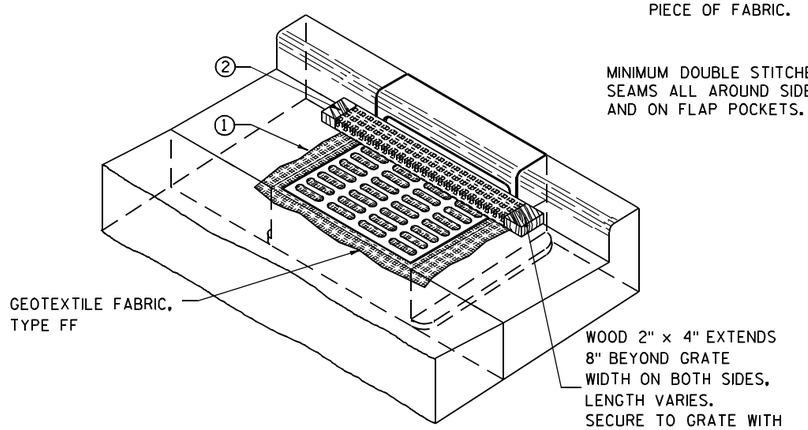


INLET PROTECTION, TYPE A

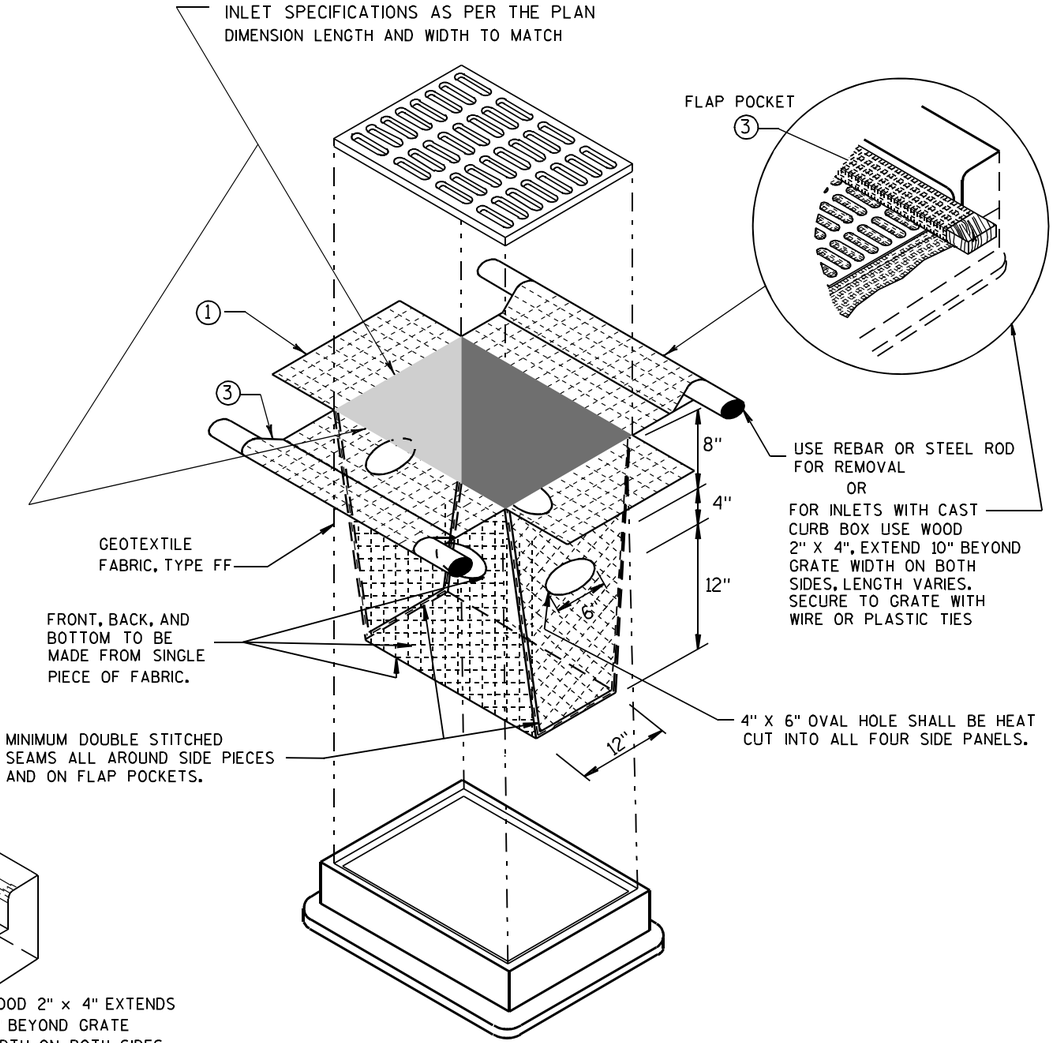


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

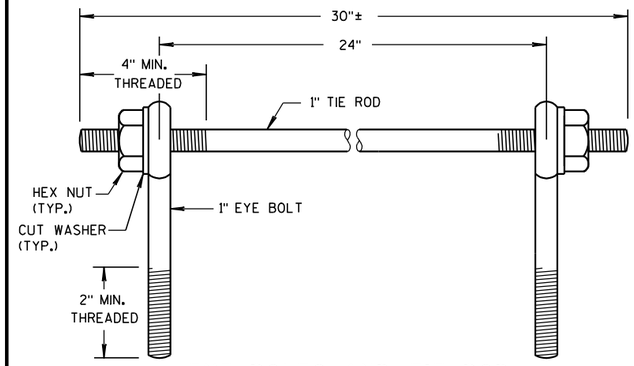
10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

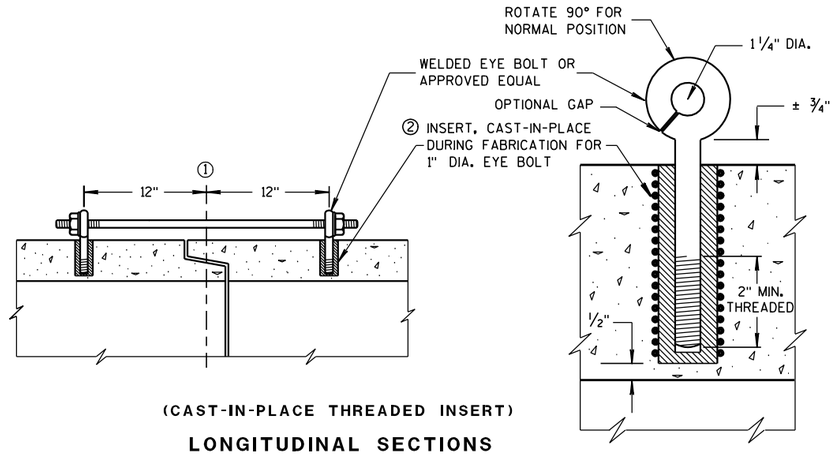
FHWA

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S.D.D. 8 E 10-2



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.

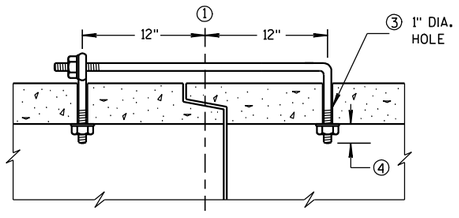
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

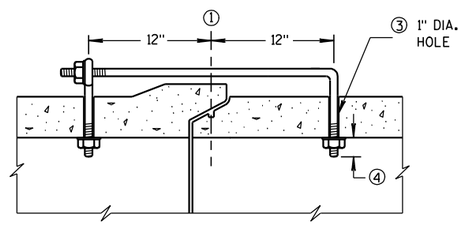
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

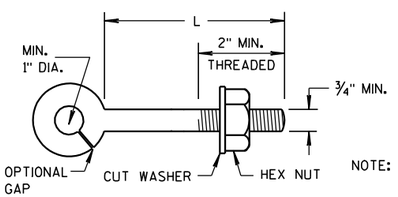


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

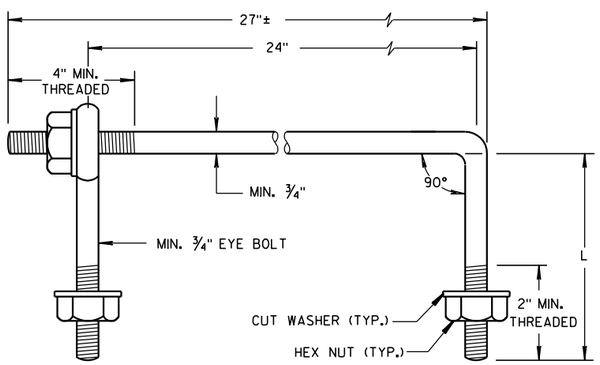
EYE BOLT DIMENSION TABLE

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"	



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

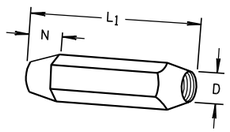
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

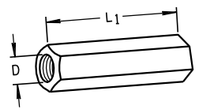
ADJUSTABLE TIE ROD TABLE

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



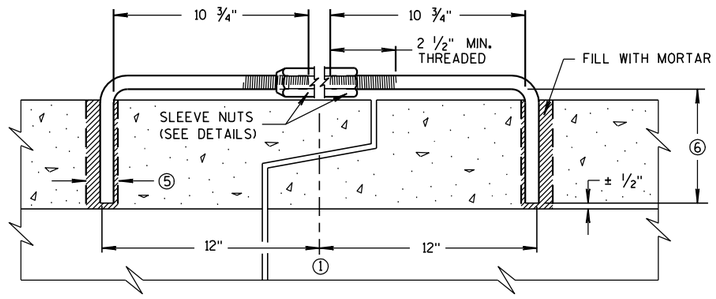
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PLAIN

RIGHT AND LEFT THREADS

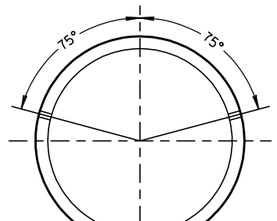
SLEEVE NUTS



LONGITUDINAL SECTION

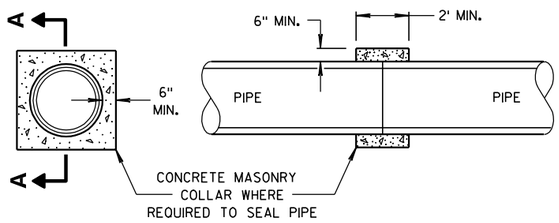
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

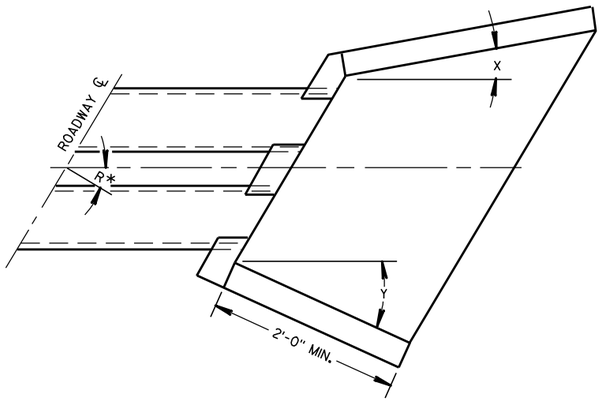
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
89
FHWA

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S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7



WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	"	16 - 45°	10°	"
23 - 37°	20°	"	46 - 75°	5°	"
38 - 52°	15°	"	OVER 75°	0°	"
53 - 67°	10°	"			
68 - 82°	5°	"			
OVER 82°	0°	"			

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

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.

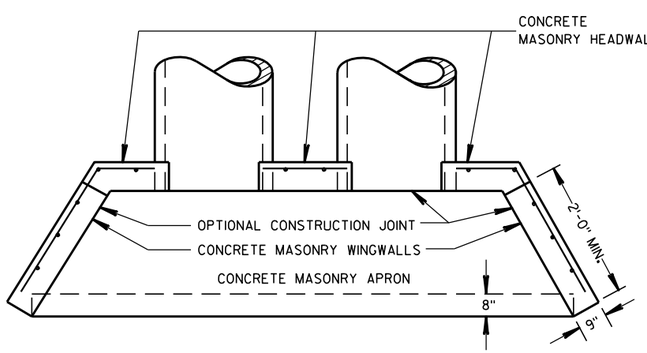
FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

(1) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

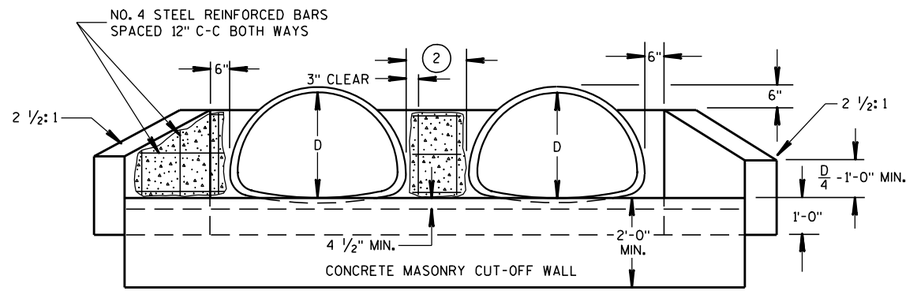
(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3'-0"



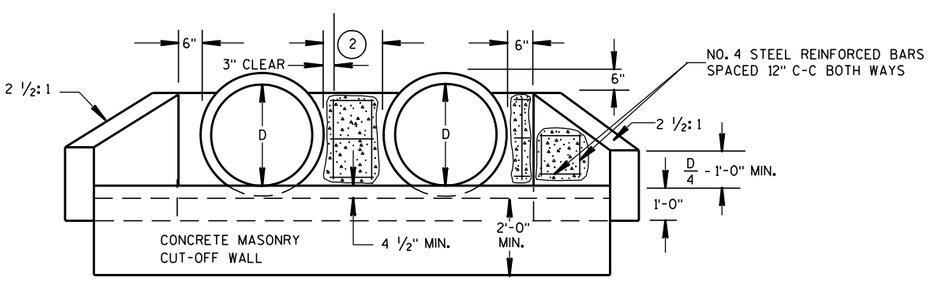
PLAN VIEW

CULVERT PIPE AND PIPE ARCH



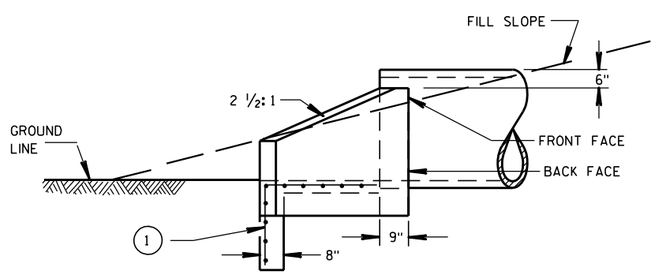
END ELEVATION

PIPE ARCH



END ELEVATION

CULVERT PIPE



SIDE ELEVATION

CULVERT PIPE AND PIPE ARCH

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/14/98 — DATE

/S/ Rory L. Rhinehart — CHIEF ROADWAY DEVELOPMENT ENGINEER

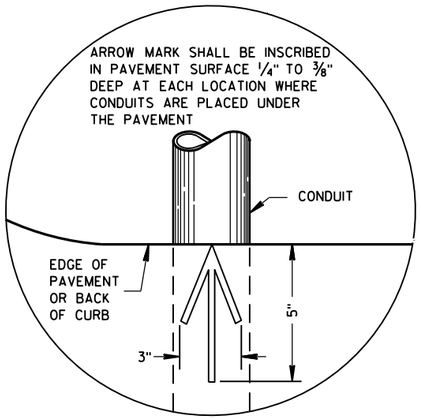
FHWA

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S.D.D. 8 F 10-1

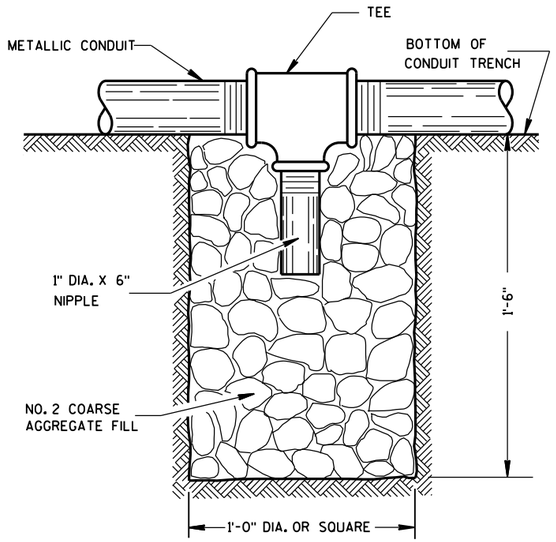
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S.D.D. 8 F 10-1



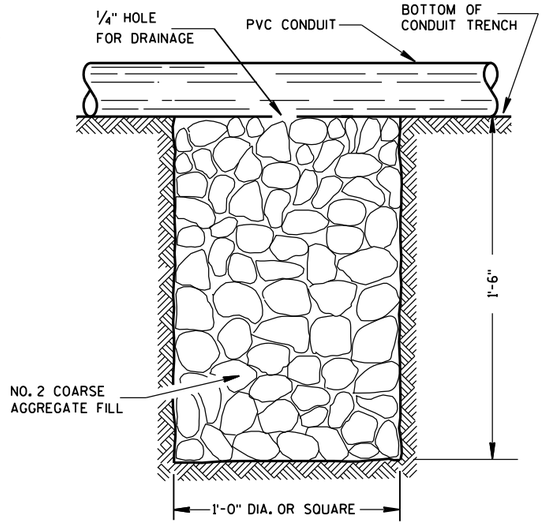
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

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.

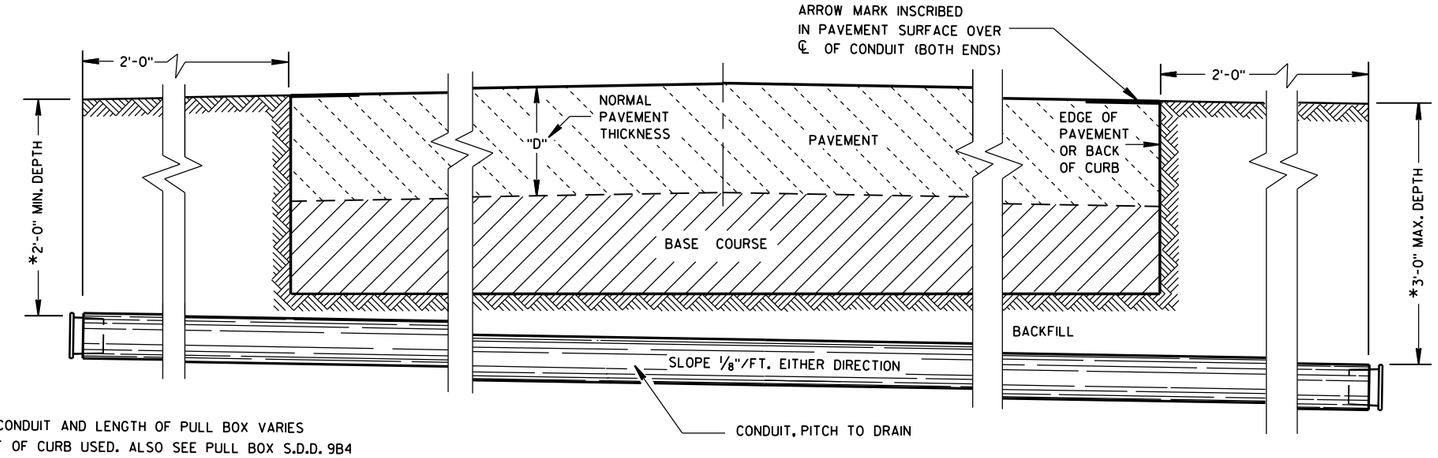
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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.



*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

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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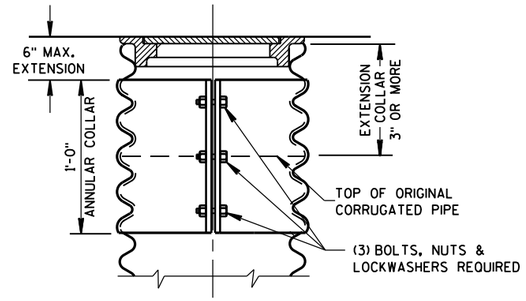
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

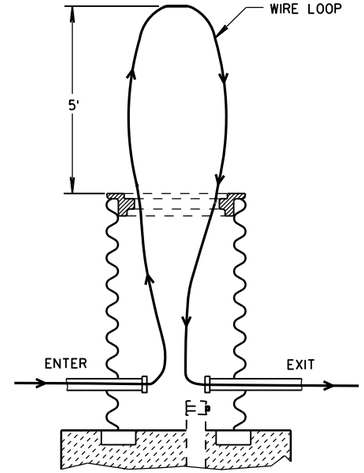
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	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.

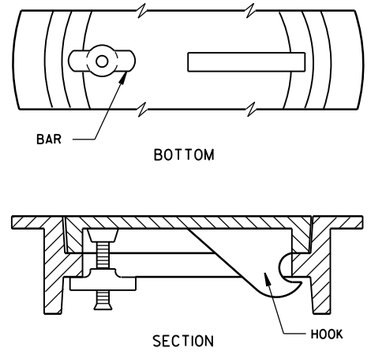
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

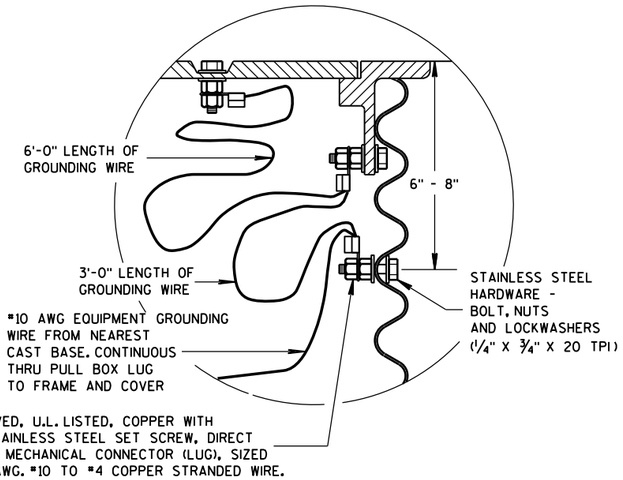


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

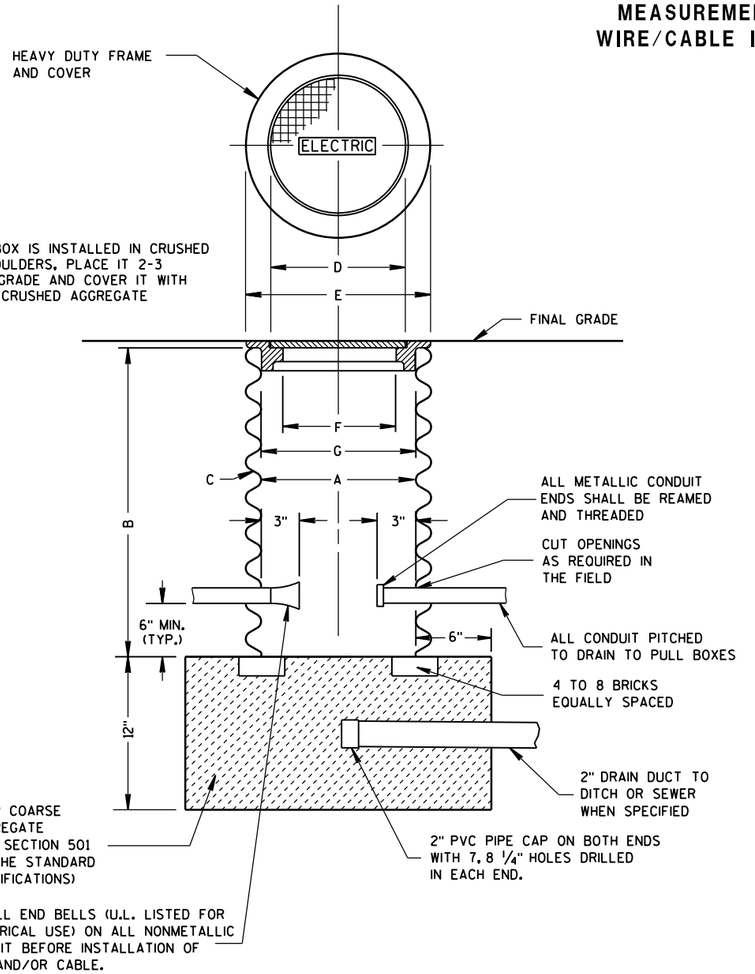


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

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.

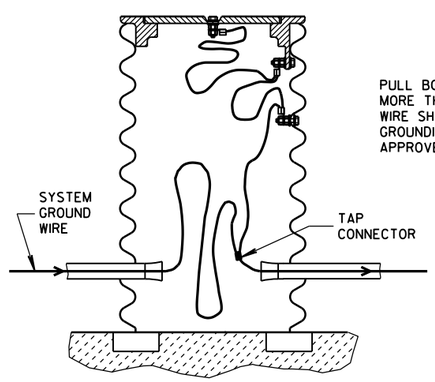
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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 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

PULL BOX

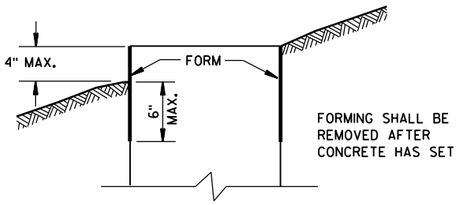
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FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

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

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

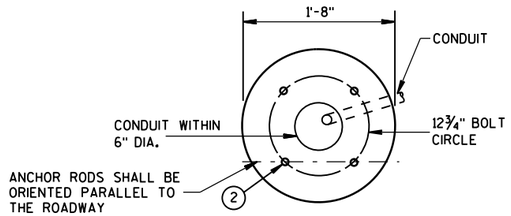
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

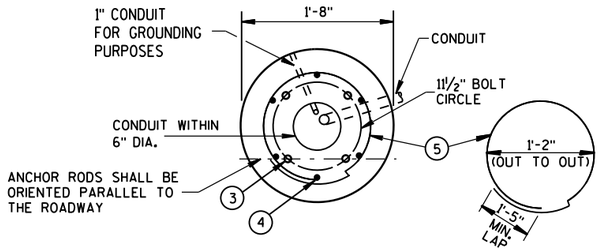
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

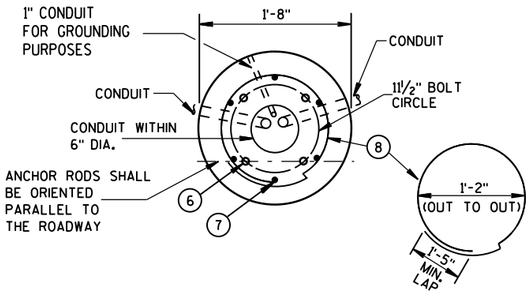
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



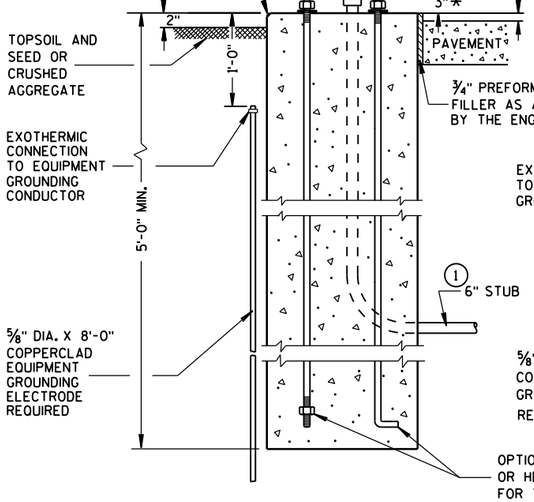




FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

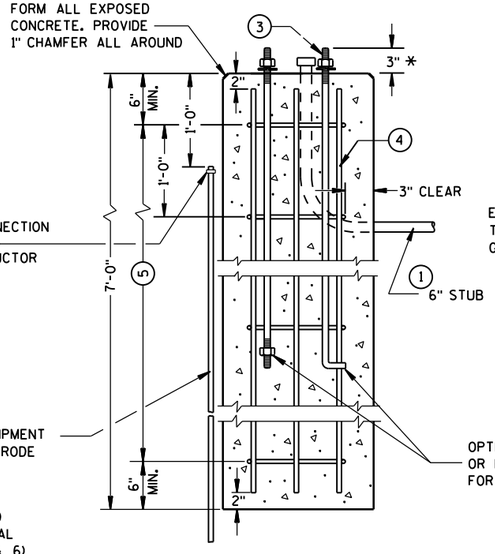
HALF SECTION IN UNPAVED AREA

(TYPICAL FOR TYPES 1, 2, 5, & 6)

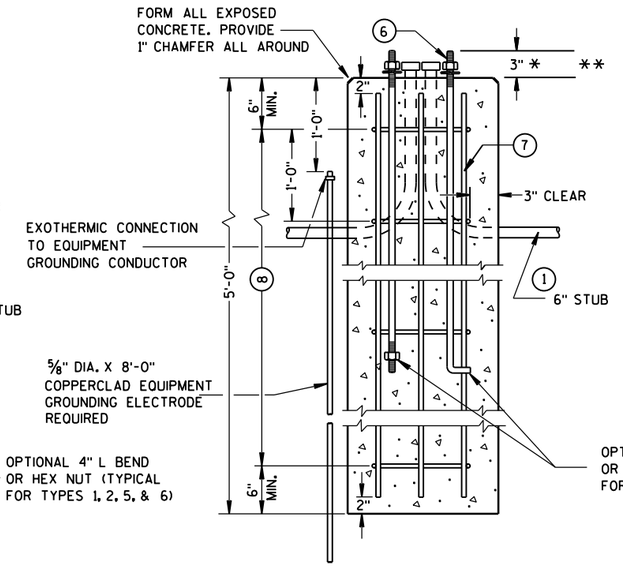


HALF SECTION IN PAVEMENT

(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

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GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

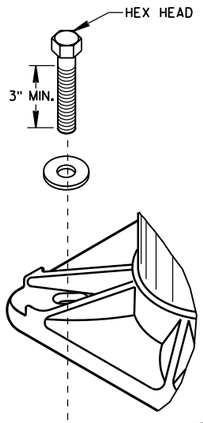
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

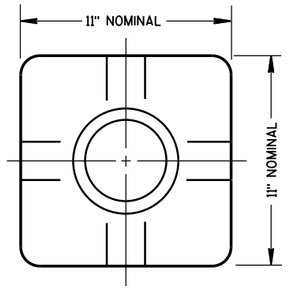
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

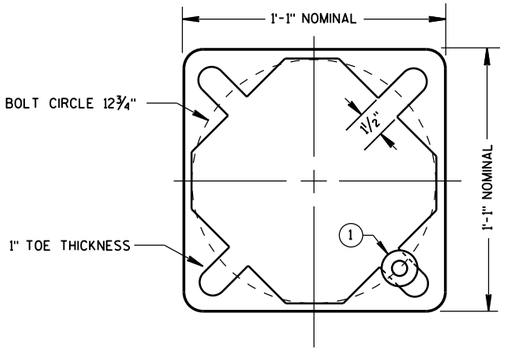
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

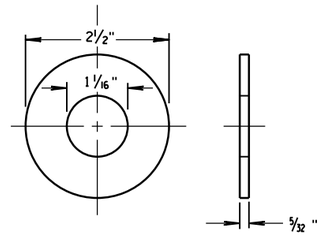




TOP VIEW
(PEDESTAL BASE)

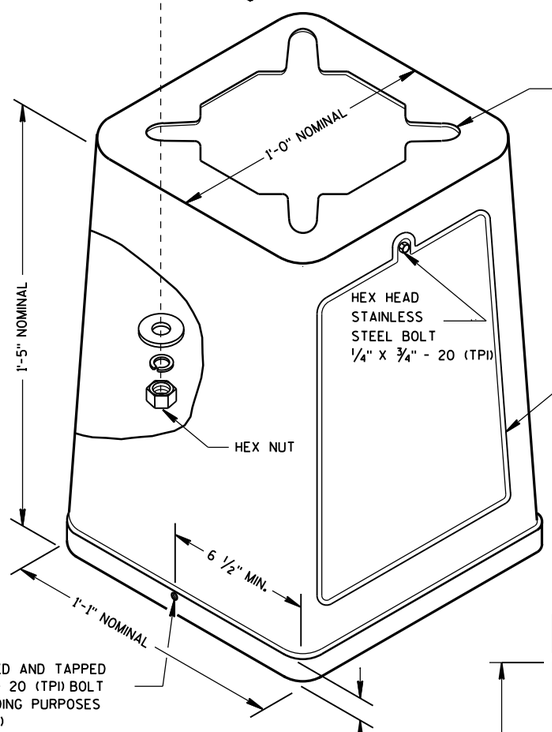


BOTTOM VIEW
(PEDESTAL BASE)

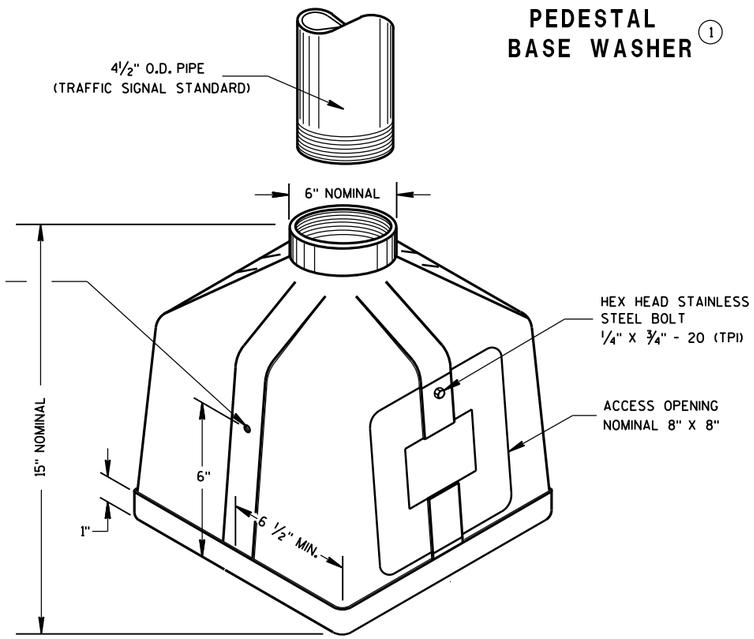


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

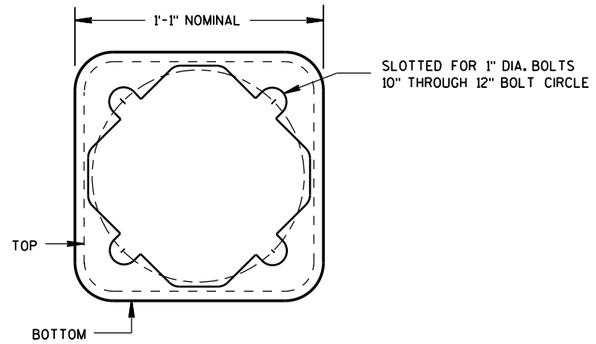


ISOMETRIC VIEW

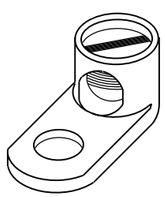


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

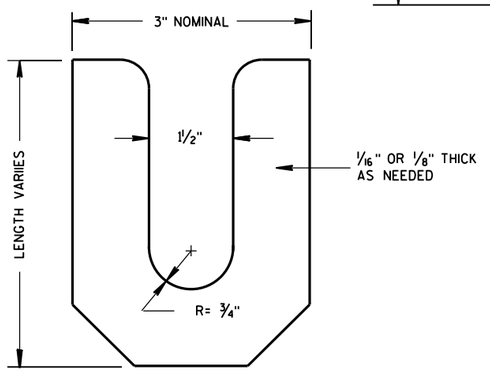


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

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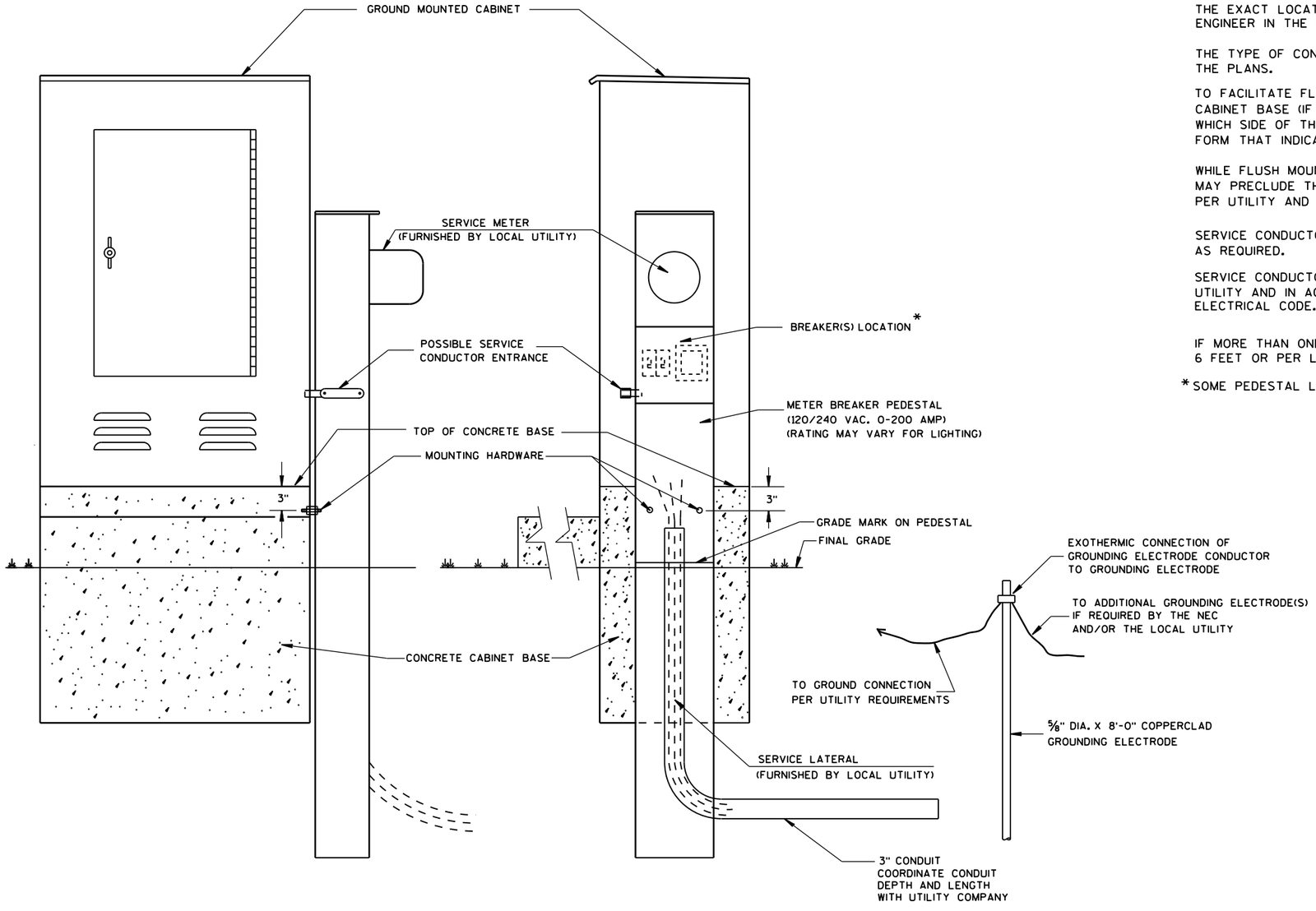
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TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

*SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

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S.D.D. 9 D 1-5

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S.D.D. 9 D 1-5

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

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STATE ELECTRICAL

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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.

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE-WIRED BY THE CABINET FABRICATOR.

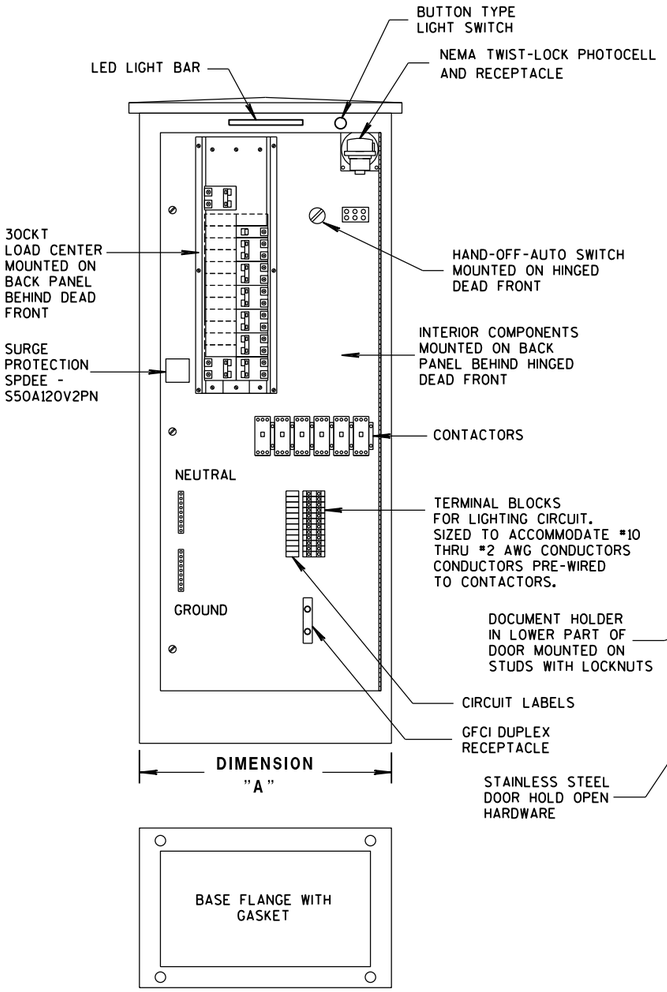
ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

FRONT INTERIOR ELEVATION



SIDE VIEW

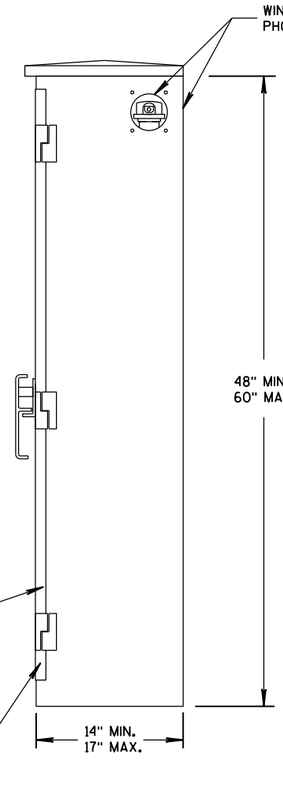
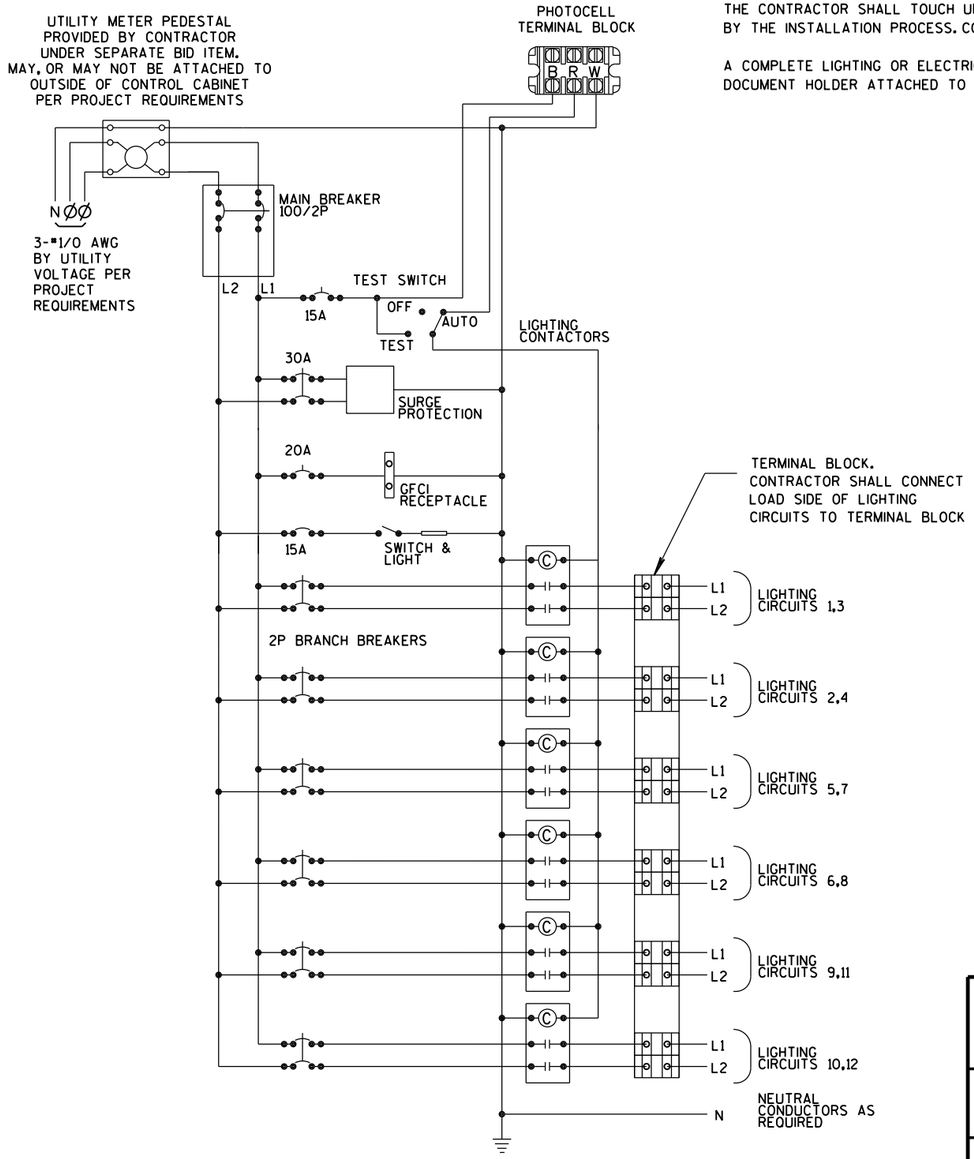


TABLE OF DIMENSIONS (INCHES)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET



CONTROL CABINET SCHEMATIC

LIGHTING CONTROL CABINET 120/240 VOLT

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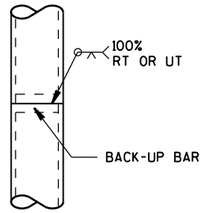
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Sept. 2014 DATE
/S/ Thomas Gonring STATE LIGHTING ENGINEER
WYS.
FHWA

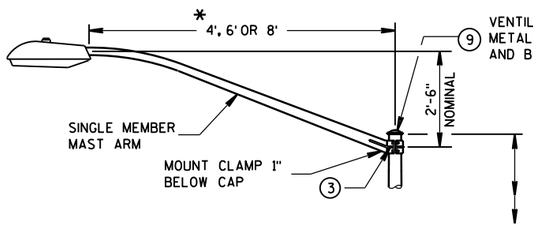
6
S.D.D. 9 D 4-2

FOR MANUFACTURERS USE ONLY

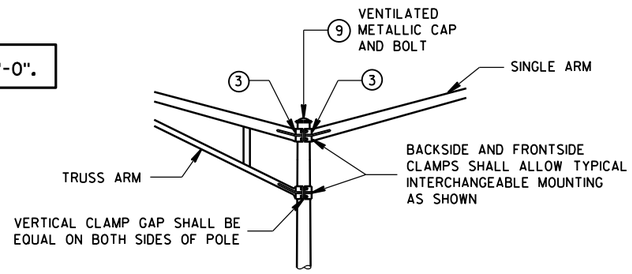
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.

*RISE FOR 4' ARM SHALL BE 2'-0".





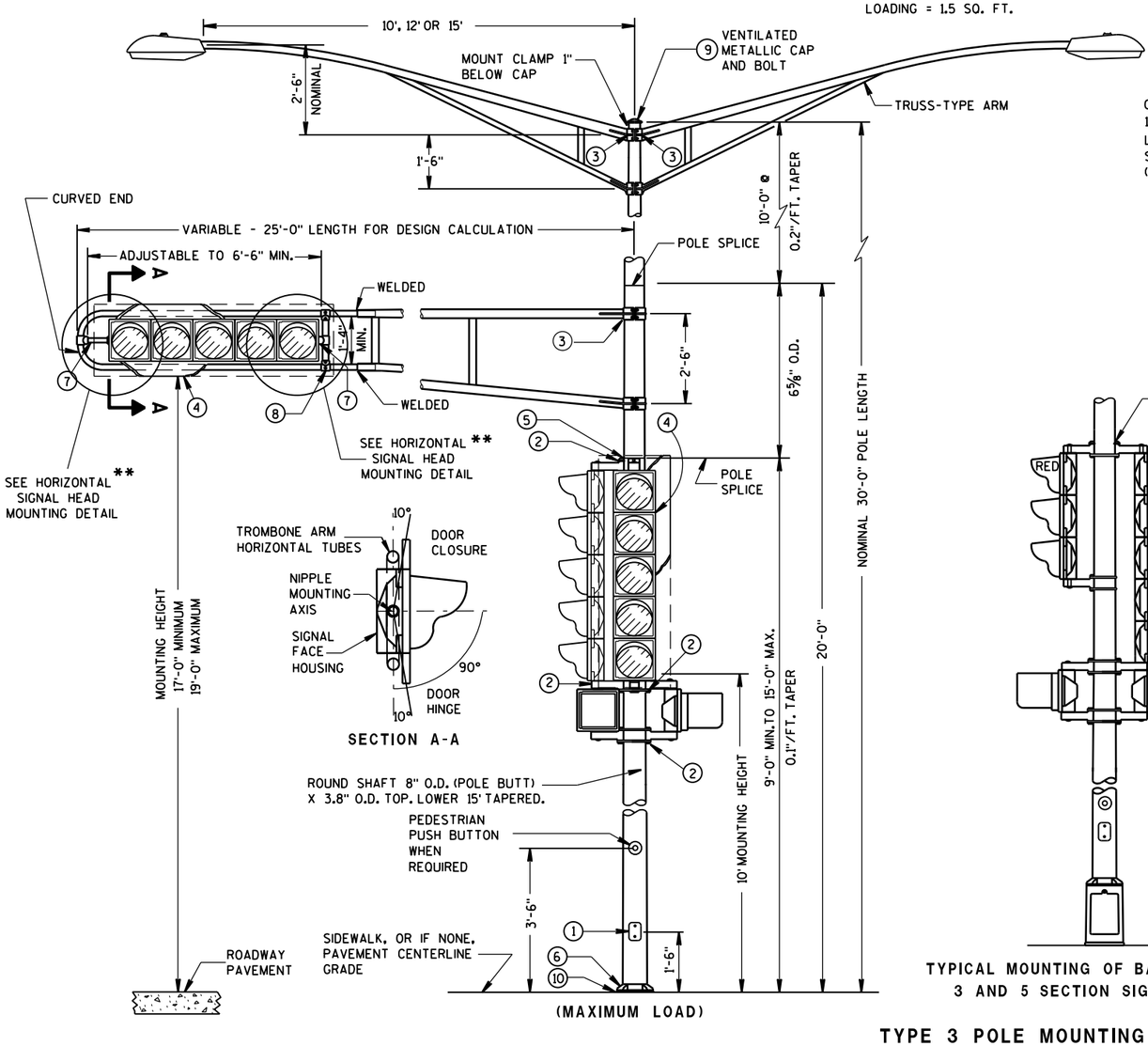
POLE SPLICE DETAIL

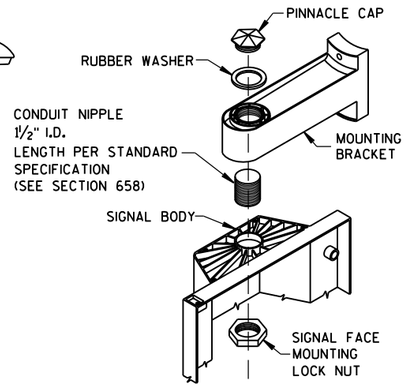


INTERCHANGEABLE MOUNTING DETAIL

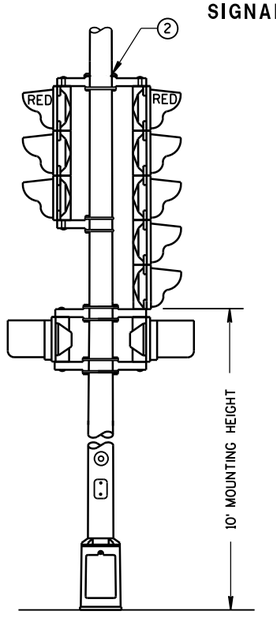
LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

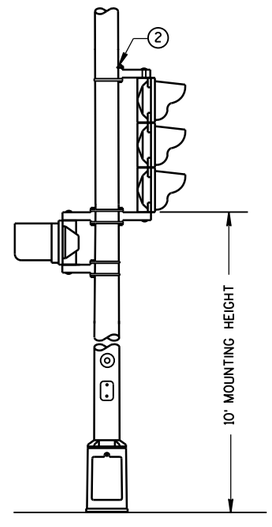




SIGNAL FACE MOUNTING DETAIL
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK
3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION
SIGNAL FACE

GENERAL NOTES

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

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652, SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) TYPE 3 POLE CONFIGURATIONS SHALL BE MOUNTED DIRECTLY TO THEIR CONCRETE BASES.

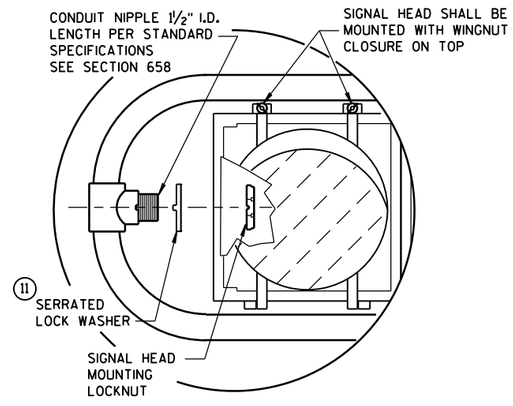
(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658)

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (1/4 " X ¾" -20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

** SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR

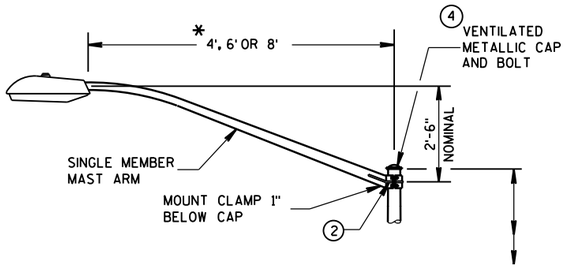
TYPE 3 POLE MOUNTING CONFIGURATION

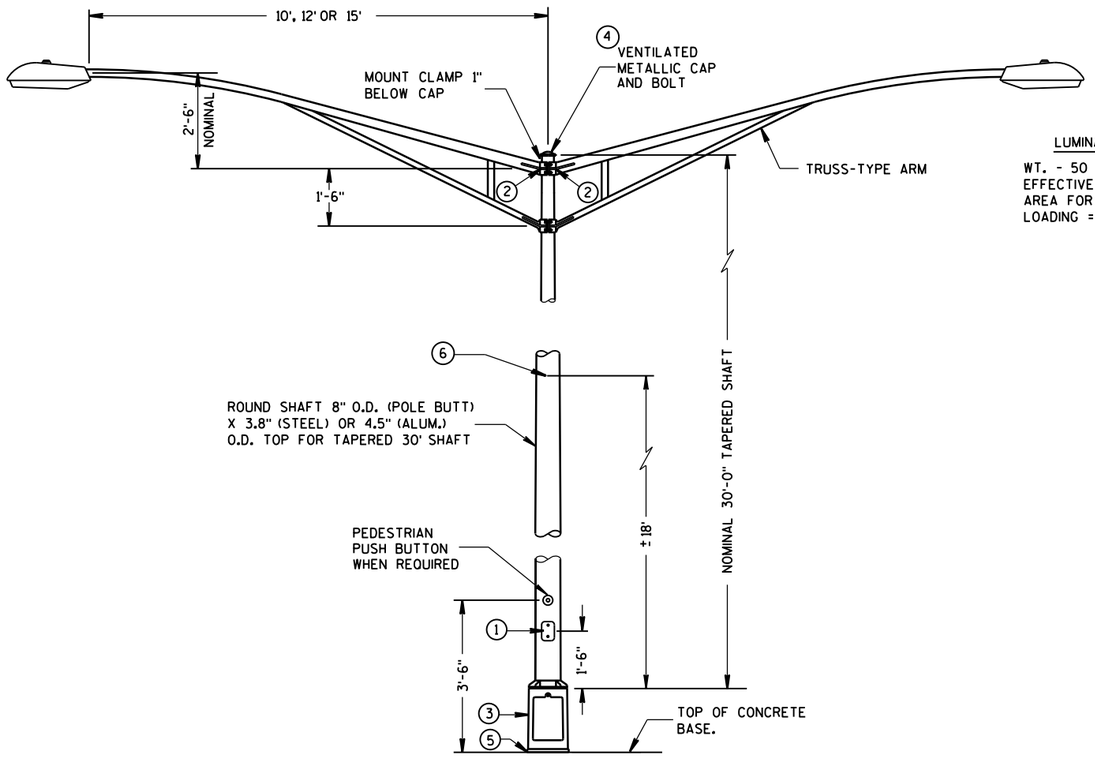
POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI 97

6
S.D.D. 9 E 1-14b

*RISE FOR 4' ARM SHALL BE 2'-0".

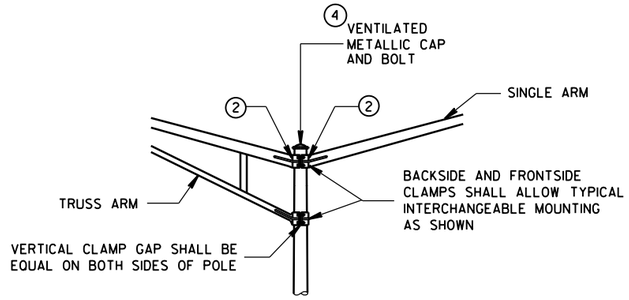




TYPE 5 POLE MOUNTING CONFIGURATION

(MAXIMUM LOAD)

LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

GENERAL NOTES

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

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

6

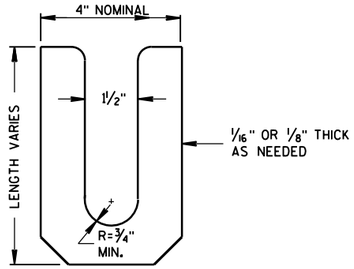
S.D.D. 9 E 1-14d

POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

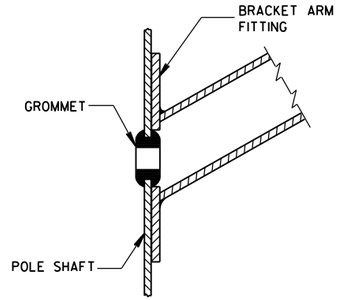
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S.D.D. 9 E 1-14d

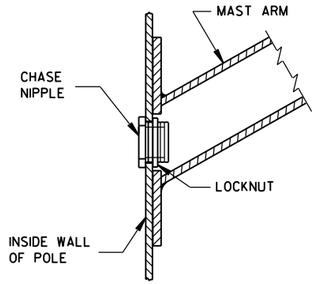


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

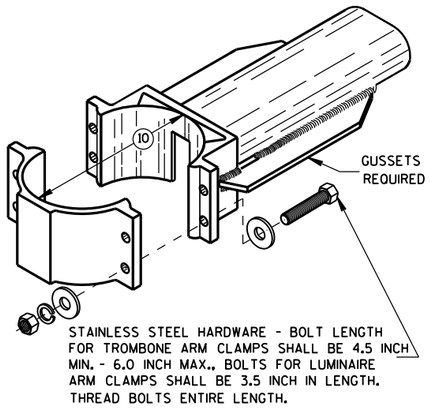
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

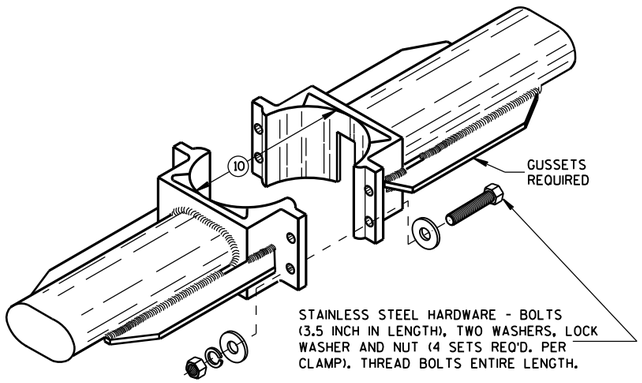
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

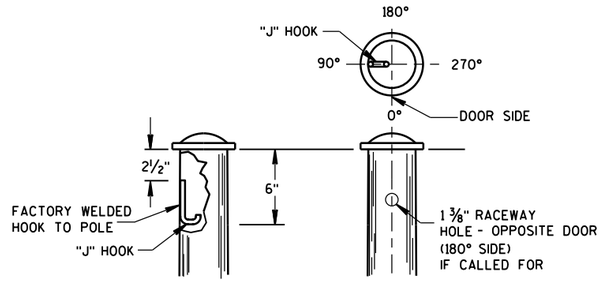
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



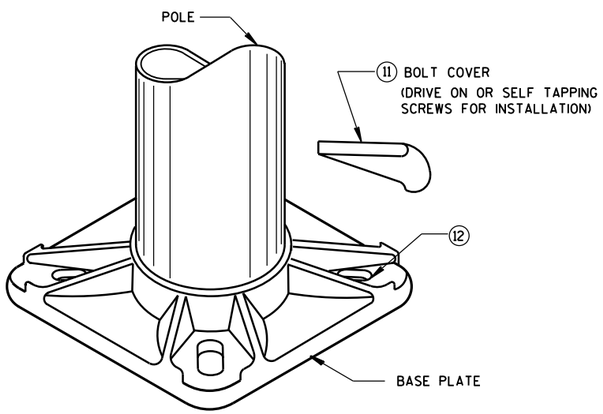
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



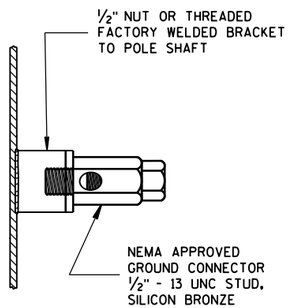
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

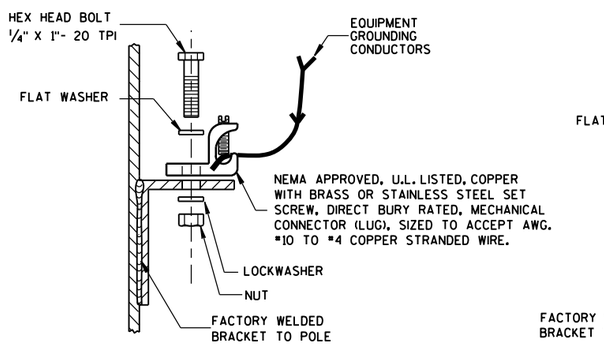


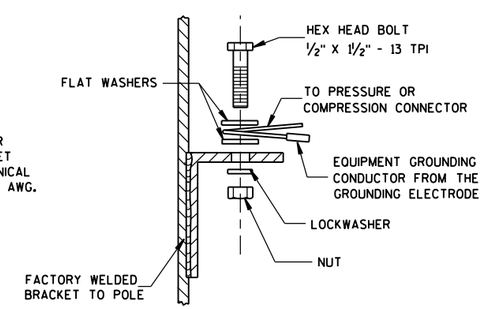
TYPICAL "J" HOOK LOCATION



BASE PLATE







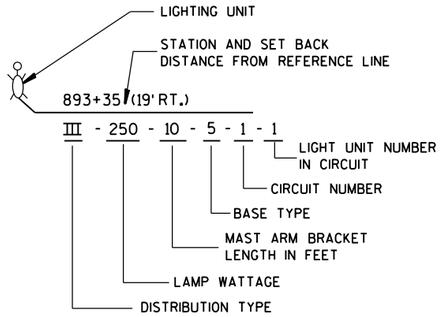
TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

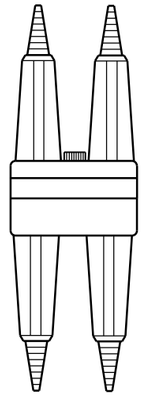
HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

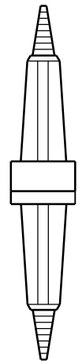
APPROVED
Feb. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 99
FHWA



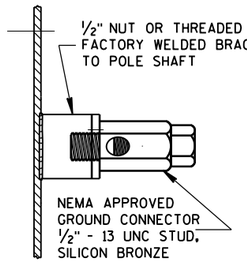
LIGHTING UNIT CODE
(TYPICAL)

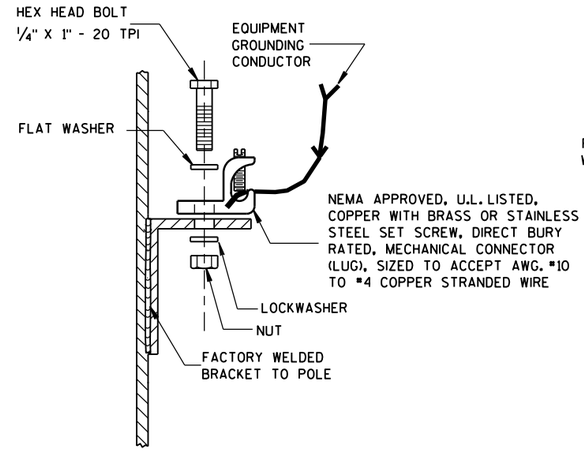


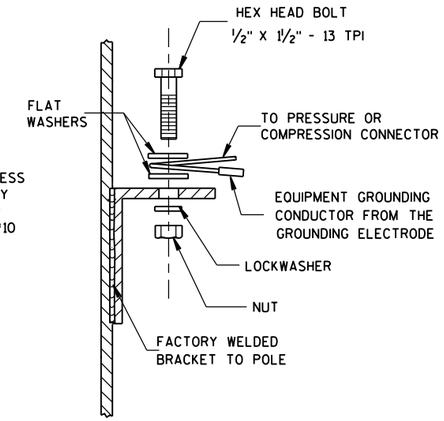
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



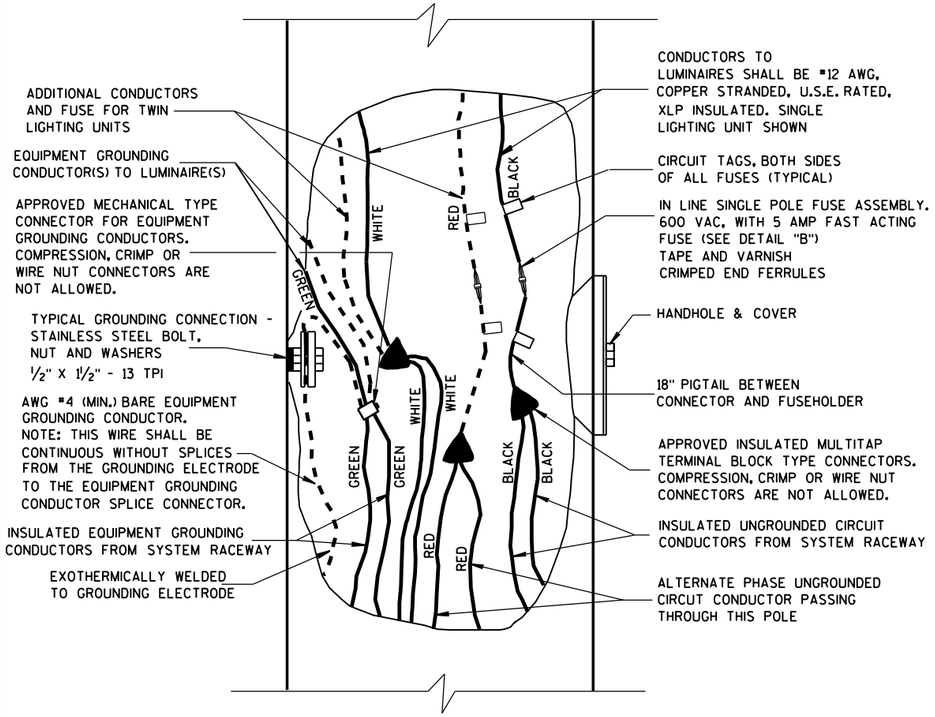
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



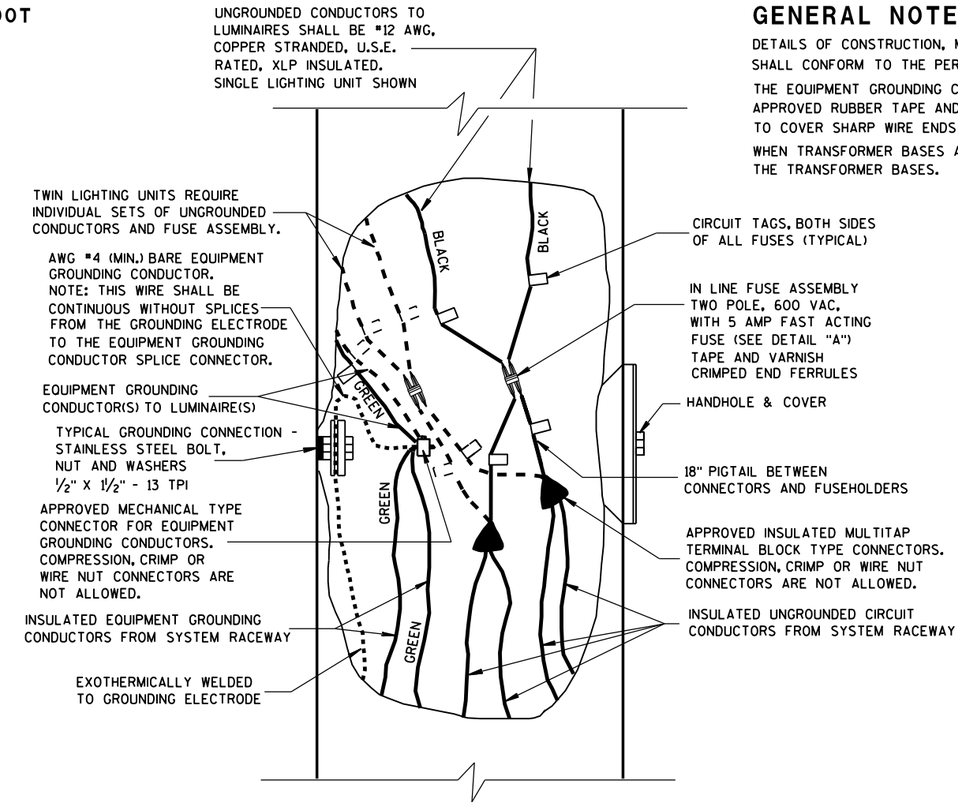




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

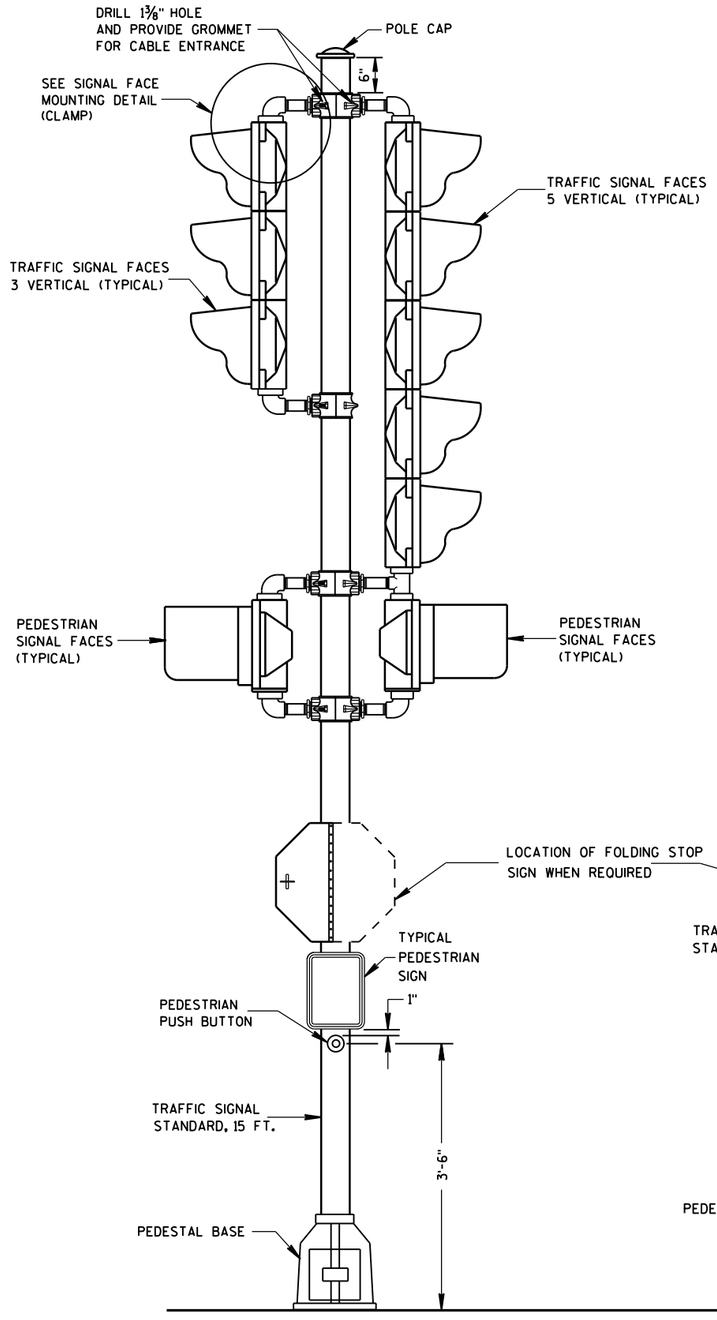
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

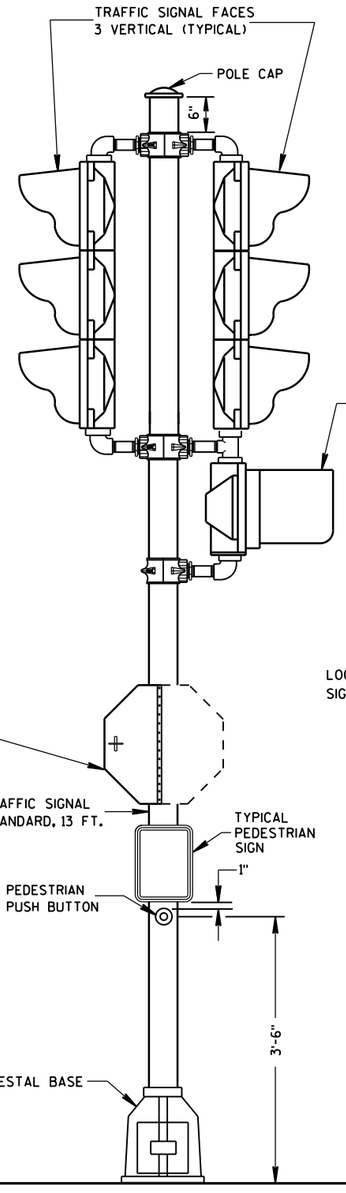
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

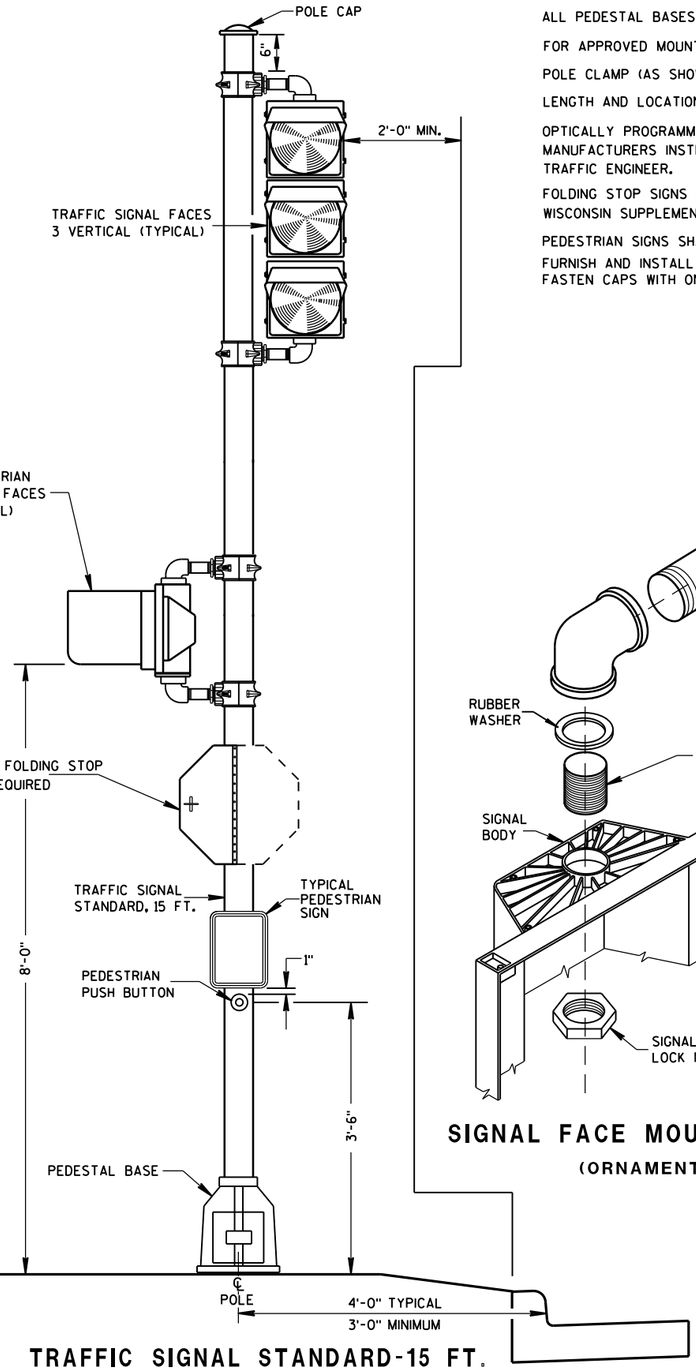
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S.D.D. 9 E 3-5



TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLE CLAMP (AS SHOWN) MOUNTING BRACKETS SHALL BE USED.

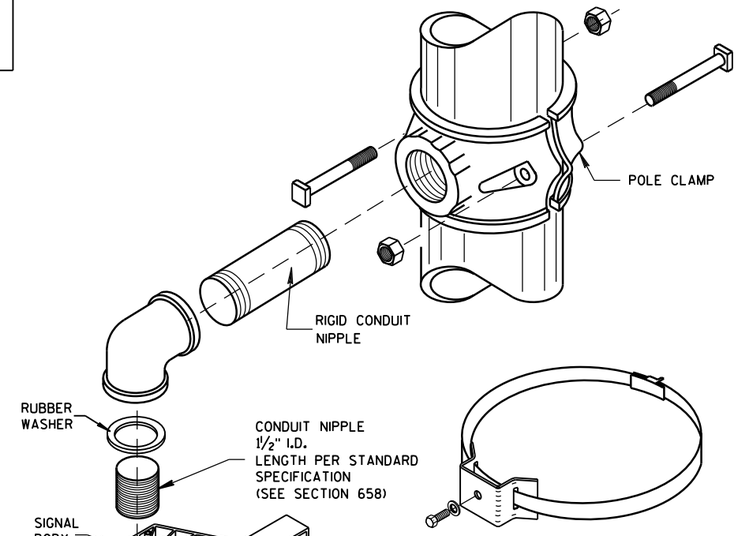
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

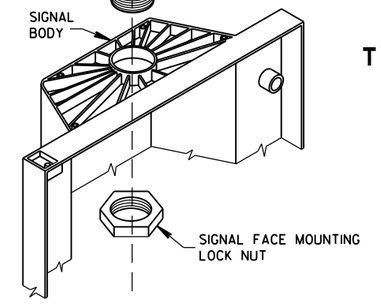
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



SIGNAL FACE MOUNTING DETAIL
(ORNAMENTAL)

TRAFFIC SIGNAL STANDARD
ORNAMENTAL BRACKET MOUNTINGS
TYPICAL FOR 13 FT. OR 15 FT.

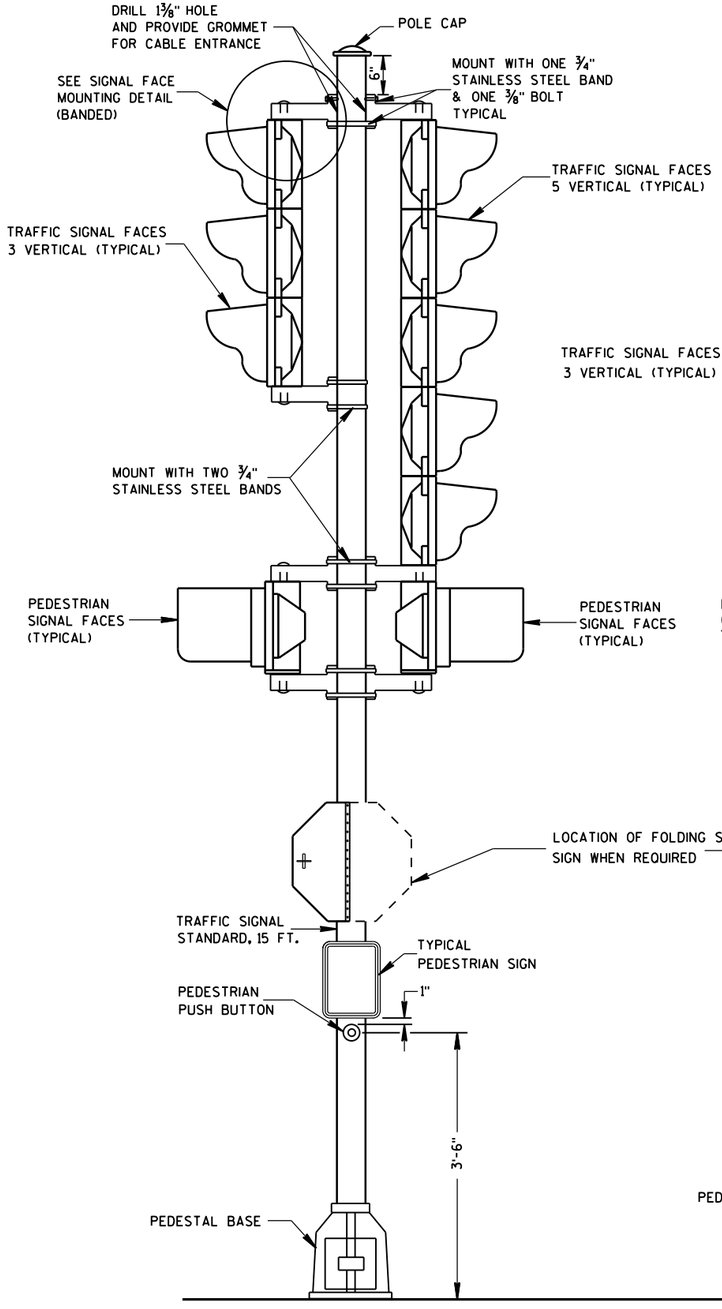
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

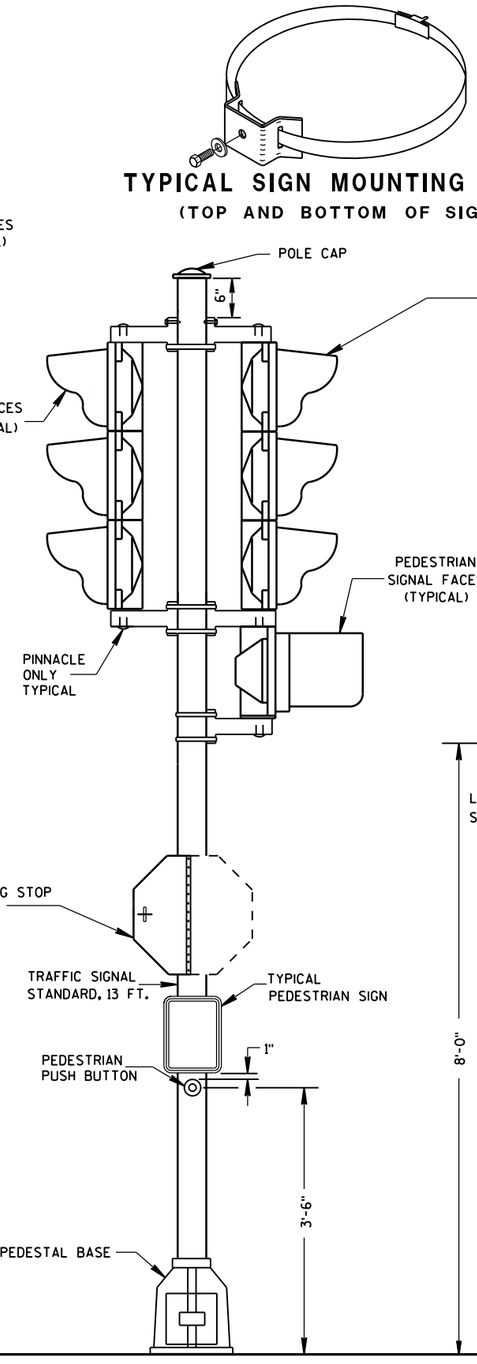
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S.D.D. 9 E 5-6

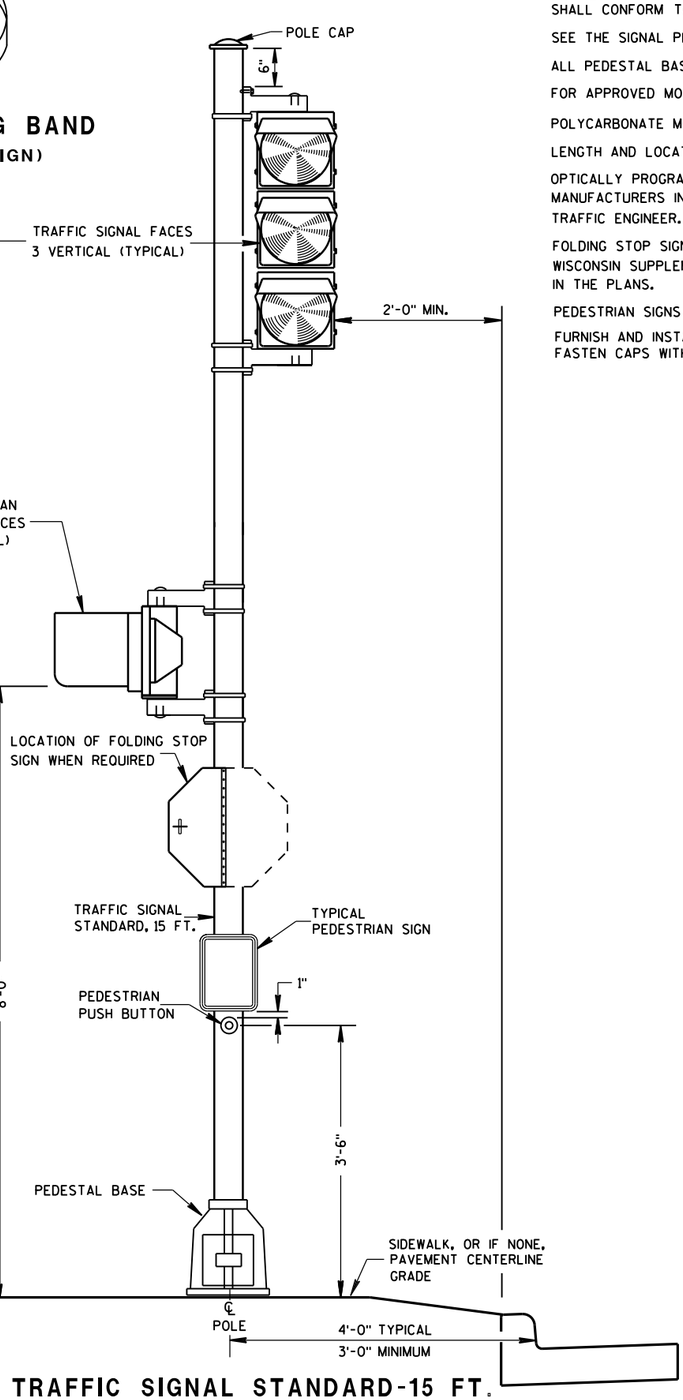


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

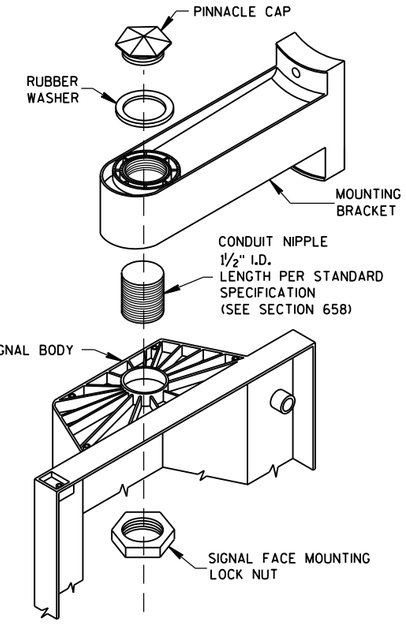
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

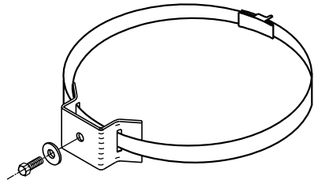
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

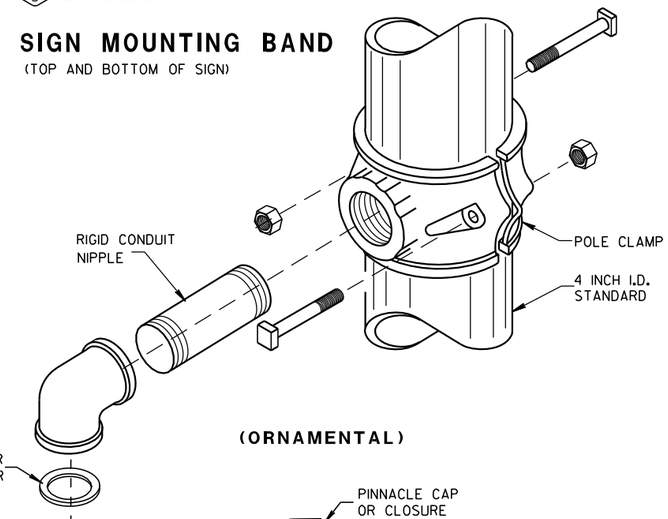


SIGNAL FACE MOUNTING DETAIL
(BANDED)

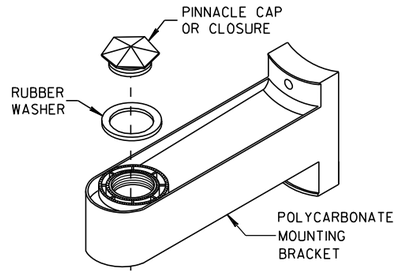
TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 2/28/2013 DATE — /S/ Ahmet Demirbilek STATE ELECTRICAL — FHWA



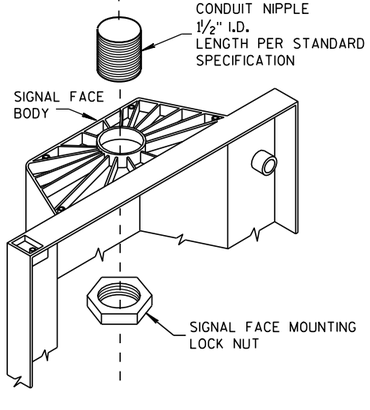
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



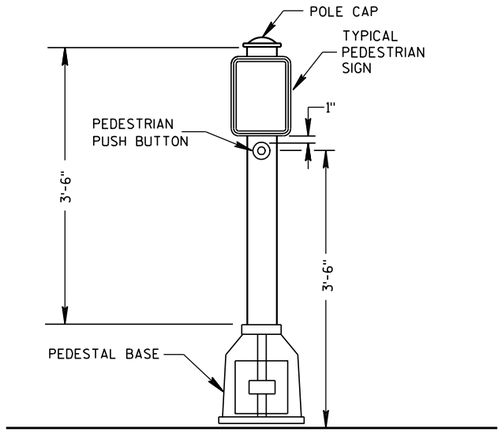
(ORNAMENTAL)



(BANDED)



SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

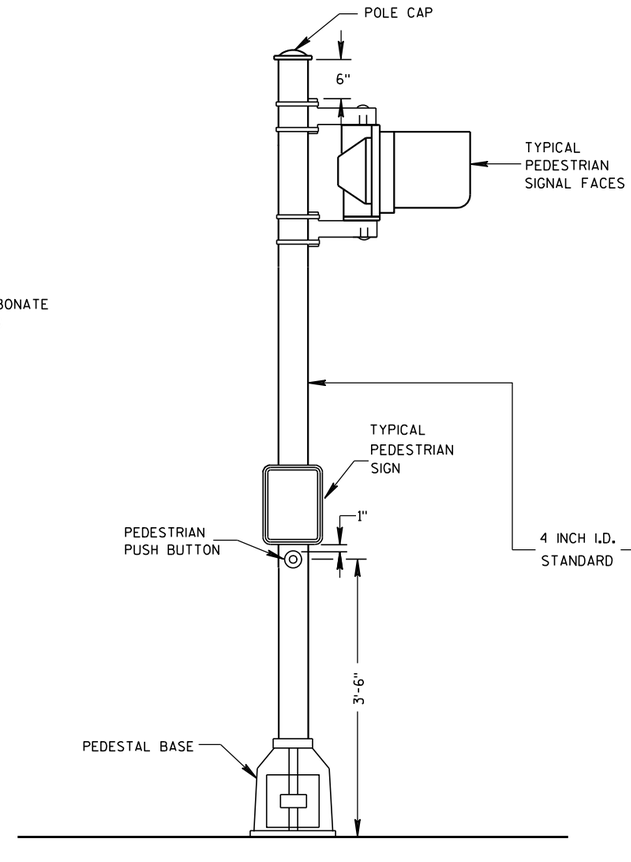
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

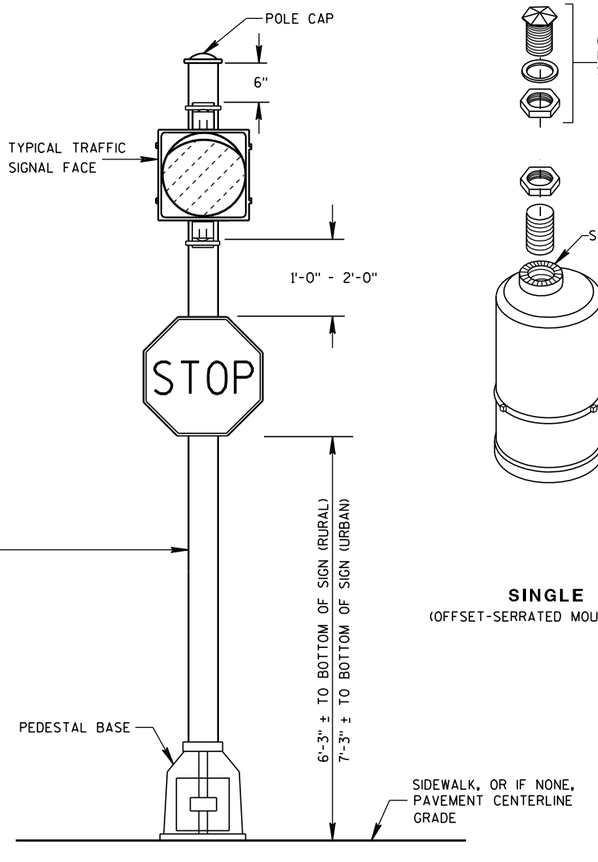
MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

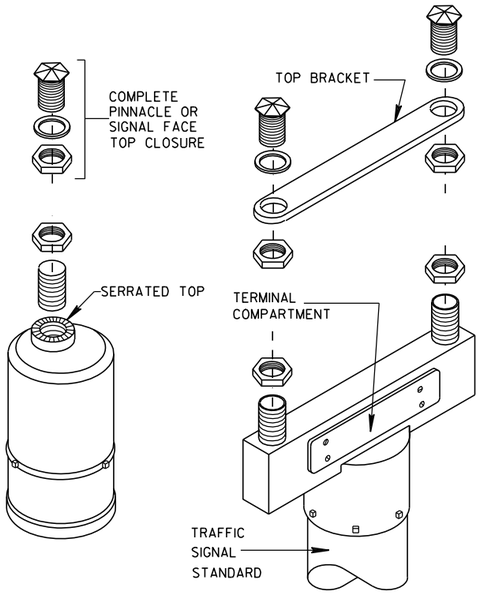
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/11/10
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI

FHWA

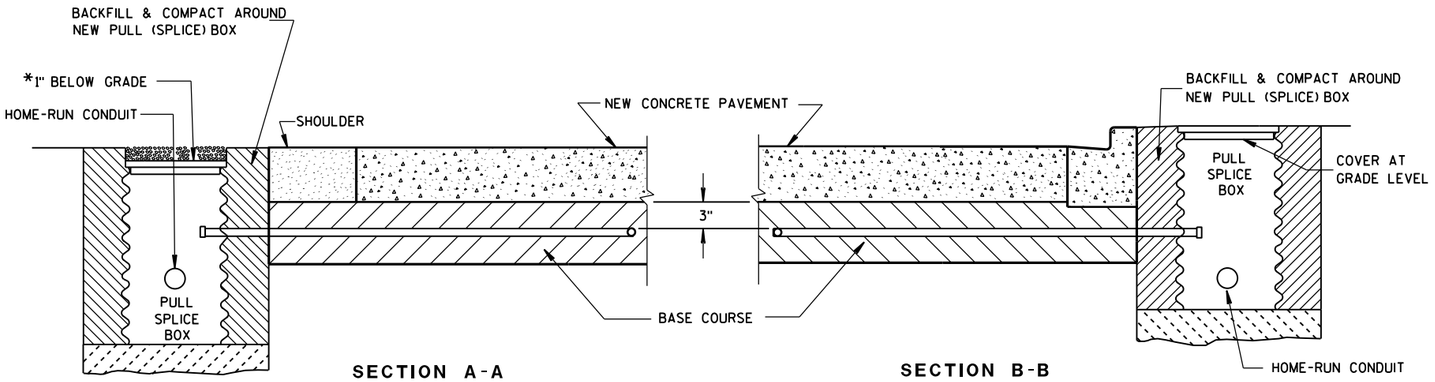
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S.D.D. 9 E 7-5



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.

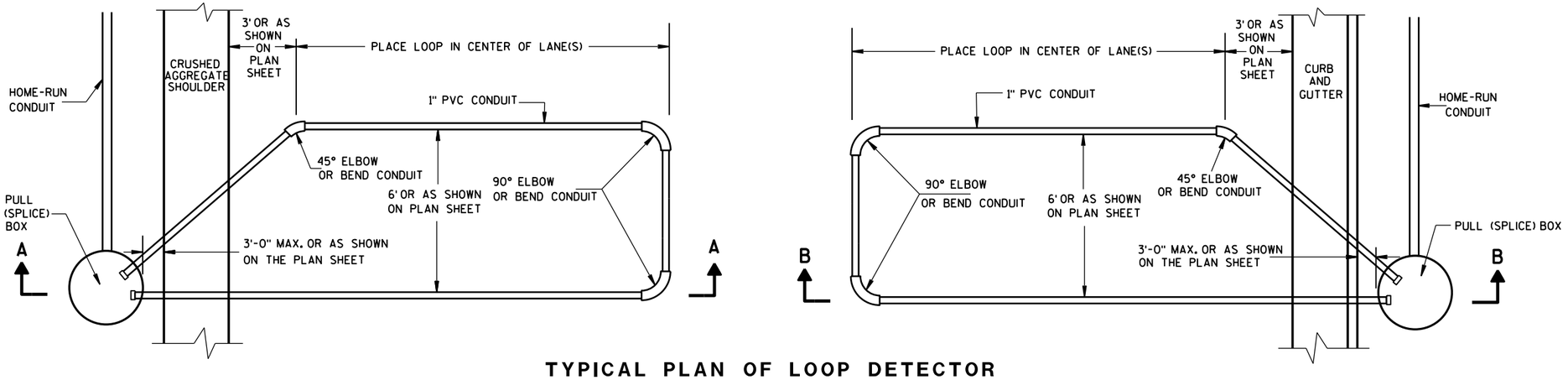
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

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-SPLICE CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT 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 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

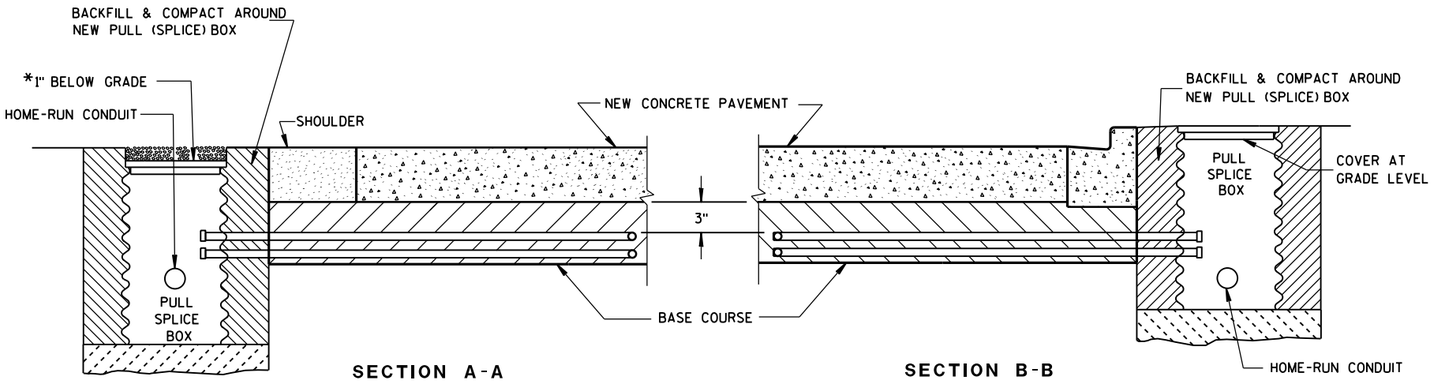
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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

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



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.

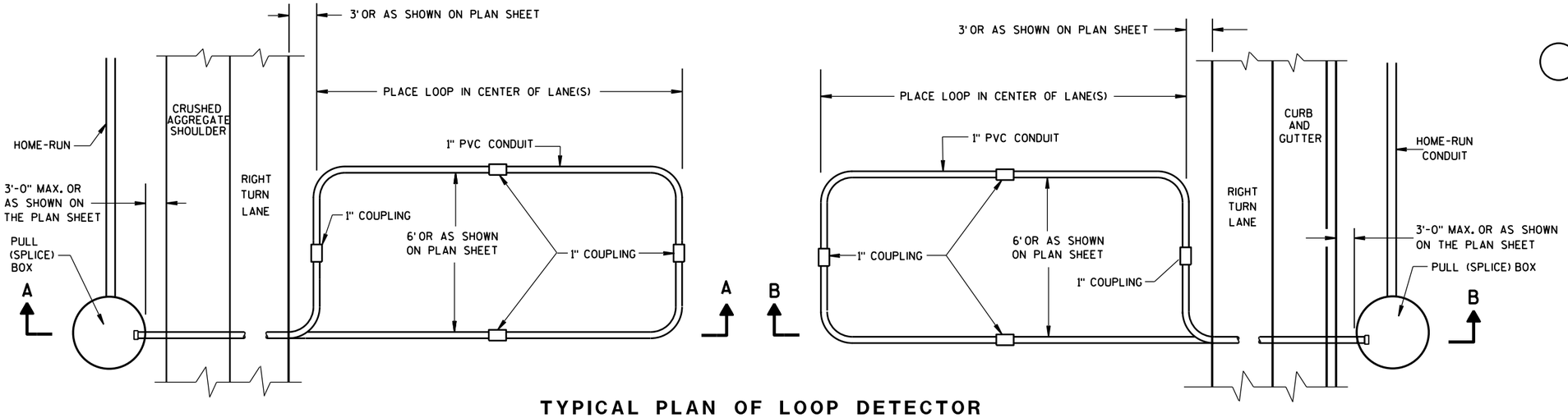
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

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

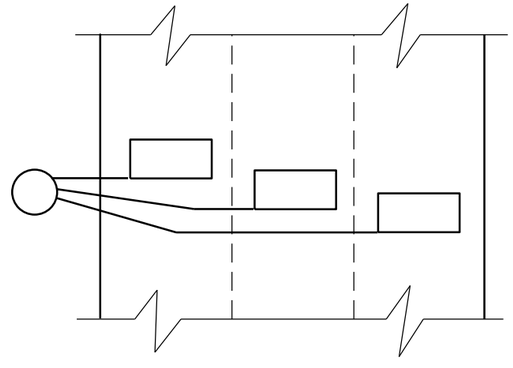
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

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

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

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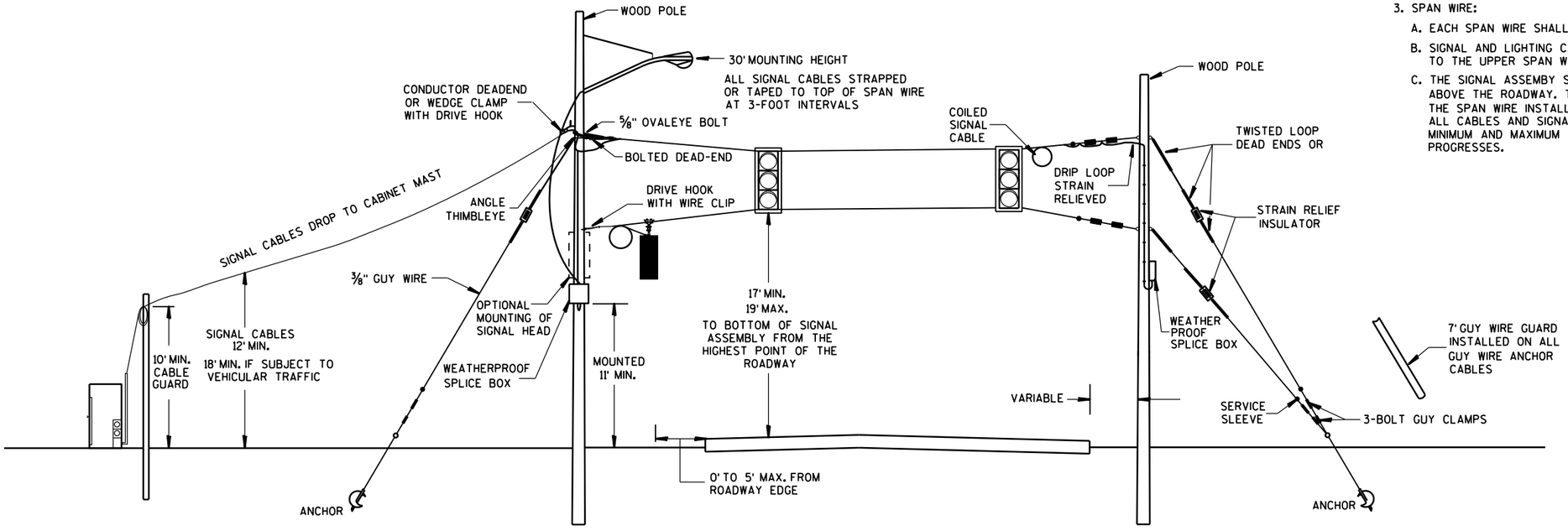
GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

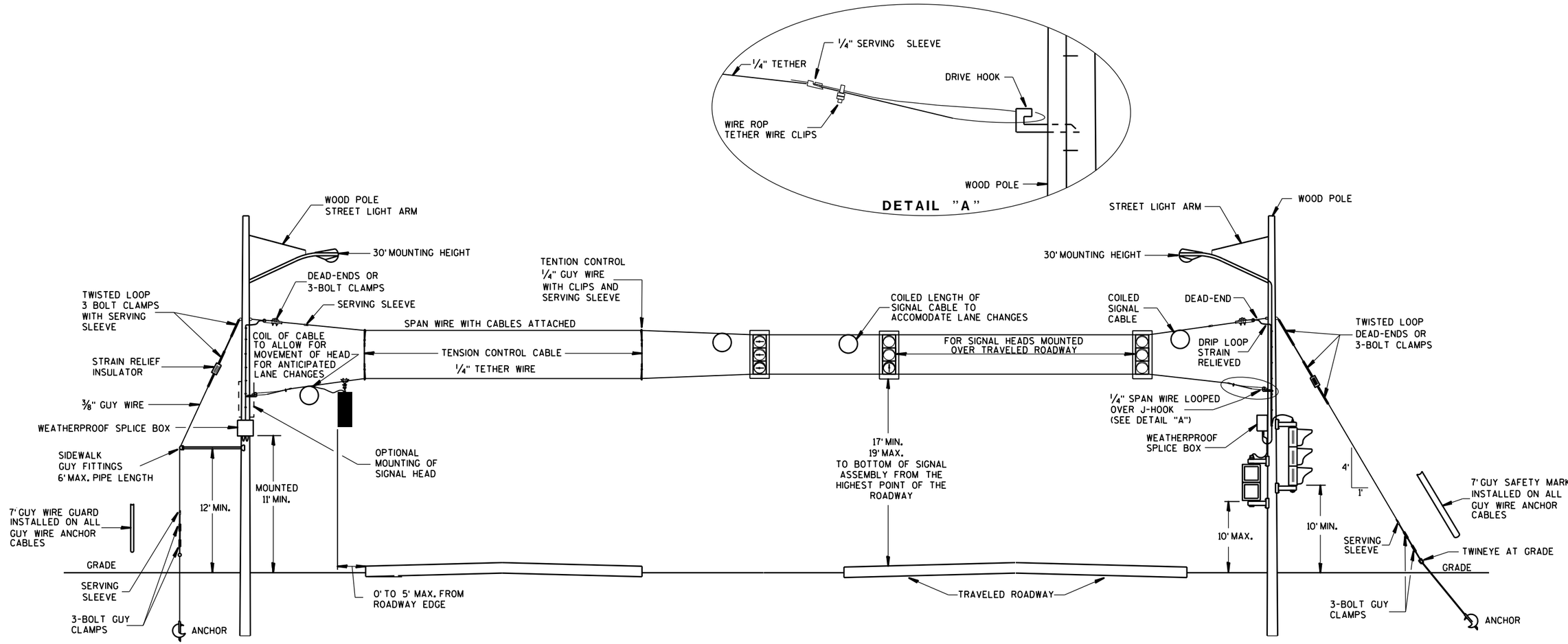
SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

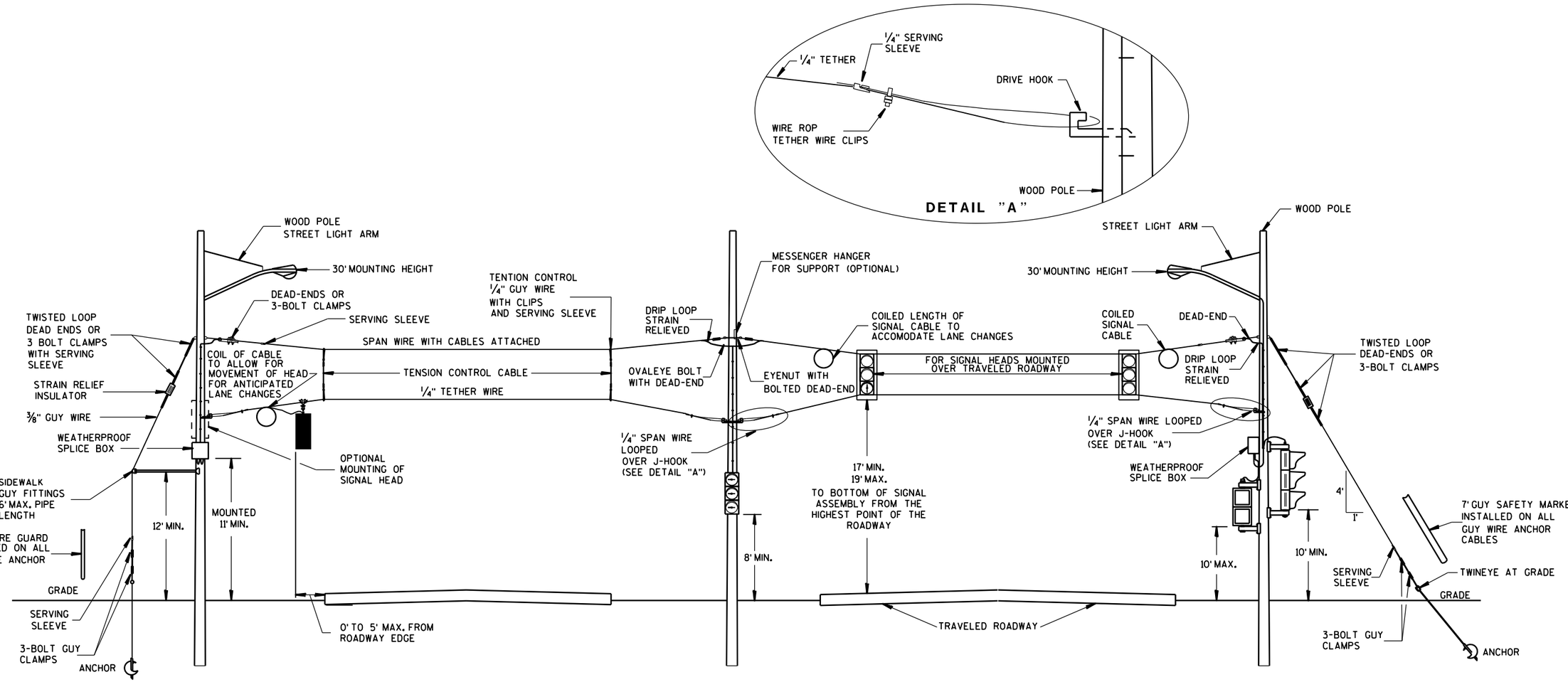
SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 G 1-4b



SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

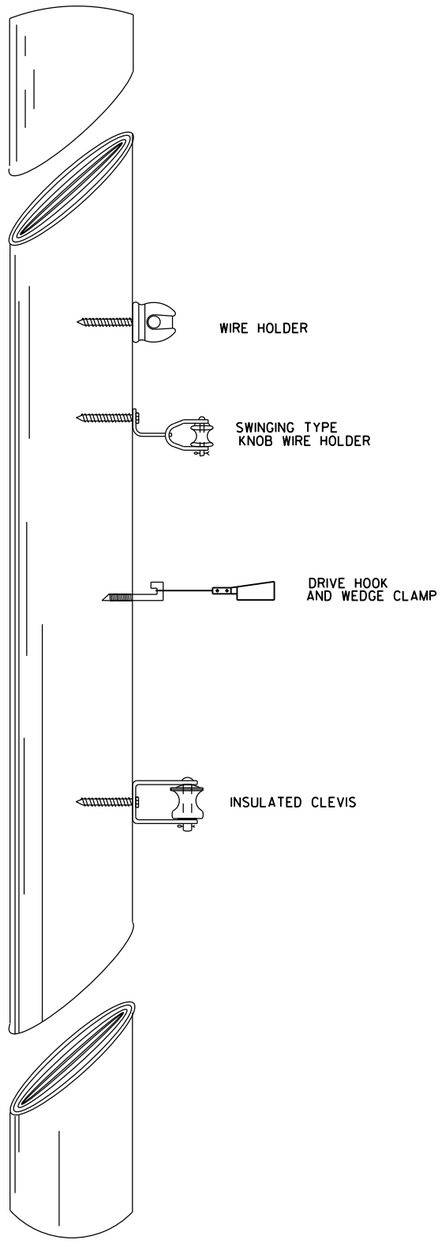
SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

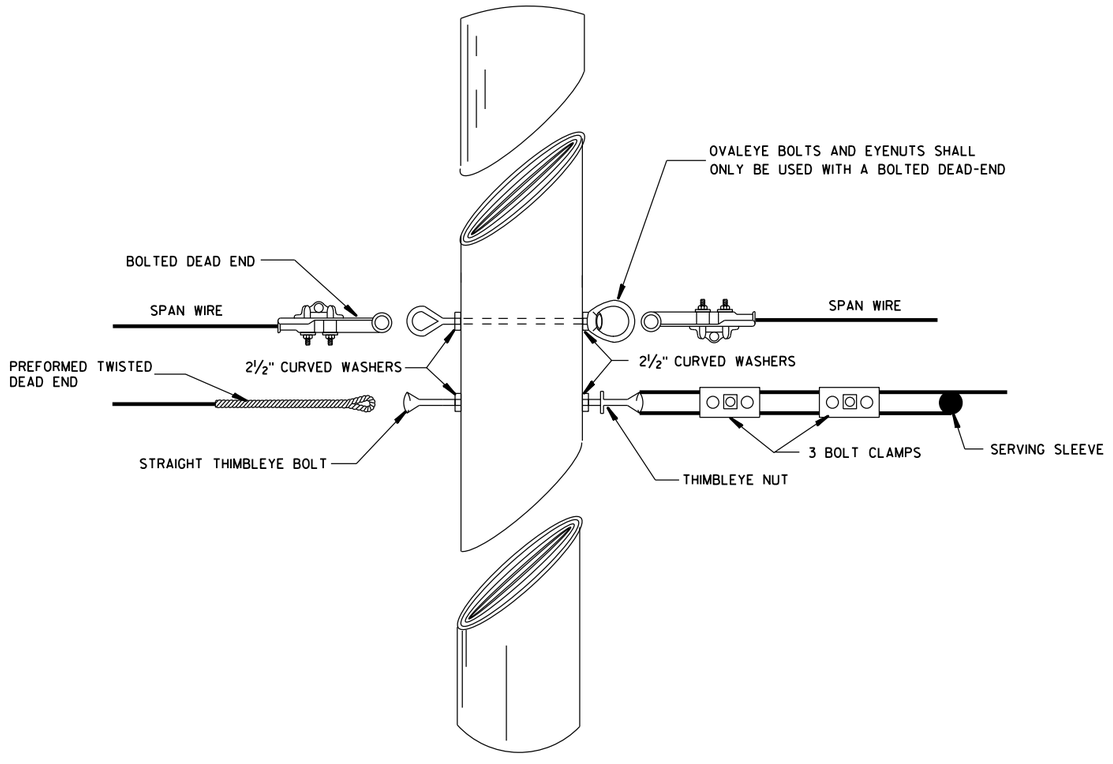
APPROVED
June. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

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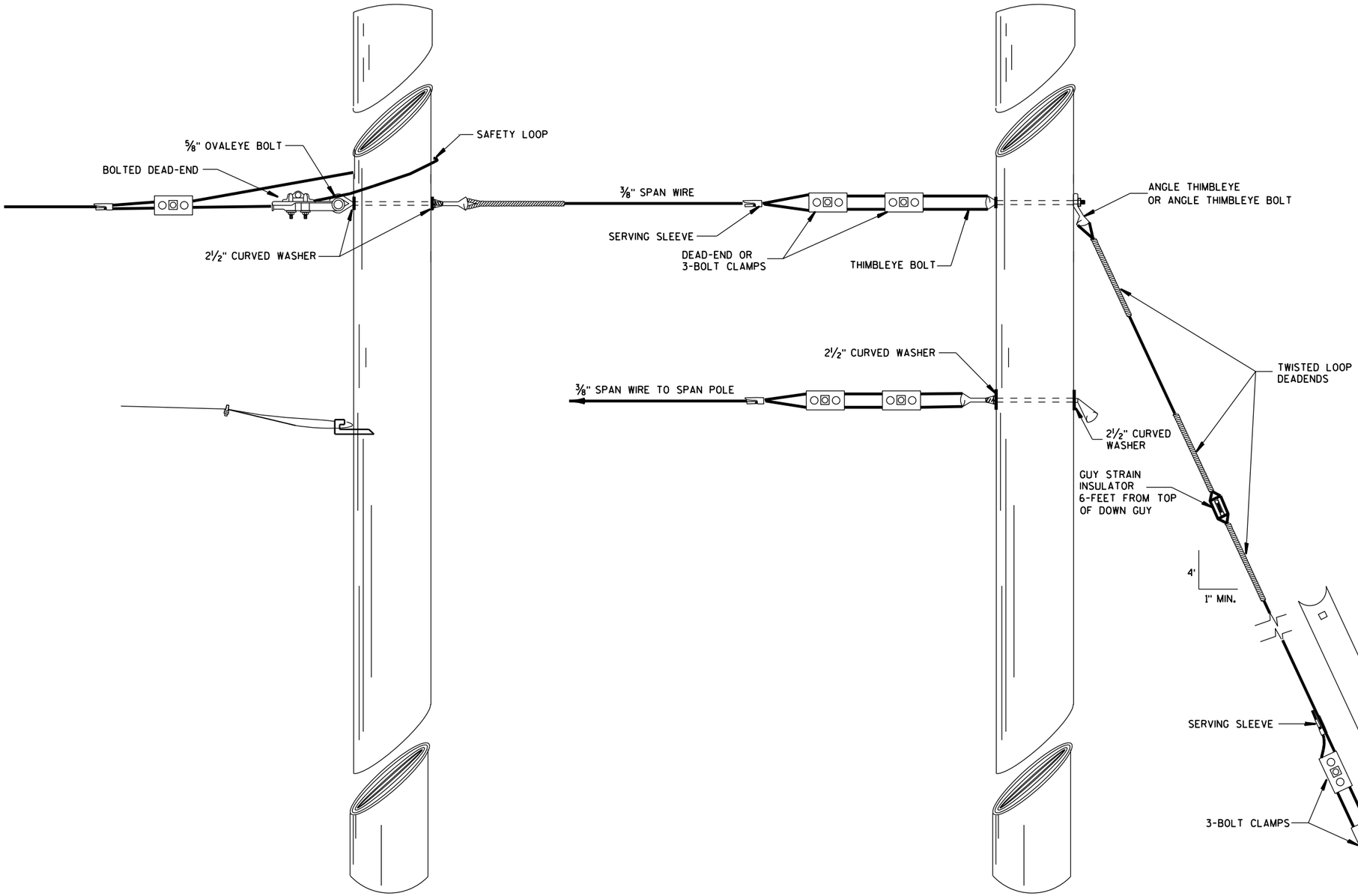
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S.D.D. 9 G 1-4d

GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE

GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

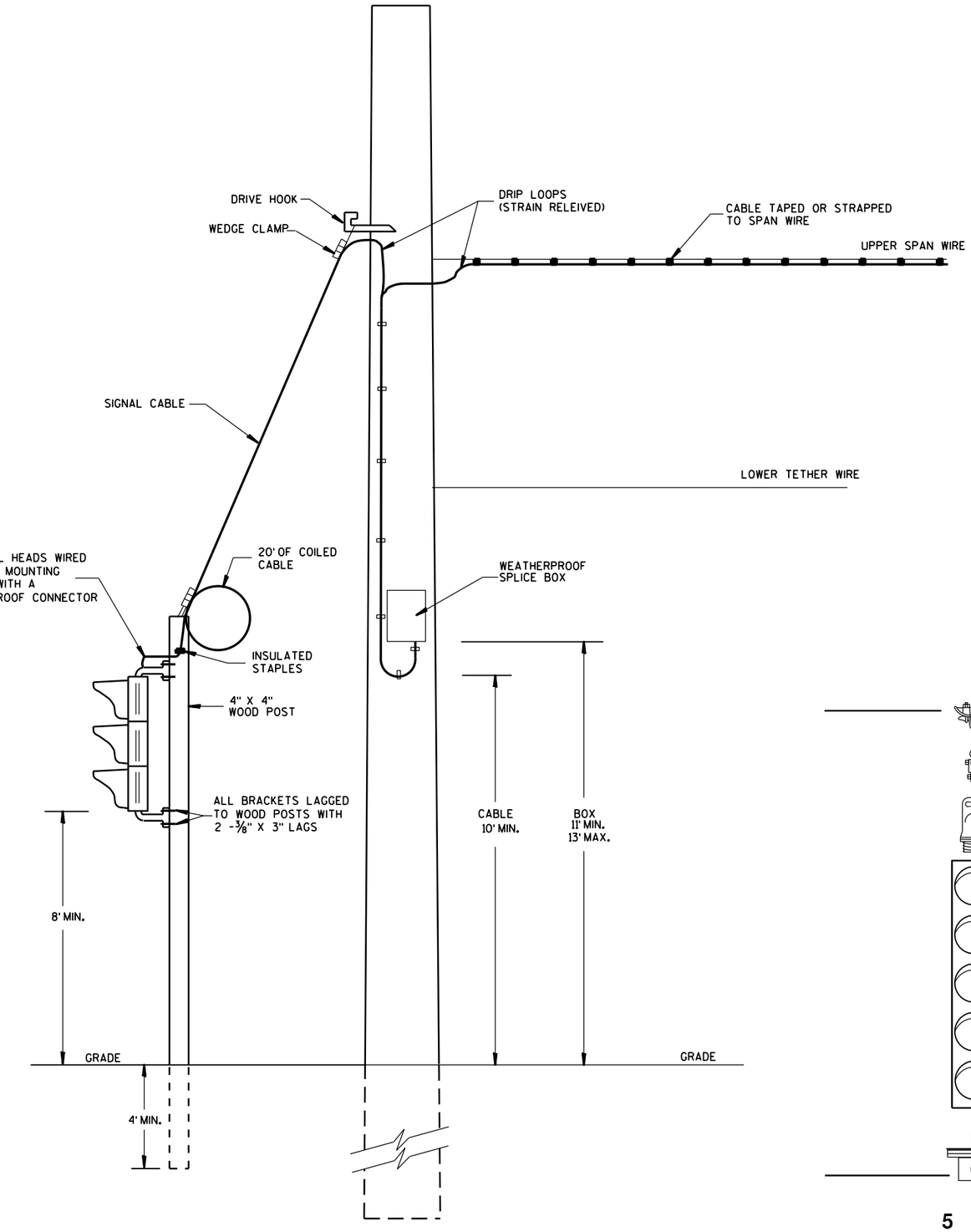
APPROVED
June. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

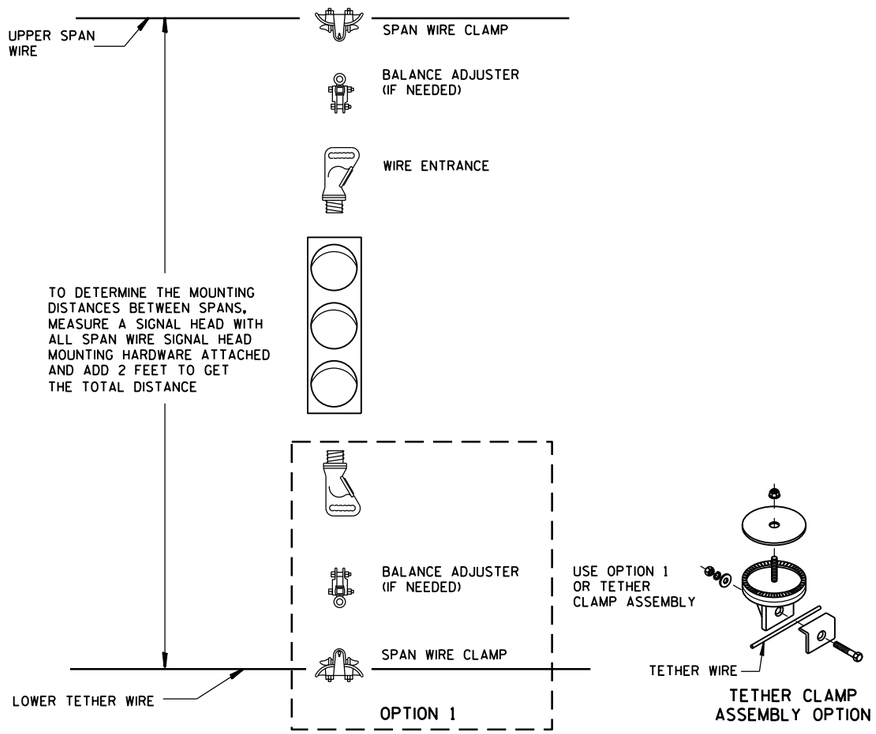
S.D.D. 9 G 1-4e

6

S.D.D. 9 G 1-4e

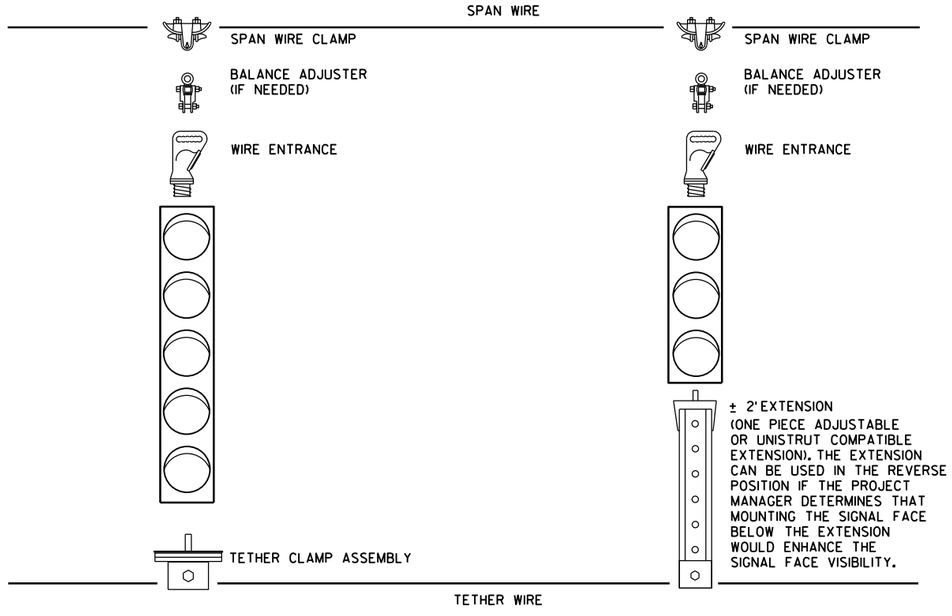


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

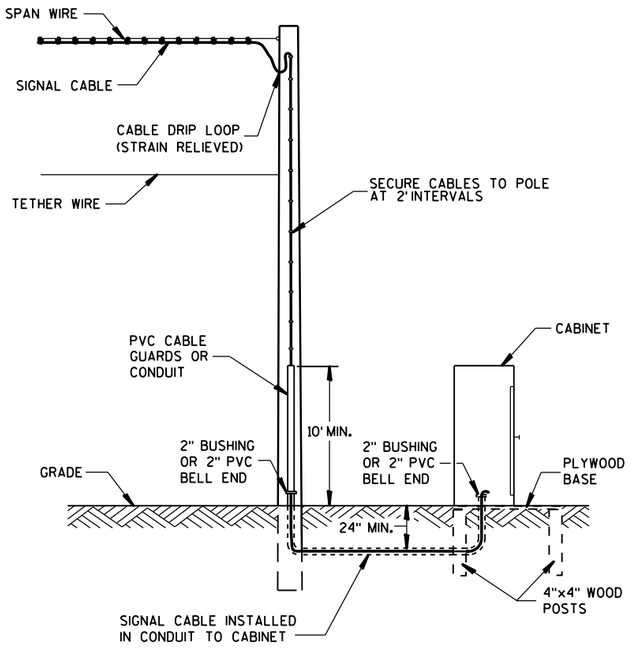
APPROVED
June. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

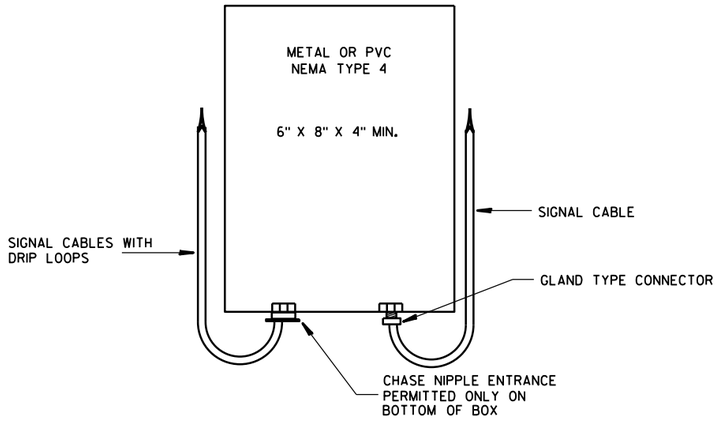
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S.D.D. 9 G 1-4f

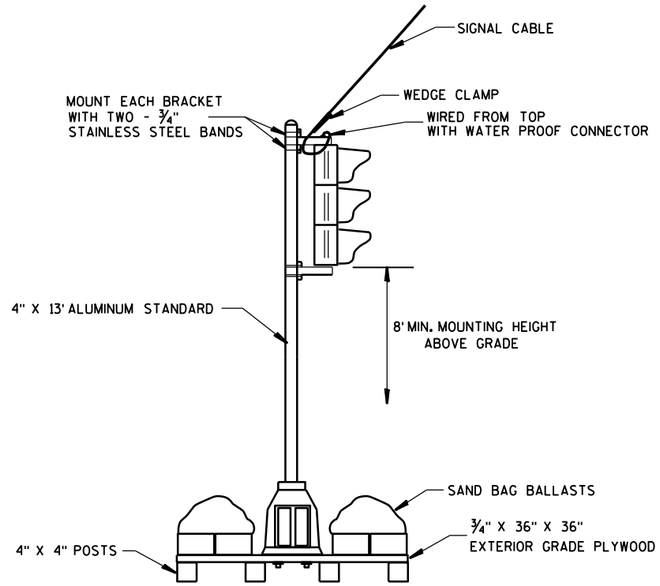
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S.D.D. 9 G 1-4f

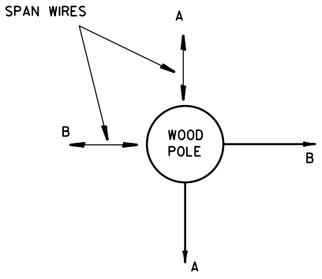




SPLICE BOX

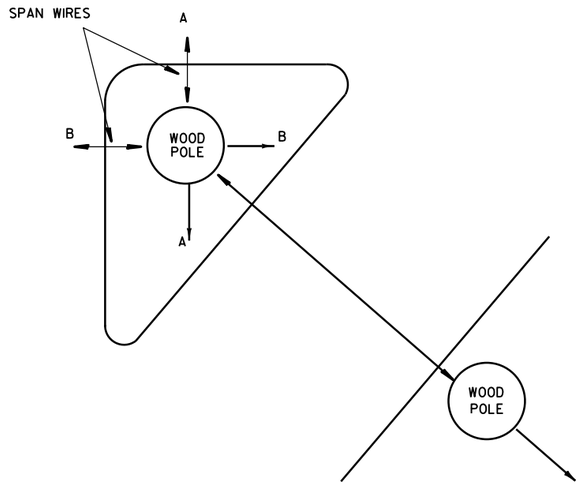


TYPICAL SKID TYPE TEMPORARY

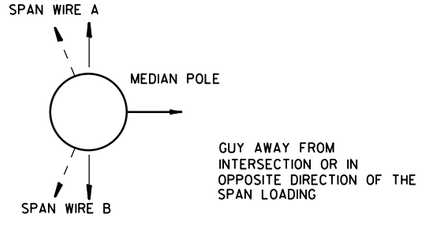


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF THE
SPAN LOADING

MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

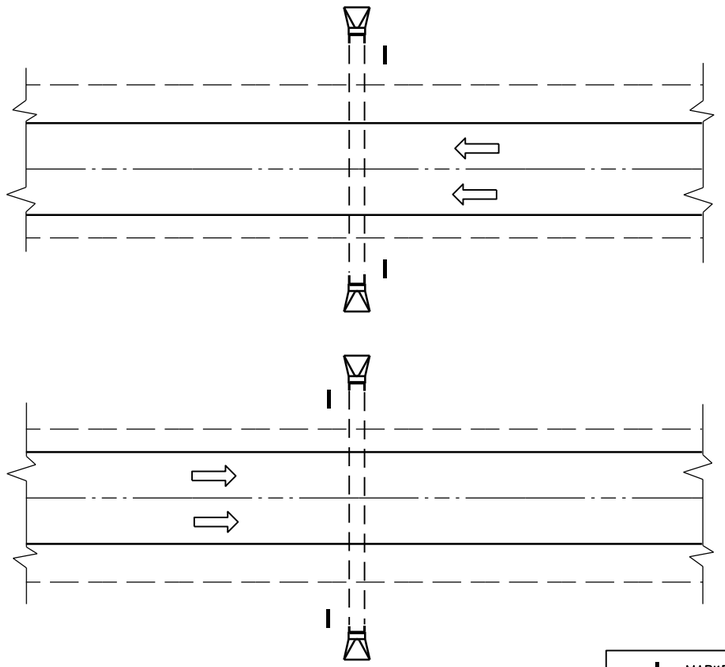
APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 G 1-4g

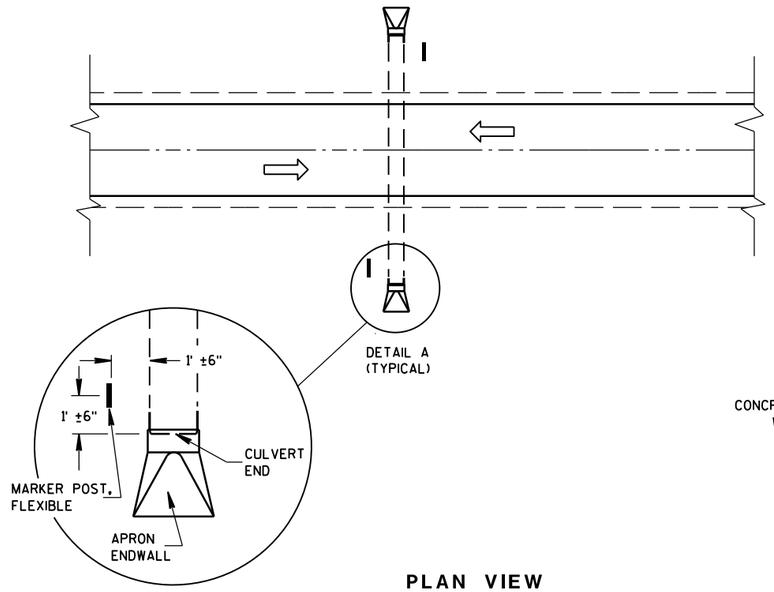
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S.D.D. 9 G 1-4g



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

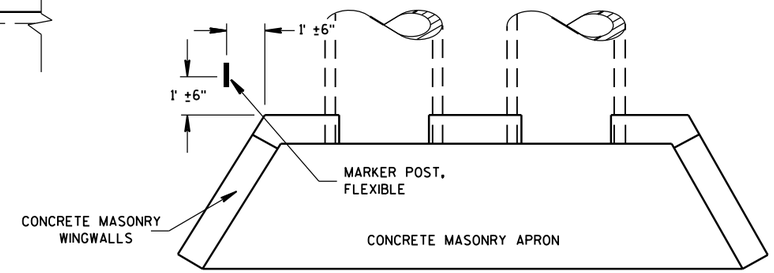
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

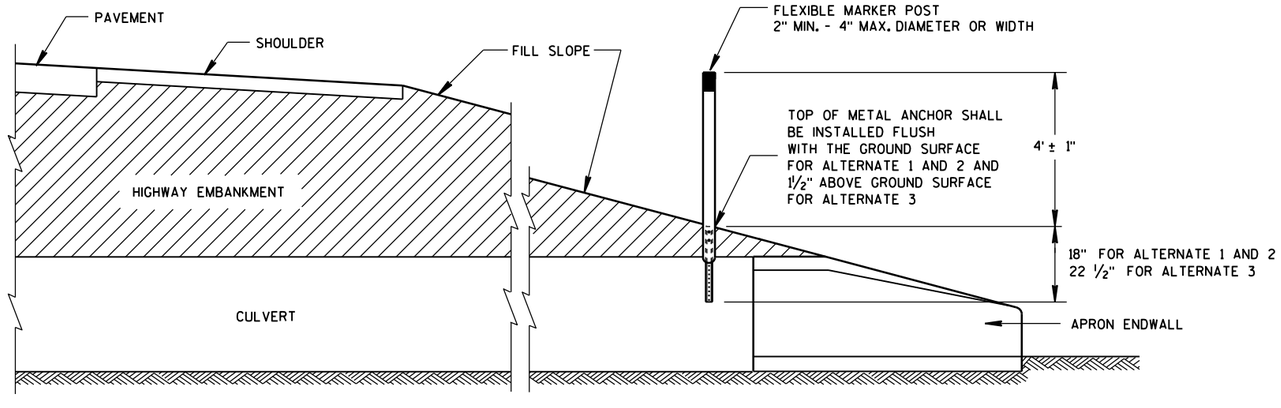
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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

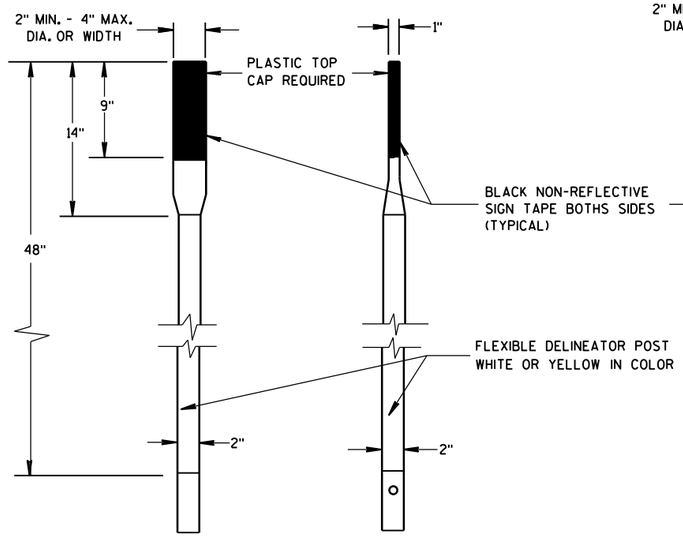
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

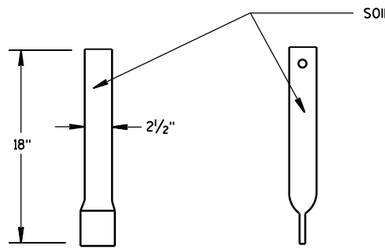
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S.D.D. 15 A 3-2a

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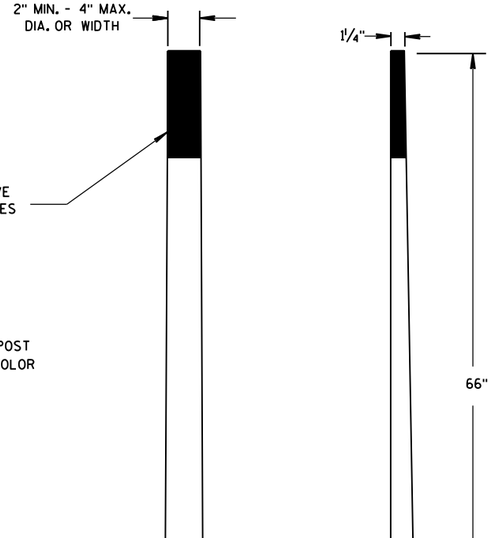
S.D.D. 15 A 3-2a





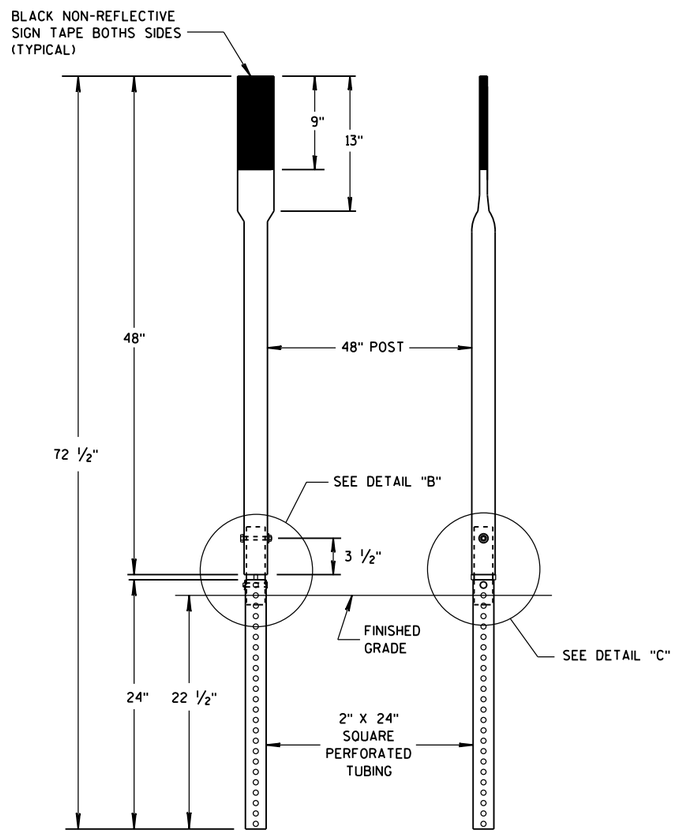
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

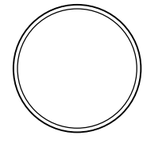
ALTERNATE 2



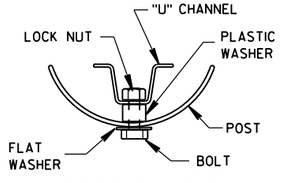
FRONT VIEW SIDE VIEW

ALTERNATE 3

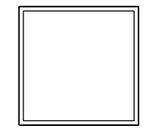
FLEXIBLE MARKER POSTS



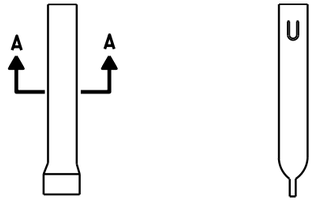
SECTION A-A



SECTION B-B

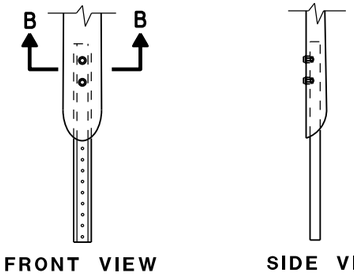


SECTION C-C



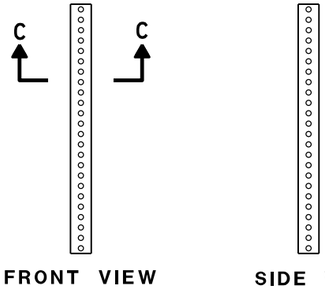
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

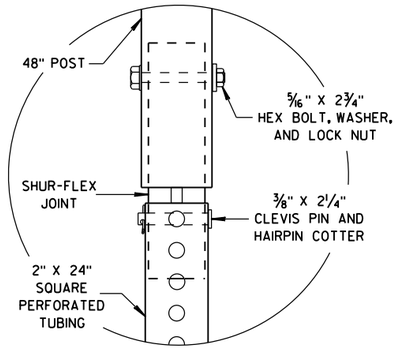
ALTERNATE 2



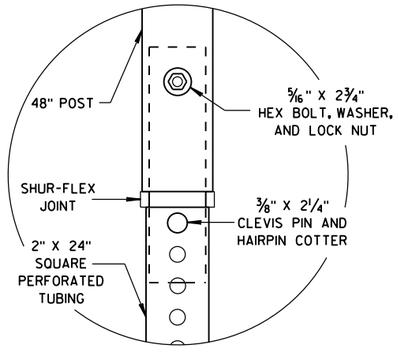
FRONT VIEW SIDE VIEW

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

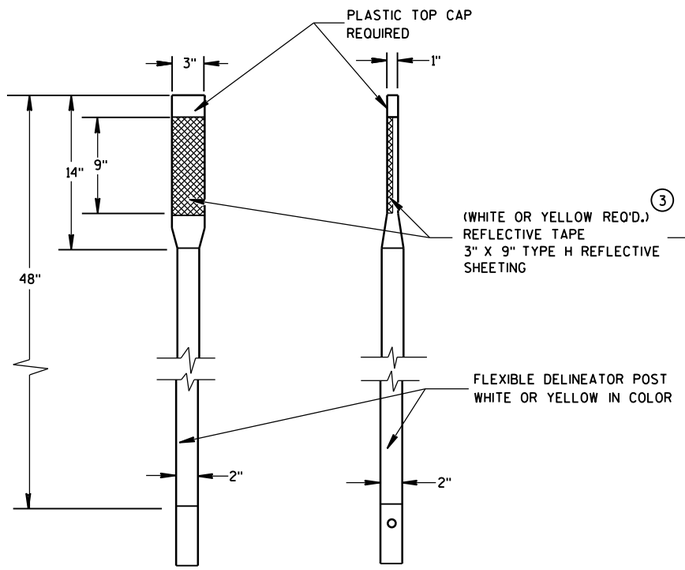
FHWA

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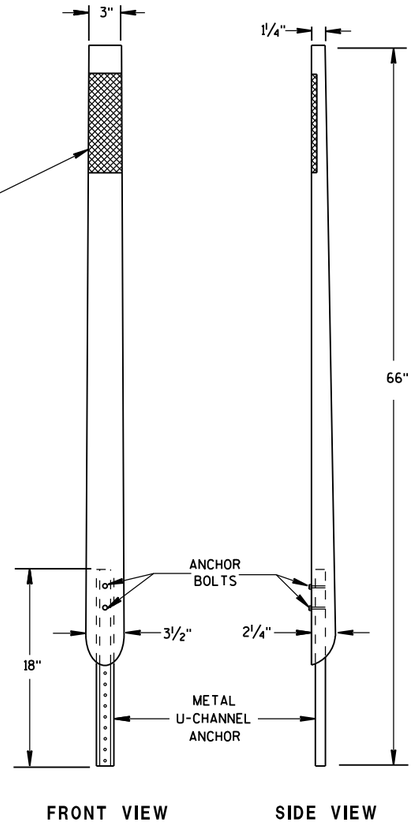
S.D.D. 15 A 3-2b

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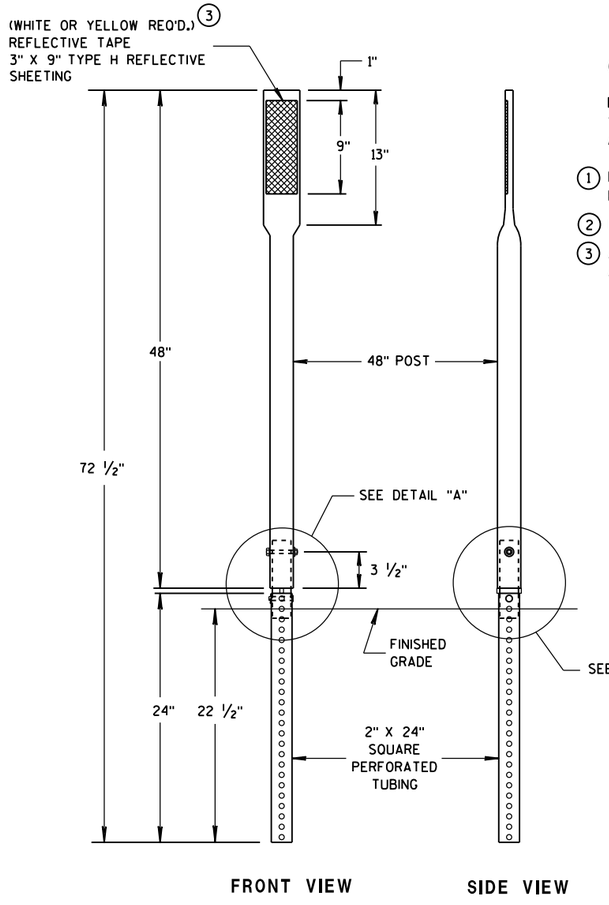
S.D.D. 15 A 3-2b



ALTERNATE 1



ALTERNATE 2



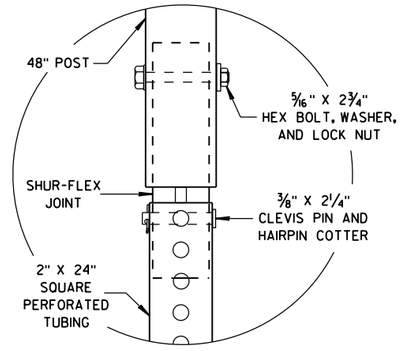
ALTERNATE 3

FLEXIBLE DELINEATOR POSTS

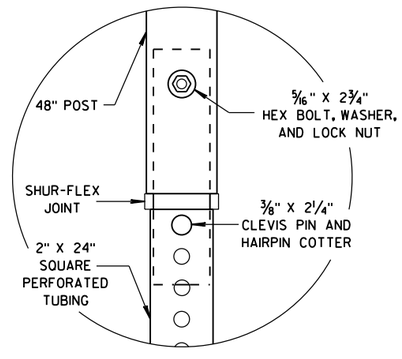
GENERAL NOTES

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

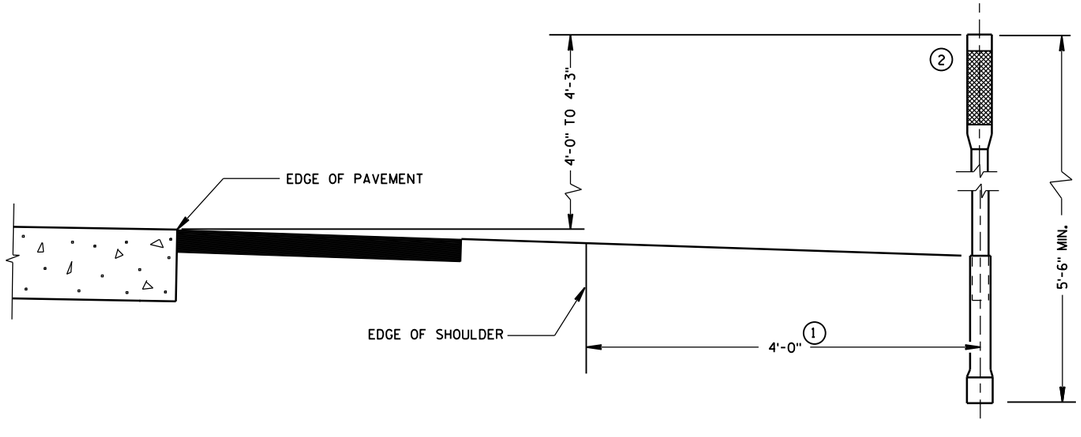
1. DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.
2. EITHER ALTERNATE NO. 1, NO. 2 OR NO. 3 MAY BE FURNISHED.
3. AS PER SECTION 637.2.2.2. OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

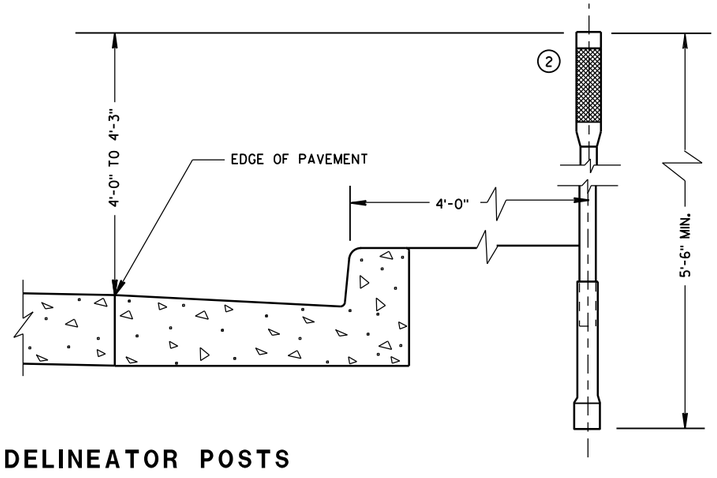


DETAIL A



DETAIL B





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

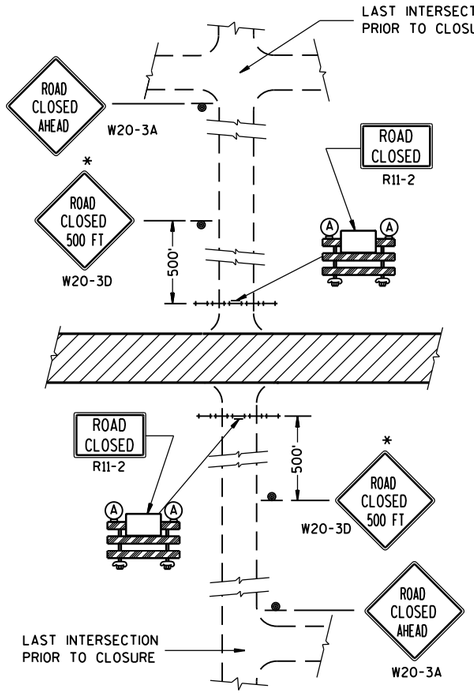
APPROVED
9-26-2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 4-2

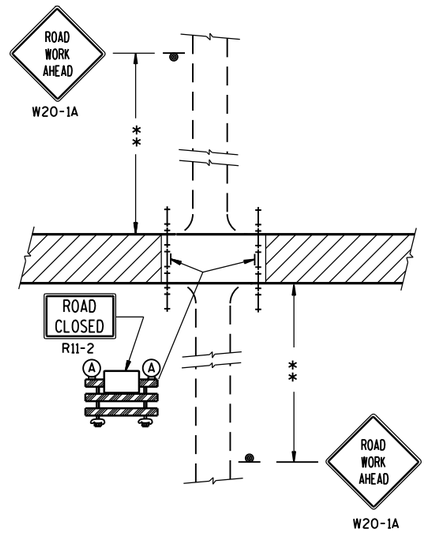
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S.D.D. 15 A 4-2



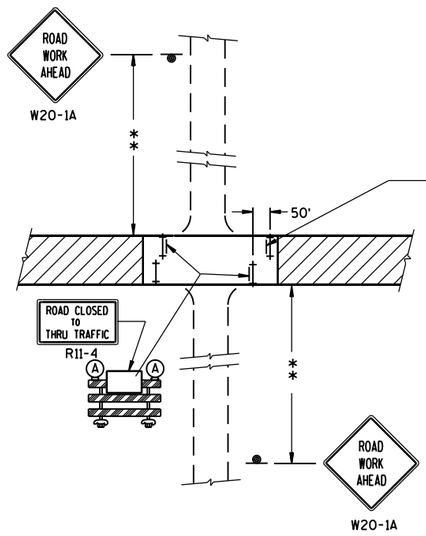
DETAIL 1

(NO ACCESS TO PROJECT)



DETAIL 2

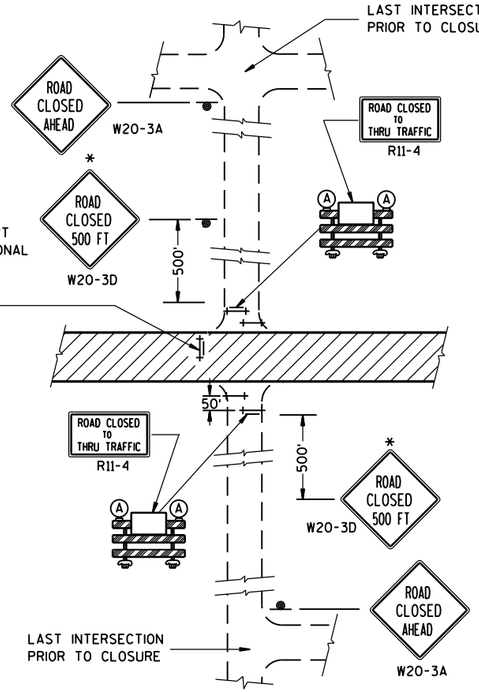
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).





DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE 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 RE-ESTABLISHED.

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 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 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible]FIC SAFETY ENGI[illegible]
FHWA

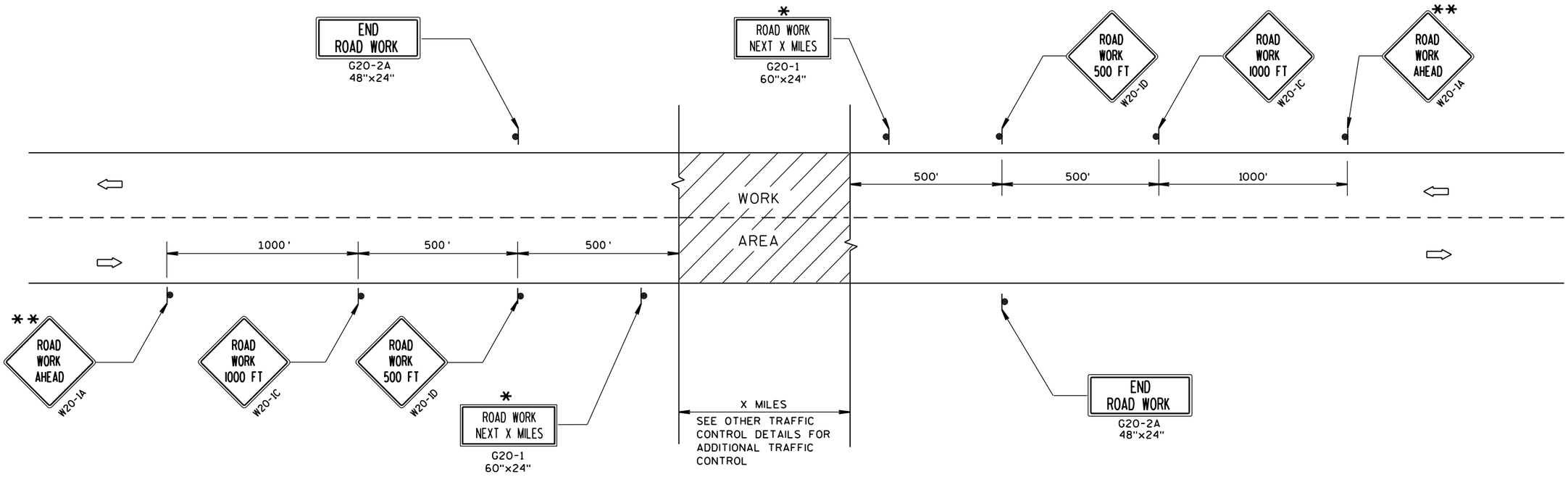
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S.D.D. 15 C 3-3

6

S.D.D. 15 C 3-3

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



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.

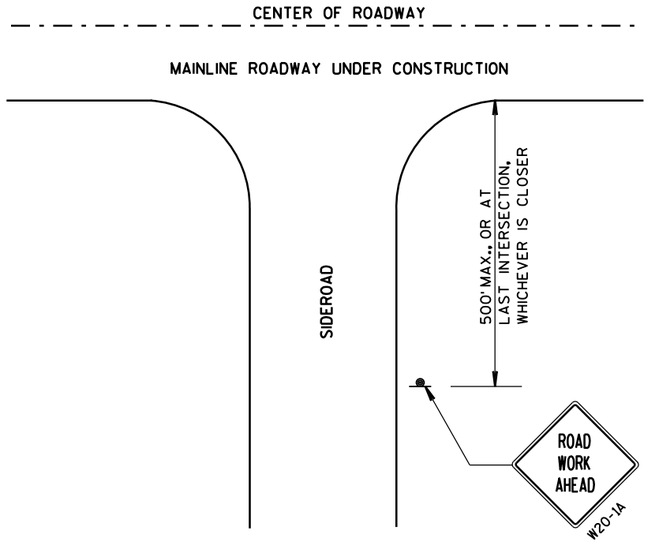
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 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 RE-ESTABLISHED.

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

** PLACE ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER

FHWA

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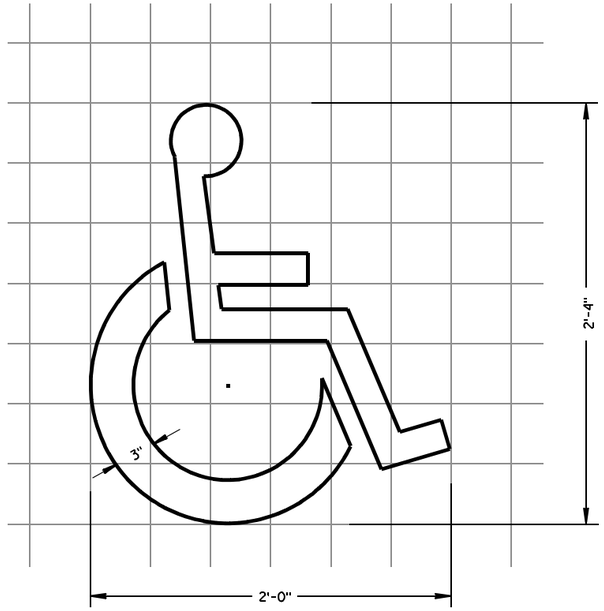
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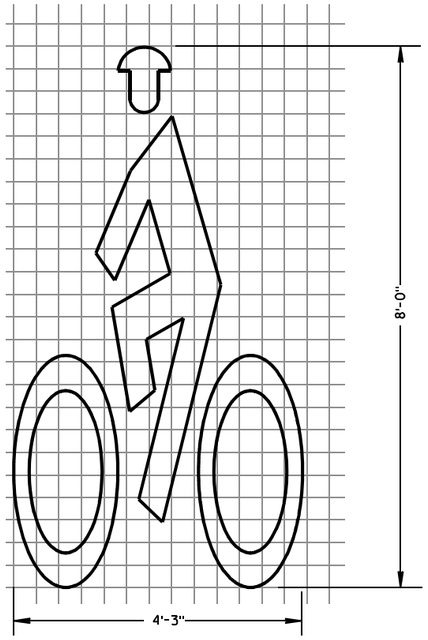
GENERAL NOTES

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.

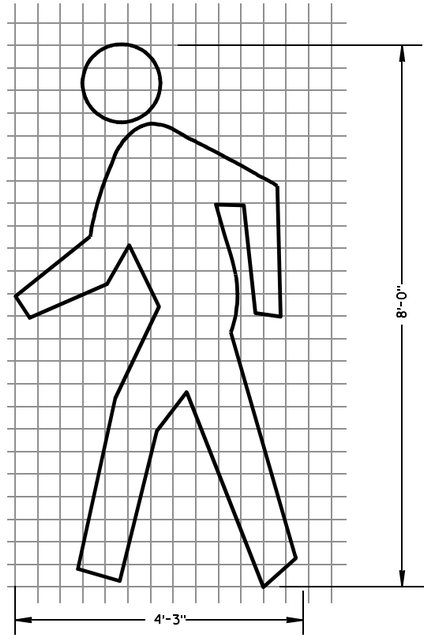
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

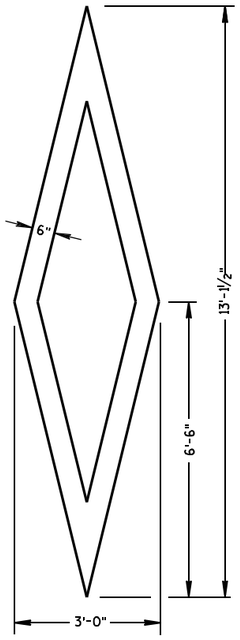




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N Nathan — STATE TRAFFIC ENGINEER

FHWA

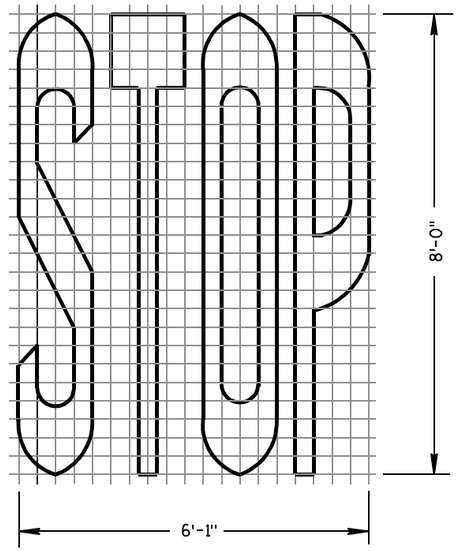
S.D.D. 15 C 7-12a

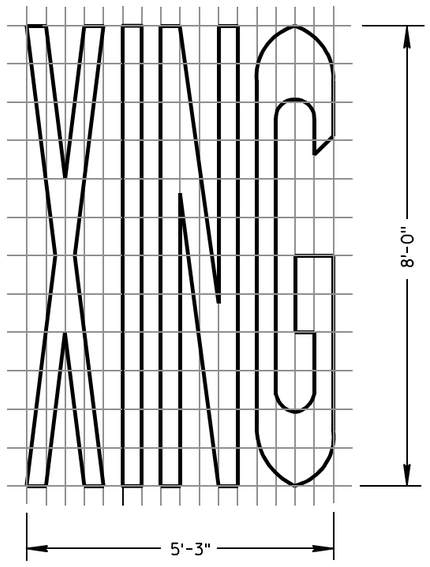
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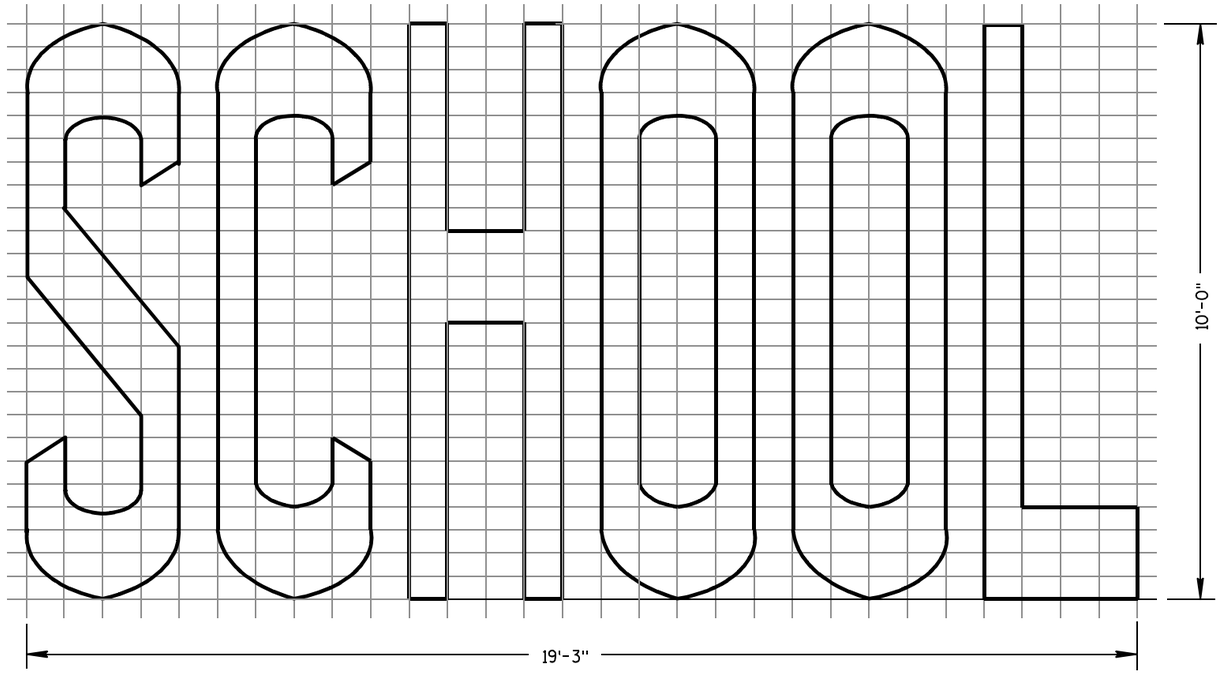
GENERAL NOTES

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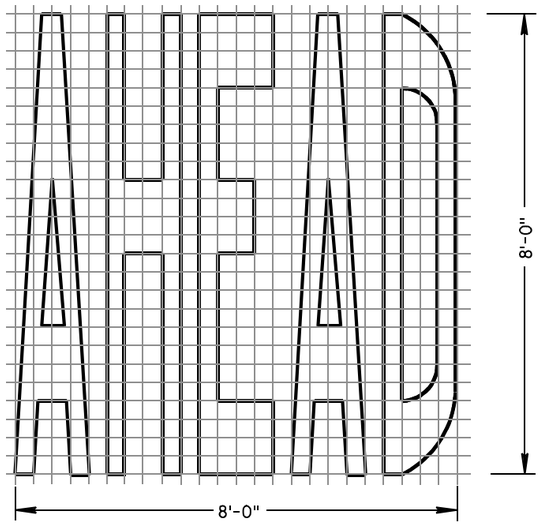
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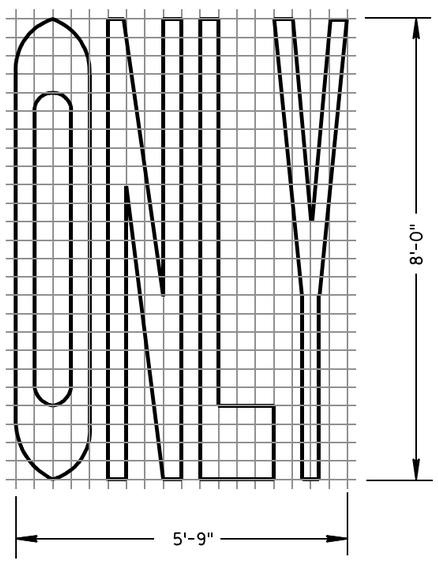


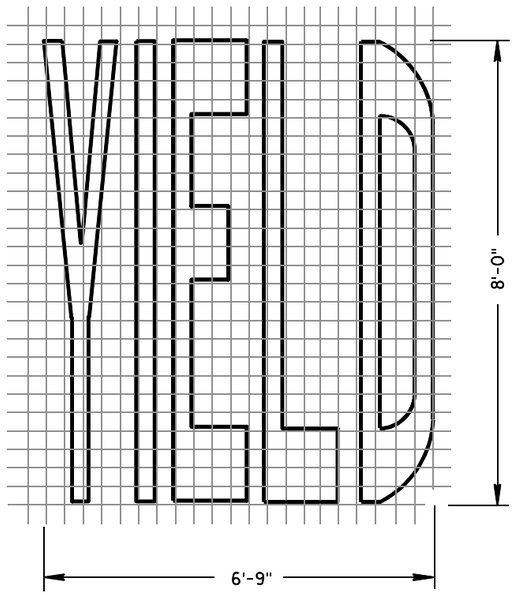


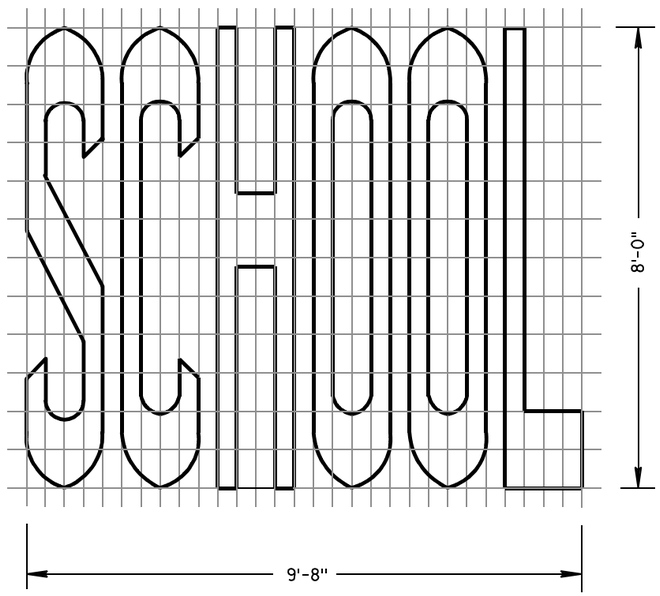


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 — DATE

/S/ Thomas N. Nothohm — STATE TRAFFIC ENGINEER

FHWA

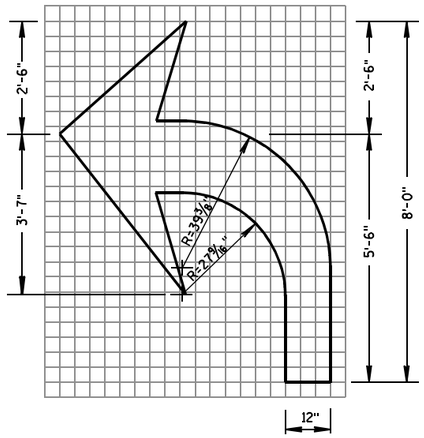
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S.D.D. 15 C 7-12b

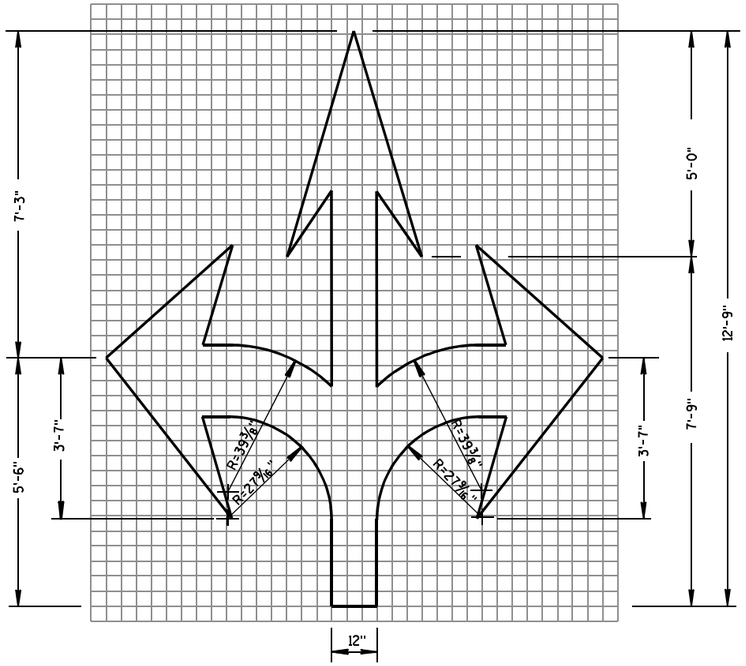
GENERAL NOTES

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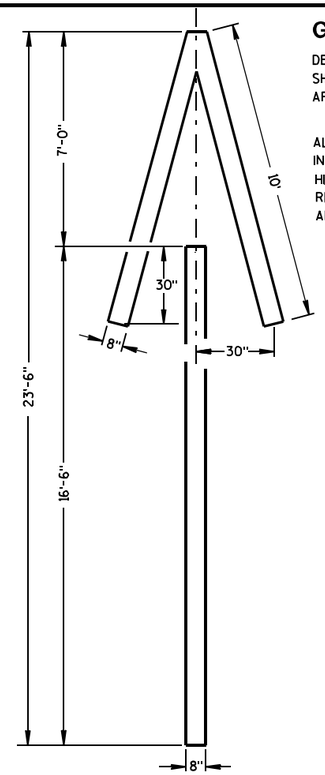
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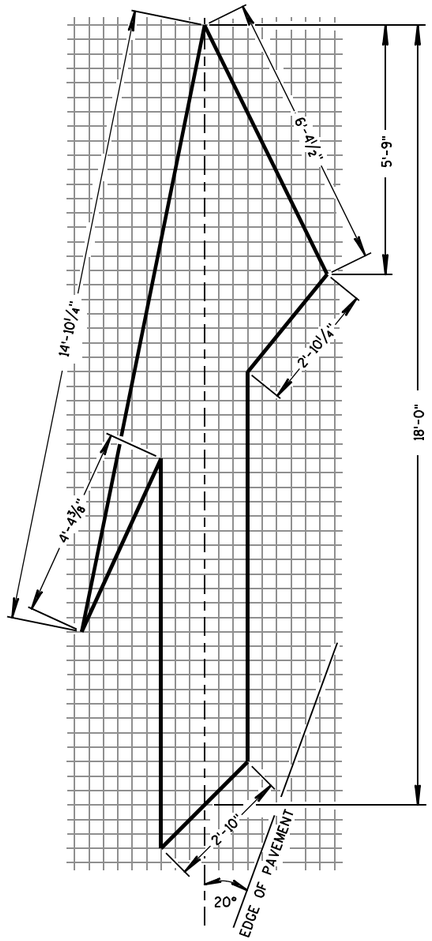
TYPE 2



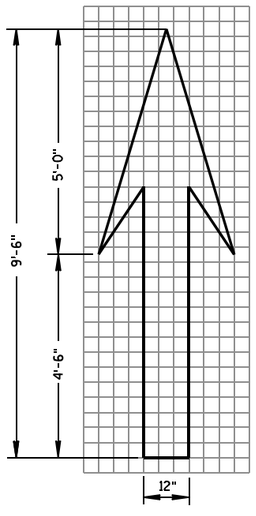
TYPE 6



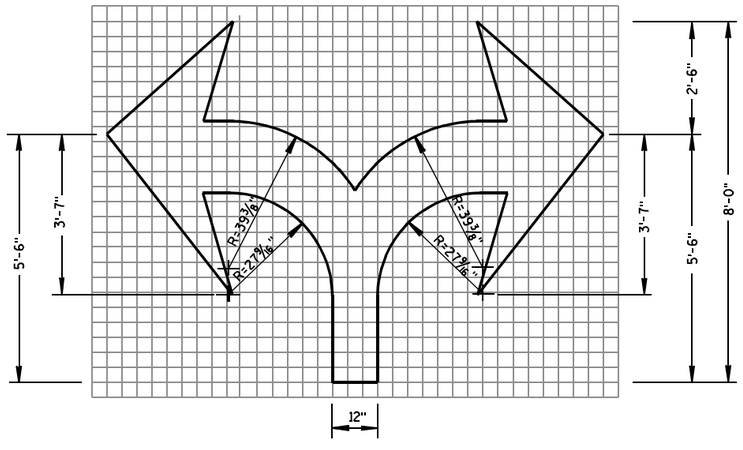
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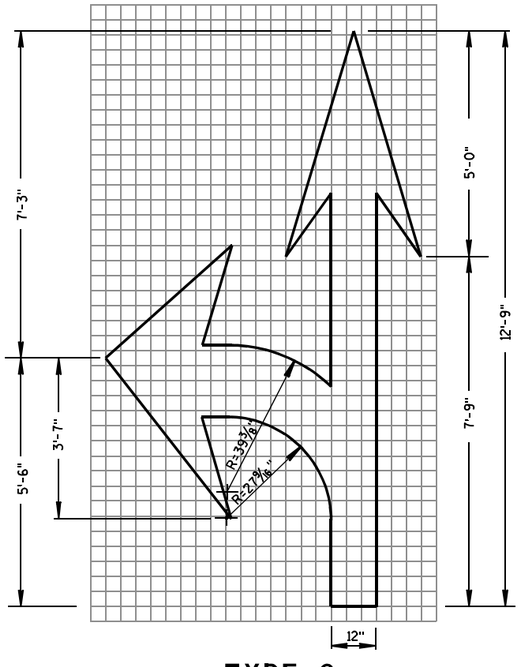
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

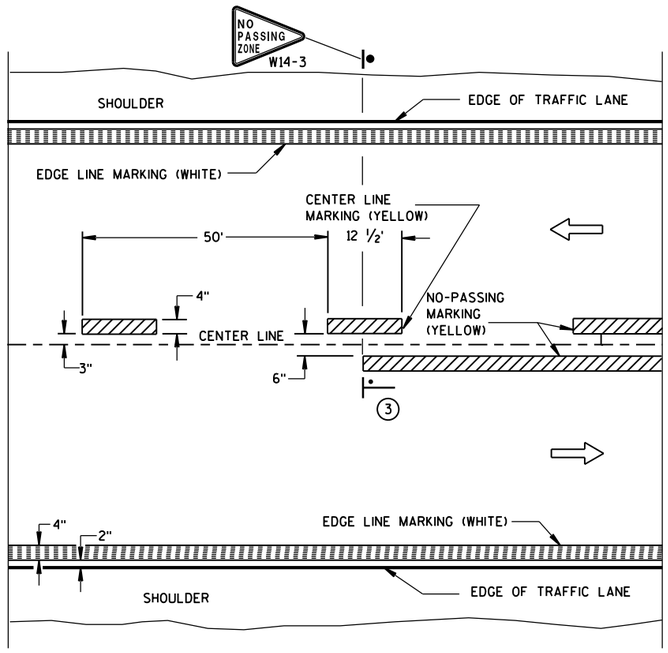
FHWA

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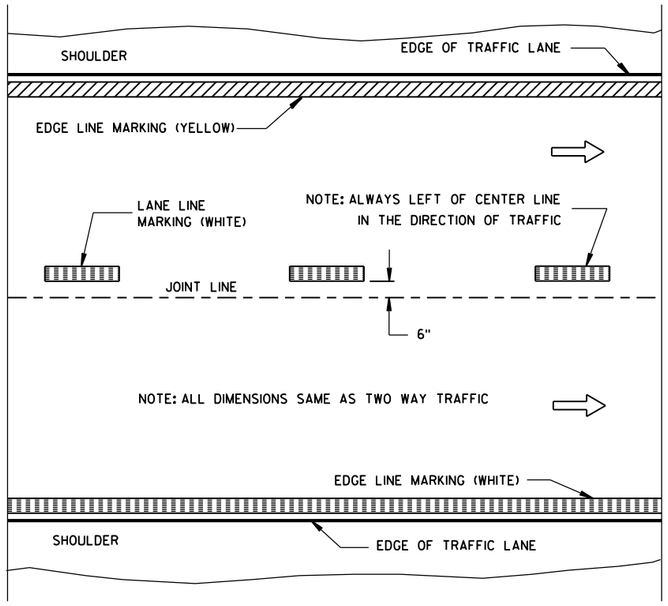
S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c

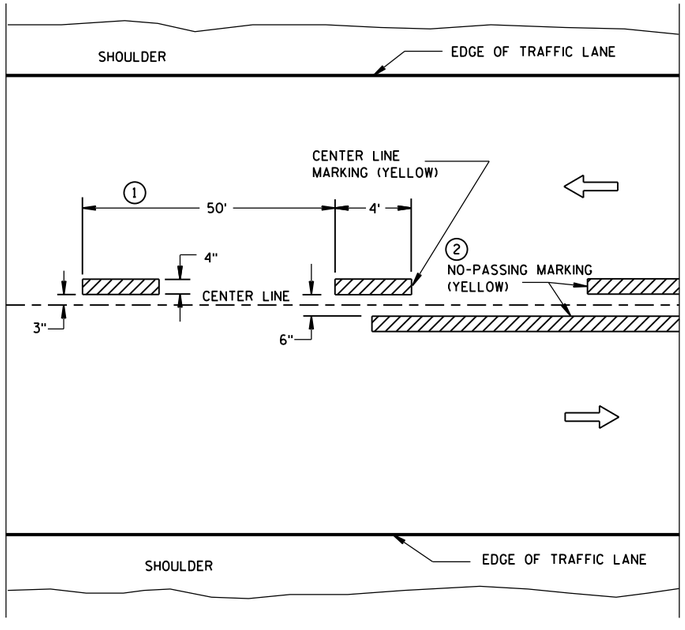


TWO WAY TRAFFIC

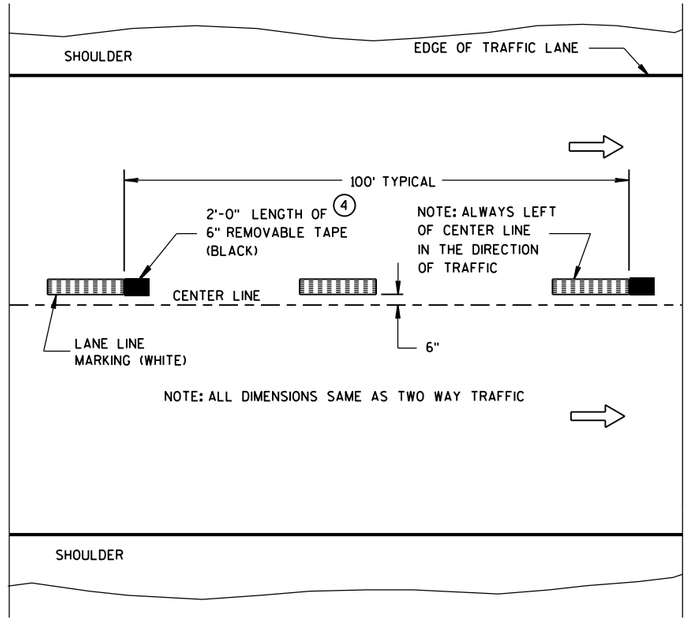


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

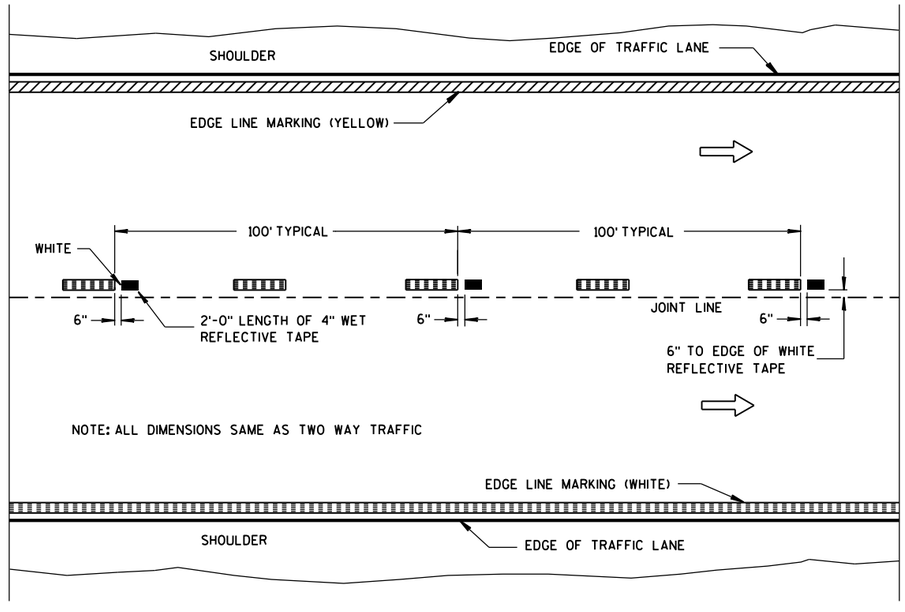
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

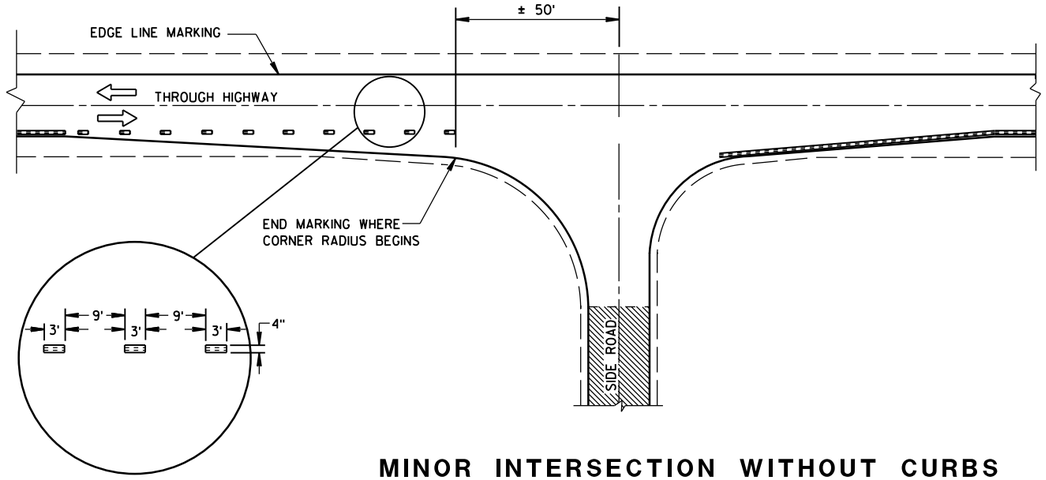
FHWA

6

S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED 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) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

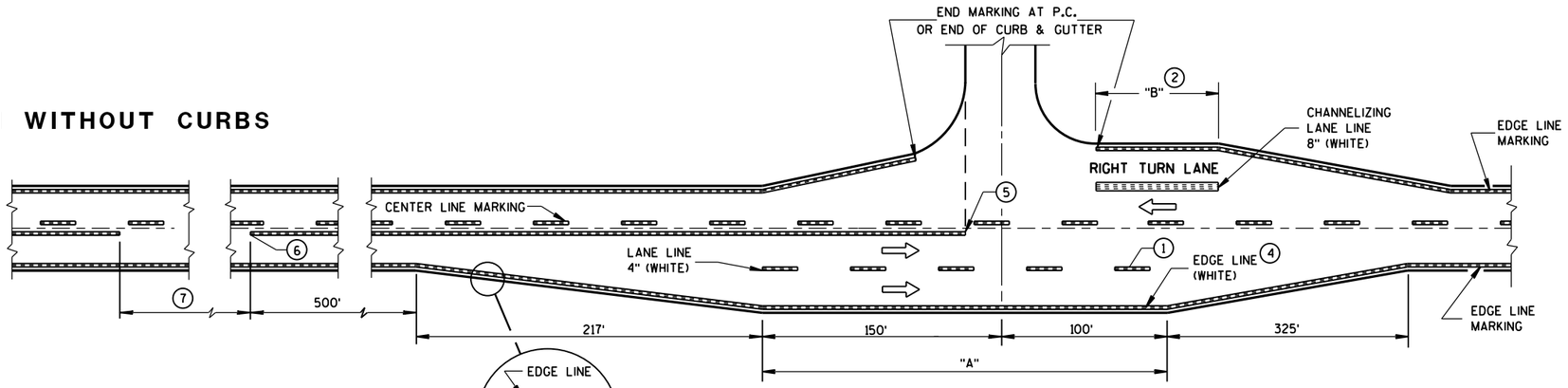
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

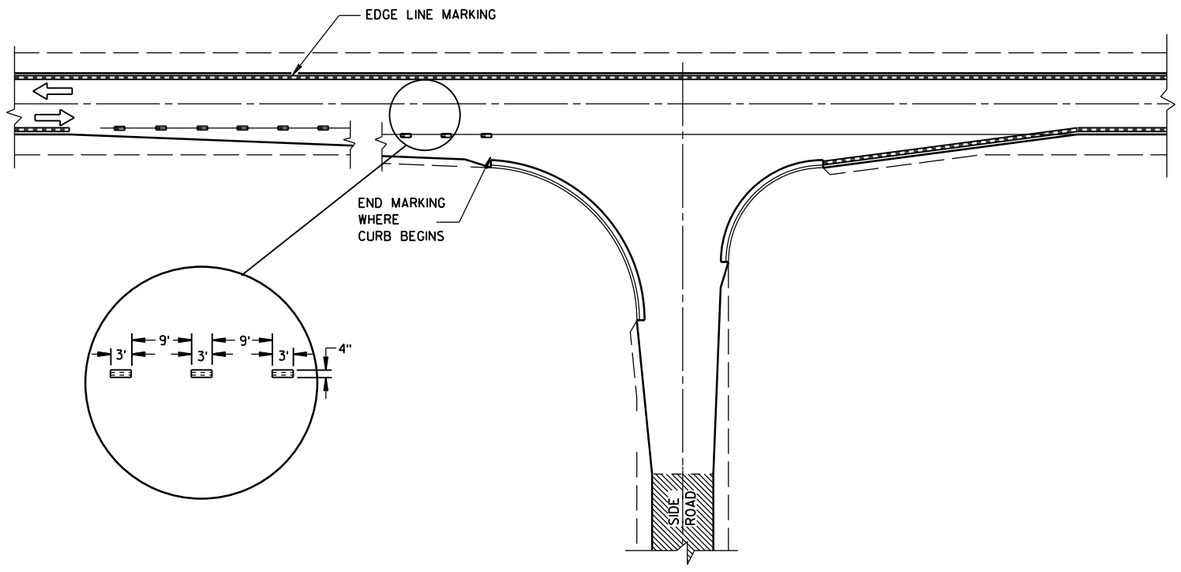
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



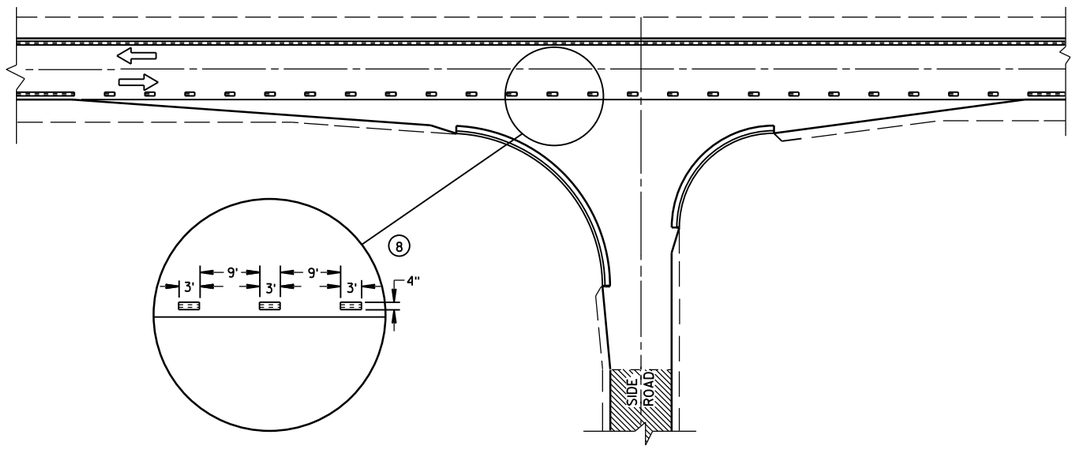
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

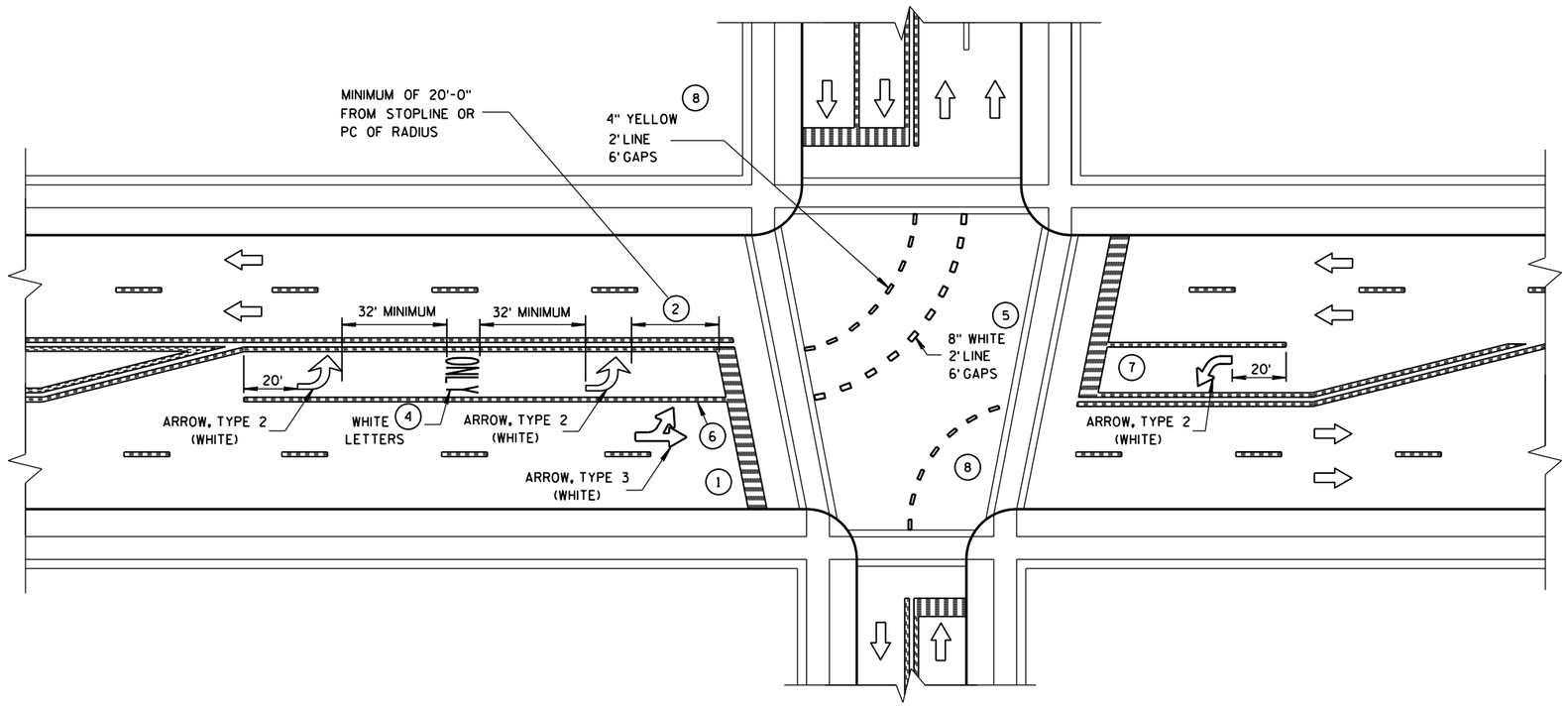
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b

6

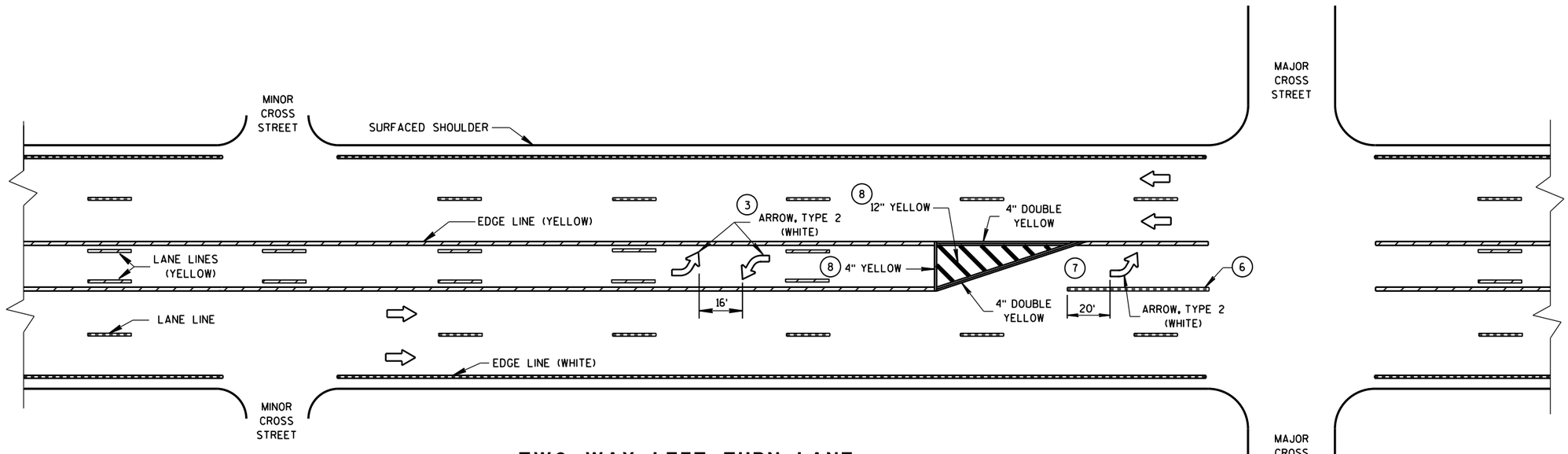
S.D.D. 15 C 8-16b



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



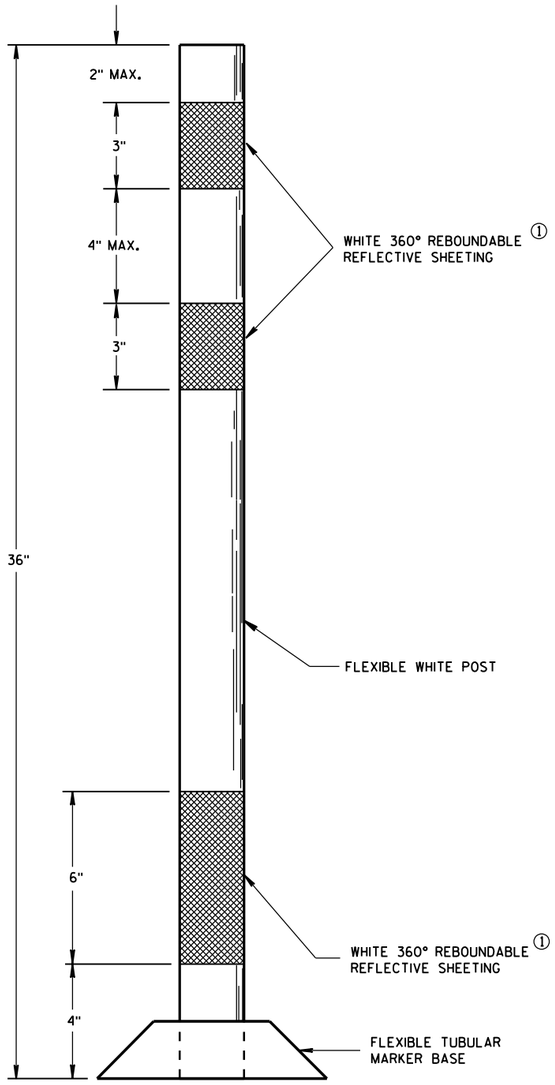
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

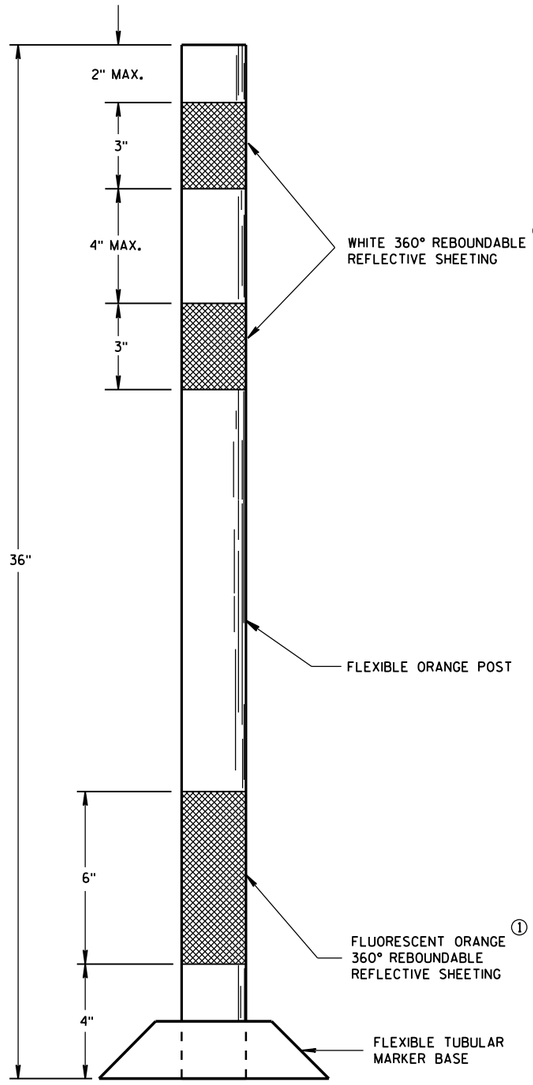
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 8-16e



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

FLEXIBLE TUBULAR MARKER POST
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 10-16-2015 — DATE /S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINE FHWA

6

S.D.D. 15 C 11-6

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

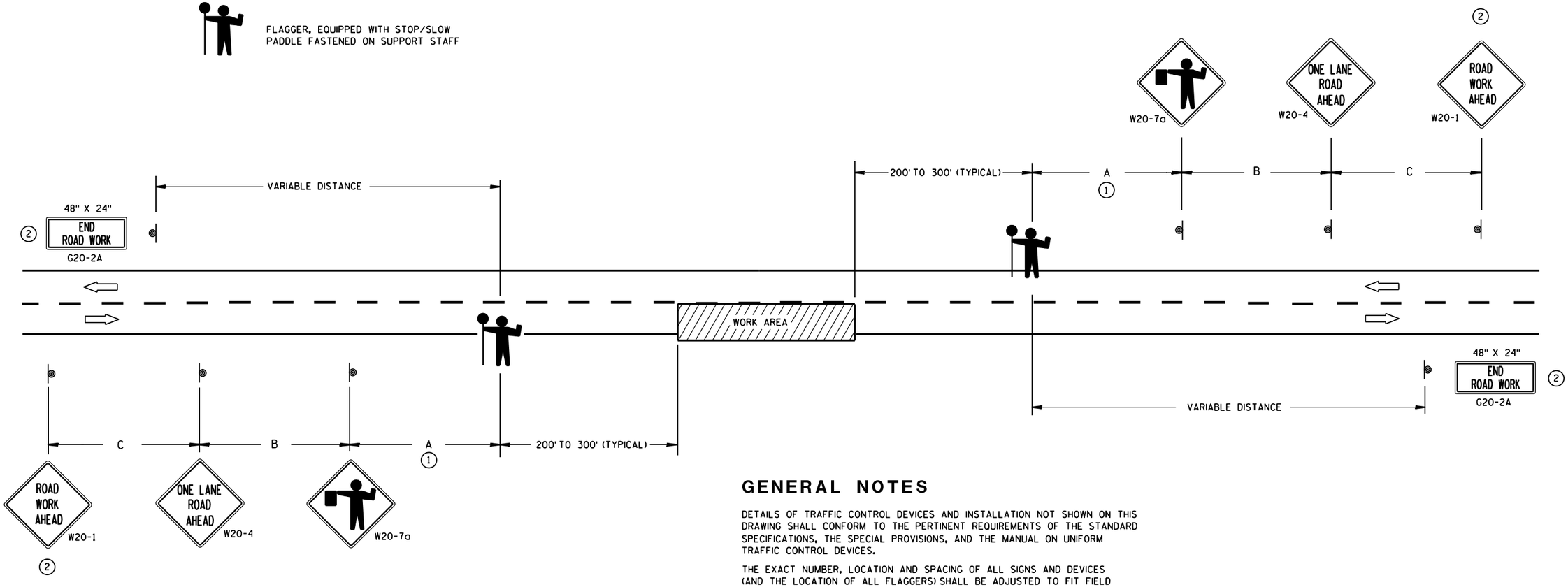
SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT 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.

GENERAL NOTES

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

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

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

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.

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, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

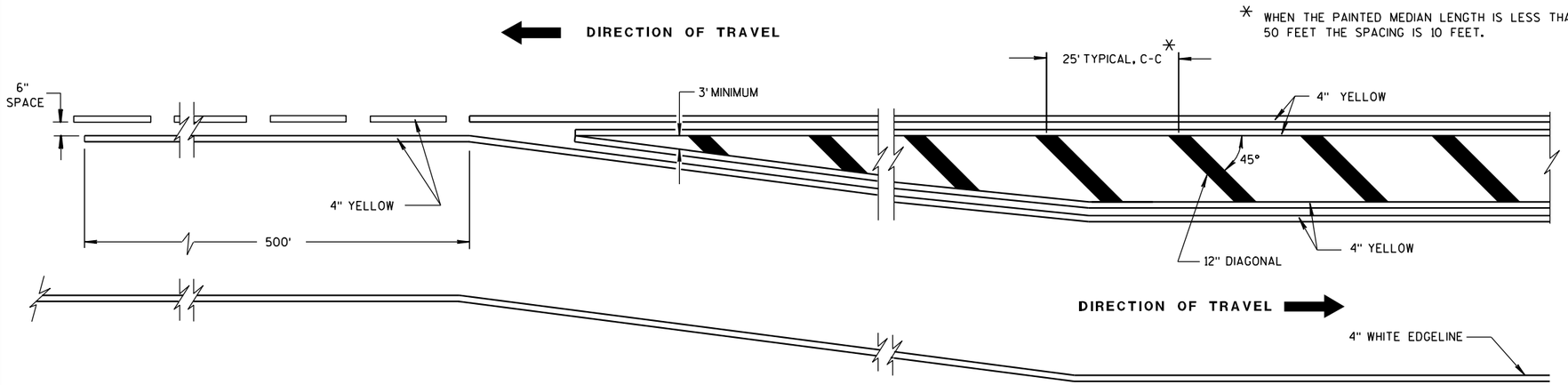
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 C 12-4

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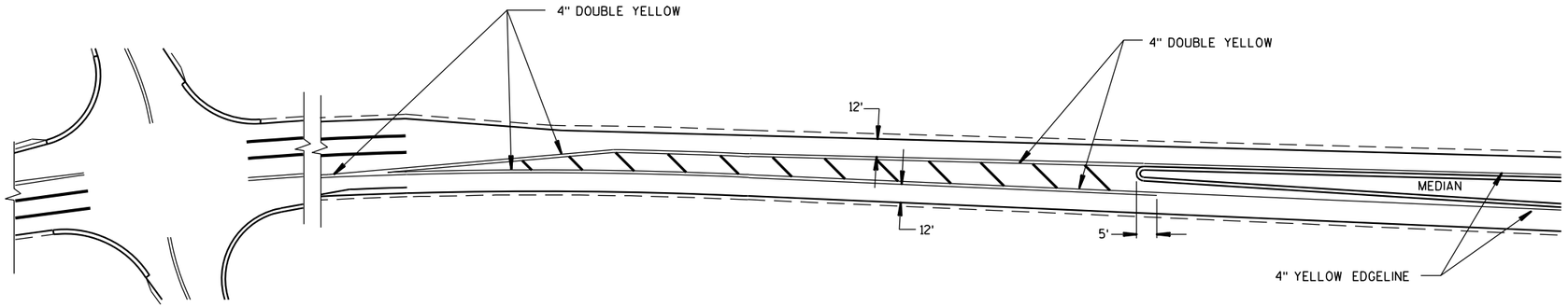
S.D.D. 15 C 12-4



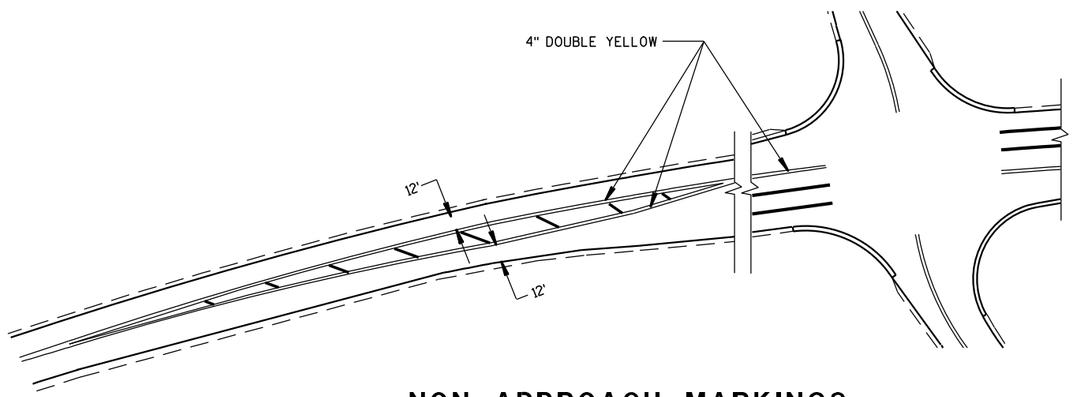
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

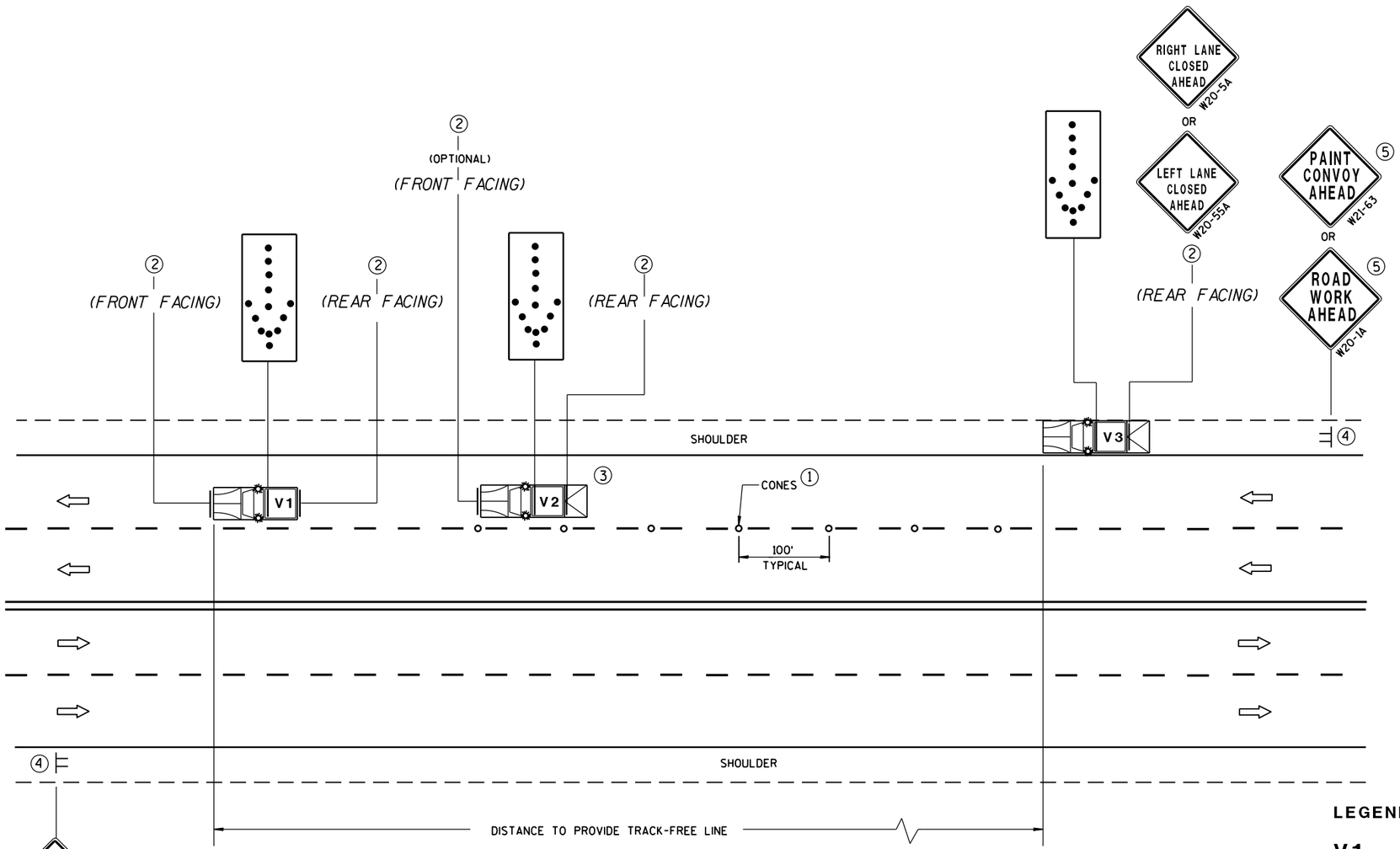
MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	

6

S.D.D. 15 C 18-3

6

S.D.D. 15 C 18-3



GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

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

MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE UNDIVIDED ROADWAY

LEGEND

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

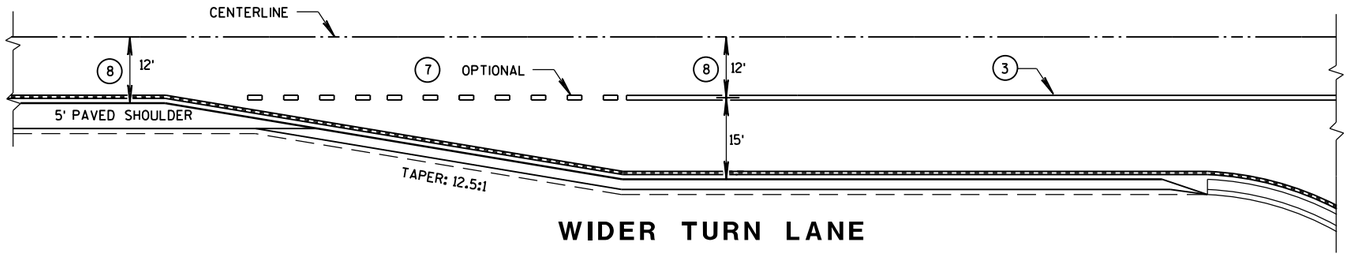
MOVING PAVEMENT MARKING OPERATION
MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

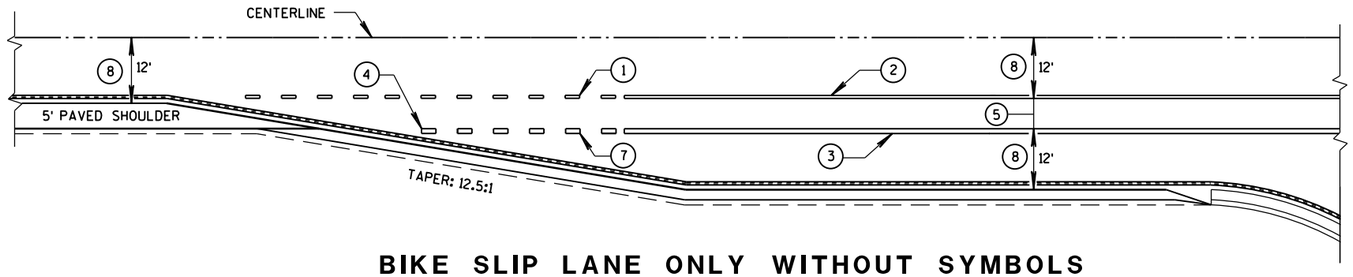
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINE
FHWA

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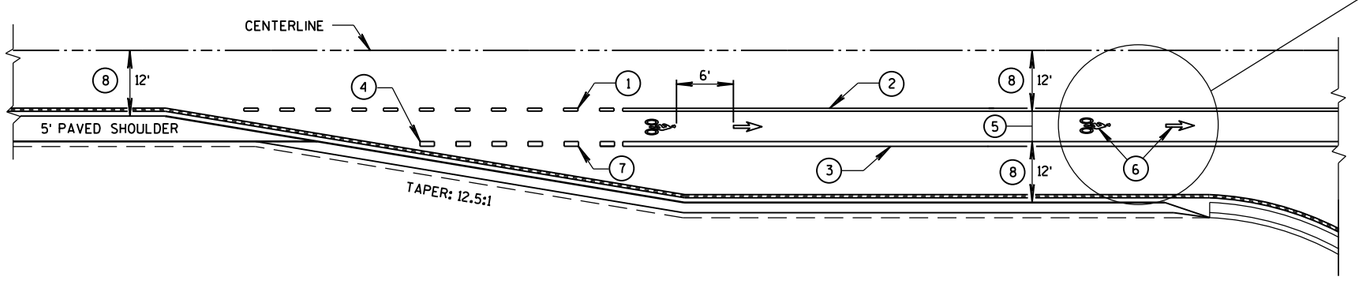
S.D.D. 15 C 19-3b



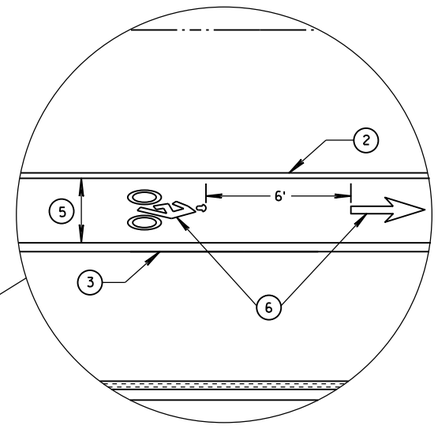
WIDER TURN LANE



BIKE SLIP LANE ONLY WITHOUT SYMBOLS



BIKE LANE WITH SYMBOLS



GENERAL NOTES

1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
   BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4', 5' AT ≥ 45 MPH.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.
8. REFER TO CONTRACT PLANS.

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

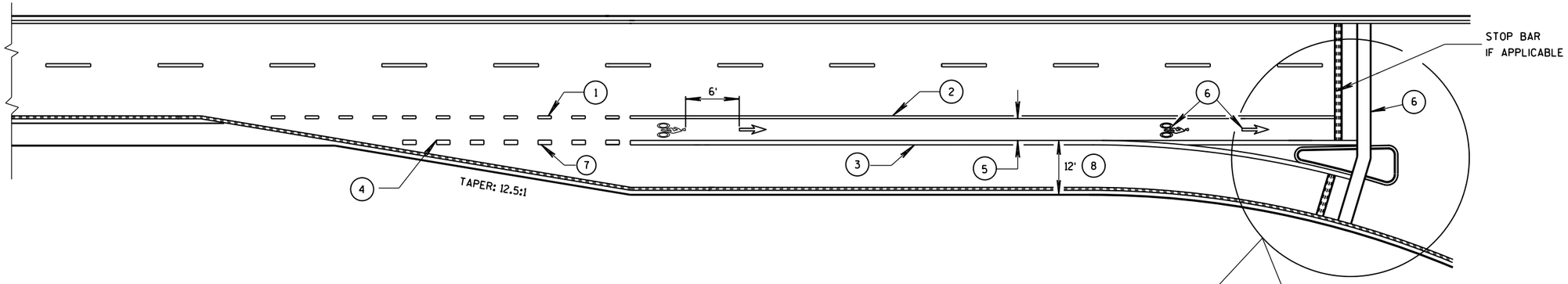
FHWA

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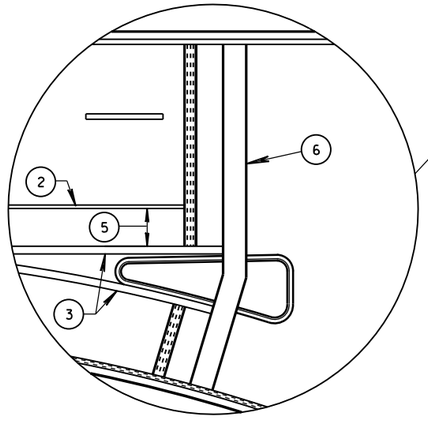
S.D.D. 15 C 29-3a

GENERAL NOTES

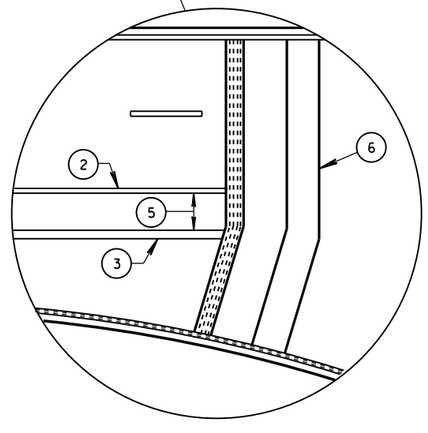
1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. 5' TYPICAL.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.
8. REFER TO CONTRACT PLANS.



BIKE LANE - 4-LANE DIVIDED WITH RIGHT TURN LANE



4 LANE DIVIDED WITH ISLAND



4 LANE DIVIDED WITHOUT ISLAND

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

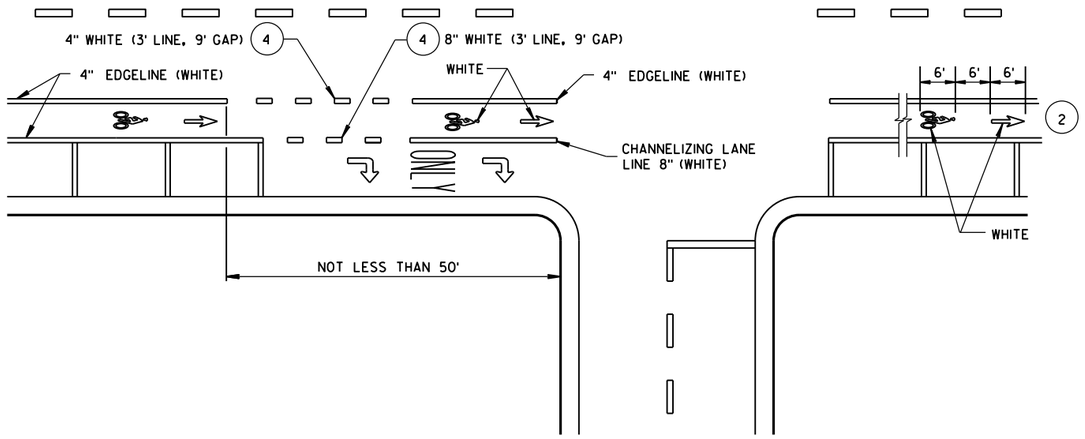
APPROVED
4/30/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC E
FHWA

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S.D.D. 15 C 29-3b

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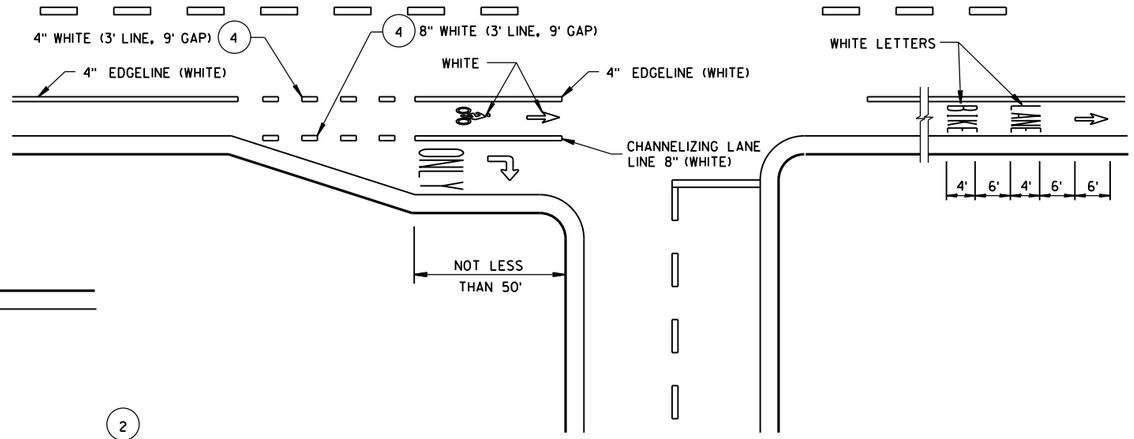
S.D.D. 15 C 29-3b



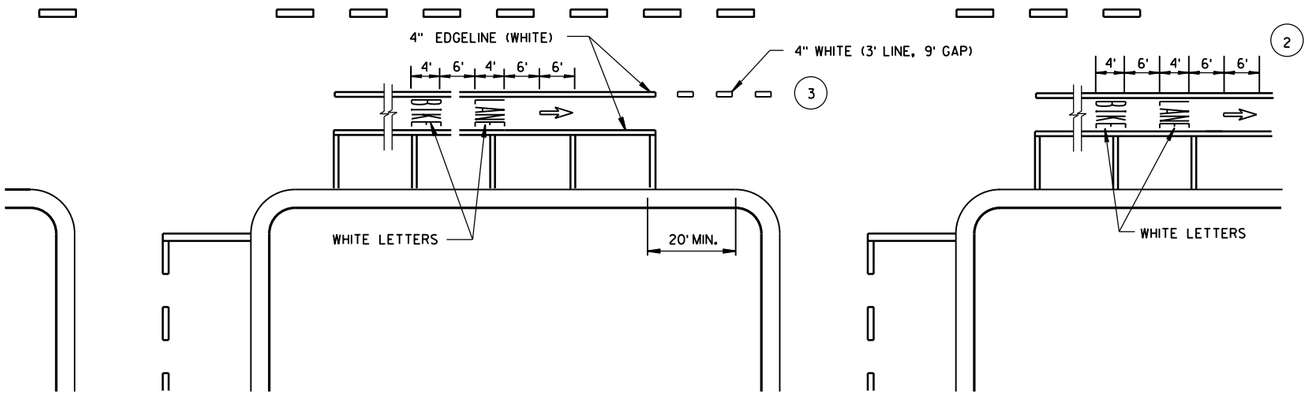
DESIGNATED BICYCLE LANE

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' 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. WHEN SPECIFIED IN THE CONTRACT.



DESIGNATED BICYCLE LANE
NO PARKING, RIGHT TURN LANE



DESIGNATED BICYCLE LANE
WITH PARKING, NO RIGHT TURN LANE

URBAN BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

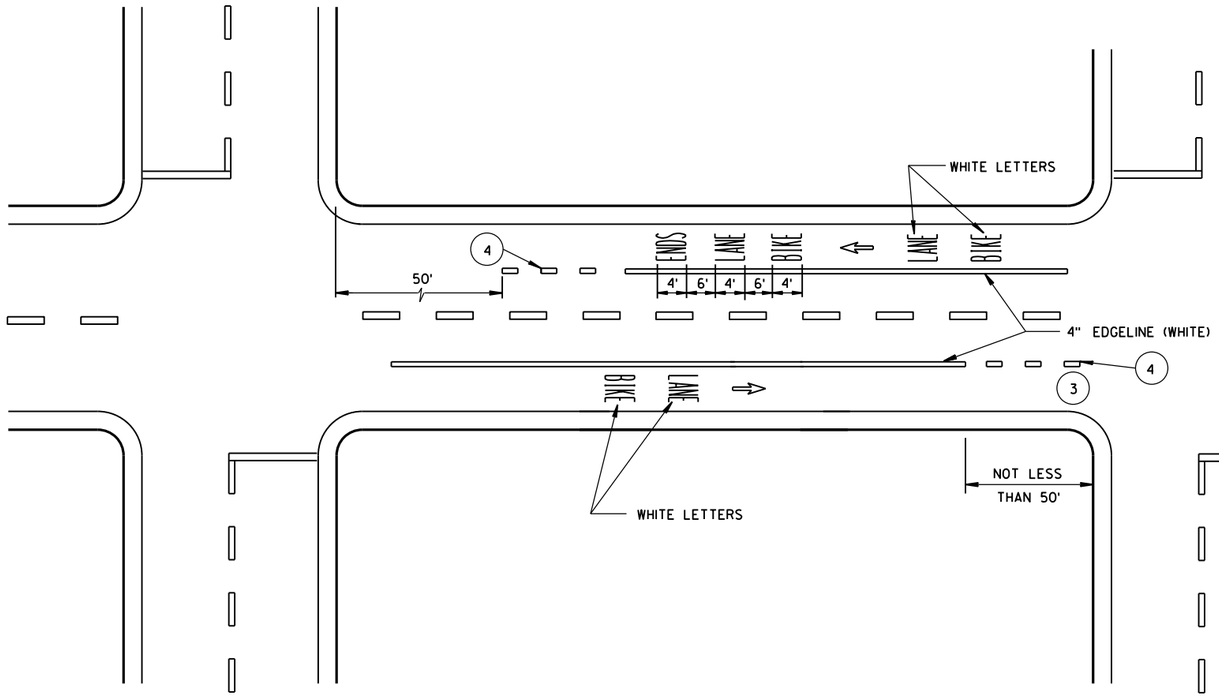
APPROVED
4/30/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC E
FHWA

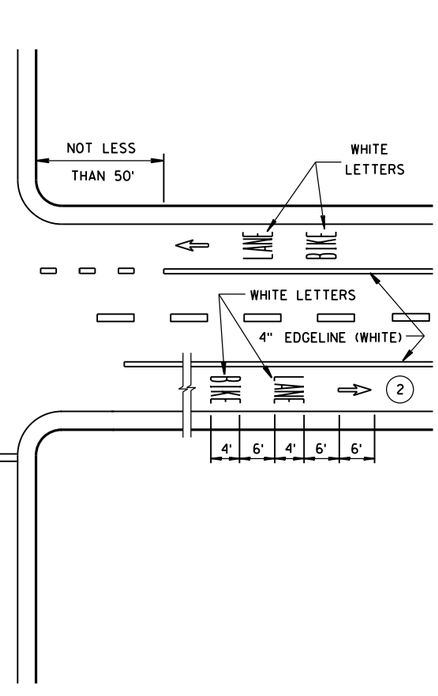
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S.D.D. 15 C 29-3c

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' 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. 3' LINE, 9' GAP - 4" WIDE, WHITE.





DESIGNATED BICYCLE LANE
NO PARKING

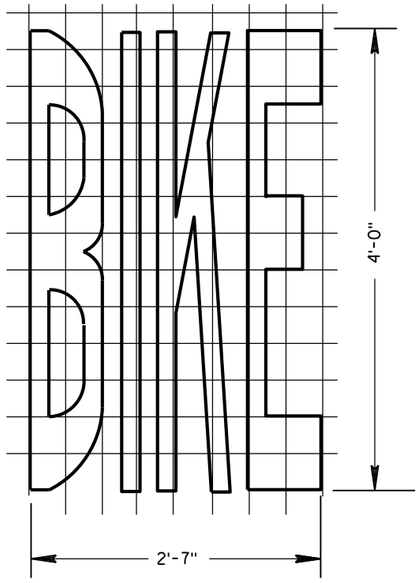
URBAN BICYCLE LANE MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4/30/2013 DATE	/S/ Travis Feltes STATE TRAFFIC EN
FHWA	

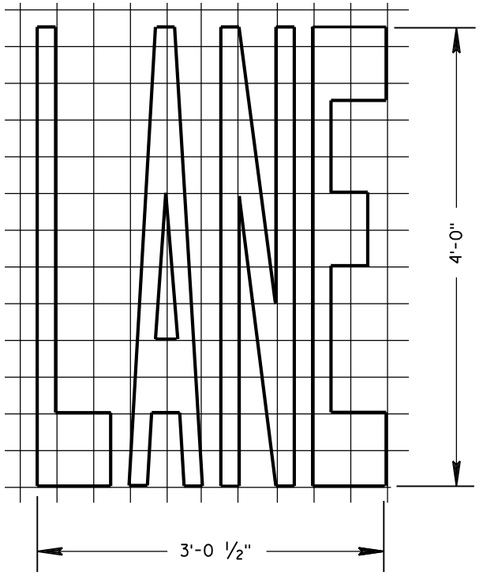
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S.D.D. 15 C 29-3d

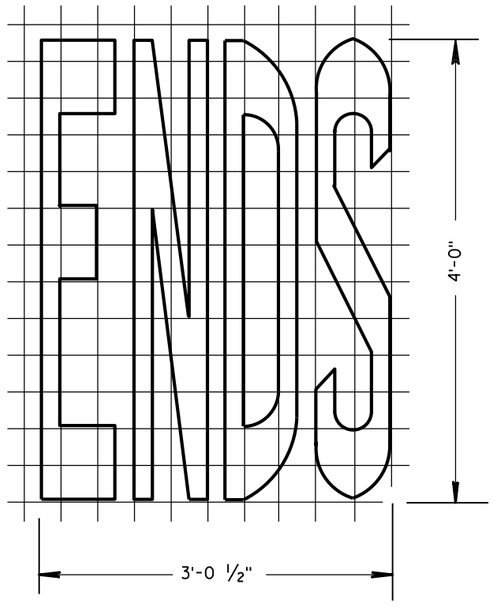
GENERAL NOTES

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.

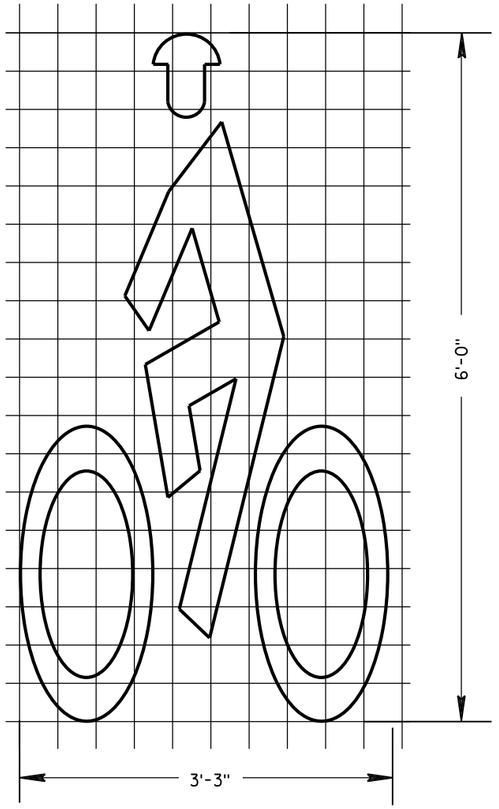
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



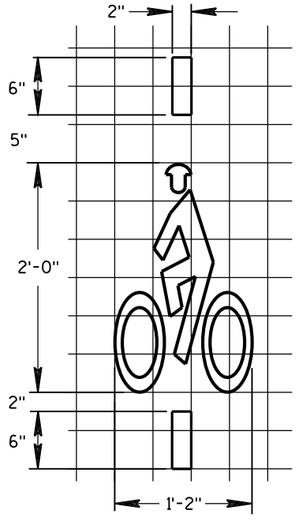




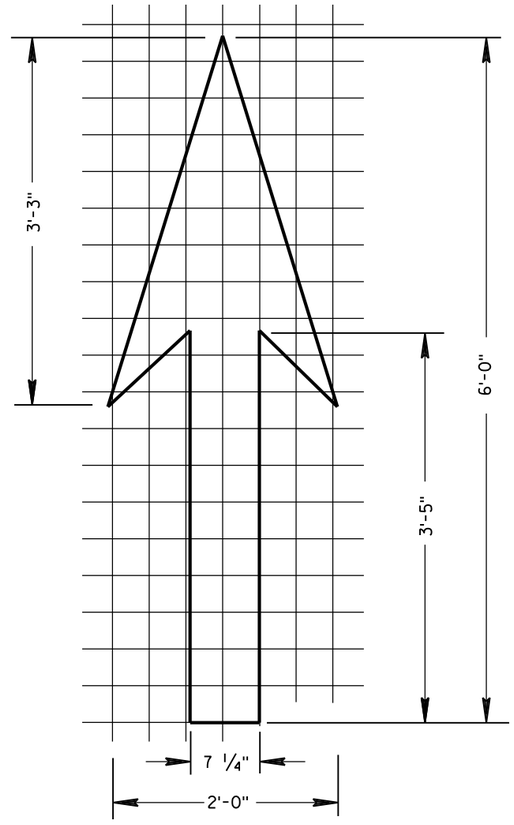
BIKE LANE WORDS



BIKE LANE SYMBOL



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE ARROW

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC EN

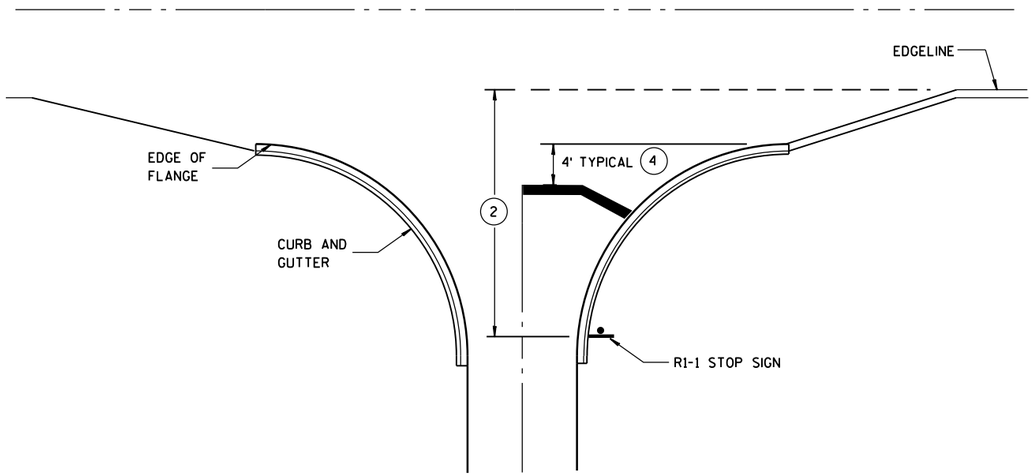
FHWA

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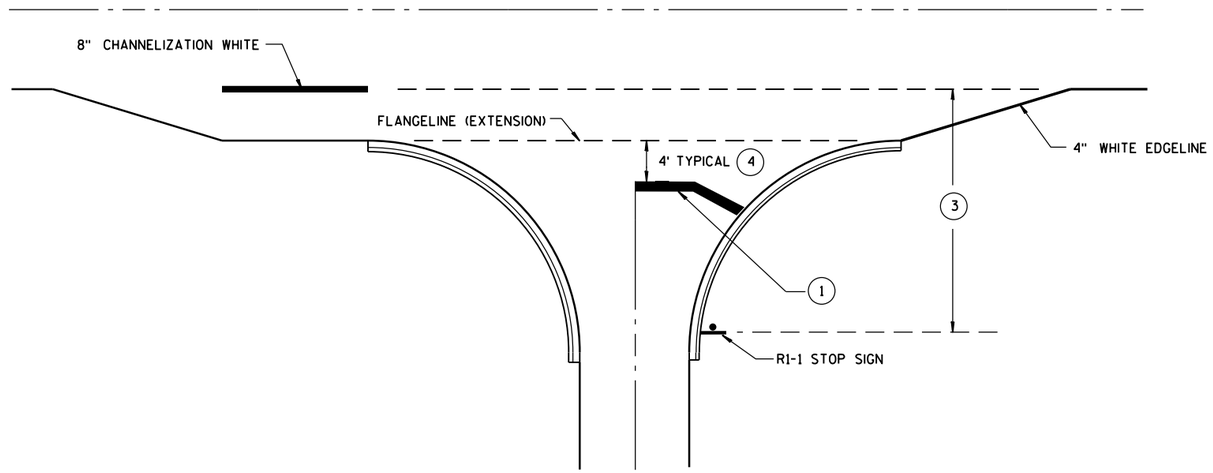
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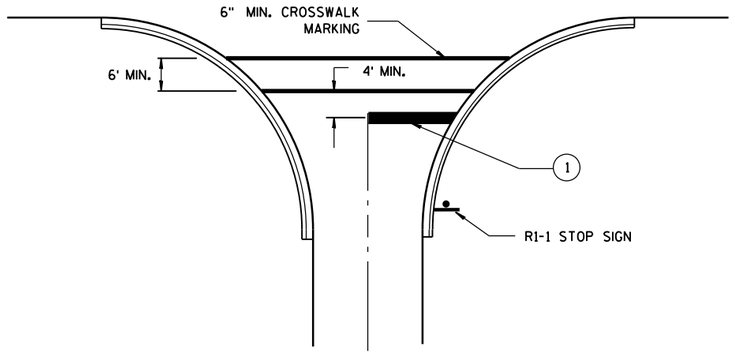
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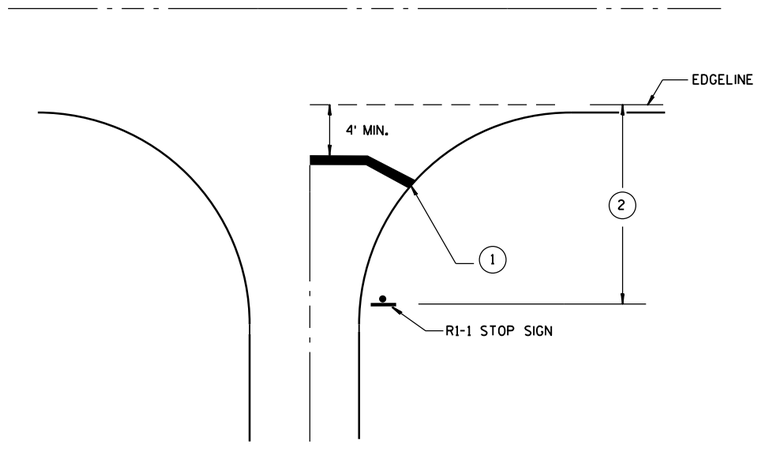
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

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S.D.D. 15 C 33-1

LEGEND

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

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 CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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 "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.

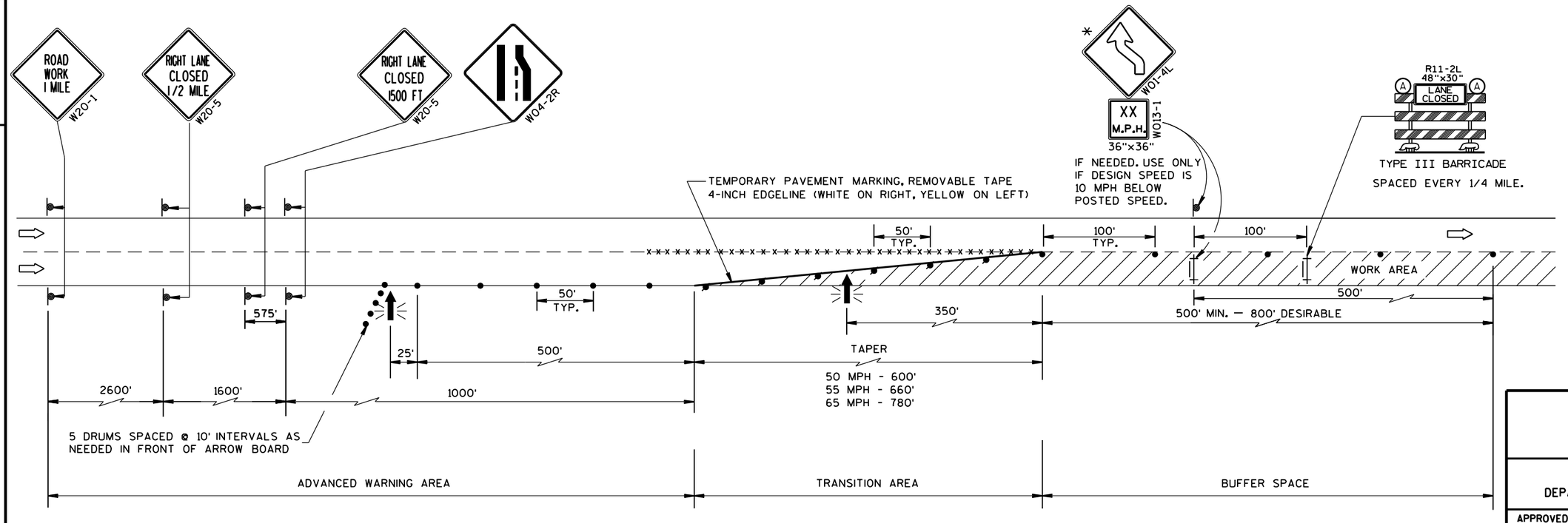
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



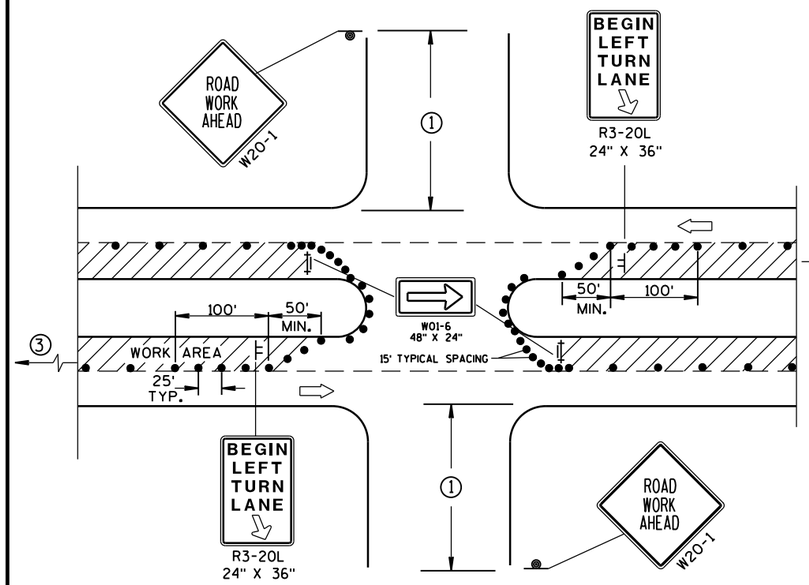
TRAFFIC CONTROL, LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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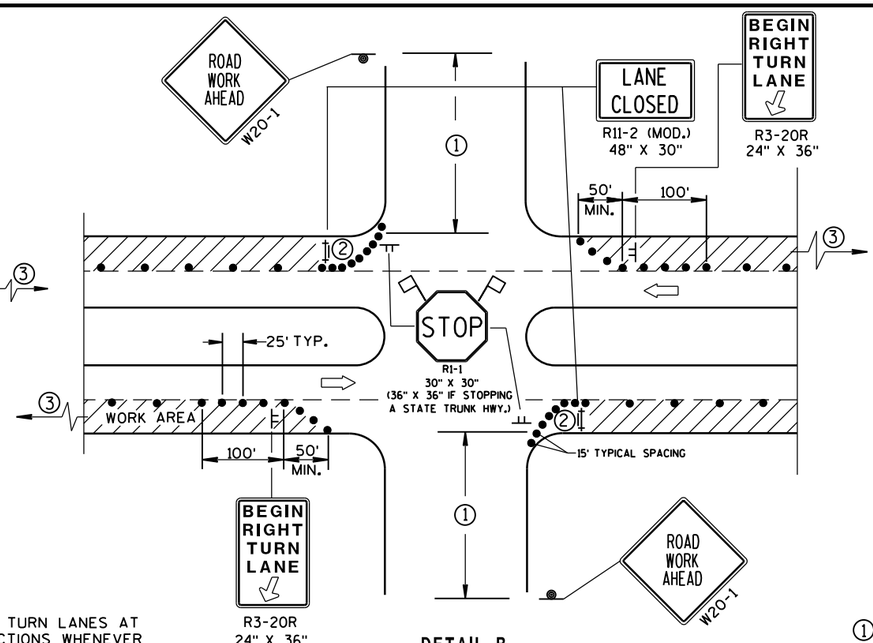
S.D.D. 15 D 12-5a



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

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 SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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

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

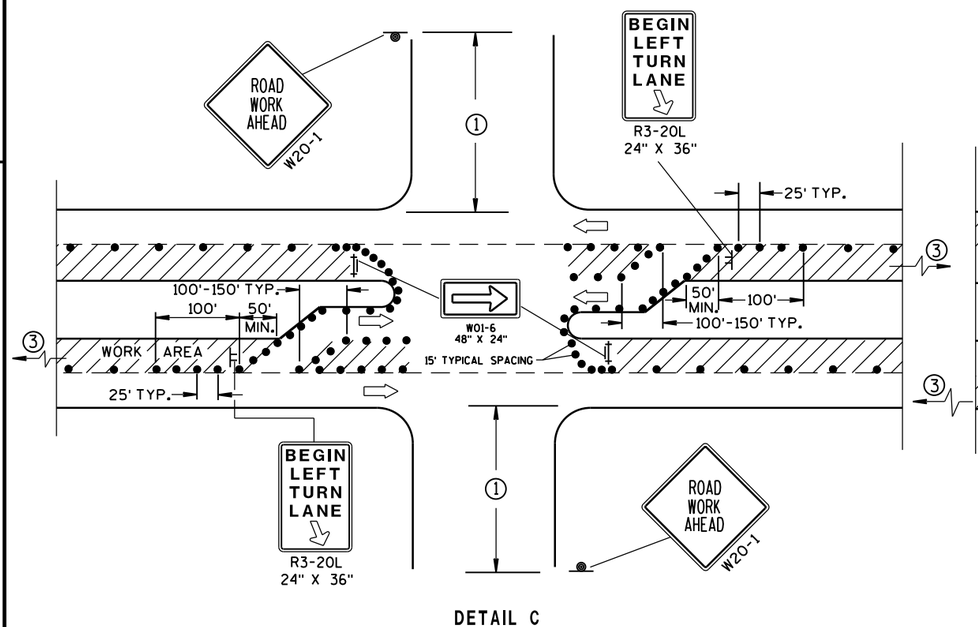
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

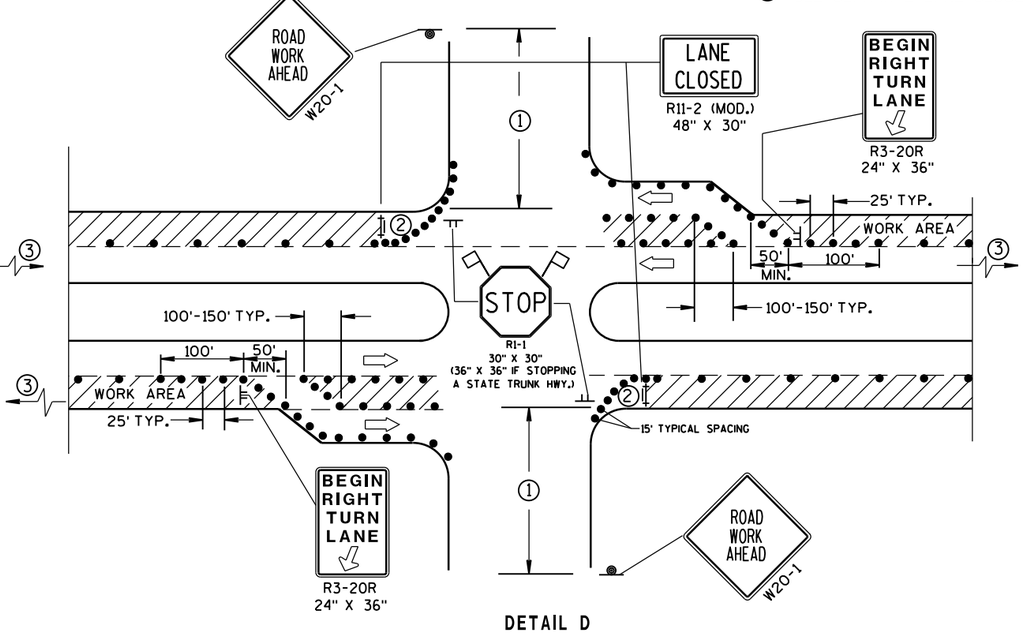
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

GENERAL NOTES

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

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

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

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

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

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

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

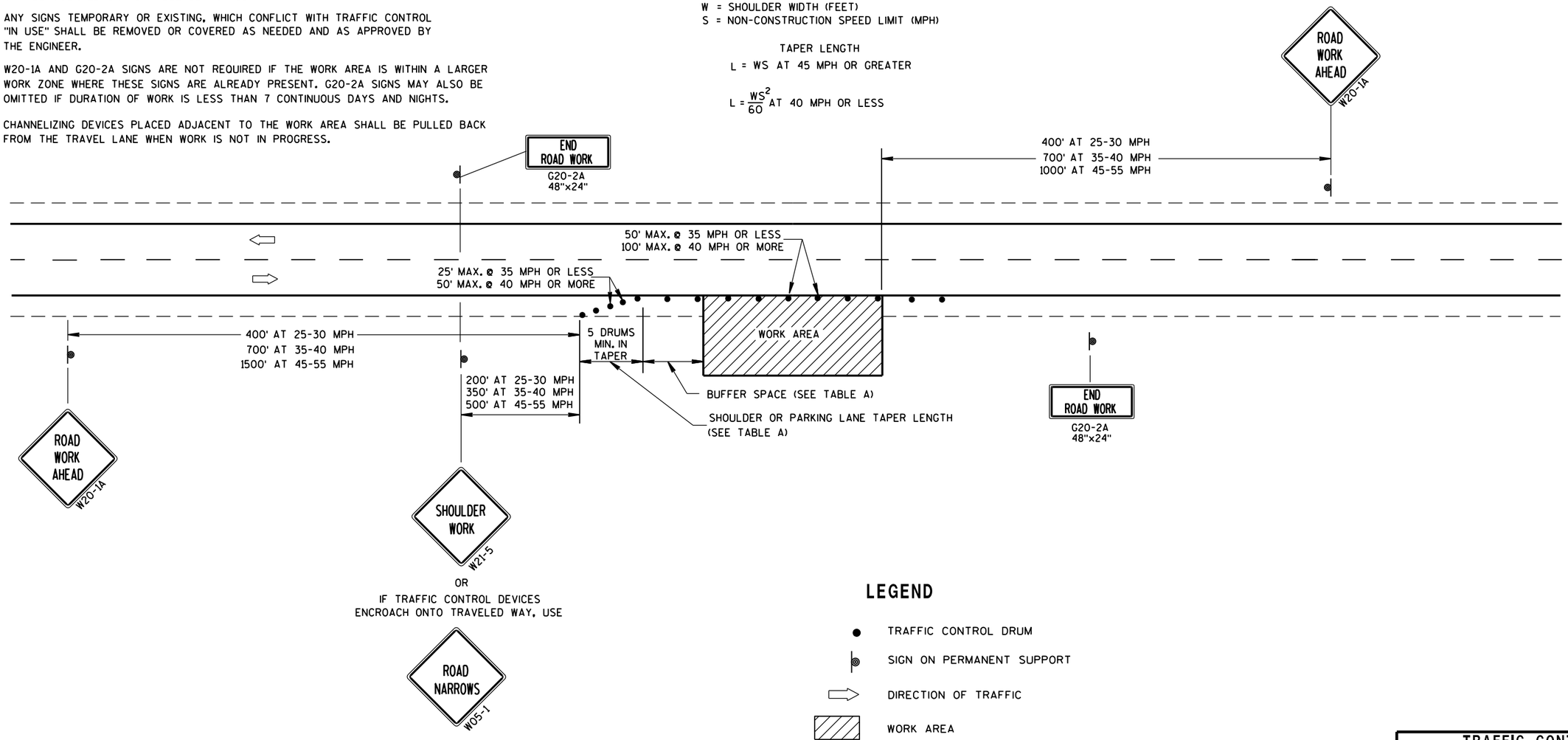
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

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

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

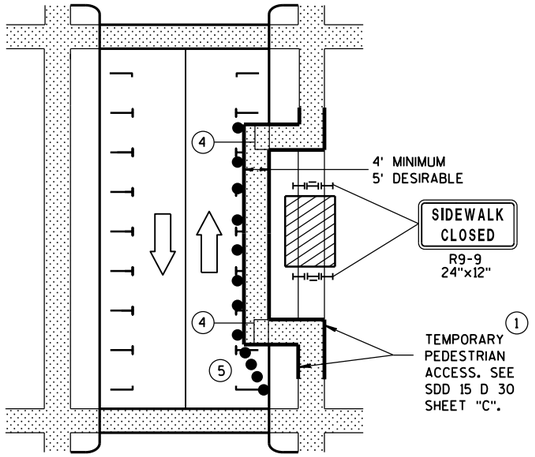
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

6

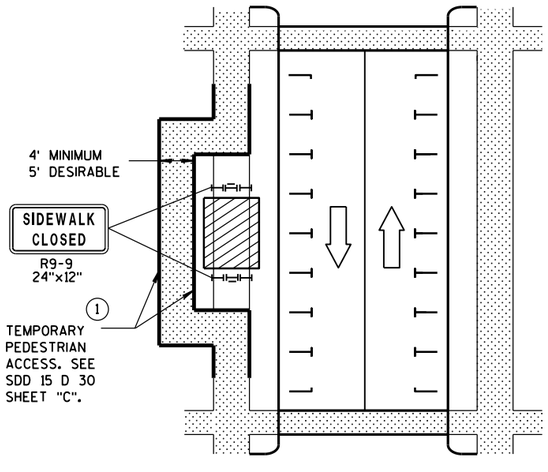
S.D.D. 15 D 28-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

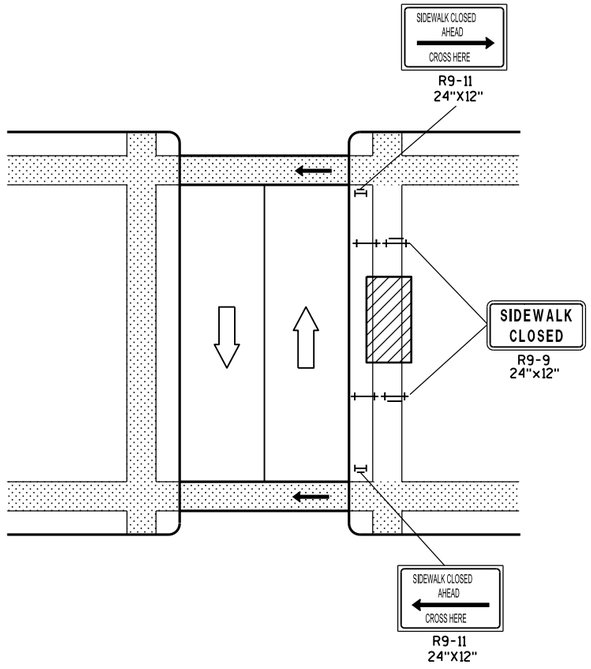


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

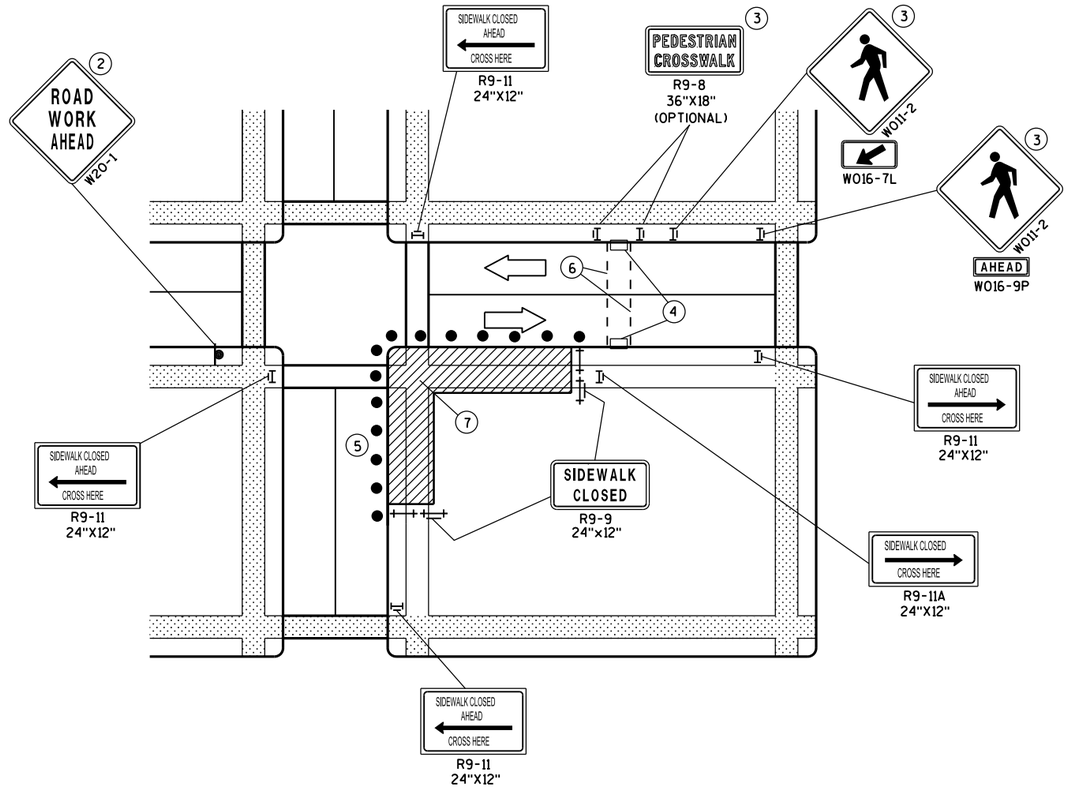
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

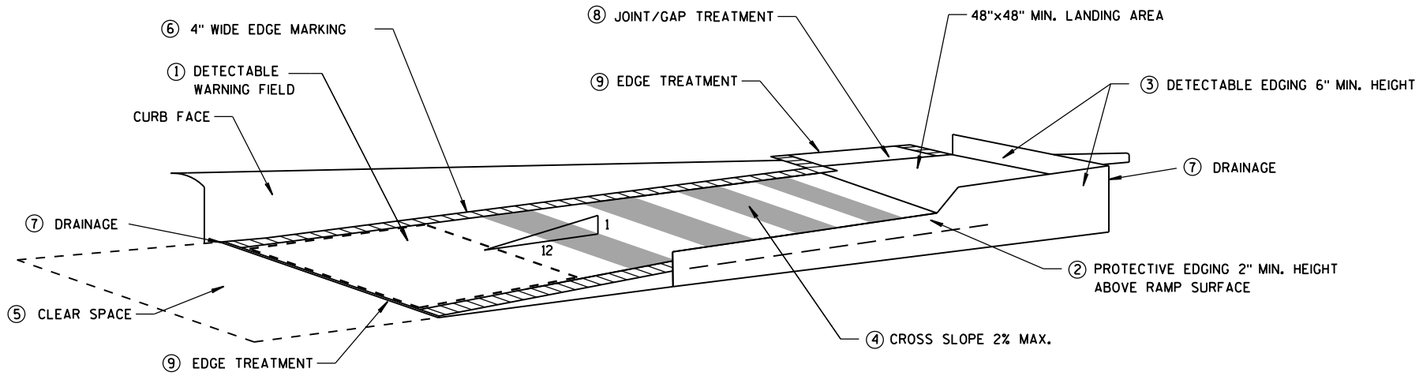
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 30-2a

6

S.D.D. 15 D 30-2a



TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

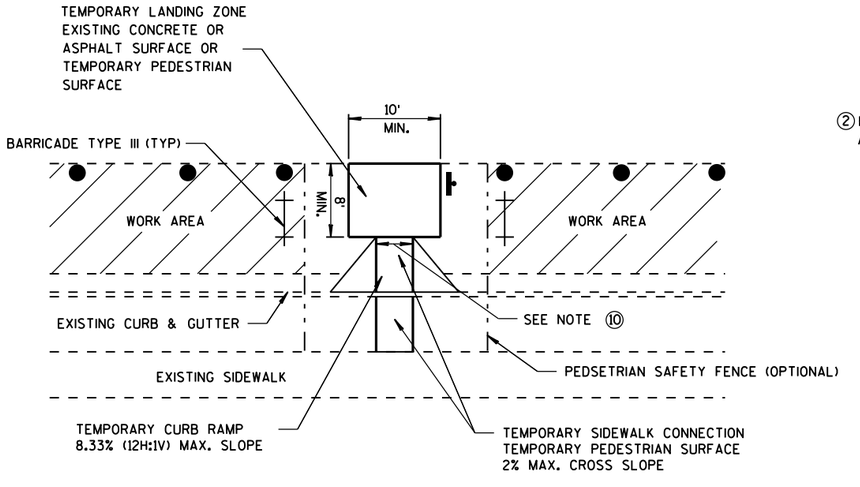
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

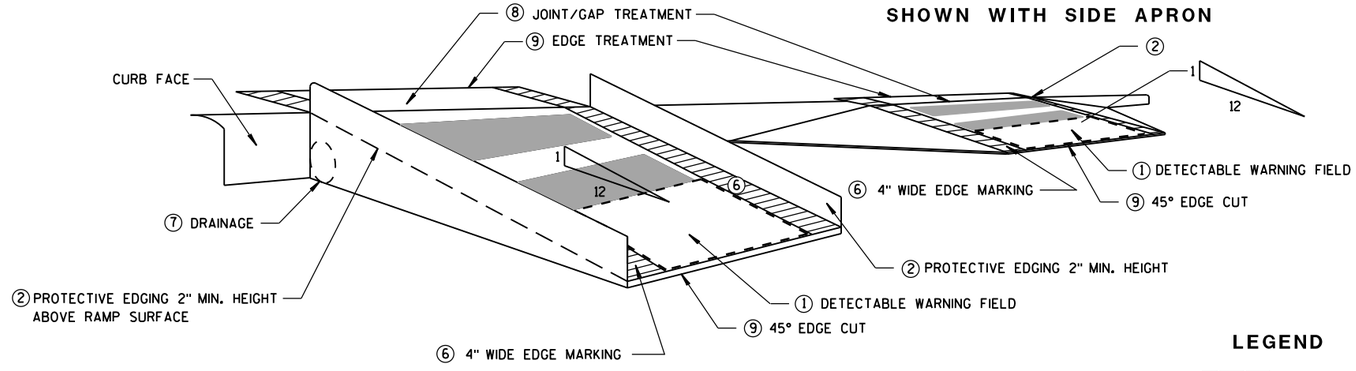
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE

SHOWN WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2015 DATE — /S/ Travis Feltes STATE TRAFFIC ENGINEER — SIGN

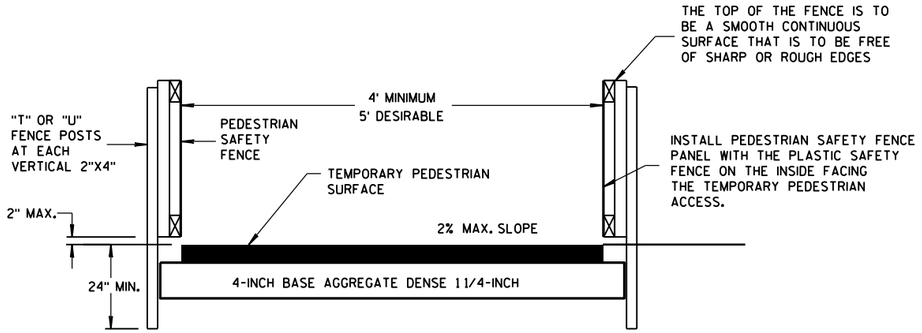
FHWA

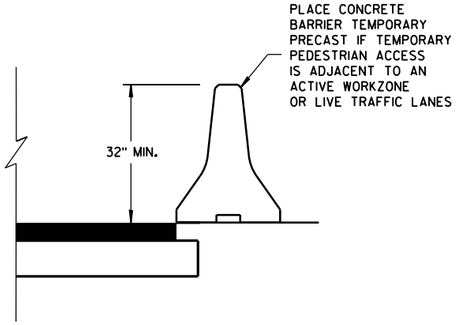
6

S.D.D. 15 D 30-2b

6

S.D.D. 15 D 30-2b

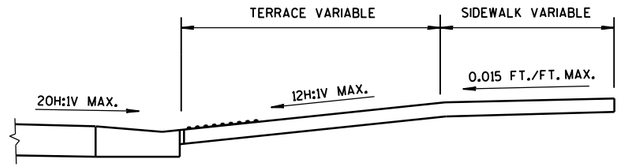




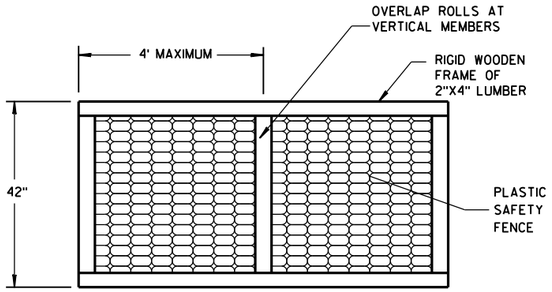
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

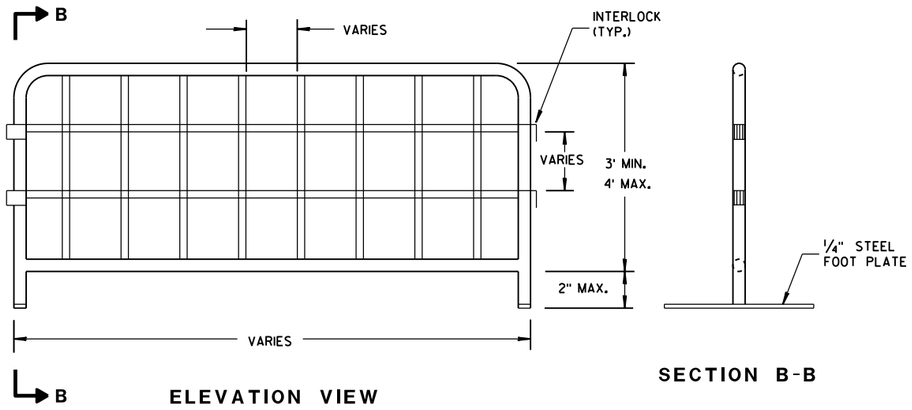
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



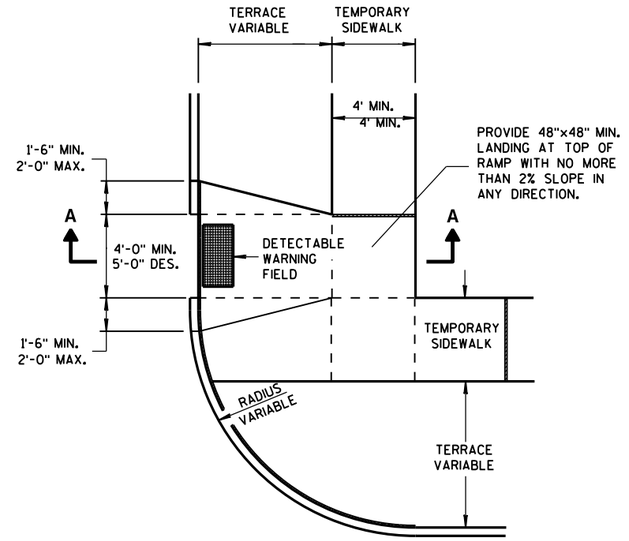
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

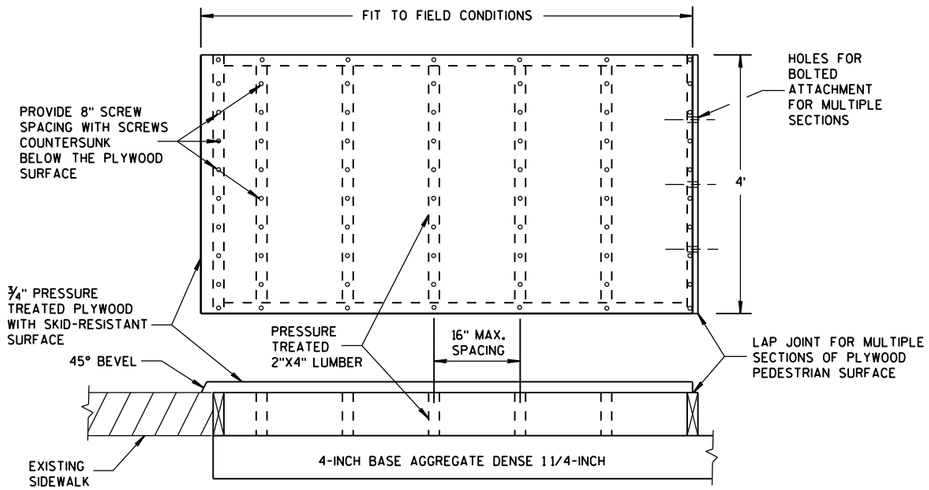
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



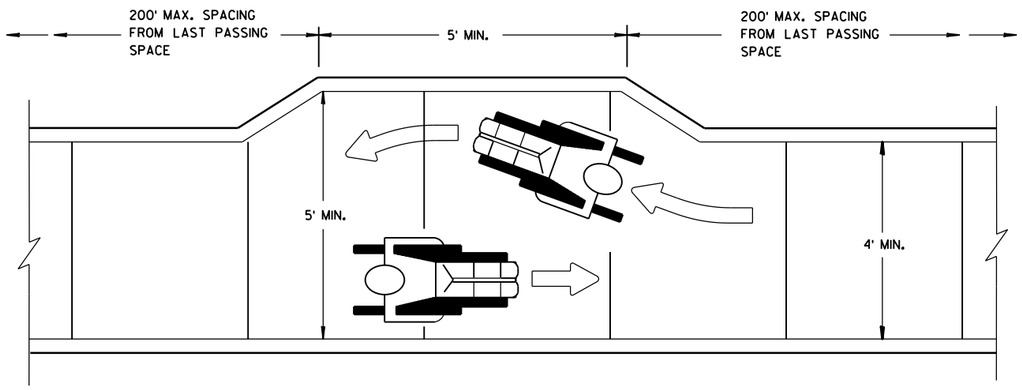
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

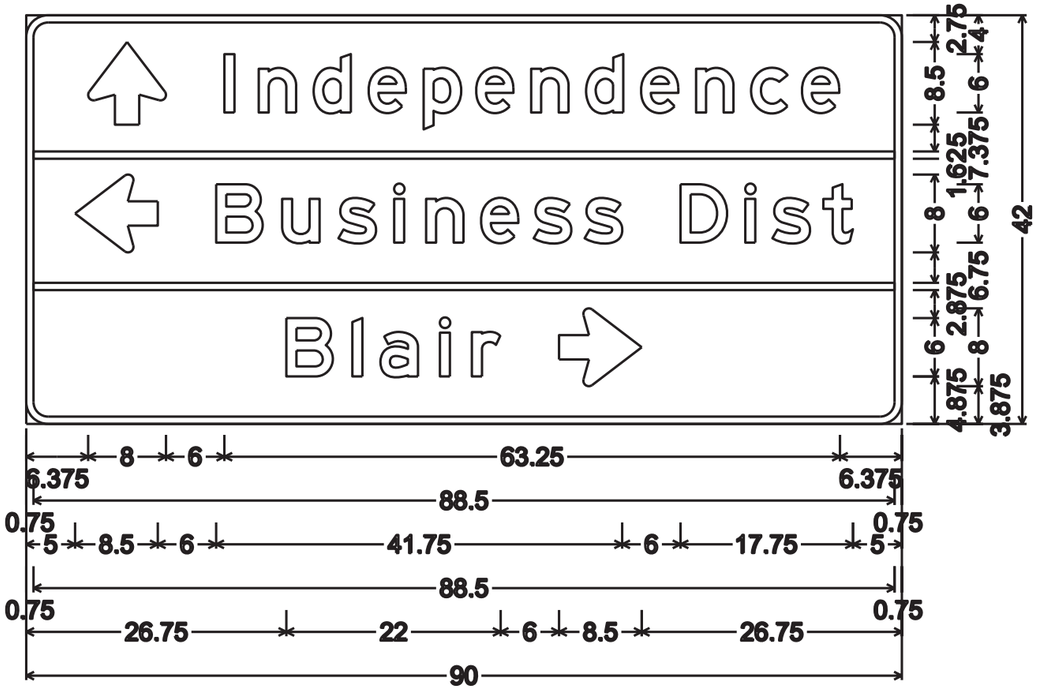
APPROVED
March 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER — SIGN
FHWA

6 S.D.D. 15 D 30-2c

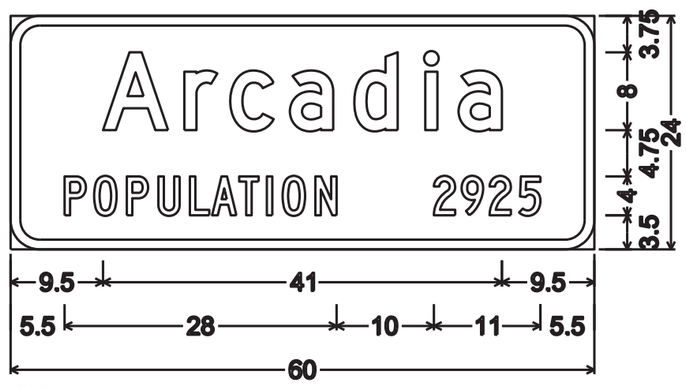
6 S.D.D. 15 D 30-2c

NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E except as Shown



D1-3; 2.250" Radius, 0.750" Border



I2-3;
3.000" Radius, 1.000" Border
"Arcadia" D; "POPULATION" C; "2925" C

7

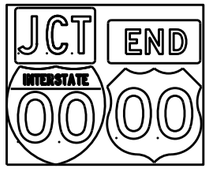
7

PROJECT NO: 7130-01-72	HWY: STH 95	COUNTY: TREMPEALEAU	PERMANENT SIGNING	SHEET NO:	E

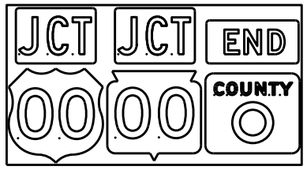
TYPICAL ASSEMBLIES



J1-1



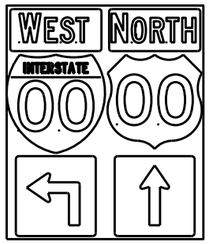
J1-2



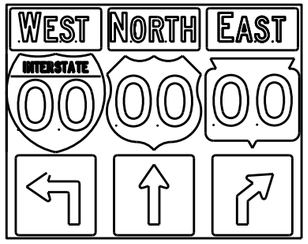
J1-3



J2-1



J2-2

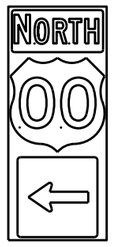


J2-3

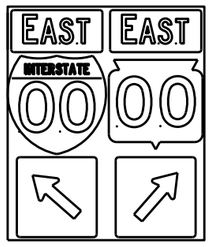


JV

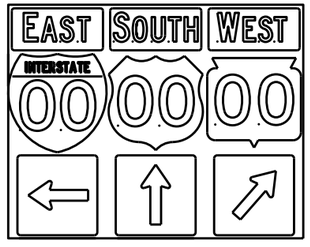
(Typical Vertical J-Assembly
See Note 10 and 11)



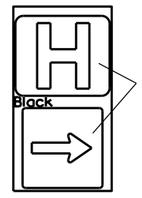
J3-1



J3-2



J3-3

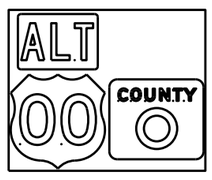


Blue Background

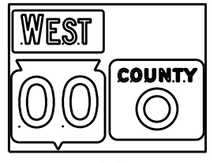
JH-1



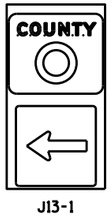
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

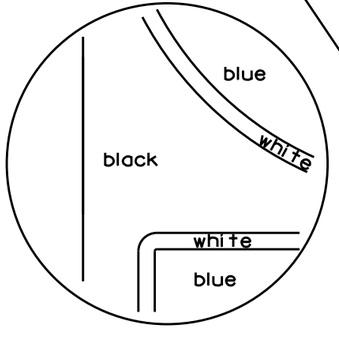


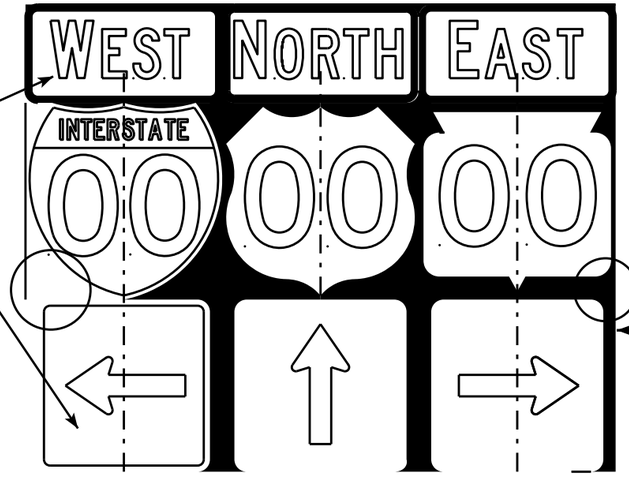
J23-1

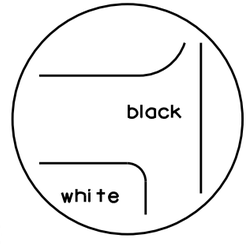


J22-1

[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

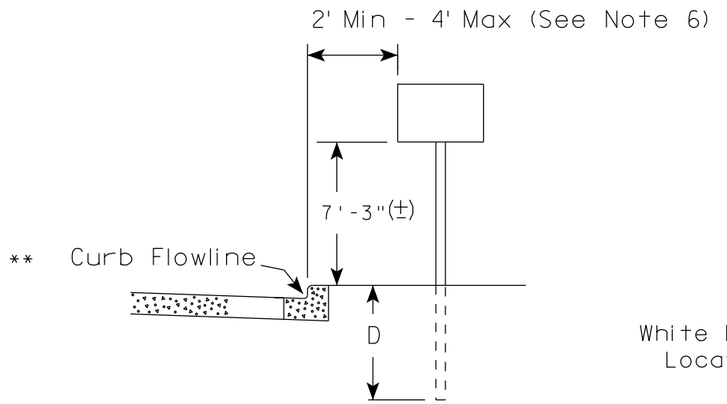
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

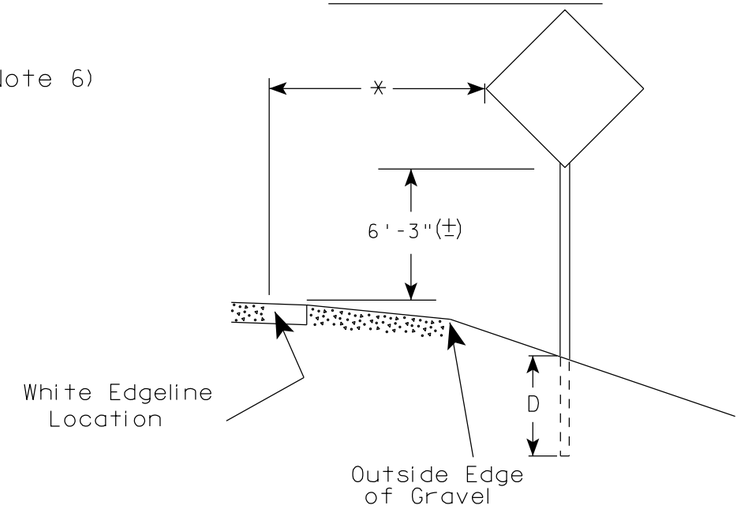
DATE 2/06/14 PL... A2-1S.8

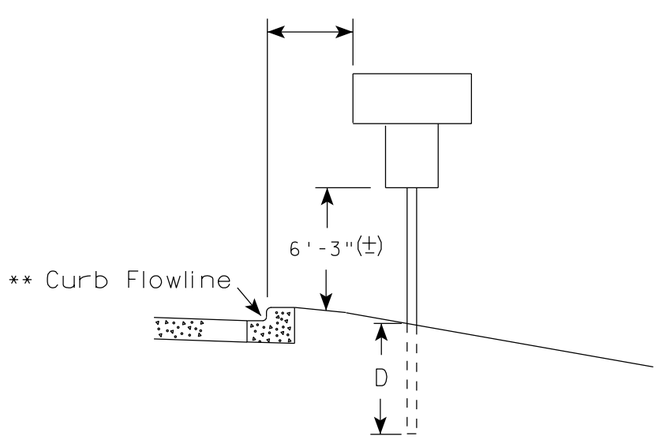
PROJECT NO: SHEET NO: E

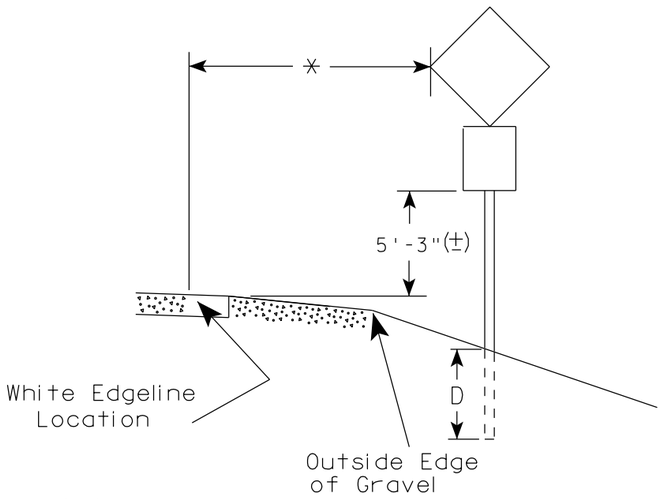
URBAN AREA



RURAL AREA (See Note 2)







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 barrier wall, see A4-10 sign plate.
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 J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. 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), 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" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** 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.

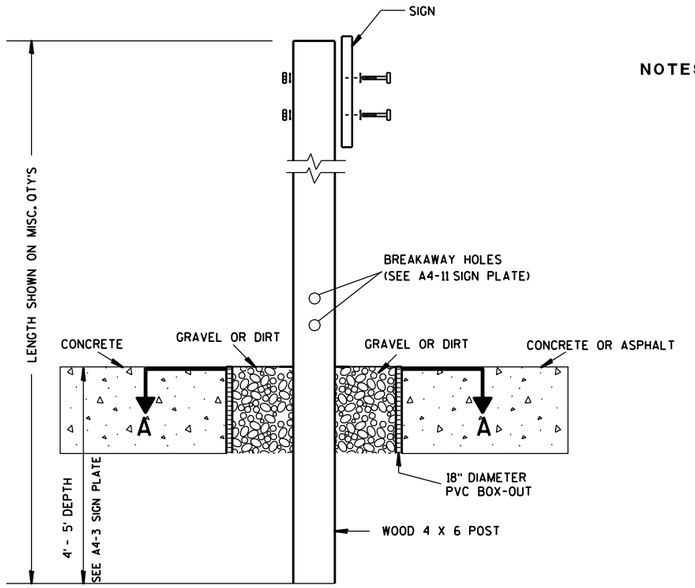
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

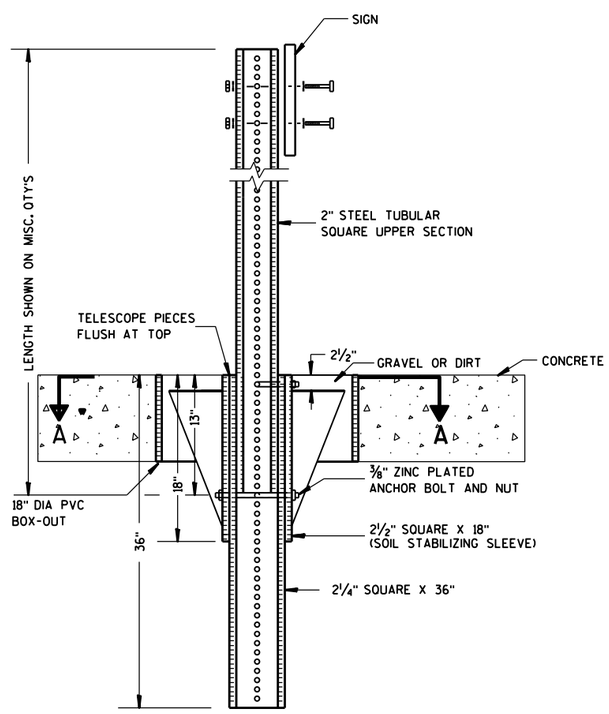
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

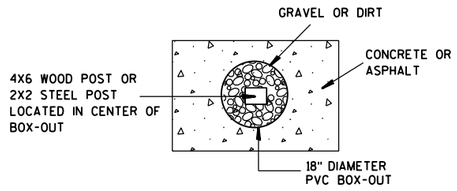
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

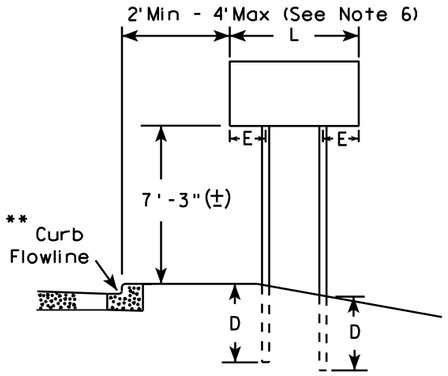
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

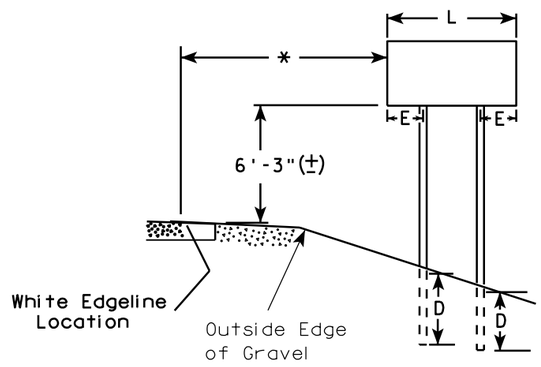
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

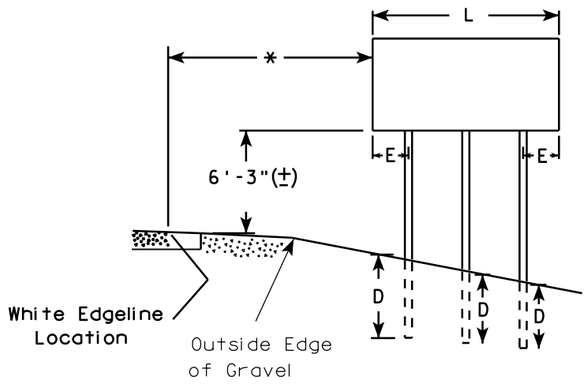
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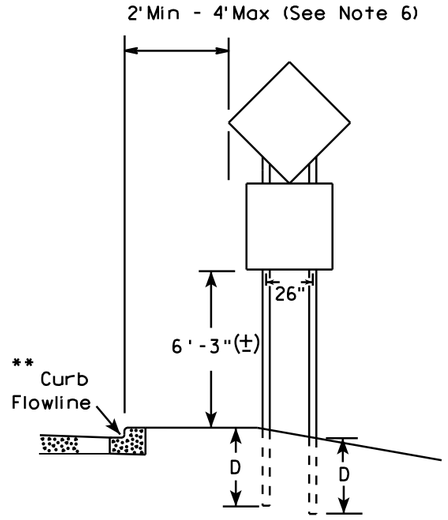
URBAN AREA



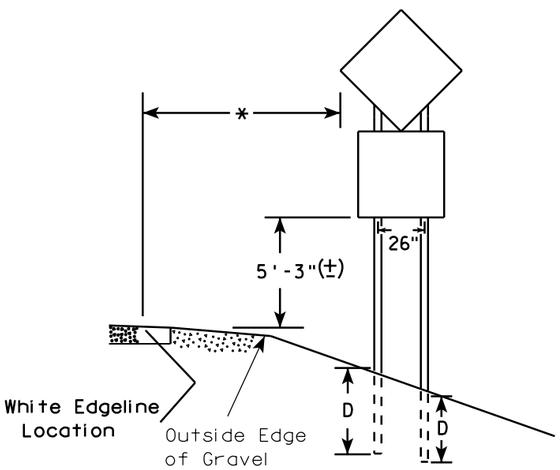
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
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.

***

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

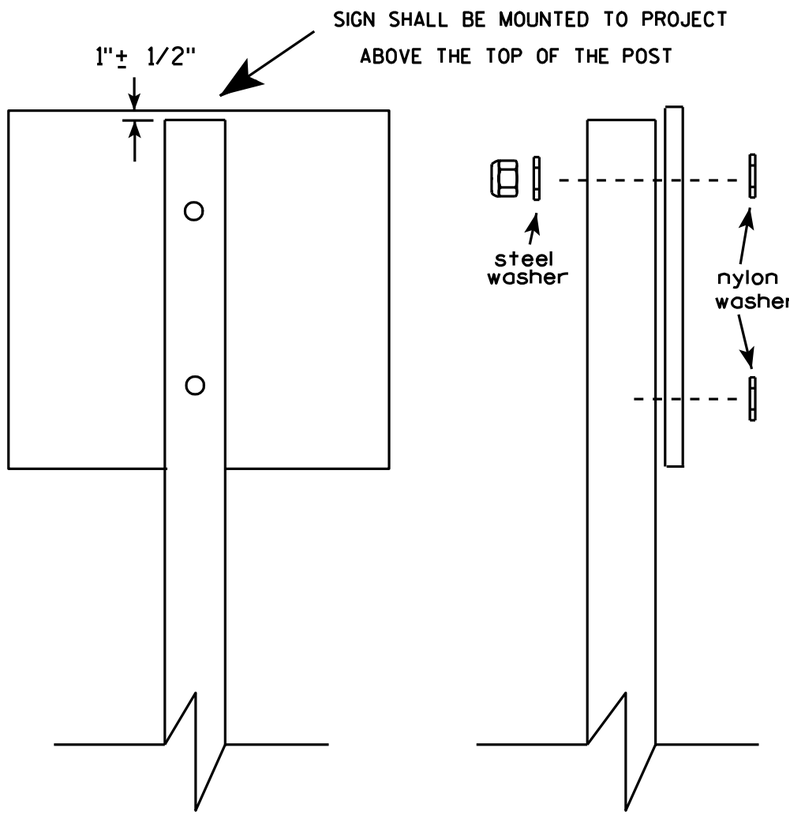
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

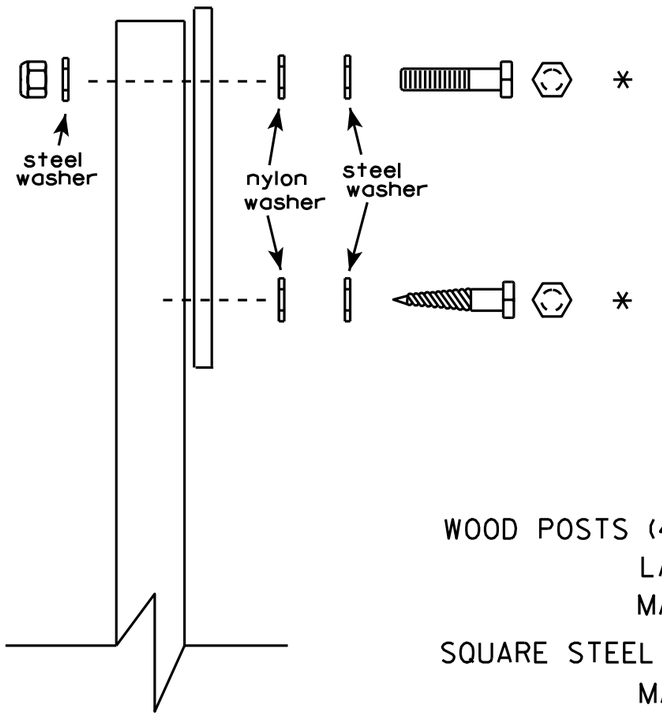
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14
144

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

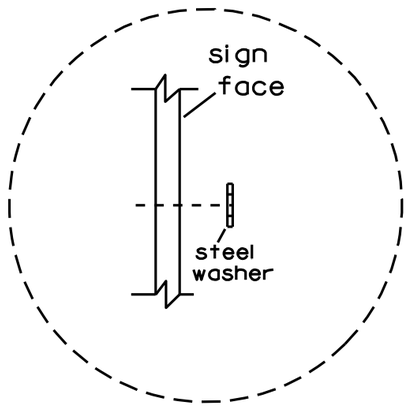
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
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 for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* 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 3/23/10 PLATE NO. A4-8.7

7

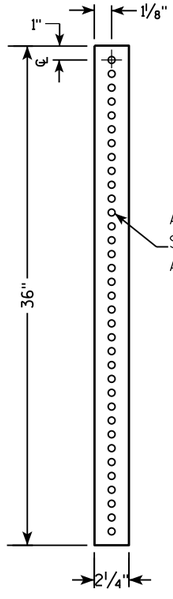
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PROJECT NO:

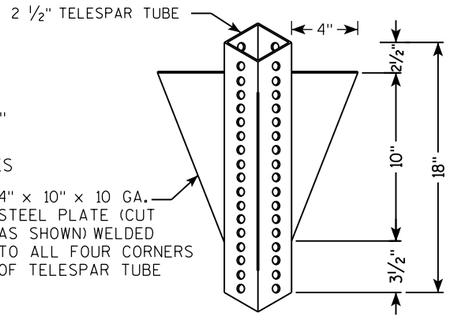
SHEET NO: 145 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

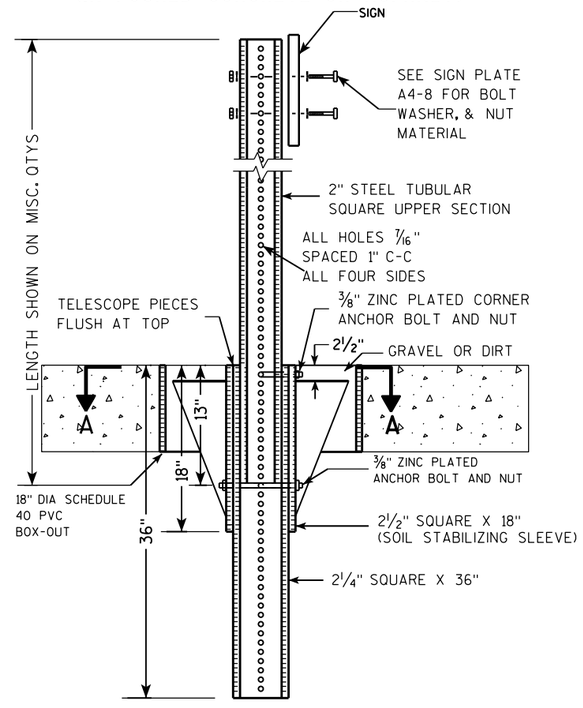
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



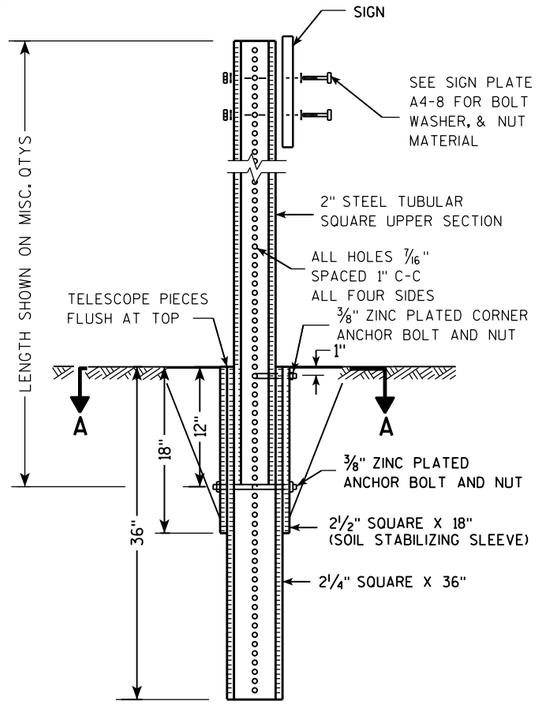
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

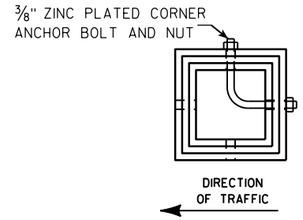


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

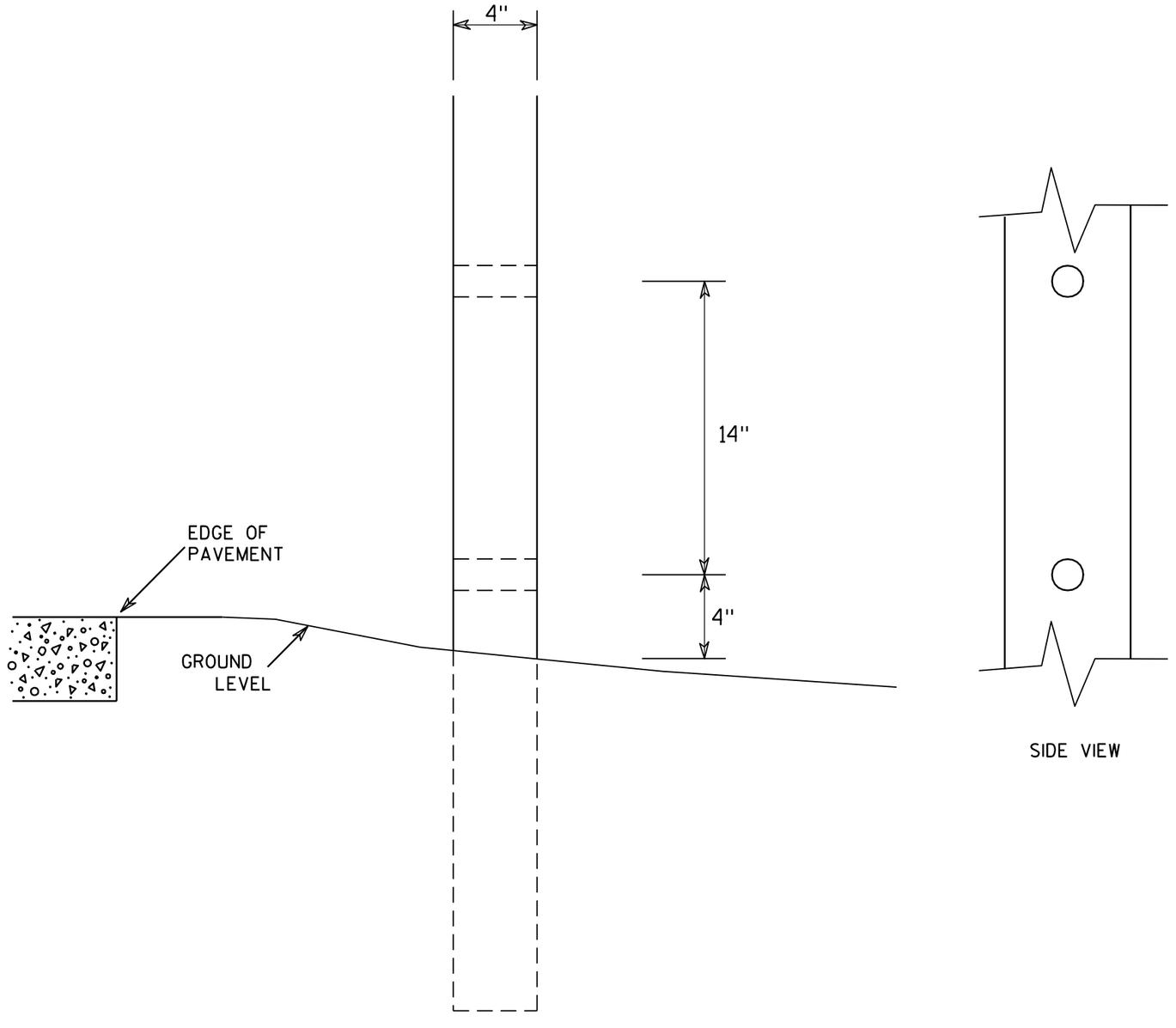
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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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.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

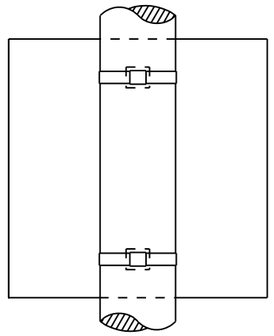
APPROVED Chester J Spang
for State Traffic Engineer

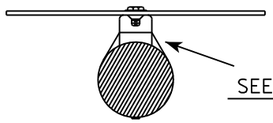
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 147	E

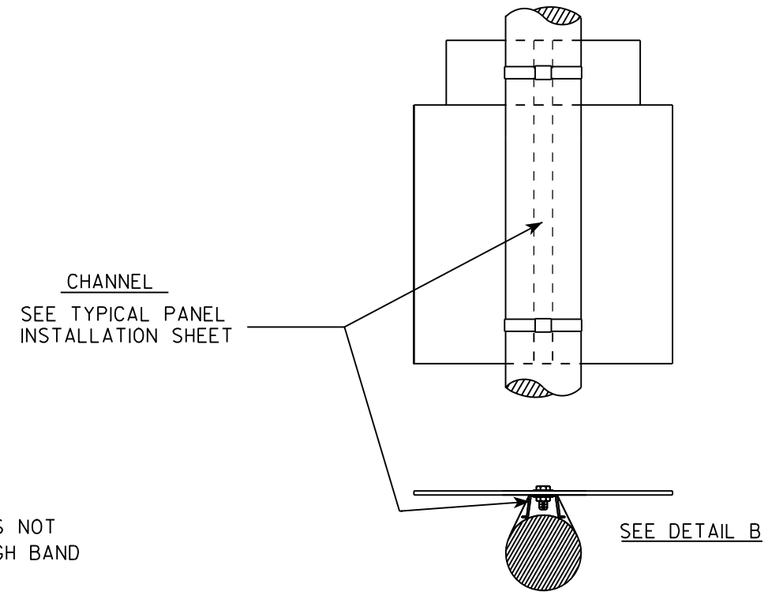
BANDING

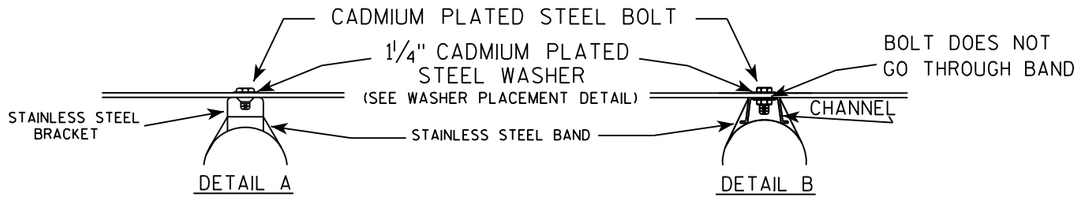
SINGLE SIGN



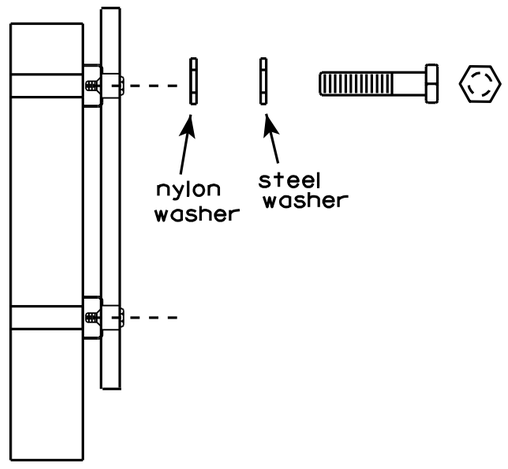


"J" ASSEMBLY





WASHER PLACEMENT



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
FOR ALL TYPE H SIGNS

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.

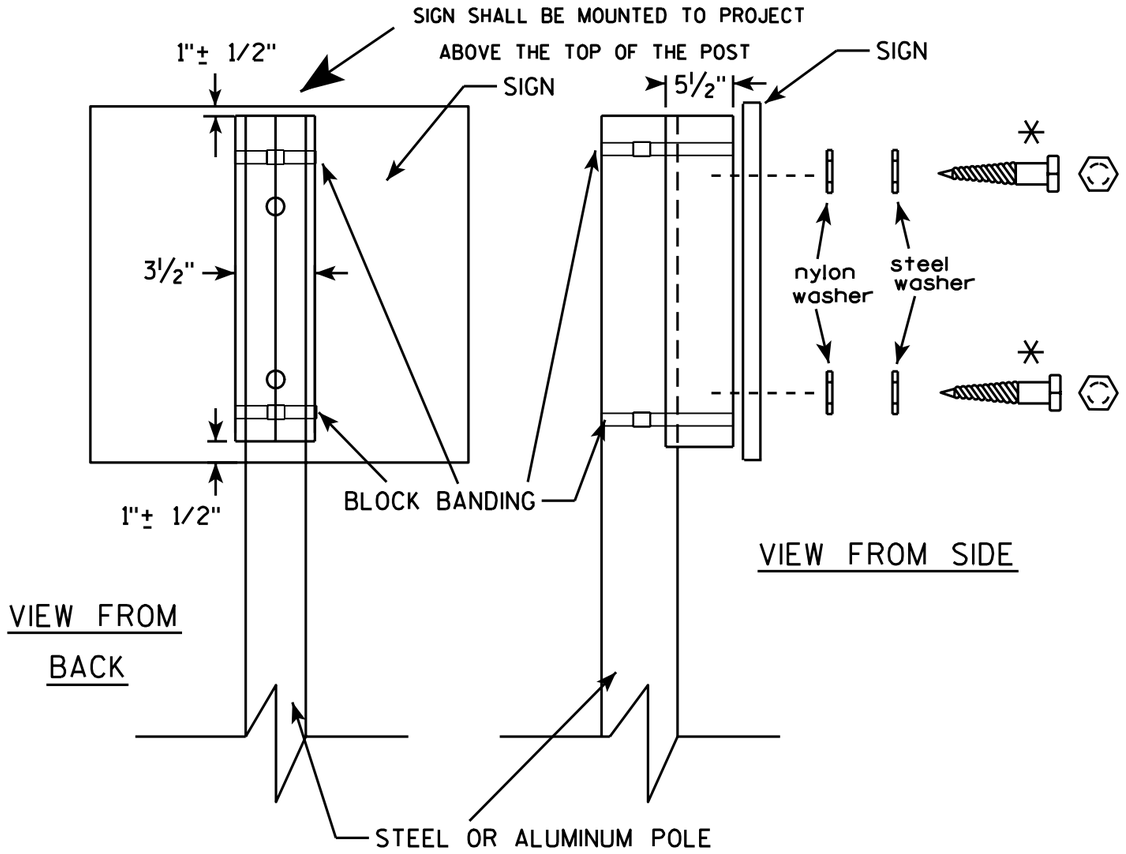
STANDARD SIGN
SIGN BANDING DETAILS

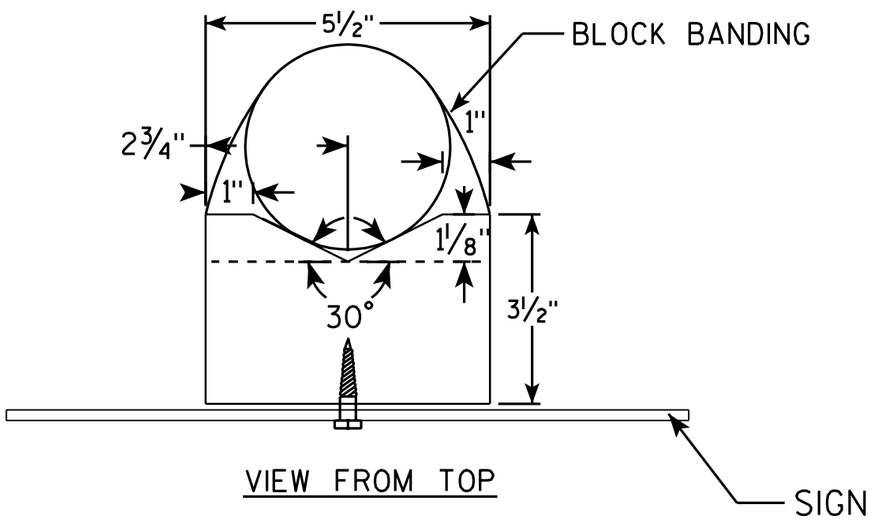
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 148	E





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, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. 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

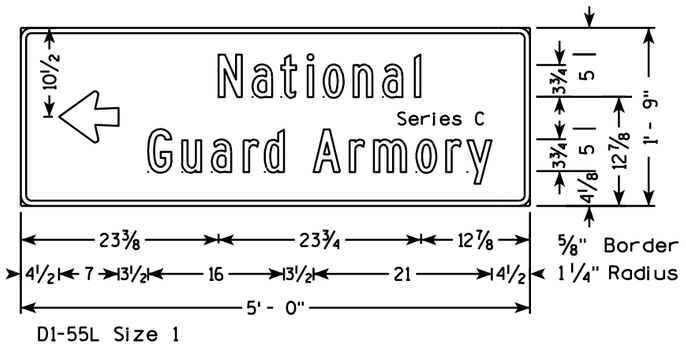
DATE 7/12/07 PLATE NO. A5-10.1

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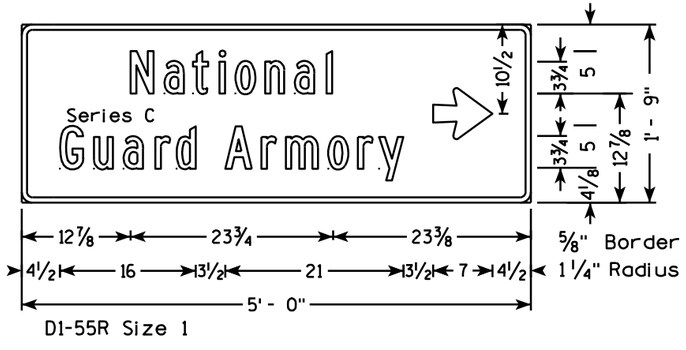
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FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42



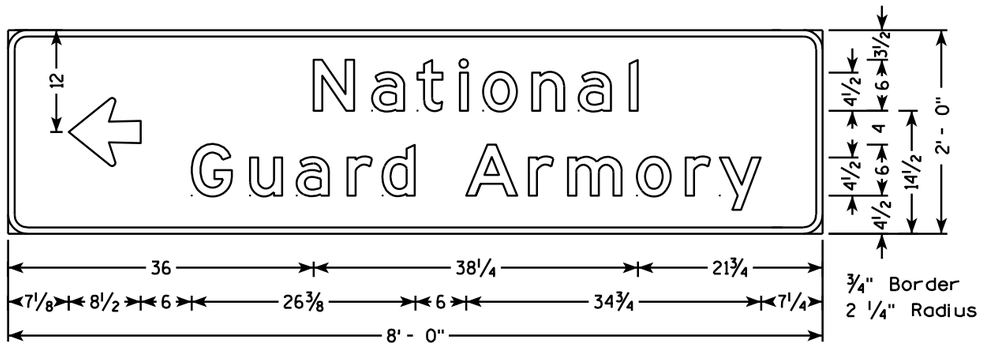
D1-55L Size 1



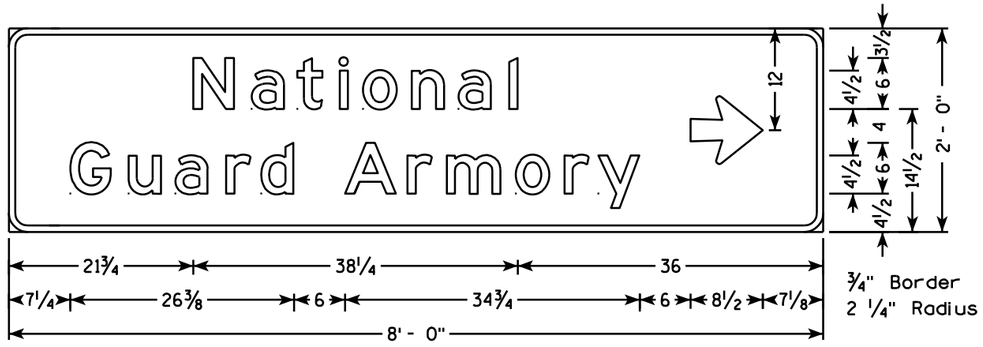
D1-55R Size 1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted
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.



D1-55L Size 2



D1-55R Size 2

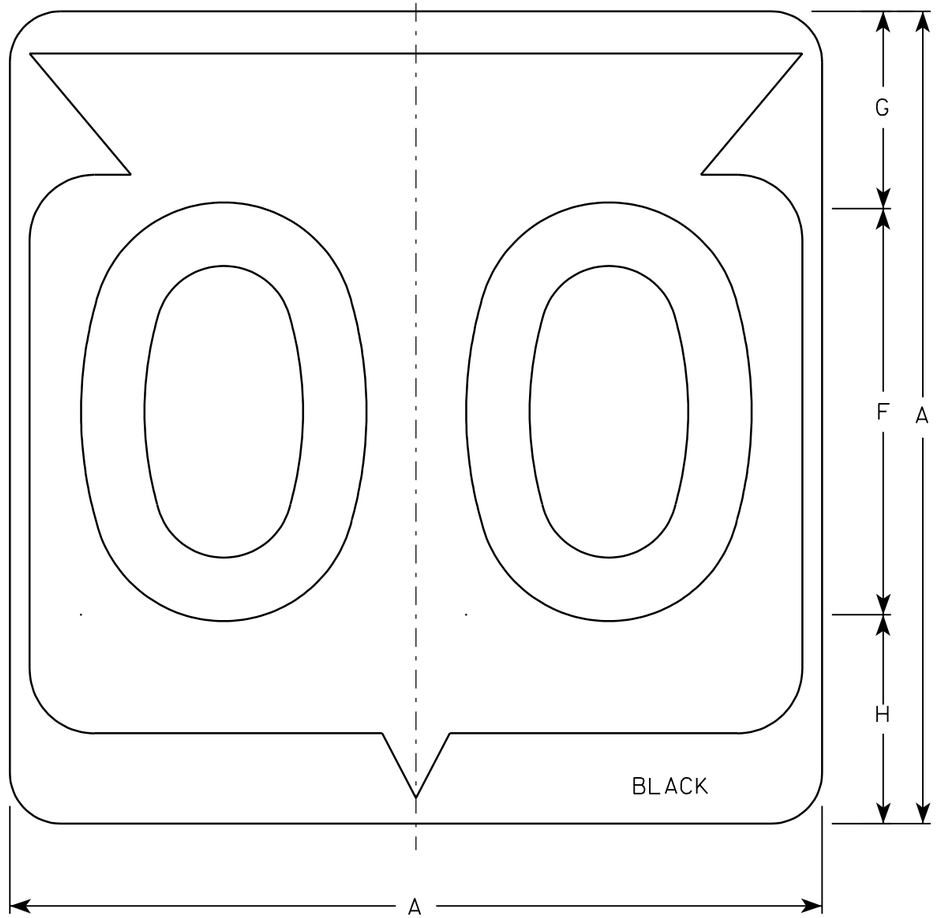
TYPICAL STANDARD
D1-55L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/21/13 PLATE NO. D1-55L.2

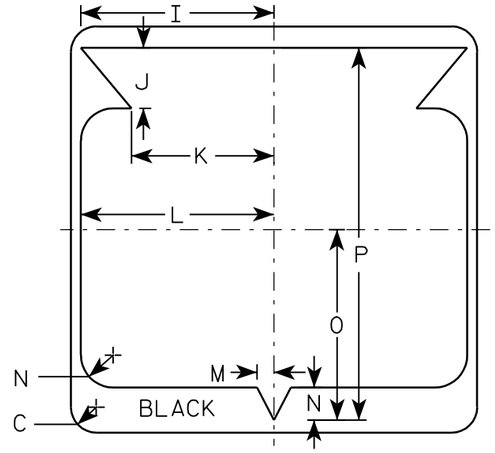
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 150	E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   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. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 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																												
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	.36
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	.81
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	.81
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	.81

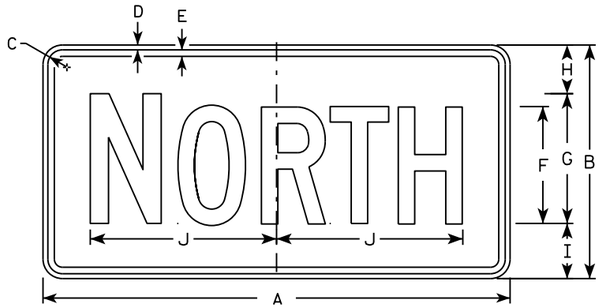
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

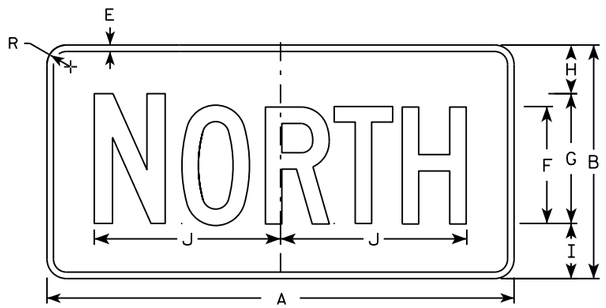
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 151	E



M3-1
MM3-1
MP3-1



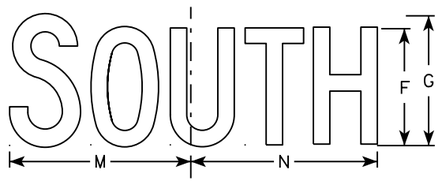
MB3-1
MK3-1
MN3-1



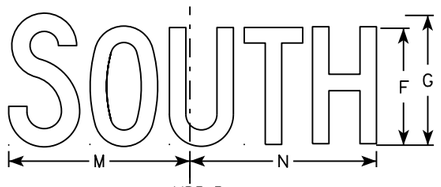
M3-2
MM3-2
MP3-2



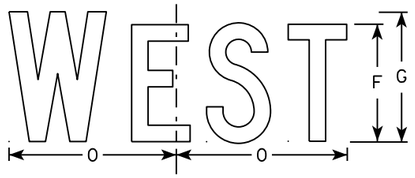
MB3-2
MK3-2
MN3-2



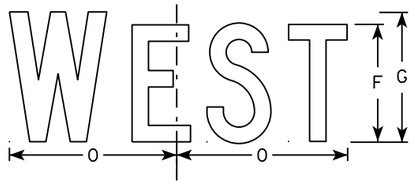
M3-3
MM3-3
MP3-3



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

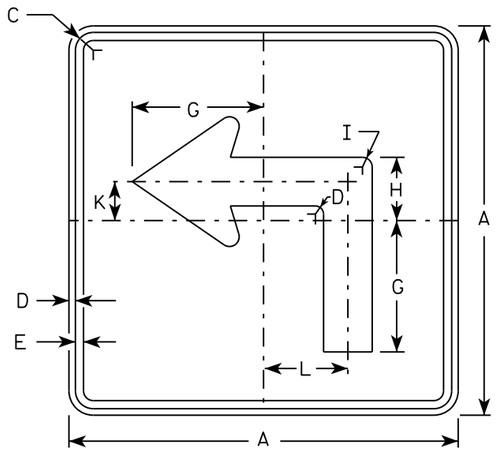
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

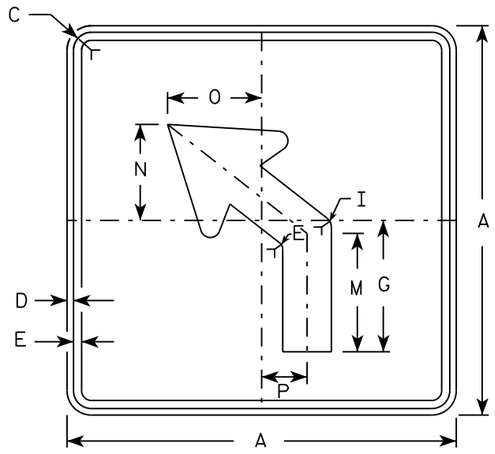
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

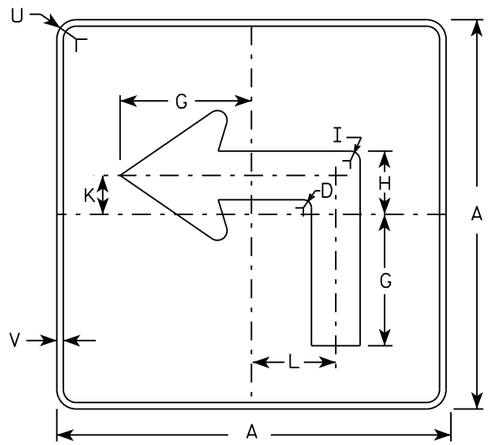
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



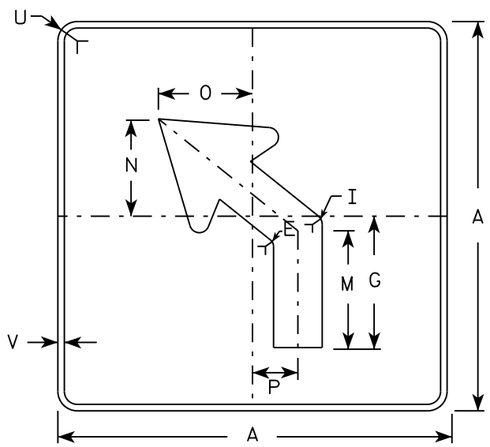
M5-1L
MM5-1L
MO5-1L
MP5-1L



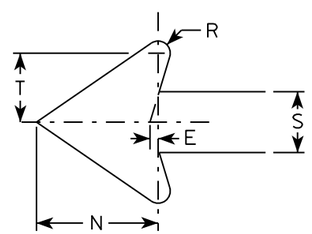
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
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. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

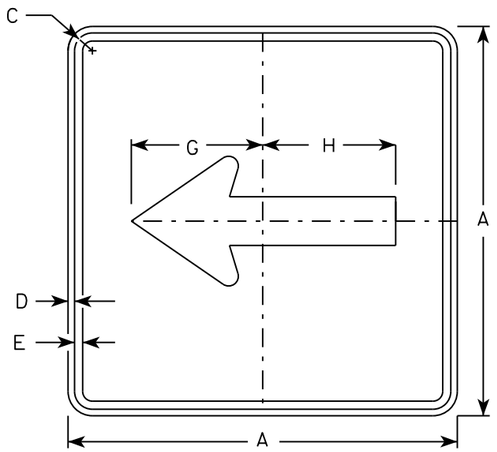
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

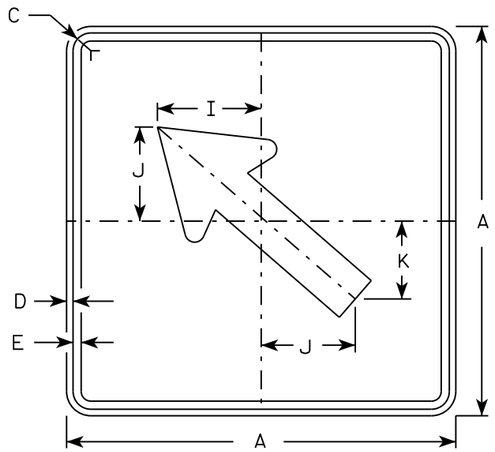
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



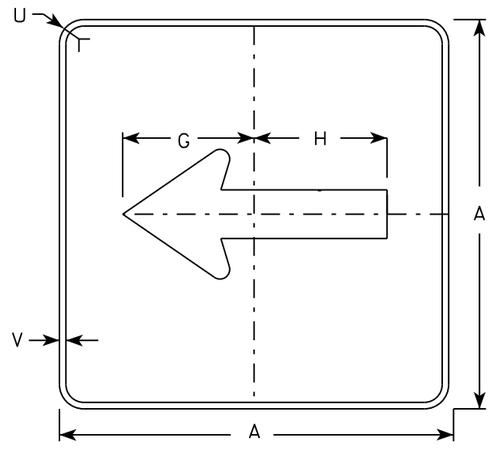
M6-1
MM6-1
MO6-1
MP6-1



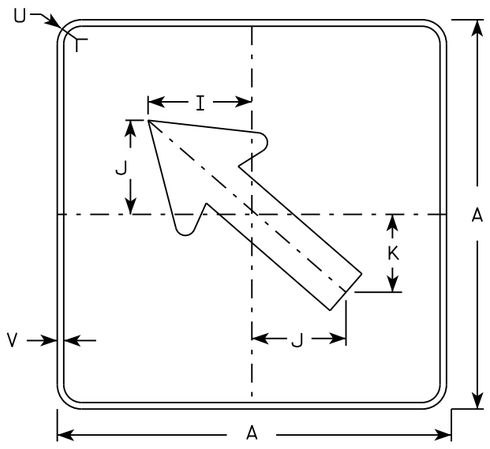
M6-2
MM6-2
MO6-2
MP6-2

NOTES

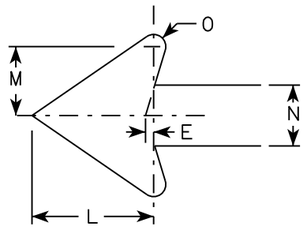
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



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	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

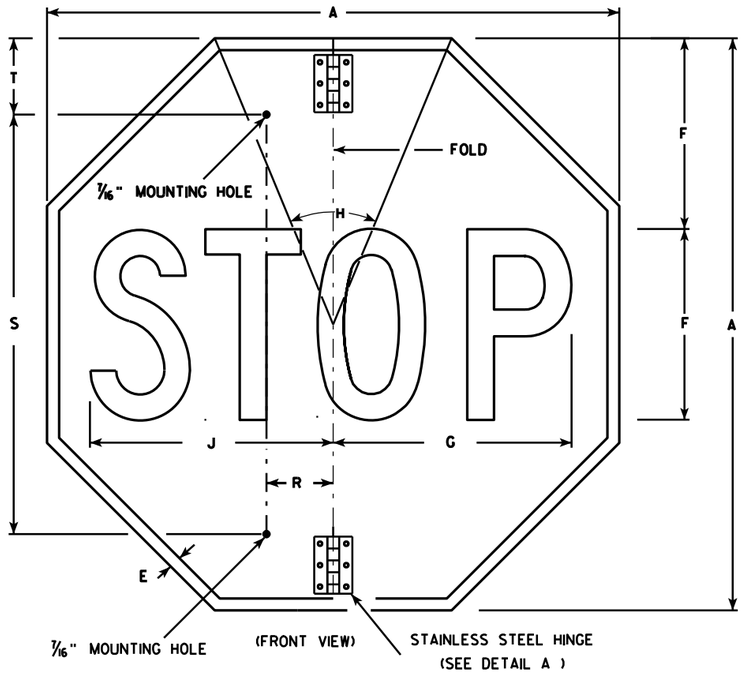
WISCONSIN DEPT OF TRANSPORTATION

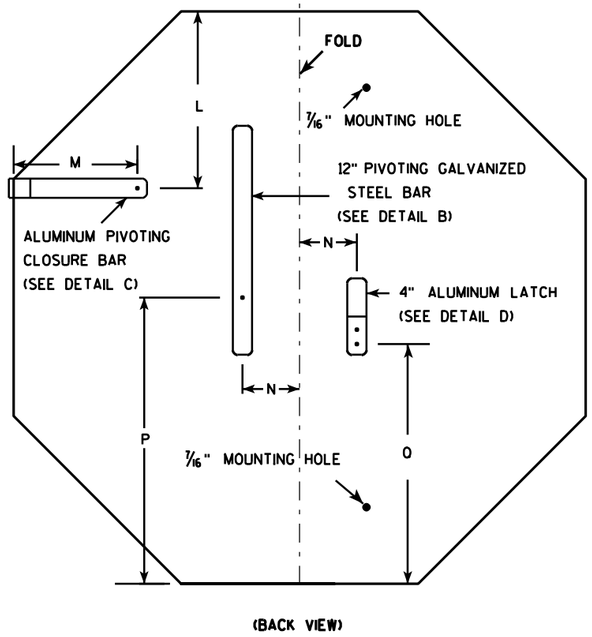
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 154 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

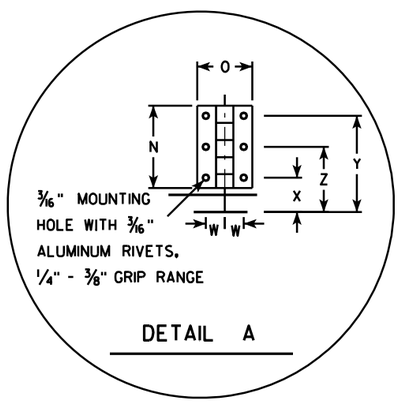
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



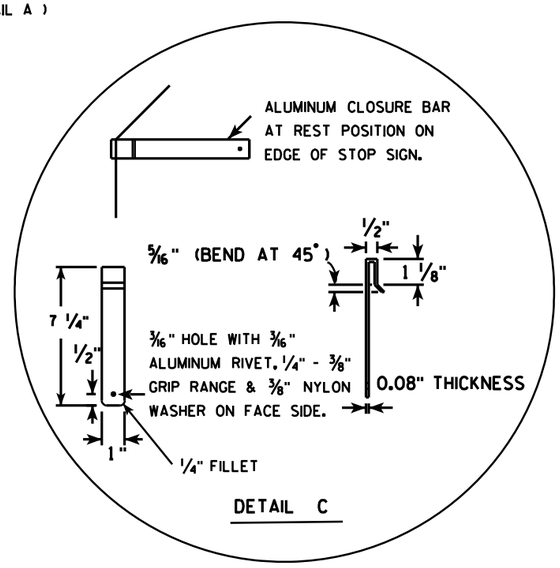


NOTES

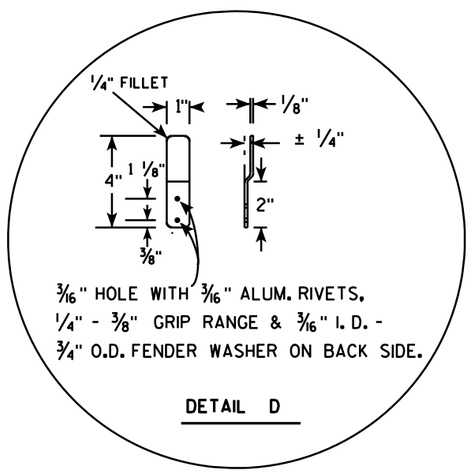
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



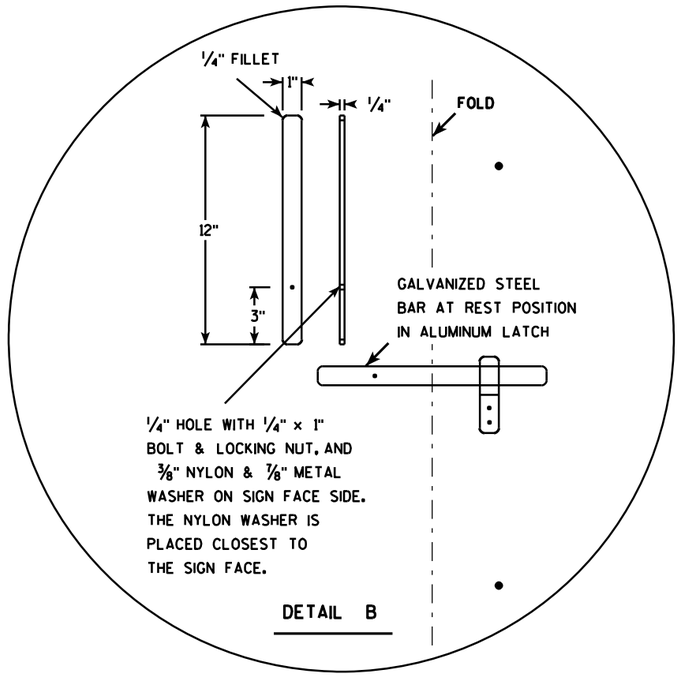
DETAIL A



DETAIL C



DETAIL D



DETAIL B

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	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

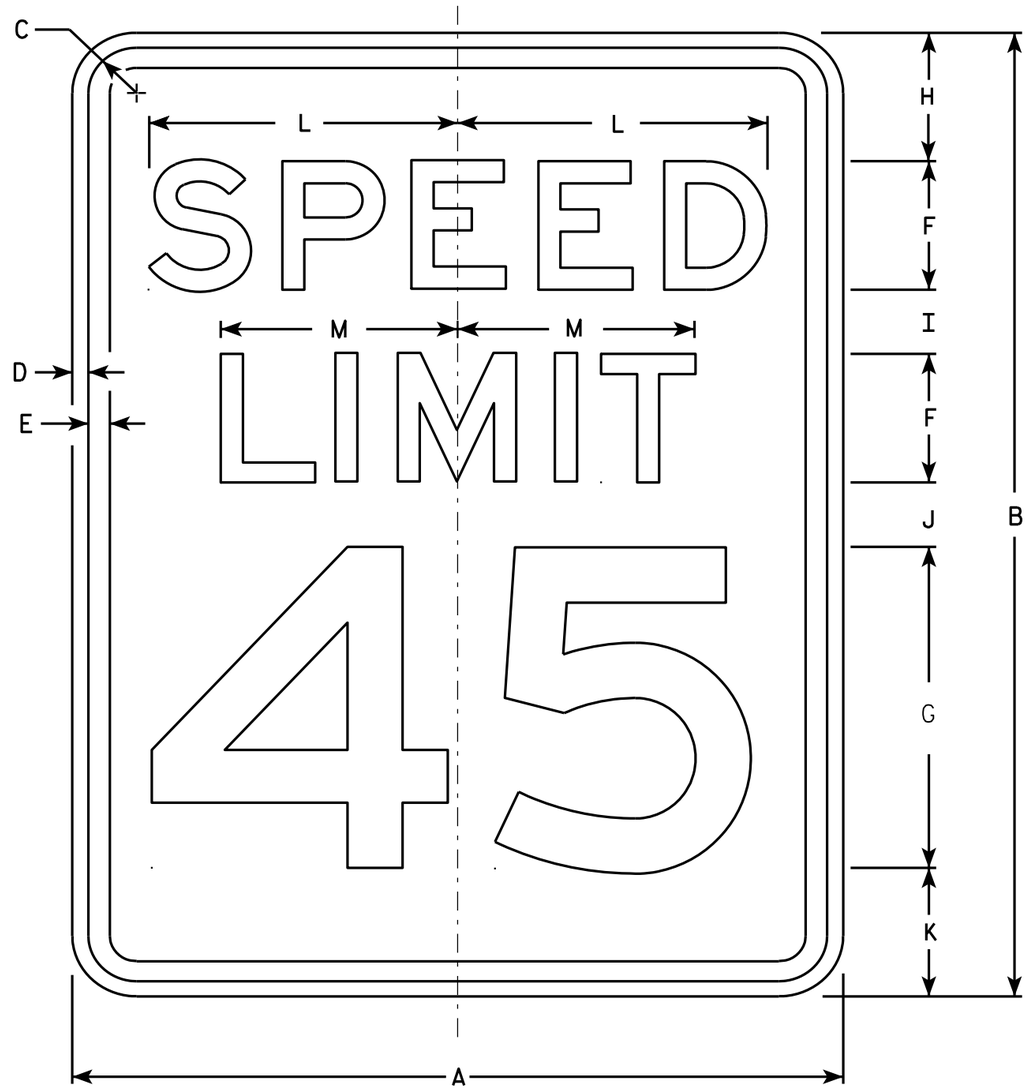
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 155	E



R2-1

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.
5. 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	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

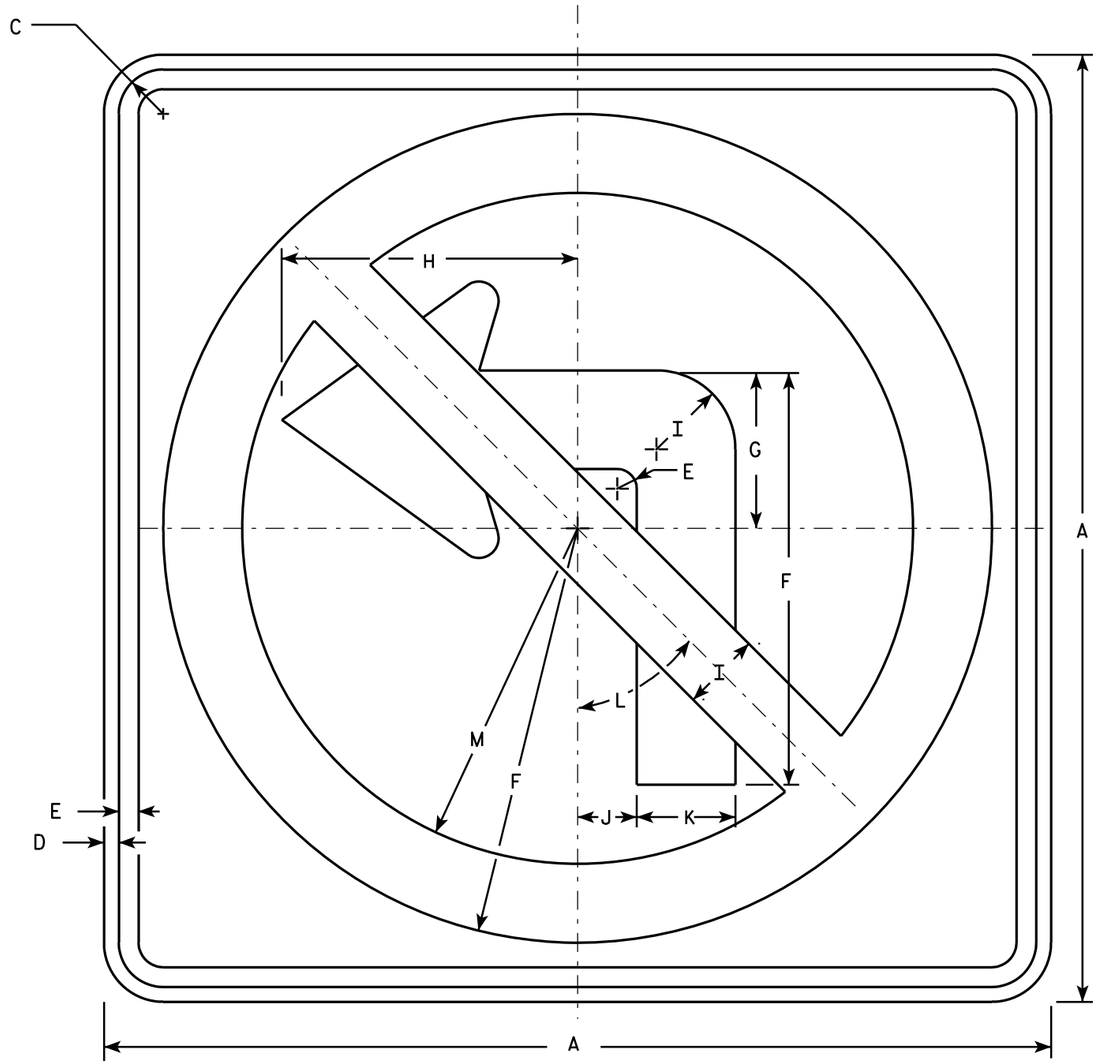
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

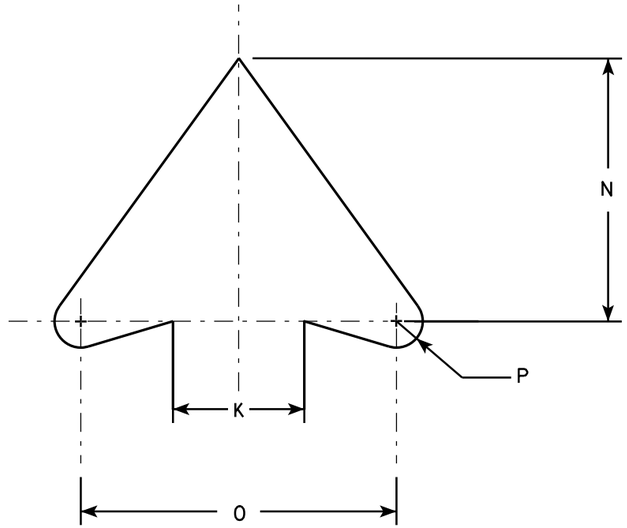
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 156 | E



R3-2

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 4
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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



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	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

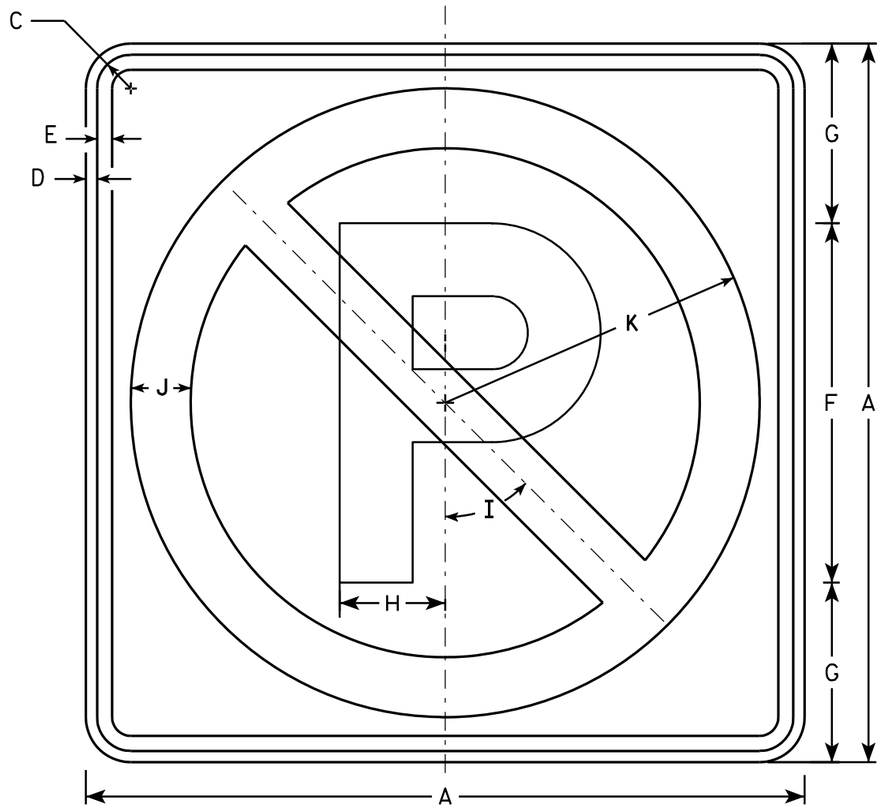
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 157	E



R3-8A

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 4
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. Border & Letter P are non reflective black, the circle with diagonal bar is reflective 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																											
2S	24		1 1/8	3/8	1/2	12	6	3 1/2	45°	2	10 1/2																4.0
2M	24		1 1/8	3/8	1/2	12	6	3 1/2	45°	2	10 1/2																4.0
3																											
4																											
5																											

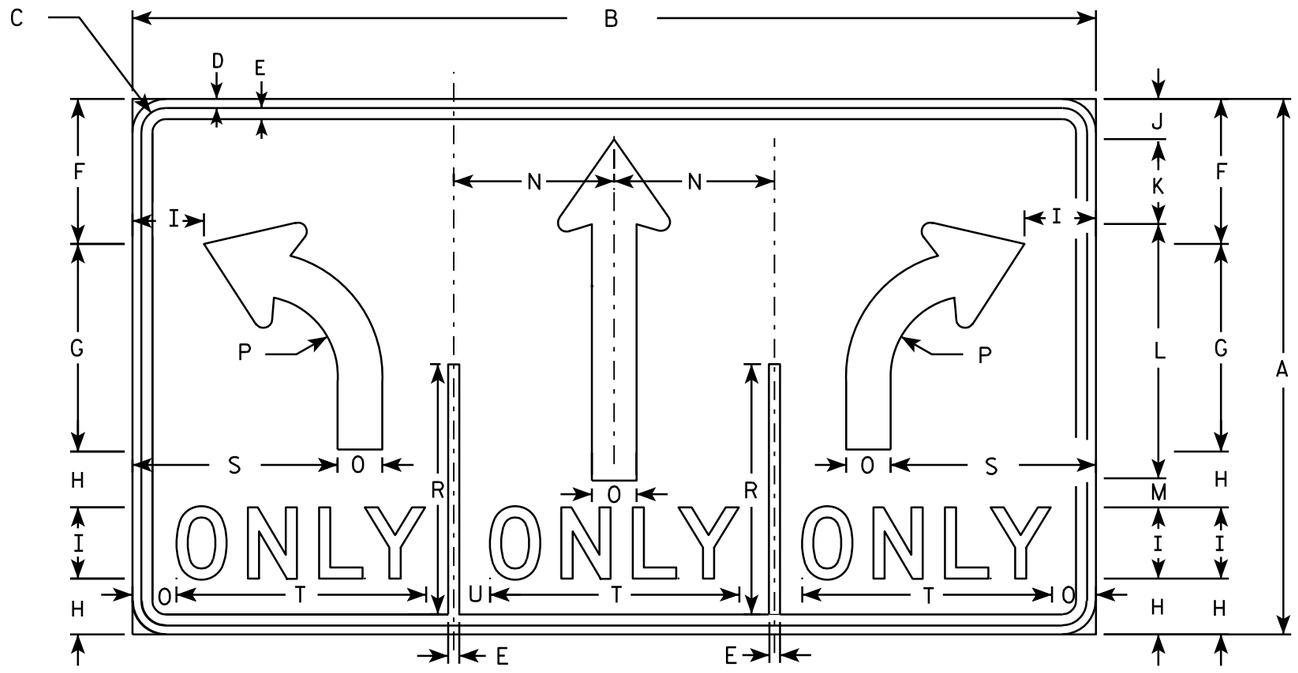
STANDARD SIGN
R3-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/01/12 PLATE NO. R3-8A.1

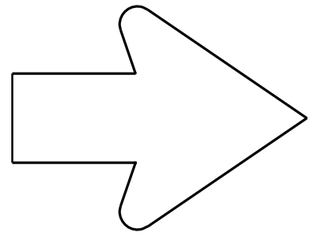
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 158 | E



R3-8W

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.



SEE R3-8 FOR ARROW DETAIL

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	Area sq. ft.
1																											
2S	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
2M	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
3																											
4	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 3/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0
5	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 7/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0

STANDARD SIGN
R3-8W

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-8W.4

PROJECT NO:

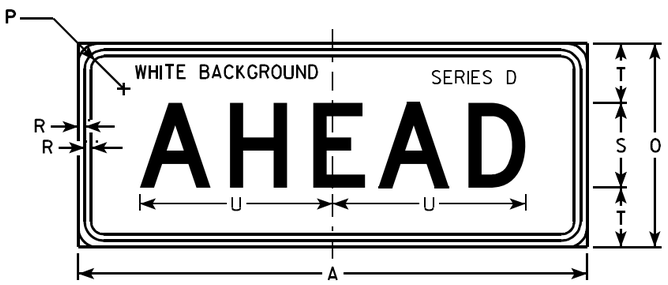
SHEET NO: 159 E



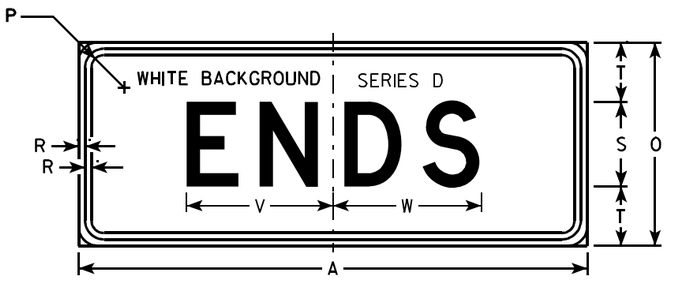
R3-17

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - AS SHOWN
   Message - BLACK
3. Message Series - C or as noted on the Signs.
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.



R3-17ap



R3-17bp

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	R3-17 Area sq. ft.	R3-17ap Area sq. ft.	R3-17bp Area sq. ft.
1																													
2S	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
2M	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
3																													
4																													
5																													

STANDARD SIGN
R3-17 & R3-17a&bp

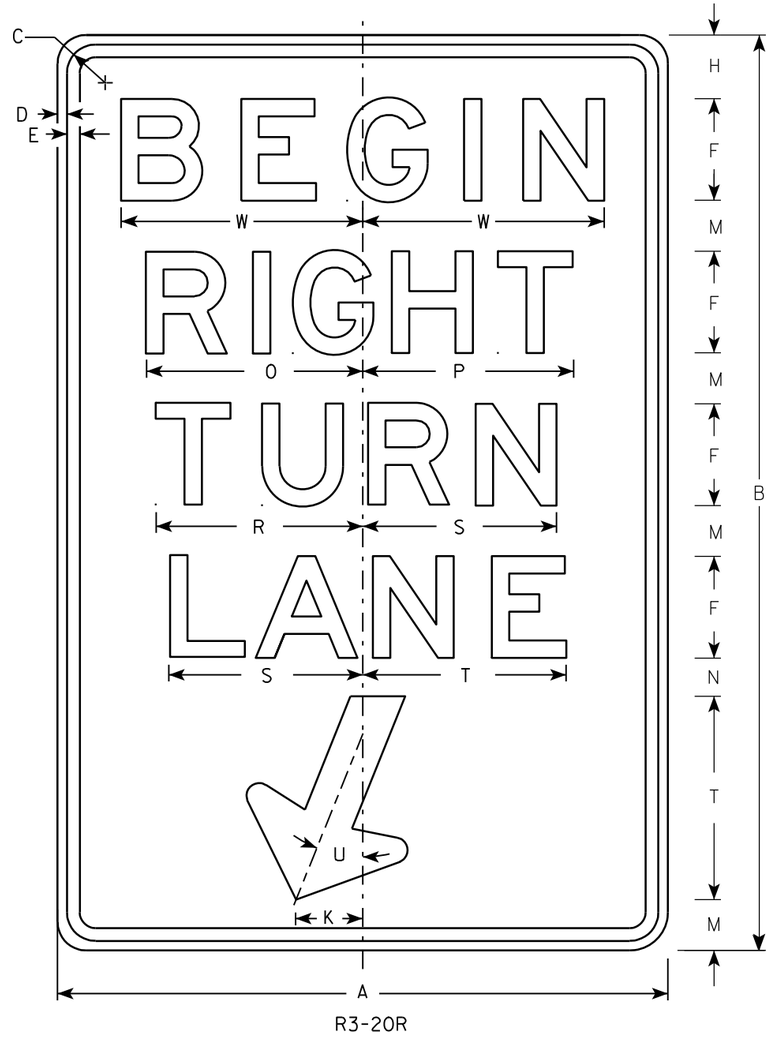
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/12/2011 PLATE NO. R3-17.2

PROJECT NO:

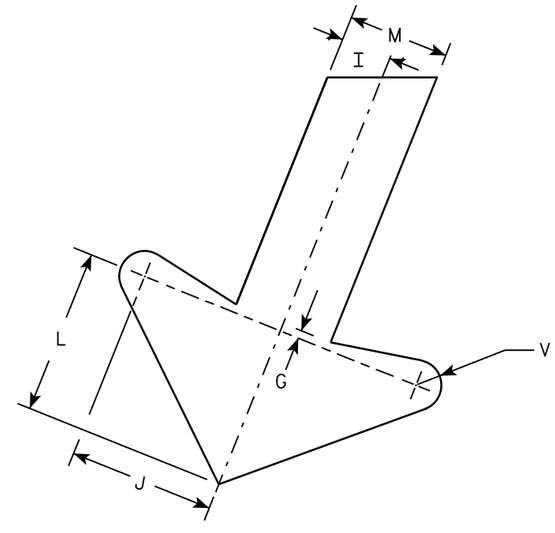
SHEET NO: 160 E



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																											

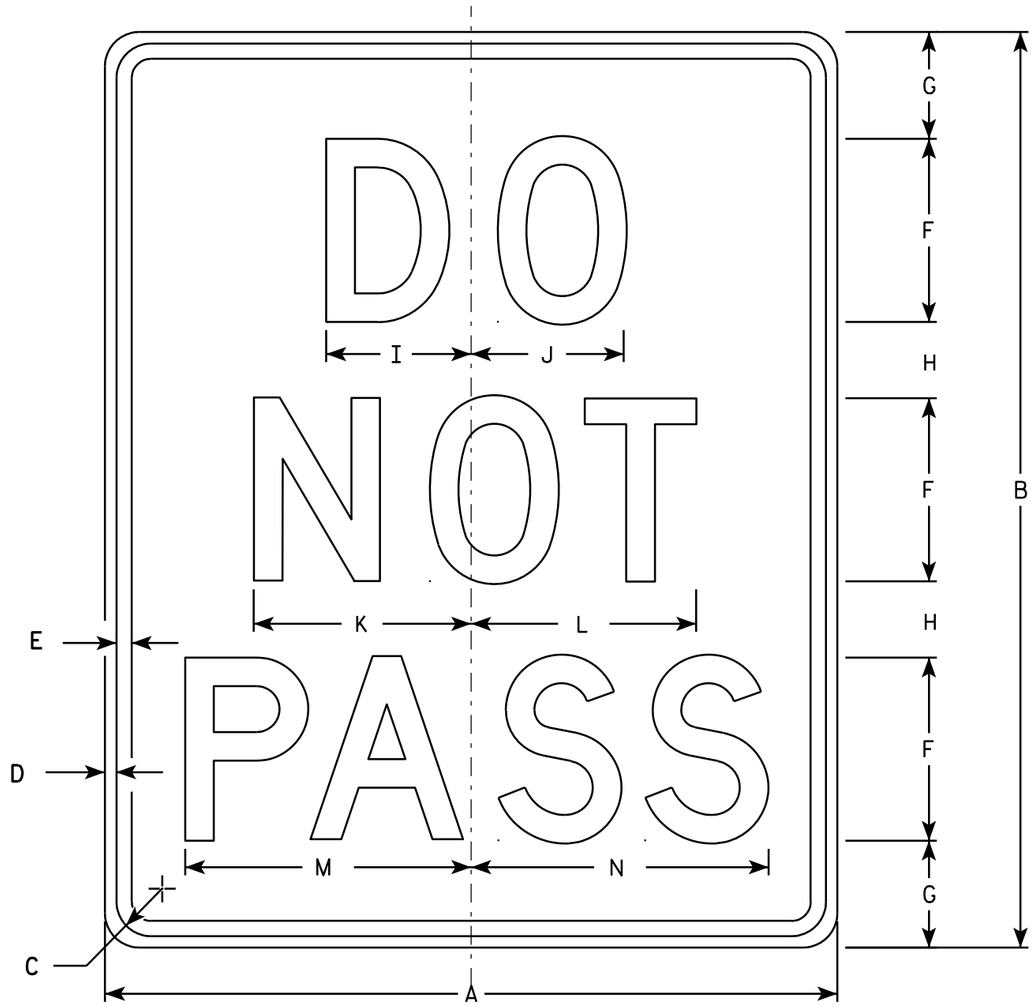
STANDARD SIGN
R3-20R

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: 161 | E



R4-1

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.

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	18	24	1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 1/8	3 1/4	4 3/4	4 7/8	6 1/4	6 1/2													3.0
2S	24	30	1 1/8	3/8	1/2	6	3 1/2	2 1/2	4 3/4	5	7 1/8	7 3/8	9 3/8	9 3/4													5.0
2M	24	30	1 1/8	3/8	1/2	6	3 1/2	2 1/2	4 3/4	5	7 1/8	7 3/8	9 3/8	9 3/4													5.0
3																											
4	36	48	1 5/8	5/8	3/4	8	7	5	6 1/4	6 5/8	9 1/2	9 3/4	12 1/2	13													12.0
5	48	60	2 1/4	3/4	1	10	8	7	7 3/4	8 3/8	11 7/8	12 1/4	15 5/8	16 1/4													20.0

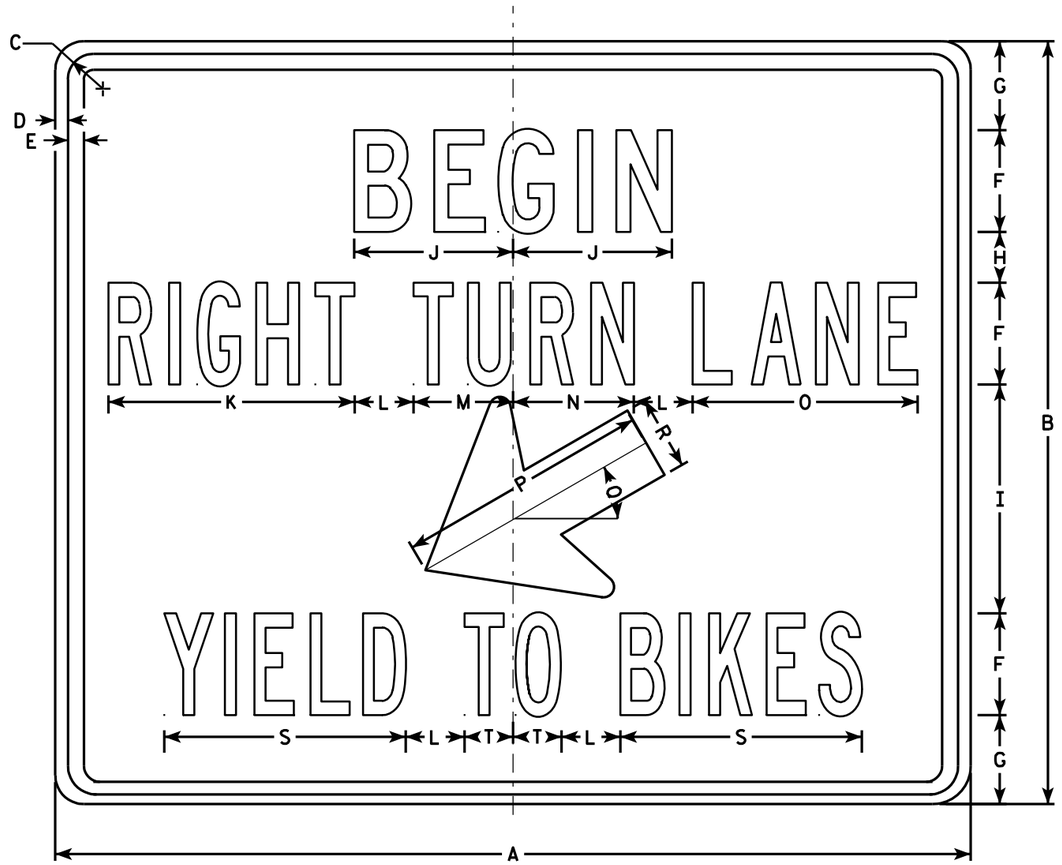
STANDARD SIGN
R4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-1.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 162 | E



R4-4

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 - 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. Line 1 is Series C
   Lines 2 & 3 are Series B

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	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
2M	36	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
3																											
4																											
5																											

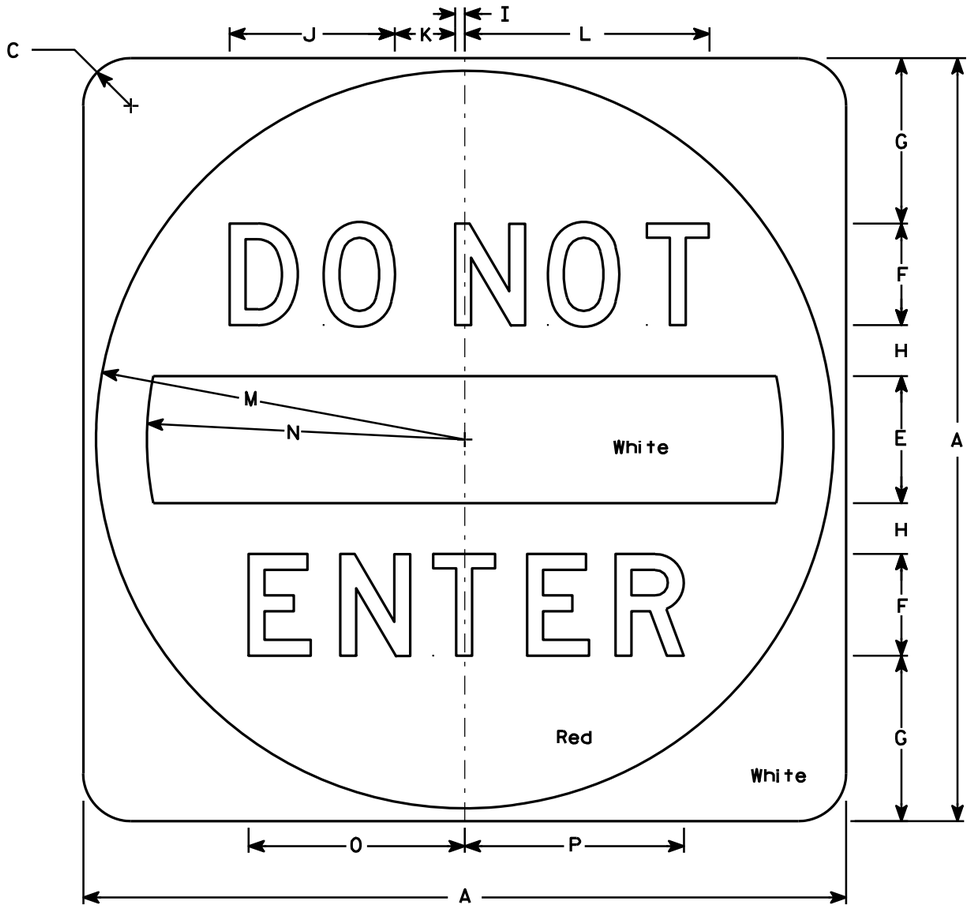
STANDARD SIGN
R4-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-4.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 163 | E



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors 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	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

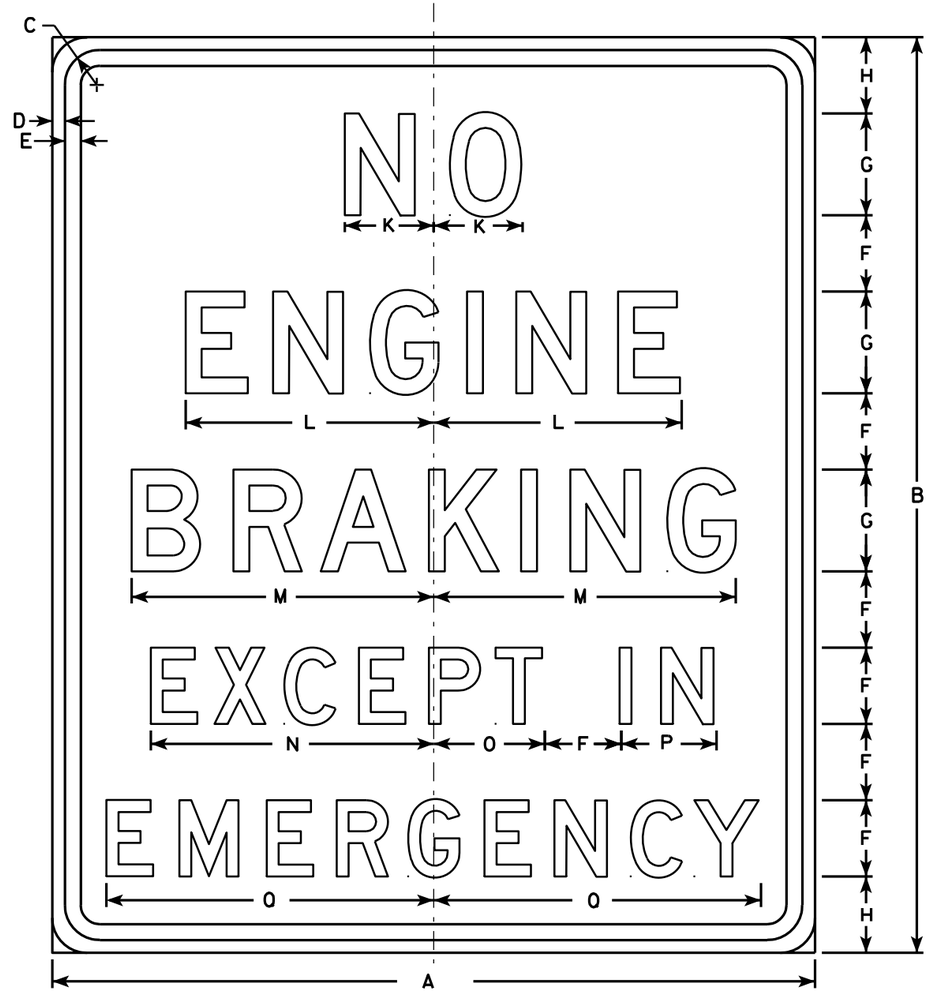
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

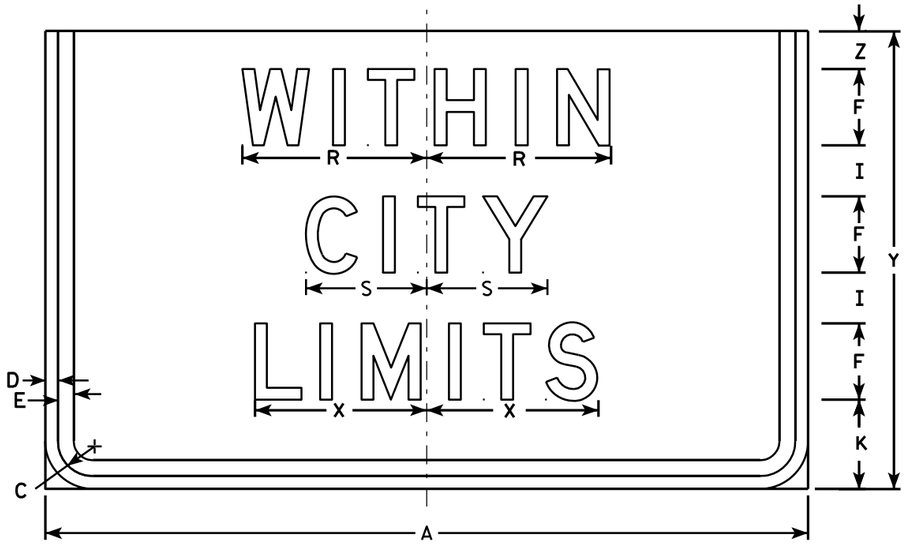
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 164 | E



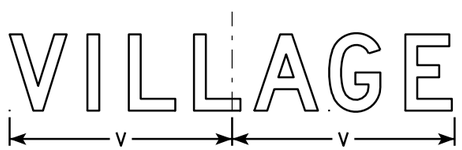
R10-64

NOTES

1. Signs are 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 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. Line 2 of R10-64F is Series C for "TOWNSHIP" Only



R10-64F



Area sq. ft.
3.75
7.0



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	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2S	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2M	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
3	42	48	1 3/8	1/2	5/8	4	5	4 1/2	3		4	12 1/4	14 7/8	14 1/8	5 1/4	4 3/4	16 1/4	9	6		11	11 1/4	1 1/2	8 1/2	24	2	14.0
4																											
5																											

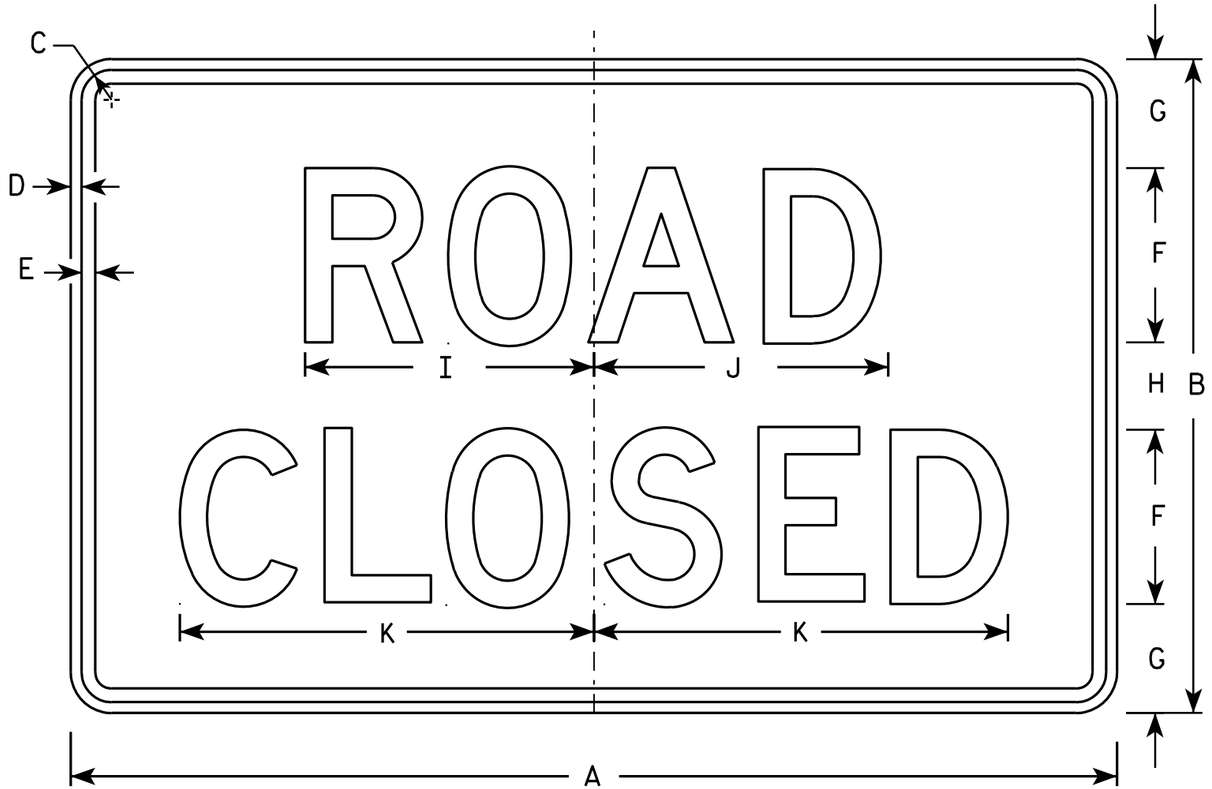
STANDARD SIGN
R10-64 & R10-64F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-64.7

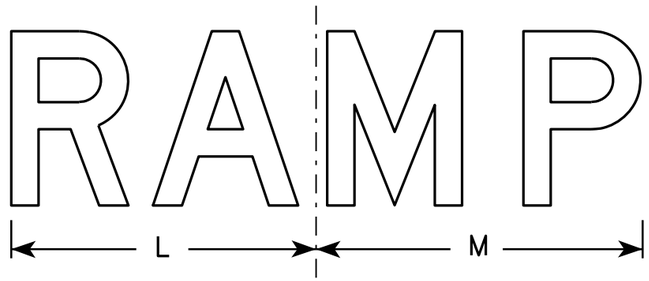
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 165	E



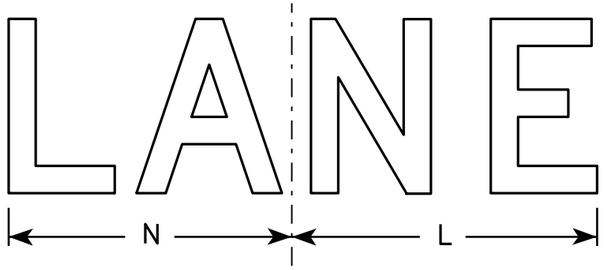
R11-2

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

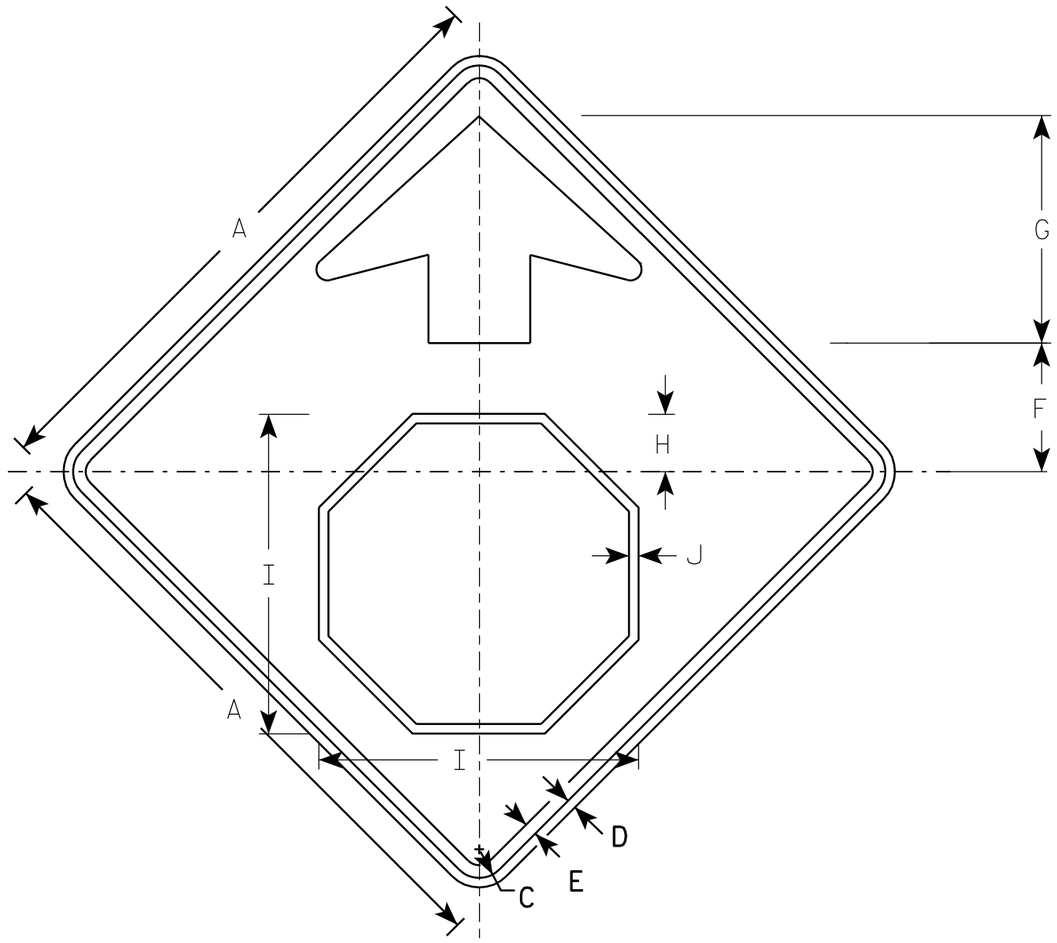
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

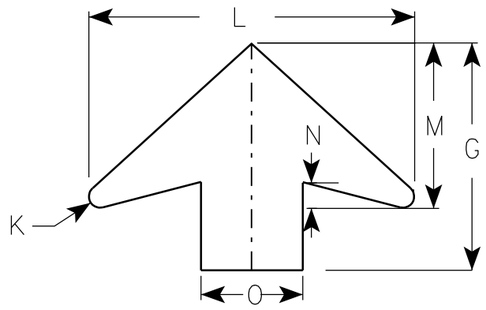
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 166 | E



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop 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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

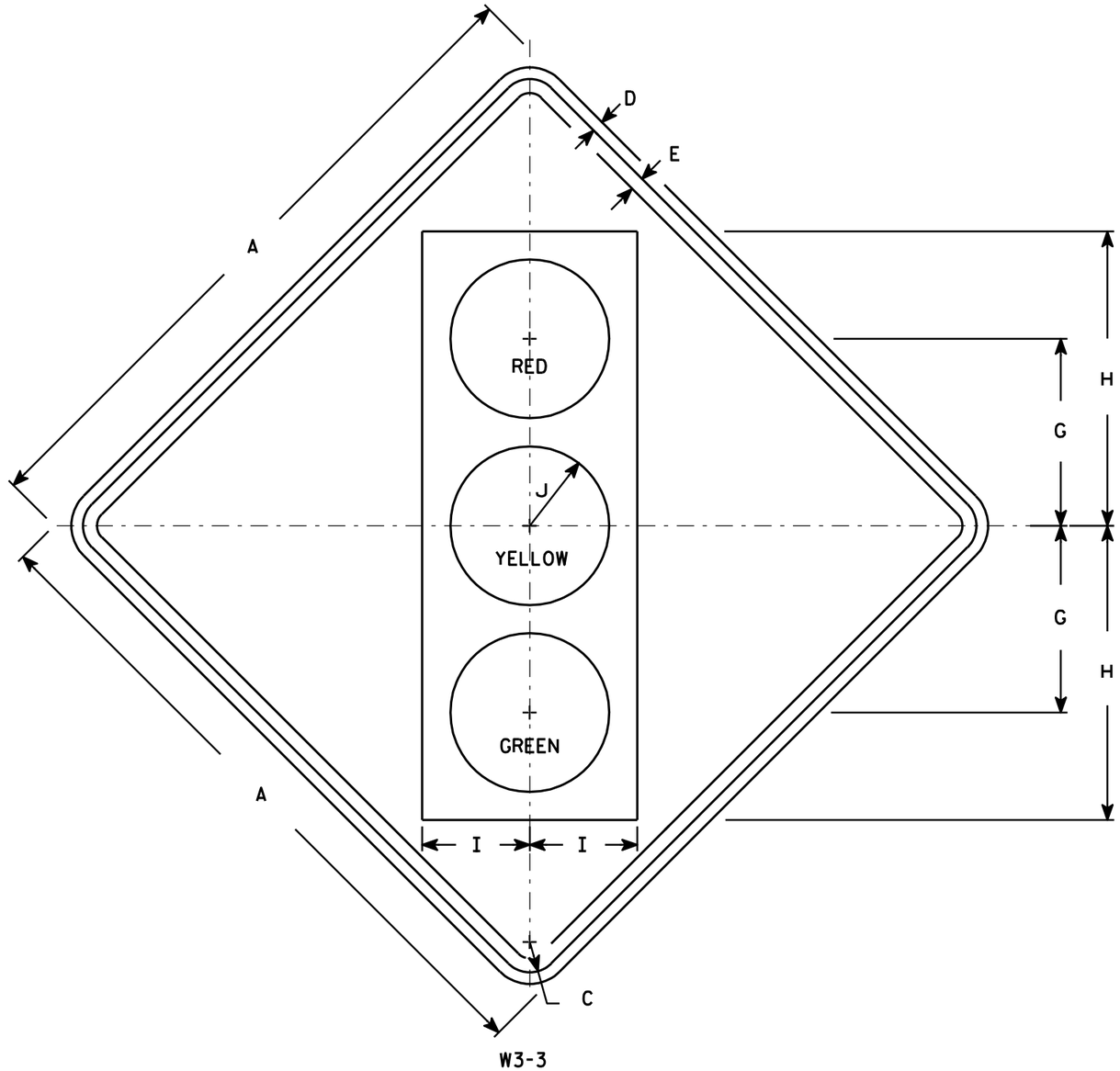
SHEET NO: 167 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W31.DGN PLOT DATE : 07-JUN-2010 12:59 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

7

7



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
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. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

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		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

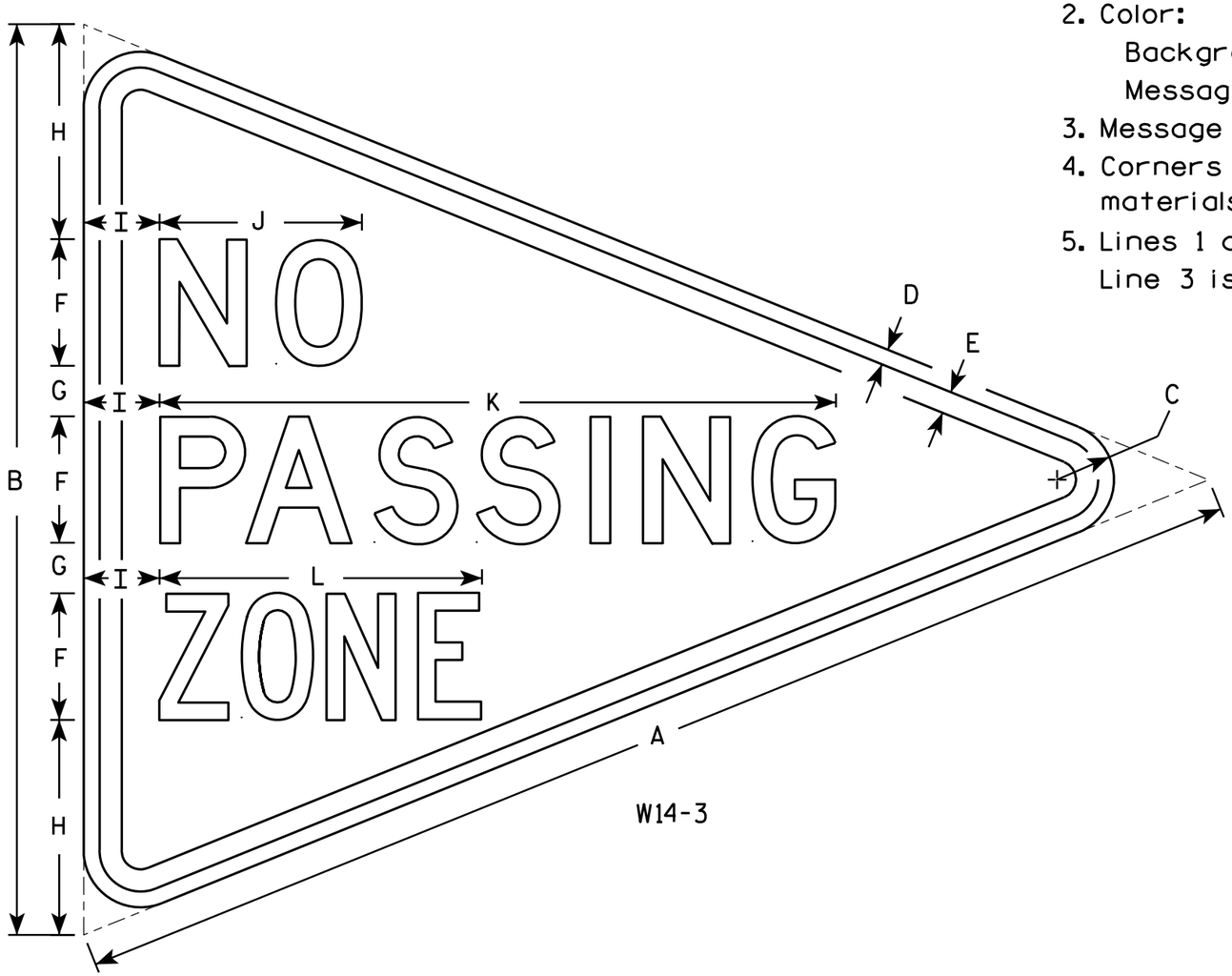
DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 168 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
   Line 3 is series C.



W14-3

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	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

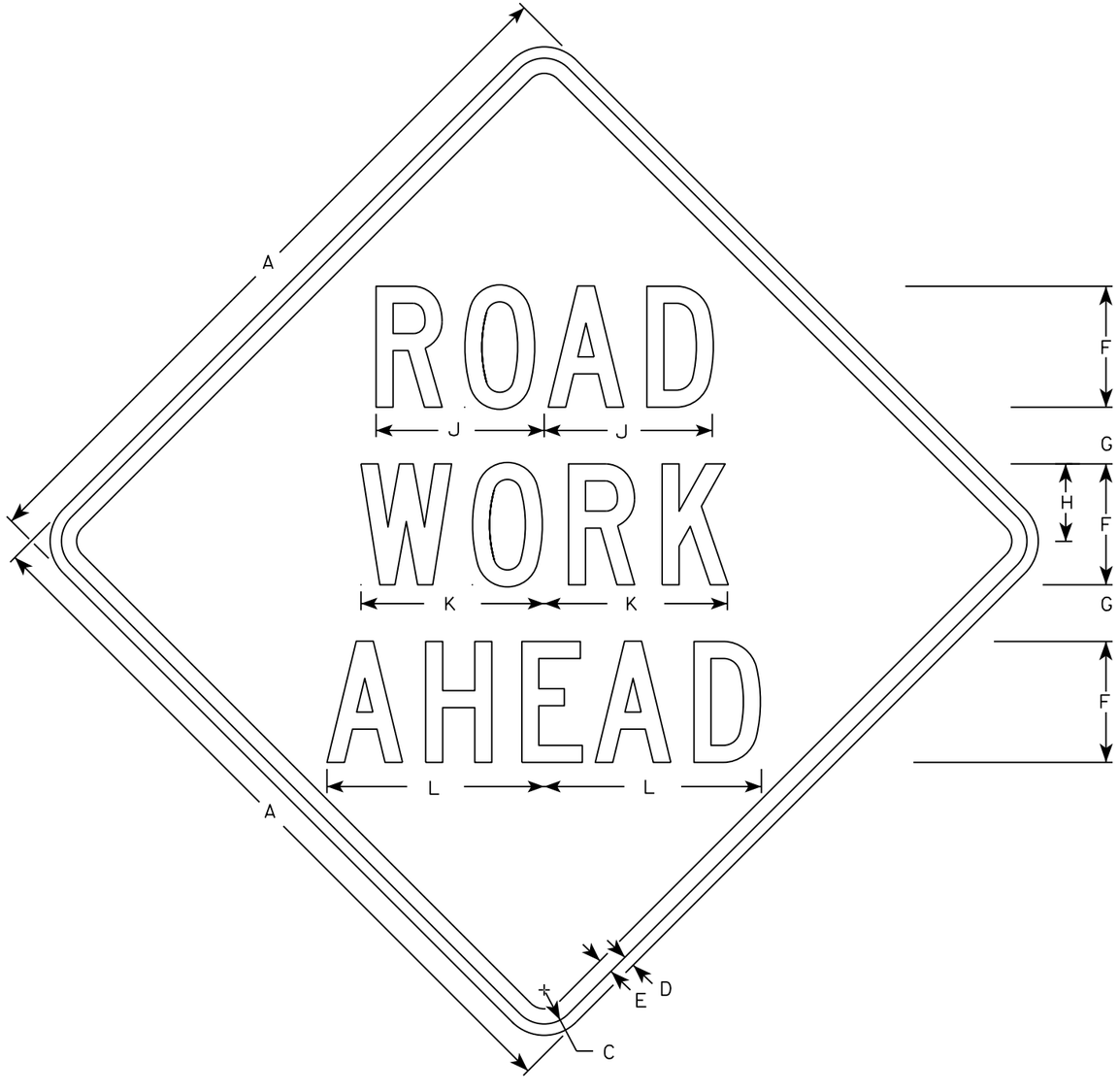
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

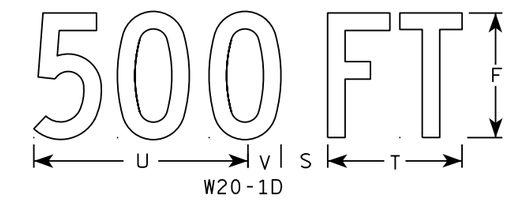
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9

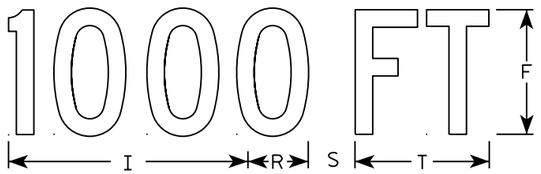
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 169	E



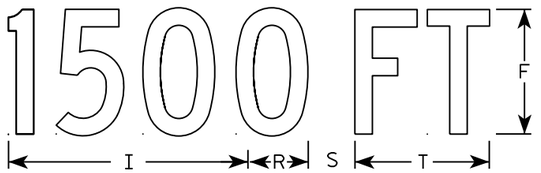
W20-1A



W20-1D



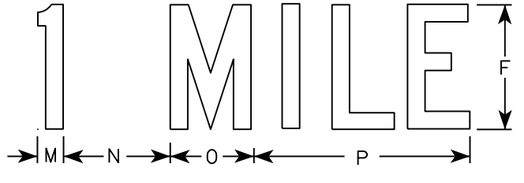
W20-1C



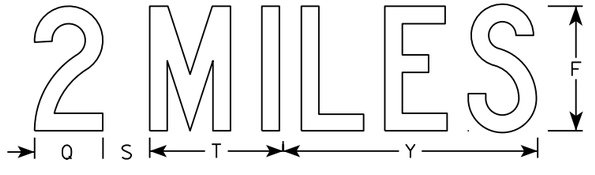
W20-1B



W20-1G



W20-1F



W20-1E

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.

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 3/8	1/2	5/8	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		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, F & G

WISCONSIN DEPT OF TRANSPORTATION

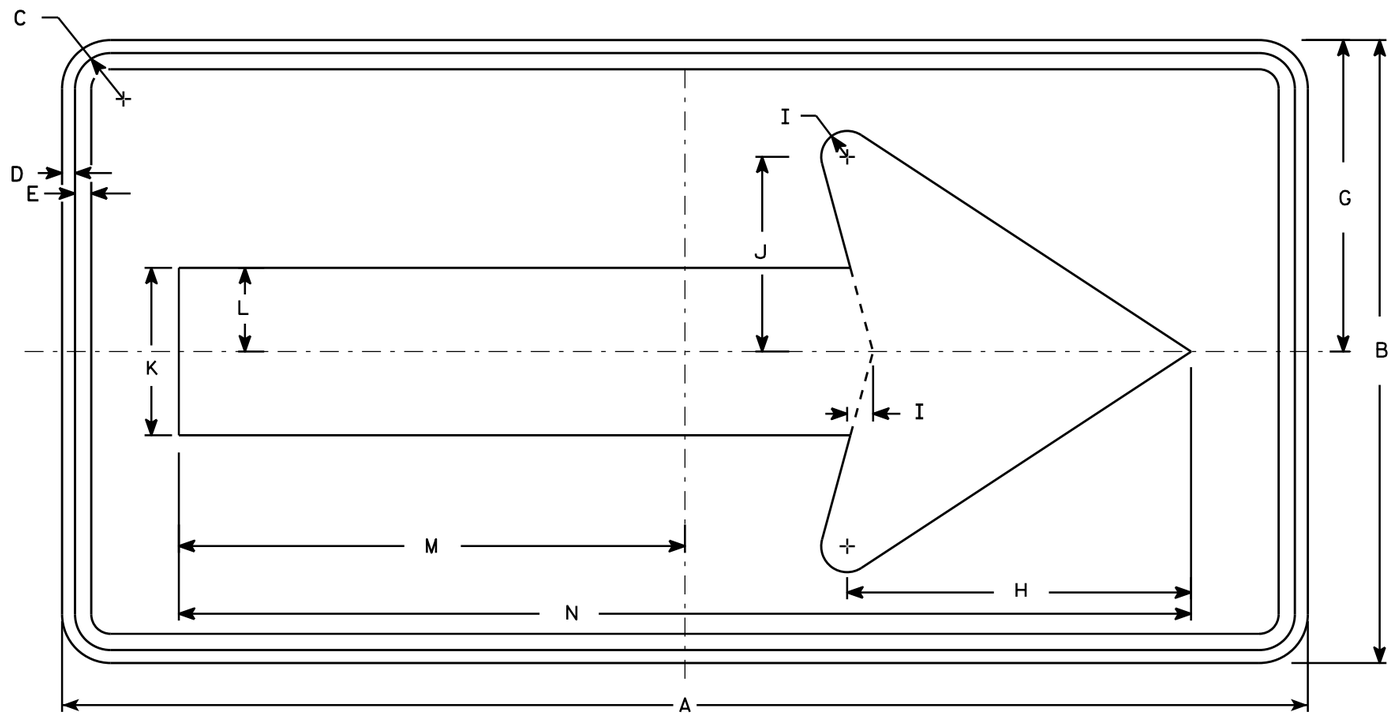
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



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

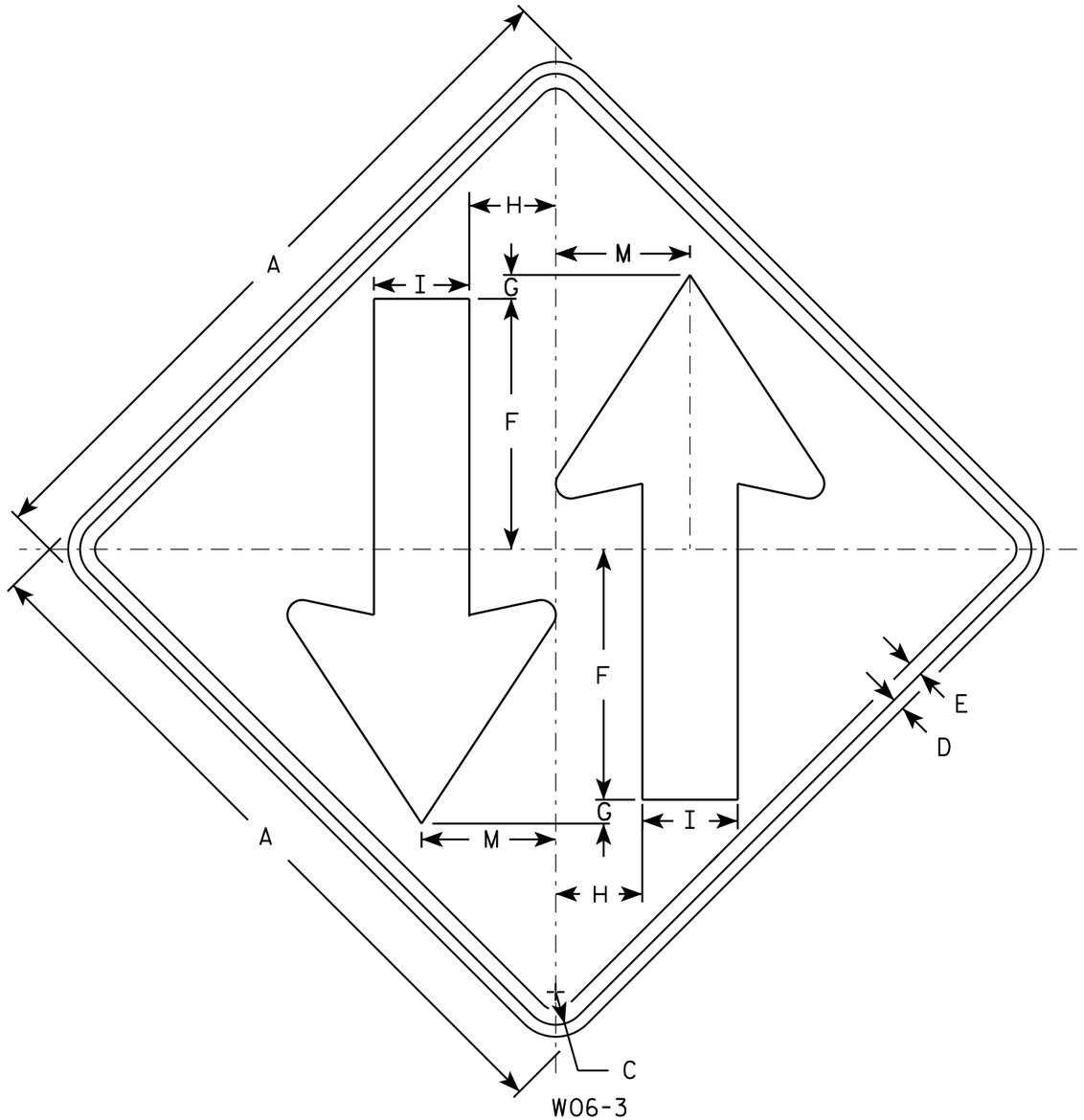
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

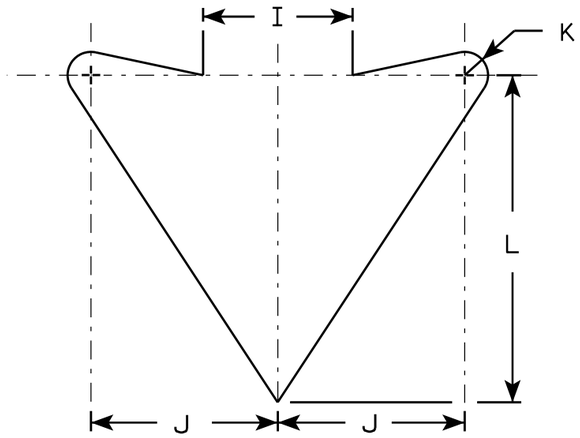
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W06-3

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.



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	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2S	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
2M	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
3	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

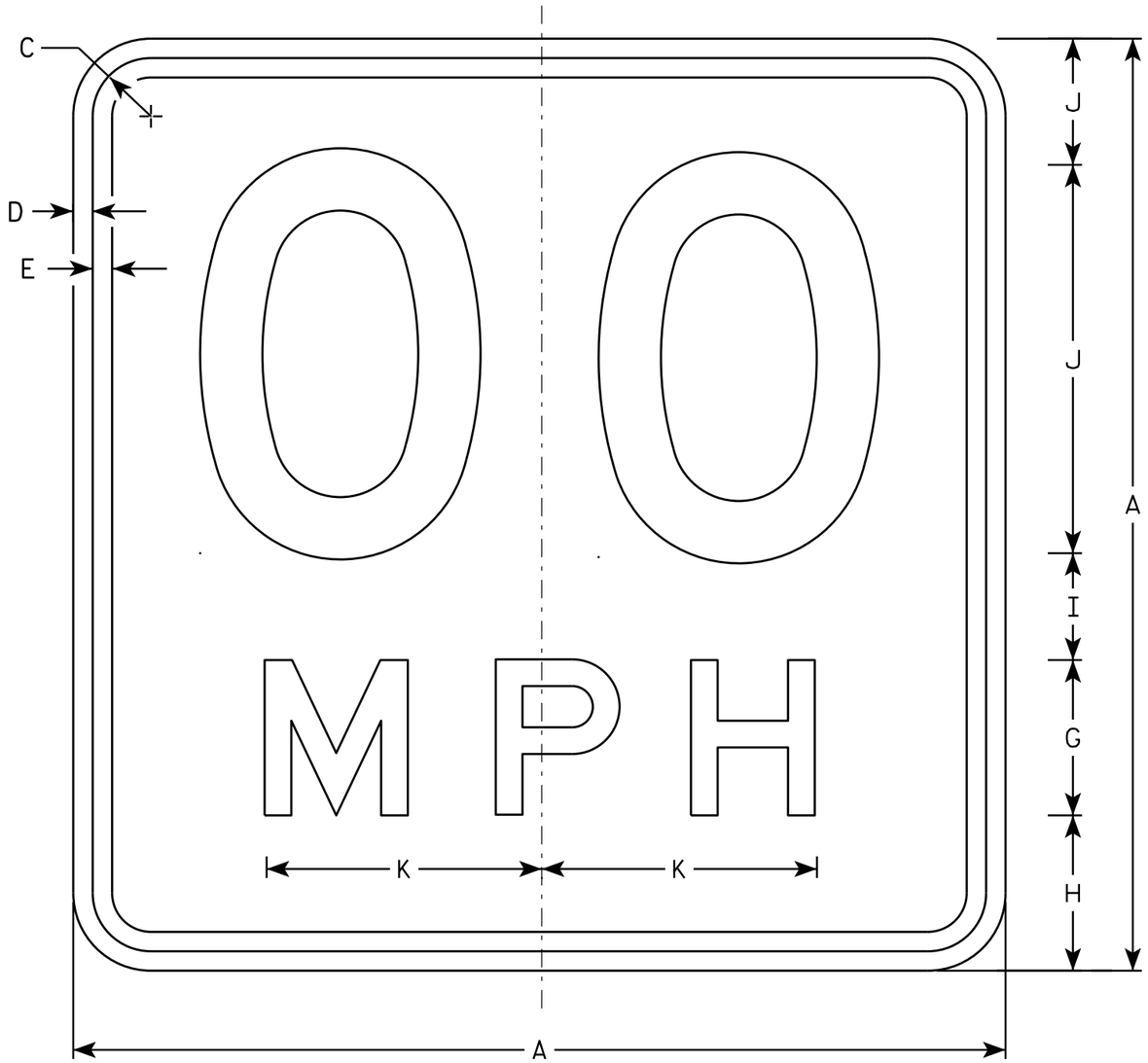
STANDARD SIGN
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 172 W06-3.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



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 173 W013-1.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W0131.DGN PLOT DATE : 02-DEC-2013 13:55 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.794391:1.000000
WISDOT/CADDS SHEET 42

STH 93 - BLASCHKO AVENUE INTERSECTION

STATION	Real Station	Distance	AREA (SF) Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Marsh Exc	Rock Exc	EBS	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.50 Note 4	Expanded Rock 1.10	Expanded EBS Backfill 1.30 Note 5	Reduced Marsh in Fill 0.60 Note 6	Reduced EBS In Fill 0.80 Note 7	Mass Ordinate Note 8
677+13	67712.55		8.34	0	0.71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
677+50	67750	37	12.69	0	0.48	0	0	0	9	0	0	0	0	0	9	0	0	0	0	0	0	8
678+00	67800	50	32.4	0	1.33	0	0	0	38	0	2	0	0	0	47	3	0	0	0	0	0	44
678+50	67850	50	43.12	0	5.71	0	0	0	70	0	7	0	0	0	116	11	0	0	0	0	0	106
679+00	67900	50	50.61	0	5.78	0	0	0	87	0	11	0	0	0	203	24	0	0	0	0	0	179
679+50	67950	50	57.23	0	15.88	0	0	0	100	0	20	0	0	0	303	49	0	0	0	0	0	254
680+00	68000	50	75.69	0	0	0	0	0	123	0	15	0	0	0	426	68	0	0	0	0	0	358
680+50	68050	50	61.28	0	0	0	0	0	127	0	0	0	0	0	553	68	0	0	0	0	0	485
681+00	68100	50	55.05	0	0	0	0	0	108	0	0	0	0	0	661	68	0	0	0	0	0	593
681+35	68135	35	58.93	0	4.01	0	0	0	75	0	3	0	0	0	735	71	0	0	0	0	0	665
681+50	68150	15	58.71	0	1.84	0	0	0	32	0	2	0	0	0	767	73	0	0	0	0	0	694
682+00	68200	50	25.51	0	0	0	0	0	78	0	2	0	0	0	845	75	0	0	0	0	0	770
683+00	68300	100	53.63	0	22.19	0	0	0	147	0	41	0	0	0	992	126	0	0	0	0	0	865
683+50	68350	50	51.91	0	19.22	0	0	0	98	0	38	0	0	0	1089	174	0	0	0	0	0	915
684+00	68400	50	48.54	0	19.2	0	0	0	93	0	36	0	0	0	1182	219	0	0	0	0	0	964
684+50	68450	50	42.01	0	20.5	0	0	0	84	0	37	0	0	0	1266	265	0	0	0	0	0	1002
685+00	68500	50	39.67	0	23.76	0	0	0	76	0	41	0	0	0	1342	316	0	0	0	0	0	1026
685+50	68550	50	38.91	0	28.18	0	0	0	73	0	48	0	0	0	1415	376	0	0	0	0	0	1039
686+00	68600	50	39.14	0	27.93	0	0	0	72	0	52	0	0	0	1487	441	0	0	0	0	0	1046
686+50	68650	50	33.72	0	17.65	0	0	0	67	0	42	0	0	0	1554	494	0	0	0	0	0	1061
687+00	68700	50	32.39	0	12.52	0	0	0	61	0	28	0	0	0	1616	529	0	0	0	0	0	1087
687+26	68726	26	33.61	0	2.25	0	0	0	32	0	7	0	0	0	1648	538	0	0	0	0	0	1110
					Earthwork Totals				1,650	0	450	0	0	0								

STH 93 - WILSON AVENUE INTERSECTION

STATION	Real Station	Distance	AREA (SF) Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Marsh Exc	Rock Exc	EBS	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.50 Note 4	Expanded Rock 1.10	Expanded EBS Backfill 1.30 Note 5	Reduced Marsh in Fill 0.60 Note 6	Reduced EBS In Fill 0.80 Note 7	Mass Ordinate Note 8
691+19	69118.66		29.9	0	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
691+50	69150	31	31.79	0	22.34	0	0	0	18	0	13	0	0	0	18	16	0	0	0	0	0	2
692+00	69200	50	57.45	0	45.68	0	0	0	81	0	43	0	0	0	99	70	0	0	0	0	0	30
693+00	69300	100	85.6	0	121.84	0	0	0	265	0	310	0	0	0	364	457	0	0	0	0	0	-93
693+50	69350	50	53.88	0	39.28	0	0	0	129	0	149	0	0	0	493	644	0	0	0	0	0	-150
694+00	69400	50	50.91	0	41.01	0	0	0	97	0	74	0	0	0	590	737	0	0	0	0	0	-146
694+50	69450	50	40.64	0	39.69	0	0	0	85	0	75	0	0	0	675	830	0	0	0	0	0	-155
695+00	69500	50	41.36	0	42.87	0	0	0	76	0	76	0	0	0	751	926	0	0	0	0	0	-175
695+50	69550	50	40.56	0	35.25	0	0	0	76	0	72	0	0	0	827	1016	0	0	0	0	0	-189
696+00	69600	50	38.02	0	43.72	0	0	0	73	0	73	0	0	0	900	1108	0	0	0	0	0	-208
696+50	69650	50	37.87	0	24.52	0	0	0	70	0	63	0	0	0	970	1187	0	0	0	0	0	-217
697+00	69700	50	35.12	0	19.39	0	0	0	68	0	41	0	0	0	1038	1237	0	0	0	0	0	-200
697+50	69750	50	31.61	0	1.37	0	0	0	62	0	19	0	0	0	1099	1261	0	0	0	0	0	-162
697+56	69756	6	30.73	0	1.02	0	0	0	7	0	0	0	0	0	1107	1262	0	0	0	0	0	-155
					Earthwork Totals				1,150	0	1,050	0	0	0								

Notes:		
1 - Cut	Cut includes Salvaged/Unusable Pavement material	
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections	
3 - Fill	Does not include Unusable Pavement Exc volume	
4 - Expanded Marsh Backfill	Will be backfilled with Granular Backfill (or Cut, or Borrow)	Note 4 - Select one based on input dialog selection
5 - Expanded EBS	Will be backfilled with Granular Backfill (or Cut, or Borrow)	Note 5 - Select one based on input dialog selection
6 - Reduced Marsh in Fill	Reduced Marsh Excavation that can be used in Fill	Note 6 - If excavated Marsh can be used in Fill
7 - Reduced EBS in Fill	Reduced EBS Excavation that can be used in Fill	Note 7 - If excavated EBS can be used in Fill
8 - Mass Ordinate	If Marsh or EBS to be backfilled with Cut or Borrow: [(Cut + Marsh Exc + EBS) - ((Fill -	Note 8 - Select one based on mass haul input dialog
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Granular: [(Cut + EBS + Marsh Exc) - ((Fill -	EBS and Marsh Exc used outside 1:1 in fill slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Granular: [(Cut) - ((Fill - Expanded Rock) * Fill	Marsh and EBS are not usable outside the 1:1 slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Cut or Borrow: [(Cut) - ((Fill - Expanded Rock)	Marsh and EBS are not usable outside the 1:1 slopes

STH 93 - WANEK AVENUE INTERSECTION

STATION	Real Station	Distance	AREA (SF) Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Marsh Exc	Rock Exc	EBS	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.50 Note 4	Expanded Rock 1.10	Expanded EBS Backfill 1.30 Note 5	Reduced Marsh in Fill 0.60 Note 6	Reduced EBS In Fill 0.80 Note 7	Mass Ordinate Note 8
700+50	70050		119.29	0	0.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
701+00	70100	50	17.88	0	31.71	0	0	0	17	0	29	0	0	0	17	37	0	0	0	0	0	-20
701+50	70150	50	29.28	0	56.53	0	0	0	138	0	53	0	0	0	154	103	0	0	0	0	0	51
702+00	70200	50	27.83	0	50.34	0	0	0	53	0	99	0	0	0	207	227	0	0	0	0	0	-20
702+50	70250	50	26.75	0	44.33	0	0	0	51	0	88	0	0	0	258	336	0	0	0	0	0	-79
703+00	70300	50	28.09	0	39.2	0	0	0	51	0	77	0	0	0	308	433	0	0	0	0	0	-125
703+50	70350	50	29.83	0	29.93	0	0	0	54	0	64	0	0	0	362	513	0	0	0	0	0	-151
704+00	70400	50	32.38	0	20.14	0	0	0	58	0	46	0	0	0	420	571	0	0	0	0	0	-151
704+50	70450	50	26.3	0	11.52	0	0	0	54	0	29	0	0	0	474	608	0	0	0	0	0	-134
705+00	70500	50	22.56	0	0.73	0	0	0	45	0	11	0	0	0	519	622	0	0	0	0	0	-103
705+20	70520	20	20.33	0	0.56	0	0	0	16	0	0	0	0	0	535	622	0	0	0	0	0	-88
								Earthwork Totals	550	0	500	0	0	0								

BLASCHKO AVENUE

STATION	Real Station	Distance	AREA (SF) Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Marsh Exc	Rock Exc	EBS	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.50 Note 4	Expanded Rock 1.10	Expanded EBS Backfill 1.30 Note 5	Reduced Marsh in Fill 0.60 Note 6	Reduced EBS In Fill 0.80 Note 7	Mass Ordinate Note 8
9'B'+23	923.252		48.82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9'B'+36	936	13	35.84	0	31.82	0	0	0	9	0	8	0	0	0	9	10	0	0	0	0	0	-1
9'B'+50	950	14	50.19	0	183.34	0	0	0	25	0	46	0	0	0	34	67	0	0	0	0	0	-34
10'B'+50	1050	100	83.44	0	197.99	0	0	0	247	0	706	0	0	0	281	950	0	0	0	0	0	-669
10'B'+81	1081	31	72.73	0	9.89	0	0	0	88	0	118	0	0	0	369	1097	0	0	0	0	0	-727
11'B'+00	1100	19	40.44	0	0.5	0	0	0	41	0	4	0	0	0	410	1101	0	0	0	0	0	-691
11'B'+26	1126	26	31.36	0	1.46	0	0	0	35	0	1	0	0	0	445	1103	0	0	0	0	0	-658
								Earthwork Totals	450	0	900	0	0	0								

Notes:		
1 - Cut	Cut includes Salvaged/Unusable Pavement material	
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections	
3 - Fill	Does not include Unusable Pavement Exc volume	
4 - Expanded Marsh Backfill	Will be backfilled with Granular Backfill (or Cut, or Borrow)	Note 4 - Select one based on input dialog selection
5 - Expanded EBS	Will be backfilled with Granular Backfill (or Cut, or Borrow)	Note 5 - Select one based on input dialog selection
6 - Reduced Marsh in Fill	Reduced Marsh Excavation that can be used in Fill	Note 6 - If excavated Marsh can be used in Fill
7 - Reduced EBS in Fill	Reduced EBS Excavation that can be used in Fill	Note 7 - If excavated EBS can be used in Fill
8 - Mass Ordinate	If Marsh or EBS to be backfilled with Cut or Borrow: [(Cut + Marsh Exc + EBS) - ((Fill -	Note 8 - Select one based on mass haul input dialog
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Granular: [(Cut + EBS + Marsh Exc) - ((Fill -	EBS and Marsh Exc used outside 1:1 in fill slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Granular: [(Cut) - ((Fill - Expanded Rock) * Fill	Marsh and EBS are not usable outside the 1:1 slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Cut or Borrow: [(Cut) - ((Fill - Expanded Rock)	Marsh and EBS are not usable outside the 1:1 slopes

WILSON AVENUE

STATION	Real Station	Distance	AREA (SF) Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Marsh Exc	Rock Exc	EBS	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.50 Note 4	Expanded Rock 1.10	Expanded EBS Backfill 1.30 Note 5	Reduced Marsh in Fill 0.60 Note 6	Reduced EBS In Fill 0.80 Note 7	Mass Ordinate Note 8
9'W'+27	926.681		51.82	0	20.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9'W'+50	950	23	66.77	0	378.56	0	0	0	29	0	163	0	0	0	29	204	0	0	0	0	0	-176
10'W'+50	1050	100	138.94	0	60.49	0	0	0	353	0	150	0	0	0	382	392	0	0	0	0	0	-10
10'W'+80	1080	30	63.34	0	25.61	0	0	0	113	0	48	0	0	0	495	453	0	0	0	0	0	43
11'W'+00	1100	20	33.78	0	23.56	0	0	0	36	0	18	0	0	0	531	475	0	0	0	0	0	56
11'W'+50	1150	50	30.71	0	8.98	0	0	0	60	0	30	0	0	0	591	513	0	0	0	0	0	78
11'W'+64	1164	14	27.08	0	3.81	0	0	0	15	0	3	0	0	0	606	517	0	0	0	0	0	89
					Earthwork Totals				650	0	450	0	0	0								

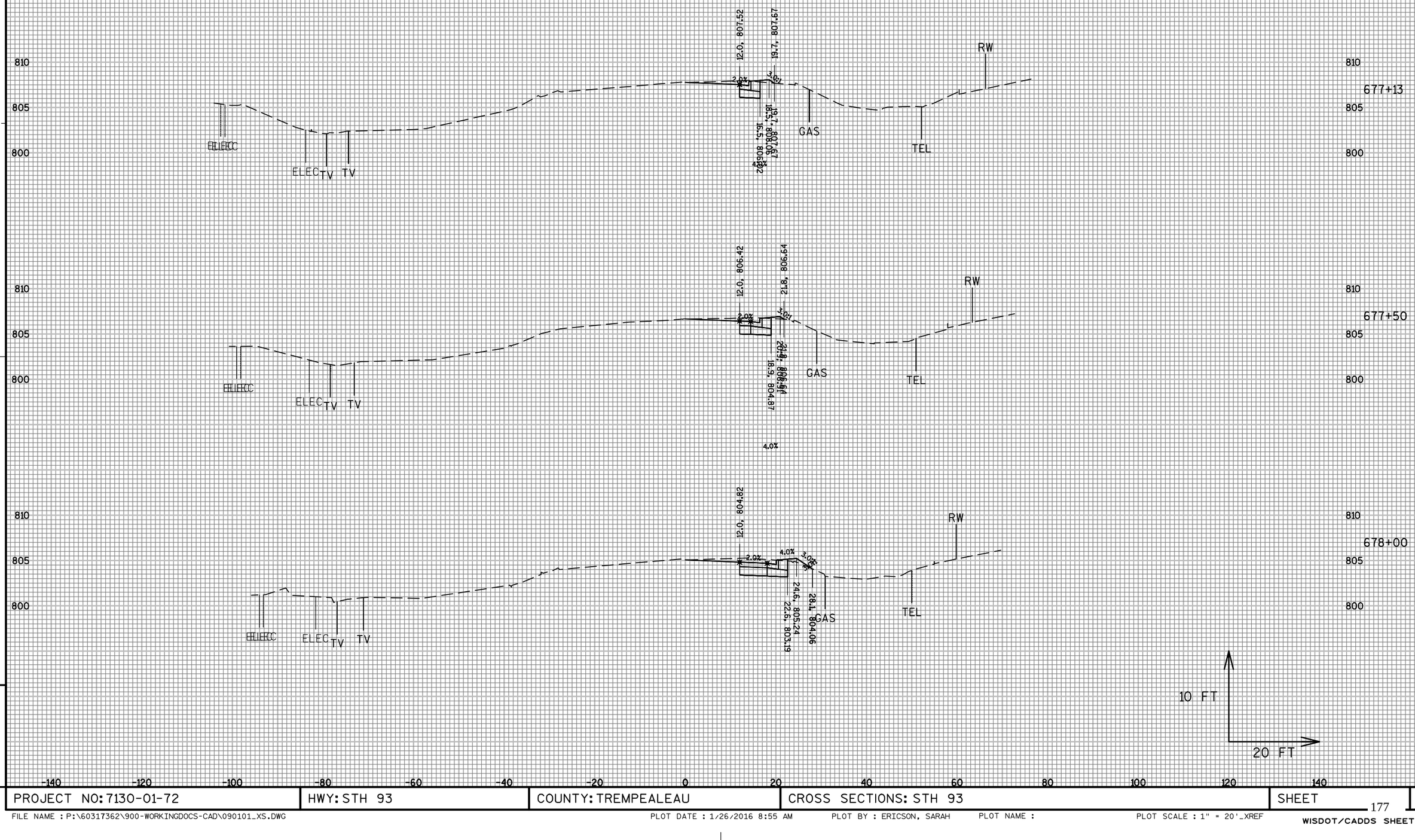
WANEK AVENUE

STATION	Real Station	Distance	AREA (SF) Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Marsh Exc	Rock Exc	EBS	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.50 Note 4	Expanded Rock 1.10	Expanded EBS Backfill 1.30 Note 5	Reduced Marsh in Fill 0.60 Note 6	Reduced EBS In Fill 0.80 Note 7	Mass Ordinate Note 8
8'K'+77	877.191		29.8	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9'K'+00	900	23	41.87	0	0.02	0	0	0	18	0	0	0	0	0	18	0	0	0	0	0	0	18
9'K'+50	950	50	25.09	0	299.97	0	0	0	51	0	278	0	0	0	69	347	0	0	0	0	0	-279
					Earthwork Totals				100	0	300	0	0	0								

Notes:		
1 - Cut	Cut includes Salvaged/Unusable Pavement material	
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections	
3 - Fill	Does not include Unusable Pavement Exc volume	
4 - Expanded Marsh Backfill	Will be backfilled with Granular Backfill (or Cut, or Borrow)	Note 4 - Select one based on input dialog selection
5 - Expanded EBS	Will be backfilled with Granular Backfill (or Cut, or Borrow)	Note 5 - Select one based on input dialog selection
6 - Reduced Marsh in Fill	Reduced Marsh Excavation that can be used in Fill	Note 6 - If excavated Marsh can be used in Fill
7 - Reduced EBS in Fill	Reduced EBS Excavation that can be used in Fill	Note 7 - If excavated EBS can be used in Fill
8 - Mass Ordinate	If Marsh or EBS to be backfilled with Cut or Borrow: [(Cut + Marsh Exc + EBS) - ((Fill -	Note 8 - Select one based on mass haul input dialog
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Granular: [(Cut + EBS + Marsh Exc) - ((Fill -	EBS and Marsh Exc used outside 1:1 in fill slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Granular: [(Cut) - ((Fill - Expanded Rock) * Fill	Marsh and EBS are not usable outside the 1:1 slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Cut or Borrow: [(Cut) - ((Fill - Expanded Rock)	Marsh and EBS are not usable outside the 1:1 slopes

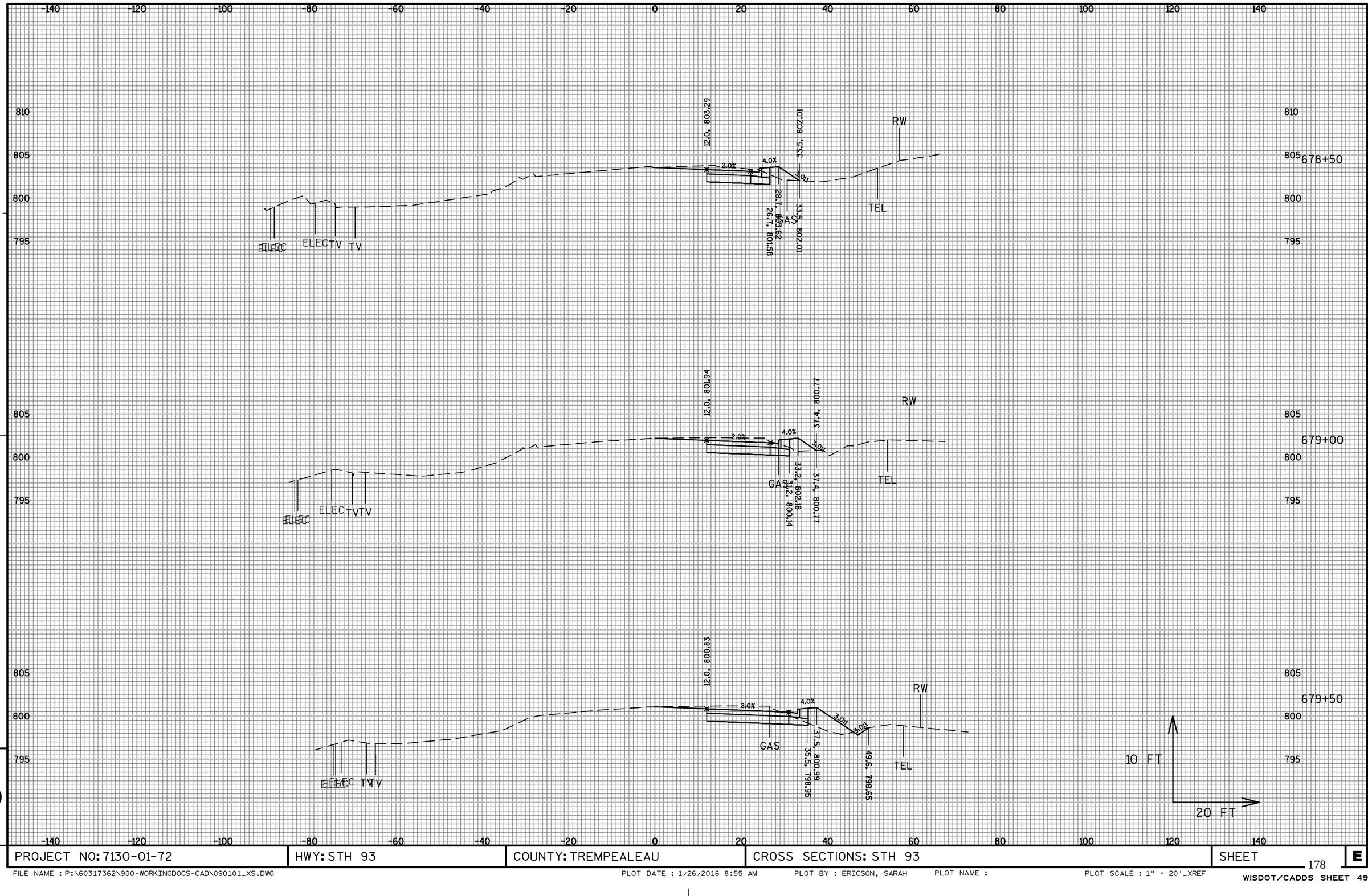
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STA 677+13
BEGIN TURN LANE EXTENSION



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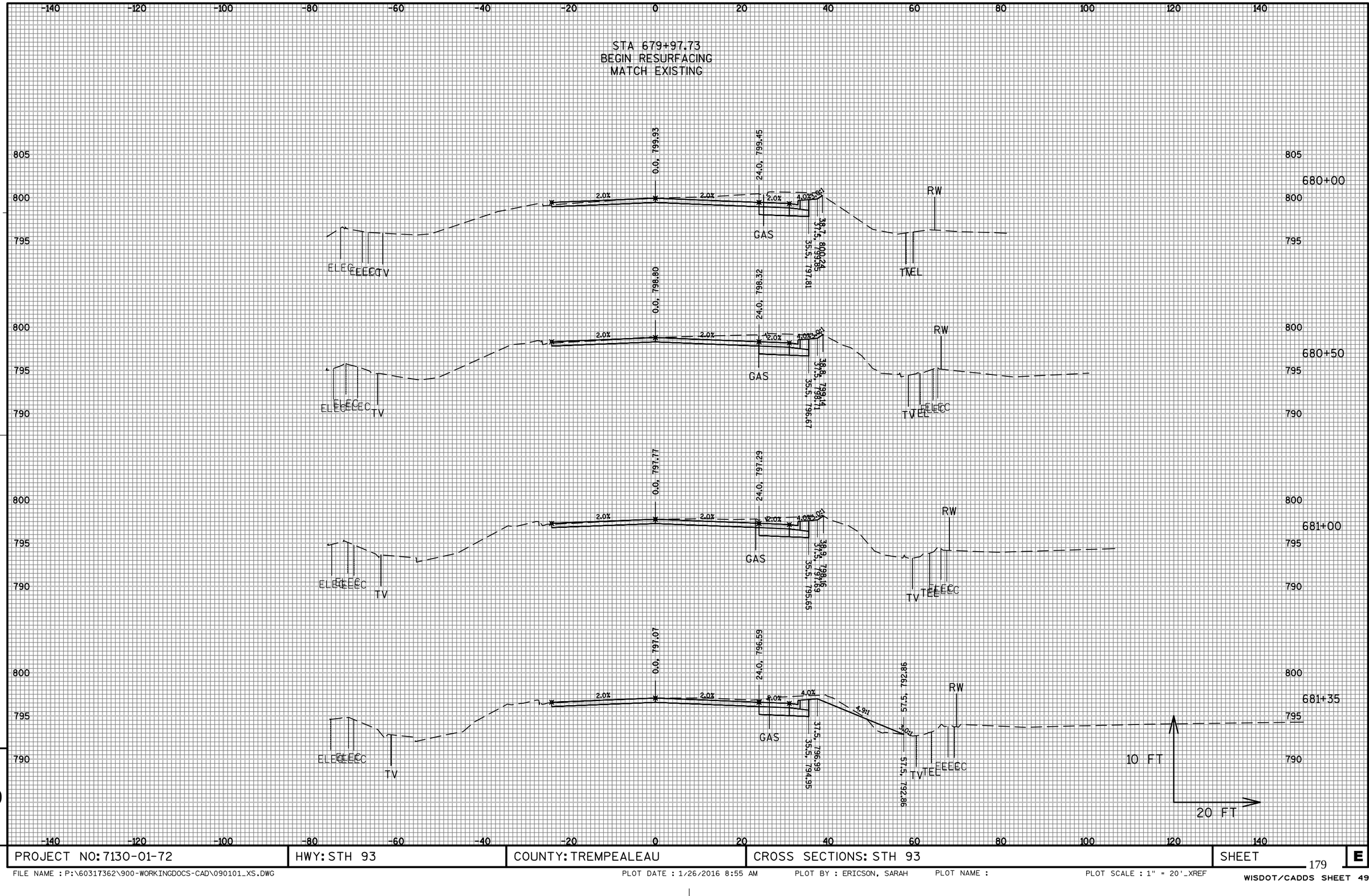
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PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: STH 93	SHEET	E

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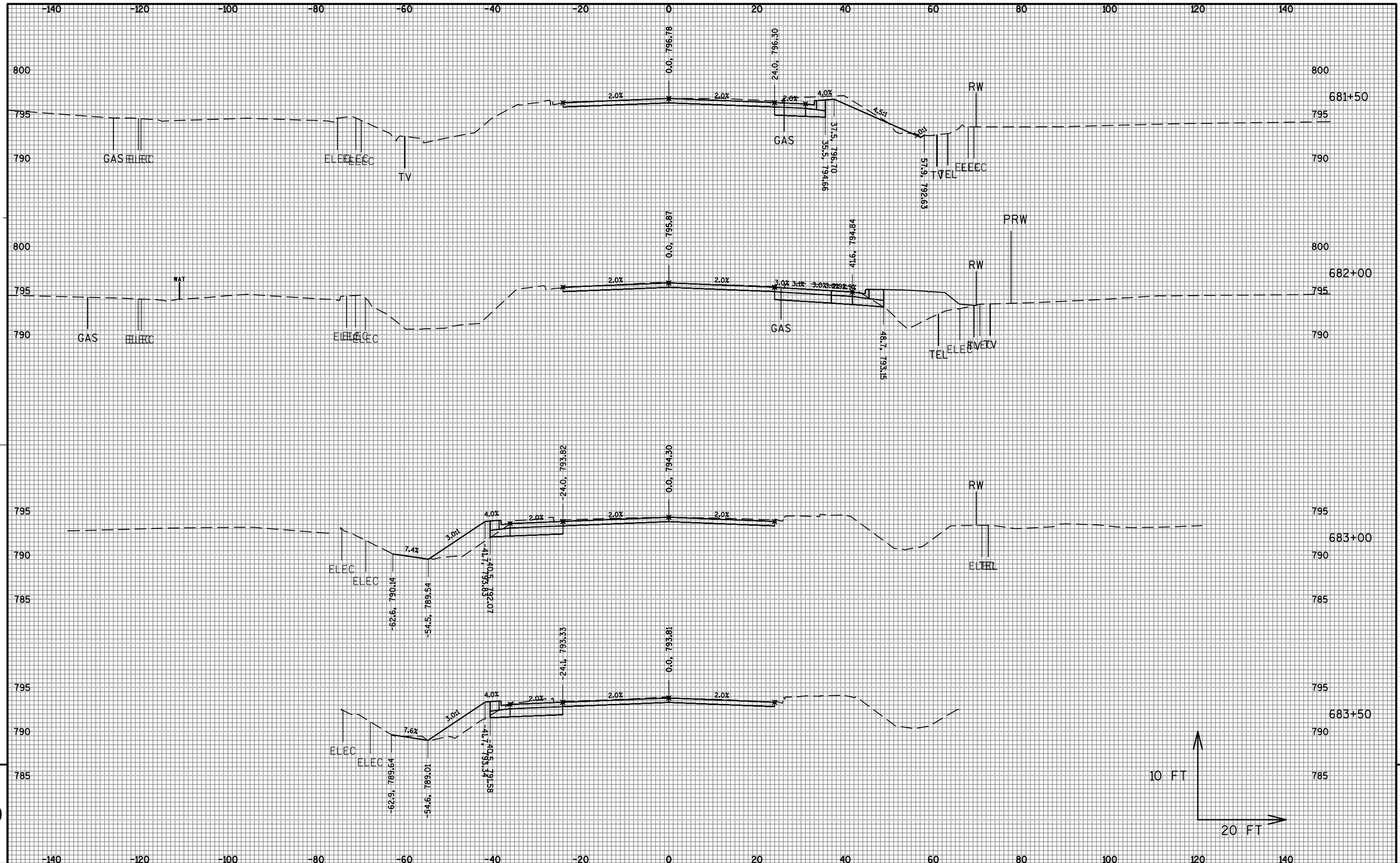
WISDOT/CADDS SHEET 49

STA 679+97.73
BEGIN RESURFACING
MATCH EXISTING



PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: STH 93	SHEET E

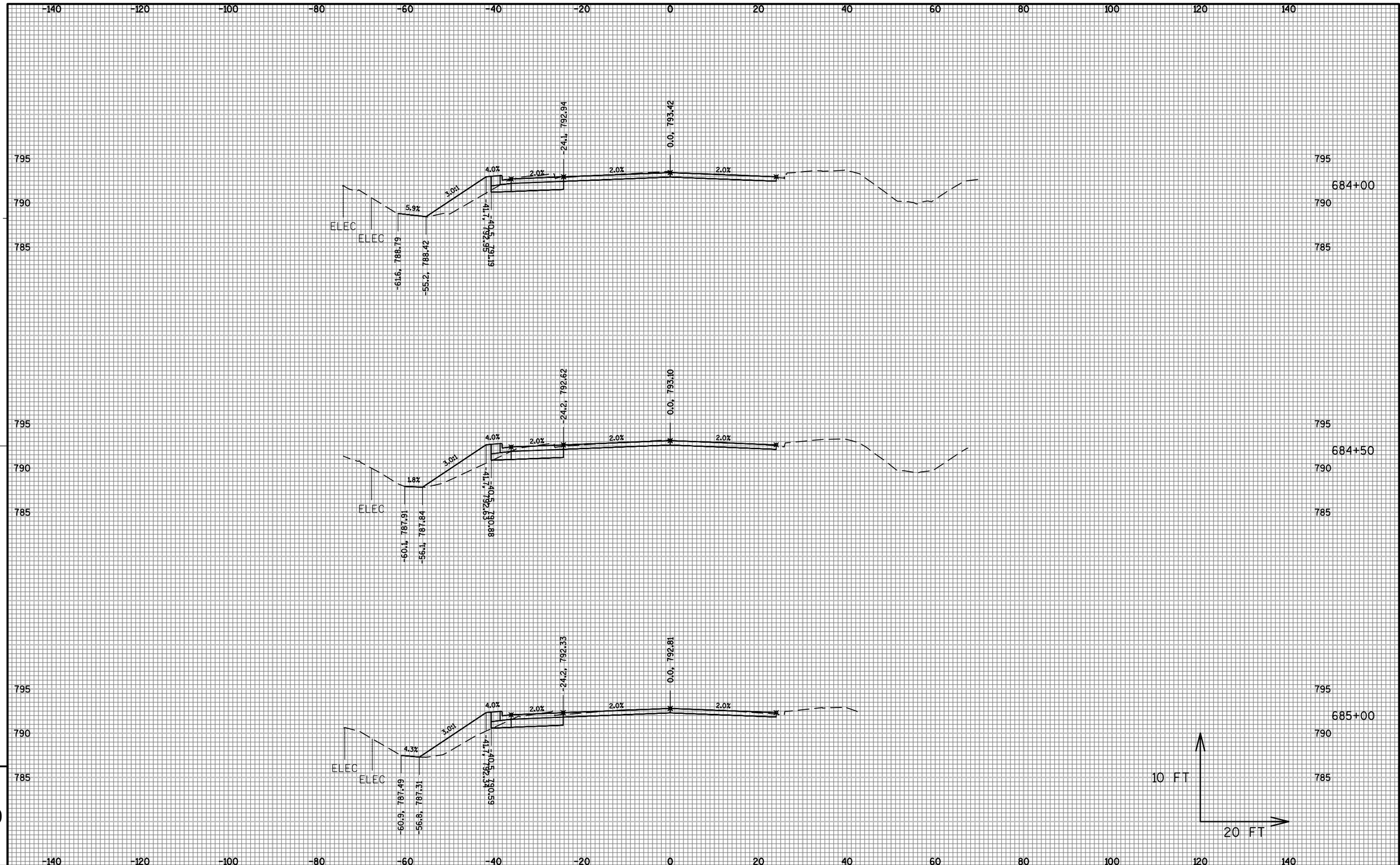
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PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: STH 93	SHEET E

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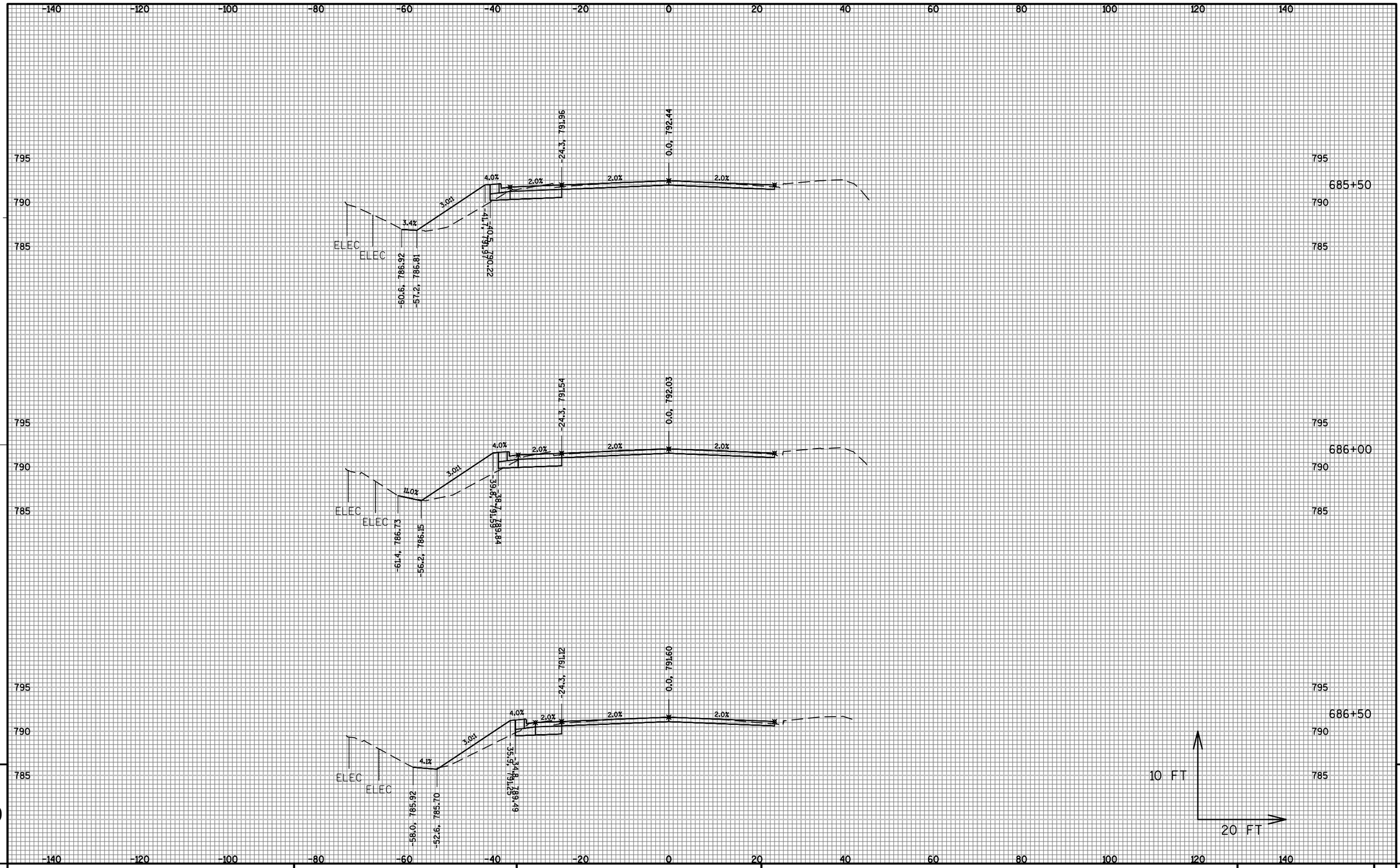
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PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: STH 93	SHEET	E

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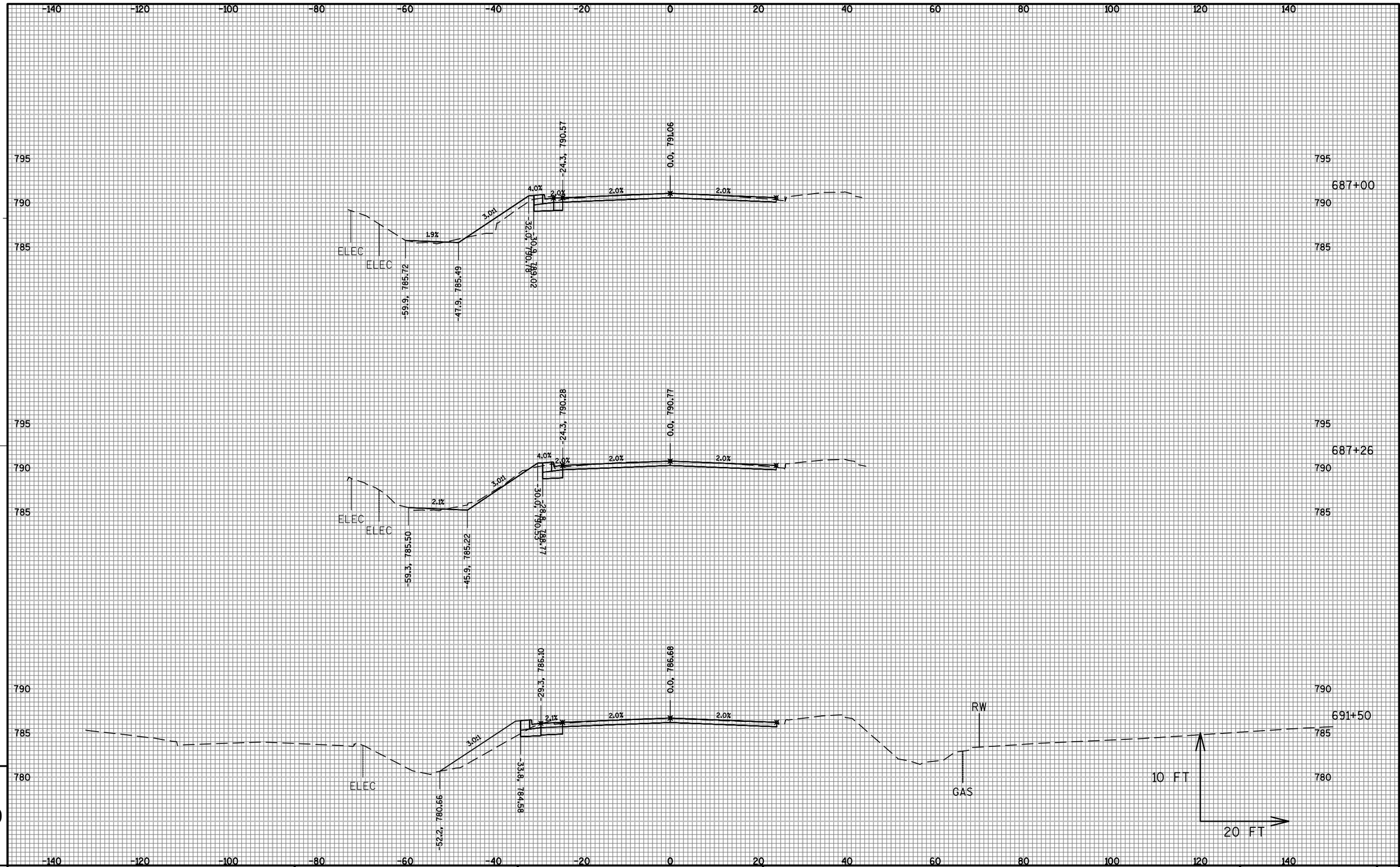
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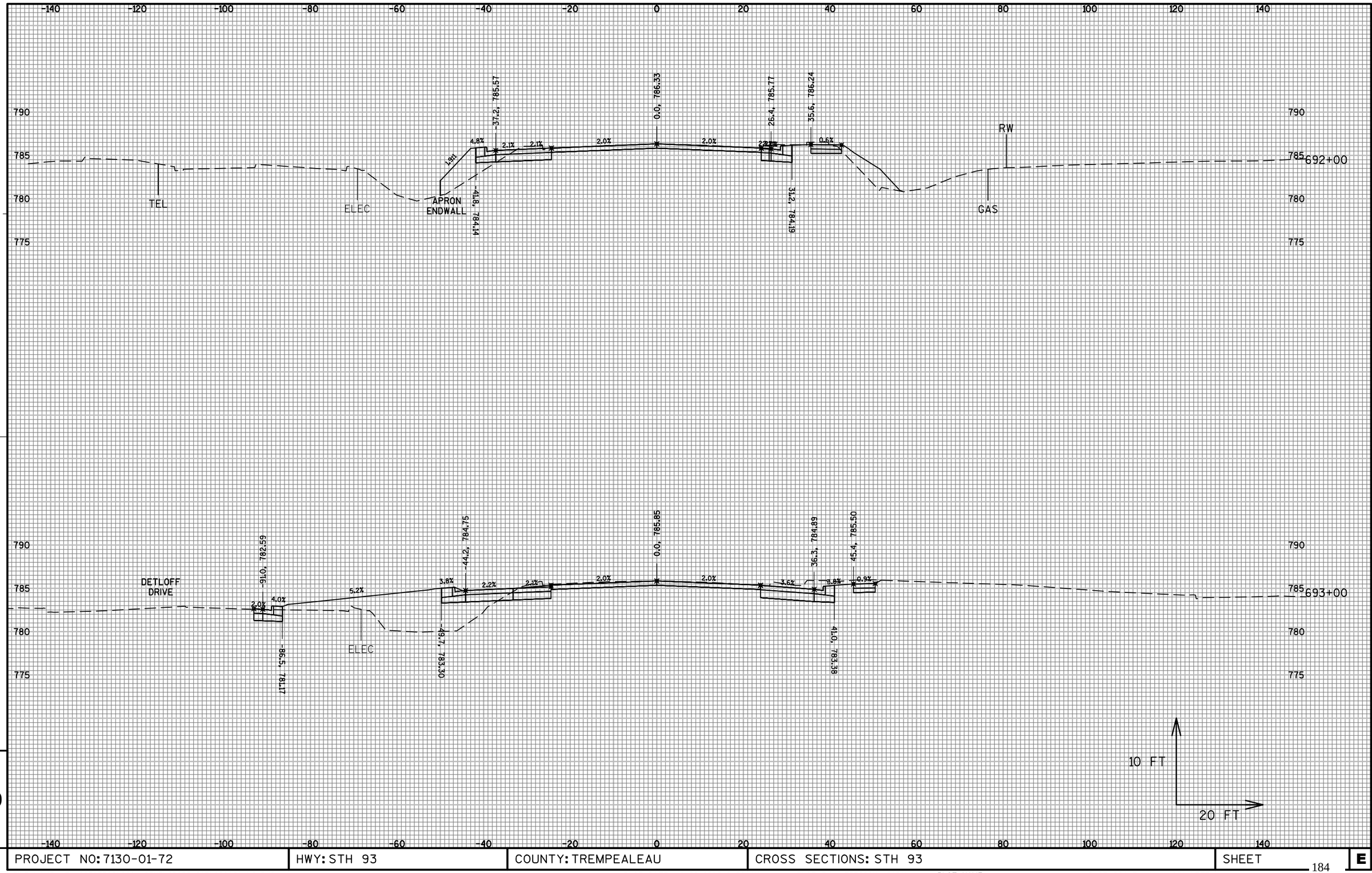
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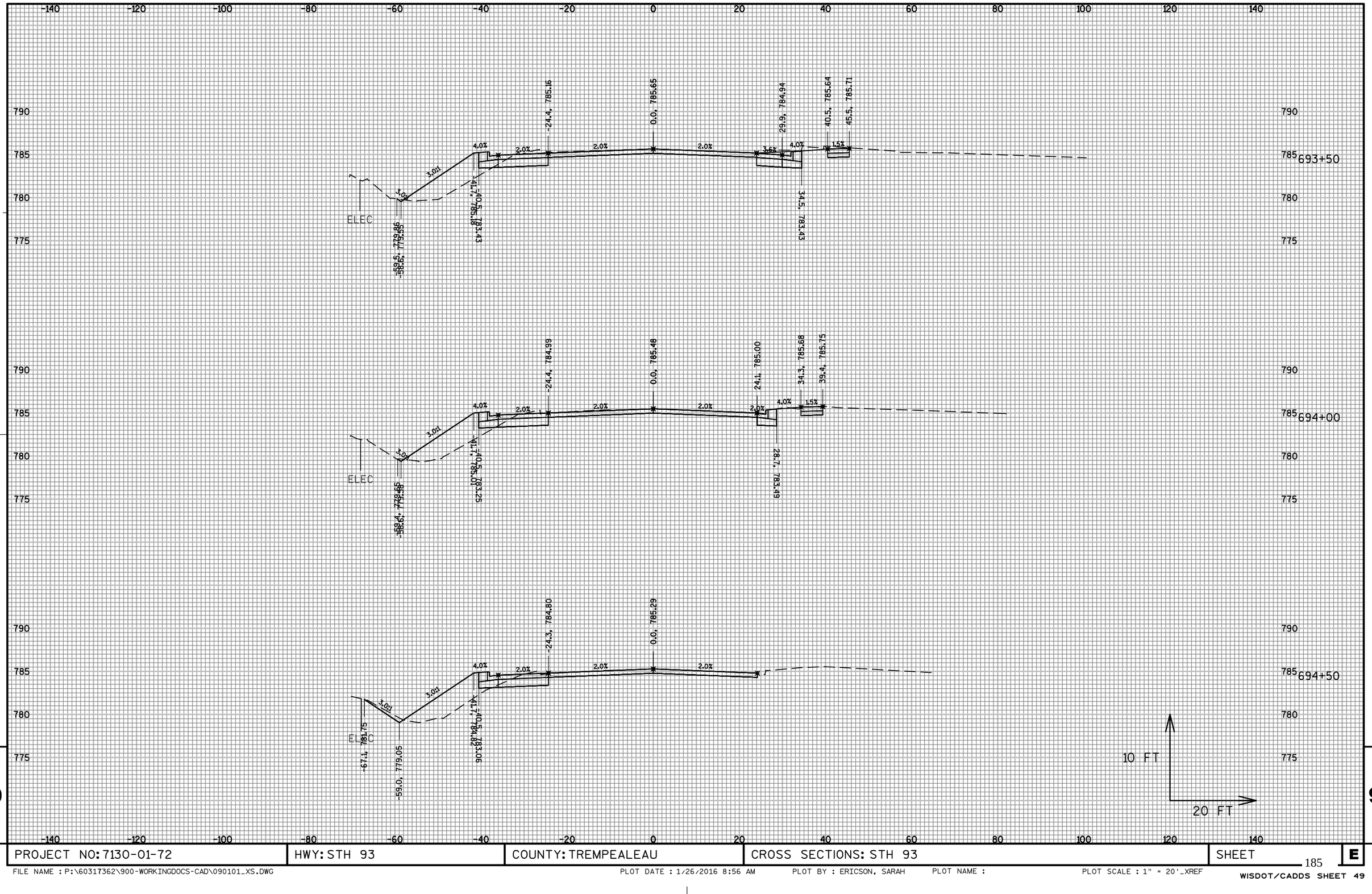
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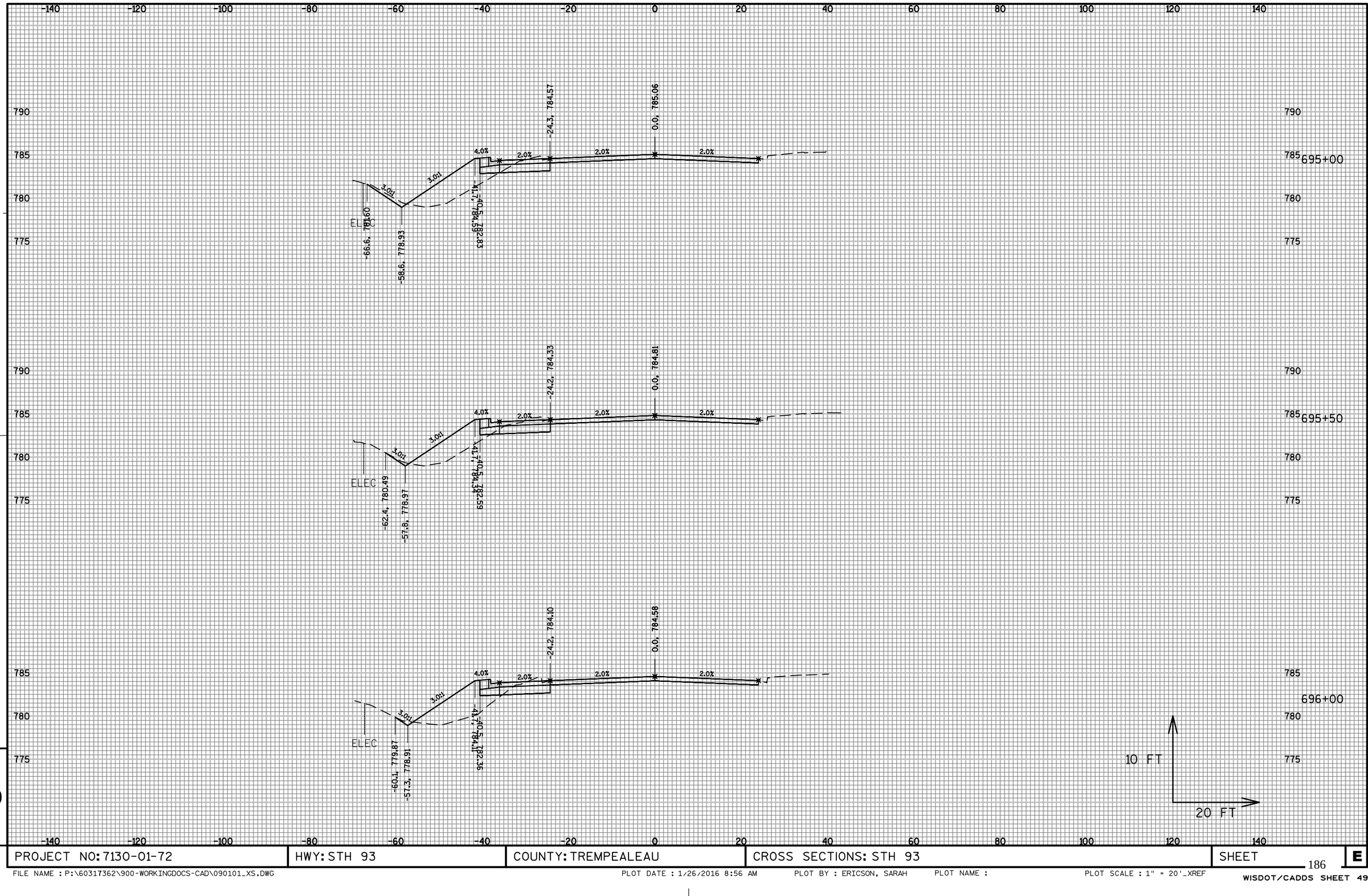


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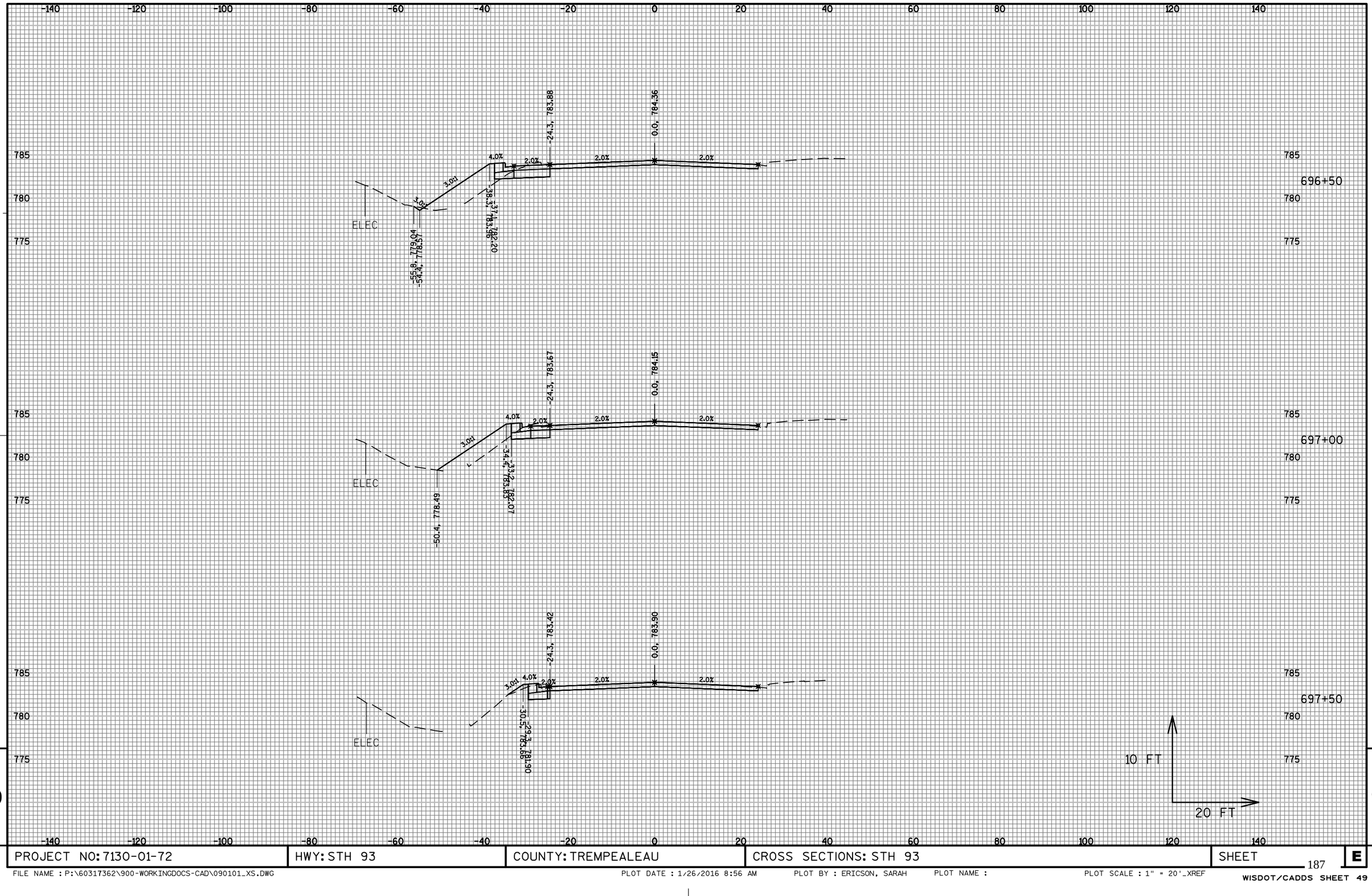
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PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: STH 93	SHEET	E



PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: STH 93	SHEET	E



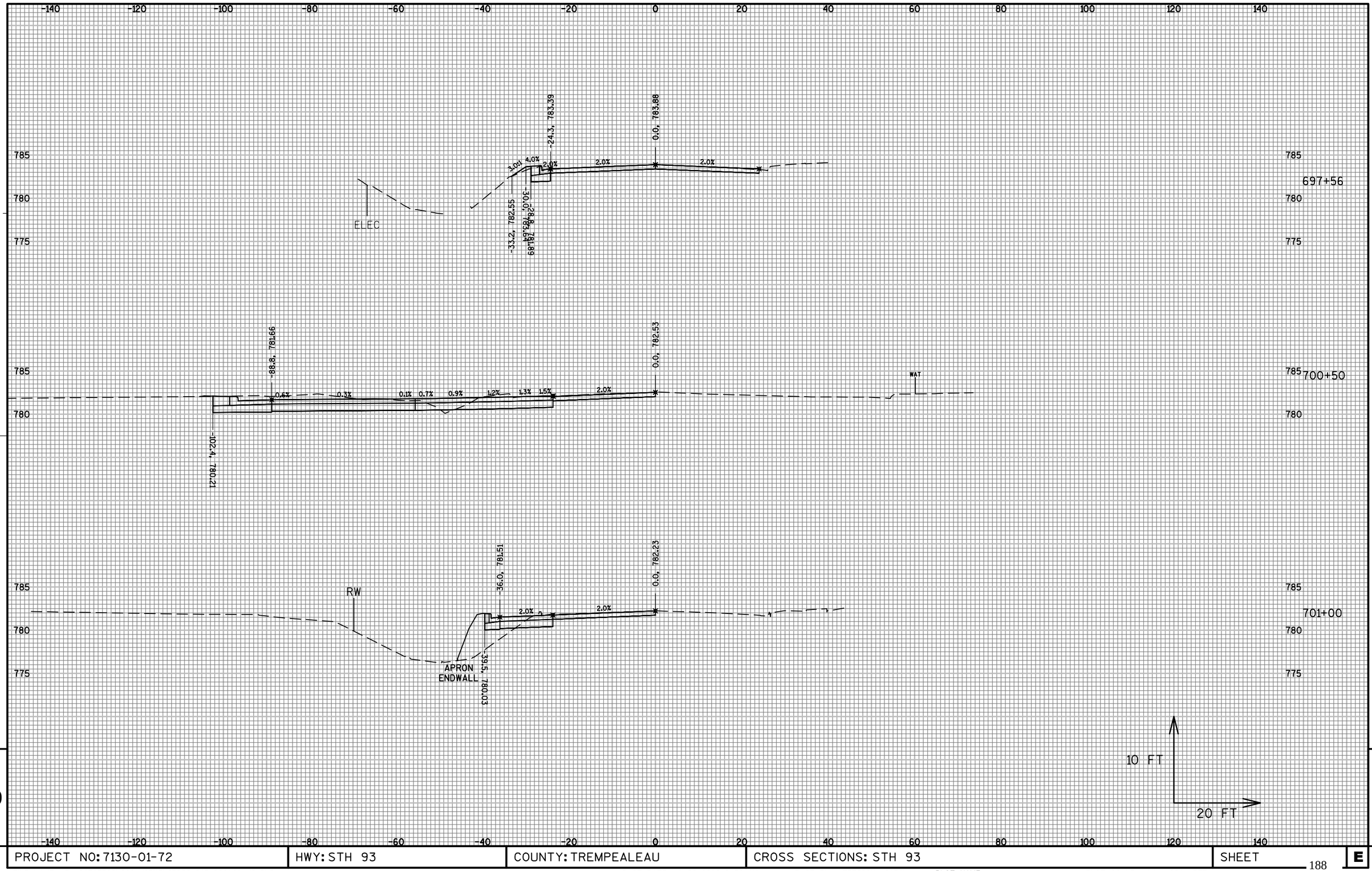
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9

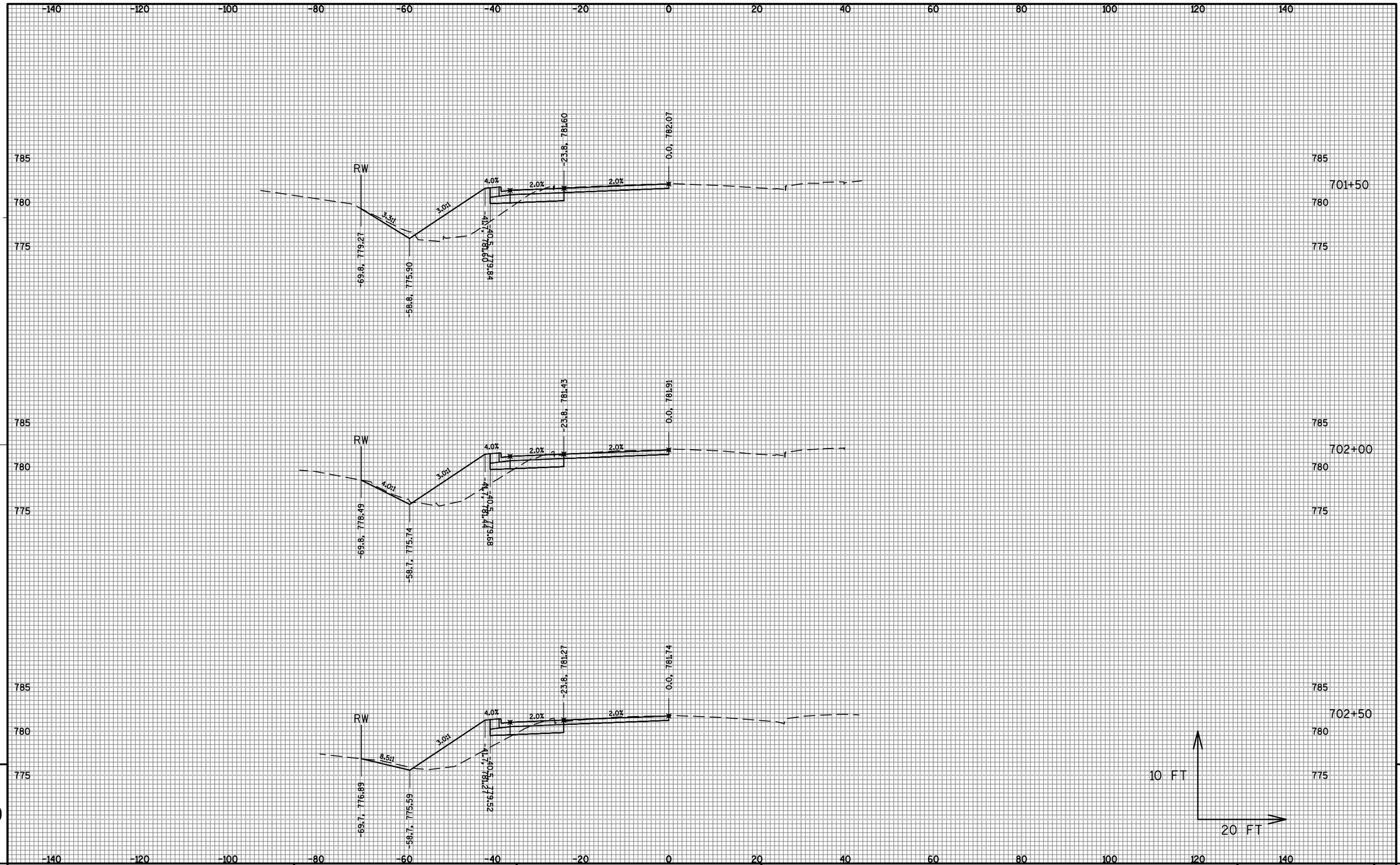
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PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: STH 93	SHEET	E

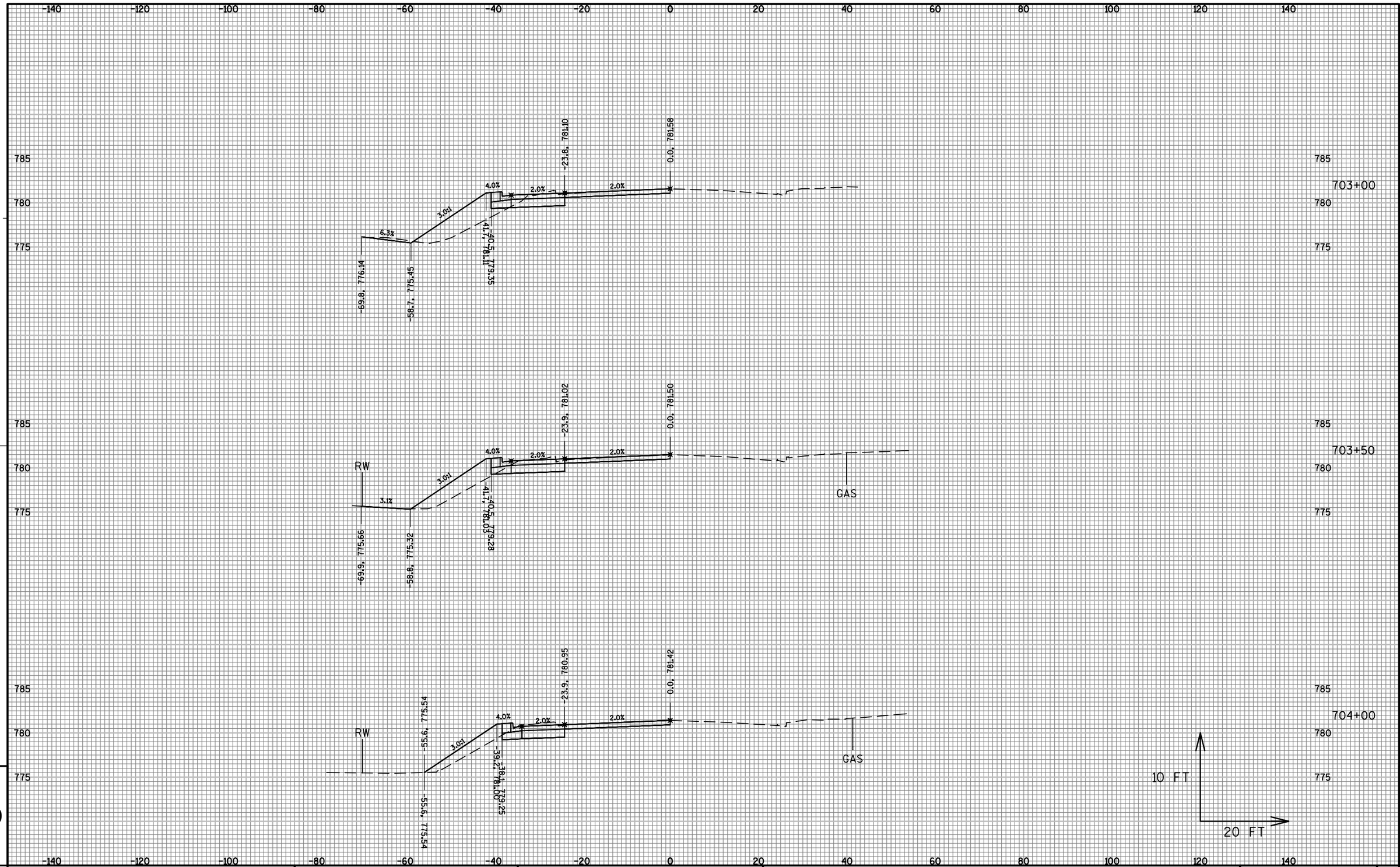
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WISDOT/CADDS SHEET 49



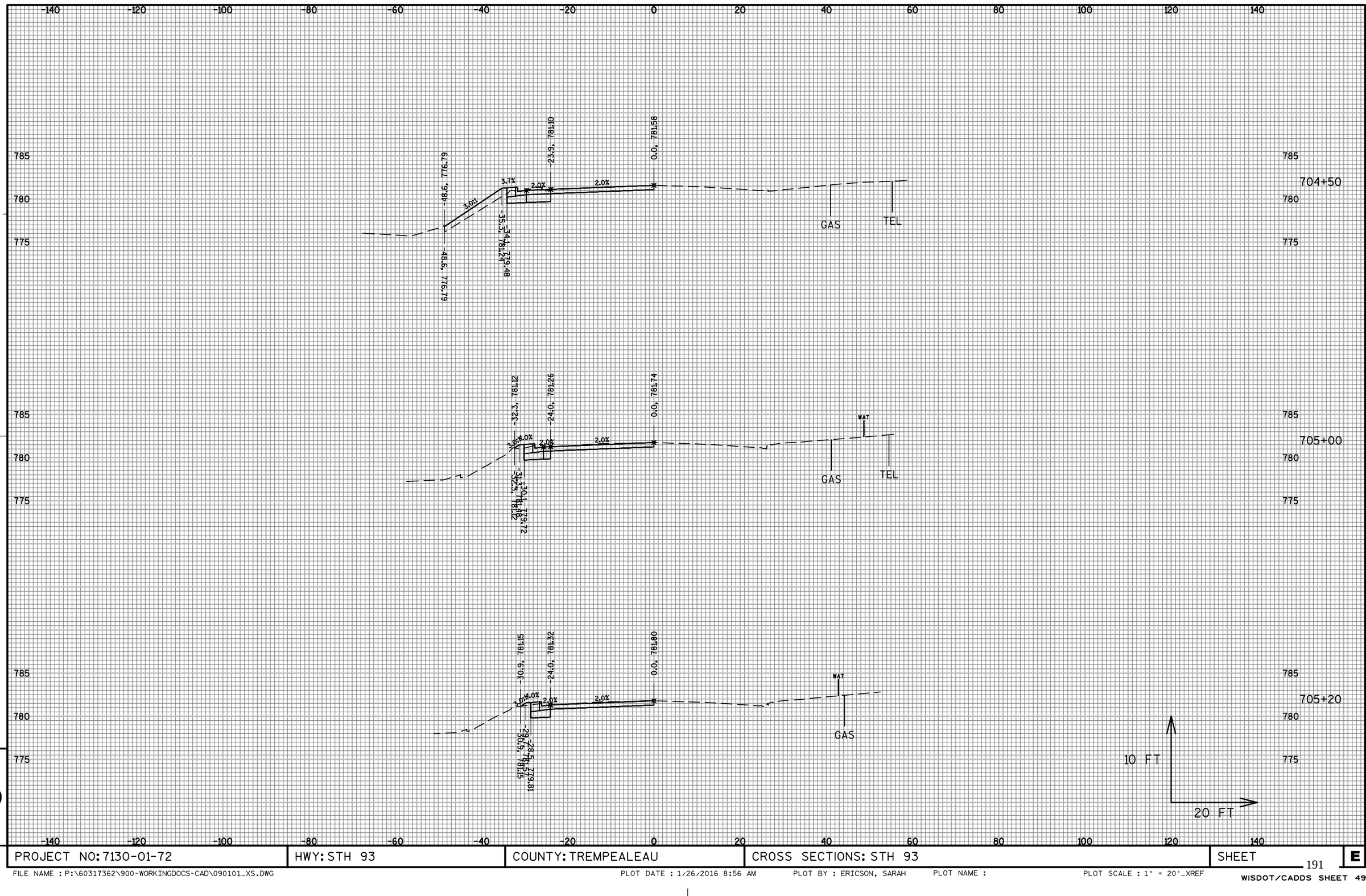
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9

PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: STH 93	SHEET	E

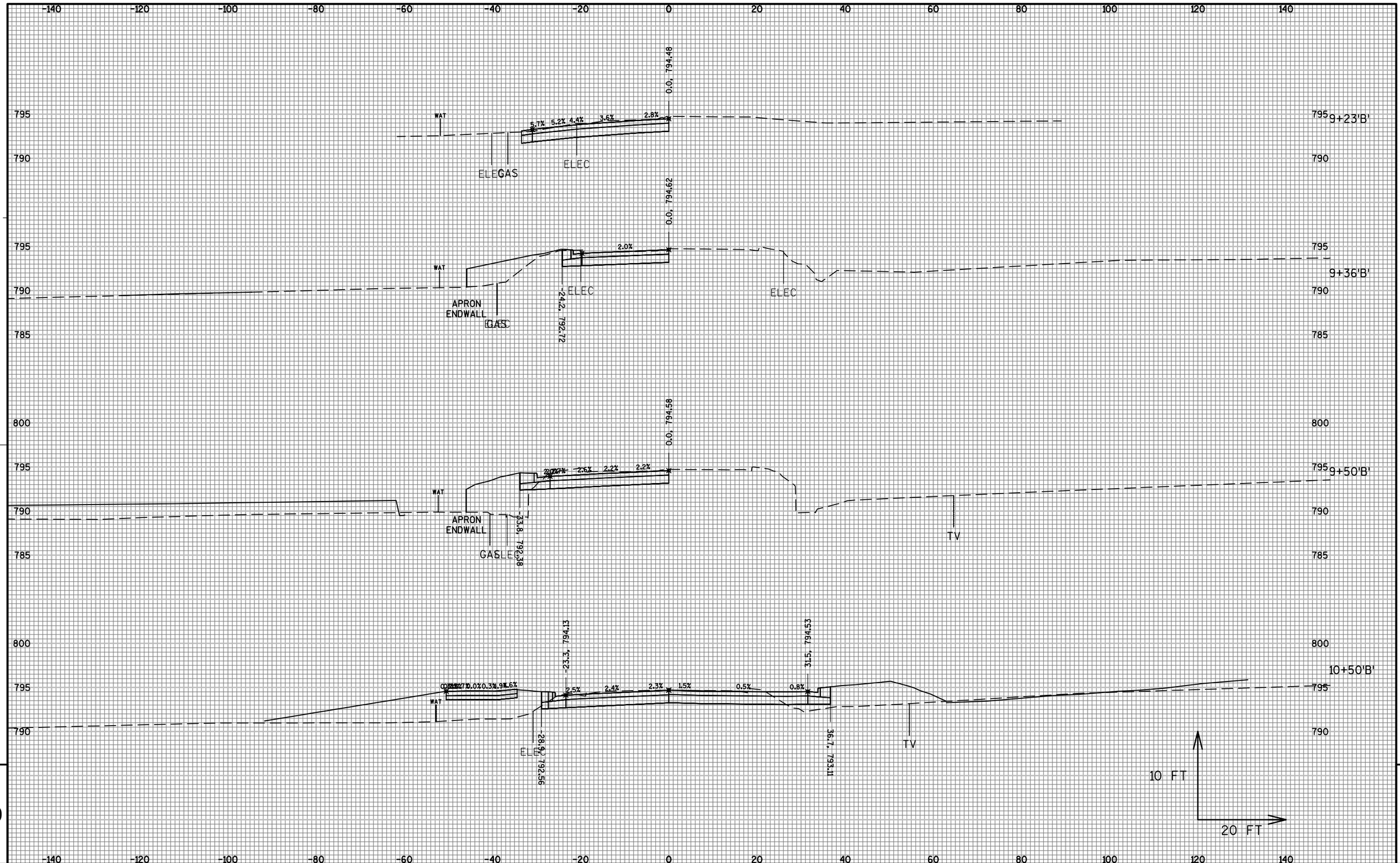
FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\090101_XS.DWG PLOT DATE : 1/26/2016 8:56 AM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: STH 93	SHEET	E

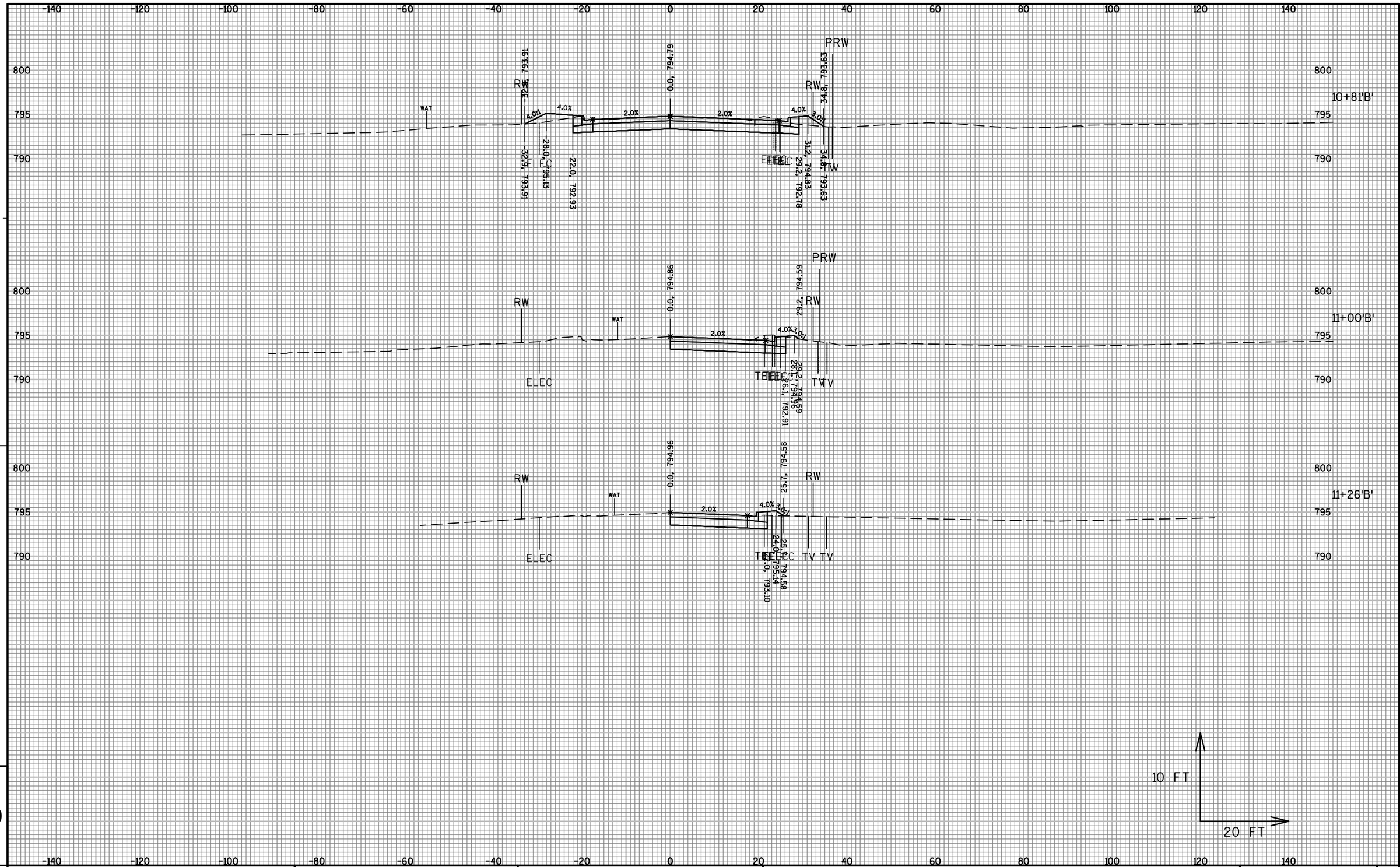
FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\090101_XS.DWG PLOT DATE : 1/26/2016 8:56 AM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1" = 20'_XREF



PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: BLASCHKO AVE.	SHEET E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\090101_XS.DWG PLOT DATE : 1/26/2016 8:58 AM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



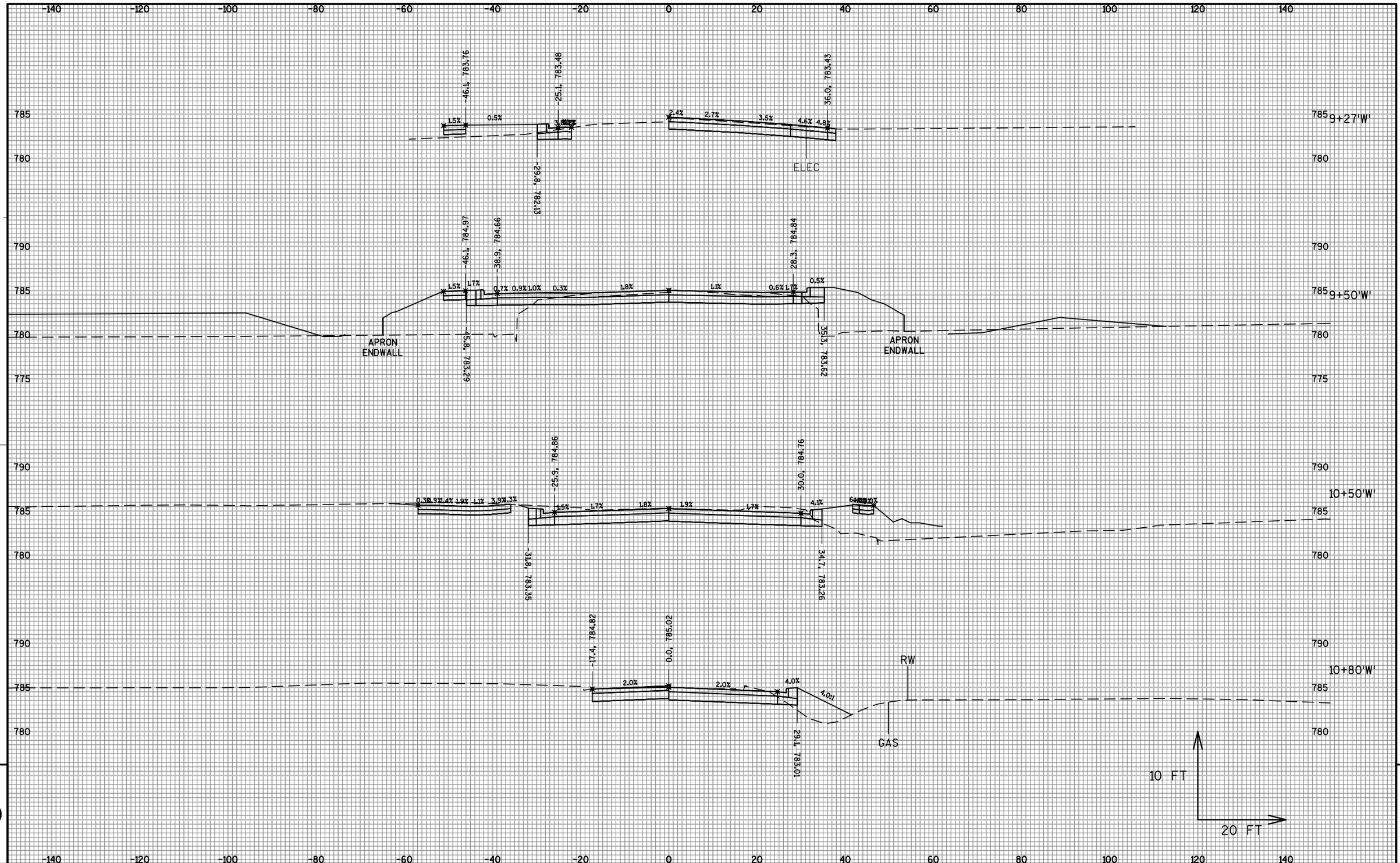
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PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: BLASCHKO AVE.	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\090101_XS.DWG PLOT DATE : 1/26/2016 8:58 AM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1" = 20'_XREF

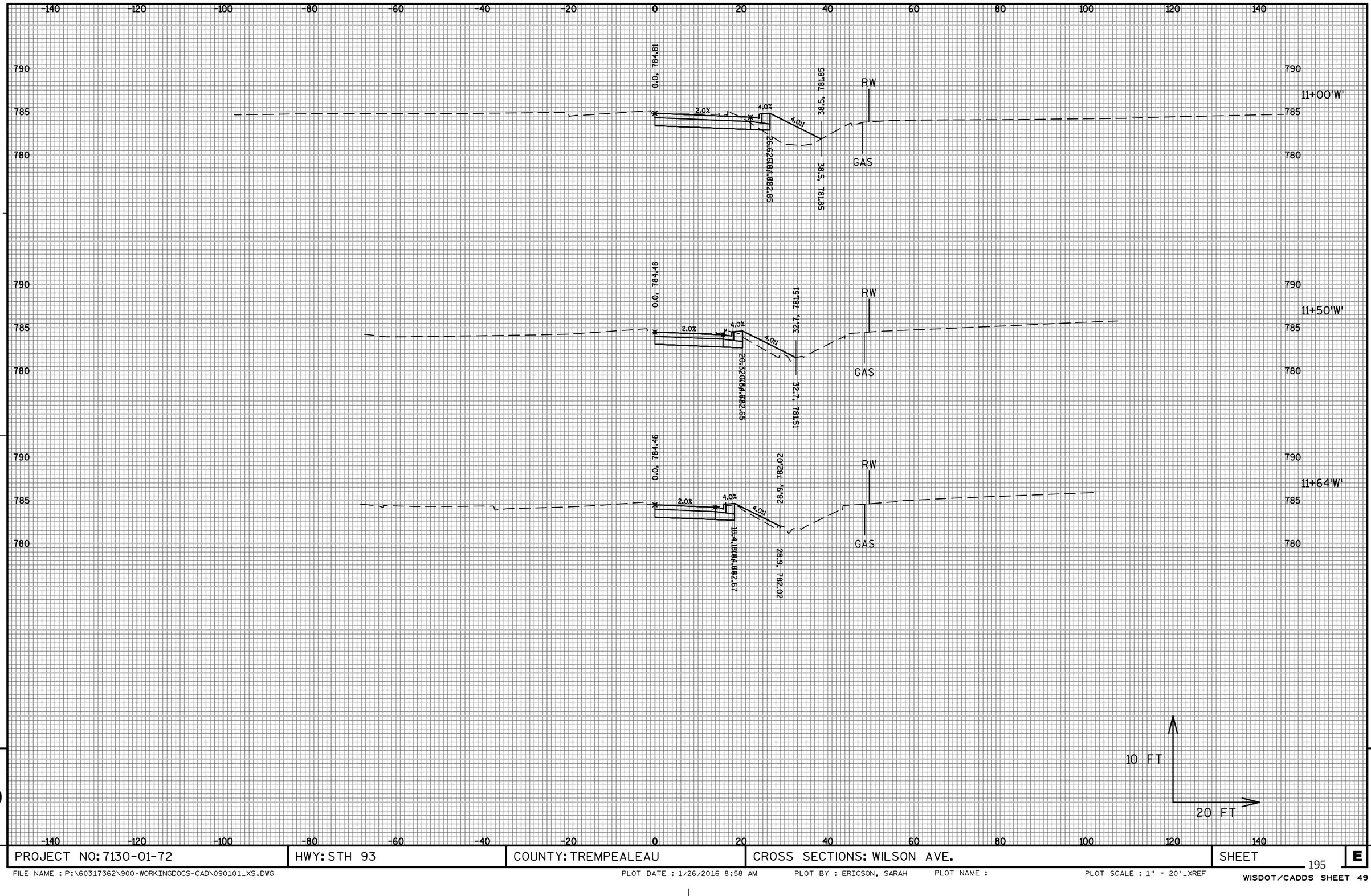
WISDOT/CADDS SHEET 49



PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: WILSON AVE.	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\090101_XS.DWG PLOT DATE : 1/26/2016 8:58 AM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1" = 20'_XREF

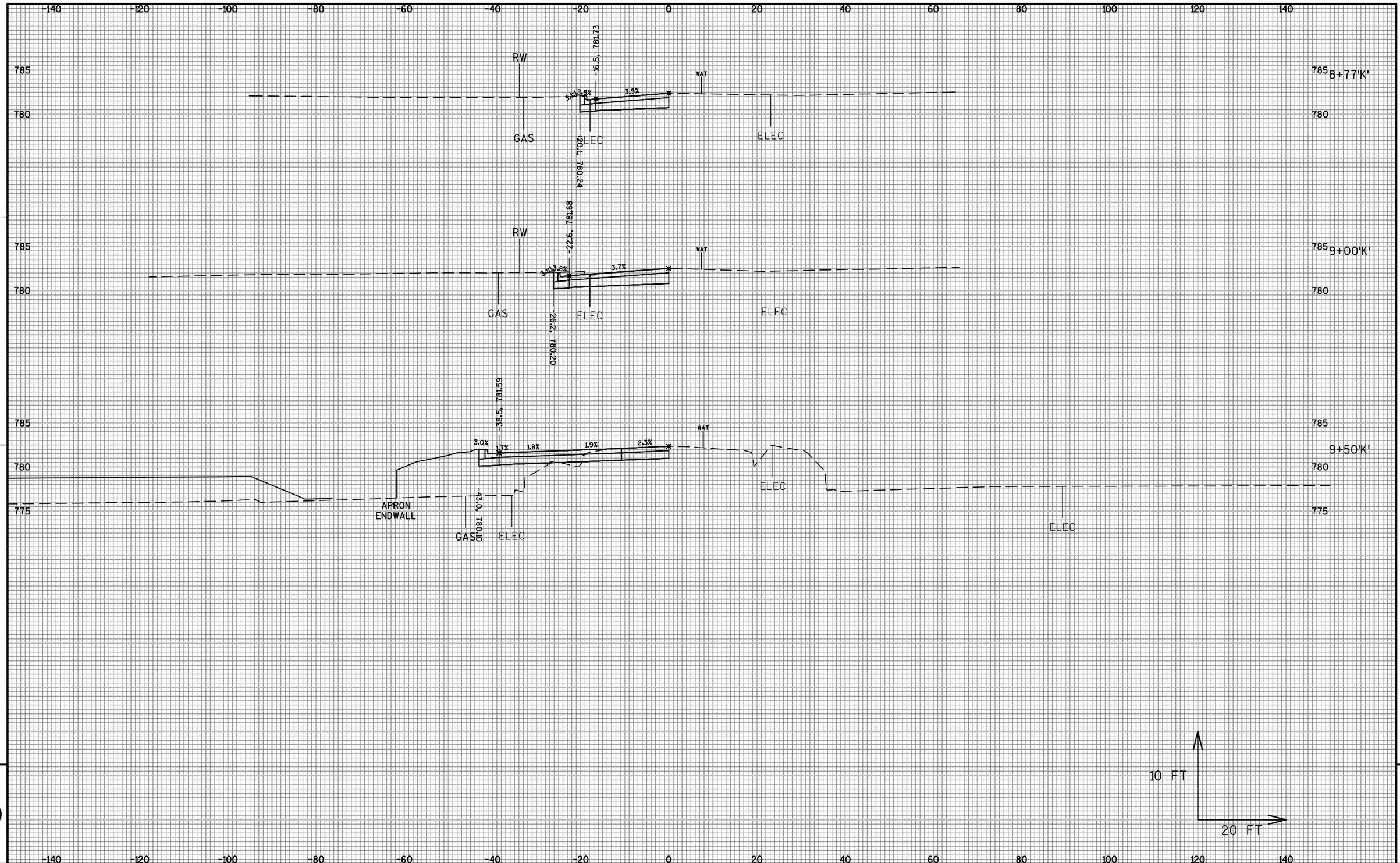
WISDOT/CADDS SHEET 49



PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: WILSON AVE.	SHEET E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\090101_XS.DWG PLOT DATE : 1/26/2016 8:58 AM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 7130-01-72	HWY: STH 93	COUNTY: TREMPEALEAU	CROSS SECTIONS: WANEK AVE.	SHEET	E

FILE NAME : P:\60317362\900-WORKINGDOCS-CAD\090101_XS.DWG PLOT DATE : 1/26/2016 8:59 AM PLOT BY : ERICSON, SARAH PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

EAU MAY 2016

PROJECT ID: 7130-01-74

COUNTY: TREPEALEAU

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
~~Section No.~~	~~3~~	~~Estimate of Quantities~~
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way 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 = 48



PROJECT LOCATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CENTERVILLE - INDEPENDENCE

0.8 MILES NORTH JUNCTION CTH G

STH 93

TREMPEALEAU COUNTY

STATE PROJECT NUMBER
7130-01-74

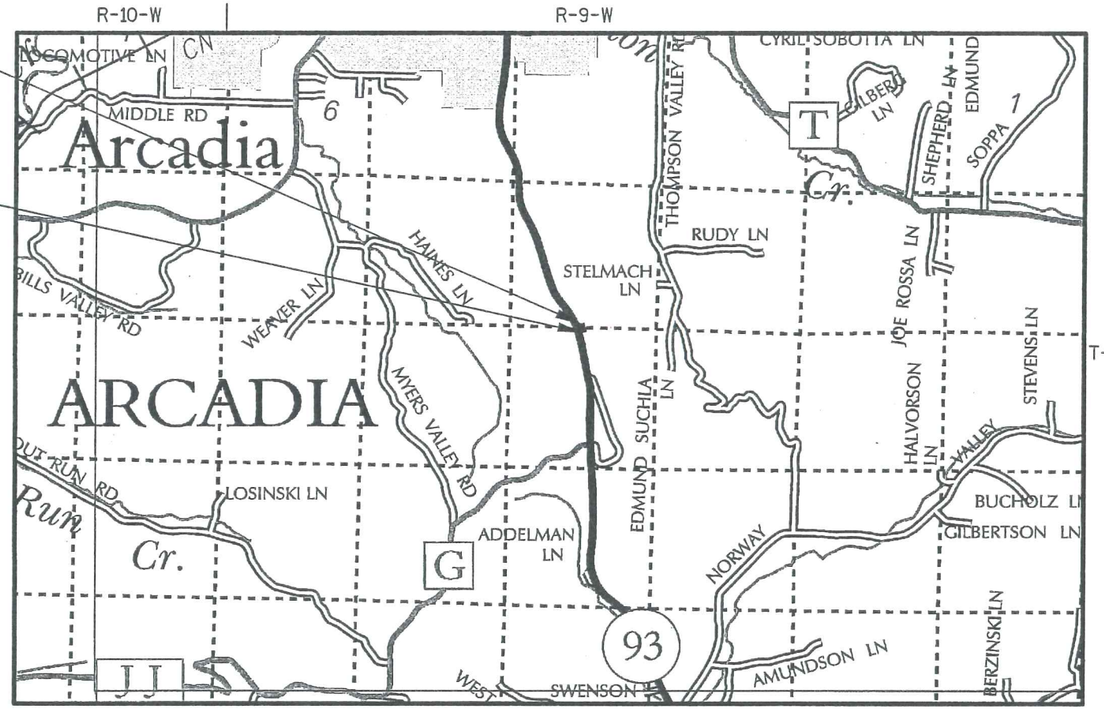
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7130-01-74	WISC 2016190	1

DESIGN DESIGNATION

A.A.D.T.	(2016) =	8,100
A.A.D.T.	(2036) =	9,000
D.H.V.	=	12.5%
D.D.	=	60/40
T.	=	14.8%
DESIGN SPEED	=	50 MPH
ESALS	=	5,486,279

END PROJECT 7130-01-74
STA. 26+67.34

BEGIN PROJECT 7130-01-74
STA. 15+00.00
Y=383449.291
X=817943.501



CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (955.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

LAYOUT
SCALE 0 — 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.221 MILES

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS) TREMPEALEAU COUNTY, NAD 83(91)
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAV 88 (2007)

ORIGINAL PLANS PREPARED BY
AECOM
AECOM
1350 Deming Way, Suite 100, Middleton, WI 53562
T 608.836.9800 www.aecom.com

WISCONSIN
SEAN M. HADFIELD
E-34941
MADISON, WI
PROFESSIONAL ENGINEER

2-15-16
(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AECOM
Designer	AECOM
Project Manager	NICOLE PASSUELLO
Regional Examiner	CHRISTINE KOSKI
Regional Supervisor	TIM MASON
CO. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 2/15/16 (Signature)

E

GENERAL NOTES

THERE ARE NO KNOWN UTILITY FACILITIES WITHIN THE PROJECT AREA.

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

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

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

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

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

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

THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 110 LBS/SY/IN OF DEPTH.

THE QUANTITY OF THE ITEM OF BASE AGGREGATE DENSE 1 1/4 INCH, BASE AGGREGATE DENSE 3/4 INCH, OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON. THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIAL AS DIRECTED BY THE ENGINEER.

THE QUANTITY OF THE ITEM OF SALVAGED ASPHALTIC PAVEMENT BASE IS MEASURED FOR PAYMENT BY THE CUBIC YARD. THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIAL AS DIRECTED BY THE ENGINEER.

5-INCH ASPHALTIC SURFACE SPECIAL

LAYER	THICKNESS	GRADATION	ASPHALTIC MATERIAL
UPPER	2-INCHES	12.5MM	PG 64-34P
LOWER	3-INCHES	19.0MM	PG 64-34P

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 = 2.49 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.69 ACRES

UTILITIES

THERE ARE NO KNOWN UTILITY FACILITIES WITHIN THE PROJECT AREA.

WISDOT

WISDOT PROJECT MANAGER
NICOLE PASSUELLO, P.E.
718 W. CLAIREMONT AVE.
EAU CLAIRE, WI 54701
(715)836-3920
NICOLE.PASSUELLO@DOT.WI.GOV

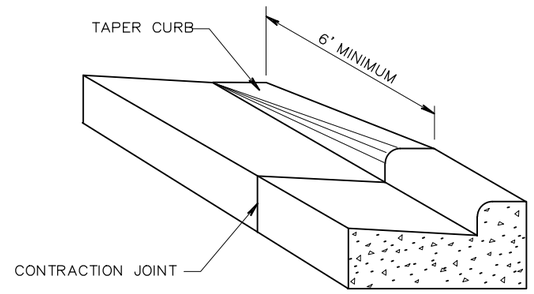
WISDNR

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
(WEST CENTRAL REGION)
TREMPEALEAU COUNTY
KAREN KALVELAGE
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
(608)785-9115
KAREN.KALVELAGE@WISCONSIN.GOV

DESIGNER

SEAN HADFIELD, P.E.
AECOM
1350 DEMING WAY, STE 100
MIDDLETON, WI 53562
(608)828-8141
SEAN.HADFIELD@AECOM.COM

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



DETAIL OF CURB & GUTTER TERMINI

PROJECT NO: 7130-01-74	HWY: STH 93	COUNTY: TREMPEALEAU	CONSTRUCTION DETAILS	SHEET 5	E

2

6% GRADES
1 MILE AHEAD ③

LOCATION TO BE LOCATED
BY ENGINEER IN FIELD

15+00.00, 3.00' LT

STA 15+00.00, 0' LT - STA 18+33.52, 19.88' LT
REMOVING PAVEMENT MARKINGS

PAVEMENT MARKING DIAGONAL
EPOXY 12-INCH (WHITE)

PAVEMENT MARKING
EPOXY 8-INCH (WHITE)

MID RAD 18+25.05
9.24' LT

18+33.06, 22.85' LT

PC 18+33.52, 19.88' LT

RAD PT 18+35.02
10.00' LT, 10' RAD

STH 93

15+00 16+00 17+00 18+00 19+00 20+00

15'

2640'

15+00.00, 0.00' RT

PC 17+12.17
15.14' RT

PT 17+16.32
15.00' RT

MID RAD 17+14.24
15.04' RT, 60' RAD

BRAKE CHECK AREA 1/2 MILE ①

BRAKE CHECK AREA ②

PAVEMENT MARKING
EPOXY 4-INCH (WHITE)

PT 18+35.00 LT
BEGIN CONCRETE CURB & GUTTER
30-INCH TYPE D

ASPHALT

PC 19+54.35
22.08' RT

MID RAD 19+59.17
23.00' RT, 60' RAD

PT 19+63.90
24.33' RT

PC 20+16.97
42.66' RT

MID RAD 20+23.53
44.41' RT, 40' RAD

PT 20+30.29
45.00' RT

45'

MATCHLINE STA. 20+50

R/W

POST

STA 25+50.22, 18.69' LT - STA 26+67.34, 0.00' RT
REMOVING PAVEMENT MARKINGS

PAVEMENT MARKING
EPOXY 8-INCH (WHITE)

PAVEMENT MARKING DIAGONAL
EPOXY 12-INCH (WHITE)

25+46.99
21.29' LT

25+82.49
1.0' LT

26+67.33, 3.00' LT

26+67.34, 0.00' RT

REMOVE SIGN

PT 25+45.51
18.69' LT

MID RAD 25+50.22
7.44' LT

RAD PT 25+40.55
10.00' LT, 10' RAD

PC 25+40.55
00.00' LT

PC 26+09.37
9.75' RT

MID RAD 25+94.78
15.58' RT, 40' RAD

PCC 25+70.40
25.90' RT

PC 25+31.74
25.25' RT

MID RAD 25+51.00
30.56' RT, 40' RAD

MATCHLINE STA. 20+50

21+00 22+00 23+00 24+00 25+00 26+00

22+50.00 LT
END CONCRETE CURB & GUTTER
30-INCH TYPE D

21+18.55
15.00' RT

21+18.55
30.00' RT

22+02.42
15.00' RT

22+86.30
15.00' RT

22+86.30
30.00' RT

PC 23+69.60
26.77' RT

PAVEMENT MARKING
EPOXY 4-INCH (WHITE)

PT 24+15.10
15.00' RT

MID RAD 23+91.59
17.99' RT, 100' RAD

PT 23+46.58
39.76' RT

PC 23+27.00
45.00' RT

MID RAD 23+37.12
43.67' RT, 40' RAD

PAVEMENT MARKING
EPOXY 8-INCH (WHITE)

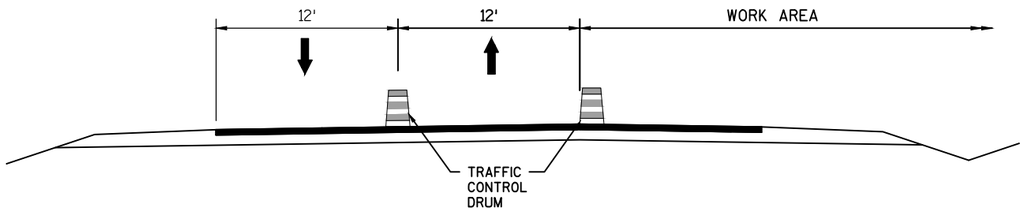
BRAKE CHECK
PARKING
ONLY ④

R/W

POST

PROJECT NO: 7130-01-74	HWY: STH 93	COUNTY: TREMPEALEAU	PERMANENT SIGNING, PAVEMENT MARKING AND LAYOUT	SHEET 6	E

2

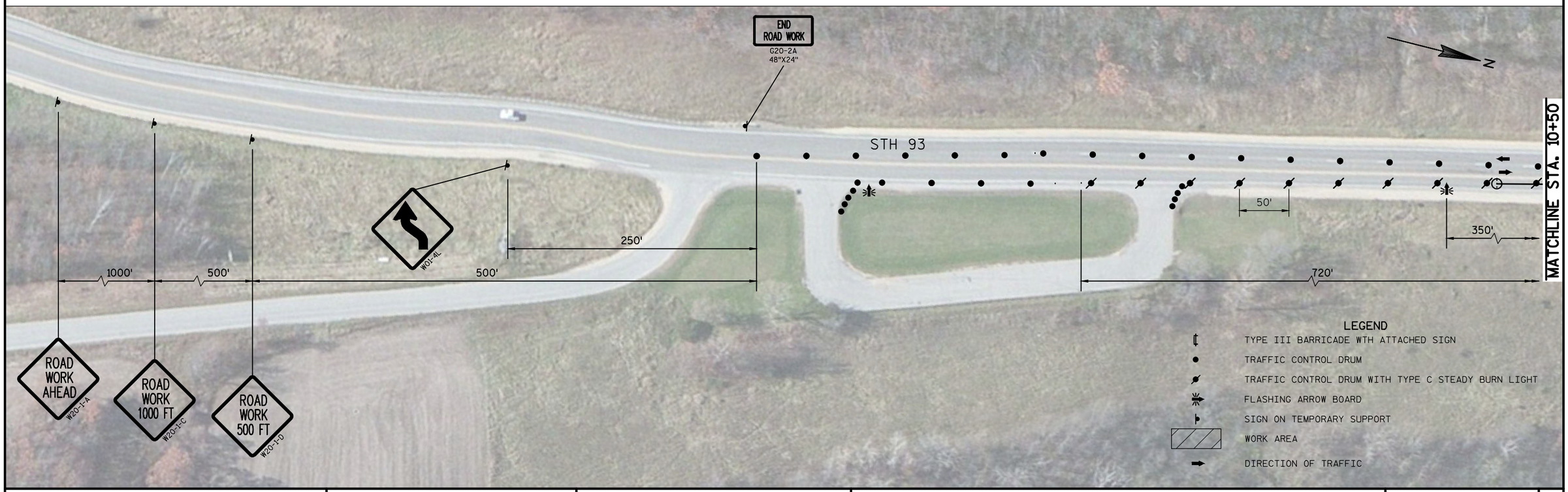


TRAFFIC CONTROL TYPICAL SECTION

TRAFFIC CONTROL NOTES

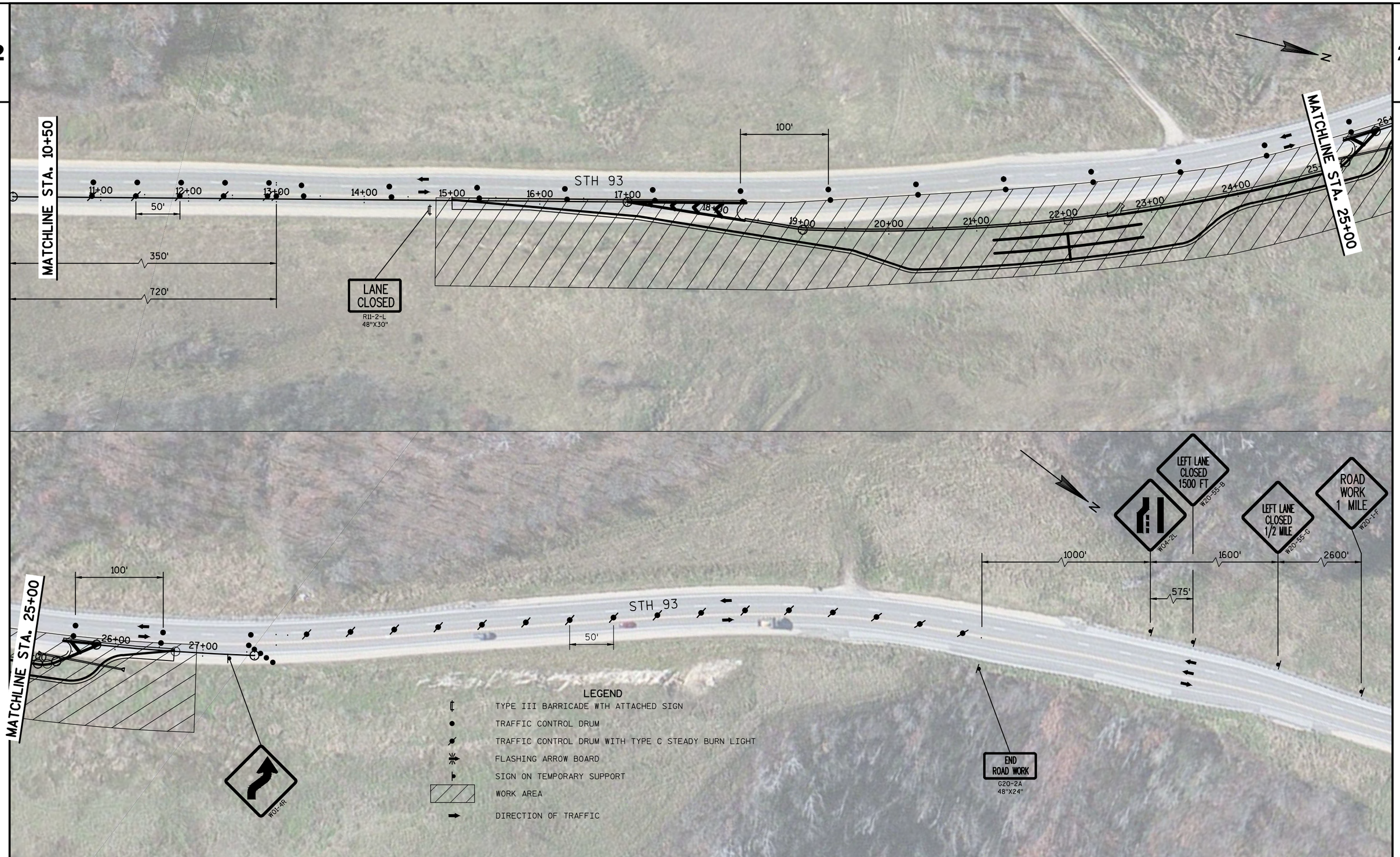
LANE CLOSURE CAN ONLY OCCUR DURING WORKING HOURS. LANE MUST BO OPENED AT THE END OF EACH WORKING DAY.

LANE CLOSURE IS ONLY REQUIRED WHEN WORKING WITHIN 15' OF THE TRAVEL LANE.



PROJECT NO: 7130-01-74	HWY: STH 93	COUNTY: TREMPEALEAU	TRAFFIC CONTROL	SHEET 7	E

2



PROJECT NO: 7130-01-74	HWY: STH 93	COUNTY: TREMPEALEAU	TRAFFIC CONTROL	SHEET 8	E

DATE 22MAR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7130-01-74 QUANTITY
0170	205.0100	Excavation Common	CY	4,700.000	4,700.000
0180	205.0200	Excavation Rock	CY	2,270.000	2,270.000
0220	213.0100	Finishing Roadway (project) 02. 7130-01-74	EACH	1.000	1.000
0230	305.0110	Base Aggregate Dense 3/4-Inch	TON	240.000	240.000
0240	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,950.000	2,950.000
0250	306.0115	Salvaged Asphaltic Pavement Base	CY	1,400.000	1,400.000
0270	455.0605	Tack Coat	GAL	175.000	175.000
0310	465.0105	Asphaltic Surface	TON	1,000.000	1,000.000
0330	465.0315	Asphaltic Flumes	SY	15.000	15.000
0370	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	1.000	1.000
0410	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	415.000	415.000
0480	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	94.000	94.000
0530	611.0642	Inlet Covers Type MS	EACH	1.000	1.000
0560	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0600	618.0100	Maintenance And Repair of Haul Roads (project) 02. 7130-01-74	EACH	1.000	1.000
0610	619.1000	Mobilization	EACH	0.500	0.500
0620	624.0100	Water	MGAL	46.000	46.000
0630	625.0100	Topsoil	SY	5,100.000	5,100.000
0670	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0680	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0690	628.2008	Erosion Mat Urban Class I Type B	SY	6,300.000	6,300.000
0700	628.7005	Inlet Protection Type A	EACH	1.000	1.000
0730	628.7504	Temporary Ditch Checks	LF	45.000	45.000
0760	629.0210	Fertilizer Type B	CWT	3.000	3.000
0770	630.0120	Seeding Mixture No. 20	LB	150.000	150.000
0820	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	5.000	5.000
0850	637.2210	Signs Type II Reflective H	SF	25.250	25.250
0870	637.2230	Signs Type II Reflective F	SF	9.000	9.000
0890	638.2602	Removing Signs Type II	EACH	1.000	1.000
0900	638.3000	Removing Small Sign Supports	EACH	1.000	1.000
0930	643.0100	Traffic Control (project) 02. 7130-01-74	EACH	1.000	1.000
0940	643.0300	Traffic Control Drums	DAY	1,450.000	1,450.000
0950	643.0420	Traffic Control Barricades Type III	DAY	7.000	7.000
0990	643.0715	Traffic Control Warning Lights Type C	DAY	315.000	315.000
1000	643.0800	Traffic Control Arrow Boards	DAY	14.000	14.000
1010	643.0900	Traffic Control Signs	DAY	384.000	384.000
1030	646.0106	Pavement Marking Epoxy 4-Inch	LF	1,490.000	1,490.000
1040	646.0126	Pavement Marking Epoxy 8-Inch	LF	730.000	730.000
1050	646.0600	Removing Pavement Markings	LF	460.000	460.000
1130	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	80.000	80.000
1210	650.4000	Construction Staking Storm Sewer	EACH	2.000	2.000
1220	650.4500	Construction Staking Subgrade	LF	1,170.000	1,170.000
1230	650.5000	Construction Staking Base	LF	2,340.000	2,340.000
1240	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	415.000	415.000
1290	650.9910	Construction Staking Supplemental Control (project) 02. 7130-01-74	LS	1.000	1.000
1300	650.9920	Construction Staking Slope Stakes	LF	1,170.000	1,170.000
1710	690.0150	Sawing Asphalt	LF	470.000	470.000

3

EARTHWORK

From/To Station	Location	Excavation Common (1) (item # 205.0100)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Rock Excavation (6)	Expanded Rock (7)	Unexpanded Fill	Expanded Fill (8)	Mass Ordinate +/- (9)	Waste	Borrow	Comment:
		Cut (2)	EBS Excavation (3)			(item #205.0200)	Factor 1.10		Factor 1.25			(item #208.0100)	
15+00 - 26+67	BRAKE CHECK	4,700	0	0	4,700	2,270	2,500	450	-2,550	7,250	7,250	0	
Grand Total		4,700	0	0	4,700	2,270	2,500	450	-2,550	7,250	7,250	0	
		Total Exc Common	4,700								Total Borrow	0	

1) Excavation Common is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Subbase Material
4) Salvaged/Unusable Pavement Material = Existing Asphalt
5) Available Material = Cut - Salvaged/Unusable Pavement Material
6) Rock Excavation item number 205.0200
7) Expanded Rock - Factor = 1.1.
8) Expanded Fill. Factor = 1.25 **Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor**
Depending on selections: Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced EBS) * Fill Factor
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh) * Fill Factor
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor) * Fill Factor

9) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division.
Minus indicates a shortage of material within the Division.

BASE AGGREGATE DENSE

STATION	-	STATION	LOCATION	305.0110 3/4-INCH TONS	305.0120 1 1/4-INCH TONS	* 306.0115 SALVAGED ASPHALTIC PAVEMENT BASE CY
15+00		26+67	RT	160	2,300	1150
15+00		26+67	LT	--	650	250
22+50		25+50	LT	80	--	--
PROJECT 7130-01-74 TOTAL				240	2,950	1,400

* THIS MATERIAL TO BE SALVAGED FROM PROJECT ID 7130-01-72

ASPHALT PAVEMENT ITEMS

STATION	-	STATION	LOCATION	465.0105 ASPHALTIC SURFACE TONS	465.0315 ASPHALTIC FLUMES SY	455.0605 TACK COAT GAL
15+00	-	26+67	STH 93 BRAKE CHECK	1,000	--	175
22+50	-	22+70	LT	--	15	--
			PROJECT 7130-01-74 TOTAL	1,000	15	175

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

STORM SEWER

STATION	LOCATION	522.1018 APRON EDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	611.0642 INLET COVERS TYPE MS EACH	611.3901 INLETS MEDIAN 1 GRATE EACH
25+10	LT	--	--	1	1
25+40	CROSS	1	94	--	--
PROJECT 7130-01-74 TOTAL		1	94	1	1

LANDSCAPING

STATION	-	STATION	LOCATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB
15+00	-	26+67	RT	3,900	2	85
18+25	-	25+50	LT	1,150	1	35
		UNDISTRIBUTED		50	--	30
			PROJECT 7130-01-74 TOTALS	5,100	3	150

EROSION CONTROL

STATION	-	STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7005 INLET PROTECTION TYPE A EACH	628.7504 TEMPORARY DITCH CHECKS LF
15+00	-	26+67	RT	--	--	3,900	--	--
18+25	-	25+50	LT	--	--	1,150	2	35
		UNDISTRIBUTED		2	2	1,250	--	10
		PROJECT 7130-01-74 TOTALS		2	2	6,300	2	45

WATER

STATION	-	STATION	LOCATION	624.0100 WATER MGAL
15+00	-	26+67	BRAKE CHECK	46
PROJECT 7130-01-74 TOTAL				46

CONCRETE CURB & GUTTER

STATION	-	STATION	LOCATION	601.0411 CONCRETE CURB & GUTTER 30-IN TYPE D LF
18+35	-	22+50	LT	415
			PROJECT 7130-01-74 TOTALS	415

PERMANENT SIGNING

SIGN NO.	STATION	OFFSET	SIGN CODE	SIGN SIZE IN x IN	634.0616 POSTS WOOD 4X6-INCH 16 FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
1		RT	CUSTOM	36 X 42	1	10.50	--	--	--
2	14+95	RT	CUSTOM	30 X 42	1	8.75	--	--	--
3	TBD	RT	CUSTOM	54 X 24	2	--	9.00	--	--
4	21+15	RT	CUSTOM	36 X 24	1	6.00	--	--	--
	24+50	LT	UNK	--	--	--	--	1	1
			PROJECT 7130-01-74 TOTALS		5	25.25	9.00	1	1

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

PAVEMENT MARKING

STATION	-	STATION	LOCATION	646.0106 EPOXY 4-INCH LF	646.0126 EPOXY 8-INCH LF	646.0600 REMOVING PAVEMENT MARKINGS LF	647.0726 DIAGONAL EPOXY 12-INCH LF	COMMENTS
15+00	-	18+35	LT	--	--	335	--	EXISTING EDGELINE
15+00	-	26+67	RT	1,200	--	--	--	EDGLINE
17+00	-	18+35	LT	--	270	--	60	GORE AREA
21+00	-	22+80	RT	--	370	--	--	PARKING AREA
22+50	-	25+40	LT	290	--	--	--	EDGELINE
25+40	-	25+80	LT	--	90	--	20	GORE AREA
25+50	-	26+67	LT	--	--	125	--	EXISTING EDGELINE
		PROJECT 7130-01-74 TOTALS		1,490	730	460	80	

TRAFFIC CONTROL

STAGE	LOCATION	DAYS IN SERVICE	643.0100 PROJECT 7130-01-74 EACH	643.0300 DRUMS NO.	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III NO.	643.0420 BARRICADES TYPE III DAYS	643.0715 WARNING LIGHTS TYPE C NO.	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS NO.	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS NO.	643.0900 SIGNS DAYS
LANE SHIFT	STH 93	7	0.5	100	700	1	7	45	315	2	14	12	84
SHOULDER CLOSURE	STH 93	30	0.5	25	750	0	0	0	0	0	0	10	300
PROJECT 7130-01-74 TOTAL			1		1,450		7		315		14		384

SAWING ASPHALT

STATION	-	STATION	LOCATION	690.0150 SAWING ASPHALT LF
15+00	-	18+35	LT	340
25+45	-	26+67	LT	130
		PROJECT 7130-01-74 TOTALS		470

CONSTRUCTION STAKING

STATION	-	STATION	LOCATION	650.4000 STORM SEWER EACH	650.4500 SUBGRADE LF	650.5000 BASE LF	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.9910 SUPPLEMENTAL CONTROL LS	650.992 SLOPE STAKES LF
15+00	-	26+67	STH 93 BRAKE CHECK	--	1,170	2,340	--	1	1170
18+35	-	25+50	LT	--	--	--	415	--	--
25+40			CROSS	2	--	--	--	--	--
PROJECT 7130-01-74 TOTALS				2	1,170	2,340	415	1	1,170

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 0010

PI 15+00.00
Y=383449.29
X=817943.50

PI 17+00.00
Y=383643.62
X=817896.21

PC 19+02.03
Y=383844.84
X=817878.11

LEGEND

EROSION MAT URBAN CLASS I TYPE B

xxxxxxxx SAWCUT

N

PI 15+00.00

PI 17+00.00

PC 19+02.03

STH 93

15+00

16+00

17+00

N13°40'41"W

15'

18+00

N5°08'18"W

19+00

20+00

21+

SLOPE INTERCEPT

MATCHLINE STA. 21+00

STA 15+00.00
BEGIN PROJECT
7130-01-74
Y=383449.291
X=817943.501

ASPHALT

45'

R/W

SLOPE INTERCEPT

5

5

1230

1220

1216

-1.16%

-1.32%

-4.00%

VCL = 175.00

VCL = 50.00

VCL = 190.00

STA 15+00.00
EL 1230.36

VPC STA 15+75.00
VPC EL 1229.49

VPI STA 16+00.00
VPI EL 1229.20

VPT STA 16+25.00
VPT EL 1228.87

VPC STA 17+12.69
VPC EL 1227.72

VPI STA 18+07.69
VPI EL 1226.47

VPT STA 19+02.69
VPT EL 1222.67

VPC STA 19+08.08
VPC EL 1222.45

VPI STA 19+95.58
VPI EL 1218.95

VPT STA 20+83.08
VPT EL 1218.60

EXISTING GROUND @ REFERENCE LINE

PROPOSED GRADE @ REFERENCE LINE

1230.36	1229.78	1229.19	1228.54	1227.89	1227.88
1226.76	1227.13	1225.36	1226.03	1223.83	1224.58
1223.30	1222.77	1222.94	1220.96	1222.37	1219.64
1221.77	1218.85	1221.06	1218.53		
15	16	17	18	19	20	21

PROJECT NO: 7130-01-74	HWY: STH 93	COUNTY: TREMPEALEAU	PLAN AND PROFILE: BRAKE CHECK	SHEET 13 E

PI 22+07.09
Y=384143.315
X=817815.100
DELTA=17°05'01"
D=02°49'16"
T=305.05'
L=605.58'
R=2031.04'
PC 19+02.03
PT 25+07.61

LEGEND

EROSION MAT URBAN CLASS I TYPE B

△△△ TEMPORARY DITCH CHECK

XXXXXXXX SAWCUT

INLET PROTECTION TYPE A

PCC 25+07.61
Y=384410.11
X=817667.19

PI 25+18.66
Y=384419.770
X=817661.829
DELTA=30°52'28"
D=143°14'22"
T=11.05'
L=21.55'
R=40.00'
PC 25+07.61
PT 25+29.17

PI 25+29.17
Y=384425.31
X=817652.28

INLET MEDIAN 1 GRATE
W/ MS CASTING
RIM 1211.98
INV 1209.52

PC 25+78.58
Y=384450.11
X=817609.53

PI 26+68.82
Y=384527.026
X=817562.347
DELTA=03°47'43"
D=02°06'13"
T=90.24'
L=180.41'
R=2723.59'
PC 25+78.58
PT 27+58.99

PI 27+58.99
Y=384600.65
X=817510.17

N

MATCHLINE STA. 21+00

SLOPE INTERCEPT

STH 93

22+00 23+00 24+00 25+00 26+00 27+00

PC 25+78.58

PT 25+29.17

PCC 25+07.61

N59°52'44"W

STA 26+10, 25.0' RT

PI 26+68.82

ASPHALT

45'

15'

PI 22+07.09

PI 25+18.66

STA 25+10, 11.9' LT

STA 26+67.34
END CONSTRUCTION
7130-01-74

STA 25+55.46, 10.94 RT (CENTER OF PIPE)
CULVERT PIPE REINFORCED
CONCRETE CLASS IV 18-INCH
APRON ENDWALL REQUIRED
SKEW 34° RHF
INV 1209.05 (NW)
INV 1209.52 (SE)

R/W

5

5

STA 22+50.00
EL 1217.93

-0.40%

0.00%

PROPOSED GRADE @ REFERENCE LINE

EXISTING GROUND @ REFERENCE LINE

-2.27%

VPC STA 22+88.35
VPC EL 1217.93

VPI STA 23+50.85
VPI EL 1217.93

VPT STA 24+13.35
VPT EL 1216.52

STA 26+67.34
EL 1210.76

VCL = 125.00

1220

1210

1207

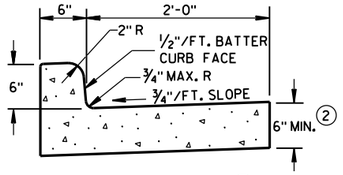
1221.06 1218.53
1220.01 1218.33
1218.89 1218.13
1217.64 1217.93
1216.54 1217.92
1215.93 1217.59
1216.13 1216.80
1213.54 1215.69
1211.88 1214.56
1212.87 1213.42
1212.26 1212.29
1211.14 1211.16
1210.03

21 22 23 24 25 26 27

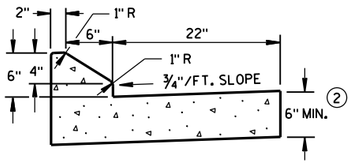
PROJECT NO: 7130-01-74	HWY: STH 93	COUNTY: TREMPEALEAU	PLAN AND PROFILE: BRAKE CHECK	SHEET 14	E

Standard Detail Drawing List

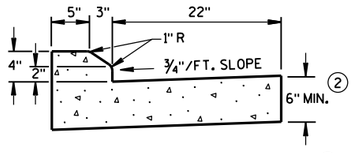
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
15C04-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C18-03	MEDIAN ISLAND MARKING
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



TYPES A & D ①

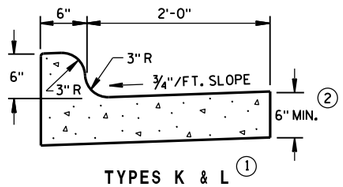


6" SLOPED CURB TYPES G & J ①

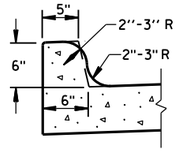


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

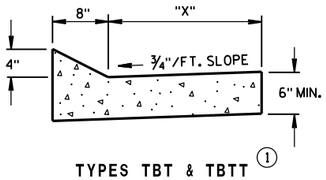


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

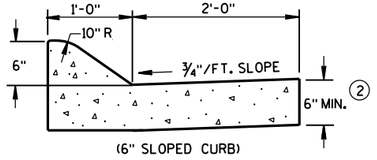
CONCRETE CURB & GUTTER 30"



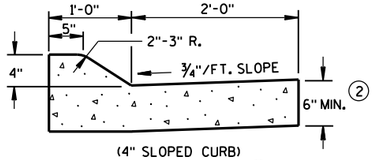
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

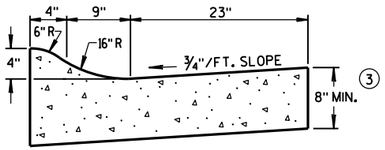


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS 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 & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

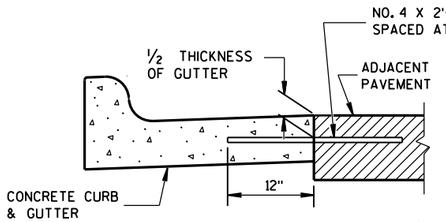
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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.

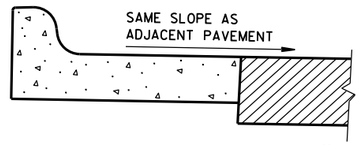
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

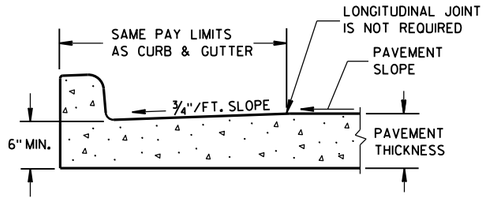
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



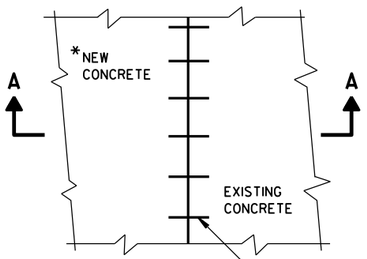
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

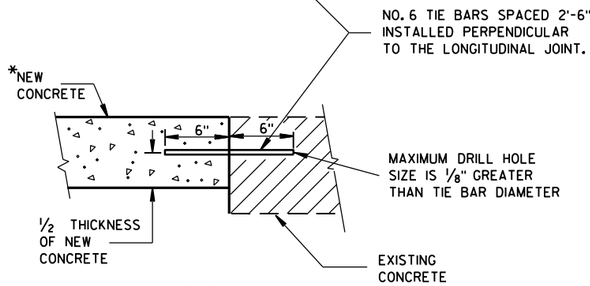


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



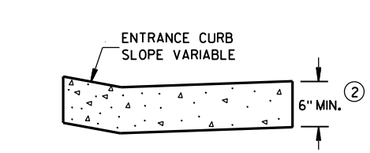
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

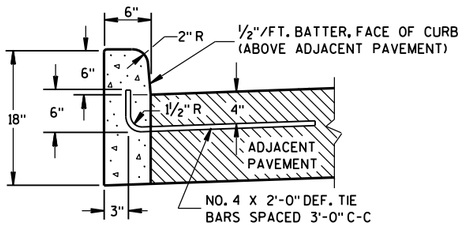


SECTION A-A

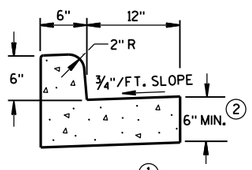
TIE BARS DRILLED
INTO EXISTING PAVEMENT



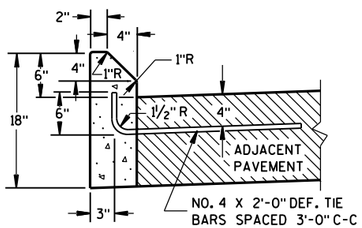
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



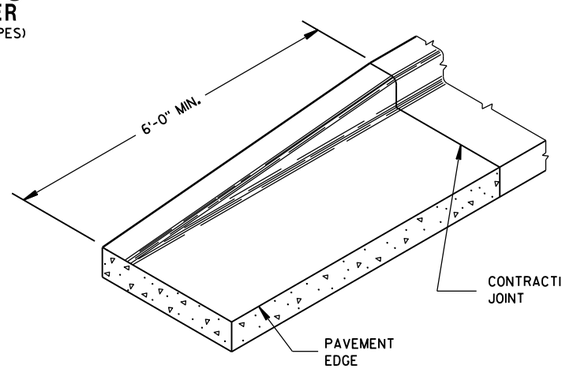
① TYPES A & D



① TYPES A & D
CONCRETE CURB & GUTTER 18"



① TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

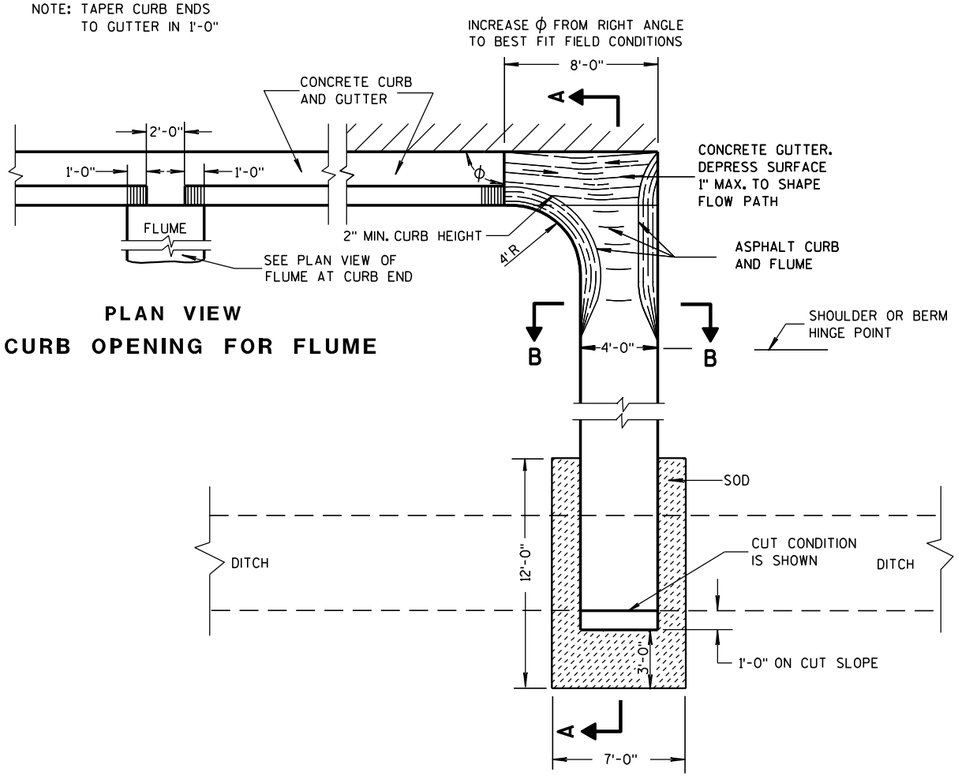
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

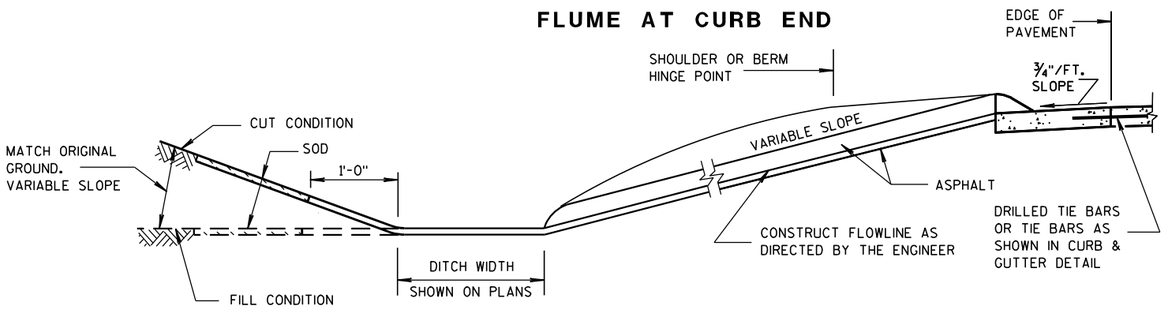
S.D.D. 8 D 1-18

ASPHALTIC FLUME

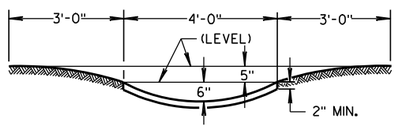


PLAN VIEW
CURB OPENING FOR FLUME

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.

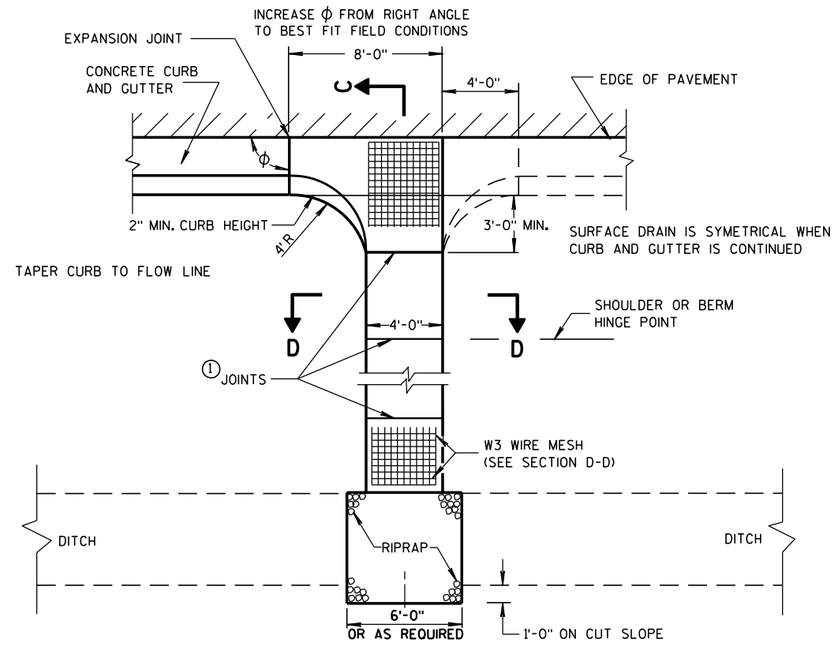
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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

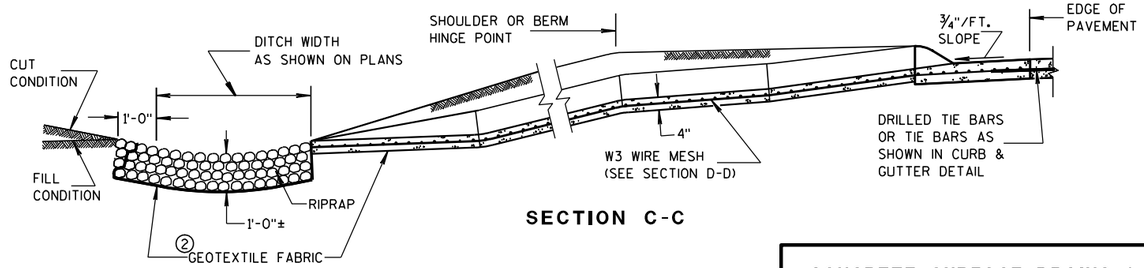
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

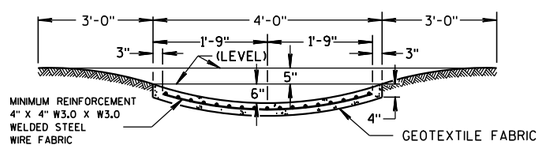
③ CONCRETE SURFACE DRAIN



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

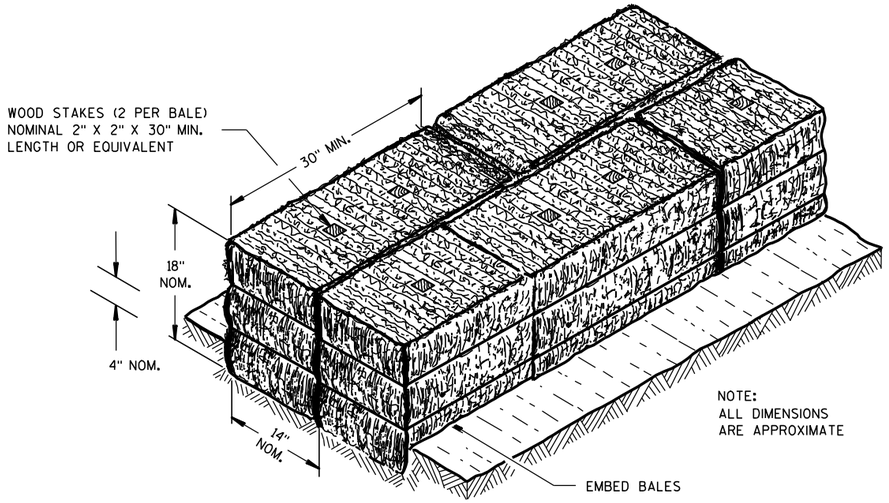
FHWA

6

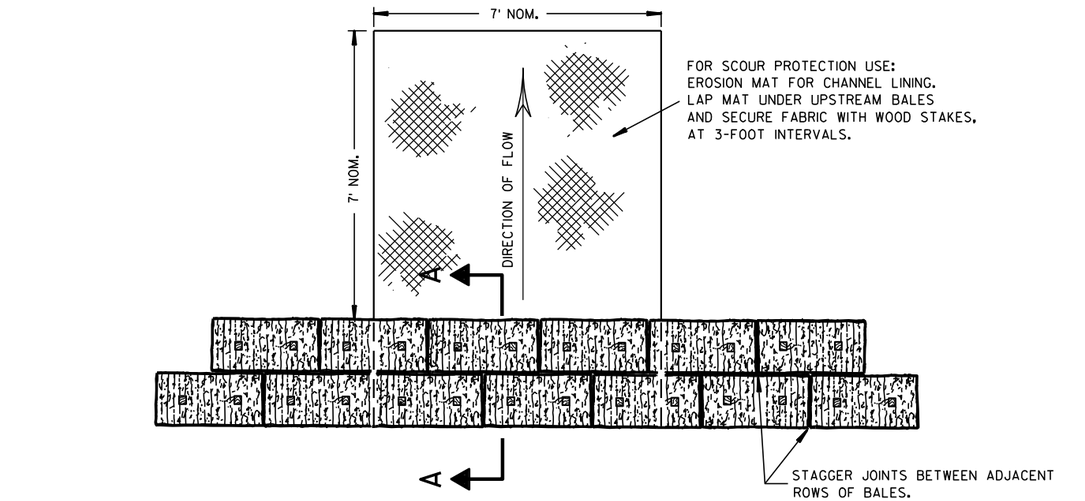
S.D.D. 8 D 4-5

6

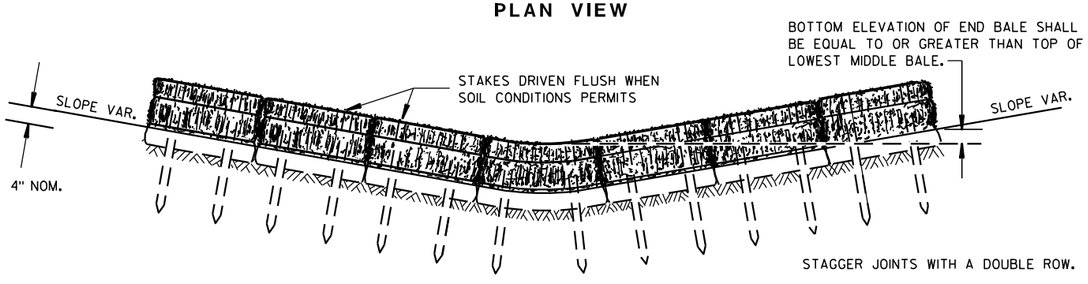
S.D.D. 8 D 4-5



SECTION A-A



PLAN VIEW



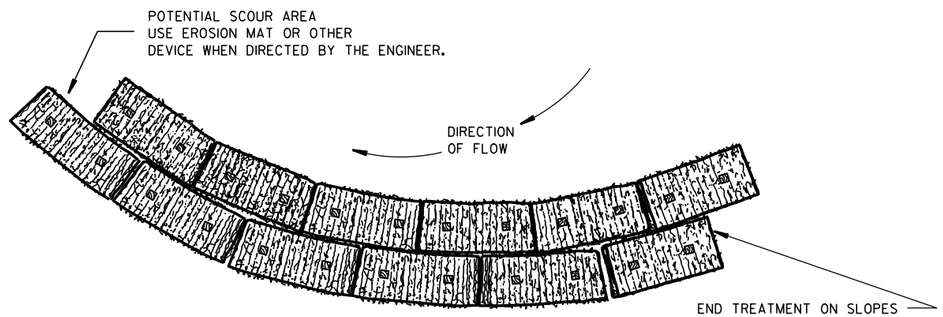
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

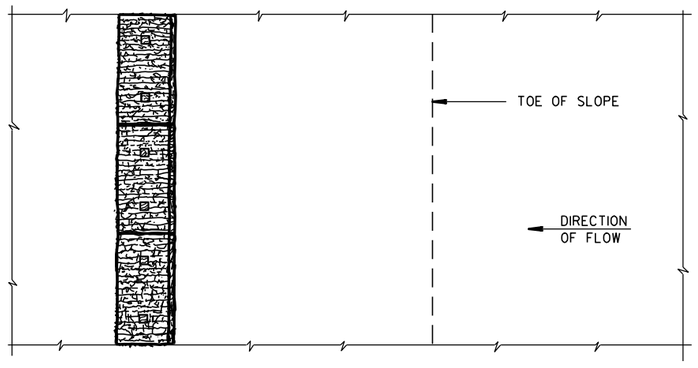
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

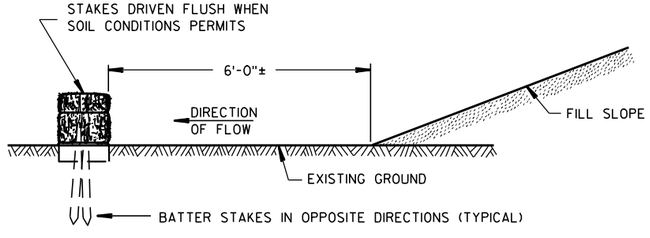


PLAN VIEW

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

METAL APRON ENDWALLS

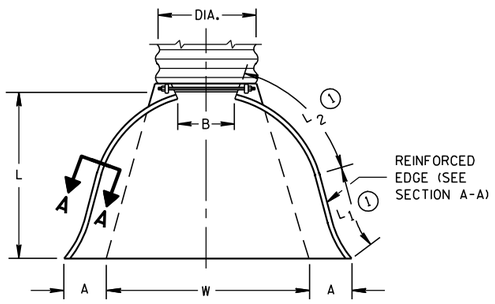
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

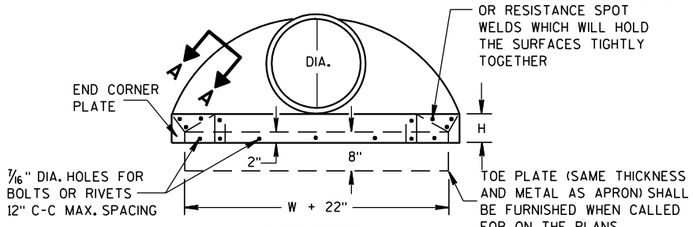
REINFORCED CONCRETE APRON ENDWALLS

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

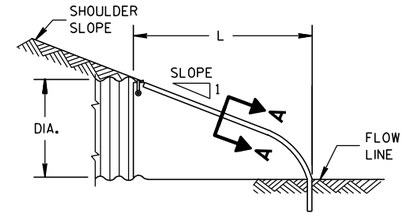
*MINIMUM
**MAXIMUM



PLAN VIEW

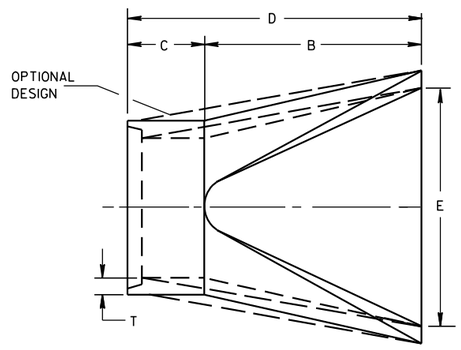


END VIEW

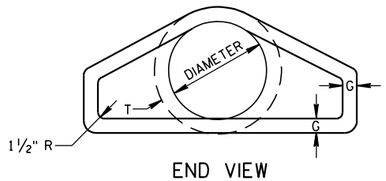


SIDE ELEVATION

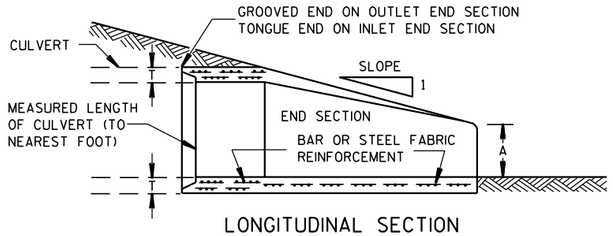
METAL ENDWALLS



PLAN

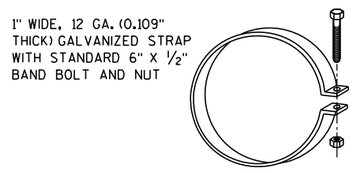


END VIEW



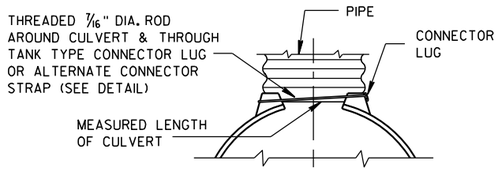
LONGITUDINAL SECTION

CONCRETE ENDWALLS

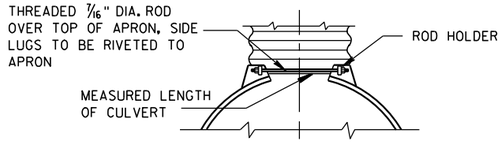


ALTERNATE FOR TYPE 1 CONNECTION

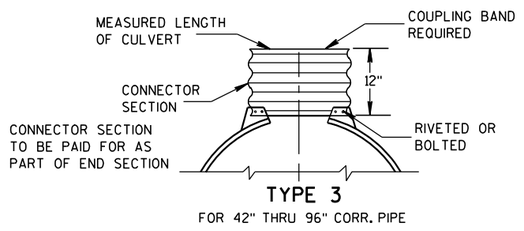
END SECTION CONNECTOR STRAP



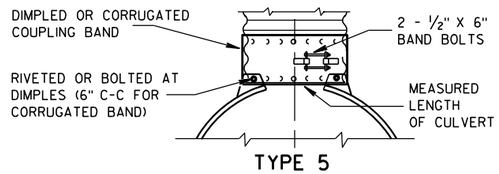
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

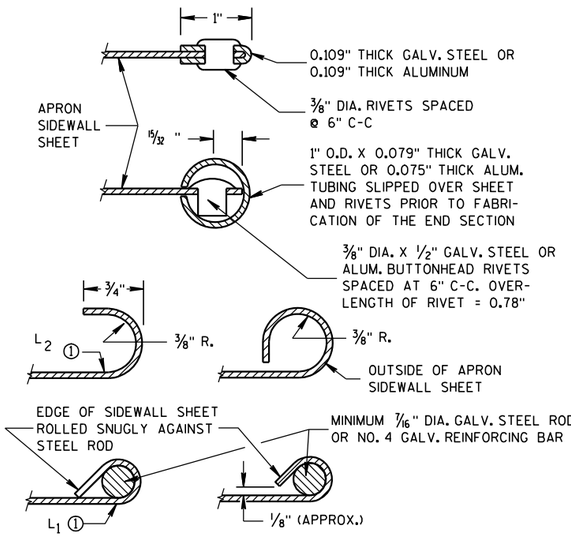
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

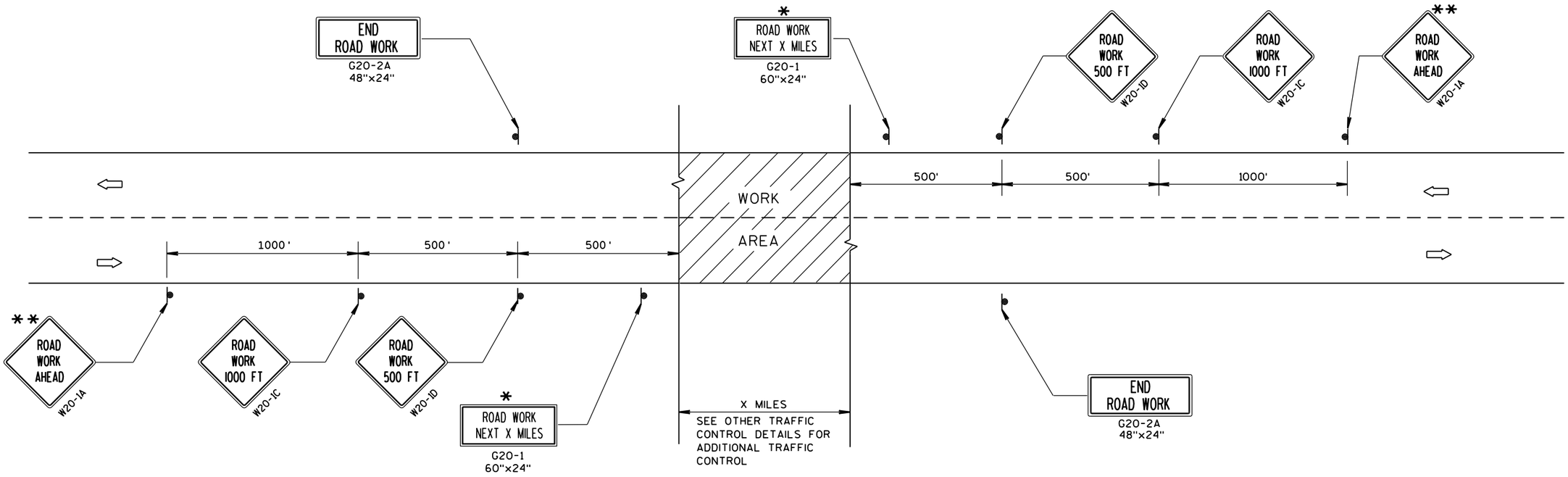
APRON ENDWALLS FOR CULVERT PIPE

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



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

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.

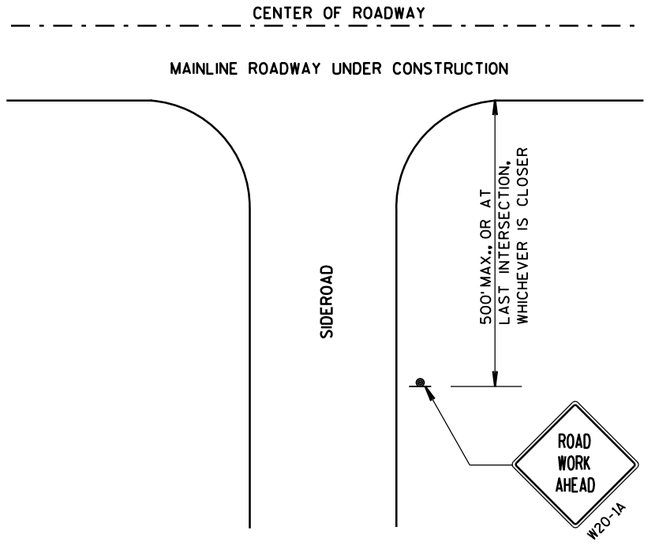
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 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 RE-ESTABLISHED.

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

** PLACE ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

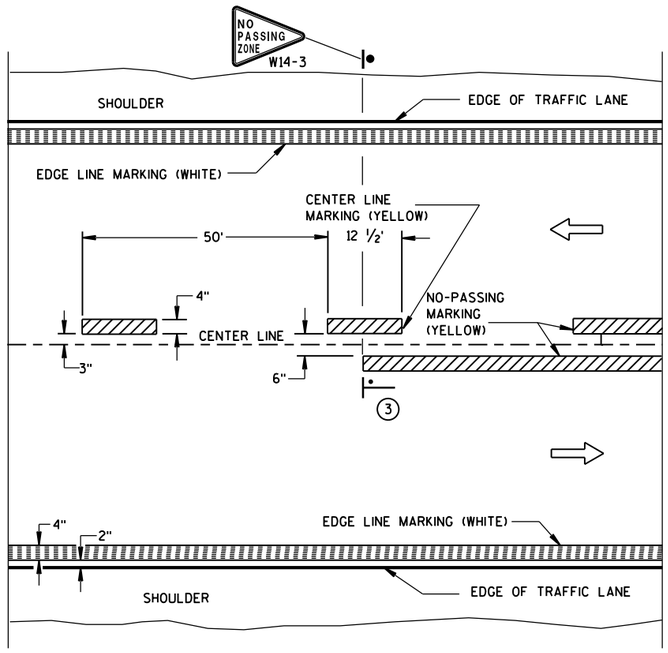
FHWA

6

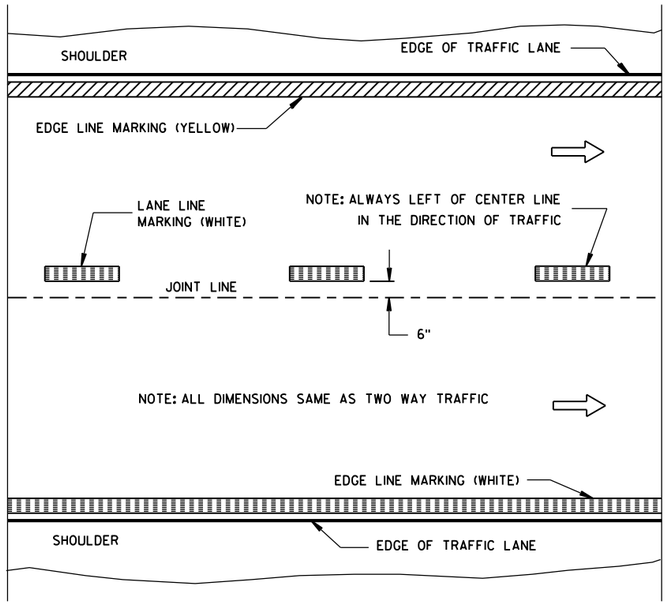
S.D.D. 15 C 4-3

6

S.D.D. 15 C 4-3



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

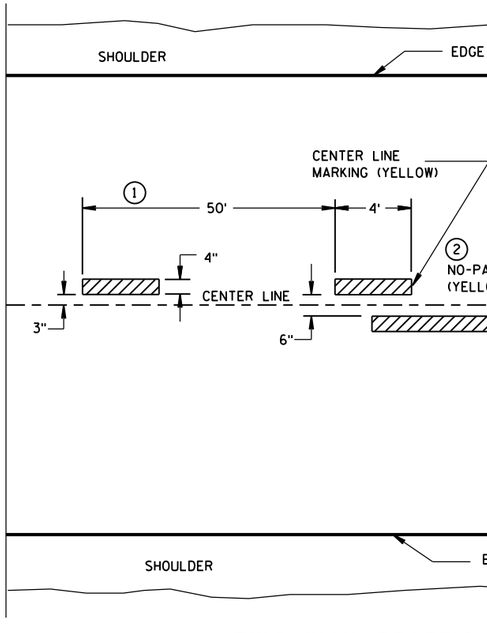
GENERAL NOTES

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

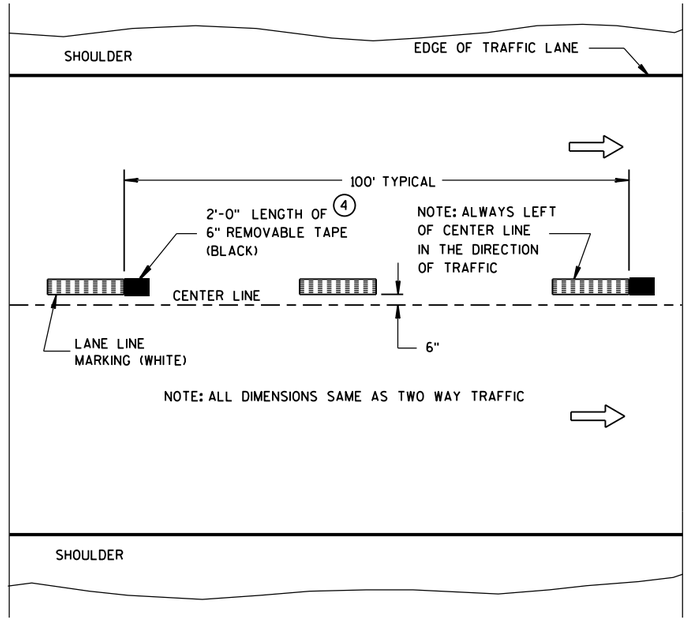
1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



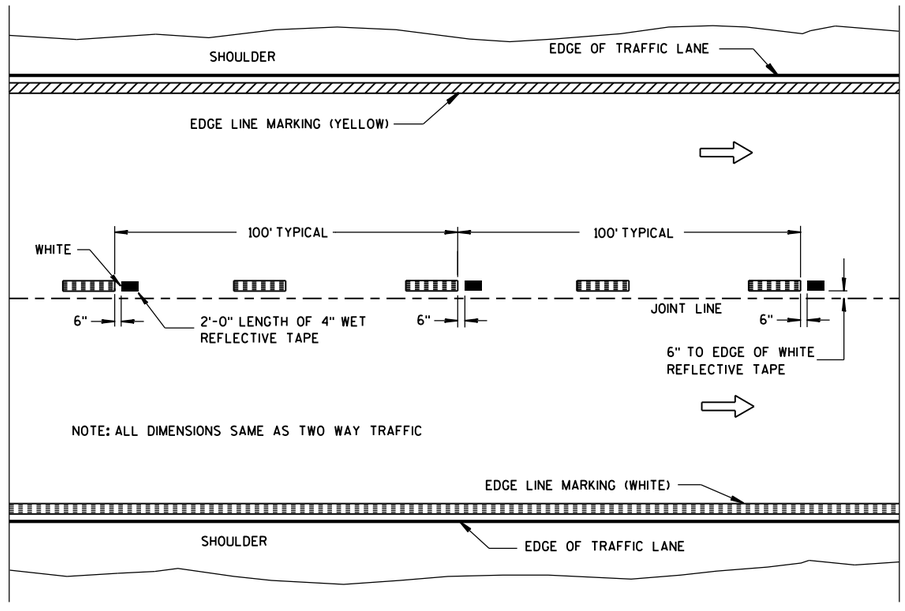
TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

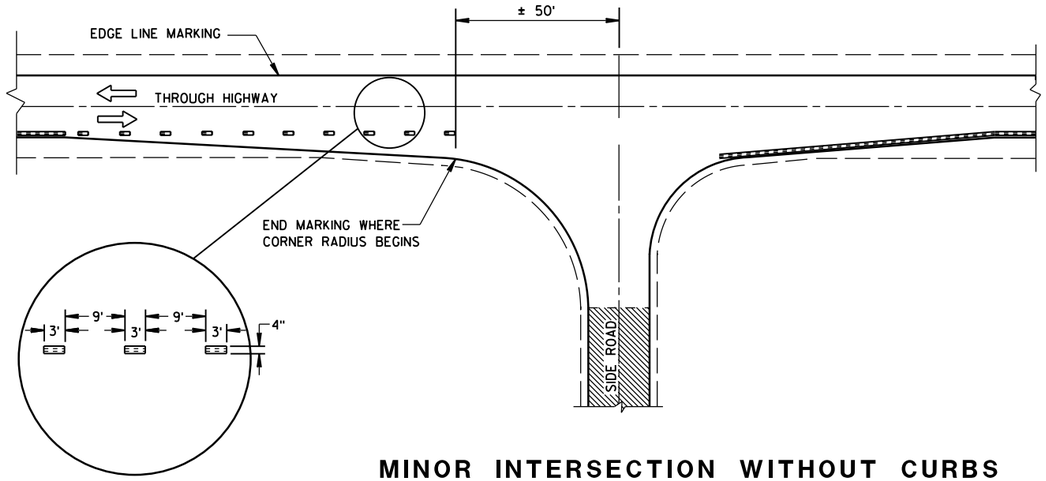
PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

6

S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED 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) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

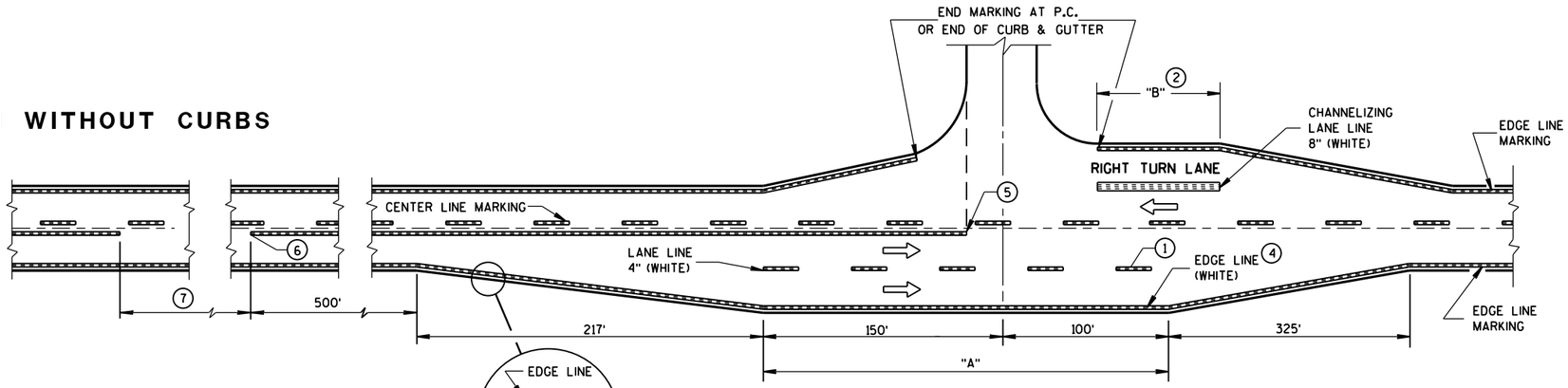
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

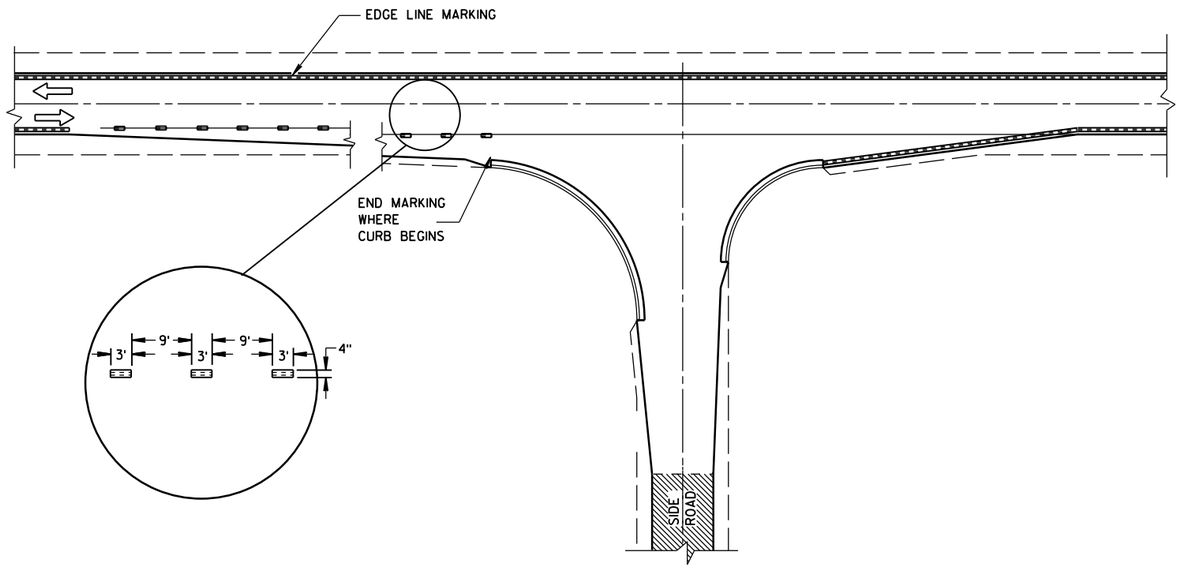
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



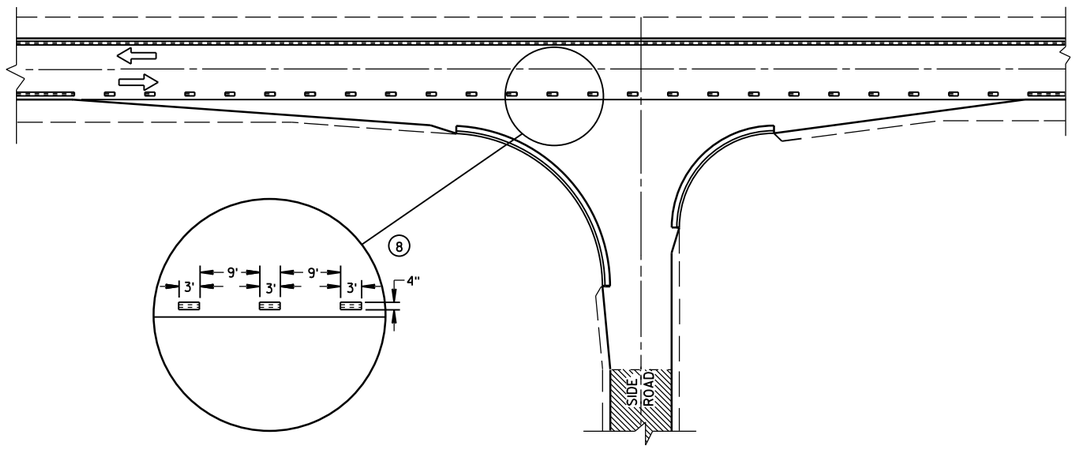
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

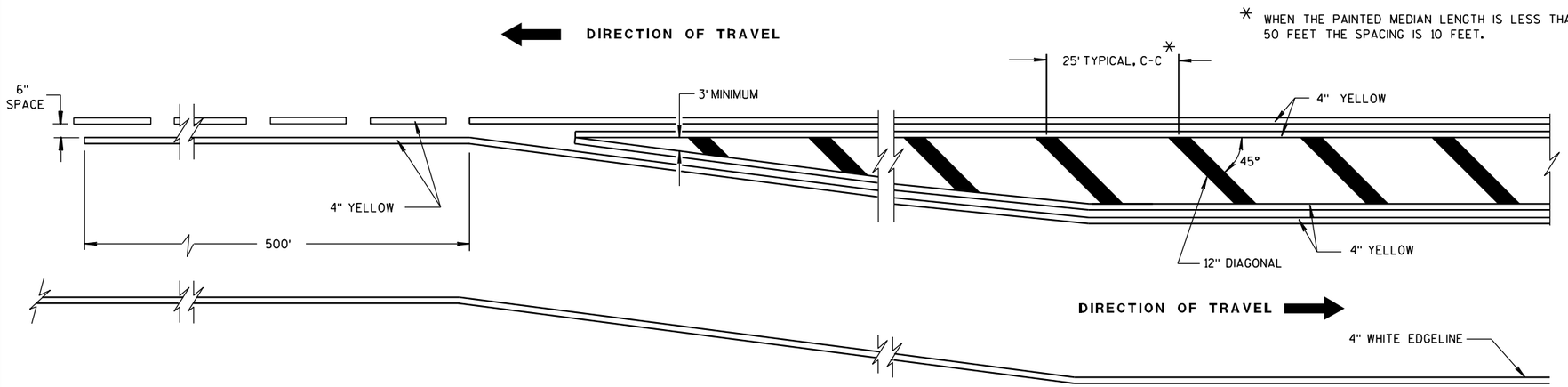
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b

6

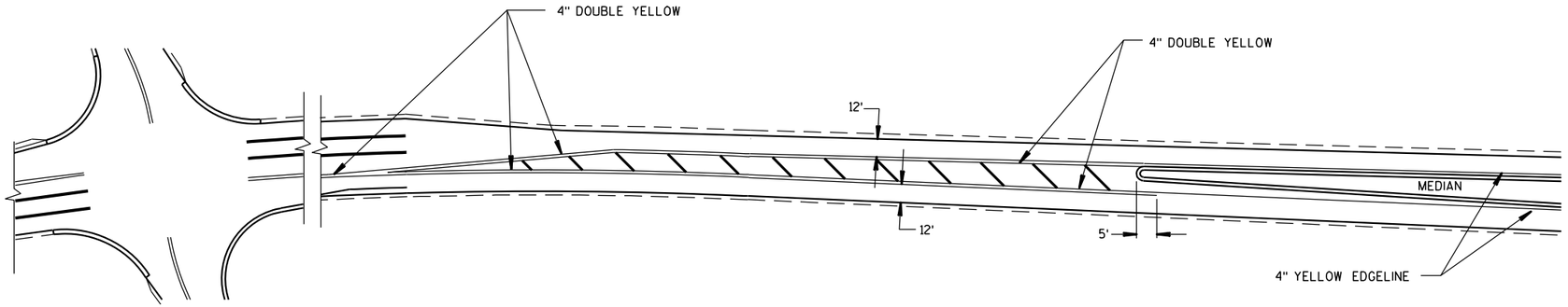
S.D.D. 15 C 8-16b



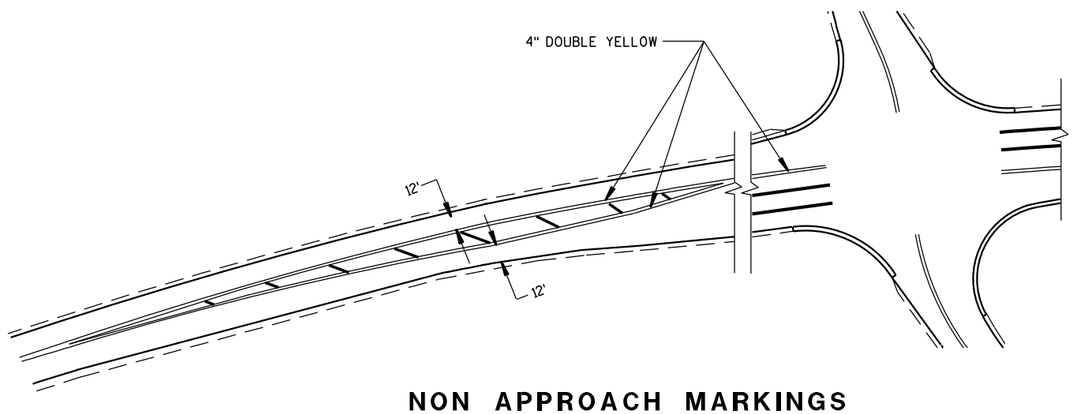
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	

6

S.D.D. 15 C 18-3

6

S.D.D. 15 C 18-3

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.

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

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

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

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

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

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

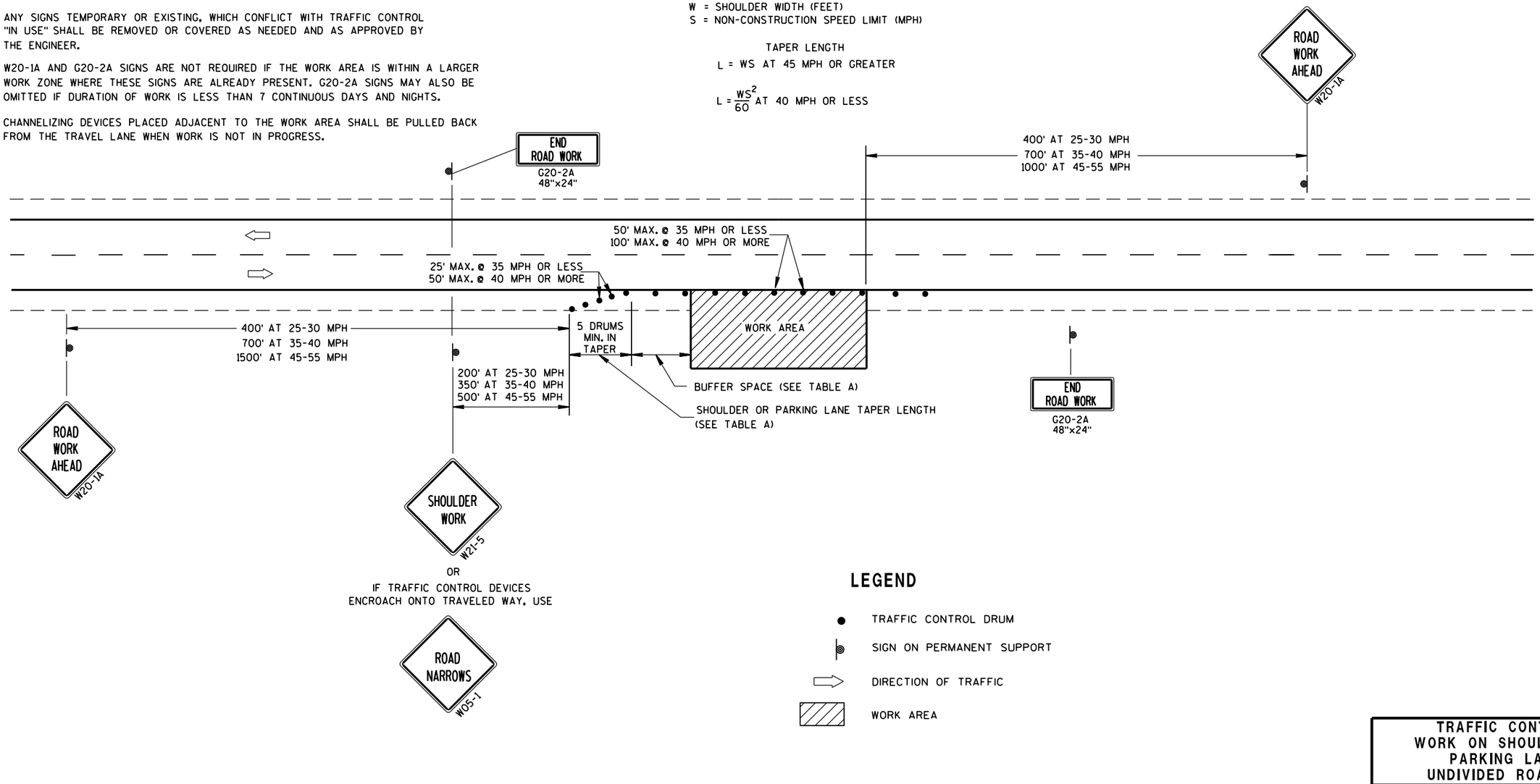
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

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

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible] FIC

FHWA

6

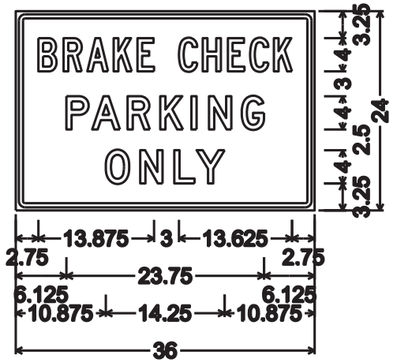
S.D.D. 15 D 28-3

6

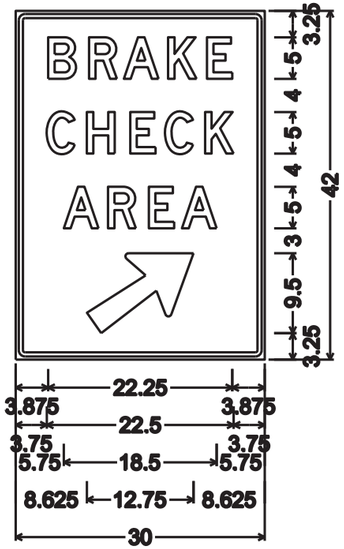
S.D.D. 15 D 28-3

NOTES

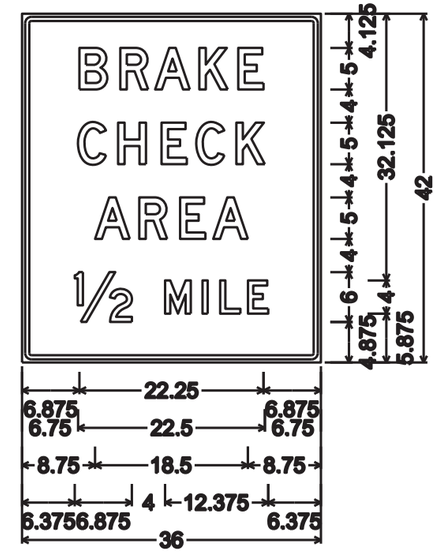
1. All Signs Type II - Type H Reflective except as noted
2. Color:
   Background - White except as noted
   Message - Black
3. Message Series - As noted



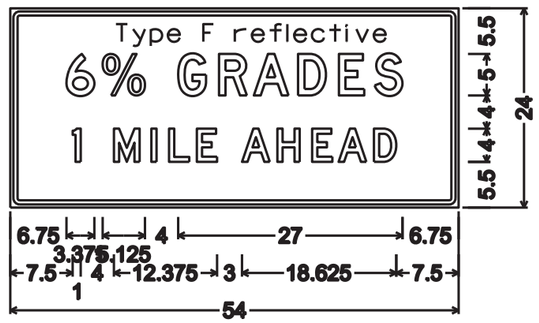
1.125" Radius, 0.500" Border, 0.375" Indent
"BRAKE" C; "CHECK" C;
"PARKING" D; "ONLY" D;



1.125" Radius, 0.500" Border, 0.375" Indent
"BRAKE" D;
"CHECK" D; "AREA" D;
Arrow Custom - 29.250" 35° White;



1.125" Radius, 0.500" Border, 0.375" Indent
"BRAKE" D; "CHECK" D;
"AREA" D; "1/2" D; "MILE" D;



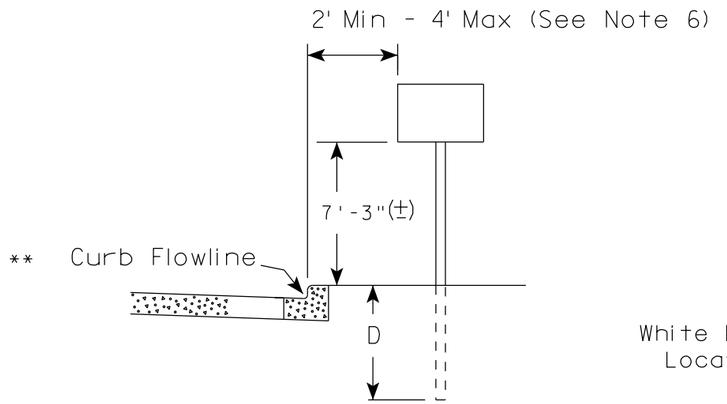
1.125" Radius, 0.500" Border, 0.375" Indent, Black on Fluorescent yellow;
"6%" D; "%"; "GRADES" D; "1" D;
"MILE" D; "AHEAD" D;

7

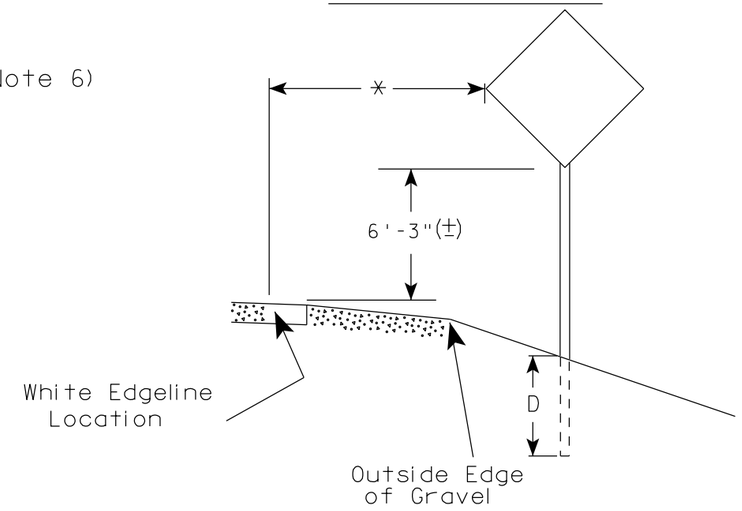
7

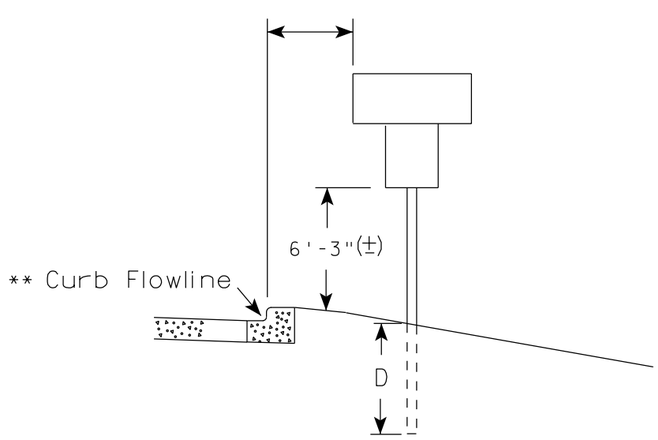
PROJECT NO: 7130-01-74	HWY: STH 93	COUNTY: TREMPEALEAU	PERMANENT SIGNING	SHEET NO:	E

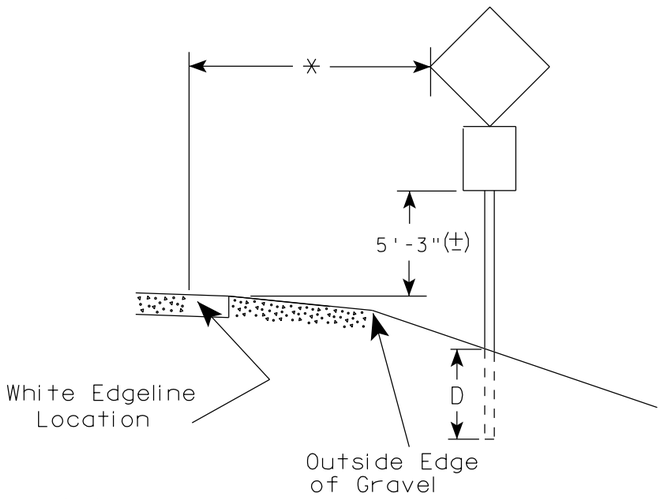
URBAN AREA



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 barrier wall, see A4-10 sign plate.
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 J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. 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), 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" (±).

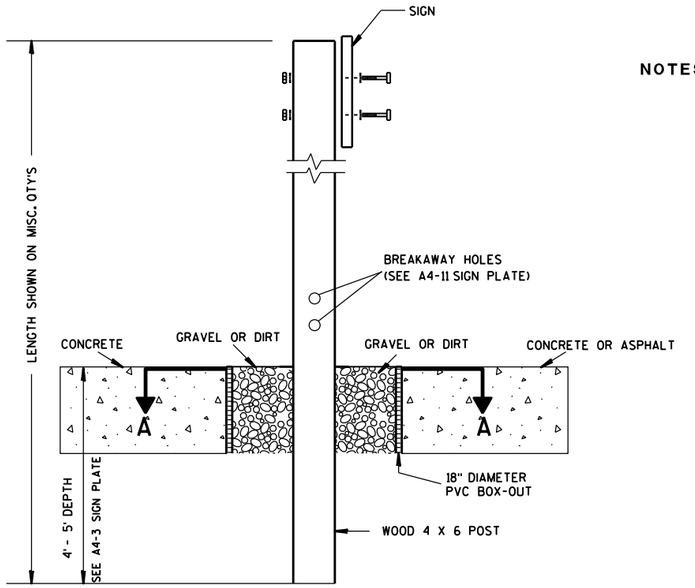
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

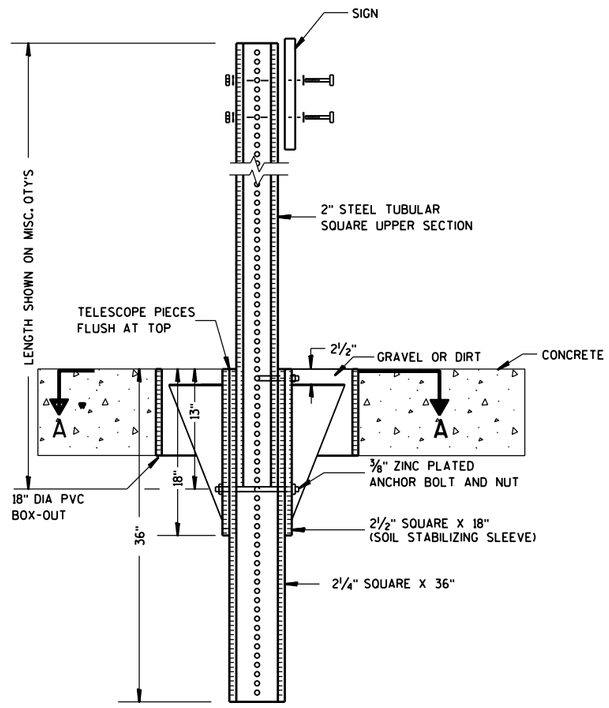
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

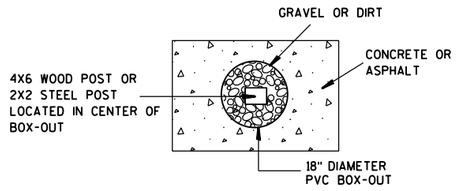
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

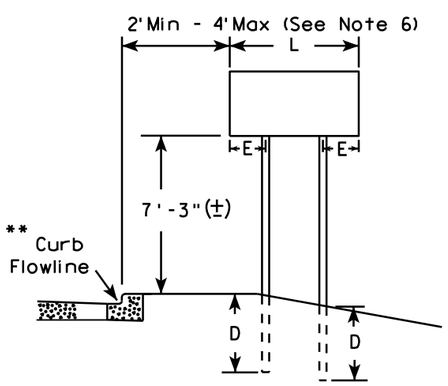
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

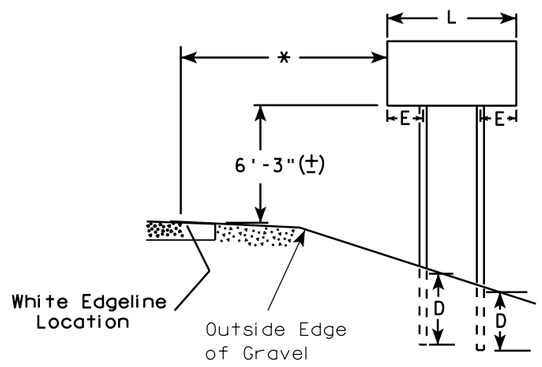
DATE 1/27/14 PLATE NO. A4-3B.1

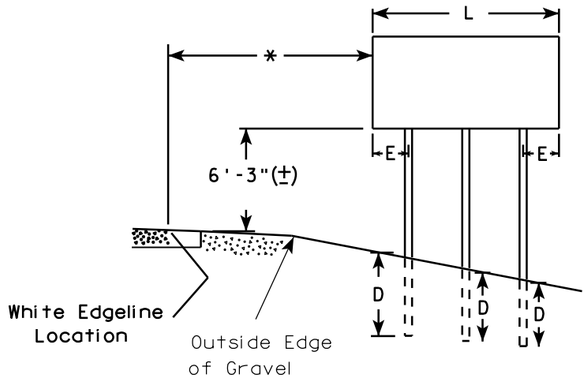
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

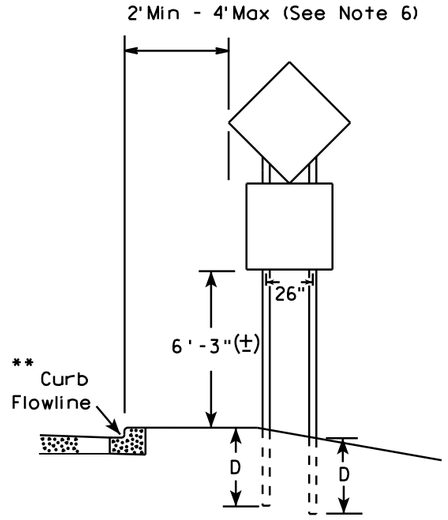
URBAN AREA



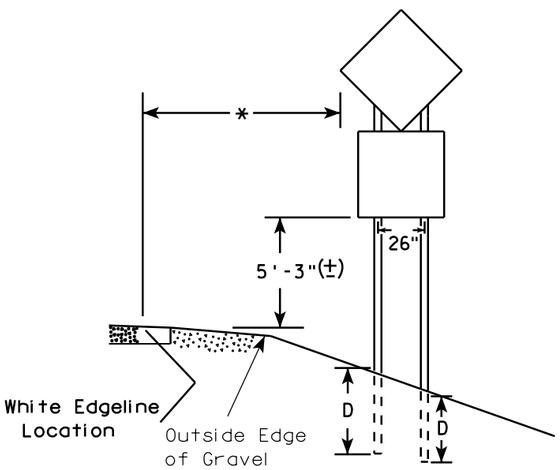
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
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.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

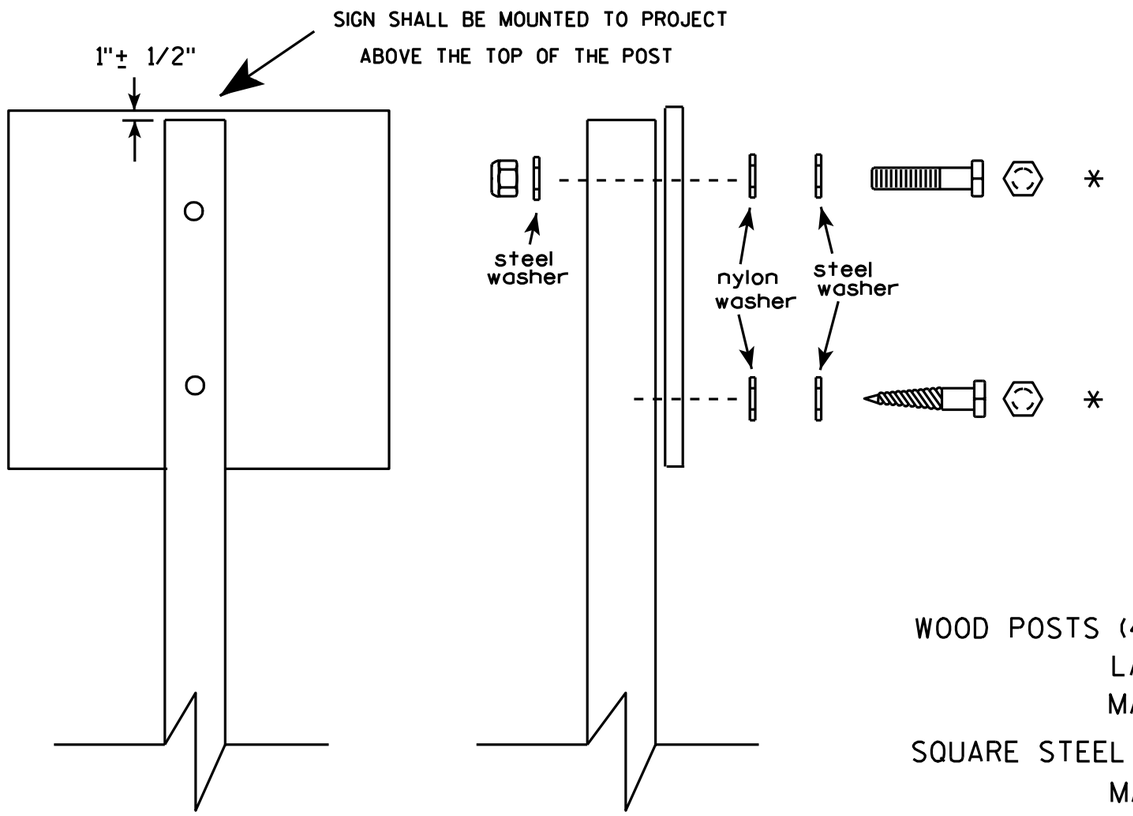
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14
28

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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

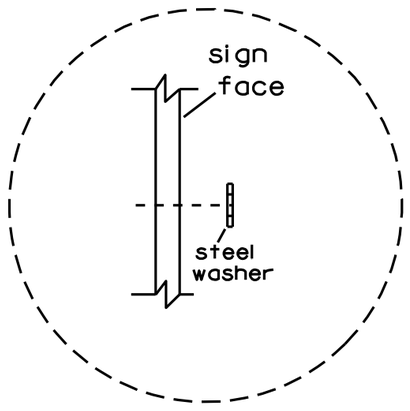
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
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 for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* 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 3/23/10 PLATE NO. A4-8.7

7

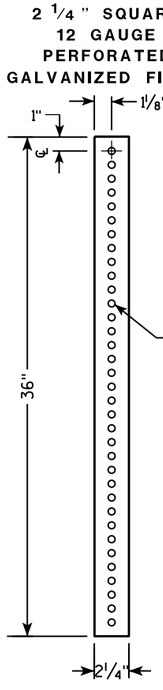
7

PROJECT NO:

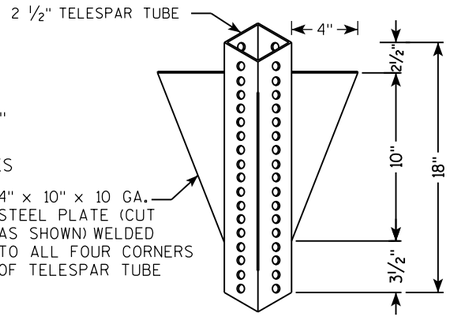
SHEET NO: 29 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

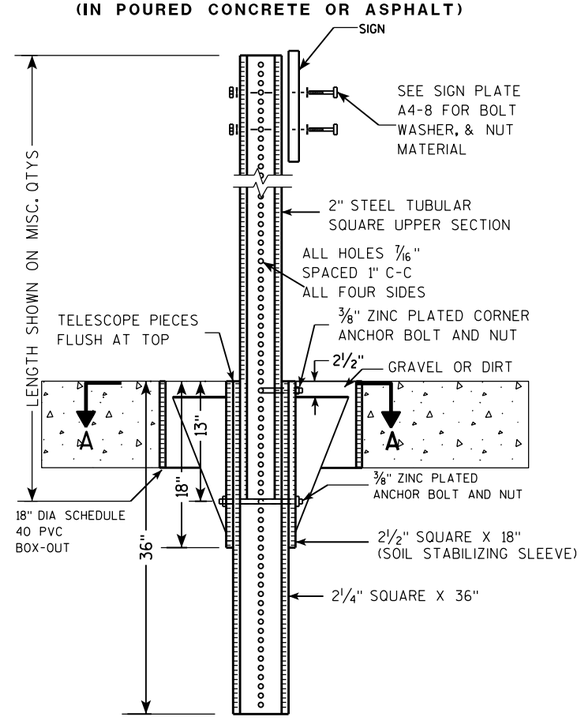
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



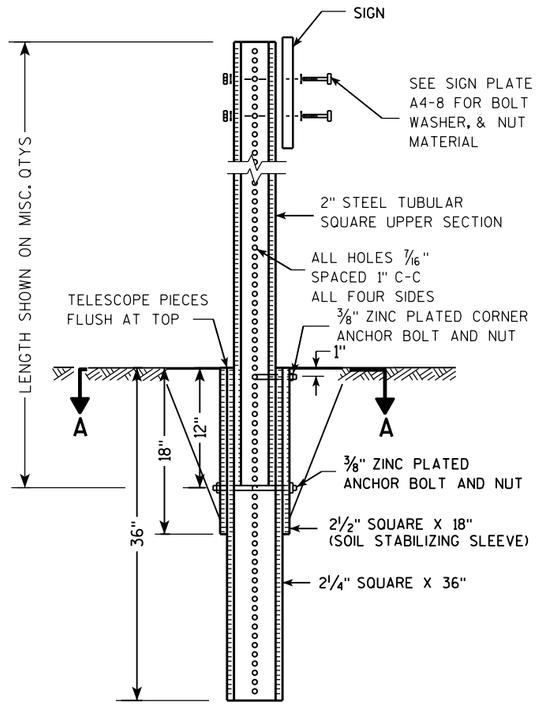
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

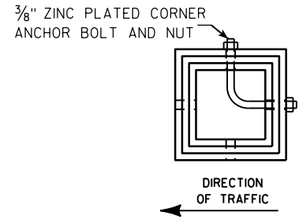


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

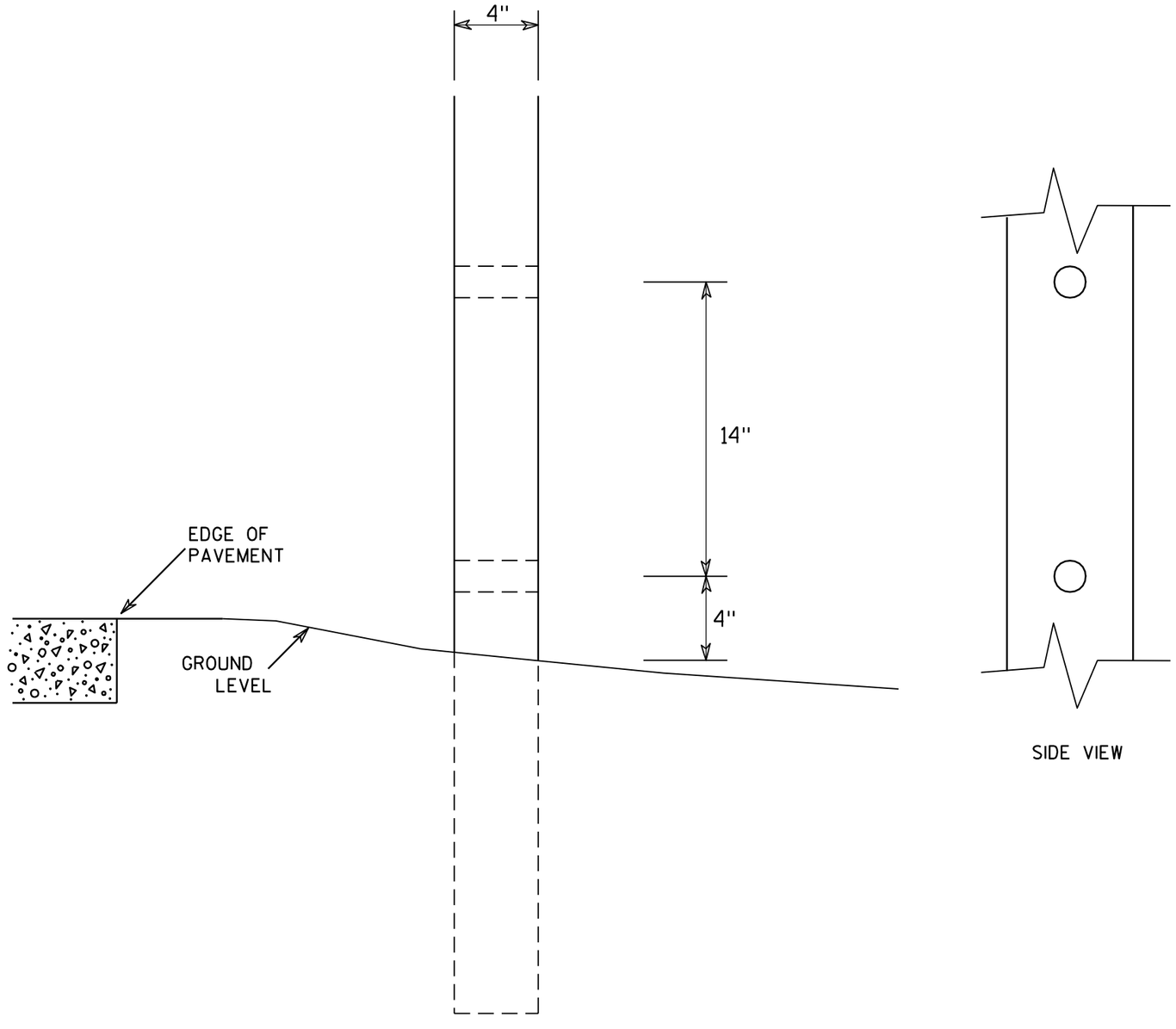
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 30 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.

7

7

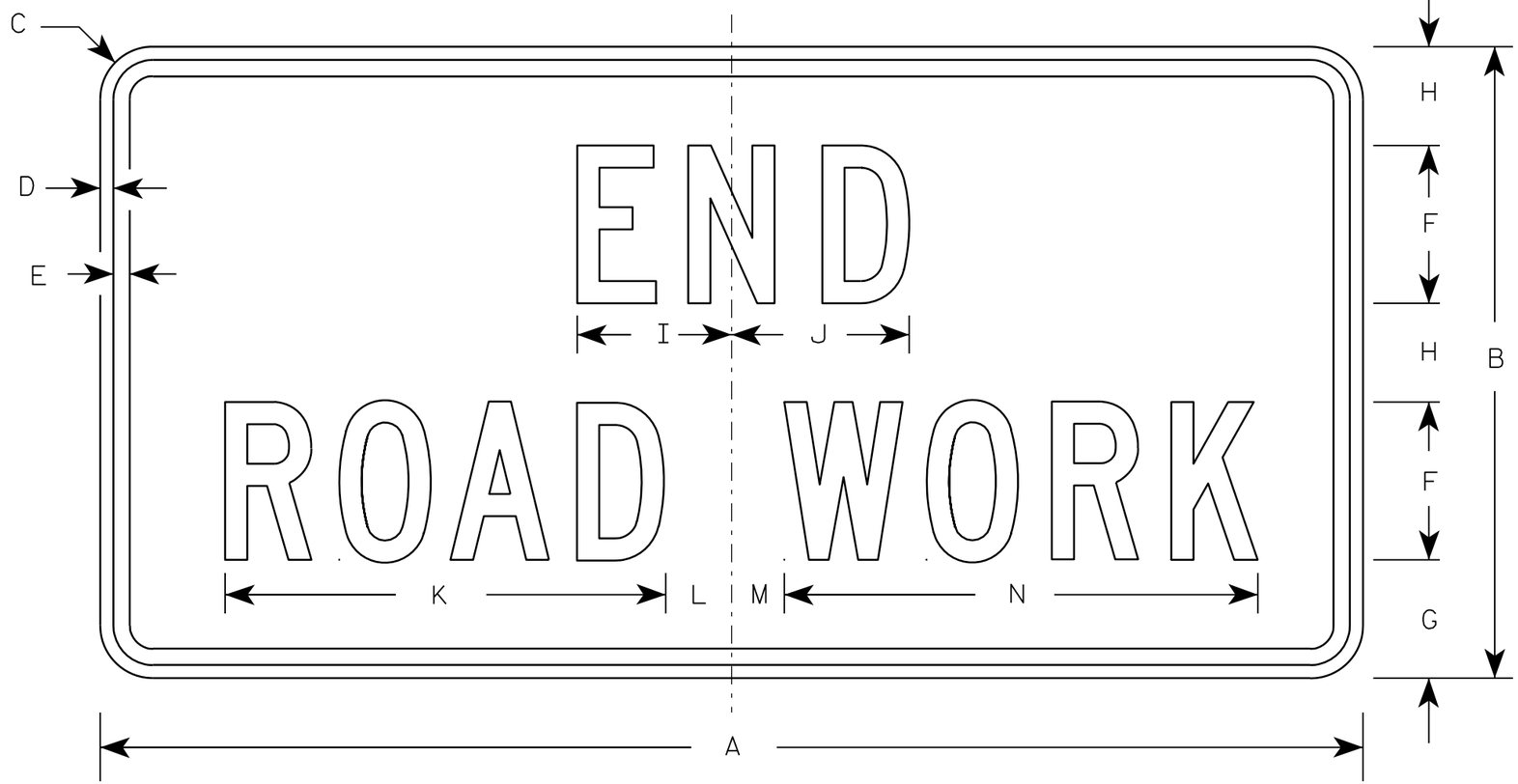
4 X 6 WOOD POST MODIFICATIONS

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: 31	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

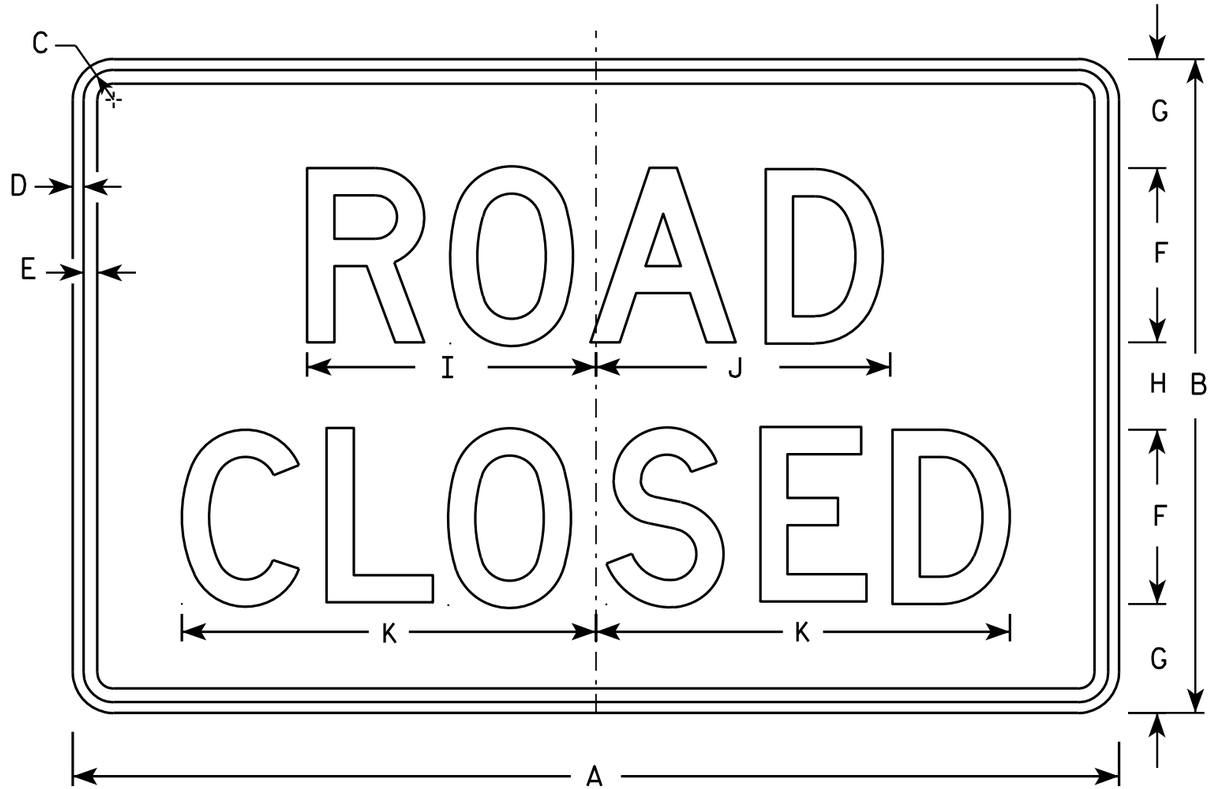
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

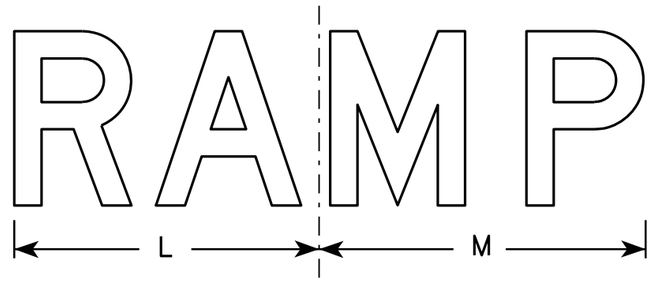
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 32	E



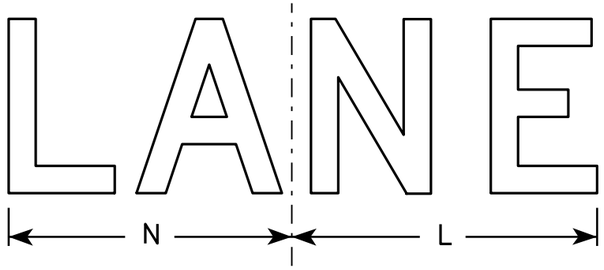
R11-2

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

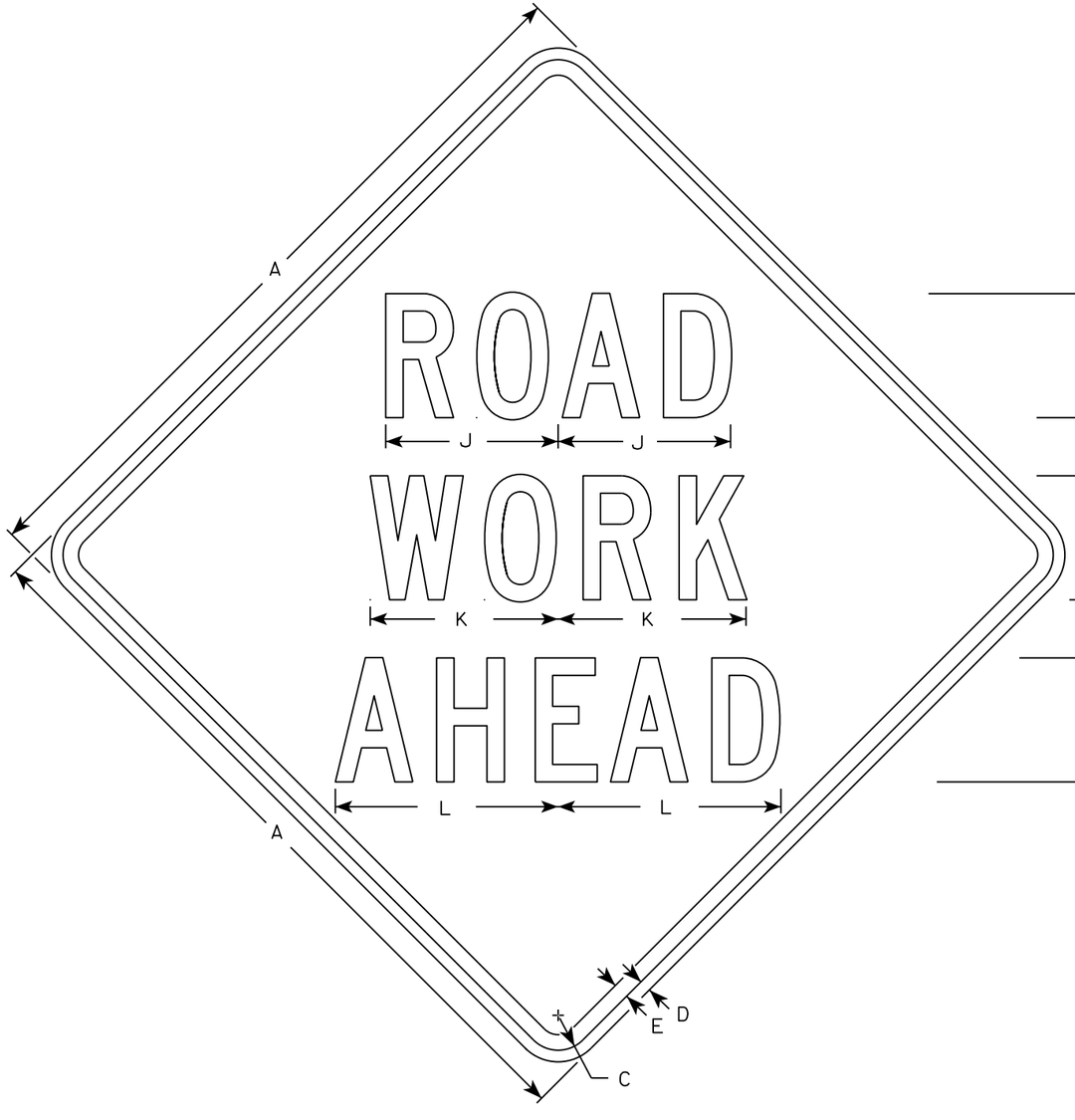
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

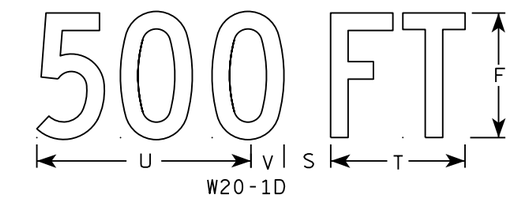
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

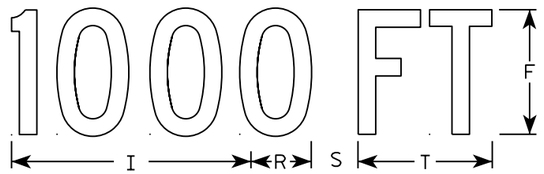
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 33	E



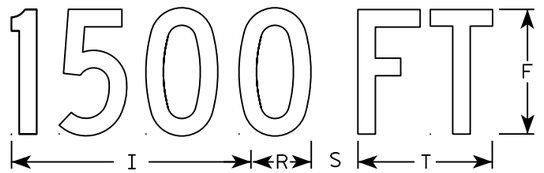
W20-1A



W20-1D



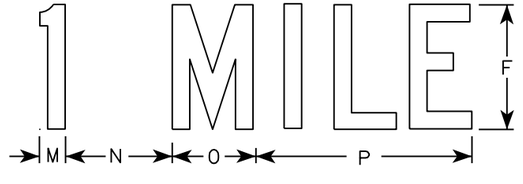
W20-1C



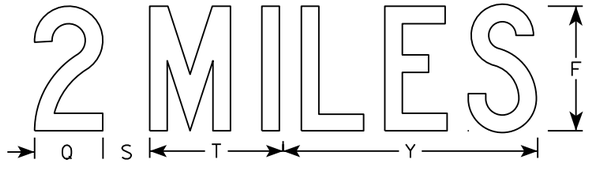
W20-1B



W20-1G



W20-1F



W20-1E

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.

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 3/8	1/2	5/8	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		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, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

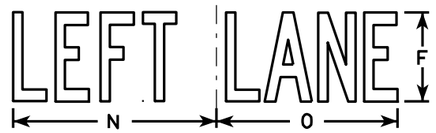
PROJECT NO:

SHEET NO: E

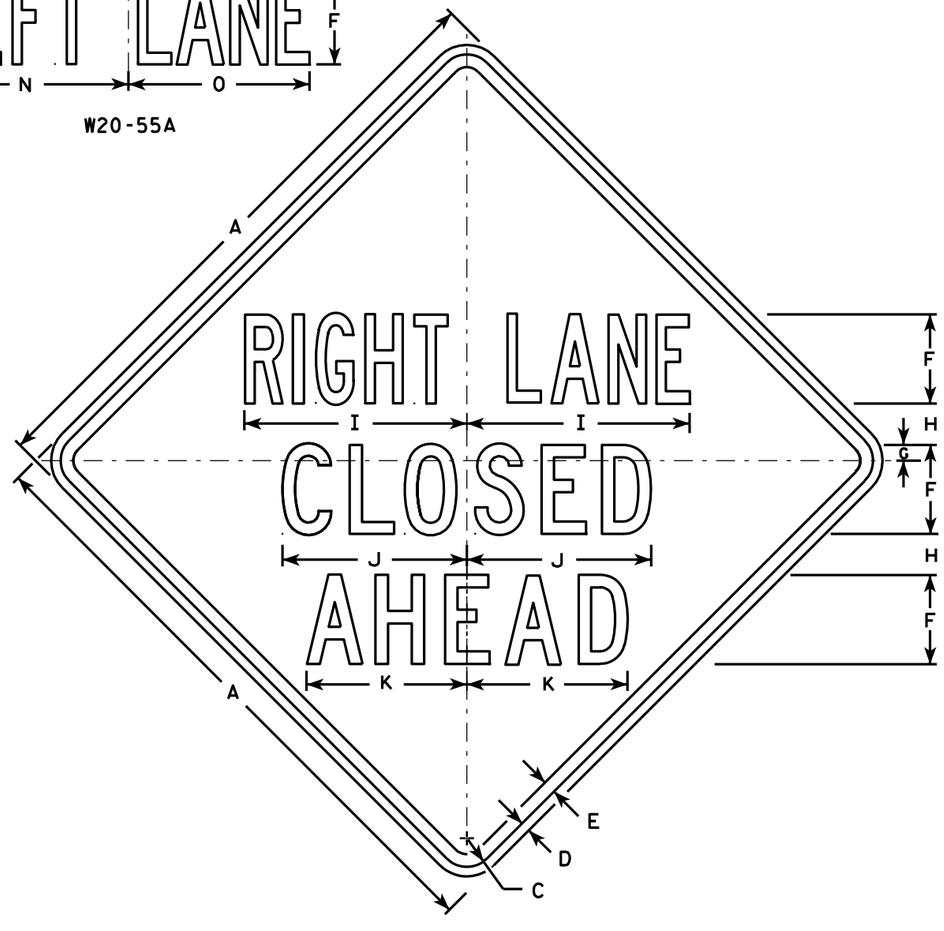
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



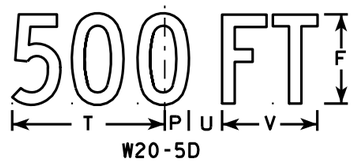
W20-56A



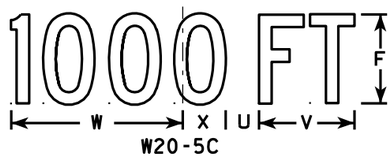
W20-55A



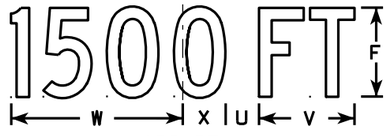
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

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. " _____ LANE" is Series B.
   All other copy is 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	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

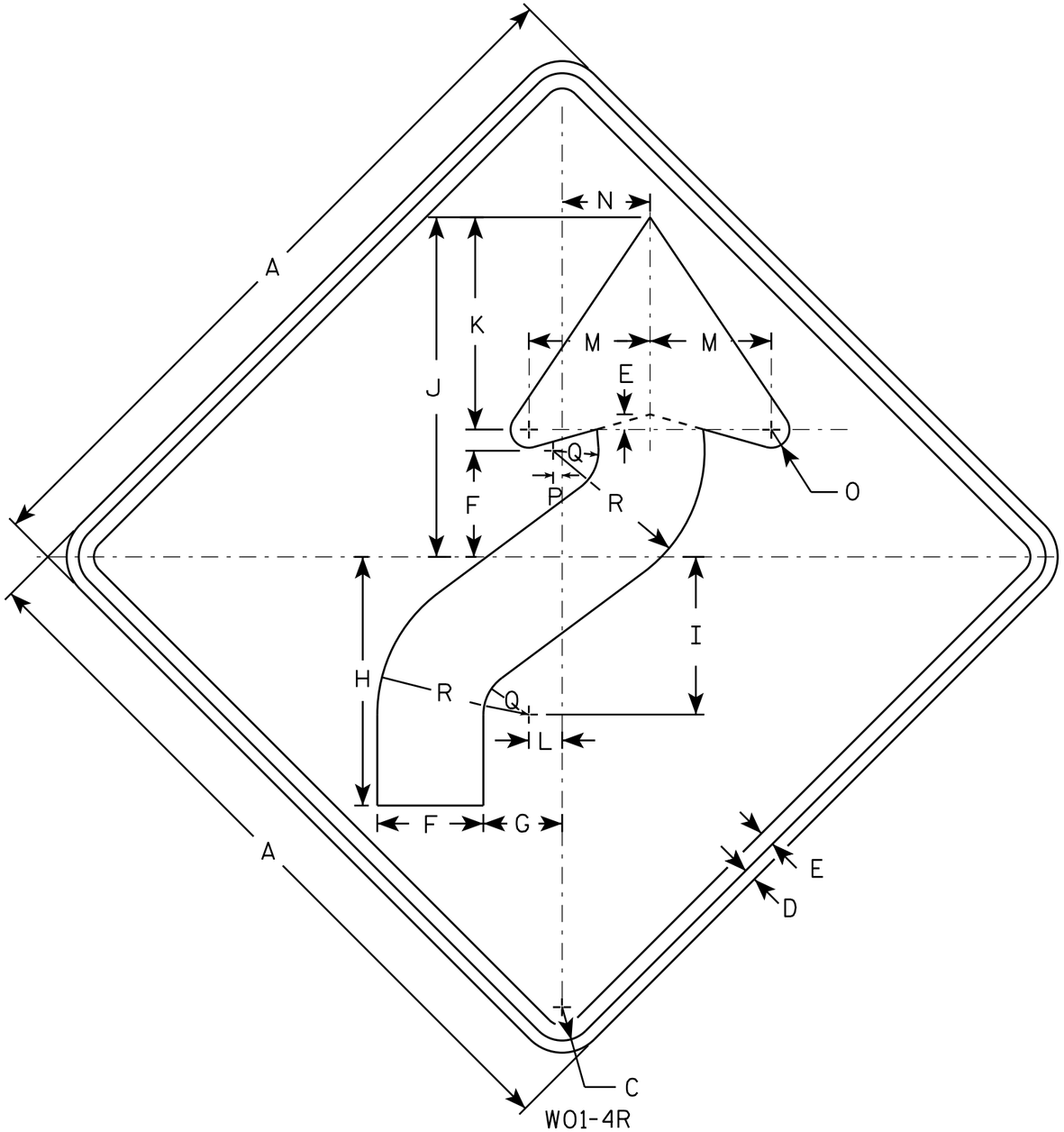
STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 35	E



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

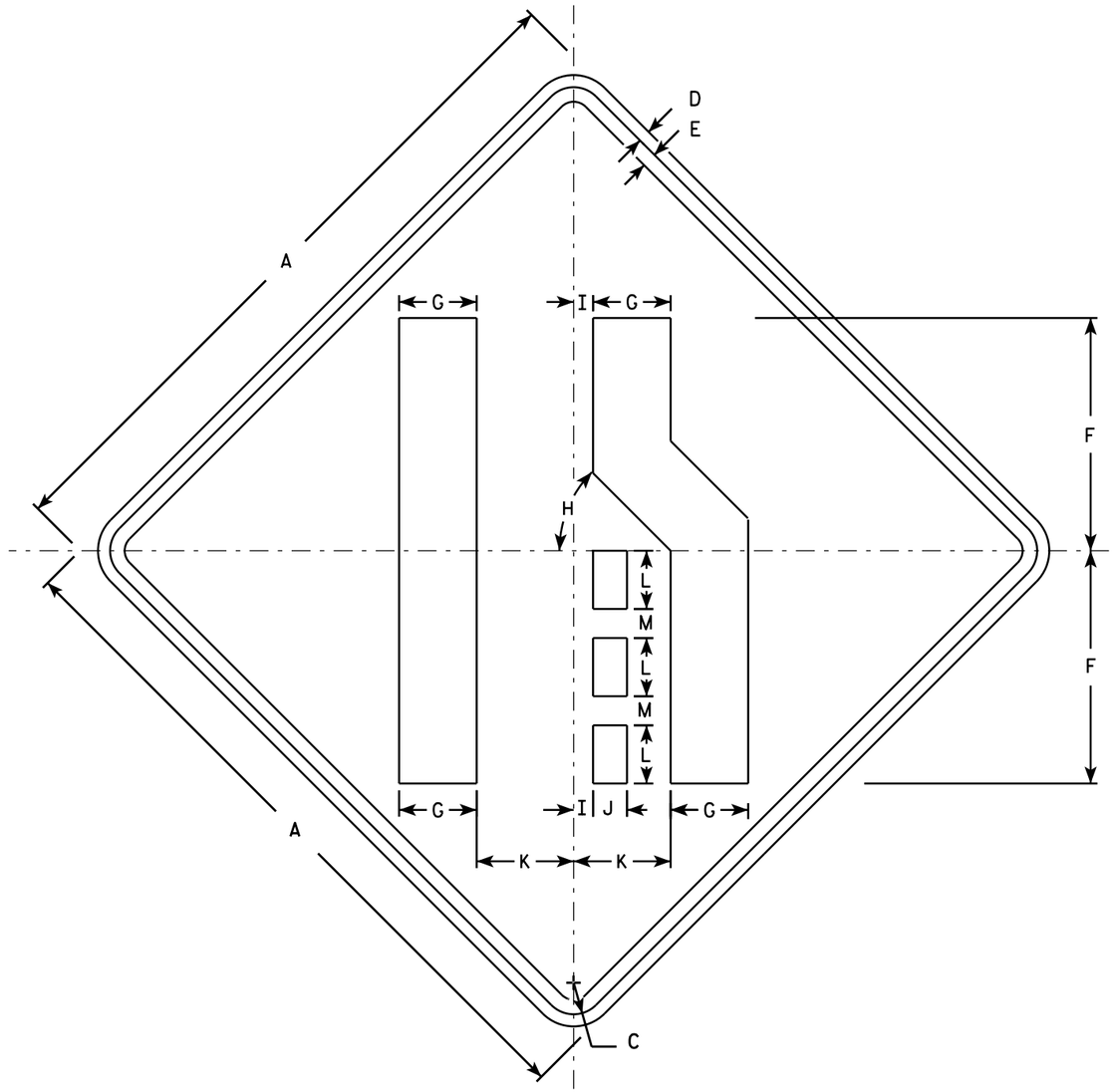
WISCONSIN DEPT OF TRANSPORTATION

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



W04-2R

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. W04-2L is the same as W04-2R except the symbol 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	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 37 W04-2.1

PROJECT NO: | SHEET NO: E

STATION	Real Station	Distance	AREA (SF) Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Marsh Exc	Rock Exc	EBS	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.50 Note 4	Expanded Rock 1.10	Expanded EBS Backfill 1.30 Note 5	Reduced Marsh in Fill 0.60 Note 6	Reduced EBS In Fill 0.80 Note 7	Mass Ordinate Note 8
15+00.00	1500		0	0	0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15+50.00	1550	50	0	0	0.18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16+00.00	1600	50	0	0	0.32	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	-1
16+50.00	1650	50	0	0	2.76	0	277.38	0	0	0	3	0	257	0	0	-349	0	283	0	0	0	349
17+00.00	1700	50	28.66	0	0.92	0	276.22	0	27	0	3	0	513	0	27	-1050	0	846	0	0	0	1076
17+50.00	1750	50	0	0	6.12	0	228.28	0	27	0	7	0	467	0	53	-1684	0	1360	0	0	0	1737
18+00.00	1800	50	15.37	0	2.09	0	244.79	0	14	0	8	0	438	0	67	-2276	0	1842	0	0	0	2344
18+50.00	1850	50	55.48	0	0.09	0	198.18	0	66	0	2	0	410	0	133	-2838	0	2293	0	0	0	2971
19+00.00	1900	50	313.7	0	3.16	0	0	0	342	0	3	0	184	0	475	-3086	0	2495	0	0	0	3561
19+50.00	1950	50	350.5	0	0.79	0	0	0	615	0	4	0	0	0	1090	-3082	0	2495	0	0	0	4172
20+00.00	2000	50	389.26	0	0	0	0	0	685	0	1	0	0	0	1775	-3081	0	2495	0	0	0	4856
20+50.00	2050	50	407.67	0	0	0	0	0	738	0	0	0	0	0	2513	-3081	0	2495	0	0	0	5594
21+00.00	2100	50	346.16	0	0	0	0	0	698	0	0	0	0	0	3211	-3081	0	2495	0	0	0	6292
21+50.00	2150	50	260.58	0	0	0	0	0	562	0	0	0	0	0	3772	-3081	0	2495	0	0	0	6853
22+00.00	2200	50	159.01	0	0	0	0	0	389	0	0	0	0	0	4161	-3081	0	2495	0	0	0	7242
22+50.00	2250	50	50.2	0	0.27	0	0	0	194	0	0	0	0	0	4355	-3081	0	2495	0	0	0	7435
23+00.00	2300	50	18.94	0	65.41	0	0	0	64	0	61	0	0	0	4419	-3005	0	2495	0	0	0	7423
23+50.00	2350	50	9.7	0	32.51	0	0	0	27	0	91	0	0	0	4445	-2891	0	2495	0	0	0	7336
24+00.00	2400	50	50.54	0	0	0	0	0	56	0	30	0	0	0	4501	-2854	0	2495	0	0	0	7355
24+50.00	2450	50	7.24	0	20.5	0	0	0	54	0	19	0	0	0	4554	-2830	0	2495	0	0	0	7384
25+00.00	2500	50	6.63	0	38.36	0	0	0	13	0	55	0	0	0	4567	-2762	0	2495	0	0	0	7329
25+50.00	2550	50	34.39	0	45.81	0	0	0	38	0	78	0	0	0	4605	-2664	0	2495	0	0	0	7270
26+00.00	2600	50	12.03	0	0.04	0	0	0	43	0	42	0	0	0	4648	-2611	0	2495	0	0	0	7260
26+50.00	2650	50	2.51	0	0	0	0	0	13	0	0	0	0	0	4662	-2611	0	2495	0	0	0	7200
							Earthwork Totals		4,700	0	450	0	2270	0								

Notes:		
1 - Cut	Cut includes Salvaged/Unusable Pavement material	
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections	
3 - Fill	Does not include Unusable Pavement Exc volume	
4 - Expanded Marsh Backfill	Will be backfilled with Granular Backfill (or Cut, or Borrow)	Note 4 - Select one based on input dialog selection
5 - Expanded EBS	Will be backfilled with Granular Backfill (or Cut, or Borrow)	Note 5 - Select one based on input dialog selection
6 - Reduced Marsh in Fill	Reduced Marsh Excavation that can be used in Fill	Note 6 - If excavated Marsh can be used in Fill
7 - Reduced EBS in Fill	Reduced EBS Excavation that can be used in Fill	Note 7 - If excavated EBS can be used in Fill
8 - Mass Ordinate	If Marsh or EBS to be backfilled with Cut or Borrow: [(Cut + Marsh Exc + EBS) - ((Fill -	Note 8 - Select one based on mass haul input dialog
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Granular: [(Cut + EBS + Marsh Exc) - ((Fill -	EBS and Marsh Exc used outside 1:1 in fill slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Granular: [(Cut) - ((Fill - Expanded Rock) * Fill	Marsh and EBS are not usable outside the 1:1 slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Cut or Borrow: [(Cut) - ((Fill - Expanded Rock)	Marsh and EBS are not usable outside the 1:1 slopes

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